GEL Laboratories LLC
a member of The GEL Group INC

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2040 Savage Road Charleston, SC 29407
P 843.556.8171
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gel.com

August 07, 2018

Mr. Jason Litwiller
URS Corporation
2425 River Road (c/o SPRU DP)
Niskayuna, New York 12309

Re: SPRU Buildings
Work Order: 454944

Dear Mr. Litwiller:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on July 19, 2018. This revised data report has been prepared and reviewed in accordance with GEL's standard operating procedures. This package has been resubmitted to include revised metals list.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4778.

Sincerely,

Hope Taylor
Project Manager

Chain of Custody: 18-COC-29-07.18.18-C
Enclosures

URS Energy & Construction (2012-SC-SPRU-29463-171)
SPRU Buildings
SDG: 454944

Table of Contents

Case Narrative.....1

Chain of Custody and Supporting Documentation.....4

Laboratory Certifications.....7

Volatile Analysis.....9

Case Narrative.....10

Sample Data Summary.....15

Quality Control Summary.....54

Sample Data.....99

Standards.....247

Quality Control Data.....363

Miscellaneous.....465

Semi-Volatile Analysis.....473

Case Narrative.....474

Sample Data Summary.....478

Quality Control Summary.....497

Sample Data.....519

Standards.....571

Quality Control Data.....703

Miscellaneous.....758

Metals Analysis.....764

Case Narrative.....765

Sample Data Summary.....770

Quality Control Summary.....789

Standards.....835

Raw Data.....848

Miscellaneous.....1173

Case Narrative

This package has been resubmitted to include revised metals list.

Receipt Narrative
for
URS Energy & Construction (2012-SC-SPRU-29463-171)
SDG: 454944

August 07, 2018

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary:

Sample receipt: The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on July 19, 2018 for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Sample Identification: The laboratory received the following samples:

Laboratory ID	Client ID
454944001	071818TB
454944002	S09
454944003	S06
454944004	SW24
454944005	S05
454944006	S14
454944007	S15
454944008	S19
454944009	SW22
454944010	S10

Case Narrative:

Sample analyses were conducted using methodology as outlined in GEL's Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: GC/MS Semivolatile, GC/MS Volatile and Metals.

Hope Taylor
Project Manager

Chain of Custody and Supporting Documentation

454944

SPRU DP OFF-SITE CHAIN-OF-CUSTODY FORM

Page: __1__ of __1__
Project #: SPRU DP
COC Number (1): 18-COC-29-07.18.18-C

SPRU DP Off-Site Chain-of-Custody and Analytical Request Form

Work Order or Sample Delivery Group (SDG) Number:

Laboratory Address:
GEL Laboratories, LLC
2040 Savage Rd
Charleston, SC 29407

Client Name: AECOM (c/o Jason Litwiller) Phone #: 518-225-8513

Project/Site Name: SPRU Disposition Project

Address: 2401 River Rd. (SP-24) Niskayuna, NY 12309

Collected by: Matt Sylvester, John Tsambis
Send Results: Jason Litwiller
Reference: SPRU-ENV-020, Figure 13 (Sample locations) & SPRU-ENV-007 *QAPjP*

Sample Analysis Requested (5) (Fill in the number of containers for each test, X for analyses run from another container.)

Sample ID* (* Must be obtain from Sample Coordinator)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	Sample Code(2)	Field Filtered (3)	Sample Matrix (4)	Should this Sample be considered: Radioactive (Y or N)	Should this Sample be considered: TSCA Regulated (Y or N)	Total number of containers		Gamma Spec	Alpha Spec – Th232	Alpha Spec – U	Metals incl. Hg (Se by SW6020)	VOCs (SW8260), For this gray till soil, purge and trap & medium level with methanol extraction (HA-*)	SVOCs (SW8270)	Sample Description (required) Note: Additional sample is required for sample-specific QC (as needed) (< --Preservative Type (6))
071818TB	7/18/18	1530	TB	N	W	N	N	2						X*	X	Trip blanks, supplied by GEL Labs(40ml VOC)
S09	7/18/18	0845	N	N	SO	N	N	2					X	X	X	Soil from floor, excavated H2N - confirmation samples (125ml VOC, 250ml)
S06	7/18/18	0910	N	N	SO	N	N	2					X	X	X	Soil from floor, excavated H2mid - confirmation samples (125ml VOC, 250ml)
SW24	7/18/18	0920	N	N	SO	N	N	2					X	X	X	Soil from sidewall, excavated H2NE - confirmation samples (125ml VOC, 250ml)
S05	7/18/18	1020	N	N	SO	N	N	2					X	X	X	Soil from floor, excavated H2N - confirmation samples (125ml VOC, 250ml)
S14	7/18/18	1040	N	N	SO	N	N	2					X	X	X	Soil from floor, excavated H2NW - confirmation samples (125ml VOC, 250ml)
S15	7/18/18	1335	N	N	SO	N	N	2					X	X	X	Soil from floor, excavated H2W - confirmation samples (125ml VOC, 250ml)
S19	7/18/18	1350	N	N	SO	N	N	2					X	X	X	Soil from floor, excavated H2W - confirmation samples (125ml VOC, 250ml)
SW22	7/18/18	1400	N	N	SO	N	N	2					X	X	X	Soil from sidewall, excavated H2NW - confirmation samples (125ml, 250ml)
S10	7/18/18	1420	N	N	SO	N	N	2					X	X	X	Soil from sidewall, excavated Tunnel - confirmation samples (125ml, 250ml)

TAT Requested (working days): Normal: Rush: **X- 5 Day Chemicals** Specify below:

E-mail Results (Yes/No): Yes

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards:*

No, (clean confirmation samples). VOC samples taken from 6-12" depth. Soil is dry till, gray in color. PID had no detections.
SPRU-ENV-007, Section 3.2 - Sample equipment reused (i.e., Equipment Blanks, Trip Blanks, Duplicates, MS/MSD - 1 per 20 samples).
Analysis priority to VOC and Metals. Please return cooler & ice packs.
SPRU-ENV-017, Section 6.1 says: 'KAPL experience has shown low responses of internal standards in gray till samples analyzed for VOCs, resulting in data being unusable. Based on KAPL agreements with NYSDEC and to ensure usable data, the gray till samples will also be analyzed using a modified Method 8260, whereby analysis is performed using the low level purge and trap and the medium level methanol extraction. NYSDEC agreed that reanalysis for low level purge and trap is not needed to confirm the matrix effect from the till on the low internal standard responses. The lower of the usable concentrations from the two analyses (base & modified Method 8260) is used for reporting. Gray till samples can be identified on the COC to alert GEL to perform the dual analysis.'

Environmental Specialist or Manager Approval: William Duggan

Chain of Custody Signatures

Relinquished by (signed)	Date	Time	Received by (signed)	Date	Time
1. [signature]	7/18/18	1525	1. W Meyer	7/18/18	1525
2. W Meyer	7/18/18	1600	2. [signature]	7/18/18	455

Sample Shipping and Delivery Details

Lab PM: Hope Taylor
Method of Shipment: Fed Ex
Date Shipped: 07/18/18
Airbill #: 7727 3961 9174

1) Chain of Custody Number = Client Determined
2) Sample Codes: N = Normal Sample, , C = Composite*, TB = Trip Blank, EB = Equipment Blank, FB – Field Blank, D-Duplicate, MSD=Matrix Spike Duplicate
3) Field Filtered: For liquid matrices, indicate with a –Y- for yes the sample was field filtered or –N- for sample was not field filtered.
4) Matrix Codes: GW=Groundwater, WW=Waste Water, W=Water, ML=Misc. Liquid, SO=Soil, SD=Sediment, SL=Sludge, MW=Misc. Solid Waste, O=Oil, F=Filter, P=Wipe, SM=smear(s), MET=metal, CON-concrete
5) Sample Analysis Requested: Analytical suite (e.g., Gamma spec (full suite), TCLP metals) or analytical method requested (e.g., Alpha spec (specify isotopes), 8260B (VOCs), 6010B/7470A (total metals +Hg) and number of containers provided for each..
6) Preservative Type: HA =Hydrochloric Acid, NI =Nitric Acid, SH =Sodium Hydroxide, SA =Sulfuric Acid, AA =Ascorbic Acid, HX = Hexane, ST =Sodium Thiosulfate, If no preservative is added = leave field blank.

*NOTE: All samples are grab samples unless otherwise specified

For Lab Receiving Use Only	
Custody Seal Intact?	YES NO
Cooler Temp:	C

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: URSC	**SDG/AR/COC/Work Order:** 454944
Received By: ZKW	**Date Received:** 7/19/18
Carrier and Tracking Number	Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other 7727 3971 9174

Suspected Hazard Information	Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
Shipped as a DOT Hazardous?		✓	Hazard Class Shipped: UN#:
COC/Samples marked or classified as radioactive?		✓	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 0 CPM mR/Hr **Classified as: Rad 1 Rad 2 Rad 3**
Is package, COC, and/or Samples marked HAZ?		✓	If yes, select Hazards below, and contact the GEL Safety Group. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	✓			
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	✓			Preservation Method: Wet Ice Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: 2°C
4	Daily check performed and passed on IR temperature gun?	✓			**Temperature Device Serial #:** IR3-18 Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?		✓		Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?	✓			If Yes, Are Encores or Soil Kits present? Yes___ No✓ (If yes, take to VOA Freezer) Do VOA vials contain acid preservation? Yes✓ No___ N/A___ (If unknown, select No) VOA vials free of headspace? Yes✓ No___ N/A___ Sample ID's and containers affected:
8	Samples received within holding time?	✓			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	✓			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			✓	Sample ID's affected: No Date/Time on TB Sample
11	Number of containers received match number indicated on COC?	✓			Sample ID's affected:
12	Are sample containers identifiable as GEL provided?	✓			
13	COC form is properly signed in relinquished/received sections?	✓			

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials BL Date 7/20/18 Page 1 of 1

GL-CHL-SR-001 Rev 5

Laboratory Certifications

List of current GEL Certifications as of 07 August 2018

State	Certification
Alaska	17−018
Arkansas	88−0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH−0169
Delaware	SC00012
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330−15−00283, P330−15−00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho Chemistry	SC00012
Idaho Radiochemistry	SC00012
Illinois NELAP	200029
Indiana	C−SC−01
Kansas NELAP	E−10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana NELAP	03046 (AI33904)
Louisiana SDWA	LA180011
Maryland	270
Massachusetts	M−SC012
Michigan	9976
Mississippi	SC00012
Nebraska	NE−OS−26−13
Nevada	SC000122018−1
New Hampshire NELAP	205415
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R−158
Oklahoma	9904
Pennsylvania NELAP	68−00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235−18−13
Utah NELAP	SC000122018−26
Vermont	VT87156
Virginia NELAP	460202
Washington	C780
West Virginia	997404

Volatile Analysis

Case Narrative

GC/MS Volatile
Technical Case Narrative
URS Energy & Construction (URSC)
SDG #: 454944

Product: **Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer**
Analytical Method: SW846 8260C
Analytical Procedure: GL-OA-E-038 REV# 26
Analytical Batch: 1784646

Product: **Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer**
Analytical Method: SW846 5035A/8260C
Analytical Procedure: GL-OA-E-038 REV# 26
Analytical Batch: 1785349

Preparation Method: SW846 5035A
Preparation Procedure: GL-OA-E-039 REV# 12
Preparation Batch: 1785343

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
454944001	071818TB
454944002	S09
454944003	S06
454944004	SW24
454944005	S05
454944006	S14
454944007	S15
454944008	S19
454944009	SW22
454944010	S10
1204074477	Method Blank (MB)
1204074478	Laboratory Control Sample (LCS)
1204074479	454685016(NonSDG) Post Spike (PS)
1204074480	454685016(NonSDG) Post Spike Duplicate (PSD)
1204076131	Method Blank (MB)
1204076132	High Blank (HB)
1204076133	Laboratory Control Sample (LCS)
1204076134	455239003(SW06) Post Spike (PS)
1204076135	455239003(SW06) Post Spike Duplicate (PSD)
1204076674	Method Blank (MB)
1204076675	Laboratory Control Sample (LCS)
1204079885	Method Blank (MB)
1204079887	Laboratory Control Sample (LCS)

Samples 454944002, 003, 004, 005, 006, 007, 008, 009 and 010 in this SDG were analyzed on a "dry weight corrected" basis. Sample 454944001 in this SDG was analyzed on an "as received" basis.
Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

Continuing Calibration Verification Requirements
The calibration verification standard requirements were not all met for samples . The daily CCV analyzed on 7/21/18 was biased high for tert-Butyl methyl ether at 21.8%D and cis-1,3-Dichloropropylene at 25.8%D. The daily CCV analyzed on 7/24/18 was biased high for 2-Butanone at 28.2%D. Less than 20% of the analytes were outside the method criteria. This satisfies the method criteria. The results are reported.

Quality Control (QC) Information

Blank (MB) Statement
Target analytes were detected in the blanks 1204074477 (MB) and 1204076674 (MB) below the reporting limit.

Surrogate Recoveries
Surrogate recoveries, in samples (See Below) were outside the acceptance limits. The client does not require a neat confirmation analysis. The samples were analyzed using a methanol extraction procedure and passed surrogates. Both sets of results are reported.

Sample	Analyte	Value
1204076134 (SW06PS)	1, 2-Dichloroethane-d4	139* (81%-124%)
	Toluene-d8	128* (81%-120%)
1204076135 (SW06PSD)	1, 2-Dichloroethane-d4	139* (81%-124%)
	Toluene-d8	131* (81%-120%)
454944002 (S09)	Bromofluorobenzene	147* (70%-130%)
454944003 (S06)	1, 2-Dichloroethane-d4	125* (81%-124%)
	Toluene-d8	127* (81%-120%)
454944004 (SW24)	1, 2-Dichloroethane-d4	139* (81%-124%)
	Toluene-d8	129* (81%-120%)
454944007 (S15)	1, 2-Dichloroethane-d4	136* (81%-124%)
	Toluene-d8	126* (81%-120%)
454944009 (SW22)	Toluene-d8	127* (81%-120%)
454944010 (S10)	1, 2-Dichloroethane-d4	151* (81%-124%)

Matrix Spike/Matrix Spike Duplicate Recovery Statement
The spike and/or spike duplicate (See Below) recoveries were not all within the acceptance limits.

Sample	Analyte	Value
1204074479 (Non SDG 454685016PS)	Several	See applicable report
1204074480 (Non SDG 454685016PSD)	Several	See applicable report
1204076134 (SW06PS)	Several	See applicable report
1204076135 (SW06PSD)	Several	See applicable report

Relative Percent Difference (RPD) Statement
The RPD between the matrix spike pair (See Below) were not all within the acceptance limits. The unacceptable RPD may be attributed to matrix interference and/or sample non-homogeneity.

Sample	Analyte	Value
1204076134PS and 1204076135PSD (SW06)	Several	See applicable report

Internal Standard (ISTD) Acceptance
Internal standard recoveries, in samples 1204076134 (SW06PS), 1204076135 (SW06PSD), 454944002 (S09), 454944003 (S06), 454944004 (SW24), 454944005 (S05), 454944006 (S14), 454944007 (S15), 454944008 (S19), 454944009 (SW22) and 454944010 (S10) were outside the acceptance limits. The client does not require a neat confirmation analysis. The samples were analyzed using a methanol extraction procedure and passed internal standards. Both sets of results are reported.

Technical Information

Sample Dilutions/Methanol Dilutions
The samples were grey till samples. They were analyzed neat and using a methanol dilution extraction procedure. Both sets of results are reported.

Analyte	454944								
	002	**003**	**004**	**005**	**006**	**007**	**008**	**009**	**010**
Several	50X 1X	50X 1X	50X 1X	50X 1X	50X 1X	50X 1X	50X 1X	50X 1X	50X 1X

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report
for

URSC013 URS Energy & Construction (2012-SC-SPRU-29463-171)

Client SDG: 454944 GEL Work Order: 454944

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria
** Analyte is a surrogate compound
B The target analyte was detected in the associated blank.
J Value is estimated
U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

DL Indicates that sample is diluted.
RA Indicates that sample is re-analyzed without re-extraction.
RE Indicates that sample is re-extracted.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: Erin Haubert **Name: Erin Haubert**

Date: 31 JUL 2018 **Title: Data Validator**

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 15:30**	**Matrix:**	**WATER**
Lab Sample ID:	**454944001**	**Date Received:**	**07/19/2018 08:55**		
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**071818TB**	**Method:**	**SW846 8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1784646**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/24/2018 13:19**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:19**				
Data File:	**072418V3\3R208.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	2.00	ug/L	0.300	2.00
79-34-5	1,1,2,2-Tetrachloroethane	U	2.00	ug/L	0.300	2.00
79-00-5	1,1,2-Trichloroethane	U	2.00	ug/L	0.300	2.00
75-34-3	1,1-Dichloroethane	U	2.00	ug/L	0.300	2.00
75-35-4	1,1-Dichloroethylene	U	2.00	ug/L	0.300	2.00
87-61-6	1,2,3-Trichlorobenzene	U	2.00	ug/L	0.300	2.00
120-82-1	1,2,4-Trichlorobenzene	U	2.00	ug/L	0.300	2.00
96-12-8	1,2-Dibromo-3-chloropropane	U	2.00	ug/L	0.500	2.00
106-93-4	1,2-Dibromoethane	U	2.00	ug/L	0.300	2.00
95-50-1	1,2-Dichlorobenzene	U	2.00	ug/L	0.300	2.00
107-06-2	1,2-Dichloroethane	U	2.00	ug/L	0.300	2.00
78-87-5	1,2-Dichloropropane	U	2.00	ug/L	0.300	2.00
541-73-1	1,3-Dichlorobenzene	U	2.00	ug/L	0.300	2.00
106-46-7	1,4-Dichlorobenzene	U	2.00	ug/L	0.300	2.00
123-91-1	1,4-Dioxane	U	50.0	ug/L	15.0	50.0
78-93-3	2-Butanone	U	10.0	ug/L	3.00	10.0
591-78-6	2-Hexanone	U	10.0	ug/L	3.00	10.0
108-10-1	4-Methyl-2-pentanone	U	10.0	ug/L	3.00	10.0
67-64-1	Acetone	U	10.0	ug/L	3.00	10.0
71-43-2	Benzene	U	2.00	ug/L	0.300	2.00
74-97-5	Bromochloromethane	U	2.00	ug/L	0.300	2.00
75-27-4	Bromodichloromethane	U	2.00	ug/L	0.300	2.00
75-25-2	Bromoform	U	2.00	ug/L	0.300	2.00
74-83-9	Bromomethane	U	2.00	ug/L	0.300	2.00
75-15-0	Carbon disulfide	U	10.0	ug/L	1.60	10.0
56-23-5	Carbon tetrachloride	U	2.00	ug/L	0.300	2.00
108-90-7	Chlorobenzene	U	2.00	ug/L	0.300	2.00
75-00-3	Chloroethane	U	2.00	ug/L	0.300	2.00
67-66-3	Chloroform	U	2.00	ug/L	0.300	2.00
74-87-3	Chloromethane	U	2.00	ug/L	0.300	2.00
110-82-7	Cyclohexane	U	2.00	ug/L	0.300	2.00
124-48-1	Dibromochloromethane	U	2.00	ug/L	0.300	2.00
75-71-8	Dichlorodifluoromethane	U	2.00	ug/L	0.300	2.00
100-41-4	Ethylbenzene	U	2.00	ug/L	0.300	2.00
98-82-8	Isopropylbenzene	U	2.00	ug/L	0.300	2.00
79-20-9	Methyl acetate	U	5.00	ug/L	1.50	5.00
108-87-2	Methylcyclohexane	U	2.00	ug/L	0.300	2.00
75-09-2	Methylene chloride	U	5.00	ug/L	1.60	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 15:30**	**Matrix:**	**WATER**
Lab Sample ID:	**454944001**	**Date Received:**	**07/19/2018 08:55**		
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**071818TB**	**Method:**	**SW846 8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1784646**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/24/2018 13:19**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:19**				
Data File:	**072418V3\3R208.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	2.00	ug/L	0.300	2.00
127-18-4	Tetrachloroethylene	U	2.00	ug/L	0.300	2.00
108-88-3	Toluene	U	2.00	ug/L	0.300	2.00
79-01-6	Trichloroethylene	U	2.00	ug/L	0.300	2.00
75-69-4	Trichlorofluoromethane	U	2.00	ug/L	0.300	2.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.60	5.00
75-01-4	Vinyl chloride	U	2.00	ug/L	0.300	2.00
156-59-2	cis-1,2-Dichloroethylene	U	2.00	ug/L	0.300	2.00
10061-01-5	cis-1,3-Dichloropropylene	U	2.00	ug/L	0.300	2.00
179601-23-1	m,p-Xylenes	U	4.00	ug/L	0.300	4.00
95-47-6	o-Xylene	U	2.00	ug/L	0.300	2.00
1634-04-4	tert-Butyl methyl ether	U	2.00	ug/L	0.300	2.00
156-60-5	trans-1,2-Dichloroethylene	U	2.00	ug/L	0.300	2.00
10061-02-6	trans-1,3-Dichloropropylene	U	2.00	ug/L	0.300	2.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 08:45**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944002**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**6.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S09**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 15:23**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:14**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R212.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	103	ug/kg	15.4	103
79-34-5	1,1,2,2-Tetrachloroethane	U	103	ug/kg	15.4	103
79-00-5	1,1,2-Trichloroethane	U	103	ug/kg	15.4	103
75-34-3	1,1-Dichloroethane	U	103	ug/kg	15.4	103
75-35-4	1,1-Dichloroethylene	U	103	ug/kg	15.4	103
87-61-6	1,2,3-Trichlorobenzene	U	103	ug/kg	15.4	103
120-82-1	1,2,4-Trichlorobenzene	U	103	ug/kg	15.4	103
96-12-8	1,2-Dibromo-3-chloropropane	U	103	ug/kg	25.7	103
106-93-4	1,2-Dibromoethane	U	103	ug/kg	15.4	103
95-50-1	1,2-Dichlorobenzene	U	103	ug/kg	15.4	103
107-06-2	1,2-Dichloroethane	U	103	ug/kg	15.4	103
78-87-5	1,2-Dichloropropane	U	103	ug/kg	15.4	103
541-73-1	1,3-Dichlorobenzene	U	103	ug/kg	15.4	103
106-46-7	1,4-Dichlorobenzene	U	103	ug/kg	15.4	103
123-91-1	1,4-Dioxane	U	2570	ug/kg	770	2570
78-93-3	2-Butanone	U	513	ug/kg	154	513
591-78-6	2-Hexanone	U	513	ug/kg	154	513
108-10-1	4-Methyl-2-pentanone	U	513	ug/kg	154	513
67-64-1	Acetone	U	513	ug/kg	154	513
71-43-2	Benzene	U	103	ug/kg	15.4	103
74-97-5	Bromochloromethane	U	103	ug/kg	15.4	103
75-27-4	Bromodichloromethane	U	103	ug/kg	15.4	103
75-25-2	Bromoform	U	103	ug/kg	15.4	103
74-83-9	Bromomethane	U	103	ug/kg	15.4	103
75-15-0	Carbon disulfide	U	513	ug/kg	82.1	513
56-23-5	Carbon tetrachloride	U	103	ug/kg	15.4	103
108-90-7	Chlorobenzene	U	103	ug/kg	15.4	103
75-00-3	Chloroethane	U	103	ug/kg	15.4	103
67-66-3	Chloroform	U	103	ug/kg	15.4	103
74-87-3	Chloromethane	U	103	ug/kg	15.4	103
110-82-7	Cyclohexane	U	103	ug/kg	15.4	103
124-48-1	Dibromochloromethane	U	103	ug/kg	15.4	103
75-71-8	Dichlorodifluoromethane	U	103	ug/kg	15.4	103
100-41-4	Ethylbenzene	U	103	ug/kg	15.4	103
98-82-8	Isopropylbenzene	U	103	ug/kg	15.4	103
79-20-9	Methyl acetate	U	257	ug/kg	77.0	257
108-87-2	Methylcyclohexane	U	103	ug/kg	15.4	103
75-09-2	Methylene chloride	U	257	ug/kg	82.1	257

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 08:45**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944002**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**6.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S09**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 15:23**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:14**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R212.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	103	ug/kg	15.4	103
127-18-4	Tetrachloroethylene	U	103	ug/kg	15.4	103
108-88-3	Toluene	U	103	ug/kg	15.4	103
79-01-6	Trichloroethylene	U	103	ug/kg	15.4	103
75-69-4	Trichlorofluoromethane	U	103	ug/kg	15.4	103
76-13-1	Trichlorotrifluoroethane	U	257	ug/kg	82.1	257
75-01-4	Vinyl chloride	U	103	ug/kg	15.4	103
156-59-2	cis-1,2-Dichloroethylene	U	103	ug/kg	15.4	103
10061-01-5	cis-1,3-Dichloropropylene	U	103	ug/kg	15.4	103
179601-23-1	m,p-Xylenes	U	205	ug/kg	15.4	205
95-47-6	o-Xylene	U	103	ug/kg	15.4	103
1634-04-4	tert-Butyl methyl ether	U	103	ug/kg	15.4	103
156-60-5	trans-1,2-Dichloroethylene	U	103	ug/kg	15.4	103
10061-02-6	trans-1,3-Dichloropropylene	U	103	ug/kg	15.4	103

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 08:45**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944002**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**6.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S09RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 15:20**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:02**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R510.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	2.09	ug/kg	0.314	2.09
79-34-5	1,1,2,2-Tetrachloroethane	U	2.09	ug/kg	0.314	2.09
79-00-5	1,1,2-Trichloroethane	U	2.09	ug/kg	0.314	2.09
75-34-3	1,1-Dichloroethane	U	2.09	ug/kg	0.314	2.09
75-35-4	1,1-Dichloroethylene	U	2.09	ug/kg	0.314	2.09
87-61-6	1,2,3-Trichlorobenzene	U	2.09	ug/kg	0.314	2.09
120-82-1	1,2,4-Trichlorobenzene	J	0.408	ug/kg	0.314	2.09
96-12-8	1,2-Dibromo-3-chloropropane	U	2.09	ug/kg	0.523	2.09
106-93-4	1,2-Dibromoethane	U	2.09	ug/kg	0.314	2.09
95-50-1	1,2-Dichlorobenzene	U	2.09	ug/kg	0.314	2.09
107-06-2	1,2-Dichloroethane	U	2.09	ug/kg	0.314	2.09
78-87-5	1,2-Dichloropropane	U	2.09	ug/kg	0.314	2.09
541-73-1	1,3-Dichlorobenzene	U	2.09	ug/kg	0.314	2.09
106-46-7	1,4-Dichlorobenzene	U	2.09	ug/kg	0.314	2.09
123-91-1	1,4-Dioxane	U	52.3	ug/kg	15.7	52.3
78-93-3	2-Butanone	U	10.5	ug/kg	3.14	10.5
591-78-6	2-Hexanone	U	10.5	ug/kg	3.14	10.5
108-10-1	4-Methyl-2-pentanone	U	10.5	ug/kg	3.14	10.5
67-64-1	Acetone	J	5.04	ug/kg	3.14	10.5
71-43-2	Benzene	U	2.09	ug/kg	0.314	2.09
74-97-5	Bromochloromethane	U	2.09	ug/kg	0.314	2.09
75-27-4	Bromodichloromethane	U	2.09	ug/kg	0.314	2.09
75-25-2	Bromoform	U	2.09	ug/kg	0.314	2.09
74-83-9	Bromomethane	U	2.09	ug/kg	0.314	2.09
75-15-0	Carbon disulfide	U	10.5	ug/kg	1.67	10.5
56-23-5	Carbon tetrachloride	U	2.09	ug/kg	0.314	2.09
108-90-7	Chlorobenzene	U	2.09	ug/kg	0.314	2.09
75-00-3	Chloroethane	U	2.09	ug/kg	0.314	2.09
67-66-3	Chloroform	U	2.09	ug/kg	0.314	2.09
74-87-3	Chloromethane	U	2.09	ug/kg	0.314	2.09
110-82-7	Cyclohexane	U	2.09	ug/kg	0.314	2.09
124-48-1	Dibromochloromethane	U	2.09	ug/kg	0.314	2.09
75-71-8	Dichlorodifluoromethane	U	2.09	ug/kg	0.314	2.09
100-41-4	Ethylbenzene	U	2.09	ug/kg	0.314	2.09
98-82-8	Isopropylbenzene	U	2.09	ug/kg	0.314	2.09
79-20-9	Methyl acetate	U	5.23	ug/kg	1.57	5.23
108-87-2	Methylcyclohexane	U	2.09	ug/kg	0.314	2.09
75-09-2	Methylene chloride	U	5.23	ug/kg	1.67	5.23

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 08:45**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944002**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**6.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S09RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 15:20**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:02**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R510.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	2.09	ug/kg	0.314	2.09
127-18-4	Tetrachloroethylene	U	2.09	ug/kg	0.314	2.09
108-88-3	Toluene	U	2.09	ug/kg	0.314	2.09
79-01-6	Trichloroethylene	U	2.09	ug/kg	0.314	2.09
75-69-4	Trichlorofluoromethane	U	2.09	ug/kg	0.314	2.09
76-13-1	Trichlorotrifluoroethane	U	5.23	ug/kg	1.67	5.23
75-01-4	Vinyl chloride	U	2.09	ug/kg	0.314	2.09
156-59-2	cis-1,2-Dichloroethylene	U	2.09	ug/kg	0.314	2.09
10061-01-5	cis-1,3-Dichloropropylene	U	2.09	ug/kg	0.314	2.09
179601-23-1	m,p-Xylenes	U	4.19	ug/kg	0.314	4.19
95-47-6	o-Xylene	U	2.09	ug/kg	0.314	2.09
1634-04-4	tert-Butyl methyl ether	U	2.09	ug/kg	0.314	2.09
156-60-5	trans-1,2-Dichloroethylene	U	2.09	ug/kg	0.314	2.09
10061-02-6	trans-1,3-Dichloropropylene	U	2.09	ug/kg	0.314	2.09

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 09:10**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944003**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S06**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 15:54**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:15**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R213.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	108	ug/kg	16.1	108
79-34-5	1,1,2,2-Tetrachloroethane	U	108	ug/kg	16.1	108
79-00-5	1,1,2-Trichloroethane	U	108	ug/kg	16.1	108
75-34-3	1,1-Dichloroethane	U	108	ug/kg	16.1	108
75-35-4	1,1-Dichloroethylene	U	108	ug/kg	16.1	108
87-61-6	1,2,3-Trichlorobenzene	U	108	ug/kg	16.1	108
120-82-1	1,2,4-Trichlorobenzene	U	108	ug/kg	16.1	108
96-12-8	1,2-Dibromo-3-chloropropane	U	108	ug/kg	26.9	108
106-93-4	1,2-Dibromoethane	U	108	ug/kg	16.1	108
95-50-1	1,2-Dichlorobenzene	U	108	ug/kg	16.1	108
107-06-2	1,2-Dichloroethane	U	108	ug/kg	16.1	108
78-87-5	1,2-Dichloropropane	U	108	ug/kg	16.1	108
541-73-1	1,3-Dichlorobenzene	U	108	ug/kg	16.1	108
106-46-7	1,4-Dichlorobenzene	U	108	ug/kg	16.1	108
123-91-1	1,4-Dioxane	U	2690	ug/kg	807	2690
78-93-3	2-Butanone	U	538	ug/kg	161	538
591-78-6	2-Hexanone	U	538	ug/kg	161	538
108-10-1	4-Methyl-2-pentanone	U	538	ug/kg	161	538
67-64-1	Acetone	U	538	ug/kg	161	538
71-43-2	Benzene	U	108	ug/kg	16.1	108
74-97-5	Bromochloromethane	U	108	ug/kg	16.1	108
75-27-4	Bromodichloromethane	U	108	ug/kg	16.1	108
75-25-2	Bromoform	U	108	ug/kg	16.1	108
74-83-9	Bromomethane	U	108	ug/kg	16.1	108
75-15-0	Carbon disulfide	U	538	ug/kg	86.1	538
56-23-5	Carbon tetrachloride	U	108	ug/kg	16.1	108
108-90-7	Chlorobenzene	U	108	ug/kg	16.1	108
75-00-3	Chloroethane	U	108	ug/kg	16.1	108
67-66-3	Chloroform	U	108	ug/kg	16.1	108
74-87-3	Chloromethane	U	108	ug/kg	16.1	108
110-82-7	Cyclohexane	U	108	ug/kg	16.1	108
124-48-1	Dibromochloromethane	U	108	ug/kg	16.1	108
75-71-8	Dichlorodifluoromethane	U	108	ug/kg	16.1	108
100-41-4	Ethylbenzene	U	108	ug/kg	16.1	108
98-82-8	Isopropylbenzene	U	108	ug/kg	16.1	108
79-20-9	Methyl acetate	U	269	ug/kg	80.7	269
108-87-2	Methylcyclohexane	U	108	ug/kg	16.1	108
75-09-2	Methylene chloride	U	269	ug/kg	86.1	269

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 09:10**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944003**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S06**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 15:54**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:15**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R213.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	108	ug/kg	16.1	108
127-18-4	Tetrachloroethylene	U	108	ug/kg	16.1	108
108-88-3	Toluene	U	108	ug/kg	16.1	108
79-01-6	Trichloroethylene	U	108	ug/kg	16.1	108
75-69-4	Trichlorofluoromethane	U	108	ug/kg	16.1	108
76-13-1	Trichlorotrifluoroethane	U	269	ug/kg	86.1	269
75-01-4	Vinyl chloride	U	108	ug/kg	16.1	108
156-59-2	cis-1,2-Dichloroethylene	U	108	ug/kg	16.1	108
10061-01-5	cis-1,3-Dichloropropylene	U	108	ug/kg	16.1	108
179601-23-1	m,p-Xylenes	U	215	ug/kg	16.1	215
95-47-6	o-Xylene	U	108	ug/kg	16.1	108
1634-04-4	tert-Butyl methyl ether	U	108	ug/kg	16.1	108
156-60-5	trans-1,2-Dichloroethylene	U	108	ug/kg	16.1	108
10061-02-6	trans-1,3-Dichloropropylene	U	108	ug/kg	16.1	108

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 09:10**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944003**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S06RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 15:52**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:03**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R511.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	2.11	ug/kg	0.317	2.11
79-34-5	1,1,2,2-Tetrachloroethane	U	2.11	ug/kg	0.317	2.11
79-00-5	1,1,2-Trichloroethane	U	2.11	ug/kg	0.317	2.11
75-34-3	1,1-Dichloroethane	U	2.11	ug/kg	0.317	2.11
75-35-4	1,1-Dichloroethylene	U	2.11	ug/kg	0.317	2.11
87-61-6	1,2,3-Trichlorobenzene	U	2.11	ug/kg	0.317	2.11
120-82-1	1,2,4-Trichlorobenzene	U	2.11	ug/kg	0.317	2.11
96-12-8	1,2-Dibromo-3-chloropropane	U	2.11	ug/kg	0.528	2.11
106-93-4	1,2-Dibromoethane	U	2.11	ug/kg	0.317	2.11
95-50-1	1,2-Dichlorobenzene	U	2.11	ug/kg	0.317	2.11
107-06-2	1,2-Dichloroethane	U	2.11	ug/kg	0.317	2.11
78-87-5	1,2-Dichloropropane	U	2.11	ug/kg	0.317	2.11
541-73-1	1,3-Dichlorobenzene	U	2.11	ug/kg	0.317	2.11
106-46-7	1,4-Dichlorobenzene	U	2.11	ug/kg	0.317	2.11
123-91-1	1,4-Dioxane	U	52.8	ug/kg	15.8	52.8
78-93-3	2-Butanone	U	10.6	ug/kg	3.17	10.6
591-78-6	2-Hexanone	U	10.6	ug/kg	3.17	10.6
108-10-1	4-Methyl-2-pentanone	U	10.6	ug/kg	3.17	10.6
67-64-1	Acetone		14.9	ug/kg	3.17	10.6
71-43-2	Benzene	U	2.11	ug/kg	0.317	2.11
74-97-5	Bromochloromethane	U	2.11	ug/kg	0.317	2.11
75-27-4	Bromodichloromethane	U	2.11	ug/kg	0.317	2.11
75-25-2	Bromoform	U	2.11	ug/kg	0.317	2.11
74-83-9	Bromomethane	U	2.11	ug/kg	0.317	2.11
75-15-0	Carbon disulfide	U	10.6	ug/kg	1.69	10.6
56-23-5	Carbon tetrachloride	U	2.11	ug/kg	0.317	2.11
108-90-7	Chlorobenzene	U	2.11	ug/kg	0.317	2.11
75-00-3	Chloroethane	U	2.11	ug/kg	0.317	2.11
67-66-3	Chloroform	U	2.11	ug/kg	0.317	2.11
74-87-3	Chloromethane	U	2.11	ug/kg	0.317	2.11
110-82-7	Cyclohexane	U	2.11	ug/kg	0.317	2.11
124-48-1	Dibromochloromethane	U	2.11	ug/kg	0.317	2.11
75-71-8	Dichlorodifluoromethane	U	2.11	ug/kg	0.317	2.11
100-41-4	Ethylbenzene	U	2.11	ug/kg	0.317	2.11
98-82-8	Isopropylbenzene	U	2.11	ug/kg	0.317	2.11
79-20-9	Methyl acetate	U	5.28	ug/kg	1.58	5.28
108-87-2	Methylcyclohexane	U	2.11	ug/kg	0.317	2.11
75-09-2	Methylene chloride	U	5.28	ug/kg	1.69	5.28

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 09:10**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944003**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S06RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 15:52**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:03**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R511.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	2.11	ug/kg	0.317	2.11
127-18-4	Tetrachloroethylene	U	2.11	ug/kg	0.317	2.11
108-88-3	Toluene	U	2.11	ug/kg	0.317	2.11
79-01-6	Trichloroethylene	U	2.11	ug/kg	0.317	2.11
75-69-4	Trichlorofluoromethane	U	2.11	ug/kg	0.317	2.11
76-13-1	Trichlorotrifluoroethane	U	5.28	ug/kg	1.69	5.28
75-01-4	Vinyl chloride	U	2.11	ug/kg	0.317	2.11
156-59-2	cis-1,2-Dichloroethylene	U	2.11	ug/kg	0.317	2.11
10061-01-5	cis-1,3-Dichloropropylene	U	2.11	ug/kg	0.317	2.11
179601-23-1	m,p-Xylenes	U	4.22	ug/kg	0.317	4.22
95-47-6	o-Xylene	U	2.11	ug/kg	0.317	2.11
1634-04-4	tert-Butyl methyl ether	U	2.11	ug/kg	0.317	2.11
156-60-5	trans-1,2-Dichloroethylene	U	2.11	ug/kg	0.317	2.11
10061-02-6	trans-1,3-Dichloropropylene	U	2.11	ug/kg	0.317	2.11

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 09:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944004**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**9.4**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**SW24**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 16:25**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:16**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R214.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	108	ug/kg	16.2	108
79-34-5	1,1,2,2-Tetrachloroethane	U	108	ug/kg	16.2	108
79-00-5	1,1,2-Trichloroethane	U	108	ug/kg	16.2	108
75-34-3	1,1-Dichloroethane	U	108	ug/kg	16.2	108
75-35-4	1,1-Dichloroethylene	U	108	ug/kg	16.2	108
87-61-6	1,2,3-Trichlorobenzene	U	108	ug/kg	16.2	108
120-82-1	1,2,4-Trichlorobenzene	U	108	ug/kg	16.2	108
96-12-8	1,2-Dibromo-3-chloropropane	U	108	ug/kg	27.1	108
106-93-4	1,2-Dibromoethane	U	108	ug/kg	16.2	108
95-50-1	1,2-Dichlorobenzene	U	108	ug/kg	16.2	108
107-06-2	1,2-Dichloroethane	U	108	ug/kg	16.2	108
78-87-5	1,2-Dichloropropane	U	108	ug/kg	16.2	108
541-73-1	1,3-Dichlorobenzene	U	108	ug/kg	16.2	108
106-46-7	1,4-Dichlorobenzene	U	108	ug/kg	16.2	108
123-91-1	1,4-Dioxane	U	2710	ug/kg	812	2710
78-93-3	2-Butanone	U	541	ug/kg	162	541
591-78-6	2-Hexanone	U	541	ug/kg	162	541
108-10-1	4-Methyl-2-pentanone	U	541	ug/kg	162	541
67-64-1	Acetone	U	541	ug/kg	162	541
71-43-2	Benzene	U	108	ug/kg	16.2	108
74-97-5	Bromochloromethane	U	108	ug/kg	16.2	108
75-27-4	Bromodichloromethane	U	108	ug/kg	16.2	108
75-25-2	Bromoform	U	108	ug/kg	16.2	108
74-83-9	Bromomethane	U	108	ug/kg	16.2	108
75-15-0	Carbon disulfide	U	541	ug/kg	86.6	541
56-23-5	Carbon tetrachloride	U	108	ug/kg	16.2	108
108-90-7	Chlorobenzene	U	108	ug/kg	16.2	108
75-00-3	Chloroethane	U	108	ug/kg	16.2	108
67-66-3	Chloroform	U	108	ug/kg	16.2	108
74-87-3	Chloromethane	U	108	ug/kg	16.2	108
110-82-7	Cyclohexane	U	108	ug/kg	16.2	108
124-48-1	Dibromochloromethane	U	108	ug/kg	16.2	108
75-71-8	Dichlorodifluoromethane	U	108	ug/kg	16.2	108
100-41-4	Ethylbenzene	U	108	ug/kg	16.2	108
98-82-8	Isopropylbenzene	U	108	ug/kg	16.2	108
79-20-9	Methyl acetate	U	271	ug/kg	81.2	271
108-87-2	Methylcyclohexane	U	108	ug/kg	16.2	108
75-09-2	Methylene chloride	U	271	ug/kg	86.6	271

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 09:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944004**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**9.4**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**SW24**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 16:25**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:16**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R214.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	108	ug/kg	16.2	108
127-18-4	Tetrachloroethylene	U	108	ug/kg	16.2	108
108-88-3	Toluene	U	108	ug/kg	16.2	108
79-01-6	Trichloroethylene	U	108	ug/kg	16.2	108
75-69-4	Trichlorofluoromethane	U	108	ug/kg	16.2	108
76-13-1	Trichlorotrifluoroethane	U	271	ug/kg	86.6	271
75-01-4	Vinyl chloride	U	108	ug/kg	16.2	108
156-59-2	cis-1,2-Dichloroethylene	U	108	ug/kg	16.2	108
10061-01-5	cis-1,3-Dichloropropylene	U	108	ug/kg	16.2	108
179601-23-1	m,p-Xylenes	U	216	ug/kg	16.2	216
95-47-6	o-Xylene	U	108	ug/kg	16.2	108
1634-04-4	tert-Butyl methyl ether	U	108	ug/kg	16.2	108
156-60-5	trans-1,2-Dichloroethylene	U	108	ug/kg	16.2	108
10061-02-6	trans-1,3-Dichloropropylene	U	108	ug/kg	16.2	108

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 09:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944004**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**9.4**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**SW24RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 16:23**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:04**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R512.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	2.08	ug/kg	0.312	2.08
79-34-5	1,1,2,2-Tetrachloroethane	U	2.08	ug/kg	0.312	2.08
79-00-5	1,1,2-Trichloroethane	U	2.08	ug/kg	0.312	2.08
75-34-3	1,1-Dichloroethane	U	2.08	ug/kg	0.312	2.08
75-35-4	1,1-Dichloroethylene	U	2.08	ug/kg	0.312	2.08
87-61-6	1,2,3-Trichlorobenzene	U	2.08	ug/kg	0.312	2.08
120-82-1	1,2,4-Trichlorobenzene	J	0.479	ug/kg	0.312	2.08
96-12-8	1,2-Dibromo-3-chloropropane	U	2.08	ug/kg	0.521	2.08
106-93-4	1,2-Dibromoethane	U	2.08	ug/kg	0.312	2.08
95-50-1	1,2-Dichlorobenzene	U	2.08	ug/kg	0.312	2.08
107-06-2	1,2-Dichloroethane	U	2.08	ug/kg	0.312	2.08
78-87-5	1,2-Dichloropropane	U	2.08	ug/kg	0.312	2.08
541-73-1	1,3-Dichlorobenzene	U	2.08	ug/kg	0.312	2.08
106-46-7	1,4-Dichlorobenzene	U	2.08	ug/kg	0.312	2.08
123-91-1	1,4-Dioxane	U	52.1	ug/kg	15.6	52.1
78-93-3	2-Butanone	U	10.4	ug/kg	3.12	10.4
591-78-6	2-Hexanone	U	10.4	ug/kg	3.12	10.4
108-10-1	4-Methyl-2-pentanone	U	10.4	ug/kg	3.12	10.4
67-64-1	Acetone	J	6.57	ug/kg	3.12	10.4
71-43-2	Benzene	U	2.08	ug/kg	0.312	2.08
74-97-5	Bromochloromethane	U	2.08	ug/kg	0.312	2.08
75-27-4	Bromodichloromethane	U	2.08	ug/kg	0.312	2.08
75-25-2	Bromoform	U	2.08	ug/kg	0.312	2.08
74-83-9	Bromomethane	U	2.08	ug/kg	0.312	2.08
75-15-0	Carbon disulfide	U	10.4	ug/kg	1.67	10.4
56-23-5	Carbon tetrachloride	U	2.08	ug/kg	0.312	2.08
108-90-7	Chlorobenzene	U	2.08	ug/kg	0.312	2.08
75-00-3	Chloroethane	U	2.08	ug/kg	0.312	2.08
67-66-3	Chloroform	U	2.08	ug/kg	0.312	2.08
74-87-3	Chloromethane	U	2.08	ug/kg	0.312	2.08
110-82-7	Cyclohexane	U	2.08	ug/kg	0.312	2.08
124-48-1	Dibromochloromethane	U	2.08	ug/kg	0.312	2.08
75-71-8	Dichlorodifluoromethane	U	2.08	ug/kg	0.312	2.08
100-41-4	Ethylbenzene	U	2.08	ug/kg	0.312	2.08
98-82-8	Isopropylbenzene	U	2.08	ug/kg	0.312	2.08
79-20-9	Methyl acetate	U	5.21	ug/kg	1.56	5.21
108-87-2	Methylcyclohexane	U	2.08	ug/kg	0.312	2.08
75-09-2	Methylene chloride	U	5.21	ug/kg	1.67	5.21

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 09:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944004**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**9.4**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**SW24RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 16:23**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:04**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R512.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	2.08	ug/kg	0.312	2.08
127-18-4	Tetrachloroethylene	U	2.08	ug/kg	0.312	2.08
108-88-3	Toluene	U	2.08	ug/kg	0.312	2.08
79-01-6	Trichloroethylene	U	2.08	ug/kg	0.312	2.08
75-69-4	Trichlorofluoromethane	U	2.08	ug/kg	0.312	2.08
76-13-1	Trichlorotrifluoroethane	U	5.21	ug/kg	1.67	5.21
75-01-4	Vinyl chloride	U	2.08	ug/kg	0.312	2.08
156-59-2	cis-1,2-Dichloroethylene	U	2.08	ug/kg	0.312	2.08
10061-01-5	cis-1,3-Dichloropropylene	U	2.08	ug/kg	0.312	2.08
179601-23-1	m,p-Xylenes	U	4.17	ug/kg	0.312	4.17
95-47-6	o-Xylene	U	2.08	ug/kg	0.312	2.08
1634-04-4	tert-Butyl methyl ether	U	2.08	ug/kg	0.312	2.08
156-60-5	trans-1,2-Dichloroethylene	U	2.08	ug/kg	0.312	2.08
10061-02-6	trans-1,3-Dichloropropylene	U	2.08	ug/kg	0.312	2.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 10:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944005**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**8.8**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S05**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 16:56**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:17**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R215.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	105	ug/kg	15.8	105
79-34-5	1,1,2,2-Tetrachloroethane	U	105	ug/kg	15.8	105
79-00-5	1,1,2-Trichloroethane	U	105	ug/kg	15.8	105
75-34-3	1,1-Dichloroethane	U	105	ug/kg	15.8	105
75-35-4	1,1-Dichloroethylene	U	105	ug/kg	15.8	105
87-61-6	1,2,3-Trichlorobenzene	U	105	ug/kg	15.8	105
120-82-1	1,2,4-Trichlorobenzene	U	105	ug/kg	15.8	105
96-12-8	1,2-Dibromo-3-chloropropane	U	105	ug/kg	26.4	105
106-93-4	1,2-Dibromoethane	U	105	ug/kg	15.8	105
95-50-1	1,2-Dichlorobenzene	U	105	ug/kg	15.8	105
107-06-2	1,2-Dichloroethane	U	105	ug/kg	15.8	105
78-87-5	1,2-Dichloropropane	U	105	ug/kg	15.8	105
541-73-1	1,3-Dichlorobenzene	U	105	ug/kg	15.8	105
106-46-7	1,4-Dichlorobenzene	U	105	ug/kg	15.8	105
123-91-1	1,4-Dioxane	U	2640	ug/kg	791	2640
78-93-3	2-Butanone	U	527	ug/kg	158	527
591-78-6	2-Hexanone	U	527	ug/kg	158	527
108-10-1	4-Methyl-2-pentanone	U	527	ug/kg	158	527
67-64-1	Acetone	U	527	ug/kg	158	527
71-43-2	Benzene	U	105	ug/kg	15.8	105
74-97-5	Bromochloromethane	U	105	ug/kg	15.8	105
75-27-4	Bromodichloromethane	U	105	ug/kg	15.8	105
75-25-2	Bromoform	U	105	ug/kg	15.8	105
74-83-9	Bromomethane	U	105	ug/kg	15.8	105
75-15-0	Carbon disulfide	U	527	ug/kg	84.4	527
56-23-5	Carbon tetrachloride	U	105	ug/kg	15.8	105
108-90-7	Chlorobenzene	U	105	ug/kg	15.8	105
75-00-3	Chloroethane	U	105	ug/kg	15.8	105
67-66-3	Chloroform	U	105	ug/kg	15.8	105
74-87-3	Chloromethane	U	105	ug/kg	15.8	105
110-82-7	Cyclohexane	U	105	ug/kg	15.8	105
124-48-1	Dibromochloromethane	U	105	ug/kg	15.8	105
75-71-8	Dichlorodifluoromethane	U	105	ug/kg	15.8	105
100-41-4	Ethylbenzene	U	105	ug/kg	15.8	105
98-82-8	Isopropylbenzene	U	105	ug/kg	15.8	105
79-20-9	Methyl acetate	U	264	ug/kg	79.1	264
108-87-2	Methylcyclohexane	U	105	ug/kg	15.8	105
75-09-2	Methylene chloride	U	264	ug/kg	84.4	264

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 10:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944005**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**8.8**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S05**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 16:56**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:17**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R215.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	105	ug/kg	15.8	105
127-18-4	Tetrachloroethylene	U	105	ug/kg	15.8	105
108-88-3	Toluene	U	105	ug/kg	15.8	105
79-01-6	Trichloroethylene	U	105	ug/kg	15.8	105
75-69-4	Trichlorofluoromethane	U	105	ug/kg	15.8	105
76-13-1	Trichlorotrifluoroethane	U	264	ug/kg	84.4	264
75-01-4	Vinyl chloride	U	105	ug/kg	15.8	105
156-59-2	cis-1,2-Dichloroethylene	U	105	ug/kg	15.8	105
10061-01-5	cis-1,3-Dichloropropylene	U	105	ug/kg	15.8	105
179601-23-1	m,p-Xylenes	U	211	ug/kg	15.8	211
95-47-6	o-Xylene	U	105	ug/kg	15.8	105
1634-04-4	tert-Butyl methyl ether	U	105	ug/kg	15.8	105
156-60-5	trans-1,2-Dichloroethylene	U	105	ug/kg	15.8	105
10061-02-6	trans-1,3-Dichloropropylene	U	105	ug/kg	15.8	105

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 10:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944005**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**8.8**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S05RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 16:54**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:05**	**Aliquot:**	**5.6 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R513.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.96	ug/kg	0.294	1.96
79-34-5	1,1,2,2-Tetrachloroethane	U	1.96	ug/kg	0.294	1.96
79-00-5	1,1,2-Trichloroethane	U	1.96	ug/kg	0.294	1.96
75-34-3	1,1-Dichloroethane	U	1.96	ug/kg	0.294	1.96
75-35-4	1,1-Dichloroethylene	U	1.96	ug/kg	0.294	1.96
87-61-6	1,2,3-Trichlorobenzene	U	1.96	ug/kg	0.294	1.96
120-82-1	1,2,4-Trichlorobenzene	U	1.96	ug/kg	0.294	1.96
96-12-8	1,2-Dibromo-3-chloropropane	U	1.96	ug/kg	0.490	1.96
106-93-4	1,2-Dibromoethane	U	1.96	ug/kg	0.294	1.96
95-50-1	1,2-Dichlorobenzene	U	1.96	ug/kg	0.294	1.96
107-06-2	1,2-Dichloroethane	U	1.96	ug/kg	0.294	1.96
78-87-5	1,2-Dichloropropane	U	1.96	ug/kg	0.294	1.96
541-73-1	1,3-Dichlorobenzene	U	1.96	ug/kg	0.294	1.96
106-46-7	1,4-Dichlorobenzene	U	1.96	ug/kg	0.294	1.96
123-91-1	1,4-Dioxane	U	49.0	ug/kg	14.7	49.0
78-93-3	2-Butanone	U	9.79	ug/kg	2.94	9.79
591-78-6	2-Hexanone	U	9.79	ug/kg	2.94	9.79
108-10-1	4-Methyl-2-pentanone	U	9.79	ug/kg	2.94	9.79
67-64-1	Acetone		12.3	ug/kg	2.94	9.79
71-43-2	Benzene	U	1.96	ug/kg	0.294	1.96
74-97-5	Bromochloromethane	U	1.96	ug/kg	0.294	1.96
75-27-4	Bromodichloromethane	U	1.96	ug/kg	0.294	1.96
75-25-2	Bromoform	U	1.96	ug/kg	0.294	1.96
74-83-9	Bromomethane	U	1.96	ug/kg	0.294	1.96
75-15-0	Carbon disulfide	J	1.60	ug/kg	1.57	9.79
56-23-5	Carbon tetrachloride	U	1.96	ug/kg	0.294	1.96
108-90-7	Chlorobenzene	U	1.96	ug/kg	0.294	1.96
75-00-3	Chloroethane	U	1.96	ug/kg	0.294	1.96
67-66-3	Chloroform	U	1.96	ug/kg	0.294	1.96
74-87-3	Chloromethane	U	1.96	ug/kg	0.294	1.96
110-82-7	Cyclohexane	U	1.96	ug/kg	0.294	1.96
124-48-1	Dibromochloromethane	U	1.96	ug/kg	0.294	1.96
75-71-8	Dichlorodifluoromethane	U	1.96	ug/kg	0.294	1.96
100-41-4	Ethylbenzene	U	1.96	ug/kg	0.294	1.96
98-82-8	Isopropylbenzene	U	1.96	ug/kg	0.294	1.96
79-20-9	Methyl acetate	U	4.90	ug/kg	1.47	4.90
108-87-2	Methylcyclohexane	U	1.96	ug/kg	0.294	1.96
75-09-2	Methylene chloride	U	4.90	ug/kg	1.57	4.90

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 10:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944005**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**8.8**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S05RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 16:54**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:05**	**Aliquot:**	**5.6 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R513.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	1.96	ug/kg	0.294	1.96
127-18-4	Tetrachloroethylene	U	1.96	ug/kg	0.294	1.96
108-88-3	Toluene	U	1.96	ug/kg	0.294	1.96
79-01-6	Trichloroethylene	U	1.96	ug/kg	0.294	1.96
75-69-4	Trichlorofluoromethane	U	1.96	ug/kg	0.294	1.96
76-13-1	Trichlorotrifluoroethane	U	4.90	ug/kg	1.57	4.90
75-01-4	Vinyl chloride	U	1.96	ug/kg	0.294	1.96
156-59-2	cis-1,2-Dichloroethylene	U	1.96	ug/kg	0.294	1.96
10061-01-5	cis-1,3-Dichloropropylene	U	1.96	ug/kg	0.294	1.96
179601-23-1	m,p-Xylenes	U	3.92	ug/kg	0.294	3.92
95-47-6	o-Xylene	U	1.96	ug/kg	0.294	1.96
1634-04-4	tert-Butyl methyl ether	U	1.96	ug/kg	0.294	1.96
156-60-5	trans-1,2-Dichloroethylene	U	1.96	ug/kg	0.294	1.96
10061-02-6	trans-1,3-Dichloropropylene	U	1.96	ug/kg	0.294	1.96

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 10:40**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944006**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S14**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 17:27**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:18**	**Aliquot:**	**5.4 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R216.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	99.7	ug/kg	15.0	99.7
79-34-5	1,1,2,2-Tetrachloroethane	U	99.7	ug/kg	15.0	99.7
79-00-5	1,1,2-Trichloroethane	U	99.7	ug/kg	15.0	99.7
75-34-3	1,1-Dichloroethane	U	99.7	ug/kg	15.0	99.7
75-35-4	1,1-Dichloroethylene	U	99.7	ug/kg	15.0	99.7
87-61-6	1,2,3-Trichlorobenzene	U	99.7	ug/kg	15.0	99.7
120-82-1	1,2,4-Trichlorobenzene	U	99.7	ug/kg	15.0	99.7
96-12-8	1,2-Dibromo-3-chloropropane	U	99.7	ug/kg	24.9	99.7
106-93-4	1,2-Dibromoethane	U	99.7	ug/kg	15.0	99.7
95-50-1	1,2-Dichlorobenzene	U	99.7	ug/kg	15.0	99.7
107-06-2	1,2-Dichloroethane	U	99.7	ug/kg	15.0	99.7
78-87-5	1,2-Dichloropropane	U	99.7	ug/kg	15.0	99.7
541-73-1	1,3-Dichlorobenzene	U	99.7	ug/kg	15.0	99.7
106-46-7	1,4-Dichlorobenzene	U	99.7	ug/kg	15.0	99.7
123-91-1	1,4-Dioxane	U	2490	ug/kg	748	2490
78-93-3	2-Butanone	U	499	ug/kg	150	499
591-78-6	2-Hexanone	U	499	ug/kg	150	499
108-10-1	4-Methyl-2-pentanone	U	499	ug/kg	150	499
67-64-1	Acetone	U	499	ug/kg	150	499
71-43-2	Benzene	U	99.7	ug/kg	15.0	99.7
74-97-5	Bromochloromethane	U	99.7	ug/kg	15.0	99.7
75-27-4	Bromodichloromethane	U	99.7	ug/kg	15.0	99.7
75-25-2	Bromoform	U	99.7	ug/kg	15.0	99.7
74-83-9	Bromomethane	U	99.7	ug/kg	15.0	99.7
75-15-0	Carbon disulfide	U	499	ug/kg	79.8	499
56-23-5	Carbon tetrachloride	U	99.7	ug/kg	15.0	99.7
108-90-7	Chlorobenzene	U	99.7	ug/kg	15.0	99.7
75-00-3	Chloroethane	U	99.7	ug/kg	15.0	99.7
67-66-3	Chloroform	U	99.7	ug/kg	15.0	99.7
74-87-3	Chloromethane	U	99.7	ug/kg	15.0	99.7
110-82-7	Cyclohexane	U	99.7	ug/kg	15.0	99.7
124-48-1	Dibromochloromethane	U	99.7	ug/kg	15.0	99.7
75-71-8	Dichlorodifluoromethane	U	99.7	ug/kg	15.0	99.7
100-41-4	Ethylbenzene	U	99.7	ug/kg	15.0	99.7
98-82-8	Isopropylbenzene	U	99.7	ug/kg	15.0	99.7
79-20-9	Methyl acetate	U	249	ug/kg	74.8	249
108-87-2	Methylcyclohexane	U	99.7	ug/kg	15.0	99.7
75-09-2	Methylene chloride	U	249	ug/kg	79.8	249

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 10:40**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944006**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S14**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 17:27**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:18**	**Aliquot:**	**5.4 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R216.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	99.7	ug/kg	15.0	99.7
127-18-4	Tetrachloroethylene	U	99.7	ug/kg	15.0	99.7
108-88-3	Toluene	U	99.7	ug/kg	15.0	99.7
79-01-6	Trichloroethylene	U	99.7	ug/kg	15.0	99.7
75-69-4	Trichlorofluoromethane	U	99.7	ug/kg	15.0	99.7
76-13-1	Trichlorotrifluoroethane	U	249	ug/kg	79.8	249
75-01-4	Vinyl chloride	U	99.7	ug/kg	15.0	99.7
156-59-2	cis-1,2-Dichloroethylene	U	99.7	ug/kg	15.0	99.7
10061-01-5	cis-1,3-Dichloropropylene	U	99.7	ug/kg	15.0	99.7
179601-23-1	m,p-Xylenes	U	199	ug/kg	15.0	199
95-47-6	o-Xylene	U	99.7	ug/kg	15.0	99.7
1634-04-4	tert-Butyl methyl ether	U	99.7	ug/kg	15.0	99.7
156-60-5	trans-1,2-Dichloroethylene	U	99.7	ug/kg	15.0	99.7
10061-02-6	trans-1,3-Dichloropropylene	U	99.7	ug/kg	15.0	99.7

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 10:40**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944006**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S14RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 17:25**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:06**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R514.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	2.15	ug/kg	0.323	2.15
79-34-5	1,1,2,2-Tetrachloroethane	U	2.15	ug/kg	0.323	2.15
79-00-5	1,1,2-Trichloroethane	U	2.15	ug/kg	0.323	2.15
75-34-3	1,1-Dichloroethane	U	2.15	ug/kg	0.323	2.15
75-35-4	1,1-Dichloroethylene	U	2.15	ug/kg	0.323	2.15
87-61-6	1,2,3-Trichlorobenzene	U	2.15	ug/kg	0.323	2.15
120-82-1	1,2,4-Trichlorobenzene	U	2.15	ug/kg	0.323	2.15
96-12-8	1,2-Dibromo-3-chloropropane	U	2.15	ug/kg	0.538	2.15
106-93-4	1,2-Dibromoethane	U	2.15	ug/kg	0.323	2.15
95-50-1	1,2-Dichlorobenzene	U	2.15	ug/kg	0.323	2.15
107-06-2	1,2-Dichloroethane	U	2.15	ug/kg	0.323	2.15
78-87-5	1,2-Dichloropropane	U	2.15	ug/kg	0.323	2.15
541-73-1	1,3-Dichlorobenzene	U	2.15	ug/kg	0.323	2.15
106-46-7	1,4-Dichlorobenzene	U	2.15	ug/kg	0.323	2.15
123-91-1	1,4-Dioxane	U	53.8	ug/kg	16.2	53.8
78-93-3	2-Butanone	U	10.8	ug/kg	3.23	10.8
591-78-6	2-Hexanone	U	10.8	ug/kg	3.23	10.8
108-10-1	4-Methyl-2-pentanone	U	10.8	ug/kg	3.23	10.8
67-64-1	Acetone	J	6.47	ug/kg	3.23	10.8
71-43-2	Benzene	U	2.15	ug/kg	0.323	2.15
74-97-5	Bromochloromethane	U	2.15	ug/kg	0.323	2.15
75-27-4	Bromodichloromethane	U	2.15	ug/kg	0.323	2.15
75-25-2	Bromoform	U	2.15	ug/kg	0.323	2.15
74-83-9	Bromomethane	U	2.15	ug/kg	0.323	2.15
75-15-0	Carbon disulfide	U	10.8	ug/kg	1.72	10.8
56-23-5	Carbon tetrachloride	U	2.15	ug/kg	0.323	2.15
108-90-7	Chlorobenzene	U	2.15	ug/kg	0.323	2.15
75-00-3	Chloroethane	U	2.15	ug/kg	0.323	2.15
67-66-3	Chloroform	U	2.15	ug/kg	0.323	2.15
74-87-3	Chloromethane	U	2.15	ug/kg	0.323	2.15
110-82-7	Cyclohexane	U	2.15	ug/kg	0.323	2.15
124-48-1	Dibromochloromethane	U	2.15	ug/kg	0.323	2.15
75-71-8	Dichlorodifluoromethane	U	2.15	ug/kg	0.323	2.15
100-41-4	Ethylbenzene	U	2.15	ug/kg	0.323	2.15
98-82-8	Isopropylbenzene	U	2.15	ug/kg	0.323	2.15
79-20-9	Methyl acetate	U	5.38	ug/kg	1.62	5.38
108-87-2	Methylcyclohexane	U	2.15	ug/kg	0.323	2.15
75-09-2	Methylene chloride	U	5.38	ug/kg	1.72	5.38

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 10:40**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944006**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S14RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 17:25**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:06**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R514.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	2.15	ug/kg	0.323	2.15
127-18-4	Tetrachloroethylene	U	2.15	ug/kg	0.323	2.15
108-88-3	Toluene	U	2.15	ug/kg	0.323	2.15
79-01-6	Trichloroethylene	U	2.15	ug/kg	0.323	2.15
75-69-4	Trichlorofluoromethane	U	2.15	ug/kg	0.323	2.15
76-13-1	Trichlorotrifluoroethane	U	5.38	ug/kg	1.72	5.38
75-01-4	Vinyl chloride	U	2.15	ug/kg	0.323	2.15
156-59-2	cis-1,2-Dichloroethylene	U	2.15	ug/kg	0.323	2.15
10061-01-5	cis-1,3-Dichloropropylene	U	2.15	ug/kg	0.323	2.15
179601-23-1	m,p-Xylenes	U	4.31	ug/kg	0.323	4.31
95-47-6	o-Xylene	U	2.15	ug/kg	0.323	2.15
1634-04-4	tert-Butyl methyl ether	U	2.15	ug/kg	0.323	2.15
156-60-5	trans-1,2-Dichloroethylene	U	2.15	ug/kg	0.323	2.15
10061-02-6	trans-1,3-Dichloropropylene	U	2.15	ug/kg	0.323	2.15

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 13:35**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944007**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S15**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 17:58**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:19**	**Aliquot:**	**5.4 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R217.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	100	ug/kg	15.0	100
79-34-5	1,1,2,2-Tetrachloroethane	U	100	ug/kg	15.0	100
79-00-5	1,1,2-Trichloroethane	U	100	ug/kg	15.0	100
75-34-3	1,1-Dichloroethane	U	100	ug/kg	15.0	100
75-35-4	1,1-Dichloroethylene	U	100	ug/kg	15.0	100
87-61-6	1,2,3-Trichlorobenzene	U	100	ug/kg	15.0	100
120-82-1	1,2,4-Trichlorobenzene	U	100	ug/kg	15.0	100
96-12-8	1,2-Dibromo-3-chloropropane	U	100	ug/kg	25.1	100
106-93-4	1,2-Dibromoethane	U	100	ug/kg	15.0	100
95-50-1	1,2-Dichlorobenzene	U	100	ug/kg	15.0	100
107-06-2	1,2-Dichloroethane	U	100	ug/kg	15.0	100
78-87-5	1,2-Dichloropropane	U	100	ug/kg	15.0	100
541-73-1	1,3-Dichlorobenzene	U	100	ug/kg	15.0	100
106-46-7	1,4-Dichlorobenzene	U	100	ug/kg	15.0	100
123-91-1	1,4-Dioxane	U	2510	ug/kg	752	2510
78-93-3	2-Butanone	U	501	ug/kg	150	501
591-78-6	2-Hexanone	U	501	ug/kg	150	501
108-10-1	4-Methyl-2-pentanone	U	501	ug/kg	150	501
67-64-1	Acetone	U	501	ug/kg	150	501
71-43-2	Benzene	U	100	ug/kg	15.0	100
74-97-5	Bromochloromethane	U	100	ug/kg	15.0	100
75-27-4	Bromodichloromethane	U	100	ug/kg	15.0	100
75-25-2	Bromoform	U	100	ug/kg	15.0	100
74-83-9	Bromomethane	U	100	ug/kg	15.0	100
75-15-0	Carbon disulfide	U	501	ug/kg	80.2	501
56-23-5	Carbon tetrachloride	U	100	ug/kg	15.0	100
108-90-7	Chlorobenzene	U	100	ug/kg	15.0	100
75-00-3	Chloroethane	U	100	ug/kg	15.0	100
67-66-3	Chloroform	U	100	ug/kg	15.0	100
74-87-3	Chloromethane	U	100	ug/kg	15.0	100
110-82-7	Cyclohexane	U	100	ug/kg	15.0	100
124-48-1	Dibromochloromethane	U	100	ug/kg	15.0	100
75-71-8	Dichlorodifluoromethane	U	100	ug/kg	15.0	100
100-41-4	Ethylbenzene	U	100	ug/kg	15.0	100
98-82-8	Isopropylbenzene	U	100	ug/kg	15.0	100
79-20-9	Methyl acetate	U	251	ug/kg	75.2	251
108-87-2	Methylcyclohexane	U	100	ug/kg	15.0	100
75-09-2	Methylene chloride	U	251	ug/kg	80.2	251

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 13:35**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944007**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S15**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 17:58**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:19**	**Aliquot:**	**5.4 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R217.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	100	ug/kg	15.0	100
127-18-4	Tetrachloroethylene	U	100	ug/kg	15.0	100
108-88-3	Toluene	U	100	ug/kg	15.0	100
79-01-6	Trichloroethylene	U	100	ug/kg	15.0	100
75-69-4	Trichlorofluoromethane	U	100	ug/kg	15.0	100
76-13-1	Trichlorotrifluoroethane	U	251	ug/kg	80.2	251
75-01-4	Vinyl chloride	U	100	ug/kg	15.0	100
156-59-2	cis-1,2-Dichloroethylene	U	100	ug/kg	15.0	100
10061-01-5	cis-1,3-Dichloropropylene	U	100	ug/kg	15.0	100
179601-23-1	m,p-Xylenes	U	200	ug/kg	15.0	200
95-47-6	o-Xylene	U	100	ug/kg	15.0	100
1634-04-4	tert-Butyl methyl ether	U	100	ug/kg	15.0	100
156-60-5	trans-1,2-Dichloroethylene	U	100	ug/kg	15.0	100
10061-02-6	trans-1,3-Dichloropropylene	U	100	ug/kg	15.0	100

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 13:35**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944007**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S15RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 17:56**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:07**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R515.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	2.16	ug/kg	0.325	2.16
79-34-5	1,1,2,2-Tetrachloroethane	U	2.16	ug/kg	0.325	2.16
79-00-5	1,1,2-Trichloroethane	U	2.16	ug/kg	0.325	2.16
75-34-3	1,1-Dichloroethane	U	2.16	ug/kg	0.325	2.16
75-35-4	1,1-Dichloroethylene	U	2.16	ug/kg	0.325	2.16
87-61-6	1,2,3-Trichlorobenzene	U	2.16	ug/kg	0.325	2.16
120-82-1	1,2,4-Trichlorobenzene	U	2.16	ug/kg	0.325	2.16
96-12-8	1,2-Dibromo-3-chloropropane	U	2.16	ug/kg	0.541	2.16
106-93-4	1,2-Dibromoethane	U	2.16	ug/kg	0.325	2.16
95-50-1	1,2-Dichlorobenzene	U	2.16	ug/kg	0.325	2.16
107-06-2	1,2-Dichloroethane	U	2.16	ug/kg	0.325	2.16
78-87-5	1,2-Dichloropropane	U	2.16	ug/kg	0.325	2.16
541-73-1	1,3-Dichlorobenzene	U	2.16	ug/kg	0.325	2.16
106-46-7	1,4-Dichlorobenzene	U	2.16	ug/kg	0.325	2.16
123-91-1	1,4-Dioxane	U	54.1	ug/kg	16.2	54.1
78-93-3	2-Butanone	U	10.8	ug/kg	3.25	10.8
591-78-6	2-Hexanone	U	10.8	ug/kg	3.25	10.8
108-10-1	4-Methyl-2-pentanone	U	10.8	ug/kg	3.25	10.8
67-64-1	Acetone		13.5	ug/kg	3.25	10.8
71-43-2	Benzene	U	2.16	ug/kg	0.325	2.16
74-97-5	Bromochloromethane	U	2.16	ug/kg	0.325	2.16
75-27-4	Bromodichloromethane	U	2.16	ug/kg	0.325	2.16
75-25-2	Bromoform	U	2.16	ug/kg	0.325	2.16
74-83-9	Bromomethane	U	2.16	ug/kg	0.325	2.16
75-15-0	Carbon disulfide	U	10.8	ug/kg	1.73	10.8
56-23-5	Carbon tetrachloride	U	2.16	ug/kg	0.325	2.16
108-90-7	Chlorobenzene	U	2.16	ug/kg	0.325	2.16
75-00-3	Chloroethane	U	2.16	ug/kg	0.325	2.16
67-66-3	Chloroform	U	2.16	ug/kg	0.325	2.16
74-87-3	Chloromethane	U	2.16	ug/kg	0.325	2.16
110-82-7	Cyclohexane	U	2.16	ug/kg	0.325	2.16
124-48-1	Dibromochloromethane	U	2.16	ug/kg	0.325	2.16
75-71-8	Dichlorodifluoromethane	U	2.16	ug/kg	0.325	2.16
100-41-4	Ethylbenzene	U	2.16	ug/kg	0.325	2.16
98-82-8	Isopropylbenzene	U	2.16	ug/kg	0.325	2.16
79-20-9	Methyl acetate	U	5.41	ug/kg	1.62	5.41
108-87-2	Methylcyclohexane	U	2.16	ug/kg	0.325	2.16
75-09-2	Methylene chloride	U	5.41	ug/kg	1.73	5.41

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 13:35**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944007**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S15RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 17:56**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:07**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R515.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	2.16	ug/kg	0.325	2.16
127-18-4	Tetrachloroethylene	U	2.16	ug/kg	0.325	2.16
108-88-3	Toluene	U	2.16	ug/kg	0.325	2.16
79-01-6	Trichloroethylene	U	2.16	ug/kg	0.325	2.16
75-69-4	Trichlorofluoromethane	U	2.16	ug/kg	0.325	2.16
76-13-1	Trichlorotrifluoroethane	U	5.41	ug/kg	1.73	5.41
75-01-4	Vinyl chloride	U	2.16	ug/kg	0.325	2.16
156-59-2	cis-1,2-Dichloroethylene	U	2.16	ug/kg	0.325	2.16
10061-01-5	cis-1,3-Dichloropropylene	U	2.16	ug/kg	0.325	2.16
179601-23-1	m,p-Xylenes	U	4.33	ug/kg	0.325	4.33
95-47-6	o-Xylene	U	2.16	ug/kg	0.325	2.16
1634-04-4	tert-Butyl methyl ether	U	2.16	ug/kg	0.325	2.16
156-60-5	trans-1,2-Dichloroethylene	U	2.16	ug/kg	0.325	2.16
10061-02-6	trans-1,3-Dichloropropylene	U	2.16	ug/kg	0.325	2.16

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 13:50**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944008**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**8.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S19**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 18:30**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:20**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R218.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	109	ug/kg	16.4	109
79-34-5	1,1,2,2-Tetrachloroethane	U	109	ug/kg	16.4	109
79-00-5	1,1,2-Trichloroethane	U	109	ug/kg	16.4	109
75-34-3	1,1-Dichloroethane	U	109	ug/kg	16.4	109
75-35-4	1,1-Dichloroethylene	U	109	ug/kg	16.4	109
87-61-6	1,2,3-Trichlorobenzene	U	109	ug/kg	16.4	109
120-82-1	1,2,4-Trichlorobenzene	U	109	ug/kg	16.4	109
96-12-8	1,2-Dibromo-3-chloropropane	U	109	ug/kg	27.4	109
106-93-4	1,2-Dibromoethane	U	109	ug/kg	16.4	109
95-50-1	1,2-Dichlorobenzene	U	109	ug/kg	16.4	109
107-06-2	1,2-Dichloroethane	U	109	ug/kg	16.4	109
78-87-5	1,2-Dichloropropane	U	109	ug/kg	16.4	109
541-73-1	1,3-Dichlorobenzene	U	109	ug/kg	16.4	109
106-46-7	1,4-Dichlorobenzene	U	109	ug/kg	16.4	109
123-91-1	1,4-Dioxane	U	2740	ug/kg	821	2740
78-93-3	2-Butanone	U	547	ug/kg	164	547
591-78-6	2-Hexanone	U	547	ug/kg	164	547
108-10-1	4-Methyl-2-pentanone	U	547	ug/kg	164	547
67-64-1	Acetone	U	547	ug/kg	164	547
71-43-2	Benzene	U	109	ug/kg	16.4	109
74-97-5	Bromochloromethane	U	109	ug/kg	16.4	109
75-27-4	Bromodichloromethane	U	109	ug/kg	16.4	109
75-25-2	Bromoform	U	109	ug/kg	16.4	109
74-83-9	Bromomethane	U	109	ug/kg	16.4	109
75-15-0	Carbon disulfide	U	547	ug/kg	87.6	547
56-23-5	Carbon tetrachloride	U	109	ug/kg	16.4	109
108-90-7	Chlorobenzene	U	109	ug/kg	16.4	109
75-00-3	Chloroethane	U	109	ug/kg	16.4	109
67-66-3	Chloroform	U	109	ug/kg	16.4	109
74-87-3	Chloromethane	U	109	ug/kg	16.4	109
110-82-7	Cyclohexane	U	109	ug/kg	16.4	109
124-48-1	Dibromochloromethane	U	109	ug/kg	16.4	109
75-71-8	Dichlorodifluoromethane	U	109	ug/kg	16.4	109
100-41-4	Ethylbenzene	U	109	ug/kg	16.4	109
98-82-8	Isopropylbenzene	U	109	ug/kg	16.4	109
79-20-9	Methyl acetate	U	274	ug/kg	82.1	274
108-87-2	Methylcyclohexane	U	109	ug/kg	16.4	109
75-09-2	Methylene chloride	U	274	ug/kg	87.6	274

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 13:50**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944008**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**8.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S19**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 18:30**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:20**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R218.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	109	ug/kg	16.4	109
127-18-4	Tetrachloroethylene	U	109	ug/kg	16.4	109
108-88-3	Toluene	U	109	ug/kg	16.4	109
79-01-6	Trichloroethylene	U	109	ug/kg	16.4	109
75-69-4	Trichlorofluoromethane	U	109	ug/kg	16.4	109
76-13-1	Trichlorotrifluoroethane	U	274	ug/kg	87.6	274
75-01-4	Vinyl chloride	U	109	ug/kg	16.4	109
156-59-2	cis-1,2-Dichloroethylene	U	109	ug/kg	16.4	109
10061-01-5	cis-1,3-Dichloropropylene	U	109	ug/kg	16.4	109
179601-23-1	m,p-Xylenes	U	219	ug/kg	16.4	219
95-47-6	o-Xylene	U	109	ug/kg	16.4	109
1634-04-4	tert-Butyl methyl ether	U	109	ug/kg	16.4	109
156-60-5	trans-1,2-Dichloroethylene	U	109	ug/kg	16.4	109
10061-02-6	trans-1,3-Dichloropropylene	U	109	ug/kg	16.4	109

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 13:50**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944008**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**8.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S19RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 18:28**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:08**	**Aliquot:**	**5.5 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R516.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.99	ug/kg	0.299	1.99
79-34-5	1,1,2,2-Tetrachloroethane	U	1.99	ug/kg	0.299	1.99
79-00-5	1,1,2-Trichloroethane	U	1.99	ug/kg	0.299	1.99
75-34-3	1,1-Dichloroethane	U	1.99	ug/kg	0.299	1.99
75-35-4	1,1-Dichloroethylene	U	1.99	ug/kg	0.299	1.99
87-61-6	1,2,3-Trichlorobenzene	U	1.99	ug/kg	0.299	1.99
120-82-1	1,2,4-Trichlorobenzene	U	1.99	ug/kg	0.299	1.99
96-12-8	1,2-Dibromo-3-chloropropane	U	1.99	ug/kg	0.498	1.99
106-93-4	1,2-Dibromoethane	U	1.99	ug/kg	0.299	1.99
95-50-1	1,2-Dichlorobenzene	U	1.99	ug/kg	0.299	1.99
107-06-2	1,2-Dichloroethane	U	1.99	ug/kg	0.299	1.99
78-87-5	1,2-Dichloropropane	U	1.99	ug/kg	0.299	1.99
541-73-1	1,3-Dichlorobenzene	U	1.99	ug/kg	0.299	1.99
106-46-7	1,4-Dichlorobenzene	U	1.99	ug/kg	0.299	1.99
123-91-1	1,4-Dioxane	U	49.8	ug/kg	14.9	49.8
78-93-3	2-Butanone	U	9.95	ug/kg	2.99	9.95
591-78-6	2-Hexanone	U	9.95	ug/kg	2.99	9.95
108-10-1	4-Methyl-2-pentanone	U	9.95	ug/kg	2.99	9.95
67-64-1	Acetone	U	9.95	ug/kg	2.99	9.95
71-43-2	Benzene	U	1.99	ug/kg	0.299	1.99
74-97-5	Bromochloromethane	U	1.99	ug/kg	0.299	1.99
75-27-4	Bromodichloromethane	U	1.99	ug/kg	0.299	1.99
75-25-2	Bromoform	U	1.99	ug/kg	0.299	1.99
74-83-9	Bromomethane	U	1.99	ug/kg	0.299	1.99
75-15-0	Carbon disulfide	U	9.95	ug/kg	1.59	9.95
56-23-5	Carbon tetrachloride	U	1.99	ug/kg	0.299	1.99
108-90-7	Chlorobenzene	U	1.99	ug/kg	0.299	1.99
75-00-3	Chloroethane	U	1.99	ug/kg	0.299	1.99
67-66-3	Chloroform	U	1.99	ug/kg	0.299	1.99
74-87-3	Chloromethane	U	1.99	ug/kg	0.299	1.99
110-82-7	Cyclohexane	U	1.99	ug/kg	0.299	1.99
124-48-1	Dibromochloromethane	U	1.99	ug/kg	0.299	1.99
75-71-8	Dichlorodifluoromethane	U	1.99	ug/kg	0.299	1.99
100-41-4	Ethylbenzene	U	1.99	ug/kg	0.299	1.99
98-82-8	Isopropylbenzene	U	1.99	ug/kg	0.299	1.99
79-20-9	Methyl acetate	U	4.98	ug/kg	1.49	4.98
108-87-2	Methylcyclohexane	U	1.99	ug/kg	0.299	1.99
75-09-2	Methylene chloride	U	4.98	ug/kg	1.59	4.98

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 13:50**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944008**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**8.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S19RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 18:28**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:08**	**Aliquot:**	**5.5 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R516.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	1.99	ug/kg	0.299	1.99
127-18-4	Tetrachloroethylene	U	1.99	ug/kg	0.299	1.99
108-88-3	Toluene	U	1.99	ug/kg	0.299	1.99
79-01-6	Trichloroethylene	U	1.99	ug/kg	0.299	1.99
75-69-4	Trichlorofluoromethane	U	1.99	ug/kg	0.299	1.99
76-13-1	Trichlorotrifluoroethane	U	4.98	ug/kg	1.59	4.98
75-01-4	Vinyl chloride	U	1.99	ug/kg	0.299	1.99
156-59-2	cis-1,2-Dichloroethylene	U	1.99	ug/kg	0.299	1.99
10061-01-5	cis-1,3-Dichloropropylene	U	1.99	ug/kg	0.299	1.99
179601-23-1	m,p-Xylenes	U	3.98	ug/kg	0.299	3.98
95-47-6	o-Xylene	U	1.99	ug/kg	0.299	1.99
1634-04-4	tert-Butyl methyl ether	U	1.99	ug/kg	0.299	1.99
156-60-5	trans-1,2-Dichloroethylene	U	1.99	ug/kg	0.299	1.99
10061-02-6	trans-1,3-Dichloropropylene	U	1.99	ug/kg	0.299	1.99

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 14:00**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944009**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**SW22**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 19:01**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:21**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R219.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	101	ug/kg	15.2	101
79-34-5	1,1,2,2-Tetrachloroethane	U	101	ug/kg	15.2	101
79-00-5	1,1,2-Trichloroethane	U	101	ug/kg	15.2	101
75-34-3	1,1-Dichloroethane	U	101	ug/kg	15.2	101
75-35-4	1,1-Dichloroethylene	U	101	ug/kg	15.2	101
87-61-6	1,2,3-Trichlorobenzene	U	101	ug/kg	15.2	101
120-82-1	1,2,4-Trichlorobenzene	U	101	ug/kg	15.2	101
96-12-8	1,2-Dibromo-3-chloropropane	U	101	ug/kg	25.4	101
106-93-4	1,2-Dibromoethane	U	101	ug/kg	15.2	101
95-50-1	1,2-Dichlorobenzene	U	101	ug/kg	15.2	101
107-06-2	1,2-Dichloroethane	U	101	ug/kg	15.2	101
78-87-5	1,2-Dichloropropane	U	101	ug/kg	15.2	101
541-73-1	1,3-Dichlorobenzene	U	101	ug/kg	15.2	101
106-46-7	1,4-Dichlorobenzene	U	101	ug/kg	15.2	101
123-91-1	1,4-Dioxane	U	2540	ug/kg	761	2540
78-93-3	2-Butanone	U	507	ug/kg	152	507
591-78-6	2-Hexanone	U	507	ug/kg	152	507
108-10-1	4-Methyl-2-pentanone	U	507	ug/kg	152	507
67-64-1	Acetone	U	507	ug/kg	152	507
71-43-2	Benzene	U	101	ug/kg	15.2	101
74-97-5	Bromochloromethane	U	101	ug/kg	15.2	101
75-27-4	Bromodichloromethane	U	101	ug/kg	15.2	101
75-25-2	Bromoform	U	101	ug/kg	15.2	101
74-83-9	Bromomethane	U	101	ug/kg	15.2	101
75-15-0	Carbon disulfide	U	507	ug/kg	81.2	507
56-23-5	Carbon tetrachloride	U	101	ug/kg	15.2	101
108-90-7	Chlorobenzene	U	101	ug/kg	15.2	101
75-00-3	Chloroethane	U	101	ug/kg	15.2	101
67-66-3	Chloroform	U	101	ug/kg	15.2	101
74-87-3	Chloromethane	U	101	ug/kg	15.2	101
110-82-7	Cyclohexane	U	101	ug/kg	15.2	101
124-48-1	Dibromochloromethane	U	101	ug/kg	15.2	101
75-71-8	Dichlorodifluoromethane	U	101	ug/kg	15.2	101
100-41-4	Ethylbenzene	U	101	ug/kg	15.2	101
98-82-8	Isopropylbenzene	U	101	ug/kg	15.2	101
79-20-9	Methyl acetate	U	254	ug/kg	76.1	254
108-87-2	Methylcyclohexane	U	101	ug/kg	15.2	101
75-09-2	Methylene chloride	U	254	ug/kg	81.2	254

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 14:00**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944009**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**SW22**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 19:01**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:21**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R219.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	101	ug/kg	15.2	101
127-18-4	Tetrachloroethylene	U	101	ug/kg	15.2	101
108-88-3	Toluene	U	101	ug/kg	15.2	101
79-01-6	Trichloroethylene	U	101	ug/kg	15.2	101
75-69-4	Trichlorofluoromethane	U	101	ug/kg	15.2	101
76-13-1	Trichlorotrifluoroethane	U	254	ug/kg	81.2	254
75-01-4	Vinyl chloride	U	101	ug/kg	15.2	101
156-59-2	cis-1,2-Dichloroethylene	U	101	ug/kg	15.2	101
10061-01-5	cis-1,3-Dichloropropylene	U	101	ug/kg	15.2	101
179601-23-1	m,p-Xylenes	U	203	ug/kg	15.2	203
95-47-6	o-Xylene	U	101	ug/kg	15.2	101
1634-04-4	tert-Butyl methyl ether	U	101	ug/kg	15.2	101
156-60-5	trans-1,2-Dichloroethylene	U	101	ug/kg	15.2	101
10061-02-6	trans-1,3-Dichloropropylene	U	101	ug/kg	15.2	101

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 14:00**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944009**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**SW22RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 18:59**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:09**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R517.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	2.11	ug/kg	0.316	2.11
79-34-5	1,1,2,2-Tetrachloroethane	U	2.11	ug/kg	0.316	2.11
79-00-5	1,1,2-Trichloroethane	U	2.11	ug/kg	0.316	2.11
75-34-3	1,1-Dichloroethane	U	2.11	ug/kg	0.316	2.11
75-35-4	1,1-Dichloroethylene	U	2.11	ug/kg	0.316	2.11
87-61-6	1,2,3-Trichlorobenzene	U	2.11	ug/kg	0.316	2.11
120-82-1	1,2,4-Trichlorobenzene	U	2.11	ug/kg	0.316	2.11
96-12-8	1,2-Dibromo-3-chloropropane	U	2.11	ug/kg	0.527	2.11
106-93-4	1,2-Dibromoethane	U	2.11	ug/kg	0.316	2.11
95-50-1	1,2-Dichlorobenzene	U	2.11	ug/kg	0.316	2.11
107-06-2	1,2-Dichloroethane	U	2.11	ug/kg	0.316	2.11
78-87-5	1,2-Dichloropropane	U	2.11	ug/kg	0.316	2.11
541-73-1	1,3-Dichlorobenzene	U	2.11	ug/kg	0.316	2.11
106-46-7	1,4-Dichlorobenzene	U	2.11	ug/kg	0.316	2.11
123-91-1	1,4-Dioxane	U	52.7	ug/kg	15.8	52.7
78-93-3	2-Butanone	U	10.5	ug/kg	3.16	10.5
591-78-6	2-Hexanone	U	10.5	ug/kg	3.16	10.5
108-10-1	4-Methyl-2-pentanone	U	10.5	ug/kg	3.16	10.5
67-64-1	Acetone	J	6.27	ug/kg	3.16	10.5
71-43-2	Benzene	U	2.11	ug/kg	0.316	2.11
74-97-5	Bromochloromethane	U	2.11	ug/kg	0.316	2.11
75-27-4	Bromodichloromethane	U	2.11	ug/kg	0.316	2.11
75-25-2	Bromoform	U	2.11	ug/kg	0.316	2.11
74-83-9	Bromomethane	U	2.11	ug/kg	0.316	2.11
75-15-0	Carbon disulfide	J	2.45	ug/kg	1.69	10.5
56-23-5	Carbon tetrachloride	U	2.11	ug/kg	0.316	2.11
108-90-7	Chlorobenzene	U	2.11	ug/kg	0.316	2.11
75-00-3	Chloroethane	U	2.11	ug/kg	0.316	2.11
67-66-3	Chloroform	U	2.11	ug/kg	0.316	2.11
74-87-3	Chloromethane	U	2.11	ug/kg	0.316	2.11
110-82-7	Cyclohexane	U	2.11	ug/kg	0.316	2.11
124-48-1	Dibromochloromethane	U	2.11	ug/kg	0.316	2.11
75-71-8	Dichlorodifluoromethane	U	2.11	ug/kg	0.316	2.11
100-41-4	Ethylbenzene	U	2.11	ug/kg	0.316	2.11
98-82-8	Isopropylbenzene	U	2.11	ug/kg	0.316	2.11
79-20-9	Methyl acetate	U	5.27	ug/kg	1.58	5.27
108-87-2	Methylcyclohexane	U	2.11	ug/kg	0.316	2.11
75-09-2	Methylene chloride	U	5.27	ug/kg	1.69	5.27

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 14:00**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944009**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**SW22RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 18:59**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:09**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R517.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	2.11	ug/kg	0.316	2.11
127-18-4	Tetrachloroethylene	U	2.11	ug/kg	0.316	2.11
108-88-3	Toluene	U	2.11	ug/kg	0.316	2.11
79-01-6	Trichloroethylene	U	2.11	ug/kg	0.316	2.11
75-69-4	Trichlorofluoromethane	U	2.11	ug/kg	0.316	2.11
76-13-1	Trichlorotrifluoroethane	U	5.27	ug/kg	1.69	5.27
75-01-4	Vinyl chloride	U	2.11	ug/kg	0.316	2.11
156-59-2	cis-1,2-Dichloroethylene	U	2.11	ug/kg	0.316	2.11
10061-01-5	cis-1,3-Dichloropropylene	U	2.11	ug/kg	0.316	2.11
179601-23-1	m,p-Xylenes	U	4.22	ug/kg	0.316	4.22
95-47-6	o-Xylene	U	2.11	ug/kg	0.316	2.11
1634-04-4	tert-Butyl methyl ether	U	2.11	ug/kg	0.316	2.11
156-60-5	trans-1,2-Dichloroethylene	U	2.11	ug/kg	0.316	2.11
10061-02-6	trans-1,3-Dichloropropylene	U	2.11	ug/kg	0.316	2.11

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 14:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944010**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S10**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 19:32**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:22**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R220.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	104	ug/kg	15.5	104
79-34-5	1,1,2,2-Tetrachloroethane	U	104	ug/kg	15.5	104
79-00-5	1,1,2-Trichloroethane	U	104	ug/kg	15.5	104
75-34-3	1,1-Dichloroethane	U	104	ug/kg	15.5	104
75-35-4	1,1-Dichloroethylene	U	104	ug/kg	15.5	104
87-61-6	1,2,3-Trichlorobenzene	U	104	ug/kg	15.5	104
120-82-1	1,2,4-Trichlorobenzene	U	104	ug/kg	15.5	104
96-12-8	1,2-Dibromo-3-chloropropane	U	104	ug/kg	25.9	104
106-93-4	1,2-Dibromoethane	U	104	ug/kg	15.5	104
95-50-1	1,2-Dichlorobenzene	U	104	ug/kg	15.5	104
107-06-2	1,2-Dichloroethane	U	104	ug/kg	15.5	104
78-87-5	1,2-Dichloropropane	U	104	ug/kg	15.5	104
541-73-1	1,3-Dichlorobenzene	U	104	ug/kg	15.5	104
106-46-7	1,4-Dichlorobenzene	U	104	ug/kg	15.5	104
123-91-1	1,4-Dioxane	U	2590	ug/kg	776	2590
78-93-3	2-Butanone	U	518	ug/kg	155	518
591-78-6	2-Hexanone	U	518	ug/kg	155	518
108-10-1	4-Methyl-2-pentanone	U	518	ug/kg	155	518
67-64-1	Acetone	U	518	ug/kg	155	518
71-43-2	Benzene	U	104	ug/kg	15.5	104
74-97-5	Bromochloromethane	U	104	ug/kg	15.5	104
75-27-4	Bromodichloromethane	U	104	ug/kg	15.5	104
75-25-2	Bromoform	U	104	ug/kg	15.5	104
74-83-9	Bromomethane	U	104	ug/kg	15.5	104
75-15-0	Carbon disulfide	U	518	ug/kg	82.8	518
56-23-5	Carbon tetrachloride	U	104	ug/kg	15.5	104
108-90-7	Chlorobenzene	U	104	ug/kg	15.5	104
75-00-3	Chloroethane	U	104	ug/kg	15.5	104
67-66-3	Chloroform	U	104	ug/kg	15.5	104
74-87-3	Chloromethane	U	104	ug/kg	15.5	104
110-82-7	Cyclohexane	U	104	ug/kg	15.5	104
124-48-1	Dibromochloromethane	U	104	ug/kg	15.5	104
75-71-8	Dichlorodifluoromethane	U	104	ug/kg	15.5	104
100-41-4	Ethylbenzene	U	104	ug/kg	15.5	104
98-82-8	Isopropylbenzene	U	104	ug/kg	15.5	104
79-20-9	Methyl acetate	U	259	ug/kg	77.6	259
108-87-2	Methylcyclohexane	U	104	ug/kg	15.5	104
75-09-2	Methylene chloride	U	259	ug/kg	82.8	259

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 14:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944010**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S10**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 19:32**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:22**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R220.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	104	ug/kg	15.5	104
127-18-4	Tetrachloroethylene	U	104	ug/kg	15.5	104
108-88-3	Toluene	U	104	ug/kg	15.5	104
79-01-6	Trichloroethylene	U	104	ug/kg	15.5	104
75-69-4	Trichlorofluoromethane	U	104	ug/kg	15.5	104
76-13-1	Trichlorotrifluoroethane	U	259	ug/kg	82.8	259
75-01-4	Vinyl chloride	U	104	ug/kg	15.5	104
156-59-2	cis-1,2-Dichloroethylene	U	104	ug/kg	15.5	104
10061-01-5	cis-1,3-Dichloropropylene	U	104	ug/kg	15.5	104
179601-23-1	m,p-Xylenes	U	207	ug/kg	15.5	207
95-47-6	o-Xylene	U	104	ug/kg	15.5	104
1634-04-4	tert-Butyl methyl ether	U	104	ug/kg	15.5	104
156-60-5	trans-1,2-Dichloroethylene	U	104	ug/kg	15.5	104
10061-02-6	trans-1,3-Dichloropropylene	U	104	ug/kg	15.5	104

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 14:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944010**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S10RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 19:30**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:10**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R518.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	2.15	ug/kg	0.323	2.15
79-34-5	1,1,2,2-Tetrachloroethane	U	2.15	ug/kg	0.323	2.15
79-00-5	1,1,2-Trichloroethane	U	2.15	ug/kg	0.323	2.15
75-34-3	1,1-Dichloroethane	U	2.15	ug/kg	0.323	2.15
75-35-4	1,1-Dichloroethylene	U	2.15	ug/kg	0.323	2.15
87-61-6	1,2,3-Trichlorobenzene	U	2.15	ug/kg	0.323	2.15
120-82-1	1,2,4-Trichlorobenzene	U	2.15	ug/kg	0.323	2.15
96-12-8	1,2-Dibromo-3-chloropropane	U	2.15	ug/kg	0.538	2.15
106-93-4	1,2-Dibromoethane	U	2.15	ug/kg	0.323	2.15
95-50-1	1,2-Dichlorobenzene	U	2.15	ug/kg	0.323	2.15
107-06-2	1,2-Dichloroethane	U	2.15	ug/kg	0.323	2.15
78-87-5	1,2-Dichloropropane	U	2.15	ug/kg	0.323	2.15
541-73-1	1,3-Dichlorobenzene	U	2.15	ug/kg	0.323	2.15
106-46-7	1,4-Dichlorobenzene	U	2.15	ug/kg	0.323	2.15
123-91-1	1,4-Dioxane	U	53.8	ug/kg	16.1	53.8
78-93-3	2-Butanone	U	10.8	ug/kg	3.23	10.8
591-78-6	2-Hexanone	U	10.8	ug/kg	3.23	10.8
108-10-1	4-Methyl-2-pentanone	U	10.8	ug/kg	3.23	10.8
67-64-1	Acetone		11.8	ug/kg	3.23	10.8
71-43-2	Benzene	U	2.15	ug/kg	0.323	2.15
74-97-5	Bromochloromethane	U	2.15	ug/kg	0.323	2.15
75-27-4	Bromodichloromethane	U	2.15	ug/kg	0.323	2.15
75-25-2	Bromoform	U	2.15	ug/kg	0.323	2.15
74-83-9	Bromomethane	U	2.15	ug/kg	0.323	2.15
75-15-0	Carbon disulfide	J	2.07	ug/kg	1.72	10.8
56-23-5	Carbon tetrachloride	U	2.15	ug/kg	0.323	2.15
108-90-7	Chlorobenzene	U	2.15	ug/kg	0.323	2.15
75-00-3	Chloroethane	U	2.15	ug/kg	0.323	2.15
67-66-3	Chloroform	U	2.15	ug/kg	0.323	2.15
74-87-3	Chloromethane	U	2.15	ug/kg	0.323	2.15
110-82-7	Cyclohexane	U	2.15	ug/kg	0.323	2.15
124-48-1	Dibromochloromethane	U	2.15	ug/kg	0.323	2.15
75-71-8	Dichlorodifluoromethane	U	2.15	ug/kg	0.323	2.15
100-41-4	Ethylbenzene	U	2.15	ug/kg	0.323	2.15
98-82-8	Isopropylbenzene	U	2.15	ug/kg	0.323	2.15
79-20-9	Methyl acetate	U	5.38	ug/kg	1.61	5.38
108-87-2	Methylcyclohexane	U	2.15	ug/kg	0.323	2.15
75-09-2	Methylene chloride	U	5.38	ug/kg	1.72	5.38

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 14:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944010**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S10RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 19:30**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:10**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R518.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	2.15	ug/kg	0.323	2.15
127-18-4	Tetrachloroethylene	U	2.15	ug/kg	0.323	2.15
108-88-3	Toluene	U	2.15	ug/kg	0.323	2.15
79-01-6	Trichloroethylene	U	2.15	ug/kg	0.323	2.15
75-69-4	Trichlorofluoromethane	U	2.15	ug/kg	0.323	2.15
76-13-1	Trichlorotrifluoroethane	U	5.38	ug/kg	1.72	5.38
75-01-4	Vinyl chloride	U	2.15	ug/kg	0.323	2.15
156-59-2	cis-1,2-Dichloroethylene	U	2.15	ug/kg	0.323	2.15
10061-01-5	cis-1,3-Dichloropropylene	U	2.15	ug/kg	0.323	2.15
179601-23-1	m,p-Xylenes	U	4.31	ug/kg	0.323	4.31
95-47-6	o-Xylene	U	2.15	ug/kg	0.323	2.15
1634-04-4	tert-Butyl methyl ether	U	2.15	ug/kg	0.323	2.15
156-60-5	trans-1,2-Dichloroethylene	U	2.15	ug/kg	0.323	2.15
10061-02-6	trans-1,3-Dichloropropylene	U	2.15	ug/kg	0.323	2.15

Quality Control Summary

Volatile

Surrogate Recovery Report

SDG Number: 454944

Matrix Type: LIQUID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1204074478	LCS for batch 1784646	106	91	102
1204074477	MB for batch 1784646	93	91	108
1204074479	B3JVK9PS	104	88	106
1204074480	B3JVK9PSD	104	95	109
1204076675	LCS for batch 1784646	97	96	104
1204076674	MB for batch 1784646	95	91	102
454944001	071818TB	97	94	111

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(71%-134%)
TOL	= Toluene-d8	(74%-124%)
BFB	= Bromofluorobenzene	(70%-131%)

* Recovery outside Acceptance Limits
# Column to be used to flag recovery values
D Sample Diluted

Volatile

Surrogate Recovery Report

SDG Number: 454944

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC		TOL %REC		BFB %REC	
1204076133	LCS for batch 1785343	105		89		104	
1204076131	MB for batch 1785343	99		92		108	
454944002	S09	100	D	90	D	110	D
454944003	S06	99	D	94	D	112	D
454944004	SW24	101	D	90	D	105	D
454944005	S05	101	D	94	D	109	D
454944006	S14	101	D	93	D	110	D
454944007	S15	102	D	93	D	107	D
454944008	S19	107	D	92	D	110	D
454944009	SW22	105	D	91	D	113	D
454944010	S10	104	D	93	D	108	D
1204076132	HB for batch 1785343	106	D	89	D	108	D
1204076134	SW06PS	103	D	88	D	110	D
1204076135	SW06PSD	105	D	90	D	104	D
1204079887	LCS for batch 1785343	94		92		105	
1204079885	MB for batch 1785343	99		92		99	
454944002	S09RE	106		111		147 *	
454944003	S06RE	125 *		127 *		124	
454944004	SW24RE	139 *		129 *		116	
454944005	S05RE	113		110		123	
454944006	S14RE	122		108		119	
454944007	S15RE	136 *		126 *		118	
454944008	S19RE	115		106		130	
454944009	SW22RE	121		127 *		122	

DCED4 = 1,2-Dichloroethane-d4 (81%-124%)
TOL = Toluene-d8 (81%-120%)
BFB = Bromofluorobenzene (70%-130%)

* Recovery outside Acceptance Limits
\# Column to be used to flag recovery values
D Sample Diluted

Volatile

Surrogate Recovery Report

SDG Number: 454944

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
454944010	S10RE	151 *	119	105
1204076134	SW06REPS	139 *	128 *	117
1204076135	SW06REPSD	139 *	131 *	111

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(81%-124%)
TOL	= Toluene-d8	(81%-120%)
BFB	= Bromofluorobenzene	(70%-130%)

* Recovery outside Acceptance Limits
\# Column to be used to flag recovery values
D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **LCS for batch 1784646**
Lab Sample ID **1204074478**
Instrument: **VOA3.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **WATER**
Analysis Date: **07/21/2018 10:55**
Dilution: 1
Batch ID: **1784646**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
179601-23-1	LCS	m,p-Xylenes	100	0.0	99.9	100	70-130
67-64-1	LCS	Acetone	250	0.0	269	108	70-130
79-20-9	LCS	Methyl acetate	250	0.0	288	115	70-130
75-15-0	LCS	Carbon disulfide	250	0.0	288	115	70-130
78-93-3	LCS	2-Butanone	250	0.0	299	119	70-130
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	256	102	70-130
591-78-6	LCS	2-Hexanone	250	0.0	281	112	70-130
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	47.0	94	70-130
74-87-3	LCS	Chloromethane	50.0	0.0	42.3	85	70-130
75-01-4	LCS	Vinyl chloride	50.0	0.0	45.0	90	70-130
74-83-9	LCS	Bromomethane	50.0	0.0	47.8	96	70-130
75-00-3	LCS	Chloroethane	50.0	0.0	49.2	98	70-130
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	49.5	99	70-130
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	57.5	115	70-130
75-09-2	LCS	Methylene chloride	50.0	0.0	57.5	115	70-130
1634-04-4	LCS	tert-Butyl methyl ether	50.0	0.0	60.9	122	70-130
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	55.2	110	70-130
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	52.2	104	70-130
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	53.3	107	70-130
74-97-5	LCS	Bromochloromethane	50.0	0.0	50.5	101	70-130
67-66-3	LCS	Chloroform	50.0	0.0	55.6	111	70-130
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	53.4	107	70-130

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **LCS for batch 1784646**
Lab Sample ID **1204074478**
Instrument: **VOA3.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **WATER**
Analysis Date: **07/21/2018 10:55**
Dilution: 1
Batch ID: **1784646**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
110-82-7	LCS	Cyclohexane	50.0	0.0	51.2	102	70-130
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	53.9	108	70-130
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	55.9	112	70-130
71-43-2	LCS	Benzene	50.0	0.0	52.6	105	70-130
79-01-6	LCS	Trichloroethylene	50.0	0.0	53.4	107	70-130
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	54.3	109	70-130
108-87-2	LCS	Methylcyclohexane	50.0	0.0	53.7	107	70-130
75-27-4	LCS	Bromodichloromethane	50.0	0.0	57.6	115	70-130
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	62.9	126	70-130
108-88-3	LCS	Toluene	50.0	0.0	50.8	102	70-130
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	57.2	114	70-130
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	50.9	102	70-130
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	46.2	92	70-130
124-48-1	LCS	Dibromochloromethane	50.0	0.0	54.2	108	70-130
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	52.9	106	70-130
108-90-7	LCS	Chlorobenzene	50.0	0.0	46.6	93	70-130
100-41-4	LCS	Ethylbenzene	50.0	0.0	51.0	102	70-130
95-47-6	LCS	o-Xylene	50.0	0.0	52.0	104	70-130
100-42-5	LCS	Styrene	50.0	0.0	54.1	108	70-130
75-25-2	LCS	Bromoform	50.0	0.0	57.6	115	70-130
98-82-8	LCS	Isopropylbenzene	50.0	0.0	49.2	98	70-130
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	52.1	104	70-130

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **LCS for batch 1784646**
Lab Sample ID **1204074478**
Instrument: **VOA3.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **WATER**
Analysis Date: **07/21/2018 10:55**
Dilution: 1
Batch ID: **1784646**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	48.6	97	70-130
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	49.3	99	70-130
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	57.4	115	70-130
87-61-6	LCS	1,2,3-Trichlorobenzene	50.0	0.0	54.4	109	70-130
120-82-1	LCS	1,2,4-Trichlorobenzene	50.0	0.0	54.0	108	70-130
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	51.3	103	70-130

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **B3JVK9PS**
Lab Sample ID **1204074479**
Instrument: **VOA3.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Post Spike**
Matrix: **WATER**
Analysis Date: **07/21/2018 21:48**
Dilution: 1
Batch ID: **1784646**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
179601-23-1	PS	m,p-Xylenes	100	0.00	U	87.2	87	70-130
67-64-1	PS	Acetone	250	0.00	U	125	50 *	70-130
79-20-9	PS	Methyl acetate	250	0.00	U	260	104	70-130
75-15-0	PS	Carbon disulfide	250	0.00	U	275	110	70-130
78-93-3	PS	2-Butanone	250	0.00	U	182	73	70-130
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	218	87	70-130
591-78-6	PS	2-Hexanone	250	0.00	U	175	70	70-130
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	45.5	91	70-130
74-87-3	PS	Chloromethane	50.0	0.00	U	41.8	84	70-130
75-01-4	PS	Vinyl chloride	50.0	0.00	U	44.5	89	70-130
74-83-9	PS	Bromomethane	50.0	0.00	U	46.2	92	70-130
75-00-3	PS	Chloroethane	50.0	0.00	U	46.4	93	70-130
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	48.9	98	70-130
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	56.4	113	70-130
75-09-2	PS	Methylene chloride	50.0	0.00	U	55.1	110	70-130
1634-04-4	PS	tert-Butyl methyl ether	50.0	0.00	U	57.0	114	70-130
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	52.8	106	70-130
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	52.7	105	70-130
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	52.9	106	70-130
74-97-5	PS	Bromochloromethane	50.0	0.00	U	48.9	98	70-130
67-66-3	PS	Chloroform	50.0	0.00	U	55.1	110	70-130
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	54.4	109	70-130

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **B3JVK9PS**
Lab Sample ID **1204074479**
Instrument: **VOA3.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Post Spike**
Matrix: **WATER**
Analysis Date: **07/21/2018 21:48**
Dilution: 1
Batch ID: **1784646**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
110-82-7	PS	Cyclohexane	50.0	0.00	U	48.1	96	70-130
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	54.5	109	70-130
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	55.8	112	70-130
71-43-2	PS	Benzene	50.0	0.00	U	49.2	98	70-130
79-01-6	PS	Trichloroethylene	50.0	0.00	U	51.1	102	70-130
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	51.4	103	70-130
108-87-2	PS	Methylcyclohexane	50.0	0.00	U	50.9	102	70-130
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	55.5	111	70-130
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	56.9	114	70-130
108-88-3	PS	Toluene	50.0	0.00	U	44.9	90	70-130
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	51.3	103	70-130
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	46.2	92	70-130
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	41.0	82	70-130
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	48.6	97	70-130
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	46.7	93	70-130
108-90-7	PS	Chlorobenzene	50.0	0.00	U	43.3	87	70-130
100-41-4	PS	Ethylbenzene	50.0	0.00	U	45.4	91	70-130
95-47-6	PS	o-Xylene	50.0	0.00	U	44.9	90	70-130
100-42-5	PS	Styrene	50.0	0.00	U	46.7	93	70-130
75-25-2	PS	Bromoform	50.0	0.00	U	52.2	104	70-130
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	47.0	94	70-130
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	49.5	99	70-130

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Sample Type: **Post Spike**
Client ID: **B3JVK9PS**
Matrix: **WATER**
Lab Sample ID **1204074479**
Instrument: **VOA3.I**
Analysis Date: **07/21/2018 21:48**
Dilution: 1
Analyst: **JP1**
Purge Vol: **5 mL**
Batch ID: **1784646**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	42.5	85	70-130
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	42.7	85	70-130
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	51.0	102	70-130
87-61-6	PS	1,2,3-Trichlorobenzene	50.0	0.00	U	41.8	84	70-130
120-82-1	PS	1,2,4-Trichlorobenzene	50.0	0.00	U	40.3	81	70-130
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	42.9	86	70-130

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **B3JVK9PSD**
Lab Sample ID **1204074480**
Instrument: **VOA3.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Post Spike Duplicate**
Matrix: **WATER**
Analysis Date: **07/21/2018 22:19**
Dilution: 1
Batch ID: **1784646**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	76.1	76	70-130	14	0-20
67-64-1	PSD	Acetone	250	0.00	U	123	49 *	70-130	1	0-20
79-20-9	PSD	Methyl acetate	250	0.00	U	263	105	70-130	1	0-20
75-15-0	PSD	Carbon disulfide	250	0.00	U	273	109	70-130	1	0-20
78-93-3	PSD	2-Butanone	250	0.00	U	184	73	70-130	1	0-20
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	234	93	70-130	7	0-20
591-78-6	PSD	2-Hexanone	250	0.00	U	181	73	70-130	3	0-20
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	44.9	90	70-130	1	0-20
74-87-3	PSD	Chloromethane	50.0	0.00	U	41.5	83	70-130	1	0-20
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	44.8	90	70-130	1	0-20
74-83-9	PSD	Bromomethane	50.0	0.00	U	47.4	95	70-130	2	0-20
75-00-3	PSD	Chloroethane	50.0	0.00	U	45.4	91	70-130	2	0-20
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	46.4	93	70-130	5	0-20
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	56.7	113	70-130	1	0-20
75-09-2	PSD	Methylene chloride	50.0	0.00	U	55.7	111	70-130	1	0-20
1634-04-4	PSD	tert-Butyl methyl ether	50.0	0.00	U	58.7	117	70-130	3	0-20
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	52.7	105	70-130	0	0-20
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	52.2	104	70-130	1	0-20
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	53.1	106	70-130	0	0-20
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	49.3	99	70-130	1	0-20
67-66-3	PSD	Chloroform	50.0	0.00	U	53.9	108	70-130	2	0-20
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	53.2	106	70-130	2	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **B3JVK9PSD**
Lab Sample ID **1204074480**
Instrument: **VOA3.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Post Spike Duplicate**
Matrix: **WATER**
Analysis Date: **07/21/2018 22:19**
Dilution: 1
Batch ID: **1784646**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
110-82-7	PSD	Cyclohexane	50.0	0.00	U	46.9	94	70-130	3	0-20
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	52.6	105	70-130	4	0-20
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	55.4	111	70-130	1	0-20
71-43-2	PSD	Benzene	50.0	0.00	U	50.5	101	70-130	3	0-20
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	50.3	101	70-130	2	0-20
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	51.7	103	70-130	1	0-20
108-87-2	PSD	Methylcyclohexane	50.0	0.00	U	48.8	98	70-130	4	0-20
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	55.8	112	70-130	1	0-20
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	56.1	112	70-130	1	0-20
108-88-3	PSD	Toluene	50.0	0.00	U	43.3	87	70-130	4	0-20
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	52.4	105	70-130	2	0-20
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	46.8	94	70-130	1	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	38.1	76	70-130	7	0-20
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	49.4	99	70-130	2	0-20
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	45.8	92	70-130	2	0-20
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	41.2	82	70-130	5	0-20
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	42.2	84	70-130	7	0-20
95-47-6	PSD	o-Xylene	50.0	0.00	U	41.9	84	70-130	7	0-20
100-42-5	PSD	Styrene	50.0	0.00	U	43.5	87	70-130	7	0-20
75-25-2	PSD	Bromoform	50.0	0.00	U	52.4	105	70-130	0	0-20
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	39.2	78	70-130	18	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	48.9	98	70-130	1	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **B3JVK9PSD**
Lab Sample ID **1204074480**
Instrument: **VOA3.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Post Spike Duplicate**
Matrix: **WATER**
Analysis Date: **07/21/2018 22:19**
Dilution: 1
Batch ID: **1784646**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	38.1	76	70-130	11	0-20
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	37.0	74	70-130	15	0-20
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	51.3	103	70-130	1	0-20
87-61-6	PSD	1,2,3-Trichlorobenzene	50.0	0.00	U	41.6	83	70-130	0	0-20
120-82-1	PSD	1,2,4-Trichlorobenzene	50.0	0.00	U	39.0	78	70-130	3	0-20
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	41.2	82	70-130	4	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **LCS for batch 1785343**
Lab Sample ID **1204076133**
Instrument: **VOA3.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **07/24/2018 11:12**
Dilution: 1
Prep Batch ID: **1785343**
Batch ID: **1785349**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
179601-23-1	LCS	m,p-Xylenes	100	0.0	94.8	95	70-130
67-64-1	LCS	Acetone	250	0.0	247	99	70-130
79-20-9	LCS	Methyl acetate	250	0.0	309	124	70-130
75-15-0	LCS	Carbon disulfide	250	0.0	308	123	70-130
78-93-3	LCS	2-Butanone	250	0.0	291	116	70-130
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	242	97	70-130
591-78-6	LCS	2-Hexanone	250	0.0	248	99	70-130
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	56.6	113	70-130
74-87-3	LCS	Chloromethane	50.0	0.0	47.5	95	70-130
75-01-4	LCS	Vinyl chloride	50.0	0.0	51.4	103	70-130
74-83-9	LCS	Bromomethane	50.0	0.0	58.8	118	70-130
75-00-3	LCS	Chloroethane	50.0	0.0	61.5	123	70-130
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	54.8	110	70-130
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	60.6	121	70-130
75-09-2	LCS	Methylene chloride	50.0	0.0	60.6	121	70-130
1634-04-4	LCS	tert-Butyl methyl ether	50.0	0.0	63.8	128	70-130
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	56.0	112	70-130
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	54.6	109	70-130
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	58.9	118	70-130
74-97-5	LCS	Bromochloromethane	50.0	0.0	54.4	109	70-130
67-66-3	LCS	Chloroform	50.0	0.0	56.3	113	70-130
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	54.8	110	70-130

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **LCS for batch 1785343**
Lab Sample ID **1204076133**
Instrument: **VOA3.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **07/24/2018 11:12**
Dilution: 1
Prep Batch ID: **1785343**
Batch ID: **1785349**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
110-82-7	LCS	Cyclohexane	50.0	0.0	54.4	109	70-130
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	55.1	110	70-130
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	50.9	102	70-130
71-43-2	LCS	Benzene	50.0	0.0	54.0	108	70-130
79-01-6	LCS	Trichloroethylene	50.0	0.0	55.9	112	70-130
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	54.9	110	70-130
108-87-2	LCS	Methylcyclohexane	50.0	0.0	55.1	110	70-130
75-27-4	LCS	Bromodichloromethane	50.0	0.0	57.4	115	70-130
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	63.3	127	70-130
108-88-3	LCS	Toluene	50.0	0.0	47.6	95	70-130
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	54.0	108	70-130
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	49.8	100	70-130
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	46.4	93	70-130
124-48-1	LCS	Dibromochloromethane	50.0	0.0	51.6	103	70-130
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	53.3	107	70-130
108-90-7	LCS	Chlorobenzene	50.0	0.0	47.9	96	70-130
100-41-4	LCS	Ethylbenzene	50.0	0.0	48.9	98	70-130
95-47-6	LCS	o-Xylene	50.0	0.0	49.7	99	70-130
100-42-5	LCS	Styrene	50.0	0.0	50.9	102	70-130
75-25-2	LCS	Bromoform	50.0	0.0	54.4	109	70-130
98-82-8	LCS	Isopropylbenzene	50.0	0.0	48.9	98	70-130
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	52.4	105	70-130

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **LCS for batch 1785343**
Lab Sample ID **1204076133**
Instrument: **VOA3.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **07/24/2018 11:12**
Dilution: 1
Prep Batch ID: **1785343**
Batch ID: **1785349**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	48.0	96	70-130
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	46.9	94	70-130
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	55.3	111	70-130
87-61-6	LCS	1,2,3-Trichlorobenzene	50.0	0.0	53.3	107	70-130
120-82-1	LCS	1,2,4-Trichlorobenzene	50.0	0.0	55.0	110	70-130
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	48.0	96	70-130

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **SW06PS**
Lab Sample ID **1204076134**
Instrument: **VOA3.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Post Spike**
Matrix: **SOIL**
%Moisture: **8.2**
Analysis Date: **07/24/2018 21:06**
Prep Batch ID: **1785343**
Batch ID: **1785349**

Dilution: 50

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
67-64-1	PS	Acetone	250	0.00	U	188	75	70-130
79-20-9	PS	Methyl acetate	250	0.00	U	246	98	70-130
75-15-0	PS	Carbon disulfide	250	0.00	U	245	98	70-130
78-93-3	PS	2-Butanone	250	0.00	U	215	86	70-130
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	205	82	70-130
591-78-6	PS	2-Hexanone	250	0.00	U	183	73	70-130
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	45.9	92	70-130
74-87-3	PS	Chloromethane	50.0	0.00	U	43.4	87	70-130
75-01-4	PS	Vinyl chloride	50.0	0.00	U	47.9	96	70-130
74-83-9	PS	Bromomethane	50.0	0.00	U	15.4	31 *	70-130
75-00-3	PS	Chloroethane	50.0	0.00	U	4.26	9 *	70-130
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	46.9	94	70-130
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	49.6	99	70-130
75-09-2	PS	Methylene chloride	50.0	0.00	U	53.1	106	70-130
1634-04-4	PS	tert-Butyl methyl ether	50.0	0.00	U	53.2	106	70-130
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	48.5	97	70-130
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	49.1	98	70-130
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	50.0	100	70-130
74-97-5	PS	Bromochloromethane	50.0	0.00	U	46.7	93	70-130
67-66-3	PS	Chloroform	50.0	0.00	U	51.1	102	70-130
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	49.7	99	70-130
110-82-7	PS	Cyclohexane	50.0	0.00	U	45.9	92	70-130

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **SW06PS**
Lab Sample ID **1204076134**
Instrument: **VOA3.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Post Spike**
Matrix: **SOIL**
%Moisture: **8.2**
Analysis Date: **07/24/2018 21:06**
Prep Batch ID: **1785343**
Batch ID: **1785349**

Dilution: 50

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	47.5	95	70-130
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	53.6	107	70-130
71-43-2	PS	Benzene	50.0	0.00	U	48.6	97	70-130
79-01-6	PS	Trichloroethylene	50.0	0.00	U	47.9	96	70-130
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	49.7	99	70-130
108-87-2	PS	Methylcyclohexane	50.0	0.00	U	46.9	94	70-130
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	52.5	105	70-130
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	57.0	114	70-130
108-88-3	PS	Toluene	50.0	0.00	U	42.9	86	70-130
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	50.1	100	70-130
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	44.4	89	70-130
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	38.0	76	70-130
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	44.8	90	70-130
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	44.0	88	70-130
108-90-7	PS	Chlorobenzene	50.0	0.00	U	43.0	86	70-130
100-41-4	PS	Ethylbenzene	50.0	0.00	U	42.6	85	70-130
95-47-6	PS	o-Xylene	50.0	0.00	U	43.2	86	70-130
100-42-5	PS	Styrene	50.0	0.00	U	44.9	90	70-130
75-25-2	PS	Bromoform	50.0	0.00	U	46.0	92	70-130
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	45.4	91	70-130
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	45.1	90	70-130
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	41.1	82	70-130

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**454944**	**Sample Type:**	**Post Spike**	
Client ID:	**SW06PS**	**Matrix:**	**SOIL**	
Lab Sample ID	**1204076134**	**%Moisture:**	**8.2**	
Instrument:	**VOA3.I**	**Analysis Date:**	**07/24/2018 21:06**	**Dilution: 50**
Analyst:	**JP1**	**Prep Batch ID:**	**1785343**	
Purge Vol:	**5 mL**	**Batch ID:**	**1785349**	

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	41.2	82	70-130
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	41.8	84	70-130
87-61-6	PS	1,2,3-Trichlorobenzene	50.0	0.00	U	42.8	86	70-130
120-82-1	PS	1,2,4-Trichlorobenzene	50.0	0.00	U	41.6	83	70-130
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	43.1	86	70-130
179601-23-1	PS	m,p-Xylenes	100	0.00	U	81.6	82	70-130

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **SW06REPS**
Lab Sample ID **1204076134**
Instrument: **VOA3.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Post Spike**
Matrix: **SOIL**
%Moisture: **8.2**
Analysis Date: **07/27/2018 22:37**
Prep Batch ID: **1785343**
Batch ID: **1785349**

Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
179601-23-1	PS	m,p-Xylenes	100	0.00	U	51.5	51 *	70-130
79-20-9	PS	Methyl acetate	250	0.00	U	181	72	70-130
75-15-0	PS	Carbon disulfide	250	0.00	U	186	75	70-130
78-93-3	PS	2-Butanone	250	0.00	U	126	51 *	70-130
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	86.0	34 *	70-130
591-78-6	PS	2-Hexanone	250	0.00	U	23.3	9 *	70-130
67-64-1	PS	Acetone	250	11.5		221	84	70-130
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	54.3	109	70-130
74-87-3	PS	Chloromethane	50.0	0.00	U	67.6	135 *	70-130
75-01-4	PS	Vinyl chloride	50.0	0.00	U	60.6	121	70-130
74-83-9	PS	Bromomethane	50.0	0.00	U	57.4	115	70-130
75-00-3	PS	Chloroethane	50.0	0.00	U	57.0	114	70-130
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	56.4	113	70-130
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	42.2	84	70-130
75-09-2	PS	Methylene chloride	50.0	0.00	U	48.7	97	70-130
1634-04-4	PS	tert-Butyl methyl ether	50.0	0.00	U	46.8	94	70-130
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	32.8	66 *	70-130
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	40.3	81	70-130
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	31.5	63 *	70-130
74-97-5	PS	Bromochloromethane	50.0	0.00	U	31.2	62 *	70-130
67-66-3	PS	Chloroform	50.0	0.00	U	41.2	82	70-130
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	44.8	90	70-130

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **SW06REPS**
Lab Sample ID **1204076134**
Instrument: **VOA3.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Post Spike**
Matrix: **SOIL**
%Moisture: **8.2**
Analysis Date: **07/27/2018 22:37**
Prep Batch ID: **1785343**
Batch ID: **1785349**

Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
110-82-7	PS	Cyclohexane	50.0	0.00	U	27.4	55 *	70-130
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	42.6	85	70-130
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	28.8	58 *	70-130
71-43-2	PS	Benzene	50.0	0.00	U	27.5	55 *	70-130
79-01-6	PS	Trichloroethylene	50.0	0.00	U	23.5	47 *	70-130
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	26.2	52 *	70-130
108-87-2	PS	Methylcyclohexane	50.0	0.00	U	23.4	47 *	70-130
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	29.5	59 *	70-130
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	14.1	28 *	70-130
108-88-3	PS	Toluene	50.0	0.00	U	34.9	70	70-130
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	16.1	32 *	70-130
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	31.3	63 *	70-130
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	36.2	72	70-130
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	31.2	62 *	70-130
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	13.3	27 *	70-130
108-90-7	PS	Chlorobenzene	50.0	0.00	U	20.4	41 *	70-130
100-41-4	PS	Ethylbenzene	50.0	0.00	U	29.7	59 *	70-130
95-47-6	PS	o-Xylene	50.0	0.00	U	20.3	41 *	70-130
100-42-5	PS	Styrene	50.0	0.00	U	13.3	27 *	70-130
75-25-2	PS	Bromoform	50.0	0.00	U	30.4	61 *	70-130
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	62.3	125	70-130
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	25.4	51 *	70-130

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **SW06REPS**
Lab Sample ID **1204076134**
Instrument: **VOA3.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Post Spike**
Matrix: **SOIL**
%Moisture: **8.2**
Analysis Date: **07/27/2018 22:37**
Prep Batch ID: **1785343**
Batch ID: **1785349**

Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	25.0	50 *	70-130
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	21.9	44 *	70-130
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	5.61	11 *	70-130
87-61-6	PS	1,2,3-Trichlorobenzene	50.0	0.00	U	8.55	17 *	70-130
120-82-1	PS	1,2,4-Trichlorobenzene	50.0	0.00	U	8.76	18 *	70-130
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	18.1	36 *	70-130

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **SW06PSD**
Lab Sample ID **1204076135**
Instrument: **VOA3.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Post Spike Duplicate**
Matrix: **SOIL**
%Moisture: **8.2**
Analysis Date: **07/24/2018 21:37**
Prep Batch ID: **1785343**
Batch ID: **1785349**

Dilution: 50

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
67-64-1	PSD	Acetone	250	0.00	U	201	80	70-130	7	0-20
79-20-9	PSD	Methyl acetate	250	0.00	U	273	109	70-130	10	0-20
75-15-0	PSD	Carbon disulfide	250	0.00	U	240	96	70-130	2	0-20
78-93-3	PSD	2-Butanone	250	0.00	U	227	91	70-130	5	0-20
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	224	89	70-130	9	0-20
591-78-6	PSD	2-Hexanone	250	0.00	U	204	82	70-130	11	0-20
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	49.5	99	70-130	7	0-20
74-87-3	PSD	Chloromethane	50.0	0.00	U	49.3	99	70-130	13	0-20
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	54.2	108	70-130	12	0-20
74-83-9	PSD	Bromomethane	50.0	0.00	U	13.8	28 *	70-130	11	0-20
75-00-3	PSD	Chloroethane	50.0	0.00	U	3.95	8 *	70-130	8	0-20
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	50.1	100	70-130	7	0-20
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	48.3	97	70-130	3	0-20
75-09-2	PSD	Methylene chloride	50.0	0.00	U	50.1	100	70-130	6	0-20
1634-04-4	PSD	tert-Butyl methyl ether	50.0	0.00	U	55.8	112	70-130	5	0-20
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	46.5	93	70-130	4	0-20
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	46.1	92	70-130	6	0-20
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	46.1	92	70-130	8	0-20
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	44.6	89	70-130	5	0-20
67-66-3	PSD	Chloroform	50.0	0.00	U	48.4	97	70-130	5	0-20
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	46.1	92	70-130	8	0-20
110-82-7	PSD	Cyclohexane	50.0	0.00	U	41.0	82	70-130	11	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **SW06PSD**
Lab Sample ID **1204076135**
Instrument: **VOA3.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Post Spike Duplicate**
Matrix: **SOIL**
%Moisture: **8.2**
Analysis Date: **07/24/2018 21:37**
Prep Batch ID: **1785343**
Batch ID: **1785349**
Dilution: **50**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	45.3	91	70-130	5	0-20
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	51.4	103	70-130	4	0-20
71-43-2	PSD	Benzene	50.0	0.00	U	45.5	91	70-130	7	0-20
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	43.5	87	70-130	10	0-20
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	46.0	92	70-130	8	0-20
108-87-2	PSD	Methylcyclohexane	50.0	0.00	U	41.7	83	70-130	12	0-20
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	51.2	102	70-130	3	0-20
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	52.3	105	70-130	9	0-20
108-88-3	PSD	Toluene	50.0	0.00	U	38.8	78	70-130	10	0-20
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	48.2	96	70-130	4	0-20
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	45.6	91	70-130	3	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	31.7	63 *	70-130	18	0-20
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	43.8	88	70-130	2	0-20
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	43.7	87	70-130	1	0-20
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	35.5	71	70-130	19	0-20
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	32.6	65 *	70-130	27 *	0-20
95-47-6	PSD	o-Xylene	50.0	0.00	U	32.7	65 *	70-130	28 *	0-20
100-42-5	PSD	Styrene	50.0	0.00	U	34.6	69 *	70-130	26 *	0-20
75-25-2	PSD	Bromoform	50.0	0.00	U	46.5	93	70-130	1	0-20
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	31.7	63 *	70-130	35 *	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	44.2	88	70-130	2	0-20
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	31.2	62 *	70-130	27 *	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **SW06PSD**
Lab Sample ID **1204076135**
Instrument: **VOA3.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Post Spike Duplicate**
Matrix: **SOIL**
%Moisture: **8.2**
Analysis Date: **07/24/2018 21:37**
Prep Batch ID: **1785343**
Batch ID: **1785349**

Dilution: **50**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	31.0	62 *	70-130	28 *	0-20
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	48.2	96	70-130	14	0-20
87-61-6	PSD	1,2,3-Trichlorobenzene	50.0	0.00	U	34.7	69 *	70-130	21 *	0-20
120-82-1	PSD	1,2,4-Trichlorobenzene	50.0	0.00	U	33.2	66 *	70-130	22 *	0-20
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	33.2	66 *	70-130	26 *	0-20
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	64.4	64 *	70-130	24 *	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **SW06REPSD**
Lab Sample ID **1204076135**
Instrument: **VOA3.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Post Spike Duplicate**
Matrix: **SOIL**
%Moisture: **8.2**
Analysis Date: **07/27/2018 23:09**
Prep Batch ID: **1785343**
Batch ID: **1785349**
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	53.2	53 *	70-130	3	0-20
79-20-9	PSD	Methyl acetate	250	0.00	U	188	75	70-130	4	0-20
75-15-0	PSD	Carbon disulfide	250	0.00	U	204	82	70-130	9	0-20
78-93-3	PSD	2-Butanone	250	0.00	U	116	46 *	70-130	9	0-20
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	53.5	21 *	70-130	47 *	0-20
591-78-6	PSD	2-Hexanone	250	0.00	U	13.2	5 *	70-130	55 *	0-20
67-64-1	PSD	Acetone	250	11.5		236	90	70-130	6	0-20
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	60.9	122	70-130	11	0-20
74-87-3	PSD	Chloromethane	50.0	0.00	U	78.7	157 *	70-130	15	0-20
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	68.1	136 *	70-130	12	0-20
74-83-9	PSD	Bromomethane	50.0	0.00	U	60.2	120	70-130	5	0-20
75-00-3	PSD	Chloroethane	50.0	0.00	U	63.8	128	70-130	11	0-20
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	57.9	116	70-130	3	0-20
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	45.2	90	70-130	7	0-20
75-09-2	PSD	Methylene chloride	50.0	0.00	U	52.2	104	70-130	7	0-20
1634-04-4	PSD	tert-Butyl methyl ether	50.0	0.00	U	48.7	97	70-130	4	0-20
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	32.5	65 *	70-130	1	0-20
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	43.0	86	70-130	6	0-20
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	31.2	62 *	70-130	1	0-20
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	32.3	65 *	70-130	3	0-20
67-66-3	PSD	Chloroform	50.0	0.00	U	41.6	83	70-130	1	0-20
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	45.0	90	70-130	0	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **SW06REPSD**
Lab Sample ID **1204076135**
Instrument: **VOA3.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Post Spike Duplicate**
Matrix: **SOIL**
%Moisture: **8.2**
Analysis Date: **07/27/2018 23:09**
Prep Batch ID: **1785343**
Batch ID: **1785349**

Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
110-82-7	PSD	Cyclohexane	50.0	0.00	U	28.1	56 *	70-130	3	0-20
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	44.0	88	70-130	3	0-20
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	26.3	53 *	70-130	9	0-20
71-43-2	PSD	Benzene	50.0	0.00	U	26.4	53 *	70-130	4	0-20
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	24.0	48 *	70-130	2	0-20
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	22.4	45 *	70-130	16	0-20
108-87-2	PSD	Methylcyclohexane	50.0	0.00	U	24.5	49 *	70-130	5	0-20
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	25.2	50 *	70-130	16	0-20
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	11.6	23 *	70-130	20	0-20
108-88-3	PSD	Toluene	50.0	0.00	U	34.4	69 *	70-130	1	0-20
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	12.1	24 *	70-130	28 *	0-20
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	23.4	47 *	70-130	29 *	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	36.0	72	70-130	1	0-20
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	22.7	45 *	70-130	31 *	0-20
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	9.82	20 *	70-130	30 *	0-20
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	19.4	39 *	70-130	5	0-20
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	29.6	59 *	70-130	0	0-20
95-47-6	PSD	o-Xylene	50.0	0.00	U	20.0	40 *	70-130	1	0-20
100-42-5	PSD	Styrene	50.0	0.00	U	12.8	26 *	70-130	4	0-20
75-25-2	PSD	Bromoform	50.0	0.00	U	18.5	37 *	70-130	49 *	0-20
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	55.3	111	70-130	12	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	14.2	28 *	70-130	57 *	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **SW06REPSD**
Lab Sample ID **1204076135**
Instrument: **VOA3.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Post Spike Duplicate**
Matrix: **SOIL**
%Moisture: **8.2**
Analysis Date: **07/27/2018 23:09**
Prep Batch ID: **1785343**
Batch ID: **1785349**

Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	21.7	43 *	70-130	14	0-20
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	18.7	37 *	70-130	16	0-20
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	2.45	5 *	70-130	78 *	0-20
87-61-6	PSD	1,2,3-Trichlorobenzene	50.0	0.00	U	6.40	13 *	70-130	29 *	0-20
120-82-1	PSD	1,2,4-Trichlorobenzene	50.0	0.00	U	7.61	15 *	70-130	14	0-20
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	14.7	29 *	70-130	21 *	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **LCS for batch 1784646**
Lab Sample ID **1204076675**
Instrument: **VOA3.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **WATER**
Analysis Date: **07/24/2018 10:40**
Dilution: 1
Batch ID: **1784646**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
179601-23-1	LCS	m,p-Xylenes	100	0.0	99.0	99	70-130
67-64-1	LCS	Acetone	250	0.0	230	92	70-130
79-20-9	LCS	Methyl acetate	250	0.0	284	114	70-130
75-15-0	LCS	Carbon disulfide	250	0.0	294	118	70-130
78-93-3	LCS	2-Butanone	250	0.0	280	112	70-130
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	247	99	70-130
591-78-6	LCS	2-Hexanone	250	0.0	236	95	70-130
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	54.1	108	70-130
74-87-3	LCS	Chloromethane	50.0	0.0	46.6	93	70-130
75-01-4	LCS	Vinyl chloride	50.0	0.0	50.9	102	70-130
74-83-9	LCS	Bromomethane	50.0	0.0	53.0	106	70-130
75-00-3	LCS	Chloroethane	50.0	0.0	55.9	112	70-130
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	52.6	105	70-130
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	56.7	113	70-130
75-09-2	LCS	Methylene chloride	50.0	0.0	58.9	118	70-130
1634-04-4	LCS	tert-Butyl methyl ether	50.0	0.0	58.7	117	70-130
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	53.7	107	70-130
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	52.3	105	70-130
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	56.6	113	70-130
74-97-5	LCS	Bromochloromethane	50.0	0.0	52.9	106	70-130
67-66-3	LCS	Chloroform	50.0	0.0	53.2	106	70-130
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	52.2	104	70-130

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **LCS for batch 1784646**
Lab Sample ID **1204076675**
Instrument: **VOA3.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **WATER**
Analysis Date: **07/24/2018 10:40**
Dilution: 1
Batch ID: **1784646**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
110-82-7	LCS	Cyclohexane	50.0	0.0	53.3	107	70-130
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	50.8	102	70-130
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	50.1	100	70-130
71-43-2	LCS	Benzene	50.0	0.0	53.6	107	70-130
79-01-6	LCS	Trichloroethylene	50.0	0.0	54.7	109	70-130
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	52.7	105	70-130
108-87-2	LCS	Methylcyclohexane	50.0	0.0	55.6	111	70-130
75-27-4	LCS	Bromodichloromethane	50.0	0.0	55.3	111	70-130
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	63.9	128	70-130
108-88-3	LCS	Toluene	50.0	0.0	51.8	104	70-130
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	55.9	112	70-130
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	53.2	106	70-130
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	48.9	98	70-130
124-48-1	LCS	Dibromochloromethane	50.0	0.0	53.2	106	70-130
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	52.3	105	70-130
108-90-7	LCS	Chlorobenzene	50.0	0.0	51.6	103	70-130
100-41-4	LCS	Ethylbenzene	50.0	0.0	51.1	102	70-130
95-47-6	LCS	o-Xylene	50.0	0.0	51.9	104	70-130
100-42-5	LCS	Styrene	50.0	0.0	52.9	106	70-130
75-25-2	LCS	Bromoform	50.0	0.0	55.2	110	70-130
98-82-8	LCS	Isopropylbenzene	50.0	0.0	51.4	103	70-130
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	51.2	102	70-130

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Sample Type: **Laboratory Control Sample**
Client ID: **LCS for batch 1784646**
Matrix: **WATER**
Lab Sample ID **1204076675**
Instrument: **VOA3.I**
Analysis Date: **07/24/2018 10:40**
Dilution: 1
Analyst: **JP1**
Purge Vol: **5 mL**
Batch ID: **1784646**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	49.9	100	70-130
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	48.0	96	70-130
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	54.1	108	70-130
87-61-6	LCS	1,2,3-Trichlorobenzene	50.0	0.0	54.0	108	70-130
120-82-1	LCS	1,2,4-Trichlorobenzene	50.0	0.0	56.2	112	70-130
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	50.2	100	70-130

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **LCS for batch 1785343**
Lab Sample ID **1204079887**
Instrument: **VOA3.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **07/27/2018 12:45**
Dilution: 1
Prep Batch ID: **1785343**
Batch ID: **1785349**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
179601-23-1	LCS	m,p-Xylenes	100	0.0	83.5	83	70-130
67-64-1	LCS	Acetone	250	0.0	207	83	70-130
79-20-9	LCS	Methyl acetate	250	0.0	208	83	70-130
75-15-0	LCS	Carbon disulfide	250	0.0	234	94	70-130
78-93-3	LCS	2-Butanone	250	0.0	245	98	70-130
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	229	92	70-130
591-78-6	LCS	2-Hexanone	250	0.0	233	93	70-130
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	40.7	81	70-130
74-87-3	LCS	Chloromethane	50.0	0.0	39.4	79	70-130
75-01-4	LCS	Vinyl chloride	50.0	0.0	43.8	88	70-130
74-83-9	LCS	Bromomethane	50.0	0.0	47.5	95	70-130
75-00-3	LCS	Chloroethane	50.0	0.0	47.0	94	70-130
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	45.4	91	70-130
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	45.7	91	70-130
75-09-2	LCS	Methylene chloride	50.0	0.0	48.4	97	70-130
1634-04-4	LCS	tert-Butyl methyl ether	50.0	0.0	52.8	106	70-130
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	44.0	88	70-130
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	42.3	85	70-130
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	46.8	94	70-130
74-97-5	LCS	Bromochloromethane	50.0	0.0	45.1	90	70-130
67-66-3	LCS	Chloroform	50.0	0.0	45.1	90	70-130
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	43.4	87	70-130

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **LCS for batch 1785343**
Lab Sample ID **1204079887**
Instrument: **VOA3.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **07/27/2018 12:45**
Dilution: 1
Prep Batch ID: **1785343**
Batch ID: **1785349**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
110-82-7	LCS	Cyclohexane	50.0	0.0	42.5	85	70-130
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	42.9	86	70-130
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	44.1	88	70-130
71-43-2	LCS	Benzene	50.0	0.0	45.4	91	70-130
79-01-6	LCS	Trichloroethylene	50.0	0.0	45.5	91	70-130
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	44.8	90	70-130
108-87-2	LCS	Methylcyclohexane	50.0	0.0	44.7	89	70-130
75-27-4	LCS	Bromodichloromethane	50.0	0.0	47.3	95	70-130
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	52.8	106	70-130
108-88-3	LCS	Toluene	50.0	0.0	42.9	86	70-130
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	50.3	101	70-130
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	46.3	93	70-130
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	40.1	80	70-130
124-48-1	LCS	Dibromochloromethane	50.0	0.0	46.1	92	70-130
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	47.2	94	70-130
108-90-7	LCS	Chlorobenzene	50.0	0.0	42.0	84	70-130
100-41-4	LCS	Ethylbenzene	50.0	0.0	41.3	83	70-130
95-47-6	LCS	o-Xylene	50.0	0.0	43.8	88	70-130
100-42-5	LCS	Styrene	50.0	0.0	44.9	90	70-130
75-25-2	LCS	Bromoform	50.0	0.0	48.6	97	70-130
98-82-8	LCS	Isopropylbenzene	50.0	0.0	44.3	89	70-130
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	45.9	92	70-130

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **LCS for batch 1785343**
Lab Sample ID **1204079887**
Instrument: **VOA3.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **07/27/2018 12:45**
Dilution: 1
Prep Batch ID: **1785343**
Batch ID: **1785349**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	41.4	83	70-130
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	40.6	81	70-130
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	48.7	97	70-130
87-61-6	LCS	1,2,3-Trichlorobenzene	50.0	0.0	45.6	91	70-130
120-82-1	LCS	1,2,4-Trichlorobenzene	50.0	0.0	46.2	92	70-130
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	41.7	83	70-130

Method Blank Summary

SDG Number:	**454944**	**Client:**	**URSC013**	**Matrix:**	**WATER**
Client ID:	**MB for batch 1784646**	**Instrument ID:**	**VOA3.I**	**Data File:**	**072118V3\3Q606B46.D**
Lab Sample ID:	**1204074477**	**Prep Date:**	**07/21/2018 12:28**	**Analyzed:**	**07/21/18 12:28**
Column:	**DB-624**				

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 1784646	1204074478	072118V3\3Q603L46.D	07/21/18	1055
02 B3JVK9PS	1204074479	072118V3\3Q624.D	07/21/18	2148
03 B3JVK9PSD	1204074480	072118V3\3Q625.D	07/21/18	2219

Method Blank Summary

SDG Number:	**454944**	**Client:**	**URSC013**	**Matrix:**	**SOIL**
Client ID:	**MB for batch 1785343**	**Instrument ID:**	**VOA3.I**	**Data File:**	**072418V3\3R207B49.D**
Lab Sample ID:	**1204076131**	**Prep Date:**	**07/24/2018 08:00**	**Analyzed:**	**07/24/18 12:47**
Column:	**DB-624**				

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 1785343	1204076133	072418V3\3R204L49.D	07/24/18	1112
02	S09	454944002	072418V3\3R212.D	07/24/18	1523
03	S06	454944003	072418V3\3R213.D	07/24/18	1554
04	SW24	454944004	072418V3\3R214.D	07/24/18	1625
05	S05	454944005	072418V3\3R215.D	07/24/18	1656
06	S14	454944006	072418V3\3R216.D	07/24/18	1727
07	S15	454944007	072418V3\3R217.D	07/24/18	1758
08	S19	454944008	072418V3\3R218.D	07/24/18	1830
09	SW22	454944009	072418V3\3R219.D	07/24/18	1901
10	S10	454944010	072418V3\3R220.D	07/24/18	1932
11	HB for batch 1785343	1204076132	072418V3\3R221.D	07/24/18	2003
12	SW06PS	1204076134	072418V3\3R223.D	07/24/18	2106
13	SW06PSD	1204076135	072418V3\3R224.D	07/24/18	2137

Method Blank Summary

SDG Number:	**454944**	**Client:**	**URSC013**	**Matrix:**	**WATER**
Client ID:	**MB for batch 1784646**	**Instrument ID:**	**VOA3.I**	**Data File:**	**072418V3\3R206B46.D**
Lab Sample ID:	**1204076674**	**Prep Date:**	**07/24/2018 12:16**	**Analyzed:**	**07/24/18 12:16**
Column:	**DB-624**				

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
05 LCS for batch 1784646	1204076675	072418V3\3R203L46.D	07/24/18	1040
06 071818TB	454944001	072418V3\3R208.D	07/24/18	1319

Method Blank Summary

SDG Number:	**454944**	**Client:**	**URSC013**	**Matrix:**	**SOIL**
Client ID:	**MB for batch 1785343**	**Instrument ID:**	**VOA3.I**	**Data File:**	**072718V3\3R508B49.D**
Lab Sample ID:	**1204079885**	**Prep Date:**	**07/27/2018 09:00**	**Analyzed:**	**07/27/18 14:18**
Column:	**DB-624**				

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
15	LCS for batch 1785343	1204079887	072718V3\3R505L49.D	07/27/18	1245
16	S09RE	454944002	072718V3\3R510.D	07/27/18	1520
17	S06RE	454944003	072718V3\3R511.D	07/27/18	1552
18	SW24RE	454944004	072718V3\3R512.D	07/27/18	1623
19	S05RE	454944005	072718V3\3R513.D	07/27/18	1654
20	S14RE	454944006	072718V3\3R514.D	07/27/18	1725
21	S15RE	454944007	072718V3\3R515.D	07/27/18	1756
22	S19RE	454944008	072718V3\3R516.D	07/27/18	1828
23	SW22RE	454944009	072718V3\3R517.D	07/27/18	1859
24	S10RE	454944010	072718V3\3R518.D	07/27/18	1930
25	SW06REPS	1204076134	072718V3\3R524.D	07/27/18	2237
26	SW06REPSD	1204076135	072718V3\3R525.D	07/27/18	2309

Instrument Performance Check

BROMOFLUOROBENZENE

Lab Name GEL Laboratories LLC **Client SDG:** 454944

Instrument ID: VOA3.I **Injection Date/Time:** 02-JUL-18 12:28

Column Description: DB-624 **Lab File ID** 070218V3\3O101.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	20.5
75	30.0 - 60.0% of mass 95	54.9
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.8
174	50.0 - 100.0% of mass 95	78.5
175	5.0 -9.0% of mass 174	6.7
176	95.0 - 101.0% of mass 174	97.6
177	5.0 - 9.0% of mass 176	6.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W3VM180702-03	070218V3\3O104.D	02-JUL-18 13:56
ICALMIX[A]	W3VM180702-04	070218V3\3O105.D	02-JUL-18 14:28
ICALMIX[A]	W3VM180702-05	070218V3\3O106.D	02-JUL-18 14:59
ICALMIX[A]	W3VM180702-06	070218V3\3O107.D	02-JUL-18 15:30
ICALMIX[A]	W3VM180702-07	070218V3\3O108.D	02-JUL-18 16:01
ICALMIX[A]	W3VM180702-08	070218V3\3O109.D	02-JUL-18 16:32
ICALMIX[A]	W3VM180702-09	070218V3\3O110.D	02-JUL-18 17:03
ICVMIX[A]01	W3VM180702-10	070218V3\3O112.D	02-JUL-18 18:05
ICALMIX[B]	W3VM180702-11	070218V3\3O113.D	02-JUL-18 18:36
ICALMIX[B]	W3VM180702-12	070218V3\3O114.D	02-JUL-18 19:07
ICALMIX[B]	W3VM180702-13	070218V3\3O115.D	02-JUL-18 19:38
ICALMIX[B]	W3VM180702-14	070218V3\3O116.D	02-JUL-18 20:10
ICALMIX[B]	W3VM180702-15	070218V3\3O117.D	02-JUL-18 20:41
ICALMIX[B]	W3VM180702-16	070218V3\3O118.D	02-JUL-18 21:12
ICALMIX[B]	W3VM180702-17	070218V3\3O119.D	02-JUL-18 21:44
ICALMIX[B]	W3VM180702-18	070218V3\3O120.D	02-JUL-18 22:15
ICVMIX[B]02	W3VM180702-19	070218V3\3O122.D	02-JUL-18 23:17

Instrument Performance Check

BROMOFLUOROBENZENE

Lab Name GEL Laboratories LLC **Client SDG:** 454944

Instrument ID: VOA3.I **Injection Date/Time:** 21-JUL-18 10:29

Column Description: DB-624 **Lab File ID** 072118V3\3Q602.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	19.4
75	30.0 - 60.0% of mass 95	56.8
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	72.8
175	5.0 -9.0% of mass 174	7.1
176	95.0 - 101.0% of mass 174	99.8
177	5.0 - 9.0% of mass 176	6.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]01	W3VM180721-01	072118V3\3Q603.D	21-JUL-18 10:55
BLK01LCS	1204074478	072118V3\3Q603L46.D	21-JUL-18 10:55
CCVMIX[B]02	W3VM180721-04	072118V3\3Q605.D	21-JUL-18 11:57
BLK01	1204074477	072118V3\3Q606B46.D	21-JUL-18 12:28
B3JVK9MS	1204074479	072118V3\3Q624.D	21-JUL-18 21:48
B3JVK9MSD	1204074480	072118V3\3Q625.D	21-JUL-18 22:19

Instrument Performance Check

BROMOFLUOROBENZENE

Lab Name GEL Laboratories LLC **Client SDG:** 454944

Instrument ID: VOA3.I **Injection Date/Time:** 24-JUL-18 09:44

Column Description: DB-624 **Lab File ID** 072418V3\3R201.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	18.9
75	30.0 - 60.0% of mass 95	55.5
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.8
174	50.0 - 100.0% of mass 95	76.3
175	5.0 -9.0% of mass 174	7.3
176	95.0 - 101.0% of mass 174	96.4
177	5.0 - 9.0% of mass 176	6.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]03	W3VM180724-01	072418V3\3R202.D	24-JUL-18 10:09
BLK02LCS	1204076675	072418V3\3R203L46.D	24-JUL-18 10:40
BLK03LCS	1204076133	072418V3\3R204L49.D	24-JUL-18 11:12
CCVMIX[B]04	W3VM180724-04	072418V3\3R205.D	24-JUL-18 11:45
BLK02	1204076674	072418V3\3R206B46.D	24-JUL-18 12:16
BLK03	1204076131	072418V3\3R207B49.D	24-JUL-18 12:47
071818TB	454944001	072418V3\3R208.D	24-JUL-18 13:19
S09	454944002	072418V3\3R212.D	24-JUL-18 15:23
S06	454944003	072418V3\3R213.D	24-JUL-18 15:54
SW24	454944004	072418V3\3R214.D	24-JUL-18 16:25
S05	454944005	072418V3\3R215.D	24-JUL-18 16:56
S14	454944006	072418V3\3R216.D	24-JUL-18 17:27
S15	454944007	072418V3\3R217.D	24-JUL-18 17:58
S19	454944008	072418V3\3R218.D	24-JUL-18 18:30
SW22	454944009	072418V3\3R219.D	24-JUL-18 19:01
S10	454944010	072418V3\3R220.D	24-JUL-18 19:32
HBLK01	1204076132	072418V3\3R221.D	24-JUL-18 20:03
SW06MS	1204076134	072418V3\3R223.D	24-JUL-18 21:06
SW06MSD	1204076135	072418V3\3R224.D	24-JUL-18 21:37

Instrument Performance Check

BROMOFLUOROBENZENE

Lab Name GEL Laboratories LLC **Client SDG:** 454944

Instrument ID: VOA3.I **Injection Date/Time:** 27-JUL-18 11:17

Column Description: DB-624 **Lab File ID** 072718V3\3R502.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	18.2
75	30.0 - 60.0% of mass 95	54.1
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	75.5
175	5.0 -9.0% of mass 174	7.3
176	95.0 - 101.0% of mass 174	99.1
177	5.0 - 9.0% of mass 176	7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]05	W3VM180727-01	072718V3\3R503.D	27-JUL-18 11:42
BLK04LCS	1204079887	072718V3\3R505L49.D	27-JUL-18 12:45
CCVMIX[B]06	W3VM180727-04	072718V3\3R506.D	27-JUL-18 13:16
BLK04	1204079885	072718V3\3R508B49.D	27-JUL-18 14:18
S09RE	454944002	072718V3\3R510.D	27-JUL-18 15:20
S06RE	454944003	072718V3\3R511.D	27-JUL-18 15:52
SW24RE	454944004	072718V3\3R512.D	27-JUL-18 16:23
S05RE	454944005	072718V3\3R513.D	27-JUL-18 16:54
S14RE	454944006	072718V3\3R514.D	27-JUL-18 17:25
S15RE	454944007	072718V3\3R515.D	27-JUL-18 17:56
S19RE	454944008	072718V3\3R516.D	27-JUL-18 18:28
SW22RE	454944009	072718V3\3R517.D	27-JUL-18 18:59
S10RE	454944010	072718V3\3R518.D	27-JUL-18 19:30
SW06REMS	1204076134	072718V3\3R524.D	27-JUL-18 22:37
SW06REMSD	1204076135	072718V3\3R525.D	27-JUL-18 23:09

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 454944

Instrument: VOA3.I

STD Analysis Time: 21-JUL-18 10:55

GC Column: DB-624

Data File: 072118V3\3Q603.D

	Fluorobenzene				Chlorobenzene-d5				1,4-Dichlorobenzene-d4			
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12 Hour STD	1208530		12.8		579451		16.3		537301		18.8	
Upper Limit	2417060		13.3		1158902		16.8		1074602		19.3	
Lower Limit	604265		12.3		289726		15.8		268651		18.3	
Sample ID												
BLK01LCS	1208530		12.8		579451		16.3		537301		18.8	
BLK01	1530090		12.8		690796		16.3		600237		18.8	
B3JVK9MS	1059944		12.8		534153		16.3		476541		18.8	
B3JVK9MSD	1090674		12.8		528640		16.3		477556		18.8	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 454944

Instrument: VOA3.I

STD Analysis Time: 24-JUL-18 10:09

GC Column: DB-624

Data File: 072418V3\3R202.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1435026		12.8	686822		16.3	622360		18.8
Upper Limit	2870052		13.3	1373644		16.8	1244720		19.3
Lower Limit	717513		12.3	343411		15.8	311180		18.3
Sample ID									
BLK02LCS	1511492		12.8	710426		16.3	678858		18.8
BLK03LCS	1443754		12.8	748836		16.3	683820		18.8
BLK02	1644603		12.8	763431		16.3	689785		18.8
BLK03	1589516		12.8	748933		16.3	645916		18.8
071818TB	1538975		12.8	719327		16.3	615957		18.8
S09	1376342		12.8	661414		16.3	559037		18.8
S06	1423328		12.8	630258		16.3	530375		18.8
SW24	1339353		12.8	649940		16.3	531361		18.8
S05	1359533		12.8	629276		16.3	547430		18.8
S14	1326521		12.8	619135		16.3	524131		18.8
S15	1306487		12.8	619951		16.3	529530		18.8
S19	1287606		12.8	619348		16.3	526600		18.8
SW22	1262568		12.8	608112		16.3	502675		18.8
S10	1284383		12.8	606922		16.3	516144		18.8
HBLK01	1222510		12.8	595603		16.3	494488		18.8
SW06MS	1222041		12.8	616911		16.3	549479		18.8
SW06MSD	1238306		12.8	605827		16.3	539215		18.8

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 454944

Instrument: VOA3.I

STD Analysis Time: 27-JUL-18 11:42

GC Column: DB-624

Data File: 072718V3\3R503.D

	Fluorobenzene				Chlorobenzene-d5				1,4-Dichlorobenzene-d4			
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12 Hour STD	1490362		12.8		703338		16.3		649423		18.8	
Upper Limit	2980724		13.3		1406676		16.8		1298846		19.3	
Lower Limit	745181		12.3		351669		15.8		324712		18.3	
Sample ID												
BLK04LCS	1674511		12.8		765447		16.3		704902		18.8	
BLK04	1526175		12.8		704938		16.3		651358		18.8	
S09RE	999491		12.8		336997	*	16.3		137178	*	18.8	
S06RE	509867	*	12.8		103828	*	16.3		41881	*	18.8	
SW24RE	519412	*	12.8		101575	*	16.3		40895	*	18.8	
S05RE	626630	*	12.8		190761	*	16.3		111797	*	18.8	
S14RE	634152	*	12.8		179222	*	16.3		89517	*	18.8	
S15RE	520317	*	12.8		109957	*	16.3		44843	*	18.8	
S19RE	737581	*	12.8		258496	*	16.3		130990	*	18.8	
SW22RE	642273	*	12.8		138711	*	16.3		59640	*	18.8	
S10RE	346916	*	12.8		73317	*	16.3		30983	*	18.8	
SW06REMS	537270	*	12.8		111041	*	16.3		52860	*	18.8	
SW06REMSD	475922	*	12.8		101964	*	16.3		53255	*	18.8	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 15:30**	**Matrix:**	**WATER**
Lab Sample ID:	**454944001**	**Date Received:**	**07/19/2018 08:55**		
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**071818TB**	**Method:**	**SW846 8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1784646**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/24/2018 13:19**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:19**				
Data File:	**072418V3\3R208.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	2.00	ug/L	0.300	2.00
79-34-5	1,1,2,2-Tetrachloroethane	U	2.00	ug/L	0.300	2.00
79-00-5	1,1,2-Trichloroethane	U	2.00	ug/L	0.300	2.00
75-34-3	1,1-Dichloroethane	U	2.00	ug/L	0.300	2.00
75-35-4	1,1-Dichloroethylene	U	2.00	ug/L	0.300	2.00
87-61-6	1,2,3-Trichlorobenzene	U	2.00	ug/L	0.300	2.00
120-82-1	1,2,4-Trichlorobenzene	U	2.00	ug/L	0.300	2.00
96-12-8	1,2-Dibromo-3-chloropropane	U	2.00	ug/L	0.500	2.00
106-93-4	1,2-Dibromoethane	U	2.00	ug/L	0.300	2.00
95-50-1	1,2-Dichlorobenzene	U	2.00	ug/L	0.300	2.00
107-06-2	1,2-Dichloroethane	U	2.00	ug/L	0.300	2.00
78-87-5	1,2-Dichloropropane	U	2.00	ug/L	0.300	2.00
541-73-1	1,3-Dichlorobenzene	U	2.00	ug/L	0.300	2.00
106-46-7	1,4-Dichlorobenzene	U	2.00	ug/L	0.300	2.00
123-91-1	1,4-Dioxane	U	50.0	ug/L	15.0	50.0
78-93-3	2-Butanone	U	10.0	ug/L	3.00	10.0
591-78-6	2-Hexanone	U	10.0	ug/L	3.00	10.0
108-10-1	4-Methyl-2-pentanone	U	10.0	ug/L	3.00	10.0
67-64-1	Acetone	U	10.0	ug/L	3.00	10.0
71-43-2	Benzene	U	2.00	ug/L	0.300	2.00
74-97-5	Bromochloromethane	U	2.00	ug/L	0.300	2.00
75-27-4	Bromodichloromethane	U	2.00	ug/L	0.300	2.00
75-25-2	Bromoform	U	2.00	ug/L	0.300	2.00
74-83-9	Bromomethane	U	2.00	ug/L	0.300	2.00
75-15-0	Carbon disulfide	U	10.0	ug/L	1.60	10.0
56-23-5	Carbon tetrachloride	U	2.00	ug/L	0.300	2.00
108-90-7	Chlorobenzene	U	2.00	ug/L	0.300	2.00
75-00-3	Chloroethane	U	2.00	ug/L	0.300	2.00
67-66-3	Chloroform	U	2.00	ug/L	0.300	2.00
74-87-3	Chloromethane	U	2.00	ug/L	0.300	2.00
110-82-7	Cyclohexane	U	2.00	ug/L	0.300	2.00
124-48-1	Dibromochloromethane	U	2.00	ug/L	0.300	2.00
75-71-8	Dichlorodifluoromethane	U	2.00	ug/L	0.300	2.00
100-41-4	Ethylbenzene	U	2.00	ug/L	0.300	2.00
98-82-8	Isopropylbenzene	U	2.00	ug/L	0.300	2.00
79-20-9	Methyl acetate	U	5.00	ug/L	1.50	5.00
108-87-2	Methylcyclohexane	U	2.00	ug/L	0.300	2.00
75-09-2	Methylene chloride	U	5.00	ug/L	1.60	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 15:30**	**Matrix:**	**WATER**
Lab Sample ID:	**454944001**	**Date Received:**	**07/19/2018 08:55**		
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**071818TB**	**Method:**	**SW846 8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1784646**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/24/2018 13:19**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:19**				
Data File:	**072418V3\3R208.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	2.00	ug/L	0.300	2.00
127-18-4	Tetrachloroethylene	U	2.00	ug/L	0.300	2.00
108-88-3	Toluene	U	2.00	ug/L	0.300	2.00
79-01-6	Trichloroethylene	U	2.00	ug/L	0.300	2.00
75-69-4	Trichlorofluoromethane	U	2.00	ug/L	0.300	2.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.60	5.00
75-01-4	Vinyl chloride	U	2.00	ug/L	0.300	2.00
156-59-2	cis-1,2-Dichloroethylene	U	2.00	ug/L	0.300	2.00
10061-01-5	cis-1,3-Dichloropropylene	U	2.00	ug/L	0.300	2.00
179601-23-1	m,p-Xylenes	U	4.00	ug/L	0.300	4.00
95-47-6	o-Xylene	U	2.00	ug/L	0.300	2.00
1634-04-4	tert-Butyl methyl ether	U	2.00	ug/L	0.300	2.00
156-60-5	trans-1,2-Dichloroethylene	U	2.00	ug/L	0.300	2.00
10061-02-6	trans-1,3-Dichloropropylene	U	2.00	ug/L	0.300	2.00

Quantitation Report
GEL Laboratories, LLC

JP
07/25/2018

KP
07/26/2018

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R208.D
Acq On : 24 Jul 2018 13:19
Operator : JP1
InstName : VOA3
Sample : |454944001|1784646|1|VOA|1|VOA8260CL|
Misc : URSC 5ML PH<2
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 25 08:29:27 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.762	12.761	1.000	1538975	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	719327	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	615957	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	1543061	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	730178	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	616472	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	278075	48.28	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	1566751	46.75	ug/L	0.00
63) Bromofluorobenzene	95	17.560	17.559	0.934	671882	55.49	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	70 - 130	97%
45) Toluene-d8	50.000	70 - 130	94%
63) Bromofluorobenzene	50.000	70 - 130	111%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane	50	4.991	4.990	0.391	1229	N.D.		
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		0.000	6.159	0.000	0	N.D.		
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	7.061	0.000	0	N.D.		
8) Ethyl ether		0.000	7.610	0.000	0	N.D.		
9) Acetone	43	8.256	8.232	0.647	5603	N.D.		
10) 1,1-Dichloroethylene		0.000	8.177	0.000	0	N.D.		
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile		0.000	8.817	0.000	0	N.D.		
13) Methyl acetate		0.000	8.854	0.000	0	N.D.		
14) Carbon disulfide	76	8.598	8.665	0.674	497	N.D.		
15) Methylene chloride	84	9.079	9.091	0.711	5933	Below Cal		90
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane	57	10.006	9.988	0.784	462	N.D.		
19) Vinyl acetate	43	10.323	10.317	0.809	199	N.D.		
20) 1,1-Dichloroethane		0.000	10.286	0.000	0	N.D.		
21) 2-Butanone		0.000	11.183	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		0.000	11.628	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	12.127	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane	62	12.439	12.438	0.975	924	N.D.		
32) Benzene	78	12.420	12.426	0.973	784	N.D.		
33) Cyclohexene		0.000	12.548	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	13.024	0.000	0m	N.D.	d	
35) Trichloroethylene		0.000	13.225	0.000	0	N.D.		
36) 2-Pentanone	43	13.396	13.396	1.050	161	N.D.		
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		0.000	13.475	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R208.D
Acq On : 24 Jul 2018 13:19
Operator : JP1
InstName : VOA3
Sample : |454944001|1784646|1|VOA|1|VOA8260CL|
Misc : URSC 5ML PH<2
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 25 08:29:27 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
39)	Dibromomethane		0.000	13.682	0.000	0	N.D.	
40)	Bromodichloromethane		0.000	13.834	0.000	0	N.D.	
41)	2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.	
42)	cis-1,3-Dichloropropylene		0.000	14.353	0.000	0	N.D.	
44)	4-Methyl-2-pentanone		0.000	14.487	0.000	0	N.D.	
46)	Toluene	91	14.761	14.755	0.905	667	N.D.	
47)	trans-1,3-Dichloroprop...		0.000	14.968	0.000	0m	N.D.	d
48)	1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.	
49)	2-Hexanone		0.000	15.413	0.000	0	N.D.	
50)	1,3-Dichloropropane		0.000	15.401	0.000	0	N.D.	
51)	Tetrachloroethylene		0.000	15.383	0.000	0	N.D.	
52)	Dibromochloromethane		0.000	15.676	0.000	0	N.D.	
53)	1,2-Dibromoethane		0.000	15.840	0.000	0	N.D.	
54)	Chlorobenzene	112	16.346	16.352	1.002	895	N.D.	
55)	1,1,1,2-Tetrachloroethane		0.000	16.419	0.000	0	N.D.	
56)	Ethylbenzene	91	16.426	16.425	1.007	555	N.D.	
57)	m,p-Xylenes	106	16.535	16.541	1.013	316	N.D.	
58)	o-Xylene		0.000	16.986	0.000	0	N.D.	
59)	Styrene	104	17.005	16.992	1.042	421	N.D.	
61)	Bromoform		0.000	17.261	0.000	0	N.D.	
62)	Isopropylbenzene	105	17.450	17.358	0.929	1322	N.D.	
64)	1,1,2,2-Tetrachloroethane		0.000	17.663	0.000	0	N.D.	
65)	1,2,3-Trichloropropane	75	17.718	17.748	0.943	367	N.D.	
66)	Bromobenzene	156	17.767	17.767	0.945	197	N.D.	
67)	n-Propylbenzene	91	17.785	17.791	0.946	872	N.D.	
68)	1,3,5-Trimethylbenzene	105	17.956	17.949	0.956	854	N.D.	
69)	2-Chlorotoluene		0.000	17.937	0.000	0	N.D.	
70)	4-Chlorotoluene	91	18.047	18.041	0.960	1317	N.D.	
71)	tert-Butylbenzene		0.000	18.321	0.000	0	N.D.	
72)	1,2,4-Trimethylbenzene	105	18.358	18.364	0.977	917	N.D.	
73)	sec-Butylbenzene	105	18.547	18.547	0.987	1023	N.D.	
74)	4-Isopropyltoluene	119	18.675	18.675	0.994	1000	N.D.	
75)	1,3-Dichlorobenzene	146	18.736	18.730	0.997	1311	N.D.	
76)	1,4-Dichlorobenzene	146	18.809	18.821	1.001	1793	N.D.	
77)	n-Butylbenzene	91	19.102	19.108	1.017	1399	N.D.	
78)	1,2-Dichlorobenzene	146	19.248	19.236	1.024	1288	N.D.	
79)	1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.	
80)	1,2,4-Trichlorobenzene	180	21.120	21.113	1.124	2489	N.D.	
81)	Hexachlorobutadiene	225	21.278	21.278	1.132	1610	N.D.	
82)	Naphthalene	128	21.498	21.491	1.144	5924	N.D.	
83)	1,2,3-Trichlorobenzene	180	21.815	21.821	1.161	2711	N.D.	
85)	Acrolein		0.000	7.927	0.000	0	N.D.	
86)	Trichlorotrifluoroethane		0.000	8.165	0.000	0	N.D.	
87)	Isopropyl Alcohol	45	8.470	8.464	0.664	3173	N.D.	
88)	Allyl chloride		0.000	8.842	0.000	0	N.D.	
89)	tert-Butyl Alcohol	59	9.226	9.220	0.723	233	N.D.	
90)	Acrylonitrile		0.000	9.531	0.000	0	N.D.	
91)	Isopropyl ether		0.000	10.317	0.000	0	N.D.	
92)	2-Chloro-1,3-butadiene		0.000	10.427	0.000	0	N.D.	
93)	Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.	
94)	Ethyl acetate	43	11.231	11.225	0.880	215	N.D.	
95)	Propionitrile		0.000	11.305	0.000	0	N.D.	
96)	Methacrylonitrile		0.000	11.512	0.000	0	N.D.	
97)	Tetrahydrofuran	42	11.622	11.597	0.911	2320	N.D.	
98)	Isobutyl alcohol		0.000	12.176	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R208.D
Acq On : 24 Jul 2018 13:19
Operator : JP1
InstName : VOA3
Sample : |454944001|1784646|1|VOA|1|VOA8260CL|
Misc : URSC 5ML PH<2
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 25 08:29:27 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		0.000	12.500	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	13.560	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	13.652	0.000	0	N.D.	
102)	2-Nitropropane		0.000	14.103	0.000	0	N.D.	
104)	Ethyl methacrylate	69	14.999	14.987	0.919	289	N.D.	
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108)	Cyclohexanone	55	17.560	17.535	0.934	2224	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	17.718	0.000	0	N.D.	
110)	Pentachloroethane	167	18.401	18.395	0.979	222	N.D.	
111)	Benzyl chloride	91	18.937	18.943	1.008	2214	N.D.	
112)	bis(2-Chloroisopropyl)...	45	19.395	19.346	1.032	6964	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R208.D
Acq On : 24 Jul 2018 13:19
Operator : JP1
InstName : VOA3
Sample : |454944001|1784646|1|VOA|1|VOA8260CL|
Misc : URSC 5ML PH<2
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 25 08:29:27 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

#34 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 92.33 ug/L
RT: 13.036 min Scan# 1336
Delta R.T. 0.012 min
Lab File: 3R208.D
Acq: 24 Jul 2018 13:19

Tgt Ion: 56 Resp: 275

Ion	Ratio	Lower	Upper
56	100		
41	0.0	48.1	108.1#
43	0.0	28.0	88.0#

#47 BEFORE analyst DELETION
trans-1,3-Dichloropropylene
Concen: 0.52 ug/L
RT: 14.993 min Scan# 1657
Delta R.T. 0.025 min
Lab File: 3R208.D
Acq: 24 Jul 2018 13:19

Tgt Ion: 75 Resp: 7280

Ion	Ratio	Lower	Upper
75	100		
39	1.4	17.5	77.5#
77	4.7	2.1	62.1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 08:45**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944002**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**6.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S09**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 15:23**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:14**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R212.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	103	ug/kg	15.4	103
79-34-5	1,1,2,2-Tetrachloroethane	U	103	ug/kg	15.4	103
79-00-5	1,1,2-Trichloroethane	U	103	ug/kg	15.4	103
75-34-3	1,1-Dichloroethane	U	103	ug/kg	15.4	103
75-35-4	1,1-Dichloroethylene	U	103	ug/kg	15.4	103
87-61-6	1,2,3-Trichlorobenzene	U	103	ug/kg	15.4	103
120-82-1	1,2,4-Trichlorobenzene	U	103	ug/kg	15.4	103
96-12-8	1,2-Dibromo-3-chloropropane	U	103	ug/kg	25.7	103
106-93-4	1,2-Dibromoethane	U	103	ug/kg	15.4	103
95-50-1	1,2-Dichlorobenzene	U	103	ug/kg	15.4	103
107-06-2	1,2-Dichloroethane	U	103	ug/kg	15.4	103
78-87-5	1,2-Dichloropropane	U	103	ug/kg	15.4	103
541-73-1	1,3-Dichlorobenzene	U	103	ug/kg	15.4	103
106-46-7	1,4-Dichlorobenzene	U	103	ug/kg	15.4	103
123-91-1	1,4-Dioxane	U	2570	ug/kg	770	2570
78-93-3	2-Butanone	U	513	ug/kg	154	513
591-78-6	2-Hexanone	U	513	ug/kg	154	513
108-10-1	4-Methyl-2-pentanone	U	513	ug/kg	154	513
67-64-1	Acetone	U	513	ug/kg	154	513
71-43-2	Benzene	U	103	ug/kg	15.4	103
74-97-5	Bromochloromethane	U	103	ug/kg	15.4	103
75-27-4	Bromodichloromethane	U	103	ug/kg	15.4	103
75-25-2	Bromoform	U	103	ug/kg	15.4	103
74-83-9	Bromomethane	U	103	ug/kg	15.4	103
75-15-0	Carbon disulfide	U	513	ug/kg	82.1	513
56-23-5	Carbon tetrachloride	U	103	ug/kg	15.4	103
108-90-7	Chlorobenzene	U	103	ug/kg	15.4	103
75-00-3	Chloroethane	U	103	ug/kg	15.4	103
67-66-3	Chloroform	U	103	ug/kg	15.4	103
74-87-3	Chloromethane	U	103	ug/kg	15.4	103
110-82-7	Cyclohexane	U	103	ug/kg	15.4	103
124-48-1	Dibromochloromethane	U	103	ug/kg	15.4	103
75-71-8	Dichlorodifluoromethane	U	103	ug/kg	15.4	103
100-41-4	Ethylbenzene	U	103	ug/kg	15.4	103
98-82-8	Isopropylbenzene	U	103	ug/kg	15.4	103
79-20-9	Methyl acetate	U	257	ug/kg	77.0	257
108-87-2	Methylcyclohexane	U	103	ug/kg	15.4	103
75-09-2	Methylene chloride	U	257	ug/kg	82.1	257

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 08:45**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944002**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**6.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S09**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 15:23**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:14**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R212.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	103	ug/kg	15.4	103
127-18-4	Tetrachloroethylene	U	103	ug/kg	15.4	103
108-88-3	Toluene	U	103	ug/kg	15.4	103
79-01-6	Trichloroethylene	U	103	ug/kg	15.4	103
75-69-4	Trichlorofluoromethane	U	103	ug/kg	15.4	103
76-13-1	Trichlorotrifluoroethane	U	257	ug/kg	82.1	257
75-01-4	Vinyl chloride	U	103	ug/kg	15.4	103
156-59-2	cis-1,2-Dichloroethylene	U	103	ug/kg	15.4	103
10061-01-5	cis-1,3-Dichloropropylene	U	103	ug/kg	15.4	103
179601-23-1	m,p-Xylenes	U	205	ug/kg	15.4	205
95-47-6	o-Xylene	U	103	ug/kg	15.4	103
1634-04-4	tert-Butyl methyl ether	U	103	ug/kg	15.4	103
156-60-5	trans-1,2-Dichloroethylene	U	103	ug/kg	15.4	103
10061-02-6	trans-1,3-Dichloropropylene	U	103	ug/kg	15.4	103

Quantitation Report
GEL Laboratories, LLC

JP
07/25/2018

KP
07/31/2018

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R212.D
Acq On : 24 Jul 2018 15:23
Operator : JP1
InstName : VOA3
Sample : |454944002|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 25 08:29:35 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.761	12.761	1.000	1376342	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	661414	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	559037	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.761	12.762	1.000	1380290	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	672210	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	559691	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	67	12.335	12.341	0.967	257119	49.92	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	1386484	45.00	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	605864	55.13	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	100%
45) Toluene-d8	50.000	81 - 120	90%
63) Bromofluorobenzene	50.000	70 - 130	110%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane	50	4.954	4.990	0.388	274	N.D.		
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		0.000	6.159	0.000	0	N.D.		
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	7.061	0.000	0	N.D.		
8) Ethyl ether		0.000	7.610	0.000	0	N.D.		
9) Acetone	43	8.256	8.232	0.647	632	N.D.		
10) 1,1-Dichloroethylene		0.000	8.177	0.000	0	N.D.		
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile		0.000	8.817	0.000	0	N.D.		
13) Methyl acetate		0.000	8.854	0.000	0	N.D.		
14) Carbon disulfide	76	8.634	8.665	0.677	1232	N.D.		
15) Methylene chloride	84	9.073	9.091	0.711	5693	Below Cal		89
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane	57	9.963	9.988	0.781	692	N.D.		
19) Vinyl acetate		0.000	10.317	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	10.286	0.000	0	N.D.		
21) 2-Butanone	72	11.207	11.183	0.878	1874	1.56	ug/L #	85
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		0.000	11.628	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	12.127	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane	62	12.432	12.438	0.974	482	N.D.		
32) Benzene	78	12.420	12.426	0.973	872	N.D.		
33) Cyclohexene	67	12.457	12.548	0.976	446	N.D.		
34) n-Butyl alcohol		0.000	13.024	0.000	0	N.D.		
35) Trichloroethylene		0.000	13.225	0.000	0	N.D.		
36) 2-Pentanone	43	13.408	13.396	1.051	2585	N.D.		
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		0.000	13.475	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R212.D
Acq On : 24 Jul 2018 15:23
Operator : JP1
InstName : VOA3
Sample : |454944002|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 25 08:29:35 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
39) Dibromomethane		0.000	13.682	0.000	0	N.D.	
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	14.353	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	14.487	0.000	0	N.D.	
46) Toluene	91	14.761	14.755	0.905	1161	N.D.	
47) trans-1,3-Dichloroprop...		0.000	14.968	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.	
49) 2-Hexanone		0.000	15.413	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	15.401	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	15.383	0.000	0	N.D.	
52) Dibromochloromethane		0.000	15.676	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	15.840	0.000	0	N.D.	
54) Chlorobenzene	112	16.340	16.352	1.001	410	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	16.419	0.000	0	N.D.	
56) Ethylbenzene	91	16.432	16.425	1.007	594	N.D.	
57) m,p-Xylenes	106	16.541	16.541	1.014	371	N.D.	
58) o-Xylene		0.000	16.986	0.000	0	N.D.	
59) Styrene	104	17.005	16.992	1.042	244	N.D.	
61) Bromoform		0.000	17.261	0.000	0	N.D.	
62) Isopropylbenzene	105	17.358	17.358	0.924	162	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	17.663	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	17.748	0.000	0	N.D.	
66) Bromobenzene		0.000	17.767	0.000	0	N.D.	
67) n-Propylbenzene	91	17.797	17.791	0.947	424	N.D.	
68) 1,3,5-Trimethylbenzene	105	17.950	17.949	0.955	328	N.D.	
69) 2-Chlorotoluene		0.000	17.937	0.000	0	N.D.	
70) 4-Chlorotoluene	91	18.041	18.041	0.960	834	N.D.	
71) tert-Butylbenzene		0.000	18.321	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	18.376	18.364	0.978	336	N.D.	
73) sec-Butylbenzene		0.000	18.547	0.000	0	N.D.	
74) 4-Isopropyltoluene	119	18.675	18.675	0.994	252	N.D.	
75) 1,3-Dichlorobenzene	146	18.742	18.730	0.997	520	N.D.	
76) 1,4-Dichlorobenzene	146	18.821	18.821	1.002	1145	N.D.	
77) n-Butylbenzene	91	19.108	19.108	1.017	427	N.D.	
78) 1,2-Dichlorobenzene	146	19.248	19.236	1.024	482	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	21.120	21.113	1.124	663	N.D.	
81) Hexachlorobutadiene		0.000	21.278	0.000	0	N.D.	
82) Naphthalene	128	21.504	21.491	1.144	2627	N.D.	
83) 1,2,3-Trichlorobenzene	180	21.827	21.821	1.162	370	N.D.	
85) Acrolein		0.000	7.927	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	8.165	0.000	0	N.D.	
87) Isopropyl Alcohol	45	8.524	8.464	0.668	280	N.D.	
88) Allyl chloride	76	8.665	8.842	0.679	419	N.D.	
89) tert-Butyl Alcohol		0.000	9.220	0.000	0	N.D.	
90) Acrylonitrile		0.000	9.531	0.000	0	N.D.	
91) Isopropyl ether		0.000	10.317	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	10.427	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.	
94) Ethyl acetate	43	11.195	11.225	0.877	8379	N.D.	
95) Propionitrile		0.000	11.305	0.000	0	N.D.	
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.	
97) Tetrahydrofuran	42	11.609	11.597	0.910	2346	N.D.	
98) Isobutyl alcohol		0.000	12.176	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R212.D
Acq On : 24 Jul 2018 15:23
Operator : JP1
InstName : VOA3
Sample : |454944002|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 25 08:29:35 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		0.000	12.500	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	13.560	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	13.652	0.000	0	N.D.	
102)	2-Nitropropane		0.000	14.103	0.000	0	N.D.	
104)	Ethyl methacrylate		0.000	14.987	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108)	Cyclohexanone	55	17.565	17.535	0.935	1760	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	17.718	0.000	0	N.D.	
110)	Pentachloroethane		0.000	18.395	0.000	0	N.D.	
111)	Benzyl chloride	91	18.949	18.943	1.008	776	N.D.	
112)	bis(2-Chloroisopropyl)...	45	19.394	19.346	1.032	2055	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R212.D
Acq On : 24 Jul 2018 15:23
Operator : JP1
InstName : VOA3
Sample : |454944002|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 25 08:29:35 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

#21
2-Butanone
Concen: 1.56 ug/L
RT: 11.207 min Scan# 1036
Delta R.T. 0.024 min
Lab File: 3R212.D
Acq: 24 Jul 2018 15:23

Tgt Ion: 72 Resp: 1874

Ion	Ratio	Lower	Upper
72	100		
43	447.1	381.7	441.7#

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 08:45**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944002**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**6.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S09RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 15:20**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:02**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R510.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	2.09	ug/kg	0.314	2.09
79-34-5	1,1,2,2-Tetrachloroethane	U	2.09	ug/kg	0.314	2.09
79-00-5	1,1,2-Trichloroethane	U	2.09	ug/kg	0.314	2.09
75-34-3	1,1-Dichloroethane	U	2.09	ug/kg	0.314	2.09
75-35-4	1,1-Dichloroethylene	U	2.09	ug/kg	0.314	2.09
87-61-6	1,2,3-Trichlorobenzene	U	2.09	ug/kg	0.314	2.09
120-82-1	1,2,4-Trichlorobenzene	J	0.408	ug/kg	0.314	2.09
96-12-8	1,2-Dibromo-3-chloropropane	U	2.09	ug/kg	0.523	2.09
106-93-4	1,2-Dibromoethane	U	2.09	ug/kg	0.314	2.09
95-50-1	1,2-Dichlorobenzene	U	2.09	ug/kg	0.314	2.09
107-06-2	1,2-Dichloroethane	U	2.09	ug/kg	0.314	2.09
78-87-5	1,2-Dichloropropane	U	2.09	ug/kg	0.314	2.09
541-73-1	1,3-Dichlorobenzene	U	2.09	ug/kg	0.314	2.09
106-46-7	1,4-Dichlorobenzene	U	2.09	ug/kg	0.314	2.09
123-91-1	1,4-Dioxane	U	52.3	ug/kg	15.7	52.3
78-93-3	2-Butanone	U	10.5	ug/kg	3.14	10.5
591-78-6	2-Hexanone	U	10.5	ug/kg	3.14	10.5
108-10-1	4-Methyl-2-pentanone	U	10.5	ug/kg	3.14	10.5
67-64-1	Acetone	J	5.04	ug/kg	3.14	10.5
71-43-2	Benzene	U	2.09	ug/kg	0.314	2.09
74-97-5	Bromochloromethane	U	2.09	ug/kg	0.314	2.09
75-27-4	Bromodichloromethane	U	2.09	ug/kg	0.314	2.09
75-25-2	Bromoform	U	2.09	ug/kg	0.314	2.09
74-83-9	Bromomethane	U	2.09	ug/kg	0.314	2.09
75-15-0	Carbon disulfide	U	10.5	ug/kg	1.67	10.5
56-23-5	Carbon tetrachloride	U	2.09	ug/kg	0.314	2.09
108-90-7	Chlorobenzene	U	2.09	ug/kg	0.314	2.09
75-00-3	Chloroethane	U	2.09	ug/kg	0.314	2.09
67-66-3	Chloroform	U	2.09	ug/kg	0.314	2.09
74-87-3	Chloromethane	U	2.09	ug/kg	0.314	2.09
110-82-7	Cyclohexane	U	2.09	ug/kg	0.314	2.09
124-48-1	Dibromochloromethane	U	2.09	ug/kg	0.314	2.09
75-71-8	Dichlorodifluoromethane	U	2.09	ug/kg	0.314	2.09
100-41-4	Ethylbenzene	U	2.09	ug/kg	0.314	2.09
98-82-8	Isopropylbenzene	U	2.09	ug/kg	0.314	2.09
79-20-9	Methyl acetate	U	5.23	ug/kg	1.57	5.23
108-87-2	Methylcyclohexane	U	2.09	ug/kg	0.314	2.09
75-09-2	Methylene chloride	U	5.23	ug/kg	1.67	5.23

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 08:45**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944002**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**6.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S09RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 15:20**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:02**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R510.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	2.09	ug/kg	0.314	2.09
127-18-4	Tetrachloroethylene	U	2.09	ug/kg	0.314	2.09
108-88-3	Toluene	U	2.09	ug/kg	0.314	2.09
79-01-6	Trichloroethylene	U	2.09	ug/kg	0.314	2.09
75-69-4	Trichlorofluoromethane	U	2.09	ug/kg	0.314	2.09
76-13-1	Trichlorotrifluoroethane	U	5.23	ug/kg	1.67	5.23
75-01-4	Vinyl chloride	U	2.09	ug/kg	0.314	2.09
156-59-2	cis-1,2-Dichloroethylene	U	2.09	ug/kg	0.314	2.09
10061-01-5	cis-1,3-Dichloropropylene	U	2.09	ug/kg	0.314	2.09
179601-23-1	m,p-Xylenes	U	4.19	ug/kg	0.314	4.19
95-47-6	o-Xylene	U	2.09	ug/kg	0.314	2.09
1634-04-4	tert-Butyl methyl ether	U	2.09	ug/kg	0.314	2.09
156-60-5	trans-1,2-Dichloroethylene	U	2.09	ug/kg	0.314	2.09
10061-02-6	trans-1,3-Dichloropropylene	U	2.09	ug/kg	0.314	2.09

Quantitation Report
GEL Laboratories, LLC

JP
07/31/2018

KP
07/31/2018

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R510.D
Acq On : 27 Jul 2018 15:20
Operator : JP1
InstName : VOA3
Sample : |454944002|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.1G N/A SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 31 14:30:38 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.762	12.761	1.000	999491	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	336997	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	137178	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	1001690	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	342374	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	137165	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	198213	52.99	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	869358	55.37	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	198136	73.48	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	106%
45) Toluene-d8	50.000	81 - 120	111%
63) Bromofluorobenzene	50.000	70 - 130	147%#

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane	50	4.991	4.990	0.391	1042	N.D.		
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		0.000	6.159	0.000	0	N.D.		
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	7.061	0.000	0	N.D.		
8) Ethyl ether		0.000	7.610	0.000	0	N.D.		
9) Acetone	43	8.250	8.232	0.646	17368	4.81	ug/L	93
10) 1,1-Dichloroethylene		0.000	8.177	0.000	0	N.D.		
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile		0.000	8.817	0.000	0	N.D.		
13) Methyl acetate		0.000	8.854	0.000	0	N.D.		
14) Carbon disulfide	76	8.598	8.665	0.674	6975	N.D.		
15) Methylene chloride	84	9.092	9.091	0.712	4921	Below Cal		90
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane	57	10.000	9.988	0.784	198	N.D.		
19) Vinyl acetate		0.000	10.317	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	10.286	0.000	0	N.D.		
21) 2-Butanone		0.000	11.183	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		0.000	11.628	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	12.127	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane	62	12.451	12.438	0.976	153	N.D.		
32) Benzene	78	12.445	12.426	0.975	678	N.D.		
33) Cyclohexene	67	12.463	12.548	0.977	164	N.D.		
34) n-Butyl alcohol		0.000	13.024	0.000	0	N.D.		
35) Trichloroethylene		0.000	13.225	0.000	0	N.D.		
36) 2-Pentanone		0.000	13.396	0.000	0	N.D.		
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		0.000	13.475	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R510.D
Acq On : 27 Jul 2018 15:20
Operator : JP1
InstName : VOA3
Sample : |454944002|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.1G N/A SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 31 14:30:38 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
39)	Dibromomethane		0.000	13.682	0.000	0	N.D.		
40)	Bromodichloromethane		0.000	13.834	0.000	0	N.D.		
41)	2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.		
42)	cis-1,3-Dichloropropylene		0.000	14.353	0.000	0	N.D.		
44)	4-Methyl-2-pentanone		0.000	14.487	0.000	0	N.D.		
46)	Toluene	91	14.755	14.755	0.904	795	N.D.		
47)	trans-1,3-Dichloroprop...	75	14.981	14.968	0.918	165	N.D.		
48)	1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.		
49)	2-Hexanone		0.000	15.413	0.000	0	N.D.		
50)	1,3-Dichloropropane		0.000	15.401	0.000	0	N.D.		
51)	Tetrachloroethylene		0.000	15.383	0.000	0	N.D.		
52)	Dibromochloromethane		0.000	15.676	0.000	0	N.D.		
53)	1,2-Dibromoethane		0.000	15.840	0.000	0	N.D.		
54)	Chlorobenzene	112	16.352	16.352	1.002	627	N.D.		
55)	1,1,1,2-Tetrachloroethane		0.000	16.419	0.000	0	N.D.		
56)	Ethylbenzene	91	16.419	16.425	1.006	372	N.D.		
57)	m,p-Xylenes	106	16.523	16.541	1.013	251	N.D.		
58)	o-Xylene		0.000	16.986	0.000	0	N.D.		
59)	Styrene	104	16.992	16.992	1.041	186	N.D.		
61)	Bromoform		0.000	17.261	0.000	0	N.D.		
62)	Isopropylbenzene	105	17.358	17.358	0.924	205	N.D.		
64)	1,1,2,2-Tetrachloroethane		0.000	17.663	0.000	0	N.D.		
65)	1,2,3-Trichloropropane		0.000	17.748	0.000	0	N.D.		
66)	Bromobenzene		0.000	17.767	0.000	0	N.D.		
67)	n-Propylbenzene	91	17.797	17.791	0.947	613	N.D.		
68)	1,3,5-Trimethylbenzene	105	17.950	17.949	0.955	111	N.D.		
69)	2-Chlorotoluene		0.000	17.937	0.000	0	N.D.		
70)	4-Chlorotoluene	91	18.041	18.041	0.960	574	N.D.		
71)	tert-Butylbenzene		0.000	18.321	0.000	0	N.D.		
72)	1,2,4-Trimethylbenzene	105	18.370	18.364	0.978	342	N.D.		
73)	sec-Butylbenzene	105	18.553	18.547	0.987	355	N.D.		
74)	4-Isopropyltoluene	119	18.675	18.675	0.994	292	N.D.		
75)	1,3-Dichlorobenzene	146	18.730	18.730	0.997	664	N.D.		
76)	1,4-Dichlorobenzene	146	18.821	18.821	1.002	1045	N.D.		
77)	n-Butylbenzene	91	19.120	19.108	1.018	621	N.D.		
78)	1,2-Dichlorobenzene	146	19.242	19.236	1.024	593	N.D.		
79)	1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.		
80)	1,2,4-Trichlorobenzene	180	21.120	21.113	1.124	1376	0.39	ug/L	87
81)	Hexachlorobutadiene	225	21.278	21.278	1.132	600	N.D.		
82)	Naphthalene		0.000	21.491	0.000	0m	N.D.	d	
83)	1,2,3-Trichlorobenzene	180	21.821	21.821	1.161	1206	N.D.		
85)	Acrolein		0.000	7.927	0.000	0	N.D.		
86)	Trichlorotrifluoroethane		0.000	8.165	0.000	0	N.D.		
87)	Isopropyl Alcohol		0.000	8.464	0.000	0	N.D.		
88)	Allyl chloride		0.000	8.842	0.000	0	N.D.		
89)	tert-Butyl Alcohol		0.000	9.220	0.000	0	N.D.		
90)	Acrylonitrile		0.000	9.531	0.000	0	N.D.		
91)	Isopropyl ether		0.000	10.317	0.000	0	N.D.		
92)	2-Chloro-1,3-butadiene		0.000	10.427	0.000	0	N.D.		
93)	Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.		
94)	Ethyl acetate	43	11.237	11.225	0.881	11312	2.28	ug/L	100
95)	Propionitrile		0.000	11.305	0.000	0	N.D.		
96)	Methacrylonitrile		0.000	11.512	0.000	0	N.D.		
97)	Tetrahydrofuran	42	11.615	11.597	0.910	681	N.D.		
98)	Isobutyl alcohol		0.000	12.176	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R510.D
Acq On : 27 Jul 2018 15:20
Operator : JP1
InstName : VOA3
Sample : |454944002|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.1G N/A SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 31 14:30:38 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		0.000	12.500	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	13.560	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	13.652	0.000	0	N.D.	
102)	2-Nitropropane		0.000	14.103	0.000	0	N.D.	
104)	Ethyl methacrylate		0.000	14.987	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108)	Cyclohexanone	55	17.559	17.535	0.934	450	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	17.718	0.000	0	N.D.	
110)	Pentachloroethane		0.000	18.395	0.000	0	N.D.	
111)	Benzyl chloride	91	18.943	18.943	1.008	1064	N.D.	
112)	bis(2-Chloroisopropyl)...		0.000	19.346	0.000	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R510.D
Acq On : 27 Jul 2018 15:20
Operator : JP1
InstName : VOA3
Sample : |454944002|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.1G N/A SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 31 14:30:38 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

#9
Acetone
Concen: 4.81 ug/L
RT: 8.250 min Scan# 551
Delta R.T. 0.018 min
Lab File: 3R510.D
Acq: 27 Jul 2018 15:20

Tgt Ion: 43 Resp: 17368

Ion	Ratio	Lower	Upper
43	100		
58	23.6	0.0	57.2

#80
1,2,4-Trichlorobenzene
Concen: 0.39 ug/L
RT: 21.120 min Scan# 2662
Delta R.T. 0.006 min
Lab File: 3R510.D
Acq: 27 Jul 2018 15:20

Tgt Ion:180 Resp: 1376

Ion	Ratio	Lower	Upper
180	100		
182	83.9	66.7	126.7

#82 BEFORE analyst DELETION
Naphthalene
Concen: 0.41 ug/L
RT: 21.498 min Scan# 2724
Delta R.T. 0.006 min
Lab File: 3R510.D
Acq: 27 Jul 2018 15:20

Tgt Ion:128 Resp: 3108

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	42.5
129	0.0	0.0	41.0

#94
Ethyl acetate
Concen: 2.28 ug/L
RT: 11.237 min Scan# 1041
Delta R.T. 0.012 min
Lab File: 3R510.D
Acq: 27 Jul 2018 15:20

Tgt Ion: 43 Resp: 11312

Ion	Ratio	Lower	Upper
43	100		
61	13.6	0.0	43.8
70	10.8	0.0	40.8

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 4.73 ug/L
RT: 19.401 min Scan# 2380
Delta R.T. 0.055 min
Lab File: 3R510.D
Acq: 27 Jul 2018 15:20

Tgt Ion: 45 Resp: 4909

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	52.1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 09:10**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944003**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S06**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 15:54**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:15**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R213.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	108	ug/kg	16.1	108
79-34-5	1,1,2,2-Tetrachloroethane	U	108	ug/kg	16.1	108
79-00-5	1,1,2-Trichloroethane	U	108	ug/kg	16.1	108
75-34-3	1,1-Dichloroethane	U	108	ug/kg	16.1	108
75-35-4	1,1-Dichloroethylene	U	108	ug/kg	16.1	108
87-61-6	1,2,3-Trichlorobenzene	U	108	ug/kg	16.1	108
120-82-1	1,2,4-Trichlorobenzene	U	108	ug/kg	16.1	108
96-12-8	1,2-Dibromo-3-chloropropane	U	108	ug/kg	26.9	108
106-93-4	1,2-Dibromoethane	U	108	ug/kg	16.1	108
95-50-1	1,2-Dichlorobenzene	U	108	ug/kg	16.1	108
107-06-2	1,2-Dichloroethane	U	108	ug/kg	16.1	108
78-87-5	1,2-Dichloropropane	U	108	ug/kg	16.1	108
541-73-1	1,3-Dichlorobenzene	U	108	ug/kg	16.1	108
106-46-7	1,4-Dichlorobenzene	U	108	ug/kg	16.1	108
123-91-1	1,4-Dioxane	U	2690	ug/kg	807	2690
78-93-3	2-Butanone	U	538	ug/kg	161	538
591-78-6	2-Hexanone	U	538	ug/kg	161	538
108-10-1	4-Methyl-2-pentanone	U	538	ug/kg	161	538
67-64-1	Acetone	U	538	ug/kg	161	538
71-43-2	Benzene	U	108	ug/kg	16.1	108
74-97-5	Bromochloromethane	U	108	ug/kg	16.1	108
75-27-4	Bromodichloromethane	U	108	ug/kg	16.1	108
75-25-2	Bromoform	U	108	ug/kg	16.1	108
74-83-9	Bromomethane	U	108	ug/kg	16.1	108
75-15-0	Carbon disulfide	U	538	ug/kg	86.1	538
56-23-5	Carbon tetrachloride	U	108	ug/kg	16.1	108
108-90-7	Chlorobenzene	U	108	ug/kg	16.1	108
75-00-3	Chloroethane	U	108	ug/kg	16.1	108
67-66-3	Chloroform	U	108	ug/kg	16.1	108
74-87-3	Chloromethane	U	108	ug/kg	16.1	108
110-82-7	Cyclohexane	U	108	ug/kg	16.1	108
124-48-1	Dibromochloromethane	U	108	ug/kg	16.1	108
75-71-8	Dichlorodifluoromethane	U	108	ug/kg	16.1	108
100-41-4	Ethylbenzene	U	108	ug/kg	16.1	108
98-82-8	Isopropylbenzene	U	108	ug/kg	16.1	108
79-20-9	Methyl acetate	U	269	ug/kg	80.7	269
108-87-2	Methylcyclohexane	U	108	ug/kg	16.1	108
75-09-2	Methylene chloride	U	269	ug/kg	86.1	269

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 09:10**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944003**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S06**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 15:54**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:15**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R213.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	108	ug/kg	16.1	108
127-18-4	Tetrachloroethylene	U	108	ug/kg	16.1	108
108-88-3	Toluene	U	108	ug/kg	16.1	108
79-01-6	Trichloroethylene	U	108	ug/kg	16.1	108
75-69-4	Trichlorofluoromethane	U	108	ug/kg	16.1	108
76-13-1	Trichlorotrifluoroethane	U	269	ug/kg	86.1	269
75-01-4	Vinyl chloride	U	108	ug/kg	16.1	108
156-59-2	cis-1,2-Dichloroethylene	U	108	ug/kg	16.1	108
10061-01-5	cis-1,3-Dichloropropylene	U	108	ug/kg	16.1	108
179601-23-1	m,p-Xylenes	U	215	ug/kg	16.1	215
95-47-6	o-Xylene	U	108	ug/kg	16.1	108
1634-04-4	tert-Butyl methyl ether	U	108	ug/kg	16.1	108
156-60-5	trans-1,2-Dichloroethylene	U	108	ug/kg	16.1	108
10061-02-6	trans-1,3-Dichloropropylene	U	108	ug/kg	16.1	108

Quantitation Report
GEL Laboratories, LLC

JP
07/25/2018

KP
07/31/2018

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R213.D
Acq On : 24 Jul 2018 15:54
Operator : JP1
InstName : VOA3
Sample : |454944003|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 25 08:29:37 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.755	12.761	1.000	1423328	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	630258	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	530375	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.755	12.762	1.000	1426554	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	640971	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	530782	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	67	12.335	12.341	0.967	263853	49.54	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	1385277	47.18	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	585022	56.11	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	99%
45) Toluene-d8	50.000	81 - 120	94%
63) Bromofluorobenzene	50.000	70 - 130	112%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane	50	4.954	4.990	0.388	487	N.D.		
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane	94	6.178	6.159	0.484	340	N.D.		
6) Chloroethane	64	6.305	6.372	0.494	143	N.D.		
7) Trichlorofluoromethane		0.000	7.061	0.000	0	N.D.		
8) Ethyl ether		0.000	7.610	0.000	0	N.D.		
9) Acetone	43	8.275	8.232	0.649	1769	N.D.		
10) 1,1-Dichloroethylene		0.000	8.177	0.000	0	N.D.		
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile		0.000	8.817	0.000	0	N.D.		
13) Methyl acetate		0.000	8.854	0.000	0	N.D.		
14) Carbon disulfide	76	8.628	8.665	0.676	1353	N.D.		
15) Methylene chloride	84	9.067	9.091	0.711	6359	Below Cal		96
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane	57	9.969	9.988	0.782	572	N.D.		
19) Vinyl acetate		0.000	10.317	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	10.286	0.000	0	N.D.		
21) 2-Butanone	72	11.189	11.183	0.877	1737	N.D.		
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		0.000	11.628	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	12.127	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane	62	12.432	12.438	0.975	584	N.D.		
32) Benzene	78	12.426	12.426	0.974	628	N.D.		
33) Cyclohexene		0.000	12.548	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	13.024	0.000	0	N.D.		
35) Trichloroethylene		0.000	13.225	0.000	0	N.D.		
36) 2-Pentanone	43	13.408	13.396	1.051	2617	N.D.		
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		0.000	13.475	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R213.D
Acq On : 24 Jul 2018 15:54
Operator : JP1
InstName : VOA3
Sample : |454944003|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 25 08:29:37 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
39) Dibromomethane		0.000	13.682	0.000	0	N.D.	
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	14.353	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	14.487	0.000	0	N.D.	
46) Toluene	91	14.755	14.755	0.904	1324	N.D.	
47) trans-1,3-Dichloroprop...		0.000	14.968	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.	
49) 2-Hexanone		0.000	15.413	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	15.401	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	15.383	0.000	0	N.D.	
52) Dibromochloromethane		0.000	15.676	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	15.840	0.000	0	N.D.	
54) Chlorobenzene	112	16.352	16.352	1.002	253	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	16.419	0.000	0	N.D.	
56) Ethylbenzene	91	16.413	16.425	1.006	625	N.D.	
57) m,p-Xylenes	106	16.541	16.541	1.014	395	N.D.	
58) o-Xylene		0.000	16.986	0.000	0	N.D.	
59) Styrene	104	16.998	16.992	1.042	279	N.D.	
61) Bromoform		0.000	17.261	0.000	0	N.D.	
62) Isopropylbenzene		0.000	17.358	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	17.663	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	17.748	0.000	0	N.D.	
66) Bromobenzene		0.000	17.767	0.000	0	N.D.	
67) n-Propylbenzene	91	17.791	17.791	0.947	292	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	17.949	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	17.937	0.000	0	N.D.	
70) 4-Chlorotoluene	91	18.053	18.041	0.961	742	N.D.	
71) tert-Butylbenzene		0.000	18.321	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	18.370	18.364	0.978	464	N.D.	
73) sec-Butylbenzene	105	18.462	18.547	0.982	189	N.D.	
74) 4-Isopropyltoluene		0.000	18.675	0.000	0	N.D.	
75) 1,3-Dichlorobenzene	146	18.736	18.730	0.997	447	N.D.	
76) 1,4-Dichlorobenzene	146	18.815	18.821	1.001	861	N.D.	
77) n-Butylbenzene	91	19.114	19.108	1.017	604	N.D.	
78) 1,2-Dichlorobenzene	146	19.242	19.236	1.024	293	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	21.113	21.113	1.124	476	N.D.	
81) Hexachlorobutadiene		0.000	21.278	0.000	0	N.D.	
82) Naphthalene	128	21.498	21.491	1.144	2194	N.D.	
83) 1,2,3-Trichlorobenzene	180	21.833	21.821	1.162	605	N.D.	
85) Acrolein		0.000	7.927	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	8.165	0.000	0	N.D.	
87) Isopropyl Alcohol	45	8.671	8.464	0.680	734	N.D.	
88) Allyl chloride		0.000	8.842	0.000	0	N.D.	
89) tert-Butyl Alcohol		0.000	9.220	0.000	0	N.D.	
90) Acrylonitrile		0.000	9.531	0.000	0	N.D.	
91) Isopropyl ether		0.000	10.317	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	10.427	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.	
94) Ethyl acetate	43	11.195	11.225	0.878	8155	N.D.	
95) Propionitrile		0.000	11.305	0.000	0	N.D.	
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.	
97) Tetrahydrofuran	42	11.615	11.597	0.911	1915	N.D.	
98) Isobutyl alcohol		0.000	12.176	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R213.D
Acq On : 24 Jul 2018 15:54
Operator : JP1
InstName : VOA3
Sample : |454944003|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 25 08:29:37 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		0.000	12.500	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	13.560	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	13.652	0.000	0	N.D.	
102)	2-Nitropropane		0.000	14.103	0.000	0m	N.D.	d
104)	Ethyl methacrylate		0.000	14.987	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108)	Cyclohexanone	55	17.559	17.535	0.934	1594	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	17.718	0.000	0	N.D.	
110)	Pentachloroethane		0.000	18.395	0.000	0	N.D.	
111)	Benzyl chloride	91	18.955	18.943	1.009	184	N.D.	
112)	bis(2-Chloroisopropyl)...	45	19.394	19.346	1.032	4711	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R213.D
Acq On : 24 Jul 2018 15:54
Operator : JP1
InstName : VOA3
Sample : |454944003|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 25 08:29:37 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

#102 BEFORE analyst DELETION
2-Nitropropane
Concen: 3.46 ug/L
RT: 13.981 min Scan# 1491
Delta R.T. -0.122 min
Lab File: 3R213.D
Acq: 24 Jul 2018 15:54

Tgt Ion: 43 Resp: 360

Ion	Ratio	Lower	Upper
43	100		
41	223.1	55.3	115.3#

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 09:10**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944003**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S06RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 15:52**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:03**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R511.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	2.11	ug/kg	0.317	2.11
79-34-5	1,1,2,2-Tetrachloroethane	U	2.11	ug/kg	0.317	2.11
79-00-5	1,1,2-Trichloroethane	U	2.11	ug/kg	0.317	2.11
75-34-3	1,1-Dichloroethane	U	2.11	ug/kg	0.317	2.11
75-35-4	1,1-Dichloroethylene	U	2.11	ug/kg	0.317	2.11
87-61-6	1,2,3-Trichlorobenzene	U	2.11	ug/kg	0.317	2.11
120-82-1	1,2,4-Trichlorobenzene	U	2.11	ug/kg	0.317	2.11
96-12-8	1,2-Dibromo-3-chloropropane	U	2.11	ug/kg	0.528	2.11
106-93-4	1,2-Dibromoethane	U	2.11	ug/kg	0.317	2.11
95-50-1	1,2-Dichlorobenzene	U	2.11	ug/kg	0.317	2.11
107-06-2	1,2-Dichloroethane	U	2.11	ug/kg	0.317	2.11
78-87-5	1,2-Dichloropropane	U	2.11	ug/kg	0.317	2.11
541-73-1	1,3-Dichlorobenzene	U	2.11	ug/kg	0.317	2.11
106-46-7	1,4-Dichlorobenzene	U	2.11	ug/kg	0.317	2.11
123-91-1	1,4-Dioxane	U	52.8	ug/kg	15.8	52.8
78-93-3	2-Butanone	U	10.6	ug/kg	3.17	10.6
591-78-6	2-Hexanone	U	10.6	ug/kg	3.17	10.6
108-10-1	4-Methyl-2-pentanone	U	10.6	ug/kg	3.17	10.6
67-64-1	Acetone		14.9	ug/kg	3.17	10.6
71-43-2	Benzene	U	2.11	ug/kg	0.317	2.11
74-97-5	Bromochloromethane	U	2.11	ug/kg	0.317	2.11
75-27-4	Bromodichloromethane	U	2.11	ug/kg	0.317	2.11
75-25-2	Bromoform	U	2.11	ug/kg	0.317	2.11
74-83-9	Bromomethane	U	2.11	ug/kg	0.317	2.11
75-15-0	Carbon disulfide	U	10.6	ug/kg	1.69	10.6
56-23-5	Carbon tetrachloride	U	2.11	ug/kg	0.317	2.11
108-90-7	Chlorobenzene	U	2.11	ug/kg	0.317	2.11
75-00-3	Chloroethane	U	2.11	ug/kg	0.317	2.11
67-66-3	Chloroform	U	2.11	ug/kg	0.317	2.11
74-87-3	Chloromethane	U	2.11	ug/kg	0.317	2.11
110-82-7	Cyclohexane	U	2.11	ug/kg	0.317	2.11
124-48-1	Dibromochloromethane	U	2.11	ug/kg	0.317	2.11
75-71-8	Dichlorodifluoromethane	U	2.11	ug/kg	0.317	2.11
100-41-4	Ethylbenzene	U	2.11	ug/kg	0.317	2.11
98-82-8	Isopropylbenzene	U	2.11	ug/kg	0.317	2.11
79-20-9	Methyl acetate	U	5.28	ug/kg	1.58	5.28
108-87-2	Methylcyclohexane	U	2.11	ug/kg	0.317	2.11
75-09-2	Methylene chloride	U	5.28	ug/kg	1.69	5.28

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 09:10**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944003**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S06RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 15:52**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:03**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R511.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	2.11	ug/kg	0.317	2.11
127-18-4	Tetrachloroethylene	U	2.11	ug/kg	0.317	2.11
108-88-3	Toluene	U	2.11	ug/kg	0.317	2.11
79-01-6	Trichloroethylene	U	2.11	ug/kg	0.317	2.11
75-69-4	Trichlorofluoromethane	U	2.11	ug/kg	0.317	2.11
76-13-1	Trichlorotrifluoroethane	U	5.28	ug/kg	1.69	5.28
75-01-4	Vinyl chloride	U	2.11	ug/kg	0.317	2.11
156-59-2	cis-1,2-Dichloroethylene	U	2.11	ug/kg	0.317	2.11
10061-01-5	cis-1,3-Dichloropropylene	U	2.11	ug/kg	0.317	2.11
179601-23-1	m,p-Xylenes	U	4.22	ug/kg	0.317	4.22
95-47-6	o-Xylene	U	2.11	ug/kg	0.317	2.11
1634-04-4	tert-Butyl methyl ether	U	2.11	ug/kg	0.317	2.11
156-60-5	trans-1,2-Dichloroethylene	U	2.11	ug/kg	0.317	2.11
10061-02-6	trans-1,3-Dichloropropylene	U	2.11	ug/kg	0.317	2.11

Quantitation Report
GEL Laboratories, LLC

JP
07/30/2018

KP
07/31/2018

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R511.D
Acq On : 27 Jul 2018 15:52
Operator : JP1
InstName : VOA3
Sample : |454944003|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.1G N/A SOIL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 27 16:30:53 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.762	12.761	1.000	509867	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	103828	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	41881	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	510677	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	104982	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	41881	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	119233	62.49	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	307018	63.47	ug/L	0.00
63) Bromofluorobenzene	95	17.566	17.559	0.935	50956	61.89	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	125%#
45) Toluene-d8	50.000	81 - 120	127%#
63) Bromofluorobenzene	50.000	70 - 130	124%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane	50	4.991	4.990	0.391	769	N.D.		
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		0.000	6.159	0.000	0	N.D.		
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	7.061	0.000	0	N.D.		
8) Ethyl ether	59	7.616	7.610	0.597	204	N.D.		
9) Acetone	43	8.244	8.232	0.646	25924	14.08	ug/L	99
10) 1,1-Dichloroethylene		0.000	8.177	0.000	0	N.D.		
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile	41	8.848	8.817	0.693	3059	N.D.		
13) Methyl acetate		0.000	8.854	0.000	0	N.D.		
14) Carbon disulfide	76	8.610	8.665	0.675	15098	N.D.		
15) Methylene chloride	84	9.073	9.091	0.711	9755	N.D.		
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane	57	9.994	9.988	0.783	182	N.D.		
19) Vinyl acetate		0.000	10.317	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	10.286	0.000	0	N.D.		
21) 2-Butanone		0.000	11.183	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		0.000	11.628	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	12.127	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	12.438	0.000	0	N.D.		
32) Benzene	78	12.432	12.426	0.974	894	N.D.		
33) Cyclohexene		0.000	12.548	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	13.024	0.000	0	N.D.		
35) Trichloroethylene		0.000	13.225	0.000	0	N.D.		
36) 2-Pentanone		0.000	13.396	0.000	0	N.D.		
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		0.000	13.475	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R511.D
Acq On : 27 Jul 2018 15:52
Operator : JP1
InstName : VOA3
Sample : |454944003|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.1G N/A SOIL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 27 16:30:53 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
39) Dibromomethane		0.000	13.682	0.000	0	N.D.		
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		0.000	14.353	0.000	0	N.D.		
44) 4-Methyl-2-pentanone		0.000	14.487	0.000	0	N.D.		
46) Toluene	91	14.755	14.755	0.904	437	N.D.		
47) trans-1,3-Dichloroprop...		0.000	14.968	0.000	0	N.D.		
48) 1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.		
49) 2-Hexanone		0.000	15.413	0.000	0	N.D.		
50) 1,3-Dichloropropane		0.000	15.401	0.000	0	N.D.		
51) Tetrachloroethylene		0.000	15.383	0.000	0	N.D.		
52) Dibromochloromethane		0.000	15.676	0.000	0	N.D.		
53) 1,2-Dibromoethane		0.000	15.840	0.000	0	N.D.		
54) Chlorobenzene	112	16.346	16.352	1.002	158	N.D.		
55) 1,1,1,2-Tetrachloroethane		0.000	16.419	0.000	0	N.D.		
56) Ethylbenzene		0.000	16.425	0.000	0	N.D.		
57) m,p-Xylenes	106	16.541	16.541	1.014	262	N.D.		
58) o-Xylene		0.000	16.986	0.000	0	N.D.		
59) Styrene	104	17.017	16.992	1.043	169	N.D.		
61) Bromoform		0.000	17.261	0.000	0	N.D.		
62) Isopropylbenzene		0.000	17.358	0.000	0	N.D.		
64) 1,1,2,2-Tetrachloroethane		0.000	17.663	0.000	0	N.D.		
65) 1,2,3-Trichloropropane		0.000	17.748	0.000	0	N.D.		
66) Bromobenzene	156	17.779	17.767	0.946	124	N.D.		
67) n-Propylbenzene	91	17.797	17.791	0.947	194	N.D.		
68) 1,3,5-Trimethylbenzene		0.000	17.949	0.000	0	N.D.		
69) 2-Chlorotoluene		0.000	17.937	0.000	0	N.D.		
70) 4-Chlorotoluene	91	18.059	18.041	0.961	589	N.D.		
71) tert-Butylbenzene		0.000	18.321	0.000	0	N.D.		
72) 1,2,4-Trimethylbenzene		0.000	18.364	0.000	0	N.D.		
73) sec-Butylbenzene		0.000	18.547	0.000	0	N.D.		
74) 4-Isopropyltoluene		0.000	18.675	0.000	0	N.D.		
75) 1,3-Dichlorobenzene		0.000	18.730	0.000	0m	N.D.	d	
76) 1,4-Dichlorobenzene		0.000	18.821	0.000	0m	N.D.	d	
77) n-Butylbenzene	91	19.114	19.108	1.017	255	N.D.		
78) 1,2-Dichlorobenzene		0.000	19.236	0.000	0	N.D.		
79) 1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.		
80) 1,2,4-Trichlorobenzene		0.000	21.113	0.000	0m	N.D.	d	
81) Hexachlorobutadiene		0.000	21.278	0.000	0m	N.D.	d	
82) Naphthalene		0.000	21.491	0.000	0m	N.D.	d	
83) 1,2,3-Trichlorobenzene		0.000	21.821	0.000	0m	N.D.	d	
85) Acrolein		0.000	7.927	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	8.165	0.000	0	N.D.		
87) Isopropyl Alcohol		0.000	8.464	0.000	0	N.D.		
88) Allyl chloride		0.000	8.842	0.000	0	N.D.		
89) tert-Butyl Alcohol		0.000	9.220	0.000	0	N.D.		
90) Acrylonitrile		0.000	9.531	0.000	0	N.D.		
91) Isopropyl ether		0.000	10.317	0.000	0	N.D.		
92) 2-Chloro-1,3-butadiene		0.000	10.427	0.000	0	N.D.		
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.		
94) Ethyl acetate	43	11.231	11.225	0.880	19715	7.80	ug/L	99
95) Propionitrile		0.000	11.305	0.000	0	N.D.		
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.		
97) Tetrahydrofuran	42	11.622	11.597	0.911	732	N.D.		
98) Isobutyl alcohol		0.000	12.176	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R511.D
Acq On : 27 Jul 2018 15:52
Operator : JP1
InstName : VOA3
Sample : |454944003|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.1G N/A SOIL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 27 16:30:53 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		0.000	12.500	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	13.560	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	13.652	0.000	0	N.D.	
102)	2-Nitropropane		0.000	14.103	0.000	0	N.D.	
104)	Ethyl methacrylate		0.000	14.987	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108)	Cyclohexanone		0.000	17.535	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	17.718	0.000	0	N.D.	
110)	Pentachloroethane		0.000	18.395	0.000	0	N.D.	
111)	Benzyl chloride	91	18.943	18.943	1.008	685	N.D.	
112)	bis(2-Chloroisopropyl)...	45	19.346	19.346	1.030	111	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R511.D
Acq On : 27 Jul 2018 15:52
Operator : JP1
InstName : VOA3
Sample : |454944003|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.1G N/A SOIL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 27 16:30:53 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

#9
Acetone
Concen: 14.08 ug/L
RT: 8.244 min Scan# 550
Delta R.T. 0.012 min
Lab File: 3R511.D
Acq: 27 Jul 2018 15:52

Tgt Ion: 43 Resp: 25924

Ion	Ratio	Lower	Upper
43	100		
58	26.6	0.0	57.2

#75 BEFORE analyst DELETION
1,3-Dichlorobenzene
Concen: 0.41 ug/L
RT: 18.742 min Scan# 2272
Delta R.T. 0.012 min
Lab File: 3R511.D
Acq: 27 Jul 2018 15:52

Tgt Ion:146 Resp: 537

Ion	Ratio	Lower	Upper
146	100		
148	51.8	34.5	94.5
111	0.0	11.6	71.6#

#76 BEFORE analyst DELETION
1,4-Dichlorobenzene
Concen: 0.76 ug/L
RT: 18.815 min Scan# 2284
Delta R.T. -0.006 min
Lab File: 3R511.D
Acq: 27 Jul 2018 15:52

Tgt Ion:146 Resp: 995

Ion	Ratio	Lower	Upper
146	100		
148	21.4	34.3	94.3#
111	38.2	11.0	71.0

#80 BEFORE analyst DELETION
1,2,4-Trichlorobenzene
Concen: 0.55 ug/L
RT: 21.114 min Scan# 2661
Delta R.T. 0.000 min
Lab File: 3R511.D
Acq: 27 Jul 2018 15:52

Tgt Ion:180 Resp: 590

Ion	Ratio	Lower	Upper
180	100		
182	124.6	66.7	126.7

#81 BEFORE analyst DELETION
Hexachlorobutadiene
Concen: 0.70 ug/L
RT: 21.266 min Scan# 2686
Delta R.T. -0.012 min
Lab File: 3R511.D
Acq: 27 Jul 2018 15:52

Tgt Ion:225 Resp: 516

Ion	Ratio	Lower	Upper
225	100		
223	0.0	32.9	92.9#
227	34.3	34.3	94.3

#82 BEFORE analyst DELETION
Naphthalene
Concen: 0.82 ug/L
RT: 21.498 min Scan# 2724
Delta R.T. 0.006 min
Lab File: 3R511.D
Acq: 27 Jul 2018 15:52

Tgt Ion:128 Resp: 1907

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	42.5
129	0.0	0.0	41.0

#83 BEFORE analyst DELETION
1,2,3-Trichlorobenzene
Concen: 0.84 ug/L
RT: 21.845 min Scan# 2781
Delta R.T. 0.025 min
Lab File: 3R511.D
Acq: 27 Jul 2018 15:52

Tgt Ion:180 Resp: 892

Ion	Ratio	Lower	Upper
180	100		
182	93.8	67.4	127.4
145	0.0	2.3	62.3#

#94
Ethyl acetate
Concen: 7.80 ug/L
RT: 11.231 min Scan# 1040
Delta R.T. 0.006 min
Lab File: 3R511.D
Acq: 27 Jul 2018 15:52

Tgt Ion: 43 Resp: 19715

Ion	Ratio	Lower	Upper
43	100		
61	14.6	0.0	43.8
70	11.1	0.0	40.8

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 09:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944004**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**9.4**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**SW24**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 16:25**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:16**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R214.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	108	ug/kg	16.2	108
79-34-5	1,1,2,2-Tetrachloroethane	U	108	ug/kg	16.2	108
79-00-5	1,1,2-Trichloroethane	U	108	ug/kg	16.2	108
75-34-3	1,1-Dichloroethane	U	108	ug/kg	16.2	108
75-35-4	1,1-Dichloroethylene	U	108	ug/kg	16.2	108
87-61-6	1,2,3-Trichlorobenzene	U	108	ug/kg	16.2	108
120-82-1	1,2,4-Trichlorobenzene	U	108	ug/kg	16.2	108
96-12-8	1,2-Dibromo-3-chloropropane	U	108	ug/kg	27.1	108
106-93-4	1,2-Dibromoethane	U	108	ug/kg	16.2	108
95-50-1	1,2-Dichlorobenzene	U	108	ug/kg	16.2	108
107-06-2	1,2-Dichloroethane	U	108	ug/kg	16.2	108
78-87-5	1,2-Dichloropropane	U	108	ug/kg	16.2	108
541-73-1	1,3-Dichlorobenzene	U	108	ug/kg	16.2	108
106-46-7	1,4-Dichlorobenzene	U	108	ug/kg	16.2	108
123-91-1	1,4-Dioxane	U	2710	ug/kg	812	2710
78-93-3	2-Butanone	U	541	ug/kg	162	541
591-78-6	2-Hexanone	U	541	ug/kg	162	541
108-10-1	4-Methyl-2-pentanone	U	541	ug/kg	162	541
67-64-1	Acetone	U	541	ug/kg	162	541
71-43-2	Benzene	U	108	ug/kg	16.2	108
74-97-5	Bromochloromethane	U	108	ug/kg	16.2	108
75-27-4	Bromodichloromethane	U	108	ug/kg	16.2	108
75-25-2	Bromoform	U	108	ug/kg	16.2	108
74-83-9	Bromomethane	U	108	ug/kg	16.2	108
75-15-0	Carbon disulfide	U	541	ug/kg	86.6	541
56-23-5	Carbon tetrachloride	U	108	ug/kg	16.2	108
108-90-7	Chlorobenzene	U	108	ug/kg	16.2	108
75-00-3	Chloroethane	U	108	ug/kg	16.2	108
67-66-3	Chloroform	U	108	ug/kg	16.2	108
74-87-3	Chloromethane	U	108	ug/kg	16.2	108
110-82-7	Cyclohexane	U	108	ug/kg	16.2	108
124-48-1	Dibromochloromethane	U	108	ug/kg	16.2	108
75-71-8	Dichlorodifluoromethane	U	108	ug/kg	16.2	108
100-41-4	Ethylbenzene	U	108	ug/kg	16.2	108
98-82-8	Isopropylbenzene	U	108	ug/kg	16.2	108
79-20-9	Methyl acetate	U	271	ug/kg	81.2	271
108-87-2	Methylcyclohexane	U	108	ug/kg	16.2	108
75-09-2	Methylene chloride	U	271	ug/kg	86.6	271

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 09:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944004**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**9.4**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**SW24**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 16:25**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:16**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R214.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	108	ug/kg	16.2	108
127-18-4	Tetrachloroethylene	U	108	ug/kg	16.2	108
108-88-3	Toluene	U	108	ug/kg	16.2	108
79-01-6	Trichloroethylene	U	108	ug/kg	16.2	108
75-69-4	Trichlorofluoromethane	U	108	ug/kg	16.2	108
76-13-1	Trichlorotrifluoroethane	U	271	ug/kg	86.6	271
75-01-4	Vinyl chloride	U	108	ug/kg	16.2	108
156-59-2	cis-1,2-Dichloroethylene	U	108	ug/kg	16.2	108
10061-01-5	cis-1,3-Dichloropropylene	U	108	ug/kg	16.2	108
179601-23-1	m,p-Xylenes	U	216	ug/kg	16.2	216
95-47-6	o-Xylene	U	108	ug/kg	16.2	108
1634-04-4	tert-Butyl methyl ether	U	108	ug/kg	16.2	108
156-60-5	trans-1,2-Dichloroethylene	U	108	ug/kg	16.2	108
10061-02-6	trans-1,3-Dichloropropylene	U	108	ug/kg	16.2	108

Quantitation Report
GEL Laboratories, LLC

JP
07/25/2018

KP
07/31/2018

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R214.D
Acq On : 24 Jul 2018 16:25
Operator : JP1
InstName : VOA3
Sample : |454944004|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 25 08:29:39 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.761	12.761	1.000	1339353	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	649940	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	531361	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.761	12.762	1.000	1342752	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	660980	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	532017	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	252734	50.42	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	1364823	45.07	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	549527	52.61	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	101%
45) Toluene-d8	50.000	81 - 120	90%
63) Bromofluorobenzene	50.000	70 - 130	105%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane	50	4.972	4.990	0.390	358	N.D.		
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		0.000	6.159	0.000	0	N.D.		
6) Chloroethane	64	6.287	6.372	0.493	249	N.D.		
7) Trichlorofluoromethane		0.000	7.061	0.000	0	N.D.		
8) Ethyl ether		0.000	7.610	0.000	0	N.D.		
9) Acetone	43	8.275	8.232	0.648	1588	N.D.		
10) 1,1-Dichloroethylene		0.000	8.177	0.000	0	N.D.		
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile		0.000	8.817	0.000	0	N.D.		
13) Methyl acetate		0.000	8.854	0.000	0	N.D.		
14) Carbon disulfide	76	8.640	8.665	0.677	733	N.D.		
15) Methylene chloride	84	9.079	9.091	0.711	6509	Below Cal		97
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane	57	9.982	9.988	0.782	364	N.D.		
19) Vinyl acetate	43	10.317	10.317	0.808	104	N.D.		
20) 1,1-Dichloroethane		0.000	10.286	0.000	0	N.D.		
21) 2-Butanone	72	11.195	11.183	0.877	1520	N.D.		
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		0.000	11.628	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	12.127	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane	62	12.444	12.438	0.975	538	N.D.		
32) Benzene	78	12.420	12.426	0.973	782	N.D.		
33) Cyclohexene	67	12.475	12.548	0.978	100	N.D.		
34) n-Butyl alcohol		0.000	13.024	0.000	0	N.D.		
35) Trichloroethylene		0.000	13.225	0.000	0	N.D.		
36) 2-Pentanone	43	13.414	13.396	1.051	2463	N.D.		
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		0.000	13.475	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R214.D
Acq On : 24 Jul 2018 16:25
Operator : JP1
InstName : VOA3
Sample : |454944004|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 25 08:29:39 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
39) Dibromomethane		0.000	13.682	0.000	0	N.D.	
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	14.353	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	14.487	0.000	0	N.D.	
46) Toluene	91	14.749	14.755	0.904	1078	N.D.	
47) trans-1,3-Dichloroprop...		0.000	14.968	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.	
49) 2-Hexanone		0.000	15.413	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	15.401	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	15.383	0.000	0	N.D.	
52) Dibromochloromethane		0.000	15.676	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	15.840	0.000	0	N.D.	
54) Chlorobenzene	112	16.340	16.352	1.001	385	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	16.419	0.000	0	N.D.	
56) Ethylbenzene	91	16.425	16.425	1.007	441	N.D.	
57) m,p-Xylenes	106	16.535	16.541	1.013	373	N.D.	
58) o-Xylene		0.000	16.986	0.000	0	N.D.	
59) Styrene	104	17.011	16.992	1.043	170	N.D.	
61) Bromoform		0.000	17.261	0.000	0	N.D.	
62) Isopropylbenzene	105	17.352	17.358	0.923	158	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	17.663	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	17.748	0.000	0	N.D.	
66) Bromobenzene	156	17.767	17.767	0.945	191	N.D.	
67) n-Propylbenzene	91	17.773	17.791	0.946	161	N.D.	
68) 1,3,5-Trimethylbenzene	105	17.943	17.949	0.955	190	N.D.	
69) 2-Chlorotoluene		0.000	17.937	0.000	0	N.D.	
70) 4-Chlorotoluene	91	18.047	18.041	0.960	573	N.D.	
71) tert-Butylbenzene		0.000	18.321	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	18.370	18.364	0.978	486	N.D.	
73) sec-Butylbenzene		0.000	18.547	0.000	0	N.D.	
74) 4-Isopropyltoluene	119	18.803	18.675	1.001	109	N.D.	
75) 1,3-Dichlorobenzene	146	18.736	18.730	0.997	544	N.D.	
76) 1,4-Dichlorobenzene	146	18.821	18.821	1.002	687	N.D.	
77) n-Butylbenzene	91	19.108	19.108	1.017	382	N.D.	
78) 1,2-Dichlorobenzene	146	19.236	19.236	1.024	539	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	21.120	21.113	1.124	529	N.D.	
81) Hexachlorobutadiene		0.000	21.278	0.000	0	N.D.	
82) Naphthalene	128	21.498	21.491	1.144	2060	N.D.	
83) 1,2,3-Trichlorobenzene	180	21.827	21.821	1.162	490	N.D.	
85) Acrolein		0.000	7.927	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	8.165	0.000	0	N.D.	
87) Isopropyl Alcohol	45	8.640	8.464	0.677	362	N.D.	
88) Allyl chloride	76	8.640	8.842	0.677	733	N.D.	
89) tert-Butyl Alcohol		0.000	9.220	0.000	0	N.D.	
90) Acrylonitrile		0.000	9.531	0.000	0	N.D.	
91) Isopropyl ether		0.000	10.317	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	10.427	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.	
94) Ethyl acetate	43	11.195	11.225	0.877	7218	N.D.	
95) Propionitrile		0.000	11.305	0.000	0	N.D.	
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.	
97) Tetrahydrofuran	42	11.615	11.597	0.910	2037	N.D.	
98) Isobutyl alcohol	43	12.091	12.176	0.947	106	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R214.D
Acq On : 24 Jul 2018 16:25
Operator : JP1
InstName : VOA3
Sample : |454944004|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 25 08:29:39 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		0.000	12.500	0.000	0	N.D.	
100)	Methyl methacrylate	69	13.572	13.560	1.064	112	N.D.	
101)	1,4-Dioxane		0.000	13.652	0.000	0	N.D.	
102)	2-Nitropropane		0.000	14.103	0.000	0m	N.D.	d
104)	Ethyl methacrylate		0.000	14.987	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108)	Cyclohexanone	55	17.565	17.535	0.935	1454	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	17.718	0.000	0	N.D.	
110)	Pentachloroethane		0.000	18.395	0.000	0	N.D.	
111)	Benzyl chloride	91	18.943	18.943	1.008	374	N.D.	
112)	bis(2-Chloroisopropyl)...	45	19.388	19.346	1.032	1160	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R214.D
Acq On : 24 Jul 2018 16:25
Operator : JP1
InstName : VOA3
Sample : |454944004|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 25 08:29:39 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

#102 BEFORE analyst DELETION
2-Nitropropane
Concen: 3.39 ug/L
RT: 13.987 min Scan# 1492
Delta R.T. -0.116 min
Lab File: 3R214.D
Acq: 24 Jul 2018 16:25

Tgt Ion: 43 Resp: 160

Ion	Ratio	Lower	Upper
43	100		
41	192.5	55.3	115.3#

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 09:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944004**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**9.4**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**SW24RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 16:23**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:04**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R512.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	2.08	ug/kg	0.312	2.08
79-34-5	1,1,2,2-Tetrachloroethane	U	2.08	ug/kg	0.312	2.08
79-00-5	1,1,2-Trichloroethane	U	2.08	ug/kg	0.312	2.08
75-34-3	1,1-Dichloroethane	U	2.08	ug/kg	0.312	2.08
75-35-4	1,1-Dichloroethylene	U	2.08	ug/kg	0.312	2.08
87-61-6	1,2,3-Trichlorobenzene	U	2.08	ug/kg	0.312	2.08
120-82-1	1,2,4-Trichlorobenzene	J	0.479	ug/kg	0.312	2.08
96-12-8	1,2-Dibromo-3-chloropropane	U	2.08	ug/kg	0.521	2.08
106-93-4	1,2-Dibromoethane	U	2.08	ug/kg	0.312	2.08
95-50-1	1,2-Dichlorobenzene	U	2.08	ug/kg	0.312	2.08
107-06-2	1,2-Dichloroethane	U	2.08	ug/kg	0.312	2.08
78-87-5	1,2-Dichloropropane	U	2.08	ug/kg	0.312	2.08
541-73-1	1,3-Dichlorobenzene	U	2.08	ug/kg	0.312	2.08
106-46-7	1,4-Dichlorobenzene	U	2.08	ug/kg	0.312	2.08
123-91-1	1,4-Dioxane	U	52.1	ug/kg	15.6	52.1
78-93-3	2-Butanone	U	10.4	ug/kg	3.12	10.4
591-78-6	2-Hexanone	U	10.4	ug/kg	3.12	10.4
108-10-1	4-Methyl-2-pentanone	U	10.4	ug/kg	3.12	10.4
67-64-1	Acetone	J	6.57	ug/kg	3.12	10.4
71-43-2	Benzene	U	2.08	ug/kg	0.312	2.08
74-97-5	Bromochloromethane	U	2.08	ug/kg	0.312	2.08
75-27-4	Bromodichloromethane	U	2.08	ug/kg	0.312	2.08
75-25-2	Bromoform	U	2.08	ug/kg	0.312	2.08
74-83-9	Bromomethane	U	2.08	ug/kg	0.312	2.08
75-15-0	Carbon disulfide	U	10.4	ug/kg	1.67	10.4
56-23-5	Carbon tetrachloride	U	2.08	ug/kg	0.312	2.08
108-90-7	Chlorobenzene	U	2.08	ug/kg	0.312	2.08
75-00-3	Chloroethane	U	2.08	ug/kg	0.312	2.08
67-66-3	Chloroform	U	2.08	ug/kg	0.312	2.08
74-87-3	Chloromethane	U	2.08	ug/kg	0.312	2.08
110-82-7	Cyclohexane	U	2.08	ug/kg	0.312	2.08
124-48-1	Dibromochloromethane	U	2.08	ug/kg	0.312	2.08
75-71-8	Dichlorodifluoromethane	U	2.08	ug/kg	0.312	2.08
100-41-4	Ethylbenzene	U	2.08	ug/kg	0.312	2.08
98-82-8	Isopropylbenzene	U	2.08	ug/kg	0.312	2.08
79-20-9	Methyl acetate	U	5.21	ug/kg	1.56	5.21
108-87-2	Methylcyclohexane	U	2.08	ug/kg	0.312	2.08
75-09-2	Methylene chloride	U	5.21	ug/kg	1.67	5.21

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 09:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944004**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**9.4**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**SW24RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 16:23**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:04**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R512.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	2.08	ug/kg	0.312	2.08
127-18-4	Tetrachloroethylene	U	2.08	ug/kg	0.312	2.08
108-88-3	Toluene	U	2.08	ug/kg	0.312	2.08
79-01-6	Trichloroethylene	U	2.08	ug/kg	0.312	2.08
75-69-4	Trichlorofluoromethane	U	2.08	ug/kg	0.312	2.08
76-13-1	Trichlorotrifluoroethane	U	5.21	ug/kg	1.67	5.21
75-01-4	Vinyl chloride	U	2.08	ug/kg	0.312	2.08
156-59-2	cis-1,2-Dichloroethylene	U	2.08	ug/kg	0.312	2.08
10061-01-5	cis-1,3-Dichloropropylene	U	2.08	ug/kg	0.312	2.08
179601-23-1	m,p-Xylenes	U	4.17	ug/kg	0.312	4.17
95-47-6	o-Xylene	U	2.08	ug/kg	0.312	2.08
1634-04-4	tert-Butyl methyl ether	U	2.08	ug/kg	0.312	2.08
156-60-5	trans-1,2-Dichloroethylene	U	2.08	ug/kg	0.312	2.08
10061-02-6	trans-1,3-Dichloropropylene	U	2.08	ug/kg	0.312	2.08

Quantitation Report
GEL Laboratories, LLC

JP
07/31/2018

KP
07/31/2018

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R512.D
Acq On : 27 Jul 2018 16:23
Operator : JP1
InstName : VOA3
Sample : |454944004|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.3G N/A SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 31 14:31:32 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.762	12.761	1.000	519412	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	101575	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.797	18.791	1.000	40895	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	520969	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	102663	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.797	18.791	1.000	40895	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	67	12.347	12.341	0.968	134627	69.26	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	305358	64.53	ug/L	0.00
63) Bromofluorobenzene	95	17.566	17.559	0.934	46672	58.06	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	139%#
45) Toluene-d8	50.000	81 - 120	129%#
63) Bromofluorobenzene	50.000	70 - 130	116%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane	50	4.991	4.990	0.391	502	N.D.		
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		0.000	6.159	0.000	0	N.D.		
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	7.061	0.000	0	N.D.		
8) Ethyl ether		0.000	7.610	0.000	0	N.D.		
9) Acetone	43	8.256	8.232	0.647	11826	6.31	ug/L	90
10) 1,1-Dichloroethylene		0.000	8.177	0.000	0	N.D.		
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile		0.000	8.817	0.000	0	N.D.		
13) Methyl acetate		0.000	8.854	0.000	0	N.D.		
14) Carbon disulfide	76	8.604	8.665	0.674	7752	N.D.		
15) Methylene chloride	84	9.098	9.091	0.713	4375	N.D.		
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane		0.000	9.988	0.000	0	N.D.		
19) Vinyl acetate		0.000	10.317	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	10.286	0.000	0	N.D.		
21) 2-Butanone		0.000	11.183	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		0.000	11.628	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	12.127	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	12.438	0.000	0	N.D.		
32) Benzene	78	12.420	12.426	0.973	502	N.D.		
33) Cyclohexene		0.000	12.548	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	13.024	0.000	0	N.D.		
35) Trichloroethylene		0.000	13.225	0.000	0	N.D.		
36) 2-Pentanone		0.000	13.396	0.000	0	N.D.		
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		0.000	13.475	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R512.D
Acq On : 27 Jul 2018 16:23
Operator : JP1
InstName : VOA3
Sample : |454944004|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.3G N/A SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 31 14:31:32 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
39) Dibromomethane		0.000	13.682	0.000	0	N.D.		
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		0.000	14.353	0.000	0	N.D.		
44) 4-Methyl-2-pentanone		0.000	14.487	0.000	0	N.D.		
46) Toluene	91	14.749	14.755	0.904	405	N.D.		
47) trans-1,3-Dichloroprop...		0.000	14.968	0.000	0	N.D.		
48) 1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.		
49) 2-Hexanone		0.000	15.413	0.000	0	N.D.		
50) 1,3-Dichloropropane		0.000	15.401	0.000	0	N.D.		
51) Tetrachloroethylene		0.000	15.383	0.000	0	N.D.		
52) Dibromochloromethane		0.000	15.676	0.000	0	N.D.		
53) 1,2-Dibromoethane		0.000	15.840	0.000	0	N.D.		
54) Chlorobenzene		0.000	16.352	0.000	0	N.D.		
55) 1,1,1,2-Tetrachloroethane		0.000	16.419	0.000	0	N.D.		
56) Ethylbenzene		0.000	16.425	0.000	0	N.D.		
57) m,p-Xylenes		0.000	16.541	0.000	0	N.D.		
58) o-Xylene		0.000	16.986	0.000	0	N.D.		
59) Styrene		0.000	16.992	0.000	0	N.D.		
61) Bromoform		0.000	17.261	0.000	0	N.D.		
62) Isopropylbenzene		0.000	17.358	0.000	0	N.D.		
64) 1,1,2,2-Tetrachloroethane		0.000	17.663	0.000	0	N.D.		
65) 1,2,3-Trichloropropane		0.000	17.748	0.000	0	N.D.		
66) Bromobenzene		0.000	17.767	0.000	0	N.D.		
67) n-Propylbenzene	91	17.797	17.791	0.947	195	N.D.		
68) 1,3,5-Trimethylbenzene		0.000	17.949	0.000	0	N.D.		
69) 2-Chlorotoluene		0.000	17.937	0.000	0	N.D.		
70) 4-Chlorotoluene	91	18.047	18.041	0.960	252	N.D.		
71) tert-Butylbenzene		0.000	18.321	0.000	0	N.D.		
72) 1,2,4-Trimethylbenzene	105	18.364	18.364	0.977	117	N.D.		
73) sec-Butylbenzene		0.000	18.547	0.000	0	N.D.		
74) 4-Isopropyltoluene		0.000	18.675	0.000	0	N.D.		
75) 1,3-Dichlorobenzene	146	18.730	18.730	0.996	211	N.D.		
76) 1,4-Dichlorobenzene		0.000	18.821	0.000	0m	N.D.	d	
77) n-Butylbenzene	91	19.120	19.108	1.017	279	N.D.		
78) 1,2-Dichlorobenzene	146	19.242	19.236	1.024	318	N.D.		
79) 1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.		
80) 1,2,4-Trichlorobenzene	180	21.120	21.113	1.124	479	0.46	ug/L	82
81) Hexachlorobutadiene	225	21.278	21.278	1.132	189	N.D.		
82) Naphthalene		0.000	21.491	0.000	0m	N.D.	d	
83) 1,2,3-Trichlorobenzene	180	21.815	21.821	1.161	405	N.D.		
85) Acrolein		0.000	7.927	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	8.165	0.000	0	N.D.		
87) Isopropyl Alcohol		0.000	8.464	0.000	0	N.D.		
88) Allyl chloride		0.000	8.842	0.000	0	N.D.		
89) tert-Butyl Alcohol		0.000	9.220	0.000	0	N.D.		
90) Acrylonitrile		0.000	9.531	0.000	0	N.D.		
91) Isopropyl ether		0.000	10.317	0.000	0	N.D.		
92) 2-Chloro-1,3-butadiene		0.000	10.427	0.000	0	N.D.		
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.		
94) Ethyl acetate	43	11.238	11.225	0.881	2439	N.D.		
95) Propionitrile		0.000	11.305	0.000	0	N.D.		
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.		
97) Tetrahydrofuran	42	11.616	11.597	0.910	849	N.D.		
98) Isobutyl alcohol		0.000	12.176	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R512.D
Acq On : 27 Jul 2018 16:23
Operator : JP1
InstName : VOA3
Sample : |454944004|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.3G N/A SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 31 14:31:32 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		0.000	12.500	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	13.560	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	13.652	0.000	0	N.D.	
102)	2-Nitropropane		0.000	14.103	0.000	0	N.D.	
104)	Ethyl methacrylate		0.000	14.987	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108)	Cyclohexanone		0.000	17.535	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	17.718	0.000	0	N.D.	
110)	Pentachloroethane		0.000	18.395	0.000	0	N.D.	
111)	Benzyl chloride	91	18.956	18.943	1.008	377	N.D.	
112)	bis(2-Chloroisopropyl)...		0.000	19.346	0.000	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R512.D
Acq On : 27 Jul 2018 16:23
Operator : JP1
InstName : VOA3
Sample : |454944004|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.3G N/A SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 31 14:31:32 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

#9
Acetone
Concen: 6.31 ug/L
RT: 8.256 min Scan# 552
Delta R.T. 0.025 min
Lab File: 3R512.D
Acq: 27 Jul 2018 16:23

Tgt Ion: 43 Resp: 11826

Ion	Ratio	Lower	Upper
43	100		
58	21.8	0.0	57.2

#76 BEFORE analyst DELETION
1,4-Dichlorobenzene
Concen: 0.46 ug/L
RT: 18.815 min Scan# 2284
Delta R.T. -0.006 min
Lab File: 3R512.D
Acq: 27 Jul 2018 16:23

Tgt Ion:146 Resp: 590

Ion	Ratio	Lower	Upper
146	100		
148	59.2	34.3	94.3
111	118.0	11.0	71.0#

#80
1,2,4-Trichlorobenzene
Concen: 0.46 ug/L
RT: 21.120 min Scan# 2662
Delta R.T. 0.006 min
Lab File: 3R512.D
Acq: 27 Jul 2018 16:23

Tgt Ion:180 Resp: 479

Ion	Ratio	Lower	Upper
180	100		
182	78.9	66.7	126.7

#82 BEFORE analyst DELETION
Naphthalene
Concen: 0.53 ug/L
RT: 21.492 min Scan# 2723
Delta R.T. 0.000 min
Lab File: 3R512.D
Acq: 27 Jul 2018 16:23

Tgt Ion:128 Resp: 1192

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	42.5
129	0.0	0.0	41.0

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 2.89 ug/L
RT: 19.382 min Scan# 2377
Delta R.T. 0.037 min
Lab File: 3R512.D
Acq: 27 Jul 2018 16:23

Tgt Ion: 45 Resp: 895

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	52.1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 10:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944005**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**8.8**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S05**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 16:56**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:17**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R215.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	105	ug/kg	15.8	105
79-34-5	1,1,2,2-Tetrachloroethane	U	105	ug/kg	15.8	105
79-00-5	1,1,2-Trichloroethane	U	105	ug/kg	15.8	105
75-34-3	1,1-Dichloroethane	U	105	ug/kg	15.8	105
75-35-4	1,1-Dichloroethylene	U	105	ug/kg	15.8	105
87-61-6	1,2,3-Trichlorobenzene	U	105	ug/kg	15.8	105
120-82-1	1,2,4-Trichlorobenzene	U	105	ug/kg	15.8	105
96-12-8	1,2-Dibromo-3-chloropropane	U	105	ug/kg	26.4	105
106-93-4	1,2-Dibromoethane	U	105	ug/kg	15.8	105
95-50-1	1,2-Dichlorobenzene	U	105	ug/kg	15.8	105
107-06-2	1,2-Dichloroethane	U	105	ug/kg	15.8	105
78-87-5	1,2-Dichloropropane	U	105	ug/kg	15.8	105
541-73-1	1,3-Dichlorobenzene	U	105	ug/kg	15.8	105
106-46-7	1,4-Dichlorobenzene	U	105	ug/kg	15.8	105
123-91-1	1,4-Dioxane	U	2640	ug/kg	791	2640
78-93-3	2-Butanone	U	527	ug/kg	158	527
591-78-6	2-Hexanone	U	527	ug/kg	158	527
108-10-1	4-Methyl-2-pentanone	U	527	ug/kg	158	527
67-64-1	Acetone	U	527	ug/kg	158	527
71-43-2	Benzene	U	105	ug/kg	15.8	105
74-97-5	Bromochloromethane	U	105	ug/kg	15.8	105
75-27-4	Bromodichloromethane	U	105	ug/kg	15.8	105
75-25-2	Bromoform	U	105	ug/kg	15.8	105
74-83-9	Bromomethane	U	105	ug/kg	15.8	105
75-15-0	Carbon disulfide	U	527	ug/kg	84.4	527
56-23-5	Carbon tetrachloride	U	105	ug/kg	15.8	105
108-90-7	Chlorobenzene	U	105	ug/kg	15.8	105
75-00-3	Chloroethane	U	105	ug/kg	15.8	105
67-66-3	Chloroform	U	105	ug/kg	15.8	105
74-87-3	Chloromethane	U	105	ug/kg	15.8	105
110-82-7	Cyclohexane	U	105	ug/kg	15.8	105
124-48-1	Dibromochloromethane	U	105	ug/kg	15.8	105
75-71-8	Dichlorodifluoromethane	U	105	ug/kg	15.8	105
100-41-4	Ethylbenzene	U	105	ug/kg	15.8	105
98-82-8	Isopropylbenzene	U	105	ug/kg	15.8	105
79-20-9	Methyl acetate	U	264	ug/kg	79.1	264
108-87-2	Methylcyclohexane	U	105	ug/kg	15.8	105
75-09-2	Methylene chloride	U	264	ug/kg	84.4	264

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 10:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944005**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**8.8**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S05**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 16:56**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:17**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R215.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	105	ug/kg	15.8	105
127-18-4	Tetrachloroethylene	U	105	ug/kg	15.8	105
108-88-3	Toluene	U	105	ug/kg	15.8	105
79-01-6	Trichloroethylene	U	105	ug/kg	15.8	105
75-69-4	Trichlorofluoromethane	U	105	ug/kg	15.8	105
76-13-1	Trichlorotrifluoroethane	U	264	ug/kg	84.4	264
75-01-4	Vinyl chloride	U	105	ug/kg	15.8	105
156-59-2	cis-1,2-Dichloroethylene	U	105	ug/kg	15.8	105
10061-01-5	cis-1,3-Dichloropropylene	U	105	ug/kg	15.8	105
179601-23-1	m,p-Xylenes	U	211	ug/kg	15.8	211
95-47-6	o-Xylene	U	105	ug/kg	15.8	105
1634-04-4	tert-Butyl methyl ether	U	105	ug/kg	15.8	105
156-60-5	trans-1,2-Dichloroethylene	U	105	ug/kg	15.8	105
10061-02-6	trans-1,3-Dichloropropylene	U	105	ug/kg	15.8	105

Quantitation Report
GEL Laboratories, LLC

JP
07/25/2018

KP
07/31/2018

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R215.D
Acq On : 24 Jul 2018 16:56
Operator : JP1
InstName : VOA3
Sample : |454944005|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 25 08:29:41 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.762	12.761	1.000	1359533	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	629276	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	547430	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	1362208	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	639264	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	547806	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	257982	50.71	ug/L	0.00
45) Toluene-d8	98	14.670	14.676	0.899	1382017	47.14	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	584399	54.31	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	101%
45) Toluene-d8	50.000	81 - 120	94%
63) Bromofluorobenzene	50.000	70 - 130	109%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane		0.000	4.990	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane	94	6.050	6.159	0.474	1419	N.D.		
6) Chloroethane	64	6.269	6.372	0.491	265	N.D.		
7) Trichlorofluoromethane		0.000	7.061	0.000	0	N.D.		
8) Ethyl ether		0.000	7.610	0.000	0	N.D.		
9) Acetone	43	8.269	8.232	0.648	2207	N.D.		
10) 1,1-Dichloroethylene		0.000	8.177	0.000	0	N.D.		
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile		0.000	8.817	0.000	0	N.D.		
13) Methyl acetate		0.000	8.854	0.000	0	N.D.		
14) Carbon disulfide	76	8.640	8.665	0.677	1923	N.D.		
15) Methylene chloride	84	9.067	9.091	0.711	7309	Below Cal		96
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane	57	9.969	9.988	0.781	248	N.D.		
19) Vinyl acetate		0.000	10.317	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	10.286	0.000	0	N.D.		
21) 2-Butanone	72	11.201	11.183	0.878	1279	N.D.		
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		0.000	11.628	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	12.127	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane	62	12.451	12.438	0.976	653	N.D.		
32) Benzene	78	12.420	12.426	0.973	547	N.D.		
33) Cyclohexene	67	12.463	12.548	0.977	185	N.D.		
34) n-Butyl alcohol		0.000	13.024	0.000	0	N.D.		
35) Trichloroethylene		0.000	13.225	0.000	0	N.D.		
36) 2-Pentanone	43	13.414	13.396	1.051	2270	N.D.		
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		0.000	13.475	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R215.D
Acq On : 24 Jul 2018 16:56
Operator : JP1
InstName : VOA3
Sample : |454944005|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 25 08:29:41 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
39) Dibromomethane		0.000	13.682	0.000	0	N.D.	
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	14.353	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	14.487	0.000	0	N.D.	
46) Toluene	91	14.755	14.755	0.904	958	N.D.	
47) trans-1,3-Dichloroprop...		0.000	14.968	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.	
49) 2-Hexanone		0.000	15.413	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	15.401	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	15.383	0.000	0	N.D.	
52) Dibromochloromethane		0.000	15.676	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	15.840	0.000	0	N.D.	
54) Chlorobenzene	112	16.346	16.352	1.002	165	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	16.419	0.000	0	N.D.	
56) Ethylbenzene	91	16.426	16.425	1.007	384	N.D.	
57) m,p-Xylenes	106	16.554	16.541	1.015	454	N.D.	
58) o-Xylene		0.000	16.986	0.000	0	N.D.	
59) Styrene	104	16.999	16.992	1.042	180	N.D.	
61) Bromoform		0.000	17.261	0.000	0	N.D.	
62) Isopropylbenzene	105	17.358	17.358	0.924	178	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	17.663	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	17.748	0.000	0	N.D.	
66) Bromobenzene		0.000	17.767	0.000	0	N.D.	
67) n-Propylbenzene	91	17.779	17.791	0.946	182	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	17.949	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	17.937	0.000	0	N.D.	
70) 4-Chlorotoluene	91	18.047	18.041	0.960	837	N.D.	
71) tert-Butylbenzene		0.000	18.321	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	18.358	18.364	0.977	384	N.D.	
73) sec-Butylbenzene		0.000	18.547	0.000	0	N.D.	
74) 4-Isopropyltoluene	119	18.791	18.675	1.000	165	N.D.	
75) 1,3-Dichlorobenzene	146	18.736	18.730	0.997	372	N.D.	
76) 1,4-Dichlorobenzene	146	18.815	18.821	1.001	851	N.D.	
77) n-Butylbenzene	91	19.114	19.108	1.017	227	N.D.	
78) 1,2-Dichlorobenzene	146	19.242	19.236	1.024	102	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	21.108	21.113	1.123	301	N.D.	
81) Hexachlorobutadiene		0.000	21.278	0.000	0	N.D.	
82) Naphthalene	128	21.510	21.491	1.145	1836	N.D.	
83) 1,2,3-Trichlorobenzene	180	21.827	21.821	1.162	433	N.D.	
85) Acrolein		0.000	7.927	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	8.165	0.000	0	N.D.	
87) Isopropyl Alcohol	45	8.537	8.464	0.669	239	N.D.	
88) Allyl chloride	76	8.701	8.842	0.682	189	N.D.	
89) tert-Butyl Alcohol		0.000	9.220	0.000	0	N.D.	
90) Acrylonitrile		0.000	9.531	0.000	0	N.D.	
91) Isopropyl ether		0.000	10.317	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	10.427	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.	
94) Ethyl acetate	43	11.195	11.225	0.877	8257	N.D.	
95) Propionitrile		0.000	11.305	0.000	0	N.D.	
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.	
97) Tetrahydrofuran	42	11.609	11.597	0.910	2320	N.D.	
98) Isobutyl alcohol		0.000	12.176	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R215.D
Acq On : 24 Jul 2018 16:56
Operator : JP1
InstName : VOA3
Sample : |454944005|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 25 08:29:41 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		0.000	12.500	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	13.560	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	13.652	0.000	0	N.D.	
102)	2-Nitropropane		0.000	14.103	0.000	0m	N.D.	d
104)	Ethyl methacrylate		0.000	14.987	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108)	Cyclohexanone	55	17.559	17.535	0.934	1370	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	17.718	0.000	0	N.D.	
110)	Pentachloroethane		0.000	18.395	0.000	0	N.D.	
111)	Benzyl chloride		0.000	18.943	0.000	0	N.D.	
112)	bis(2-Chloroisopropyl)...	45	19.394	19.346	1.032	1374	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R215.D
Acq On : 24 Jul 2018 16:56
Operator : JP1
InstName : VOA3
Sample : |454944005|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 25 08:29:41 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

#102 BEFORE analyst DELETION
2-Nitropropane
Concen: 3.40 ug/L
RT: 13.993 min Scan# 1493
Delta R.T. -0.110 min
Lab File: 3R215.D
Acq: 24 Jul 2018 16:56

Tgt Ion: 43 Resp: 175

Ion	Ratio	Lower	Upper
43	100		
41	186.9	55.3	115.3#

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 10:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944005**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**8.8**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S05RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 16:54**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:05**	**Aliquot:**	**5.6 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R513.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.96	ug/kg	0.294	1.96
79-34-5	1,1,2,2-Tetrachloroethane	U	1.96	ug/kg	0.294	1.96
79-00-5	1,1,2-Trichloroethane	U	1.96	ug/kg	0.294	1.96
75-34-3	1,1-Dichloroethane	U	1.96	ug/kg	0.294	1.96
75-35-4	1,1-Dichloroethylene	U	1.96	ug/kg	0.294	1.96
87-61-6	1,2,3-Trichlorobenzene	U	1.96	ug/kg	0.294	1.96
120-82-1	1,2,4-Trichlorobenzene	U	1.96	ug/kg	0.294	1.96
96-12-8	1,2-Dibromo-3-chloropropane	U	1.96	ug/kg	0.490	1.96
106-93-4	1,2-Dibromoethane	U	1.96	ug/kg	0.294	1.96
95-50-1	1,2-Dichlorobenzene	U	1.96	ug/kg	0.294	1.96
107-06-2	1,2-Dichloroethane	U	1.96	ug/kg	0.294	1.96
78-87-5	1,2-Dichloropropane	U	1.96	ug/kg	0.294	1.96
541-73-1	1,3-Dichlorobenzene	U	1.96	ug/kg	0.294	1.96
106-46-7	1,4-Dichlorobenzene	U	1.96	ug/kg	0.294	1.96
123-91-1	1,4-Dioxane	U	49.0	ug/kg	14.7	49.0
78-93-3	2-Butanone	U	9.79	ug/kg	2.94	9.79
591-78-6	2-Hexanone	U	9.79	ug/kg	2.94	9.79
108-10-1	4-Methyl-2-pentanone	U	9.79	ug/kg	2.94	9.79
67-64-1	Acetone		12.3	ug/kg	2.94	9.79
71-43-2	Benzene	U	1.96	ug/kg	0.294	1.96
74-97-5	Bromochloromethane	U	1.96	ug/kg	0.294	1.96
75-27-4	Bromodichloromethane	U	1.96	ug/kg	0.294	1.96
75-25-2	Bromoform	U	1.96	ug/kg	0.294	1.96
74-83-9	Bromomethane	U	1.96	ug/kg	0.294	1.96
75-15-0	Carbon disulfide	J	1.60	ug/kg	1.57	9.79
56-23-5	Carbon tetrachloride	U	1.96	ug/kg	0.294	1.96
108-90-7	Chlorobenzene	U	1.96	ug/kg	0.294	1.96
75-00-3	Chloroethane	U	1.96	ug/kg	0.294	1.96
67-66-3	Chloroform	U	1.96	ug/kg	0.294	1.96
74-87-3	Chloromethane	U	1.96	ug/kg	0.294	1.96
110-82-7	Cyclohexane	U	1.96	ug/kg	0.294	1.96
124-48-1	Dibromochloromethane	U	1.96	ug/kg	0.294	1.96
75-71-8	Dichlorodifluoromethane	U	1.96	ug/kg	0.294	1.96
100-41-4	Ethylbenzene	U	1.96	ug/kg	0.294	1.96
98-82-8	Isopropylbenzene	U	1.96	ug/kg	0.294	1.96
79-20-9	Methyl acetate	U	4.90	ug/kg	1.47	4.90
108-87-2	Methylcyclohexane	U	1.96	ug/kg	0.294	1.96
75-09-2	Methylene chloride	U	4.90	ug/kg	1.57	4.90

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 10:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944005**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**8.8**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S05RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 16:54**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:05**	**Aliquot:**	**5.6 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R513.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	1.96	ug/kg	0.294	1.96
127-18-4	Tetrachloroethylene	U	1.96	ug/kg	0.294	1.96
108-88-3	Toluene	U	1.96	ug/kg	0.294	1.96
79-01-6	Trichloroethylene	U	1.96	ug/kg	0.294	1.96
75-69-4	Trichlorofluoromethane	U	1.96	ug/kg	0.294	1.96
76-13-1	Trichlorotrifluoroethane	U	4.90	ug/kg	1.57	4.90
75-01-4	Vinyl chloride	U	1.96	ug/kg	0.294	1.96
156-59-2	cis-1,2-Dichloroethylene	U	1.96	ug/kg	0.294	1.96
10061-01-5	cis-1,3-Dichloropropylene	U	1.96	ug/kg	0.294	1.96
179601-23-1	m,p-Xylenes	U	3.92	ug/kg	0.294	3.92
95-47-6	o-Xylene	U	1.96	ug/kg	0.294	1.96
1634-04-4	tert-Butyl methyl ether	U	1.96	ug/kg	0.294	1.96
156-60-5	trans-1,2-Dichloroethylene	U	1.96	ug/kg	0.294	1.96
10061-02-6	trans-1,3-Dichloropropylene	U	1.96	ug/kg	0.294	1.96

Quantitation Report
GEL Laboratories, LLC

JP 07/30/2018

KP 07/31/2018

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R513.D
Acq On : 27 Jul 2018 16:54
Operator : JP1
InstName : VOA3
Sample : |454944005|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.6G N/A SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 28 10:02:11 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.768	12.761	1.000	626630	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	190761	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	111797	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.768	12.762	1.000	628317	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	193194	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	111801	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	133028	56.73	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	490640	55.21	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	135195	61.52	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	113%
45) Toluene-d8	50.000	81 - 120	110%
63) Bromofluorobenzene	50.000	70 - 130	123%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane	50	4.972	4.990	0.389	685	N.D.		
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		0.000	6.159	0.000	0	N.D.		
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	7.061	0.000	0	N.D.		
8) Ethyl ether	59	7.604	7.610	0.596	226	N.D.		
9) Acetone	43	8.256	8.232	0.647	28469	12.58	ug/L	95
10) 1,1-Dichloroethylene		0.000	8.177	0.000	0	N.D.		
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile		0.000	8.817	0.000	0	N.D.		
13) Methyl acetate		0.000	8.854	0.000	0	N.D.		
14) Carbon disulfide	76	8.604	8.665	0.674	21022	1.63	ug/L	93
15) Methylene chloride	84	9.085	9.091	0.712	8114	N.D.		
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane		0.000	9.988	0.000	0	N.D.		
19) Vinyl acetate		0.000	10.317	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	10.286	0.000	0	N.D.		
21) 2-Butanone		0.000	11.183	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		0.000	11.628	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	12.127	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	12.438	0.000	0	N.D.		
32) Benzene	78	12.420	12.426	0.973	762	N.D.		
33) Cyclohexene		0.000	12.548	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	13.024	0.000	0	N.D.		
35) Trichloroethylene		0.000	13.225	0.000	0	N.D.		
36) 2-Pentanone		0.000	13.396	0.000	0	N.D.		
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		0.000	13.475	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R513.D
Acq On : 27 Jul 2018 16:54
Operator : JP1
InstName : VOA3
Sample : |454944005|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.6G N/A SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 28 10:02:11 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
39) Dibromomethane		0.000	13.682	0.000	0	N.D.		
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		0.000	14.353	0.000	0	N.D.		
44) 4-Methyl-2-pentanone		0.000	14.487	0.000	0	N.D.		
46) Toluene	91	14.749	14.755	0.904	434	N.D.		
47) trans-1,3-Dichloroprop...		0.000	14.968	0.000	0	N.D.		
48) 1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.		
49) 2-Hexanone		0.000	15.413	0.000	0	N.D.		
50) 1,3-Dichloropropane		0.000	15.401	0.000	0	N.D.		
51) Tetrachloroethylene		0.000	15.383	0.000	0	N.D.		
52) Dibromochloromethane		0.000	15.676	0.000	0	N.D.		
53) 1,2-Dibromoethane		0.000	15.840	0.000	0	N.D.		
54) Chlorobenzene		0.000	16.352	0.000	0	N.D.		
55) 1,1,1,2-Tetrachloroethane		0.000	16.419	0.000	0	N.D.		
56) Ethylbenzene	91	16.413	16.425	1.006	115	N.D.		
57) m,p-Xylenes		0.000	16.541	0.000	0	N.D.		
58) o-Xylene		0.000	16.986	0.000	0	N.D.		
59) Styrene		0.000	16.992	0.000	0	N.D.		
61) Bromoform		0.000	17.261	0.000	0	N.D.		
62) Isopropylbenzene		0.000	17.358	0.000	0	N.D.		
64) 1,1,2,2-Tetrachloroethane		0.000	17.663	0.000	0	N.D.		
65) 1,2,3-Trichloropropane		0.000	17.748	0.000	0	N.D.		
66) Bromobenzene		0.000	17.767	0.000	0	N.D.		
67) n-Propylbenzene		0.000	17.791	0.000	0	N.D.		
68) 1,3,5-Trimethylbenzene		0.000	17.949	0.000	0	N.D.		
69) 2-Chlorotoluene		0.000	17.937	0.000	0	N.D.		
70) 4-Chlorotoluene	91	18.047	18.041	0.960	341	N.D.		
71) tert-Butylbenzene		0.000	18.321	0.000	0	N.D.		
72) 1,2,4-Trimethylbenzene		0.000	18.364	0.000	0	N.D.		
73) sec-Butylbenzene		0.000	18.547	0.000	0	N.D.		
74) 4-Isopropyltoluene		0.000	18.675	0.000	0	N.D.		
75) 1,3-Dichlorobenzene	146	18.742	18.730	0.997	230	N.D.		
76) 1,4-Dichlorobenzene	146	18.815	18.821	1.001	536	N.D.		
77) n-Butylbenzene	91	19.114	19.108	1.017	191	N.D.		
78) 1,2-Dichlorobenzene	146	19.242	19.236	1.024	212	N.D.		
79) 1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.		
80) 1,2,4-Trichlorobenzene	180	21.120	21.113	1.124	403	N.D.		
81) Hexachlorobutadiene	225	21.278	21.278	1.132	237	N.D.		
82) Naphthalene	128	21.504	21.491	1.144	1369	N.D.		
83) 1,2,3-Trichlorobenzene	180	21.833	21.821	1.162	399	N.D.		
85) Acrolein		0.000	7.927	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	8.165	0.000	0	N.D.		
87) Isopropyl Alcohol		0.000	8.464	0.000	0	N.D.		
88) Allyl chloride		0.000	8.842	0.000	0	N.D.		
89) tert-Butyl Alcohol		0.000	9.220	0.000	0	N.D.		
90) Acrylonitrile		0.000	9.531	0.000	0	N.D.		
91) Isopropyl ether		0.000	10.317	0.000	0	N.D.		
92) 2-Chloro-1,3-butadiene		0.000	10.427	0.000	0	N.D.		
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.		
94) Ethyl acetate	43	11.225	11.225	0.879	14251	4.59	ug/L	93
95) Propionitrile		0.000	11.305	0.000	0	N.D.		
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.		
97) Tetrahydrofuran	42	11.622	11.597	0.910	495	N.D.		
98) Isobutyl alcohol		0.000	12.176	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R513.D
Acq On : 27 Jul 2018 16:54
Operator : JP1
InstName : VOA3
Sample : |454944005|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.6G N/A SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 28 10:02:11 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		0.000	12.500	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	13.560	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	13.652	0.000	0	N.D.	
102)	2-Nitropropane		0.000	14.103	0.000	0	N.D.	
104)	Ethyl methacrylate		0.000	14.987	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108)	Cyclohexanone	55	17.566	17.535	0.935	166	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	17.718	0.000	0	N.D.	
110)	Pentachloroethane		0.000	18.395	0.000	0	N.D.	
111)	Benzyl chloride	91	18.949	18.943	1.008	102	N.D.	
112)	bis(2-Chloroisopropyl)...		0.000	19.346	0.000	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R513.D
Acq On : 27 Jul 2018 16:54
Operator : JP1
InstName : VOA3
Sample : |454944005|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.6G N/A SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 28 10:02:11 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

#9
Acetone
Concen: 12.58 ug/L
RT: 8.256 min Scan# 552
Delta R.T. 0.024 min
Lab File: 3R513.D
Acq: 27 Jul 2018 16:54

Tgt Ion: 43 Resp: 28469

Ion	Ratio	Lower	Upper
43	100		
58	24.4	0.0	57.2

#14
Carbon disulfide
Concen: 1.63 ug/L
RT: 8.604 min Scan# 609
Delta R.T. -0.061 min
Lab File: 3R513.D
Acq: 27 Jul 2018 16:54

Tgt Ion: 76 Resp: 21022

Ion	Ratio	Lower	Upper
76	100		
78	6.7	0.0	39.1

#94
Ethyl acetate
Concen: 4.59 ug/L
RT: 11.225 min Scan# 1039
Delta R.T. -0.000 min
Lab File: 3R513.D
Acq: 27 Jul 2018 16:54

Tgt Ion: 43 Resp: 14251

Ion	Ratio	Lower	Upper
43	100		
61	10.0	0.0	43.8
70	9.1	0.0	40.8

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 3.05 ug/L
RT: 19.394 min Scan# 2379
Delta R.T. 0.049 min
Lab File: 3R513.D
Acq: 27 Jul 2018 16:54

Tgt Ion: 45 Resp: 2581

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	52.1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 10:40**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944006**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S14**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 17:27**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:18**	**Aliquot:**	**5.4 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R216.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	99.7	ug/kg	15.0	99.7
79-34-5	1,1,2,2-Tetrachloroethane	U	99.7	ug/kg	15.0	99.7
79-00-5	1,1,2-Trichloroethane	U	99.7	ug/kg	15.0	99.7
75-34-3	1,1-Dichloroethane	U	99.7	ug/kg	15.0	99.7
75-35-4	1,1-Dichloroethylene	U	99.7	ug/kg	15.0	99.7
87-61-6	1,2,3-Trichlorobenzene	U	99.7	ug/kg	15.0	99.7
120-82-1	1,2,4-Trichlorobenzene	U	99.7	ug/kg	15.0	99.7
96-12-8	1,2-Dibromo-3-chloropropane	U	99.7	ug/kg	24.9	99.7
106-93-4	1,2-Dibromoethane	U	99.7	ug/kg	15.0	99.7
95-50-1	1,2-Dichlorobenzene	U	99.7	ug/kg	15.0	99.7
107-06-2	1,2-Dichloroethane	U	99.7	ug/kg	15.0	99.7
78-87-5	1,2-Dichloropropane	U	99.7	ug/kg	15.0	99.7
541-73-1	1,3-Dichlorobenzene	U	99.7	ug/kg	15.0	99.7
106-46-7	1,4-Dichlorobenzene	U	99.7	ug/kg	15.0	99.7
123-91-1	1,4-Dioxane	U	2490	ug/kg	748	2490
78-93-3	2-Butanone	U	499	ug/kg	150	499
591-78-6	2-Hexanone	U	499	ug/kg	150	499
108-10-1	4-Methyl-2-pentanone	U	499	ug/kg	150	499
67-64-1	Acetone	U	499	ug/kg	150	499
71-43-2	Benzene	U	99.7	ug/kg	15.0	99.7
74-97-5	Bromochloromethane	U	99.7	ug/kg	15.0	99.7
75-27-4	Bromodichloromethane	U	99.7	ug/kg	15.0	99.7
75-25-2	Bromoform	U	99.7	ug/kg	15.0	99.7
74-83-9	Bromomethane	U	99.7	ug/kg	15.0	99.7
75-15-0	Carbon disulfide	U	499	ug/kg	79.8	499
56-23-5	Carbon tetrachloride	U	99.7	ug/kg	15.0	99.7
108-90-7	Chlorobenzene	U	99.7	ug/kg	15.0	99.7
75-00-3	Chloroethane	U	99.7	ug/kg	15.0	99.7
67-66-3	Chloroform	U	99.7	ug/kg	15.0	99.7
74-87-3	Chloromethane	U	99.7	ug/kg	15.0	99.7
110-82-7	Cyclohexane	U	99.7	ug/kg	15.0	99.7
124-48-1	Dibromochloromethane	U	99.7	ug/kg	15.0	99.7
75-71-8	Dichlorodifluoromethane	U	99.7	ug/kg	15.0	99.7
100-41-4	Ethylbenzene	U	99.7	ug/kg	15.0	99.7
98-82-8	Isopropylbenzene	U	99.7	ug/kg	15.0	99.7
79-20-9	Methyl acetate	U	249	ug/kg	74.8	249
108-87-2	Methylcyclohexane	U	99.7	ug/kg	15.0	99.7
75-09-2	Methylene chloride	U	249	ug/kg	79.8	249

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 10:40**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944006**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S14**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 17:27**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:18**	**Aliquot:**	**5.4 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R216.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	99.7	ug/kg	15.0	99.7
127-18-4	Tetrachloroethylene	U	99.7	ug/kg	15.0	99.7
108-88-3	Toluene	U	99.7	ug/kg	15.0	99.7
79-01-6	Trichloroethylene	U	99.7	ug/kg	15.0	99.7
75-69-4	Trichlorofluoromethane	U	99.7	ug/kg	15.0	99.7
76-13-1	Trichlorotrifluoroethane	U	249	ug/kg	79.8	249
75-01-4	Vinyl chloride	U	99.7	ug/kg	15.0	99.7
156-59-2	cis-1,2-Dichloroethylene	U	99.7	ug/kg	15.0	99.7
10061-01-5	cis-1,3-Dichloropropylene	U	99.7	ug/kg	15.0	99.7
179601-23-1	m,p-Xylenes	U	199	ug/kg	15.0	199
95-47-6	o-Xylene	U	99.7	ug/kg	15.0	99.7
1634-04-4	tert-Butyl methyl ether	U	99.7	ug/kg	15.0	99.7
156-60-5	trans-1,2-Dichloroethylene	U	99.7	ug/kg	15.0	99.7
10061-02-6	trans-1,3-Dichloropropylene	U	99.7	ug/kg	15.0	99.7

Quantitation Report
GEL Laboratories, LLC

JP
07/25/2018

KP
07/31/2018

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R216.D
Acq On : 24 Jul 2018 17:27
Operator : JP1
InstName : VOA3
Sample : |454944006|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 25 08:29:43 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.762	12.761	1.000	1326521	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	619135	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	524131	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	1328998	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	628709	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	524670	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	251173	50.60	ug/L	0.00
45) Toluene-d8	98	14.670	14.676	0.899	1344917	46.63	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	564256	54.77	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	101%
45) Toluene-d8	50.000	81 - 120	93%
63) Bromofluorobenzene	50.000	70 - 130	110%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane		0.000	4.990	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		0.000	6.159	0.000	0	N.D.		
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	7.061	0.000	0	N.D.		
8) Ethyl ether		0.000	7.610	0.000	0	N.D.		
9) Acetone	43	8.238	8.232	0.646	492	N.D.		
10) 1,1-Dichloroethylene		0.000	8.177	0.000	0	N.D.		
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile		0.000	8.817	0.000	0	N.D.		
13) Methyl acetate		0.000	8.854	0.000	0	N.D.		
14) Carbon disulfide	76	8.647	8.665	0.678	1120	N.D.		
15) Methylene chloride	84	9.079	9.091	0.711	7778	Below Cal		94
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane	57	9.982	9.988	0.782	199	N.D.		
19) Vinyl acetate		0.000	10.317	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	10.286	0.000	0	N.D.		
21) 2-Butanone	72	11.201	11.183	0.878	1651	N.D.		
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		0.000	11.628	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	12.127	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane	62	12.451	12.438	0.976	342	N.D.		
32) Benzene	78	12.414	12.426	0.973	686	N.D.		
33) Cyclohexene		0.000	12.548	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	13.024	0.000	0	N.D.		
35) Trichloroethylene		0.000	13.225	0.000	0	N.D.		
36) 2-Pentanone	43	13.402	13.396	1.050	1929	N.D.		
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		0.000	13.475	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R216.D
Acq On : 24 Jul 2018 17:27
Operator : JP1
InstName : VOA3
Sample : |454944006|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 25 08:29:43 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
39) Dibromomethane		0.000	13.682	0.000	0	N.D.	
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	14.353	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	14.487	0.000	0	N.D.	
46) Toluene	91	14.755	14.755	0.904	985	N.D.	
47) trans-1,3-Dichloroprop...		0.000	14.968	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.	
49) 2-Hexanone		0.000	15.413	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	15.401	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	15.383	0.000	0	N.D.	
52) Dibromochloromethane		0.000	15.676	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	15.840	0.000	0	N.D.	
54) Chlorobenzene	112	16.365	16.352	1.003	110	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	16.419	0.000	0	N.D.	
56) Ethylbenzene	91	16.426	16.425	1.007	478	N.D.	
57) m,p-Xylenes	106	16.547	16.541	1.014	291	N.D.	
58) o-Xylene		0.000	16.986	0.000	0	N.D.	
59) Styrene	104	16.986	16.992	1.041	100	N.D.	
61) Bromoform		0.000	17.261	0.000	0	N.D.	
62) Isopropylbenzene		0.000	17.358	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	17.663	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	17.748	0.000	0	N.D.	
66) Bromobenzene		0.000	17.767	0.000	0	N.D.	
67) n-Propylbenzene	91	17.785	17.791	0.946	309	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	17.949	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	17.937	0.000	0	N.D.	
70) 4-Chlorotoluene	91	18.047	18.041	0.960	698	N.D.	
71) tert-Butylbenzene		0.000	18.321	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	18.358	18.364	0.977	305	N.D.	
73) sec-Butylbenzene	105	18.456	18.547	0.982	121	N.D.	
74) 4-Isopropyltoluene		0.000	18.675	0.000	0	N.D.	
75) 1,3-Dichlorobenzene	146	18.736	18.730	0.997	491	N.D.	
76) 1,4-Dichlorobenzene	146	18.815	18.821	1.001	606	N.D.	
77) n-Butylbenzene	91	19.114	19.108	1.017	172	N.D.	
78) 1,2-Dichlorobenzene	146	19.248	19.236	1.024	182	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	21.108	21.113	1.123	188	N.D.	
81) Hexachlorobutadiene		0.000	21.278	0.000	0	N.D.	
82) Naphthalene	128	21.492	21.491	1.144	1682	N.D.	
83) 1,2,3-Trichlorobenzene	180	21.827	21.821	1.162	474	N.D.	
85) Acrolein		0.000	7.927	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	8.165	0.000	0	N.D.	
87) Isopropyl Alcohol	45	8.537	8.464	0.669	216	N.D.	
88) Allyl chloride	76	8.647	8.842	0.678	1120	N.D.	
89) tert-Butyl Alcohol		0.000	9.220	0.000	0	N.D.	
90) Acrylonitrile		0.000	9.531	0.000	0	N.D.	
91) Isopropyl ether		0.000	10.317	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	10.427	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.	
94) Ethyl acetate	43	11.183	11.225	0.876	7252	N.D.	
95) Propionitrile		0.000	11.305	0.000	0	N.D.	
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.	
97) Tetrahydrofuran	42	11.615	11.597	0.910	1948	N.D.	
98) Isobutyl alcohol		0.000	12.176	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R216.D
Acq On : 24 Jul 2018 17:27
Operator : JP1
InstName : VOA3
Sample : |454944006|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 25 08:29:43 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		0.000	12.500	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	13.560	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	13.652	0.000	0	N.D.	
102)	2-Nitropropane		0.000	14.103	0.000	0m	N.D.	d
104)	Ethyl methacrylate		0.000	14.987	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108)	Cyclohexanone	55	17.566	17.535	0.935	1564	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	17.718	0.000	0	N.D.	
110)	Pentachloroethane		0.000	18.395	0.000	0	N.D.	
111)	Benzyl chloride		0.000	18.943	0.000	0	N.D.	
112)	bis(2-Chloroisopropyl)...	45	19.388	19.346	1.032	3324	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R216.D
Acq On : 24 Jul 2018 17:27
Operator : JP1
InstName : VOA3
Sample : |454944006|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 25 08:29:43 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

#102 BEFORE analyst DELETION
2-Nitropropane
Concen: 3.37 ug/L
RT: 14.005 min Scan# 1495
Delta R.T. -0.098 min
Lab File: 3R216.D
Acq: 24 Jul 2018 17:27

Tgt Ion: 43 Resp: 110

Ion	Ratio	Lower	Upper
43	100		
41	422.7	55.3	115.3#

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 10:40**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944006**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S14RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 17:25**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:06**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R514.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	2.15	ug/kg	0.323	2.15
79-34-5	1,1,2,2-Tetrachloroethane	U	2.15	ug/kg	0.323	2.15
79-00-5	1,1,2-Trichloroethane	U	2.15	ug/kg	0.323	2.15
75-34-3	1,1-Dichloroethane	U	2.15	ug/kg	0.323	2.15
75-35-4	1,1-Dichloroethylene	U	2.15	ug/kg	0.323	2.15
87-61-6	1,2,3-Trichlorobenzene	U	2.15	ug/kg	0.323	2.15
120-82-1	1,2,4-Trichlorobenzene	U	2.15	ug/kg	0.323	2.15
96-12-8	1,2-Dibromo-3-chloropropane	U	2.15	ug/kg	0.538	2.15
106-93-4	1,2-Dibromoethane	U	2.15	ug/kg	0.323	2.15
95-50-1	1,2-Dichlorobenzene	U	2.15	ug/kg	0.323	2.15
107-06-2	1,2-Dichloroethane	U	2.15	ug/kg	0.323	2.15
78-87-5	1,2-Dichloropropane	U	2.15	ug/kg	0.323	2.15
541-73-1	1,3-Dichlorobenzene	U	2.15	ug/kg	0.323	2.15
106-46-7	1,4-Dichlorobenzene	U	2.15	ug/kg	0.323	2.15
123-91-1	1,4-Dioxane	U	53.8	ug/kg	16.2	53.8
78-93-3	2-Butanone	U	10.8	ug/kg	3.23	10.8
591-78-6	2-Hexanone	U	10.8	ug/kg	3.23	10.8
108-10-1	4-Methyl-2-pentanone	U	10.8	ug/kg	3.23	10.8
67-64-1	Acetone	J	6.47	ug/kg	3.23	10.8
71-43-2	Benzene	U	2.15	ug/kg	0.323	2.15
74-97-5	Bromochloromethane	U	2.15	ug/kg	0.323	2.15
75-27-4	Bromodichloromethane	U	2.15	ug/kg	0.323	2.15
75-25-2	Bromoform	U	2.15	ug/kg	0.323	2.15
74-83-9	Bromomethane	U	2.15	ug/kg	0.323	2.15
75-15-0	Carbon disulfide	U	10.8	ug/kg	1.72	10.8
56-23-5	Carbon tetrachloride	U	2.15	ug/kg	0.323	2.15
108-90-7	Chlorobenzene	U	2.15	ug/kg	0.323	2.15
75-00-3	Chloroethane	U	2.15	ug/kg	0.323	2.15
67-66-3	Chloroform	U	2.15	ug/kg	0.323	2.15
74-87-3	Chloromethane	U	2.15	ug/kg	0.323	2.15
110-82-7	Cyclohexane	U	2.15	ug/kg	0.323	2.15
124-48-1	Dibromochloromethane	U	2.15	ug/kg	0.323	2.15
75-71-8	Dichlorodifluoromethane	U	2.15	ug/kg	0.323	2.15
100-41-4	Ethylbenzene	U	2.15	ug/kg	0.323	2.15
98-82-8	Isopropylbenzene	U	2.15	ug/kg	0.323	2.15
79-20-9	Methyl acetate	U	5.38	ug/kg	1.62	5.38
108-87-2	Methylcyclohexane	U	2.15	ug/kg	0.323	2.15
75-09-2	Methylene chloride	U	5.38	ug/kg	1.72	5.38

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 10:40**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944006**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S14RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 17:25**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:06**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R514.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	2.15	ug/kg	0.323	2.15
127-18-4	Tetrachloroethylene	U	2.15	ug/kg	0.323	2.15
108-88-3	Toluene	U	2.15	ug/kg	0.323	2.15
79-01-6	Trichloroethylene	U	2.15	ug/kg	0.323	2.15
75-69-4	Trichlorofluoromethane	U	2.15	ug/kg	0.323	2.15
76-13-1	Trichlorotrifluoroethane	U	5.38	ug/kg	1.72	5.38
75-01-4	Vinyl chloride	U	2.15	ug/kg	0.323	2.15
156-59-2	cis-1,2-Dichloroethylene	U	2.15	ug/kg	0.323	2.15
10061-01-5	cis-1,3-Dichloropropylene	U	2.15	ug/kg	0.323	2.15
179601-23-1	m,p-Xylenes	U	4.31	ug/kg	0.323	4.31
95-47-6	o-Xylene	U	2.15	ug/kg	0.323	2.15
1634-04-4	tert-Butyl methyl ether	U	2.15	ug/kg	0.323	2.15
156-60-5	trans-1,2-Dichloroethylene	U	2.15	ug/kg	0.323	2.15
10061-02-6	trans-1,3-Dichloropropylene	U	2.15	ug/kg	0.323	2.15

Quantitation Report
GEL Laboratories, LLC

JP
07/30/2018

KP
07/31/2018

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R514.D
Acq On : 27 Jul 2018 17:25
Operator : JP1
InstName : VOA3
Sample : |454944006|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.0G N/A SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 28 10:02:13 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.762	12.761	1.000	634152	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	179222	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	89517	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	635489	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	181215	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	89517	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	145220	61.19	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	452925	54.24	ug/L	0.00
63) Bromofluorobenzene	95	17.565	17.559	0.935	104265	59.25	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	122%
45) Toluene-d8	50.000	81 - 120	108%
63) Bromofluorobenzene	50.000	70 - 130	119%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane	50	4.972	4.990	0.390	579	N.D.		
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		0.000	6.159	0.000	0	N.D.		
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	7.061	0.000	0	N.D.		
8) Ethyl ether		0.000	7.610	0.000	0	N.D.		
9) Acetone	43	8.244	8.232	0.646	13754	6.01	ug/L	94
10) 1,1-Dichloroethylene		0.000	8.177	0.000	0	N.D.		
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile		0.000	8.817	0.000	0	N.D.		
13) Methyl acetate		0.000	8.854	0.000	0	N.D.		
14) Carbon disulfide	76	8.592	8.665	0.673	9486	N.D.		
15) Methylene chloride	84	9.098	9.091	0.713	3817	Below Cal		95
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane		0.000	9.988	0.000	0	N.D.		
19) Vinyl acetate		0.000	10.317	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	10.286	0.000	0	N.D.		
21) 2-Butanone		0.000	11.183	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		0.000	11.628	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	12.127	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	12.438	0.000	0	N.D.		
32) Benzene	78	12.432	12.426	0.974	219	N.D.		
33) Cyclohexene		0.000	12.548	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	13.024	0.000	0	N.D.		
35) Trichloroethylene		0.000	13.225	0.000	0	N.D.		
36) 2-Pentanone		0.000	13.396	0.000	0	N.D.		
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		0.000	13.475	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R514.D
Acq On : 27 Jul 2018 17:25
Operator : JP1
InstName : VOA3
Sample : |454944006|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.0G N/A SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 28 10:02:13 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
39) Dibromomethane		0.000	13.682	0.000	0	N.D.		
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		0.000	14.353	0.000	0	N.D.		
44) 4-Methyl-2-pentanone		0.000	14.487	0.000	0	N.D.		
46) Toluene	91	14.755	14.755	0.904	243	N.D.		
47) trans-1,3-Dichloroprop...		0.000	14.968	0.000	0	N.D.		
48) 1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.		
49) 2-Hexanone		0.000	15.413	0.000	0	N.D.		
50) 1,3-Dichloropropane		0.000	15.401	0.000	0	N.D.		
51) Tetrachloroethylene		0.000	15.383	0.000	0	N.D.		
52) Dibromochloromethane		0.000	15.676	0.000	0	N.D.		
53) 1,2-Dibromoethane		0.000	15.840	0.000	0	N.D.		
54) Chlorobenzene	112	16.346	16.352	1.002	157	N.D.		
55) 1,1,1,2-Tetrachloroethane		0.000	16.419	0.000	0	N.D.		
56) Ethylbenzene		0.000	16.425	0.000	0	N.D.		
57) m,p-Xylenes		0.000	16.541	0.000	0	N.D.		
58) o-Xylene		0.000	16.986	0.000	0	N.D.		
59) Styrene		0.000	16.992	0.000	0	N.D.		
61) Bromoform		0.000	17.261	0.000	0	N.D.		
62) Isopropylbenzene		0.000	17.358	0.000	0	N.D.		
64) 1,1,2,2-Tetrachloroethane		0.000	17.663	0.000	0	N.D.		
65) 1,2,3-Trichloropropane		0.000	17.748	0.000	0	N.D.		
66) Bromobenzene		0.000	17.767	0.000	0	N.D.		
67) n-Propylbenzene		0.000	17.791	0.000	0	N.D.		
68) 1,3,5-Trimethylbenzene		0.000	17.949	0.000	0	N.D.		
69) 2-Chlorotoluene		0.000	17.937	0.000	0	N.D.		
70) 4-Chlorotoluene	91	18.047	18.041	0.960	155	N.D.		
71) tert-Butylbenzene		0.000	18.321	0.000	0	N.D.		
72) 1,2,4-Trimethylbenzene		0.000	18.364	0.000	0	N.D.		
73) sec-Butylbenzene		0.000	18.547	0.000	0	N.D.		
74) 4-Isopropyltoluene		0.000	18.675	0.000	0	N.D.		
75) 1,3-Dichlorobenzene	146	18.736	18.730	0.997	355	N.D.		
76) 1,4-Dichlorobenzene	146	18.815	18.821	1.001	499	N.D.		
77) n-Butylbenzene		0.000	19.108	0.000	0	N.D.		
78) 1,2-Dichlorobenzene		0.000	19.236	0.000	0	N.D.		
79) 1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.		
80) 1,2,4-Trichlorobenzene	180	21.114	21.113	1.124	427	N.D.		
81) Hexachlorobutadiene		0.000	21.278	0.000	0	N.D.		
82) Naphthalene	128	21.498	21.491	1.144	1170	N.D.		
83) 1,2,3-Trichlorobenzene	180	21.827	21.821	1.162	404	N.D.		
85) Acrolein		0.000	7.927	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	8.165	0.000	0	N.D.		
87) Isopropyl Alcohol	45	8.281	8.464	0.649	161	N.D.		
88) Allyl chloride		0.000	8.842	0.000	0	N.D.		
89) tert-Butyl Alcohol		0.000	9.220	0.000	0	N.D.		
90) Acrylonitrile		0.000	9.531	0.000	0	N.D.		
91) Isopropyl ether		0.000	10.317	0.000	0	N.D.		
92) 2-Chloro-1,3-butadiene		0.000	10.427	0.000	0	N.D.		
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.		
94) Ethyl acetate	43	11.231	11.225	0.880	7614	2.42	ug/L	95
95) Propionitrile		0.000	11.305	0.000	0	N.D.		
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.		
97) Tetrahydrofuran	42	11.628	11.597	0.911	484	N.D.		
98) Isobutyl alcohol		0.000	12.176	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R514.D
Acq On : 27 Jul 2018 17:25
Operator : JP1
InstName : VOA3
Sample : |454944006|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.0G N/A SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 28 10:02:13 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		0.000	12.500	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	13.560	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	13.652	0.000	0	N.D.	
102)	2-Nitropropane		0.000	14.103	0.000	0	N.D.	
104)	Ethyl methacrylate		0.000	14.987	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108)	Cyclohexanone		0.000	17.535	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	17.718	0.000	0	N.D.	
110)	Pentachloroethane		0.000	18.395	0.000	0	N.D.	
111)	Benzyl chloride		0.000	18.943	0.000	0	N.D.	
112)	bis(2-Chloroisopropyl)...		0.000	19.346	0.000	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R514.D
Acq On : 27 Jul 2018 17:25
Operator : JP1
InstName : VOA3
Sample : |454944006|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.0G N/A SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 28 10:02:13 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

#9
Acetone
Concen: 6.01 ug/L
RT: 8.244 min Scan# 550
Delta R.T. 0.012 min
Lab File: 3R514.D
Acq: 27 Jul 2018 17:25

Tgt Ion: 43 Resp: 13754

Ion	Ratio	Lower	Upper
43	100		
58	24.1	0.0	57.2

#94
Ethyl acetate
Concen: 2.42 ug/L
RT: 11.231 min Scan# 1040
Delta R.T. 0.006 min
Lab File: 3R514.D
Acq: 27 Jul 2018 17:25

Tgt Ion: 43 Resp: 7614

Ion	Ratio	Lower	Upper
43	100		
61	11.2	0.0	43.8
70	10.0	0.0	40.8

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 3.20 ug/L
RT: 19.400 min Scan# 2380
Delta R.T. 0.055 min
Lab File: 3R514.D
Acq: 27 Jul 2018 17:25

Tgt Ion: 45 Resp: 2172

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	52.1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 13:35**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944007**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S15**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 17:58**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:19**	**Aliquot:**	**5.4 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R217.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	100	ug/kg	15.0	100
79-34-5	1,1,2,2-Tetrachloroethane	U	100	ug/kg	15.0	100
79-00-5	1,1,2-Trichloroethane	U	100	ug/kg	15.0	100
75-34-3	1,1-Dichloroethane	U	100	ug/kg	15.0	100
75-35-4	1,1-Dichloroethylene	U	100	ug/kg	15.0	100
87-61-6	1,2,3-Trichlorobenzene	U	100	ug/kg	15.0	100
120-82-1	1,2,4-Trichlorobenzene	U	100	ug/kg	15.0	100
96-12-8	1,2-Dibromo-3-chloropropane	U	100	ug/kg	25.1	100
106-93-4	1,2-Dibromoethane	U	100	ug/kg	15.0	100
95-50-1	1,2-Dichlorobenzene	U	100	ug/kg	15.0	100
107-06-2	1,2-Dichloroethane	U	100	ug/kg	15.0	100
78-87-5	1,2-Dichloropropane	U	100	ug/kg	15.0	100
541-73-1	1,3-Dichlorobenzene	U	100	ug/kg	15.0	100
106-46-7	1,4-Dichlorobenzene	U	100	ug/kg	15.0	100
123-91-1	1,4-Dioxane	U	2510	ug/kg	752	2510
78-93-3	2-Butanone	U	501	ug/kg	150	501
591-78-6	2-Hexanone	U	501	ug/kg	150	501
108-10-1	4-Methyl-2-pentanone	U	501	ug/kg	150	501
67-64-1	Acetone	U	501	ug/kg	150	501
71-43-2	Benzene	U	100	ug/kg	15.0	100
74-97-5	Bromochloromethane	U	100	ug/kg	15.0	100
75-27-4	Bromodichloromethane	U	100	ug/kg	15.0	100
75-25-2	Bromoform	U	100	ug/kg	15.0	100
74-83-9	Bromomethane	U	100	ug/kg	15.0	100
75-15-0	Carbon disulfide	U	501	ug/kg	80.2	501
56-23-5	Carbon tetrachloride	U	100	ug/kg	15.0	100
108-90-7	Chlorobenzene	U	100	ug/kg	15.0	100
75-00-3	Chloroethane	U	100	ug/kg	15.0	100
67-66-3	Chloroform	U	100	ug/kg	15.0	100
74-87-3	Chloromethane	U	100	ug/kg	15.0	100
110-82-7	Cyclohexane	U	100	ug/kg	15.0	100
124-48-1	Dibromochloromethane	U	100	ug/kg	15.0	100
75-71-8	Dichlorodifluoromethane	U	100	ug/kg	15.0	100
100-41-4	Ethylbenzene	U	100	ug/kg	15.0	100
98-82-8	Isopropylbenzene	U	100	ug/kg	15.0	100
79-20-9	Methyl acetate	U	251	ug/kg	75.2	251
108-87-2	Methylcyclohexane	U	100	ug/kg	15.0	100
75-09-2	Methylene chloride	U	251	ug/kg	80.2	251

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 13:35**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944007**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S15**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 17:58**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:19**	**Aliquot:**	**5.4 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R217.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	100	ug/kg	15.0	100
127-18-4	Tetrachloroethylene	U	100	ug/kg	15.0	100
108-88-3	Toluene	U	100	ug/kg	15.0	100
79-01-6	Trichloroethylene	U	100	ug/kg	15.0	100
75-69-4	Trichlorofluoromethane	U	100	ug/kg	15.0	100
76-13-1	Trichlorotrifluoroethane	U	251	ug/kg	80.2	251
75-01-4	Vinyl chloride	U	100	ug/kg	15.0	100
156-59-2	cis-1,2-Dichloroethylene	U	100	ug/kg	15.0	100
10061-01-5	cis-1,3-Dichloropropylene	U	100	ug/kg	15.0	100
179601-23-1	m,p-Xylenes	U	200	ug/kg	15.0	200
95-47-6	o-Xylene	U	100	ug/kg	15.0	100
1634-04-4	tert-Butyl methyl ether	U	100	ug/kg	15.0	100
156-60-5	trans-1,2-Dichloroethylene	U	100	ug/kg	15.0	100
10061-02-6	trans-1,3-Dichloropropylene	U	100	ug/kg	15.0	100

Quantitation Report
GEL Laboratories, LLC

JP
07/25/2018

KP
07/31/2018

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R217.D
Acq On : 24 Jul 2018 17:58
Operator : JP1
InstName : VOA3
Sample : |454944007|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 25 08:29:45 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.761	12.761	1.000	1306487	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	619951	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	529530	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.761	12.762	1.000	1309640	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	629036	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	529947	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	67	12.335	12.341	0.967	249986	51.13	ug/L	0.00
45) Toluene-d8	98	14.670	14.676	0.899	1336760	46.28	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	556447	53.46	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	102%
45) Toluene-d8	50.000	81 - 120	93%
63) Bromofluorobenzene	50.000	70 - 130	107%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane	50	4.972	4.990	0.390	241	N.D.		
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane	94	6.196	6.159	0.486	385	N.D.		
6) Chloroethane	64	6.305	6.372	0.494	297	N.D.		
7) Trichlorofluoromethane		0.000	7.061	0.000	0	N.D.		
8) Ethyl ether		0.000	7.610	0.000	0	N.D.		
9) Acetone	43	8.220	8.232	0.644	102	N.D.		
10) 1,1-Dichloroethylene		0.000	8.177	0.000	0	N.D.		
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile		0.000	8.817	0.000	0	N.D.		
13) Methyl acetate		0.000	8.854	0.000	0	N.D.		
14) Carbon disulfide	76	8.646	8.665	0.678	909	N.D.		
15) Methylene chloride	84	9.067	9.091	0.711	8250	Below Cal		93
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane	57	9.975	9.988	0.782	476	N.D.		
19) Vinyl acetate		0.000	10.317	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	10.286	0.000	0	N.D.		
21) 2-Butanone	72	11.201	11.183	0.878	1454	N.D.		
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		0.000	11.628	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	12.127	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane	62	12.432	12.438	0.974	348	N.D.		
32) Benzene	78	12.426	12.426	0.974	752	N.D.		
33) Cyclohexene		0.000	12.548	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	13.024	0.000	0	N.D.		
35) Trichloroethylene		0.000	13.225	0.000	0	N.D.		
36) 2-Pentanone	43	13.408	13.396	1.051	1902	N.D.		
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		0.000	13.475	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R217.D
Acq On : 24 Jul 2018 17:58
Operator : JP1
InstName : VOA3
Sample : |454944007|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 25 08:29:45 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
39) Dibromomethane		0.000	13.682	0.000	0	N.D.	
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	14.353	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	14.487	0.000	0	N.D.	
46) Toluene	91	14.749	14.755	0.904	822	N.D.	
47) trans-1,3-Dichloroprop...		0.000	14.968	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.	
49) 2-Hexanone		0.000	15.413	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	15.401	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	15.383	0.000	0	N.D.	
52) Dibromochloromethane		0.000	15.676	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	15.840	0.000	0	N.D.	
54) Chlorobenzene		0.000	16.352	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	16.419	0.000	0	N.D.	
56) Ethylbenzene	91	16.413	16.425	1.006	269	N.D.	
57) m,p-Xylenes	106	16.541	16.541	1.014	289	N.D.	
58) o-Xylene		0.000	16.986	0.000	0	N.D.	
59) Styrene		0.000	16.992	0.000	0	N.D.	
61) Bromoform		0.000	17.261	0.000	0	N.D.	
62) Isopropylbenzene		0.000	17.358	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	17.663	0.000	0	N.D.	
65) 1,2,3-Trichloropropane	75	17.706	17.748	0.942	100	N.D.	
66) Bromobenzene		0.000	17.767	0.000	0	N.D.	
67) n-Propylbenzene	91	17.785	17.791	0.946	110	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	17.949	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	17.937	0.000	0	N.D.	
70) 4-Chlorotoluene	91	18.041	18.041	0.960	314	N.D.	
71) tert-Butylbenzene		0.000	18.321	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	18.364	18.364	0.977	263	N.D.	
73) sec-Butylbenzene		0.000	18.547	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	18.675	0.000	0	N.D.	
75) 1,3-Dichlorobenzene	146	18.730	18.730	0.997	292	N.D.	
76) 1,4-Dichlorobenzene	146	18.821	18.821	1.002	518	N.D.	
77) n-Butylbenzene	91	19.102	19.108	1.017	149	N.D.	
78) 1,2-Dichlorobenzene	146	19.236	19.236	1.024	172	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	21.113	21.113	1.124	582	N.D.	
81) Hexachlorobutadiene		0.000	21.278	0.000	0	N.D.	
82) Naphthalene	128	21.491	21.491	1.144	1459	N.D.	
83) 1,2,3-Trichlorobenzene	180	21.815	21.821	1.161	182	N.D.	
85) Acrolein		0.000	7.927	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	8.165	0.000	0	N.D.	
87) Isopropyl Alcohol	45	8.543	8.464	0.669	213	N.D.	
88) Allyl chloride	76	8.689	8.842	0.681	177	N.D.	
89) tert-Butyl Alcohol		0.000	9.220	0.000	0	N.D.	
90) Acrylonitrile		0.000	9.531	0.000	0	N.D.	
91) Isopropyl ether		0.000	10.317	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	10.427	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.	
94) Ethyl acetate	43	11.201	11.225	0.878	7165	N.D.	
95) Propionitrile		0.000	11.305	0.000	0	N.D.	
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.	
97) Tetrahydrofuran	42	11.621	11.597	0.911	1816	N.D.	
98) Isobutyl alcohol		0.000	12.176	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R217.D
Acq On : 24 Jul 2018 17:58
Operator : JP1
InstName : VOA3
Sample : |454944007|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 25 08:29:45 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		0.000	12.500	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	13.560	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	13.652	0.000	0	N.D.	
102)	2-Nitropropane		0.000	14.103	0.000	0m	N.D.	d
104)	Ethyl methacrylate		0.000	14.987	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108)	Cyclohexanone	55	17.553	17.535	0.934	1516	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	17.718	0.000	0	N.D.	
110)	Pentachloroethane		0.000	18.395	0.000	0	N.D.	
111)	Benzyl chloride		0.000	18.943	0.000	0	N.D.	
112)	bis(2-Chloroisopropyl)...	45	19.394	19.346	1.032	2283	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R217.D
Acq On : 24 Jul 2018 17:58
Operator : JP1
InstName : VOA3
Sample : |454944007|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 25 08:29:45 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

#102 BEFORE analyst DELETION
2-Nitropropane
Concen: 3.42 ug/L
RT: 13.981 min Scan# 1491
Delta R.T. -0.122 min
Lab File: 3R217.D
Acq: 24 Jul 2018 17:58

Tgt Ion: 43 Resp: 227

Ion	Ratio	Lower	Upper
43	100		
41	87.2	55.3	115.3

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 13:35**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944007**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S15RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 17:56**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:07**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R515.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	2.16	ug/kg	0.325	2.16
79-34-5	1,1,2,2-Tetrachloroethane	U	2.16	ug/kg	0.325	2.16
79-00-5	1,1,2-Trichloroethane	U	2.16	ug/kg	0.325	2.16
75-34-3	1,1-Dichloroethane	U	2.16	ug/kg	0.325	2.16
75-35-4	1,1-Dichloroethylene	U	2.16	ug/kg	0.325	2.16
87-61-6	1,2,3-Trichlorobenzene	U	2.16	ug/kg	0.325	2.16
120-82-1	1,2,4-Trichlorobenzene	U	2.16	ug/kg	0.325	2.16
96-12-8	1,2-Dibromo-3-chloropropane	U	2.16	ug/kg	0.541	2.16
106-93-4	1,2-Dibromoethane	U	2.16	ug/kg	0.325	2.16
95-50-1	1,2-Dichlorobenzene	U	2.16	ug/kg	0.325	2.16
107-06-2	1,2-Dichloroethane	U	2.16	ug/kg	0.325	2.16
78-87-5	1,2-Dichloropropane	U	2.16	ug/kg	0.325	2.16
541-73-1	1,3-Dichlorobenzene	U	2.16	ug/kg	0.325	2.16
106-46-7	1,4-Dichlorobenzene	U	2.16	ug/kg	0.325	2.16
123-91-1	1,4-Dioxane	U	54.1	ug/kg	16.2	54.1
78-93-3	2-Butanone	U	10.8	ug/kg	3.25	10.8
591-78-6	2-Hexanone	U	10.8	ug/kg	3.25	10.8
108-10-1	4-Methyl-2-pentanone	U	10.8	ug/kg	3.25	10.8
67-64-1	Acetone		13.5	ug/kg	3.25	10.8
71-43-2	Benzene	U	2.16	ug/kg	0.325	2.16
74-97-5	Bromochloromethane	U	2.16	ug/kg	0.325	2.16
75-27-4	Bromodichloromethane	U	2.16	ug/kg	0.325	2.16
75-25-2	Bromoform	U	2.16	ug/kg	0.325	2.16
74-83-9	Bromomethane	U	2.16	ug/kg	0.325	2.16
75-15-0	Carbon disulfide	U	10.8	ug/kg	1.73	10.8
56-23-5	Carbon tetrachloride	U	2.16	ug/kg	0.325	2.16
108-90-7	Chlorobenzene	U	2.16	ug/kg	0.325	2.16
75-00-3	Chloroethane	U	2.16	ug/kg	0.325	2.16
67-66-3	Chloroform	U	2.16	ug/kg	0.325	2.16
74-87-3	Chloromethane	U	2.16	ug/kg	0.325	2.16
110-82-7	Cyclohexane	U	2.16	ug/kg	0.325	2.16
124-48-1	Dibromochloromethane	U	2.16	ug/kg	0.325	2.16
75-71-8	Dichlorodifluoromethane	U	2.16	ug/kg	0.325	2.16
100-41-4	Ethylbenzene	U	2.16	ug/kg	0.325	2.16
98-82-8	Isopropylbenzene	U	2.16	ug/kg	0.325	2.16
79-20-9	Methyl acetate	U	5.41	ug/kg	1.62	5.41
108-87-2	Methylcyclohexane	U	2.16	ug/kg	0.325	2.16
75-09-2	Methylene chloride	U	5.41	ug/kg	1.73	5.41

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 13:35**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944007**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S15RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 17:56**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:07**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R515.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	2.16	ug/kg	0.325	2.16
127-18-4	Tetrachloroethylene	U	2.16	ug/kg	0.325	2.16
108-88-3	Toluene	U	2.16	ug/kg	0.325	2.16
79-01-6	Trichloroethylene	U	2.16	ug/kg	0.325	2.16
75-69-4	Trichlorofluoromethane	U	2.16	ug/kg	0.325	2.16
76-13-1	Trichlorotrifluoroethane	U	5.41	ug/kg	1.73	5.41
75-01-4	Vinyl chloride	U	2.16	ug/kg	0.325	2.16
156-59-2	cis-1,2-Dichloroethylene	U	2.16	ug/kg	0.325	2.16
10061-01-5	cis-1,3-Dichloropropylene	U	2.16	ug/kg	0.325	2.16
179601-23-1	m,p-Xylenes	U	4.33	ug/kg	0.325	4.33
95-47-6	o-Xylene	U	2.16	ug/kg	0.325	2.16
1634-04-4	tert-Butyl methyl ether	U	2.16	ug/kg	0.325	2.16
156-60-5	trans-1,2-Dichloroethylene	U	2.16	ug/kg	0.325	2.16
10061-02-6	trans-1,3-Dichloropropylene	U	2.16	ug/kg	0.325	2.16

Quantitation Report
GEL Laboratories, LLC

JP
07/31/2018

KP
07/31/2018

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R515.D
Acq On : 27 Jul 2018 17:56
Operator : JP1
InstName : VOA3
Sample : |454944007|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.0G N/A SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 28 10:02:15 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.768	12.761	1.000	520317	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	109957	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.797	18.791	1.000	44843	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.768	12.762	1.000	520956	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	112543	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.797	18.791	1.000	44843	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	132215	67.90	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	323784	63.21	ug/L	0.00
63) Bromofluorobenzene	95	17.565	17.559	0.934	52148	59.16	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	136%#
45) Toluene-d8	50.000	81 - 120	126%#
63) Bromofluorobenzene	50.000	70 - 130	118%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane	50	4.972	4.990	0.389	222	N.D.		
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		0.000	6.159	0.000	0	N.D.		
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	7.061	0.000	0	N.D.		
8) Ethyl ether		0.000	7.610	0.000	0	N.D.		
9) Acetone	43	8.250	8.232	0.646	23353	12.43	ug/L	94
10) 1,1-Dichloroethylene		0.000	8.177	0.000	0	N.D.		
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile	41	8.842	8.817	0.692	2080	N.D.		
13) Methyl acetate		0.000	8.854	0.000	0	N.D.		
14) Carbon disulfide	76	8.604	8.665	0.674	12396	N.D.		
15) Methylene chloride	84	9.085	9.091	0.712	7618	N.D.		
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane		0.000	9.988	0.000	0	N.D.		
19) Vinyl acetate		0.000	10.317	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	10.286	0.000	0	N.D.		
21) 2-Butanone		0.000	11.183	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		0.000	11.628	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	12.127	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	12.438	0.000	0	N.D.		
32) Benzene	78	12.426	12.426	0.973	428	N.D.		
33) Cyclohexene		0.000	12.548	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	13.024	0.000	0	N.D.		
35) Trichloroethylene		0.000	13.225	0.000	0	N.D.		
36) 2-Pentanone		0.000	13.396	0.000	0	N.D.		
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		0.000	13.475	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R515.D
Acq On : 27 Jul 2018 17:56
Operator : JP1
InstName : VOA3
Sample : |454944007|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.0G N/A SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 28 10:02:15 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
39) Dibromomethane		0.000	13.682	0.000	0	N.D.		
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		0.000	14.353	0.000	0	N.D.		
44) 4-Methyl-2-pentanone		0.000	14.487	0.000	0	N.D.		
46) Toluene	91	14.761	14.755	0.905	368	N.D.		
47) trans-1,3-Dichloroprop...		0.000	14.968	0.000	0	N.D.		
48) 1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.		
49) 2-Hexanone		0.000	15.413	0.000	0	N.D.		
50) 1,3-Dichloropropane		0.000	15.401	0.000	0	N.D.		
51) Tetrachloroethylene		0.000	15.383	0.000	0	N.D.		
52) Dibromochloromethane		0.000	15.676	0.000	0	N.D.		
53) 1,2-Dibromoethane		0.000	15.840	0.000	0	N.D.		
54) Chlorobenzene		0.000	16.352	0.000	0	N.D.		
55) 1,1,1,2-Tetrachloroethane		0.000	16.419	0.000	0	N.D.		
56) Ethylbenzene		0.000	16.425	0.000	0	N.D.		
57) m,p-Xylenes		0.000	16.541	0.000	0	N.D.		
58) o-Xylene		0.000	16.986	0.000	0	N.D.		
59) Styrene		0.000	16.992	0.000	0	N.D.		
61) Bromoform		0.000	17.261	0.000	0	N.D.		
62) Isopropylbenzene		0.000	17.358	0.000	0	N.D.		
64) 1,1,2,2-Tetrachloroethane		0.000	17.663	0.000	0	N.D.		
65) 1,2,3-Trichloropropane		0.000	17.748	0.000	0	N.D.		
66) Bromobenzene		0.000	17.767	0.000	0	N.D.		
67) n-Propylbenzene	91	17.791	17.791	0.946	100	N.D.		
68) 1,3,5-Trimethylbenzene		0.000	17.949	0.000	0	N.D.		
69) 2-Chlorotoluene		0.000	17.937	0.000	0	N.D.		
70) 4-Chlorotoluene	91	18.047	18.041	0.960	100	N.D.		
71) tert-Butylbenzene		0.000	18.321	0.000	0	N.D.		
72) 1,2,4-Trimethylbenzene		0.000	18.364	0.000	0	N.D.		
73) sec-Butylbenzene		0.000	18.547	0.000	0	N.D.		
74) 4-Isopropyltoluene		0.000	18.675	0.000	0	N.D.		
75) 1,3-Dichlorobenzene		0.000	18.730	0.000	0	N.D.		
76) 1,4-Dichlorobenzene		0.000	18.821	0.000	0m	N.D.	d	
77) n-Butylbenzene		0.000	19.108	0.000	0	N.D.		
78) 1,2-Dichlorobenzene		0.000	19.236	0.000	0	N.D.		
79) 1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.		
80) 1,2,4-Trichlorobenzene	180	21.114	21.113	1.123	186	N.D.		
81) Hexachlorobutadiene		0.000	21.278	0.000	0	N.D.		
82) Naphthalene		0.000	21.491	0.000	0m	N.D.	d	
83) 1,2,3-Trichlorobenzene		0.000	21.821	0.000	0	N.D.		
85) Acrolein		0.000	7.927	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	8.165	0.000	0	N.D.		
87) Isopropyl Alcohol		0.000	8.464	0.000	0	N.D.		
88) Allyl chloride		0.000	8.842	0.000	0	N.D.		
89) tert-Butyl Alcohol		0.000	9.220	0.000	0	N.D.		
90) Acrylonitrile		0.000	9.531	0.000	0	N.D.		
91) Isopropyl ether		0.000	10.317	0.000	0	N.D.		
92) 2-Chloro-1,3-butadiene		0.000	10.427	0.000	0	N.D.		
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.		
94) Ethyl acetate	43	11.225	11.225	0.879	12577	4.88	ug/L	95
95) Propionitrile		0.000	11.305	0.000	0	N.D.		
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.		
97) Tetrahydrofuran	42	11.603	11.597	0.909	371	N.D.		
98) Isobutyl alcohol		0.000	12.176	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R515.D
Acq On : 27 Jul 2018 17:56
Operator : JP1
InstName : VOA3
Sample : |454944007|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.0G N/A SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 28 10:02:15 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		0.000	12.500	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	13.560	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	13.652	0.000	0	N.D.	
102)	2-Nitropropane		0.000	14.103	0.000	0	N.D.	
104)	Ethyl methacrylate		0.000	14.987	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108)	Cyclohexanone		0.000	17.535	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	17.718	0.000	0	N.D.	
110)	Pentachloroethane		0.000	18.395	0.000	0	N.D.	
111)	Benzyl chloride		0.000	18.943	0.000	0	N.D.	
112)	bis(2-Chloroisopropyl)...		0.000	19.346	0.000	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R515.D
Acq On : 27 Jul 2018 17:56
Operator : JP1
InstName : VOA3
Sample : |454944007|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.0G N/A SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 28 10:02:15 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

#9
Acetone
Concen: 12.43 ug/L
RT: 8.250 min Scan# 551
Delta R.T. 0.018 min
Lab File: 3R515.D
Acq: 27 Jul 2018 17:56

Tgt Ion: 43 Resp: 23353

Ion	Ratio	Lower	Upper
43	100		
58	24.1	0.0	57.2

#76 BEFORE analyst DELETION
1,4-Dichlorobenzene
Concen: 0.56 ug/L
RT: 18.821 min Scan# 2285
Delta R.T. 0.000 min
Lab File: 3R515.D
Acq: 27 Jul 2018 17:56

Tgt Ion:146 Resp: 788

Ion	Ratio	Lower	Upper
146	100		
148	30.7	34.3	94.3#
111	93.4	11.0	71.0#

#82 BEFORE analyst DELETION
Naphthalene
Concen: 0.34 ug/L
RT: 21.504 min Scan# 2725
Delta R.T. 0.012 min
Lab File: 3R515.D
Acq: 27 Jul 2018 17:56

Tgt Ion:128 Resp: 854

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	42.5
129	0.0	0.0	41.0

#94
Ethyl acetate
Concen: 4.88 ug/L
RT: 11.225 min Scan# 1039
Delta R.T. -0.000 min
Lab File: 3R515.D
Acq: 27 Jul 2018 17:56

Tgt Ion: 43 Resp: 12577

Ion	Ratio	Lower	Upper
43	100		
61	12.1	0.0	43.8
70	8.1	0.0	40.8

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 13.48 ug/L
RT: 19.394 min Scan# 2379
Delta R.T. 0.049 min
Lab File: 3R515.D
Acq: 27 Jul 2018 17:56

Tgt Ion: 45 Resp: 4579

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	52.1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 13:50**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944008**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**8.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S19**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 18:30**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:20**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R218.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	109	ug/kg	16.4	109
79-34-5	1,1,2,2-Tetrachloroethane	U	109	ug/kg	16.4	109
79-00-5	1,1,2-Trichloroethane	U	109	ug/kg	16.4	109
75-34-3	1,1-Dichloroethane	U	109	ug/kg	16.4	109
75-35-4	1,1-Dichloroethylene	U	109	ug/kg	16.4	109
87-61-6	1,2,3-Trichlorobenzene	U	109	ug/kg	16.4	109
120-82-1	1,2,4-Trichlorobenzene	U	109	ug/kg	16.4	109
96-12-8	1,2-Dibromo-3-chloropropane	U	109	ug/kg	27.4	109
106-93-4	1,2-Dibromoethane	U	109	ug/kg	16.4	109
95-50-1	1,2-Dichlorobenzene	U	109	ug/kg	16.4	109
107-06-2	1,2-Dichloroethane	U	109	ug/kg	16.4	109
78-87-5	1,2-Dichloropropane	U	109	ug/kg	16.4	109
541-73-1	1,3-Dichlorobenzene	U	109	ug/kg	16.4	109
106-46-7	1,4-Dichlorobenzene	U	109	ug/kg	16.4	109
123-91-1	1,4-Dioxane	U	2740	ug/kg	821	2740
78-93-3	2-Butanone	U	547	ug/kg	164	547
591-78-6	2-Hexanone	U	547	ug/kg	164	547
108-10-1	4-Methyl-2-pentanone	U	547	ug/kg	164	547
67-64-1	Acetone	U	547	ug/kg	164	547
71-43-2	Benzene	U	109	ug/kg	16.4	109
74-97-5	Bromochloromethane	U	109	ug/kg	16.4	109
75-27-4	Bromodichloromethane	U	109	ug/kg	16.4	109
75-25-2	Bromoform	U	109	ug/kg	16.4	109
74-83-9	Bromomethane	U	109	ug/kg	16.4	109
75-15-0	Carbon disulfide	U	547	ug/kg	87.6	547
56-23-5	Carbon tetrachloride	U	109	ug/kg	16.4	109
108-90-7	Chlorobenzene	U	109	ug/kg	16.4	109
75-00-3	Chloroethane	U	109	ug/kg	16.4	109
67-66-3	Chloroform	U	109	ug/kg	16.4	109
74-87-3	Chloromethane	U	109	ug/kg	16.4	109
110-82-7	Cyclohexane	U	109	ug/kg	16.4	109
124-48-1	Dibromochloromethane	U	109	ug/kg	16.4	109
75-71-8	Dichlorodifluoromethane	U	109	ug/kg	16.4	109
100-41-4	Ethylbenzene	U	109	ug/kg	16.4	109
98-82-8	Isopropylbenzene	U	109	ug/kg	16.4	109
79-20-9	Methyl acetate	U	274	ug/kg	82.1	274
108-87-2	Methylcyclohexane	U	109	ug/kg	16.4	109
75-09-2	Methylene chloride	U	274	ug/kg	87.6	274

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 13:50**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944008**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**8.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S19**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 18:30**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:20**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R218.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	109	ug/kg	16.4	109
127-18-4	Tetrachloroethylene	U	109	ug/kg	16.4	109
108-88-3	Toluene	U	109	ug/kg	16.4	109
79-01-6	Trichloroethylene	U	109	ug/kg	16.4	109
75-69-4	Trichlorofluoromethane	U	109	ug/kg	16.4	109
76-13-1	Trichlorotrifluoroethane	U	274	ug/kg	87.6	274
75-01-4	Vinyl chloride	U	109	ug/kg	16.4	109
156-59-2	cis-1,2-Dichloroethylene	U	109	ug/kg	16.4	109
10061-01-5	cis-1,3-Dichloropropylene	U	109	ug/kg	16.4	109
179601-23-1	m,p-Xylenes	U	219	ug/kg	16.4	219
95-47-6	o-Xylene	U	109	ug/kg	16.4	109
1634-04-4	tert-Butyl methyl ether	U	109	ug/kg	16.4	109
156-60-5	trans-1,2-Dichloroethylene	U	109	ug/kg	16.4	109
10061-02-6	trans-1,3-Dichloropropylene	U	109	ug/kg	16.4	109

Quantitation Report
GEL Laboratories, LLC

JP 07/25/2018

KP 07/31/2018

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R218.D
Acq On : 24 Jul 2018 18:30
Operator : JP1
InstName : VOA3
Sample : |454944008|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jul 25 08:29:47 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.761	12.761	1.000	1287606	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	619348	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	526600	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.761	12.762	1.000	1290382	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	630969	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	526706	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	67	12.335	12.341	0.967	257163	53.37	ug/L	0.00
45) Toluene-d8	98	14.670	14.676	0.899	1325961	45.95	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	567227	54.80	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	107%
45) Toluene-d8	50.000	81 - 120	92%
63) Bromofluorobenzene	50.000	70 - 130	110%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane	50	4.972	4.990	0.390	236	N.D.		
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane	94	6.086	6.159	0.477	941	N.D.		
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	7.061	0.000	0	N.D.		
8) Ethyl ether		0.000	7.610	0.000	0	N.D.		
9) Acetone	43	8.275	8.232	0.648	1624	N.D.		
10) 1,1-Dichloroethylene		0.000	8.177	0.000	0	N.D.		
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile		0.000	8.817	0.000	0	N.D.		
13) Methyl acetate		0.000	8.854	0.000	0	N.D.		
14) Carbon disulfide	76	8.634	8.665	0.677	1368	N.D.		
15) Methylene chloride	84	9.079	9.091	0.711	9285	Below Cal		94
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane	57	9.988	9.988	0.783	188	N.D.		
19) Vinyl acetate		0.000	10.317	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	10.286	0.000	0	N.D.		
21) 2-Butanone	72	11.195	11.183	0.877	1473	N.D.		
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		0.000	11.628	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	12.127	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane	62	12.438	12.438	0.975	472	N.D.		
32) Benzene	78	12.426	12.426	0.974	691	N.D.		
33) Cyclohexene		0.000	12.548	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	13.024	0.000	0	N.D.		
35) Trichloroethylene		0.000	13.225	0.000	0	N.D.		
36) 2-Pentanone	43	13.408	13.396	1.051	1954	N.D.		
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		0.000	13.475	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R218.D
Acq On : 24 Jul 2018 18:30
Operator : JP1
InstName : VOA3
Sample : |454944008|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jul 25 08:29:47 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
39) Dibromomethane		0.000	13.682	0.000	0	N.D.	
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	14.353	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	14.487	0.000	0	N.D.	
46) Toluene	91	14.767	14.755	0.905	1067	N.D.	
47) trans-1,3-Dichloroprop...		0.000	14.968	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.	
49) 2-Hexanone		0.000	15.413	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	15.401	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	15.383	0.000	0	N.D.	
52) Dibromochloromethane		0.000	15.676	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	15.840	0.000	0	N.D.	
54) Chlorobenzene	112	16.352	16.352	1.002	109	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	16.419	0.000	0	N.D.	
56) Ethylbenzene	91	16.425	16.425	1.007	162	N.D.	
57) m,p-Xylenes	106	16.541	16.541	1.014	111	N.D.	
58) o-Xylene		0.000	16.986	0.000	0	N.D.	
59) Styrene		0.000	16.992	0.000	0	N.D.	
61) Bromoform		0.000	17.261	0.000	0	N.D.	
62) Isopropylbenzene		0.000	17.358	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	17.663	0.000	0	N.D.	
65) 1,2,3-Trichloropropane	75	17.645	17.748	0.939	202	N.D.	
66) Bromobenzene		0.000	17.767	0.000	0	N.D.	
67) n-Propylbenzene	91	17.791	17.791	0.947	158	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	17.949	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	17.937	0.000	0	N.D.	
70) 4-Chlorotoluene	91	18.047	18.041	0.960	648	N.D.	
71) tert-Butylbenzene		0.000	18.321	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	18.370	18.364	0.978	228	N.D.	
73) sec-Butylbenzene		0.000	18.547	0.000	0	N.D.	
74) 4-Isopropyltoluene	119	18.785	18.675	1.000	210	N.D.	
75) 1,3-Dichlorobenzene	146	18.730	18.730	0.997	477	N.D.	
76) 1,4-Dichlorobenzene	146	18.827	18.821	1.002	765	N.D.	
77) n-Butylbenzene	91	18.949	19.108	1.008	104	N.D.	
78) 1,2-Dichlorobenzene	146	19.248	19.236	1.024	100	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	21.120	21.113	1.124	442	N.D.	
81) Hexachlorobutadiene		0.000	21.278	0.000	0	N.D.	
82) Naphthalene	128	21.485	21.491	1.143	1362	N.D.	
83) 1,2,3-Trichlorobenzene	180	21.827	21.821	1.162	109	N.D.	
85) Acrolein		0.000	7.927	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	8.165	0.000	0	N.D.	
87) Isopropyl Alcohol	45	8.659	8.464	0.678	345	N.D.	
88) Allyl chloride	76	8.634	8.842	0.677	1064	N.D.	
89) tert-Butyl Alcohol		0.000	9.220	0.000	0	N.D.	
90) Acrylonitrile		0.000	9.531	0.000	0	N.D.	
91) Isopropyl ether		0.000	10.317	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	10.427	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.	
94) Ethyl acetate	43	11.195	11.225	0.877	7149	N.D.	
95) Propionitrile		0.000	11.305	0.000	0	N.D.	
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.	
97) Tetrahydrofuran	42	11.621	11.597	0.911	2366	N.D.	
98) Isobutyl alcohol		0.000	12.176	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R218.D
Acq On : 24 Jul 2018 18:30
Operator : JP1
InstName : VOA3
Sample : |454944008|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jul 25 08:29:47 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		0.000	12.500	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	13.560	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	13.652	0.000	0	N.D.	
102)	2-Nitropropane		0.000	14.103	0.000	0m	N.D.	d
104)	Ethyl methacrylate		0.000	14.987	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108)	Cyclohexanone	55	17.553	17.535	0.934	1540	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	17.718	0.000	0	N.D.	
110)	Pentachloroethane		0.000	18.395	0.000	0	N.D.	
111)	Benzyl chloride	91	18.949	18.943	1.008	104	N.D.	
112)	bis(2-Chloroisopropyl)...	45	19.394	19.346	1.032	2337	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R218.D
Acq On : 24 Jul 2018 18:30
Operator : JP1
InstName : VOA3
Sample : |454944008|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jul 25 08:29:47 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

#102 BEFORE analyst DELETION
2-Nitropropane
Concen: 3.40 ug/L
RT: 13.981 min Scan# 1491
Delta R.T. -0.122 min
Lab File: 3R218.D
Acq: 24 Jul 2018 18:30

Tgt Ion: 43 Resp: 178

Ion	Ratio	Lower	Upper
43	100		
41	355.6	55.3	115.3#

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 13:50**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944008**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**8.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S19RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 18:28**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:08**	**Aliquot:**	**5.5 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R516.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.99	ug/kg	0.299	1.99
79-34-5	1,1,2,2-Tetrachloroethane	U	1.99	ug/kg	0.299	1.99
79-00-5	1,1,2-Trichloroethane	U	1.99	ug/kg	0.299	1.99
75-34-3	1,1-Dichloroethane	U	1.99	ug/kg	0.299	1.99
75-35-4	1,1-Dichloroethylene	U	1.99	ug/kg	0.299	1.99
87-61-6	1,2,3-Trichlorobenzene	U	1.99	ug/kg	0.299	1.99
120-82-1	1,2,4-Trichlorobenzene	U	1.99	ug/kg	0.299	1.99
96-12-8	1,2-Dibromo-3-chloropropane	U	1.99	ug/kg	0.498	1.99
106-93-4	1,2-Dibromoethane	U	1.99	ug/kg	0.299	1.99
95-50-1	1,2-Dichlorobenzene	U	1.99	ug/kg	0.299	1.99
107-06-2	1,2-Dichloroethane	U	1.99	ug/kg	0.299	1.99
78-87-5	1,2-Dichloropropane	U	1.99	ug/kg	0.299	1.99
541-73-1	1,3-Dichlorobenzene	U	1.99	ug/kg	0.299	1.99
106-46-7	1,4-Dichlorobenzene	U	1.99	ug/kg	0.299	1.99
123-91-1	1,4-Dioxane	U	49.8	ug/kg	14.9	49.8
78-93-3	2-Butanone	U	9.95	ug/kg	2.99	9.95
591-78-6	2-Hexanone	U	9.95	ug/kg	2.99	9.95
108-10-1	4-Methyl-2-pentanone	U	9.95	ug/kg	2.99	9.95
67-64-1	Acetone	U	9.95	ug/kg	2.99	9.95
71-43-2	Benzene	U	1.99	ug/kg	0.299	1.99
74-97-5	Bromochloromethane	U	1.99	ug/kg	0.299	1.99
75-27-4	Bromodichloromethane	U	1.99	ug/kg	0.299	1.99
75-25-2	Bromoform	U	1.99	ug/kg	0.299	1.99
74-83-9	Bromomethane	U	1.99	ug/kg	0.299	1.99
75-15-0	Carbon disulfide	U	9.95	ug/kg	1.59	9.95
56-23-5	Carbon tetrachloride	U	1.99	ug/kg	0.299	1.99
108-90-7	Chlorobenzene	U	1.99	ug/kg	0.299	1.99
75-00-3	Chloroethane	U	1.99	ug/kg	0.299	1.99
67-66-3	Chloroform	U	1.99	ug/kg	0.299	1.99
74-87-3	Chloromethane	U	1.99	ug/kg	0.299	1.99
110-82-7	Cyclohexane	U	1.99	ug/kg	0.299	1.99
124-48-1	Dibromochloromethane	U	1.99	ug/kg	0.299	1.99
75-71-8	Dichlorodifluoromethane	U	1.99	ug/kg	0.299	1.99
100-41-4	Ethylbenzene	U	1.99	ug/kg	0.299	1.99
98-82-8	Isopropylbenzene	U	1.99	ug/kg	0.299	1.99
79-20-9	Methyl acetate	U	4.98	ug/kg	1.49	4.98
108-87-2	Methylcyclohexane	U	1.99	ug/kg	0.299	1.99
75-09-2	Methylene chloride	U	4.98	ug/kg	1.59	4.98

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 13:50**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944008**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**8.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S19RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 18:28**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:08**	**Aliquot:**	**5.5 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R516.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	1.99	ug/kg	0.299	1.99
127-18-4	Tetrachloroethylene	U	1.99	ug/kg	0.299	1.99
108-88-3	Toluene	U	1.99	ug/kg	0.299	1.99
79-01-6	Trichloroethylene	U	1.99	ug/kg	0.299	1.99
75-69-4	Trichlorofluoromethane	U	1.99	ug/kg	0.299	1.99
76-13-1	Trichlorotrifluoroethane	U	4.98	ug/kg	1.59	4.98
75-01-4	Vinyl chloride	U	1.99	ug/kg	0.299	1.99
156-59-2	cis-1,2-Dichloroethylene	U	1.99	ug/kg	0.299	1.99
10061-01-5	cis-1,3-Dichloropropylene	U	1.99	ug/kg	0.299	1.99
179601-23-1	m,p-Xylenes	U	3.98	ug/kg	0.299	3.98
95-47-6	o-Xylene	U	1.99	ug/kg	0.299	1.99
1634-04-4	tert-Butyl methyl ether	U	1.99	ug/kg	0.299	1.99
156-60-5	trans-1,2-Dichloroethylene	U	1.99	ug/kg	0.299	1.99
10061-02-6	trans-1,3-Dichloropropylene	U	1.99	ug/kg	0.299	1.99

Quantitation Report
GEL Laboratories, LLC

JP 07/30/2018

KP 07/31/2018

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R516.D
Acq On : 27 Jul 2018 18:28
Operator : JP1
InstName : VOA3
Sample : |454944008|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.5G N/A SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 28 10:02:17 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.762	12.761	1.000	737581	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.322	16.316	1.000	258496	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.797	18.791	1.000	130990	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	738769	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.322	16.316	1.000	261503	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.797	18.791	1.000	131076	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	158530	57.43	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	640879	53.22	ug/L	0.00
63) Bromofluorobenzene	95	17.560	17.559	0.934	167806	65.17	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	115%
45) Toluene-d8	50.000	81 - 120	106%
63) Bromofluorobenzene	50.000	70 - 130	130%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane	50	4.991	4.990	0.391	249	N.D.		
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		0.000	6.159	0.000	0	N.D.		
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	7.061	0.000	0	N.D.		
8) Ethyl ether		0.000	7.610	0.000	0	N.D.		
9) Acetone	43	8.256	8.232	0.647	5325	2.00	ug/L	82
10) 1,1-Dichloroethylene		0.000	8.177	0.000	0	N.D.		
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile		0.000	8.817	0.000	0	N.D.		
13) Methyl acetate		0.000	8.854	0.000	0	N.D.		
14) Carbon disulfide	76	8.604	8.665	0.674	14111	N.D.		
15) Methylene chloride	84	9.086	9.091	0.712	1854	Below Cal		95
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane		0.000	9.988	0.000	0	N.D.		
19) Vinyl acetate		0.000	10.317	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	10.286	0.000	0	N.D.		
21) 2-Butanone		0.000	11.183	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		0.000	11.628	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	12.127	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	12.438	0.000	0	N.D.		
32) Benzene	78	12.426	12.426	0.974	365	N.D.		
33) Cyclohexene		0.000	12.548	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	13.024	0.000	0	N.D.		
35) Trichloroethylene		0.000	13.225	0.000	0	N.D.		
36) 2-Pentanone		0.000	13.396	0.000	0	N.D.		
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		0.000	13.475	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R516.D
Acq On : 27 Jul 2018 18:28
Operator : JP1
InstName : VOA3
Sample : |454944008|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.5G N/A SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 28 10:02:17 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
39) Dibromomethane		0.000	13.682	0.000	0	N.D.	
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	14.353	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	14.487	0.000	0	N.D.	
46) Toluene		0.000	14.755	0.000	0	N.D.	
47) trans-1,3-Dichloroprop...		0.000	14.968	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.	
49) 2-Hexanone		0.000	15.413	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	15.401	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	15.383	0.000	0	N.D.	
52) Dibromochloromethane		0.000	15.676	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	15.840	0.000	0	N.D.	
54) Chlorobenzene		0.000	16.352	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	16.419	0.000	0	N.D.	
56) Ethylbenzene		0.000	16.425	0.000	0	N.D.	
57) m,p-Xylenes		0.000	16.541	0.000	0	N.D.	
58) o-Xylene		0.000	16.986	0.000	0	N.D.	
59) Styrene		0.000	16.992	0.000	0	N.D.	
61) Bromoform		0.000	17.261	0.000	0	N.D.	
62) Isopropylbenzene		0.000	17.358	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	17.663	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	17.748	0.000	0	N.D.	
66) Bromobenzene		0.000	17.767	0.000	0	N.D.	
67) n-Propylbenzene		0.000	17.791	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	17.949	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	17.937	0.000	0	N.D.	
70) 4-Chlorotoluene	91	18.047	18.041	0.960	314	N.D.	
71) tert-Butylbenzene		0.000	18.321	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene		0.000	18.364	0.000	0	N.D.	
73) sec-Butylbenzene		0.000	18.547	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	18.675	0.000	0	N.D.	
75) 1,3-Dichlorobenzene	146	18.730	18.730	0.996	163	N.D.	
76) 1,4-Dichlorobenzene	146	18.821	18.821	1.001	536	N.D.	
77) n-Butylbenzene		0.000	19.108	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		0.000	19.236	0.000	0	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	21.114	21.113	1.123	120	N.D.	
81) Hexachlorobutadiene		0.000	21.278	0.000	0	N.D.	
82) Naphthalene	128	21.510	21.491	1.144	918	N.D.	
83) 1,2,3-Trichlorobenzene	180	21.827	21.821	1.161	246	N.D.	
85) Acrolein		0.000	7.927	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	8.165	0.000	0	N.D.	
87) Isopropyl Alcohol		0.000	8.464	0.000	0	N.D.	
88) Allyl chloride		0.000	8.842	0.000	0	N.D.	
89) tert-Butyl Alcohol		0.000	9.220	0.000	0	N.D.	
90) Acrylonitrile		0.000	9.531	0.000	0	N.D.	
91) Isopropyl ether		0.000	10.317	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	10.427	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.	
94) Ethyl acetate	43	11.232	11.225	0.880	1426	N.D.	
95) Propionitrile		0.000	11.305	0.000	0	N.D.	
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.	
97) Tetrahydrofuran	42	11.616	11.597	0.910	516	N.D.	
98) Isobutyl alcohol		0.000	12.176	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R516.D
Acq On : 27 Jul 2018 18:28
Operator : JP1
InstName : VOA3
Sample : |454944008|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.5G N/A SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 28 10:02:17 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		0.000	12.500	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	13.560	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	13.652	0.000	0	N.D.	
102)	2-Nitropropane		0.000	14.103	0.000	0	N.D.	
104)	Ethyl methacrylate		0.000	14.987	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108)	Cyclohexanone	55	17.566	17.535	0.934	354	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	17.718	0.000	0	N.D.	
110)	Pentachloroethane		0.000	18.395	0.000	0	N.D.	
111)	Benzyl chloride		0.000	18.943	0.000	0	N.D.	
112)	bis(2-Chloroisopropyl)...		0.000	19.346	0.000	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R516.D
Acq On : 27 Jul 2018 18:28
Operator : JP1
InstName : VOA3
Sample : |454944008|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.5G N/A SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 28 10:02:17 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

#9
Acetone
Concen: 2.00 ug/L
RT: 8.256 min Scan# 552
Delta R.T. 0.025 min
Lab File: 3R516.D
Acq: 27 Jul 2018 18:28

Tgt Ion: 43 Resp: 5325

Ion	Ratio	Lower	Upper
43	100		
58	18.0	0.0	57.2

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 3.25 ug/L
RT: 19.388 min Scan# 2378
Delta R.T. 0.043 min
Lab File: 3R516.D
Acq: 27 Jul 2018 18:28

Tgt Ion: 45 Resp: 3231

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	52.1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 14:00**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944009**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**SW22**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 19:01**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:21**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R219.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	101	ug/kg	15.2	101
79-34-5	1,1,2,2-Tetrachloroethane	U	101	ug/kg	15.2	101
79-00-5	1,1,2-Trichloroethane	U	101	ug/kg	15.2	101
75-34-3	1,1-Dichloroethane	U	101	ug/kg	15.2	101
75-35-4	1,1-Dichloroethylene	U	101	ug/kg	15.2	101
87-61-6	1,2,3-Trichlorobenzene	U	101	ug/kg	15.2	101
120-82-1	1,2,4-Trichlorobenzene	U	101	ug/kg	15.2	101
96-12-8	1,2-Dibromo-3-chloropropane	U	101	ug/kg	25.4	101
106-93-4	1,2-Dibromoethane	U	101	ug/kg	15.2	101
95-50-1	1,2-Dichlorobenzene	U	101	ug/kg	15.2	101
107-06-2	1,2-Dichloroethane	U	101	ug/kg	15.2	101
78-87-5	1,2-Dichloropropane	U	101	ug/kg	15.2	101
541-73-1	1,3-Dichlorobenzene	U	101	ug/kg	15.2	101
106-46-7	1,4-Dichlorobenzene	U	101	ug/kg	15.2	101
123-91-1	1,4-Dioxane	U	2540	ug/kg	761	2540
78-93-3	2-Butanone	U	507	ug/kg	152	507
591-78-6	2-Hexanone	U	507	ug/kg	152	507
108-10-1	4-Methyl-2-pentanone	U	507	ug/kg	152	507
67-64-1	Acetone	U	507	ug/kg	152	507
71-43-2	Benzene	U	101	ug/kg	15.2	101
74-97-5	Bromochloromethane	U	101	ug/kg	15.2	101
75-27-4	Bromodichloromethane	U	101	ug/kg	15.2	101
75-25-2	Bromoform	U	101	ug/kg	15.2	101
74-83-9	Bromomethane	U	101	ug/kg	15.2	101
75-15-0	Carbon disulfide	U	507	ug/kg	81.2	507
56-23-5	Carbon tetrachloride	U	101	ug/kg	15.2	101
108-90-7	Chlorobenzene	U	101	ug/kg	15.2	101
75-00-3	Chloroethane	U	101	ug/kg	15.2	101
67-66-3	Chloroform	U	101	ug/kg	15.2	101
74-87-3	Chloromethane	U	101	ug/kg	15.2	101
110-82-7	Cyclohexane	U	101	ug/kg	15.2	101
124-48-1	Dibromochloromethane	U	101	ug/kg	15.2	101
75-71-8	Dichlorodifluoromethane	U	101	ug/kg	15.2	101
100-41-4	Ethylbenzene	U	101	ug/kg	15.2	101
98-82-8	Isopropylbenzene	U	101	ug/kg	15.2	101
79-20-9	Methyl acetate	U	254	ug/kg	76.1	254
108-87-2	Methylcyclohexane	U	101	ug/kg	15.2	101
75-09-2	Methylene chloride	U	254	ug/kg	81.2	254

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 14:00**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944009**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**SW22**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 19:01**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:21**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R219.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	101	ug/kg	15.2	101
127-18-4	Tetrachloroethylene	U	101	ug/kg	15.2	101
108-88-3	Toluene	U	101	ug/kg	15.2	101
79-01-6	Trichloroethylene	U	101	ug/kg	15.2	101
75-69-4	Trichlorofluoromethane	U	101	ug/kg	15.2	101
76-13-1	Trichlorotrifluoroethane	U	254	ug/kg	81.2	254
75-01-4	Vinyl chloride	U	101	ug/kg	15.2	101
156-59-2	cis-1,2-Dichloroethylene	U	101	ug/kg	15.2	101
10061-01-5	cis-1,3-Dichloropropylene	U	101	ug/kg	15.2	101
179601-23-1	m,p-Xylenes	U	203	ug/kg	15.2	203
95-47-6	o-Xylene	U	101	ug/kg	15.2	101
1634-04-4	tert-Butyl methyl ether	U	101	ug/kg	15.2	101
156-60-5	trans-1,2-Dichloroethylene	U	101	ug/kg	15.2	101
10061-02-6	trans-1,3-Dichloropropylene	U	101	ug/kg	15.2	101

Quantitation Report
GEL Laboratories, LLC

JP
07/25/2018

KP
07/31/2018

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R219.D
Acq On : 24 Jul 2018 19:01
Operator : JP1
InstName : VOA3
Sample : |454944009|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jul 25 08:29:49 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.761	12.761	1.000	1262568	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	608112	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	502675	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.761	12.762	1.000	1265558	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	618323	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	503155	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.335	12.341	0.967	247255	52.33	ug/L	0.00
45) Toluene-d8	98	14.670	14.676	0.899	1294151	45.68	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	556928	56.36	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	105%
45) Toluene-d8	50.000	81 - 120	91%
63) Bromofluorobenzene	50.000	70 - 130	113%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane		0.000	4.990	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane	94	6.141	6.159	0.481	747	N.D.		
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	7.061	0.000	0	N.D.		
8) Ethyl ether		0.000	7.610	0.000	0	N.D.		
9) Acetone	43	8.274	8.232	0.648	1559	N.D.		
10) 1,1-Dichloroethylene		0.000	8.177	0.000	0	N.D.		
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile		0.000	8.817	0.000	0	N.D.		
13) Methyl acetate		0.000	8.854	0.000	0	N.D.		
14) Carbon disulfide	76	8.652	8.665	0.678	3621	N.D.		
15) Methylene chloride	84	9.079	9.091	0.711	7835	Below Cal		98
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane	57	9.969	9.988	0.781	428	N.D.		
19) Vinyl acetate		0.000	10.317	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	10.286	0.000	0	N.D.		
21) 2-Butanone	72	11.188	11.183	0.877	1136	N.D.		
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		0.000	11.628	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	12.127	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane	62	12.432	12.438	0.974	279	N.D.		
32) Benzene	78	12.414	12.426	0.973	811	N.D.		
33) Cyclohexene	67	12.463	12.548	0.977	169	N.D.		
34) n-Butyl alcohol		0.000	13.024	0.000	0	N.D.		
35) Trichloroethylene		0.000	13.225	0.000	0	N.D.		
36) 2-Pentanone	43	13.408	13.396	1.051	1720	N.D.		
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		0.000	13.475	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R219.D
Acq On : 24 Jul 2018 19:01
Operator : JP1
InstName : VOA3
Sample : |454944009|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jul 25 08:29:49 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
39) Dibromomethane		0.000	13.682	0.000	0	N.D.	
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	14.353	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	14.487	0.000	0	N.D.	
46) Toluene	91	14.755	14.755	0.904	1072	N.D.	
47) trans-1,3-Dichloroprop...		0.000	14.968	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.	
49) 2-Hexanone		0.000	15.413	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	15.401	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	15.383	0.000	0	N.D.	
52) Dibromochloromethane		0.000	15.676	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	15.840	0.000	0	N.D.	
54) Chlorobenzene		0.000	16.352	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	16.419	0.000	0	N.D.	
56) Ethylbenzene	91	16.413	16.425	1.006	356	N.D.	
57) m,p-Xylenes	106	16.541	16.541	1.014	270	N.D.	
58) o-Xylene		0.000	16.986	0.000	0	N.D.	
59) Styrene		0.000	16.992	0.000	0	N.D.	
61) Bromoform		0.000	17.261	0.000	0	N.D.	
62) Isopropylbenzene		0.000	17.358	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	17.663	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	17.748	0.000	0	N.D.	
66) Bromobenzene		0.000	17.767	0.000	0	N.D.	
67) n-Propylbenzene	91	17.791	17.791	0.947	267	N.D.	
68) 1,3,5-Trimethylbenzene	105	17.949	17.949	0.955	153	N.D.	
69) 2-Chlorotoluene		0.000	17.937	0.000	0	N.D.	
70) 4-Chlorotoluene	91	18.035	18.041	0.960	107	N.D.	
71) tert-Butylbenzene		0.000	18.321	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	18.364	18.364	0.977	400	N.D.	
73) sec-Butylbenzene		0.000	18.547	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	18.675	0.000	0	N.D.	
75) 1,3-Dichlorobenzene	146	18.736	18.730	0.997	217	N.D.	
76) 1,4-Dichlorobenzene	146	18.815	18.821	1.001	807	N.D.	
77) n-Butylbenzene		0.000	19.108	0.000	0	N.D.	
78) 1,2-Dichlorobenzene	146	19.242	19.236	1.024	168	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	21.119	21.113	1.124	159	N.D.	
81) Hexachlorobutadiene		0.000	21.278	0.000	0	N.D.	
82) Naphthalene	128	21.510	21.491	1.145	1409	N.D.	
83) 1,2,3-Trichlorobenzene	180	21.821	21.821	1.161	157	N.D.	
85) Acrolein		0.000	7.927	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	8.165	0.000	0	N.D.	
87) Isopropyl Alcohol	45	8.530	8.464	0.668	180	N.D.	
88) Allyl chloride	76	8.652	8.842	0.678	2752	N.D.	
89) tert-Butyl Alcohol		0.000	9.220	0.000	0	N.D.	
90) Acrylonitrile		0.000	9.531	0.000	0	N.D.	
91) Isopropyl ether		0.000	10.317	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	10.427	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.	
94) Ethyl acetate	43	11.195	11.225	0.877	6100	N.D.	
95) Propionitrile		0.000	11.305	0.000	0	N.D.	
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.	
97) Tetrahydrofuran	42	11.609	11.597	0.910	2123	N.D.	
98) Isobutyl alcohol	43	12.353	12.176	0.968	102	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R219.D
Acq On : 24 Jul 2018 19:01
Operator : JP1
InstName : VOA3
Sample : |454944009|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jul 25 08:29:49 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		0.000	12.500	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	13.560	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	13.652	0.000	0	N.D.	
102)	2-Nitropropane		0.000	14.103	0.000	0m	N.D.	d
104)	Ethyl methacrylate		0.000	14.987	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108)	Cyclohexanone	55	17.559	17.535	0.934	1306	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	17.718	0.000	0	N.D.	
110)	Pentachloroethane		0.000	18.395	0.000	0	N.D.	
111)	Benzyl chloride		0.000	18.943	0.000	0	N.D.	
112)	bis(2-Chloroisopropyl)...	45	19.394	19.346	1.032	1726	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R219.D
Acq On : 24 Jul 2018 19:01
Operator : JP1
InstName : VOA3
Sample : |454944009|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jul 25 08:29:49 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

#102 BEFORE analyst DELETION
2-Nitropropane
Concen: 3.42 ug/L
RT: 13.987 min Scan# 1492
Delta R.T. -0.116 min
Lab File: 3R219.D
Acq: 24 Jul 2018 19:01

Tgt Ion: 43 Resp: 214

Ion	Ratio	Lower	Upper
43	100		
41	160.3	55.3	115.3#

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 14:00**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944009**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**SW22RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 18:59**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:09**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R517.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	2.11	ug/kg	0.316	2.11
79-34-5	1,1,2,2-Tetrachloroethane	U	2.11	ug/kg	0.316	2.11
79-00-5	1,1,2-Trichloroethane	U	2.11	ug/kg	0.316	2.11
75-34-3	1,1-Dichloroethane	U	2.11	ug/kg	0.316	2.11
75-35-4	1,1-Dichloroethylene	U	2.11	ug/kg	0.316	2.11
87-61-6	1,2,3-Trichlorobenzene	U	2.11	ug/kg	0.316	2.11
120-82-1	1,2,4-Trichlorobenzene	U	2.11	ug/kg	0.316	2.11
96-12-8	1,2-Dibromo-3-chloropropane	U	2.11	ug/kg	0.527	2.11
106-93-4	1,2-Dibromoethane	U	2.11	ug/kg	0.316	2.11
95-50-1	1,2-Dichlorobenzene	U	2.11	ug/kg	0.316	2.11
107-06-2	1,2-Dichloroethane	U	2.11	ug/kg	0.316	2.11
78-87-5	1,2-Dichloropropane	U	2.11	ug/kg	0.316	2.11
541-73-1	1,3-Dichlorobenzene	U	2.11	ug/kg	0.316	2.11
106-46-7	1,4-Dichlorobenzene	U	2.11	ug/kg	0.316	2.11
123-91-1	1,4-Dioxane	U	52.7	ug/kg	15.8	52.7
78-93-3	2-Butanone	U	10.5	ug/kg	3.16	10.5
591-78-6	2-Hexanone	U	10.5	ug/kg	3.16	10.5
108-10-1	4-Methyl-2-pentanone	U	10.5	ug/kg	3.16	10.5
67-64-1	Acetone	J	6.27	ug/kg	3.16	10.5
71-43-2	Benzene	U	2.11	ug/kg	0.316	2.11
74-97-5	Bromochloromethane	U	2.11	ug/kg	0.316	2.11
75-27-4	Bromodichloromethane	U	2.11	ug/kg	0.316	2.11
75-25-2	Bromoform	U	2.11	ug/kg	0.316	2.11
74-83-9	Bromomethane	U	2.11	ug/kg	0.316	2.11
75-15-0	Carbon disulfide	J	2.45	ug/kg	1.69	10.5
56-23-5	Carbon tetrachloride	U	2.11	ug/kg	0.316	2.11
108-90-7	Chlorobenzene	U	2.11	ug/kg	0.316	2.11
75-00-3	Chloroethane	U	2.11	ug/kg	0.316	2.11
67-66-3	Chloroform	U	2.11	ug/kg	0.316	2.11
74-87-3	Chloromethane	U	2.11	ug/kg	0.316	2.11
110-82-7	Cyclohexane	U	2.11	ug/kg	0.316	2.11
124-48-1	Dibromochloromethane	U	2.11	ug/kg	0.316	2.11
75-71-8	Dichlorodifluoromethane	U	2.11	ug/kg	0.316	2.11
100-41-4	Ethylbenzene	U	2.11	ug/kg	0.316	2.11
98-82-8	Isopropylbenzene	U	2.11	ug/kg	0.316	2.11
79-20-9	Methyl acetate	U	5.27	ug/kg	1.58	5.27
108-87-2	Methylcyclohexane	U	2.11	ug/kg	0.316	2.11
75-09-2	Methylene chloride	U	5.27	ug/kg	1.69	5.27

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 14:00**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944009**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**SW22RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 18:59**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:09**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R517.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	2.11	ug/kg	0.316	2.11
127-18-4	Tetrachloroethylene	U	2.11	ug/kg	0.316	2.11
108-88-3	Toluene	U	2.11	ug/kg	0.316	2.11
79-01-6	Trichloroethylene	U	2.11	ug/kg	0.316	2.11
75-69-4	Trichlorofluoromethane	U	2.11	ug/kg	0.316	2.11
76-13-1	Trichlorotrifluoroethane	U	5.27	ug/kg	1.69	5.27
75-01-4	Vinyl chloride	U	2.11	ug/kg	0.316	2.11
156-59-2	cis-1,2-Dichloroethylene	U	2.11	ug/kg	0.316	2.11
10061-01-5	cis-1,3-Dichloropropylene	U	2.11	ug/kg	0.316	2.11
179601-23-1	m,p-Xylenes	U	4.22	ug/kg	0.316	4.22
95-47-6	o-Xylene	U	2.11	ug/kg	0.316	2.11
1634-04-4	tert-Butyl methyl ether	U	2.11	ug/kg	0.316	2.11
156-60-5	trans-1,2-Dichloroethylene	U	2.11	ug/kg	0.316	2.11
10061-02-6	trans-1,3-Dichloropropylene	U	2.11	ug/kg	0.316	2.11

Quantitation Report
GEL Laboratories, LLC

JP 07/30/2018

KP 07/31/2018

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R517.D
Acq On : 27 Jul 2018 18:59
Operator : JP1
InstName : VOA3
Sample : |454944009|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.1G N/A SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 28 10:02:19 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.761	12.761	1.000	642273	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	138711	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	59640	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.761	12.762	1.000	643644	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	140549	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	59640	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	145489	60.53	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	411883	63.74	ug/L	0.00
63) Bromofluorobenzene	95	17.565	17.559	0.935	71620	61.09	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	121%
45) Toluene-d8	50.000	81 - 120	127%#
63) Bromofluorobenzene	50.000	70 - 130	122%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane		0.000	4.990	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		0.000	6.159	0.000	0	N.D.		
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	7.061	0.000	0	N.D.		
8) Ethyl ether		0.000	7.610	0.000	0	N.D.		
9) Acetone	43	8.256	8.232	0.647	13796	5.95	ug/L	86
10) 1,1-Dichloroethylene		0.000	8.177	0.000	0	N.D.		
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile		0.000	8.817	0.000	0	N.D.		
13) Methyl acetate		0.000	8.854	0.000	0	N.D.		
14) Carbon disulfide	76	8.598	8.665	0.674	30794	2.32	ug/L	88
15) Methylene chloride	84	9.091	9.091	0.712	3500	Below Cal		96
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane		0.000	9.988	0.000	0	N.D.		
19) Vinyl acetate		0.000	10.317	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	10.286	0.000	0	N.D.		
21) 2-Butanone		0.000	11.183	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		0.000	11.628	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	12.127	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	12.438	0.000	0	N.D.		
32) Benzene	78	12.426	12.426	0.974	392	N.D.		
33) Cyclohexene		0.000	12.548	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	13.024	0.000	0	N.D.		
35) Trichloroethylene		0.000	13.225	0.000	0	N.D.		
36) 2-Pentanone		0.000	13.396	0.000	0	N.D.		
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		0.000	13.475	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R517.D
Acq On : 27 Jul 2018 18:59
Operator : JP1
InstName : VOA3
Sample : |454944009|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.1G N/A SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 28 10:02:19 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
39) Dibromomethane		0.000	13.682	0.000	0	N.D.		
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		0.000	14.353	0.000	0	N.D.		
44) 4-Methyl-2-pentanone		0.000	14.487	0.000	0	N.D.		
46) Toluene	91	14.749	14.755	0.904	341	N.D.		
47) trans-1,3-Dichloroprop...		0.000	14.968	0.000	0	N.D.		
48) 1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.		
49) 2-Hexanone		0.000	15.413	0.000	0	N.D.		
50) 1,3-Dichloropropane		0.000	15.401	0.000	0	N.D.		
51) Tetrachloroethylene		0.000	15.383	0.000	0	N.D.		
52) Dibromochloromethane		0.000	15.676	0.000	0	N.D.		
53) 1,2-Dibromoethane		0.000	15.840	0.000	0	N.D.		
54) Chlorobenzene		0.000	16.352	0.000	0	N.D.		
55) 1,1,1,2-Tetrachloroethane		0.000	16.419	0.000	0	N.D.		
56) Ethylbenzene		0.000	16.425	0.000	0	N.D.		
57) m,p-Xylenes	106	16.541	16.541	1.014	114	N.D.		
58) o-Xylene		0.000	16.986	0.000	0	N.D.		
59) Styrene		0.000	16.992	0.000	0	N.D.		
61) Bromoform		0.000	17.261	0.000	0	N.D.		
62) Isopropylbenzene		0.000	17.358	0.000	0	N.D.		
64) 1,1,2,2-Tetrachloroethane		0.000	17.663	0.000	0	N.D.		
65) 1,2,3-Trichloropropane		0.000	17.748	0.000	0	N.D.		
66) Bromobenzene		0.000	17.767	0.000	0	N.D.		
67) n-Propylbenzene		0.000	17.791	0.000	0	N.D.		
68) 1,3,5-Trimethylbenzene		0.000	17.949	0.000	0	N.D.		
69) 2-Chlorotoluene		0.000	17.937	0.000	0	N.D.		
70) 4-Chlorotoluene		0.000	18.041	0.000	0	N.D.		
71) tert-Butylbenzene		0.000	18.321	0.000	0	N.D.		
72) 1,2,4-Trimethylbenzene		0.000	18.364	0.000	0	N.D.		
73) sec-Butylbenzene		0.000	18.547	0.000	0	N.D.		
74) 4-Isopropyltoluene		0.000	18.675	0.000	0	N.D.		
75) 1,3-Dichlorobenzene		0.000	18.730	0.000	0	N.D.		
76) 1,4-Dichlorobenzene		0.000	18.821	0.000	0	N.D.		
77) n-Butylbenzene		0.000	19.108	0.000	0	N.D.		
78) 1,2-Dichlorobenzene		0.000	19.236	0.000	0	N.D.		
79) 1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.		
80) 1,2,4-Trichlorobenzene	180	21.126	21.113	1.124	156	N.D.		
81) Hexachlorobutadiene		0.000	21.278	0.000	0	N.D.		
82) Naphthalene	128	21.498	21.491	1.144	505	N.D.		
83) 1,2,3-Trichlorobenzene		0.000	21.821	0.000	0	N.D.		
85) Acrolein		0.000	7.927	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	8.165	0.000	0	N.D.		
87) Isopropyl Alcohol		0.000	8.464	0.000	0	N.D.		
88) Allyl chloride		0.000	8.842	0.000	0	N.D.		
89) tert-Butyl Alcohol		0.000	9.220	0.000	0	N.D.		
90) Acrylonitrile		0.000	9.531	0.000	0	N.D.		
91) Isopropyl ether		0.000	10.317	0.000	0	N.D.		
92) 2-Chloro-1,3-butadiene		0.000	10.427	0.000	0	N.D.		
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.		
94) Ethyl acetate	43	11.231	11.225	0.880	10497	3.30	ug/L	94
95) Propionitrile		0.000	11.305	0.000	0	N.D.		
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.		
97) Tetrahydrofuran	42	11.609	11.597	0.910	383	N.D.		
98) Isobutyl alcohol		0.000	12.176	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R517.D
Acq On : 27 Jul 2018 18:59
Operator : JP1
InstName : VOA3
Sample : |454944009|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.1G N/A SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 28 10:02:19 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		0.000	12.500	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	13.560	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	13.652	0.000	0	N.D.	
102)	2-Nitropropane		0.000	14.103	0.000	0	N.D.	
104)	Ethyl methacrylate		0.000	14.987	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108)	Cyclohexanone		0.000	17.535	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	17.718	0.000	0	N.D.	
110)	Pentachloroethane		0.000	18.395	0.000	0	N.D.	
111)	Benzyl chloride		0.000	18.943	0.000	0	N.D.	
112)	bis(2-Chloroisopropyl)...	45	19.400	19.346	1.032	762	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R517.D
Acq On : 27 Jul 2018 18:59
Operator : JP1
InstName : VOA3
Sample : |454944009|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.1G N/A SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 28 10:02:19 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

#9
Acetone
Concen: 5.95 ug/L
RT: 8.256 min Scan# 552
Delta R.T. 0.024 min
Lab File: 3R517.D
Acq: 27 Jul 2018 18:59

Tgt Ion: 43 Resp: 13796

Ion	Ratio	Lower	Upper
43	100		
58	19.8	0.0	57.2

#14
Carbon disulfide
Concen: 2.32 ug/L
RT: 8.598 min Scan# 608
Delta R.T. -0.067 min
Lab File: 3R517.D
Acq: 27 Jul 2018 18:59

Tgt Ion: 76 Resp: 30794

Ion	Ratio	Lower	Upper
76	100		
78	4.8	0.0	39.1

#94
Ethyl acetate
Concen: 3.30 ug/L
RT: 11.231 min Scan# 1040
Delta R.T. 0.006 min
Lab File: 3R517.D
Acq: 27 Jul 2018 18:59

Tgt Ion: 43 Resp: 10497

Ion	Ratio	Lower	Upper
43	100		
61	11.3	0.0	43.8
70	8.6	0.0	40.8

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 14:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944010**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S10**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 19:32**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:22**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R220.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	104	ug/kg	15.5	104
79-34-5	1,1,2,2-Tetrachloroethane	U	104	ug/kg	15.5	104
79-00-5	1,1,2-Trichloroethane	U	104	ug/kg	15.5	104
75-34-3	1,1-Dichloroethane	U	104	ug/kg	15.5	104
75-35-4	1,1-Dichloroethylene	U	104	ug/kg	15.5	104
87-61-6	1,2,3-Trichlorobenzene	U	104	ug/kg	15.5	104
120-82-1	1,2,4-Trichlorobenzene	U	104	ug/kg	15.5	104
96-12-8	1,2-Dibromo-3-chloropropane	U	104	ug/kg	25.9	104
106-93-4	1,2-Dibromoethane	U	104	ug/kg	15.5	104
95-50-1	1,2-Dichlorobenzene	U	104	ug/kg	15.5	104
107-06-2	1,2-Dichloroethane	U	104	ug/kg	15.5	104
78-87-5	1,2-Dichloropropane	U	104	ug/kg	15.5	104
541-73-1	1,3-Dichlorobenzene	U	104	ug/kg	15.5	104
106-46-7	1,4-Dichlorobenzene	U	104	ug/kg	15.5	104
123-91-1	1,4-Dioxane	U	2590	ug/kg	776	2590
78-93-3	2-Butanone	U	518	ug/kg	155	518
591-78-6	2-Hexanone	U	518	ug/kg	155	518
108-10-1	4-Methyl-2-pentanone	U	518	ug/kg	155	518
67-64-1	Acetone	U	518	ug/kg	155	518
71-43-2	Benzene	U	104	ug/kg	15.5	104
74-97-5	Bromochloromethane	U	104	ug/kg	15.5	104
75-27-4	Bromodichloromethane	U	104	ug/kg	15.5	104
75-25-2	Bromoform	U	104	ug/kg	15.5	104
74-83-9	Bromomethane	U	104	ug/kg	15.5	104
75-15-0	Carbon disulfide	U	518	ug/kg	82.8	518
56-23-5	Carbon tetrachloride	U	104	ug/kg	15.5	104
108-90-7	Chlorobenzene	U	104	ug/kg	15.5	104
75-00-3	Chloroethane	U	104	ug/kg	15.5	104
67-66-3	Chloroform	U	104	ug/kg	15.5	104
74-87-3	Chloromethane	U	104	ug/kg	15.5	104
110-82-7	Cyclohexane	U	104	ug/kg	15.5	104
124-48-1	Dibromochloromethane	U	104	ug/kg	15.5	104
75-71-8	Dichlorodifluoromethane	U	104	ug/kg	15.5	104
100-41-4	Ethylbenzene	U	104	ug/kg	15.5	104
98-82-8	Isopropylbenzene	U	104	ug/kg	15.5	104
79-20-9	Methyl acetate	U	259	ug/kg	77.6	259
108-87-2	Methylcyclohexane	U	104	ug/kg	15.5	104
75-09-2	Methylene chloride	U	259	ug/kg	82.8	259

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 14:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944010**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S10**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 19:32**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:22**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R220.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	104	ug/kg	15.5	104
127-18-4	Tetrachloroethylene	U	104	ug/kg	15.5	104
108-88-3	Toluene	U	104	ug/kg	15.5	104
79-01-6	Trichloroethylene	U	104	ug/kg	15.5	104
75-69-4	Trichlorofluoromethane	U	104	ug/kg	15.5	104
76-13-1	Trichlorotrifluoroethane	U	259	ug/kg	82.8	259
75-01-4	Vinyl chloride	U	104	ug/kg	15.5	104
156-59-2	cis-1,2-Dichloroethylene	U	104	ug/kg	15.5	104
10061-01-5	cis-1,3-Dichloropropylene	U	104	ug/kg	15.5	104
179601-23-1	m,p-Xylenes	U	207	ug/kg	15.5	207
95-47-6	o-Xylene	U	104	ug/kg	15.5	104
1634-04-4	tert-Butyl methyl ether	U	104	ug/kg	15.5	104
156-60-5	trans-1,2-Dichloroethylene	U	104	ug/kg	15.5	104
10061-02-6	trans-1,3-Dichloropropylene	U	104	ug/kg	15.5	104

Quantitation Report
GEL Laboratories, LLC

JP
07/25/2018

KP
07/31/2018

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R220.D
Acq On : 24 Jul 2018 19:32
Operator : JP1
InstName : VOA3
Sample : |454944010|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jul 25 08:29:51 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.762	12.761	1.000	1284383	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	606922	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	516144	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	1287283	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	616958	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	516732	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.335	12.341	0.967	250211	52.06	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	1316014	46.54	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	549722	54.18	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	104%
45) Toluene-d8	50.000	81 - 120	93%
63) Bromofluorobenzene	50.000	70 - 130	108%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane	50	4.972	4.990	0.390	685	N.D.		
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		0.000	6.159	0.000	0	N.D.		
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	7.061	0.000	0	N.D.		
8) Ethyl ether		0.000	7.610	0.000	0	N.D.		
9) Acetone	43	8.287	8.232	0.649	1784	N.D.		
10) 1,1-Dichloroethylene		0.000	8.177	0.000	0	N.D.		
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile		0.000	8.817	0.000	0	N.D.		
13) Methyl acetate		0.000	8.854	0.000	0	N.D.		
14) Carbon disulfide	76	8.653	8.665	0.678	317	N.D.		
15) Methylene chloride	84	9.085	9.091	0.712	8173	Below Cal		95
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane	57	9.988	9.988	0.783	484	N.D.		
19) Vinyl acetate		0.000	10.317	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	10.286	0.000	0	N.D.		
21) 2-Butanone	72	11.207	11.183	0.878	1092	N.D.		
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		0.000	11.628	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	12.127	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane	62	12.444	12.438	0.975	325	N.D.		
32) Benzene	78	12.408	12.426	0.972	478	N.D.		
33) Cyclohexene	67	12.457	12.548	0.976	248	N.D.		
34) n-Butyl alcohol		0.000	13.024	0.000	0	N.D.		
35) Trichloroethylene		0.000	13.225	0.000	0	N.D.		
36) 2-Pentanone	43	13.408	13.396	1.051	1795	N.D.		
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		0.000	13.475	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R220.D
Acq On : 24 Jul 2018 19:32
Operator : JP1
InstName : VOA3
Sample : |454944010|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jul 25 08:29:51 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
39) Dibromomethane		0.000	13.682	0.000	0	N.D.	
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	14.353	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	14.487	0.000	0	N.D.	
46) Toluene	91	14.749	14.755	0.904	1385	N.D.	
47) trans-1,3-Dichloroprop...		0.000	14.968	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.	
49) 2-Hexanone		0.000	15.413	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	15.401	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	15.383	0.000	0	N.D.	
52) Dibromochloromethane		0.000	15.676	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	15.840	0.000	0	N.D.	
54) Chlorobenzene		0.000	16.352	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	16.419	0.000	0	N.D.	
56) Ethylbenzene	91	16.425	16.425	1.007	488	N.D.	
57) m,p-Xylenes	106	16.547	16.541	1.014	426	N.D.	
58) o-Xylene		0.000	16.986	0.000	0	N.D.	
59) Styrene	104	17.005	16.992	1.042	156	N.D.	
61) Bromoform		0.000	17.261	0.000	0	N.D.	
62) Isopropylbenzene		0.000	17.358	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	17.663	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	17.748	0.000	0	N.D.	
66) Bromobenzene		0.000	17.767	0.000	0	N.D.	
67) n-Propylbenzene		0.000	17.791	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	17.949	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	17.937	0.000	0	N.D.	
70) 4-Chlorotoluene	91	18.047	18.041	0.960	515	N.D.	
71) tert-Butylbenzene		0.000	18.321	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	18.364	18.364	0.977	320	N.D.	
73) sec-Butylbenzene		0.000	18.547	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	18.675	0.000	0	N.D.	
75) 1,3-Dichlorobenzene	146	18.730	18.730	0.997	285	N.D.	
76) 1,4-Dichlorobenzene	146	18.827	18.821	1.002	580	N.D.	
77) n-Butylbenzene		0.000	19.108	0.000	0	N.D.	
78) 1,2-Dichlorobenzene	146	19.242	19.236	1.024	101	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	21.120	21.113	1.124	201	N.D.	
81) Hexachlorobutadiene		0.000	21.278	0.000	0	N.D.	
82) Naphthalene	128	21.485	21.491	1.143	1199	N.D.	
83) 1,2,3-Trichlorobenzene	180	21.827	21.821	1.162	103	N.D.	
85) Acrolein		0.000	7.927	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	8.165	0.000	0	N.D.	
87) Isopropyl Alcohol	45	8.653	8.464	0.678	296	N.D.	
88) Allyl chloride	76	8.653	8.842	0.678	317	N.D.	
89) tert-Butyl Alcohol		0.000	9.220	0.000	0	N.D.	
90) Acrylonitrile		0.000	9.531	0.000	0	N.D.	
91) Isopropyl ether		0.000	10.317	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	10.427	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.	
94) Ethyl acetate	43	11.195	11.225	0.877	5544	N.D.	
95) Propionitrile		0.000	11.305	0.000	0	N.D.	
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.	
97) Tetrahydrofuran	42	11.609	11.597	0.910	2001	N.D.	
98) Isobutyl alcohol		0.000	12.176	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R220.D
Acq On : 24 Jul 2018 19:32
Operator : JP1
InstName : VOA3
Sample : |454944010|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jul 25 08:29:51 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		0.000	12.500	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	13.560	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	13.652	0.000	0	N.D.	
102)	2-Nitropropane		0.000	14.103	0.000	0m	N.D.	d
104)	Ethyl methacrylate		0.000	14.987	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108)	Cyclohexanone	55	17.559	17.535	0.934	1552	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	17.718	0.000	0	N.D.	
110)	Pentachloroethane		0.000	18.395	0.000	0	N.D.	
111)	Benzyl chloride		0.000	18.943	0.000	0	N.D.	
112)	bis(2-Chloroisopropyl)...	45	19.394	19.346	1.032	978	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R220.D
Acq On : 24 Jul 2018 19:32
Operator : JP1
InstName : VOA3
Sample : |454944010|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jul 25 08:29:51 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

#102 BEFORE analyst DELETION
2-Nitropropane
Concen: 3.37 ug/L
RT: 13.999 min Scan# 1494
Delta R.T. -0.104 min
Lab File: 3R220.D
Acq: 24 Jul 2018 19:32

Tgt Ion: 43 Resp: 112

Ion	Ratio	Lower	Upper
43	100		
41	395.5	55.3	115.3#

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 14:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944010**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S10RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 19:30**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:10**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R518.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	2.15	ug/kg	0.323	2.15
79-34-5	1,1,2,2-Tetrachloroethane	U	2.15	ug/kg	0.323	2.15
79-00-5	1,1,2-Trichloroethane	U	2.15	ug/kg	0.323	2.15
75-34-3	1,1-Dichloroethane	U	2.15	ug/kg	0.323	2.15
75-35-4	1,1-Dichloroethylene	U	2.15	ug/kg	0.323	2.15
87-61-6	1,2,3-Trichlorobenzene	U	2.15	ug/kg	0.323	2.15
120-82-1	1,2,4-Trichlorobenzene	U	2.15	ug/kg	0.323	2.15
96-12-8	1,2-Dibromo-3-chloropropane	U	2.15	ug/kg	0.538	2.15
106-93-4	1,2-Dibromoethane	U	2.15	ug/kg	0.323	2.15
95-50-1	1,2-Dichlorobenzene	U	2.15	ug/kg	0.323	2.15
107-06-2	1,2-Dichloroethane	U	2.15	ug/kg	0.323	2.15
78-87-5	1,2-Dichloropropane	U	2.15	ug/kg	0.323	2.15
541-73-1	1,3-Dichlorobenzene	U	2.15	ug/kg	0.323	2.15
106-46-7	1,4-Dichlorobenzene	U	2.15	ug/kg	0.323	2.15
123-91-1	1,4-Dioxane	U	53.8	ug/kg	16.1	53.8
78-93-3	2-Butanone	U	10.8	ug/kg	3.23	10.8
591-78-6	2-Hexanone	U	10.8	ug/kg	3.23	10.8
108-10-1	4-Methyl-2-pentanone	U	10.8	ug/kg	3.23	10.8
67-64-1	Acetone		11.8	ug/kg	3.23	10.8
71-43-2	Benzene	U	2.15	ug/kg	0.323	2.15
74-97-5	Bromochloromethane	U	2.15	ug/kg	0.323	2.15
75-27-4	Bromodichloromethane	U	2.15	ug/kg	0.323	2.15
75-25-2	Bromoform	U	2.15	ug/kg	0.323	2.15
74-83-9	Bromomethane	U	2.15	ug/kg	0.323	2.15
75-15-0	Carbon disulfide	J	2.07	ug/kg	1.72	10.8
56-23-5	Carbon tetrachloride	U	2.15	ug/kg	0.323	2.15
108-90-7	Chlorobenzene	U	2.15	ug/kg	0.323	2.15
75-00-3	Chloroethane	U	2.15	ug/kg	0.323	2.15
67-66-3	Chloroform	U	2.15	ug/kg	0.323	2.15
74-87-3	Chloromethane	U	2.15	ug/kg	0.323	2.15
110-82-7	Cyclohexane	U	2.15	ug/kg	0.323	2.15
124-48-1	Dibromochloromethane	U	2.15	ug/kg	0.323	2.15
75-71-8	Dichlorodifluoromethane	U	2.15	ug/kg	0.323	2.15
100-41-4	Ethylbenzene	U	2.15	ug/kg	0.323	2.15
98-82-8	Isopropylbenzene	U	2.15	ug/kg	0.323	2.15
79-20-9	Methyl acetate	U	5.38	ug/kg	1.61	5.38
108-87-2	Methylcyclohexane	U	2.15	ug/kg	0.323	2.15
75-09-2	Methylene chloride	U	5.38	ug/kg	1.72	5.38

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 14:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944010**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S10RE**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 19:30**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 11:10**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R518.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	2.15	ug/kg	0.323	2.15
127-18-4	Tetrachloroethylene	U	2.15	ug/kg	0.323	2.15
108-88-3	Toluene	U	2.15	ug/kg	0.323	2.15
79-01-6	Trichloroethylene	U	2.15	ug/kg	0.323	2.15
75-69-4	Trichlorofluoromethane	U	2.15	ug/kg	0.323	2.15
76-13-1	Trichlorotrifluoroethane	U	5.38	ug/kg	1.72	5.38
75-01-4	Vinyl chloride	U	2.15	ug/kg	0.323	2.15
156-59-2	cis-1,2-Dichloroethylene	U	2.15	ug/kg	0.323	2.15
10061-01-5	cis-1,3-Dichloropropylene	U	2.15	ug/kg	0.323	2.15
179601-23-1	m,p-Xylenes	U	4.31	ug/kg	0.323	4.31
95-47-6	o-Xylene	U	2.15	ug/kg	0.323	2.15
1634-04-4	tert-Butyl methyl ether	U	2.15	ug/kg	0.323	2.15
156-60-5	trans-1,2-Dichloroethylene	U	2.15	ug/kg	0.323	2.15
10061-02-6	trans-1,3-Dichloropropylene	U	2.15	ug/kg	0.323	2.15

Quantitation Report
GEL Laboratories, LLC

JP
07/31/2018

KP
07/31/2018

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R518.D
Acq On : 27 Jul 2018 19:30
Operator : JP1
InstName : VOA3
Sample : |454944010|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.0G N/A SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jul 28 10:02:21 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.762	12.761	1.000	346916	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	73317	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	30983	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	347550	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	74300	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	30983	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	98078	75.55	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	203066	59.45	ug/L	0.00
63) Bromofluorobenzene	95	17.566	17.559	0.935	32088	52.69	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	151%#
45) Toluene-d8	50.000	81 - 120	119%
63) Bromofluorobenzene	50.000	70 - 130	105%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane	50	5.009	4.990	0.392	238	N.D.		
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		0.000	6.159	0.000	0	N.D.		
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	7.061	0.000	0	N.D.		
8) Ethyl ether		0.000	7.610	0.000	0	N.D.		
9) Acetone	43	8.256	8.232	0.647	13745	10.97	ug/L	96
10) 1,1-Dichloroethylene		0.000	8.177	0.000	0	N.D.		
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile		0.000	8.817	0.000	0	N.D.		
13) Methyl acetate		0.000	8.854	0.000	0	N.D.		
14) Carbon disulfide	76	8.604	8.665	0.674	13735	1.92	ug/L	81
15) Methylene chloride	84	9.079	9.091	0.711	4704	N.D.		
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane		0.000	9.988	0.000	0	N.D.		
19) Vinyl acetate		0.000	10.317	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	10.286	0.000	0	N.D.		
21) 2-Butanone		0.000	11.183	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		0.000	11.628	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	12.127	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	12.438	0.000	0	N.D.		
32) Benzene		0.000	12.426	0.000	0	N.D.		
33) Cyclohexene		0.000	12.548	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	13.024	0.000	0	N.D.		
35) Trichloroethylene		0.000	13.225	0.000	0	N.D.		
36) 2-Pentanone		0.000	13.396	0.000	0	N.D.		
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		0.000	13.475	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R518.D
Acq On : 27 Jul 2018 19:30
Operator : JP1
InstName : VOA3
Sample : |454944010|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.0G N/A SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jul 28 10:02:21 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
39) Dibromomethane		0.000	13.682	0.000	0	N.D.		
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		0.000	14.353	0.000	0	N.D.		
44) 4-Methyl-2-pentanone		0.000	14.487	0.000	0	N.D.		
46) Toluene		0.000	14.755	0.000	0	N.D.		
47) trans-1,3-Dichloroprop...		0.000	14.968	0.000	0	N.D.		
48) 1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.		
49) 2-Hexanone		0.000	15.413	0.000	0	N.D.		
50) 1,3-Dichloropropane		0.000	15.401	0.000	0	N.D.		
51) Tetrachloroethylene		0.000	15.383	0.000	0	N.D.		
52) Dibromochloromethane		0.000	15.676	0.000	0	N.D.		
53) 1,2-Dibromoethane		0.000	15.840	0.000	0	N.D.		
54) Chlorobenzene		0.000	16.352	0.000	0	N.D.		
55) 1,1,1,2-Tetrachloroethane		0.000	16.419	0.000	0	N.D.		
56) Ethylbenzene		0.000	16.425	0.000	0	N.D.		
57) m,p-Xylenes		0.000	16.541	0.000	0	N.D.		
58) o-Xylene		0.000	16.986	0.000	0	N.D.		
59) Styrene		0.000	16.992	0.000	0	N.D.		
61) Bromoform		0.000	17.261	0.000	0	N.D.		
62) Isopropylbenzene		0.000	17.358	0.000	0	N.D.		
64) 1,1,2,2-Tetrachloroethane		0.000	17.663	0.000	0	N.D.		
65) 1,2,3-Trichloropropane		0.000	17.748	0.000	0	N.D.		
66) Bromobenzene		0.000	17.767	0.000	0	N.D.		
67) n-Propylbenzene		0.000	17.791	0.000	0	N.D.		
68) 1,3,5-Trimethylbenzene		0.000	17.949	0.000	0	N.D.		
69) 2-Chlorotoluene		0.000	17.937	0.000	0	N.D.		
70) 4-Chlorotoluene		0.000	18.041	0.000	0	N.D.		
71) tert-Butylbenzene		0.000	18.321	0.000	0	N.D.		
72) 1,2,4-Trimethylbenzene		0.000	18.364	0.000	0	N.D.		
73) sec-Butylbenzene		0.000	18.547	0.000	0	N.D.		
74) 4-Isopropyltoluene		0.000	18.675	0.000	0	N.D.		
75) 1,3-Dichlorobenzene	146	18.730	18.730	0.997	164	N.D.		
76) 1,4-Dichlorobenzene		0.000	18.821	0.000	0m	N.D.	d	
77) n-Butylbenzene		0.000	19.108	0.000	0	N.D.		
78) 1,2-Dichlorobenzene		0.000	19.236	0.000	0	N.D.		
79) 1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.		
80) 1,2,4-Trichlorobenzene		0.000	21.113	0.000	0	N.D.		
81) Hexachlorobutadiene		0.000	21.278	0.000	0	N.D.		
82) Naphthalene		0.000	21.491	0.000	0m	N.D.	d	
83) 1,2,3-Trichlorobenzene		0.000	21.821	0.000	0	N.D.		
85) Acrolein		0.000	7.927	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	8.165	0.000	0	N.D.		
87) Isopropyl Alcohol		0.000	8.464	0.000	0	N.D.		
88) Allyl chloride		0.000	8.842	0.000	0	N.D.		
89) tert-Butyl Alcohol		0.000	9.220	0.000	0	N.D.		
90) Acrylonitrile		0.000	9.531	0.000	0	N.D.		
91) Isopropyl ether		0.000	10.317	0.000	0	N.D.		
92) 2-Chloro-1,3-butadiene		0.000	10.427	0.000	0	N.D.		
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.		
94) Ethyl acetate	43	11.237	11.225	0.881	6164	3.59	ug/L #	74
95) Propionitrile		0.000	11.305	0.000	0	N.D.		
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.		
97) Tetrahydrofuran	42	11.615	11.597	0.910	316	N.D.		
98) Isobutyl alcohol		0.000	12.176	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R518.D
Acq On : 27 Jul 2018 19:30
Operator : JP1
InstName : VOA3
Sample : |454944010|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.0G N/A SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jul 28 10:02:21 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
99)	Methyl tert-amyl ether		0.000	12.500	0.000	0	N.D.		
100)	Methyl methacrylate		0.000	13.560	0.000	0	N.D.		
101)	1,4-Dioxane		0.000	13.652	0.000	0	N.D.		
102)	2-Nitropropane		0.000	14.103	0.000	0	N.D.		
104)	Ethyl methacrylate		0.000	14.987	0.000	0	N.D.		
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.		
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.		
108)	Cyclohexanone		0.000	17.535	0.000	0	N.D.		
109)	trans-1,4-Dichloro-2-b...		0.000	17.718	0.000	0	N.D.		
110)	Pentachloroethane		0.000	18.395	0.000	0	N.D.		
111)	Benzyl chloride		0.000	18.943	0.000	0	N.D.		
112)	bis(2-Chloroisopropyl)...	45	19.394	19.346	1.032	808	3.44	ug/L #	54

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R518.D
Acq On : 27 Jul 2018 19:30
Operator : JP1
InstName : VOA3
Sample : |454944010|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.0G N/A SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jul 28 10:02:21 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

#9
Acetone
Concen: 10.97 ug/L
RT: 8.256 min Scan# 552
Delta R.T. 0.024 min
Lab File: 3R518.D
Acq: 27 Jul 2018 19:30

Tgt Ion: 43 Resp: 13745

Ion	Ratio	Lower	Upper
43	100		
58	25.0	0.0	57.2

#14
Carbon disulfide
Concen: 1.92 ug/L
RT: 8.604 min Scan# 609
Delta R.T. -0.061 min
Lab File: 3R518.D
Acq: 27 Jul 2018 19:30

Tgt Ion: 76 Resp: 13735

Ion	Ratio	Lower	Upper
76	100		
78	2.4	0.0	39.1

#76 BEFORE analyst DELETION
1,4-Dichlorobenzene
Concen: 0.32 ug/L
RT: 18.821 min Scan# 2285
Delta R.T. 0.000 min
Lab File: 3R518.D
Acq: 27 Jul 2018 19:30

Tgt Ion:146 Resp: 314

Ion	Ratio	Lower	Upper
146	100		
148	53.5	34.3	94.3
111	109.9	11.0	71.0#

#82 BEFORE analyst DELETION
Naphthalene
Concen: 0.56 ug/L
RT: 21.485 min Scan# 2722
Delta R.T. -0.006 min
Lab File: 3R518.D
Acq: 27 Jul 2018 19:30

Tgt Ion:128 Resp: 957

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	42.5
129	0.0	0.0	41.0

#94
Ethyl acetate
Concen: 3.59 ug/L
RT: 11.237 min Scan# 1041
Delta R.T. 0.012 min
Lab File: 3R518.D
Acq: 27 Jul 2018 19:30

Tgt Ion: 43 Resp: 6164

Ion	Ratio	Lower	Upper
43	100		
61	0.0	0.0	43.8
70	4.9	0.0	40.8

#112
bis(2-Chloroisopropyl)ether
Concen: 3.44 ug/L
RT: 19.394 min Scan# 2379
Delta R.T. 0.049 min
Lab File: 3R518.D
Acq: 27 Jul 2018 19:30

Tgt Ion: 45 Resp: 808

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	52.1

Standards

Low level SW846 8260B and Regular level 8260B and EPA 624

Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4	Level 5	Level 6 #	Level 7 !	Level 7a
Fluorobenzene (IS)	20	20/50	20/50	20/50	20/50	20/50	20/50	20/50	20/50
1,2-Dichloroethane-d4(surr)		20/50	20/50	20/50	20/50	20/50	20/50	20/50	20/50
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol		50	100	200	500	1000	2000	5000	10000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane		2	5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	150	200
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	150	200
Tetrahydrofuran			5	10	25	50	100	250	500
tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)	20	20	20/50	20/50	20/50	20/50	20/50	20/50	20/50
Toluene-d8 (surr)		20	20/50	20/50	20/50	20/50	20/50	20/50	20/50
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)	20	20	20/50	20/50	20/50	20/50	20/50	20/50	20/50
Bromofluorobenzene (surr)		20	20/50	20/50	20/50	20/50	20/50	20/50	20/50
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
Cyclohexanone			25	50	125	250	500	1250	2500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Method	PQL	Concentration range		
SW 846 8260B low level	Level 1 &1a	Levels 1-> 7a	IS/SS @ 20 ppb	
EPA 524.2	Level 1a	Levels 1a-> 7a	IS/SS @ 20 ppb	
SW846 8260B/624	Level 2	Levels 1a-> 7a	IS/SS @ 50 ppb	n-butyl alchol only in 1a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

Calibration History Report VOA3
GEL Laboratories, LLC

JP 07/03/2018

Method File : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Last Update : Tue Jul 03 07:30:47 2018
Integrator : (RTE Integrator) Response via : Initial Calibration

EM 07/03/2018

Cal Lvl:8 Amt:0.00 None of the compounds use this level.

Injection Date	Mix	Calibration File

Cal Lvl:1 Amt:1.00 Last Updated with: C:\msdchem\1\data\070218V3\3O113.D

Injection Date	Mix	Calibration File
02 Jul 2018 18:36	B	C:\msdchem\1\data\070218V3\3O113.D

Cal Lvl:2 Amt:2.00 Last Updated with: C:\msdchem\1\data\070218V3\3O114.D

Injection Date	Mix	Calibration File
02 Jul 2018 19:07	B	C:\msdchem\1\data\070218V3\3O114.D
02 Jul 2018 13:56	A	C:\msdchem\1\data\070218V3\3O104.D

Cal Lvl:3 Amt:5.00 Last Updated with: C:\msdchem\1\data\070218V3\3O115.D

Injection Date	Mix	Calibration File
02 Jul 2018 19:38	B	C:\msdchem\1\data\070218V3\3O115.D
02 Jul 2018 14:28	A	C:\msdchem\1\data\070218V3\3O105.D

Cal Lvl:4 Amt:10.00 Last Updated with: C:\msdchem\1\data\070218V3\3O116.D

Injection Date	Mix	Calibration File
02 Jul 2018 20:10	B	C:\msdchem\1\data\070218V3\3O116.D
02 Jul 2018 14:59	A	C:\msdchem\1\data\070218V3\3O106.D

Cal Lvl:5 Amt:20.00 Last Updated with: C:\msdchem\1\data\070218V3\3O117.D

Injection Date	Mix	Calibration File
02 Jul 2018 20:41	B	C:\msdchem\1\data\070218V3\3O117.D
02 Jul 2018 15:30	A	C:\msdchem\1\data\070218V3\3O107.D

Cal Lvl:6 Amt:50.00 Last Updated with: C:\msdchem\1\data\070218V3\3O118.D

Injection Date	Mix	Calibration File
02 Jul 2018 21:12	B	C:\msdchem\1\data\070218V3\3O118.D
02 Jul 2018 16:01	A	C:\msdchem\1\data\070218V3\3O108.D

Cal Lvl:7 Amt:100.00 Last Updated with: C:\msdchem\1\data\070218V3\3O120.D

Injection Date	Mix	Calibration File
02 Jul 2018 22:15	B	C:\msdchem\1\data\070218V3\3O120.D
02 Jul 2018 17:03	A	C:\msdchem\1\data\070218V3\3O110.D

Cal Lvl:9 Amt:80.00 Last Updated with: C:\msdchem\1\data\070218V3\3O119.D

Injection Date	Mix	Calibration File
02 Jul 2018 21:44	B	C:\msdchem\1\data\070218V3\3O119.D
02 Jul 2018 16:32	A	C:\msdchem\1\data\070218V3\3O109.D

VOA3-8260C-070218.M Tue Jul 03 07:36:13 2018

Response Factor Report VOA3
GEL Laboratories, LLC

Method File : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Last Update : Tue Jul 03 07:30:47 2018
Integrator : (RTE Integrator) Response via : Initial Calibration

JP 07/03/2018

EM 07/03/2018

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r2
2)MA Dichlorodifluoromethane			0.4349253	0.4641413	0.4097957	0.4152493				
	0.4430749	0.3973842	0.4446952				0.4299	AVRG		5.4274
3)MPA Chloromethane			0.4778414	0.4635193	0.4398552	0.4220475				
	0.4219674	0.3978988	0.4287036				0.4360	AVRG		6.2251
4)MCA Vinyl chloride			0.4275732	0.4410897	0.4317088	0.4089242				
	0.4134703	0.3932422	0.4156330				0.4188	AVRG		3.8124
5)MA Bromomethane			0.3340713	0.2971923	0.2884670	0.2883162				
	0.2920593	0.2867536	0.2967414				0.2977	AVRG		5.5695
6)MA Chloroethane			0.2700025	0.2945198	0.2924243	0.2993887				
	0.2920457	0.2904114	0.3041445				0.2918	AVRG		3.6874
7)MA Trichlorofluoromethane			0.6745666	0.6734811	0.6588232	0.6503476				
	0.6296055	0.5696052	0.6217520				0.6397	AVRG		5.7692
8)MA Ethyl ether			0.2031980	0.2180181	0.2189778	0.2316374				
	0.2406893	0.2437905	0.2378351				0.2277	AVRG		6.5031
9)MA Acetone			0.1981028	0.1911551	0.2056602	0.1842015				
	0.1597838	0.1577013	0.1670119				0.1805	AVRG		10.6100
10)MCA 1,1-Dichloroethylene			0.5567611	0.5416051	0.5346622	0.5126101				
	0.5508728	0.5122771	0.5598584				0.5384	AVRG		3.6563
11)MA Iodomethane			0.5099564	0.5022444	0.4913552	0.4694601				
	0.5125338	0.4765436	0.5041454				0.4952	AVRG		3.3724
12)MA Acetonitrile			0.0416801	0.0405412	0.0415635	0.0393517				
	0.0355409	0.0372862	0.0391922				0.0393	AVRG		5.7386
13)MA Methyl acetate			0.0489834	0.0507446	0.0558549	0.0505099				
	0.0496502	0.0494446	0.0504300				0.0508	AVRG		4.5625
14)MA Carbon disulfide			1.1094626	1.0831713	1.0659149	0.9414782				
	1.0467680	0.9448779	1.0279679				1.0314	AVRG		6.3561
15)MA Methylene chloride			20622	41401	71667	142017		1/x		
0.0075 | 0.3190 | 0.00	369057	842937	585311					LINR	#	0.9997
16)MA tert-Butyl methyl ether			0.7663831	0.8145991	0.8468187	0.8260659				
	0.8463122	0.8642065	0.8590133				0.8319	AVRG		4.0571

Response Factor Report VOA3
GEL Laboratories, LLC

Method File : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Last Update : Tue Jul 03 07:30:47 2018
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound	8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r2
b | m1 | m2	6	7	9							
17)MA trans-1,2-Dichloroethyle			0.4585939	0.4875136	0.4723869	0.4427987				
	0.4540031	0.4192659	0.4373546				0.4531	AVRG		5.0050
18)MA Hexane				0.4054434	0.4017726	0.4190248				
	0.4009881	0.4239066	0.4369114				0.4147	AVRG		3.4740
19)MA Vinyl acetate			0.3303342	0.3573324	0.3928041	0.4204739				
	0.3861603	0.4063191	0.4096010				0.3861	AVRG		8.2742
20)MPA 1,1-Dichloroethane			0.6240785	0.5932768	0.5756660	0.5667300				
	0.5811452	0.5340992	0.5595119				0.5764	AVRG		4.8814
21)MA 2-Butanone			0.0407373	0.0454248	0.0477459	0.0442132				
	0.0410077	0.0422177	0.0434109				0.0435	AVRG		5.7597
22)MA cis-1,2-Dichloroethylene			0.3084487	0.3139465	0.2913980	0.3019849				
	0.3006410	0.2907330	0.3032967				0.3015	AVRG		2.7928
23)MA 2,2-Dichloropropane			0.5178753	0.5080773	0.4902785	0.5005775				
	0.5051629	0.4568636	0.4961261				0.4964	AVRG		3.9375
24)MA Bromochloromethane			0.1319480	0.1432657	0.1373798	0.1383760				
	0.1400665	0.1384244	0.1391132				0.1384	AVRG		2.4619
25)MCA Chloroform			0.6269119	0.6220038	0.5903257	0.6028697				
	0.5820169	0.5450123	0.5728848				0.5917	AVRG		4.8356
26)MA 1,1,1-Trichloroethane			0.5745919	0.5508860	0.5395225	0.5461676				
	0.5424294	0.4948470	0.5407725				0.5413	AVRG		4.3888
27)MA Cyclohexane			0.4720281	0.4744912	0.4814610	0.4647361				
	0.5026463	0.4707914	0.5100191				0.4823	AVRG		3.5816
28)MA 1,1-Dichloropropene			0.4108660	0.4253268	0.3951212	0.4160533				
	0.4206272	0.3871916	0.4194343				0.4107	AVRG		3.4621
29)MA Carbon tetrachloride			0.5028046	0.5096322	0.5008132	0.5063340				
	0.5095520	0.4586876	0.5048185				0.4989	AVRG		3.6177
30)SA 1,2-Dichloroethane-d4			0.1873017	0.1917712	0.1909304	0.1885102				
	0.1883021	0.1812673	0.1817233				0.1871	AVRG		2.2132
31)MA 1,2-Dichloroethane			0.4855844	0.5046662	0.4826452	0.4744475				
	0.4549794	0.4153229	0.4483478				0.4666	AVRG		6.3255

Response Factor Report VOA3
GEL Laboratories, LLC

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For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r2
32)MA Benzene			1.1981575	1.1886915	1.1550573	1.1063651				
	1.1474308	1.0864302	1.1801104				1.1517	AVRG		3.6629
33)MA Cyclohexene			0.5665070	0.5760658	0.5810394	0.5724981				
	0.6019989	0.5739733	0.6062899				0.5826	AVRG		2.6387
34)MA n-Butyl alcohol			25497	72339	166645	374899		1/x		
-0.0158 | 0.0087 | 0.00	876103	2209438	1623255					LINR	# #	0.9975
35)MA Trichloroethylene			0.3185854	0.3072312	0.3021695	0.2960513				
	0.2944850	0.2833105	0.3090632				0.3016	AVRG		3.8103
36)MA 2-Pentanone			0.1615912	0.1825584	0.2166123	0.2077666				
	0.1906852	0.2012445	0.2116673				0.1960	AVRG		9.8333
37)MCA 1,2-Dichloropropane			0.2850976	0.2998843	0.2879440	0.2915767				
	0.2954603	0.2832820	0.3017414				0.2921	AVRG		2.4571
38)MA Methylcyclohexane			0.4781101	0.4984368	0.4816238	0.4814577				
	0.5155388	0.4786550	0.5097190				0.4919	AVRG		3.2133
39)MA Dibromomethane			0.1832910	0.1914777	0.1848919	0.1841363				
	0.1876707	0.1791555	0.1887143				0.1856	AVRG		2.1777
40)MA Bromodichloromethane			0.4141879	0.4280187	0.4225162	0.4498882				
	0.4615166	0.4207322	0.4441121				0.4344	AVRG		4.0385
41)MA 2-Chloroethylvinyl ether			0.1267502	0.1875652	0.1591439	0.1658923				
	0.1671099	0.1629268	0.1635748				0.1619	AVRG		11.1348
42)MA cis-1,3-Dichloropropylen			0.4243490	0.4447146	0.4676105	0.4697747				
	0.5039365	0.4725926	0.4831621				0.4666	AVRG		5.5195
44)MA 4-Methyl-2-pentanone			0.1937403	0.2045945	0.2420022	0.2360378				
	0.2067994	0.2222088	0.2352369				0.2201	AVRG		8.4587
45)SA Toluene-d8			2.3804049	2.3030637	2.3265207	2.2446754				
	2.2541839	2.4147300	2.3822858				2.3294	AVRG		2.8377
46)MCA Toluene			2.6659321	2.5964825	2.5137000	2.4598715				
	2.3721519	2.4567995	2.5370078				2.5146	AVRG		3.8672
47)MA trans-1,3-Dichloropropyl			0.9173811	0.8668760	0.9791499	0.9943851				
	1.0019639	1.0271628	1.0702696				0.9796	AVRG		6.9461

Response Factor Report VOA3
GEL Laboratories, LLC

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Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r2
48)MA 1,1,2-Trichloroethane			0.4697210	0.4624015	0.4836470	0.4757038				
	0.4611492	0.4728239	0.4724642				0.4711	AVRG		1.6442
49)MA 2-Hexanone			0.2478706	0.2774409	0.3265093	0.2671198				
	0.2651757	0.2677829	0.2789905				0.2758	AVRG		8.9008
50)MA 1,3-Dichloropropane			0.9423447	0.9621567	0.9868361	0.9399092				
	0.9249110	0.9043085	0.9483339				0.9441	AVRG		2.7831
51)MA Tetrachloroethylene			0.5592414	0.5297220	0.5422157	0.5387267				
	0.5076993	0.5060613	0.5384044				0.5317	AVRG		3.6018
52)MA Dibromochloromethane			0.5878043	0.6013645	0.6376920	0.6822386				
	0.6875603	0.7071491	0.7194339				0.6605	AVRG		7.8568
53)MA 1,2-Dibromoethane			0.5226088	0.5257529	0.5362707	0.5493078				
	0.5511653	0.5725864	0.5732181				0.5473	AVRG		3.7490
54)MPA Chlorobenzene			1.7359531	1.6190006	1.6720428	1.6512527				
	1.5901504	1.6271377	1.7165281				1.6589	AVRG		3.1914
55)MA 1,1,1,2-Tetrachloroethan			0.6653655	0.6422243	0.6730990	0.6816558				
	0.6725556	0.6635017	0.7056926				0.6720	AVRG		2.8706
56)MCA Ethylbenzene			2.9722289	2.7925125	2.8586287	2.9776139				
	2.9220776	2.7473610	3.0413878				2.9017	AVRG		3.6759
57)MA m,p-Xylenes			1.0510522	1.0375257	1.1039677	1.0883825				
	1.0623138	1.0628932	1.1077830				1.0734	AVRG		2.5115
58)MA o-Xylene			1.0244921	0.9994002	1.0901704	1.0845111				
	1.0925450	1.0917941	1.1519962				1.0764	AVRG		4.6591
59)MA Styrene			1.5180736	1.5702687	1.7306344	1.7442869				
	1.7857522	1.7741902	1.8495062				1.7104	AVRG		7.0517
61)MPA Bromoform			0.3850241	0.4013735	0.4272025	0.4658675				
	0.4948788	0.5130686	0.5128489				0.4572	AVRG		11.6219
62)MA Isopropylbenzene			2.8867071	3.0980908	3.1530483	3.3120896				
	3.4099075	3.0278098	3.3132434				3.1716	AVRG		5.8164
63)SA Bromofluorobenzene			0.9905776	1.0098627	0.9718630	0.9827040				
	0.9815082	0.9599144	0.9837241				0.9829	AVRG		1.5755

Response Factor Report VOA3
GEL Laboratories, LLC

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Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r2
64)MPA 1,1,2,2-Tetrachloroethan			0.8229882	0.8308494	0.8482282	0.8436838				
	0.8127642	0.8301846	0.8424010				0.8330	AVRG		1.5159
65)MA 1,2,3-Trichloropropane			0.8396300	0.8460695	0.8361775	0.8408952				
	0.7859705	0.8114538	0.8080740				0.8240	AVRG		2.7236
66)MA Bromobenzene			0.7829220	0.7777615	0.7317052	0.8178553				
	0.7877683	0.7628307	0.7845431				0.7779	AVRG		3.3703
67)MA n-Propylbenzene			3.6097812	3.7974381	3.6581508	4.0059051				
	3.9339947	3.5771820	3.8668083				3.7785	AVRG		4.4223
68)MA 1,3,5-Trimethylbenzene			2.5555650	2.7987532	2.7716145	2.8169078				
	2.8410265	2.6031986	2.7626222				2.7357	AVRG		4.0509
69)MA 2-Chlorotoluene			0.7191805	0.7402104	0.7451125	0.7551068				
	0.7701217	0.7255462	0.7628397				0.7454	AVRG		2.5205
70)MA 4-Chlorotoluene			2.4071069	2.4105543	2.2659427	2.5335371				
	2.5200832	2.3520864	2.4135073				2.4147	AVRG		3.8313
71)MA tert-Butylbenzene			0.4531616	0.4990746	0.5127932	0.5254445				
	0.5642953	0.5221345	0.5592740				0.5195	AVRG		7.2432
72)MA 1,2,4-Trimethylbenzene			2.6635803	2.7698714	2.8348477	2.9626504				
	2.8964009	2.5956050	2.9066270				2.8042	AVRG		4.8175
73)MA sec-Butylbenzene			3.4747621	3.6215176	3.7015214	3.8615340				
	3.9099119	3.4861721	3.7664593				3.6888	AVRG		4.6471
74)MA 4-Isopropyltoluene			2.7702139	3.0348967	3.0873807	3.2429126				
	3.3168274	3.0519284	3.2009508				3.1007	AVRG		5.7855
75)MA 1,3-Dichlorobenzene			1.7056987	1.6317943	1.6036838	1.5822535				
	1.5402806	1.4468755	1.5544072				1.5807	AVRG		5.1004
76)MA 1,4-Dichlorobenzene			1.6866076	1.5837960	1.5700143	1.5751564				
	1.5820935	1.4611244	1.5013559				1.5657	AVRG		4.5461
77)MA n-Butylbenzene			2.9521442	3.0120787	3.0962099	3.2510554				
	3.2860583	2.9850483	3.0849508				3.0954	AVRG		4.1776
78)MA 1,2-Dichlorobenzene			1.5613853	1.5208699	1.4863130	1.5571564				
	1.5218942	1.5418185	1.4920127				1.5259	AVRG		1.9379

Response Factor Report VOA3
GEL Laboratories, LLC

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Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r2
79)MA 1,2-Dibromo-3-chloroprop			0.1525401	0.1416569	0.1617466	0.1763196				
	0.1815899	0.1955788	0.1997888				0.1727	AVRG		12.5931
80)MA 1,2,4-Trichlorobenzene			1.2251565	1.1792568	1.2110833	1.3567683				
	1.3383529	1.2619601	1.3334023				1.2723	AVRG		5.5546
81)MA Hexachlorobutadiene			0.8743582	0.8797974	0.8824669	0.9242436				
	0.8952023	0.8182871	0.8721821				0.8781	AVRG		3.6224
82)MA Naphthalene			2.2271862	2.3727839	2.7987196	2.9914903				
	2.9688270	2.9235598	3.0910857				2.7677	AVRG		12.0602
83)MA 1,2,3-Trichlorobenzene			1.2142922	1.2144457	1.2205907	1.3578369				
	1.2915527	1.2268043	1.2990269				1.2606	AVRG		4.4529
85)B Acrolein		0.0342511	0.0484091	0.0455606	0.0522235	0.0553973				
	0.0543665	0.0527212	0.0530230				0.0495	AVRG		14.0377
86)B Trichlorotrifluoroethane		0.3319524	0.3426199	0.3592841	0.3568861	0.3688235				
	0.3641965	0.3485107	0.3633008				0.3544	AVRG		3.5215
87)B Isopropyl Alcohol		0.0176753	0.0206532	0.0204542	0.0225680	0.0242076				
	0.0226396	0.0216397	0.0248701				0.0218	AVRG		10.4805
88)B Allyl chloride		0.1381970	0.1545143	0.1603514	0.1691382	0.1714192				
	0.1683419	0.1596406	0.1648914				0.1608	AVRG		6.6804
89)B tert-Butyl Alcohol		0.0262596	0.0341863	0.0345612	0.0386705	0.0405905				
	0.0367116	0.0357291	0.0405004				0.0359	AVRG		12.8593
90)B Acrylonitrile		0.0823423	0.0897266	0.0944099	0.0982053	0.0967783				
	0.0948205	0.0950253	0.0993914				0.0938	AVRG		5.8413
91)B Isopropyl ether		0.7647030	0.8006504	0.8551917	0.8793898	0.9388461				
	0.8884932	0.8980140	0.9454771				0.8713	AVRG		7.2263
92)B 2-Chloro-1,3-butadiene		0.3577201	0.3585299	0.3979053	0.4125080	0.4410182				
	0.4614680	0.4589907	0.4633113				0.4189	AVRG		10.5794
93)B Ethyl tert-butyl ether		0.7362251	0.7955955	0.8533042	0.8697873	0.9747609				
	0.9215402	0.9438652	0.9152722				0.8763	AVRG		9.1019
94)B Ethyl acetate		0.2379790	0.2440121	0.2483098	0.2636880	0.2753584				
	0.2454912	0.2170561	0.2466668				0.2473	AVRG		6.9580

Response Factor Report VOA3
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Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r2
95)B Propionitrile		0.0341523	0.0365282	0.0365878	0.0387881	0.0404251				
	0.0376503	0.0366106	0.0398923				0.0376	AVRG		5.4799
96)B Methacrylonitrile		0.0842267	0.1036110	0.1046824	0.1055435	0.1123269				
	0.1034972	0.1021372	0.1115734				0.1034	AVRG		8.3473
97)B Tetrahydrofuran		0.0843467	0.0853100	0.0769385	0.0839426	0.0874733				
	0.0778115	0.0763049	0.0842100				0.0820	AVRG		5.2660
98)B Isobutyl alcohol		0.0097552	0.0118466	0.0121744	0.0134804	0.0147126				
	0.0132780	0.0130695	0.0146183				0.0129	AVRG	$	12.5538
99)B Methyl tert-amyl ether		0.6816337	0.7307856	0.8034835	0.8110923	0.8503573				
	0.8336265	0.8509845	0.8745490				0.8046	AVRG		8.2168
100)B Methyl methacrylate		0.1215973	0.1446739	0.1625029	0.1700932	0.1813319				
	0.1672783	0.1554777	0.1816427				0.1606	AVRG		12.4820
101)B 1,4-Dioxane		0.0027483	0.0029322	0.0031057	0.0033326	0.0034283				
	0.0031470	0.0031868	0.0037766				0.0032	AVRG	#	9.7849
102)B 2-Nitropropane		7038	15931	44101	97872	207529		1/x		
-0.0061 | 0.0918 | 0.00	524270	1043063	666527					LINR	#	0.9978
104)B Ethyl methacrylate		0.5682944	0.6548561	0.7189086	0.7657168	0.7538755				
	0.7125975	0.7162156	0.7441546				0.7043	AVRG		9.1675
106)B 1-Chlorohexane		0.6895834	0.6718532	0.7925257	0.7412232	0.8585489				
	0.8945375	0.9049018	0.8832223				0.8045	AVRG		11.7215
107)B cis-1,4-Dichloro-2-buten		0.2047927	0.2212962	0.2478673	0.2477764	0.2755915				
	0.2853779	0.2497477	0.2762270				0.2511	AVRG		11.1253
108)B Cyclohexanone		0.0221061	0.0212493	0.0191393	0.0210490	0.0227748				
	0.0210087	0.0196631	0.0216124				0.0211	AVRG		5.6760
109)B trans-1,4-Dichloro-2-but		0.1751010	0.2187715	0.2318751	0.2416506	0.2549697				
	0.2365454	0.2074053	0.2411871				0.2259	AVRG		11.1585
110)B Pentachloroethane		0.4508414	0.4716120	0.5044529	0.5234995	0.5316345				
	0.5727900	0.4998805	0.5162774				0.5089	AVRG		7.3260
111)B Benzyl chloride		1.0864145	1.1701698	1.2784486	1.4284990	1.4578242				
	1.3937283	1.2262258	1.3754649				1.3021	AVRG		10.2318

Response Factor Report VOA3
GEL Laboratories, LLC

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Compound	8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r2
b m1 m2	6	7	9							
112)B bis(2-Chloroisopropyl)et		0.3549430	0.3619071	0.3653618	0.3731773	0.4021177				
	0.3799905	0.3720901	0.4201239				0.3787	AVRG		5.7889

(#) = Out of Range ($) = Individual RF Out of Range
AVRG = Average, LINR = Linear Regression, 1/x = the inverse of concentration, 1/x^2 = the inverse square of concentration

Quantitation Report
GEL Laboratories, LLC

JP
07/03/2018

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O104.D
Acq On : 02 Jul 2018 13:56
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-03|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD002 5UL/5ML N/A MIX[A]
ALS Vial : 4 Sample Multiplier: 1

EM
07/03/2018

Quant Time: Jul 03 07:34:56 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.768	12.761	1.000	1023509	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	430628	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	398092	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.768	12.762	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	191705	50.05	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	1025069	51.09	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	394341	50.39	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.552	4.552	0.357	17806	2.02	ug/L	100
3) Chloromethane	50	4.991	4.990	0.391	19563	2.19	ug/L	96
4) Vinyl chloride	62	5.301	5.319	0.415	17505	2.04	ug/L	100
5) Bromomethane	94	6.123	6.159	0.480	13677	2.24	ug/L	92
6) Chloroethane	64	6.372	6.372	0.499	11054	1.85	ug/L	93
7) Trichlorofluoromethane	101	7.055	7.061	0.553	27617	2.11	ug/L	98
8) Ethyl ether	59	7.610	7.610	0.596	8319	1.78	ug/L	93
9) Acetone	43	8.250	8.232	0.646	40552	10.97	ug/L	96
10) 1,1-Dichloroethylene	61	8.171	8.177	0.640	22794	2.07	ug/L	100
11) Iodomethane	142	8.494	8.500	0.665	104389	10.30	ug/L	99
12) Acetonitrile	41	8.829	8.817	0.692	42660	53.02	ug/L	96
13) Methyl acetate	74	8.860	8.854	0.694	10027	9.64	ug/L #	86
14) Carbon disulfide	76	8.671	8.665	0.679	227109	10.76	ug/L	95
15) Methylene chloride	84	9.091	9.091	0.712	20622	1.98	ug/L	98
16) tert-Butyl methyl ether	73	9.524	9.537	0.746	31376	1.84	ug/L	99
17) trans-1,2-Dichloroethy...	61	9.573	9.567	0.750	18775	2.02	ug/L	98
18) Hexane	57	9.994	9.988	0.783	17800	2.10	ug/L	87
19) Vinyl acetate	43	10.323	10.317	0.809	67620	8.55	ug/L	97
20) 1,1-Dichloroethane	63	10.292	10.286	0.806	25550	2.17	ug/L	96
21) 2-Butanone	72	11.189	11.183	0.876	8339	9.36	ug/L #	74
22) cis-1,2-Dichloroethylene	96	11.183	11.183	0.876	12628	2.05	ug/L	99
23) 2,2-Dichloropropane	77	11.195	11.195	0.877	21202	2.09	ug/L	89
24) Bromochloromethane	128	11.548	11.548	0.905	5402	1.91	ug/L	90
25) Chloroform	83	11.621	11.628	0.910	25666	2.12	ug/L	98
26) 1,1,1-Trichloroethane	97	11.914	11.914	0.933	23524	2.12	ug/L	99
27) Cyclohexane	56	11.999	11.999	0.940	19325	1.96	ug/L	98
28) 1,1-Dichloropropene	75	12.127	12.127	0.950	16821	2.00	ug/L	96
29) Carbon tetrachloride	117	12.140	12.146	0.951	20585	2.02	ug/L	99
31) 1,2-Dichloroethane	62	12.444	12.438	0.975	19880	2.08	ug/L	97
32) Benzene	78	12.420	12.426	0.973	49053	2.08	ug/L	99
33) Cyclohexene	67	12.542	12.548	0.982	23193	1.94	ug/L	97
34) n-Butyl alcohol	56	13.024	13.024	1.020	25497	235.29	ug/L	91
35) Trichloroethylene	95	13.225	13.225	1.036	13043	2.11	ug/L	99
36) 2-Pentanone	43	13.402	13.396	1.050	33078	8.24	ug/L	98
37) 1,2-Dichloropropane	63	13.524	13.524	1.059	11672	1.95	ug/L	99
38) Methylcyclohexane	83	13.475	13.475	1.055	19574	1.94	ug/L	97
39) Dibromomethane	93	13.688	13.682	1.072	7504	1.97	ug/L	98
40) Bromodichloromethane	83	13.834	13.834	1.084	16957	1.91	ug/L	98
41) 2-Chloroethylvinyl ether	63	14.133	14.127	1.107	25946	7.83	ug/L	98
42) cis-1,3-Dichloropropylene	75	14.353	14.353	1.124	17373	1.82	ug/L	96

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O104.D
Acq On : 02 Jul 2018 13:56
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-03|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD002 5UL/5ML N/A MIX[A]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 03 07:34:56 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
44)	4-Methyl-2-pentanone	58	14.487	14.487	0.888	16686	8.80	ug/L		97
46)	Toluene	91	14.755	14.755	0.904	45921	2.12	ug/L		99
47)	trans-1,3-Dichloroprop...	75	14.968	14.968	0.917	15802	1.87	ug/L		98
48)	1,1,2-Trichloroethane	83	15.200	15.200	0.932	8091	1.99	ug/L		96
49)	2-Hexanone	58	15.420	15.413	0.945	21348	8.99	ug/L		93
50)	1,3-Dichloropropane	76	15.401	15.401	0.944	16232	2.00	ug/L		96
51)	Tetrachloroethylene	164	15.383	15.383	0.943	9633	2.10	ug/L		97
52)	Dibromochloromethane	129	15.682	15.676	0.961	10125	1.78	ug/L		100
53)	1,2-Dibromoethane	107	15.834	15.840	0.970	9002	1.91	ug/L		97
54)	Chlorobenzene	112	16.352	16.352	1.002	29902	2.09	ug/L		76
55)	1,1,1,2-Tetrachloroethane	131	16.419	16.419	1.006	11461	1.98	ug/L		98
56)	Ethylbenzene	91	16.419	16.425	1.006	51197	2.05	ug/L		97
57)	m,p-Xylenes	106	16.541	16.541	1.014	36209	3.92	ug/L		96
58)	o-Xylene	106	16.986	16.986	1.041	17647	1.90	ug/L		97
59)	Styrene	104	16.998	16.992	1.042	26149	1.78	ug/L		99
61)	Bromoform	173	17.261	17.261	0.919	6131	1.68	ug/L		99
62)	Isopropylbenzene	105	17.358	17.358	0.924	45967	1.82	ug/L		98
64)	1,1,2,2-Tetrachloroethane	83	17.663	17.663	0.940	13105	1.98	ug/L		98
65)	1,2,3-Trichloropropane	75	17.754	17.748	0.945	13370	2.04	ug/L		93
66)	Bromobenzene	156	17.767	17.767	0.945	12467	2.01	ug/L		98
67)	n-Propylbenzene	91	17.791	17.791	0.947	57481	1.91	ug/L		97
68)	1,3,5-Trimethylbenzene	105	17.943	17.949	0.955	40694	1.87	ug/L		97
69)	2-Chlorotoluene	126	17.937	17.937	0.955	11452	1.93	ug/L		96
70)	4-Chlorotoluene	91	18.041	18.041	0.960	38330	1.99	ug/L		99
71)	tert-Butylbenzene	134	18.321	18.321	0.975	7216	1.74	ug/L	#	90
72)	1,2,4-Trimethylbenzene	105	18.364	18.364	0.977	42414	1.90	ug/L		89
73)	sec-Butylbenzene	105	18.547	18.547	0.987	55331	1.88	ug/L		99
74)	4-Isopropyltoluene	119	18.669	18.675	0.994	44112	1.79	ug/L		97
75)	1,3-Dichlorobenzene	146	18.736	18.730	0.997	27161	2.16	ug/L		98
76)	1,4-Dichlorobenzene	146	18.821	18.821	1.002	26857	2.15	ug/L		85
77)	n-Butylbenzene	91	19.108	19.108	1.017	47009	1.91	ug/L		95
78)	1,2-Dichlorobenzene	146	19.236	19.236	1.024	24863	2.05	ug/L		99
79)	1,2-Dibromo-3-chloropr...	157	20.108	20.108	1.070	2429	1.77	ug/L		93
80)	1,2,4-Trichlorobenzene	180	21.126	21.113	1.124	19509	1.93	ug/L		100
81)	Hexachlorobutadiene	225	21.272	21.278	1.132	13923	1.99	ug/L		99
82)	Naphthalene	128	21.498	21.491	1.144	35465	1.61	ug/L		99
83)	1,2,3-Trichlorobenzene	180	21.821	21.821	1.161	19336	1.93	ug/L		98
85)	Acrolein		0.000	7.927	0.000	0	N.D.			
86)	Trichlorotrifluoroethane		0.000	8.165	0.000	0	N.D.			
87)	Isopropyl Alcohol		0.000	8.464	0.000	0	N.D.			
88)	Allyl chloride		8.671	8.842	0.679	0m	N.D.	d		
89)	tert-Butyl Alcohol		0.000	9.220	0.000	0	N.D.			
90)	Acrylonitrile		0.000	9.531	0.000	0	N.D.			
91)	Isopropyl ether		10.323	10.317	0.809	0m	N.D.	d		
92)	2-Chloro-1,3-butadiene		0.000	10.427	0.000	0	N.D.			
93)	Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.			
94)	Ethyl acetate		11.189	11.225	0.876	0m	N.D.	d		
95)	Propionitrile		0.000	11.305	0.000	0	N.D.			
96)	Methacrylonitrile		0.000	11.512	0.000	0	N.D.			
97)	Tetrahydrofuran		11.609	11.597	0.909	0m	N.D.	d		
98)	Isobutyl alcohol		0.000	12.176	0.000	0	N.D.			
99)	Methyl tert-amyl ether		12.426	12.500	0.973	0m	N.D.	d		
100)	Methyl methacrylate		13.481	13.560	1.056	0m	N.D.	d		
101)	1,4-Dioxane		0.000	13.652	0.000	0	N.D.			
102)	2-Nitropropane		14.133	14.103	1.107	0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O104.D
Acq On : 02 Jul 2018 13:56
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-03|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD002 5UL/5ML N/A MIX[A]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 03 07:34:56 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
104) Ethyl methacrylate		0.000	14.987	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108) Cyclohexanone		17.553	17.535	0.934	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		17.797	17.718	0.947	0m	N.D.	d
110) Pentachloroethane		0.000	18.395	0.000	0	N.D.	
111) Benzyl chloride		18.943	18.943	1.008	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		19.394	19.346	1.032	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O104.D
Acq On : 02 Jul 2018 13:56
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-03|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD002 5UL/5ML N/A MIX[A]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 03 07:34:56 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Quantitation Report
GEL Laboratories, LLC

JP
07/03/2018

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O105.D
Acq On : 02 Jul 2018 14:28
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-04|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD005 5UL/5ML N/A MIX[A]
ALS Vial : 5 Sample Multiplier: 1

EM
07/03/2018

Quant Time: Jul 03 07:34:58 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.761	12.761	1.000	1028997	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	453502	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	410640	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.761	12.762	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	197332	51.24	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	1044444	49.43	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	414690	51.37	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.552	4.552	0.357	47760	5.40	ug/L	97
3) Chloromethane	50	4.972	4.990	0.390	47696	5.32	ug/L	99
4) Vinyl chloride	62	5.301	5.319	0.415	45388	5.27	ug/L	99
5) Bromomethane	94	6.123	6.159	0.480	30581	4.99	ug/L	96
6) Chloroethane	64	6.372	6.372	0.499	30306	5.05	ug/L	100
7) Trichlorofluoromethane	101	7.061	7.061	0.553	69301	5.26	ug/L	100
8) Ethyl ether	59	7.610	7.610	0.596	22434	4.79	ug/L	96
9) Acetone	43	8.244	8.232	0.646	98349	26.47	ug/L	97
10) 1,1-Dichloroethylene	61	8.171	8.177	0.640	55731	5.03	ug/L	99
11) Iodomethane	142	8.488	8.500	0.665	258404	25.36	ug/L	99
12) Acetonitrile	41	8.835	8.817	0.692	104292	128.92	ug/L	97
13) Methyl acetate	74	8.860	8.854	0.694	26108	24.97	ug/L #	87
14) Carbon disulfide	76	8.671	8.665	0.679	557290	26.26	ug/L	99
15) Methylene chloride	84	9.085	9.091	0.712	41401	5.12	ug/L	98
16) tert-Butyl methyl ether	73	9.530	9.537	0.747	83822	4.90	ug/L	98
17) trans-1,2-Dichloroethy...	61	9.567	9.567	0.750	50165	5.38	ug/L	99
18) Hexane	57	9.994	9.988	0.783	41720	4.89	ug/L	90
19) Vinyl acetate	43	10.317	10.317	0.808	183847	23.13	ug/L	98
20) 1,1-Dichloroethane	63	10.280	10.286	0.806	61048	5.15	ug/L	100
21) 2-Butanone	72	11.176	11.183	0.876	23371	26.08	ug/L #	87
22) cis-1,2-Dichloroethylene	96	11.189	11.183	0.877	32305	5.21	ug/L	97
23) 2,2-Dichloropropane	77	11.195	11.195	0.877	52281	5.12	ug/L	91
24) Bromochloromethane	128	11.548	11.548	0.905	14742	5.18	ug/L	98
25) Chloroform	83	11.628	11.628	0.911	64004	5.26	ug/L	97
26) 1,1,1-Trichloroethane	97	11.920	11.914	0.934	56686	5.09	ug/L	98
27) Cyclohexane	56	11.993	11.999	0.940	48825	4.92	ug/L	99
28) 1,1-Dichloropropene	75	12.127	12.127	0.950	43766	5.18	ug/L	98
29) Carbon tetrachloride	117	12.146	12.146	0.952	52441	5.11	ug/L	99
31) 1,2-Dichloroethane	62	12.444	12.438	0.975	51930	5.41	ug/L	98
32) Benzene	78	12.426	12.426	0.974	122316	5.16	ug/L	100
33) Cyclohexene	67	12.542	12.548	0.983	59277	4.94	ug/L	99
34) n-Butyl alcohol	56	13.024	13.024	1.021	72339	497.65	ug/L	95
35) Trichloroethylene	95	13.225	13.225	1.036	31614	5.09	ug/L	100
36) 2-Pentanone	43	13.402	13.396	1.050	93926	23.28	ug/L	98
37) 1,2-Dichloropropane	63	13.530	13.524	1.060	30858	5.13	ug/L	100
38) Methylcyclohexane	83	13.475	13.475	1.056	51289	5.07	ug/L	97
39) Dibromomethane	93	13.682	13.682	1.072	19703	5.16	ug/L	98
40) Bromodichloromethane	83	13.834	13.834	1.084	44043	4.93	ug/L	99
41) 2-Chloroethylvinyl ether	63	14.127	14.127	1.107	77202	23.18	ug/L	99
42) cis-1,3-Dichloropropylene	75	14.353	14.353	1.125	45761	4.77	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O105.D
Acq On : 02 Jul 2018 14:28
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-04|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD005 5UL/5ML N/A MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 03 07:34:58 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44)	4-Methyl-2-pentanone	58	14.487	14.487	0.888	46392	23.24	ug/L	92
46)	Toluene	91	14.755	14.755	0.904	117751	5.16	ug/L	98
47)	trans-1,3-Dichloroprop...	75	14.968	14.968	0.917	39313	4.42	ug/L	97
48)	1,1,2-Trichloroethane	83	15.200	15.200	0.932	20970	4.91	ug/L	98
49)	2-Hexanone	58	15.413	15.413	0.945	62910	25.14	ug/L	91
50)	1,3-Dichloropropane	76	15.401	15.401	0.944	43634	5.10	ug/L	90
51)	Tetrachloroethylene	164	15.383	15.383	0.943	24023	4.98	ug/L	98
52)	Dibromochloromethane	129	15.682	15.676	0.961	27272	4.55	ug/L	99
53)	1,2-Dibromoethane	107	15.846	15.840	0.971	23843	4.80	ug/L	97
54)	Chlorobenzene	112	16.352	16.352	1.002	73422	4.88	ug/L	89
55)	1,1,1,2-Tetrachloroethane	131	16.413	16.419	1.006	29125	4.78	ug/L	99
56)	Ethylbenzene	91	16.425	16.425	1.007	126641	4.81	ug/L	98
57)	m,p-Xylenes	106	16.535	16.541	1.013	94104	9.67	ug/L	96
58)	o-Xylene	106	16.986	16.986	1.041	45323	4.64	ug/L	94
59)	Styrene	104	16.998	16.992	1.042	71212	4.59	ug/L	96
61)	Bromoform	173	17.261	17.261	0.919	16482	4.39	ug/L	100
62)	Isopropylbenzene	105	17.358	17.358	0.924	127220	4.88	ug/L	99
64)	1,1,2,2-Tetrachloroethane	83	17.663	17.663	0.940	34118	4.99	ug/L	99
65)	1,2,3-Trichloropropane	75	17.748	17.748	0.945	34743	5.13	ug/L	98
66)	Bromobenzene	156	17.767	17.767	0.945	31938	5.00	ug/L	92
67)	n-Propylbenzene	91	17.791	17.791	0.947	155938	5.03	ug/L	99
68)	1,3,5-Trimethylbenzene	105	17.949	17.949	0.955	114928	5.12	ug/L	99
69)	2-Chlorotoluene	126	17.937	17.937	0.955	30396	4.96	ug/L	93
70)	4-Chlorotoluene	91	18.041	18.041	0.960	98987	4.99	ug/L	99
71)	tert-Butylbenzene	134	18.321	18.321	0.975	20494	4.80	ug/L	96
72)	1,2,4-Trimethylbenzene	105	18.364	18.364	0.977	113742	4.94	ug/L	99
73)	sec-Butylbenzene	105	18.547	18.547	0.987	148714	4.91	ug/L	98
74)	4-Isopropyltoluene	119	18.675	18.675	0.994	124625	4.89	ug/L	98
75)	1,3-Dichlorobenzene	146	18.730	18.730	0.997	67008	5.16	ug/L	99
76)	1,4-Dichlorobenzene	146	18.821	18.821	1.002	65037	5.06	ug/L	93
77)	n-Butylbenzene	91	19.108	19.108	1.017	123688	4.87	ug/L	99
78)	1,2-Dichlorobenzene	146	19.236	19.236	1.024	62453	4.98	ug/L	98
79)	1,2-Dibromo-3-chloropr...	157	20.108	20.108	1.070	5817	4.10	ug/L	89
80)	1,2,4-Trichlorobenzene	180	21.120	21.113	1.124	48425	4.63	ug/L	98
81)	Hexachlorobutadiene	225	21.278	21.278	1.132	36128	5.01	ug/L	98
82)	Naphthalene	128	21.498	21.491	1.144	97436	4.29	ug/L	99
83)	1,2,3-Trichlorobenzene	180	21.821	21.821	1.161	49870	4.82	ug/L	97
85)	Acrolein		0.000	7.927	0.000	0	N.D.		
86)	Trichlorotrifluoroethane		8.159	8.165	0.639	0m	N.D.	d	
87)	Isopropyl Alcohol		8.634	8.464	0.677	0m	N.D.	d	
88)	Allyl chloride		8.671	8.842	0.679	0m	N.D.	d	
89)	tert-Butyl Alcohol		9.226	9.220	0.723	0m	N.D.	d	
90)	Acrylonitrile		9.537	9.531	0.747	0m	N.D.	d	
91)	Isopropyl ether		10.317	10.317	0.808	0m	N.D.	d	
92)	2-Chloro-1,3-butadiene		0.000	10.427	0.000	0	N.D.		
93)	Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.		
94)	Ethyl acetate		11.183	11.225	0.876	0m	N.D.	d	
95)	Propionitrile		0.000	11.305	0.000	0	N.D.		
96)	Methacrylonitrile		0.000	11.512	0.000	0	N.D.		
97)	Tetrahydrofuran		11.615	11.597	0.910	0m	N.D.	d	
98)	Isobutyl alcohol		12.176	12.176	0.954	0m	N.D.	d	
99)	Methyl tert-amyl ether		12.426	12.500	0.974	0m	N.D.	d	
100)	Methyl methacrylate		13.475	13.560	1.056	0m	N.D.	d	
101)	1,4-Dioxane		0.000	13.652	0.000	0	N.D.		
102)	2-Nitropropane		14.127	14.103	1.107	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O105.D
Acq On : 02 Jul 2018 14:28
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-04|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD005 5UL/5ML N/A MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 03 07:34:58 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
104) Ethyl methacrylate		15.005	14.987	0.920	0m	N.D.	d
106) 1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108) Cyclohexanone		17.559	17.535	0.934	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		17.797	17.718	0.947	0m	N.D.	d
110) Pentachloroethane		18.395	18.395	0.979	0m	N.D.	d
111) Benzyl chloride		18.937	18.943	1.008	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		19.394	19.346	1.032	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O105.D
Acq On : 02 Jul 2018 14:28
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-04|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD005 5UL/5ML N/A MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 03 07:34:58 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Quantitation Report
GEL Laboratories, LLC

JP
07/03/2018

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O106.D
Acq On : 02 Jul 2018 14:59
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-05|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD010 5UL/5ML N/A MIX[A]
ALS Vial : 6 Sample Multiplier: 1

EM
07/03/2018

Quant Time: Jul 03 07:35:00 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.761	12.761	1.000	1013322	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	436496	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	412837	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.761	12.762	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	193474	51.02	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	1015517	49.94	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	401221	49.44	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.552	4.552	0.357	83051	9.53	ug/L	96
3) Chloromethane	50	4.990	4.990	0.391	89143	10.09	ug/L	99
4) Vinyl chloride	62	5.301	5.319	0.415	87492	10.31	ug/L	98
5) Bromomethane	94	6.123	6.159	0.480	58462	9.69	ug/L	96
6) Chloroethane	64	6.354	6.372	0.498	59264	10.02	ug/L	99
7) Trichlorofluoromethane	101	7.049	7.061	0.552	133520	10.30	ug/L	99
8) Ethyl ether	59	7.604	7.610	0.596	44379	9.62	ug/L	96
9) Acetone	43	8.238	8.232	0.646	208400	56.96	ug/L	98
10) 1,1-Dichloroethylene	61	8.165	8.177	0.640	108357	9.93	ug/L	99
11) Iodomethane	142	8.494	8.500	0.666	497901	49.61	ug/L	99
12) Acetonitrile	41	8.817	8.817	0.691	210586	264.35	ug/L	98
13) Methyl acetate	74	8.854	8.854	0.694	56599	54.97	ug/L	96
14) Carbon disulfide	76	8.671	8.665	0.679	1080115	51.67	ug/L	100
15) Methylene chloride	84	9.085	9.091	0.712	71667	9.90	ug/L	99
16) tert-Butyl methyl ether	73	9.530	9.537	0.747	171620	10.18	ug/L	99
17) trans-1,2-Dichloroethy...	61	9.567	9.567	0.750	95736	10.42	ug/L	97
18) Hexane	57	9.988	9.988	0.783	81425	9.69	ug/L	96
19) Vinyl acetate	43	10.317	10.317	0.808	398037	50.86	ug/L	99
20) 1,1-Dichloroethane	63	10.286	10.286	0.806	116667	9.99	ug/L	99
21) 2-Butanone	72	11.182	11.183	0.876	48382	54.83	ug/L	92
22) cis-1,2-Dichloroethylene	96	11.189	11.183	0.877	59056	9.67	ug/L	97
23) 2,2-Dichloropropane	77	11.189	11.195	0.877	99362	9.88	ug/L	96
24) Bromochloromethane	128	11.542	11.548	0.904	27842	9.93	ug/L	96
25) Chloroform	83	11.628	11.628	0.911	119638	9.98	ug/L	100
26) 1,1,1-Trichloroethane	97	11.914	11.914	0.934	109342	9.97	ug/L	98
27) Cyclohexane	56	11.999	11.999	0.940	97575	9.98	ug/L	99
28) 1,1-Dichloropropene	75	12.127	12.127	0.950	80077	9.62	ug/L	95
29) Carbon tetrachloride	117	12.146	12.146	0.952	101497	10.04	ug/L	99
31) 1,2-Dichloroethane	62	12.444	12.438	0.975	97815	10.34	ug/L	99
32) Benzene	78	12.426	12.426	0.974	234089	10.03	ug/L	100
33) Cyclohexene	67	12.542	12.548	0.983	117756	9.97	ug/L	97
34) n-Butyl alcohol	56	13.024	13.024	1.021	166645	1041.87	ug/L	96
35) Trichloroethylene	95	13.225	13.225	1.036	61239	10.02	ug/L	98
36) 2-Pentanone	43	13.402	13.396	1.050	219498	55.25	ug/L	97
37) 1,2-Dichloropropane	63	13.524	13.524	1.060	58356	9.86	ug/L	97
38) Methylcyclohexane	83	13.475	13.475	1.056	97608	9.79	ug/L	96
39) Dibromomethane	93	13.682	13.682	1.072	37471	9.96	ug/L	98
40) Bromodichloromethane	83	13.834	13.834	1.084	85629	9.73	ug/L	99
41) 2-Chloroethylvinyl ether	63	14.127	14.127	1.107	161264	49.16	ug/L	99
42) cis-1,3-Dichloropropylene	75	14.347	14.353	1.124	94768	10.02	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O106.D
Acq On : 02 Jul 2018 14:59
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-05|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD010 5UL/5ML N/A MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 03 07:35:00 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44)	4-Methyl-2-pentanone	58	14.487	14.487	0.888	105633	54.98	ug/L	96
46)	Toluene	91	14.755	14.755	0.904	219444	10.00	ug/L	99
47)	trans-1,3-Dichloroprop...	75	14.968	14.968	0.917	85479	10.00	ug/L	98
48)	1,1,2-Trichloroethane	83	15.200	15.200	0.932	42222	10.27	ug/L	98
49)	2-Hexanone	58	15.413	15.413	0.945	142520	59.18	ug/L	95
50)	1,3-Dichloropropane	76	15.401	15.401	0.944	86150	10.45	ug/L	89
51)	Tetrachloroethylene	164	15.383	15.383	0.943	47335	10.20	ug/L	99
52)	Dibromochloromethane	129	15.682	15.676	0.961	55670	9.66	ug/L	99
53)	1,2-Dibromoethane	107	15.840	15.840	0.971	46816	9.80	ug/L	100
54)	Chlorobenzene	112	16.352	16.352	1.002	145968	10.08	ug/L	95
55)	1,1,1,2-Tetrachloroethane	131	16.413	16.419	1.006	58761	10.02	ug/L	99
56)	Ethylbenzene	91	16.419	16.425	1.006	249556	9.85	ug/L	99
57)	m,p-Xylenes	106	16.535	16.541	1.013	192751	20.57	ug/L	97
58)	o-Xylene	106	16.986	16.986	1.041	95171	10.13	ug/L	98
59)	Styrene	104	16.992	16.992	1.041	151083	10.12	ug/L	97
61)	Bromoform	173	17.261	17.261	0.919	35273	9.34	ug/L	99
62)	Isopropylbenzene	105	17.358	17.358	0.924	260339	9.94	ug/L	99
64)	1,1,2,2-Tetrachloroethane	83	17.669	17.663	0.940	70036	10.18	ug/L	100
65)	1,2,3-Trichloropropane	75	17.748	17.748	0.945	69041	10.15	ug/L	92
66)	Bromobenzene	156	17.767	17.767	0.945	60415	9.41	ug/L	93
67)	n-Propylbenzene	91	17.791	17.791	0.947	302044	9.68	ug/L	99
68)	1,3,5-Trimethylbenzene	105	17.949	17.949	0.955	228845	10.13	ug/L	100
69)	2-Chlorotoluene	126	17.943	17.937	0.955	61522	10.00	ug/L	95
70)	4-Chlorotoluene	91	18.047	18.041	0.960	187093	9.38	ug/L	99
71)	tert-Butylbenzene	134	18.321	18.321	0.975	42340	9.87	ug/L	94
72)	1,2,4-Trimethylbenzene	105	18.364	18.364	0.977	234066	10.11	ug/L	100
73)	sec-Butylbenzene	105	18.547	18.547	0.987	305625	10.03	ug/L	99
74)	4-Isopropyltoluene	119	18.675	18.675	0.994	254917	9.96	ug/L	99
75)	1,3-Dichlorobenzene	146	18.730	18.730	0.997	132412	10.15	ug/L	99
76)	1,4-Dichlorobenzene	146	18.821	18.821	1.002	129632	10.03	ug/L	98
77)	n-Butylbenzene	91	19.108	19.108	1.017	255646	10.00	ug/L	98
78)	1,2-Dichlorobenzene	146	19.242	19.236	1.024	122721	9.74	ug/L	98
79)	1,2-Dibromo-3-chloropr...	157	20.108	20.108	1.070	13355	9.36	ug/L	94
80)	1,2,4-Trichlorobenzene	180	21.120	21.113	1.124	99996	9.52	ug/L	99
81)	Hexachlorobutadiene	225	21.272	21.278	1.132	72863	10.05	ug/L	98
82)	Naphthalene	128	21.498	21.491	1.144	231083	10.11	ug/L	100
83)	1,2,3-Trichlorobenzene	180	21.821	21.821	1.161	100781	9.68	ug/L	98
85)	Acrolein		0.000	7.927	0.000	0	N.D.		
86)	Trichlorotrifluoroethane		0.000	8.165	0.000	0	N.D.		
87)	Isopropyl Alcohol		8.683	8.464	0.680	0m	N.D.	d	
88)	Allyl chloride		8.939	8.842	0.700	0m	N.D.	d	
89)	tert-Butyl Alcohol		0.000	9.220	0.000	0	N.D.		
90)	Acrylonitrile		9.543	9.531	0.748	0m	N.D.	d	
91)	Isopropyl ether		10.317	10.317	0.808	0m	N.D.	d	
92)	2-Chloro-1,3-butadiene		0.000	10.427	0.000	0	N.D.		
93)	Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.		
94)	Ethyl acetate		11.176	11.225	0.876	0m	N.D.	d	
95)	Propionitrile		0.000	11.305	0.000	0	N.D.		
96)	Methacrylonitrile		0.000	11.512	0.000	0	N.D.		
97)	Tetrahydrofuran		11.615	11.597	0.910	0m	N.D.	d	
98)	Isobutyl alcohol		12.134	12.176	0.951	0m	N.D.	d	
99)	Methyl tert-amyl ether		12.548	12.500	0.983	0m	N.D.	d	
100)	Methyl methacrylate		13.481	13.560	1.056	0m	N.D.	d	
101)	1,4-Dioxane		0.000	13.652	0.000	0	N.D.		
102)	2-Nitropropane		14.127	14.103	1.107	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O106.D
Acq On : 02 Jul 2018 14:59
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-05|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD010 5UL/5ML N/A MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 03 07:35:00 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
104) Ethyl methacrylate		0.000	14.987	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108) Cyclohexanone		17.559	17.535	0.934	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		17.791	17.718	0.947	0m	N.D.	d
110) Pentachloroethane		18.395	18.395	0.979	0m	N.D.	d
111) Benzyl chloride		18.943	18.943	1.008	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		19.388	19.346	1.032	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O106.D
Acq On : 02 Jul 2018 14:59
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-05|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD010 5UL/5ML N/A MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 03 07:35:00 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Quantitation Report
GEL Laboratories, LLC

JP
07/03/2018

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O107.D
Acq On : 02 Jul 2018 15:30
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-06|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD020 5UL/5ML N/A MIX[A]
ALS Vial : 7 Sample Multiplier: 1

EM
07/03/2018

Quant Time: Jul 03 07:35:02 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.761	12.761	1.000	1072711	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	463324	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	437501	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.761	12.762	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	202217	50.37	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	1040012	48.18	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	429934	49.99	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.552	4.552	0.357	178177	19.32	ug/L	100
3) Chloromethane	50	4.990	4.990	0.391	181094	19.36	ug/L	100
4) Vinyl chloride	62	5.301	5.319	0.415	175463	19.53	ug/L	98
5) Bromomethane	94	6.141	6.159	0.481	123712	19.37	ug/L	100
6) Chloroethane	64	6.366	6.372	0.499	128463	20.52	ug/L	99
7) Trichlorofluoromethane	101	7.055	7.061	0.553	279054	20.33	ug/L	99
8) Ethyl ether	59	7.604	7.610	0.596	99392	20.34	ug/L	98
9) Acetone	43	8.238	8.232	0.646	395190	102.04	ug/L	100
10) 1,1-Dichloroethylene	61	8.171	8.177	0.640	219953	19.04	ug/L	100
11) Iodomethane	142	8.494	8.500	0.666	1007190	94.81	ug/L	99
12) Acetonitrile	41	8.817	8.817	0.691	422130	500.56	ug/L	99
13) Methyl acetate	74	8.854	8.854	0.694	108365	99.42	ug/L	97
14) Carbon disulfide	76	8.677	8.665	0.680	2019868	91.28	ug/L	100
15) Methylene chloride	84	9.085	9.091	0.712	142017	19.57	ug/L	98
16) tert-Butyl methyl ether	73	9.530	9.537	0.747	354452	19.86	ug/L	98
17) trans-1,2-Dichloroethy...	61	9.567	9.567	0.750	189998	19.54	ug/L	99
18) Hexane	57	9.994	9.988	0.783	179797	20.21	ug/L	97
19) Vinyl acetate	43	10.317	10.317	0.808	902094	108.89	ug/L	99
20) 1,1-Dichloroethane	63	10.286	10.286	0.806	243175	19.67	ug/L	99
21) 2-Butanone	72	11.182	11.183	0.876	94856	101.55	ug/L	93
22) cis-1,2-Dichloroethylene	96	11.182	11.183	0.876	129577	20.03	ug/L	98
23) 2,2-Dichloropropane	77	11.195	11.195	0.877	214790	20.17	ug/L	97
24) Bromochloromethane	128	11.548	11.548	0.905	59375	20.00	ug/L	99
25) Chloroform	83	11.627	11.628	0.911	258682	20.38	ug/L	99
26) 1,1,1-Trichloroethane	97	11.920	11.914	0.934	234352	20.18	ug/L	99
27) Cyclohexane	56	11.993	11.999	0.940	199411	19.27	ug/L	99
28) 1,1-Dichloropropene	75	12.127	12.127	0.950	178522	20.26	ug/L	100
29) Carbon tetrachloride	117	12.146	12.146	0.952	217260	20.30	ug/L	99
31) 1,2-Dichloroethane	62	12.438	12.438	0.975	203578	20.34	ug/L	99
32) Benzene	78	12.426	12.426	0.974	474724	19.21	ug/L	100
33) Cyclohexene	67	12.542	12.548	0.983	245650	19.65	ug/L	100
34) n-Butyl alcohol	56	13.024	13.024	1.021	374899	2111.39	ug/L	98
35) Trichloroethylene	95	13.225	13.225	1.036	127031	19.63	ug/L	98
36) 2-Pentanone	43	13.395	13.396	1.050	445747	105.99	ug/L	99
37) 1,2-Dichloropropane	63	13.523	13.524	1.060	125111	19.96	ug/L	99
38) Methylcyclohexane	83	13.481	13.475	1.056	206586	19.57	ug/L	98
39) Dibromomethane	93	13.682	13.682	1.072	79010	19.84	ug/L	98
40) Bromodichloromethane	83	13.834	13.834	1.084	193044	20.71	ug/L	98
41) 2-Chloroethylvinyl ether	63	14.127	14.127	1.107	355909	102.50	ug/L	99
42) cis-1,3-Dichloropropylene	75	14.353	14.353	1.125	201573	20.14	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O107.D
Acq On : 02 Jul 2018 15:30
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-06|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD020 5UL/5ML N/A MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 03 07:35:02 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44)	4-Methyl-2-pentanone	58	14.487	14.487	0.888	218724	107.25	ug/L	96
46)	Toluene	91	14.755	14.755	0.904	455887	19.56	ug/L	99
47)	trans-1,3-Dichloroprop...	75	14.968	14.968	0.917	184289	20.30	ug/L	98
48)	1,1,2-Trichloroethane	83	15.200	15.200	0.932	88162	20.19	ug/L	99
49)	2-Hexanone	58	15.419	15.413	0.945	247526	96.84	ug/L	95
50)	1,3-Dichloropropane	76	15.401	15.401	0.944	174193	19.91	ug/L	96
51)	Tetrachloroethylene	164	15.383	15.383	0.943	99842	20.26	ug/L	99
52)	Dibromochloromethane	129	15.675	15.676	0.961	126439	20.66	ug/L	100
53)	1,2-Dibromoethane	107	15.840	15.840	0.971	101803	20.07	ug/L	100
54)	Chlorobenzene	112	16.352	16.352	1.002	306026	19.91	ug/L	98
55)	1,1,1,2-Tetrachloroethane	131	16.419	16.419	1.006	126331	20.29	ug/L	100
56)	Ethylbenzene	91	16.425	16.425	1.007	551840	20.52	ug/L	98
57)	m,p-Xylenes	106	16.541	16.541	1.014	403419	40.56	ug/L	98
58)	o-Xylene	106	16.986	16.986	1.041	200992	20.15	ug/L	98
59)	Styrene	104	16.992	16.992	1.041	323268	20.40	ug/L	98
61)	Bromoform	173	17.261	17.261	0.919	81527	20.38	ug/L	100
62)	Isopropylbenzene	105	17.358	17.358	0.924	579617	20.89	ug/L	98
64)	1,1,2,2-Tetrachloroethane	83	17.669	17.663	0.940	147645	20.26	ug/L	99
65)	1,2,3-Trichloropropane	75	17.748	17.748	0.945	147157	20.41	ug/L	97
66)	Bromobenzene	156	17.767	17.767	0.945	143125	21.03	ug/L	99
67)	n-Propylbenzene	91	17.791	17.791	0.947	701035	21.20	ug/L	100
68)	1,3,5-Trimethylbenzene	105	17.949	17.949	0.955	492960	20.59	ug/L	100
69)	2-Chlorotoluene	126	17.937	17.937	0.955	132144	20.26	ug/L	100
70)	4-Chlorotoluene	91	18.047	18.041	0.960	443370	20.98	ug/L	100
71)	tert-Butylbenzene	134	18.321	18.321	0.975	91953	20.23	ug/L	94
72)	1,2,4-Trimethylbenzene	105	18.364	18.364	0.977	518465	21.13	ug/L	100
73)	sec-Butylbenzene	105	18.547	18.547	0.987	675770	20.94	ug/L	100
74)	4-Isopropyltoluene	119	18.675	18.675	0.994	567511	20.92	ug/L	99
75)	1,3-Dichlorobenzene	146	18.736	18.730	0.997	276895	20.02	ug/L	99
76)	1,4-Dichlorobenzene	146	18.821	18.821	1.002	275653	20.12	ug/L	99
77)	n-Butylbenzene	91	19.108	19.108	1.017	568936	21.01	ug/L	99
78)	1,2-Dichlorobenzene	146	19.236	19.236	1.024	272503	20.41	ug/L	99
79)	1,2-Dibromo-3-chloropr...	157	20.108	20.108	1.070	30856	20.41	ug/L	95
80)	1,2,4-Trichlorobenzene	180	21.120	21.113	1.124	237435	21.33	ug/L	100
81)	Hexachlorobutadiene	225	21.278	21.278	1.132	161743	21.05	ug/L	99
82)	Naphthalene	128	21.497	21.491	1.144	523512	21.62	ug/L	100
83)	1,2,3-Trichlorobenzene	180	21.821	21.821	1.161	237622	21.54	ug/L	98
85)	Acrolein		0.000	7.927	0.000	0	N.D.		
86)	Trichlorotrifluoroethane		0.000	8.165	0.000	0	N.D.		
87)	Isopropyl Alcohol		8.652	8.464	0.678	0m	N.D.	d	
88)	Allyl chloride		8.677	8.842	0.680	0m	N.D.	d	
89)	tert-Butyl Alcohol		8.982	9.220	0.704	0m	N.D.	d	
90)	Acrylonitrile		9.536	9.531	0.747	0m	N.D.	d	
91)	Isopropyl ether		10.311	10.317	0.808	0m	N.D.	d	
92)	2-Chloro-1,3-butadiene		10.481	10.427	0.821	0m	N.D.	d	
93)	Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.		
94)	Ethyl acetate		11.182	11.225	0.876	0m	N.D.	d	
95)	Propionitrile		11.182	11.305	0.876	0m	N.D.	d	
96)	Methacrylonitrile		0.000	11.512	0.000	0	N.D.		
97)	Tetrahydrofuran		11.609	11.597	0.910	0m	N.D.	d	
98)	Isobutyl alcohol		12.170	12.176	0.954	0m	N.D.	d	
99)	Methyl tert-amyl ether		12.548	12.500	0.983	0m	N.D.	d	
100)	Methyl methacrylate		13.475	13.560	1.056	0m	N.D.	d	
101)	1,4-Dioxane		0.000	13.652	0.000	0	N.D.		
102)	2-Nitropropane		14.127	14.103	1.107	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O107.D
Acq On : 02 Jul 2018 15:30
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-06|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD020 5UL/5ML N/A MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 03 07:35:02 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
104) Ethyl methacrylate		0.000	14.987	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108) Cyclohexanone		17.553	17.535	0.934	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		17.791	17.718	0.947	0m	N.D.	d
110) Pentachloroethane		18.401	18.395	0.979	0m	N.D.	d
111) Benzyl chloride		18.943	18.943	1.008	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		19.388	19.346	1.032	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O107.D
Acq On : 02 Jul 2018 15:30
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-06|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD020 5UL/5ML N/A MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 03 07:35:02 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Quantitation Report
GEL Laboratories, LLC

JP
07/03/2018

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O108.D
Acq On : 02 Jul 2018 16:01
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-07|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD050 5UL/5ML N/A MIX[A]
ALS Vial : 8 Sample Multiplier: 1

EM
07/03/2018

Quant Time: Jul 03 07:35:04 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.761	12.761	1.000	1099085	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	502577	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	455554	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.761	12.762	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	206960	50.32	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	1132901	48.39	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	447130	49.93	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.552	4.552	0.357	486977	51.53	ug/L	100
3) Chloromethane	50	4.990	4.990	0.391	463778	48.39	ug/L	100
4) Vinyl chloride	62	5.319	5.319	0.417	454439	49.36	ug/L	100
5) Bromomethane	94	6.159	6.159	0.483	320998	49.06	ug/L	100
6) Chloroethane	64	6.372	6.372	0.499	320983	50.03	ug/L	100
7) Trichlorofluoromethane	101	7.061	7.061	0.553	691990	49.21	ug/L	100
8) Ethyl ether	59	7.610	7.610	0.596	264538	52.84	ug/L	100
9) Acetone	43	8.232	8.232	0.645	878080	221.29	ug/L	100
10) 1,1-Dichloroethylene	61	8.177	8.177	0.641	605456	51.16	ug/L	100
11) Iodomethane	142	8.500	8.500	0.666	2816591	258.76	ug/L	100
12) Acetonitrile	41	8.817	8.817	0.691	976561	1130.21	ug/L	100
13) Methyl acetate	74	8.854	8.854	0.694	272849	244.33	ug/L	100
14) Carbon disulfide	76	8.665	8.665	0.679	5752435	253.73	ug/L	100
15) Methylene chloride	84	9.091	9.091	0.712	369057	51.45	ug/L	100
16) tert-Butyl methyl ether	73	9.537	9.537	0.747	930169	50.87	ug/L	100
17) trans-1,2-Dichloroethy...	61	9.567	9.567	0.750	498988	50.10	ug/L	100
18) Hexane	57	9.988	9.988	0.783	440720	48.35	ug/L	100
19) Vinyl acetate	43	10.317	10.317	0.808	2122115	250.01	ug/L	100
20) 1,1-Dichloroethane	63	10.286	10.286	0.806	638728	50.42	ug/L	100
21) 2-Butanone	72	11.183	11.183	0.876	225355	235.48	ug/L	100
22) cis-1,2-Dichloroethylene	96	11.183	11.183	0.876	330430	49.86	ug/L	100
23) 2,2-Dichloropropane	77	11.195	11.195	0.877	555217	50.88	ug/L	100
24) Bromochloromethane	128	11.548	11.548	0.905	153945	50.61	ug/L	100
25) Chloroform	83	11.628	11.628	0.911	639686	49.18	ug/L	100
26) 1,1,1-Trichloroethane	97	11.914	11.914	0.934	596176	50.10	ug/L	100
27) Cyclohexane	56	11.999	11.999	0.940	552451	52.11	ug/L	100
28) 1,1-Dichloropropene	75	12.127	12.127	0.950	462305	51.21	ug/L	100
29) Carbon tetrachloride	117	12.146	12.146	0.952	560041	51.06	ug/L	100
31) 1,2-Dichloroethane	62	12.438	12.438	0.975	500061	48.76	ug/L	100
32) Benzene	78	12.426	12.426	0.974	1261124	49.81	ug/L	100
33) Cyclohexene	67	12.548	12.548	0.983	661648	51.66	ug/L	100
34) n-Butyl alcohol	56	13.024	13.024	1.021	876103	4698.78	ug/L	100
35) Trichloroethylene	95	13.225	13.225	1.036	323664	48.83	ug/L	100
36) 2-Pentanone	43	13.396	13.396	1.050	1047896	243.20	ug/L	100
37) 1,2-Dichloropropane	63	13.524	13.524	1.060	324736	50.57	ug/L	100
38) Methylcyclohexane	83	13.475	13.475	1.056	566621	52.40	ug/L	100
39) Dibromomethane	93	13.682	13.682	1.072	206266	50.55	ug/L	100
40) Bromodichloromethane	83	13.834	13.834	1.084	507363	53.13	ug/L	100
41) 2-Chloroethylvinyl ether	63	14.127	14.127	1.107	918340	258.12	ug/L	100
42) cis-1,3-Dichloropropylene	75	14.353	14.353	1.125	553869	54.00	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O108.D
Acq On : 02 Jul 2018 16:01
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-07|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD050 5UL/5ML N/A MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 03 07:35:04 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44)	4-Methyl-2-pentanone	58	14.487	14.487	0.888	519663	234.90	ug/L	100
46)	Toluene	91	14.755	14.755	0.904	1192189	47.17	ug/L	100
47)	trans-1,3-Dichloroprop...	75	14.968	14.968	0.917	503564	51.14	ug/L	100
48)	1,1,2-Trichloroethane	83	15.200	15.200	0.932	231763	48.94	ug/L	100
49)	2-Hexanone	58	15.413	15.413	0.945	666356	240.33	ug/L	100
50)	1,3-Dichloropropane	76	15.401	15.401	0.944	464839	48.98	ug/L	100
51)	Tetrachloroethylene	164	15.383	15.383	0.943	255158	47.74	ug/L	100
52)	Dibromochloromethane	129	15.676	15.676	0.961	345552	52.05	ug/L	100
53)	1,2-Dibromoethane	107	15.840	15.840	0.971	277003	50.36	ug/L	100
54)	Chlorobenzene	112	16.352	16.352	1.002	799173	47.93	ug/L	100
55)	1,1,1,2-Tetrachloroethane	131	16.419	16.419	1.006	338011	50.04	ug/L	100
56)	Ethylbenzene	91	16.425	16.425	1.007	1468569	50.35	ug/L	100
57)	m,p-Xylenes	106	16.541	16.541	1.014	1067789	98.97	ug/L	100
58)	o-Xylene	106	16.986	16.986	1.041	549088	50.75	ug/L	100
59)	Styrene	104	16.992	16.992	1.041	897478	52.20	ug/L	100
61)	Bromoform	173	17.261	17.261	0.919	225444	54.12	ug/L	100
62)	Isopropylbenzene	105	17.358	17.358	0.924	1553397	53.76	ug/L	100
64)	1,1,2,2-Tetrachloroethane	83	17.663	17.663	0.940	370258	48.78	ug/L	100
65)	1,2,3-Trichloropropane	75	17.748	17.748	0.945	358052	47.69	ug/L	100
66)	Bromobenzene	156	17.767	17.767	0.945	358871	50.63	ug/L	100
67)	n-Propylbenzene	91	17.791	17.791	0.947	1792147	52.06	ug/L	100
68)	1,3,5-Trimethylbenzene	105	17.949	17.949	0.955	1294241	51.93	ug/L	100
69)	2-Chlorotoluene	126	17.937	17.937	0.955	350832	51.66	ug/L	100
70)	4-Chlorotoluene	91	18.041	18.041	0.960	1148034	52.18	ug/L	100
71)	tert-Butylbenzene	134	18.321	18.321	0.975	257067	54.32	ug/L	100
72)	1,2,4-Trimethylbenzene	105	18.364	18.364	0.977	1319467	51.64	ug/L	100
73)	sec-Butylbenzene	105	18.547	18.547	0.987	1781176	53.00	ug/L	100
74)	4-Isopropyltoluene	119	18.675	18.675	0.994	1510994	53.48	ug/L	100
75)	1,3-Dichlorobenzene	146	18.730	18.730	0.997	701681	48.72	ug/L	100
76)	1,4-Dichlorobenzene	146	18.821	18.821	1.002	720729	50.52	ug/L	100
77)	n-Butylbenzene	91	19.108	19.108	1.017	1496977	53.08	ug/L	100
78)	1,2-Dichlorobenzene	146	19.236	19.236	1.024	693305	49.87	ug/L	100
79)	1,2-Dibromo-3-chloropr...	157	20.108	20.108	1.070	82724	52.56	ug/L	100
80)	1,2,4-Trichlorobenzene	180	21.113	21.113	1.124	609692	52.60	ug/L	100
81)	Hexachlorobutadiene	225	21.278	21.278	1.132	407813	50.98	ug/L	100
82)	Naphthalene	128	21.491	21.491	1.144	1352461	53.63	ug/L	100
83)	1,2,3-Trichlorobenzene	180	21.821	21.821	1.161	588372	51.23	ug/L	100
85)	Acrolein		7.805	7.927	0.612	0m	N.D.	d	
86)	Trichlorotrifluoroethane		8.177	8.165	0.641	0m	N.D.	d	
87)	Isopropyl Alcohol		8.677	8.464	0.680	0m	N.D.	d	
88)	Allyl chloride		8.665	8.842	0.679	0m	N.D.	d	
89)	tert-Butyl Alcohol		0.000	9.220	0.000	0	N.D.		
90)	Acrylonitrile		9.530	9.531	0.747	0m	N.D.	d	
91)	Isopropyl ether		10.317	10.317	0.808	0m	N.D.	d	
92)	2-Chloro-1,3-butadiene		10.488	10.427	0.822	0m	N.D.	d	
93)	Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.		
94)	Ethyl acetate		11.183	11.225	0.876	0m	N.D.	d	
95)	Propionitrile		11.176	11.305	0.876	0m	N.D.	d	
96)	Methacrylonitrile		0.000	11.512	0.000	0	N.D.		
97)	Tetrahydrofuran		11.640	11.597	0.912	0m	N.D.	d	
98)	Isobutyl alcohol		12.146	12.176	0.952	0m	N.D.	d	
99)	Methyl tert-amyl ether		12.542	12.500	0.983	0m	N.D.	d	
100)	Methyl methacrylate		13.560	13.560	1.063	0m	N.D.	d	
101)	1,4-Dioxane		13.682	13.652	1.072	0m	N.D.	d	
102)	2-Nitropropane		13.999	14.103	1.097	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O108.D
Acq On : 02 Jul 2018 16:01
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-07|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD050 5UL/5ML N/A MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 03 07:35:04 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
104) Ethyl methacrylate		0.000	14.987	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108) Cyclohexanone		17.559	17.535	0.934	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		17.791	17.718	0.947	0m	N.D.	d
110) Pentachloroethane		18.401	18.395	0.979	0m	N.D.	d
111) Benzyl chloride		18.913	18.943	1.006	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		19.394	19.346	1.032	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O108.D
Acq On : 02 Jul 2018 16:01
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-07|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD050 5UL/5ML N/A MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 03 07:35:04 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Quantitation Report
GEL Laboratories, LLC

JP
07/03/2018

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O109.D
Acq On : 02 Jul 2018 16:32
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-08|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD080 4UL/5ML N/A MIX[A]
ALS Vial : 9 Sample Multiplier: 1

EM
07/03/2018

Quant Time: Jul 03 07:35:06 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.761	12.761	1.000	1130873	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	490217	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	477085	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.761	12.762	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	205506	48.56	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	1167837	51.13	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	469320	50.04	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.552	4.552	0.357	804630	82.75	ug/L	100
3) Chloromethane	50	4.990	4.990	0.391	775695	78.67	ug/L	99
4) Vinyl chloride	62	5.319	5.319	0.417	752045	79.39	ug/L	99
5) Bromomethane	94	6.159	6.159	0.483	536923	79.75	ug/L	100
6) Chloroethane	64	6.385	6.372	0.500	550318	83.37	ug/L	99
7) Trichlorofluoromethane	101	7.055	7.061	0.553	1124996	77.75	ug/L	99
8) Ethyl ether	59	7.604	7.610	0.596	430338	83.55	ug/L	99
9) Acetone	43	8.232	8.232	0.645	1510954	370.08	ug/L	97
10) 1,1-Dichloroethylene	61	8.177	8.177	0.641	1013006	83.19	ug/L	99
11) Iodomethane	142	8.500	8.500	0.666	4560995	407.24	ug/L	99
12) Acetonitrile	41	8.817	8.817	0.691	1772856	1994.11	ug/L	100
13) Methyl acetate	74	8.854	8.854	0.694	456239	397.07	ug/L	98
14) Carbon disulfide	76	8.671	8.665	0.679	9300009	398.68	ug/L	99
15) Methylene chloride	84	9.091	9.091	0.712	585311	79.95	ug/L	98
16) tert-Butyl methyl ether	73	9.530	9.537	0.747	1554296	82.61	ug/L	100
17) trans-1,2-Dichloroethy...	61	9.561	9.567	0.749	791348	77.21	ug/L	99
18) Hexane	57	9.994	9.988	0.783	790546	84.29	ug/L	99
19) Vinyl acetate	43	10.317	10.317	0.808	3705654	424.30	ug/L	99
20) 1,1-Dichloroethane	63	10.286	10.286	0.806	1012379	77.66	ug/L	100
21) 2-Butanone	72	11.176	11.183	0.876	392738	398.84	ug/L	94
22) cis-1,2-Dichloroethylene	96	11.189	11.183	0.877	548784	80.48	ug/L	98
23) 2,2-Dichloropropane	77	11.195	11.195	0.877	897689	79.95	ug/L	98
24) Bromochloromethane	128	11.542	11.548	0.904	251711	80.43	ug/L	98
25) Chloroform	83	11.627	11.628	0.911	1036576	77.45	ug/L	99
26) 1,1,1-Trichloroethane	97	11.914	11.914	0.934	978472	79.92	ug/L	99
27) Cyclohexane	56	11.999	11.999	0.940	922827	84.60	ug/L	98
28) 1,1-Dichloropropene	75	12.127	12.127	0.950	758923	81.71	ug/L	98
29) Carbon tetrachloride	117	12.146	12.146	0.952	913417	80.94	ug/L	100
31) 1,2-Dichloroethane	62	12.444	12.438	0.975	811239	76.88	ug/L	100
32) Benzene	78	12.426	12.426	0.974	2135288	81.97	ug/L	100
33) Cyclohexene	67	12.542	12.548	0.983	1097019	83.25	ug/L	100
34) n-Butyl alcohol	56	13.024	13.024	1.021	1623255	8388.14	ug/L	98
35) Trichloroethylene	95	13.225	13.225	1.036	559218	81.99	ug/L	99
36) 2-Pentanone	43	13.402	13.396	1.050	1914951	431.93	ug/L	100
37) 1,2-Dichloropropane	63	13.523	13.524	1.060	545970	82.63	ug/L	99
38) Methylcyclohexane	83	13.475	13.475	1.056	922284	82.89	ug/L	99
39) Dibromomethane	93	13.682	13.682	1.072	341459	81.33	ug/L	98
40) Bromodichloromethane	83	13.834	13.834	1.084	803810	81.81	ug/L	99
41) 2-Chloroethylvinyl ether	63	14.127	14.127	1.107	1479859	404.26	ug/L	100
42) cis-1,3-Dichloropropylene	75	14.353	14.353	1.125	874232	82.84	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O109.D
Acq On : 02 Jul 2018 16:32
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-08|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD080 4UL/5ML N/A MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 03 07:35:06 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44) 4-Methyl-2-pentanone	58	14.487	14.487	0.888	922537	427.53	ug/L	96
46) Toluene	91	14.755	14.755	0.904	1989895	80.71	ug/L	99
47) trans-1,3-Dichloroprop...	75	14.968	14.968	0.917	839463	87.40	ug/L	98
48) 1,1,2-Trichloroethane	83	15.200	15.200	0.932	370576	80.23	ug/L	98
49) 2-Hexanone	58	15.419	15.413	0.945	1094127	404.57	ug/L	98
50) 1,3-Dichloropropane	76	15.401	15.401	0.944	743823	80.36	ug/L	99
51) Tetrachloroethylene	164	15.383	15.383	0.943	422296	81.01	ug/L	99
52) Dibromochloromethane	129	15.675	15.676	0.961	564286	87.14	ug/L	99
53) 1,2-Dibromoethane	107	15.840	15.840	0.971	449602	83.79	ug/L	100
54) Chlorobenzene	112	16.352	16.352	1.002	1346354	82.78	ug/L	99
55) 1,1,1,2-Tetrachloroethane	131	16.419	16.419	1.006	553508	84.01	ug/L	100
56) Ethylbenzene	91	16.419	16.425	1.006	2385504	83.85	ug/L	100
57) m,p-Xylenes	106	16.541	16.541	1.014	1737773	165.12	ug/L	96
58) o-Xylene	106	16.986	16.986	1.041	903565	85.62	ug/L	97
59) Styrene	104	16.992	16.992	1.041	1450655	86.51	ug/L	100
61) Bromoform	173	17.261	17.261	0.919	391476	89.74	ug/L	100
62) Isopropylbenzene	105	17.358	17.358	0.924	2529118	83.57	ug/L	100
64) 1,1,2,2-Tetrachloroethane	83	17.669	17.663	0.940	643035	80.90	ug/L	100
65) 1,2,3-Trichloropropane	75	17.754	17.748	0.945	616832	78.45	ug/L	96
66) Bromobenzene	156	17.767	17.767	0.945	598870	80.68	ug/L	100
67) n-Propylbenzene	91	17.791	17.791	0.947	2951674	81.87	ug/L	98
68) 1,3,5-Trimethylbenzene	105	17.949	17.949	0.955	2108809	80.79	ug/L	98
69) 2-Chlorotoluene	126	17.937	17.937	0.955	582303	81.87	ug/L	97
70) 4-Chlorotoluene	91	18.047	18.041	0.960	1842317	79.96	ug/L	99
71) tert-Butylbenzene	134	18.321	18.321	0.975	426914	86.13	ug/L	98
72) 1,2,4-Trimethylbenzene	105	18.364	18.364	0.977	2218733	82.92	ug/L	98
73) sec-Butylbenzene	105	18.553	18.547	0.987	2875074	81.68	ug/L	99
74) 4-Isopropyltoluene	119	18.675	18.675	0.994	2443401	82.59	ug/L	100
75) 1,3-Dichlorobenzene	146	18.736	18.730	0.997	1186535	78.67	ug/L	100
76) 1,4-Dichlorobenzene	146	18.821	18.821	1.002	1146039	76.71	ug/L	99
77) n-Butylbenzene	91	19.108	19.108	1.017	2354854	79.73	ug/L	100
78) 1,2-Dichlorobenzene	146	19.236	19.236	1.024	1138907	78.22	ug/L	100
79) 1,2-Dibromo-3-chloropr...	157	20.108	20.108	1.070	152506	92.52	ug/L	98
80) 1,2,4-Trichlorobenzene	180	21.113	21.113	1.124	1017834	83.84	ug/L	100
81) Hexachlorobutadiene	225	21.272	21.278	1.132	665768	79.46	ug/L	99
82) Naphthalene	128	21.497	21.491	1.144	2359537	89.35	ug/L	100
83) 1,2,3-Trichlorobenzene	180	21.821	21.821	1.161	991594	82.44	ug/L	99
85) Acrolein		7.811	7.927	0.612	0m	N.D.	d	
86) Trichlorotrifluoroethane		8.140	8.165	0.638	0m	N.D.	d	
87) Isopropyl Alcohol		8.677	8.464	0.680	0m	N.D.	d	
88) Allyl chloride		8.671	8.842	0.679	0m	N.D.	d	
89) tert-Butyl Alcohol		0.000	9.220	0.000	0	N.D.		
90) Acrylonitrile		9.530	9.531	0.747	0m	N.D.	d	
91) Isopropyl ether		10.311	10.317	0.808	0m	N.D.	d	
92) 2-Chloro-1,3-butadiene		10.481	10.427	0.821	0m	N.D.	d	
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.		
94) Ethyl acetate		11.176	11.225	0.876	0m	N.D.	d	
95) Propionitrile		11.176	11.305	0.876	0m	N.D.	d	
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.		
97) Tetrahydrofuran		11.627	11.597	0.911	0m	N.D.	d	
98) Isobutyl alcohol		12.170	12.176	0.954	0m	N.D.	d	
99) Methyl tert-amyl ether		12.499	12.500	0.979	0m	N.D.	d	
100) Methyl methacrylate		13.475	13.560	1.056	0m	N.D.	d	
101) 1,4-Dioxane		13.676	13.652	1.072	0m	N.D.	d	
102) 2-Nitropropane		13.938	14.103	1.092	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O109.D
Acq On : 02 Jul 2018 16:32
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-08|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD080 4UL/5ML N/A MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 03 07:35:06 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
104) Ethyl methacrylate		14.865	14.987	0.911	0m	N.D.	d
106) 1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108) Cyclohexanone		17.553	17.535	0.934	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		17.791	17.718	0.947	0m	N.D.	d
110) Pentachloroethane		18.394	18.395	0.979	0m	N.D.	d
111) Benzyl chloride		18.913	18.943	1.006	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		19.388	19.346	1.032	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O109.D
Acq On : 02 Jul 2018 16:32
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-08|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD080 4UL/5ML N/A MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 03 07:35:06 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Quantitation Report
GEL Laboratories, LLC

JP
07/03/2018

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O110.D
Acq On : 02 Jul 2018 17:03
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-09|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD100 5UL/5ML N/A MIX[A]
ALS Vial : 10 Sample Multiplier: 1

EM
07/03/2018

Quant Time: Jul 03 07:35:08 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.768	12.761	1.000	1318550	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	564982	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	539271	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.768	12.762	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	239010	48.44	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	1364279	51.83	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	517654	48.83	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue	
2) Dichlorodifluoromethane	85	4.552	4.552	0.357	1047942	92.44	ug/L	100	
3) Chloromethane	50	5.009	4.990	0.392	1049299	91.27	ug/L	100	
4) Vinyl chloride	62	5.319	5.319	0.417	1037019	93.90	ug/L	99	
5) Bromomethane	94	6.159	6.159	0.482	756198	96.34	ug/L	100	
6) Chloroethane	64	6.385	6.372	0.500	765844	99.51	ug/L	98	
7) Trichlorofluoromethane	101	7.055	7.061	0.553	1502106	89.04	ug/L	99	
8) Ethyl ether	59	7.604	7.610	0.596	642900	107.05	ug/L	99	A
9) Acetone	43	8.238	8.232	0.645	2079371	436.81	ug/L	96	
10) 1,1-Dichloroethylene	61	8.183	8.177	0.641	1350926	95.15	ug/L	97	
11) Iodomethane	142	8.500	8.500	0.666	6283466	481.19	ug/L	97	
12) Acetonitrile	41	8.817	8.817	0.691	2458186	2371.41	ug/L	100	
13) Methyl acetate	74	8.854	8.854	0.693	651952	486.64	ug/L	95	
14) Carbon disulfide	76	8.671	8.665	0.679	12458687	458.07	ug/L	99	
15) Methylene chloride	84	9.092	9.091	0.712	842937	99.03	ug/L	97	
16) tert-Butyl methyl ether	73	9.537	9.537	0.747	2278999	103.88	ug/L	100	A
17) trans-1,2-Dichloroethy...	61	9.567	9.567	0.749	1105646	92.53	ug/L	98	
18) Hexane	57	9.988	9.988	0.782	1117884	102.23	ug/L	95	A
19) Vinyl acetate	43	10.317	10.317	0.808	5357520	526.12	ug/L	98	A
20) 1,1-Dichloroethane	63	10.287	10.286	0.806	1408473	92.67	ug/L	100	
21) 2-Butanone	72	11.177	11.183	0.875	556662	484.85	ug/L	92	
22) cis-1,2-Dichloroethylene	96	11.183	11.183	0.876	766692	96.43	ug/L	96	
23) 2,2-Dichloropropane	77	11.195	11.195	0.877	1204795	92.03	ug/L	95	
24) Bromochloromethane	128	11.548	11.548	0.905	365039	100.04	ug/L	95	A
25) Chloroform	83	11.628	11.628	0.911	1437252	92.11	ug/L	99	
26) 1,1,1-Trichloroethane	97	11.920	11.914	0.934	1304961	91.42	ug/L	99	
27) Cyclohexane	56	12.000	11.999	0.940	1241524	97.61	ug/L	97	
28) 1,1-Dichloropropene	75	12.128	12.127	0.950	1021063	94.29	ug/L	96	
29) Carbon tetrachloride	117	12.146	12.146	0.951	1209605	91.93	ug/L	100	
31) 1,2-Dichloroethane	62	12.445	12.438	0.975	1095248	89.02	ug/L	98	
32) Benzene	78	12.426	12.426	0.973	2865025	94.33	ug/L	100	
33) Cyclohexene	67	12.542	12.548	0.982	1513625	98.52	ug/L	99	
34) n-Butyl alcohol	56	13.024	13.024	1.020	2208442	9772.50	ug/L	96	
35) Trichloroethylene	95	13.225	13.225	1.036	747118	93.95	ug/L	99	
36) 2-Pentanone	43	13.396	13.396	1.049	2653510	513.33	ug/L	99	A
37) 1,2-Dichloropropane	63	13.524	13.524	1.059	747043	96.97	ug/L	99	
38) Methylcyclohexane	83	13.475	13.475	1.055	1262261	97.30	ug/L	98	
39) Dibromomethane	93	13.682	13.682	1.072	472451	96.52	ug/L	98	
40) Bromodichloromethane	83	13.835	13.834	1.084	1109734	96.87	ug/L	99	
41) 2-Chloroethylvinyl ether	63	14.127	14.127	1.106	2148271	503.32	ug/L	99	A
42) cis-1,3-Dichloropropylene	75	14.353	14.353	1.124	1246274	101.29	ug/L	97	A

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O110.D
Acq On : 02 Jul 2018 17:03
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-09|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD100 5UL/5ML N/A MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 03 07:35:08 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
44)	4-Methyl-2-pentanone	58	14.487	14.487	0.888	1255440	504.82	ug/L	93	A
46)	Toluene	91	14.755	14.755	0.904	2776095	97.70	ug/L	98	
47)	trans-1,3-Dichloroprop...	75	14.969	14.968	0.917	1160657	104.86	ug/L	98	A
48)	1,1,2-Trichloroethane	83	15.200	15.200	0.932	534274	100.36	ug/L	98	A
49)	2-Hexanone	58	15.420	15.413	0.945	1513050	485.43	ug/L	95	
50)	1,3-Dichloropropane	76	15.401	15.401	0.944	1021836	95.78	ug/L	97	
51)	Tetrachloroethylene	164	15.383	15.383	0.943	571831	95.17	ug/L	99	
52)	Dibromochloromethane	129	15.682	15.676	0.961	799053	107.07	ug/L	100	A
53)	1,2-Dibromoethane	107	15.840	15.840	0.971	647002	104.63	ug/L	100	A
54)	Chlorobenzene	112	16.352	16.352	1.002	1838607	98.09	ug/L	98	
55)	1,1,1,2-Tetrachloroethane	131	16.419	16.419	1.006	749733	98.73	ug/L	99	
56)	Ethylbenzene	91	16.426	16.425	1.007	3104419	94.68	ug/L	99	
57)	m,p-Xylenes	106	16.535	16.541	1.013	2402062	198.04	ug/L	93	
58)	o-Xylene	106	16.986	16.986	1.041	1233688	101.43	ug/L	94	A
59)	Styrene	104	16.993	16.992	1.041	2004771	103.73	ug/L	99	A
61)	Bromoform	173	17.261	17.261	0.919	553366	112.22	ug/L	99	A
62)	Isopropylbenzene	105	17.358	17.358	0.924	3265620	95.47	ug/L	98	
64)	1,1,2,2-Tetrachloroethane	83	17.669	17.663	0.940	895389	99.66	ug/L	99	
65)	1,2,3-Trichloropropane	75	17.748	17.748	0.945	875187	98.47	ug/L	93	
66)	Bromobenzene	156	17.767	17.767	0.945	822745	98.06	ug/L	99	
67)	n-Propylbenzene	91	17.791	17.791	0.947	3858141	94.67	ug/L	97	
68)	1,3,5-Trimethylbenzene	105	17.950	17.949	0.955	2807659	95.16	ug/L	97	
69)	2-Chlorotoluene	126	17.937	17.937	0.955	782532	97.33	ug/L	94	
70)	4-Chlorotoluene	91	18.047	18.041	0.960	2536824	97.41	ug/L	99	
71)	tert-Butylbenzene	134	18.322	18.321	0.975	563144	100.52	ug/L	97	A
72)	1,2,4-Trimethylbenzene	105	18.364	18.364	0.977	2799469	92.56	ug/L	97	
73)	sec-Butylbenzene	105	18.547	18.547	0.987	3759983	94.51	ug/L	99	
74)	4-Isopropyltoluene	119	18.675	18.675	0.994	3291633	98.43	ug/L	99	
75)	1,3-Dichlorobenzene	146	18.730	18.730	0.997	1560516	91.53	ug/L	100	
76)	1,4-Dichlorobenzene	146	18.821	18.821	1.002	1575884	93.32	ug/L	99	
77)	n-Butylbenzene	91	19.108	19.108	1.017	3219500	96.44	ug/L	98	
78)	1,2-Dichlorobenzene	146	19.236	19.236	1.024	1662916	101.04	ug/L	100	A
79)	1,2-Dibromo-3-chloropr...	157	20.108	20.108	1.070	210940	113.22	ug/L	97	A
80)	1,2,4-Trichlorobenzene	180	21.114	21.113	1.124	1361077	99.19	ug/L	100	
81)	Hexachlorobutadiene	225	21.272	21.278	1.132	882557	93.19	ug/L	100	
82)	Naphthalene	128	21.498	21.491	1.144	3153182	105.63	ug/L	100	A
83)	1,2,3-Trichlorobenzene	180	21.821	21.821	1.161	1323160	97.32	ug/L	99	
85)	Acrolein		7.799	7.927	0.611	0m	N.D.	d		
86)	Trichlorotrifluoroethane		8.159	8.165	0.639	0m	N.D.	d		
87)	Isopropyl Alcohol		8.677	8.464	0.680	0m	N.D.	d		
88)	Allyl chloride		8.671	8.842	0.679	0m	N.D.	d		
89)	tert-Butyl Alcohol		0.000	9.220	0.000	0	N.D.			
90)	Acrylonitrile		9.531	9.531	0.746	0m	N.D.	d		
91)	Isopropyl ether		10.317	10.317	0.808	0m	N.D.	d		
92)	2-Chloro-1,3-butadiene		10.482	10.427	0.821	0m	N.D.	d		
93)	Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.			
94)	Ethyl acetate		11.177	11.225	0.875	0m	N.D.	d		
95)	Propionitrile		11.183	11.305	0.876	0m	N.D.	d		
96)	Methacrylonitrile		0.000	11.512	0.000	0	N.D.			
97)	Tetrahydrofuran		11.628	11.597	0.911	0m	N.D.	d		
98)	Isobutyl alcohol		12.176	12.176	0.954	0m	N.D.	d		
99)	Methyl tert-amyl ether		12.548	12.500	0.983	0m	N.D.	d		
100)	Methyl methacrylate		13.475	13.560	1.055	0m	N.D.	d		
101)	1,4-Dioxane		13.682	13.652	1.072	0m	N.D.	d		
102)	2-Nitropropane		14.036	14.103	1.099	0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O110.D
Acq On : 02 Jul 2018 17:03
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-09|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD100 5UL/5ML N/A MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 03 07:35:08 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
104) Ethyl methacrylate		14.865	14.987	0.911	0m	N.D.	d
106) 1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108) Cyclohexanone		17.559	17.535	0.934	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		17.791	17.718	0.947	0m	N.D.	d
110) Pentachloroethane		18.395	18.395	0.979	0m	N.D.	d
111) Benzyl chloride		18.907	18.943	1.006	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		19.394	19.346	1.032	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O110.D
Acq On : 02 Jul 2018 17:03
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-09|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD100 5UL/5ML N/A MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 03 07:35:08 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Continuing Calibration Summary

Client SDG: 454944

Instrument ID: VOA3.I **Injection Date:** 02-JUL-18 18:05

Data File: 070218V3\3O112.D **Init. Cal. Date(s)** 02-JUL-18 13:56 - 02-JUL-18 22:15

Lab Sample ID W3VM180702-10 **Method:** 070218V3\VOA3-8260C-070218.M

Quant Type ISTD **Method Update:** 03-JUL-18 07:30

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.1871	0.17803		.01		-4.84768	30		Averaged
S	Toluene-d8	2.3294	2.31751		.01		-0.51043	30		Averaged
S	Bromofluorobenzene	0.9829	0.95075		.01		-3.27093	30		Averaged
	Dichlorodifluoromethane	0.4299	0.41546		.01		-3.35892	30		Averaged
	Chloromethane	0.436	0.41241		.1		-5.41055	30		Averaged
	Vinyl chloride	0.4188	0.38872		.01		-7.18243	30		Averaged
	Bromomethane	0.2977	0.28162		.01		-5.40141	30		Averaged
	Chloroethane	0.2918	0.28233		.01		-3.24537	30		Averaged
	Trichlorofluoromethane	0.6397	0.55791		.01		-12.78568	30		Averaged
	1,1-Dichloroethylene	0.5384	0.51272		.01		-4.76969	30		Averaged
	Acetone	0.1805	0.13261		.01		-26.53186	30		Averaged
	Carbon disulfide	1.0314	1.02938		.01		-0.19585	30		Averaged
	Methyl acetate	0.0508	0.04907		.01		-3.40551	30		Averaged
	Methylene chloride	50	48.39	50			-3.22	30		Linear
	tert-Butyl methyl ether	0.8319	0.82304		.01		-1.06503	30		Averaged
	trans-1,2-Dichloroethylene	0.4531	0.40549		.01		-10.50761	30		Averaged
	1,1-Dichloroethane	0.5764	0.52286		.1		-9.28869	30		Averaged
	2-Butanone	0.0435	0.03698		.01		-14.98851	30		Averaged
	cis-1,2-Dichloroethylene	0.3015	0.28948		.01		-3.98673	30		Averaged
	Bromochloromethane	0.1384	0.13388		.01		-3.2659	30		Averaged
	Chloroform	0.5917	0.5291		.01		-10.57969	30		Averaged
	1,1,1-Trichloroethane	0.5413	0.4831		.01		-10.75189	30		Averaged
	Cyclohexane	0.4823	0.44402		.01		-7.93697	30		Averaged
	Carbon tetrachloride	0.4989	0.44043		.01		-11.71978	30		Averaged
	Benzene	1.1517	1.06822		.01		-7.24842	30		Averaged
	1,2-Dichloroethane	0.4666	0.41478		.01		-11.10587	30		Averaged
	Trichloroethylene	0.3016	0.27047		.01		-10.32162	30		Averaged
	Methylcyclohexane	0.4919	0.43881		.01		-10.79284	30		Averaged
	1,2-Dichloropropane	0.2921	0.265		.01		-9.27764	30		Averaged
	Bromodichloromethane	0.4344	0.40412		.01		-6.97053	30		Averaged
	cis-1,3-Dichloropropylene	0.4666	0.47352		.01		1.48307	30		Averaged
	4-Methyl-2-pentanone	0.2201	0.2142		.01		-2.6806	30		Averaged
	Toluene	2.5146	2.36773		.01		-5.84069	30		Averaged
	trans-1,3-Dichloropropylene	0.9796	1.03124		.01		5.27154	30		Averaged
	1,1,2-Trichloroethane	0.4711	0.47202		.01		0.19529	30		Averaged
	Tetrachloroethylene	0.5317	0.46762		.01		-12.05191	30		Averaged
	2-Hexanone	0.2758	0.23854		.01		-13.50979	30		Averaged

Continuing Calibration Summary

Instrument ID: VOA3.I **Injection Date:** 02-JUL-18 18:05

Data File: 070218V3\3O112.D **Init. Cal. Date(s)** 02-JUL-18 13:56 02-JUL-18 22:15

Lab Sample ID W3VM180702-10 **Method:** 070218V3\VOA3-8260C-070218.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Dibromochloromethane	0.6605	0.68573		.01		3.81983	30		Averaged
1,2-Dibromoethane	0.5473	0.56851		.01		3.87539	30		Averaged
Chlorobenzene	1.6589	1.58479		.3		-4.46742	30		Averaged
Ethylbenzene	2.9017	2.7868		.01		-3.95975	30		Averaged
m,p-Xylenes	1.0734	1.00554		.01		-6.32197	30		Averaged
o-Xylene	1.0764	1.08072		.01		0.40134	30		Averaged
Styrene	1.7104	1.77471		.01		3.75994	30		Averaged
Bromoform	0.4572	0.46544		.1		1.80227	30		Averaged
Isopropylbenzene	3.1716	2.97598		.01		-6.16786	30		Averaged
1,1,2,2-Tetrachloroethane	0.833	0.79074		.3		-5.07323	30		Averaged
1,3-Dichlorobenzene	1.5807	1.4659		.01		-7.26261	30		Averaged
1,4-Dichlorobenzene	1.5657	1.47848		.01		-5.57067	30		Averaged
1,2-Dichlorobenzene	1.5259	1.45207		.01		-4.83846	30		Averaged
1,2-Dibromo-3-chloropropane	0.1727	0.17588		.01		1.84134	30		Averaged
1,2,4-Trichlorobenzene	1.2723	1.26005		.01		-0.96282	30		Averaged
1,2,3-Trichlorobenzene	1.2606	1.21801		.01		-3.37855	30		Averaged

Quantitation Report
GEL Laboratories, LLC

JP
07/03/2018

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O112.D
Acq On : 02 Jul 2018 18:05
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-10|ICV|1|VOA|1|VOA8260CL|
Misc : ICV50 5UL/5ML N/A MIX[A]
ALS Vial : 12 Sample Multiplier: 1

EM
07/03/2018

Quant Time: Jul 03 07:36:56 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.761	12.761	1.000	1346732	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	569354	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	552843	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.761	12.762	1.000	1349624	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	578810	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	553411	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	239762	47.57	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	1319485	49.74	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	525615	48.37	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.552	4.552	0.357	559515	48.32	ug/L	100
3) Chloromethane	50	4.990	4.990	0.391	555411	47.30	ug/L	99
4) Vinyl chloride	62	5.319	5.319	0.417	523499	46.41	ug/L	99
5) Bromomethane	94	6.104	6.159	0.478	379273	47.31	ug/L	99
6) Chloroethane	64	6.366	6.372	0.499	380220	48.37	ug/L	99
7) Trichlorofluoromethane	101	7.049	7.061	0.552	751351	43.60	ug/L	99
8) Ethyl ether	59	7.604	7.610	0.596	331183	53.99	ug/L	99
9) Acetone	43	8.238	8.232	0.646	892931	183.65	ug/L	96
10) 1,1-Dichloroethylene	61	8.177	8.177	0.641	690491	47.62	ug/L	97
11) Iodomethane	142	8.506	8.500	0.667	3342626	250.62	ug/L	96
12) Acetonitrile	41	8.823	8.817	0.691	1144790	1081.27	ug/L	99
13) Methyl acetate	74	8.848	8.854	0.693	330423	241.48	ug/L	95
14) Carbon disulfide	76	8.665	8.665	0.679	6931486	249.52	ug/L	100
15) Methylene chloride	84	9.097	9.091	0.713	425931	48.39	ug/L	98
16) tert-Butyl methyl ether	73	9.530	9.537	0.747	1108414	49.47	ug/L	99
17) trans-1,2-Dichloroethy...	61	9.567	9.567	0.750	546083	44.74	ug/L	97
18) Hexane	57	9.994	9.988	0.783	416856	37.32	ug/L	96
19) Vinyl acetate	43	10.317	10.317	0.808	2715137	261.05	ug/L	99
20) 1,1-Dichloroethane	63	10.286	10.286	0.806	704153	45.36	ug/L	100
21) 2-Butanone	72	11.182	11.183	0.876	249029	212.36	ug/L	95
22) cis-1,2-Dichloroethylene	96	11.182	11.183	0.876	389846	48.01	ug/L	96
23) 2,2-Dichloropropane	77	11.195	11.195	0.877	599560	44.84	ug/L	97
24) Bromochloromethane	128	11.548	11.548	0.905	180303	48.38	ug/L	98
25) Chloroform	83	11.627	11.628	0.911	712552	44.71	ug/L	100
26) 1,1,1-Trichloroethane	97	11.920	11.914	0.934	650603	44.62	ug/L	99
27) Cyclohexane	56	11.999	11.999	0.940	597972	46.03	ug/L	99
28) 1,1-Dichloropropene	75	12.127	12.127	0.950	531808	48.08	ug/L	97
29) Carbon tetrachloride	117	12.146	12.146	0.952	593137	44.14	ug/L	100
31) 1,2-Dichloroethane	62	12.444	12.438	0.975	558593	44.45	ug/L	99
32) Benzene	78	12.426	12.426	0.974	1438602	46.37	ug/L	100
33) Cyclohexene	67	12.542	12.548	0.983	653754	41.66	ug/L	99
34) n-Butyl alcohol	56	13.024	13.024	1.021	1030520	4514.28	ug/L	98
35) Trichloroethylene	95	13.225	13.225	1.036	364248	44.85	ug/L	98
36) 2-Pentanone	43	13.395	13.396	1.050	1072515	203.14	ug/L	99
37) 1,2-Dichloropropane	63	13.523	13.524	1.060	356878	45.35	ug/L	100
38) Methylcyclohexane	83	13.475	13.475	1.056	590964	44.60	ug/L	98
39) Dibromomethane	93	13.682	13.682	1.072	225226	45.05	ug/L	97
40) Bromodichloromethane	83	13.834	13.834	1.084	544239	46.51	ug/L	99
41) 2-Chloroethylvinyl ether	63	14.127	14.127	1.107	945554	216.90	ug/L	100
42) cis-1,3-Dichloropropylene	75	14.346	14.353	1.124	637705	50.74	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O112.D
Acq On : 02 Jul 2018 18:05
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-10|ICV|1|VOA|1|VOA8260CL|
Misc : ICV50 5UL/5ML N/A MIX[A]
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 03 07:36:56 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44)	4-Methyl-2-pentanone	58	14.487	14.487	0.888	609791	243.32	ug/L	96
46)	Toluene	91	14.755	14.755	0.904	1348074	47.08	ug/L	99
47)	trans-1,3-Dichloroprop...	75	14.968	14.968	0.917	587142	52.64	ug/L	97
48)	1,1,2-Trichloroethane	83	15.200	15.200	0.932	268745	50.09	ug/L	99
49)	2-Hexanone	58	15.413	15.413	0.945	679061	216.19	ug/L	97
50)	1,3-Dichloropropane	76	15.401	15.401	0.944	506641	47.13	ug/L	95
51)	Tetrachloroethylene	164	15.383	15.383	0.943	266239	43.97	ug/L	99
52)	Dibromochloromethane	129	15.675	15.676	0.961	390421	51.91	ug/L	99
53)	1,2-Dibromoethane	107	15.840	15.840	0.971	323686	51.94	ug/L	99
54)	Chlorobenzene	112	16.352	16.352	1.002	902308	47.77	ug/L	99
55)	1,1,1,2-Tetrachloroethane	131	16.419	16.419	1.006	370207	48.38	ug/L	99
56)	Ethylbenzene	91	16.419	16.425	1.006	1586673	48.02	ug/L	99
57)	m,p-Xylenes	106	16.535	16.541	1.013	1145018	93.68	ug/L	99
58)	o-Xylene	106	16.986	16.986	1.041	615310	50.20	ug/L	98
59)	Styrene	104	16.992	16.992	1.041	1010436	51.88	ug/L	98
61)	Bromoform	173	17.261	17.261	0.919	257318	50.90	ug/L	99
62)	Isopropylbenzene	105	17.358	17.358	0.924	1645251	46.92	ug/L	100
64)	1,1,2,2-Tetrachloroethane	83	17.669	17.663	0.940	437157	47.46	ug/L	99
65)	1,2,3-Trichloropropane	75	17.748	17.748	0.945	416542	45.72	ug/L	97
66)	Bromobenzene	156	17.767	17.767	0.945	409828	47.65	ug/L	99
67)	n-Propylbenzene	91	17.791	17.791	0.947	1890813	45.26	ug/L	99
68)	1,3,5-Trimethylbenzene	105	17.949	17.949	0.955	1327863	43.90	ug/L	99
69)	2-Chlorotoluene	126	17.937	17.937	0.955	359404	43.60	ug/L	96
70)	4-Chlorotoluene	91	18.047	18.041	0.960	1221059	45.73	ug/L	98
71)	tert-Butylbenzene	134	18.321	18.321	0.975	277766	48.36	ug/L	97
72)	1,2,4-Trimethylbenzene	105	18.364	18.364	0.977	1427205	46.03	ug/L	99
73)	sec-Butylbenzene	105	18.547	18.547	0.987	1901271	46.61	ug/L	100
74)	4-Isopropyltoluene	119	18.675	18.675	0.994	1610208	46.97	ug/L	99
75)	1,3-Dichlorobenzene	146	18.730	18.730	0.997	810415	46.37	ug/L	100
76)	1,4-Dichlorobenzene	146	18.821	18.821	1.002	817366	47.21	ug/L	100
77)	n-Butylbenzene	91	19.108	19.108	1.017	1545962	45.17	ug/L	100
78)	1,2-Dichlorobenzene	146	19.242	19.236	1.024	802764	47.58	ug/L	99
79)	1,2-Dibromo-3-chloropr...	157	20.108	20.108	1.070	97232	50.91	ug/L	98
80)	1,2,4-Trichlorobenzene	180	21.113	21.113	1.124	696608	49.52	ug/L	100
81)	Hexachlorobutadiene	225	21.278	21.278	1.132	449813	46.33	ug/L	100
82)	Naphthalene	128	21.497	21.491	1.144	1577882	51.56	ug/L	100
83)	1,2,3-Trichlorobenzene	180	21.827	21.821	1.162	673368	48.31	ug/L	99
85)	Acrolein		7.805	7.927	0.612	0m	N.D.	d	
86)	Trichlorotrifluoroethane		8.177	8.165	0.641	0m	N.D.	d	
87)	Isopropyl Alcohol		8.598	8.464	0.674	0m	N.D.	d	
88)	Allyl chloride		8.665	8.842	0.679	0m	N.D.	d	
89)	tert-Butyl Alcohol		9.219	9.220	0.722	0m	N.D.	d	
90)	Acrylonitrile		9.530	9.531	0.747	0m	N.D.	d	
91)	Isopropyl ether		10.317	10.317	0.808	0m	N.D.	d	
92)	2-Chloro-1,3-butadiene		10.426	10.427	0.817	0m	N.D.	d	
93)	Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.		
94)	Ethyl acetate		11.182	11.225	0.876	0m	N.D.	d	
95)	Propionitrile		11.189	11.305	0.877	0m	N.D.	d	
96)	Methacrylonitrile		11.512	11.512	0.902	0m	N.D.	d	
97)	Tetrahydrofuran		11.621	11.597	0.911	0m	N.D.	d	
98)	Isobutyl alcohol		12.146	12.176	0.952	0m	N.D.	d	
99)	Methyl tert-amyl ether		12.554	12.500	0.984	0m	N.D.	d	
100)	Methyl methacrylate		13.481	13.560	1.056	0m	N.D.	d	
101)	1,4-Dioxane		13.676	13.652	1.072	0m	N.D.	d	
102)	2-Nitropropane		14.017	14.103	1.098	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O112.D
Acq On : 02 Jul 2018 18:05
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-10|ICV|1|VOA|1|VOA8260CL|
Misc : ICV50 5UL/5ML N/A MIX[A]
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 03 07:36:56 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
104) Ethyl methacrylate		14.987	14.987	0.919	0m	N.D.	d
106) 1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108) Cyclohexanone		17.559	17.535	0.934	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		17.724	17.718	0.943	0m	N.D.	d
110) Pentachloroethane		18.388	18.395	0.979	0m	N.D.	d
111) Benzyl chloride		18.943	18.943	1.008	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		19.388	19.346	1.032	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O112.D
Acq On : 02 Jul 2018 18:05
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-10|ICV|1|VOA|1|VOA8260CL|
Misc : ICV50 5UL/5ML N/A MIX[A]
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 03 07:36:56 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Quantitation Report
GEL Laboratories, LLC

JP
07/03/2018

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O113.D
Acq On : 02 Jul 2018 18:36
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-11|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD005 5UL/5ML N/A MIX[B]
ALS Vial : 13 Sample Multiplier: 1

EM
07/03/2018

Quant Time: Jul 03 07:35:14 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.762	12.761	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	0m	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	1416890	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	599478	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	537861	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	0d	0.00	ug/L	
45) Toluene-d8	98	14.676	14.676	0.899	0d	0.00	ug/L	
63) Bromofluorobenzene	95	17.560	17.559	0.934	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane		4.991	4.990	0.391	0m	N.D.		d
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		6.050	6.159	0.474	0m	N.D.		d
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	7.061	0.000	0	N.D.		
8) Ethyl ether		0.000	7.610	0.000	0	N.D.		
9) Acetone		8.250	8.232	0.646	0m	N.D.		d
10) 1,1-Dichloroethylene		0.000	8.177	0.000	0	N.D.		
11) Iodomethane		8.506	8.500	0.667	0m	N.D.		d
12) Acetonitrile		8.848	8.817	0.693	0m	N.D.		d
13) Methyl acetate		8.866	8.854	0.695	0m	N.D.		d
14) Carbon disulfide		8.604	8.665	0.674	0m	N.D.		d
15) Methylene chloride		9.092	9.091	0.712	0m	N.D.		d
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		9.579	9.567	0.751	0m	N.D.		d
18) Hexane		9.988	9.988	0.783	0m	N.D.		d
19) Vinyl acetate		10.317	10.317	0.808	0m	N.D.		d
20) 1,1-Dichloroethane		10.293	10.286	0.807	0m	N.D.		d
21) 2-Butanone		11.189	11.183	0.877	0m	N.D.		d
22) cis-1,2-Dichloroethylene		11.189	11.183	0.877	0m	N.D.		d
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		11.628	11.628	0.911	0m	N.D.		d
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		12.134	12.127	0.951	0m	N.D.		d
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane		12.445	12.438	0.975	0m	N.D.		d
32) Benzene		12.426	12.426	0.974	0m	N.D.		d
33) Cyclohexene		0.000	12.548	0.000	0	N.D.		
34) n-Butyl alcohol		13.036	13.024	1.021	0m	N.D.		d
35) Trichloroethylene		13.219	13.225	1.036	0m	N.D.		d
36) 2-Pentanone		13.402	13.396	1.050	0m	N.D.		d
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		0.000	13.475	0.000	0	N.D.		
39) Dibromomethane		13.688	13.682	1.073	0m	N.D.		d
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		14.353	14.353	1.125	0m	N.D.		d

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O113.D
Acq On : 02 Jul 2018 18:36
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-11|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD005 5UL/5ML N/A MIX[B]
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 03 07:35:14 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44)	4-Methyl-2-pentanone		14.481	14.487	0.888	0m	N.D.	d	
46)	Toluene		14.755	14.755	0.904	0m	N.D.	d	
47)	trans-1,3-Dichloroprop...		14.981	14.968	0.918	0m	N.D.	d	
48)	1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.		
49)	2-Hexanone		15.432	15.413	0.946	0m	N.D.	d	
50)	1,3-Dichloropropane		15.407	15.401	0.944	0m	N.D.	d	
51)	Tetrachloroethylene		15.383	15.383	0.943	0m	N.D.	d	
52)	Dibromochloromethane		15.676	15.676	0.961	0m	N.D.	d	
53)	1,2-Dibromoethane		15.853	15.840	0.972	0m	N.D.	d	
54)	Chlorobenzene		16.346	16.352	1.002	0m	N.D.	d	
55)	1,1,1,2-Tetrachloroethane		16.413	16.419	1.006	0m	N.D.	d	
56)	Ethylbenzene		16.413	16.425	1.006	0m	N.D.	d	
57)	m,p-Xylenes		16.541	16.541	1.014	0m	N.D.	d	
58)	o-Xylene		16.986	16.986	1.041	0m	N.D.	d	
59)	Styrene		16.993	16.992	1.041	0m	N.D.	d	
61)	Bromoform		0.000	17.261	0.000	0	N.D.		
62)	Isopropylbenzene		17.358	17.358	0.924	0m	N.D.	d	
64)	1,1,2,2-Tetrachloroethane		0.000	17.663	0.000	0	N.D.		
65)	1,2,3-Trichloropropane		17.724	17.748	0.943	0m	N.D.	d	
66)	Bromobenzene		17.761	17.767	0.945	0m	N.D.	d	
67)	n-Propylbenzene		17.791	17.791	0.947	0m	N.D.	d	
68)	1,3,5-Trimethylbenzene		17.956	17.949	0.956	0m	N.D.	d	
69)	2-Chlorotoluene		17.937	17.937	0.955	0m	N.D.	d	
70)	4-Chlorotoluene		18.047	18.041	0.960	0m	N.D.	d	
71)	tert-Butylbenzene		18.328	18.321	0.975	0m	N.D.	d	
72)	1,2,4-Trimethylbenzene		18.370	18.364	0.978	0m	N.D.	d	
73)	sec-Butylbenzene		18.553	18.547	0.987	0m	N.D.	d	
74)	4-Isopropyltoluene		18.675	18.675	0.994	0m	N.D.	d	
75)	1,3-Dichlorobenzene		18.730	18.730	0.997	0m	N.D.	d	
76)	1,4-Dichlorobenzene		18.821	18.821	1.002	0m	N.D.	d	
77)	n-Butylbenzene		19.108	19.108	1.017	0m	N.D.	d	
78)	1,2-Dichlorobenzene		19.236	19.236	1.024	0m	N.D.	d	
79)	1,2-Dibromo-3-chloropr...		20.108	20.108	1.070	0m	N.D.	d	
80)	1,2,4-Trichlorobenzene		21.114	21.113	1.124	0m	N.D.	d	
81)	Hexachlorobutadiene		21.272	21.278	1.132	0m	N.D.	d	
82)	Naphthalene		21.498	21.491	1.144	0m	N.D.	d	
83)	1,2,3-Trichlorobenzene		21.827	21.821	1.162	0m	N.D.	d	
85)	Acrolein	56	7.946	7.927	0.623	4853	3.46	ug/L	82
86)	Trichlorotrifluoroethane	101	8.165	8.165	0.640	47034	4.68	ug/L	98
87)	Isopropyl Alcohol	45	8.476	8.464	0.664	25044	40.47	ug/L	91
88)	Allyl chloride	76	8.854	8.842	0.694	19581	4.30	ug/L #	83
89)	tert-Butyl Alcohol	59	9.220	9.220	0.722	37207	36.57	ug/L	88
90)	Acrylonitrile	53	9.543	9.531	0.748	11667	4.39	ug/L	95
91)	Isopropyl ether	45	10.323	10.317	0.809	21670	0.88	ug/L	79
92)	2-Chloro-1,3-butadiene	53	10.433	10.427	0.818	10137	0.85	ug/L	95
93)	Ethyl tert-butyl ether	59	10.896	10.890	0.854	20863	0.84	ug/L	98
94)	Ethyl acetate	43	11.225	11.225	0.880	33719	4.81	ug/L	97
95)	Propionitrile	54	11.317	11.305	0.887	4839	4.54	ug/L	82
96)	Methacrylonitrile	67	11.518	11.512	0.903	11934	4.07	ug/L	96
97)	Tetrahydrofuran	42	11.616	11.597	0.910	11951	5.14	ug/L	91
98)	Isobutyl alcohol	43	12.170	12.176	0.954	13822	37.91	ug/L	98
99)	Methyl tert-amyl ether	73	12.493	12.500	0.979	19316	0.85	ug/L	94
100)	Methyl methacrylate	69	13.566	13.560	1.063	17229	3.79	ug/L	99
101)	1,4-Dioxane	88	13.658	13.652	1.070	3894	42.85	ug/L	88
102)	2-Nitropropane	43	14.103	14.103	1.105	7038	6.03	ug/L	85

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O113.D
Acq On : 02 Jul 2018 18:36
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-11|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD005 5UL/5ML N/A MIX[B]
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 03 07:35:14 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
104) Ethyl methacrylate	69	14.987	14.987	0.919	34068	4.03	ug/L	99
106) 1-Chlorohexane	91	16.230	16.231	0.864	7418	0.86	ug/L	97
107) cis-1,4-Dichloro-2-butene	53	17.425	17.425	0.927	11015	4.08	ug/L	81
108) Cyclohexanone	55	17.535	17.535	0.933	5945	26.22	ug/L	82
109) trans-1,4-Dichloro-2-b...	53	17.718	17.718	0.943	9418	3.87	ug/L	96
110) Pentachloroethane	167	18.395	18.395	0.979	24249	4.43	ug/L	84
111) Benzyl chloride	91	18.949	18.943	1.008	58434	4.17	ug/L	98
112) bis(2-Chloroisopropyl)...	45	19.352	19.346	1.030	19091	4.69	ug/L	88

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O113.D
Acq On : 02 Jul 2018 18:36
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-11|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD005 5UL/5ML N/A MIX[B]
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 03 07:35:14 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Quantitation Report
GEL Laboratories, LLC

JP
07/03/2018

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O114.D
Acq On : 02 Jul 2018 19:07
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-12|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD010 5UL/5ML N/A MIX[B]
ALS Vial : 14 Sample Multiplier: 1

EM
07/03/2018

Quant Time: Jul 03 07:35:16 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.762	12.761	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	0m	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	1355117	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	576180	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	524817	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	0d	0.00	ug/L	
45) Toluene-d8	98	14.676	14.676	0.899	0d	0.00	ug/L	
63) Bromofluorobenzene	95	17.560	17.559	0.934	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane		4.972	4.990	0.390	0m	N.D.	d	
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		6.050	6.159	0.474	0m	N.D.	d	
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	7.061	0.000	0	N.D.		
8) Ethyl ether		0.000	7.610	0.000	0	N.D.		
9) Acetone		8.238	8.232	0.646	0m	N.D.	d	
10) 1,1-Dichloroethylene		0.000	8.177	0.000	0	N.D.		
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile		8.848	8.817	0.693	0m	N.D.	d	
13) Methyl acetate		8.848	8.854	0.693	0m	N.D.	d	
14) Carbon disulfide		8.592	8.665	0.673	0m	N.D.	d	
15) Methylene chloride		9.092	9.091	0.712	0m	N.D.	d	
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane		9.994	9.988	0.783	0m	N.D.	d	
19) Vinyl acetate		10.317	10.317	0.808	0m	N.D.	d	
20) 1,1-Dichloroethane		0.000	10.286	0.000	0	N.D.		
21) 2-Butanone		0.000	11.183	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		11.616	11.628	0.910	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	12.127	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane		12.439	12.438	0.975	0m	N.D.	d	
32) Benzene		12.420	12.426	0.973	0m	N.D.	d	
33) Cyclohexene		12.475	12.548	0.978	0m	N.D.	d	
34) n-Butyl alcohol		13.030	13.024	1.021	0m	N.D.	d	
35) Trichloroethylene		0.000	13.225	0.000	0	N.D.		
36) 2-Pentanone		13.408	13.396	1.051	0m	N.D.	d	
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		0.000	13.475	0.000	0	N.D.		
39) Dibromomethane		0.000	13.682	0.000	0	N.D.		
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		14.353	14.353	1.125	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O114.D
Acq On : 02 Jul 2018 19:07
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-12|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD010 5UL/5ML N/A MIX[B]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 03 07:35:16 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44)	4-Methyl-2-pentanone		0.000	14.487	0.000	0	N.D.		
46)	Toluene		14.749	14.755	0.904	0m	N.D.	d	
47)	trans-1,3-Dichloroprop...		14.975	14.968	0.918	0m	N.D.	d	
48)	1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.		
49)	2-Hexanone		15.420	15.413	0.945	0m	N.D.	d	
50)	1,3-Dichloropropane		15.395	15.401	0.944	0m	N.D.	d	
51)	Tetrachloroethylene		15.383	15.383	0.943	0m	N.D.	d	
52)	Dibromochloromethane		0.000	15.676	0.000	0	N.D.		
53)	1,2-Dibromoethane		15.840	15.840	0.971	0m	N.D.	d	
54)	Chlorobenzene		16.352	16.352	1.002	0m	N.D.	d	
55)	1,1,1,2-Tetrachloroethane		0.000	16.419	0.000	0	N.D.		
56)	Ethylbenzene		16.420	16.425	1.006	0m	N.D.	d	
57)	m,p-Xylenes		16.541	16.541	1.014	0m	N.D.	d	
58)	o-Xylene		16.986	16.986	1.041	0m	N.D.	d	
59)	Styrene		16.993	16.992	1.041	0m	N.D.	d	
61)	Bromoform		0.000	17.261	0.000	0	N.D.		
62)	Isopropylbenzene		17.352	17.358	0.923	0m	N.D.	d	
64)	1,1,2,2-Tetrachloroethane		0.000	17.663	0.000	0	N.D.		
65)	1,2,3-Trichloropropane		17.718	17.748	0.943	0m	N.D.	d	
66)	Bromobenzene		17.767	17.767	0.945	0m	N.D.	d	
67)	n-Propylbenzene		17.797	17.791	0.947	0m	N.D.	d	
68)	1,3,5-Trimethylbenzene		17.950	17.949	0.955	0m	N.D.	d	
69)	2-Chlorotoluene		17.944	17.937	0.955	0m	N.D.	d	
70)	4-Chlorotoluene		18.041	18.041	0.960	0m	N.D.	d	
71)	tert-Butylbenzene		18.389	18.321	0.979	0m	N.D.	d	
72)	1,2,4-Trimethylbenzene		18.370	18.364	0.978	0m	N.D.	d	
73)	sec-Butylbenzene		18.547	18.547	0.987	0m	N.D.	d	
74)	4-Isopropyltoluene		18.675	18.675	0.994	0m	N.D.	d	
75)	1,3-Dichlorobenzene		18.736	18.730	0.997	0m	N.D.	d	
76)	1,4-Dichlorobenzene		18.815	18.821	1.001	0m	N.D.	d	
77)	n-Butylbenzene		19.108	19.108	1.017	0m	N.D.	d	
78)	1,2-Dichlorobenzene		19.242	19.236	1.024	0m	N.D.	d	
79)	1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.		
80)	1,2,4-Trichlorobenzene		21.120	21.113	1.124	0m	N.D.	d	
81)	Hexachlorobutadiene		21.278	21.278	1.132	0m	N.D.	d	
82)	Naphthalene		21.492	21.491	1.144	0m	N.D.	d	
83)	1,2,3-Trichlorobenzene		21.821	21.821	1.161	0m	N.D.	d	
85)	Acrolein	56	7.933	7.927	0.622	13120	9.78	ug/L	99
86)	Trichlorotrifluoroethane	101	8.165	8.165	0.640	92858	9.67	ug/L	98
87)	Isopropyl Alcohol	45	8.470	8.464	0.664	55975	94.57	ug/L	90
88)	Allyl chloride	76	8.836	8.842	0.692	41877	9.61	ug/L	97
89)	tert-Butyl Alcohol	59	9.220	9.220	0.722	92653	95.22	ug/L	95
90)	Acrylonitrile	53	9.537	9.531	0.747	24318	9.56	ug/L	98
91)	Isopropyl ether	45	10.323	10.317	0.809	43399	1.84	ug/L	94
92)	2-Chloro-1,3-butadiene	53	10.433	10.427	0.818	19434	1.71	ug/L	100
93)	Ethyl tert-butyl ether	59	10.884	10.890	0.853	43125	1.82	ug/L	98
94)	Ethyl acetate	43	11.225	11.225	0.880	66133	9.87	ug/L	100
95)	Propionitrile	54	11.305	11.305	0.886	9900	9.72	ug/L	95
96)	Methacrylonitrile	67	11.512	11.512	0.902	28081	10.02	ug/L	99
97)	Tetrahydrofuran	42	11.609	11.597	0.910	23121	10.40	ug/L	98
98)	Isobutyl alcohol	43	12.183	12.176	0.955	32107	92.07	ug/L	96
99)	Methyl tert-amyl ether	73	12.493	12.500	0.979	39612	1.82	ug/L	94
100)	Methyl methacrylate	69	13.560	13.560	1.063	39210	9.01	ug/L	97
101)	1,4-Dioxane	88	13.652	13.652	1.070	7947	91.43	ug/L	92
102)	2-Nitropropane	43	14.103	14.103	1.105	15931	9.73	ug/L	92

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O114.D
Acq On : 02 Jul 2018 19:07
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-12|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD010 5UL/5ML N/A MIX[B]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 03 07:35:16 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
104) Ethyl methacrylate	69	14.993	14.987	0.919	75463	9.30	ug/L	99
106) 1-Chlorohexane	91	16.231	16.231	0.864	14104	1.67	ug/L	99
107) cis-1,4-Dichloro-2-butene	53	17.425	17.425	0.927	23228	8.81	ug/L	87
108) Cyclohexanone	55	17.535	17.535	0.933	11152	50.41	ug/L	95
109) trans-1,4-Dichloro-2-b...	53	17.718	17.718	0.943	22963	9.68	ug/L	91
110) Pentachloroethane	167	18.395	18.395	0.979	49502	9.27	ug/L	86
111) Benzyl chloride	91	18.943	18.943	1.008	122825	8.99	ug/L	100
112) bis(2-Chloroisopropyl)...	45	19.346	19.346	1.030	37987	9.56	ug/L	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O114.D
Acq On : 02 Jul 2018 19:07
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-12|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD010 5UL/5ML N/A MIX[B]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 03 07:35:16 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Quantitation Report
GEL Laboratories, LLC

JP
07/03/2018

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O115.D
Acq On : 02 Jul 2018 19:38
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-13|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD025 5UL/5ML N/A MIX[B]
ALS Vial : 15 Sample Multiplier: 1

GEL
07/03/2018

Quant Time: Jul 03 07:35:18 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.762	12.761	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	0m	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	1303275	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	567054	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	506747	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	0d	0.00	ug/L	
45) Toluene-d8	98	14.676	14.676	0.899	0d	0.00	ug/L	
63) Bromofluorobenzene	95	17.559	17.559	0.934	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane		4.972	4.990	0.390	0m	N.D.	d	
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		5.922	6.159	0.464	0m	N.D.	d	
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	7.061	0.000	0	N.D.		
8) Ethyl ether		0.000	7.610	0.000	0	N.D.		
9) Acetone		8.470	8.232	0.664	0m	N.D.	d	
10) 1,1-Dichloroethylene		0.000	8.177	0.000	0	N.D.		
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile		8.842	8.817	0.693	0m	N.D.	d	
13) Methyl acetate		8.836	8.854	0.692	0m	N.D.	d	
14) Carbon disulfide		8.848	8.665	0.693	0m	N.D.	d	
15) Methylene chloride		9.085	9.091	0.712	0m	N.D.	d	
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane		9.988	9.988	0.783	0m	N.D.	d	
19) Vinyl acetate		10.323	10.317	0.809	0m	N.D.	d	
20) 1,1-Dichloroethane		10.415	10.286	0.816	0m	N.D.	d	
21) 2-Butanone		0.000	11.183	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		0.000	11.628	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	12.127	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane		12.457	12.438	0.976	0m	N.D.	d	
32) Benzene		12.432	12.426	0.974	0m	N.D.	d	
33) Cyclohexene		12.506	12.548	0.980	0m	N.D.	d	
34) n-Butyl alcohol		13.048	13.024	1.022	0m	N.D.	d	
35) Trichloroethylene		13.225	13.225	1.036	0m	N.D.	d	
36) 2-Pentanone		13.408	13.396	1.051	0m	N.D.	d	
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		13.566	13.475	1.063	0m	N.D.	d	
39) Dibromomethane		0.000	13.682	0.000	0	N.D.		
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		0.000	14.353	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O115.D
Acq On : 02 Jul 2018 19:38
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-13|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD025 5UL/5ML N/A MIX[B]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 03 07:35:18 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44)	4-Methyl-2-pentanone		0.000	14.487	0.000	0	N.D.		
46)	Toluene		14.749	14.755	0.904	0m	N.D.	d	
47)	trans-1,3-Dichloroprop...		14.975	14.968	0.918	0m	N.D.	d	
48)	1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.		
49)	2-Hexanone		0.000	15.413	0.000	0	N.D.		
50)	1,3-Dichloropropane		0.000	15.401	0.000	0	N.D.		
51)	Tetrachloroethylene		15.383	15.383	0.943	0m	N.D.	d	
52)	Dibromochloromethane		0.000	15.676	0.000	0	N.D.		
53)	1,2-Dibromoethane		0.000	15.840	0.000	0	N.D.		
54)	Chlorobenzene		16.358	16.352	1.003	0m	N.D.	d	
55)	1,1,1,2-Tetrachloroethane		0.000	16.419	0.000	0	N.D.		
56)	Ethylbenzene		16.419	16.425	1.006	0m	N.D.	d	
57)	m,p-Xylenes		16.535	16.541	1.013	0m	N.D.	d	
58)	o-Xylene		16.993	16.986	1.041	0m	N.D.	d	
59)	Styrene		17.005	16.992	1.042	0m	N.D.	d	
61)	Bromoform		0.000	17.261	0.000	0	N.D.		
62)	Isopropylbenzene		17.358	17.358	0.924	0m	N.D.	d	
64)	1,1,2,2-Tetrachloroethane		17.535	17.663	0.933	0m	N.D.	d	
65)	1,2,3-Trichloropropane		17.718	17.748	0.943	0m	N.D.	d	
66)	Bromobenzene		17.773	17.767	0.946	0m	N.D.	d	
67)	n-Propylbenzene		17.791	17.791	0.947	0m	N.D.	d	
68)	1,3,5-Trimethylbenzene		17.944	17.949	0.955	0m	N.D.	d	
69)	2-Chlorotoluene		17.931	17.937	0.954	0m	N.D.	d	
70)	4-Chlorotoluene		18.041	18.041	0.960	0m	N.D.	d	
71)	tert-Butylbenzene		18.395	18.321	0.979	0m	N.D.	d	
72)	1,2,4-Trimethylbenzene		18.364	18.364	0.977	0m	N.D.	d	
73)	sec-Butylbenzene		18.553	18.547	0.987	0m	N.D.	d	
74)	4-Isopropyltoluene		18.675	18.675	0.994	0m	N.D.	d	
75)	1,3-Dichlorobenzene		18.736	18.730	0.997	0m	N.D.	d	
76)	1,4-Dichlorobenzene		18.821	18.821	1.002	0m	N.D.	d	
77)	n-Butylbenzene		19.114	19.108	1.017	0m	N.D.	d	
78)	1,2-Dichlorobenzene		19.248	19.236	1.024	0m	N.D.	d	
79)	1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.		
80)	1,2,4-Trichlorobenzene		21.114	21.113	1.124	0m	N.D.	d	
81)	Hexachlorobutadiene		21.278	21.278	1.132	0m	N.D.	d	
82)	Naphthalene		21.498	21.491	1.144	0m	N.D.	d	
83)	1,2,3-Trichlorobenzene		21.821	21.821	1.161	0m	N.D.	d	
85)	Acrolein	56	7.939	7.927	0.622	29689	23.01	ug/L	99
86)	Trichlorotrifluoroethane	101	8.165	8.165	0.640	234123	25.34	ug/L	98
87)	Isopropyl Alcohol	45	8.470	8.464	0.664	133287	234.15	ug/L	93
88)	Allyl chloride	76	8.848	8.842	0.693	104491	24.93	ug/L	96
89)	tert-Butyl Alcohol	59	9.226	9.220	0.723	225214	240.67	ug/L	95
90)	Acrylonitrile	53	9.537	9.531	0.747	61521	25.15	ug/L	99
91)	Isopropyl ether	45	10.317	10.317	0.808	111455	4.91	ug/L	97
92)	2-Chloro-1,3-butadiene	53	10.427	10.427	0.817	51858	4.75	ug/L	100
93)	Ethyl tert-butyl ether	59	10.890	10.890	0.853	111209	4.87	ug/L	99
94)	Ethyl acetate	43	11.225	11.225	0.880	161808	25.10	ug/L	98
95)	Propionitrile	54	11.305	11.305	0.886	23842	24.34	ug/L	97
96)	Methacrylonitrile	67	11.512	11.512	0.902	68215	25.30	ug/L	98
97)	Tetrahydrofuran	42	11.603	11.597	0.909	50136	23.44	ug/L	97
98)	Isobutyl alcohol	43	12.176	12.176	0.954	79333	236.55	ug/L	95
99)	Methyl tert-amyl ether	73	12.493	12.500	0.979	104716	4.99	ug/L	96
100)	Methyl methacrylate	69	13.560	13.560	1.063	105893	25.30	ug/L	99
101)	1,4-Dioxane	88	13.658	13.652	1.070	20238	242.09	ug/L	97
102)	2-Nitropropane	43	14.109	14.103	1.106	44101	21.76	ug/L	95

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O115.D
Acq On : 02 Jul 2018 19:38
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-13|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD025 5UL/5ML N/A MIX[B]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 03 07:35:18 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
104) Ethyl methacrylate	69	14.987	14.987	0.919	203830	25.52	ug/L	99
106) 1-Chlorohexane	91	16.230	16.231	0.864	40161	4.93	ug/L	99
107) cis-1,4-Dichloro-2-butene	53	17.425	17.425	0.927	62803	24.68	ug/L	89
108) Cyclohexanone	55	17.535	17.535	0.933	24247	113.52	ug/L	95
109) trans-1,4-Dichloro-2-b...	53	17.718	17.718	0.943	58751	25.66	ug/L	93
110) Pentachloroethane	167	18.395	18.395	0.979	127815	24.78	ug/L	94
111) Benzyl chloride	91	18.943	18.943	1.008	323925	24.55	ug/L	99
112) bis(2-Chloroisopropyl)...	45	19.346	19.346	1.030	92573	24.12	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O115.D
Acq On : 02 Jul 2018 19:38
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-13|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD025 5UL/5ML N/A MIX[B]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 03 07:35:18 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Quantitation Report
GEL Laboratories, LLC

JP
07/03/2018

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O116.D
Acq On : 02 Jul 2018 20:10
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-14|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD050 5UL/5ML N/A MIX[B]
ALS Vial : 16 Sample Multiplier: 1

GEL
07/03/2018

Quant Time: Jul 03 07:35:20 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.762	12.761	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	0m	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	1244994	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	534413	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	494797	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	0d	0.00	ug/L	
45) Toluene-d8	98	14.676	14.676	0.899	0d	0.00	ug/L	
63) Bromofluorobenzene	95	17.560	17.559	0.934	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane		4.972	4.990	0.390	0m	N.D.	d	
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		0.000	6.159	0.000	0	N.D.		
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	7.061	0.000	0	N.D.		
8) Ethyl ether		0.000	7.610	0.000	0	N.D.		
9) Acetone		8.171	8.232	0.640	0m	N.D.	d	
10) 1,1-Dichloroethylene		8.171	8.177	0.640	0m	N.D.	d	
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile		8.848	8.817	0.693	0m	N.D.	d	
13) Methyl acetate		8.848	8.854	0.693	0m	N.D.	d	
14) Carbon disulfide		8.854	8.665	0.694	0m	N.D.	d	
15) Methylene chloride		9.098	9.091	0.713	0m	N.D.	d	
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane		9.988	9.988	0.783	0m	N.D.	d	
19) Vinyl acetate		10.323	10.317	0.809	0m	N.D.	d	
20) 1,1-Dichloroethane		10.433	10.286	0.818	0m	N.D.	d	
21) 2-Butanone		0.000	11.183	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		11.634	11.628	0.912	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		12.176	12.127	0.954	0m	N.D.	d	
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane		12.445	12.438	0.975	0m	N.D.	d	
32) Benzene		12.420	12.426	0.973	0m	N.D.	d	
33) Cyclohexene		12.493	12.548	0.979	0m	N.D.	d	
34) n-Butyl alcohol		13.036	13.024	1.021	0m	N.D.	d	
35) Trichloroethylene		13.225	13.225	1.036	0m	N.D.	d	
36) 2-Pentanone		13.420	13.396	1.052	0m	N.D.	d	
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		13.548	13.475	1.062	0m	N.D.	d	
39) Dibromomethane		0.000	13.682	0.000	0	N.D.		
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		0.000	14.353	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O116.D
Acq On : 02 Jul 2018 20:10
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-14|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD050 5UL/5ML N/A MIX[B]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 03 07:35:20 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44)	4-Methyl-2-pentanone		0.000	14.487	0.000	0	N.D.		
46)	Toluene		14.755	14.755	0.904	0m	N.D.	d	
47)	trans-1,3-Dichloroprop...		14.975	14.968	0.918	0m	N.D.	d	
48)	1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.		
49)	2-Hexanone		15.438	15.413	0.946	0m	N.D.	d	
50)	1,3-Dichloropropane		0.000	15.401	0.000	0	N.D.		
51)	Tetrachloroethylene		15.383	15.383	0.943	0m	N.D.	d	
52)	Dibromochloromethane		0.000	15.676	0.000	0	N.D.		
53)	1,2-Dibromoethane		15.840	15.840	0.971	0m	N.D.	d	
54)	Chlorobenzene		16.346	16.352	1.002	0m	N.D.	d	
55)	1,1,1,2-Tetrachloroethane		0.000	16.419	0.000	0	N.D.		
56)	Ethylbenzene		16.426	16.425	1.007	0m	N.D.	d	
57)	m,p-Xylenes		16.541	16.541	1.014	0m	N.D.	d	
58)	o-Xylene		0.000	16.986	0.000	0	N.D.		
59)	Styrene		16.999	16.992	1.042	0m	N.D.	d	
61)	Bromoform		0.000	17.261	0.000	0	N.D.		
62)	Isopropylbenzene		17.358	17.358	0.924	0m	N.D.	d	
64)	1,1,2,2-Tetrachloroethane		17.535	17.663	0.933	0m	N.D.	d	
65)	1,2,3-Trichloropropane		17.718	17.748	0.943	0m	N.D.	d	
66)	Bromobenzene		17.761	17.767	0.945	0m	N.D.	d	
67)	n-Propylbenzene		17.785	17.791	0.946	0m	N.D.	d	
68)	1,3,5-Trimethylbenzene		17.956	17.949	0.956	0m	N.D.	d	
69)	2-Chlorotoluene		17.944	17.937	0.955	0m	N.D.	d	
70)	4-Chlorotoluene		18.041	18.041	0.960	0m	N.D.	d	
71)	tert-Butylbenzene		18.395	18.321	0.979	0m	N.D.	d	
72)	1,2,4-Trimethylbenzene		18.370	18.364	0.978	0m	N.D.	d	
73)	sec-Butylbenzene		18.547	18.547	0.987	0m	N.D.	d	
74)	4-Isopropyltoluene		18.675	18.675	0.994	0m	N.D.	d	
75)	1,3-Dichlorobenzene		18.730	18.730	0.997	0m	N.D.	d	
76)	1,4-Dichlorobenzene		18.822	18.821	1.002	0m	N.D.	d	
77)	n-Butylbenzene		19.108	19.108	1.017	0m	N.D.	d	
78)	1,2-Dichlorobenzene		19.242	19.236	1.024	0m	N.D.	d	
79)	1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.		
80)	1,2,4-Trichlorobenzene		21.126	21.113	1.124	0m	N.D.	d	
81)	Hexachlorobutadiene		21.272	21.278	1.132	0m	N.D.	d	
82)	Naphthalene		21.498	21.491	1.144	0m	N.D.	d	
83)	1,2,3-Trichlorobenzene		21.827	21.821	1.162	0m	N.D.	d	
85)	Acrolein	56	7.933	7.927	0.622	65018	52.76	ug/L	98
86)	Trichlorotrifluoroethane	101	8.171	8.165	0.640	444321	50.34	ug/L	99
87)	Isopropyl Alcohol	45	8.470	8.464	0.664	280970	516.70	ug/L	94
88)	Allyl chloride	76	8.854	8.842	0.694	210576	52.59	ug/L	98
89)	tert-Butyl Alcohol	59	9.226	9.220	0.723	481446	538.57	ug/L	97
90)	Acrylonitrile	53	9.531	9.531	0.747	122265	52.33	ug/L	100
91)	Isopropyl ether	45	10.323	10.317	0.809	218967	10.09	ug/L	99
92)	2-Chloro-1,3-butadiene	53	10.427	10.427	0.817	102714	9.85	ug/L	98
93)	Ethyl tert-butyl ether	59	10.890	10.890	0.853	216576	9.93	ug/L	99
94)	Ethyl acetate	43	11.225	11.225	0.880	328290	53.31	ug/L	99
95)	Propionitrile	54	11.305	11.305	0.886	48291	51.61	ug/L	98
96)	Methacrylonitrile	67	11.512	11.512	0.902	131401	51.01	ug/L	98
97)	Tetrahydrofuran	42	11.603	11.597	0.909	104508	51.16	ug/L	99
98)	Isobutyl alcohol	43	12.176	12.176	0.954	167830	523.84	ug/L	97
99)	Methyl tert-amyl ether	73	12.493	12.500	0.979	201961	10.08	ug/L	98
100)	Methyl methacrylate	69	13.560	13.560	1.063	211765	52.96	ug/L	99
101)	1,4-Dioxane	88	13.652	13.652	1.070	41491	519.55	ug/L	99
102)	2-Nitropropane	43	14.103	14.103	1.105	97872	46.16	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O116.D
Acq On : 02 Jul 2018 20:10
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-14|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD050 5UL/5ML N/A MIX[B]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 03 07:35:20 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
104) Ethyl methacrylate	69	14.987	14.987	0.919	409209	54.36	ug/L	99
106) 1-Chlorohexane	91	16.231	16.231	0.864	73351	9.21	ug/L	96
107) cis-1,4-Dichloro-2-butene	53	17.425	17.425	0.927	122599	49.34	ug/L	94
108) Cyclohexanone	55	17.535	17.535	0.933	52075	249.69	ug/L	99
109) trans-1,4-Dichloro-2-b...	53	17.718	17.718	0.943	119568	53.48	ug/L	95
110) Pentachloroethane	167	18.395	18.395	0.979	259026	51.44	ug/L	96
111) Benzyl chloride	91	18.943	18.943	1.008	706817	54.85	ug/L	99
112) bis(2-Chloroisopropyl)...	45	19.346	19.346	1.030	184647	49.27	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O116.D
Acq On : 02 Jul 2018 20:10
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-14|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD050 5UL/5ML N/A MIX[B]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 03 07:35:20 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Quantitation Report
GEL Laboratories, LLC

JP
07/03/2018

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O117.D
Acq On : 02 Jul 2018 20:41
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-15|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD100 5UL/5ML N/A MIX[B]
ALS Vial : 17 Sample Multiplier: 1

EM
07/03/2018

Quant Time: Jul 03 07:35:22 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.762	12.761	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	0m	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	1181618	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	520186	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	464461	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	0d	0.00	ug/L	
45) Toluene-d8	98	14.676	14.676	0.899	0d	0.00	ug/L	
63) Bromofluorobenzene	95	17.559	17.559	0.934	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane		4.991	4.990	0.391	0m	N.D.	d	
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		0.000	6.159	0.000	0	N.D.		
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	7.061	0.000	0	N.D.		
8) Ethyl ether		0.000	7.610	0.000	0	N.D.		
9) Acetone		8.165	8.232	0.640	0m	N.D.	d	
10) 1,1-Dichloroethylene		8.159	8.177	0.639	0m	N.D.	d	
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile		8.848	8.817	0.693	0m	N.D.	d	
13) Methyl acetate		8.842	8.854	0.693	0m	N.D.	d	
14) Carbon disulfide		8.848	8.665	0.693	0m	N.D.	d	
15) Methylene chloride		9.085	9.091	0.712	0m	N.D.	d	
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane		9.994	9.988	0.783	0m	N.D.	d	
19) Vinyl acetate		10.317	10.317	0.808	0m	N.D.	d	
20) 1,1-Dichloroethane		10.421	10.286	0.817	0m	N.D.	d	
21) 2-Butanone		0.000	11.183	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		11.621	11.628	0.911	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		12.176	12.127	0.954	0m	N.D.	d	
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane		12.438	12.438	0.975	0m	N.D.	d	
32) Benzene		12.420	12.426	0.973	0m	N.D.	d	
33) Cyclohexene		12.487	12.548	0.979	0m	N.D.	d	
34) n-Butyl alcohol		13.036	13.024	1.021	0m	N.D.	d	
35) Trichloroethylene		13.225	13.225	1.036	0m	N.D.	d	
36) 2-Pentanone		13.402	13.396	1.050	0m	N.D.	d	
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		13.560	13.475	1.063	0m	N.D.	d	
39) Dibromomethane		0.000	13.682	0.000	0	N.D.		
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		0.000	14.353	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O117.D
Acq On : 02 Jul 2018 20:41
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-15|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD100 5UL/5ML N/A MIX[B]
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 03 07:35:22 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44)	4-Methyl-2-pentanone		0.000	14.487	0.000	0	N.D.		
46)	Toluene		14.755	14.755	0.904	0m	N.D.	d	
47)	trans-1,3-Dichloroprop...		14.981	14.968	0.918	0m	N.D.	d	
48)	1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.		
49)	2-Hexanone		0.000	15.413	0.000	0	N.D.		
50)	1,3-Dichloropropane		0.000	15.401	0.000	0	N.D.		
51)	Tetrachloroethylene		15.389	15.383	0.943	0m	N.D.	d	
52)	Dibromochloromethane		0.000	15.676	0.000	0	N.D.		
53)	1,2-Dibromoethane		15.840	15.840	0.971	0m	N.D.	d	
54)	Chlorobenzene		16.358	16.352	1.003	0m	N.D.	d	
55)	1,1,1,2-Tetrachloroethane		0.000	16.419	0.000	0	N.D.		
56)	Ethylbenzene		16.419	16.425	1.006	0m	N.D.	d	
57)	m,p-Xylenes		16.535	16.541	1.013	0m	N.D.	d	
58)	o-Xylene		0.000	16.986	0.000	0	N.D.		
59)	Styrene		16.992	16.992	1.041	0m	N.D.	d	
61)	Bromoform		0.000	17.261	0.000	0	N.D.		
62)	Isopropylbenzene		17.358	17.358	0.924	0m	N.D.	d	
64)	1,1,2,2-Tetrachloroethane		17.535	17.663	0.933	0m	N.D.	d	
65)	1,2,3-Trichloropropane		17.718	17.748	0.943	0m	N.D.	d	
66)	Bromobenzene		17.761	17.767	0.945	0m	N.D.	d	
67)	n-Propylbenzene		17.785	17.791	0.946	0m	N.D.	d	
68)	1,3,5-Trimethylbenzene		17.943	17.949	0.955	0m	N.D.	d	
69)	2-Chlorotoluene		17.937	17.937	0.955	0m	N.D.	d	
70)	4-Chlorotoluene		18.047	18.041	0.960	0m	N.D.	d	
71)	tert-Butylbenzene		18.395	18.321	0.979	0m	N.D.	d	
72)	1,2,4-Trimethylbenzene		18.358	18.364	0.977	0m	N.D.	d	
73)	sec-Butylbenzene		18.553	18.547	0.987	0m	N.D.	d	
74)	4-Isopropyltoluene		18.669	18.675	0.994	0m	N.D.	d	
75)	1,3-Dichlorobenzene		18.730	18.730	0.997	0m	N.D.	d	
76)	1,4-Dichlorobenzene		18.815	18.821	1.001	0m	N.D.	d	
77)	n-Butylbenzene		19.102	19.108	1.017	0m	N.D.	d	
78)	1,2-Dichlorobenzene		19.242	19.236	1.024	0m	N.D.	d	
79)	1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.		
80)	1,2,4-Trichlorobenzene		21.107	21.113	1.123	0m	N.D.	d	
81)	Hexachlorobutadiene		21.272	21.278	1.132	0m	N.D.	d	
82)	Naphthalene		21.492	21.491	1.144	0m	N.D.	d	
83)	1,2,3-Trichlorobenzene		21.827	21.821	1.162	0m	N.D.	d	
85)	Acrolein	56	7.927	7.927	0.621	130917	111.93	ug/L	98
86)	Trichlorotrifluoroethane	101	8.159	8.165	0.639	871617	104.06	ug/L	99
87)	Isopropyl Alcohol	45	8.470	8.464	0.664	572082	1108.48	ug/L	97
88)	Allyl chloride	76	8.848	8.842	0.693	405104	106.60	ug/L	98
89)	tert-Butyl Alcohol	59	9.220	9.220	0.722	959250	1130.62	ug/L	98
90)	Acrylonitrile	53	9.530	9.531	0.747	228710	103.13	ug/L	100
91)	Isopropyl ether	45	10.323	10.317	0.809	443743	21.55	ug/L	99
92)	2-Chloro-1,3-butadiene	53	10.427	10.427	0.817	208446	21.05	ug/L	99
93)	Ethyl tert-butyl ether	59	10.890	10.890	0.853	460718	22.25	ug/L	100
94)	Ethyl acetate	43	11.219	11.225	0.879	650737	111.34	ug/L	99
95)	Propionitrile	54	11.305	11.305	0.886	95534	107.57	ug/L	100
96)	Methacrylonitrile	67	11.512	11.512	0.902	265455	108.58	ug/L	96
97)	Tetrahydrofuran	42	11.597	11.597	0.909	206720	106.62	ug/L	98
98)	Isobutyl alcohol	43	12.176	12.176	0.954	347693	1143.45	ug/L	98
99)	Methyl tert-amyl ether	73	12.499	12.500	0.979	401919	21.14	ug/L	98
100)	Methyl methacrylate	69	13.560	13.560	1.063	428530	112.93	ug/L	99
101)	1,4-Dioxane	88	13.658	13.652	1.070	81018	1068.93	ug/L	97
102)	2-Nitropropane	43	14.103	14.103	1.105	207529	99.01	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O117.D
Acq On : 02 Jul 2018 20:41
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-15|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD100 5UL/5ML N/A MIX[B]
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 03 07:35:22 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
104) Ethyl methacrylate	69	14.987	14.987	0.919	784311	107.03	ug/L	99
106) 1-Chlorohexane	91	16.230	16.231	0.864	159505	21.34	ug/L	98
107) cis-1,4-Dichloro-2-butene	53	17.425	17.425	0.927	256003	109.76	ug/L	98
108) Cyclohexanone	55	17.535	17.535	0.933	105780	540.32	ug/L	99
109) trans-1,4-Dichloro-2-b...	53	17.718	17.718	0.943	236847	112.85	ug/L	96
110) Pentachloroethane	167	18.395	18.395	0.979	493847	104.47	ug/L	97
111) Benzyl chloride	91	18.943	18.943	1.008	1354205	111.96	ug/L	99
112) bis(2-Chloroisopropyl)...	45	19.346	19.346	1.030	373536	106.18	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O117.D
Acq On : 02 Jul 2018 20:41
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-15|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD100 5UL/5ML N/A MIX[B]
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 03 07:35:22 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Quantitation Report
GEL Laboratories, LLC

JP
07/03/2018

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O118.D
Acq On : 02 Jul 2018 21:12
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-16|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD250 5UL/5ML N/A MIX[B]
ALS Vial : 18 Sample Multiplier: 1

GEL
07/03/2018

Quant Time: Jul 03 07:35:24 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.762	12.761	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	0m	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	1165552	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	497910	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	444888	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	0d	0.00	ug/L	
45) Toluene-d8	98	14.676	14.676	0.899	0d	0.00	ug/L	
63) Bromofluorobenzene	95	17.560	17.559	0.934	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane		4.972	4.990	0.390	0m	N.D.	d	
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		0.000	6.159	0.000	0	N.D.		
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		7.062	7.061	0.553	0m	N.D.	d	
8) Ethyl ether		7.616	7.610	0.597	0m	N.D.	d	
9) Acetone		8.171	8.232	0.640	0m	N.D.	d	
10) 1,1-Dichloroethylene		8.147	8.177	0.638	0m	N.D.	d	
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile		8.842	8.817	0.693	0m	N.D.	d	
13) Methyl acetate		8.848	8.854	0.693	0m	N.D.	d	
14) Carbon disulfide		8.842	8.665	0.693	0m	N.D.	d	
15) Methylene chloride		9.092	9.091	0.712	0m	N.D.	d	
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane		9.988	9.988	0.783	0m	N.D.	d	
19) Vinyl acetate		10.317	10.317	0.808	0m	N.D.	d	
20) 1,1-Dichloroethane		10.427	10.286	0.817	0m	N.D.	d	
21) 2-Butanone		11.225	11.183	0.880	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		11.628	11.628	0.911	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		12.170	12.127	0.954	0m	N.D.	d	
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane		12.445	12.438	0.975	0m	N.D.	d	
32) Benzene		12.432	12.426	0.974	0m	N.D.	d	
33) Cyclohexene		12.493	12.548	0.979	0m	N.D.	d	
34) n-Butyl alcohol		13.030	13.024	1.021	0m	N.D.	d	
35) Trichloroethylene		13.225	13.225	1.036	0m	N.D.	d	
36) 2-Pentanone		13.377	13.396	1.048	0m	N.D.	d	
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		13.554	13.475	1.062	0m	N.D.	d	
39) Dibromomethane		0.000	13.682	0.000	0	N.D.		
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		14.341	14.353	1.124	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O118.D
Acq On : 02 Jul 2018 21:12
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-16|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD250 5UL/5ML N/A MIX[B]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jul 03 07:35:24 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44)	4-Methyl-2-pentanone		0.000	14.487	0.000	0	N.D.		
46)	Toluene		14.749	14.755	0.904	0m	N.D.	d	
47)	trans-1,3-Dichloroprop...		14.975	14.968	0.918	0m	N.D.	d	
48)	1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.		
49)	2-Hexanone		0.000	15.413	0.000	0	N.D.		
50)	1,3-Dichloropropane		15.401	15.401	0.944	0m	N.D.	d	
51)	Tetrachloroethylene		15.383	15.383	0.943	0m	N.D.	d	
52)	Dibromochloromethane		0.000	15.676	0.000	0	N.D.		
53)	1,2-Dibromoethane		15.846	15.840	0.971	0m	N.D.	d	
54)	Chlorobenzene		16.346	16.352	1.002	0m	N.D.	d	
55)	1,1,1,2-Tetrachloroethane		16.407	16.419	1.006	0m	N.D.	d	
56)	Ethylbenzene		16.419	16.425	1.006	0m	N.D.	d	
57)	m,p-Xylenes		16.535	16.541	1.013	0m	N.D.	d	
58)	o-Xylene		0.000	16.986	0.000	0	N.D.		
59)	Styrene		17.005	16.992	1.042	0m	N.D.	d	
61)	Bromoform		0.000	17.261	0.000	0	N.D.		
62)	Isopropylbenzene		17.352	17.358	0.923	0m	N.D.	d	
64)	1,1,2,2-Tetrachloroethane		17.718	17.663	0.943	0m	N.D.	d	
65)	1,2,3-Trichloropropane		17.718	17.748	0.943	0m	N.D.	d	
66)	Bromobenzene		0.000	17.767	0.000	0	N.D.		
67)	n-Propylbenzene		17.791	17.791	0.947	0m	N.D.	d	
68)	1,3,5-Trimethylbenzene		17.950	17.949	0.955	0m	N.D.	d	
69)	2-Chlorotoluene		17.944	17.937	0.955	0m	N.D.	d	
70)	4-Chlorotoluene		18.047	18.041	0.960	0m	N.D.	d	
71)	tert-Butylbenzene		18.395	18.321	0.979	0m	N.D.	d	
72)	1,2,4-Trimethylbenzene		18.358	18.364	0.977	0m	N.D.	d	
73)	sec-Butylbenzene		18.547	18.547	0.987	0m	N.D.	d	
74)	4-Isopropyltoluene		18.669	18.675	0.994	0m	N.D.	d	
75)	1,3-Dichlorobenzene		18.736	18.730	0.997	0m	N.D.	d	
76)	1,4-Dichlorobenzene		18.828	18.821	1.002	0m	N.D.	d	
77)	n-Butylbenzene		19.102	19.108	1.017	0m	N.D.	d	
78)	1,2-Dichlorobenzene		19.242	19.236	1.024	0m	N.D.	d	
79)	1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.		
80)	1,2,4-Trichlorobenzene		21.114	21.113	1.124	0m	N.D.	d	
81)	Hexachlorobutadiene		21.266	21.278	1.132	0m	N.D.	d	
82)	Naphthalene		21.498	21.491	1.144	0m	N.D.	d	
83)	1,2,3-Trichlorobenzene		21.827	21.821	1.162	0m	N.D.	d	
85)	Acrolein	56	7.927	7.927	0.621	316835	274.61	ug/L	100
86)	Trichlorotrifluoroethane	101	8.165	8.165	0.640	2122450	256.88	ug/L	100
87)	Isopropyl Alcohol	45	8.464	8.464	0.663	1319379	2591.71	ug/L	100
88)	Allyl chloride	76	8.842	8.842	0.693	981056	261.71	ug/L	100
89)	tert-Butyl Alcohol	59	9.220	9.220	0.722	2139466	2556.44	ug/L	100
90)	Acrylonitrile	53	9.531	9.531	0.747	552591	252.62	ug/L	100
91)	Isopropyl ether	45	10.317	10.317	0.808	1035585	50.98	ug/L	100
92)	2-Chloro-1,3-butadiene	53	10.427	10.427	0.817	537865	55.08	ug/L	100
93)	Ethyl tert-butyl ether	59	10.890	10.890	0.853	1074103	52.58	ug/L	100
94)	Ethyl acetate	43	11.225	11.225	0.880	1430664	248.15	ug/L	100
95)	Propionitrile	54	11.305	11.305	0.886	219417	250.47	ug/L	100
96)	Methacrylonitrile	67	11.512	11.512	0.902	603157	250.11	ug/L	100
97)	Tetrahydrofuran	42	11.597	11.597	0.909	453467	237.11	ug/L	100
98)	Isobutyl alcohol	43	12.176	12.176	0.954	773809	2579.88	ug/L	100
99)	Methyl tert-amyl ether	73	12.500	12.500	0.979	971635	51.81	ug/L	100
100)	Methyl methacrylate	69	13.560	13.560	1.063	974858	260.44	ug/L	100
101)	1,4-Dioxane	88	13.652	13.652	1.070	183402	2453.11	ug/L	100
102)	2-Nitropropane	43	14.103	14.103	1.105	524270	248.38	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O118.D
Acq On : 02 Jul 2018 21:12
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-16|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD250 5UL/5ML N/A MIX[B]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jul 03 07:35:24 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
104) Ethyl methacrylate	69	14.987	14.987	0.919	1774047	252.94	ug/L	100
106) 1-Chlorohexane	91	16.231	16.231	0.864	397969	55.59	ug/L	100
107) cis-1,4-Dichloro-2-butene	53	17.425	17.425	0.927	634806	284.15	ug/L	100
108) Cyclohexanone	55	17.535	17.535	0.933	233663	1246.05	ug/L	100
109) trans-1,4-Dichloro-2-b...	53	17.718	17.718	0.943	526181	261.74	ug/L	100
110) Pentachloroethane	167	18.395	18.395	0.979	1274137	281.40	ug/L	100
111) Benzyl chloride	91	18.943	18.943	1.008	3100265	267.59	ug/L	100
112) bis(2-Chloroisopropyl)...	45	19.346	19.346	1.030	845266	250.84	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O118.D
Acq On : 02 Jul 2018 21:12
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-16|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD250 5UL/5ML N/A MIX[B]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jul 03 07:35:24 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Quantitation Report
GEL Laboratories, LLC

JP
07/03/2018

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O119.D
Acq On : 02 Jul 2018 21:44
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-17|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD300 3UL/5ML N/A MIX[B]
ALS Vial : 19 Sample Multiplier: 1

EM
07/03/2018

Quant Time: Jul 03 07:35:26 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.761	12.761	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	0m	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.761	12.762	1.000	1150837	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	535888	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	474921	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	0d	0.00	ug/L	
45) Toluene-d8	98	14.676	14.676	0.899	0d	0.00	ug/L	
63) Bromofluorobenzene	95	17.559	17.559	0.934	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane		4.972	4.990	0.390	0m	N.D.		d
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		0.000	6.159	0.000	0	N.D.		
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		7.037	7.061	0.551	0m	N.D.		d
8) Ethyl ether		7.604	7.610	0.596	0m	N.D.		d
9) Acetone		8.171	8.232	0.640	0m	N.D.		d
10) 1,1-Dichloroethylene		8.079	8.177	0.633	0m	N.D.		d
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile		8.848	8.817	0.693	0m	N.D.		d
13) Methyl acetate		8.854	8.854	0.694	0m	N.D.		d
14) Carbon disulfide		8.848	8.665	0.693	0m	N.D.		d
15) Methylene chloride		9.085	9.091	0.712	0m	N.D.		d
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane		10.000	9.988	0.784	0m	N.D.		d
19) Vinyl acetate		10.317	10.317	0.808	0m	N.D.		d
20) 1,1-Dichloroethane		10.433	10.286	0.818	0m	N.D.		d
21) 2-Butanone		11.231	11.183	0.880	0m	N.D.		d
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		11.628	11.628	0.911	0m	N.D.		d
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		12.170	12.127	0.954	0m	N.D.		d
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane		12.463	12.438	0.977	0m	N.D.		d
32) Benzene		12.432	12.426	0.974	0m	N.D.		d
33) Cyclohexene		12.493	12.548	0.979	0m	N.D.		d
34) n-Butyl alcohol		13.036	13.024	1.021	0m	N.D.		d
35) Trichloroethylene		13.219	13.225	1.036	0m	N.D.		d
36) 2-Pentanone		13.420	13.396	1.052	0m	N.D.		d
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		13.560	13.475	1.063	0m	N.D.		d
39) Dibromomethane		0.000	13.682	0.000	0	N.D.		
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		0.000	14.353	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O119.D
Acq On : 02 Jul 2018 21:44
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-17|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD300 3UL/5ML N/A MIX[B]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jul 03 07:35:26 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44)	4-Methyl-2-pentanone		0.000	14.487	0.000	0	N.D.		
46)	Toluene		14.755	14.755	0.904	0m	N.D.	d	
47)	trans-1,3-Dichloroprop...		14.981	14.968	0.918	0m	N.D.	d	
48)	1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.		
49)	2-Hexanone		0.000	15.413	0.000	0	N.D.		
50)	1,3-Dichloropropane		15.450	15.401	0.947	0m	N.D.	d	
51)	Tetrachloroethylene		15.389	15.383	0.943	0m	N.D.	d	
52)	Dibromochloromethane		0.000	15.676	0.000	0	N.D.		
53)	1,2-Dibromoethane		15.852	15.840	0.972	0m	N.D.	d	
54)	Chlorobenzene		16.364	16.352	1.003	0m	N.D.	d	
55)	1,1,1,2-Tetrachloroethane		16.419	16.419	1.006	0m	N.D.	d	
56)	Ethylbenzene		16.419	16.425	1.006	0m	N.D.	d	
57)	m,p-Xylenes		16.541	16.541	1.014	0m	N.D.	d	
58)	o-Xylene		16.998	16.986	1.042	0m	N.D.	d	
59)	Styrene		16.998	16.992	1.042	0m	N.D.	d	
61)	Bromoform		0.000	17.261	0.000	0	N.D.		
62)	Isopropylbenzene		17.358	17.358	0.924	0m	N.D.	d	
64)	1,1,2,2-Tetrachloroethane		17.718	17.663	0.943	0m	N.D.	d	
65)	1,2,3-Trichloropropane		17.718	17.748	0.943	0m	N.D.	d	
66)	Bromobenzene		17.773	17.767	0.946	0m	N.D.	d	
67)	n-Propylbenzene		17.785	17.791	0.946	0m	N.D.	d	
68)	1,3,5-Trimethylbenzene		17.949	17.949	0.955	0m	N.D.	d	
69)	2-Chlorotoluene		17.937	17.937	0.955	0m	N.D.	d	
70)	4-Chlorotoluene		18.047	18.041	0.960	0m	N.D.	d	
71)	tert-Butylbenzene		18.395	18.321	0.979	0m	N.D.	d	
72)	1,2,4-Trimethylbenzene		18.364	18.364	0.977	0m	N.D.	d	
73)	sec-Butylbenzene		18.553	18.547	0.987	0m	N.D.	d	
74)	4-Isopropyltoluene		18.669	18.675	0.994	0m	N.D.	d	
75)	1,3-Dichlorobenzene		18.736	18.730	0.997	0m	N.D.	d	
76)	1,4-Dichlorobenzene		18.815	18.821	1.001	0m	N.D.	d	
77)	n-Butylbenzene		19.248	19.108	1.024	0m	N.D.	d	
78)	1,2-Dichlorobenzene		19.242	19.236	1.024	0m	N.D.	d	
79)	1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.		
80)	1,2,4-Trichlorobenzene		21.113	21.113	1.124	0m	N.D.	d	
81)	Hexachlorobutadiene		21.272	21.278	1.132	0m	N.D.	d	
82)	Naphthalene		21.498	21.491	1.144	0m	N.D.	d	
83)	1,2,3-Trichlorobenzene		21.827	21.821	1.162	0m	N.D.	d	
85)	Acrolein	56	7.933	7.927	0.622	366125	321.39	ug/L	98
86)	Trichlorotrifluoroethane	101	8.165	8.165	0.640	2508600	307.49	ug/L	100
87)	Isopropyl Alcohol	45	8.464	8.464	0.663	1717285	3416.46	ug/L	99
88)	Allyl chloride	76	8.848	8.842	0.693	1138579	307.61	ug/L	98
89)	tert-Butyl Alcohol	59	9.219	9.220	0.722	2796561	3384.32	ug/L	100
90)	Acrylonitrile	53	9.536	9.531	0.747	686300	317.76	ug/L	99
91)	Isopropyl ether	45	10.317	10.317	0.808	1305708	65.10	ug/L	100
92)	2-Chloro-1,3-butadiene	53	10.427	10.427	0.817	639835	66.36	ug/L	100
93)	Ethyl tert-butyl ether	59	10.890	10.890	0.853	1263995	62.67	ug/L	99
94)	Ethyl acetate	43	11.219	11.225	0.879	1703240	299.21	ug/L	100
95)	Propionitrile	54	11.298	11.305	0.885	275457	318.46	ug/L	99
96)	Methacrylonitrile	67	11.518	11.512	0.903	770417	323.56	ug/L	99
97)	Tetrahydrofuran	42	11.603	11.597	0.909	581472	307.93	ug/L	99
98)	Isobutyl alcohol	43	12.176	12.176	0.954	1009397	3408.36	ug/L	100
99)	Methyl tert-amyl ether	73	12.493	12.500	0.979	1207756	65.22	ug/L	100
100)	Methyl methacrylate	69	13.560	13.560	1.063	1254247	339.36	ug/L	99
101)	1,4-Dioxane	88	13.652	13.652	1.070	260775	3532.62	ug/L	100
102)	2-Nitropropane	43	14.103	14.103	1.105	666527	318.86	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O119.D
Acq On : 02 Jul 2018 21:44
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-17|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD300 3UL/5ML N/A MIX[B]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jul 03 07:35:26 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
104) Ethyl methacrylate	69	14.987	14.987	0.919	2392701	316.96	ug/L	99
106) 1-Chlorohexane	91	16.230	16.231	0.864	503353	65.87	ug/L	99
107) cis-1,4-Dichloro-2-butene	53	17.425	17.425	0.927	787116	330.04	ug/L	99
108) Cyclohexanone	55	17.535	17.535	0.933	307926	1538.23	ug/L	99
109) trans-1,4-Dichloro-2-b...	53	17.718	17.718	0.943	687269	320.25	ug/L	99
110) Pentachloroethane	167	18.395	18.395	0.979	1471146	304.36	ug/L	99
111) Benzyl chloride	91	18.943	18.943	1.008	3919423	316.90	ug/L	99
112) bis(2-Chloroisopropyl)...	45	19.346	19.346	1.030	1197154	332.80	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O119.D
Acq On : 02 Jul 2018 21:44
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-17|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD300 3UL/5ML N/A MIX[B]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jul 03 07:35:26 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Quantitation Report
GEL Laboratories, LLC

JP
07/03/2018

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O120.D
Acq On : 02 Jul 2018 22:15
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-18|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD500 5UL/5ML N/A MIX[B]
ALS Vial : 20 Sample Multiplier: 1

GEL
07/03/2018

Quant Time: Jul 03 07:35:28 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.762	12.761	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	0m	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	1167503	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	501134	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	476050	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	0d	0.00	ug/L	
45) Toluene-d8	98	14.676	14.676	0.899	0d	0.00	ug/L	
63) Bromofluorobenzene	95	17.560	17.559	0.934	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane		4.972	4.990	0.390	0m	N.D.		d
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		0.000	6.159	0.000	0	N.D.		
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		7.056	7.061	0.553	0m	N.D.		d
8) Ethyl ether		7.616	7.610	0.597	0m	N.D.		d
9) Acetone		8.159	8.232	0.639	0m	N.D.		d
10) 1,1-Dichloroethylene		8.165	8.177	0.640	0m	N.D.		d
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile		8.848	8.817	0.693	0m	N.D.		d
13) Methyl acetate		8.854	8.854	0.694	0m	N.D.		d
14) Carbon disulfide		8.848	8.665	0.693	0m	N.D.		d
15) Methylene chloride		9.092	9.091	0.712	0m	N.D.		d
16) tert-Butyl methyl ether		9.525	9.537	0.746	0m	N.D.		d
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane		9.994	9.988	0.783	0m	N.D.		d
19) Vinyl acetate		10.317	10.317	0.808	0m	N.D.		d
20) 1,1-Dichloroethane		10.299	10.286	0.807	0m	N.D.		d
21) 2-Butanone		11.201	11.183	0.878	0m	N.D.		d
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		11.183	11.195	0.876	0m	N.D.		d
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		11.640	11.628	0.912	0m	N.D.		d
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		12.000	11.999	0.940	0m	N.D.		d
28) 1,1-Dichloropropene		12.183	12.127	0.955	0m	N.D.		d
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane		12.439	12.438	0.975	0m	N.D.		d
32) Benzene		12.432	12.426	0.974	0m	N.D.		d
33) Cyclohexene		12.493	12.548	0.979	0m	N.D.		d
34) n-Butyl alcohol		13.024	13.024	1.021	0m	N.D.		d
35) Trichloroethylene		13.219	13.225	1.036	0m	N.D.		d
36) 2-Pentanone		13.414	13.396	1.051	0m	N.D.		d
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		13.554	13.475	1.062	0m	N.D.		d
39) Dibromomethane		0.000	13.682	0.000	0	N.D.		
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		14.359	14.353	1.125	0m	N.D.		d

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O120.D
Acq On : 02 Jul 2018 22:15
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-18|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD500 5UL/5ML N/A MIX[B]
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jul 03 07:35:28 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
44)	4-Methyl-2-pentanone		0.000	14.487	0.000	0	N.D.			
46)	Toluene		14.755	14.755	0.904	0m	N.D.	d		
47)	trans-1,3-Dichloroprop...		14.987	14.968	0.919	0m	N.D.	d		
48)	1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.			
49)	2-Hexanone		0.000	15.413	0.000	0	N.D.			
50)	1,3-Dichloropropane		15.401	15.401	0.944	0m	N.D.	d		
51)	Tetrachloroethylene		15.383	15.383	0.943	0m	N.D.	d		
52)	Dibromochloromethane		0.000	15.676	0.000	0	N.D.			
53)	1,2-Dibromoethane		15.846	15.840	0.971	0m	N.D.	d		
54)	Chlorobenzene		16.359	16.352	1.003	0m	N.D.	d		
55)	1,1,1,2-Tetrachloroethane		16.407	16.419	1.006	0m	N.D.	d		
56)	Ethylbenzene		16.426	16.425	1.007	0m	N.D.	d		
57)	m,p-Xylenes		16.535	16.541	1.013	0m	N.D.	d		
58)	o-Xylene		16.993	16.986	1.041	0m	N.D.	d		
59)	Styrene		16.993	16.992	1.041	0m	N.D.	d		
61)	Bromoform		0.000	17.261	0.000	0	N.D.			
62)	Isopropylbenzene		17.358	17.358	0.924	0m	N.D.	d		
64)	1,1,2,2-Tetrachloroethane		17.718	17.663	0.943	0m	N.D.	d		
65)	1,2,3-Trichloropropane		17.718	17.748	0.943	0m	N.D.	d		
66)	Bromobenzene		0.000	17.767	0.000	0	N.D.			
67)	n-Propylbenzene		17.791	17.791	0.947	0m	N.D.	d		
68)	1,3,5-Trimethylbenzene		17.950	17.949	0.955	0m	N.D.	d		
69)	2-Chlorotoluene		17.938	17.937	0.955	0m	N.D.	d		
70)	4-Chlorotoluene		18.047	18.041	0.960	0m	N.D.	d		
71)	tert-Butylbenzene		18.395	18.321	0.979	0m	N.D.	d		
72)	1,2,4-Trimethylbenzene		18.364	18.364	0.977	0m	N.D.	d		
73)	sec-Butylbenzene		18.553	18.547	0.987	0m	N.D.	d		
74)	4-Isopropyltoluene		18.669	18.675	0.994	0m	N.D.	d		
75)	1,3-Dichlorobenzene		18.730	18.730	0.997	0m	N.D.	d		
76)	1,4-Dichlorobenzene		18.822	18.821	1.002	0m	N.D.	d		
77)	n-Butylbenzene		19.242	19.108	1.024	0m	N.D.	d		
78)	1,2-Dichlorobenzene		19.242	19.236	1.024	0m	N.D.	d		
79)	1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.			
80)	1,2,4-Trichlorobenzene		21.114	21.113	1.124	0m	N.D.	d		
81)	Hexachlorobutadiene		21.278	21.278	1.132	0m	N.D.	d		
82)	Naphthalene		21.492	21.491	1.144	0m	N.D.	d		
83)	1,2,3-Trichlorobenzene		21.833	21.821	1.162	0m	N.D.	d		
85)	Acrolein	56	7.927	7.927	0.621	615522	532.60	ug/L	98	A
86)	Trichlorotrifluoroethane	101	8.165	8.165	0.640	4068873	491.63	ug/L	99	
87)	Isopropyl Alcohol	45	8.464	8.464	0.663	2526439	4954.49	ug/L	98	
88)	Allyl chloride	76	8.848	8.842	0.693	1863809	496.36	ug/L	95	
89)	tert-Butyl Alcohol	59	9.220	9.220	0.722	4171378	4976.03	ug/L	99	
90)	Acrylonitrile	53	9.531	9.531	0.747	1109423	506.33	ug/L	99	A
91)	Isopropyl ether	45	10.323	10.317	0.809	2096868	103.06	ug/L	99	A
92)	2-Chloro-1,3-butadiene	53	10.427	10.427	0.817	1071746	109.56	ug/L	100	A
93)	Ethyl tert-butyl ether	59	10.890	10.890	0.853	2203931	107.71	ug/L	100	A
94)	Ethyl acetate	43	11.219	11.225	0.879	2534137	438.82	ug/L	100	
95)	Propionitrile	54	11.305	11.305	0.886	427430	487.11	ug/L	99	
96)	Methacrylonitrile	67	11.512	11.512	0.902	1192455	493.66	ug/L	100	
97)	Tetrahydrofuran	42	11.603	11.597	0.909	890862	465.03	ug/L	100	
98)	Isobutyl alcohol	43	12.176	12.176	0.954	1525863	5078.73	ug/L	99	A
99)	Methyl tert-amyl ether	73	12.493	12.500	0.979	1987054	105.77	ug/L	99	A
100)	Methyl methacrylate	69	13.560	13.560	1.063	1815207	484.13	ug/L	99	
101)	1,4-Dioxane	88	13.652	13.652	1.070	372061	4968.22	ug/L	99	
102)	2-Nitropropane	43	14.103	14.103	1.105	1043063	490.06	ug/L	98	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O120.D
Acq On : 02 Jul 2018 22:15
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-18|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD500 5UL/5ML N/A MIX[B]
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jul 03 07:35:28 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
104) Ethyl methacrylate	69	14.987	14.987	0.919	3589200	508.44	ug/L	98	A
106) 1-Chlorohexane	91	16.231	16.231	0.864	861557	112.47	ug/L	99	A
107) cis-1,4-Dichloro-2-butene	53	17.425	17.425	0.927	1188924	497.34	ug/L	98	
108) Cyclohexanone	55	17.535	17.535	0.933	468032	2332.48	ug/L	98	
109) trans-1,4-Dichloro-2-b...	53	17.718	17.718	0.943	987353	458.99	ug/L	97	
110) Pentachloroethane	167	18.395	18.395	0.979	2379681	491.16	ug/L	98	
111) Benzyl chloride	91	18.943	18.943	1.008	5837448	470.87	ug/L	97	
112) bis(2-Chloroisopropyl)...	45	19.346	19.346	1.030	1771335	491.25	ug/L	97	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O120.D
Acq On : 02 Jul 2018 22:15
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-18|ICAL|1|VOA|1|VOA8260CL|
Misc : VSTD500 5UL/5ML N/A MIX[B]
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jul 03 07:35:28 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Continuing Calibration Summary

Client SDG: 454944

Instrument ID: VOA3.I

Injection Date: 02-JUL-18 23:17

Data File: 070218V3\3O122.D

Init. Cal. Date(s) 02-JUL-18 13:56 - 02-JUL-18 22:15

Lab Sample ID W3VM180702-19

Method: 070218V3\VOA3-8260C-070218.M

Quant Type ISTD

Method Update: 03-JUL-18 07:30

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.1871	0.18254		.01		-2.4372	30		Averaged
S	Toluene-d8	2.3294	2.35214		.01		0.97622	30		Averaged
S	Bromofluorobenzene	0.9829	0.92642		.01		-5.74626	30		Averaged
	Trichlorotrifluoroethane	0.3544	0.32549		.01		-8.15745	30		Averaged
	1,4-Dioxane	0.0032	0.00313		.01		-2.1875	30		Averaged

Quantitation Report
GEL Laboratories, LLC

JP
07/03/2018

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O122.D
Acq On : 02 Jul 2018 23:17
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-19|ICV|1|VOA|1|VOA8260CL|
Misc : ICV250 5UL/5ML N/A MIX[B]
ALS Vial : 22 Sample Multiplier: 1

GEL
07/03/2018

Quant Time: Jul 03 07:35:32 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.768	12.761	1.000	1219498	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	510525	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	500370	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.768	12.762	1.000	1221311	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	518737	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	500730	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	222610	48.78	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	1200828	50.49	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	463551	47.13	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane		4.972	4.990	0.389	0m	N.D.	d	
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		0.000	6.159	0.000	0	N.D.		
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		7.019	7.061	0.550	0m	N.D.	d	
8) Ethyl ether		7.610	7.610	0.596	0m	N.D.	d	
9) Acetone		8.153	8.232	0.639	0m	N.D.	d	
10) 1,1-Dichloroethylene		8.165	8.177	0.639	0m	N.D.	d	
11) Iodomethane		8.482	8.500	0.664	0m	N.D.	d	
12) Acetonitrile		8.848	8.817	0.693	0m	N.D.	d	
13) Methyl acetate		8.836	8.854	0.692	0m	N.D.	d	
14) Carbon disulfide		8.665	8.665	0.679	0m	N.D.	d	
15) Methylene chloride		9.092	9.091	0.712	0m	N.D.	d	
16) tert-Butyl methyl ether		9.537	9.537	0.747	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		9.561	9.567	0.749	0m	N.D.	d	
18) Hexane		9.994	9.988	0.783	0m	N.D.	d	
19) Vinyl acetate		10.317	10.317	0.808	0m	N.D.	d	
20) 1,1-Dichloroethane		10.286	10.286	0.806	0m	N.D.	d	
21) 2-Butanone		11.213	11.183	0.878	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		11.201	11.183	0.877	0m	N.D.	d	
23) 2,2-Dichloropropane		11.195	11.195	0.877	0m	N.D.	d	
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		11.628	11.628	0.911	0m	N.D.	d	
26) 1,1,1-Trichloroethane		11.914	11.914	0.933	0m	N.D.	d	
27) Cyclohexane		12.006	11.999	0.940	0m	N.D.	d	
28) 1,1-Dichloropropene		12.128	12.127	0.950	0m	N.D.	d	
29) Carbon tetrachloride		12.152	12.146	0.952	0m	N.D.	d	
31) 1,2-Dichloroethane		12.451	12.438	0.975	0m	N.D.	d	
32) Benzene		12.426	12.426	0.973	0m	N.D.	d	
33) Cyclohexene		12.481	12.548	0.978	0m	N.D.	d	
34) n-Butyl alcohol		13.036	13.024	1.021	0m	N.D.	d	
35) Trichloroethylene		13.225	13.225	1.036	0m	N.D.	d	
36) 2-Pentanone		13.402	13.396	1.050	0m	N.D.	d	
37) 1,2-Dichloropropane		13.524	13.524	1.059	0m	N.D.	d	
38) Methylcyclohexane		13.475	13.475	1.055	0m	N.D.	d	
39) Dibromomethane		13.688	13.682	1.072	0m	N.D.	d	
40) Bromodichloromethane		13.835	13.834	1.084	0m	N.D.	d	
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		14.353	14.353	1.124	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O122.D
Acq On : 02 Jul 2018 23:17
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-19|ICV|1|VOA|1|VOA8260CL|
Misc : ICV250 5UL/5ML N/A MIX[B]
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jul 03 07:35:32 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44)	4-Methyl-2-pentanone		14.487	14.487	0.888	0m	N.D.	d	
46)	Toluene		14.755	14.755	0.904	0m	N.D.	d	
47)	trans-1,3-Dichloroprop...		14.968	14.968	0.917	0m	N.D.	d	
48)	1,1,2-Trichloroethane		15.200	15.200	0.932	0m	N.D.	d	
49)	2-Hexanone		15.426	15.413	0.945	0m	N.D.	d	
50)	1,3-Dichloropropane		15.407	15.401	0.944	0m	N.D.	d	
51)	Tetrachloroethylene		15.383	15.383	0.943	0m	N.D.	d	
52)	Dibromochloromethane		15.676	15.676	0.961	0m	N.D.	d	
53)	1,2-Dibromoethane		15.846	15.840	0.971	0m	N.D.	d	
54)	Chlorobenzene		16.346	16.352	1.002	0m	N.D.	d	
55)	1,1,1,2-Tetrachloroethane		16.419	16.419	1.006	0m	N.D.	d	
56)	Ethylbenzene		16.426	16.425	1.007	0m	N.D.	d	
57)	m,p-Xylenes		16.541	16.541	1.014	0m	N.D.	d	
58)	o-Xylene		16.992	16.986	1.041	0m	N.D.	d	
59)	Styrene		16.999	16.992	1.042	0m	N.D.	d	
61)	Bromoform		17.255	17.261	0.918	0m	N.D.	d	
62)	Isopropylbenzene		17.358	17.358	0.924	0m	N.D.	d	
64)	1,1,2,2-Tetrachloroethane		17.718	17.663	0.943	0m	N.D.	d	
65)	1,2,3-Trichloropropane		17.718	17.748	0.943	0m	N.D.	d	
66)	Bromobenzene		17.761	17.767	0.945	0m	N.D.	d	
67)	n-Propylbenzene		17.785	17.791	0.946	0m	N.D.	d	
68)	1,3,5-Trimethylbenzene		17.950	17.949	0.955	0m	N.D.	d	
69)	2-Chlorotoluene		17.937	17.937	0.955	0m	N.D.	d	
70)	4-Chlorotoluene		18.041	18.041	0.960	0m	N.D.	d	
71)	tert-Butylbenzene		18.315	18.321	0.975	0m	N.D.	d	
72)	1,2,4-Trimethylbenzene		18.370	18.364	0.978	0m	N.D.	d	
73)	sec-Butylbenzene		18.547	18.547	0.987	0m	N.D.	d	
74)	4-Isopropyltoluene		18.675	18.675	0.994	0m	N.D.	d	
75)	1,3-Dichlorobenzene		18.736	18.730	0.997	0m	N.D.	d	
76)	1,4-Dichlorobenzene		18.815	18.821	1.001	0m	N.D.	d	
77)	n-Butylbenzene		19.114	19.108	1.017	0m	N.D.	d	
78)	1,2-Dichlorobenzene		19.236	19.236	1.024	0m	N.D.	d	
79)	1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.		
80)	1,2,4-Trichlorobenzene		21.114	21.113	1.124	0m	N.D.	d	
81)	Hexachlorobutadiene		21.278	21.278	1.132	0m	N.D.	d	
82)	Naphthalene		21.492	21.491	1.144	0m	N.D.	d	
83)	1,2,3-Trichlorobenzene		21.821	21.821	1.161	0m	N.D.	d	
85)	Acrolein	56	7.927	7.927	0.621	322388	266.67	ug/L	99
86)	Trichlorotrifluoroethane	101	8.165	8.165	0.639	1987614	229.58	ug/L	99
87)	Isopropyl Alcohol	45	8.470	8.464	0.663	1292470	2422.94	ug/L	100
88)	Allyl chloride	76	8.848	8.842	0.693	937065	238.56	ug/L	99
89)	tert-Butyl Alcohol	59	9.226	9.220	0.723	2210405	2520.62	ug/L	100
90)	Acrylonitrile	53	9.531	9.531	0.746	556664	242.86	ug/L	100
91)	Isopropyl ether	45	10.317	10.317	0.808	1031420	48.46	ug/L	99
92)	2-Chloro-1,3-butadiene	53	10.427	10.427	0.817	537626	52.54	ug/L	98
93)	Ethyl tert-butyl ether	59	10.890	10.890	0.853	1039375	48.56	ug/L	100
94)	Ethyl acetate	43	11.219	11.225	0.879	1573920	260.54	ug/L	100
95)	Propionitrile	54	11.305	11.305	0.885	218158	237.67	ug/L	99
96)	Methacrylonitrile	67	11.512	11.512	0.902	593380	234.83	ug/L	99
97)	Tetrahydrofuran	42	11.603	11.597	0.909	475381	237.22	ug/L	99
98)	Isobutyl alcohol	43	12.176	12.176	0.954	814842	2592.65	ug/L	99
99)	Methyl tert-amyl ether	73	12.499	12.500	0.979	962933	49.00	ug/L	100
100)	Methyl methacrylate	69	13.554	13.560	1.062	966559	246.43	ug/L	99
101)	1,4-Dioxane	88	13.652	13.652	1.069	190958	2437.57	ug/L	98
102)	2-Nitropropane	43	14.103	14.103	1.105	535628	242.26	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O122.D
Acq On : 02 Jul 2018 23:17
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-19|ICV|1|VOA|1|VOA8260CL|
Misc : ICV250 5UL/5ML N/A MIX[B]
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jul 03 07:35:32 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
104) Ethyl methacrylate	69	14.987	14.987	0.919	1839976	251.80	ug/L	100
106) 1-Chlorohexane	91	16.230	16.231	0.864	400050	49.65	ug/L	100
107) cis-1,4-Dichloro-2-butene	53	17.425	17.425	0.927	630659	250.81	ug/L	100
108) Cyclohexanone	55	17.535	17.535	0.933	244956	1160.59	ug/L	99
109) trans-1,4-Dichloro-2-b...	53	17.718	17.718	0.943	558304	246.74	ug/L	100
110) Pentachloroethane	167	18.395	18.395	0.979	1171073	229.79	ug/L	100
111) Benzyl chloride	91	18.943	18.943	1.008	3220574	246.98	ug/L	100
112) bis(2-Chloroisopropyl)...	45	19.346	19.346	1.030	930524	245.35	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O122.D
Acq On : 02 Jul 2018 23:17
Operator : JP1
InstName : VOA3
Sample : |W3VM180702-19|ICV|1|VOA|1|VOA8260CL|
Misc : ICV250 5UL/5ML N/A MIX[B]
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jul 03 07:35:32 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Continuing Calibration Summary

Client SDG: 454944

Instrument ID: VOA3.I **Injection Date:** 21-JUL-18 10:55

Data File: 072118V3\3Q603.D **Init. Cal. Date(s)** 02-JUL-18 13:56 - 02-JUL-18 22:15

Lab Sample ID W3VM180721-01 **Method:** 070218V3\VOA3-8260C-070218.M

Quant Type ISTD **Method Update:** 03-JUL-18 07:30

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.1871	0.19783		.01		5.7349	20		Averaged
S	Toluene-d8	2.3294	2.1205		.01		-8.96797	20		Averaged
S	Bromofluorobenzene	0.9829	0.99796		.01		1.5322	20		Averaged
	Dichlorodifluoromethane	0.4299	0.40387		.01		-6.0549	20		Averaged
	Chloromethane	0.436	0.36894		.1		-15.38073	20		Averaged
	Vinyl chloride	0.4188	0.37712		.01		-9.95224	20		Averaged
	Bromomethane	0.2977	0.2848		.01		-4.33322	20		Averaged
	Chloroethane	0.2918	0.28687		.01		-1.68951	20		Averaged
	Trichlorofluoromethane	0.6397	0.63295		.01		-1.05518	20		Averaged
	1,1-Dichloroethylene	0.5384	0.61903		.01		14.97585	20		Averaged
	Acetone	0.1805	0.19447		.01		7.73961	20		Averaged
	Carbon disulfide	1.0314	1.18761		.01		15.14543	20		Averaged
	Methyl acetate	0.0508	0.0586		.01		15.35433	20		Averaged
	Methylene chloride	50	57.53	50			15.06	20		Linear
	tert-Butyl methyl ether	0.8319	1.01363		.01		21.84517	20	*	Averaged
	trans-1,2-Dichloroethylene	0.4531	0.50029		.01		10.41492	20		Averaged
	1,1-Dichloroethane	0.5764	0.60201		.1		4.4431	20		Averaged
	2-Butanone	0.0435	0.05199		.01		19.51724	20		Averaged
	cis-1,2-Dichloroethylene	0.3015	0.32137		.01		6.59038	20		Averaged
	Bromochloromethane	0.1384	0.13969		.01		0.93208	20		Averaged
	Chloroform	0.5917	0.6585		.01		11.2895	20		Averaged
	1,1,1-Trichloroethane	0.5413	0.57768		.01		6.72086	20		Averaged
	Cyclohexane	0.4823	0.49432		.01		2.49222	20		Averaged
	Carbon tetrachloride	0.4989	0.53779		.01		7.79515	20		Averaged
	Benzene	1.1517	1.2123		.01		5.26179	20		Averaged
	1,2-Dichloroethane	0.4666	0.52157		.01		11.78097	20		Averaged
	Trichloroethylene	0.3016	0.32183		.01		6.70756	20		Averaged
	Methylcyclohexane	0.4919	0.52793		.01		7.32466	20		Averaged
	1,2-Dichloropropane	0.2921	0.31709		.01		8.55529	20		Averaged
	Bromodichloromethane	0.4344	0.50025		.01		15.15884	20		Averaged
	cis-1,3-Dichloropropylene	0.4666	0.58711		.01		25.82726	20	*	Averaged
	4-Methyl-2-pentanone	0.2201	0.22507		.01		2.25806	20		Averaged
	Toluene	2.5146	2.55683		.01		1.67939	20		Averaged
	trans-1,3-Dichloropropylene	0.9796	1.12062		.01		14.39567	20		Averaged
	1,1,2-Trichloroethane	0.4711	0.47976		.01		1.83825	20		Averaged
	Tetrachloroethylene	0.5317	0.49135		.01		-7.58887	20		Averaged
	2-Hexanone	0.2758	0.31026		.01		12.49456	20		Averaged

Continuing Calibration Summary

Instrument ID: VOA3.I **Injection Date:** 21-JUL-18 10:55

Data File: 072118V3\3Q603.D **Init. Cal. Date(s)** 02-JUL-18 13:56 02-JUL-18 22:15

Lab Sample ID W3VM180721-01 **Method:** 070218V3\VOA3-8260C-070218.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Dibromochloromethane	0.6605	0.71538		.01		8.30886	20		Averaged
1,2-Dibromoethane	0.5473	0.57911		.01		5.81217	20		Averaged
Chlorobenzene	1.6589	1.54689		.3		-6.75206	20		Averaged
Ethylbenzene	2.9017	2.95949		.01		1.99159	20		Averaged
m,p-Xylenes	1.0734	1.07264		.01		-0.0708	20		Averaged
o-Xylene	1.0764	1.11986		.01		4.03753	20		Averaged
Styrene	1.7104	1.85034		.01		8.18171	20		Averaged
Bromoform	0.4572	0.52692		.1		15.24934	20		Averaged
Isopropylbenzene	3.1716	3.11934		.01		-1.64775	20		Averaged
1,1,2,2-Tetrachloroethane	0.833	0.8673		.3		4.11765	20		Averaged
1,3-Dichlorobenzene	1.5807	1.53766		.01		-2.72284	20		Averaged
1,4-Dichlorobenzene	1.5657	1.54317		.01		-1.43897	20		Averaged
1,2-Dichlorobenzene	1.5259	1.56542		.01		2.58995	20		Averaged
1,2-Dibromo-3-chloropropane	0.1727	0.19837		.01		14.86393	20		Averaged
1,2,4-Trichlorobenzene	1.2723	1.37323		.01		7.93288	20		Averaged
1,2,3-Trichlorobenzene	1.2606	1.3712		.01		8.7736	20		Averaged

Quantitation Report
GEL Laboratories, LLC

JP
07/23/2018

Data Path : C:\msdchem\1\data\072118V3\
Data File : 3Q603.D
Acq On : 21 Jul 2018 10:55
Operator : JP1
InstName : VOA3
Sample : |W3VM180721-01|CCV|1|VOA|1|VOA8260CL|
Misc : CCV/LCS 5UL/5ML N/A MIX[A]0411-10H/0601-10I/0312-09F/0720-01
ALS Vial : 3 Sample Multiplier: 1

07/23/2018

Quant Time: Jul 21 11:23:29 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.755	12.761	1.000	1208530	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	579451	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	537301	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.755	12.762	1.000	1210843	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	588147	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	537701	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.335	12.341	0.967	239078	52.86	ug/L	0.00
45) Toluene-d8	98	14.670	14.676	0.899	1228724	45.52	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	536206	50.77	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.552	4.552	0.357	488095	46.97	ug/L	100
3) Chloromethane	50	5.009	4.990	0.393	445878	42.31	ug/L	100
4) Vinyl chloride	62	5.319	5.319	0.417	455764	45.02	ug/L	99
5) Bromomethane	94	6.105	6.159	0.479	344190	47.84	ug/L	98
6) Chloroethane	64	6.373	6.372	0.500	346695	49.15	ug/L	99
7) Trichlorofluoromethane	101	7.049	7.061	0.553	764936	49.47	ug/L	100
8) Ethyl ether	59	7.598	7.610	0.596	284845	51.75	ug/L	96
9) Acetone	43	8.232	8.232	0.645	1175119	269.33	ug/L	100
10) 1,1-Dichloroethylene	61	8.171	8.177	0.641	748122	57.49	ug/L	99
11) Iodomethane	142	8.500	8.500	0.666	3249520	271.50	ug/L	97
12) Acetonitrile	41	8.811	8.817	0.691	1146942	1207.18	ug/L	99
13) Methyl acetate	74	8.842	8.854	0.693	354093	288.37	ug/L #	87
14) Carbon disulfide	76	8.671	8.665	0.680	7176331	287.87	ug/L	100
15) Methylene chloride	84	9.091	9.091	0.713	452663	57.53	ug/L	95
16) tert-Butyl methyl ether	73	9.524	9.537	0.747	1224999	60.92	ug/L	98
17) trans-1,2-Dichloroethy...	61	9.555	9.567	0.749	604617	55.20	ug/L	98
18) Hexane	57	9.982	9.988	0.783	457270	45.62	ug/L	99
19) Vinyl acetate	43	10.305	10.317	0.808	2402361	257.39	ug/L	98
20) 1,1-Dichloroethane	63	10.280	10.286	0.806	727545	52.23	ug/L	99
21) 2-Butanone	72	11.170	11.183	0.876	314170	298.55	ug/L	88
22) cis-1,2-Dichloroethylene	96	11.176	11.183	0.876	388386	53.30	ug/L	97
23) 2,2-Dichloropropane	77	11.189	11.195	0.877	671074	55.93	ug/L	99
24) Bromochloromethane	128	11.542	11.548	0.905	168825	50.48	ug/L	98
25) Chloroform	83	11.621	11.628	0.911	795814	55.64	ug/L	98
26) 1,1,1-Trichloroethane	97	11.908	11.914	0.934	698141	53.36	ug/L	100
27) Cyclohexane	56	11.993	11.999	0.940	597396	51.24	ug/L	98
28) 1,1-Dichloropropene	75	12.121	12.127	0.950	559353	56.35	ug/L	97
29) Carbon tetrachloride	117	12.134	12.146	0.951	649940	53.89	ug/L	98
31) 1,2-Dichloroethane	62	12.432	12.438	0.975	630328	55.89	ug/L	99
32) Benzene	78	12.420	12.426	0.974	1465099	52.63	ug/L	100
33) Cyclohexene	67	12.536	12.548	0.983	675451	47.96	ug/L	95
34) n-Butyl alcohol	56	13.018	13.024	1.021	1148291	5583.35	ug/L	97
35) Trichloroethylene	95	13.219	13.225	1.036	388936	53.36	ug/L	95
36) 2-Pentanone	43	13.389	13.396	1.050	1234594	260.58	ug/L	99
37) 1,2-Dichloropropane	63	13.524	13.524	1.060	383218	54.27	ug/L	100
38) Methylcyclohexane	83	13.475	13.475	1.056	638023	53.66	ug/L	97
39) Dibromomethane	93	13.676	13.682	1.072	247638	55.20	ug/L	97
40) Bromodichloromethane	83	13.828	13.834	1.084	604565	57.58	ug/L	98
41) 2-Chloroethylvinyl ether	63	14.127	14.127	1.108	974454	249.09	ug/L	99
42) cis-1,3-Dichloropropylene	75	14.347	14.353	1.125	709542	62.91	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072118V3\
Data File : 3Q603.D
Acq On : 21 Jul 2018 10:55
Operator : JP1
InstName : VOA3
Sample : |W3VM180721-01|CCV|1|VOA|1|VOA8260CL|
Misc : CCV/LCS 5UL/5ML N/A MIX[A]0411-10H/0601-10I/0312-09F/0720-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 21 11:23:29 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44)	4-Methyl-2-pentanone	58	14.481	14.487	0.888	652081	255.66	ug/L	97
46)	Toluene	91	14.749	14.755	0.904	1481557	50.84	ug/L	99
47)	trans-1,3-Dichloroprop...	75	14.962	14.968	0.917	649343	57.20	ug/L	97
48)	1,1,2-Trichloroethane	83	15.200	15.200	0.932	277996	50.92	ug/L	99
49)	2-Hexanone	58	15.413	15.413	0.945	898914	281.20	ug/L	98
50)	1,3-Dichloropropane	76	15.401	15.401	0.944	586111	53.57	ug/L	99
51)	Tetrachloroethylene	164	15.383	15.383	0.943	284712	46.20	ug/L	99
52)	Dibromochloromethane	129	15.676	15.676	0.961	414527	54.16	ug/L	100
53)	1,2-Dibromoethane	107	15.840	15.840	0.971	335565	52.91	ug/L	99
54)	Chlorobenzene	112	16.346	16.352	1.002	896345	46.62	ug/L	97
55)	1,1,1,2-Tetrachloroethane	131	16.419	16.419	1.006	386626	49.64	ug/L	99
56)	Ethylbenzene	91	16.419	16.425	1.006	1714882	51.00	ug/L	98
57)	m,p-Xylenes	106	16.535	16.541	1.013	1243086	99.93	ug/L	96
58)	o-Xylene	106	16.986	16.986	1.041	648902	52.02	ug/L	96
59)	Styrene	104	16.992	16.992	1.041	1072181	54.09	ug/L	97
61)	Bromoform	173	17.261	17.261	0.919	283116	57.63	ug/L	99
62)	Isopropylbenzene	105	17.358	17.358	0.924	1676023	49.18	ug/L	98
64)	1,1,2,2-Tetrachloroethane	83	17.663	17.663	0.940	465999	52.06	ug/L	99
65)	1,2,3-Trichloropropane	75	17.748	17.748	0.945	470631	53.15	ug/L	91
66)	Bromobenzene	156	17.767	17.767	0.945	414771	49.62	ug/L	95
67)	n-Propylbenzene	91	17.791	17.791	0.947	2052493	50.55	ug/L	98
68)	1,3,5-Trimethylbenzene	105	17.950	17.949	0.955	1489761	50.68	ug/L	98
69)	2-Chlorotoluene	126	17.937	17.937	0.955	388480	48.50	ug/L	91
70)	4-Chlorotoluene	91	18.047	18.041	0.960	1362122	52.49	ug/L	97
71)	tert-Butylbenzene	134	18.321	18.321	0.975	273494	49.00	ug/L #	92
72)	1,2,4-Trimethylbenzene	105	18.364	18.364	0.977	1536620	50.99	ug/L	98
73)	sec-Butylbenzene	105	18.547	18.547	0.987	1953821	49.29	ug/L	99
74)	4-Isopropyltoluene	119	18.675	18.675	0.994	1665036	49.97	ug/L	98
75)	1,3-Dichlorobenzene	146	18.730	18.730	0.997	826186	48.64	ug/L	99
76)	1,4-Dichlorobenzene	146	18.821	18.821	1.002	829149	49.28	ug/L	99
77)	n-Butylbenzene	91	19.108	19.108	1.017	1747525	52.54	ug/L	99
78)	1,2-Dichlorobenzene	146	19.236	19.236	1.024	841100	51.29	ug/L	98
79)	1,2-Dibromo-3-chloropr...	157	20.108	20.108	1.070	106587	57.42	ug/L	95
80)	1,2,4-Trichlorobenzene	180	21.120	21.113	1.124	737836	53.97	ug/L	100
81)	Hexachlorobutadiene	225	21.278	21.278	1.132	487869	51.70	ug/L	99
82)	Naphthalene	128	21.498	21.491	1.144	1675954	56.35	ug/L	100
83)	1,2,3-Trichlorobenzene	180	21.821	21.821	1.161	736747	54.38	ug/L	98
85)	Acrolein		7.799	7.927	0.611	0m	N.D.	d	
86)	Trichlorotrifluoroethane		8.134	8.165	0.638	0m	N.D.	d	
87)	Isopropyl Alcohol		8.653	8.464	0.678	0m	N.D.	d	
88)	Allyl chloride		8.671	8.842	0.680	0m	N.D.	d	
89)	tert-Butyl Alcohol		9.018	9.220	0.707	0m	N.D.	d	
90)	Acrylonitrile		9.524	9.531	0.747	0m	N.D.	d	
91)	Isopropyl ether		10.305	10.317	0.808	0m	N.D.	d	
92)	2-Chloro-1,3-butadiene		10.481	10.427	0.822	0m	N.D.	d	
93)	Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.		
94)	Ethyl acetate		11.170	11.225	0.876	0m	N.D.	d	
95)	Propionitrile		11.170	11.305	0.876	0m	N.D.	d	
96)	Methacrylonitrile		0.000	11.512	0.000	0	N.D.		
97)	Tetrahydrofuran		11.609	11.597	0.910	0m	N.D.	d	
98)	Isobutyl alcohol		12.341	12.176	0.968	0m	N.D.	d	
99)	Methyl tert-amyl ether		12.524	12.500	0.982	0m	N.D.	d	
100)	Methyl methacrylate		13.621	13.560	1.068	0m	N.D.	d	
101)	1,4-Dioxane		13.676	13.652	1.072	0m	N.D.	d	
102)	2-Nitropropane		13.987	14.103	1.097	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072118V3\
Data File : 3Q603.D
Acq On : 21 Jul 2018 10:55
Operator : JP1
InstName : VOA3
Sample : |W3VM180721-01|CCV|1|VOA|1|VOA8260CL|
Misc : CCV/LCS 5UL/5ML N/A MIX[A]0411-10H/0601-10I/0312-09F/0720-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 21 11:23:29 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
104) Ethyl methacrylate		14.889	14.987	0.913	0m	N.D.	d
106) 1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108) Cyclohexanone		17.553	17.535	0.934	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		17.791	17.718	0.947	0m	N.D.	d
110) Pentachloroethane		18.388	18.395	0.979	0m	N.D.	d
111) Benzyl chloride		18.986	18.943	1.010	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		19.388	19.346	1.032	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072118V3\
Data File : 3Q603.D
Acq On : 21 Jul 2018 10:55
Operator : JP1
InstName : VOA3
Sample : |W3VM180721-01|CCV|1|VOA|1|VOA8260CL|
Misc : CCV/LCS 5UL/5ML N/A MIX[A]0411-10H/0601-10I/0312-09F/0720-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 21 11:23:29 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Continuing Calibration Summary

Client SDG: 454944

Instrument ID: VOA3.I

Injection Date: 21-JUL-18 11:57

Data File: 072118V3\3Q605.D

Init. Cal. Date(s) 02-JUL-18 13:56 - 02-JUL-18 22:15

Lab Sample ID W3VM180721-04

Method: 070218V3\VOA3-8260C-070218.M

Quant Type ISTD

Method Update: 03-JUL-18 07:30

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.1871	0.18794		.01		0.44896	20		Averaged
S	Toluene-d8	2.3294	2.09434		.01		-10.09101	20		Averaged
S	Bromofluorobenzene	0.9829	1.03728		.01		5.53261	20		Averaged
	Trichlorotrifluoroethane	0.3544	0.34403		.01		-2.92607	20		Averaged
	1,4-Dioxane	0.0032	0.00317		.01		-0.9375	20		Averaged

Quantitation Report
GEL Laboratories, LLC

JP
07/23/2018

Data Path : C:\msdchem\1\data\072118V3\
Data File : 3Q605.D
Acq On : 21 Jul 2018 11:57
Operator : JP1
InstName : VOA3
Sample : |W3VM180721-04|CCV|1|VOA|1|VOA8260CL|
Misc : CCV/LCS 5UL/5ML N/A MIX[B]0503-08D/0613-08C
ALS Vial : 5 Sample Multiplier: 1

EM
07/23/2018

Quant Time: Jul 23 08:34:26 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.762	12.761	1.000	1430880	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	704413	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	623322	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	1434026	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	715318	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	624087	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	268926	50.22	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	1475280	44.95	ug/L	0.00
63) Bromofluorobenzene	95	17.560	17.559	0.934	646559	52.77	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane		4.991	4.990	0.391	0m	N.D.	d	
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		0.000	6.159	0.000	0	N.D.		
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		7.062	7.061	0.553	0m	N.D.	d	
8) Ethyl ether		7.604	7.610	0.596	0m	N.D.	d	
9) Acetone		8.165	8.232	0.640	0m	N.D.	d	
10) 1,1-Dichloroethylene		8.159	8.177	0.639	0m	N.D.	d	
11) Iodomethane		8.452	8.500	0.662	0m	N.D.	d	
12) Acetonitrile		8.842	8.817	0.693	0m	N.D.	d	
13) Methyl acetate		8.848	8.854	0.693	0m	N.D.	d	
14) Carbon disulfide		8.592	8.665	0.673	0m	N.D.	d	
15) Methylene chloride		9.092	9.091	0.712	0m	N.D.	d	
16) tert-Butyl methyl ether		9.537	9.537	0.747	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		9.567	9.567	0.750	0m	N.D.	d	
18) Hexane		9.994	9.988	0.783	0m	N.D.	d	
19) Vinyl acetate		10.317	10.317	0.808	0m	N.D.	d	
20) 1,1-Dichloroethane		10.280	10.286	0.806	0m	N.D.	d	
21) 2-Butanone		11.183	11.183	0.876	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		11.177	11.183	0.876	0m	N.D.	d	
23) 2,2-Dichloropropane		11.189	11.195	0.877	0m	N.D.	d	
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		11.634	11.628	0.912	0m	N.D.	d	
26) 1,1,1-Trichloroethane		11.908	11.914	0.933	0m	N.D.	d	
27) Cyclohexane		12.012	11.999	0.941	0m	N.D.	d	
28) 1,1-Dichloropropene		12.170	12.127	0.954	0m	N.D.	d	
29) Carbon tetrachloride		12.158	12.146	0.953	0m	N.D.	d	
31) 1,2-Dichloroethane		12.445	12.438	0.975	0m	N.D.	d	
32) Benzene		12.426	12.426	0.974	0m	N.D.	d	
33) Cyclohexene		12.493	12.548	0.979	0m	N.D.	d	
34) n-Butyl alcohol		13.030	13.024	1.021	0m	N.D.	d	
35) Trichloroethylene		13.225	13.225	1.036	0m	N.D.	d	
36) 2-Pentanone		13.402	13.396	1.050	0m	N.D.	d	
37) 1,2-Dichloropropane		13.530	13.524	1.060	0m	N.D.	d	
38) Methylcyclohexane		13.481	13.475	1.056	0m	N.D.	d	
39) Dibromomethane		13.682	13.682	1.072	0m	N.D.	d	
40) Bromodichloromethane		13.841	13.834	1.085	0m	N.D.	d	
41) 2-Chloroethylvinyl ether		14.127	14.127	1.107	0m	N.D.	d	
42) cis-1,3-Dichloropropylene		14.359	14.353	1.125	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072118V3\
Data File : 3Q605.D
Acq On : 21 Jul 2018 11:57
Operator : JP1
InstName : VOA3
Sample : |W3VM180721-04|CCV|1|VOA|1|VOA8260CL|
Misc : CCV/LCS 5UL/5ML N/A MIX[B]0503-08D/0613-08C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 23 08:34:26 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44) 4-Methyl-2-pentanone		14.487	14.487	0.888	0m	N.D.	d	
46) Toluene		14.755	14.755	0.904	0m	N.D.	d	
47) trans-1,3-Dichloroprop...		14.962	14.968	0.917	0m	N.D.	d	
48) 1,1,2-Trichloroethane		15.200	15.200	0.932	0m	N.D.	d	
49) 2-Hexanone		15.420	15.413	0.945	0m	N.D.	d	
50) 1,3-Dichloropropane		15.401	15.401	0.944	0m	N.D.	d	
51) Tetrachloroethylene		15.383	15.383	0.943	0m	N.D.	d	
52) Dibromochloromethane		15.682	15.676	0.961	0m	N.D.	d	
53) 1,2-Dibromoethane		15.846	15.840	0.971	0m	N.D.	d	
54) Chlorobenzene		16.352	16.352	1.002	0m	N.D.	d	
55) 1,1,1,2-Tetrachloroethane		16.420	16.419	1.006	0m	N.D.	d	
56) Ethylbenzene		16.426	16.425	1.007	0m	N.D.	d	
57) m,p-Xylenes		16.541	16.541	1.014	0m	N.D.	d	
58) o-Xylene		16.993	16.986	1.041	0m	N.D.	d	
59) Styrene		16.999	16.992	1.042	0m	N.D.	d	
61) Bromoform		17.267	17.261	0.919	0m	N.D.	d	
62) Isopropylbenzene		17.352	17.358	0.923	0m	N.D.	d	
64) 1,1,2,2-Tetrachloroethane		17.718	17.663	0.943	0m	N.D.	d	
65) 1,2,3-Trichloropropane		17.718	17.748	0.943	0m	N.D.	d	
66) Bromobenzene		17.767	17.767	0.945	0m	N.D.	d	
67) n-Propylbenzene		17.791	17.791	0.947	0m	N.D.	d	
68) 1,3,5-Trimethylbenzene		17.950	17.949	0.955	0m	N.D.	d	
69) 2-Chlorotoluene		17.931	17.937	0.954	0m	N.D.	d	
70) 4-Chlorotoluene		18.041	18.041	0.960	0m	N.D.	d	
71) tert-Butylbenzene		18.322	18.321	0.975	0m	N.D.	d	
72) 1,2,4-Trimethylbenzene		18.364	18.364	0.977	0m	N.D.	d	
73) sec-Butylbenzene		18.547	18.547	0.987	0m	N.D.	d	
74) 4-Isopropyltoluene		18.669	18.675	0.994	0m	N.D.	d	
75) 1,3-Dichlorobenzene		18.736	18.730	0.997	0m	N.D.	d	
76) 1,4-Dichlorobenzene		18.815	18.821	1.001	0m	N.D.	d	
77) n-Butylbenzene		19.108	19.108	1.017	0m	N.D.	d	
78) 1,2-Dichlorobenzene		19.242	19.236	1.024	0m	N.D.	d	
79) 1,2-Dibromo-3-chloropr...		20.108	20.108	1.070	0m	N.D.	d	
80) 1,2,4-Trichlorobenzene		21.120	21.113	1.124	0m	N.D.	d	
81) Hexachlorobutadiene		21.272	21.278	1.132	0m	N.D.	d	
82) Naphthalene		21.498	21.491	1.144	0m	N.D.	d	
83) 1,2,3-Trichlorobenzene		21.827	21.821	1.162	0m	N.D.	d	
85) Acrolein	56	7.927	7.927	0.621	369239	260.12	ug/L	98
86) Trichlorotrifluoroethane	101	8.165	8.165	0.640	2466716	242.65	ug/L	96
87) Isopropyl Alcohol	45	8.464	8.464	0.663	1532316	2446.47	ug/L	99
88) Allyl chloride	76	8.842	8.842	0.693	1156743	250.80	ug/L	92
89) tert-Butyl Alcohol	59	9.220	9.220	0.722	2613064	2537.78	ug/L	97
90) Acrylonitrile	53	9.531	9.531	0.747	645341	239.79	ug/L	98
91) Isopropyl ether	45	10.317	10.317	0.808	1274351	50.99	ug/L	98
92) 2-Chloro-1,3-butadiene	53	10.427	10.427	0.817	628894	52.34	ug/L	96
93) Ethyl tert-butyl ether	59	10.890	10.890	0.853	1349396	53.69	ug/L	99
94) Ethyl acetate	43	11.219	11.225	0.879	1739521	245.24	ug/L	97
95) Propionitrile	54	11.299	11.305	0.885	242732	225.21	ug/L	98
96) Methacrylonitrile	67	11.512	11.512	0.902	769422	259.33	ug/L	93
97) Tetrahydrofuran	42	11.603	11.597	0.909	526894	223.92	ug/L	95
98) Isobutyl alcohol	43	12.176	12.176	0.954	960686	2603.29	ug/L	98
99) Methyl tert-amyl ether	73	12.493	12.500	0.979	1218989	52.83	ug/L	97
100) Methyl methacrylate	69	13.560	13.560	1.063	1308308	284.08	ug/L	93
101) 1,4-Dioxane	88	13.652	13.652	1.070	227475	2472.99	ug/L	99
102) 2-Nitropropane	43	14.103	14.103	1.105	610128	235.12	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072118V3\
Data File : 3Q605.D
Acq On : 21 Jul 2018 11:57
Operator : JP1
InstName : VOA3
Sample : |W3VM180721-04|CCV|1|VOA|1|VOA8260CL|
Misc : CCV/LCS 5UL/5ML N/A MIX[B]0503-08D/0613-08C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 23 08:34:26 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
104) Ethyl methacrylate	69	14.987	14.987	0.919	2362996	234.51	ug/L	95
106) 1-Chlorohexane	91	16.231	16.231	0.864	518430	51.63	ug/L	96
107) cis-1,4-Dichloro-2-butene	53	17.425	17.425	0.927	777634	248.13	ug/L	94
108) Cyclohexanone	55	17.535	17.535	0.933	287278	1092.07	ug/L	99
109) trans-1,4-Dichloro-2-b...	53	17.718	17.718	0.943	674575	239.20	ug/L	92
110) Pentachloroethane	167	18.395	18.395	0.979	1562085	245.93	ug/L	97
111) Benzyl chloride	91	18.943	18.943	1.008	4719842	290.41	ug/L	100
112) bis(2-Chloroisopropyl)...	45	19.346	19.346	1.030	1111521	235.14	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072118V3\
Data File : 3Q605.D
Acq On : 21 Jul 2018 11:57
Operator : JP1
InstName : VOA3
Sample : |W3VM180721-04|CCV|1|VOA|1|VOA8260CL|
Misc : CCV/LCS 5UL/5ML N/A MIX[B]0503-08D/0613-08C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 23 08:34:26 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Continuing Calibration Summary

Client SDG: 454944

Instrument ID: VOA3.I **Injection Date:** 24-JUL-18 10:09

Data File: 072418V3\3R202.D **Init. Cal. Date(s)** 02-JUL-18 13:56 - 02-JUL-18 22:15

Lab Sample ID W3VM180724-01 **Method:** 070218V3\VOA3-8260C-070218.M

Quant Type ISTD **Method Update:** 03-JUL-18 07:30

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.1871	0.18367		.01		-1.83324	20		Averaged
S	Toluene-d8	2.3294	2.16127		.01		-7.21774	20		Averaged
S	Bromofluorobenzene	0.9829	1.04445		.01		6.26208	20		Averaged
	Dichlorodifluoromethane	0.4299	0.44805		.01		4.22191	20		Averaged
	Chloromethane	0.436	0.38776		.1		-11.06422	20		Averaged
	Vinyl chloride	0.4188	0.44993		.01		7.43314	20		Averaged
	Bromomethane	0.2977	0.32374		.01		8.74706	20		Averaged
	Chloroethane	0.2918	0.33269		.01		14.01302	20		Averaged
	Trichlorofluoromethane	0.6397	0.71036		.01		11.0458	20		Averaged
	1,1-Dichloroethylene	0.5384	0.59854		.01		11.17013	20		Averaged
	Acetone	0.1805	0.19405		.01		7.50693	20		Averaged
	Carbon disulfide	1.0314	1.15061		.01		11.55808	20		Averaged
	Methyl acetate	0.0508	0.05261		.01		3.56299	20		Averaged
	Methylene chloride	50	55.14	50			10.28	20		Linear
	tert-Butyl methyl ether	0.8319	0.98691		.01		18.63325	20		Averaged
	trans-1,2-Dichloroethylene	0.4531	0.47406		.01		4.62591	20		Averaged
	1,1-Dichloroethane	0.5764	0.60214		.1		4.46565	20		Averaged
	2-Butanone	0.0435	0.05577		.01		28.2069	20	*	Averaged
	cis-1,2-Dichloroethylene	0.3015	0.32002		.01		6.14262	20		Averaged
	Bromochloromethane	0.1384	0.14452		.01		4.42197	20		Averaged
	Chloroform	0.5917	0.62923		.01		6.34274	20		Averaged
	1,1,1-Trichloroethane	0.5413	0.56485		.01		4.35064	20		Averaged
	Cyclohexane	0.4823	0.52007		.01		7.83123	20		Averaged
	Carbon tetrachloride	0.4989	0.50109		.01		0.43897	20		Averaged
	Benzene	1.1517	1.20204		.01		4.37093	20		Averaged
	1,2-Dichloroethane	0.4666	0.46842		.01		0.39006	20		Averaged
	Trichloroethylene	0.3016	0.3259		.01		8.05703	20		Averaged
	Methylcyclohexane	0.4919	0.52925		.01		7.59301	20		Averaged
	1,2-Dichloropropane	0.2921	0.31192		.01		6.78535	20		Averaged
	Bromodichloromethane	0.4344	0.47764		.01		9.95396	20		Averaged
	cis-1,3-Dichloropropylene	0.4666	0.5522		.01		18.34548	20		Averaged
	4-Methyl-2-pentanone	0.2201	0.21726		.01		-1.29032	20		Averaged
	Toluene	2.5146	2.51102		.01		-0.14237	20		Averaged
	trans-1,3-Dichloropropylene	0.9796	1.08		.01		10.24908	20		Averaged
	1,1,2-Trichloroethane	0.4711	0.47566		.01		0.96795	20		Averaged
	Tetrachloroethylene	0.5317	0.49555		.01		-6.79895	20		Averaged
	2-Hexanone	0.2758	0.32262		.01		16.97607	20		Averaged

Continuing Calibration Summary

Instrument ID: VOA3.I **Injection Date:** 24-JUL-18 10:09

Data File: 072418V3\3R202.D **Init. Cal. Date(s)** 02-JUL-18 13:56 02-JUL-18 22:15

Lab Sample ID W3VM180724-01 **Method:** 070218V3\VOA3-8260C-070218.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Dibromochloromethane	0.6605	0.66579		.01		0.80091	20		Averaged
1,2-Dibromoethane	0.5473	0.56777		.01		3.74018	20		Averaged
Chlorobenzene	1.6589	1.61082		.3		-2.89831	20		Averaged
Ethylbenzene	2.9017	2.95751		.01		1.92336	20		Averaged
m,p-Xylenes	1.0734	1.05382		.01		-1.82411	20		Averaged
o-Xylene	1.0764	1.04326		.01		-3.07878	20		Averaged
Styrene	1.7104	1.70338		.01		-0.41043	20		Averaged
Bromoform	0.4572	0.51727		.1		13.13867	20		Averaged
Isopropylbenzene	3.1716	3.28005		.01		3.41941	20		Averaged
1,1,2,2-Tetrachloroethane	0.833	0.89368		.3		7.28451	20		Averaged
1,3-Dichlorobenzene	1.5807	1.5146		.01		-4.18169	20		Averaged
1,4-Dichlorobenzene	1.5657	1.53239		.01		-2.12748	20		Averaged
1,2-Dichlorobenzene	1.5259	1.55237		.01		1.73471	20		Averaged
1,2-Dibromo-3-chloropropane	0.1727	0.19619		.01		13.60162	20		Averaged
1,2,4-Trichlorobenzene	1.2723	1.43255		.01		12.5953	20		Averaged
1,2,3-Trichlorobenzene	1.2606	1.39249		.01		10.46248	20		Averaged

Quantitation Report
GEL Laboratories, LLC

JP
07/25/2018

KP
07/26/2018

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R202.D
Acq On : 24 Jul 2018 10:09
Operator : JP1
InstName : VOA3
Sample : |W3VM180724-01|CCV|1|VOA|1|VOA8260CL|
Misc : CCV 5UL/5ML N/A MIX[A]0612-07G/0629-07E/0312-09G
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 24 10:47:38 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.756	12.761	1.000	1435026	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	686822	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	622360	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.756	12.762	1.000	1437249	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	700448	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	622757	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.335	12.341	0.967	263571	49.08	ug/L	0.00
45) Toluene-d8	98	14.670	14.676	0.899	1484405	46.39	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	650022	53.13	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.552	4.552	0.357	642965	52.11	ug/L	99
3) Chloromethane	50	4.991	4.990	0.391	556445	44.47	ug/L	99
4) Vinyl chloride	62	5.301	5.319	0.416	645662	53.72	ug/L	100
5) Bromomethane	94	6.159	6.159	0.483	464581	54.38	ug/L	99
6) Chloroethane	64	6.373	6.372	0.500	477414	57.00	ug/L	100
7) Trichlorofluoromethane	101	7.049	7.061	0.553	1019390	55.52	ug/L	100
8) Ethyl ether	59	7.598	7.610	0.596	358341	54.82	ug/L	97
9) Acetone	43	8.226	8.232	0.645	1392307	268.74	ug/L	97
10) 1,1-Dichloroethylene	61	8.165	8.177	0.640	858921	55.59	ug/L	98
11) Iodomethane	142	8.494	8.500	0.666	3718835	261.67	ug/L	99
12) Acetonitrile	41	8.805	8.817	0.690	1335059	1183.40	ug/L	99
13) Methyl acetate	74	8.842	8.854	0.693	377494	258.90	ug/L #	83
14) Carbon disulfide	76	8.659	8.665	0.679	8255742	278.90	ug/L	100
15) Methylene chloride	84	9.085	9.091	0.712	515597	55.14	ug/L	93
16) tert-Butyl methyl ether	73	9.518	9.537	0.746	1416242	59.32	ug/L	97
17) trans-1,2-Dichloroethy...	61	9.555	9.567	0.749	680287	52.31	ug/L	99
18) Hexane	57	9.982	9.988	0.783	589235	49.51	ug/L	97
19) Vinyl acetate	43	10.311	10.317	0.808	3563228	321.52	ug/L	96
20) 1,1-Dichloroethane	63	10.280	10.286	0.806	864081	52.24	ug/L	99
21) 2-Butanone	72	11.170	11.183	0.876	400182	320.27	ug/L #	83
22) cis-1,2-Dichloroethylene	96	11.177	11.183	0.876	459234	53.07	ug/L	96
23) 2,2-Dichloropropane	77	11.189	11.195	0.877	771389	54.14	ug/L	94
24) Bromochloromethane	128	11.536	11.548	0.904	207386	52.22	ug/L	96
25) Chloroform	83	11.622	11.628	0.911	902960	53.17	ug/L	100
26) 1,1,1-Trichloroethane	97	11.908	11.914	0.934	810575	52.17	ug/L	99
27) Cyclohexane	56	11.993	11.999	0.940	746320	53.91	ug/L	97
28) 1,1-Dichloropropene	75	12.121	12.127	0.950	608209	51.60	ug/L	96
29) Carbon tetrachloride	117	12.140	12.146	0.952	719076	50.21	ug/L	98
31) 1,2-Dichloroethane	62	12.432	12.438	0.975	672188	50.20	ug/L	99
32) Benzene	78	12.420	12.426	0.974	1724956	52.18	ug/L	99
33) Cyclohexene	67	12.536	12.548	0.983	946665	56.61	ug/L	95
34) n-Butyl alcohol	56	13.018	13.024	1.021	1343644	5503.38	ug/L	95
35) Trichloroethylene	95	13.219	13.225	1.036	467674	54.04	ug/L	96
36) 2-Pentanone	43	13.390	13.396	1.050	1622273	288.36	ug/L	98
37) 1,2-Dichloropropane	63	13.518	13.524	1.060	447614	53.39	ug/L	99
38) Methylcyclohexane	83	13.469	13.475	1.056	759482	53.79	ug/L	95
39) Dibromomethane	93	13.676	13.682	1.072	289883	54.41	ug/L	99
40) Bromodichloromethane	83	13.828	13.834	1.084	685424	54.97	ug/L	99
41) 2-Chloroethylvinyl ether	63	14.121	14.127	1.107	1218964	262.41	ug/L	99
42) cis-1,3-Dichloropropylene	75	14.347	14.353	1.125	792426	59.17	ug/L	96

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R202.D
Acq On : 24 Jul 2018 10:09
Operator : JP1
InstName : VOA3
Sample : |W3VM180724-01|CCV|1|VOA|1|VOA8260CL|
Misc : CCV 5UL/5ML N/A MIX[A]0612-07G/0629-07E/0312-09G
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 24 10:47:38 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44)	4-Methyl-2-pentanone	58	14.481	14.487	0.888	746099	246.79	ug/L	92
46)	Toluene	91	14.749	14.755	0.904	1724627	49.93	ug/L	99
47)	trans-1,3-Dichloroprop...	75	14.962	14.968	0.917	741766	55.12	ug/L	96
48)	1,1,2-Trichloroethane	83	15.194	15.200	0.931	326694	50.48	ug/L	100
49)	2-Hexanone	58	15.414	15.413	0.945	1107917	292.40	ug/L	95
50)	1,3-Dichloropropane	76	15.395	15.401	0.944	651534	50.24	ug/L	99
51)	Tetrachloroethylene	164	15.383	15.383	0.943	340352	46.60	ug/L	98
52)	Dibromochloromethane	129	15.676	15.676	0.961	457276	50.40	ug/L	99
53)	1,2-Dibromoethane	107	15.840	15.840	0.971	389956	51.87	ug/L	99
54)	Chlorobenzene	112	16.346	16.352	1.002	1106344	48.55	ug/L	99
55)	1,1,1,2-Tetrachloroethane	131	16.413	16.419	1.006	451988	48.96	ug/L	100
56)	Ethylbenzene	91	16.419	16.425	1.006	2031284	50.96	ug/L	99
57)	m,p-Xylenes	106	16.535	16.541	1.013	1447576	98.17	ug/L	99
58)	o-Xylene	106	16.980	16.986	1.041	716535	48.46	ug/L	99
59)	Styrene	104	16.993	16.992	1.041	1169916	49.80	ug/L	99
61)	Bromoform	173	17.261	17.261	0.919	321928	56.57	ug/L	99
62)	Isopropylbenzene	105	17.352	17.358	0.923	2041375	51.71	ug/L	99
64)	1,1,2,2-Tetrachloroethane	83	17.663	17.663	0.940	556191	53.64	ug/L	99
65)	1,2,3-Trichloropropane	75	17.748	17.748	0.945	536642	52.32	ug/L	92
66)	Bromobenzene	156	17.767	17.767	0.945	482737	49.85	ug/L	96
67)	n-Propylbenzene	91	17.791	17.791	0.947	2444667	51.98	ug/L	98
68)	1,3,5-Trimethylbenzene	105	17.950	17.949	0.955	1741021	51.13	ug/L	99
69)	2-Chlorotoluene	126	17.937	17.937	0.955	469862	50.64	ug/L	95
70)	4-Chlorotoluene	91	18.041	18.041	0.960	1553627	51.69	ug/L	98
71)	tert-Butylbenzene	134	18.322	18.321	0.975	323443	50.02	ug/L	94
72)	1,2,4-Trimethylbenzene	105	18.364	18.364	0.977	1795474	51.44	ug/L	99
73)	sec-Butylbenzene	105	18.547	18.547	0.987	2321193	50.55	ug/L	99
74)	4-Isopropyltoluene	119	18.669	18.675	0.994	1908767	49.46	ug/L	99
75)	1,3-Dichlorobenzene	146	18.730	18.730	0.997	942625	47.91	ug/L	99
76)	1,4-Dichlorobenzene	146	18.815	18.821	1.001	953698	48.94	ug/L	99
77)	n-Butylbenzene	91	19.108	19.108	1.017	2075230	53.86	ug/L	99
78)	1,2-Dichlorobenzene	146	19.236	19.236	1.024	966134	50.87	ug/L	99
79)	1,2-Dibromo-3-chloropr...	157	20.108	20.108	1.070	122098	56.78	ug/L	98
80)	1,2,4-Trichlorobenzene	180	21.114	21.113	1.124	891560	56.30	ug/L	99
81)	Hexachlorobutadiene	225	21.272	21.278	1.132	595537	54.49	ug/L	100
82)	Naphthalene	128	21.492	21.491	1.144	1865376	54.15	ug/L	100
83)	1,2,3-Trichlorobenzene	180	21.821	21.821	1.161	866628	55.23	ug/L	99
85)	Acrolein		7.817	7.927	0.613	0m	N.D.	d	
86)	Trichlorotrifluoroethane		8.159	8.165	0.640	0m	N.D.	d	
87)	Isopropyl Alcohol		8.665	8.464	0.679	0m	N.D.	d	
88)	Allyl chloride		8.659	8.842	0.679	0m	N.D.	d	
89)	tert-Butyl Alcohol		0.000	9.220	0.000	0	N.D.		
90)	Acrylonitrile		9.518	9.531	0.746	0m	N.D.	d	
91)	Isopropyl ether		10.305	10.317	0.808	0m	N.D.	d	
92)	2-Chloro-1,3-butadiene		10.482	10.427	0.822	0m	N.D.	d	
93)	Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.		
94)	Ethyl acetate		11.170	11.225	0.876	0m	N.D.	d	
95)	Propionitrile		11.164	11.305	0.875	0m	N.D.	d	
96)	Methacrylonitrile		0.000	11.512	0.000	0	N.D.		
97)	Tetrahydrofuran		11.603	11.597	0.910	0m	N.D.	d	
98)	Isobutyl alcohol		12.170	12.176	0.954	0m	N.D.	d	
99)	Methyl tert-amyl ether		12.530	12.500	0.982	0m	N.D.	d	
100)	Methyl methacrylate		13.591	13.560	1.065	0m	N.D.	d	
101)	1,4-Dioxane		13.676	13.652	1.072	0m	N.D.	d	
102)	2-Nitropropane		14.121	14.103	1.107	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R202.D
Acq On : 24 Jul 2018 10:09
Operator : JP1
InstName : VOA3
Sample : |W3VM180724-01|CCV|1|VOA|1|VOA8260CL|
Misc : CCV 5UL/5ML N/A MIX[A]0612-07G/0629-07E/0312-09G
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 24 10:47:38 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
104) Ethyl methacrylate		14.865	14.987	0.911	0m	N.D.	d
106) 1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108) Cyclohexanone		17.553	17.535	0.934	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		17.791	17.718	0.947	0m	N.D.	d
110) Pentachloroethane		18.395	18.395	0.979	0m	N.D.	d
111) Benzyl chloride		18.913	18.943	1.006	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		19.388	19.346	1.032	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R202.D
Acq On : 24 Jul 2018 10:09
Operator : JP1
InstName : VOA3
Sample : |W3VM180724-01|CCV|1|VOA|1|VOA8260CL|
Misc : CCV 5UL/5ML N/A MIX[A]0612-07G/0629-07E/0312-09G
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 24 10:47:38 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Continuing Calibration Summary

Client SDG: 454944

Instrument ID: VOA3.I

Injection Date: 24-JUL-18 11:45

Data File: 072418V3\3R205.D

Init. Cal. Date(s) 02-JUL-18 13:56 - 02-JUL-18 22:15

Lab Sample ID W3VM180724-04

Method: 070218V3\VOA3-8260C-070218.M

Quant Type ISTD

Method Update: 03-JUL-18 07:30

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.1871	0.18167		.01		-2.90219	20		Averaged
S	Toluene-d8	2.3294	2.17303		.01		-6.71289	20		Averaged
S	Bromofluorobenzene	0.9829	1.08625		.01		10.5148	20		Averaged
	Trichlorotrifluoroethane	0.3544	0.35425		.01		-0.04233	20		Averaged
	1,4-Dioxane	0.0032	0.00304		.01		-5	20		Averaged

Quantitation Report
GEL Laboratories, LLC

JP
07/25/2018

KP
07/26/2018

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R205.D
Acq On : 24 Jul 2018 11:45
Operator : JP1
InstName : VOA3
Sample : |W3VM180724-04|CCV|1|VOA|1|VOA8260CL|
Misc : CCV/LCS 5UL/5ML N/A MIX[B]0503-08D/0613-08C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 25 08:29:20 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.762	12.761	1.000	1537425	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	738672	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	678786	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	1540706	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	750431	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	679510	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	279306	48.55	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	1605155	46.64	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	737331	55.26	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane		4.972	4.990	0.390	0m	N.D.	d	
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		5.922	6.159	0.464	0m	N.D.	d	
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		7.074	7.061	0.554	0m	N.D.	d	
8) Ethyl ether		7.628	7.610	0.598	0m	N.D.	d	
9) Acetone		8.165	8.232	0.640	0m	N.D.	d	
10) 1,1-Dichloroethylene		8.140	8.177	0.638	0m	N.D.	d	
11) Iodomethane		8.476	8.500	0.664	0m	N.D.	d	
12) Acetonitrile		8.842	8.817	0.693	0m	N.D.	d	
13) Methyl acetate		8.854	8.854	0.694	0m	N.D.	d	
14) Carbon disulfide		8.604	8.665	0.674	0m	N.D.	d	
15) Methylene chloride		9.079	9.091	0.711	0m	N.D.	d	
16) tert-Butyl methyl ether		9.524	9.537	0.746	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		9.561	9.567	0.749	0m	N.D.	d	
18) Hexane		10.000	9.988	0.784	0m	N.D.	d	
19) Vinyl acetate		10.317	10.317	0.808	0m	N.D.	d	
20) 1,1-Dichloroethane		10.293	10.286	0.807	0m	N.D.	d	
21) 2-Butanone		11.201	11.183	0.878	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		11.183	11.183	0.876	0m	N.D.	d	
23) 2,2-Dichloropropane		11.195	11.195	0.877	0m	N.D.	d	
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		11.615	11.628	0.910	0m	N.D.	d	
26) 1,1,1-Trichloroethane		11.908	11.914	0.933	0m	N.D.	d	
27) Cyclohexane		11.993	11.999	0.940	0m	N.D.	d	
28) 1,1-Dichloropropene		12.121	12.127	0.950	0m	N.D.	d	
29) Carbon tetrachloride		12.152	12.146	0.952	0m	N.D.	d	
31) 1,2-Dichloroethane		12.445	12.438	0.975	0m	N.D.	d	
32) Benzene		12.426	12.426	0.974	0m	N.D.	d	
33) Cyclohexene		12.499	12.548	0.979	0m	N.D.	d	
34) n-Butyl alcohol		13.024	13.024	1.021	0m	N.D.	d	
35) Trichloroethylene		13.231	13.225	1.037	0m	N.D.	d	
36) 2-Pentanone		13.408	13.396	1.051	0m	N.D.	d	
37) 1,2-Dichloropropane		13.530	13.524	1.060	0m	N.D.	d	
38) Methylcyclohexane		13.469	13.475	1.055	0m	N.D.	d	
39) Dibromomethane		13.688	13.682	1.073	0m	N.D.	d	
40) Bromodichloromethane		13.841	13.834	1.085	0m	N.D.	d	
41) 2-Chloroethylvinyl ether		14.127	14.127	1.107	0m	N.D.	d	
42) cis-1,3-Dichloropropylene		14.353	14.353	1.125	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R205.D
Acq On : 24 Jul 2018 11:45
Operator : JP1
InstName : VOA3
Sample : |W3VM180724-04|CCV|1|VOA|1|VOA8260CL|
Misc : CCV/LCS 5UL/5ML N/A MIX[B]0503-08D/0613-08C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 25 08:29:20 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44)	4-Methyl-2-pentanone		14.493	14.487	0.888	0m	N.D.	d	
46)	Toluene		14.761	14.755	0.905	0m	N.D.	d	
47)	trans-1,3-Dichloroprop...		14.968	14.968	0.917	0m	N.D.	d	
48)	1,1,2-Trichloroethane		15.200	15.200	0.932	0m	N.D.	d	
49)	2-Hexanone		15.426	15.413	0.945	0m	N.D.	d	
50)	1,3-Dichloropropane		15.407	15.401	0.944	0m	N.D.	d	
51)	Tetrachloroethylene		15.389	15.383	0.943	0m	N.D.	d	
52)	Dibromochloromethane		15.688	15.676	0.962	0m	N.D.	d	
53)	1,2-Dibromoethane		15.846	15.840	0.971	0m	N.D.	d	
54)	Chlorobenzene		16.352	16.352	1.002	0m	N.D.	d	
55)	1,1,1,2-Tetrachloroethane		16.419	16.419	1.006	0m	N.D.	d	
56)	Ethylbenzene		16.419	16.425	1.006	0m	N.D.	d	
57)	m,p-Xylenes		16.535	16.541	1.013	0m	N.D.	d	
58)	o-Xylene		16.992	16.986	1.041	0m	N.D.	d	
59)	Styrene		16.999	16.992	1.042	0m	N.D.	d	
61)	Bromoform		17.267	17.261	0.919	0m	N.D.	d	
62)	Isopropylbenzene		17.358	17.358	0.924	0m	N.D.	d	
64)	1,1,2,2-Tetrachloroethane		17.663	17.663	0.940	0m	N.D.	d	
65)	1,2,3-Trichloropropane		17.718	17.748	0.943	0m	N.D.	d	
66)	Bromobenzene		17.761	17.767	0.945	0m	N.D.	d	
67)	n-Propylbenzene		17.791	17.791	0.947	0m	N.D.	d	
68)	1,3,5-Trimethylbenzene		17.950	17.949	0.955	0m	N.D.	d	
69)	2-Chlorotoluene		17.943	17.937	0.955	0m	N.D.	d	
70)	4-Chlorotoluene		18.047	18.041	0.960	0m	N.D.	d	
71)	tert-Butylbenzene		18.321	18.321	0.975	0m	N.D.	d	
72)	1,2,4-Trimethylbenzene		18.364	18.364	0.977	0m	N.D.	d	
73)	sec-Butylbenzene		18.553	18.547	0.987	0m	N.D.	d	
74)	4-Isopropyltoluene		18.675	18.675	0.994	0m	N.D.	d	
75)	1,3-Dichlorobenzene		18.736	18.730	0.997	0m	N.D.	d	
76)	1,4-Dichlorobenzene		18.821	18.821	1.002	0m	N.D.	d	
77)	n-Butylbenzene		19.108	19.108	1.017	0m	N.D.	d	
78)	1,2-Dichlorobenzene		19.242	19.236	1.024	0m	N.D.	d	
79)	1,2-Dibromo-3-chloropr...		20.108	20.108	1.070	0m	N.D.	d	
80)	1,2,4-Trichlorobenzene		21.120	21.113	1.124	0m	N.D.	d	
81)	Hexachlorobutadiene		21.272	21.278	1.132	0m	N.D.	d	
82)	Naphthalene		21.498	21.491	1.144	0m	N.D.	d	
83)	1,2,3-Trichlorobenzene		21.827	21.821	1.162	0m	N.D.	d	
85)	Acrolein	56	7.933	7.927	0.622	394309	258.54	ug/L	99
86)	Trichlorotrifluoroethane	101	8.153	8.165	0.639	2729009	249.86	ug/L	97
87)	Isopropyl Alcohol	45	8.470	8.464	0.664	1561629	2320.63	ug/L	98
88)	Allyl chloride	76	8.842	8.842	0.693	1155820	233.25	ug/L #	84
89)	tert-Butyl Alcohol	59	9.226	9.220	0.723	2569209	2322.42	ug/L	97
90)	Acrylonitrile	53	9.530	9.531	0.747	626254	216.58	ug/L	98
91)	Isopropyl ether	45	10.317	10.317	0.808	1289885	48.04	ug/L	98
92)	2-Chloro-1,3-butadiene	53	10.433	10.427	0.818	664170	51.45	ug/L	93
93)	Ethyl tert-butyl ether	59	10.896	10.890	0.854	1377244	51.00	ug/L	99
94)	Ethyl acetate	43	11.225	11.225	0.880	1765584	231.67	ug/L	96
95)	Propionitrile	54	11.304	11.305	0.886	259840	224.39	ug/L	98
96)	Methacrylonitrile	67	11.518	11.512	0.903	810191	254.16	ug/L	89
97)	Tetrahydrofuran	42	11.603	11.597	0.909	535359	211.77	ug/L	94
98)	Isobutyl alcohol	43	12.182	12.176	0.955	924104	2330.77	ug/L	98
99)	Methyl tert-amyl ether	73	12.499	12.500	0.979	1274505	51.41	ug/L	96
100)	Methyl methacrylate	69	13.560	13.560	1.063	1240271	250.66	ug/L	91
101)	1,4-Dioxane	88	13.658	13.652	1.070	233833	2366.09	ug/L	97
102)	2-Nitropropane	43	14.103	14.103	1.105	556785	200.21	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R205.D
Acq On : 24 Jul 2018 11:45
Operator : JP1
InstName : VOA3
Sample : |W3VM180724-04|CCV|1|VOA|1|VOA8260CL|
Misc : CCV/LCS 5UL/5ML N/A MIX[B]0503-08D/0613-08C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 25 08:29:20 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
104) Ethyl methacrylate	69	14.993	14.987	0.919	2279004	215.59	ug/L	94
106) 1-Chlorohexane	91	16.230	16.231	0.864	584638	53.47	ug/L	94
107) cis-1,4-Dichloro-2-butene	53	17.425	17.425	0.927	755132	221.30	ug/L	90
108) Cyclohexanone	55	17.535	17.535	0.933	320652	1119.52	ug/L	98
109) trans-1,4-Dichloro-2-b...	53	17.718	17.718	0.943	673470	219.33	ug/L	89
110) Pentachloroethane	167	18.395	18.395	0.979	1621676	234.49	ug/L	96
111) Benzyl chloride	91	18.943	18.943	1.008	4638052	262.10	ug/L	100
112) bis(2-Chloroisopropyl)...	45	19.346	19.346	1.030	1030224	200.17	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R205.D
Acq On : 24 Jul 2018 11:45
Operator : JP1
InstName : VOA3
Sample : |W3VM180724-04|CCV|1|VOA|1|VOA8260CL|
Misc : CCV/LCS 5UL/5ML N/A MIX[B]0503-08D/0613-08C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 25 08:29:20 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Continuing Calibration Summary

Client SDG: 454944

Instrument ID: VOA3.I **Injection Date:** 27-JUL-18 11:42

Data File: 072718V3\3R503.D **Init. Cal. Date(s)** 02-JUL-18 13:56 - 02-JUL-18 22:15

Lab Sample ID W3VM180727-01 **Method:** 070218V3\VOA3-8260C-070218.M

Quant Type ISTD **Method Update:** 03-JUL-18 07:30

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.1871	0.1779		.01		-4.91716	20		Averaged
S	Toluene-d8	2.3294	2.10256		.01		-9.73813	20		Averaged
S	Bromofluorobenzene	0.9829	0.99879		.01		1.61664	20		Averaged
	Dichlorodifluoromethane	0.4299	0.44679		.01		3.92882	20		Averaged
	Chloromethane	0.436	0.37243		.1		-14.58028	20		Averaged
	Vinyl chloride	0.4188	0.42073		.01		0.46084	20		Averaged
	Bromomethane	0.2977	0.30927		.01		3.88646	20		Averaged
	Chloroethane	0.2918	0.29081		.01		-0.33927	20		Averaged
	Trichlorofluoromethane	0.6397	0.68206		.01		6.62185	20		Averaged
	1,1-Dichloroethylene	0.5384	0.55733		.01		3.51597	20		Averaged
	Acetone	0.1805	0.17064		.01		-5.4626	20		Averaged
	Carbon disulfide	1.0314	1.0407		.01		0.90169	20		Averaged
	Methyl acetate	0.0508	0.04788		.01		-5.74803	20		Averaged
	Methylene chloride	50	51.06	50			2.12	20		Linear
	tert-Butyl methyl ether	0.8319	0.90584		.01		8.88809	20		Averaged
	trans-1,2-Dichloroethylene	0.4531	0.43866		.01		-3.18693	20		Averaged
	1,1-Dichloroethane	0.5764	0.53314		.1		-7.5052	20		Averaged
	2-Butanone	0.0435	0.04773		.01		9.72414	20		Averaged
	cis-1,2-Dichloroethylene	0.3015	0.30486		.01		1.11443	20		Averaged
	Bromochloromethane	0.1384	0.13759		.01		-0.58526	20		Averaged
	Chloroform	0.5917	0.60451		.01		2.16495	20		Averaged
	1,1,1-Trichloroethane	0.5413	0.53706		.01		-0.7833	20		Averaged
	Cyclohexane	0.4823	0.46111		.01		-4.39353	20		Averaged
	Carbon tetrachloride	0.4989	0.48		.01		-3.78833	20		Averaged
	Benzene	1.1517	1.13302		.01		-1.62195	20		Averaged
	1,2-Dichloroethane	0.4666	0.46206		.01		-0.973	20		Averaged
	Trichloroethylene	0.3016	0.29588		.01		-1.89655	20		Averaged
	Methylcyclohexane	0.4919	0.45816		.01		-6.85912	20		Averaged
	1,2-Dichloropropane	0.2921	0.27134		.01		-7.10716	20		Averaged
	Bromodichloromethane	0.4344	0.45762		.01		5.3453	20		Averaged
	cis-1,3-Dichloropropylene	0.4666	0.53489		.01		14.63566	20		Averaged
	4-Methyl-2-pentanone	0.2201	0.19794		.01		-10.06815	20		Averaged
	Toluene	2.5146	2.31825		.01		-7.8084	20		Averaged
	trans-1,3-Dichloropropylene	0.9796	1.03802		.01		5.96366	20		Averaged
	1,1,2-Trichloroethane	0.4711	0.46054		.01		-2.24156	20		Averaged
	Tetrachloroethylene	0.5317	0.47604		.01		-10.46831	20		Averaged
	2-Hexanone	0.2758	0.28721		.01		4.13706	20		Averaged

Continuing Calibration Summary

Instrument ID: VOA3.I **Injection Date:** 27-JUL-18 11:42

Data File: 072718V3\3R503.D **Init. Cal. Date(s)** 02-JUL-18 13:56 02-JUL-18 22:15

Lab Sample ID W3VM180727-01 **Method:** 070218V3\VOA3-8260C-070218.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Dibromochloromethane	0.6605	0.63651		.01		-3.6321	20		Averaged
1,2-Dibromoethane	0.5473	0.53535		.01		-2.18345	20		Averaged
Chlorobenzene	1.6589	1.52361		.3		-8.1554	20		Averaged
Ethylbenzene	2.9017	2.68855		.01		-7.34569	20		Averaged
m,p-Xylenes	1.0734	0.94604		.01		-11.8651	20		Averaged
o-Xylene	1.0764	1.04198		.01		-3.1977	20		Averaged
Styrene	1.7104	1.70671		.01		-0.21574	20		Averaged
Bromoform	0.4572	0.4703		.1		2.86527	20		Averaged
Isopropylbenzene	3.1716	2.95644		.01		-6.78396	20		Averaged
1,1,2,2-Tetrachloroethane	0.833	0.80637		.3		-3.19688	20		Averaged
1,3-Dichlorobenzene	1.5807	1.4411		.01		-8.83153	20		Averaged
1,4-Dichlorobenzene	1.5657	1.45139		.01		-7.30089	20		Averaged
1,2-Dichlorobenzene	1.5259	1.42927		.01		-6.33266	20		Averaged
1,2-Dibromo-3-chloropropane	0.1727	0.16302		.01		-5.6051	20		Averaged
1,2,4-Trichlorobenzene	1.2723	1.33264		.01		4.74259	20		Averaged
1,2,3-Trichlorobenzene	1.2606	1.26858		.01		0.63303	20		Averaged

Quantitation Report
GEL Laboratories, LLC

JP
07/30/2018

KP
07/31/2018

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R503.D
Acq On : 27 Jul 2018 11:42
Operator : JP1
InstName : VOA3
Sample : |W3VM180727-01|CCV|1|VOA|1|VOA8260CL|
Misc : CCV 5UL/5ML N/A MIX[A]0612-07G/0629-07F/0312-09G
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 27 15:45:02 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.756	12.761	1.000	1490362	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	703338	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	649423	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.756	12.762	1.000	1494162	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	716464	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	649971	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.335	12.341	0.967	265133	47.54	ug/L	0.00
45) Toluene-d8	98	14.670	14.676	0.899	1478808	45.13	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	648639	50.81	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.552	4.552	0.357	665880	51.97	ug/L	100
3) Chloromethane	50	4.991	4.990	0.391	555059	42.71	ug/L	99
4) Vinyl chloride	62	5.301	5.319	0.416	627040	50.23	ug/L	100
5) Bromomethane	94	6.141	6.159	0.481	460929	51.95	ug/L	98
6) Chloroethane	64	6.379	6.372	0.500	433419	49.82	ug/L	100
7) Trichlorofluoromethane	101	7.049	7.061	0.553	1016509	53.31	ug/L	100
8) Ethyl ether	59	7.598	7.610	0.596	346464	51.04	ug/L	95
9) Acetone	43	8.220	8.232	0.644	1271553	236.32	ug/L	96
10) 1,1-Dichloroethylene	61	8.171	8.177	0.641	830628	51.76	ug/L	99
11) Iodomethane	142	8.500	8.500	0.666	3573825	242.13	ug/L	98
12) Acetonitrile	41	8.805	8.817	0.690	1223329	1044.10	ug/L	100
13) Methyl acetate	74	8.848	8.854	0.694	356770	235.60	ug/L #	81
14) Carbon disulfide	76	8.659	8.665	0.679	7755124	252.26	ug/L	100
15) Methylene chloride	84	9.098	9.091	0.713	496747	51.06	ug/L	92
16) tert-Butyl methyl ether	73	9.518	9.537	0.746	1350031	54.44	ug/L	97
17) trans-1,2-Dichloroethy...	61	9.555	9.567	0.749	653766	48.40	ug/L	99
18) Hexane	57	9.982	9.988	0.783	492287	39.83	ug/L	97
19) Vinyl acetate	43	10.305	10.317	0.808	3127892	271.76	ug/L	96
20) 1,1-Dichloroethane	63	10.280	10.286	0.806	794570	46.25	ug/L	98
21) 2-Butanone	72	11.170	11.183	0.876	355687	274.09	ug/L #	82
22) cis-1,2-Dichloroethylene	96	11.177	11.183	0.876	454345	50.56	ug/L	95
23) 2,2-Dichloropropane	77	11.183	11.195	0.877	762395	51.52	ug/L	93
24) Bromochloromethane	128	11.542	11.548	0.905	205062	49.72	ug/L	95
25) Chloroform	83	11.622	11.628	0.911	900933	51.08	ug/L	100
26) 1,1,1-Trichloroethane	97	11.908	11.914	0.934	800418	49.61	ug/L	99
27) Cyclohexane	56	11.993	11.999	0.940	687216	47.80	ug/L	95
28) 1,1-Dichloropropene	75	12.122	12.127	0.950	594592	48.58	ug/L	95
29) Carbon tetrachloride	117	12.140	12.146	0.952	715381	48.10	ug/L	98
31) 1,2-Dichloroethane	62	12.432	12.438	0.975	688635	49.52	ug/L	100
32) Benzene	78	12.420	12.426	0.974	1688604	49.19	ug/L	99
33) Cyclohexene	67	12.536	12.548	0.983	902355	51.96	ug/L	94
34) n-Butyl alcohol	56	13.018	13.024	1.021	1149304	4548.71	ug/L	95
35) Trichloroethylene	95	13.219	13.225	1.036	440973	49.06	ug/L	96
36) 2-Pentanone	43	13.396	13.396	1.050	1282092	219.43	ug/L	97
37) 1,2-Dichloropropane	63	13.518	13.524	1.060	404392	46.44	ug/L	98
38) Methylcyclohexane	83	13.475	13.475	1.056	682817	46.57	ug/L	94
39) Dibromomethane	93	13.676	13.682	1.072	279646	50.54	ug/L	98
40) Bromodichloromethane	83	13.829	13.834	1.084	682023	52.67	ug/L	99
41) 2-Chloroethylvinyl ether	63	14.121	14.127	1.107	1213233	251.48	ug/L	99
42) cis-1,3-Dichloropropylene	75	14.347	14.353	1.125	797179	57.32	ug/L	95

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R503.D
Acq On : 27 Jul 2018 11:42
Operator : JP1
InstName : VOA3
Sample : |W3VM180727-01|CCV|1|VOA|1|VOA8260CL|
Misc : CCV 5UL/5ML N/A MIX[A]0612-07G/0629-07F/0312-09G
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 27 15:45:02 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
44) 4-Methyl-2-pentanone	58	14.481	14.487	0.888	696106	224.85	ug/L		90
46) Toluene	91	14.749	14.755	0.904	1630515	46.10	ug/L		99
47) trans-1,3-Dichloroprop...	75	14.969	14.968	0.917	730077	52.98	ug/L		96
48) 1,1,2-Trichloroethane	83	15.200	15.200	0.932	323915	48.88	ug/L		99
49) 2-Hexanone	58	15.414	15.413	0.945	1010025	260.30	ug/L		95
50) 1,3-Dichloropropane	76	15.395	15.401	0.944	633985	47.74	ug/L		100
51) Tetrachloroethylene	164	15.383	15.383	0.943	334816	44.76	ug/L		98
52) Dibromochloromethane	129	15.676	15.676	0.961	447680	48.19	ug/L		99
53) 1,2-Dibromoethane	107	15.840	15.840	0.971	376531	48.91	ug/L		99
54) Chlorobenzene	112	16.352	16.352	1.002	1071616	45.92	ug/L		99
55) 1,1,1,2-Tetrachloroethane	131	16.419	16.419	1.006	442232	46.78	ug/L		99
56) Ethylbenzene	91	16.419	16.425	1.006	1890956	46.33	ug/L		98
57) m,p-Xylenes	106	16.535	16.541	1.013	1330776	88.13	ug/L		97
58) o-Xylene	106	16.986	16.986	1.041	732866	48.40	ug/L		99
59) Styrene	104	16.993	16.992	1.041	1200394	49.89	ug/L		100
61) Bromoform	173	17.261	17.261	0.919	305424	51.43	ug/L		100
62) Isopropylbenzene	105	17.352	17.358	0.923	1919983	46.61	ug/L		98
64) 1,1,2,2-Tetrachloroethane	83	17.663	17.663	0.940	523677	48.40	ug/L		99
65) 1,2,3-Trichloropropane	75	17.748	17.748	0.945	515043	48.12	ug/L		94
66) Bromobenzene	156	17.767	17.767	0.945	476186	47.13	ug/L		97
67) n-Propylbenzene	91	17.791	17.791	0.947	2293247	46.73	ug/L		98
68) 1,3,5-Trimethylbenzene	105	17.950	17.949	0.955	1724649	48.54	ug/L		99
69) 2-Chlorotoluene	126	17.937	17.937	0.955	451094	46.59	ug/L		92
70) 4-Chlorotoluene	91	18.047	18.041	0.960	1494523	47.65	ug/L		98
71) tert-Butylbenzene	134	18.322	18.321	0.975	297975	44.16	ug/L	#	90
72) 1,2,4-Trimethylbenzene	105	18.364	18.364	0.977	1737240	47.70	ug/L		99
73) sec-Butylbenzene	105	18.547	18.547	0.987	2218560	46.30	ug/L		99
74) 4-Isopropyltoluene	119	18.669	18.675	0.994	1907642	47.37	ug/L		99
75) 1,3-Dichlorobenzene	146	18.730	18.730	0.997	935886	45.58	ug/L		99
76) 1,4-Dichlorobenzene	146	18.821	18.821	1.002	942564	46.35	ug/L		99
77) n-Butylbenzene	91	19.108	19.108	1.017	1878817	46.73	ug/L		99
78) 1,2-Dichlorobenzene	146	19.236	19.236	1.024	928204	46.83	ug/L		98
79) 1,2-Dibromo-3-chloropr...	157	20.108	20.108	1.070	105871	47.19	ug/L		98
80) 1,2,4-Trichlorobenzene	180	21.114	21.113	1.124	865445	52.37	ug/L		99
81) Hexachlorobutadiene	225	21.272	21.278	1.132	556414	48.79	ug/L		100
82) Naphthalene	128	21.498	21.491	1.144	1793598	49.89	ug/L		100
83) 1,2,3-Trichlorobenzene	180	21.821	21.821	1.161	823848	50.31	ug/L		99
85) Acrolein		7.805	7.927	0.612	0m	N.D.	d		
86) Trichlorotrifluoroethane		8.171	8.165	0.641	0m	N.D.	d		
87) Isopropyl Alcohol		8.647	8.464	0.678	0m	N.D.	d		
88) Allyl chloride		8.659	8.842	0.679	0m	N.D.	d		
89) tert-Butyl Alcohol		9.012	9.220	0.707	0m	N.D.	d		
90) Acrylonitrile		9.512	9.531	0.746	0m	N.D.	d		
91) Isopropyl ether		10.311	10.317	0.808	0m	N.D.	d		
92) 2-Chloro-1,3-butadiene		10.475	10.427	0.821	0m	N.D.	d		
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.			
94) Ethyl acetate		11.170	11.225	0.876	0m	N.D.	d		
95) Propionitrile		11.177	11.305	0.876	0m	N.D.	d		
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.			
97) Tetrahydrofuran		11.622	11.597	0.911	0m	N.D.	d		
98) Isobutyl alcohol		12.298	12.176	0.964	0m	N.D.	d		
99) Methyl tert-amyl ether		12.542	12.500	0.983	0m	N.D.	d		
100) Methyl methacrylate		13.609	13.560	1.067	0m	N.D.	d		
101) 1,4-Dioxane		13.676	13.652	1.072	0m	N.D.	d		
102) 2-Nitropropane		14.121	14.103	1.107	0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R503.D
Acq On : 27 Jul 2018 11:42
Operator : JP1
InstName : VOA3
Sample : |W3VM180727-01|CCV|1|VOA|1|VOA8260CL|
Misc : CCV 5UL/5ML N/A MIX[A]0612-07G/0629-07F/0312-09G
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 27 15:45:02 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
104) Ethyl methacrylate		14.901	14.987	0.913	0m	N.D.	d
106) 1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108) Cyclohexanone		17.566	17.535	0.935	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		17.791	17.718	0.947	0m	N.D.	d
110) Pentachloroethane		18.395	18.395	0.979	0m	N.D.	d
111) Benzyl chloride		18.974	18.943	1.010	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		19.388	19.346	1.032	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R503.D
Acq On : 27 Jul 2018 11:42
Operator : JP1
InstName : VOA3
Sample : |W3VM180727-01|CCV|1|VOA|1|VOA8260CL|
Misc : CCV 5UL/5ML N/A MIX[A]0612-07G/0629-07F/0312-09G
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 27 15:45:02 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Continuing Calibration Summary

Client SDG: 454944

Instrument ID: VOA3.I

Injection Date: 27-JUL-18 13:16

Data File: 072718V3\3R506.D

Init. Cal. Date(s) 02-JUL-18 13:56 - 02-JUL-18 22:15

Lab Sample ID W3VM180727-04

Method: 070218V3\VOA3-8260C-070218.M

Quant Type ISTD

Method Update: 03-JUL-18 07:30

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.1871	0.16719		.01		-10.64137	20		Averaged
S	Toluene-d8	2.3294	2.08564		.01		-10.4645	20		Averaged
S	Bromofluorobenzene	0.9829	1.00683		.01		2.43463	20		Averaged
	Trichlorotrifluoroethane	0.3544	0.35383		.01		-0.16084	20		Averaged
	1,4-Dioxane	0.0032	0.00294		.01		-8.125	20		Averaged

Quantitation Report
GEL Laboratories, LLC

JP 07/30/2018

KP 07/31/2018

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R506.D
Acq On : 27 Jul 2018 13:16
Operator : JP1
InstName : VOA3
Sample : |W3VM180727-04|CCV|1|VOA|1|VOA8260CL|
Misc : CCV/LCS 5UL/5ML N/A MIX[B]0711-08A/0716-08D
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 27 15:45:09 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.762	12.761	1.000	1704326	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	798975	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	736178	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	1707738	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	811264	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	736832	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	284951	44.68	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	1666378	44.77	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	741206	51.22	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane		4.991	4.990	0.391	0m	N.D.	d	
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		6.123	6.159	0.480	0m	N.D.	d	
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		6.952	7.061	0.545	0m	N.D.	d	
8) Ethyl ether		7.616	7.610	0.597	0m	N.D.	d	
9) Acetone		8.159	8.232	0.639	0m	N.D.	d	
10) 1,1-Dichloroethylene		8.177	8.177	0.641	0m	N.D.	d	
11) Iodomethane		8.482	8.500	0.665	0m	N.D.	d	
12) Acetonitrile		8.842	8.817	0.693	0m	N.D.	d	
13) Methyl acetate		8.854	8.854	0.694	0m	N.D.	d	
14) Carbon disulfide		8.598	8.665	0.674	0m	N.D.	d	
15) Methylene chloride		9.085	9.091	0.712	0m	N.D.	d	
16) tert-Butyl methyl ether		9.537	9.537	0.747	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		9.549	9.567	0.748	0m	N.D.	d	
18) Hexane		10.000	9.988	0.784	0m	N.D.	d	
19) Vinyl acetate		10.317	10.317	0.808	0m	N.D.	d	
20) 1,1-Dichloroethane		10.274	10.286	0.805	0m	N.D.	d	
21) 2-Butanone		11.201	11.183	0.878	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		11.189	11.183	0.877	0m	N.D.	d	
23) 2,2-Dichloropropane		11.189	11.195	0.877	0m	N.D.	d	
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		11.622	11.628	0.911	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		12.006	11.999	0.941	0m	N.D.	d	
28) 1,1-Dichloropropene		12.109	12.127	0.949	0m	N.D.	d	
29) Carbon tetrachloride		12.140	12.146	0.951	0m	N.D.	d	
31) 1,2-Dichloroethane		12.432	12.438	0.974	0m	N.D.	d	
32) Benzene		12.420	12.426	0.973	0m	N.D.	d	
33) Cyclohexene		12.493	12.548	0.979	0m	N.D.	d	
34) n-Butyl alcohol		13.024	13.024	1.021	0m	N.D.	d	
35) Trichloroethylene		13.219	13.225	1.036	0m	N.D.	d	
36) 2-Pentanone		13.402	13.396	1.050	0m	N.D.	d	
37) 1,2-Dichloropropane		13.530	13.524	1.060	0m	N.D.	d	
38) Methylcyclohexane		13.481	13.475	1.056	0m	N.D.	d	
39) Dibromomethane		13.682	13.682	1.072	0m	N.D.	d	
40) Bromodichloromethane		13.835	13.834	1.084	0m	N.D.	d	
41) 2-Chloroethylvinyl ether		14.127	14.127	1.107	0m	N.D.	d	
42) cis-1,3-Dichloropropylene		14.347	14.353	1.124	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R506.D
Acq On : 27 Jul 2018 13:16
Operator : JP1
InstName : VOA3
Sample : |W3VM180727-04|CCV|1|VOA|1|VOA8260CL|
Misc : CCV/LCS 5UL/5ML N/A MIX[B]0711-08A/0716-08D
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 27 15:45:09 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44) 4-Methyl-2-pentanone		14.487	14.487	0.888	0m	N.D.	d	
46) Toluene		14.749	14.755	0.904	0m	N.D.	d	
47) trans-1,3-Dichloroprop...		14.968	14.968	0.917	0m	N.D.	d	
48) 1,1,2-Trichloroethane		15.200	15.200	0.932	0m	N.D.	d	
49) 2-Hexanone		15.432	15.413	0.946	0m	N.D.	d	
50) 1,3-Dichloropropane		15.401	15.401	0.944	0m	N.D.	d	
51) Tetrachloroethylene		15.383	15.383	0.943	0m	N.D.	d	
52) Dibromochloromethane		15.676	15.676	0.961	0m	N.D.	d	
53) 1,2-Dibromoethane		15.840	15.840	0.971	0m	N.D.	d	
54) Chlorobenzene		16.346	16.352	1.002	0m	N.D.	d	
55) 1,1,1,2-Tetrachloroethane		16.413	16.419	1.006	0m	N.D.	d	
56) Ethylbenzene		16.425	16.425	1.007	0m	N.D.	d	
57) m,p-Xylenes		16.535	16.541	1.013	0m	N.D.	d	
58) o-Xylene		16.986	16.986	1.041	0m	N.D.	d	
59) Styrene		16.999	16.992	1.042	0m	N.D.	d	
61) Bromoform		17.267	17.261	0.919	0m	N.D.	d	
62) Isopropylbenzene		17.358	17.358	0.924	0m	N.D.	d	
64) 1,1,2,2-Tetrachloroethane		17.718	17.663	0.943	0m	N.D.	d	
65) 1,2,3-Trichloropropane		17.718	17.748	0.943	0m	N.D.	d	
66) Bromobenzene		17.767	17.767	0.945	0m	N.D.	d	
67) n-Propylbenzene		17.797	17.791	0.947	0m	N.D.	d	
68) 1,3,5-Trimethylbenzene		17.956	17.949	0.956	0m	N.D.	d	
69) 2-Chlorotoluene		17.937	17.937	0.955	0m	N.D.	d	
70) 4-Chlorotoluene		18.047	18.041	0.960	0m	N.D.	d	
71) tert-Butylbenzene		18.328	18.321	0.975	0m	N.D.	d	
72) 1,2,4-Trimethylbenzene		18.364	18.364	0.977	0m	N.D.	d	
73) sec-Butylbenzene		18.547	18.547	0.987	0m	N.D.	d	
74) 4-Isopropyltoluene		18.669	18.675	0.994	0m	N.D.	d	
75) 1,3-Dichlorobenzene		18.730	18.730	0.997	0m	N.D.	d	
76) 1,4-Dichlorobenzene		18.815	18.821	1.001	0m	N.D.	d	
77) n-Butylbenzene		19.108	19.108	1.017	0m	N.D.	d	
78) 1,2-Dichlorobenzene		19.236	19.236	1.024	0m	N.D.	d	
79) 1,2-Dibromo-3-chloropr...		20.102	20.108	1.070	0m	N.D.	d	
80) 1,2,4-Trichlorobenzene		21.114	21.113	1.124	0m	N.D.	d	
81) Hexachlorobutadiene		21.272	21.278	1.132	0m	N.D.	d	
82) Naphthalene		21.498	21.491	1.144	0m	N.D.	d	
83) 1,2,3-Trichlorobenzene		21.821	21.821	1.161	0m	N.D.	d	
85) Acrolein	56	7.927	7.927	0.621	411009	243.13	ug/L	98
86) Trichlorotrifluoroethane	101	8.159	8.165	0.639	3021228	249.56	ug/L	97
87) Isopropyl Alcohol	45	8.464	8.464	0.663	1562781	2095.20	ug/L	99
88) Allyl chloride	76	8.842	8.842	0.693	1395299	254.04	ug/L #	84
89) tert-Butyl Alcohol	59	9.220	9.220	0.722	2803772	2286.56	ug/L	96
90) Acrylonitrile	53	9.530	9.531	0.747	700060	218.43	ug/L	98
91) Isopropyl ether	45	10.317	10.317	0.808	1379856	46.37	ug/L	98
92) 2-Chloro-1,3-butadiene	53	10.427	10.427	0.817	669265	46.77	ug/L	93
93) Ethyl tert-butyl ether	59	10.890	10.890	0.853	1546146	51.66	ug/L	98
94) Ethyl acetate	43	11.219	11.225	0.879	1875812	222.06	ug/L	96
95) Propionitrile	54	11.305	11.305	0.886	274579	213.93	ug/L	99
96) Methacrylonitrile	67	11.512	11.512	0.902	857084	242.57	ug/L	88
97) Tetrahydrofuran	42	11.603	11.597	0.909	546224	194.93	ug/L	90
98) Isobutyl alcohol	43	12.176	12.176	0.954	934037	2125.40	ug/L	99
99) Methyl tert-amyl ether	73	12.493	12.500	0.979	1333210	48.52	ug/L	97
100) Methyl methacrylate	69	13.560	13.560	1.063	1421654	259.22	ug/L	90
101) 1,4-Dioxane	88	13.652	13.652	1.070	250975	2291.15	ug/L	96
102) 2-Nitropropane	43	14.103	14.103	1.105	625197	202.78	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R506.D
Acq On : 27 Jul 2018 13:16
Operator : JP1
InstName : VOA3
Sample : |W3VM180727-04|CCV|1|VOA|1|VOA8260CL|
Misc : CCV/LCS 5UL/5ML N/A MIX[B]0711-08A/0716-08D
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 27 15:45:09 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
104) Ethyl methacrylate	69	14.987	14.987	0.919	2579121	225.69	ug/L	92
106) 1-Chlorohexane	91	16.230	16.231	0.864	595106	50.19	ug/L	93
107) cis-1,4-Dichloro-2-butene	53	17.425	17.425	0.927	811058	219.20	ug/L	90
108) Cyclohexanone	55	17.535	17.535	0.933	294252	947.43	ug/L	95
109) trans-1,4-Dichloro-2-b...	53	17.718	17.718	0.943	738862	221.91	ug/L	90
110) Pentachloroethane	167	18.395	18.395	0.979	1808001	241.10	ug/L	97
111) Benzyl chloride	91	18.943	18.943	1.008	4932280	257.04	ug/L	100
112) bis(2-Chloroisopropyl)...	45	19.346	19.346	1.030	1081540	193.79	ug/L	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R506.D
Acq On : 27 Jul 2018 13:16
Operator : JP1
InstName : VOA3
Sample : |W3VM180727-04|CCV|1|VOA|1|VOA8260CL|
Misc : CCV/LCS 5UL/5ML N/A MIX[B]0711-08A/0716-08D
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 27 15:45:09 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Quality Control Data

Tune Report
GEL Laboratories, LLC

JP
07/03/2018

Data Path : C:\msdchem\1\data\070218V3\
Data File : 3O101.D
Acq On : 02 Jul 2018 12:28
Operator : JP1
Sample : |IVM180702-01|BFB|1|VOA|1|VOA8260BL|
Misc : BFB 5ML n/a
ALS Vial : 1 Sample Multiplier: 1

GEL
07/03/2018

Integration File:

Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Title : Volatile Organics 8260B SubList :
Last Update : Tue Jul 03 07:30:47 2018

AutoFind: Scans 223, 224, 225; Background Corrected with Scan 206

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.5	8870	PASS
75	95	30	60	54.9	23771	PASS
95	95	100	100	100.0	43285	PASS
96	95	5	9	6.6	2877	PASS
173	174	0.00	2	0.8	282	PASS
174	95	50	100	78.5	33971	PASS
175	174	5	9	6.7	2288	PASS
176	174	95	101	97.6	33155	PASS
177	176	5	9	6.7	2210	PASS

This report evaluates the Rel Abn% as passing only if it is greater than the Lower Limit and lower than the Upper Limit.

Tune Report
GEL Laboratories, LLC

JP
07/23/2018

Data Path : C:\msdchem\1\data\072118V3\
Data File : 3Q602.D
Acq On : 21 Jul 2018 10:29
Operator : JP1
Sample : |IVM180702-01|BFB|1|VOA|1|VOA8260BL|
Misc : BFB 5ML n/a
ALS Vial : 2 Sample Multiplier: 1

EM
07/23/2018

Integration File:

Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Title : Volatile Organics 8260B SubList :
Last Update : Tue Jul 03 07:30:47 2018

AutoFind: Scans 223, 224, 225; Background Corrected with Scan 208

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.4	11233	PASS
75	95	30	60	56.8	32960	PASS
95	95	100	100	100.0	58048	PASS
96	95	5	9	7.3	4209	PASS
173	174	0.00	2	0.6	245	PASS
174	95	50	100	72.8	42285	PASS
175	174	5	9	7.1	2994	PASS
176	174	95	101	99.8	42221	PASS
177	176	5	9	6.4	2717	PASS

This report evaluates the Rel Abn% as passing only if it is greater than the Lower Limit and lower than the Upper Limit.

Tune Report
GEL Laboratories, LLC

JP
07/26/2018

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R201.D
Acq On : 24 Jul 2018 09:44
Operator : JP1
Sample : |IVM180702-01|BFB|1|VOA|1|VOA8260BL|
Misc : BFB 5ML n/a
ALS Vial : 1 Sample Multiplier: 1

KP
07/26/2018

Integration File:

Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Title : Volatile Organics 8260B SubList :
Last Update : Tue Jul 03 07:30:47 2018

AutoFind: Scans 223, 224, 225; Background Corrected with Scan 206

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.9	12185	PASS
75	95	30	60	55.5	35693	PASS
95	95	100	100	100.0	64317	PASS
96	95	5	9	6.9	4420	PASS
173	174	0.00	2	0.8	401	PASS
174	95	50	100	76.3	49085	PASS
175	174	5	9	7.3	3595	PASS
176	174	95	101	96.4	47299	PASS
177	176	5	9	6.5	3055	PASS

This report evaluates the Rel Abn% as passing only if it is greater than the Lower Limit and lower than the Upper Limit.

Tune Report
GEL Laboratories, LLC

JP
07/30/2018

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R502.D
Acq On : 27 Jul 2018 11:17
Operator : JP1
Sample : |IVM180726-02|BFB|1|VOA|1|VOA8260BL|
Misc : BFB 5ML n/a
ALS Vial : 2 Sample Multiplier: 1

KP
07/31/2018

Integration File:

Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Title : Volatile Organics 8260B SubList :
Last Update : Tue Jul 03 07:30:47 2018

AutoFind: Scans 223, 224, 225; Background Corrected with Scan 206

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.2	17325	PASS
75	95	30	60	54.1	51653	PASS
95	95	100	100	100.0	95389	PASS
96	95	5	9	7.2	6836	PASS
173	174	0.00	2	0.6	406	PASS
174	95	50	100	75.5	72024	PASS
175	174	5	9	7.3	5225	PASS
176	174	95	101	99.1	71405	PASS
177	176	5	9	7.0	4975	PASS

This report evaluates the Rel Abn% as passing only if it is greater than the Lower Limit and lower than the Upper Limit.

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**			**Matrix:**	**WATER**
Lab Sample ID:	**1204074477**				
Client Sample:	**QC for batch 1784646**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**MB for batch 1784646**	**Method:**	**SW846 8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1784646**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/21/2018 12:28**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/21/2018 12:28**				
Data File:	**072118V3\3Q606B46.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
56-23-5	Carbon tetrachloride	U	2.00	ug/L	0.300	2.00
106-46-7	1,4-Dichlorobenzene	U	2.00	ug/L	0.300	2.00
100-41-4	Ethylbenzene	U	2.00	ug/L	0.300	2.00
71-55-6	1,1,1-Trichloroethane	U	2.00	ug/L	0.300	2.00
79-34-5	1,1,2,2-Tetrachloroethane	U	2.00	ug/L	0.300	2.00
79-00-5	1,1,2-Trichloroethane	U	2.00	ug/L	0.300	2.00
96-12-8	1,2-Dibromo-3-chloropropane	U	2.00	ug/L	0.500	2.00
106-93-4	1,2-Dibromoethane	U	2.00	ug/L	0.300	2.00
107-06-2	1,2-Dichloroethane	U	2.00	ug/L	0.300	2.00
78-87-5	1,2-Dichloropropane	U	2.00	ug/L	0.300	2.00
71-43-2	Benzene	U	2.00	ug/L	0.300	2.00
75-27-4	Bromodichloromethane	U	2.00	ug/L	0.300	2.00
75-25-2	Bromoform	U	2.00	ug/L	0.300	2.00
75-15-0	Carbon disulfide	U	10.0	ug/L	1.60	10.0
108-90-7	Chlorobenzene	U	2.00	ug/L	0.300	2.00
67-66-3	Chloroform	U	2.00	ug/L	0.300	2.00
124-48-1	Dibromochloromethane	U	2.00	ug/L	0.300	2.00
75-09-2	Methylene chloride	U	5.00	ug/L	1.60	5.00
100-42-5	Styrene	U	2.00	ug/L	0.300	2.00
127-18-4	Tetrachloroethylene	U	2.00	ug/L	0.300	2.00
108-88-3	Toluene	U	2.00	ug/L	0.300	2.00
79-01-6	Trichloroethylene	U	2.00	ug/L	0.300	2.00
156-59-2	cis-1,2-Dichloroethylene	U	2.00	ug/L	0.300	2.00
10061-01-5	cis-1,3-Dichloropropylene	U	2.00	ug/L	0.300	2.00
156-60-5	trans-1,2-Dichloroethylene	U	2.00	ug/L	0.300	2.00
10061-02-6	trans-1,3-Dichloropropylene	U	2.00	ug/L	0.300	2.00
75-34-3	1,1-Dichloroethane	U	2.00	ug/L	0.300	2.00
75-35-4	1,1-Dichloroethylene	U	2.00	ug/L	0.300	2.00
78-93-3	2-Butanone	U	10.0	ug/L	3.00	10.0
108-10-1	4-Methyl-2-pentanone	U	10.0	ug/L	3.00	10.0
74-83-9	Bromomethane	U	2.00	ug/L	0.300	2.00
75-00-3	Chloroethane	U	2.00	ug/L	0.300	2.00
74-87-3	Chloromethane	U	2.00	ug/L	0.300	2.00
75-71-8	Dichlorodifluoromethane	U	2.00	ug/L	0.300	2.00
75-69-4	Trichlorofluoromethane	U	2.00	ug/L	0.300	2.00
75-01-4	Vinyl chloride	U	2.00	ug/L	0.300	2.00
591-78-6	2-Hexanone	U	10.0	ug/L	3.00	10.0
67-64-1	Acetone	U	10.0	ug/L	3.00	10.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**			**Matrix:**	**WATER**
Lab Sample ID:	**1204074477**				
Client Sample:	**QC for batch 1784646**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**MB for batch 1784646**	**Method:**	**SW846 8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1784646**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/21/2018 12:28**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/21/2018 12:28**				
Data File:	**072118V3\3Q606B46.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
87-61-6	1,2,3-Trichlorobenzene	J	0.420	ug/L	0.300	2.00
120-82-1	1,2,4-Trichlorobenzene	J	0.320	ug/L	0.300	2.00
95-50-1	1,2-Dichlorobenzene	U	2.00	ug/L	0.300	2.00
541-73-1	1,3-Dichlorobenzene	U	2.00	ug/L	0.300	2.00
123-91-1	1,4-Dioxane	U	50.0	ug/L	15.0	50.0
74-97-5	Bromochloromethane	U	2.00	ug/L	0.300	2.00
110-82-7	Cyclohexane	U	2.00	ug/L	0.300	2.00
98-82-8	Isopropylbenzene	U	2.00	ug/L	0.300	2.00
79-20-9	Methyl acetate	U	5.00	ug/L	1.50	5.00
108-87-2	Methylcyclohexane	U	2.00	ug/L	0.300	2.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.60	5.00
179601-23-1	m,p-Xylenes	U	4.00	ug/L	0.300	4.00
95-47-6	o-Xylene	U	2.00	ug/L	0.300	2.00
1634-04-4	tert-Butyl methyl ether	U	2.00	ug/L	0.300	2.00

Quantitation Report
GEL Laboratories, LLC

JP
07/23/2018

Data Path : C:\msdchem\1\data\072118V3\
Data File : 3Q606B46.D
Acq On : 21 Jul 2018 12:28
Operator : JP1
InstName : VOA3
Sample : |1204074477|1784646|1|VOA|1|VOA8260CNL|
Misc : BLANK 5ML N/A
ALS Vial : 6 Sample Multiplier: 1

EM
07/23/2018

Quant Time: Jul 23 08:34:28 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.762	12.761	1.000	1530090	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	690796	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	600237	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	1534358	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	700385	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	601025	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	267286	46.68	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	1462497	45.44	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	635950	53.90	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	70 - 130	93%
45) Toluene-d8	50.000	70 - 130	91%
63) Bromofluorobenzene	50.000	70 - 130	108%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane	50	4.991	4.990	0.391	603	N.D.		
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		0.000	6.159	0.000	0	N.D.		
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	7.061	0.000	0	N.D.		
8) Ethyl ether		0.000	7.610	0.000	0	N.D.		
9) Acetone	43	8.262	8.232	0.647	1475	N.D.		
10) 1,1-Dichloroethylene		0.000	8.177	0.000	0	N.D.		
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile	41	8.848	8.817	0.693	3266	N.D.		
13) Methyl acetate		0.000	8.854	0.000	0	N.D.		
14) Carbon disulfide	76	8.604	8.665	0.674	2781	N.D.		
15) Methylene chloride	84	9.085	9.091	0.712	4038	Below Cal		87
16) tert-Butyl methyl ether	73	9.543	9.537	0.748	172	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane		0.000	9.988	0.000	0	N.D.		
19) Vinyl acetate	43	10.329	10.317	0.809	974	N.D.		
20) 1,1-Dichloroethane		0.000	10.286	0.000	0	N.D.		
21) 2-Butanone		0.000	11.183	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		0.000	11.628	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	12.127	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane	62	12.432	12.438	0.974	697	N.D.		
32) Benzene	78	12.426	12.426	0.974	976	N.D.		
33) Cyclohexene		0.000	12.548	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	13.024	0.000	0m	N.D.	d	
35) Trichloroethylene		0.000	13.225	0.000	0	N.D.		
36) 2-Pentanone	43	13.408	13.396	1.051	1090	N.D.		
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		0.000	13.475	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072118V3\
Data File : 3Q606B46.D
Acq On : 21 Jul 2018 12:28
Operator : JP1
InstName : VOA3
Sample : |1204074477|1784646|1|VOA|1|VOA8260CNL|
Misc : BLANK 5ML N/A
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 23 08:34:28 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
39) Dibromomethane		0.000	13.682	0.000	0	N.D.		
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene	75	14.359	14.353	1.125	107	N.D.		
44) 4-Methyl-2-pentanone		0.000	14.487	0.000	0	N.D.		
46) Toluene	91	14.761	14.755	0.905	1307	N.D.		
47) trans-1,3-Dichloroprop...	75	14.962	14.968	0.917	443	N.D.		
48) 1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.		
49) 2-Hexanone	58	15.420	15.413	0.945	705	N.D.		
50) 1,3-Dichloropropane		0.000	15.401	0.000	0	N.D.		
51) Tetrachloroethylene		0.000	15.383	0.000	0	N.D.		
52) Dibromochloromethane		0.000	15.676	0.000	0	N.D.		
53) 1,2-Dibromoethane	107	15.846	15.840	0.971	164	N.D.		
54) Chlorobenzene	112	16.352	16.352	1.002	977	N.D.		
55) 1,1,1,2-Tetrachloroethane		0.000	16.419	0.000	0	N.D.		
56) Ethylbenzene	91	16.425	16.425	1.007	1390	N.D.		
57) m,p-Xylenes	106	16.541	16.541	1.014	1059	N.D.		
58) o-Xylene	106	16.992	16.986	1.041	381	N.D.		
59) Styrene	104	16.998	16.992	1.042	941	N.D.		
61) Bromoform		0.000	17.261	0.000	0	N.D.		
62) Isopropylbenzene	105	17.358	17.358	0.924	1296	N.D.		
64) 1,1,2,2-Tetrachloroethane		0.000	17.663	0.000	0	N.D.		
65) 1,2,3-Trichloropropane		0.000	17.748	0.000	0m	N.D.	d	
66) Bromobenzene	156	17.773	17.767	0.946	736	N.D.		
67) n-Propylbenzene	91	17.791	17.791	0.947	2388	N.D.		
68) 1,3,5-Trimethylbenzene	105	17.943	17.949	0.955	2053	N.D.		
69) 2-Chlorotoluene	126	17.931	17.937	0.954	156	N.D.		
70) 4-Chlorotoluene	91	18.041	18.041	0.960	2591	N.D.		
71) tert-Butylbenzene	134	18.395	18.321	0.979	316	N.D.		
72) 1,2,4-Trimethylbenzene	105	18.370	18.364	0.978	2402	N.D.		
73) sec-Butylbenzene	105	18.547	18.547	0.987	2475	N.D.		
74) 4-Isopropyltoluene	119	18.675	18.675	0.994	2547	N.D.		
75) 1,3-Dichlorobenzene	146	18.736	18.730	0.997	2363	N.D.		
76) 1,4-Dichlorobenzene	146	18.821	18.821	1.002	3112	N.D.		
77) n-Butylbenzene	91	19.114	19.108	1.017	4470	N.D.		
78) 1,2-Dichlorobenzene	146	19.236	19.236	1.024	2469	N.D.		
79) 1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.		
80) 1,2,4-Trichlorobenzene	180	21.120	21.113	1.124	4933	0.32	ug/L	97
81) Hexachlorobutadiene	225	21.278	21.278	1.132	3217	0.31	ug/L	97
82) Naphthalene	128	21.498	21.491	1.144	12123	N.D.		
83) 1,2,3-Trichlorobenzene	180	21.827	21.821	1.162	6382	0.42	ug/L	92
85) Acrolein		0.000	7.927	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	8.165	0.000	0	N.D.		
87) Isopropyl Alcohol	45	8.464	8.464	0.663	225	N.D.		
88) Allyl chloride		0.000	8.842	0.000	0	N.D.		
89) tert-Butyl Alcohol	59	9.207	9.220	0.721	680	N.D.		
90) Acrylonitrile	53	9.537	9.531	0.747	809	N.D.		
91) Isopropyl ether	45	10.311	10.317	0.808	181	N.D.		
92) 2-Chloro-1,3-butadiene		0.000	10.427	0.000	0	N.D.		
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.		
94) Ethyl acetate	43	11.231	11.225	0.880	1669	N.D.		
95) Propionitrile	54	11.311	11.305	0.886	336	N.D.		
96) Methacrylonitrile	67	11.518	11.512	0.903	749	N.D.		
97) Tetrahydrofuran	42	11.609	11.597	0.910	3475	N.D.		
98) Isobutyl alcohol	43	12.195	12.176	0.956	795	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072118V3\
Data File : 3Q606B46.D
Acq On : 21 Jul 2018 12:28
Operator : JP1
InstName : VOA3
Sample : |1204074477|1784646|1|VOA|1|VOA8260CNL|
Misc : BLANK 5ML N/A
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 23 08:34:28 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		0.000	12.500	0.000	0	N.D.	
100)	Methyl methacrylate	69	13.560	13.560	1.063	1402	N.D.	
101)	1,4-Dioxane	88	13.670	13.652	1.071	104	N.D.	
102)	2-Nitropropane		0.000	14.103	0.000	0m	N.D.	d
104)	Ethyl methacrylate	69	14.987	14.987	0.919	2502	N.D.	
106)	1-Chlorohexane	91	16.218	16.231	0.863	541	N.D.	
107)	cis-1,4-Dichloro-2-butene	53	17.425	17.425	0.927	1412	N.D.	
108)	Cyclohexanone	55	17.565	17.535	0.935	3142	N.D.	
109)	trans-1,4-Dichloro-2-b...	53	17.712	17.718	0.943	2073	N.D.	
110)	Pentachloroethane	167	18.401	18.395	0.979	2944	N.D.	
111)	Benzyl chloride	91	18.949	18.943	1.008	17093	N.D.	
112)	bis(2-Chloroisopropyl)...	45	19.346	19.346	1.030	4472	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072118V3\
Data File : 3Q606B46.D
Acq On : 21 Jul 2018 12:28
Operator : JP1
InstName : VOA3
Sample : |1204074477|1784646|1|VOA|1|VOA8260CNL|
Misc : BLANK 5ML N/A
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 23 08:34:28 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

#34 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 93.87 ug/L
RT: 13.036 min Scan# 1336
Delta R.T. 0.012 min
Lab File: 3Q606B46.D
Acq: 21 Jul 2018 12:28

Tgt Ion: 56 Resp: 680

Ion	Ratio	Lower	Upper
56	100		
41	64.9	48.1	108.1
43	41.8	28.0	88.0

#65 BEFORE analyst DELETION
1,2,3-Trichloropropane
Concen: 0.30 ug/L
RT: 17.730 min Scan# 2106
Delta R.T. -0.018 min
Lab File: 3Q606B46.D
Acq: 21 Jul 2018 12:28

Tgt Ion: 75 Resp: 3016

Ion	Ratio	Lower	Upper
75	100		
110	0.0	0.0	56.8
77	28.4	190.9	250.9#

#80
1,2,4-Trichlorobenzene
Concen: 0.32 ug/L
RT: 21.120 min Scan# 2662
Delta R.T. 0.006 min
Lab File: 3Q606B46.D
Acq: 21 Jul 2018 12:28

Tgt Ion:180 Resp: 4933

Ion	Ratio	Lower	Upper
180	100		
182	93.9	66.7	126.7

#81
Hexachlorobutadiene
Concen: 0.31 ug/L
RT: 21.278 min Scan# 2688
Delta R.T. 0.000 min
Lab File: 3Q606B46.D
Acq: 21 Jul 2018 12:28

Tgt Ion:225 Resp: 3217

Ion	Ratio	Lower	Upper
225	100		
223	66.3	32.9	92.9
227	63.5	34.3	94.3

#83
1,2,3-Trichlorobenzene
Concen: 0.42 ug/L
RT: 21.827 min Scan# 2778
Delta R.T. 0.006 min
Lab File: 3Q606B46.D
Acq: 21 Jul 2018 12:28

Tgt Ion:180 Resp: 6382

Ion	Ratio	Lower	Upper
180	100		
182	88.0	67.4	127.4
145	30.2	2.3	62.3

#102 BEFORE analyst DELETION
2-Nitropropane
Concen: 3.43 ug/L
RT: 14.109 min Scan# 1512
Delta R.T. 0.006 min
Lab File: 3Q606B46.D
Acq: 21 Jul 2018 12:28

Tgt Ion: 43 Resp: 289

Ion	Ratio	Lower	Upper
43	100		
41	145.7	55.3	115.3#

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**			**Matrix:**	**WATER**
Lab Sample ID:	**1204076674**				
Client Sample:	**QC for batch 1784646**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**MB for batch 1784646**	**Method:**	**SW846 8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1784646**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/24/2018 12:16**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 12:16**				
Data File:	**072418V3\3R206B46.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
56-23-5	Carbon tetrachloride	U	2.00	ug/L	0.300	2.00
106-46-7	1,4-Dichlorobenzene	U	2.00	ug/L	0.300	2.00
100-41-4	Ethylbenzene	U	2.00	ug/L	0.300	2.00
71-55-6	1,1,1-Trichloroethane	U	2.00	ug/L	0.300	2.00
79-34-5	1,1,2,2-Tetrachloroethane	U	2.00	ug/L	0.300	2.00
79-00-5	1,1,2-Trichloroethane	U	2.00	ug/L	0.300	2.00
96-12-8	1,2-Dibromo-3-chloropropane	U	2.00	ug/L	0.500	2.00
106-93-4	1,2-Dibromoethane	U	2.00	ug/L	0.300	2.00
107-06-2	1,2-Dichloroethane	U	2.00	ug/L	0.300	2.00
78-87-5	1,2-Dichloropropane	U	2.00	ug/L	0.300	2.00
71-43-2	Benzene	U	2.00	ug/L	0.300	2.00
75-27-4	Bromodichloromethane	U	2.00	ug/L	0.300	2.00
75-25-2	Bromoform	U	2.00	ug/L	0.300	2.00
75-15-0	Carbon disulfide	U	10.0	ug/L	1.60	10.0
108-90-7	Chlorobenzene	U	2.00	ug/L	0.300	2.00
67-66-3	Chloroform	U	2.00	ug/L	0.300	2.00
124-48-1	Dibromochloromethane	U	2.00	ug/L	0.300	2.00
75-09-2	Methylene chloride	U	5.00	ug/L	1.60	5.00
100-42-5	Styrene	U	2.00	ug/L	0.300	2.00
127-18-4	Tetrachloroethylene	U	2.00	ug/L	0.300	2.00
108-88-3	Toluene	U	2.00	ug/L	0.300	2.00
79-01-6	Trichloroethylene	U	2.00	ug/L	0.300	2.00
156-59-2	cis-1,2-Dichloroethylene	U	2.00	ug/L	0.300	2.00
10061-01-5	cis-1,3-Dichloropropylene	U	2.00	ug/L	0.300	2.00
156-60-5	trans-1,2-Dichloroethylene	U	2.00	ug/L	0.300	2.00
10061-02-6	trans-1,3-Dichloropropylene	U	2.00	ug/L	0.300	2.00
75-34-3	1,1-Dichloroethane	U	2.00	ug/L	0.300	2.00
75-35-4	1,1-Dichloroethylene	U	2.00	ug/L	0.300	2.00
78-93-3	2-Butanone	U	10.0	ug/L	3.00	10.0
108-10-1	4-Methyl-2-pentanone	U	10.0	ug/L	3.00	10.0
74-83-9	Bromomethane	U	2.00	ug/L	0.300	2.00
75-00-3	Chloroethane	U	2.00	ug/L	0.300	2.00
74-87-3	Chloromethane	U	2.00	ug/L	0.300	2.00
75-71-8	Dichlorodifluoromethane	U	2.00	ug/L	0.300	2.00
75-69-4	Trichlorofluoromethane	U	2.00	ug/L	0.300	2.00
75-01-4	Vinyl chloride	U	2.00	ug/L	0.300	2.00
591-78-6	2-Hexanone	U	10.0	ug/L	3.00	10.0
67-64-1	Acetone	U	10.0	ug/L	3.00	10.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**			**Matrix:**	**WATER**
Lab Sample ID:	**1204076674**				
Client Sample:	**QC for batch 1784646**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**MB for batch 1784646**	**Method:**	**SW846 8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1784646**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/24/2018 12:16**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 12:16**				
Data File:	**072418V3\3R206B46.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
87-61-6	1,2,3-Trichlorobenzene	J	0.490	ug/L	0.300	2.00
120-82-1	1,2,4-Trichlorobenzene	J	0.420	ug/L	0.300	2.00
95-50-1	1,2-Dichlorobenzene	U	2.00	ug/L	0.300	2.00
541-73-1	1,3-Dichlorobenzene	U	2.00	ug/L	0.300	2.00
123-91-1	1,4-Dioxane	U	50.0	ug/L	15.0	50.0
74-97-5	Bromochloromethane	U	2.00	ug/L	0.300	2.00
110-82-7	Cyclohexane	U	2.00	ug/L	0.300	2.00
98-82-8	Isopropylbenzene	U	2.00	ug/L	0.300	2.00
79-20-9	Methyl acetate	U	5.00	ug/L	1.50	5.00
108-87-2	Methylcyclohexane	U	2.00	ug/L	0.300	2.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.60	5.00
179601-23-1	m,p-Xylenes	U	4.00	ug/L	0.300	4.00
95-47-6	o-Xylene	U	2.00	ug/L	0.300	2.00
1634-04-4	tert-Butyl methyl ether	U	2.00	ug/L	0.300	2.00

Quantitation Report
GEL Laboratories, LLC

JP
07/25/2018

KP
07/26/2018

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R206B46.D
Acq On : 24 Jul 2018 12:16
Operator : JP1
InstName : VOA3
Sample : |1204076674|1784646|1|VOA|1|VOA8260CL|
Misc : BLANK 5ML N/A
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 25 08:29:23 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.768	12.761	1.000	1644603	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	763431	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	689785	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.768	12.762	1.000	1647414	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	774549	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	690285	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	290860	47.26	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	1625978	45.72	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	690304	50.91	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	70 - 130	95%
45) Toluene-d8	50.000	70 - 130	91%
63) Bromofluorobenzene	50.000	70 - 130	102%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane	50	5.155	4.990	0.404	732	N.D.		
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		0.000	6.159	0.000	0	N.D.		
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	7.061	0.000	0	N.D.		
8) Ethyl ether		0.000	7.610	0.000	0	N.D.		
9) Acetone	43	8.244	8.232	0.646	678	N.D.		
10) 1,1-Dichloroethylene		0.000	8.177	0.000	0	N.D.		
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile	41	8.836	8.817	0.692	5602	N.D.		
13) Methyl acetate		0.000	8.854	0.000	0	N.D.		
14) Carbon disulfide	76	8.592	8.665	0.673	4747	N.D.		
15) Methylene chloride	84	9.086	9.091	0.712	9242	Below Cal		90
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane	57	10.000	9.988	0.783	170	N.D.		
19) Vinyl acetate	43	10.317	10.317	0.808	1682	N.D.		
20) 1,1-Dichloroethane		0.000	10.286	0.000	0	N.D.		
21) 2-Butanone		0.000	11.183	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		0.000	11.628	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	12.127	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane	62	12.445	12.438	0.975	923	N.D.		
32) Benzene	78	12.432	12.426	0.974	1058	N.D.		
33) Cyclohexene	67	12.463	12.548	0.976	348	N.D.		
34) n-Butyl alcohol	56	13.030	13.024	1.021	847	94.28	ug/L #	68
35) Trichloroethylene		0.000	13.225	0.000	0	N.D.		
36) 2-Pentanone	43	13.402	13.396	1.050	832	N.D.		
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		0.000	13.475	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R206B46.D
Acq On : 24 Jul 2018 12:16
Operator : JP1
InstName : VOA3
Sample : |1204076674|1784646|1|VOA|1|VOA8260CL|
Misc : BLANK 5ML N/A
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 25 08:29:23 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
39) Dibromomethane		0.000	13.682	0.000	0	N.D.		
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene	75	14.347	14.353	1.124	108	N.D.		
44) 4-Methyl-2-pentanone	58	14.493	14.487	0.888	256	N.D.		
46) Toluene	91	14.749	14.755	0.904	1430	N.D.		
47) trans-1,3-Dichloroprop...	75	14.975	14.968	0.918	1075	N.D.		
48) 1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.		
49) 2-Hexanone	58	15.420	15.413	0.945	842	N.D.		
50) 1,3-Dichloropropane	76	15.401	15.401	0.944	153	N.D.		
51) Tetrachloroethylene	164	15.395	15.383	0.944	162	N.D.		
52) Dibromochloromethane		0.000	15.676	0.000	0	N.D.		
53) 1,2-Dibromoethane	107	15.834	15.840	0.970	108	N.D.		
54) Chlorobenzene	112	16.352	16.352	1.002	1900	N.D.		
55) 1,1,1,2-Tetrachloroethane		0.000	16.419	0.000	0	N.D.		
56) Ethylbenzene	91	16.426	16.425	1.007	1507	N.D.		
57) m,p-Xylenes	106	16.535	16.541	1.013	1128	N.D.		
58) o-Xylene	106	16.993	16.986	1.041	462	N.D.		
59) Styrene	104	16.999	16.992	1.042	1382	N.D.		
61) Bromoform		0.000	17.261	0.000	0	N.D.		
62) Isopropylbenzene	105	17.358	17.358	0.924	1954	N.D.		
64) 1,1,2,2-Tetrachloroethane		0.000	17.663	0.000	0	N.D.		
65) 1,2,3-Trichloropropane		0.000	17.748	0.000	0m	N.D.	d	
66) Bromobenzene	156	17.767	17.767	0.945	1062	N.D.		
67) n-Propylbenzene	91	17.791	17.791	0.947	3537	N.D.		
68) 1,3,5-Trimethylbenzene	105	17.950	17.949	0.955	2164	N.D.		
69) 2-Chlorotoluene	126	17.950	17.937	0.955	569	N.D.		
70) 4-Chlorotoluene	91	18.041	18.041	0.960	3583	N.D.		
71) tert-Butylbenzene	134	18.395	18.321	0.979	176	N.D.		
72) 1,2,4-Trimethylbenzene	105	18.364	18.364	0.977	2927	N.D.		
73) sec-Butylbenzene	105	18.547	18.547	0.987	3728	N.D.		
74) 4-Isopropyltoluene	119	18.675	18.675	0.994	3480	N.D.		
75) 1,3-Dichlorobenzene	146	18.736	18.730	0.997	3265	N.D.		
76) 1,4-Dichlorobenzene	146	18.821	18.821	1.002	4074	N.D.		
77) n-Butylbenzene	91	19.108	19.108	1.017	5304	N.D.		
78) 1,2-Dichlorobenzene	146	19.248	19.236	1.024	2775	N.D.		
79) 1,2-Dibromo-3-chloropr...	157	20.108	20.108	1.070	120	N.D.		
80) 1,2,4-Trichlorobenzene	180	21.120	21.113	1.124	7300	0.42	ug/L	97
81) Hexachlorobutadiene	225	21.284	21.278	1.133	4538	0.37	ug/L	97
82) Naphthalene	128	21.498	21.491	1.144	14771	N.D.		
83) 1,2,3-Trichlorobenzene	180	21.827	21.821	1.162	8550	0.49	ug/L	96
85) Acrolein		0.000	7.927	0.000	0	N.D.		
86) Trichlorotrifluoroethane	101	8.153	8.165	0.639	161	N.D.		
87) Isopropyl Alcohol	45	8.482	8.464	0.664	1202	N.D.		
88) Allyl chloride	76	8.836	8.842	0.692	398	N.D.		
89) tert-Butyl Alcohol	59	9.226	9.220	0.723	682	N.D.		
90) Acrylonitrile	53	9.531	9.531	0.746	1131	N.D.		
91) Isopropyl ether	45	10.323	10.317	0.809	132	N.D.		
92) 2-Chloro-1,3-butadiene		0.000	10.427	0.000	0	N.D.		
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.		
94) Ethyl acetate	43	11.225	11.225	0.879	3540	N.D.		
95) Propionitrile	54	11.305	11.305	0.885	659	N.D.		
96) Methacrylonitrile	67	11.512	11.512	0.902	658	N.D.		
97) Tetrahydrofuran	42	11.622	11.597	0.910	3288	N.D.		
98) Isobutyl alcohol	43	12.189	12.176	0.955	286	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R206B46.D
Acq On : 24 Jul 2018 12:16
Operator : JP1
InstName : VOA3
Sample : |1204076674|1784646|1|VOA|1|VOA8260CL|
Misc : BLANK 5ML N/A
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 25 08:29:23 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
99)	Methyl tert-amyl ether		0.000	12.500	0.000	0	N.D.		
100)	Methyl methacrylate	69	13.566	13.560	1.063	1447	N.D.		
101)	1,4-Dioxane		0.000	13.652	0.000	0	N.D.		
102)	2-Nitropropane	43	14.103	14.103	1.105	602	3.53	ug/L	84
104)	Ethyl methacrylate	69	14.993	14.987	0.919	2576	N.D.		
106)	1-Chlorohexane	91	16.230	16.231	0.864	580	N.D.		
107)	cis-1,4-Dichloro-2-butene	53	17.425	17.425	0.927	1655	N.D.		
108)	Cyclohexanone	55	17.547	17.535	0.934	2822	N.D.		
109)	trans-1,4-Dichloro-2-b...	53	17.724	17.718	0.943	2022	N.D.		
110)	Pentachloroethane	167	18.401	18.395	0.979	2829	N.D.		
111)	Benzyl chloride	91	18.949	18.943	1.008	16639	N.D.		
112)	bis(2-Chloroisopropyl)...	45	19.346	19.346	1.030	3825	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R206B46.D
Acq On : 24 Jul 2018 12:16
Operator : JP1
InstName : VOA3
Sample : |1204076674|1784646|1|VOA|1|VOA8260CL|
Misc : BLANK 5ML N/A
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 25 08:29:23 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

#34
n-Butyl alcohol
Concen: 94.28 ug/L
RT: 13.030 min Scan# 1335
Delta R.T. 0.006 min
Lab File: 3R206B46.D
Acq: 24 Jul 2018 12:16

Tgt Ion: 56 Resp: 847

Ion	Ratio	Lower	Upper
56	100		
41	114.0	48.1	108.1#
43	44.2	28.0	88.0

#65 BEFORE analyst DELETION
1,2,3-Trichloropropane
Concen: 0.31 ug/L
RT: 17.718 min Scan# 2104
Delta R.T. -0.030 min
Lab File: 3R206B46.D
Acq: 24 Jul 2018 12:16

Tgt Ion: 75 Resp: 3474

Ion	Ratio	Lower	Upper
75	100		
110	0.0	0.0	56.8
77	24.2	190.9	250.9#

#80
1,2,4-Trichlorobenzene
Concen: 0.42 ug/L
RT: 21.120 min Scan# 2662
Delta R.T. 0.006 min
Lab File: 3R206B46.D
Acq: 24 Jul 2018 12:16

Tgt Ion:180 Resp: 7300

Ion	Ratio	Lower	Upper
180	100		
182	93.9	66.7	126.7

#81
Hexachlorobutadiene
Concen: 0.37 ug/L
RT: 21.284 min Scan# 2689
Delta R.T. 0.006 min
Lab File: 3R206B46.D
Acq: 24 Jul 2018 12:16

Tgt Ion:225 Resp: 4538

Ion	Ratio	Lower	Upper
225	100		
223	61.9	32.9	92.9
227	60.8	34.3	94.3

#83
1,2,3-Trichlorobenzene
Concen: 0.49 ug/L
RT: 21.827 min Scan# 2778
Delta R.T. 0.006 min
Lab File: 3R206B46.D
Acq: 24 Jul 2018 12:16

Tgt Ion:180 Resp: 8550

Ion	Ratio	Lower	Upper
180	100		
182	96.6	67.4	127.4
145	25.8	2.3	62.3

#102
2-Nitropropane
Concen: 3.53 ug/L
RT: 14.103 min Scan# 1511
Delta R.T. -0.000 min
Lab File: 3R206B46.D
Acq: 24 Jul 2018 12:16

Tgt Ion: 43 Resp: 602

Ion	Ratio	Lower	Upper
43	100		
41	70.6	55.3	115.3

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**			**Matrix:**	**SOIL**
Lab Sample ID:	**1204076131**				
Client Sample:	**QC for batch 1785343**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**MB for batch 1785343**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/24/2018 12:47**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R207B49.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	2.00	ug/kg	0.300	2.00
79-34-5	1,1,2,2-Tetrachloroethane	U	2.00	ug/kg	0.300	2.00
79-00-5	1,1,2-Trichloroethane	U	2.00	ug/kg	0.300	2.00
75-34-3	1,1-Dichloroethane	U	2.00	ug/kg	0.300	2.00
75-35-4	1,1-Dichloroethylene	U	2.00	ug/kg	0.300	2.00
87-61-6	1,2,3-Trichlorobenzene	U	2.00	ug/kg	0.300	2.00
120-82-1	1,2,4-Trichlorobenzene	U	2.00	ug/kg	0.300	2.00
96-12-8	1,2-Dibromo-3-chloropropane	U	2.00	ug/kg	0.500	2.00
106-93-4	1,2-Dibromoethane	U	2.00	ug/kg	0.300	2.00
95-50-1	1,2-Dichlorobenzene	U	2.00	ug/kg	0.300	2.00
107-06-2	1,2-Dichloroethane	U	2.00	ug/kg	0.300	2.00
78-87-5	1,2-Dichloropropane	U	2.00	ug/kg	0.300	2.00
541-73-1	1,3-Dichlorobenzene	U	2.00	ug/kg	0.300	2.00
106-46-7	1,4-Dichlorobenzene	U	2.00	ug/kg	0.300	2.00
123-91-1	1,4-Dioxane	U	50.0	ug/kg	15.0	50.0
78-93-3	2-Butanone	U	10.0	ug/kg	3.00	10.0
591-78-6	2-Hexanone	U	10.0	ug/kg	3.00	10.0
108-10-1	4-Methyl-2-pentanone	U	10.0	ug/kg	3.00	10.0
67-64-1	Acetone	U	10.0	ug/kg	3.00	10.0
71-43-2	Benzene	U	2.00	ug/kg	0.300	2.00
74-97-5	Bromochloromethane	U	2.00	ug/kg	0.300	2.00
75-27-4	Bromodichloromethane	U	2.00	ug/kg	0.300	2.00
75-25-2	Bromoform	U	2.00	ug/kg	0.300	2.00
74-83-9	Bromomethane	U	2.00	ug/kg	0.300	2.00
75-15-0	Carbon disulfide	U	10.0	ug/kg	1.60	10.0
56-23-5	Carbon tetrachloride	U	2.00	ug/kg	0.300	2.00
108-90-7	Chlorobenzene	U	2.00	ug/kg	0.300	2.00
75-00-3	Chloroethane	U	2.00	ug/kg	0.300	2.00
67-66-3	Chloroform	U	2.00	ug/kg	0.300	2.00
74-87-3	Chloromethane	U	2.00	ug/kg	0.300	2.00
110-82-7	Cyclohexane	U	2.00	ug/kg	0.300	2.00
124-48-1	Dibromochloromethane	U	2.00	ug/kg	0.300	2.00
75-71-8	Dichlorodifluoromethane	U	2.00	ug/kg	0.300	2.00
100-41-4	Ethylbenzene	U	2.00	ug/kg	0.300	2.00
98-82-8	Isopropylbenzene	U	2.00	ug/kg	0.300	2.00
79-20-9	Methyl acetate	U	5.00	ug/kg	1.50	5.00
108-87-2	Methylcyclohexane	U	2.00	ug/kg	0.300	2.00
75-09-2	Methylene chloride	U	5.00	ug/kg	1.60	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**			**Matrix:**	**SOIL**
Lab Sample ID:	**1204076131**				
Client Sample:	**QC for batch 1785343**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**MB for batch 1785343**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/24/2018 12:47**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R207B49.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	2.00	ug/kg	0.300	2.00
127-18-4	Tetrachloroethylene	U	2.00	ug/kg	0.300	2.00
108-88-3	Toluene	U	2.00	ug/kg	0.300	2.00
79-01-6	Trichloroethylene	U	2.00	ug/kg	0.300	2.00
75-69-4	Trichlorofluoromethane	U	2.00	ug/kg	0.300	2.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/kg	1.60	5.00
75-01-4	Vinyl chloride	U	2.00	ug/kg	0.300	2.00
156-59-2	cis-1,2-Dichloroethylene	U	2.00	ug/kg	0.300	2.00
10061-01-5	cis-1,3-Dichloropropylene	U	2.00	ug/kg	0.300	2.00
179601-23-1	m,p-Xylenes	U	4.00	ug/kg	0.300	4.00
95-47-6	o-Xylene	U	2.00	ug/kg	0.300	2.00
1634-04-4	tert-Butyl methyl ether	U	2.00	ug/kg	0.300	2.00
156-60-5	trans-1,2-Dichloroethylene	U	2.00	ug/kg	0.300	2.00
10061-02-6	trans-1,3-Dichloropropylene	U	2.00	ug/kg	0.300	2.00

Quantitation Report
GEL Laboratories, LLC

JP
07/25/2018

KP
07/27/2018

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R207B49.D
Acq On : 24 Jul 2018 12:47
Operator : JP1
InstName : VOA3
Sample : |1204076131|1785349|1|VOA|1|VOA3560C_S|
Misc : BLANK 5ML N/A SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 25 08:29:25 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.761	12.761	1.000	1589516	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	748933	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	645916	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.761	12.762	1.000	1593513	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	761106	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	646834	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	295174	49.62	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	1602975	45.94	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	688604	54.23	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	99%
45) Toluene-d8	50.000	81 - 120	92%
63) Bromofluorobenzene	50.000	70 - 130	108%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane	50	5.027	4.990	0.394	571	N.D.		
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		0.000	6.159	0.000	0	N.D.		
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	7.061	0.000	0	N.D.		
8) Ethyl ether		0.000	7.610	0.000	0	N.D.		
9) Acetone	43	8.275	8.232	0.648	1620	N.D.		
10) 1,1-Dichloroethylene		0.000	8.177	0.000	0	N.D.		
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile		0.000	8.817	0.000	0	N.D.		
13) Methyl acetate		0.000	8.854	0.000	0	N.D.		
14) Carbon disulfide	76	8.640	8.665	0.677	597	N.D.		
15) Methylene chloride	84	9.098	9.091	0.713	8814	Below Cal		96
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane	57	10.000	9.988	0.784	167	N.D.		
19) Vinyl acetate	43	10.335	10.317	0.810	620	N.D.		
20) 1,1-Dichloroethane		0.000	10.286	0.000	0	N.D.		
21) 2-Butanone		0.000	11.183	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		0.000	11.628	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	12.127	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane	62	12.444	12.438	0.975	866	N.D.		
32) Benzene	78	12.426	12.426	0.974	797	N.D.		
33) Cyclohexene		0.000	12.548	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	13.024	0.000	0m	N.D.	d	
35) Trichloroethylene		0.000	13.225	0.000	0	N.D.		
36) 2-Pentanone	43	13.420	13.396	1.052	963	N.D.		
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		0.000	13.475	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R207B49.D
Acq On : 24 Jul 2018 12:47
Operator : JP1
InstName : VOA3
Sample : |1204076131|1785349|1|VOA|1|VOA3560C_S|
Misc : BLANK 5ML N/A SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 25 08:29:25 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
39) Dibromomethane		0.000	13.682	0.000	0	N.D.	
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene	75	14.347	14.353	1.124	120	N.D.	
44) 4-Methyl-2-pentanone	58	14.487	14.487	0.888	106	N.D.	
46) Toluene	91	14.743	14.755	0.904	832	N.D.	
47) trans-1,3-Dichloroprop...	75	14.968	14.968	0.917	573	N.D.	
48) 1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.	
49) 2-Hexanone	58	15.426	15.413	0.945	1521	N.D.	
50) 1,3-Dichloropropane		0.000	15.401	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	15.383	0.000	0	N.D.	
52) Dibromochloromethane		0.000	15.676	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	15.840	0.000	0	N.D.	
54) Chlorobenzene	112	16.352	16.352	1.002	1188	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	16.419	0.000	0	N.D.	
56) Ethylbenzene	91	16.419	16.425	1.006	739	N.D.	
57) m,p-Xylenes	106	16.529	16.541	1.013	443	N.D.	
58) o-Xylene		0.000	16.986	0.000	0	N.D.	
59) Styrene	104	17.005	16.992	1.042	1241	N.D.	
61) Bromoform		0.000	17.261	0.000	0	N.D.	
62) Isopropylbenzene	105	17.358	17.358	0.924	667	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	17.663	0.000	0	N.D.	
65) 1,2,3-Trichloropropane	75	17.724	17.748	0.943	1374	N.D.	
66) Bromobenzene	156	17.767	17.767	0.945	599	N.D.	
67) n-Propylbenzene	91	17.803	17.791	0.947	1634	N.D.	
68) 1,3,5-Trimethylbenzene	105	17.943	17.949	0.955	1196	N.D.	
69) 2-Chlorotoluene		0.000	17.937	0.000	0	N.D.	
70) 4-Chlorotoluene	91	18.047	18.041	0.960	1816	N.D.	
71) tert-Butylbenzene		0.000	18.321	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	18.364	18.364	0.977	1319	N.D.	
73) sec-Butylbenzene	105	18.547	18.547	0.987	1996	N.D.	
74) 4-Isopropyltoluene	119	18.675	18.675	0.994	1672	N.D.	
75) 1,3-Dichlorobenzene	146	18.730	18.730	0.997	1704	N.D.	
76) 1,4-Dichlorobenzene	146	18.815	18.821	1.001	2340	N.D.	
77) n-Butylbenzene	91	19.108	19.108	1.017	2526	N.D.	
78) 1,2-Dichlorobenzene	146	19.242	19.236	1.024	1460	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	21.113	21.113	1.124	3844	N.D.	
81) Hexachlorobutadiene	225	21.266	21.278	1.132	2621	N.D.	
82) Naphthalene	128	21.491	21.491	1.144	9155	N.D.	
83) 1,2,3-Trichlorobenzene	180	21.821	21.821	1.161	4387	N.D.	
85) Acrolein		0.000	7.927	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	8.165	0.000	0	N.D.	
87) Isopropyl Alcohol	45	8.500	8.464	0.666	171	N.D.	
88) Allyl chloride	76	8.640	8.842	0.677	597	N.D.	
89) tert-Butyl Alcohol		0.000	9.220	0.000	0	N.D.	
90) Acrylonitrile		0.000	9.531	0.000	0	N.D.	
91) Isopropyl ether		0.000	10.317	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	10.427	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.	
94) Ethyl acetate	43	11.207	11.225	0.878	1293	N.D.	
95) Propionitrile		0.000	11.305	0.000	0	N.D.	
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.	
97) Tetrahydrofuran	42	11.609	11.597	0.910	3071	N.D.	
98) Isobutyl alcohol		0.000	12.176	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R207B49.D
Acq On : 24 Jul 2018 12:47
Operator : JP1
InstName : VOA3
Sample : |1204076131|1785349|1|VOA|1|VOA3560C_S|
Misc : BLANK 5ML N/A SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 25 08:29:25 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		0.000	12.500	0.000	0	N.D.	
100)	Methyl methacrylate	69	13.560	13.560	1.063	111	N.D.	
101)	1,4-Dioxane		0.000	13.652	0.000	0	N.D.	
102)	2-Nitropropane		0.000	14.103	0.000	0	N.D.	
104)	Ethyl methacrylate	69	14.999	14.987	0.919	635	N.D.	
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene	53	17.425	17.425	0.927	304	N.D.	
108)	Cyclohexanone	55	17.565	17.535	0.935	2021	N.D.	
109)	trans-1,4-Dichloro-2-b...	53	17.718	17.718	0.943	669	N.D.	
110)	Pentachloroethane	167	18.395	18.395	0.979	496	N.D.	
111)	Benzyl chloride	91	18.943	18.943	1.008	4800	N.D.	
112)	bis(2-Chloroisopropyl)...	45	19.346	19.346	1.030	1378	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R207B49.D
Acq On : 24 Jul 2018 12:47
Operator : JP1
InstName : VOA3
Sample : |1204076131|1785349|1|VOA|1|VOA3560C_S|
Misc : BLANK 5ML N/A SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 25 08:29:25 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

#34 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 93.01 ug/L
RT: 13.024 min Scan# 1334
Delta R.T. -0.000 min
Lab File: 3R207B49.D
Acq: 24 Jul 2018 12:47

Tgt Ion: 56 Resp: 471

Ion	Ratio	Lower	Upper
56	100		
41	0.0	48.1	108.1#
43	37.2	28.0	88.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**			**Matrix:**	**SOIL**
Lab Sample ID:	**1204079885**				
Client Sample:	**QC for batch 1785343**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**MB for batch 1785343**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 14:18**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 09:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R508B49.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	2.00	ug/kg	0.300	2.00
79-34-5	1,1,2,2-Tetrachloroethane	U	2.00	ug/kg	0.300	2.00
79-00-5	1,1,2-Trichloroethane	U	2.00	ug/kg	0.300	2.00
75-34-3	1,1-Dichloroethane	U	2.00	ug/kg	0.300	2.00
75-35-4	1,1-Dichloroethylene	U	2.00	ug/kg	0.300	2.00
87-61-6	1,2,3-Trichlorobenzene	U	2.00	ug/kg	0.300	2.00
120-82-1	1,2,4-Trichlorobenzene	U	2.00	ug/kg	0.300	2.00
96-12-8	1,2-Dibromo-3-chloropropane	U	2.00	ug/kg	0.500	2.00
106-93-4	1,2-Dibromoethane	U	2.00	ug/kg	0.300	2.00
95-50-1	1,2-Dichlorobenzene	U	2.00	ug/kg	0.300	2.00
107-06-2	1,2-Dichloroethane	U	2.00	ug/kg	0.300	2.00
78-87-5	1,2-Dichloropropane	U	2.00	ug/kg	0.300	2.00
541-73-1	1,3-Dichlorobenzene	U	2.00	ug/kg	0.300	2.00
106-46-7	1,4-Dichlorobenzene	U	2.00	ug/kg	0.300	2.00
123-91-1	1,4-Dioxane	U	50.0	ug/kg	15.0	50.0
78-93-3	2-Butanone	U	10.0	ug/kg	3.00	10.0
591-78-6	2-Hexanone	U	10.0	ug/kg	3.00	10.0
108-10-1	4-Methyl-2-pentanone	U	10.0	ug/kg	3.00	10.0
67-64-1	Acetone	U	10.0	ug/kg	3.00	10.0
71-43-2	Benzene	U	2.00	ug/kg	0.300	2.00
74-97-5	Bromochloromethane	U	2.00	ug/kg	0.300	2.00
75-27-4	Bromodichloromethane	U	2.00	ug/kg	0.300	2.00
75-25-2	Bromoform	U	2.00	ug/kg	0.300	2.00
74-83-9	Bromomethane	U	2.00	ug/kg	0.300	2.00
75-15-0	Carbon disulfide	U	10.0	ug/kg	1.60	10.0
56-23-5	Carbon tetrachloride	U	2.00	ug/kg	0.300	2.00
108-90-7	Chlorobenzene	U	2.00	ug/kg	0.300	2.00
75-00-3	Chloroethane	U	2.00	ug/kg	0.300	2.00
67-66-3	Chloroform	U	2.00	ug/kg	0.300	2.00
74-87-3	Chloromethane	U	2.00	ug/kg	0.300	2.00
110-82-7	Cyclohexane	U	2.00	ug/kg	0.300	2.00
124-48-1	Dibromochloromethane	U	2.00	ug/kg	0.300	2.00
75-71-8	Dichlorodifluoromethane	U	2.00	ug/kg	0.300	2.00
100-41-4	Ethylbenzene	U	2.00	ug/kg	0.300	2.00
98-82-8	Isopropylbenzene	U	2.00	ug/kg	0.300	2.00
79-20-9	Methyl acetate	U	5.00	ug/kg	1.50	5.00
108-87-2	Methylcyclohexane	U	2.00	ug/kg	0.300	2.00
75-09-2	Methylene chloride	U	5.00	ug/kg	1.60	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**			**Matrix:**	**SOIL**
Lab Sample ID:	**1204079885**				
Client Sample:	**QC for batch 1785343**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**MB for batch 1785343**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 14:18**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 09:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R508B49.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	2.00	ug/kg	0.300	2.00
127-18-4	Tetrachloroethylene	U	2.00	ug/kg	0.300	2.00
108-88-3	Toluene	U	2.00	ug/kg	0.300	2.00
79-01-6	Trichloroethylene	U	2.00	ug/kg	0.300	2.00
75-69-4	Trichlorofluoromethane	U	2.00	ug/kg	0.300	2.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/kg	1.60	5.00
75-01-4	Vinyl chloride	U	2.00	ug/kg	0.300	2.00
156-59-2	cis-1,2-Dichloroethylene	U	2.00	ug/kg	0.300	2.00
10061-01-5	cis-1,3-Dichloropropylene	U	2.00	ug/kg	0.300	2.00
179601-23-1	m,p-Xylenes	U	4.00	ug/kg	0.300	4.00
95-47-6	o-Xylene	U	2.00	ug/kg	0.300	2.00
1634-04-4	tert-Butyl methyl ether	U	2.00	ug/kg	0.300	2.00
156-60-5	trans-1,2-Dichloroethylene	U	2.00	ug/kg	0.300	2.00
10061-02-6	trans-1,3-Dichloropropylene	U	2.00	ug/kg	0.300	2.00

Quantitation Report
GEL Laboratories, LLC

JP 07/30/2018

KP 07/31/2018

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R508B49.D
Acq On : 27 Jul 2018 14:18
Operator : JP1
InstName : VOA3
Sample : |1204079885|1785349|1|VOA|1|VOA3560C_S|
Misc : BLANK 5ML N/A SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 27 15:45:13 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.762	12.761	1.000	1526175	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	704938	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	651358	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	1529967	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	715482	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	651750	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	282369	49.44	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	1515496	46.15	ug/L	0.00
63) Bromofluorobenzene	95	17.560	17.559	0.934	633403	49.47	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	99%
45) Toluene-d8	50.000	81 - 120	92%
63) Bromofluorobenzene	50.000	70 - 130	99%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane	50	4.972	4.990	0.390	592	N.D.		
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane		0.000	6.159	0.000	0	N.D.		
6) Chloroethane		0.000	6.372	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	7.061	0.000	0	N.D.		
8) Ethyl ether		0.000	7.610	0.000	0	N.D.		
9) Acetone	43	8.256	8.232	0.647	884	N.D.		
10) 1,1-Dichloroethylene		0.000	8.177	0.000	0	N.D.		
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile		0.000	8.817	0.000	0	N.D.		
13) Methyl acetate		0.000	8.854	0.000	0	N.D.		
14) Carbon disulfide	76	8.604	8.665	0.674	1751	N.D.		
15) Methylene chloride	84	9.079	9.091	0.711	1990	Below Cal		95
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane	57	9.994	9.988	0.783	196	N.D.		
19) Vinyl acetate	43	10.329	10.317	0.809	636	N.D.		
20) 1,1-Dichloroethane		0.000	10.286	0.000	0	N.D.		
21) 2-Butanone		0.000	11.183	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		0.000	11.628	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	12.127	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane	62	12.439	12.438	0.975	593	N.D.		
32) Benzene	78	12.426	12.426	0.974	587	N.D.		
33) Cyclohexene	67	12.463	12.548	0.977	350	N.D.		
34) n-Butyl alcohol		0.000	13.024	0.000	0	N.D.		
35) Trichloroethylene		0.000	13.225	0.000	0	N.D.		
36) 2-Pentanone	43	13.414	13.396	1.051	786	N.D.		
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		0.000	13.475	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R508B49.D
Acq On : 27 Jul 2018 14:18
Operator : JP1
InstName : VOA3
Sample : |1204079885|1785349|1|VOA|1|VOA3560C_S|
Misc : BLANK 5ML N/A SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 27 15:45:13 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
39) Dibromomethane		0.000	13.682	0.000	0	N.D.	
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	14.353	0.000	0	N.D.	
44) 4-Methyl-2-pentanone	58	14.499	14.487	0.889	179	N.D.	
46) Toluene	91	14.761	14.755	0.905	856	N.D.	
47) trans-1,3-Dichloroprop...	75	14.975	14.968	0.918	129	N.D.	
48) 1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.	
49) 2-Hexanone	58	15.420	15.413	0.945	1017	N.D.	
50) 1,3-Dichloropropane		0.000	15.401	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	15.383	0.000	0	N.D.	
52) Dibromochloromethane		0.000	15.676	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	15.840	0.000	0	N.D.	
54) Chlorobenzene	112	16.346	16.352	1.002	988	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	16.419	0.000	0	N.D.	
56) Ethylbenzene	91	16.426	16.425	1.007	725	N.D.	
57) m,p-Xylenes	106	16.529	16.541	1.013	623	N.D.	
58) o-Xylene		0.000	16.986	0.000	0	N.D.	
59) Styrene	104	16.999	16.992	1.042	830	N.D.	
61) Bromoform		0.000	17.261	0.000	0	N.D.	
62) Isopropylbenzene	105	17.364	17.358	0.924	949	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	17.663	0.000	0	N.D.	
65) 1,2,3-Trichloropropane	75	17.718	17.748	0.943	1155	N.D.	
66) Bromobenzene	156	17.767	17.767	0.945	384	N.D.	
67) n-Propylbenzene	91	17.791	17.791	0.947	1652	N.D.	
68) 1,3,5-Trimethylbenzene	105	17.950	17.949	0.955	1231	N.D.	
69) 2-Chlorotoluene		0.000	17.937	0.000	0	N.D.	
70) 4-Chlorotoluene	91	18.035	18.041	0.960	1666	N.D.	
71) tert-Butylbenzene		0.000	18.321	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	18.364	18.364	0.977	1388	N.D.	
73) sec-Butylbenzene	105	18.547	18.547	0.987	1720	N.D.	
74) 4-Isopropyltoluene	119	18.675	18.675	0.994	1978	N.D.	
75) 1,3-Dichlorobenzene	146	18.730	18.730	0.997	1714	N.D.	
76) 1,4-Dichlorobenzene	146	18.809	18.821	1.001	2214	N.D.	
77) n-Butylbenzene	91	19.108	19.108	1.017	2788	N.D.	
78) 1,2-Dichlorobenzene	146	19.236	19.236	1.024	1263	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	21.114	21.113	1.124	3540	N.D.	
81) Hexachlorobutadiene	225	21.278	21.278	1.132	2230	N.D.	
82) Naphthalene	128	21.492	21.491	1.144	8709	N.D.	
83) 1,2,3-Trichlorobenzene	180	21.827	21.821	1.162	4016	N.D.	
85) Acrolein		0.000	7.927	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	8.165	0.000	0	N.D.	
87) Isopropyl Alcohol		0.000	8.464	0.000	0	N.D.	
88) Allyl chloride		0.000	8.842	0.000	0	N.D.	
89) tert-Butyl Alcohol		0.000	9.220	0.000	0	N.D.	
90) Acrylonitrile		0.000	9.531	0.000	0	N.D.	
91) Isopropyl ether		0.000	10.317	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	10.427	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.	
94) Ethyl acetate	43	11.238	11.225	0.881	701	N.D.	
95) Propionitrile		0.000	11.305	0.000	0	N.D.	
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.	
97) Tetrahydrofuran	42	11.609	11.597	0.910	2301	N.D.	
98) Isobutyl alcohol		0.000	12.176	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R508B49.D
Acq On : 27 Jul 2018 14:18
Operator : JP1
InstName : VOA3
Sample : |1204079885|1785349|1|VOA|1|VOA3560C_S|
Misc : BLANK 5ML N/A SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 27 15:45:13 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		0.000	12.500	0.000	0	N.D.	
100)	Methyl methacrylate	69	13.566	13.560	1.063	302	N.D.	
101)	1,4-Dioxane		0.000	13.652	0.000	0	N.D.	
102)	2-Nitropropane		0.000	14.103	0.000	0	N.D.	
104)	Ethyl methacrylate	69	14.993	14.987	0.919	582	N.D.	
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene	53	17.425	17.425	0.927	176	N.D.	
108)	Cyclohexanone	55	17.560	17.535	0.934	1765	N.D.	
109)	trans-1,4-Dichloro-2-b...	53	17.718	17.718	0.943	497	N.D.	
110)	Pentachloroethane	167	18.395	18.395	0.979	835	N.D.	
111)	Benzyl chloride	91	18.943	18.943	1.008	5182	N.D.	
112)	bis(2-Chloroisopropyl)...	45	19.346	19.346	1.030	1536	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R508B49.D
Acq On : 27 Jul 2018 14:18
Operator : JP1
InstName : VOA3
Sample : |1204079885|1785349|1|VOA|1|VOA3560C_S|
Misc : BLANK 5ML N/A SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 27 15:45:13 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**			**Matrix:**	**SOIL**
Lab Sample ID:	**1204076132**				
Client Sample:	**QC for batch 1785343**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**HB for batch 1785343**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 20:03**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:13**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R221.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	100	ug/kg	15.0	100
79-34-5	1,1,2,2-Tetrachloroethane	U	100	ug/kg	15.0	100
79-00-5	1,1,2-Trichloroethane	U	100	ug/kg	15.0	100
75-34-3	1,1-Dichloroethane	U	100	ug/kg	15.0	100
75-35-4	1,1-Dichloroethylene	U	100	ug/kg	15.0	100
87-61-6	1,2,3-Trichlorobenzene	U	100	ug/kg	15.0	100
120-82-1	1,2,4-Trichlorobenzene	U	100	ug/kg	15.0	100
96-12-8	1,2-Dibromo-3-chloropropane	U	100	ug/kg	25.0	100
106-93-4	1,2-Dibromoethane	U	100	ug/kg	15.0	100
95-50-1	1,2-Dichlorobenzene	U	100	ug/kg	15.0	100
107-06-2	1,2-Dichloroethane	U	100	ug/kg	15.0	100
78-87-5	1,2-Dichloropropane	U	100	ug/kg	15.0	100
541-73-1	1,3-Dichlorobenzene	U	100	ug/kg	15.0	100
106-46-7	1,4-Dichlorobenzene	U	100	ug/kg	15.0	100
123-91-1	1,4-Dioxane	U	2500	ug/kg	750	2500
78-93-3	2-Butanone	U	500	ug/kg	150	500
591-78-6	2-Hexanone	U	500	ug/kg	150	500
108-10-1	4-Methyl-2-pentanone	U	500	ug/kg	150	500
67-64-1	Acetone	U	500	ug/kg	150	500
71-43-2	Benzene	U	100	ug/kg	15.0	100
74-97-5	Bromochloromethane	U	100	ug/kg	15.0	100
75-27-4	Bromodichloromethane	U	100	ug/kg	15.0	100
75-25-2	Bromoform	U	100	ug/kg	15.0	100
74-83-9	Bromomethane	U	100	ug/kg	15.0	100
75-15-0	Carbon disulfide	U	500	ug/kg	80.0	500
56-23-5	Carbon tetrachloride	U	100	ug/kg	15.0	100
108-90-7	Chlorobenzene	U	100	ug/kg	15.0	100
75-00-3	Chloroethane	U	100	ug/kg	15.0	100
67-66-3	Chloroform	U	100	ug/kg	15.0	100
74-87-3	Chloromethane	U	100	ug/kg	15.0	100
110-82-7	Cyclohexane	U	100	ug/kg	15.0	100
124-48-1	Dibromochloromethane	U	100	ug/kg	15.0	100
75-71-8	Dichlorodifluoromethane	U	100	ug/kg	15.0	100
100-41-4	Ethylbenzene	U	100	ug/kg	15.0	100
98-82-8	Isopropylbenzene	U	100	ug/kg	15.0	100
79-20-9	Methyl acetate	U	250	ug/kg	75.0	250
108-87-2	Methylcyclohexane	U	100	ug/kg	15.0	100
75-09-2	Methylene chloride	U	250	ug/kg	80.0	250

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**			**Matrix:**	**SOIL**
Lab Sample ID:	**1204076132**				
Client Sample:	**QC for batch 1785343**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**HB for batch 1785343**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 20:03**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:13**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R221.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	100	ug/kg	15.0	100
127-18-4	Tetrachloroethylene	U	100	ug/kg	15.0	100
108-88-3	Toluene	U	100	ug/kg	15.0	100
79-01-6	Trichloroethylene	U	100	ug/kg	15.0	100
75-69-4	Trichlorofluoromethane	U	100	ug/kg	15.0	100
76-13-1	Trichlorotrifluoroethane	U	250	ug/kg	80.0	250
75-01-4	Vinyl chloride	U	100	ug/kg	15.0	100
156-59-2	cis-1,2-Dichloroethylene	U	100	ug/kg	15.0	100
10061-01-5	cis-1,3-Dichloropropylene	U	100	ug/kg	15.0	100
179601-23-1	m,p-Xylenes	U	200	ug/kg	15.0	200
95-47-6	o-Xylene	U	100	ug/kg	15.0	100
1634-04-4	tert-Butyl methyl ether	U	100	ug/kg	15.0	100
156-60-5	trans-1,2-Dichloroethylene	U	100	ug/kg	15.0	100
10061-02-6	trans-1,3-Dichloropropylene	U	100	ug/kg	15.0	100

Quantitation Report
GEL Laboratories, LLC

JP
07/25/2018

KP
07/27/2018

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R221.D
Acq On : 24 Jul 2018 20:03
Operator : JP1
InstName : VOA3
Sample : |1204076132|1785349|50|VOA|1|VOA3560C_S|
Misc : GEL 100UL N/A SOIL HB
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jul 25 08:29:53 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.762	12.761	1.000	1222510	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	595603	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	494488	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	1225483	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	606058	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	494780	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	67	12.335	12.341	0.967	242550	53.02	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	1230070	44.33	ug/L	0.00
63) Bromofluorobenzene	95	17.560	17.559	0.934	526878	54.20	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	106%
45) Toluene-d8	50.000	81 - 120	89%
63) Bromofluorobenzene	50.000	70 - 130	108%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.552	0.000	0	N.D.		
3) Chloromethane	50	4.954	4.990	0.388	253	N.D.		
4) Vinyl chloride		0.000	5.319	0.000	0	N.D.		
5) Bromomethane	94	6.251	6.159	0.490	449	N.D.		
6) Chloroethane	64	6.312	6.372	0.495	127	N.D.		
7) Trichlorofluoromethane		0.000	7.061	0.000	0	N.D.		
8) Ethyl ether		0.000	7.610	0.000	0	N.D.		
9) Acetone	43	8.275	8.232	0.648	892	N.D.		
10) 1,1-Dichloroethylene		0.000	8.177	0.000	0	N.D.		
11) Iodomethane		0.000	8.500	0.000	0	N.D.		
12) Acetonitrile		0.000	8.817	0.000	0	N.D.		
13) Methyl acetate		0.000	8.854	0.000	0	N.D.		
14) Carbon disulfide		0.000	8.665	0.000	0	N.D.		
15) Methylene chloride	84	9.073	9.091	0.711	3901	Below Cal		95
16) tert-Butyl methyl ether		0.000	9.537	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	9.567	0.000	0	N.D.		
18) Hexane		0.000	9.988	0.000	0	N.D.		
19) Vinyl acetate		0.000	10.317	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	10.286	0.000	0	N.D.		
21) 2-Butanone	72	11.201	11.183	0.878	1306	N.D.		
22) cis-1,2-Dichloroethylene		0.000	11.183	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	11.195	0.000	0	N.D.		
24) Bromochloromethane		0.000	11.548	0.000	0	N.D.		
25) Chloroform		0.000	11.628	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	11.914	0.000	0	N.D.		
27) Cyclohexane		0.000	11.999	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	12.127	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	12.146	0.000	0	N.D.		
31) 1,2-Dichloroethane	62	12.445	12.438	0.975	243	N.D.		
32) Benzene	78	12.408	12.426	0.972	669	N.D.		
33) Cyclohexene		0.000	12.548	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	13.024	0.000	0	N.D.		
35) Trichloroethylene		0.000	13.225	0.000	0	N.D.		
36) 2-Pentanone	43	13.414	13.396	1.051	1724	N.D.		
37) 1,2-Dichloropropane		0.000	13.524	0.000	0	N.D.		
38) Methylcyclohexane		0.000	13.475	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R221.D
Acq On : 24 Jul 2018 20:03
Operator : JP1
InstName : VOA3
Sample : |1204076132|1785349|50|VOA|1|VOA3560C_S|
Misc : GEL 100UL N/A SOIL HB
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jul 25 08:29:53 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
39) Dibromomethane		0.000	13.682	0.000	0	N.D.	
40) Bromodichloromethane		0.000	13.834	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	14.353	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	14.487	0.000	0	N.D.	
46) Toluene	91	14.755	14.755	0.904	382	N.D.	
47) trans-1,3-Dichloroprop...		0.000	14.968	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	15.200	0.000	0	N.D.	
49) 2-Hexanone		0.000	15.413	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	15.401	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	15.383	0.000	0	N.D.	
52) Dibromochloromethane		0.000	15.676	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	15.840	0.000	0	N.D.	
54) Chlorobenzene	112	16.353	16.352	1.002	169	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	16.419	0.000	0	N.D.	
56) Ethylbenzene		0.000	16.425	0.000	0	N.D.	
57) m,p-Xylenes	106	16.535	16.541	1.013	107	N.D.	
58) o-Xylene		0.000	16.986	0.000	0	N.D.	
59) Styrene		0.000	16.992	0.000	0	N.D.	
61) Bromoform		0.000	17.261	0.000	0	N.D.	
62) Isopropylbenzene		0.000	17.358	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	17.663	0.000	0	N.D.	
65) 1,2,3-Trichloropropane	75	17.657	17.748	0.940	179	N.D.	
66) Bromobenzene		0.000	17.767	0.000	0	N.D.	
67) n-Propylbenzene	91	17.797	17.791	0.947	171	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	17.949	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	17.937	0.000	0	N.D.	
70) 4-Chlorotoluene	91	18.041	18.041	0.960	192	N.D.	
71) tert-Butylbenzene		0.000	18.321	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	18.370	18.364	0.978	134	N.D.	
73) sec-Butylbenzene		0.000	18.547	0.000	0	N.D.	
74) 4-Isopropyltoluene	119	18.791	18.675	1.000	106	N.D.	
75) 1,3-Dichlorobenzene	146	18.736	18.730	0.997	280	N.D.	
76) 1,4-Dichlorobenzene	146	18.822	18.821	1.002	573	N.D.	
77) n-Butylbenzene		0.000	19.108	0.000	0	N.D.	
78) 1,2-Dichlorobenzene	146	19.254	19.236	1.025	189	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	20.108	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	21.120	21.113	1.124	208	N.D.	
81) Hexachlorobutadiene		0.000	21.278	0.000	0	N.D.	
82) Naphthalene	128	21.492	21.491	1.144	1183	N.D.	
83) 1,2,3-Trichlorobenzene		0.000	21.821	0.000	0	N.D.	
85) Acrolein		0.000	7.927	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	8.165	0.000	0	N.D.	
87) Isopropyl Alcohol	45	8.525	8.464	0.668	169	N.D.	
88) Allyl chloride		0.000	8.842	0.000	0	N.D.	
89) tert-Butyl Alcohol		0.000	9.220	0.000	0	N.D.	
90) Acrylonitrile		0.000	9.531	0.000	0	N.D.	
91) Isopropyl ether		0.000	10.317	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	10.427	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.	
94) Ethyl acetate	43	11.195	11.225	0.877	6148	N.D.	
95) Propionitrile		0.000	11.305	0.000	0	N.D.	
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.	
97) Tetrahydrofuran	42	11.603	11.597	0.909	1716	N.D.	
98) Isobutyl alcohol		0.000	12.176	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R221.D
Acq On : 24 Jul 2018 20:03
Operator : JP1
InstName : VOA3
Sample : |1204076132|1785349|50|VOA|1|VOA3560C_S|
Misc : GEL 100UL N/A SOIL HB
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jul 25 08:29:53 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		0.000	12.500	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	13.560	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	13.652	0.000	0	N.D.	
102)	2-Nitropropane		0.000	14.103	0.000	0	N.D.	
104)	Ethyl methacrylate		0.000	14.987	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108)	Cyclohexanone	55	17.560	17.535	0.934	1606	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	17.718	0.000	0	N.D.	
110)	Pentachloroethane		0.000	18.395	0.000	0	N.D.	
111)	Benzyl chloride		0.000	18.943	0.000	0	N.D.	
112)	bis(2-Chloroisopropyl)...	45	19.389	19.346	1.032	1448	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R221.D
Acq On : 24 Jul 2018 20:03
Operator : JP1
InstName : VOA3
Sample : |1204076132|1785349|50|VOA|1|VOA3560C_S|
Misc : GEL 100UL N/A SOIL HB
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jul 25 08:29:53 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**			**Matrix:**	**WATER**
Lab Sample ID:	**1204074478**				
Client Sample:	**QC for batch 1784646**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**LCS for batch 1784646**	**Method:**	**SW846 8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1784646**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/21/2018 10:55**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/21/2018 10:55**				
Data File:	**072118V3\3Q603L46.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
56-23-5	Carbon tetrachloride		53.9	ug/L	0.300	2.00
106-46-7	1,4-Dichlorobenzene		49.3	ug/L	0.300	2.00
100-41-4	Ethylbenzene		51.0	ug/L	0.300	2.00
71-55-6	1,1,1-Trichloroethane		53.4	ug/L	0.300	2.00
79-34-5	1,1,2,2-Tetrachloroethane		52.1	ug/L	0.300	2.00
79-00-5	1,1,2-Trichloroethane		50.9	ug/L	0.300	2.00
96-12-8	1,2-Dibromo-3-chloropropane		57.4	ug/L	0.500	2.00
106-93-4	1,2-Dibromoethane		52.9	ug/L	0.300	2.00
107-06-2	1,2-Dichloroethane		55.9	ug/L	0.300	2.00
78-87-5	1,2-Dichloropropane		54.3	ug/L	0.300	2.00
71-43-2	Benzene		52.6	ug/L	0.300	2.00
75-27-4	Bromodichloromethane		57.6	ug/L	0.300	2.00
75-25-2	Bromoform		57.6	ug/L	0.300	2.00
75-15-0	Carbon disulfide		288	ug/L	1.60	10.0
108-90-7	Chlorobenzene		46.6	ug/L	0.300	2.00
67-66-3	Chloroform		55.6	ug/L	0.300	2.00
124-48-1	Dibromochloromethane		54.2	ug/L	0.300	2.00
75-09-2	Methylene chloride		57.5	ug/L	1.60	5.00
100-42-5	Styrene		54.1	ug/L	0.300	2.00
127-18-4	Tetrachloroethylene		46.2	ug/L	0.300	2.00
108-88-3	Toluene		50.8	ug/L	0.300	2.00
79-01-6	Trichloroethylene		53.4	ug/L	0.300	2.00
156-59-2	cis-1,2-Dichloroethylene		53.3	ug/L	0.300	2.00
10061-01-5	cis-1,3-Dichloropropylene		62.9	ug/L	0.300	2.00
156-60-5	trans-1,2-Dichloroethylene		55.2	ug/L	0.300	2.00
10061-02-6	trans-1,3-Dichloropropylene		57.2	ug/L	0.300	2.00
75-34-3	1,1-Dichloroethane		52.2	ug/L	0.300	2.00
75-35-4	1,1-Dichloroethylene		57.5	ug/L	0.300	2.00
78-93-3	2-Butanone		299	ug/L	3.00	10.0
108-10-1	4-Methyl-2-pentanone		256	ug/L	3.00	10.0
74-83-9	Bromomethane		47.8	ug/L	0.300	2.00
75-00-3	Chloroethane		49.2	ug/L	0.300	2.00
74-87-3	Chloromethane		42.3	ug/L	0.300	2.00
75-71-8	Dichlorodifluoromethane		47.0	ug/L	0.300	2.00
75-69-4	Trichlorofluoromethane		49.5	ug/L	0.300	2.00
75-01-4	Vinyl chloride		45.0	ug/L	0.300	2.00
591-78-6	2-Hexanone		281	ug/L	3.00	10.0
67-64-1	Acetone		269	ug/L	3.00	10.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**			**Matrix:**	**WATER**
Lab Sample ID:	**1204074478**				
Client Sample:	**QC for batch 1784646**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**LCS for batch 1784646**	**Method:**	**SW846 8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1784646**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/21/2018 10:55**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/21/2018 10:55**				
Data File:	**072118V3\3Q603L46.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
87-61-6	1,2,3-Trichlorobenzene	B	54.4	ug/L	0.300	2.00
120-82-1	1,2,4-Trichlorobenzene	B	54.0	ug/L	0.300	2.00
95-50-1	1,2-Dichlorobenzene		51.3	ug/L	0.300	2.00
541-73-1	1,3-Dichlorobenzene		48.6	ug/L	0.300	2.00
123-91-1	1,4-Dioxane	U	50.0	ug/L	15.0	50.0
74-97-5	Bromochloromethane		50.5	ug/L	0.300	2.00
110-82-7	Cyclohexane		51.2	ug/L	0.300	2.00
98-82-8	Isopropylbenzene		49.2	ug/L	0.300	2.00
79-20-9	Methyl acetate		288	ug/L	1.50	5.00
108-87-2	Methylcyclohexane		53.7	ug/L	0.300	2.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.60	5.00
179601-23-1	m,p-Xylenes		99.9	ug/L	0.300	4.00
95-47-6	o-Xylene		52.0	ug/L	0.300	2.00
1634-04-4	tert-Butyl methyl ether		60.9	ug/L	0.300	2.00

Quantitation Report
GEL Laboratories, LLC

JP
07/23/2018

Data Path : C:\msdchem\1\data\072118V3\
Data File : 3Q603L46.D
Acq On : 21 Jul 2018 10:55
Operator : JP1
InstName : VOA3
Sample : |1204074478|1784646|1|VOA|1|VOA8260CNL|
Misc : LCS 5UL/5ML N/A MIX[A]0411-10H/0601-10I/0312-
ALS Vial : 3 Sample Multiplier: 1

EM
07/23/2018

Quant Time: Jul 21 11:23:29 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.755	12.761	1.000	1208530	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	579451	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	537301	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.755	12.762	1.000	1210843	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	588147	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	537701	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.335	12.341	0.967	239078	52.86	ug/L	0.00
45) Toluene-d8	98	14.670	14.676	0.899	1228724	45.52	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	536206	50.77	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	70 - 130	106%
45) Toluene-d8	50.000	70 - 130	91%
63) Bromofluorobenzene	50.000	70 - 130	102%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.552	4.552	0.357	488095	46.97	ug/L	100
3) Chloromethane	50	5.009	4.990	0.393	445878	42.31	ug/L	100
4) Vinyl chloride	62	5.319	5.319	0.417	455764	45.02	ug/L	99
5) Bromomethane	94	6.105	6.159	0.479	344190	47.84	ug/L	98
6) Chloroethane	64	6.373	6.372	0.500	346695	49.15	ug/L	99
7) Trichlorofluoromethane	101	7.049	7.061	0.553	764936	49.47	ug/L	100
8) Ethyl ether	59	7.598	7.610	0.596	284845	51.75	ug/L	96
9) Acetone	43	8.232	8.232	0.645	1175119	269.33	ug/L	100
10) 1,1-Dichloroethylene	61	8.171	8.177	0.641	748122	57.49	ug/L	99
11) Iodomethane	142	8.500	8.500	0.666	3249520	271.50	ug/L	97
12) Acetonitrile	41	8.811	8.817	0.691	1146942	1207.18	ug/L	99
13) Methyl acetate	74	8.842	8.854	0.693	354093	288.37	ug/L #	87
14) Carbon disulfide	76	8.671	8.665	0.680	7176331	287.87	ug/L	100
15) Methylene chloride	84	9.091	9.091	0.713	452663	57.53	ug/L	95
16) tert-Butyl methyl ether	73	9.524	9.537	0.747	1224999	60.92	ug/L	98
17) trans-1,2-Dichloroethy...	61	9.555	9.567	0.749	604617	55.20	ug/L	98
18) Hexane	57	9.982	9.988	0.783	457270	45.62	ug/L	99
19) Vinyl acetate	43	10.305	10.317	0.808	2402361	257.39	ug/L	98
20) 1,1-Dichloroethane	63	10.280	10.286	0.806	727545	52.23	ug/L	99
21) 2-Butanone	72	11.170	11.183	0.876	314170	298.55	ug/L	88
22) cis-1,2-Dichloroethylene	96	11.176	11.183	0.876	388386	53.30	ug/L	97
23) 2,2-Dichloropropane	77	11.189	11.195	0.877	671074	55.93	ug/L	99
24) Bromochloromethane	128	11.542	11.548	0.905	168825	50.48	ug/L	98
25) Chloroform	83	11.621	11.628	0.911	795814	55.64	ug/L	98
26) 1,1,1-Trichloroethane	97	11.908	11.914	0.934	698141	53.36	ug/L	100
27) Cyclohexane	56	11.993	11.999	0.940	597396	51.24	ug/L	98
28) 1,1-Dichloropropene	75	12.121	12.127	0.950	559353	56.35	ug/L	97
29) Carbon tetrachloride	117	12.134	12.146	0.951	649940	53.89	ug/L	98
31) 1,2-Dichloroethane	62	12.432	12.438	0.975	630328	55.89	ug/L	99
32) Benzene	78	12.420	12.426	0.974	1465099	52.63	ug/L	100
33) Cyclohexene	67	12.536	12.548	0.983	675451	47.96	ug/L	95
34) n-Butyl alcohol	56	13.018	13.024	1.021	1148291	5583.35	ug/L	97
35) Trichloroethylene	95	13.219	13.225	1.036	388936	53.36	ug/L	95
36) 2-Pentanone	43	13.389	13.396	1.050	1234594	260.58	ug/L	99
37) 1,2-Dichloropropane	63	13.524	13.524	1.060	383218	54.27	ug/L	100
38) Methylcyclohexane	83	13.475	13.475	1.056	638023	53.66	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072118V3\
Data File : 3Q603L46.D
Acq On : 21 Jul 2018 10:55
Operator : JP1
InstName : VOA3
Sample : |1204074478|1784646|1|VOA|1|VOA8260CNL|
Misc : LCS 5UL/5ML N/A MIX[A]0411-10H/0601-10I/0312-
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 21 11:23:29 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
39) Dibromomethane	93	13.676	13.682	1.072	247638	55.20	ug/L		97
40) Bromodichloromethane	83	13.828	13.834	1.084	604565	57.58	ug/L		98
41) 2-Chloroethylvinyl ether	63	14.127	14.127	1.108	974454	249.09	ug/L		99
42) cis-1,3-Dichloropropylene	75	14.347	14.353	1.125	709542	62.91	ug/L		98
44) 4-Methyl-2-pentanone	58	14.481	14.487	0.888	652081	255.66	ug/L		97
46) Toluene	91	14.749	14.755	0.904	1481557	50.84	ug/L		99
47) trans-1,3-Dichloroprop...	75	14.962	14.968	0.917	649343	57.20	ug/L		97
48) 1,1,2-Trichloroethane	83	15.200	15.200	0.932	277996	50.92	ug/L		99
49) 2-Hexanone	58	15.413	15.413	0.945	898914	281.20	ug/L		98
50) 1,3-Dichloropropane	76	15.401	15.401	0.944	586111	53.57	ug/L		99
51) Tetrachloroethylene	164	15.383	15.383	0.943	284712	46.20	ug/L		99
52) Dibromochloromethane	129	15.676	15.676	0.961	414527	54.16	ug/L		100
53) 1,2-Dibromoethane	107	15.840	15.840	0.971	335565	52.91	ug/L		99
54) Chlorobenzene	112	16.346	16.352	1.002	896345	46.62	ug/L		97
55) 1,1,1,2-Tetrachloroethane	131	16.419	16.419	1.006	386626	49.64	ug/L		99
56) Ethylbenzene	91	16.419	16.425	1.006	1714882	51.00	ug/L		98
57) m,p-Xylenes	106	16.535	16.541	1.013	1243086	99.93	ug/L		96
58) o-Xylene	106	16.986	16.986	1.041	648902	52.02	ug/L		96
59) Styrene	104	16.992	16.992	1.041	1072181	54.09	ug/L		97
61) Bromoform	173	17.261	17.261	0.919	283116	57.63	ug/L		99
62) Isopropylbenzene	105	17.358	17.358	0.924	1676023	49.18	ug/L		98
64) 1,1,2,2-Tetrachloroethane	83	17.663	17.663	0.940	465999	52.06	ug/L		99
65) 1,2,3-Trichloropropane	75	17.748	17.748	0.945	470631	53.15	ug/L		91
66) Bromobenzene	156	17.767	17.767	0.945	414771	49.62	ug/L		95
67) n-Propylbenzene	91	17.791	17.791	0.947	2052493	50.55	ug/L		98
68) 1,3,5-Trimethylbenzene	105	17.950	17.949	0.955	1489761	50.68	ug/L		98
69) 2-Chlorotoluene	126	17.937	17.937	0.955	388480	48.50	ug/L		91
70) 4-Chlorotoluene	91	18.047	18.041	0.960	1362122	52.49	ug/L		97
71) tert-Butylbenzene	134	18.321	18.321	0.975	273494	49.00	ug/L	#	92
72) 1,2,4-Trimethylbenzene	105	18.364	18.364	0.977	1536620	50.99	ug/L		98
73) sec-Butylbenzene	105	18.547	18.547	0.987	1953821	49.29	ug/L		99
74) 4-Isopropyltoluene	119	18.675	18.675	0.994	1665036	49.97	ug/L		98
75) 1,3-Dichlorobenzene	146	18.730	18.730	0.997	826186	48.64	ug/L		99
76) 1,4-Dichlorobenzene	146	18.821	18.821	1.002	829149	49.28	ug/L		99
77) n-Butylbenzene	91	19.108	19.108	1.017	1747525	52.54	ug/L		99
78) 1,2-Dichlorobenzene	146	19.236	19.236	1.024	841100	51.29	ug/L		98
79) 1,2-Dibromo-3-chloropr...	157	20.108	20.108	1.070	106587	57.42	ug/L		95
80) 1,2,4-Trichlorobenzene	180	21.120	21.113	1.124	737836	53.97	ug/L		100
81) Hexachlorobutadiene	225	21.278	21.278	1.132	487869	51.70	ug/L		99
82) Naphthalene	128	21.498	21.491	1.144	1675954	56.35	ug/L		100
83) 1,2,3-Trichlorobenzene	180	21.821	21.821	1.161	736747	54.38	ug/L		98
85) Acrolein		7.799	7.927	0.611	0m	N.D.	d		
86) Trichlorotrifluoroethane		8.134	8.165	0.638	0m	N.D.	d		
87) Isopropyl Alcohol		8.653	8.464	0.678	0m	N.D.	d		
88) Allyl chloride		8.671	8.842	0.680	0m	N.D.	d		
89) tert-Butyl Alcohol		9.018	9.220	0.707	0m	N.D.	d		
90) Acrylonitrile		9.524	9.531	0.747	0m	N.D.	d		
91) Isopropyl ether		10.305	10.317	0.808	0m	N.D.	d		
92) 2-Chloro-1,3-butadiene		10.481	10.427	0.822	0m	N.D.	d		
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.			
94) Ethyl acetate		11.170	11.225	0.876	0m	N.D.	d		
95) Propionitrile		11.170	11.305	0.876	0m	N.D.	d		
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.			
97) Tetrahydrofuran		11.609	11.597	0.910	0m	N.D.	d		
98) Isobutyl alcohol		12.341	12.176	0.968	0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072118V3\
Data File : 3Q603L46.D
Acq On : 21 Jul 2018 10:55
Operator : JP1
InstName : VOA3
Sample : |1204074478|1784646|1|VOA|1|VOA8260CNL|
Misc : LCS 5UL/5ML N/A MIX[A]0411-10H/0601-10I/0312-
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 21 11:23:29 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		12.524	12.500	0.982	0m	N.D.	d
100)	Methyl methacrylate		13.621	13.560	1.068	0m	N.D.	d
101)	1,4-Dioxane		13.676	13.652	1.072	0m	N.D.	d
102)	2-Nitropropane		13.987	14.103	1.097	0m	N.D.	d
104)	Ethyl methacrylate		14.889	14.987	0.913	0m	N.D.	d
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108)	Cyclohexanone		17.553	17.535	0.934	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		17.791	17.718	0.947	0m	N.D.	d
110)	Pentachloroethane		18.388	18.395	0.979	0m	N.D.	d
111)	Benzyl chloride		18.986	18.943	1.010	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		19.388	19.346	1.032	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\data\072118V3\
Data File : 3Q603L46.D
Acq On    : 21 Jul 2018  10:55
Operator  : JP1
InstName  : VOA3
Sample    : |1204074478|1784646|1|VOA|1|VOA8260CNL|
Misc      : LCS 5UL/5ML N/A MIX[A]0411-10H/0601-10I/0312-
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Jul 21 11:23:29 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE
```

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**			**Matrix:**	**WATER**
Lab Sample ID:	**1204076675**				
Client Sample:	**QC for batch 1784646**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**LCS for batch 1784646**	**Method:**	**SW846 8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1784646**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/24/2018 10:40**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 10:40**				
Data File:	**072418V3\3R203L46.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
56-23-5	Carbon tetrachloride		50.8	ug/L	0.300	2.00
106-46-7	1,4-Dichlorobenzene		48.0	ug/L	0.300	2.00
100-41-4	Ethylbenzene		51.1	ug/L	0.300	2.00
71-55-6	1,1,1-Trichloroethane		52.2	ug/L	0.300	2.00
79-34-5	1,1,2,2-Tetrachloroethane		51.2	ug/L	0.300	2.00
79-00-5	1,1,2-Trichloroethane		53.2	ug/L	0.300	2.00
96-12-8	1,2-Dibromo-3-chloropropane		54.1	ug/L	0.500	2.00
106-93-4	1,2-Dibromoethane		52.3	ug/L	0.300	2.00
107-06-2	1,2-Dichloroethane		50.1	ug/L	0.300	2.00
78-87-5	1,2-Dichloropropane		52.7	ug/L	0.300	2.00
71-43-2	Benzene		53.6	ug/L	0.300	2.00
75-27-4	Bromodichloromethane		55.3	ug/L	0.300	2.00
75-25-2	Bromoform		55.2	ug/L	0.300	2.00
75-15-0	Carbon disulfide		294	ug/L	1.60	10.0
108-90-7	Chlorobenzene		51.6	ug/L	0.300	2.00
67-66-3	Chloroform		53.2	ug/L	0.300	2.00
124-48-1	Dibromochloromethane		53.2	ug/L	0.300	2.00
75-09-2	Methylene chloride		58.9	ug/L	1.60	5.00
100-42-5	Styrene		52.9	ug/L	0.300	2.00
127-18-4	Tetrachloroethylene		48.9	ug/L	0.300	2.00
108-88-3	Toluene		51.8	ug/L	0.300	2.00
79-01-6	Trichloroethylene		54.7	ug/L	0.300	2.00
156-59-2	cis-1,2-Dichloroethylene		56.6	ug/L	0.300	2.00
10061-01-5	cis-1,3-Dichloropropylene		63.9	ug/L	0.300	2.00
156-60-5	trans-1,2-Dichloroethylene		53.7	ug/L	0.300	2.00
10061-02-6	trans-1,3-Dichloropropylene		55.9	ug/L	0.300	2.00
75-34-3	1,1-Dichloroethane		52.3	ug/L	0.300	2.00
75-35-4	1,1-Dichloroethylene		56.7	ug/L	0.300	2.00
78-93-3	2-Butanone		280	ug/L	3.00	10.0
108-10-1	4-Methyl-2-pentanone		247	ug/L	3.00	10.0
74-83-9	Bromomethane		53.0	ug/L	0.300	2.00
75-00-3	Chloroethane		55.9	ug/L	0.300	2.00
74-87-3	Chloromethane		46.6	ug/L	0.300	2.00
75-71-8	Dichlorodifluoromethane		54.1	ug/L	0.300	2.00
75-69-4	Trichlorofluoromethane		52.6	ug/L	0.300	2.00
75-01-4	Vinyl chloride		50.9	ug/L	0.300	2.00
591-78-6	2-Hexanone		236	ug/L	3.00	10.0
67-64-1	Acetone		230	ug/L	3.00	10.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**			**Matrix:**	**WATER**
Lab Sample ID:	**1204076675**				
Client Sample:	**QC for batch 1784646**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**LCS for batch 1784646**	**Method:**	**SW846 8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1784646**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/24/2018 10:40**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 10:40**				
Data File:	**072418V3\3R203L46.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
87-61-6	1,2,3-Trichlorobenzene	B	54.0	ug/L	0.300	2.00
120-82-1	1,2,4-Trichlorobenzene	B	56.2	ug/L	0.300	2.00
95-50-1	1,2-Dichlorobenzene		50.2	ug/L	0.300	2.00
541-73-1	1,3-Dichlorobenzene		49.9	ug/L	0.300	2.00
123-91-1	1,4-Dioxane	U	50.0	ug/L	15.0	50.0
74-97-5	Bromochloromethane		52.9	ug/L	0.300	2.00
110-82-7	Cyclohexane		53.3	ug/L	0.300	2.00
98-82-8	Isopropylbenzene		51.4	ug/L	0.300	2.00
79-20-9	Methyl acetate		284	ug/L	1.50	5.00
108-87-2	Methylcyclohexane		55.6	ug/L	0.300	2.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.60	5.00
179601-23-1	m,p-Xylenes		99.0	ug/L	0.300	4.00
95-47-6	o-Xylene		51.9	ug/L	0.300	2.00
1634-04-4	tert-Butyl methyl ether		58.7	ug/L	0.300	2.00

Quantitation Report
GEL Laboratories, LLC

JP 07/25/2018

KP 07/26/2018

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R203L46.D
Acq On : 24 Jul 2018 10:40
Operator : JP1
InstName : VOA3
Sample : |1204076675|1784646|1|VOA|1|VOA8260CL|
Misc : LCS 5UL/5ML N/A MIX[A]0411-10H/0601-10J/0312-09G/0720-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 24 11:47:07 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.762	12.761	1.000	1511492	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	710426	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	678858	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	1515116	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	720828	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	679219	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.335	12.341	0.967	275003	48.62	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	1591228	48.08	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	697133	52.24	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	70 - 130	97%
45) Toluene-d8	50.000	70 - 130	96%
63) Bromofluorobenzene	50.000	70 - 130	104%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.552	4.552	0.357	703220	54.11	ug/L	100
3) Chloromethane	50	4.991	4.990	0.391	614283	46.61	ug/L	99
4) Vinyl chloride	62	5.319	5.319	0.417	644392	50.90	ug/L	99
5) Bromomethane	94	6.105	6.159	0.478	476754	52.98	ug/L	99
6) Chloroethane	64	6.373	6.372	0.499	493569	55.94	ug/L	99
7) Trichlorofluoromethane	101	7.049	7.061	0.552	1016297	52.55	ug/L	99
8) Ethyl ether	59	7.610	7.610	0.596	406912	59.11	ug/L	95
9) Acetone	43	8.238	8.232	0.646	1252681	229.56	ug/L	96
10) 1,1-Dichloroethylene	61	8.177	8.177	0.641	923324	56.73	ug/L	97
11) Iodomethane	142	8.506	8.500	0.667	4156282	277.66	ug/L	98
12) Acetonitrile	41	8.817	8.817	0.691	1362495	1146.62	ug/L	100
13) Methyl acetate	74	8.854	8.854	0.694	435961	283.87	ug/L #	83
14) Carbon disulfide	76	8.671	8.665	0.679	9170926	294.14	ug/L	99
15) Methylene chloride	84	9.092	9.091	0.712	579221	58.89	ug/L	92
16) tert-Butyl methyl ether	73	9.531	9.537	0.747	1476014	58.69	ug/L	98
17) trans-1,2-Dichloroethy...	61	9.561	9.567	0.749	735723	53.71	ug/L	98
18) Hexane	57	9.988	9.988	0.783	621924	49.61	ug/L	95
19) Vinyl acetate	43	10.317	10.317	0.808	3117045	267.03	ug/L	97
20) 1,1-Dichloroethane	63	10.293	10.286	0.807	911576	52.32	ug/L	99
21) 2-Butanone	72	11.183	11.183	0.876	368100	279.69	ug/L #	80
22) cis-1,2-Dichloroethylene	96	11.183	11.183	0.876	515537	56.56	ug/L	95
23) 2,2-Dichloropropane	77	11.195	11.195	0.877	835085	55.65	ug/L	92
24) Bromochloromethane	128	11.548	11.548	0.905	221439	52.94	ug/L	97
25) Chloroform	83	11.628	11.628	0.911	952416	53.24	ug/L	100
26) 1,1,1-Trichloroethane	97	11.914	11.914	0.934	854267	52.20	ug/L	99
27) Cyclohexane	56	12.000	11.999	0.940	776500	53.26	ug/L	96
28) 1,1-Dichloropropene	75	12.128	12.127	0.950	672624	54.18	ug/L	95
29) Carbon tetrachloride	117	12.146	12.146	0.952	766664	50.83	ug/L	99
31) 1,2-Dichloroethane	62	12.438	12.438	0.975	706906	50.12	ug/L	99
32) Benzene	78	12.420	12.426	0.973	1864450	53.55	ug/L	99
33) Cyclohexene	67	12.542	12.548	0.983	867398	49.25	ug/L	95
34) n-Butyl alcohol	56	13.024	13.024	1.021	1306727	5088.41	ug/L	94
35) Trichloroethylene	95	13.225	13.225	1.036	498783	54.72	ug/L	96
36) 2-Pentanone	43	13.396	13.396	1.050	1512232	255.20	ug/L	97
37) 1,2-Dichloropropane	63	13.524	13.524	1.060	465322	52.69	ug/L	98
38) Methylcyclohexane	83	13.475	13.475	1.056	827305	55.63	ug/L	96

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R203L46.D
Acq On : 24 Jul 2018 10:40
Operator : JP1
InstName : VOA3
Sample : |1204076675|1784646|1|VOA|1|VOA8260CL|
Misc : LCS 5UL/5ML N/A MIX[A]0411-10H/0601-10J/0312-09G/0720-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 24 11:47:07 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
39) Dibromomethane	93	13.682	13.682	1.072	310692	55.37	ug/L	99
40) Bromodichloromethane	83	13.835	13.834	1.084	725644	55.26	ug/L	98
41) 2-Chloroethylvinyl ether	63	14.127	14.127	1.107	1142550	233.52	ug/L	99
42) cis-1,3-Dichloropropylene	75	14.347	14.353	1.124	900641	63.85	ug/L	95
44) 4-Methyl-2-pentanone	58	14.487	14.487	0.888	771206	246.62	ug/L	92
46) Toluene	91	14.755	14.755	0.904	1849142	51.76	ug/L	98
47) trans-1,3-Dichloroprop...	75	14.968	14.968	0.917	777371	55.85	ug/L	96
48) 1,1,2-Trichloroethane	83	15.200	15.200	0.932	355779	53.15	ug/L	98
49) 2-Hexanone	58	15.414	15.413	0.945	926538	236.40	ug/L	94
50) 1,3-Dichloropropane	76	15.401	15.401	0.944	689875	51.43	ug/L	92
51) Tetrachloroethylene	164	15.383	15.383	0.943	369264	48.88	ug/L	97
52) Dibromochloromethane	129	15.676	15.676	0.961	499387	53.22	ug/L	99
53) 1,2-Dibromoethane	107	15.840	15.840	0.971	406535	52.28	ug/L	100
54) Chlorobenzene	112	16.352	16.352	1.002	1215456	51.57	ug/L	99
55) 1,1,1,2-Tetrachloroethane	131	16.419	16.419	1.006	467950	49.01	ug/L	100
56) Ethylbenzene	91	16.419	16.425	1.006	2107799	51.12	ug/L	99
57) m,p-Xylenes	106	16.535	16.541	1.013	1509116	98.95	ug/L	99
58) o-Xylene	106	16.986	16.986	1.041	793151	51.86	ug/L	99
59) Styrene	104	16.992	16.992	1.041	1284743	52.87	ug/L	100
61) Bromoform	173	17.261	17.261	0.919	342342	55.15	ug/L	99
62) Isopropylbenzene	105	17.358	17.358	0.924	2212717	51.39	ug/L	99
64) 1,1,2,2-Tetrachloroethane	83	17.663	17.663	0.940	579041	51.20	ug/L	100
65) 1,2,3-Trichloropropane	75	17.748	17.748	0.945	558070	49.88	ug/L	96
66) Bromobenzene	156	17.767	17.767	0.945	528758	50.06	ug/L	98
67) n-Propylbenzene	91	17.791	17.791	0.947	2623601	51.14	ug/L	99
68) 1,3,5-Trimethylbenzene	105	17.950	17.949	0.955	1860036	50.08	ug/L	100
69) 2-Chlorotoluene	126	17.937	17.937	0.955	488212	48.24	ug/L	95
70) 4-Chlorotoluene	91	18.041	18.041	0.960	1649728	50.32	ug/L	98
71) tert-Butylbenzene	134	18.321	18.321	0.975	345078	48.93	ug/L	93
72) 1,2,4-Trimethylbenzene	105	18.364	18.364	0.977	1908020	50.11	ug/L	99
73) sec-Butylbenzene	105	18.547	18.547	0.987	2525376	50.42	ug/L	99
74) 4-Isopropyltoluene	119	18.675	18.675	0.994	2070537	49.18	ug/L	99
75) 1,3-Dichlorobenzene	146	18.730	18.730	0.997	1070018	49.86	ug/L	99
76) 1,4-Dichlorobenzene	146	18.821	18.821	1.002	1020772	48.02	ug/L	98
77) n-Butylbenzene	91	19.108	19.108	1.017	2200855	52.37	ug/L	99
78) 1,2-Dichlorobenzene	146	19.236	19.236	1.024	1039797	50.19	ug/L	99
79) 1,2-Dibromo-3-chloropr...	157	20.108	20.108	1.070	126841	54.08	ug/L	98
80) 1,2,4-Trichlorobenzene	180	21.120	21.113	1.124	970109	56.16	ug/L	99
81) Hexachlorobutadiene	225	21.272	21.278	1.132	648220	54.37	ug/L	99
82) Naphthalene	128	21.492	21.491	1.144	2042532	54.36	ug/L	100
83) 1,2,3-Trichlorobenzene	180	21.821	21.821	1.161	924877	54.04	ug/L	98
85) Acrolein		0.000	7.927	0.000	0	N.D.		
86) Trichlorotrifluoroethane		8.159	8.165	0.639	0m	N.D.	d	
87) Isopropyl Alcohol		8.592	8.464	0.673	0m	N.D.	d	
88) Allyl chloride		8.671	8.842	0.679	0m	N.D.	d	
89) tert-Butyl Alcohol		9.018	9.220	0.707	0m	N.D.	d	
90) Acrylonitrile		9.531	9.531	0.747	0m	N.D.	d	
91) Isopropyl ether		10.317	10.317	0.808	0m	N.D.	d	
92) 2-Chloro-1,3-butadiene		10.482	10.427	0.821	0m	N.D.	d	
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.		
94) Ethyl acetate		11.177	11.225	0.876	0m	N.D.	d	
95) Propionitrile		11.177	11.305	0.876	0m	N.D.	d	
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.		
97) Tetrahydrofuran		11.628	11.597	0.911	0m	N.D.	d	
98) Isobutyl alcohol		12.317	12.176	0.965	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R203L46.D
Acq On : 24 Jul 2018 10:40
Operator : JP1
InstName : VOA3
Sample : |1204076675|1784646|1|VOA|1|VOA8260CL|
Misc : LCS 5UL/5ML N/A MIX[A]0411-10H/0601-10J/0312-09G/0720-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 24 11:47:07 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		12.542	12.500	0.983	0m	N.D.	d
100)	Methyl methacrylate		13.475	13.560	1.056	0m	N.D.	d
101)	1,4-Dioxane		13.682	13.652	1.072	0m	N.D.	d
102)	2-Nitropropane		14.127	14.103	1.107	0m	N.D.	d
104)	Ethyl methacrylate		14.993	14.987	0.919	0m	N.D.	d
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108)	Cyclohexanone		17.559	17.535	0.934	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		17.791	17.718	0.947	0m	N.D.	d
110)	Pentachloroethane		18.401	18.395	0.979	0m	N.D.	d
111)	Benzyl chloride		18.913	18.943	1.006	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		19.394	19.346	1.032	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R203L46.D
Acq On : 24 Jul 2018 10:40
Operator : JP1
InstName : VOA3
Sample : |1204076675|1784646|1|VOA|1|VOA8260CL|
Misc : LCS 5UL/5ML N/A MIX[A]0411-10H/0601-10J/0312-09G/0720-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 24 11:47:07 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**			**Matrix:**	**SOIL**
Lab Sample ID:	**1204076133**				
Client Sample:	**QC for batch 1785343**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**LCS for batch 1785343**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/24/2018 11:12**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R204L49.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane		54.8	ug/kg	0.300	2.00
79-34-5	1,1,2,2-Tetrachloroethane		52.4	ug/kg	0.300	2.00
79-00-5	1,1,2-Trichloroethane		49.8	ug/kg	0.300	2.00
75-34-3	1,1-Dichloroethane		54.6	ug/kg	0.300	2.00
75-35-4	1,1-Dichloroethylene		60.6	ug/kg	0.300	2.00
87-61-6	1,2,3-Trichlorobenzene		53.3	ug/kg	0.300	2.00
120-82-1	1,2,4-Trichlorobenzene		55.0	ug/kg	0.300	2.00
96-12-8	1,2-Dibromo-3-chloropropane		55.3	ug/kg	0.500	2.00
106-93-4	1,2-Dibromoethane		53.3	ug/kg	0.300	2.00
95-50-1	1,2-Dichlorobenzene		48.0	ug/kg	0.300	2.00
107-06-2	1,2-Dichloroethane		50.9	ug/kg	0.300	2.00
78-87-5	1,2-Dichloropropane		54.9	ug/kg	0.300	2.00
541-73-1	1,3-Dichlorobenzene		48.0	ug/kg	0.300	2.00
106-46-7	1,4-Dichlorobenzene		46.9	ug/kg	0.300	2.00
123-91-1	1,4-Dioxane	U	50.0	ug/kg	15.0	50.0
78-93-3	2-Butanone		291	ug/kg	3.00	10.0
591-78-6	2-Hexanone		248	ug/kg	3.00	10.0
108-10-1	4-Methyl-2-pentanone		242	ug/kg	3.00	10.0
67-64-1	Acetone		247	ug/kg	3.00	10.0
71-43-2	Benzene		54.0	ug/kg	0.300	2.00
74-97-5	Bromochloromethane		54.4	ug/kg	0.300	2.00
75-27-4	Bromodichloromethane		57.4	ug/kg	0.300	2.00
75-25-2	Bromoform		54.4	ug/kg	0.300	2.00
74-83-9	Bromomethane		58.8	ug/kg	0.300	2.00
75-15-0	Carbon disulfide		308	ug/kg	1.60	10.0
56-23-5	Carbon tetrachloride		55.1	ug/kg	0.300	2.00
108-90-7	Chlorobenzene		47.9	ug/kg	0.300	2.00
75-00-3	Chloroethane		61.5	ug/kg	0.300	2.00
67-66-3	Chloroform		56.3	ug/kg	0.300	2.00
74-87-3	Chloromethane		47.5	ug/kg	0.300	2.00
110-82-7	Cyclohexane		54.4	ug/kg	0.300	2.00
124-48-1	Dibromochloromethane		51.6	ug/kg	0.300	2.00
75-71-8	Dichlorodifluoromethane		56.6	ug/kg	0.300	2.00
100-41-4	Ethylbenzene		48.9	ug/kg	0.300	2.00
98-82-8	Isopropylbenzene		48.9	ug/kg	0.300	2.00
79-20-9	Methyl acetate		309	ug/kg	1.50	5.00
108-87-2	Methylcyclohexane		55.1	ug/kg	0.300	2.00
75-09-2	Methylene chloride		60.6	ug/kg	1.60	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**			**Matrix:**	**SOIL**
Lab Sample ID:	**1204076133**				
Client Sample:	**QC for batch 1785343**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**LCS for batch 1785343**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/24/2018 11:12**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R204L49.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene		50.9	ug/kg	0.300	2.00
127-18-4	Tetrachloroethylene		46.4	ug/kg	0.300	2.00
108-88-3	Toluene		47.6	ug/kg	0.300	2.00
79-01-6	Trichloroethylene		55.9	ug/kg	0.300	2.00
75-69-4	Trichlorofluoromethane		54.8	ug/kg	0.300	2.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/kg	1.60	5.00
75-01-4	Vinyl chloride		51.4	ug/kg	0.300	2.00
156-59-2	cis-1,2-Dichloroethylene		58.9	ug/kg	0.300	2.00
10061-01-5	cis-1,3-Dichloropropylene		63.3	ug/kg	0.300	2.00
179601-23-1	m,p-Xylenes		94.8	ug/kg	0.300	4.00
95-47-6	o-Xylene		49.7	ug/kg	0.300	2.00
1634-04-4	tert-Butyl methyl ether		63.8	ug/kg	0.300	2.00
156-60-5	trans-1,2-Dichloroethylene		56.0	ug/kg	0.300	2.00
10061-02-6	trans-1,3-Dichloropropylene		54.0	ug/kg	0.300	2.00

Quantitation Report
GEL Laboratories, LLC

JP
07/25/2018

KP
07/27/2018

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R204L49.D
Acq On : 24 Jul 2018 11:12
Operator : JP1
InstName : VOA3
Sample : |1204076133|1785349|1|VOA|1|VOA3560C_S|
Misc : LCS 5UL/5ML N/A SOIL MIX[A]0411-10H/0601-10J/0312-09G/0720-01
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 24 11:47:29 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.762	12.761	1.000	1443754	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	748836	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	683820	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	1447196	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	759329	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	683989	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	284703	52.69	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	1556093	44.60	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	696913	51.84	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	105%
45) Toluene-d8	50.000	81 - 120	89%
63) Bromofluorobenzene	50.000	70 - 130	104%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.552	4.552	0.357	702146	56.56	ug/L	100
3) Chloromethane	50	4.991	4.990	0.391	598177	47.52	ug/L	100
4) Vinyl chloride	62	5.301	5.319	0.415	621054	51.36	ug/L	99
5) Bromomethane	94	6.159	6.159	0.483	505472	58.81	ug/L	100
6) Chloroethane	64	6.379	6.372	0.500	518610	61.54	ug/L	98
7) Trichlorofluoromethane	101	7.043	7.061	0.552	1012489	54.81	ug/L	100
8) Ethyl ether	59	7.604	7.610	0.596	419953	63.86	ug/L	95
9) Acetone	43	8.232	8.232	0.645	1287849	247.07	ug/L	96
10) 1,1-Dichloroethylene	61	8.165	8.177	0.640	941315	60.55	ug/L	97
11) Iodomethane	142	8.500	8.500	0.666	4201604	293.85	ug/L	98
12) Acetonitrile	41	8.811	8.817	0.690	1302711	1147.74	ug/L	100
13) Methyl acetate	74	8.854	8.854	0.694	453480	309.14	ug/L #	80
14) Carbon disulfide	76	8.665	8.665	0.679	9175611	308.10	ug/L	99
15) Methylene chloride	84	9.098	9.091	0.713	569122	60.61	ug/L	92
16) tert-Butyl methyl ether	73	9.530	9.537	0.747	1532487	63.80	ug/L	98
17) trans-1,2-Dichloroethy...	61	9.567	9.567	0.750	732989	56.02	ug/L	97
18) Hexane	57	9.994	9.988	0.783	548749	45.83	ug/L	95
19) Vinyl acetate	43	10.317	10.317	0.808	3102183	278.22	ug/L	97
20) 1,1-Dichloroethane	63	10.286	10.286	0.806	908826	54.61	ug/L	98
21) 2-Butanone	72	11.183	11.183	0.876	365248	290.54	ug/L #	82
22) cis-1,2-Dichloroethylene	96	11.183	11.183	0.876	512471	58.87	ug/L	95
23) 2,2-Dichloropropane	77	11.195	11.195	0.877	834117	58.19	ug/L	92
24) Bromochloromethane	128	11.548	11.548	0.905	217206	54.36	ug/L	95
25) Chloroform	83	11.628	11.628	0.911	961779	56.29	ug/L	100
26) 1,1,1-Trichloroethane	97	11.914	11.914	0.934	856807	54.82	ug/L	99
27) Cyclohexane	56	11.999	11.999	0.940	757413	54.39	ug/L	95
28) 1,1-Dichloropropene	75	12.128	12.127	0.950	695310	58.64	ug/L	94
29) Carbon tetrachloride	117	12.140	12.146	0.951	793982	55.11	ug/L	98
31) 1,2-Dichloroethane	62	12.445	12.438	0.975	685593	50.89	ug/L	99
32) Benzene	78	12.420	12.426	0.973	1795975	54.00	ug/L	99
33) Cyclohexene	67	12.542	12.548	0.983	842818	50.10	ug/L	94
34) n-Butyl alcohol	56	13.024	13.024	1.021	1156614	4721.88	ug/L	94
35) Trichloroethylene	95	13.225	13.225	1.036	486467	55.87	ug/L	97
36) 2-Pentanone	43	13.396	13.396	1.050	1488582	263.00	ug/L	97
37) 1,2-Dichloropropane	63	13.524	13.524	1.060	463490	54.94	ug/L	97
38) Methylcyclohexane	83	13.475	13.475	1.056	782827	55.11	ug/L	95

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R204L49.D
Acq On : 24 Jul 2018 11:12
Operator : JP1
InstName : VOA3
Sample : |1204076133|1785349|1|VOA|1|VOA3560C_S|
Misc : LCS 5UL/5ML N/A SOIL MIX[A]0411-10H/0601-10J/0312-09G/0720-01
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 24 11:47:29 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
39) Dibromomethane	93	13.682	13.682	1.072	308483	57.56	ug/L	99
40) Bromodichloromethane	83	13.835	13.834	1.084	719408	57.35	ug/L	99
41) 2-Chloroethylvinyl ether	63	14.127	14.127	1.107	1187825	254.16	ug/L	99
42) cis-1,3-Dichloropropylene	75	14.353	14.353	1.125	852505	63.28	ug/L	94
44) 4-Methyl-2-pentanone	58	14.487	14.487	0.888	798132	242.14	ug/L	91
46) Toluene	91	14.755	14.755	0.904	1791372	47.57	ug/L	99
47) trans-1,3-Dichloroprop...	75	14.968	14.968	0.917	791952	53.98	ug/L	95
48) 1,1,2-Trichloroethane	83	15.200	15.200	0.932	351512	49.82	ug/L	99
49) 2-Hexanone	58	15.413	15.413	0.945	1024131	247.90	ug/L	93
50) 1,3-Dichloropropane	76	15.401	15.401	0.944	714789	50.55	ug/L	93
51) Tetrachloroethylene	164	15.383	15.383	0.943	369121	46.35	ug/L	98
52) Dibromochloromethane	129	15.682	15.676	0.961	510495	51.61	ug/L	99
53) 1,2-Dibromoethane	107	15.846	15.840	0.971	436957	53.31	ug/L	100
54) Chlorobenzene	112	16.352	16.352	1.002	1189090	47.86	ug/L	100
55) 1,1,1,2-Tetrachloroethane	131	16.419	16.419	1.006	475194	47.21	ug/L	100
56) Ethylbenzene	91	16.425	16.425	1.007	2124749	48.89	ug/L	99
57) m,p-Xylenes	106	16.541	16.541	1.014	1523941	94.79	ug/L	99
58) o-Xylene	106	16.986	16.986	1.041	800776	49.67	ug/L	97
59) Styrene	104	16.992	16.992	1.041	1303329	50.88	ug/L	99
61) Bromoform	173	17.261	17.261	0.919	340010	54.38	ug/L	99
62) Isopropylbenzene	105	17.358	17.358	0.924	2119185	48.86	ug/L	99
64) 1,1,2,2-Tetrachloroethane	83	17.669	17.663	0.940	597018	52.40	ug/L	99
65) 1,2,3-Trichloropropane	75	17.748	17.748	0.945	563884	50.03	ug/L	93
66) Bromobenzene	156	17.767	17.767	0.945	532390	50.04	ug/L	100
67) n-Propylbenzene	91	17.791	17.791	0.947	2542305	49.20	ug/L	99
68) 1,3,5-Trimethylbenzene	105	17.950	17.949	0.955	1849142	49.42	ug/L	99
69) 2-Chlorotoluene	126	17.937	17.937	0.955	479316	47.01	ug/L	96
70) 4-Chlorotoluene	91	18.047	18.041	0.960	1614857	48.90	ug/L	98
71) tert-Butylbenzene	134	18.321	18.321	0.975	327393	46.08	ug/L	92
72) 1,2,4-Trimethylbenzene	105	18.364	18.364	0.977	1836490	47.89	ug/L	98
73) sec-Butylbenzene	105	18.547	18.547	0.987	2481102	49.18	ug/L	99
74) 4-Isopropyltoluene	119	18.675	18.675	0.994	2078675	49.02	ug/L	99
75) 1,3-Dichlorobenzene	146	18.736	18.730	0.997	1038518	48.04	ug/L	99
76) 1,4-Dichlorobenzene	146	18.821	18.821	1.002	1003804	46.88	ug/L	99
77) n-Butylbenzene	91	19.108	19.108	1.017	1991080	47.03	ug/L	99
78) 1,2-Dichlorobenzene	146	19.236	19.236	1.024	1001487	47.99	ug/L	99
79) 1,2-Dibromo-3-chloropr...	157	20.108	20.108	1.070	130714	55.33	ug/L	99
80) 1,2,4-Trichlorobenzene	180	21.120	21.113	1.124	957306	55.02	ug/L	100
81) Hexachlorobutadiene	225	21.278	21.278	1.132	639617	53.26	ug/L	99
82) Naphthalene	128	21.498	21.491	1.144	2077638	54.89	ug/L	100
83) 1,2,3-Trichlorobenzene	180	21.821	21.821	1.161	918486	53.27	ug/L	98
85) Acrolein		7.811	7.927	0.612	0m	N.D.	d	
86) Trichlorotrifluoroethane		8.177	8.165	0.641	0m	N.D.	d	
87) Isopropyl Alcohol		8.592	8.464	0.673	0m	N.D.	d	
88) Allyl chloride		0.000	8.842	0.000	0	N.D.		
89) tert-Butyl Alcohol		9.220	9.220	0.722	0m	N.D.	d	
90) Acrylonitrile		9.530	9.531	0.747	0m	N.D.	d	
91) Isopropyl ether		10.317	10.317	0.808	0m	N.D.	d	
92) 2-Chloro-1,3-butadiene		10.488	10.427	0.822	0m	N.D.	d	
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.		
94) Ethyl acetate		11.177	11.225	0.876	0m	N.D.	d	
95) Propionitrile		11.183	11.305	0.876	0m	N.D.	d	
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.		
97) Tetrahydrofuran		11.615	11.597	0.910	0m	N.D.	d	
98) Isobutyl alcohol		12.249	12.176	0.960	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R204L49.D
Acq On : 24 Jul 2018 11:12
Operator : JP1
InstName : VOA3
Sample : |1204076133|1785349|1|VOA|1|VOA3560C_S|
Misc : LCS 5UL/5ML N/A SOIL MIX[A]0411-10H/0601-10J/0312-09G/0720-01
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 24 11:47:29 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		12.542	12.500	0.983	0m	N.D.	d
100)	Methyl methacrylate		13.615	13.560	1.067	0m	N.D.	d
101)	1,4-Dioxane		13.688	13.652	1.073	0m	N.D.	d
102)	2-Nitropropane		13.975	14.103	1.095	0m	N.D.	d
104)	Ethyl methacrylate		14.999	14.987	0.919	0m	N.D.	d
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108)	Cyclohexanone		17.559	17.535	0.934	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		17.791	17.718	0.947	0m	N.D.	d
110)	Pentachloroethane		18.401	18.395	0.979	0m	N.D.	d
111)	Benzyl chloride		18.907	18.943	1.006	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		19.394	19.346	1.032	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R204L49.D
Acq On : 24 Jul 2018 11:12
Operator : JP1
InstName : VOA3
Sample : |1204076133|1785349|1|VOA|1|VOA3560C_S|
Misc : LCS 5UL/5ML N/A SOIL MIX[A]0411-10H/0601-10J/0312-09G/0720-01
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 24 11:47:29 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**			**Matrix:**	**SOIL**
Lab Sample ID:	**1204079887**				
Client Sample:	**QC for batch 1785343**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**LCS for batch 1785343**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 12:45**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 09:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R505L49.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane		43.4	ug/kg	0.300	2.00
79-34-5	1,1,2,2-Tetrachloroethane		45.9	ug/kg	0.300	2.00
79-00-5	1,1,2-Trichloroethane		46.3	ug/kg	0.300	2.00
75-34-3	1,1-Dichloroethane		42.3	ug/kg	0.300	2.00
75-35-4	1,1-Dichloroethylene		45.7	ug/kg	0.300	2.00
87-61-6	1,2,3-Trichlorobenzene		45.6	ug/kg	0.300	2.00
120-82-1	1,2,4-Trichlorobenzene		46.2	ug/kg	0.300	2.00
96-12-8	1,2-Dibromo-3-chloropropane		48.7	ug/kg	0.500	2.00
106-93-4	1,2-Dibromoethane		47.2	ug/kg	0.300	2.00
95-50-1	1,2-Dichlorobenzene		41.7	ug/kg	0.300	2.00
107-06-2	1,2-Dichloroethane		44.1	ug/kg	0.300	2.00
78-87-5	1,2-Dichloropropane		44.8	ug/kg	0.300	2.00
541-73-1	1,3-Dichlorobenzene		41.4	ug/kg	0.300	2.00
106-46-7	1,4-Dichlorobenzene		40.6	ug/kg	0.300	2.00
123-91-1	1,4-Dioxane	U	50.0	ug/kg	15.0	50.0
78-93-3	2-Butanone		245	ug/kg	3.00	10.0
591-78-6	2-Hexanone		233	ug/kg	3.00	10.0
108-10-1	4-Methyl-2-pentanone		229	ug/kg	3.00	10.0
67-64-1	Acetone		207	ug/kg	3.00	10.0
71-43-2	Benzene		45.4	ug/kg	0.300	2.00
74-97-5	Bromochloromethane		45.1	ug/kg	0.300	2.00
75-27-4	Bromodichloromethane		47.3	ug/kg	0.300	2.00
75-25-2	Bromoform		48.6	ug/kg	0.300	2.00
74-83-9	Bromomethane		47.5	ug/kg	0.300	2.00
75-15-0	Carbon disulfide		234	ug/kg	1.60	10.0
56-23-5	Carbon tetrachloride		42.9	ug/kg	0.300	2.00
108-90-7	Chlorobenzene		42.0	ug/kg	0.300	2.00
75-00-3	Chloroethane		47.0	ug/kg	0.300	2.00
67-66-3	Chloroform		45.1	ug/kg	0.300	2.00
74-87-3	Chloromethane		39.4	ug/kg	0.300	2.00
110-82-7	Cyclohexane		42.5	ug/kg	0.300	2.00
124-48-1	Dibromochloromethane		46.1	ug/kg	0.300	2.00
75-71-8	Dichlorodifluoromethane		40.7	ug/kg	0.300	2.00
100-41-4	Ethylbenzene		41.3	ug/kg	0.300	2.00
98-82-8	Isopropylbenzene		44.3	ug/kg	0.300	2.00
79-20-9	Methyl acetate		208	ug/kg	1.50	5.00
108-87-2	Methylcyclohexane		44.7	ug/kg	0.300	2.00
75-09-2	Methylene chloride		48.4	ug/kg	1.60	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**			**Matrix:**	**SOIL**
Lab Sample ID:	**1204079887**				
Client Sample:	**QC for batch 1785343**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**LCS for batch 1785343**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 12:45**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 09:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R505L49.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene		44.9	ug/kg	0.300	2.00
127-18-4	Tetrachloroethylene		40.1	ug/kg	0.300	2.00
108-88-3	Toluene		42.9	ug/kg	0.300	2.00
79-01-6	Trichloroethylene		45.5	ug/kg	0.300	2.00
75-69-4	Trichlorofluoromethane		45.4	ug/kg	0.300	2.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/kg	1.60	5.00
75-01-4	Vinyl chloride		43.8	ug/kg	0.300	2.00
156-59-2	cis-1,2-Dichloroethylene		46.8	ug/kg	0.300	2.00
10061-01-5	cis-1,3-Dichloropropylene		52.8	ug/kg	0.300	2.00
179601-23-1	m,p-Xylenes		83.5	ug/kg	0.300	4.00
95-47-6	o-Xylene		43.8	ug/kg	0.300	2.00
1634-04-4	tert-Butyl methyl ether		52.8	ug/kg	0.300	2.00
156-60-5	trans-1,2-Dichloroethylene		44.0	ug/kg	0.300	2.00
10061-02-6	trans-1,3-Dichloropropylene		50.3	ug/kg	0.300	2.00

Quantitation Report
GEL Laboratories, LLC

JP 07/30/2018

KP 07/31/2018

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R505L49.D
Acq On : 27 Jul 2018 12:45
Operator : JP1
InstName : VOA3
Sample : |1204079887|1785349|1|VOA|1|VOA3560C_S|
Misc : LCS 5UL/5ML N/A SOIL MIX[A]0411-10H/0629-10A/0312-09G/0726-01
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 27 15:45:07 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.762	12.761	1.000	1674511	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	765447	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	704902	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	1678298	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	777989	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	705537	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	293960	46.91	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	1647587	46.20	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	724476	52.28	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	94%
45) Toluene-d8	50.000	81 - 120	92%
63) Bromofluorobenzene	50.000	70 - 130	105%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.552	4.552	0.357	585447	40.66	ug/L	100
3) Chloromethane	50	4.991	4.990	0.391	575146	39.39	ug/L	99
4) Vinyl chloride	62	5.319	5.319	0.417	613716	43.76	ug/L	99
5) Bromomethane	94	6.105	6.159	0.478	473147	47.46	ug/L	99
6) Chloroethane	64	6.373	6.372	0.499	458948	46.96	ug/L	98
7) Trichlorofluoromethane	101	7.061	7.061	0.553	973605	45.44	ug/L	100
8) Ethyl ether	59	7.610	7.610	0.596	402638	52.79	ug/L	95
9) Acetone	43	8.238	8.232	0.646	1251211	206.96	ug/L	95
10) 1,1-Dichloroethylene	61	8.177	8.177	0.641	824268	45.72	ug/L	97
11) Iodomethane	142	8.506	8.500	0.667	3773796	227.56	ug/L	100
12) Acetonitrile	41	8.817	8.817	0.691	1207172	917.00	ug/L	100
13) Methyl acetate	74	8.848	8.854	0.693	354582	208.41	ug/L #	80
14) Carbon disulfide	76	8.671	8.665	0.679	8081426	233.97	ug/L	100
15) Methylene chloride	84	9.092	9.091	0.712	529602	48.39	ug/L	91
16) tert-Butyl methyl ether	73	9.531	9.537	0.747	1471252	52.81	ug/L	97
17) trans-1,2-Dichloroethy...	61	9.561	9.567	0.749	667559	43.99	ug/L	97
18) Hexane	57	9.988	9.988	0.783	493156	35.51	ug/L	95
19) Vinyl acetate	43	10.317	10.317	0.808	3814712	294.98	ug/L	96
20) 1,1-Dichloroethane	63	10.286	10.286	0.806	816785	42.32	ug/L	98
21) 2-Butanone	72	11.183	11.183	0.876	356939	244.80	ug/L #	79
22) cis-1,2-Dichloroethylene	96	11.183	11.183	0.876	472493	46.80	ug/L	94
23) 2,2-Dichloropropane	77	11.195	11.195	0.877	756425	45.50	ug/L	92
24) Bromochloromethane	128	11.548	11.548	0.905	208862	45.07	ug/L	93
25) Chloroform	83	11.628	11.628	0.911	894176	45.12	ug/L	99
26) 1,1,1-Trichloroethane	97	11.920	11.914	0.934	786131	43.36	ug/L	98
27) Cyclohexane	56	12.000	11.999	0.940	686895	42.53	ug/L	94
28) 1,1-Dichloropropene	75	12.128	12.127	0.950	622183	45.24	ug/L	94
29) Carbon tetrachloride	117	12.146	12.146	0.952	716125	42.86	ug/L	98
31) 1,2-Dichloroethane	62	12.445	12.438	0.975	689661	44.14	ug/L	99
32) Benzene	78	12.426	12.426	0.974	1750084	45.37	ug/L	99
33) Cyclohexene	67	12.542	12.548	0.983	769152	39.42	ug/L	93
34) n-Butyl alcohol	56	13.024	13.024	1.021	1152570	4069.80	ug/L	93
35) Trichloroethylene	95	13.225	13.225	1.036	459517	45.50	ug/L	97
36) 2-Pentanone	43	13.402	13.396	1.050	1473700	224.49	ug/L	96
37) 1,2-Dichloropropane	63	13.524	13.524	1.060	438677	44.84	ug/L	99
38) Methylcyclohexane	83	13.475	13.475	1.056	737130	44.74	ug/L	94

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R505L49.D
Acq On : 27 Jul 2018 12:45
Operator : JP1
InstName : VOA3
Sample : |1204079887|1785349|1|VOA|1|VOA3560C_S|
Misc : LCS 5UL/5ML N/A SOIL MIX[A]0411-10H/0629-10A/0312-09G/0726-01
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 27 15:45:07 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
39) Dibromomethane	93	13.682	13.682	1.072	290206	46.68	ug/L	99
40) Bromodichloromethane	83	13.835	13.834	1.084	688568	47.33	ug/L	99
41) 2-Chloroethylvinyl ether	63	14.127	14.127	1.107	1205461	222.39	ug/L	99
42) cis-1,3-Dichloropropylene	75	14.353	14.353	1.125	825123	52.80	ug/L	94
44) 4-Methyl-2-pentanone	58	14.487	14.487	0.888	772526	229.28	ug/L	91
46) Toluene	91	14.755	14.755	0.904	1651151	42.89	ug/L	99
47) trans-1,3-Dichloroprop...	75	14.968	14.968	0.917	754258	50.30	ug/L	95
48) 1,1,2-Trichloroethane	83	15.200	15.200	0.932	333752	46.27	ug/L	99
49) 2-Hexanone	58	15.414	15.413	0.945	984924	233.24	ug/L	93
50) 1,3-Dichloropropane	76	15.401	15.401	0.944	674047	46.64	ug/L	94
51) Tetrachloroethylene	164	15.383	15.383	0.943	326442	40.10	ug/L	97
52) Dibromochloromethane	129	15.676	15.676	0.961	465600	46.05	ug/L	100
53) 1,2-Dibromoethane	107	15.846	15.840	0.971	395315	47.18	ug/L	100
54) Chlorobenzene	112	16.352	16.352	1.002	1065394	41.95	ug/L	99
55) 1,1,1,2-Tetrachloroethane	131	16.419	16.419	1.006	430071	41.80	ug/L	100
56) Ethylbenzene	91	16.426	16.425	1.007	1832363	41.25	ug/L	98
57) m,p-Xylenes	106	16.535	16.541	1.013	1371298	83.45	ug/L	98
58) o-Xylene	106	16.986	16.986	1.041	721122	43.76	ug/L	100
59) Styrene	104	16.992	16.992	1.041	1174702	44.86	ug/L	99
61) Bromoform	173	17.261	17.261	0.919	313525	48.64	ug/L	99
62) Isopropylbenzene	105	17.358	17.358	0.924	1980525	44.29	ug/L	99
64) 1,1,2,2-Tetrachloroethane	83	17.669	17.663	0.940	538859	45.88	ug/L	99
65) 1,2,3-Trichloropropane	75	17.748	17.748	0.945	513013	44.16	ug/L	91
66) Bromobenzene	156	17.767	17.767	0.945	469120	42.78	ug/L	98
67) n-Propylbenzene	91	17.791	17.791	0.947	2220740	41.69	ug/L	99
68) 1,3,5-Trimethylbenzene	105	17.950	17.949	0.955	1644918	42.65	ug/L	100
69) 2-Chlorotoluene	126	17.937	17.937	0.955	426799	40.61	ug/L	93
70) 4-Chlorotoluene	91	18.041	18.041	0.960	1486090	43.65	ug/L	98
71) tert-Butylbenzene	134	18.322	18.321	0.975	314940	43.01	ug/L	96
72) 1,2,4-Trimethylbenzene	105	18.364	18.364	0.977	1613284	40.81	ug/L	99
73) sec-Butylbenzene	105	18.547	18.547	0.987	2160939	41.55	ug/L	99
74) 4-Isopropyltoluene	119	18.675	18.675	0.994	1758413	40.23	ug/L	99
75) 1,3-Dichlorobenzene	146	18.730	18.730	0.997	921945	41.37	ug/L	99
76) 1,4-Dichlorobenzene	146	18.821	18.821	1.002	896705	40.62	ug/L	98
77) n-Butylbenzene	91	19.108	19.108	1.017	1763982	40.42	ug/L	99
78) 1,2-Dichlorobenzene	146	19.236	19.236	1.024	897460	41.72	ug/L	99
79) 1,2-Dibromo-3-chloropr...	157	20.108	20.108	1.070	118616	48.71	ug/L	99
80) 1,2,4-Trichlorobenzene	180	21.114	21.113	1.124	828247	46.18	ug/L	100
81) Hexachlorobutadiene	225	21.278	21.278	1.132	514956	41.60	ug/L	100
82) Naphthalene	128	21.498	21.491	1.144	1840129	47.16	ug/L	100
83) 1,2,3-Trichlorobenzene	180	21.821	21.821	1.161	809922	45.57	ug/L	98
85) Acrolein		7.805	7.927	0.612	0m	N.D.	d	
86) Trichlorotrifluoroethane		8.147	8.165	0.638	0m	N.D.	d	
87) Isopropyl Alcohol		8.665	8.464	0.679	0m	N.D.	d	
88) Allyl chloride		8.671	8.842	0.679	0m	N.D.	d	
89) tert-Butyl Alcohol		9.226	9.220	0.723	0m	N.D.	d	
90) Acrylonitrile		9.537	9.531	0.747	0m	N.D.	d	
91) Isopropyl ether		10.317	10.317	0.808	0m	N.D.	d	
92) 2-Chloro-1,3-butadiene		10.475	10.427	0.821	0m	N.D.	d	
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.		
94) Ethyl acetate		11.177	11.225	0.876	0m	N.D.	d	
95) Propionitrile		11.183	11.305	0.876	0m	N.D.	d	
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.		
97) Tetrahydrofuran		11.615	11.597	0.910	0m	N.D.	d	
98) Isobutyl alcohol		12.134	12.176	0.951	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R505L49.D
Acq On : 27 Jul 2018 12:45
Operator : JP1
InstName : VOA3
Sample : |1204079887|1785349|1|VOA|1|VOA3560C_S|
Misc : LCS 5UL/5ML N/A SOIL MIX[A]0411-10H/0629-10A/0312-09G/0726-01
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 27 15:45:07 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		12.499	12.500	0.979	0m	N.D.	d
100)	Methyl methacrylate		13.615	13.560	1.067	0m	N.D.	d
101)	1,4-Dioxane		13.676	13.652	1.072	0m	N.D.	d
102)	2-Nitropropane		14.127	14.103	1.107	0m	N.D.	d
104)	Ethyl methacrylate		0.000	14.987	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108)	Cyclohexanone		17.559	17.535	0.934	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		17.785	17.718	0.946	0m	N.D.	d
110)	Pentachloroethane		18.395	18.395	0.979	0m	N.D.	d
111)	Benzyl chloride		18.907	18.943	1.006	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		19.388	19.346	1.032	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R505L49.D
Acq On : 27 Jul 2018 12:45
Operator : JP1
InstName : VOA3
Sample : |1204079887|1785349|1|VOA|1|VOA3560C_S|
Misc : LCS 5UL/5ML N/A SOIL MIX[A]0411-10H/0629-10A/0312-09G/0726-01
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 27 15:45:07 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/16/2018 11:56**	**Matrix:**	**WATER**
Lab Sample ID:	**1204074479**	**Date Received:**	**07/17/2018 08:55**		
Client Sample:	**QC for batch 1784646**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**B3JVK9PS**	**Method:**	**SW846 8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1784646**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/21/2018 21:48**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/21/2018 21:48**				
Data File:	**072118V3\3Q624.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
56-23-5	Carbon tetrachloride		54.5	ug/L	0.300	2.00
106-46-7	1,4-Dichlorobenzene		42.7	ug/L	0.300	2.00
100-41-4	Ethylbenzene		45.4	ug/L	0.300	2.00
71-55-6	1,1,1-Trichloroethane		54.4	ug/L	0.300	2.00
79-34-5	1,1,2,2-Tetrachloroethane		49.5	ug/L	0.300	2.00
79-00-5	1,1,2-Trichloroethane		46.2	ug/L	0.300	2.00
96-12-8	1,2-Dibromo-3-chloropropane		51.0	ug/L	0.500	2.00
106-93-4	1,2-Dibromoethane		46.7	ug/L	0.300	2.00
107-06-2	1,2-Dichloroethane		55.8	ug/L	0.300	2.00
78-87-5	1,2-Dichloropropane		51.4	ug/L	0.300	2.00
71-43-2	Benzene		49.2	ug/L	0.300	2.00
75-27-4	Bromodichloromethane		55.5	ug/L	0.300	2.00
75-25-2	Bromoform		52.2	ug/L	0.300	2.00
75-15-0	Carbon disulfide		275	ug/L	1.60	10.0
108-90-7	Chlorobenzene		43.3	ug/L	0.300	2.00
67-66-3	Chloroform		55.1	ug/L	0.300	2.00
124-48-1	Dibromochloromethane		48.6	ug/L	0.300	2.00
75-09-2	Methylene chloride		55.1	ug/L	1.60	5.00
100-42-5	Styrene		46.7	ug/L	0.300	2.00
127-18-4	Tetrachloroethylene		41.0	ug/L	0.300	2.00
108-88-3	Toluene		44.9	ug/L	0.300	2.00
79-01-6	Trichloroethylene		51.1	ug/L	0.300	2.00
156-59-2	cis-1,2-Dichloroethylene		52.9	ug/L	0.300	2.00
10061-01-5	cis-1,3-Dichloropropylene		56.9	ug/L	0.300	2.00
156-60-5	trans-1,2-Dichloroethylene		52.8	ug/L	0.300	2.00
10061-02-6	trans-1,3-Dichloropropylene		51.3	ug/L	0.300	2.00
75-34-3	1,1-Dichloroethane		52.7	ug/L	0.300	2.00
75-35-4	1,1-Dichloroethylene		56.4	ug/L	0.300	2.00
78-93-3	2-Butanone		182	ug/L	3.00	10.0
108-10-1	4-Methyl-2-pentanone		218	ug/L	3.00	10.0
74-83-9	Bromomethane		46.2	ug/L	0.300	2.00
75-00-3	Chloroethane		46.4	ug/L	0.300	2.00
74-87-3	Chloromethane		41.8	ug/L	0.300	2.00
75-71-8	Dichlorodifluoromethane		45.5	ug/L	0.300	2.00
75-69-4	Trichlorofluoromethane		48.9	ug/L	0.300	2.00
75-01-4	Vinyl chloride		44.5	ug/L	0.300	2.00
591-78-6	2-Hexanone		175	ug/L	3.00	10.0
67-64-1	Acetone		125	ug/L	3.00	10.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/16/2018 11:56**	**Matrix:**	**WATER**
Lab Sample ID:	**1204074479**	**Date Received:**	**07/17/2018 08:55**		
Client Sample:	**QC for batch 1784646**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**B3JVK9PS**	**Method:**	**SW846 8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1784646**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/21/2018 21:48**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/21/2018 21:48**				
Data File:	**072118V3\3Q624.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
87-61-6	1,2,3-Trichlorobenzene	B	41.8	ug/L	0.300	2.00
120-82-1	1,2,4-Trichlorobenzene	B	40.3	ug/L	0.300	2.00
95-50-1	1,2-Dichlorobenzene		42.9	ug/L	0.300	2.00
541-73-1	1,3-Dichlorobenzene		42.5	ug/L	0.300	2.00
123-91-1	1,4-Dioxane	U	50.0	ug/L	15.0	50.0
74-97-5	Bromochloromethane		48.9	ug/L	0.300	2.00
110-82-7	Cyclohexane		48.1	ug/L	0.300	2.00
98-82-8	Isopropylbenzene		47.0	ug/L	0.300	2.00
79-20-9	Methyl acetate		260	ug/L	1.50	5.00
108-87-2	Methylcyclohexane		50.9	ug/L	0.300	2.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.60	5.00
179601-23-1	m,p-Xylenes		87.2	ug/L	0.300	4.00
95-47-6	o-Xylene		44.9	ug/L	0.300	2.00
1634-04-4	tert-Butyl methyl ether		57.0	ug/L	0.300	2.00

Quantitation Report
GEL Laboratories, LLC

JP
07/23/2018

Data Path : C:\msdchem\1\data\072118V3\
Data File : 3Q624.D
Acq On : 21 Jul 2018 21:48
Operator : JP1
InstName : VOA3
Sample : |1204074479|1784646|1|VOA|1|VOA8260CL|
Misc : CPRC 5ML PH<2 MIX[A] 454685016PS
ALS Vial : 24 Sample Multiplier: 1

EM
07/23/2018

Quant Time: Jul 23 08:35:04 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.762	12.761	1.000	1059944	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	534153	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	476541	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	1061877	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	542081	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	476730	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	205824	51.89	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	1091675	43.87	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	494813	52.82	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	70 - 130	104%
45) Toluene-d8	50.000	70 - 130	88%
63) Bromofluorobenzene	50.000	70 - 130	106%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.552	4.552	0.357	414273	45.46	ug/L	100
3) Chloromethane	50	4.991	4.990	0.391	386283	41.80	ug/L	100
4) Vinyl chloride	62	5.319	5.319	0.417	394922	44.48	ug/L	99
5) Bromomethane	94	6.159	6.159	0.483	291664	46.22	ug/L	98
6) Chloroethane	64	6.385	6.372	0.500	286796	46.36	ug/L	100
7) Trichlorofluoromethane	101	7.062	7.061	0.553	662546	48.85	ug/L	99
8) Ethyl ether	59	7.610	7.610	0.596	237449	49.18	ug/L	96
9) Acetone	43	8.238	8.232	0.646	477984	124.91	ug/L	98
10) 1,1-Dichloroethylene	61	8.183	8.177	0.641	643138	56.35	ug/L	98
11) Iodomethane	142	8.506	8.500	0.667	2718179	258.94	ug/L	93
12) Acetonitrile	41	8.817	8.817	0.691	937405	1124.95	ug/L	99
13) Methyl acetate	74	8.854	8.854	0.694	280470	260.43	ug/L #	88
14) Carbon disulfide	76	8.671	8.665	0.679	6015129	275.12	ug/L	100
15) Methylene chloride	84	9.098	9.091	0.713	380847	55.14	ug/L	96
16) tert-Butyl methyl ether	73	9.537	9.537	0.747	1004888	56.98	ug/L	97
17) trans-1,2-Dichloroethy...	61	9.567	9.567	0.750	506905	52.77	ug/L	97
18) Hexane	57	9.988	9.988	0.783	346261	39.39	ug/L	95
19) Vinyl acetate	43	10.317	10.317	0.808	1979188	241.78	ug/L	99
20) 1,1-Dichloroethane	63	10.293	10.286	0.807	643781	52.69	ug/L	99
21) 2-Butanone	72	11.183	11.183	0.876	168391	182.45	ug/L #	87
22) cis-1,2-Dichloroethylene	96	11.183	11.183	0.876	338298	52.93	ug/L	97
23) 2,2-Dichloropropane	77	11.195	11.195	0.877	562415	53.44	ug/L	98
24) Bromochloromethane	128	11.548	11.548	0.905	143444	48.90	ug/L	98
25) Chloroform	83	11.628	11.628	0.911	691320	55.11	ug/L	99
26) 1,1,1-Trichloroethane	97	11.920	11.914	0.934	624323	54.41	ug/L	99
27) Cyclohexane	56	12.000	11.999	0.940	492106	48.13	ug/L	97
28) 1,1-Dichloropropene	75	12.128	12.127	0.950	467804	53.74	ug/L	98
29) Carbon tetrachloride	117	12.146	12.146	0.952	576208	54.48	ug/L	98
31) 1,2-Dichloroethane	62	12.445	12.438	0.975	551798	55.79	ug/L	99
32) Benzene	78	12.426	12.426	0.974	1202099	49.23	ug/L	100
33) Cyclohexene	67	12.542	12.548	0.983	565152	45.76	ug/L	96
34) n-Butyl alcohol	56	13.024	13.024	1.021	870338	4837.49	ug/L	99
35) Trichloroethylene	95	13.225	13.225	1.036	326590	51.09	ug/L	94
36) 2-Pentanone	43	13.396	13.396	1.050	950729	228.80	ug/L	99
37) 1,2-Dichloropropane	63	13.524	13.524	1.060	318364	51.41	ug/L	98
38) Methylcyclohexane	83	13.475	13.475	1.056	531149	50.93	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072118V3\
Data File : 3Q624.D
Acq On : 21 Jul 2018 21:48
Operator : JP1
InstName : VOA3
Sample : |1204074479|1784646|1|VOA|1|VOA8260CL|
Misc : CPRC 5ML PH<2 MIX[A] 454685016PS
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jul 23 08:35:04 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
39) Dibromomethane	93	13.682	13.682	1.072	210659	53.54	ug/L	96
40) Bromodichloromethane	83	13.835	13.834	1.084	510757	55.46	ug/L	99
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene	75	14.353	14.353	1.125	562345	56.85	ug/L	99
44) 4-Methyl-2-pentanone	58	14.487	14.487	0.888	513429	218.37	ug/L	98
46) Toluene	91	14.755	14.755	0.904	1206414	44.91	ug/L	99
47) trans-1,3-Dichloroprop...	75	14.969	14.968	0.917	537053	51.32	ug/L	98
48) 1,1,2-Trichloroethane	83	15.200	15.200	0.932	232290	46.15	ug/L	99
49) 2-Hexanone	58	15.414	15.413	0.945	516344	175.22	ug/L	99
50) 1,3-Dichloropropane	76	15.401	15.401	0.944	490803	48.66	ug/L	92
51) Tetrachloroethylene	164	15.383	15.383	0.943	232720	40.97	ug/L	100
52) Dibromochloromethane	129	15.682	15.676	0.961	342648	48.56	ug/L	100
53) 1,2-Dibromoethane	107	15.846	15.840	0.971	272858	46.67	ug/L	99
54) Chlorobenzene	112	16.352	16.352	1.002	767642	43.32	ug/L	96
55) 1,1,1,2-Tetrachloroethane	131	16.419	16.419	1.006	331005	46.11	ug/L	99
56) Ethylbenzene	91	16.419	16.425	1.006	1408368	45.43	ug/L	97
57) m,p-Xylenes	106	16.535	16.541	1.013	1000022	87.21	ug/L	93
58) o-Xylene	106	16.986	16.986	1.041	515703	44.85	ug/L	93
59) Styrene	104	16.993	16.992	1.041	853290	46.70	ug/L	94
61) Bromoform	173	17.261	17.261	0.919	227351	52.18	ug/L	99
62) Isopropylbenzene	105	17.358	17.358	0.924	1419072	46.95	ug/L	98
64) 1,1,2,2-Tetrachloroethane	83	17.669	17.663	0.940	392953	49.49	ug/L	100
65) 1,2,3-Trichloropropane	75	17.748	17.748	0.945	410024	52.21	ug/L	89
66) Bromobenzene	156	17.767	17.767	0.945	344117	46.41	ug/L	91
67) n-Propylbenzene	91	17.791	17.791	0.947	1651132	45.85	ug/L	97
68) 1,3,5-Trimethylbenzene	105	17.950	17.949	0.955	1194978	45.83	ug/L	97
69) 2-Chlorotoluene	126	17.937	17.937	0.955	305236	42.96	ug/L #	85
70) 4-Chlorotoluene	91	18.041	18.041	0.960	1101373	47.86	ug/L	96
71) tert-Butylbenzene	134	18.322	18.321	0.975	220668	44.57	ug/L #	88
72) 1,2,4-Trimethylbenzene	105	18.364	18.364	0.977	1229103	45.99	ug/L	97
73) sec-Butylbenzene	105	18.547	18.547	0.987	1513727	43.06	ug/L	98
74) 4-Isopropyltoluene	119	18.669	18.675	0.994	1218917	41.25	ug/L	97
75) 1,3-Dichlorobenzene	146	18.730	18.730	0.997	640336	42.50	ug/L	98
76) 1,4-Dichlorobenzene	146	18.821	18.821	1.002	637743	42.74	ug/L	98
77) n-Butylbenzene	91	19.108	19.108	1.017	1190977	40.37	ug/L	98
78) 1,2-Dichlorobenzene	146	19.236	19.236	1.024	623537	42.87	ug/L	97
79) 1,2-Dibromo-3-chloropr...	157	20.108	20.108	1.070	83895	50.96	ug/L	89
80) 1,2,4-Trichlorobenzene	180	21.120	21.113	1.124	488010	40.25	ug/L	100
81) Hexachlorobutadiene	225	21.272	21.278	1.132	289956	34.65	ug/L	99
82) Naphthalene	128	21.498	21.491	1.144	1221307	46.30	ug/L	100
83) 1,2,3-Trichlorobenzene	180	21.821	21.821	1.161	502095	41.79	ug/L	98
85) Acrolein		0.000	7.927	0.000	0	N.D.		
86) Trichlorotrifluoroethane		8.165	8.165	0.640	0m	N.D.	d	
87) Isopropyl Alcohol		8.665	8.464	0.679	0m	N.D.	d	
88) Allyl chloride		8.671	8.842	0.679	0m	N.D.	d	
89) tert-Butyl Alcohol		9.256	9.220	0.725	0m	N.D.	d	
90) Acrylonitrile		9.531	9.531	0.747	0m	N.D.	d	
91) Isopropyl ether		10.311	10.317	0.808	0m	N.D.	d	
92) 2-Chloro-1,3-butadiene		10.323	10.427	0.809	0m	N.D.	d	
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.		
94) Ethyl acetate		11.183	11.225	0.876	0m	N.D.	d	
95) Propionitrile		11.177	11.305	0.876	0m	N.D.	d	
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.		
97) Tetrahydrofuran		11.622	11.597	0.911	0m	N.D.	d	
98) Isobutyl alcohol		12.164	12.176	0.953	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072118V3\
Data File : 3Q624.D
Acq On : 21 Jul 2018 21:48
Operator : JP1
InstName : VOA3
Sample : |1204074479|1784646|1|VOA|1|VOA8260CL|
Misc : CPRC 5ML PH<2 MIX[A] 454685016PS
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jul 23 08:35:04 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		12.548	12.500	0.983	0m	N.D.	d
100)	Methyl methacrylate		13.475	13.560	1.056	0m	N.D.	d
101)	1,4-Dioxane		13.682	13.652	1.072	0m	N.D.	d
102)	2-Nitropropane		14.206	14.103	1.113	0m	N.D.	d
104)	Ethyl methacrylate		0.000	14.987	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108)	Cyclohexanone		17.559	17.535	0.934	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		17.791	17.718	0.947	0m	N.D.	d
110)	Pentachloroethane		18.395	18.395	0.979	0m	N.D.	d
111)	Benzyl chloride		18.913	18.943	1.006	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		19.388	19.346	1.032	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072118V3\
Data File : 3Q624.D
Acq On : 21 Jul 2018 21:48
Operator : JP1
InstName : VOA3
Sample : |1204074479|1784646|1|VOA|1|VOA8260CL|
Misc : CPRC 5ML PH<2 MIX[A] 454685016PS
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jul 23 08:35:04 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/20/2018 15:10**	**Matrix:**	**SOIL**
Lab Sample ID:	**1204076134**	**Date Received:**	**07/24/2018 09:00**	**%Moisture:**	**8.2**
Client Sample:	**QC for batch 1785343**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**SW06PS**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 21:06**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:25**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R223.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane		2600	ug/kg	15.7	105
79-34-5	1,1,2,2-Tetrachloroethane		2360	ug/kg	15.7	105
79-00-5	1,1,2-Trichloroethane		2320	ug/kg	15.7	105
75-34-3	1,1-Dichloroethane		2570	ug/kg	15.7	105
75-35-4	1,1-Dichloroethylene		2600	ug/kg	15.7	105
87-61-6	1,2,3-Trichlorobenzene		2240	ug/kg	15.7	105
120-82-1	1,2,4-Trichlorobenzene		2180	ug/kg	15.7	105
96-12-8	1,2-Dibromo-3-chloropropane		2190	ug/kg	26.2	105
106-93-4	1,2-Dibromoethane		2310	ug/kg	15.7	105
95-50-1	1,2-Dichlorobenzene		2260	ug/kg	15.7	105
107-06-2	1,2-Dichloroethane		2810	ug/kg	15.7	105
78-87-5	1,2-Dichloropropane		2600	ug/kg	15.7	105
541-73-1	1,3-Dichlorobenzene		2150	ug/kg	15.7	105
106-46-7	1,4-Dichlorobenzene		2160	ug/kg	15.7	105
123-91-1	1,4-Dioxane	U	2620	ug/kg	785	2620
78-93-3	2-Butanone		11300	ug/kg	157	524
591-78-6	2-Hexanone		9570	ug/kg	157	524
108-10-1	4-Methyl-2-pentanone		10700	ug/kg	157	524
67-64-1	Acetone		9850	ug/kg	157	524
71-43-2	Benzene		2540	ug/kg	15.7	105
74-97-5	Bromochloromethane		2450	ug/kg	15.7	105
75-27-4	Bromodichloromethane		2750	ug/kg	15.7	105
75-25-2	Bromoform		2410	ug/kg	15.7	105
74-83-9	Bromomethane		806	ug/kg	15.7	105
75-15-0	Carbon disulfide		12800	ug/kg	83.8	524
56-23-5	Carbon tetrachloride		2490	ug/kg	15.7	105
108-90-7	Chlorobenzene		2250	ug/kg	15.7	105
75-00-3	Chloroethane		223	ug/kg	15.7	105
67-66-3	Chloroform		2680	ug/kg	15.7	105
74-87-3	Chloromethane		2270	ug/kg	15.7	105
110-82-7	Cyclohexane		2400	ug/kg	15.7	105
124-48-1	Dibromochloromethane		2340	ug/kg	15.7	105
75-71-8	Dichlorodifluoromethane		2400	ug/kg	15.7	105
100-41-4	Ethylbenzene		2230	ug/kg	15.7	105
98-82-8	Isopropylbenzene		2380	ug/kg	15.7	105
79-20-9	Methyl acetate		12900	ug/kg	78.5	262
108-87-2	Methylcyclohexane		2460	ug/kg	15.7	105
75-09-2	Methylene chloride		2780	ug/kg	83.8	262

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/20/2018 15:10**	**Matrix:**	**SOIL**
Lab Sample ID:	**1204076134**	**Date Received:**	**07/24/2018 09:00**	**%Moisture:**	**8.2**
Client Sample:	**QC for batch 1785343**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**SW06PS**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 21:06**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:25**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R223.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene		2350	ug/kg	15.7	105
127-18-4	Tetrachloroethylene		1990	ug/kg	15.7	105
108-88-3	Toluene		2240	ug/kg	15.7	105
79-01-6	Trichloroethylene		2510	ug/kg	15.7	105
75-69-4	Trichlorofluoromethane		2450	ug/kg	15.7	105
76-13-1	Trichlorotrifluoroethane	U	262	ug/kg	83.8	262
75-01-4	Vinyl chloride		2510	ug/kg	15.7	105
156-59-2	cis-1,2-Dichloroethylene		2620	ug/kg	15.7	105
10061-01-5	cis-1,3-Dichloropropylene		2990	ug/kg	15.7	105
179601-23-1	m,p-Xylenes		4270	ug/kg	15.7	209
95-47-6	o-Xylene		2260	ug/kg	15.7	105
1634-04-4	tert-Butyl methyl ether		2790	ug/kg	15.7	105
156-60-5	trans-1,2-Dichloroethylene		2540	ug/kg	15.7	105
10061-02-6	trans-1,3-Dichloropropylene		2620	ug/kg	15.7	105

Quantitation Report
GEL Laboratories, LLC

JP
07/25/2018

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R223.D
Acq On : 24 Jul 2018 21:06
Operator : JP1
InstName : VOA3
Sample : |1204076134|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL MIX[A] 455239003PS
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jul 25 08:29:57 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.762	12.761	1.000	1222041	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	616911	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	549479	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	1224403	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	627367	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	549688	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.335	12.341	0.967	236410	51.69	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	1262414	43.92	ug/L	0.00
63) Bromofluorobenzene	95	17.560	17.559	0.934	595079	55.09	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	103%
45) Toluene-d8	50.000	81 - 120	88%
63) Bromofluorobenzene	50.000	70 - 130	110%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.534	4.552	0.355	482383	45.91	ug/L	100
3) Chloromethane	50	4.991	4.990	0.391	462259	43.38	ug/L	100
4) Vinyl chloride	62	5.301	5.319	0.415	490389	47.91	ug/L	100
5) Bromomethane	94	6.050	6.159	0.474	112064	15.40	ug/L	99
6) Chloroethane	64	6.251	6.372	0.490	30395	4.26	ug/L	80
7) Trichlorofluoromethane	101	6.976	7.061	0.547	732985	46.88	ug/L	99
8) Ethyl ether	59	7.610	7.610	0.596	284485	51.11	ug/L	96
9) Acetone	43	8.256	8.232	0.647	829625	188.04	ug/L	98
10) 1,1-Dichloroethylene	61	8.147	8.177	0.638	652383	49.58	ug/L	99
11) Iodomethane	142	8.482	8.500	0.665	2976011	245.90	ug/L	96
12) Acetonitrile	41	8.836	8.817	0.692	972434	1012.19	ug/L	99
13) Methyl acetate	74	8.854	8.854	0.694	305507	246.05	ug/L #	89
14) Carbon disulfide	76	8.647	8.665	0.678	6177565	245.07	ug/L	100
15) Methylene chloride	84	9.086	9.091	0.712	423456	53.13	ug/L	95
16) tert-Butyl methyl ether	73	9.543	9.537	0.748	1081429	53.19	ug/L	97
17) trans-1,2-Dichloroethy...	61	9.555	9.567	0.749	537630	48.54	ug/L	98
18) Hexane	57	9.976	9.988	0.782	407887	40.25	ug/L	97
19) Vinyl acetate	43	10.311	10.317	0.808	2235500	236.87	ug/L	98
20) 1,1-Dichloroethane	63	10.280	10.286	0.806	692264	49.14	ug/L	99
21) 2-Butanone	72	11.183	11.183	0.876	228873	215.09	ug/L	90
22) cis-1,2-Dichloroethylene	96	11.177	11.183	0.876	368597	50.02	ug/L	99
23) 2,2-Dichloropropane	77	11.189	11.195	0.877	622793	51.33	ug/L	97
24) Bromochloromethane	128	11.542	11.548	0.904	157922	46.70	ug/L	98
25) Chloroform	83	11.622	11.628	0.911	739594	51.14	ug/L	99
26) 1,1,1-Trichloroethane	97	11.914	11.914	0.934	657726	49.71	ug/L	99
27) Cyclohexane	56	11.993	11.999	0.940	540573	45.86	ug/L	97
28) 1,1-Dichloropropene	75	12.122	12.127	0.950	502446	50.06	ug/L	99
29) Carbon tetrachloride	117	12.140	12.146	0.951	579305	47.50	ug/L	99
31) 1,2-Dichloroethane	62	12.439	12.438	0.975	611154	53.59	ug/L	99
32) Benzene	78	12.420	12.426	0.973	1367811	48.59	ug/L	100
33) Cyclohexene	67	12.536	12.548	0.982	629613	44.21	ug/L	96
34) n-Butyl alcohol	56	13.030	13.024	1.021	600667	2932.41	ug/L	98
35) Trichloroethylene	95	13.225	13.225	1.036	352781	47.87	ug/L	96
36) 2-Pentanone	43	13.402	13.396	1.050	1183169	246.96	ug/L	98
37) 1,2-Dichloropropane	63	13.524	13.524	1.060	354506	49.65	ug/L	98
38) Methylcyclohexane	83	13.475	13.475	1.056	563755	46.89	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R223.D
Acq On : 24 Jul 2018 21:06
Operator : JP1
InstName : VOA3
Sample : |1204076134|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL MIX[A] 455239003PS
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jul 25 08:29:57 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
39)	Dibromomethane	93	13.682	13.682	1.072	231968	51.13	ug/L		97
40)	Bromodichloromethane	83	13.835	13.834	1.084	557524	52.51	ug/L		99
41)	2-Chloroethylvinyl ether	63	14.127	14.127	1.107	913194	230.85	ug/L		99
42)	cis-1,3-Dichloropropylene	75	14.347	14.353	1.124	650358	57.03	ug/L		99
44)	4-Methyl-2-pentanone	58	14.487	14.487	0.888	557082	205.15	ug/L		97
46)	Toluene	91	14.755	14.755	0.904	1330194	42.87	ug/L		99
47)	trans-1,3-Dichloroprop...	75	14.969	14.968	0.917	605865	50.13	ug/L		98
48)	1,1,2-Trichloroethane	83	15.200	15.200	0.932	258072	44.40	ug/L		99
49)	2-Hexanone	58	15.420	15.413	0.945	622015	182.76	ug/L		99
50)	1,3-Dichloropropane	76	15.401	15.401	0.944	537882	46.18	ug/L		93
51)	Tetrachloroethylene	164	15.383	15.383	0.943	249294	38.00	ug/L		100
52)	Dibromochloromethane	129	15.682	15.676	0.961	364716	44.76	ug/L		100
53)	1,2-Dibromoethane	107	15.840	15.840	0.971	297304	44.03	ug/L		100
54)	Chlorobenzene	112	16.352	16.352	1.002	880786	43.03	ug/L		98
55)	1,1,1,2-Tetrachloroethane	131	16.419	16.419	1.006	361902	43.65	ug/L		98
56)	Ethylbenzene	91	16.419	16.425	1.006	1523557	42.56	ug/L		97
57)	m,p-Xylenes	106	16.541	16.541	1.014	1081013	81.62	ug/L		93
58)	o-Xylene	106	16.986	16.986	1.041	573743	43.20	ug/L		95
59)	Styrene	104	16.993	16.992	1.041	947166	44.88	ug/L		95
61)	Bromoform	173	17.261	17.261	0.919	231235	46.02	ug/L		98
62)	Isopropylbenzene	105	17.358	17.358	0.924	1581148	45.36	ug/L		98
64)	1,1,2,2-Tetrachloroethane	83	17.669	17.663	0.940	412794	45.09	ug/L		100
65)	1,2,3-Trichloropropane	75	17.748	17.748	0.945	422406	46.64	ug/L		96
66)	Bromobenzene	156	17.767	17.767	0.945	386540	45.22	ug/L		94
67)	n-Propylbenzene	91	17.791	17.791	0.947	1850577	44.57	ug/L		98
68)	1,3,5-Trimethylbenzene	105	17.950	17.949	0.955	1330264	44.25	ug/L		97
69)	2-Chlorotoluene	126	17.937	17.937	0.955	342968	41.87	ug/L		87
70)	4-Chlorotoluene	91	18.047	18.041	0.960	1238163	46.66	ug/L		96
71)	tert-Butylbenzene	134	18.322	18.321	0.975	228469	40.02	ug/L	#	88
72)	1,2,4-Trimethylbenzene	105	18.364	18.364	0.977	1329127	43.13	ug/L		98
73)	sec-Butylbenzene	105	18.547	18.547	0.987	1661703	40.99	ug/L		98
74)	4-Isopropyltoluene	119	18.675	18.675	0.994	1379294	40.48	ug/L		97
75)	1,3-Dichlorobenzene	146	18.736	18.730	0.997	714238	41.12	ug/L		98
76)	1,4-Dichlorobenzene	146	18.821	18.821	1.002	708357	41.17	ug/L		98
77)	n-Butylbenzene	91	19.108	19.108	1.017	1413990	41.57	ug/L		99
78)	1,2-Dichlorobenzene	146	19.236	19.236	1.024	723226	43.13	ug/L		98
79)	1,2-Dibromo-3-chloropr...	157	20.108	20.108	1.070	79282	41.76	ug/L		94
80)	1,2,4-Trichlorobenzene	180	21.120	21.113	1.124	582111	41.63	ug/L		99
81)	Hexachlorobutadiene	225	21.278	21.278	1.132	358767	37.18	ug/L		100
82)	Naphthalene	128	21.498	21.491	1.144	1244860	40.93	ug/L		100
83)	1,2,3-Trichlorobenzene	180	21.827	21.821	1.162	592651	42.78	ug/L		99
85)	Acrolein		7.757	7.927	0.608	0m	N.D.	d		
86)	Trichlorotrifluoroethane		8.104	8.165	0.635	0m	N.D.	d		
87)	Isopropyl Alcohol		8.665	8.464	0.679	0m	N.D.	d		
88)	Allyl chloride		8.647	8.842	0.678	0m	N.D.	d		
89)	tert-Butyl Alcohol		9.012	9.220	0.706	0m	N.D.	d		
90)	Acrylonitrile		9.543	9.531	0.748	0m	N.D.	d		
91)	Isopropyl ether		10.317	10.317	0.808	0m	N.D.	d		
92)	2-Chloro-1,3-butadiene		10.482	10.427	0.821	0m	N.D.	d		
93)	Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.			
94)	Ethyl acetate		11.183	11.225	0.876	0m	N.D.	d		
95)	Propionitrile		11.183	11.305	0.876	0m	N.D.	d		
96)	Methacrylonitrile		0.000	11.512	0.000	0	N.D.			
97)	Tetrahydrofuran		11.622	11.597	0.911	0m	N.D.	d		
98)	Isobutyl alcohol		12.146	12.176	0.952	0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

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Sample : |1204076134|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL MIX[A] 455239003PS
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jul 25 08:29:57 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		12.536	12.500	0.982	0m	N.D.	d
100)	Methyl methacrylate		13.566	13.560	1.063	0m	N.D.	d
101)	1,4-Dioxane		13.664	13.652	1.071	0m	N.D.	d
102)	2-Nitropropane		14.127	14.103	1.107	0m	N.D.	d
104)	Ethyl methacrylate		14.993	14.987	0.919	0m	N.D.	d
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108)	Cyclohexanone		17.560	17.535	0.934	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		17.791	17.718	0.947	0m	N.D.	d
110)	Pentachloroethane		18.395	18.395	0.979	0m	N.D.	d
111)	Benzyl chloride		18.913	18.943	1.006	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		19.395	19.346	1.032	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R223.D
Acq On : 24 Jul 2018 21:06
Operator : JP1
InstName : VOA3
Sample : |1204076134|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL MIX[A] 455239003PS
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jul 25 08:29:57 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/20/2018 15:10**	**Matrix:**	**SOIL**
Lab Sample ID:	**1204076134**	**Date Received:**	**07/24/2018 09:00**	**%Moisture:**	**8.2**
Client Sample:	**QC for batch 1785343**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**SW06REPS**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 22:37**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 16:15**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R524.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane		48.8	ug/kg	0.327	2.18
79-34-5	1,1,2,2-Tetrachloroethane		27.7	ug/kg	0.327	2.18
79-00-5	1,1,2-Trichloroethane		34.1	ug/kg	0.327	2.18
75-34-3	1,1-Dichloroethane		43.9	ug/kg	0.327	2.18
75-35-4	1,1-Dichloroethylene		45.9	ug/kg	0.327	2.18
87-61-6	1,2,3-Trichlorobenzene		9.31	ug/kg	0.327	2.18
120-82-1	1,2,4-Trichlorobenzene		9.54	ug/kg	0.327	2.18
96-12-8	1,2-Dibromo-3-chloropropane		6.11	ug/kg	0.545	2.18
106-93-4	1,2-Dibromoethane		14.5	ug/kg	0.327	2.18
95-50-1	1,2-Dichlorobenzene		19.7	ug/kg	0.327	2.18
107-06-2	1,2-Dichloroethane		31.3	ug/kg	0.327	2.18
78-87-5	1,2-Dichloropropane		28.5	ug/kg	0.327	2.18
541-73-1	1,3-Dichlorobenzene		27.2	ug/kg	0.327	2.18
106-46-7	1,4-Dichlorobenzene		23.8	ug/kg	0.327	2.18
123-91-1	1,4-Dioxane	U	54.5	ug/kg	16.3	54.5
78-93-3	2-Butanone		138	ug/kg	3.27	10.9
591-78-6	2-Hexanone		25.3	ug/kg	3.27	10.9
108-10-1	4-Methyl-2-pentanone		93.7	ug/kg	3.27	10.9
67-64-1	Acetone		241	ug/kg	3.27	10.9
71-43-2	Benzene		30.0	ug/kg	0.327	2.18
74-97-5	Bromochloromethane		34.0	ug/kg	0.327	2.18
75-27-4	Bromodichloromethane		32.1	ug/kg	0.327	2.18
75-25-2	Bromoform		33.1	ug/kg	0.327	2.18
74-83-9	Bromomethane		62.5	ug/kg	0.327	2.18
75-15-0	Carbon disulfide		203	ug/kg	1.74	10.9
56-23-5	Carbon tetrachloride		46.4	ug/kg	0.327	2.18
108-90-7	Chlorobenzene		22.2	ug/kg	0.327	2.18
75-00-3	Chloroethane		62.1	ug/kg	0.327	2.18
67-66-3	Chloroform		44.8	ug/kg	0.327	2.18
74-87-3	Chloromethane		73.6	ug/kg	0.327	2.18
110-82-7	Cyclohexane		29.9	ug/kg	0.327	2.18
124-48-1	Dibromochloromethane		34.0	ug/kg	0.327	2.18
75-71-8	Dichlorodifluoromethane		59.2	ug/kg	0.327	2.18
100-41-4	Ethylbenzene		32.3	ug/kg	0.327	2.18
98-82-8	Isopropylbenzene		67.9	ug/kg	0.327	2.18
79-20-9	Methyl acetate		197	ug/kg	1.63	5.45
108-87-2	Methylcyclohexane		25.5	ug/kg	0.327	2.18
75-09-2	Methylene chloride		53.1	ug/kg	1.74	5.45

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/20/2018 15:10**	**Matrix:**	**SOIL**
Lab Sample ID:	**1204076134**	**Date Received:**	**07/24/2018 09:00**	**%Moisture:**	**8.2**
Client Sample:	**QC for batch 1785343**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**SW06REPS**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 22:37**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 16:15**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R524.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene		14.5	ug/kg	0.327	2.18
127-18-4	Tetrachloroethylene		39.4	ug/kg	0.327	2.18
108-88-3	Toluene		38.0	ug/kg	0.327	2.18
79-01-6	Trichloroethylene		25.6	ug/kg	0.327	2.18
75-69-4	Trichlorofluoromethane		61.4	ug/kg	0.327	2.18
76-13-1	Trichlorotrifluoroethane	U	5.45	ug/kg	1.74	5.45
75-01-4	Vinyl chloride		66.0	ug/kg	0.327	2.18
156-59-2	cis-1,2-Dichloroethylene		34.3	ug/kg	0.327	2.18
10061-01-5	cis-1,3-Dichloropropylene		15.3	ug/kg	0.327	2.18
179601-23-1	m,p-Xylenes		56.0	ug/kg	0.327	4.36
95-47-6	o-Xylene		22.1	ug/kg	0.327	2.18
1634-04-4	tert-Butyl methyl ether		50.9	ug/kg	0.327	2.18
156-60-5	trans-1,2-Dichloroethylene		35.7	ug/kg	0.327	2.18
10061-02-6	trans-1,3-Dichloropropylene		17.6	ug/kg	0.327	2.18

Quantitation Report
GEL Laboratories, LLC

JP
07/30/2018

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R524.D
Acq On : 27 Jul 2018 22:37
Operator : JP1
InstName : VOA3
Sample : |1204076134|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.0G N/A SOIL MIX[A] 455239003PS
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jul 28 10:02:33 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.768	12.761	1.000	537270	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	111041	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	52860	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.768	12.762	1.000	538249	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	112090	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	52860	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	139656	69.46	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	332066	64.19	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	60893	58.60	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	139%#
45) Toluene-d8	50.000	81 - 120	128%#
63) Bromofluorobenzene	50.000	70 - 130	117%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.552	4.552	0.357	250858	54.31	ug/L	99
3) Chloromethane	50	4.991	4.990	0.391	316471	67.55	ug/L	100
4) Vinyl chloride	62	5.301	5.319	0.415	272562	60.57	ug/L	99
5) Bromomethane	94	6.141	6.159	0.481	183426	57.35	ug/L	97
6) Chloroethane	64	6.379	6.372	0.500	178828	57.02	ug/L	99
7) Trichlorofluoromethane	101	7.049	7.061	0.552	387689	56.40	ug/L	100
8) Ethyl ether	59	7.616	7.610	0.597	89116	36.42	ug/L	93
9) Acetone	43	8.238	8.232	0.645	429007	221.17	ug/L	96
10) 1,1-Dichloroethylene	61	8.177	8.177	0.640	244031	42.18	ug/L	96
11) Iodomethane	142	8.494	8.500	0.665	1028638	193.32	ug/L	86
12) Acetonitrile	41	8.817	8.817	0.691	558023	1321.14	ug/L	96
13) Methyl acetate	74	8.854	8.854	0.693	98895	181.16	ug/L #	86
14) Carbon disulfide	76	8.671	8.665	0.679	2066828	186.49	ug/L	100
15) Methylene chloride	84	9.091	9.091	0.712	171126	48.74	ug/L	96
16) tert-Butyl methyl ether	73	9.537	9.537	0.747	417940	46.75	ug/L	96
17) trans-1,2-Dichloroethy...	61	9.567	9.567	0.749	159567	32.77	ug/L	95
18) Hexane	57	9.994	9.988	0.783	64098	14.39	ug/L	86
19) Vinyl acetate	43	10.317	10.317	0.808	469355	113.12	ug/L	100
20) 1,1-Dichloroethane	63	10.292	10.286	0.806	249567	40.30	ug/L	98
21) 2-Butanone	72	11.183	11.183	0.876	59089	126.31	ug/L	94
22) cis-1,2-Dichloroethylene	96	11.183	11.183	0.876	101922	31.46	ug/L	89
23) 2,2-Dichloropropane	77	11.195	11.195	0.877	259726	48.69	ug/L	99
24) Bromochloromethane	128	11.548	11.548	0.905	46386	31.20	ug/L	97
25) Chloroform	83	11.628	11.628	0.911	261847	41.18	ug/L	99
26) 1,1,1-Trichloroethane	97	11.920	11.914	0.934	260532	44.79	ug/L	99
27) Cyclohexane	56	11.993	11.999	0.939	142055	27.41	ug/L	94
28) 1,1-Dichloropropene	75	12.127	12.127	0.950	117223	26.56	ug/L	97
29) Carbon tetrachloride	117	12.146	12.146	0.951	228370	42.60	ug/L	98
31) 1,2-Dichloroethane	62	12.438	12.438	0.974	144182	28.76	ug/L	99
32) Benzene	78	12.426	12.426	0.973	340451	27.51	ug/L	100
33) Cyclohexene	67	12.542	12.548	0.982	162949	26.03	ug/L	97
34) n-Butyl alcohol	56	13.024	13.024	1.020	270799	3004.66	ug/L	97
35) Trichloroethylene	95	13.225	13.225	1.036	76166	23.51	ug/L	92
36) 2-Pentanone	43	13.402	13.396	1.050	105053	49.88	ug/L	98
37) 1,2-Dichloropropane	63	13.524	13.524	1.059	82145	26.17	ug/L	100
38) Methylcyclohexane	83	13.481	13.475	1.056	123776	23.42	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R524.D
Acq On : 27 Jul 2018 22:37
Operator : JP1
InstName : VOA3
Sample : |1204076134|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.0G N/A SOIL MIX[A] 455239003PS
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jul 28 10:02:33 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
39) Dibromomethane	93	13.682	13.682	1.072	50458	25.30	ug/L		92
40) Bromodichloromethane	83	13.834	13.834	1.084	137743	29.51	ug/L		100
41) 2-Chloroethylvinyl ether	63	14.127	14.127	1.106	53546	30.79	ug/L		100
42) cis-1,3-Dichloropropylene	75	14.353	14.353	1.124	70634	14.09	ug/L		95
44) 4-Methyl-2-pentanone	58	14.481	14.487	0.888	42042	86.01	ug/L		94
46) Toluene	91	14.755	14.755	0.904	194657	34.86	ug/L		99
47) trans-1,3-Dichloroprop...	75	14.968	14.968	0.917	35075	16.12	ug/L		97
48) 1,1,2-Trichloroethane	83	15.200	15.200	0.932	32722	31.27	ug/L		98
49) 2-Hexanone	58	15.420	15.413	0.945	14240	23.25	ug/L		89
50) 1,3-Dichloropropane	76	15.401	15.401	0.944	44335	21.15	ug/L	#	76
51) Tetrachloroethylene	164	15.383	15.383	0.943	42763	36.21	ug/L		96
52) Dibromochloromethane	129	15.676	15.676	0.961	45732	31.18	ug/L		98
53) 1,2-Dibromoethane	107	15.846	15.840	0.971	16131	13.27	ug/L		99
54) Chlorobenzene	112	16.352	16.352	1.002	75222	20.42	ug/L		92
55) 1,1,1,2-Tetrachloroethane	131	16.419	16.419	1.006	59265	39.71	ug/L		98
56) Ethylbenzene	91	16.425	16.425	1.007	191037	29.65	ug/L		94
57) m,p-Xylenes	106	16.535	16.541	1.013	122664	51.46	ug/L		86
58) o-Xylene	106	16.986	16.986	1.041	48438	20.26	ug/L		86
59) Styrene	104	16.998	16.992	1.042	50517	13.30	ug/L		81
61) Bromoform	173	17.267	17.261	0.919	14676	30.36	ug/L		94
62) Isopropylbenzene	105	17.358	17.358	0.924	208874	62.30	ug/L		96
64) 1,1,2,2-Tetrachloroethane	83	17.663	17.663	0.940	22388	25.42	ug/L		99
65) 1,2,3-Trichloropropane	75	17.754	17.748	0.945	22075	25.34	ug/L		86
66) Bromobenzene	156	17.773	17.767	0.946	20064	24.40	ug/L	#	78
67) n-Propylbenzene	91	17.791	17.791	0.947	220121	55.10	ug/L		95
68) 1,3,5-Trimethylbenzene	105	17.950	17.949	0.955	141229	48.83	ug/L		94
69) 2-Chlorotoluene	126	17.937	17.937	0.955	29750	37.75	ug/L	#	70
70) 4-Chlorotoluene	91	18.047	18.041	0.960	86282	33.80	ug/L		93
71) tert-Butylbenzene	134	18.321	18.321	0.975	32645	59.44	ug/L	#	85
72) 1,2,4-Trimethylbenzene	105	18.364	18.364	0.977	124658	42.05	ug/L		93
73) sec-Butylbenzene	105	18.547	18.547	0.987	235422	60.37	ug/L		97
74) 4-Isopropyltoluene	119	18.675	18.675	0.994	172589	52.65	ug/L		93
75) 1,3-Dichlorobenzene	146	18.730	18.730	0.997	41799	25.01	ug/L		95
76) 1,4-Dichlorobenzene	146	18.821	18.821	1.002	36217	21.88	ug/L		93
77) n-Butylbenzene	91	19.108	19.108	1.017	147710	45.14	ug/L		94
78) 1,2-Dichlorobenzene	146	19.242	19.236	1.024	29154	18.07	ug/L		97
79) 1,2-Dibromo-3-chloropr...	157	20.102	20.108	1.070	1025	5.61	ug/L	#	67
80) 1,2,4-Trichlorobenzene	180	21.114	21.113	1.124	11777	8.76	ug/L		99
81) Hexachlorobutadiene	225	21.278	21.278	1.132	55617	59.91	ug/L		99
82) Naphthalene	128	21.492	21.491	1.144	8448	2.89	ug/L		98
83) 1,2,3-Trichlorobenzene	180	21.821	21.821	1.161	11400	8.55	ug/L		93
85) Acrolein		0.000	7.927	0.000	0	N.D.			
86) Trichlorotrifluoroethane		0.000	8.165	0.000	0	N.D.			
87) Isopropyl Alcohol		8.610	8.464	0.674	0m	N.D.	d		
88) Allyl chloride		8.671	8.842	0.679	0m	N.D.	d		
89) tert-Butyl Alcohol		0.000	9.220	0.000	0	N.D.			
90) Acrylonitrile		9.537	9.531	0.747	0m	N.D.	d		
91) Isopropyl ether		10.311	10.317	0.808	0m	N.D.	d		
92) 2-Chloro-1,3-butadiene		10.475	10.427	0.820	0m	N.D.	d		
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.			
94) Ethyl acetate		11.183	11.225	0.876	0m	N.D.	d		
95) Propionitrile		11.195	11.305	0.877	0m	N.D.	d		
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.			
97) Tetrahydrofuran		11.621	11.597	0.910	0m	N.D.	d		
98) Isobutyl alcohol		12.176	12.176	0.954	0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R524.D
Acq On : 27 Jul 2018 22:37
Operator : JP1
InstName : VOA3
Sample : |1204076134|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.0G N/A SOIL MIX[A] 455239003PS
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jul 28 10:02:33 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		12.542	12.500	0.982	0m	N.D.	d
100)	Methyl methacrylate		13.475	13.560	1.055	0m	N.D.	d
101)	1,4-Dioxane		0.000	13.652	0.000	0	N.D.	
102)	2-Nitropropane		14.127	14.103	1.106	0m	N.D.	d
104)	Ethyl methacrylate		0.000	14.987	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108)	Cyclohexanone		0.000	17.535	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		17.791	17.718	0.947	0m	N.D.	d
110)	Pentachloroethane		0.000	18.395	0.000	0	N.D.	
111)	Benzyl chloride		18.901	18.943	1.006	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		19.394	19.346	1.032	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R524.D
Acq On : 27 Jul 2018 22:37
Operator : JP1
InstName : VOA3
Sample : |1204076134|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.0G N/A SOIL MIX[A] 455239003PS
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jul 28 10:02:33 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/16/2018 11:56**	**Matrix:**	**WATER**
Lab Sample ID:	**1204074480**	**Date Received:**	**07/17/2018 08:55**		
Client Sample:	**QC for batch 1784646**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**B3JVK9PSD**	**Method:**	**SW846 8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1784646**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/21/2018 22:19**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/21/2018 22:19**				
Data File:	**072118V3\3Q625.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
56-23-5	Carbon tetrachloride		52.6	ug/L	0.300	2.00
106-46-7	1,4-Dichlorobenzene		37.0	ug/L	0.300	2.00
100-41-4	Ethylbenzene		42.2	ug/L	0.300	2.00
71-55-6	1,1,1-Trichloroethane		53.2	ug/L	0.300	2.00
79-34-5	1,1,2,2-Tetrachloroethane		48.9	ug/L	0.300	2.00
79-00-5	1,1,2-Trichloroethane		46.8	ug/L	0.300	2.00
96-12-8	1,2-Dibromo-3-chloropropane		51.3	ug/L	0.500	2.00
106-93-4	1,2-Dibromoethane		45.8	ug/L	0.300	2.00
107-06-2	1,2-Dichloroethane		55.4	ug/L	0.300	2.00
78-87-5	1,2-Dichloropropane		51.7	ug/L	0.300	2.00
71-43-2	Benzene		50.5	ug/L	0.300	2.00
75-27-4	Bromodichloromethane		55.8	ug/L	0.300	2.00
75-25-2	Bromoform		52.4	ug/L	0.300	2.00
75-15-0	Carbon disulfide		273	ug/L	1.60	10.0
108-90-7	Chlorobenzene		41.2	ug/L	0.300	2.00
67-66-3	Chloroform		53.9	ug/L	0.300	2.00
124-48-1	Dibromochloromethane		49.4	ug/L	0.300	2.00
75-09-2	Methylene chloride		55.7	ug/L	1.60	5.00
100-42-5	Styrene		43.5	ug/L	0.300	2.00
127-18-4	Tetrachloroethylene		38.1	ug/L	0.300	2.00
108-88-3	Toluene		43.3	ug/L	0.300	2.00
79-01-6	Trichloroethylene		50.3	ug/L	0.300	2.00
156-59-2	cis-1,2-Dichloroethylene		53.1	ug/L	0.300	2.00
10061-01-5	cis-1,3-Dichloropropylene		56.1	ug/L	0.300	2.00
156-60-5	trans-1,2-Dichloroethylene		52.7	ug/L	0.300	2.00
10061-02-6	trans-1,3-Dichloropropylene		52.4	ug/L	0.300	2.00
75-34-3	1,1-Dichloroethane		52.2	ug/L	0.300	2.00
75-35-4	1,1-Dichloroethylene		56.7	ug/L	0.300	2.00
78-93-3	2-Butanone		184	ug/L	3.00	10.0
108-10-1	4-Methyl-2-pentanone		234	ug/L	3.00	10.0
74-83-9	Bromomethane		47.4	ug/L	0.300	2.00
75-00-3	Chloroethane		45.4	ug/L	0.300	2.00
74-87-3	Chloromethane		41.5	ug/L	0.300	2.00
75-71-8	Dichlorodifluoromethane		44.9	ug/L	0.300	2.00
75-69-4	Trichlorofluoromethane		46.4	ug/L	0.300	2.00
75-01-4	Vinyl chloride		44.8	ug/L	0.300	2.00
591-78-6	2-Hexanone		181	ug/L	3.00	10.0
67-64-1	Acetone		123	ug/L	3.00	10.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/16/2018 11:56**	**Matrix:**	**WATER**
Lab Sample ID:	**1204074480**	**Date Received:**	**07/17/2018 08:55**		
Client Sample:	**QC for batch 1784646**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**B3JVK9PSD**	**Method:**	**SW846 8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1784646**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/21/2018 22:19**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/21/2018 22:19**				
Data File:	**072118V3\3Q625.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
87-61-6	1,2,3-Trichlorobenzene	B	41.6	ug/L	0.300	2.00
120-82-1	1,2,4-Trichlorobenzene	B	39.0	ug/L	0.300	2.00
95-50-1	1,2-Dichlorobenzene		41.2	ug/L	0.300	2.00
541-73-1	1,3-Dichlorobenzene		38.1	ug/L	0.300	2.00
123-91-1	1,4-Dioxane	U	50.0	ug/L	15.0	50.0
74-97-5	Bromochloromethane		49.3	ug/L	0.300	2.00
110-82-7	Cyclohexane		46.9	ug/L	0.300	2.00
98-82-8	Isopropylbenzene		39.2	ug/L	0.300	2.00
79-20-9	Methyl acetate		263	ug/L	1.50	5.00
108-87-2	Methylcyclohexane		48.8	ug/L	0.300	2.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.60	5.00
179601-23-1	m,p-Xylenes		76.1	ug/L	0.300	4.00
95-47-6	o-Xylene		41.9	ug/L	0.300	2.00
1634-04-4	tert-Butyl methyl ether		58.7	ug/L	0.300	2.00

Quantitation Report
GEL Laboratories, LLC

JP
07/23/2018

Data Path : C:\msdchem\1\data\072118V3\
Data File : 3Q625.D
Acq On : 21 Jul 2018 22:19
Operator : JP1
InstName : VOA3
Sample : |1204074480|1784646|1|VOA|1|VOA8260CL|
Misc : CPRC 5ML PH<2 MIX[A] 454685016PSD
ALS Vial : 25 Sample Multiplier: 1

EM
07/23/2018

Quant Time: Jul 23 08:35:06 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.768	12.761	1.000	1090674	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	528640	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	477556	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.768	12.762	1.000	1092779	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	536235	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	477657	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	212572	52.08	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	1167126	47.39	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	511756	54.51	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	70 - 130	104%
45) Toluene-d8	50.000	70 - 130	95%
63) Bromofluorobenzene	50.000	70 - 130	109%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.552	4.552	0.357	421271	44.92	ug/L	100
3) Chloromethane	50	5.009	4.990	0.392	394508	41.48	ug/L	99
4) Vinyl chloride	62	5.319	5.319	0.417	408848	44.75	ug/L	100
5) Bromomethane	94	6.159	6.159	0.482	307617	47.38	ug/L	99
6) Chloroethane	64	6.379	6.372	0.500	288841	45.37	ug/L	99
7) Trichlorofluoromethane	101	7.055	7.061	0.553	647929	46.43	ug/L	100
8) Ethyl ether	59	7.610	7.610	0.596	251260	50.58	ug/L	95
9) Acetone	43	8.238	8.232	0.645	485145	123.21	ug/L	99
10) 1,1-Dichloroethylene	61	8.177	8.177	0.640	665450	56.66	ug/L	98
11) Iodomethane	142	8.506	8.500	0.666	2851348	263.98	ug/L	94
12) Acetonitrile	41	8.817	8.817	0.691	960764	1120.50	ug/L	99
13) Methyl acetate	74	8.854	8.854	0.693	291432	262.98	ug/L #	86
14) Carbon disulfide	76	8.677	8.665	0.680	6131055	272.52	ug/L	100
15) Methylene chloride	84	9.098	9.091	0.713	395441	55.65	ug/L	95
16) tert-Butyl methyl ether	73	9.537	9.537	0.747	1065057	58.69	ug/L	97
17) trans-1,2-Dichloroethy...	61	9.567	9.567	0.749	521290	52.74	ug/L	98
18) Hexane	57	9.988	9.988	0.782	353306	39.06	ug/L	98
19) Vinyl acetate	43	10.317	10.317	0.808	1973036	234.24	ug/L	100
20) 1,1-Dichloroethane	63	10.293	10.286	0.806	656773	52.24	ug/L	98
21) 2-Butanone	72	11.177	11.183	0.875	174333	183.57	ug/L #	85
22) cis-1,2-Dichloroethylene	96	11.189	11.183	0.876	349202	53.10	ug/L	98
23) 2,2-Dichloropropane	77	11.195	11.195	0.877	593409	54.80	ug/L	95
24) Bromochloromethane	128	11.548	11.548	0.905	148653	49.25	ug/L	97
25) Chloroform	83	11.628	11.628	0.911	695164	53.86	ug/L	99
26) 1,1,1-Trichloroethane	97	11.914	11.914	0.933	628704	53.24	ug/L	99
27) Cyclohexane	56	12.000	11.999	0.940	492956	46.86	ug/L	96
28) 1,1-Dichloropropene	75	12.128	12.127	0.950	467399	52.18	ug/L	97
29) Carbon tetrachloride	117	12.146	12.146	0.951	572303	52.58	ug/L	98
31) 1,2-Dichloroethane	62	12.445	12.438	0.975	563943	55.41	ug/L	99
32) Benzene	78	12.426	12.426	0.973	1268294	50.48	ug/L	100
33) Cyclohexene	67	12.542	12.548	0.982	582869	45.86	ug/L	96
34) n-Butyl alcohol	56	13.024	13.024	1.020	914892	4939.88	ug/L	97
35) Trichloroethylene	95	13.225	13.225	1.036	330967	50.31	ug/L	94
36) 2-Pentanone	43	13.396	13.396	1.049	919525	215.05	ug/L	98
37) 1,2-Dichloropropane	63	13.524	13.524	1.059	329331	51.68	ug/L	98
38) Methylcyclohexane	83	13.475	13.475	1.055	523889	48.82	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072118V3\
Data File : 3Q625.D
Acq On : 21 Jul 2018 22:19
Operator : JP1
InstName : VOA3
Sample : |1204074480|1784646|1|VOA|1|VOA8260CL|
Misc : CPRC 5ML PH<2 MIX[A] 454685016PSD
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jul 23 08:35:06 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
39) Dibromomethane	93	13.682	13.682	1.072	215843	53.31	ug/L	96
40) Bromodichloromethane	83	13.835	13.834	1.084	529109	55.83	ug/L	100
41) 2-Chloroethylvinyl ether		0.000	14.127	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene	75	14.353	14.353	1.124	570774	56.08	ug/L	100
44) 4-Methyl-2-pentanone	58	14.487	14.487	0.888	543434	233.54	ug/L	97
46) Toluene	91	14.755	14.755	0.904	1151619	43.32	ug/L	99
47) trans-1,3-Dichloroprop...	75	14.969	14.968	0.917	542554	52.38	ug/L	98
48) 1,1,2-Trichloroethane	83	15.200	15.200	0.932	233170	46.81	ug/L	99
49) 2-Hexanone	58	15.420	15.413	0.945	528935	181.36	ug/L	99
50) 1,3-Dichloropropane	76	15.401	15.401	0.944	496003	49.69	ug/L	89
51) Tetrachloroethylene	164	15.389	15.383	0.943	214196	38.10	ug/L	99
52) Dibromochloromethane	129	15.676	15.676	0.961	345071	49.42	ug/L	100
53) 1,2-Dibromoethane	107	15.840	15.840	0.971	265064	45.81	ug/L	100
54) Chlorobenzene	112	16.352	16.352	1.002	721935	41.16	ug/L	97
55) 1,1,1,2-Tetrachloroethane	131	16.419	16.419	1.006	325189	45.77	ug/L	99
56) Ethylbenzene	91	16.419	16.425	1.006	1293561	42.16	ug/L	97
57) m,p-Xylenes	106	16.541	16.541	1.014	864090	76.14	ug/L	93
58) o-Xylene	106	16.986	16.986	1.041	476817	41.90	ug/L	95
59) Styrene	104	16.993	16.992	1.041	787137	43.53	ug/L	95
61) Bromoform	173	17.261	17.261	0.919	228678	52.37	ug/L	99
62) Isopropylbenzene	105	17.358	17.358	0.924	1185803	39.15	ug/L	98
64) 1,1,2,2-Tetrachloroethane	83	17.669	17.663	0.940	389185	48.92	ug/L	99
65) 1,2,3-Trichloropropane	75	17.755	17.748	0.945	393407	49.99	ug/L	84
66) Bromobenzene	156	17.767	17.767	0.945	322173	43.36	ug/L	94
67) n-Propylbenzene	91	17.791	17.791	0.947	1358452	37.64	ug/L	97
68) 1,3,5-Trimethylbenzene	105	17.950	17.949	0.955	1034377	39.59	ug/L	97
69) 2-Chlorotoluene	126	17.937	17.937	0.955	271104	38.08	ug/L	87
70) 4-Chlorotoluene	91	18.047	18.041	0.960	910302	39.47	ug/L	96
71) tert-Butylbenzene	134	18.322	18.321	0.975	172051	34.68	ug/L #	81
72) 1,2,4-Trimethylbenzene	105	18.364	18.364	0.977	1050557	39.22	ug/L	97
73) sec-Butylbenzene	105	18.547	18.547	0.987	1278781	36.30	ug/L	98
74) 4-Isopropyltoluene	119	18.675	18.675	0.994	970644	32.77	ug/L	97
75) 1,3-Dichlorobenzene	146	18.736	18.730	0.997	575787	38.14	ug/L	98
76) 1,4-Dichlorobenzene	146	18.821	18.821	1.002	552759	36.96	ug/L	98
77) n-Butylbenzene	91	19.108	19.108	1.017	939307	31.77	ug/L	98
78) 1,2-Dichlorobenzene	146	19.236	19.236	1.024	600459	41.20	ug/L	98
79) 1,2-Dibromo-3-chloropr...	157	20.108	20.108	1.070	84623	51.29	ug/L	94
80) 1,2,4-Trichlorobenzene	180	21.120	21.113	1.124	473396	38.96	ug/L	99
81) Hexachlorobutadiene	225	21.278	21.278	1.132	235031	28.02	ug/L	98
82) Naphthalene	128	21.492	21.491	1.144	1246367	47.15	ug/L	100
83) 1,2,3-Trichlorobenzene	180	21.821	21.821	1.161	500864	41.60	ug/L	99
85) Acrolein		0.000	7.927	0.000	0	N.D.		
86) Trichlorotrifluoroethane		8.171	8.165	0.640	0m	N.D.	d	
87) Isopropyl Alcohol		8.665	8.464	0.679	0m	N.D.	d	
88) Allyl chloride		8.677	8.842	0.680	0m	N.D.	d	
89) tert-Butyl Alcohol		9.031	9.220	0.707	0m	N.D.	d	
90) Acrylonitrile		9.537	9.531	0.747	0m	N.D.	d	
91) Isopropyl ether		10.311	10.317	0.808	0m	N.D.	d	
92) 2-Chloro-1,3-butadiene		10.317	10.427	0.808	0m	N.D.	d	
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.		
94) Ethyl acetate		11.177	11.225	0.875	0m	N.D.	d	
95) Propionitrile		11.183	11.305	0.876	0m	N.D.	d	
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.		
97) Tetrahydrofuran		11.603	11.597	0.909	0m	N.D.	d	
98) Isobutyl alcohol		12.176	12.176	0.954	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072118V3\
Data File : 3Q625.D
Acq On : 21 Jul 2018 22:19
Operator : JP1
InstName : VOA3
Sample : |1204074480|1784646|1|VOA|1|VOA8260CL|
Misc : CPRC 5ML PH<2 MIX[A] 454685016PSD
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jul 23 08:35:06 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		12.542	12.500	0.982	0m	N.D.	d
100)	Methyl methacrylate		13.475	13.560	1.055	0m	N.D.	d
101)	1,4-Dioxane		13.694	13.652	1.073	0m	N.D.	d
102)	2-Nitropropane		14.097	14.103	1.104	0m	N.D.	d
104)	Ethyl methacrylate		0.000	14.987	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108)	Cyclohexanone		17.566	17.535	0.935	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		17.791	17.718	0.947	0m	N.D.	d
110)	Pentachloroethane		18.401	18.395	0.979	0m	N.D.	d
111)	Benzyl chloride		18.919	18.943	1.007	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		19.388	19.346	1.032	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072118V3\
Data File : 3Q625.D
Acq On : 21 Jul 2018 22:19
Operator : JP1
InstName : VOA3
Sample : |1204074480|1784646|1|VOA|1|VOA8260CL|
Misc : CPRC 5ML PH<2 MIX[A] 454685016PSD
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jul 23 08:35:06 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/20/2018 15:10**	**Matrix:**	**SOIL**
Lab Sample ID:	**1204076135**	**Date Received:**	**07/24/2018 09:00**	**%Moisture:**	**8.2**
Client Sample:	**QC for batch 1785343**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**SW06PSD**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 21:37**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:25**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R224.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane		2410	ug/kg	15.7	105
79-34-5	1,1,2,2-Tetrachloroethane		2320	ug/kg	15.7	105
79-00-5	1,1,2-Trichloroethane		2390	ug/kg	15.7	105
75-34-3	1,1-Dichloroethane		2410	ug/kg	15.7	105
75-35-4	1,1-Dichloroethylene		2530	ug/kg	15.7	105
87-61-6	1,2,3-Trichlorobenzene		1810	ug/kg	15.7	105
120-82-1	1,2,4-Trichlorobenzene		1740	ug/kg	15.7	105
96-12-8	1,2-Dibromo-3-chloropropane		2520	ug/kg	26.2	105
106-93-4	1,2-Dibromoethane		2290	ug/kg	15.7	105
95-50-1	1,2-Dichlorobenzene		1740	ug/kg	15.7	105
107-06-2	1,2-Dichloroethane		2690	ug/kg	15.7	105
78-87-5	1,2-Dichloropropane		2410	ug/kg	15.7	105
541-73-1	1,3-Dichlorobenzene		1630	ug/kg	15.7	105
106-46-7	1,4-Dichlorobenzene		1620	ug/kg	15.7	105
123-91-1	1,4-Dioxane	U	2620	ug/kg	785	2620
78-93-3	2-Butanone		11900	ug/kg	157	524
591-78-6	2-Hexanone		10700	ug/kg	157	524
108-10-1	4-Methyl-2-pentanone		11700	ug/kg	157	524
67-64-1	Acetone		10500	ug/kg	157	524
71-43-2	Benzene		2380	ug/kg	15.7	105
74-97-5	Bromochloromethane		2340	ug/kg	15.7	105
75-27-4	Bromodichloromethane		2680	ug/kg	15.7	105
75-25-2	Bromoform		2440	ug/kg	15.7	105
74-83-9	Bromomethane		724	ug/kg	15.7	105
75-15-0	Carbon disulfide		12600	ug/kg	83.8	524
56-23-5	Carbon tetrachloride		2370	ug/kg	15.7	105
108-90-7	Chlorobenzene		1860	ug/kg	15.7	105
75-00-3	Chloroethane		207	ug/kg	15.7	105
67-66-3	Chloroform		2540	ug/kg	15.7	105
74-87-3	Chloromethane		2580	ug/kg	15.7	105
110-82-7	Cyclohexane		2150	ug/kg	15.7	105
124-48-1	Dibromochloromethane		2300	ug/kg	15.7	105
75-71-8	Dichlorodifluoromethane		2590	ug/kg	15.7	105
100-41-4	Ethylbenzene		1700	ug/kg	15.7	105
98-82-8	Isopropylbenzene		1660	ug/kg	15.7	105
79-20-9	Methyl acetate		14300	ug/kg	78.5	262
108-87-2	Methylcyclohexane		2180	ug/kg	15.7	105
75-09-2	Methylene chloride		2620	ug/kg	83.8	262

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/20/2018 15:10**	**Matrix:**	**SOIL**
Lab Sample ID:	**1204076135**	**Date Received:**	**07/24/2018 09:00**	**%Moisture:**	**8.2**
Client Sample:	**QC for batch 1785343**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**SW06PSD**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**50**
Run Date:	**07/24/2018 21:37**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/24/2018 13:25**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**072418V3\3R224.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene		1810	ug/kg	15.7	105
127-18-4	Tetrachloroethylene		1660	ug/kg	15.7	105
108-88-3	Toluene		2030	ug/kg	15.7	105
79-01-6	Trichloroethylene		2280	ug/kg	15.7	105
75-69-4	Trichlorofluoromethane		2620	ug/kg	15.7	105
76-13-1	Trichlorotrifluoroethane	U	262	ug/kg	83.8	262
75-01-4	Vinyl chloride		2840	ug/kg	15.7	105
156-59-2	cis-1,2-Dichloroethylene		2410	ug/kg	15.7	105
10061-01-5	cis-1,3-Dichloropropylene		2740	ug/kg	15.7	105
179601-23-1	m,p-Xylenes		3370	ug/kg	15.7	209
95-47-6	o-Xylene		1710	ug/kg	15.7	105
1634-04-4	tert-Butyl methyl ether		2920	ug/kg	15.7	105
156-60-5	trans-1,2-Dichloroethylene		2430	ug/kg	15.7	105
10061-02-6	trans-1,3-Dichloropropylene		2530	ug/kg	15.7	105

Quantitation Report
GEL Laboratories, LLC

JP
07/25/2018

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R224.D
Acq On : 24 Jul 2018 21:37
Operator : JP1
InstName : VOA3
Sample : |1204076135|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL MIX[A] 455239003PSD
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jul 25 08:29:59 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.762	12.761	1.000	1238306	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	605827	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	539215	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	1241037	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	616710	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	539575	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	244065	52.67	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	1271240	45.04	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	548934	51.79	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	105%
45) Toluene-d8	50.000	81 - 120	90%
63) Bromofluorobenzene	50.000	70 - 130	104%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.534	4.552	0.355	526463	49.45	ug/L	100
3) Chloromethane	50	4.991	4.990	0.391	532455	49.31	ug/L	100
4) Vinyl chloride	62	5.301	5.319	0.415	562380	54.22	ug/L	99
5) Bromomethane	94	6.050	6.159	0.474	101966	13.83	ug/L	97
6) Chloroethane	64	6.251	6.372	0.490	28521	3.95	ug/L	80
7) Trichlorofluoromethane	101	6.964	7.061	0.546	793977	50.11	ug/L	99
8) Ethyl ether	59	7.610	7.610	0.596	278352	49.35	ug/L	92
9) Acetone	43	8.269	8.232	0.648	897518	200.76	ug/L	99
10) 1,1-Dichloroethylene	61	8.134	8.177	0.637	644246	48.32	ug/L	97
11) Iodomethane	142	8.470	8.500	0.664	3106727	253.33	ug/L	97
12) Acetonitrile	41	8.848	8.817	0.693	1067129	1096.17	ug/L	99
13) Methyl acetate	74	8.866	8.854	0.695	343073	272.67	ug/L #	86
14) Carbon disulfide	76	8.634	8.665	0.677	6130380	240.00	ug/L	100
15) Methylene chloride	84	9.086	9.091	0.712	405107	50.10	ug/L	95
16) tert-Butyl methyl ether	73	9.543	9.537	0.748	1149696	55.80	ug/L	98
17) trans-1,2-Dichloroethy...	61	9.549	9.567	0.748	521223	46.45	ug/L	98
18) Hexane	57	9.970	9.988	0.781	386214	37.61	ug/L	96
19) Vinyl acetate	43	10.323	10.317	0.809	2248127	235.08	ug/L	98
20) 1,1-Dichloroethane	63	10.274	10.286	0.805	657988	46.10	ug/L	99
21) 2-Butanone	72	11.195	11.183	0.877	244746	226.99	ug/L	91
22) cis-1,2-Dichloroethylene	96	11.183	11.183	0.876	344345	46.12	ug/L	97
23) 2,2-Dichloropropane	77	11.189	11.195	0.877	595552	48.44	ug/L	97
24) Bromochloromethane	128	11.542	11.548	0.904	152874	44.61	ug/L	99
25) Chloroform	83	11.628	11.628	0.911	709791	48.43	ug/L	100
26) 1,1,1-Trichloroethane	97	11.914	11.914	0.934	617984	46.10	ug/L	99
27) Cyclohexane	56	11.987	11.999	0.939	490269	41.04	ug/L	97
28) 1,1-Dichloropropene	75	12.122	12.127	0.950	462236	45.45	ug/L	97
29) Carbon tetrachloride	117	12.140	12.146	0.951	559403	45.27	ug/L	97
31) 1,2-Dichloroethane	62	12.439	12.438	0.975	593620	51.37	ug/L	100
32) Benzene	78	12.420	12.426	0.973	1298532	45.52	ug/L	100
33) Cyclohexene	67	12.536	12.548	0.982	563947	39.08	ug/L	95
34) n-Butyl alcohol	56	13.042	13.024	1.022	640116	3079.23	ug/L	97
35) Trichloroethylene	95	13.219	13.225	1.036	324792	43.49	ug/L	94
36) 2-Pentanone	43	13.408	13.396	1.051	1260214	259.59	ug/L	98
37) 1,2-Dichloropropane	63	13.524	13.524	1.060	332822	46.00	ug/L	98
38) Methylcyclohexane	83	13.475	13.475	1.056	508225	41.71	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R224.D
Acq On : 24 Jul 2018 21:37
Operator : JP1
InstName : VOA3
Sample : |1204076135|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL MIX[A] 455239003PSD
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jul 25 08:29:59 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
39)	Dibromomethane	93	13.682	13.682	1.072	232628	50.60	ug/L		96
40)	Bromodichloromethane	83	13.835	13.834	1.084	550609	51.18	ug/L		100
41)	2-Chloroethylvinyl ether	63	14.127	14.127	1.107	929369	231.85	ug/L		99
42)	cis-1,3-Dichloropropylene	75	14.347	14.353	1.124	604063	52.27	ug/L		99
44)	4-Methyl-2-pentanone	58	14.493	14.487	0.888	596355	223.63	ug/L		96
46)	Toluene	91	14.755	14.755	0.904	1180944	38.76	ug/L		99
47)	trans-1,3-Dichloroprop...	75	14.969	14.968	0.917	572467	48.23	ug/L		97
48)	1,1,2-Trichloroethane	83	15.200	15.200	0.932	260449	45.63	ug/L		99
49)	2-Hexanone	58	15.420	15.413	0.945	682935	204.33	ug/L		98
50)	1,3-Dichloropropane	76	15.401	15.401	0.944	521154	45.56	ug/L		97
51)	Tetrachloroethylene	164	15.383	15.383	0.943	204138	31.69	ug/L		99
52)	Dibromochloromethane	129	15.676	15.676	0.961	350822	43.84	ug/L		98
53)	1,2-Dibromoethane	107	15.840	15.840	0.971	289840	43.71	ug/L		99
54)	Chlorobenzene	112	16.352	16.352	1.002	712948	35.47	ug/L		98
55)	1,1,1,2-Tetrachloroethane	131	16.419	16.419	1.006	310412	38.12	ug/L		99
56)	Ethylbenzene	91	16.419	16.425	1.006	1144931	32.56	ug/L		97
57)	m,p-Xylenes	106	16.535	16.541	1.013	838044	64.43	ug/L		93
58)	o-Xylene	106	16.986	16.986	1.041	426017	32.66	ug/L		95
59)	Styrene	104	16.993	16.992	1.041	716956	34.60	ug/L		97
61)	Bromoform	173	17.261	17.261	0.919	229465	46.54	ug/L		99
62)	Isopropylbenzene	105	17.358	17.358	0.924	1085711	31.74	ug/L		98
64)	1,1,2,2-Tetrachloroethane	83	17.669	17.663	0.940	397321	44.23	ug/L		99
65)	1,2,3-Trichloropropane	75	17.748	17.748	0.945	399085	44.91	ug/L	#	78
66)	Bromobenzene	156	17.767	17.767	0.945	310998	37.07	ug/L		94
67)	n-Propylbenzene	91	17.791	17.791	0.947	1224414	30.05	ug/L		97
68)	1,3,5-Trimethylbenzene	105	17.950	17.949	0.955	915585	31.03	ug/L		97
69)	2-Chlorotoluene	126	17.937	17.937	0.955	247207	30.75	ug/L		89
70)	4-Chlorotoluene	91	18.041	18.041	0.960	831986	31.95	ug/L		96
71)	tert-Butylbenzene	134	18.322	18.321	0.975	157491	28.11	ug/L	#	88
72)	1,2,4-Trimethylbenzene	105	18.364	18.364	0.977	906285	29.97	ug/L		97
73)	sec-Butylbenzene	105	18.547	18.547	0.987	1056677	26.56	ug/L		97
74)	4-Isopropyltoluene	119	18.675	18.675	0.994	873803	26.13	ug/L		97
75)	1,3-Dichlorobenzene	146	18.730	18.730	0.997	532033	31.21	ug/L		98
76)	1,4-Dichlorobenzene	146	18.821	18.821	1.002	522540	30.95	ug/L		98
77)	n-Butylbenzene	91	19.108	19.108	1.017	789704	23.66	ug/L		97
78)	1,2-Dichlorobenzene	146	19.236	19.236	1.024	547065	33.24	ug/L		98
79)	1,2-Dibromo-3-chloropr...	157	20.108	20.108	1.070	89711	48.16	ug/L		94
80)	1,2,4-Trichlorobenzene	180	21.120	21.113	1.124	455936	33.23	ug/L		99
81)	Hexachlorobutadiene	225	21.278	21.278	1.132	204611	21.61	ug/L		99
82)	Naphthalene	128	21.498	21.491	1.144	1257089	42.12	ug/L		100
83)	1,2,3-Trichlorobenzene	180	21.827	21.821	1.162	471105	34.65	ug/L		98
85)	Acrolein		7.824	7.927	0.613	0m	N.D.	d		
86)	Trichlorotrifluoroethane		8.171	8.165	0.640	0m	N.D.	d		
87)	Isopropyl Alcohol		8.561	8.464	0.671	0m	N.D.	d		
88)	Allyl chloride		8.634	8.842	0.677	0m	N.D.	d		
89)	tert-Butyl Alcohol		0.000	9.220	0.000	0	N.D.			
90)	Acrylonitrile		9.543	9.531	0.748	0m	N.D.	d		
91)	Isopropyl ether		10.317	10.317	0.808	0m	N.D.	d		
92)	2-Chloro-1,3-butadiene		10.488	10.427	0.822	0m	N.D.	d		
93)	Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.			
94)	Ethyl acetate		11.195	11.225	0.877	0m	N.D.	d		
95)	Propionitrile		11.201	11.305	0.878	0m	N.D.	d		
96)	Methacrylonitrile		0.000	11.512	0.000	0	N.D.			
97)	Tetrahydrofuran		11.628	11.597	0.911	0m	N.D.	d		
98)	Isobutyl alcohol		12.207	12.176	0.957	0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R224.D
Acq On : 24 Jul 2018 21:37
Operator : JP1
InstName : VOA3
Sample : |1204076135|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL MIX[A] 455239003PSD
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jul 25 08:29:59 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		12.548	12.500	0.983	0m	N.D.	d
100)	Methyl methacrylate		13.572	13.560	1.064	0m	N.D.	d
101)	1,4-Dioxane		13.670	13.652	1.071	0m	N.D.	d
102)	2-Nitropropane		14.127	14.103	1.107	0m	N.D.	d
104)	Ethyl methacrylate		0.000	14.987	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108)	Cyclohexanone		17.566	17.535	0.935	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		17.791	17.718	0.947	0m	N.D.	d
110)	Pentachloroethane		18.401	18.395	0.979	0m	N.D.	d
111)	Benzyl chloride		18.913	18.943	1.006	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		19.394	19.346	1.032	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072418V3\
Data File : 3R224.D
Acq On : 24 Jul 2018 21:37
Operator : JP1
InstName : VOA3
Sample : |1204076135|1785349|50|VOA|1|VOA3560C_S|
Misc : URSC 100UL N/A SOIL MIX[A] 455239003PSD
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jul 25 08:29:59 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/20/2018 15:10**	**Matrix:**	**SOIL**
Lab Sample ID:	**1204076135**	**Date Received:**	**07/24/2018 09:00**	**%Moisture:**	**8.2**
Client Sample:	**QC for batch 1785343**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**SW06REPSD**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 23:09**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 16:16**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R525.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane		46.2	ug/kg	0.308	2.05
79-34-5	1,1,2,2-Tetrachloroethane		14.6	ug/kg	0.308	2.05
79-00-5	1,1,2-Trichloroethane		24.0	ug/kg	0.308	2.05
75-34-3	1,1-Dichloroethane		44.2	ug/kg	0.308	2.05
75-35-4	1,1-Dichloroethylene		46.5	ug/kg	0.308	2.05
87-61-6	1,2,3-Trichlorobenzene		6.58	ug/kg	0.308	2.05
120-82-1	1,2,4-Trichlorobenzene		7.82	ug/kg	0.308	2.05
96-12-8	1,2-Dibromo-3-chloropropane		2.52	ug/kg	0.514	2.05
106-93-4	1,2-Dibromoethane		10.1	ug/kg	0.308	2.05
95-50-1	1,2-Dichlorobenzene		15.1	ug/kg	0.308	2.05
107-06-2	1,2-Dichloroethane		27.0	ug/kg	0.308	2.05
78-87-5	1,2-Dichloropropane		23.0	ug/kg	0.308	2.05
541-73-1	1,3-Dichlorobenzene		22.3	ug/kg	0.308	2.05
106-46-7	1,4-Dichlorobenzene		19.2	ug/kg	0.308	2.05
123-91-1	1,4-Dioxane	U	51.4	ug/kg	15.4	51.4
78-93-3	2-Butanone		119	ug/kg	3.08	10.3
591-78-6	2-Hexanone		13.5	ug/kg	3.08	10.3
108-10-1	4-Methyl-2-pentanone		55.0	ug/kg	3.08	10.3
67-64-1	Acetone		242	ug/kg	3.08	10.3
71-43-2	Benzene		27.1	ug/kg	0.308	2.05
74-97-5	Bromochloromethane		33.2	ug/kg	0.308	2.05
75-27-4	Bromodichloromethane		25.9	ug/kg	0.308	2.05
75-25-2	Bromoform		19.0	ug/kg	0.308	2.05
74-83-9	Bromomethane		61.9	ug/kg	0.308	2.05
75-15-0	Carbon disulfide		210	ug/kg	1.64	10.3
56-23-5	Carbon tetrachloride		45.2	ug/kg	0.308	2.05
108-90-7	Chlorobenzene		19.9	ug/kg	0.308	2.05
75-00-3	Chloroethane		65.6	ug/kg	0.308	2.05
67-66-3	Chloroform		42.7	ug/kg	0.308	2.05
74-87-3	Chloromethane		80.9	ug/kg	0.308	2.05
110-82-7	Cyclohexane		28.9	ug/kg	0.308	2.05
124-48-1	Dibromochloromethane		23.3	ug/kg	0.308	2.05
75-71-8	Dichlorodifluoromethane		62.6	ug/kg	0.308	2.05
100-41-4	Ethylbenzene		30.5	ug/kg	0.308	2.05
98-82-8	Isopropylbenzene		56.8	ug/kg	0.308	2.05
79-20-9	Methyl acetate		193	ug/kg	1.54	5.14
108-87-2	Methylcyclohexane		25.2	ug/kg	0.308	2.05
75-09-2	Methylene chloride		53.6	ug/kg	1.64	5.14

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/20/2018 15:10**	**Matrix:**	**SOIL**
Lab Sample ID:	**1204076135**	**Date Received:**	**07/24/2018 09:00**	**%Moisture:**	**8.2**
Client Sample:	**QC for batch 1785343**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**SW06REPSD**	**Method:**	**SW846 5035A/8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1785349**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**07/27/2018 23:09**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**07/27/2018 16:16**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**072718V3\3R525.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene		13.2	ug/kg	0.308	2.05
127-18-4	Tetrachloroethylene		37.0	ug/kg	0.308	2.05
108-88-3	Toluene		35.3	ug/kg	0.308	2.05
79-01-6	Trichloroethylene		24.6	ug/kg	0.308	2.05
75-69-4	Trichlorofluoromethane		59.5	ug/kg	0.308	2.05
76-13-1	Trichlorotrifluoroethane	U	5.14	ug/kg	1.64	5.14
75-01-4	Vinyl chloride		70.0	ug/kg	0.308	2.05
156-59-2	cis-1,2-Dichloroethylene		32.0	ug/kg	0.308	2.05
10061-01-5	cis-1,3-Dichloropropylene		11.9	ug/kg	0.308	2.05
179601-23-1	m,p-Xylenes		54.7	ug/kg	0.308	4.11
95-47-6	o-Xylene		20.6	ug/kg	0.308	2.05
1634-04-4	tert-Butyl methyl ether		50.1	ug/kg	0.308	2.05
156-60-5	trans-1,2-Dichloroethylene		33.4	ug/kg	0.308	2.05
10061-02-6	trans-1,3-Dichloropropylene		12.4	ug/kg	0.308	2.05

Quantitation Report
GEL Laboratories, LLC

JP
07/30/2018

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R525.D
Acq On : 27 Jul 2018 23:09
Operator : JP1
InstName : VOA3
Sample : |1204076135|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.3G N/A SOIL MIX[A] 455239003PSD
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jul 28 10:02:35 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.762	12.761	1.000	475922	50.00	ug/L	0.00
43) Chlorobenzene-d5	82	16.316	16.316	1.000	101964	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	53255	50.00	ug/L	0.00
84) B Fluorobenzene	96	12.762	12.762	1.000	477128	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	16.316	16.316	1.000	104236	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.791	18.791	1.000	53255	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	67	12.341	12.341	0.967	123596	69.40	ug/L	0.00
45) Toluene-d8	98	14.676	14.676	0.899	310582	65.38	ug/L	0.00
63) Bromofluorobenzene	95	17.559	17.559	0.934	57962	55.37	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	139%#
45) Toluene-d8	50.000	81 - 120	131%#
63) Bromofluorobenzene	50.000	70 - 130	111%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.552	4.552	0.357	249325	60.93	ug/L	99
3) Chloromethane	50	4.991	4.990	0.391	326734	78.73	ug/L	99
4) Vinyl chloride	62	5.301	5.319	0.415	271385	68.08	ug/L	99
5) Bromomethane	94	6.141	6.159	0.481	170644	60.23	ug/L	97
6) Chloroethane	64	6.367	6.372	0.499	177269	63.81	ug/L	98
7) Trichlorofluoromethane	101	7.037	7.061	0.551	352784	57.93	ug/L	99
8) Ethyl ether	59	7.610	7.610	0.596	75467	34.81	ug/L	98
9) Acetone	43	8.244	8.232	0.646	404944	235.67	ug/L	96
10) 1,1-Dichloroethylene	61	8.177	8.177	0.641	231812	45.24	ug/L	96
11) Iodomethane	142	8.506	8.500	0.667	949335	201.42	ug/L	87
12) Acetonitrile	41	8.823	8.817	0.691	574991	1536.79	ug/L	97
13) Methyl acetate	74	8.854	8.854	0.694	90735	187.64	ug/L	90
14) Carbon disulfide	76	8.671	8.665	0.679	2003058	204.04	ug/L	100
15) Methylene chloride	84	9.092	9.091	0.712	162088	52.20	ug/L	97
16) tert-Butyl methyl ether	73	9.537	9.537	0.747	385860	48.73	ug/L	96
17) trans-1,2-Dichloroethy...	61	9.561	9.567	0.749	140352	32.54	ug/L	96
18) Hexane	57	9.988	9.988	0.783	56958	14.43	ug/L	85
19) Vinyl acetate	43	10.317	10.317	0.808	339465	92.36	ug/L	100
20) 1,1-Dichloroethane	63	10.287	10.286	0.806	235836	42.99	ug/L	99
21) 2-Butanone	72	11.183	11.183	0.876	48029	115.90	ug/L	97
22) cis-1,2-Dichloroethylene	96	11.189	11.183	0.877	89408	31.16	ug/L	88
23) 2,2-Dichloropropane	77	11.195	11.195	0.877	238481	50.47	ug/L	98
24) Bromochloromethane	128	11.548	11.548	0.905	42516	32.28	ug/L	98
25) Chloroform	83	11.628	11.628	0.911	234240	41.59	ug/L	99
26) 1,1,1-Trichloroethane	97	11.920	11.914	0.934	231631	44.96	ug/L	99
27) Cyclohexane	56	12.000	11.999	0.940	129088	28.12	ug/L	95
28) 1,1-Dichloropropene	75	12.128	12.127	0.950	110636	28.30	ug/L	96
29) Carbon tetrachloride	117	12.146	12.146	0.952	209176	44.04	ug/L	98
31) 1,2-Dichloroethane	62	12.439	12.438	0.975	116619	26.26	ug/L	100
32) Benzene	78	12.426	12.426	0.974	288901	26.35	ug/L	100
33) Cyclohexene	67	12.542	12.548	0.983	150952	27.22	ug/L	96
34) n-Butyl alcohol	56	13.024	13.024	1.021	232967	2920.73	ug/L	98
35) Trichloroethylene	95	13.225	13.225	1.036	68777	23.96	ug/L	92
36) 2-Pentanone	43	13.402	13.396	1.050	61672	33.05	ug/L	99
37) 1,2-Dichloropropane	63	13.524	13.524	1.060	62245	22.38	ug/L	98
38) Methylcyclohexane	83	13.475	13.475	1.056	114820	24.52	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R525.D
Acq On : 27 Jul 2018 23:09
Operator : JP1
InstName : VOA3
Sample : |1204076135|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.3G N/A SOIL MIX[A] 455239003PSD
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jul 28 10:02:35 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
39) Dibromomethane	93	13.682	13.682	1.072	38709	21.91	ug/L	94
40) Bromodichloromethane	83	13.835	13.834	1.084	104213	25.20	ug/L	98
41) 2-Chloroethylvinyl ether	63	14.127	14.127	1.107	29430	19.10	ug/L	99
42) cis-1,3-Dichloropropylene	75	14.347	14.353	1.124	51427	11.58	ug/L	96
44) 4-Methyl-2-pentanone	58	14.487	14.487	0.888	24012	53.50	ug/L	94
46) Toluene	91	14.755	14.755	0.904	176140	34.35	ug/L	99
47) trans-1,3-Dichloroprop...	75	14.975	14.968	0.918	24196	12.11	ug/L	98
48) 1,1,2-Trichloroethane	83	15.206	15.200	0.932	22448	23.36	ug/L	97
49) 2-Hexanone	58	15.420	15.413	0.945	7403	13.16	ug/L	86
50) 1,3-Dichloropropane	76	15.401	15.401	0.944	32240	16.75	ug/L #	71
51) Tetrachloroethylene	164	15.383	15.383	0.943	39003	35.97	ug/L	95
52) Dibromochloromethane	129	15.682	15.676	0.961	30595	22.72	ug/L	96
53) 1,2-Dibromoethane	107	15.846	15.840	0.971	10965	9.82	ug/L	100
54) Chlorobenzene	112	16.352	16.352	1.002	65675	19.41	ug/L	91
55) 1,1,1,2-Tetrachloroethane	131	16.419	16.419	1.006	45807	33.43	ug/L	97
56) Ethylbenzene	91	16.426	16.425	1.007	175408	29.64	ug/L	94
57) m,p-Xylenes	106	16.541	16.541	1.014	116522	53.23	ug/L	90
58) o-Xylene	106	16.986	16.986	1.041	43996	20.04	ug/L	86
59) Styrene	104	16.999	16.992	1.042	44778	12.84	ug/L	81
61) Bromoform	173	17.267	17.261	0.919	9003	18.49	ug/L	99
62) Isopropylbenzene	105	17.358	17.358	0.924	186751	55.28	ug/L	96
64) 1,1,2,2-Tetrachloroethane	83	17.669	17.663	0.940	12590	14.19	ug/L	97
65) 1,2,3-Trichloropropane	75	17.748	17.748	0.945	14702	16.75	ug/L #	44
66) Bromobenzene	156	17.767	17.767	0.945	17255	20.83	ug/L #	76
67) n-Propylbenzene	91	17.791	17.791	0.947	212428	52.78	ug/L	95
68) 1,3,5-Trimethylbenzene	105	17.950	17.949	0.955	141242	48.47	ug/L	95
69) 2-Chlorotoluene	126	17.944	17.937	0.955	28819	36.30	ug/L #	69
70) 4-Chlorotoluene	91	18.041	18.041	0.960	80362	31.25	ug/L	92
71) tert-Butylbenzene	134	18.328	18.321	0.975	30425	54.99	ug/L #	88
72) 1,2,4-Trimethylbenzene	105	18.364	18.364	0.977	109605	36.70	ug/L	93
73) sec-Butylbenzene	105	18.547	18.547	0.987	226231	57.58	ug/L	97
74) 4-Isopropyltoluene	119	18.675	18.675	0.994	169211	51.24	ug/L	95
75) 1,3-Dichlorobenzene	146	18.736	18.730	0.997	36572	21.72	ug/L	96
76) 1,4-Dichlorobenzene	146	18.821	18.821	1.002	31178	18.70	ug/L	97
77) n-Butylbenzene	91	19.108	19.108	1.017	138777	42.09	ug/L	95
78) 1,2-Dichlorobenzene	146	19.242	19.236	1.024	23871	14.69	ug/L	97
79) 1,2-Dibromo-3-chloropr...	157	20.120	20.108	1.071	450	2.45	ug/L #	53
80) 1,2,4-Trichlorobenzene	180	21.114	21.113	1.124	10308	7.61	ug/L	98
81) Hexachlorobutadiene	225	21.272	21.278	1.132	52930	56.60	ug/L	97
82) Naphthalene	128	21.498	21.491	1.144	5706	1.94	ug/L	87
83) 1,2,3-Trichlorobenzene	180	21.827	21.821	1.162	8590	6.40	ug/L	95
85) Acrolein		0.000	7.927	0.000	0	N.D.		
86) Trichlorotrifluoroethane		8.153	8.165	0.639	0m	N.D.	d	
87) Isopropyl Alcohol		8.604	8.464	0.674	0m	N.D.	d	
88) Allyl chloride		8.671	8.842	0.679	0m	N.D.	d	
89) tert-Butyl Alcohol		8.970	9.220	0.703	0m	N.D.	d	
90) Acrylonitrile		9.543	9.531	0.748	0m	N.D.	d	
91) Isopropyl ether		10.317	10.317	0.808	0m	N.D.	d	
92) 2-Chloro-1,3-butadiene		10.488	10.427	0.822	0m	N.D.	d	
93) Ethyl tert-butyl ether		0.000	10.890	0.000	0	N.D.		
94) Ethyl acetate		11.183	11.225	0.876	0m	N.D.	d	
95) Propionitrile		11.189	11.305	0.877	0m	N.D.	d	
96) Methacrylonitrile		0.000	11.512	0.000	0	N.D.		
97) Tetrahydrofuran		11.616	11.597	0.910	0m	N.D.	d	
98) Isobutyl alcohol		12.134	12.176	0.951	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R525.D
Acq On : 27 Jul 2018 23:09
Operator : JP1
InstName : VOA3
Sample : |1204076135|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.3G N/A SOIL MIX[A] 455239003PSD
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jul 28 10:02:35 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		12.548	12.500	0.983	0m	N.D.	d
100)	Methyl methacrylate		13.475	13.560	1.056	0m	N.D.	d
101)	1,4-Dioxane		0.000	13.652	0.000	0	N.D.	
102)	2-Nitropropane		14.133	14.103	1.107	0m	N.D.	d
104)	Ethyl methacrylate		0.000	14.987	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	16.231	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene		0.000	17.425	0.000	0	N.D.	
108)	Cyclohexanone		0.000	17.535	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		17.785	17.718	0.946	0m	N.D.	d
110)	Pentachloroethane		0.000	18.395	0.000	0	N.D.	
111)	Benzyl chloride		18.937	18.943	1.008	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		19.388	19.346	1.032	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\072718V3\
Data File : 3R525.D
Acq On : 27 Jul 2018 23:09
Operator : JP1
InstName : VOA3
Sample : |1204076135|1785349|1|VOA|2|VOA3560C_S|
Misc : URSC 5.3G N/A SOIL MIX[A] 455239003PSD
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jul 28 10:02:35 2018
Quant Method : C:\msdchem\1\data\070218V3\VOA3-8260C-070218.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Jul 03 07:30:47 2018
Response via : Initial Calibration
Integrator: RTE

Miscellaneous

Prep Logbook

Closed-System Purge-and-Trap Collection and Extraction: Volatile Organics in Soil and Waste Samples

Batch ID: **1785343**
Analyst: James Pressley
Method: SW846 5035A
Lab SOP: GL-OA-E-039 REV# 12
Instrument: OH AUS Balance

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Sample ID	Prep Date	Matrix	Sample Wt (g)	Preservative	Final Volume (mL)	Prep Factor (mL/g)
1204076131 MB	24-JUL-2018 08:00:00	Soil	5	DI WATER	5	1
1204076133 LCS	24-JUL-2018 08:00:00	Soil	5	DI WATER	5	1
1204076132 HB	24-JUL-2018 13:13:00	Soil	5	DT961	5	1
454944002	24-JUL-2018 13:14:00	Soil	5.2	DT961	5	0.96154
454944003	24-JUL-2018 13:15:00	Soil	5	DT961	5	1
454944004	24-JUL-2018 13:16:00	Soil	5.1	DT961	5	0.98039
454944005	24-JUL-2018 13:17:00	Soil	5.2	DT961	5	0.96154
454944006	24-JUL-2018 13:18:00	Soil	5.4	DT961	5	0.92593
454944007	24-JUL-2018 13:19:00	Soil	5.4	DT961	5	0.92593
454944008	24-JUL-2018 13:20:00	Soil	5	DT961	5	1
454944009	24-JUL-2018 13:21:00	Soil	5.3	DT961	5	0.9434
454944010	24-JUL-2018 13:22:00	Soil	5.2	DT961	5	0.96154
455067016	24-JUL-2018 13:23:00	Soil	5	DT961	5	1
455231001	24-JUL-2018 13:24:00	Soil	5	DT961	7	1.4
455239003	24-JUL-2018 13:25:00	Soil	5.2	DT961	5	0.96154
1204076134 PS (455239003)	24-JUL-2018 13:25:00	Soil	5.2	DT961	5	0.96154
1204076135 PSD (455239003)	24-JUL-2018 13:25:00	Soil	5.2	DT961	5	0.96154
455239004	24-JUL-2018 13:26:00	Soil	5.2	DT961	5	0.96154
455239005	24-JUL-2018 13:27:00	Soil	5.1	DT961	5	0.98039
455239006	24-JUL-2018 13:28:00	Soil	5.1	DT961	5	0.98039
455239007	24-JUL-2018 13:29:00	Soil	5.1	DT961	5	0.98039
455239008	24-JUL-2018 13:30:00	Soil	5	DT961	5	1
455239009	24-JUL-2018 13:31:00	Soil	5.2	DT961	5	0.96154
1204077637 MB	25-JUL-2018 09:00:00	Soil	5	DI WATER	5	1
1204077638 LCS	25-JUL-2018 09:00:00	Soil	5	DI WATER	5	1
1204079885 MB	27-JUL-2018 09:00:00	Soil	5	DI WATER	5	1
1204079887 LCS	27-JUL-2018 09:00:00	Soil	5	DI WATER	5	1
454944002 - 2	27-JUL-2018 11:02:00	Soil	5.1	DI WATER	5	0.98039
454944003 - 2	27-JUL-2018 11:03:00	Soil	5.1	DI WATER	5	0.98039
454944004 - 2	27-JUL-2018 11:04:00	Soil	5.3	DI WATER	5	0.9434
454944005 - 2	27-JUL-2018 11:05:00	Soil	5.6	DI WATER	5	0.89286
454944006 - 2	27-JUL-2018 11:06:00	Soil	5	DI WATER	5	1
454944007 - 2	27-JUL-2018 11:07:00	Soil	5	DI WATER	5	1
454944008 - 2	27-JUL-2018 11:08:00	Soil	5.5	DI WATER	5	0.90909
454944009 - 2	27-JUL-2018 11:09:00	Soil	5.1	DI WATER	5	0.98039

Prep Logbook

Sample ID	Prep Date	Matrix	Sample Wt (g)	Preservative	Final Volume (mL)	Prep Factor (mL/g)
454944010 - 2	27-JUL-2018 11:10:00	Soil	5	DI WATER	5	1
455067016 - 2	27-JUL-2018 11:12:00	Soil	5.3	DI WATER	5	0.9434
455239003 - 2	27-JUL-2018 11:13:00	Soil	5.2	DI WATER	5	0.96154
455239004 - 2	27-JUL-2018 11:14:00	Soil	5.1	DI WATER	5	0.98039
455239005 - 2	27-JUL-2018 11:15:00	Soil	5	DI WATER	5	1
455239006 - 2	27-JUL-2018 11:16:00	Soil	5	DI WATER	5	1
1204076134 - 2 PS (455239003)	27-JUL-2018 16:15:00	Soil	5	DI WATER	5	1
1204076135 - 2 PSD (455239003)	27-JUL-2018 16:16:00	Soil	5.3	DI WATER	5	0.9434
1204079886 MB	28-JUL-2018 10:00:00	Soil	5	DI WATER	5	1
1204079888 LCS	28-JUL-2018 10:00:00	Soil	5	DI WATER	5	1
455239007 - 2	28-JUL-2018 12:17:00	Soil	5.1	DI WATER	5	0.98039
455239008 - 2	28-JUL-2018 12:18:00	Soil	5.1	DI WATER	5	0.98039
455239009 - 2	28-JUL-2018 12:19:00	Soil	5.2	DI WATER	5	0.96154

Reagent/Solvent Lot ID	Description	Amount

Comments:

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA3

JP
07/03/2018

Date: 7/2/2018 Method 8260C Operator: JP1

REVIEWED BY: _____
DATE: _____

07/03/2018

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 50

Daily Instrument Readings:
Multiplier Voltage: 1647

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 7/2/2018

Daily Standard Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV			5uL ea.		
IS	UVM180620-01	1	1	1	
SS	UVM18620-01A	1	1	1	
LCS/MS				5uL ea.	
BFB	IVM180702-01				1
SHORT			5uL ea.	5uL ea.	
SHORT LCS					

CI test lot # 80315C

Sequence Number: 070218V3

Purge Amount

5ML	Water Purge Vol:
5G	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	CI test (Y/N)	Acceptable(O/X)	Comments
2 Jul 2018 12:28	3O101.D	IVM180702-01	GEL	BFB	10ML	1	N/A	1	w	JP1	N/A	O	
2 Jul 2018 12:54	3O102.D	W3VM180702-01	VSTD0005	ICAL	5UL/5ML	1	N/A	2	w	JP1	N/A	O	MIX[A] UVM180612-01/UVM180601-01D/UVM180628-01A
2 Jul 2018 13:25	3O103.D	W3VM180702-02	VSTD001	ICAL	5UL/5ML	1	N/A	3	w	JP1	N/A	O	MIX[A] UVM180612-02/UVM180601-02D/UVM180628-02A
2 Jul 2018 13:56	3O104.D	W3VM180702-03	VSTD002	ICAL	5UL/5ML	1	N/A	4	w	JP1	N/A	O	MIX[A] UVM180612-03/UVM180601-03D/UVM180628-03A
2 Jul 2018 14:28	3O105.D	W3VM180702-04	VSTD005	ICAL	5UL/5ML	1	N/A	5	w	JP1	N/A	O	MIX[A] UVM180612-04/UVM180601-04D/UVM180628-04A
2 Jul 2018 14:59	3O106.D	W3VM180702-05	VSTD010	ICAL	5UL/5ML	1	N/A	6	w	JP1	N/A	O	MIX[A] UVM180612-05/UVM180601-05D/UVM180628-05A
2 Jul 2018 15:30	3O107.D	W3VM180702-06	VSTD020	ICAL	5UL/5ML	1	N/A	7	w	JP1	N/A	O	MIX[A] UVM180612-06/UVM180601-06D/UVM180628-06A
2 Jul 2018 16:01	3O108.D	W3VM180702-07	VSTD050	ICAL	5UL/5ML	1	N/A	8	w	JP1	N/A	O	MIX[A] UVM180612-07(LOT AU-01265)/UVM180601-07D(LOT AU-01241)/UVM180628-07A(LOT 310314)
2 Jul 2018 16:32	3O109.D	W3VM180702-08	VSTD080	ICAL	4UL/5ML	1	N/A	9	w	JP1	N/A	O	MIX[A] UVM180612-08/UVM180601-08D/UVM180628-08A
2 Jul 2018 17:03	3O110.D	W3VM180702-09	VSTD100	ICAL	5UL/5ML	1	N/A	10	w	JP1	N/A	O	MIX[A] UVM180612-08/UVM180601-08D/UVM180628-08A
2 Jul 2018 17:34	3O111.D	120406----	GEL	BLANK	5ML	1	N/A	11	w	JP1	N/A	X	RINSE
2 Jul 2018 18:05	3O112.D	W3VM180702-10	ICV50	ICV	5UL/5ML	1	N/A	12	w	JP1	N/A	O	MIX[A] UVM180411-10E(LOT AU-01221)/UVM180601-10F(AU-01235)/UVM180312-09D(LOT 338329)/IVM180628-01
2 Jul 2018 18:36	3O113.D	W3VM180702-11	VSTD005	ICAL	5UL/5ML	1	N/A	13	w	JP1	N/A	O	MIX[B] UVM180503-01B/UVM180613-01A
2 Jul 2018 19:07	3O114.D	W3VM180702-12	VSTD010	ICAL	5UL/5ML	1	N/A	14	w	JP1	N/A	O	MIX[B] UVM180503-02B/UVM180613-02A
2 Jul 2018 19:38	3O115.D	W3VM180702-13	VSTD025	ICAL	5UL/5ML	1	N/A	15	w	JP1	N/A	O	MIX[B] UVM180503-03B/UVM180613-03A
2 Jul 2018 20:10	3O116.D	W3VM180702-14	VSTD050	ICAL	5UL/5ML	1	N/A	16	w	JP1	N/A	O	MIX[B] UVM180503-04B/UVM180613-04A
2 Jul 2018 20:41	3O117.D	W3VM180702-15	VSTD100	ICAL	5UL/5ML	1	N/A	17	w	JP1	N/A	O	MIX[B] UVM180503-05B/UVM180613-05A
2 Jul 2018 21:12	3O118.D	W3VM180702-16	VSTD250	ICAL	5UL/5ML	1	N/A	18	w	JP1	N/A	O	MIX[B] UVM180503-06B(LOT 343576)/UVM180613-06A(LOT 347118)
2 Jul 2018 21:44	3O119.D	W3VM180702-17	VSTD300	ICAL	3UL/5ML	1	N/A	19	w	JP1	N/A	O	MIX[B] UVM180503-07B/UVM180613-07A
2 Jul 2018 22:15	3O120.D	W3VM180702-18	VSTD500	ICAL	5UL/5ML	1	N/A	20	w	JP1	N/A	O	MIX[B] UVM180503-07B/UVM180613-07A

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA3

Date: 7/2/2018 Method 8260C Operator: JP1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 50

Daily Instrument Readings:
Multiplier Voltage: 1647

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 7/2/2018

Daily Standard Volume Added for Purge (ul)

Solution ID#		Blk/ Smpl	CCV	MS/ LCS	BFB
CCV			5uL ea.		
IS	UVM180620-01	1	1	1	
SS	UVM18620-01A	1	1	1	
LCS/MS				5uL ea.	
BFB	IVM180702-01				1
SHORT			5uL ea.	5uL ea.	
SHORT LCS					

Cl test lot # 80315C

Sequence Number: 070218V3

Purge Amount

5ML	Water Purge Vol:
5G	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
2 Jul 2018 22:46	3O121.D	120406----	GEL	BLANK	5ML	1	N/A	21	w	JP1	N/A	X	RINSE
2 Jul 2018 23:17	3O122.D	W3VM180702-19	ICV250	ICV	5UL/5ML	1	N/A	22	w	JP1	N/A	O	MIX[B] UVM180503-08C(LOT 343583)/UVM180613-08B(LOT 347133)

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA3

JP
07/23/2018

Date: 7/21/2018 Method 8260C Operator: JP1

REVIEWED BY: _____
DATE: _____

EM
07/23/2018

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 50

Daily Instrument Readings:
Multiplier Voltage: 1647

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 7/2/2018

Daily Standard Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W3VM180721-01		5uL ea.		
IS	UVM180620-01	1	1	1	
SS	UVM18620-01A	1	1	1	
LCS/MS	W3VM180721-02/03			5uL ea.	
BFB	IVM180702-01				1
SHORT	W3VM180721-04		5uL ea.	5uL ea.	
SHORT LCS					

Cl test lot # 80315C

Sequence Number: 072118V3

Purge Amount

5ML	Water Purge Vol:
5G	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
100	ul
DT961	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
7/21/2018 10:04	3Q601.D	IVM180702-01	GEL	BFB	10ML	1	N/A	1	w	JP1	N/A	X	
7/21/2018 10:29	3Q602.D	IVM180702-01	GEL	BFB	5ML	1	N/A	2	w	JP1	N/A	O	
7/21/2018 10:55	3Q603.D	W3VM180721-01	GEL	CCV	5ML	1	N/A	3	w	JP1	N/A	O	MIX[A] UVM180411-10H/UVM180601-10I/UVM180312 09F/IVM180720-01
7/21/2018 10:55	3Q603L.D	W3VM180721-02	GEL	LCS	5ML	1	N/A	3	w	JP1	N/A	O	MIX[A] UVM180411-10H/UVM180601-10I/UVM180312 09F/IVM180720-02
7/21/2018 11:26	3Q604.D	W3VM180721-03	GEL	LCS	5ML	1	N/A	4	S	JP1	N/A	O	SOIL MIX[A] UVM180411-10H/UVM180601-10I/UVM180312-09F/IVM180720-04
7/21/2018 11:57	3Q605.D	W3VM180721-04	GEL	CCV	5ML	1	N/A	5	w	JP1	N/A	O	MIX[B] UVM180503-08D/UVM180613-08C
7/21/2018 12:28	3Q606.D	120406----	GEL	BLANK	5ML	1	N/A	6	w	JP1	N/A	O	
7/21/2018 12:59	3Q607.D	120406----	GEL	BLANK	5ML	1	N/A	7	S	JP1	N/A	O	SOIL
7/21/2018 13:30	3Q608.D	454715004	URSC	1784646	5ML	1	PH<2	8	w	JP1	N	O	
7/21/2018 14:01	3Q609.D	454595001	KAPL	1784645	100UL	50	N/A	9	S	JP1	N/A	O	SOIL
7/21/2018 14:32	3Q610.D	454595002	KAPL	1784645	100UL	50	N/A	10	S	JP1	N/A	O	SOIL
7/21/2018 15:03	3Q611.D	454595003	KAPL	1784645	100UL	50	N/A	11	S	JP1	N/A	O	SOIL
7/21/2018 15:35	3Q612.D	455067003	URSC	1784645	100UL	50	N/A	12	S	JP1	N/A	O	SOIL
7/21/2018 16:06	3Q613.D	455067004	URSC	1784645	100UL	50	N/A	13	S	JP1	N/A	O	SOIL
7/21/2018 16:37	3Q614.D	455067005	URSC	1784645	100UL	50	N/A	14	S	JP1	N/A	O	SOIL
7/21/2018 17:08	3Q615.D	455067006	URSC	1784645	100UL	50	N/A	15	S	JP1	N/A	O	SOIL
7/21/2018 17:39	3Q616.D	455067007	URSC	1784645	100UL	50	N/A	16	S	JP1	N/A	O	SOIL
7/21/2018 18:10	3Q617.D	455067008	URSC	1784645	100UL	50	N/A	17	S	JP1	N/A	O	SOIL
7/21/2018 18:41	3Q618.D	455067009	URSC	1784645	100UL	50	N/A	18	S	JP1	N/A	O	SOIL
7/21/2018 19:12	3Q619.D	455067010	URSC	1784645	100UL	50	N/A	19	S	JP1	N/A	O	SOIL
7/21/2018 19:43	3Q620.D	455067011	URSC	1784645	100UL	50	N/A	20	S	JP1	N/A	O	SOIL
7/21/2018 20:15	3Q621.D	455067012	URSC	1784645	100UL	50	N/A	21	S	JP1	N/A	O	SOIL
7/21/2018 20:46	3Q622.D	455067013	URSC	1784645	100UL	50	N/A	22	S	JP1	N/A	O	SOIL
7/21/2018 21:17	3Q623.D	454685016	CPRC	1784646	5ML	1	PH<2	23	w	JP1	N	O	
7/21/2018 21:48	3Q624.D	1204074479	CPRC	1784646	5ML	1	PH<2	24	w	JP1	N	O	MIX[A] 454685016PS
7/21/2018 22:19	3Q625.D	1204074480	CPRC	1784646	5ML	1	PH<2	25	w	JP1	N	O	MIX[A] 454685016PSD

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA3

JP 07/25/2018

Date: 7/24/2018 Method 8260C Operator: JP1

REVIEWED BY: _____
DATE: _____

KD 07/26/2018

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 50

Daily Instrument Readings:
Multiplier Voltage: 1647

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 7/2/2018

Daily Standard Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W3VM180724-01		5uL ea.		
IS	UVM180620-01	1	1	1	
SS	UVM18620-01A	1	1	1	
LCS/MS	W3VM180724-02/03			5uL ea.	
BFB	IVM180702-01				1
SHORT	W3VM180724-04		5uL ea.	5uL ea.	
SHORT LCS					

CI test lot # 80315C

Sequence Number: 072418V3

Purge Amount

5ML	Water Purge Vol:
5G	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	CI test (Y/N)	Acceptable(O/X)	Comments
7/24/2018 9:44	3R201.D	IVM180702-01	GEL	BFB	10ML	1	N/A	1	w	JP1	N/A	O	
7/24/2018 10:09	3R202.D	W3VM180724-01	GEL	CCV	5ML	1	N/A	2	w	JP1	N/A	O	MIX[A] UVM180612-07G/UVM180629-07E/UVM180312-09G
7/24/2018 10:40	3R203.D	W3VM180724-02	GEL	LCS	5ML	1	N/A	3	w	JP1	N/A	O	MIX[A] UVM180411-10H/UVM180601-10J/IVM180720-01/UVM180312-09G
7/24/2018 11:12	3R204.D	W3VM180724-03	GEL	LCS	5ML	1	N/A	4	S	JP1	N/A	O	SOIL MIX[A] UVM180411-10H/UVM180601-10J/IVM180720-01/UVM180312-09G
7/24/2018 11:45	3R205.D	W3VM180724-04	GEL	CCV	5ML	1	N/A	5	w	JP1	N/A	O	MIX[B] UVM180503-08D/UVM180613-08C(CYCLO/AC EXP: 7/23/18 - NON-TARGET)
7/24/2018 12:16	3R206.D	120406----	GEL	BLANK	5ML	1	N/A	6	w	JP1	N/A	O	
7/24/2018 12:47	3R207.D	120406----	GEL	BLANK	5ML	1	N/A	7	S	JP1	N/A	O	SOIL
7/24/2018 13:19	3R208.D	454944001	URSC	1784646	5ML	1	PH<2	8	W	JP1	N	O	
7/24/2018 13:50	3R209.D	1204074473	GEL	1784645	100UL	50	N/A	9	S	JP1	N/A	O	SOIL HB
7/24/2018 14:21	3R210.D	455067014	URSC	1784645	100UL	50	N/A	10	S	JP1	N/A	O	SOIL
7/24/2018 14:52	3R211.D	455067015	URSC	1784645	100UL	50	N/A	11	S	JP1	N/A	O	SOIL
7/24/2018 15:23	3R212.D	454944002	URSC	1785349	100UL	50	N/A	12	S	JP1	N/A	O	SOIL
7/24/2018 15:54	3R213.D	454944003	URSC	1785349	100UL	50	N/A	13	S	JP1	N/A	O	SOIL
7/24/2018 16:25	3R214.D	454944004	URSC	1785349	100UL	50	N/A	14	S	JP1	N/A	O	SOIL
7/24/2018 16:56	3R215.D	454944005	URSC	1785349	100UL	50	N/A	15	S	JP1	N/A	O	SOIL
7/24/2018 17:27	3R216.D	454944006	URSC	1785349	100UL	50	N/A	16	S	JP1	N/A	O	SOIL
7/24/2018 17:58	3R217.D	454944007	URSC	1785349	100UL	50	N/A	17	S	JP1	N/A	O	SOIL
7/24/2018 18:30	3R218.D	454944008	URSC	1785349	100UL	50	N/A	18	S	JP1	N/A	O	SOIL
7/24/2018 19:01	3R219.D	454944009	URSC	1785349	100UL	50	N/A	19	S	JP1	N/A	O	SOIL
7/24/2018 19:32	3R220.D	454944010	URSC	1785349	100UL	50	N/A	20	S	JP1	N/A	O	SOIL
7/24/2018 20:03	3R221.D	1204076132	GEL	1785349	100UL	50	N/A	21	S	JP1	N/A	O	SOIL HB
7/24/2018 20:35	3R222.D	455239003	URSC	1785349	100UL	50	N/A	22	S	JP1	N/A	O	SOIL
7/24/2018 21:06	3R223.D	1204076134	URSC	1785349	100UL	50	N/A	23	S	JP1	N/A	O	SOIL MIX[A] 455239003PS
7/24/2018 21:37	3R224.D	1204076135	URSC	1785349	100UL	50	N/A	24	S	JP1	N/A	O	SOIL MIX[A] 455239003PSD

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA3

JP
07/30/2018

Date: 7/27/2018 Method 8260C Operator: JP1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 50

Daily Instrument Readings:
Multiplier Voltage: 1647

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 7/2/2018

Cl test lot # 80315C

Sequence Number: 072718V3

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W3VM180727-01		5uL ea.		
IS	UVM180620-01	1	1	1	
SS	UVM18620-01A	1	1	1	
LCS/MS	W3VM180727-02/03			5uL ea.	
BFB	IVM180726-02				1
SHORT	W3VM180727-04		5uL ea.	5uL ea.	
SHORT LCS					

Purge Amount	
5ML	Water Purge Vol:
5G	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
7/27/2018 10:52	3R501.D	IVM180702-01	GEL	BFB	10ML	1	N/A	1	w	JP1	N/A	X	
7/27/2018 11:17	3R502.D	IVM180726-02	GEL	BFB	5ML	1	N/A	2	w	JP1	N/A	O	
7/27/2018 11:42	3R503.D	W3VM180727-01	GEL	CCV	5ML	1	N/A	3	w	JP1	N/A	O	MIX[A] UVM180612-07G/UVM180629-07F/UVM180312-09G
7/27/2018 12:14	3R504.D	W3VM180727-02	GEL	LCS	5ML	1	N/A	4	w	JP1	N/A	O	MIX[A] UVM180411-10H/UVM180629-10A/IVM180726-01/UVM180312-09G
7/27/2018 12:45	3R505.D	W3VM180727-03	GEL	LCS	5ML	1	N/A	5	S	JP1	N/A	O	SOIL MIX[A] UVM180411-10H/UVM180629-10A/IVM180726-01/UVM180312-09G
7/27/2018 13:16	3R506.D	W3VM180727-04	GEL	CCV	5ML	1	N/A	6	w	JP1	N/A	O	MIX[B] UVM180711-08A/UVM180716-08D
7/27/2018 13:47	3R507.D	120406----	GEL	BLANK	5ML	1	N/A	7	w	JP1	N/A	O	
7/27/2018 14:18	3R508.D	120406----	GEL	BLANK	5ML	1	N/A	8	S	JP1	N/A	O	SOIL
7/27/2018 14:49	3R509.D	1204078047	GEL	1786100	100UL	50	N/A	9	S	JP1	N/A	O	SOIL HB 455409
7/27/2018 15:20	3R510.D	454944002	URSC	1785349	5.1G	1	N/A	10	S	JP1	N/A	O	SOIL. WITH 3R212(50X)
7/27/2018 15:52	3R511.D	454944003	URSC	1785349	5.1G	1	N/A	11	S	JP1	N/A	O	SOIL. WITH 3R213(50X)
7/27/2018 16:23	3R512.D	454944004	URSC	1785349	5.3G	1	N/A	12	S	JP1	N/A	O	SOIL. WITH 3R214(50X)
7/27/2018 16:54	3R513.D	454944005	URSC	1785349	5.6G	1	N/A	13	S	JP1	N/A	O	SOIL. WITH 3R215(50X)
7/27/2018 17:25	3R514.D	454944006	URSC	1785349	5.0G	1	N/A	14	S	JP1	N/A	O	SOIL. WITH 3R216(50X)
7/27/2018 17:56	3R515.D	454944007	URSC	1785349	5.0G	1	N/A	15	S	JP1	N/A	O	SOIL. WITH 3R217(50X)
7/27/2018 18:28	3R516.D	454944008	URSC	1785349	5.5G	1	N/A	16	S	JP1	N/A	O	SOIL. WITH 3R218(50X)
7/27/2018 18:59	3R517.D	454944009	URSC	1785349	5.1G	1	N/A	17	S	JP1	N/A	O	SOIL. WITH 3R219(50X)
7/27/2018 19:30	3R518.D	454944010	URSC	1785349	5.0G	1	N/A	18	S	JP1	N/A	O	SOIL. WITH 3R220(50X)
7/27/2018 20:01	3R519.D	455067016	URSC	1785349	5.3G	1	N/A	19	S	JP1	N/A	O	SOIL. WITH 3R311(50X)
7/27/2018 20:32	3R520.D	455239003	URSC	1785349	5.2G	1	N/A	20	S	JP1	N/A	O	SOIL. WITH 3R222(50X)
7/27/2018 21:04	3R521.D	455239004	URSC	1785349	5.1G	1	N/A	21	S	JP1	N/A	O	SOIL. WITH 3R312(50X)
7/27/2018 21:35	3R522.D	455239005	URSC	1785349	5.0G	1	N/A	22	S	JP1	N/A	O	SOIL. WITH 3R313(50X)
7/27/2018 22:06	3R523.D	455239006	URSC	1785349	5.0G	1	N/A	23	S	JP1	N/A	O	SOIL. WITH 3R314(50X)
7/27/2018 22:37	3R524.D	1204076134	URSC	1785349	5.0G	1	N/A	24	S	JP1	N/A	O	SOIL MIX[A] 455239003PS. WITH 3R223(50X)
7/27/2018 23:09	3R525.D	1204076135	URSC	1785349	5.3G	1	N/A	25	S	JP1	N/A	O	SOIL MIX[A] 455239003PSD. WITH 3R224(50X)

Semi-Volatile Analysis

Case Narrative

GC/MS Semivolatile
Technical Case Narrative
URS Energy & Construction (URSC)
SDG #: 454944

Product: **Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method: SW846 3541/8270D
Analytical Procedure: GL-OA-E-009 REV# 40
Analytical Batch: 1784536

Preparation Method: SW846 3541
Preparation Procedure: GL-OA-E-066 REV# 8
Preparation Batch: 1784534

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
454944002	S09
454944003	S06
454944004	SW24
454944005	S05
454944006	S14
454944007	S15
454944008	S19
454944009	SW22
454944010	S10
1204074220	Method Blank (MB)
1204074221	Laboratory Control Sample (LCS)
1204074222	454948007(NonSDG) Matrix Spike (MS)
1204074223	454948007(NonSDG) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Spike Recovery Statement
The MS and MSD (See Below) recovered spiked analytes outside of the established acceptance limits. As both the MS and MSD displayed failures, the failures may be attributed to sample matrix interference and the data were reported.

Sample	Analyte	Value
1204074222 (Non SDG 454948007MS)	3, 3’-Dichlorobenzidine	14* (25%-108%)
1204074223 (Non SDG 454948007MSD)	3, 3’-Dichlorobenzidine	0* (25%-108%)
	Hexachlorobutadiene	23* (34%-108%)

	Hexachlorocyclopentadiene	17* (24%-80%)
	Hexachloroethane	10* (29%-101%)

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent differences (RPD) for the MS and MSD, (See Below), were not within the acceptance limits. The failures may be attributed to matrix interference. The data were reported.

Sample	Analyte	Value
1204074222MS and 1204074223MSD (Non SDG 454948007)	3, 3'-Dichlorobenzidine	RPD 200* (0%-30%)
	Caprolactam	RPD 53* (0%-30%)
	Hexachlorobutadiene	RPD 77* (0%-30%)
	Hexachlorocyclopentadiene	RPD 72* (0%-30%)
	Hexachloroethane	RPD 114* (0%-30%)

Technical Information

Sample Re-extraction/Re-analysis
The LCS 1204074221 (LCS) was re-analyzed due to marginally low spike recoveries. The re-analysis data were reported.

Miscellaneous Information

Manual Integrations
Samples (See Below) required manual integration in order to properly identify one or more peaks and/or to correctly position the baseline as set in the calibration standard injections.

Sample	Analyte	Value
1204074222 (Non SDG 454948007MS)	Caprolactam	Result 980ug/kg
1204074223 (Non SDG 454948007MSD)	Caprolactam	Result 1680ug/kg
454944010 (S10)	2-Fluorophenol	Result 2760ug/kg

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report
for

URSC013 URS Energy & Construction (2012-SC-SPRU-29463-171)

Client SDG: 454944 GEL Work Order: 454944

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria
** Analyte is a surrogate compound
J Value is estimated
U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

DL Indicates that sample is diluted.
RA Indicates that sample is re-analyzed without re-extraction.
RE Indicates that sample is re-extracted.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: Barbara Bailey **Name: Barbara Bailey**

Date: 25 JUL 2018 **Title: Data Validator**

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 08:45**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944002**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**6.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S09**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 20:48**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.5 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2314.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
92-52-4	1,1'-Biphenyl	U	350	ug/kg	105	350
95-94-3	1,2,4,5-Tetrachlorobenzene	U	350	ug/kg	105	350
58-90-2	2,3,4,6-Tetrachlorophenol	U	350	ug/kg	105	350
95-95-4	2,4,5-Trichlorophenol	U	350	ug/kg	105	350
88-06-2	2,4,6-Trichlorophenol	U	350	ug/kg	105	350
120-83-2	2,4-Dichlorophenol	U	350	ug/kg	105	350
105-67-9	2,4-Dimethylphenol	U	350	ug/kg	105	350
51-28-5	2,4-Dinitrophenol	U	700	ug/kg	105	700
121-14-2	2,4-Dinitrotoluene	U	350	ug/kg	105	350
606-20-2	2,6-Dinitrotoluene	U	350	ug/kg	105	350
91-58-7	2-Chloronaphthalene	U	35.0	ug/kg	10.5	35.0
95-57-8	2-Chlorophenol	U	350	ug/kg	105	350
534-52-1	2-Methyl-4,6-dinitrophenol	U	350	ug/kg	105	350
91-57-6	2-Methylnaphthalene	U	35.0	ug/kg	10.5	35.0
88-75-5	2-Nitrophenol	U	350	ug/kg	105	350
91-94-1	3,3'-Dichlorobenzidine	U	350	ug/kg	105	350
101-55-3	4-Bromophenylphenylether	U	350	ug/kg	105	350
59-50-7	4-Chloro-3-methylphenol	U	350	ug/kg	140	350
106-47-8	4-Chloroaniline	U	350	ug/kg	105	350
7005-72-3	4-Chlorophenylphenylether	U	350	ug/kg	105	350
100-02-7	4-Nitrophenol	U	350	ug/kg	105	350
83-32-9	Acenaphthene	U	35.0	ug/kg	10.5	35.0
208-96-8	Acenaphthylene	U	35.0	ug/kg	10.5	35.0
98-86-2	Acetophenone	U	350	ug/kg	105	350
120-12-7	Anthracene	U	35.0	ug/kg	10.5	35.0
1912-24-9	Atrazine	U	350	ug/kg	140	350
100-52-7	Benzaldehyde	U	350	ug/kg	105	350
56-55-3	Benzo(a)anthracene	U	35.0	ug/kg	10.5	35.0
50-32-8	Benzo(a)pyrene	U	35.0	ug/kg	10.5	35.0
205-99-2	Benzo(b)fluoranthene	U	35.0	ug/kg	10.5	35.0
191-24-2	Benzo(ghi)perylene	U	35.0	ug/kg	10.5	35.0
207-08-9	Benzo(k)fluoranthene	U	35.0	ug/kg	10.5	35.0
85-68-7	Butylbenzylphthalate	U	35.0	ug/kg	10.5	35.0
105-60-2	Caprolactam	U	350	ug/kg	105	350
86-74-8	Carbazole	U	35.0	ug/kg	10.5	35.0
218-01-9	Chrysene	U	35.0	ug/kg	10.5	35.0
84-74-2	Di-n-butylphthalate	U	35.0	ug/kg	10.5	35.0
117-84-0	Di-n-octylphthalate	U	35.0	ug/kg	10.5	35.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 08:45**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944002**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**6.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S09**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 20:48**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.5 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2314.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
53-70-3	Dibenzo(a,h)anthracene	U	35.0	ug/kg	10.5	35.0
132-64-9	Dibenzofuran	U	350	ug/kg	105	350
84-66-2	Diethylphthalate	U	35.0	ug/kg	10.5	35.0
131-11-3	Dimethylphthalate	U	35.0	ug/kg	10.5	35.0
122-39-4	Diphenylamine	U	350	ug/kg	105	350
206-44-0	Fluoranthene	U	35.0	ug/kg	10.5	35.0
86-73-7	Fluorene	U	35.0	ug/kg	10.5	35.0
118-74-1	Hexachlorobenzene	U	350	ug/kg	105	350
87-68-3	Hexachlorobutadiene	U	350	ug/kg	105	350
77-47-4	Hexachlorocyclopentadiene	U	350	ug/kg	105	350
67-72-1	Hexachloroethane	U	350	ug/kg	105	350
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.0	ug/kg	10.5	35.0
78-59-1	Isophorone	U	350	ug/kg	105	350
621-64-7	N-Nitrosodipropylamine	U	350	ug/kg	105	350
91-20-3	Naphthalene	U	35.0	ug/kg	10.5	35.0
98-95-3	Nitrobenzene	U	350	ug/kg	105	350
87-86-5	Pentachlorophenol	U	350	ug/kg	105	350
85-01-8	Phenanthrene	U	35.0	ug/kg	10.5	35.0
108-95-2	Phenol	U	350	ug/kg	105	350
129-00-0	Pyrene	U	35.0	ug/kg	10.5	35.0
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	350	ug/kg	105	350
111-91-1	bis(2-Chloroethoxy)methane	U	350	ug/kg	105	350
111-44-4	bis(2-Chloroethyl) ether	U	350	ug/kg	105	350
117-81-7	bis(2-Ethylhexyl)phthalate	U	35.0	ug/kg	10.5	35.0
65794-96-9	m,p-Cresols	U	350	ug/kg	105	350
99-09-2	m-Nitroaniline	U	350	ug/kg	105	350
95-48-7	o-Cresol	U	350	ug/kg	105	350
88-74-4	o-Nitroaniline	U	350	ug/kg	116	350
100-01-6	p-Nitroaniline	U	350	ug/kg	105	350

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 09:10**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944003**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S06**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 21:16**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.12 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2315.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
92-52-4	1,1'-Biphenyl	U	357	ug/kg	107	357
95-94-3	1,2,4,5-Tetrachlorobenzene	U	357	ug/kg	107	357
58-90-2	2,3,4,6-Tetrachlorophenol	U	357	ug/kg	107	357
95-95-4	2,4,5-Trichlorophenol	U	357	ug/kg	107	357
88-06-2	2,4,6-Trichlorophenol	U	357	ug/kg	107	357
120-83-2	2,4-Dichlorophenol	U	357	ug/kg	107	357
105-67-9	2,4-Dimethylphenol	U	357	ug/kg	107	357
51-28-5	2,4-Dinitrophenol	U	715	ug/kg	107	715
121-14-2	2,4-Dinitrotoluene	U	357	ug/kg	107	357
606-20-2	2,6-Dinitrotoluene	U	357	ug/kg	107	357
91-58-7	2-Chloronaphthalene	U	35.7	ug/kg	10.7	35.7
95-57-8	2-Chlorophenol	U	357	ug/kg	107	357
534-52-1	2-Methyl-4,6-dinitrophenol	U	357	ug/kg	107	357
91-57-6	2-Methylnaphthalene	U	35.7	ug/kg	10.7	35.7
88-75-5	2-Nitrophenol	U	357	ug/kg	107	357
91-94-1	3,3'-Dichlorobenzidine	U	357	ug/kg	107	357
101-55-3	4-Bromophenylphenylether	U	357	ug/kg	107	357
59-50-7	4-Chloro-3-methylphenol	U	357	ug/kg	143	357
106-47-8	4-Chloroaniline	U	357	ug/kg	107	357
7005-72-3	4-Chlorophenylphenylether	U	357	ug/kg	107	357
100-02-7	4-Nitrophenol	U	357	ug/kg	107	357
83-32-9	Acenaphthene	U	35.7	ug/kg	10.7	35.7
208-96-8	Acenaphthylene	U	35.7	ug/kg	10.7	35.7
98-86-2	Acetophenone	U	357	ug/kg	107	357
120-12-7	Anthracene	U	35.7	ug/kg	10.7	35.7
1912-24-9	Atrazine	U	357	ug/kg	143	357
100-52-7	Benzaldehyde	U	357	ug/kg	107	357
56-55-3	Benzo(a)anthracene	U	35.7	ug/kg	10.7	35.7
50-32-8	Benzo(a)pyrene	U	35.7	ug/kg	10.7	35.7
205-99-2	Benzo(b)fluoranthene	U	35.7	ug/kg	10.7	35.7
191-24-2	Benzo(ghi)perylene	U	35.7	ug/kg	10.7	35.7
207-08-9	Benzo(k)fluoranthene	U	35.7	ug/kg	10.7	35.7
85-68-7	Butylbenzylphthalate	U	35.7	ug/kg	10.7	35.7
105-60-2	Caprolactam	U	357	ug/kg	107	357
86-74-8	Carbazole	U	35.7	ug/kg	10.7	35.7
218-01-9	Chrysene	U	35.7	ug/kg	10.7	35.7
84-74-2	Di-n-butylphthalate	U	35.7	ug/kg	10.7	35.7
117-84-0	Di-n-octylphthalate	U	35.7	ug/kg	10.7	35.7

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Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 09:10**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944003**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S06**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 21:16**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.12 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2315.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
53-70-3	Dibenzo(a,h)anthracene	U	35.7	ug/kg	10.7	35.7
132-64-9	Dibenzofuran	U	357	ug/kg	107	357
84-66-2	Diethylphthalate	U	35.7	ug/kg	10.7	35.7
131-11-3	Dimethylphthalate	U	35.7	ug/kg	10.7	35.7
122-39-4	Diphenylamine	U	357	ug/kg	107	357
206-44-0	Fluoranthene	U	35.7	ug/kg	10.7	35.7
86-73-7	Fluorene	U	35.7	ug/kg	10.7	35.7
118-74-1	Hexachlorobenzene	U	357	ug/kg	107	357
87-68-3	Hexachlorobutadiene	U	357	ug/kg	107	357
77-47-4	Hexachlorocyclopentadiene	U	357	ug/kg	107	357
67-72-1	Hexachloroethane	U	357	ug/kg	107	357
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.7	ug/kg	10.7	35.7
78-59-1	Isophorone	U	357	ug/kg	107	357
621-64-7	N-Nitrosodipropylamine	U	357	ug/kg	107	357
91-20-3	Naphthalene	U	35.7	ug/kg	10.7	35.7
98-95-3	Nitrobenzene	U	357	ug/kg	107	357
87-86-5	Pentachlorophenol	U	357	ug/kg	107	357
85-01-8	Phenanthrene	U	35.7	ug/kg	10.7	35.7
108-95-2	Phenol	U	357	ug/kg	107	357
129-00-0	Pyrene	U	35.7	ug/kg	10.7	35.7
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	357	ug/kg	107	357
111-91-1	bis(2-Chloroethoxy)methane	U	357	ug/kg	107	357
111-44-4	bis(2-Chloroethyl) ether	U	357	ug/kg	107	357
117-81-7	bis(2-Ethylhexyl)phthalate	U	35.7	ug/kg	10.7	35.7
65794-96-9	m,p-Cresols	U	357	ug/kg	107	357
99-09-2	m-Nitroaniline	U	357	ug/kg	107	357
95-48-7	o-Cresol	U	357	ug/kg	107	357
88-74-4	o-Nitroaniline	U	357	ug/kg	118	357
100-01-6	p-Nitroaniline	U	357	ug/kg	107	357

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 09:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944004**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**9.4**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**SW24**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 21:44**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.12 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2316.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
92-52-4	1,1'-Biphenyl	U	367	ug/kg	110	367
95-94-3	1,2,4,5-Tetrachlorobenzene	U	367	ug/kg	110	367
58-90-2	2,3,4,6-Tetrachlorophenol	U	367	ug/kg	110	367
95-95-4	2,4,5-Trichlorophenol	U	367	ug/kg	110	367
88-06-2	2,4,6-Trichlorophenol	U	367	ug/kg	110	367
120-83-2	2,4-Dichlorophenol	U	367	ug/kg	110	367
105-67-9	2,4-Dimethylphenol	U	367	ug/kg	110	367
51-28-5	2,4-Dinitrophenol	U	733	ug/kg	110	733
121-14-2	2,4-Dinitrotoluene	U	367	ug/kg	110	367
606-20-2	2,6-Dinitrotoluene	U	367	ug/kg	110	367
91-58-7	2-Chloronaphthalene	U	36.7	ug/kg	11.0	36.7
95-57-8	2-Chlorophenol	U	367	ug/kg	110	367
534-52-1	2-Methyl-4,6-dinitrophenol	U	367	ug/kg	110	367
91-57-6	2-Methylnaphthalene	U	36.7	ug/kg	11.0	36.7
88-75-5	2-Nitrophenol	U	367	ug/kg	110	367
91-94-1	3,3'-Dichlorobenzidine	U	367	ug/kg	110	367
101-55-3	4-Bromophenylphenylether	U	367	ug/kg	110	367
59-50-7	4-Chloro-3-methylphenol	U	367	ug/kg	147	367
106-47-8	4-Chloroaniline	U	367	ug/kg	110	367
7005-72-3	4-Chlorophenylphenylether	U	367	ug/kg	110	367
100-02-7	4-Nitrophenol	U	367	ug/kg	110	367
83-32-9	Acenaphthene	U	36.7	ug/kg	11.0	36.7
208-96-8	Acenaphthylene	U	36.7	ug/kg	11.0	36.7
98-86-2	Acetophenone	U	367	ug/kg	110	367
120-12-7	Anthracene	U	36.7	ug/kg	11.0	36.7
1912-24-9	Atrazine	U	367	ug/kg	147	367
100-52-7	Benzaldehyde	U	367	ug/kg	110	367
56-55-3	Benzo(a)anthracene	U	36.7	ug/kg	11.0	36.7
50-32-8	Benzo(a)pyrene	U	36.7	ug/kg	11.0	36.7
205-99-2	Benzo(b)fluoranthene	U	36.7	ug/kg	11.0	36.7
191-24-2	Benzo(ghi)perylene	U	36.7	ug/kg	11.0	36.7
207-08-9	Benzo(k)fluoranthene	U	36.7	ug/kg	11.0	36.7
85-68-7	Butylbenzylphthalate	U	36.7	ug/kg	11.0	36.7
105-60-2	Caprolactam	U	367	ug/kg	110	367
86-74-8	Carbazole	U	36.7	ug/kg	11.0	36.7
218-01-9	Chrysene	U	36.7	ug/kg	11.0	36.7
84-74-2	Di-n-butylphthalate	U	36.7	ug/kg	11.0	36.7
117-84-0	Di-n-octylphthalate	U	36.7	ug/kg	11.0	36.7

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 09:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944004**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**9.4**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**SW24**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 21:44**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.12 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2316.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
53-70-3	Dibenzo(a,h)anthracene	U	36.7	ug/kg	11.0	36.7
132-64-9	Dibenzofuran	U	367	ug/kg	110	367
84-66-2	Diethylphthalate	U	36.7	ug/kg	11.0	36.7
131-11-3	Dimethylphthalate	U	36.7	ug/kg	11.0	36.7
122-39-4	Diphenylamine	U	367	ug/kg	110	367
206-44-0	Fluoranthene	U	36.7	ug/kg	11.0	36.7
86-73-7	Fluorene	U	36.7	ug/kg	11.0	36.7
118-74-1	Hexachlorobenzene	U	367	ug/kg	110	367
87-68-3	Hexachlorobutadiene	U	367	ug/kg	110	367
77-47-4	Hexachlorocyclopentadiene	U	367	ug/kg	110	367
67-72-1	Hexachloroethane	U	367	ug/kg	110	367
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.7	ug/kg	11.0	36.7
78-59-1	Isophorone	U	367	ug/kg	110	367
621-64-7	N-Nitrosodipropylamine	U	367	ug/kg	110	367
91-20-3	Naphthalene	U	36.7	ug/kg	11.0	36.7
98-95-3	Nitrobenzene	U	367	ug/kg	110	367
87-86-5	Pentachlorophenol	U	367	ug/kg	110	367
85-01-8	Phenanthrene	U	36.7	ug/kg	11.0	36.7
108-95-2	Phenol	U	367	ug/kg	110	367
129-00-0	Pyrene	U	36.7	ug/kg	11.0	36.7
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	367	ug/kg	110	367
111-91-1	bis(2-Chloroethoxy)methane	U	367	ug/kg	110	367
111-44-4	bis(2-Chloroethyl) ether	U	367	ug/kg	110	367
117-81-7	bis(2-Ethylhexyl)phthalate	U	36.7	ug/kg	11.0	36.7
65794-96-9	m,p-Cresols	U	367	ug/kg	110	367
99-09-2	m-Nitroaniline	U	367	ug/kg	110	367
95-48-7	o-Cresol	U	367	ug/kg	110	367
88-74-4	o-Nitroaniline	U	367	ug/kg	121	367
100-01-6	p-Nitroaniline	U	367	ug/kg	110	367

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 10:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944005**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**8.8**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S05**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 22:13**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.49 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2317.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
92-52-4	1,1'-Biphenyl	U	360	ug/kg	108	360
95-94-3	1,2,4,5-Tetrachlorobenzene	U	360	ug/kg	108	360
58-90-2	2,3,4,6-Tetrachlorophenol	U	360	ug/kg	108	360
95-95-4	2,4,5-Trichlorophenol	U	360	ug/kg	108	360
88-06-2	2,4,6-Trichlorophenol	U	360	ug/kg	108	360
120-83-2	2,4-Dichlorophenol	U	360	ug/kg	108	360
105-67-9	2,4-Dimethylphenol	U	360	ug/kg	108	360
51-28-5	2,4-Dinitrophenol	U	719	ug/kg	108	719
121-14-2	2,4-Dinitrotoluene	U	360	ug/kg	108	360
606-20-2	2,6-Dinitrotoluene	U	360	ug/kg	108	360
91-58-7	2-Chloronaphthalene	U	36.0	ug/kg	10.8	36.0
95-57-8	2-Chlorophenol	U	360	ug/kg	108	360
534-52-1	2-Methyl-4,6-dinitrophenol	U	360	ug/kg	108	360
91-57-6	2-Methylnaphthalene	U	36.0	ug/kg	10.8	36.0
88-75-5	2-Nitrophenol	U	360	ug/kg	108	360
91-94-1	3,3'-Dichlorobenzidine	U	360	ug/kg	108	360
101-55-3	4-Bromophenylphenylether	U	360	ug/kg	108	360
59-50-7	4-Chloro-3-methylphenol	U	360	ug/kg	144	360
106-47-8	4-Chloroaniline	U	360	ug/kg	108	360
7005-72-3	4-Chlorophenylphenylether	U	360	ug/kg	108	360
100-02-7	4-Nitrophenol	U	360	ug/kg	108	360
83-32-9	Acenaphthene	U	36.0	ug/kg	10.8	36.0
208-96-8	Acenaphthylene	U	36.0	ug/kg	10.8	36.0
98-86-2	Acetophenone	U	360	ug/kg	108	360
120-12-7	Anthracene	U	36.0	ug/kg	10.8	36.0
1912-24-9	Atrazine	U	360	ug/kg	144	360
100-52-7	Benzaldehyde	U	360	ug/kg	108	360
56-55-3	Benzo(a)anthracene	U	36.0	ug/kg	10.8	36.0
50-32-8	Benzo(a)pyrene	U	36.0	ug/kg	10.8	36.0
205-99-2	Benzo(b)fluoranthene	U	36.0	ug/kg	10.8	36.0
191-24-2	Benzo(ghi)perylene	U	36.0	ug/kg	10.8	36.0
207-08-9	Benzo(k)fluoranthene	U	36.0	ug/kg	10.8	36.0
85-68-7	Butylbenzylphthalate	U	36.0	ug/kg	10.8	36.0
105-60-2	Caprolactam	U	360	ug/kg	108	360
86-74-8	Carbazole	U	36.0	ug/kg	10.8	36.0
218-01-9	Chrysene	U	36.0	ug/kg	10.8	36.0
84-74-2	Di-n-butylphthalate	U	36.0	ug/kg	10.8	36.0
117-84-0	Di-n-octylphthalate	U	36.0	ug/kg	10.8	36.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 10:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944005**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**8.8**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S05**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 22:13**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.49 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2317.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
53-70-3	Dibenzo(a,h)anthracene	U	36.0	ug/kg	10.8	36.0
132-64-9	Dibenzofuran	U	360	ug/kg	108	360
84-66-2	Diethylphthalate	U	36.0	ug/kg	10.8	36.0
131-11-3	Dimethylphthalate	U	36.0	ug/kg	10.8	36.0
122-39-4	Diphenylamine	U	360	ug/kg	108	360
206-44-0	Fluoranthene	U	36.0	ug/kg	10.8	36.0
86-73-7	Fluorene	U	36.0	ug/kg	10.8	36.0
118-74-1	Hexachlorobenzene	U	360	ug/kg	108	360
87-68-3	Hexachlorobutadiene	U	360	ug/kg	108	360
77-47-4	Hexachlorocyclopentadiene	U	360	ug/kg	108	360
67-72-1	Hexachloroethane	U	360	ug/kg	108	360
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.0	ug/kg	10.8	36.0
78-59-1	Isophorone	U	360	ug/kg	108	360
621-64-7	N-Nitrosodipropylamine	U	360	ug/kg	108	360
91-20-3	Naphthalene	U	36.0	ug/kg	10.8	36.0
98-95-3	Nitrobenzene	U	360	ug/kg	108	360
87-86-5	Pentachlorophenol	U	360	ug/kg	108	360
85-01-8	Phenanthrene	U	36.0	ug/kg	10.8	36.0
108-95-2	Phenol	U	360	ug/kg	108	360
129-00-0	Pyrene	U	36.0	ug/kg	10.8	36.0
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	360	ug/kg	108	360
111-91-1	bis(2-Chloroethoxy)methane	U	360	ug/kg	108	360
111-44-4	bis(2-Chloroethyl) ether	U	360	ug/kg	108	360
117-81-7	bis(2-Ethylhexyl)phthalate	U	36.0	ug/kg	10.8	36.0
65794-96-9	m,p-Cresols	U	360	ug/kg	108	360
99-09-2	m-Nitroaniline	U	360	ug/kg	108	360
95-48-7	o-Cresol	U	360	ug/kg	108	360
88-74-4	o-Nitroaniline	U	360	ug/kg	119	360
100-01-6	p-Nitroaniline	U	360	ug/kg	108	360

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 10:40**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944006**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S14**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 22:41**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.45 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2318.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
92-52-4	1,1'-Biphenyl	U	354	ug/kg	106	354
95-94-3	1,2,4,5-Tetrachlorobenzene	U	354	ug/kg	106	354
58-90-2	2,3,4,6-Tetrachlorophenol	U	354	ug/kg	106	354
95-95-4	2,4,5-Trichlorophenol	U	354	ug/kg	106	354
88-06-2	2,4,6-Trichlorophenol	U	354	ug/kg	106	354
120-83-2	2,4-Dichlorophenol	U	354	ug/kg	106	354
105-67-9	2,4-Dimethylphenol	U	354	ug/kg	106	354
51-28-5	2,4-Dinitrophenol	U	707	ug/kg	106	707
121-14-2	2,4-Dinitrotoluene	U	354	ug/kg	106	354
606-20-2	2,6-Dinitrotoluene	U	354	ug/kg	106	354
91-58-7	2-Chloronaphthalene	U	35.4	ug/kg	10.6	35.4
95-57-8	2-Chlorophenol	U	354	ug/kg	106	354
534-52-1	2-Methyl-4,6-dinitrophenol	U	354	ug/kg	106	354
91-57-6	2-Methylnaphthalene	U	35.4	ug/kg	10.6	35.4
88-75-5	2-Nitrophenol	U	354	ug/kg	106	354
91-94-1	3,3'-Dichlorobenzidine	U	354	ug/kg	106	354
101-55-3	4-Bromophenylphenylether	U	354	ug/kg	106	354
59-50-7	4-Chloro-3-methylphenol	U	354	ug/kg	141	354
106-47-8	4-Chloroaniline	U	354	ug/kg	106	354
7005-72-3	4-Chlorophenylphenylether	U	354	ug/kg	106	354
100-02-7	4-Nitrophenol	U	354	ug/kg	106	354
83-32-9	Acenaphthene	U	35.4	ug/kg	10.6	35.4
208-96-8	Acenaphthylene	U	35.4	ug/kg	10.6	35.4
98-86-2	Acetophenone	U	354	ug/kg	106	354
120-12-7	Anthracene	U	35.4	ug/kg	10.6	35.4
1912-24-9	Atrazine	U	354	ug/kg	141	354
100-52-7	Benzaldehyde	U	354	ug/kg	106	354
56-55-3	Benzo(a)anthracene	U	35.4	ug/kg	10.6	35.4
50-32-8	Benzo(a)pyrene	U	35.4	ug/kg	10.6	35.4
205-99-2	Benzo(b)fluoranthene	U	35.4	ug/kg	10.6	35.4
191-24-2	Benzo(ghi)perylene	U	35.4	ug/kg	10.6	35.4
207-08-9	Benzo(k)fluoranthene	U	35.4	ug/kg	10.6	35.4
85-68-7	Butylbenzylphthalate	U	35.4	ug/kg	10.6	35.4
105-60-2	Caprolactam	U	354	ug/kg	106	354
86-74-8	Carbazole	U	35.4	ug/kg	10.6	35.4
218-01-9	Chrysene	U	35.4	ug/kg	10.6	35.4
84-74-2	Di-n-butylphthalate	U	35.4	ug/kg	10.6	35.4
117-84-0	Di-n-octylphthalate	U	35.4	ug/kg	10.6	35.4

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 10:40**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944006**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S14**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 22:41**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.45 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2318.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
53-70-3	Dibenzo(a,h)anthracene	U	35.4	ug/kg	10.6	35.4
132-64-9	Dibenzofuran	U	354	ug/kg	106	354
84-66-2	Diethylphthalate	U	35.4	ug/kg	10.6	35.4
131-11-3	Dimethylphthalate	U	35.4	ug/kg	10.6	35.4
122-39-4	Diphenylamine	U	354	ug/kg	106	354
206-44-0	Fluoranthene	U	35.4	ug/kg	10.6	35.4
86-73-7	Fluorene	U	35.4	ug/kg	10.6	35.4
118-74-1	Hexachlorobenzene	U	354	ug/kg	106	354
87-68-3	Hexachlorobutadiene	U	354	ug/kg	106	354
77-47-4	Hexachlorocyclopentadiene	U	354	ug/kg	106	354
67-72-1	Hexachloroethane	U	354	ug/kg	106	354
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.4	ug/kg	10.6	35.4
78-59-1	Isophorone	U	354	ug/kg	106	354
621-64-7	N-Nitrosodipropylamine	U	354	ug/kg	106	354
91-20-3	Naphthalene	U	35.4	ug/kg	10.6	35.4
98-95-3	Nitrobenzene	U	354	ug/kg	106	354
87-86-5	Pentachlorophenol	U	354	ug/kg	106	354
85-01-8	Phenanthrene	U	35.4	ug/kg	10.6	35.4
108-95-2	Phenol	U	354	ug/kg	106	354
129-00-0	Pyrene	U	35.4	ug/kg	10.6	35.4
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	354	ug/kg	106	354
111-91-1	bis(2-Chloroethoxy)methane	U	354	ug/kg	106	354
111-44-4	bis(2-Chloroethyl) ether	U	354	ug/kg	106	354
117-81-7	bis(2-Ethylhexyl)phthalate	U	35.4	ug/kg	10.6	35.4
65794-96-9	m,p-Cresols	U	354	ug/kg	106	354
99-09-2	m-Nitroaniline	U	354	ug/kg	106	354
95-48-7	o-Cresol	U	354	ug/kg	106	354
88-74-4	o-Nitroaniline	U	354	ug/kg	117	354
100-01-6	p-Nitroaniline	U	354	ug/kg	106	354

Semi-Volatile
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Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 13:35**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944007**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S15**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 23:09**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2319.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
92-52-4	1,1'-Biphenyl	U	360	ug/kg	108	360
95-94-3	1,2,4,5-Tetrachlorobenzene	U	360	ug/kg	108	360
58-90-2	2,3,4,6-Tetrachlorophenol	U	360	ug/kg	108	360
95-95-4	2,4,5-Trichlorophenol	U	360	ug/kg	108	360
88-06-2	2,4,6-Trichlorophenol	U	360	ug/kg	108	360
120-83-2	2,4-Dichlorophenol	U	360	ug/kg	108	360
105-67-9	2,4-Dimethylphenol	U	360	ug/kg	108	360
51-28-5	2,4-Dinitrophenol	U	720	ug/kg	108	720
121-14-2	2,4-Dinitrotoluene	U	360	ug/kg	108	360
606-20-2	2,6-Dinitrotoluene	U	360	ug/kg	108	360
91-58-7	2-Chloronaphthalene	U	36.0	ug/kg	10.8	36.0
95-57-8	2-Chlorophenol	U	360	ug/kg	108	360
534-52-1	2-Methyl-4,6-dinitrophenol	U	360	ug/kg	108	360
91-57-6	2-Methylnaphthalene	U	36.0	ug/kg	10.8	36.0
88-75-5	2-Nitrophenol	U	360	ug/kg	108	360
91-94-1	3,3'-Dichlorobenzidine	U	360	ug/kg	108	360
101-55-3	4-Bromophenylphenylether	U	360	ug/kg	108	360
59-50-7	4-Chloro-3-methylphenol	U	360	ug/kg	144	360
106-47-8	4-Chloroaniline	U	360	ug/kg	108	360
7005-72-3	4-Chlorophenylphenylether	U	360	ug/kg	108	360
100-02-7	4-Nitrophenol	U	360	ug/kg	108	360
83-32-9	Acenaphthene	U	36.0	ug/kg	10.8	36.0
208-96-8	Acenaphthylene	U	36.0	ug/kg	10.8	36.0
98-86-2	Acetophenone	U	360	ug/kg	108	360
120-12-7	Anthracene	U	36.0	ug/kg	10.8	36.0
1912-24-9	Atrazine	U	360	ug/kg	144	360
100-52-7	Benzaldehyde	U	360	ug/kg	108	360
56-55-3	Benzo(a)anthracene	U	36.0	ug/kg	10.8	36.0
50-32-8	Benzo(a)pyrene	U	36.0	ug/kg	10.8	36.0
205-99-2	Benzo(b)fluoranthene	U	36.0	ug/kg	10.8	36.0
191-24-2	Benzo(ghi)perylene	U	36.0	ug/kg	10.8	36.0
207-08-9	Benzo(k)fluoranthene	U	36.0	ug/kg	10.8	36.0
85-68-7	Butylbenzylphthalate	U	36.0	ug/kg	10.8	36.0
105-60-2	Caprolactam	U	360	ug/kg	108	360
86-74-8	Carbazole	U	36.0	ug/kg	10.8	36.0
218-01-9	Chrysene	U	36.0	ug/kg	10.8	36.0
84-74-2	Di-n-butylphthalate	U	36.0	ug/kg	10.8	36.0
117-84-0	Di-n-octylphthalate	U	36.0	ug/kg	10.8	36.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 13:35**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944007**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S15**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 23:09**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2319.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
53-70-3	Dibenzo(a,h)anthracene	U	36.0	ug/kg	10.8	36.0
132-64-9	Dibenzofuran	U	360	ug/kg	108	360
84-66-2	Diethylphthalate	U	36.0	ug/kg	10.8	36.0
131-11-3	Dimethylphthalate	U	36.0	ug/kg	10.8	36.0
122-39-4	Diphenylamine	U	360	ug/kg	108	360
206-44-0	Fluoranthene	U	36.0	ug/kg	10.8	36.0
86-73-7	Fluorene	U	36.0	ug/kg	10.8	36.0
118-74-1	Hexachlorobenzene	U	360	ug/kg	108	360
87-68-3	Hexachlorobutadiene	U	360	ug/kg	108	360
77-47-4	Hexachlorocyclopentadiene	U	360	ug/kg	108	360
67-72-1	Hexachloroethane	U	360	ug/kg	108	360
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.0	ug/kg	10.8	36.0
78-59-1	Isophorone	U	360	ug/kg	108	360
621-64-7	N-Nitrosodipropylamine	U	360	ug/kg	108	360
91-20-3	Naphthalene	U	36.0	ug/kg	10.8	36.0
98-95-3	Nitrobenzene	U	360	ug/kg	108	360
87-86-5	Pentachlorophenol	U	360	ug/kg	108	360
85-01-8	Phenanthrene	U	36.0	ug/kg	10.8	36.0
108-95-2	Phenol	U	360	ug/kg	108	360
129-00-0	Pyrene	U	36.0	ug/kg	10.8	36.0
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	360	ug/kg	108	360
111-91-1	bis(2-Chloroethoxy)methane	U	360	ug/kg	108	360
111-44-4	bis(2-Chloroethyl) ether	U	360	ug/kg	108	360
117-81-7	bis(2-Ethylhexyl)phthalate	U	36.0	ug/kg	10.8	36.0
65794-96-9	m,p-Cresols	U	360	ug/kg	108	360
99-09-2	m-Nitroaniline	U	360	ug/kg	108	360
95-48-7	o-Cresol	U	360	ug/kg	108	360
88-74-4	o-Nitroaniline	U	360	ug/kg	119	360
100-01-6	p-Nitroaniline	U	360	ug/kg	108	360

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 13:50**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944008**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**8.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S19**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 23:37**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.13 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2320.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
92-52-4	1,1'-Biphenyl	U	363	ug/kg	109	363
95-94-3	1,2,4,5-Tetrachlorobenzene	U	363	ug/kg	109	363
58-90-2	2,3,4,6-Tetrachlorophenol	U	363	ug/kg	109	363
95-95-4	2,4,5-Trichlorophenol	U	363	ug/kg	109	363
88-06-2	2,4,6-Trichlorophenol	U	363	ug/kg	109	363
120-83-2	2,4-Dichlorophenol	U	363	ug/kg	109	363
105-67-9	2,4-Dimethylphenol	U	363	ug/kg	109	363
51-28-5	2,4-Dinitrophenol	U	727	ug/kg	109	727
121-14-2	2,4-Dinitrotoluene	U	363	ug/kg	109	363
606-20-2	2,6-Dinitrotoluene	U	363	ug/kg	109	363
91-58-7	2-Chloronaphthalene	U	36.3	ug/kg	10.9	36.3
95-57-8	2-Chlorophenol	U	363	ug/kg	109	363
534-52-1	2-Methyl-4,6-dinitrophenol	U	363	ug/kg	109	363
91-57-6	2-Methylnaphthalene	U	36.3	ug/kg	10.9	36.3
88-75-5	2-Nitrophenol	U	363	ug/kg	109	363
91-94-1	3,3'-Dichlorobenzidine	U	363	ug/kg	109	363
101-55-3	4-Bromophenylphenylether	U	363	ug/kg	109	363
59-50-7	4-Chloro-3-methylphenol	U	363	ug/kg	145	363
106-47-8	4-Chloroaniline	U	363	ug/kg	109	363
7005-72-3	4-Chlorophenylphenylether	U	363	ug/kg	109	363
100-02-7	4-Nitrophenol	U	363	ug/kg	109	363
83-32-9	Acenaphthene	U	36.3	ug/kg	10.9	36.3
208-96-8	Acenaphthylene	U	36.3	ug/kg	10.9	36.3
98-86-2	Acetophenone	U	363	ug/kg	109	363
120-12-7	Anthracene	U	36.3	ug/kg	10.9	36.3
1912-24-9	Atrazine	U	363	ug/kg	145	363
100-52-7	Benzaldehyde	U	363	ug/kg	109	363
56-55-3	Benzo(a)anthracene	U	36.3	ug/kg	10.9	36.3
50-32-8	Benzo(a)pyrene	U	36.3	ug/kg	10.9	36.3
205-99-2	Benzo(b)fluoranthene	U	36.3	ug/kg	10.9	36.3
191-24-2	Benzo(ghi)perylene	U	36.3	ug/kg	10.9	36.3
207-08-9	Benzo(k)fluoranthene	U	36.3	ug/kg	10.9	36.3
85-68-7	Butylbenzylphthalate	U	36.3	ug/kg	10.9	36.3
105-60-2	Caprolactam	U	363	ug/kg	109	363
86-74-8	Carbazole	U	36.3	ug/kg	10.9	36.3
218-01-9	Chrysene	U	36.3	ug/kg	10.9	36.3
84-74-2	Di-n-butylphthalate	U	36.3	ug/kg	10.9	36.3
117-84-0	Di-n-octylphthalate	U	36.3	ug/kg	10.9	36.3

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 13:50**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944008**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**8.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S19**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 23:37**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.13 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2320.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
53-70-3	Dibenzo(a,h)anthracene	U	36.3	ug/kg	10.9	36.3
132-64-9	Dibenzofuran	U	363	ug/kg	109	363
84-66-2	Diethylphthalate	U	36.3	ug/kg	10.9	36.3
131-11-3	Dimethylphthalate	U	36.3	ug/kg	10.9	36.3
122-39-4	Diphenylamine	U	363	ug/kg	109	363
206-44-0	Fluoranthene	J	14.2	ug/kg	10.9	36.3
86-73-7	Fluorene	U	36.3	ug/kg	10.9	36.3
118-74-1	Hexachlorobenzene	U	363	ug/kg	109	363
87-68-3	Hexachlorobutadiene	U	363	ug/kg	109	363
77-47-4	Hexachlorocyclopentadiene	U	363	ug/kg	109	363
67-72-1	Hexachloroethane	U	363	ug/kg	109	363
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.3	ug/kg	10.9	36.3
78-59-1	Isophorone	U	363	ug/kg	109	363
621-64-7	N-Nitrosodipropylamine	U	363	ug/kg	109	363
91-20-3	Naphthalene	U	36.3	ug/kg	10.9	36.3
98-95-3	Nitrobenzene	U	363	ug/kg	109	363
87-86-5	Pentachlorophenol	U	363	ug/kg	109	363
85-01-8	Phenanthrene	J	14.5	ug/kg	10.9	36.3
108-95-2	Phenol	U	363	ug/kg	109	363
129-00-0	Pyrene	U	36.3	ug/kg	10.9	36.3
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	363	ug/kg	109	363
111-91-1	bis(2-Chloroethoxy)methane	U	363	ug/kg	109	363
111-44-4	bis(2-Chloroethyl) ether	U	363	ug/kg	109	363
117-81-7	bis(2-Ethylhexyl)phthalate	U	36.3	ug/kg	10.9	36.3
65794-96-9	m,p-Cresols	U	363	ug/kg	109	363
99-09-2	m-Nitroaniline	U	363	ug/kg	109	363
95-48-7	o-Cresol	U	363	ug/kg	109	363
88-74-4	o-Nitroaniline	U	363	ug/kg	120	363
100-01-6	p-Nitroaniline	U	363	ug/kg	109	363

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 14:00**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944009**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**SW22**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/24/2018 00:05**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.19 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2321.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
92-52-4	1,1'-Biphenyl	U	356	ug/kg	107	356
95-94-3	1,2,4,5-Tetrachlorobenzene	U	356	ug/kg	107	356
58-90-2	2,3,4,6-Tetrachlorophenol	U	356	ug/kg	107	356
95-95-4	2,4,5-Trichlorophenol	U	356	ug/kg	107	356
88-06-2	2,4,6-Trichlorophenol	U	356	ug/kg	107	356
120-83-2	2,4-Dichlorophenol	U	356	ug/kg	107	356
105-67-9	2,4-Dimethylphenol	U	356	ug/kg	107	356
51-28-5	2,4-Dinitrophenol	U	713	ug/kg	107	713
121-14-2	2,4-Dinitrotoluene	U	356	ug/kg	107	356
606-20-2	2,6-Dinitrotoluene	U	356	ug/kg	107	356
91-58-7	2-Chloronaphthalene	U	35.6	ug/kg	10.7	35.6
95-57-8	2-Chlorophenol	U	356	ug/kg	107	356
534-52-1	2-Methyl-4,6-dinitrophenol	U	356	ug/kg	107	356
91-57-6	2-Methylnaphthalene	U	35.6	ug/kg	10.7	35.6
88-75-5	2-Nitrophenol	U	356	ug/kg	107	356
91-94-1	3,3'-Dichlorobenzidine	U	356	ug/kg	107	356
101-55-3	4-Bromophenylphenylether	U	356	ug/kg	107	356
59-50-7	4-Chloro-3-methylphenol	U	356	ug/kg	143	356
106-47-8	4-Chloroaniline	U	356	ug/kg	107	356
7005-72-3	4-Chlorophenylphenylether	U	356	ug/kg	107	356
100-02-7	4-Nitrophenol	U	356	ug/kg	107	356
83-32-9	Acenaphthene	U	35.6	ug/kg	10.7	35.6
208-96-8	Acenaphthylene	U	35.6	ug/kg	10.7	35.6
98-86-2	Acetophenone	U	356	ug/kg	107	356
120-12-7	Anthracene	U	35.6	ug/kg	10.7	35.6
1912-24-9	Atrazine	U	356	ug/kg	143	356
100-52-7	Benzaldehyde	U	356	ug/kg	107	356
56-55-3	Benzo(a)anthracene	J	17.1	ug/kg	10.7	35.6
50-32-8	Benzo(a)pyrene	U	35.6	ug/kg	10.7	35.6
205-99-2	Benzo(b)fluoranthene	U	35.6	ug/kg	10.7	35.6
191-24-2	Benzo(ghi)perylene	U	35.6	ug/kg	10.7	35.6
207-08-9	Benzo(k)fluoranthene	U	35.6	ug/kg	10.7	35.6
85-68-7	Butylbenzylphthalate	U	35.6	ug/kg	10.7	35.6
105-60-2	Caprolactam	U	356	ug/kg	107	356
86-74-8	Carbazole	U	35.6	ug/kg	10.7	35.6
218-01-9	Chrysene	J	10.7	ug/kg	10.7	35.6
84-74-2	Di-n-butylphthalate	U	35.6	ug/kg	10.7	35.6
117-84-0	Di-n-octylphthalate	U	35.6	ug/kg	10.7	35.6

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 14:00**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944009**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**SW22**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/24/2018 00:05**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.19 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2321.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
53-70-3	Dibenzo(a,h)anthracene	U	35.6	ug/kg	10.7	35.6
132-64-9	Dibenzofuran	U	356	ug/kg	107	356
84-66-2	Diethylphthalate	U	35.6	ug/kg	10.7	35.6
131-11-3	Dimethylphthalate	U	35.6	ug/kg	10.7	35.6
122-39-4	Diphenylamine	U	356	ug/kg	107	356
206-44-0	Fluoranthene	J	32.1	ug/kg	10.7	35.6
86-73-7	Fluorene	U	35.6	ug/kg	10.7	35.6
118-74-1	Hexachlorobenzene	U	356	ug/kg	107	356
87-68-3	Hexachlorobutadiene	U	356	ug/kg	107	356
77-47-4	Hexachlorocyclopentadiene	U	356	ug/kg	107	356
67-72-1	Hexachloroethane	U	356	ug/kg	107	356
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.6	ug/kg	10.7	35.6
78-59-1	Isophorone	U	356	ug/kg	107	356
621-64-7	N-Nitrosodipropylamine	U	356	ug/kg	107	356
91-20-3	Naphthalene	U	35.6	ug/kg	10.7	35.6
98-95-3	Nitrobenzene	U	356	ug/kg	107	356
87-86-5	Pentachlorophenol	U	356	ug/kg	107	356
85-01-8	Phenanthrene	J	21.7	ug/kg	10.7	35.6
108-95-2	Phenol	U	356	ug/kg	107	356
129-00-0	Pyrene	J	21.4	ug/kg	10.7	35.6
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	356	ug/kg	107	356
111-91-1	bis(2-Chloroethoxy)methane	U	356	ug/kg	107	356
111-44-4	bis(2-Chloroethyl) ether	U	356	ug/kg	107	356
117-81-7	bis(2-Ethylhexyl)phthalate	U	35.6	ug/kg	10.7	35.6
65794-96-9	m,p-Cresols	U	356	ug/kg	107	356
99-09-2	m-Nitroaniline	U	356	ug/kg	107	356
95-48-7	o-Cresol	U	356	ug/kg	107	356
88-74-4	o-Nitroaniline	U	356	ug/kg	118	356
100-01-6	p-Nitroaniline	U	356	ug/kg	107	356

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 14:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944010**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S10**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/25/2018 01:47**	**Analyst:**	**JLD1**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**072418.s\sAg2417.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
92-52-4	1,1'-Biphenyl	U	359	ug/kg	108	359
95-94-3	1,2,4,5-Tetrachlorobenzene	U	359	ug/kg	108	359
58-90-2	2,3,4,6-Tetrachlorophenol	U	359	ug/kg	108	359
95-95-4	2,4,5-Trichlorophenol	U	359	ug/kg	108	359
88-06-2	2,4,6-Trichlorophenol	U	359	ug/kg	108	359
120-83-2	2,4-Dichlorophenol	U	359	ug/kg	108	359
105-67-9	2,4-Dimethylphenol	U	359	ug/kg	108	359
51-28-5	2,4-Dinitrophenol	U	717	ug/kg	108	717
121-14-2	2,4-Dinitrotoluene	U	359	ug/kg	108	359
606-20-2	2,6-Dinitrotoluene	U	359	ug/kg	108	359
91-58-7	2-Chloronaphthalene	U	35.9	ug/kg	10.8	35.9
95-57-8	2-Chlorophenol	U	359	ug/kg	108	359
534-52-1	2-Methyl-4,6-dinitrophenol	U	359	ug/kg	108	359
91-57-6	2-Methylnaphthalene	U	35.9	ug/kg	10.8	35.9
88-75-5	2-Nitrophenol	U	359	ug/kg	108	359
91-94-1	3,3'-Dichlorobenzidine	U	359	ug/kg	108	359
101-55-3	4-Bromophenylphenylether	U	359	ug/kg	108	359
59-50-7	4-Chloro-3-methylphenol	U	359	ug/kg	143	359
106-47-8	4-Chloroaniline	U	359	ug/kg	108	359
7005-72-3	4-Chlorophenylphenylether	U	359	ug/kg	108	359
100-02-7	4-Nitrophenol	U	359	ug/kg	108	359
83-32-9	Acenaphthene	U	35.9	ug/kg	10.8	35.9
208-96-8	Acenaphthylene	U	35.9	ug/kg	10.8	35.9
98-86-2	Acetophenone	U	359	ug/kg	108	359
120-12-7	Anthracene	U	35.9	ug/kg	10.8	35.9
1912-24-9	Atrazine	U	359	ug/kg	143	359
100-52-7	Benzaldehyde	U	359	ug/kg	108	359
56-55-3	Benzo(a)anthracene	U	35.9	ug/kg	10.8	35.9
50-32-8	Benzo(a)pyrene	U	35.9	ug/kg	10.8	35.9
205-99-2	Benzo(b)fluoranthene	U	35.9	ug/kg	10.8	35.9
191-24-2	Benzo(ghi)perylene	U	35.9	ug/kg	10.8	35.9
207-08-9	Benzo(k)fluoranthene	U	35.9	ug/kg	10.8	35.9
85-68-7	Butylbenzylphthalate	U	35.9	ug/kg	10.8	35.9
105-60-2	Caprolactam	U	359	ug/kg	108	359
86-74-8	Carbazole	U	35.9	ug/kg	10.8	35.9
218-01-9	Chrysene	U	35.9	ug/kg	10.8	35.9
84-74-2	Di-n-butylphthalate	U	35.9	ug/kg	10.8	35.9
117-84-0	Di-n-octylphthalate	U	35.9	ug/kg	10.8	35.9

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 14:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944010**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S10**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/25/2018 01:47**	**Analyst:**	**JLD1**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**072418.s\sAg2417.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
53-70-3	Dibenzo(a,h)anthracene	U	35.9	ug/kg	10.8	35.9
132-64-9	Dibenzofuran	U	359	ug/kg	108	359
84-66-2	Diethylphthalate	U	35.9	ug/kg	10.8	35.9
131-11-3	Dimethylphthalate	U	35.9	ug/kg	10.8	35.9
122-39-4	Diphenylamine	U	359	ug/kg	108	359
206-44-0	Fluoranthene	U	35.9	ug/kg	10.8	35.9
86-73-7	Fluorene	U	35.9	ug/kg	10.8	35.9
118-74-1	Hexachlorobenzene	U	359	ug/kg	108	359
87-68-3	Hexachlorobutadiene	U	359	ug/kg	108	359
77-47-4	Hexachlorocyclopentadiene	U	359	ug/kg	108	359
67-72-1	Hexachloroethane	U	359	ug/kg	108	359
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.9	ug/kg	10.8	35.9
78-59-1	Isophorone	U	359	ug/kg	108	359
621-64-7	N-Nitrosodipropylamine	U	359	ug/kg	108	359
91-20-3	Naphthalene	U	35.9	ug/kg	10.8	35.9
98-95-3	Nitrobenzene	U	359	ug/kg	108	359
87-86-5	Pentachlorophenol	U	359	ug/kg	108	359
85-01-8	Phenanthrene	U	35.9	ug/kg	10.8	35.9
108-95-2	Phenol	U	359	ug/kg	108	359
129-00-0	Pyrene	U	35.9	ug/kg	10.8	35.9
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	359	ug/kg	108	359
111-91-1	bis(2-Chloroethoxy)methane	U	359	ug/kg	108	359
111-44-4	bis(2-Chloroethyl) ether	U	359	ug/kg	108	359
117-81-7	bis(2-Ethylhexyl)phthalate	U	35.9	ug/kg	10.8	35.9
65794-96-9	m,p-Cresols	U	359	ug/kg	108	359
99-09-2	m-Nitroaniline	U	359	ug/kg	108	359
95-48-7	o-Cresol	U	359	ug/kg	108	359
88-74-4	o-Nitroaniline	U	359	ug/kg	118	359
100-01-6	p-Nitroaniline	U	359	ug/kg	108	359

Quality Control Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 454944

Matrix Type: SOLID

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1204074220	MB for batch 1784534	74	76	77	74	79	88
1204074222	RA056-187(454948007MS)	46	51	44	49	73	67
1204074223	RA056-187(454948007MSD)	54	63	48	50	84	77
454944002	S09	70	72	72	71	82	79
454944003	S06	68	72	64	61	78	75
454944004	SW24	64	68	62	61	73	77
454944005	S05	50	53	48	47	54	64
454944006	S14	61	56	42	41	61	68
454944007	S15	61	58	57	54	73	74
454944008	S19	51	54	48	47	58	66
454944009	SW22	59	63	56	55	68	80
1204074221	LCS for batch 1784534	83	87	87	84	91	91
454944010	S10	77	70	55	53	69	79

Surrogate		Acceptance Limits
2FP	= 2-Fluorophenol	(36%-104%)
PHL	= Phenol-d5	(39%-106%)
NBZ	= Nitrobenzene-d5	(34%-109%)
FBP	= 2-Fluorobiphenyl	(35%-107%)
TBP	= 2,4,6-Tribromophenol	(39%-115%)
TPH	= p-Terphenyl-d14	(45%-119%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **LCS for batch 1784534**
Lab Sample ID **1204074221**
Instrument: **MSDA.I**
Analyst: **JLD1**
Inj. Vol: **1 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **07/25/2018 00:51**
Prep Batch ID: **1784534**
Batch ID: **1784536**
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
108-95-2	LCS	Phenol	1660	0.0	1350	82	54-106
111-44-4	LCS	bis(2-Chloroethyl) ether	1660	0.0	1320	80	50-111
95-57-8	LCS	2-Chlorophenol	1660	0.0	1380	83	54-106
108-60-1	LCS	bis(2-Chloro-1-methylethyl)ether	1660	0.0	1260	76	44-128
95-48-7	LCS	o-Cresol	1660	0.0	1310	79	54-108
65794-96-9	LCS	m,p-Cresols	1660	0.0	1480	89	56-122
621-64-7	LCS	N-Nitrosodipropylamine	1660	0.0	1350	81	51-111
67-72-1	LCS	Hexachloroethane	1660	0.0	1260	76	51-105
98-95-3	LCS	Nitrobenzene	1660	0.0	1420	85	55-111
78-59-1	LCS	Isophorone	1660	0.0	1220	74	41-134
88-75-5	LCS	2-Nitrophenol	1660	0.0	1450	87	53-109
105-67-9	LCS	2,4-Dimethylphenol	1660	0.0	1110	67	53-103
111-91-1	LCS	bis(2-Chloroethoxy)methane	1660	0.0	1300	78	52-110
120-83-2	LCS	2,4-Dichlorophenol	1660	0.0	1430	86	55-105
106-47-8	LCS	4-Chloroaniline	1660	0.0	935	56	38-99
87-68-3	LCS	Hexachlorobutadiene	1660	0.0	1520	92	52-112
59-50-7	LCS	4-Chloro-3-methylphenol	1660	0.0	1370	82	56-111
91-57-6	LCS	2-Methylnaphthalene	1660	0.0	1210	73	50-105
91-20-3	LCS	Naphthalene	1660	0.0	1270	76	54-106
77-47-4	LCS	Hexachlorocyclopentadiene	1660	0.0	919	55	38-83
88-06-2	LCS	2,4,6-Trichlorophenol	1660	0.0	1510	91	54-112
95-95-4	LCS	2,4,5-Trichlorophenol	1660	0.0	1440	87	58-108

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **LCS for batch 1784534**
Lab Sample ID **1204074221**
Instrument: **MSDA.I**
Analyst: **JLD1**
Inj. Vol: **1 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **07/25/2018 00:51**
Prep Batch ID: **1784534**
Batch ID: **1784536**
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
91-58-7	LCS	2-Chloronaphthalene	1660	0.0	1320	79	55-102
88-74-4	LCS	o-Nitroaniline	1660	0.0	1340	81	53-110
99-09-2	LCS	m-Nitroaniline	1660	0.0	1110	67	42-112
131-11-3	LCS	Dimethylphthalate	1660	0.0	1310	79	59-109
606-20-2	LCS	2,6-Dinitrotoluene	1660	0.0	1390	84	59-109
121-14-2	LCS	2,4-Dinitrotoluene	1660	0.0	1400	85	57-114
208-96-8	LCS	Acenaphthylene	1660	0.0	1330	80	55-107
83-32-9	LCS	Acenaphthene	1660	0.0	1300	78	57-104
51-28-5	LCS	2,4-Dinitrophenol	1660	0.0	1110	67	26-113
132-64-9	LCS	Dibenzofuran	1660	0.0	1350	82	55-105
58-90-2	LCS	2,3,4,6-Tetrachlorophenol	1660	0.0	1410	85	57-116
84-66-2	LCS	Diethylphthalate	1660	0.0	1310	79	59-111
100-02-7	LCS	4-Nitrophenol	1660	0.0	1380	83	42-116
86-73-7	LCS	Fluorene	1660	0.0	1300	78	54-108
7005-72-3	LCS	4-Chlorophenylphenylether	1660	0.0	1400	84	53-119
100-01-6	LCS	p-Nitroaniline	1660	0.0	1380	83	41-126
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1660	0.0	1300	78	35-110
122-39-4	LCS	Diphenylamine	1660	0.0	1400	84	56-102
101-55-3	LCS	4-Bromophenylphenylether	1660	0.0	1430	86	56-110
118-74-1	LCS	Hexachlorobenzene	1660	0.0	1440	87	56-103
87-86-5	LCS	Pentachlorophenol	1660	0.0	1510	91	44-111
85-01-8	LCS	Phenanthrene	1660	0.0	1300	78	58-101

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **LCS for batch 1784534**
Lab Sample ID **1204074221**
Instrument: **MSDA.I**
Analyst: **JLD1**
Inj. Vol: **1 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **07/25/2018 00:51**
Prep Batch ID: **1784534**
Batch ID: **1784536**
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
120-12-7	LCS	Anthracene	1660	0.0	1280	77	58-102
86-74-8	LCS	Carbazole	1660	0.0	1400	84	58-113
84-74-2	LCS	Di-n-butylphthalate	1660	0.0	1360	82	58-127
206-44-0	LCS	Fluoranthene	1660	0.0	1460	88	56-114
129-00-0	LCS	Pyrene	1660	0.0	1260	76	50-109
85-68-7	LCS	Butylbenzylphthalate	1660	0.0	1310	79	57-117
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1660	0.0	1170	71	58-122
56-55-3	LCS	Benzo(a)anthracene	1660	0.0	1330	80	60-106
218-01-9	LCS	Chrysene	1660	0.0	1400	84	62-111
117-84-0	LCS	Di-n-octylphthalate	1660	0.0	1220	73	53-128
205-99-2	LCS	Benzo(b)fluoranthene	1660	0.0	1370	82	40-115
207-08-9	LCS	Benzo(k)fluoranthene	1660	0.0	1410	85	41-117
50-32-8	LCS	Benzo(a)pyrene	1660	0.0	1440	87	41-115
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1660	0.0	1540	93	36-123
53-70-3	LCS	Dibenzo(a,h)anthracene	1660	0.0	1520	91	39-129
191-24-2	LCS	Benzo(ghi)perylene	1660	0.0	1460	88	35-126
100-52-7	LCS	Benzaldehyde	1660	0.0	696	42	25-79
98-86-2	LCS	Acetophenone	1660	0.0	1290	78	53-112
105-60-2	LCS	Caprolactam	1660	0.0	1330	80	53-121
95-94-3	LCS	1,2,4,5-Tetrachlorobenzene	1660	0.0	1370	83	52-109
92-52-4	LCS	1,1'-Biphenyl	1660	0.0	1390	84	54-113
1912-24-9	LCS	Atrazine	1660	0.0	1280	77	53-130

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **LCS for batch 1784534**
Lab Sample ID **1204074221**
Instrument: **MSDA.I**
Analyst: **JLD1**
Inj. Vol: **1 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **07/25/2018 00:51**
Prep Batch ID: **1784534**
Batch ID: **1784536**
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
91-94-1	LCS	3,3'-Dichlorobenzidine	1660	0.0	1300	78	36-111

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **RA056-187(454948007MS)**
Lab Sample ID **1204074222**
Instrument: **MSDA.I**
Analyst: **LOF**
Inj. Vol: **1 uL**

Sample Type: **Matrix Spike**
Matrix: **SO**
%Moisture: **25.6**
Analysis Date: **07/23/2018 18:56**
Prep Batch ID: **1784534**
Batch ID: **1784536**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
108-95-2	MS	Phenol	2230	0.00	U	1240	56	34-109
111-44-4	MS	bis(2-Chloroethyl) ether	2230	0.00	U	1170	53	35-108
95-57-8	MS	2-Chlorophenol	2230	0.00	U	1190	53	36-107
108-60-1	MS	bis(2-Chloro-1-methylethyl)ether	2230	0.00	U	1040	47	30-121
95-48-7	MS	o-Cresol	2230	0.00	U	1240	56	35-111
65794-96-9	MS	m,p-Cresols	2230	0.00	U	1450	65	40-123
621-64-7	MS	N-Nitrosodipropylamine	2230	0.00	U	1190	53	36-108
67-72-1	MS	Hexachloroethane	2230	0.00	U	840	38	29-101
98-95-3	MS	Nitrobenzene	2230	0.00	U	1110	50	36-111
78-59-1	MS	Isophorone	2230	0.00	U	1040	47	20-130
88-75-5	MS	2-Nitrophenol	2230	0.00	U	1170	52	36-108
105-67-9	MS	2,4-Dimethylphenol	2230	0.00	U	1080	48	37-103
111-91-1	MS	bis(2-Chloroethoxy)methane	2230	0.00	U	1100	49	38-107
120-83-2	MS	2,4-Dichlorophenol	2230	0.00	U	1400	63	38-107
106-47-8	MS	4-Chloroaniline	2230	0.00	U	695	31	30-94
87-68-3	MS	Hexachlorobutadiene	2230	0.00	U	1140	51	34-108
59-50-7	MS	4-Chloro-3-methylphenol	2230	0.00	U	1570	71	44-114
91-57-6	MS	2-Methylnaphthalene	2230	0.00	U	1110	50	34-107
91-20-3	MS	Naphthalene	2230	0.00	U	1030	46	34-108
77-47-4	MS	Hexachlorocyclopentadiene	2230	0.00	U	805	36	24-80
88-06-2	MS	2,4,6-Trichlorophenol	2230	0.00	U	1560	70	38-116
95-95-4	MS	2,4,5-Trichlorophenol	2230	0.00	U	1640	74	44-113

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **RA056-187(454948007MS)**
Lab Sample ID **1204074222**
Instrument: **MSDA.I**
Analyst: **LOF**
Inj. Vol: **1 uL**

Sample Type: **Matrix Spike**
Matrix: **SO**
%Moisture: **25.6**
Analysis Date: **07/23/2018 18:56**
Prep Batch ID: **1784534**
Batch ID: **1784536**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
91-58-7	MS	2-Chloronaphthalene	2230	0.00	U	1190	53	36-106
88-74-4	MS	o-Nitroaniline	2230	0.00	U	1460	65	39-114
99-09-2	MS	m-Nitroaniline	2230	0.00	U	1080	48	33-113
131-11-3	MS	Dimethylphthalate	2230	0.00	U	1320	59	42-114
606-20-2	MS	2,6-Dinitrotoluene	2230	0.00	U	1510	68	44-113
121-14-2	MS	2,4-Dinitrotoluene	2230	0.00	U	1670	75	46-116
208-96-8	MS	Acenaphthylene	2230	0.00	U	1300	58	41-108
83-32-9	MS	Acenaphthene	2230	0.00	U	1290	58	35-113
51-28-5	MS	2,4-Dinitrophenol	2230	0.00	U	1650	74	13-121
132-64-9	MS	Dibenzofuran	2230	0.00	U	1410	63	38-111
58-90-2	MS	2,3,4,6-Tetrachlorophenol	2230	0.00	U	1730	78	42-122
84-66-2	MS	Diethylphthalate	2230	0.00	U	1490	67	46-114
100-02-7	MS	4-Nitrophenol	2230	0.00	U	1710	77	27-123
86-73-7	MS	Fluorene	2230	0.00	U	1440	64	38-114
7005-72-3	MS	4-Chlorophenylphenylether	2230	0.00	U	1550	69	41-121
100-01-6	MS	p-Nitroaniline	2230	0.00	U	1430	64	28-126
534-52-1	MS	2-Methyl-4,6-dinitrophenol	2230	0.00	U	1700	76	25-117
122-39-4	MS	Diphenylamine	2230	0.00	U	1400	63	43-109
101-55-3	MS	4-Bromophenylphenylether	2230	0.00	U	1570	70	42-116
118-74-1	MS	Hexachlorobenzene	2230	0.00	U	1510	67	44-106
87-86-5	MS	Pentachlorophenol	2230	0.00	U	2330	104	34-116
85-01-8	MS	Phenanthrene	2230	0.00	U	1440	64	36-116

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **RA056-187(454948007MS)**
Lab Sample ID **1204074222**
Instrument: **MSDA.I**
Analyst: **LOF**
Inj. Vol: **1 uL**

Sample Type: **Matrix Spike**
Matrix: **SO**
%Moisture: **25.6**
Analysis Date: **07/23/2018 18:56**
Prep Batch ID: **1784534**
Batch ID: **1784536**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
120-12-7	MS	Anthracene	2230	0.00	U	1470	66	41-111
86-74-8	MS	Carbazole	2230	0.00	U	1740	78	43-116
84-74-2	MS	Di-n-butylphthalate	2230	0.00	U	1670	75	45-119
206-44-0	MS	Fluoranthene	2230	0.00	U	1840	82	41-115
129-00-0	MS	Pyrene	2230	0.00	U	1360	61	36-125
85-68-7	MS	Butylbenzylphthalate	2230	0.00	U	1570	70	43-130
117-81-7	MS	bis(2-Ethylhexyl)phthalate	2230	0.00	U	1530	69	41-132
56-55-3	MS	Benzo(a)anthracene	2230	0.00	U	1610	72	42-115
218-01-9	MS	Chrysene	2230	0.00	U	1640	73	42-121
117-84-0	MS	Di-n-octylphthalate	2230	0.00	U	1750	78	41-129
205-99-2	MS	Benzo(b)fluoranthene	2230	0.00	U	1620	73	30-124
207-08-9	MS	Benzo(k)fluoranthene	2230	0.00	U	1670	75	30-128
50-32-8	MS	Benzo(a)pyrene	2230	0.00	U	1690	75	32-119
193-39-5	MS	Indeno(1,2,3-cd)pyrene	2230	0.00	U	1560	70	15-126
53-70-3	MS	Dibenzo(a,h)anthracene	2230	0.00	U	1590	71	20-129
191-24-2	MS	Benzo(ghi)perylene	2230	0.00	U	1360	61	13-126
100-52-7	MS	Benzaldehyde	2230	0.00	U	917	41	19-93
98-86-2	MS	Acetophenone	2230	0.00	U	1120	50	37-109
105-60-2	MS	Caprolactam	2230	0.00	U	980	44	39-125
95-94-3	MS	1,2,4,5-Tetrachlorobenzene	2230	0.00	U	1140	51	36-109
92-52-4	MS	1,1'-Biphenyl	2230	0.00	U	1250	56	35-115
1912-24-9	MS	Atrazine	2230	0.00	U	1620	72	49-126

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**454944**	**Sample Type:**	**Matrix Spike**	
Client ID:	**RA056-187(454948007MS)**	**Matrix:**	**SO**	
Lab Sample ID	**1204074222**	**%Moisture:**	**25.6**	
Instrument:	**MSDA.I**	**Analysis Date:**	**07/23/2018 18:56**	**Dilution: 1**
Analyst:	**LOF**	**Prep Batch ID:**	**1784534**	
Inj. Vol:	**1 uL**	**Batch ID:**	**1784536**	

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
91-94-1	MS	3,3'-Dichlorobenzidine	2230	0.00	U	302	14 *	25-108

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **RA056-187(454948007MSD)**
Lab Sample ID **1204074223**
Instrument: **MSDA.I**
Analyst: **LOF**
Inj. Vol: **1 uL**

Sample Type: **Matrix Spike Duplicate**
Matrix: **SO**
%Moisture: **25.6**
Analysis Date: **07/23/2018 19:24**
Prep Batch ID: **1784534**
Batch ID: **1784536**
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
108-95-2	MSD	Phenol	2220	0.00	U	1480	67	34-109	17	0-30
111-44-4	MSD	bis(2-Chloroethyl) ether	2220	0.00	U	968	44	35-108	19	0-30
95-57-8	MSD	2-Chlorophenol	2220	0.00	U	1300	58	36-107	9	0-30
108-60-1	MSD	bis(2-Chloro-1-methylethyl)ether	2220	0.00	U	787	35	30-121	28	0-30
95-48-7	MSD	o-Cresol	2220	0.00	U	1400	63	35-111	12	0-30
65794-96-9	MSD	m,p-Cresols	2220	0.00	U	1610	73	40-123	11	0-30
621-64-7	MSD	N-Nitrosodipropylamine	2220	0.00	U	1290	58	36-108	8	0-30
67-72-1	MSD	Hexachloroethane	2220	0.00	U	229	10 *	29-101	114 *	0-30
98-95-3	MSD	Nitrobenzene	2220	0.00	U	1070	48	36-111	4	0-30
78-59-1	MSD	Isophorone	2220	0.00	U	1190	54	20-130	14	0-30
88-75-5	MSD	2-Nitrophenol	2220	0.00	U	1280	58	36-108	9	0-30
105-67-9	MSD	2,4-Dimethylphenol	2220	0.00	U	1170	53	37-103	9	0-30
111-91-1	MSD	bis(2-Chloroethoxy)methane	2220	0.00	U	1220	55	38-107	10	0-30
120-83-2	MSD	2,4-Dichlorophenol	2220	0.00	U	1550	70	38-107	10	0-30
106-47-8	MSD	4-Chloroaniline	2220	0.00	U	658	30	30-94	5	0-30
87-68-3	MSD	Hexachlorobutadiene	2220	0.00	U	508	23 *	34-108	77 *	0-30
59-50-7	MSD	4-Chloro-3-methylphenol	2220	0.00	U	1700	77	44-114	8	0-30
91-57-6	MSD	2-Methylnaphthalene	2220	0.00	U	986	44	34-107	12	0-30
91-20-3	MSD	Naphthalene	2220	0.00	U	781	35	34-108	28	0-30
77-47-4	MSD	Hexachlorocyclopentadiene	2220	0.00	U	378	17 *	24-80	72 *	0-30
88-06-2	MSD	2,4,6-Trichlorophenol	2220	0.00	U	1700	76	38-116	8	0-30
95-95-4	MSD	2,4,5-Trichlorophenol	2220	0.00	U	1730	78	44-113	5	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **RA056-187(454948007MSD)**
Lab Sample ID **1204074223**
Instrument: **MSDA.I**
Analyst: **LOF**
Inj. Vol: **1 uL**

Sample Type: **Matrix Spike Duplicate**
Matrix: **SO**
%Moisture: **25.6**
Analysis Date: **07/23/2018 19:24**
Prep Batch ID: **1784534**
Batch ID: **1784536**
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
91-58-7	MSD	2-Chloronaphthalene	2220	0.00	U	1210	54	36-106	1	0-30
88-74-4	MSD	o-Nitroaniline	2220	0.00	U	1590	72	39-114	8	0-30
99-09-2	MSD	m-Nitroaniline	2220	0.00	U	1070	48	33-113	1	0-30
131-11-3	MSD	Dimethylphthalate	2220	0.00	U	1550	70	42-114	16	0-30
606-20-2	MSD	2,6-Dinitrotoluene	2220	0.00	U	1640	74	44-113	9	0-30
121-14-2	MSD	2,4-Dinitrotoluene	2220	0.00	U	1780	80	46-116	6	0-30
208-96-8	MSD	Acenaphthylene	2220	0.00	U	1380	62	41-108	6	0-30
83-32-9	MSD	Acenaphthene	2220	0.00	U	1380	62	35-113	7	0-30
51-28-5	MSD	2,4-Dinitrophenol	2220	0.00	U	1820	82	13-121	10	0-30
132-64-9	MSD	Dibenzofuran	2220	0.00	U	1520	68	38-111	7	0-30
58-90-2	MSD	2,3,4,6-Tetrachlorophenol	2220	0.00	U	1910	86	42-122	10	0-30
84-66-2	MSD	Diethylphthalate	2220	0.00	U	1660	75	46-114	11	0-30
100-02-7	MSD	4-Nitrophenol	2220	0.00	U	1710	77	27-123	0	0-30
86-73-7	MSD	Fluorene	2220	0.00	U	1550	70	38-114	8	0-30
7005-72-3	MSD	4-Chlorophenylphenylether	2220	0.00	U	1690	76	41-121	9	0-30
100-01-6	MSD	p-Nitroaniline	2220	0.00	U	1270	57	28-126	12	0-30
534-52-1	MSD	2-Methyl-4,6-dinitrophenol	2220	0.00	U	1820	82	25-117	7	0-30
122-39-4	MSD	Diphenylamine	2220	0.00	U	1540	69	43-109	9	0-30
101-55-3	MSD	4-Bromophenylphenylether	2220	0.00	U	1700	76	42-116	8	0-30
118-74-1	MSD	Hexachlorobenzene	2220	0.00	U	1670	75	44-106	10	0-30
87-86-5	MSD	Pentachlorophenol	2220	0.00	U	2450	110	34-116	5	0-30
85-01-8	MSD	Phenanthrene	2220	0.00	U	1570	71	36-116	9	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **454944**
Client ID: **RA056-187(454948007MSD)**
Lab Sample ID **1204074223**
Instrument: **MSDA.I**
Analyst: **LOF**
Inj. Vol: **1 uL**

Sample Type: **Matrix Spike Duplicate**
Matrix: **SO**
%Moisture: **25.6**
Analysis Date: **07/23/2018 19:24**
Prep Batch ID: **1784534**
Batch ID: **1784536**
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
120-12-7	MSD	Anthracene	2220	0.00	U	1560	70	41-111	6	0-30
86-74-8	MSD	Carbazole	2220	0.00	U	1740	78	43-116	0	0-30
84-74-2	MSD	Di-n-butylphthalate	2220	0.00	U	1720	78	45-119	3	0-30
206-44-0	MSD	Fluoranthene	2220	0.00	U	1860	84	41-115	1	0-30
129-00-0	MSD	Pyrene	2220	0.00	U	1490	67	36-125	10	0-30
85-68-7	MSD	Butylbenzylphthalate	2220	0.00	U	1670	75	43-130	6	0-30
117-81-7	MSD	bis(2-Ethylhexyl)phthalate	2220	0.00	U	1670	75	41-132	9	0-30
56-55-3	MSD	Benzo(a)anthracene	2220	0.00	U	1650	74	42-115	2	0-30
218-01-9	MSD	Chrysene	2220	0.00	U	1700	77	42-121	4	0-30
117-84-0	MSD	Di-n-octylphthalate	2220	0.00	U	1790	81	41-129	3	0-30
205-99-2	MSD	Benzo(b)fluoranthene	2220	0.00	U	1760	79	30-124	8	0-30
207-08-9	MSD	Benzo(k)fluoranthene	2220	0.00	U	1810	82	30-128	9	0-30
50-32-8	MSD	Benzo(a)pyrene	2220	0.00	U	1740	78	32-119	3	0-30
193-39-5	MSD	Indeno(1,2,3-cd)pyrene	2220	0.00	U	1550	70	15-126	1	0-30
53-70-3	MSD	Dibenzo(a,h)anthracene	2220	0.00	U	1500	68	20-129	5	0-30
191-24-2	MSD	Benzo(ghi)perylene	2220	0.00	U	1300	59	13-126	4	0-30
100-52-7	MSD	Benzaldehyde	2220	0.00	U	676	30	19-93	30	0-30
98-86-2	MSD	Acetophenone	2220	0.00	U	1190	53	37-109	6	0-30
105-60-2	MSD	Caprolactam	2220	0.00	U	1680	76	39-125	53 *	0-30
95-94-3	MSD	1,2,4,5-Tetrachlorobenzene	2220	0.00	U	1020	46	36-109	11	0-30
92-52-4	MSD	1,1'-Biphenyl	2220	0.00	U	1280	58	35-115	2	0-30
1912-24-9	MSD	Atrazine	2220	0.00	U	1770	80	49-126	9	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**454944**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RA056-187(454948007MSD)**	**Matrix:**	**SO**
Lab Sample ID	**1204074223**	**%Moisture:**	**25.6**
Instrument:	**MSDA.I**	**Analysis Date:**	**07/23/2018 19:24**
Analyst:	**LOF**	**Prep Batch ID:**	**1784534**
Inj. Vol:	**1 uL**	**Batch ID:**	**1784536**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
91-94-1	MSD	3,3'-Dichlorobenzidine	2220	0.00	U	0.00	0 *	25-108	200 *	0-30

Method Blank Summary

SDG Number:	**454944**	**Client:**	**URSC013**	**Matrix:**	**SOIL**
Client ID:	**MB for batch 1784534**	**Instrument ID:**	**MSDA.I**	**Data File:**	**072318.s\sAg2305.D**
Lab Sample ID:	**1204074220**	**Prep Date:**	**07/23/2018 11:27**	**Analyzed:**	**07/23/18 16:35**
Column:	**DB-5ms**				

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	RA056-187(454948007MS)	1204074222	072318.s\sAg2310.D	07/23/18	1856
02	RA056-187(454948007MSD)	1204074223	072318.s\sAg2311.D	07/23/18	1924
03	S09	454944002	072318.s\sAg2314.D	07/23/18	2048
04	S06	454944003	072318.s\sAg2315.D	07/23/18	2116
05	SW24	454944004	072318.s\sAg2316.D	07/23/18	2144
06	S05	454944005	072318.s\sAg2317.D	07/23/18	2213
07	S14	454944006	072318.s\sAg2318.D	07/23/18	2241
08	S15	454944007	072318.s\sAg2319.D	07/23/18	2309
09	S19	454944008	072318.s\sAg2320.D	07/23/18	2337
10	SW22	454944009	072318.s\sAg2321.D	07/24/18	0005
11	LCS for batch 1784534	1204074221	072418.s\sAg2415.D	07/25/18	0051
12	S10	454944010	072418.s\sAg2417.D	07/25/18	0147

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 454944

Instrument ID: MSDA.I **Injection Date/Time:** 20-JUN-18 08:51

Column Description: DB-5ms **Lab File ID** 062018.s\sAf2001.D

m/e	Ion Abundance Criteria	% Relative Abundance
51	10 - 80% of mass 198	44.7
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	39.9
70	Less than 2% of mass 69	0.4
127	10 - 80% of mass 198	49
197	Less than 2% of mass 198	0
198	Base Peak, 100% Relative Abundance	100
199	5 - 9% of mass 198	6.7
275	10 - 60% of mass 198	23
365	Greater than 1% of mass 198	2.6
441	Less than 24% of mass 442	17.1
442	Greater than 50% of mass 198	80.7
443	15 - 24% of mass 442	19.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	WBN180517-16	062018.s\sAf2004.D	20-JUN-18 10:16
ICALMIX[A]	WBN180517-18	062018.s\sAf2005.D	20-JUN-18 10:50
ICALMIX[A]	WBN180517-15.1	062018.s\sAf2006.D	20-JUN-18 11:23
ICALMIX[A]	WBN180517-14	062018.s\sAf2007.D	20-JUN-18 11:54
ICALMIX[A]	WBN180517-13	062018.s\sAf2008.D	20-JUN-18 12:26
ICALMIX[A]	WBN180517-12	062018.s\sAf2009.D	20-JUN-18 12:57
ICALMIX[A]	WBN180517-11	062018.s\sAf2010.D	20-JUN-18 13:29
ICALMIX[A]	WBN180517-17	062018.s\sAf2011.D	20-JUN-18 14:29
ICVMIX[A]01	WBN180517-09.1	062018.s\sAf2012.D	20-JUN-18 15:01

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 454944

Instrument ID: MSDA.I **Injection Date/Time:** 20-JUN-18 16:03

Column Description: DB-5ms **Lab File ID** 062018.s\sAf2013.D

m/e	Ion Abundance Criteria	% Relative Abundance
51	10 - 80% of mass 198	38.5
68	Less than 2% of mass 69	1.7
69	Mass 69 Relative Abundance	34.6
70	Less than 2% of mass 69	0.5
127	10 - 80% of mass 198	44.4
197	Less than 2% of mass 198	0
198	Base Peak, 100% Relative Abundance	100
199	5 - 9% of mass 198	6.8
275	10 - 60% of mass 198	24.3
365	Greater than 1% of mass 198	2.5
441	Less than 24% of mass 442	16.6
442	Greater than 50% of mass 198	89
443	15 - 24% of mass 442	19

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[J]	WBN180518-43	062018.s\sAf2014.D	20-JUN-18 16:17
ICALMIX[J]	WBN180518-44	062018.s\sAf2016.D	20-JUN-18 17:02
ICALMIX[J]	WBN180518-45.1	062018.s\sAf2017.D	20-JUN-18 17:25
ICALMIX[J]	WBN180518-46	062018.s\sAf2018.D	20-JUN-18 17:48
ICALMIX[J]	WBN180518-47	062018.s\sAf2019.D	20-JUN-18 18:10
ICALMIX[J]	WBN180518-48	062018.s\sAf2020.D	20-JUN-18 18:33
ICALMIX[J]	WBN180518-49	062018.s\sAf2021.D	20-JUN-18 18:55
ICVMIX[J]02	WBN180518-50.2	062018.s\sAf2022.D	20-JUN-18 19:18
ICALMIX[B]	WBN180410-17	062018.s\sAf2023.D	20-JUN-18 19:42
ICALMIX[B]	WBN180410-16	062018.s\sAf2024.D	20-JUN-18 20:08
ICALMIX[B]	WBN180410-18	062018.s\sAf2025.D	20-JUN-18 20:35
ICALMIX[B]	WBN180410-15.1	062018.s\sAf2026.D	20-JUN-18 21:02
ICALMIX[B]	WBN180410-14	062018.s\sAf2027.D	20-JUN-18 21:28
ICALMIX[B]	WBN180410-19	062018.s\sAf2028.D	20-JUN-18 21:55
ICALMIX[B]	WBN180410-13	062018.s\sAf2029.D	20-JUN-18 22:22
ICALMIX[B]	WBN180410-12	062018.s\sAf2030.D	20-JUN-18 22:49

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 454944

Instrument ID: MSDA.I **Injection Date/Time:** 20-JUN-18 16:03

Column Description: DB-5ms **Lab File ID** 062018.s\sAf2013.D

m/e	Ion Abundance Criteria	% Relative Abundance
51	10 - 80% of mass 198	38.5
68	Less than 2% of mass 69	1.7
69	Mass 69 Relative Abundance	34.6
70	Less than 2% of mass 69	0.5
127	10 - 80% of mass 198	44.4
197	Less than 2% of mass 198	0
198	Base Peak, 100% Relative Abundance	100
199	5 - 9% of mass 198	6.8
275	10 - 60% of mass 198	24.3
365	Greater than 1% of mass 198	2.5
441	Less than 24% of mass 442	16.6
442	Greater than 50% of mass 198	89
443	15 - 24% of mass 442	19

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[B]	WBN180410-11	062018.s\sAf2031.D	20-JUN-18 23:15
ICVMIX[B]03	WBN180517-19	062018.s\sAf2032.D	20-JUN-18 23:42

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 454944

Instrument ID: MSDA.I **Injection Date/Time:** 23-JUL-18 14:37

Column Description: DB-5ms **Lab File ID** 072318.s\sAg2301.D

m/e	Ion Abundance Criteria	% Relative Abundance
51	10 - 80% of mass 198	37.2
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	34.4
70	Less than 2% of mass 69	0.5
127	10 - 80% of mass 198	43.9
197	Less than 2% of mass 198	0
198	Base Peak, 100% Relative Abundance	100
199	5 - 9% of mass 198	6.9
275	10 - 60% of mass 198	25.3
365	Greater than 1% of mass 198	2.7
441	Less than 24% of mass 442	15.4
442	Greater than 50% of mass 198	95.4
443	15 - 24% of mass 442	18.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]01	WBN180618-05.3	072318.s\sAg2302.D	23-JUL-18 15:05
CCVMIX[B]02	WBN180606-15.2	072318.s\sAg2303.D	23-JUL-18 15:38
CCVMIX[J]03	WBN180518-45.2	072318.s\sAg2304.D	23-JUL-18 16:05
BLK01	1204074220	072318.s\sAg2305.D	23-JUL-18 16:35
RA056-187MS	1204074222	072318.s\sAg2310.D	23-JUL-18 18:56
RA056-187MSD	1204074223	072318.s\sAg2311.D	23-JUL-18 19:24
S09	454944002	072318.s\sAg2314.D	23-JUL-18 20:48
S06	454944003	072318.s\sAg2315.D	23-JUL-18 21:16
SW24	454944004	072318.s\sAg2316.D	23-JUL-18 21:44
S05	454944005	072318.s\sAg2317.D	23-JUL-18 22:13
S14	454944006	072318.s\sAg2318.D	23-JUL-18 22:41
S15	454944007	072318.s\sAg2319.D	23-JUL-18 23:09
S19	454944008	072318.s\sAg2320.D	23-JUL-18 23:37
SW22	454944009	072318.s\sAg2321.D	24-JUL-18 00:05

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 454944

Instrument ID: MSDA.I **Injection Date/Time:** 24-JUL-18 23:11

Column Description: DB-5ms **Lab File ID** 072418.s\sAg2411.D

m/e	Ion Abundance Criteria	% Relative Abundance
51	10 - 80% of mass 198	34.8
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	32.2
70	Less than 2% of mass 69	0.4
127	10 - 80% of mass 198	41.8
197	Less than 2% of mass 198	0.4
198	Base Peak, 100% Relative Abundance	99.9
199	5 - 9% of mass 198	6.7
275	10 - 60% of mass 198	25.3
365	Greater than 1% of mass 198	2.8
441	Less than 24% of mass 442	15.7
442	Greater than 50% of mass 198	100
443	15 - 24% of mass 442	19

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]04	WBN180722-05	072418.s\sAg2412.D	24-JUL-18 23:26
CCVMIX[B]05	WBN180709-15.2	072418.s\sAg2413.D	24-JUL-18 23:59
CCVMIX[J]06	WBN180518-45.2	072418.s\sAg2414.D	25-JUL-18 00:27
BLK01LCS	1204074221	072418.s\sAg2415.D	25-JUL-18 00:51
S10	454944010	072418.s\sAg2417.D	25-JUL-18 01:47

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 454944

Instrument: MSDA.I

STD Analysis Time: 23-JUL-18 15:05

GC Column: DB-5ms

Data File: 072318.s\sAg2302.D

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	424914		5.65	1560877		7.42	784839		9.73	1429331		11.6	827917		15.2	488815		18.5
Upper Limit	849828		6.15	3121754		7.92	1569678		10.2	2858662		12.1	1655834		15.7	977630		19.0
Lower Limit	212457		5.15	780439		6.92	392420		9.23	714666		11.1	413959		14.7	244408		18.0
Sample ID																		
BLK01	414775		5.65	1535417		7.42	800217		9.73	1489844		11.6	884565		15.2	597117		18.5
RA056-187MS	442642		5.65	1766592		7.42	958488		9.73	1885068		11.6	1370066		15.2	940093		18.6
RA056-187MSD	387092		5.65	1517403		7.42	822299		9.73	1593767		11.6	1062654		15.2	620952		18.5
S09	387129		5.65	1455523		7.42	771628		9.73	1495810		11.6	1045124		15.2	686054		18.5
S06	392246		5.65	1513004		7.42	809468		9.73	1582755		11.6	1117003		15.2	713816		18.5
SW24	391704		5.64	1511635		7.42	796503		9.73	1542865		11.6	1077220		15.2	681047		18.5
S05	387448		5.64	1491439		7.42	785022		9.73	1477675		11.6	1111887		15.2	707104		18.5
S14	289935		5.64	1221965		7.42	713886		9.73	1497288		11.6	1093286		15.2	670530		18.5
S15	392297		5.65	1347782		7.42	748524		9.73	1520370		11.6	1123766		15.2	712964		18.5
S19	395595		5.64	1515276		7.41	804148		9.73	1547657		11.6	1021703		15.2	594328		18.5
SW22	421879		5.65	1617590		7.41	851284		9.73	1626250		11.6	1041573		15.2	610194		18.5

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 454944

Instrument: MSDA.I

STD Analysis Time: 24-JUL-18 23:26

GC Column: DB-5ms

Data File: 072418.s\sAg2412.D

	1,4-Dichlorobenzene-d4				Naphthalene-d8				Acenaphthene-d10				Phenanthrene-d10				Chrysene-d12				Perylene-d12			
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12 Hour STD	495231		5.61		1794587		7.39		887583		9.7		1558651		11.6		1007257		15.1		633024		18.5	
Upper Limit	990462		6.11		3589174		7.89		1775166		10.2		3117302		12.1		2014514		15.6		1266048		19.0	
Lower Limit	247616		5.11		897294		6.89		443792		9.2		779326		11.1		503629		14.6		316512		18.0	
Sample ID																								
BLK01LCS	387598		5.61		1415996		7.39		698050		9.7		1228255		11.6		777015		15.1		516244		18.4	
S10	312446		5.61		1319879		7.38		739214		9.69		1416253		11.6		936968		15.1		641184		18.4	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 08:45**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944002**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**6.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S09**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 20:48**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.5 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2314.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
92-52-4	1,1'-Biphenyl	U	350	ug/kg	105	350
95-94-3	1,2,4,5-Tetrachlorobenzene	U	350	ug/kg	105	350
58-90-2	2,3,4,6-Tetrachlorophenol	U	350	ug/kg	105	350
95-95-4	2,4,5-Trichlorophenol	U	350	ug/kg	105	350
88-06-2	2,4,6-Trichlorophenol	U	350	ug/kg	105	350
120-83-2	2,4-Dichlorophenol	U	350	ug/kg	105	350
105-67-9	2,4-Dimethylphenol	U	350	ug/kg	105	350
51-28-5	2,4-Dinitrophenol	U	700	ug/kg	105	700
121-14-2	2,4-Dinitrotoluene	U	350	ug/kg	105	350
606-20-2	2,6-Dinitrotoluene	U	350	ug/kg	105	350
91-58-7	2-Chloronaphthalene	U	35.0	ug/kg	10.5	35.0
95-57-8	2-Chlorophenol	U	350	ug/kg	105	350
534-52-1	2-Methyl-4,6-dinitrophenol	U	350	ug/kg	105	350
91-57-6	2-Methylnaphthalene	U	35.0	ug/kg	10.5	35.0
88-75-5	2-Nitrophenol	U	350	ug/kg	105	350
91-94-1	3,3'-Dichlorobenzidine	U	350	ug/kg	105	350
101-55-3	4-Bromophenylphenylether	U	350	ug/kg	105	350
59-50-7	4-Chloro-3-methylphenol	U	350	ug/kg	140	350
106-47-8	4-Chloroaniline	U	350	ug/kg	105	350
7005-72-3	4-Chlorophenylphenylether	U	350	ug/kg	105	350
100-02-7	4-Nitrophenol	U	350	ug/kg	105	350
83-32-9	Acenaphthene	U	35.0	ug/kg	10.5	35.0
208-96-8	Acenaphthylene	U	35.0	ug/kg	10.5	35.0
98-86-2	Acetophenone	U	350	ug/kg	105	350
120-12-7	Anthracene	U	35.0	ug/kg	10.5	35.0
1912-24-9	Atrazine	U	350	ug/kg	140	350
100-52-7	Benzaldehyde	U	350	ug/kg	105	350
56-55-3	Benzo(a)anthracene	U	35.0	ug/kg	10.5	35.0
50-32-8	Benzo(a)pyrene	U	35.0	ug/kg	10.5	35.0
205-99-2	Benzo(b)fluoranthene	U	35.0	ug/kg	10.5	35.0
191-24-2	Benzo(ghi)perylene	U	35.0	ug/kg	10.5	35.0
207-08-9	Benzo(k)fluoranthene	U	35.0	ug/kg	10.5	35.0
85-68-7	Butylbenzylphthalate	U	35.0	ug/kg	10.5	35.0
105-60-2	Caprolactam	U	350	ug/kg	105	350
86-74-8	Carbazole	U	35.0	ug/kg	10.5	35.0
218-01-9	Chrysene	U	35.0	ug/kg	10.5	35.0
84-74-2	Di-n-butylphthalate	U	35.0	ug/kg	10.5	35.0
117-84-0	Di-n-octylphthalate	U	35.0	ug/kg	10.5	35.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 08:45**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944002**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**6.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S09**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 20:48**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.5 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2314.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
53-70-3	Dibenzo(a,h)anthracene	U	35.0	ug/kg	10.5	35.0
132-64-9	Dibenzofuran	U	350	ug/kg	105	350
84-66-2	Diethylphthalate	U	35.0	ug/kg	10.5	35.0
131-11-3	Dimethylphthalate	U	35.0	ug/kg	10.5	35.0
122-39-4	Diphenylamine	U	350	ug/kg	105	350
206-44-0	Fluoranthene	U	35.0	ug/kg	10.5	35.0
86-73-7	Fluorene	U	35.0	ug/kg	10.5	35.0
118-74-1	Hexachlorobenzene	U	350	ug/kg	105	350
87-68-3	Hexachlorobutadiene	U	350	ug/kg	105	350
77-47-4	Hexachlorocyclopentadiene	U	350	ug/kg	105	350
67-72-1	Hexachloroethane	U	350	ug/kg	105	350
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.0	ug/kg	10.5	35.0
78-59-1	Isophorone	U	350	ug/kg	105	350
621-64-7	N-Nitrosodipropylamine	U	350	ug/kg	105	350
91-20-3	Naphthalene	U	35.0	ug/kg	10.5	35.0
98-95-3	Nitrobenzene	U	350	ug/kg	105	350
87-86-5	Pentachlorophenol	U	350	ug/kg	105	350
85-01-8	Phenanthrene	U	35.0	ug/kg	10.5	35.0
108-95-2	Phenol	U	350	ug/kg	105	350
129-00-0	Pyrene	U	35.0	ug/kg	10.5	35.0
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	350	ug/kg	105	350
111-91-1	bis(2-Chloroethoxy)methane	U	350	ug/kg	105	350
111-44-4	bis(2-Chloroethyl) ether	U	350	ug/kg	105	350
117-81-7	bis(2-Ethylhexyl)phthalate	U	35.0	ug/kg	10.5	35.0
65794-96-9	m,p-Cresols	U	350	ug/kg	105	350
99-09-2	m-Nitroaniline	U	350	ug/kg	105	350
95-48-7	o-Cresol	U	350	ug/kg	105	350
88-74-4	o-Nitroaniline	U	350	ug/kg	116	350
100-01-6	p-Nitroaniline	U	350	ug/kg	105	350

Quantitation Report
GEL Laboratories, LLC

07/24/2018

07/24/2018

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2314.D
Acq On : 23 Jul 2018 20:48
Operator : LOF
InstName : MSDA
Sample : |454944002|1784536|1|SVM|1|URSC
Misc : |MSD827D4_S|MIX[A,B,J]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 24 10:46:31 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.646	5.646	1.000	387129	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.416	7.416	1.000	1455523	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.728	9.728	1.000	771628	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.604	11.604	1.000	1495810	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.145	15.139	1.000	1045124	40.00	ng/uL	0.00
87) A Perylene-d12	264	18.528	18.516	1.000	686054	40.00	ng/uL	0.01
95) B 1,4-Dichlorobenzene-d4	152	5.646	5.646	1.000	387129	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.416	7.416	1.000	1455523	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.728	9.728	1.000	771628	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.604	11.604	1.000	1495810	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.145	15.139	1.000	1045124	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.528	18.516	1.000	686054	40.00	ng/uL	0.01
150) J Phenanthrene-d10	188	11.604	11.604	1.000	1495810	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.145	15.139	1.000	1045124	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.416	7.416	1.000	1455523	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.728	9.728	1.000	771628	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.604	11.604	1.000	1495810	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.145	15.139	1.000	1045124	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.416	7.416	1.000	1455523	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.528	18.516	1.000	686054	40.00	ng/uL	0.01
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.970	3.946	0.703	828631	69.79	ng/uL	0.02
7) Phenol-d5	99	5.122	5.116	0.907	1033966	72.34	ng/uL	0.00
22) Nitrobenzene-d5	82	6.422	6.434	0.866	458341	35.99	ng/uL	-0.01
43) 2-Fluorobiphenyl	172	8.857	8.863	0.911	1080136	35.46	ng/uL	0.00
62) 2,4,6-Tribromophenol	330	10.728	10.734	1.103	325125	82.30	ng/uL	0.00
79) p-Terphenyl-d14	244	13.593	13.592	0.897	1274288	39.40	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	15 - 88	70%
7) Phenol-d5	100.000	15 - 91	72%
22) Nitrobenzene-d5	50.000	36 - 115	72%
43) 2-Fluorobiphenyl	50.000	32 - 112	71%
62) 2,4,6-Tribromophenol	100.000	32 - 124	82%
79) p-Terphenyl-d14	50.000	36 - 121	79%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2314.D
Acq On : 23 Jul 2018 20:48
Operator : LOF
InstName : MSDA
Sample : |454944002|1784536|1|SVM|1|URSC
Misc : |MSD827D4_S|MIX[A,B,J]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 24 10:46:31 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

```
#29 BEFORE analyst DELETION
Benzoic acid
Concen:   12.10 ng/uL
RT:   7.058 min  Scan# 896
Delta R.T.  -0.065 min
Lab File:   sAg2314.D
Acq: 23 Jul 2018  20:48

Tgt Ion:105 Resp:    1109
Ion  Ratio  Lower  Upper
105  100
122   45.3   46.6  106.6#
 77    0.0   41.0  101.0#
```

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 09:10**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944003**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S06**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 21:16**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.12 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2315.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
92-52-4	1,1'-Biphenyl	U	357	ug/kg	107	357
95-94-3	1,2,4,5-Tetrachlorobenzene	U	357	ug/kg	107	357
58-90-2	2,3,4,6-Tetrachlorophenol	U	357	ug/kg	107	357
95-95-4	2,4,5-Trichlorophenol	U	357	ug/kg	107	357
88-06-2	2,4,6-Trichlorophenol	U	357	ug/kg	107	357
120-83-2	2,4-Dichlorophenol	U	357	ug/kg	107	357
105-67-9	2,4-Dimethylphenol	U	357	ug/kg	107	357
51-28-5	2,4-Dinitrophenol	U	715	ug/kg	107	715
121-14-2	2,4-Dinitrotoluene	U	357	ug/kg	107	357
606-20-2	2,6-Dinitrotoluene	U	357	ug/kg	107	357
91-58-7	2-Chloronaphthalene	U	35.7	ug/kg	10.7	35.7
95-57-8	2-Chlorophenol	U	357	ug/kg	107	357
534-52-1	2-Methyl-4,6-dinitrophenol	U	357	ug/kg	107	357
91-57-6	2-Methylnaphthalene	U	35.7	ug/kg	10.7	35.7
88-75-5	2-Nitrophenol	U	357	ug/kg	107	357
91-94-1	3,3'-Dichlorobenzidine	U	357	ug/kg	107	357
101-55-3	4-Bromophenylphenylether	U	357	ug/kg	107	357
59-50-7	4-Chloro-3-methylphenol	U	357	ug/kg	143	357
106-47-8	4-Chloroaniline	U	357	ug/kg	107	357
7005-72-3	4-Chlorophenylphenylether	U	357	ug/kg	107	357
100-02-7	4-Nitrophenol	U	357	ug/kg	107	357
83-32-9	Acenaphthene	U	35.7	ug/kg	10.7	35.7
208-96-8	Acenaphthylene	U	35.7	ug/kg	10.7	35.7
98-86-2	Acetophenone	U	357	ug/kg	107	357
120-12-7	Anthracene	U	35.7	ug/kg	10.7	35.7
1912-24-9	Atrazine	U	357	ug/kg	143	357
100-52-7	Benzaldehyde	U	357	ug/kg	107	357
56-55-3	Benzo(a)anthracene	U	35.7	ug/kg	10.7	35.7
50-32-8	Benzo(a)pyrene	U	35.7	ug/kg	10.7	35.7
205-99-2	Benzo(b)fluoranthene	U	35.7	ug/kg	10.7	35.7
191-24-2	Benzo(ghi)perylene	U	35.7	ug/kg	10.7	35.7
207-08-9	Benzo(k)fluoranthene	U	35.7	ug/kg	10.7	35.7
85-68-7	Butylbenzylphthalate	U	35.7	ug/kg	10.7	35.7
105-60-2	Caprolactam	U	357	ug/kg	107	357
86-74-8	Carbazole	U	35.7	ug/kg	10.7	35.7
218-01-9	Chrysene	U	35.7	ug/kg	10.7	35.7
84-74-2	Di-n-butylphthalate	U	35.7	ug/kg	10.7	35.7
117-84-0	Di-n-octylphthalate	U	35.7	ug/kg	10.7	35.7

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 09:10**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944003**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S06**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 21:16**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.12 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2315.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
53-70-3	Dibenzo(a,h)anthracene	U	35.7	ug/kg	10.7	35.7
132-64-9	Dibenzofuran	U	357	ug/kg	107	357
84-66-2	Diethylphthalate	U	35.7	ug/kg	10.7	35.7
131-11-3	Dimethylphthalate	U	35.7	ug/kg	10.7	35.7
122-39-4	Diphenylamine	U	357	ug/kg	107	357
206-44-0	Fluoranthene	U	35.7	ug/kg	10.7	35.7
86-73-7	Fluorene	U	35.7	ug/kg	10.7	35.7
118-74-1	Hexachlorobenzene	U	357	ug/kg	107	357
87-68-3	Hexachlorobutadiene	U	357	ug/kg	107	357
77-47-4	Hexachlorocyclopentadiene	U	357	ug/kg	107	357
67-72-1	Hexachloroethane	U	357	ug/kg	107	357
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.7	ug/kg	10.7	35.7
78-59-1	Isophorone	U	357	ug/kg	107	357
621-64-7	N-Nitrosodipropylamine	U	357	ug/kg	107	357
91-20-3	Naphthalene	U	35.7	ug/kg	10.7	35.7
98-95-3	Nitrobenzene	U	357	ug/kg	107	357
87-86-5	Pentachlorophenol	U	357	ug/kg	107	357
85-01-8	Phenanthrene	U	35.7	ug/kg	10.7	35.7
108-95-2	Phenol	U	357	ug/kg	107	357
129-00-0	Pyrene	U	35.7	ug/kg	10.7	35.7
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	357	ug/kg	107	357
111-91-1	bis(2-Chloroethoxy)methane	U	357	ug/kg	107	357
111-44-4	bis(2-Chloroethyl) ether	U	357	ug/kg	107	357
117-81-7	bis(2-Ethylhexyl)phthalate	U	35.7	ug/kg	10.7	35.7
65794-96-9	m,p-Cresols	U	357	ug/kg	107	357
99-09-2	m-Nitroaniline	U	357	ug/kg	107	357
95-48-7	o-Cresol	U	357	ug/kg	107	357
88-74-4	o-Nitroaniline	U	357	ug/kg	118	357
100-01-6	p-Nitroaniline	U	357	ug/kg	107	357

Quantitation Report
GEL Laboratories, LLC

07/24/2018

07/24/2018

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2315.D
Acq On : 23 Jul 2018 21:16
Operator : LOF
InstName : MSDA
Sample : |454944003|1784536|1|SVM|1|URSC
Misc : |MSD827D4_S|MIX[A,B,J]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 24 10:47:04 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.646	5.646	1.000	392246	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.416	7.416	1.000	1513004	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.728	9.728	1.000	809468	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.610	11.604	1.000	1582755	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.145	15.139	1.000	1117003	40.00	ng/uL	0.00
87) A Perylene-d12	264	18.527	18.516	1.000	713816	40.00	ng/uL	0.01
95) B 1,4-Dichlorobenzene-d4	152	5.646	5.646	1.000	392246	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.416	7.416	1.000	1513004	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.728	9.728	1.000	809468	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.610	11.604	1.000	1582755	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.145	15.139	1.000	1117003	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.527	18.516	1.000	713816	40.00	ng/uL	0.01
150) J Phenanthrene-d10	188	11.610	11.604	1.000	1582755	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.145	15.139	1.000	1117003	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.416	7.416	1.000	1513004	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.728	9.728	1.000	809468	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.610	11.604	1.000	1582755	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.145	15.139	1.000	1117003	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.416	7.416	1.000	1513004	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.527	18.516	1.000	713816	40.00	ng/uL	0.01
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.969	3.946	0.703	822354	68.36	ng/uL	0.02
7) Phenol-d5	99	5.122	5.116	0.907	1045447	72.19	ng/uL	0.00
22) Nitrobenzene-d5	82	6.422	6.434	0.866	422602	31.92	ng/uL	-0.01
43) 2-Fluorobiphenyl	172	8.851	8.863	0.910	973103	30.45	ng/uL	-0.01
62) 2,4,6-Tribromophenol	330	10.728	10.734	1.103	321512	77.58	ng/uL	0.00
79) p-Terphenyl-d14	244	13.592	13.592	0.897	1304023	37.72	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	15 - 88	68%
7) Phenol-d5	100.000	15 - 91	72%
22) Nitrobenzene-d5	50.000	36 - 115	64%
43) 2-Fluorobiphenyl	50.000	32 - 112	61%
62) 2,4,6-Tribromophenol	100.000	32 - 124	78%
79) p-Terphenyl-d14	50.000	36 - 121	75%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2315.D
Acq On : 23 Jul 2018 21:16
Operator : LOF
InstName : MSDA
Sample : |454944003|1784536|1|SVM|1|URSC
Misc : |MSD827D4_S|MIX[A,B,J]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 24 10:47:04 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

#29 BEFORE analyst DELETION
Benzoic acid
Concen: 12.22 ng/uL
RT: 7.022 min Scan# 890
Delta R.T. -0.100 min
Lab File: sAg2315.D
Acq: 23 Jul 2018 21:16

Tgt Ion:105 Resp: 2170

Ion	Ratio	Lower	Upper
105	100		
122	68.0	46.6	106.6
77	57.0	41.0	101.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 09:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944004**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**9.4**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**SW24**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 21:44**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.12 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2316.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
92-52-4	1,1'-Biphenyl	U	367	ug/kg	110	367
95-94-3	1,2,4,5-Tetrachlorobenzene	U	367	ug/kg	110	367
58-90-2	2,3,4,6-Tetrachlorophenol	U	367	ug/kg	110	367
95-95-4	2,4,5-Trichlorophenol	U	367	ug/kg	110	367
88-06-2	2,4,6-Trichlorophenol	U	367	ug/kg	110	367
120-83-2	2,4-Dichlorophenol	U	367	ug/kg	110	367
105-67-9	2,4-Dimethylphenol	U	367	ug/kg	110	367
51-28-5	2,4-Dinitrophenol	U	733	ug/kg	110	733
121-14-2	2,4-Dinitrotoluene	U	367	ug/kg	110	367
606-20-2	2,6-Dinitrotoluene	U	367	ug/kg	110	367
91-58-7	2-Chloronaphthalene	U	36.7	ug/kg	11.0	36.7
95-57-8	2-Chlorophenol	U	367	ug/kg	110	367
534-52-1	2-Methyl-4,6-dinitrophenol	U	367	ug/kg	110	367
91-57-6	2-Methylnaphthalene	U	36.7	ug/kg	11.0	36.7
88-75-5	2-Nitrophenol	U	367	ug/kg	110	367
91-94-1	3,3'-Dichlorobenzidine	U	367	ug/kg	110	367
101-55-3	4-Bromophenylphenylether	U	367	ug/kg	110	367
59-50-7	4-Chloro-3-methylphenol	U	367	ug/kg	147	367
106-47-8	4-Chloroaniline	U	367	ug/kg	110	367
7005-72-3	4-Chlorophenylphenylether	U	367	ug/kg	110	367
100-02-7	4-Nitrophenol	U	367	ug/kg	110	367
83-32-9	Acenaphthene	U	36.7	ug/kg	11.0	36.7
208-96-8	Acenaphthylene	U	36.7	ug/kg	11.0	36.7
98-86-2	Acetophenone	U	367	ug/kg	110	367
120-12-7	Anthracene	U	36.7	ug/kg	11.0	36.7
1912-24-9	Atrazine	U	367	ug/kg	147	367
100-52-7	Benzaldehyde	U	367	ug/kg	110	367
56-55-3	Benzo(a)anthracene	U	36.7	ug/kg	11.0	36.7
50-32-8	Benzo(a)pyrene	U	36.7	ug/kg	11.0	36.7
205-99-2	Benzo(b)fluoranthene	U	36.7	ug/kg	11.0	36.7
191-24-2	Benzo(ghi)perylene	U	36.7	ug/kg	11.0	36.7
207-08-9	Benzo(k)fluoranthene	U	36.7	ug/kg	11.0	36.7
85-68-7	Butylbenzylphthalate	U	36.7	ug/kg	11.0	36.7
105-60-2	Caprolactam	U	367	ug/kg	110	367
86-74-8	Carbazole	U	36.7	ug/kg	11.0	36.7
218-01-9	Chrysene	U	36.7	ug/kg	11.0	36.7
84-74-2	Di-n-butylphthalate	U	36.7	ug/kg	11.0	36.7
117-84-0	Di-n-octylphthalate	U	36.7	ug/kg	11.0	36.7

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 09:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944004**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**9.4**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**SW24**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 21:44**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.12 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2316.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
53-70-3	Dibenzo(a,h)anthracene	U	36.7	ug/kg	11.0	36.7
132-64-9	Dibenzofuran	U	367	ug/kg	110	367
84-66-2	Diethylphthalate	U	36.7	ug/kg	11.0	36.7
131-11-3	Dimethylphthalate	U	36.7	ug/kg	11.0	36.7
122-39-4	Diphenylamine	U	367	ug/kg	110	367
206-44-0	Fluoranthene	U	36.7	ug/kg	11.0	36.7
86-73-7	Fluorene	U	36.7	ug/kg	11.0	36.7
118-74-1	Hexachlorobenzene	U	367	ug/kg	110	367
87-68-3	Hexachlorobutadiene	U	367	ug/kg	110	367
77-47-4	Hexachlorocyclopentadiene	U	367	ug/kg	110	367
67-72-1	Hexachloroethane	U	367	ug/kg	110	367
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.7	ug/kg	11.0	36.7
78-59-1	Isophorone	U	367	ug/kg	110	367
621-64-7	N-Nitrosodipropylamine	U	367	ug/kg	110	367
91-20-3	Naphthalene	U	36.7	ug/kg	11.0	36.7
98-95-3	Nitrobenzene	U	367	ug/kg	110	367
87-86-5	Pentachlorophenol	U	367	ug/kg	110	367
85-01-8	Phenanthrene	U	36.7	ug/kg	11.0	36.7
108-95-2	Phenol	U	367	ug/kg	110	367
129-00-0	Pyrene	U	36.7	ug/kg	11.0	36.7
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	367	ug/kg	110	367
111-91-1	bis(2-Chloroethoxy)methane	U	367	ug/kg	110	367
111-44-4	bis(2-Chloroethyl) ether	U	367	ug/kg	110	367
117-81-7	bis(2-Ethylhexyl)phthalate	U	36.7	ug/kg	11.0	36.7
65794-96-9	m,p-Cresols	U	367	ug/kg	110	367
99-09-2	m-Nitroaniline	U	367	ug/kg	110	367
95-48-7	o-Cresol	U	367	ug/kg	110	367
88-74-4	o-Nitroaniline	U	367	ug/kg	121	367
100-01-6	p-Nitroaniline	U	367	ug/kg	110	367

Quantitation Report
GEL Laboratories, LLC

07/24/2018

07/24/2018

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2316.D
Acq On : 23 Jul 2018 21:44
Operator : LOF
InstName : MSDA
Sample : |454944004|1784536|1|SVM|1|URSC
Misc : |MSD827D4_S|MIX[A,B,J]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 24 10:47:22 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.640	5.646	1.000	391704	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.416	7.416	1.000	1511635	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.728	9.728	1.000	796503	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.610	11.604	1.000	1542865	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.145	15.139	1.000	1077220	40.00	ng/uL	0.00
87) A Perylene-d12	264	18.522	18.516	1.000	681047	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.640	5.646	1.000	391704	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.416	7.416	1.000	1511635	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.728	9.728	1.000	796503	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.610	11.604	1.000	1542865	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.145	15.139	1.000	1077220	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.522	18.516	1.000	681047	40.00	ng/uL	0.00
150) J Phenanthrene-d10	188	11.610	11.604	1.000	1542865	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.145	15.139	1.000	1077220	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.416	7.416	1.000	1511635	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.728	9.728	1.000	796503	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.610	11.604	1.000	1542865	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.145	15.139	1.000	1077220	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.416	7.416	1.000	1511635	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.522	18.516	1.000	681047	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.964	3.946	0.703	773111	64.36	ng/uL	0.02
7) Phenol-d5	99	5.122	5.116	0.908	980324	67.79	ng/uL	0.00
22) Nitrobenzene-d5	82	6.422	6.434	0.866	412513	31.19	ng/uL	-0.01
43) 2-Fluorobiphenyl	172	8.857	8.863	0.911	965434	30.71	ng/uL	0.00
62) 2,4,6-Tribromophenol	330	10.728	10.734	1.103	297411	72.94	ng/uL	0.00
79) p-Terphenyl-d14	244	13.592	13.592	0.897	1280236	38.40	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	15 - 88	64%
7) Phenol-d5	100.000	15 - 91	68%
22) Nitrobenzene-d5	50.000	36 - 115	62%
43) 2-Fluorobiphenyl	50.000	32 - 112	61%
62) 2,4,6-Tribromophenol	100.000	32 - 124	73%
79) p-Terphenyl-d14	50.000	36 - 121	77%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2316.D
Acq On    : 23 Jul 2018  21:44
Operator  : LOF
InstName  : MSDA
Sample    : |454944004|1784536|1|SVM|1|URSC
Misc      : |MSD827D4_S|MIX[A,B,J]
ALS Vial  : 16   Sample Multiplier: 1

Quant Time: Jul 24 10:47:22 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title  : BNA01                                        SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE
```

```
#29 BEFORE analyst DELETION
Benzoic acid
Concen:   12.14 ng/uL
RT:   7.034 min  Scan# 892
Delta R.T.  -0.088 min
Lab File:   sAg2316.D
Acq: 23 Jul 2018  21:44

Tgt Ion:105 Resp:    1501
Ion  Ratio  Lower  Upper
105  100
122    0.0   46.6  106.6#
 77    0.0   41.0  101.0#
```

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 10:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944005**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**8.8**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S05**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 22:13**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.49 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2317.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
92-52-4	1,1'-Biphenyl	U	360	ug/kg	108	360
95-94-3	1,2,4,5-Tetrachlorobenzene	U	360	ug/kg	108	360
58-90-2	2,3,4,6-Tetrachlorophenol	U	360	ug/kg	108	360
95-95-4	2,4,5-Trichlorophenol	U	360	ug/kg	108	360
88-06-2	2,4,6-Trichlorophenol	U	360	ug/kg	108	360
120-83-2	2,4-Dichlorophenol	U	360	ug/kg	108	360
105-67-9	2,4-Dimethylphenol	U	360	ug/kg	108	360
51-28-5	2,4-Dinitrophenol	U	719	ug/kg	108	719
121-14-2	2,4-Dinitrotoluene	U	360	ug/kg	108	360
606-20-2	2,6-Dinitrotoluene	U	360	ug/kg	108	360
91-58-7	2-Chloronaphthalene	U	36.0	ug/kg	10.8	36.0
95-57-8	2-Chlorophenol	U	360	ug/kg	108	360
534-52-1	2-Methyl-4,6-dinitrophenol	U	360	ug/kg	108	360
91-57-6	2-Methylnaphthalene	U	36.0	ug/kg	10.8	36.0
88-75-5	2-Nitrophenol	U	360	ug/kg	108	360
91-94-1	3,3'-Dichlorobenzidine	U	360	ug/kg	108	360
101-55-3	4-Bromophenylphenylether	U	360	ug/kg	108	360
59-50-7	4-Chloro-3-methylphenol	U	360	ug/kg	144	360
106-47-8	4-Chloroaniline	U	360	ug/kg	108	360
7005-72-3	4-Chlorophenylphenylether	U	360	ug/kg	108	360
100-02-7	4-Nitrophenol	U	360	ug/kg	108	360
83-32-9	Acenaphthene	U	36.0	ug/kg	10.8	36.0
208-96-8	Acenaphthylene	U	36.0	ug/kg	10.8	36.0
98-86-2	Acetophenone	U	360	ug/kg	108	360
120-12-7	Anthracene	U	36.0	ug/kg	10.8	36.0
1912-24-9	Atrazine	U	360	ug/kg	144	360
100-52-7	Benzaldehyde	U	360	ug/kg	108	360
56-55-3	Benzo(a)anthracene	U	36.0	ug/kg	10.8	36.0
50-32-8	Benzo(a)pyrene	U	36.0	ug/kg	10.8	36.0
205-99-2	Benzo(b)fluoranthene	U	36.0	ug/kg	10.8	36.0
191-24-2	Benzo(ghi)perylene	U	36.0	ug/kg	10.8	36.0
207-08-9	Benzo(k)fluoranthene	U	36.0	ug/kg	10.8	36.0
85-68-7	Butylbenzylphthalate	U	36.0	ug/kg	10.8	36.0
105-60-2	Caprolactam	U	360	ug/kg	108	360
86-74-8	Carbazole	U	36.0	ug/kg	10.8	36.0
218-01-9	Chrysene	U	36.0	ug/kg	10.8	36.0
84-74-2	Di-n-butylphthalate	U	36.0	ug/kg	10.8	36.0
117-84-0	Di-n-octylphthalate	U	36.0	ug/kg	10.8	36.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 10:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944005**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**8.8**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S05**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 22:13**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.49 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2317.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
53-70-3	Dibenzo(a,h)anthracene	U	36.0	ug/kg	10.8	36.0
132-64-9	Dibenzofuran	U	360	ug/kg	108	360
84-66-2	Diethylphthalate	U	36.0	ug/kg	10.8	36.0
131-11-3	Dimethylphthalate	U	36.0	ug/kg	10.8	36.0
122-39-4	Diphenylamine	U	360	ug/kg	108	360
206-44-0	Fluoranthene	U	36.0	ug/kg	10.8	36.0
86-73-7	Fluorene	U	36.0	ug/kg	10.8	36.0
118-74-1	Hexachlorobenzene	U	360	ug/kg	108	360
87-68-3	Hexachlorobutadiene	U	360	ug/kg	108	360
77-47-4	Hexachlorocyclopentadiene	U	360	ug/kg	108	360
67-72-1	Hexachloroethane	U	360	ug/kg	108	360
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.0	ug/kg	10.8	36.0
78-59-1	Isophorone	U	360	ug/kg	108	360
621-64-7	N-Nitrosodipropylamine	U	360	ug/kg	108	360
91-20-3	Naphthalene	U	36.0	ug/kg	10.8	36.0
98-95-3	Nitrobenzene	U	360	ug/kg	108	360
87-86-5	Pentachlorophenol	U	360	ug/kg	108	360
85-01-8	Phenanthrene	U	36.0	ug/kg	10.8	36.0
108-95-2	Phenol	U	360	ug/kg	108	360
129-00-0	Pyrene	U	36.0	ug/kg	10.8	36.0
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	360	ug/kg	108	360
111-91-1	bis(2-Chloroethoxy)methane	U	360	ug/kg	108	360
111-44-4	bis(2-Chloroethyl) ether	U	360	ug/kg	108	360
117-81-7	bis(2-Ethylhexyl)phthalate	U	36.0	ug/kg	10.8	36.0
65794-96-9	m,p-Cresols	U	360	ug/kg	108	360
99-09-2	m-Nitroaniline	U	360	ug/kg	108	360
95-48-7	o-Cresol	U	360	ug/kg	108	360
88-74-4	o-Nitroaniline	U	360	ug/kg	119	360
100-01-6	p-Nitroaniline	U	360	ug/kg	108	360

Quantitation Report
GEL Laboratories, LLC

07/24/2018

07/24/2018

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2317.D
Acq On : 23 Jul 2018 22:13
Operator : LOF
InstName : MSDA
Sample : |454944005|1784536|1|SVM|1|URSC
Misc : |MSD827D4_S|MIX[A,B,J]
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 24 10:47:39 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.640	5.646	1.000	387448	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.416	7.416	1.000	1491439	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.728	9.728	1.000	785022	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.604	11.604	1.000	1477675	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.145	15.139	1.000	1111887	40.00	ng/uL	0.00
87) A Perylene-d12	264	18.522	18.516	1.000	707104	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.640	5.646	1.000	387448	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.416	7.416	1.000	1491439	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.728	9.728	1.000	785022	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.604	11.604	1.000	1477675	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.145	15.139	1.000	1111887	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.522	18.516	1.000	707104	40.00	ng/uL	0.00
150) J Phenanthrene-d10	188	11.604	11.604	1.000	1477675	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.145	15.139	1.000	1111887	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.416	7.416	1.000	1491439	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.728	9.728	1.000	785022	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.604	11.604	1.000	1477675	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.145	15.139	1.000	1111887	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.416	7.416	1.000	1491439	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.522	18.516	1.000	707104	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.963	3.946	0.703	590105	49.66	ng/uL	0.02
7) Phenol-d5	99	5.116	5.116	0.907	752361	52.59	ng/uL	0.00
22) Nitrobenzene-d5	82	6.422	6.434	0.866	313461	24.02	ng/uL	-0.01
43) 2-Fluorobiphenyl	172	8.851	8.863	0.910	733184	23.66	ng/uL	-0.01
62) 2,4,6-Tribromophenol	330	10.728	10.734	1.103	215683	53.67	ng/uL	0.00
79) p-Terphenyl-d14	244	13.592	13.592	0.897	1101044	32.00	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	15 - 88	50%
7) Phenol-d5	100.000	15 - 91	53%
22) Nitrobenzene-d5	50.000	36 - 115	48%
43) 2-Fluorobiphenyl	50.000	32 - 112	47%
62) 2,4,6-Tribromophenol	100.000	32 - 124	54%
79) p-Terphenyl-d14	50.000	36 - 121	64%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2317.D
Acq On : 23 Jul 2018 22:13
Operator : LOF
InstName : MSDA
Sample : |454944005|1784536|1|SVM|1|URSC
Misc : |MSD827D4_S|MIX[A,B,J]
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 24 10:47:39 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

#29 BEFORE analyst DELETION
Benzoic acid
Concen: 12.05 ng/uL
RT: 7.052 min Scan# 895
Delta R.T. -0.071 min
Lab File: sAg2317.D
Acq: 23 Jul 2018 22:13

Tgt Ion:105 Resp: 761

Ion	Ratio	Lower	Upper
105	100		
122	0.0	46.6	106.6#
77	0.0	41.0	101.0#

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 10:40**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944006**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S14**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 22:41**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.45 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2318.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
92-52-4	1,1'-Biphenyl	U	354	ug/kg	106	354
95-94-3	1,2,4,5-Tetrachlorobenzene	U	354	ug/kg	106	354
58-90-2	2,3,4,6-Tetrachlorophenol	U	354	ug/kg	106	354
95-95-4	2,4,5-Trichlorophenol	U	354	ug/kg	106	354
88-06-2	2,4,6-Trichlorophenol	U	354	ug/kg	106	354
120-83-2	2,4-Dichlorophenol	U	354	ug/kg	106	354
105-67-9	2,4-Dimethylphenol	U	354	ug/kg	106	354
51-28-5	2,4-Dinitrophenol	U	707	ug/kg	106	707
121-14-2	2,4-Dinitrotoluene	U	354	ug/kg	106	354
606-20-2	2,6-Dinitrotoluene	U	354	ug/kg	106	354
91-58-7	2-Chloronaphthalene	U	35.4	ug/kg	10.6	35.4
95-57-8	2-Chlorophenol	U	354	ug/kg	106	354
534-52-1	2-Methyl-4,6-dinitrophenol	U	354	ug/kg	106	354
91-57-6	2-Methylnaphthalene	U	35.4	ug/kg	10.6	35.4
88-75-5	2-Nitrophenol	U	354	ug/kg	106	354
91-94-1	3,3'-Dichlorobenzidine	U	354	ug/kg	106	354
101-55-3	4-Bromophenylphenylether	U	354	ug/kg	106	354
59-50-7	4-Chloro-3-methylphenol	U	354	ug/kg	141	354
106-47-8	4-Chloroaniline	U	354	ug/kg	106	354
7005-72-3	4-Chlorophenylphenylether	U	354	ug/kg	106	354
100-02-7	4-Nitrophenol	U	354	ug/kg	106	354
83-32-9	Acenaphthene	U	35.4	ug/kg	10.6	35.4
208-96-8	Acenaphthylene	U	35.4	ug/kg	10.6	35.4
98-86-2	Acetophenone	U	354	ug/kg	106	354
120-12-7	Anthracene	U	35.4	ug/kg	10.6	35.4
1912-24-9	Atrazine	U	354	ug/kg	141	354
100-52-7	Benzaldehyde	U	354	ug/kg	106	354
56-55-3	Benzo(a)anthracene	U	35.4	ug/kg	10.6	35.4
50-32-8	Benzo(a)pyrene	U	35.4	ug/kg	10.6	35.4
205-99-2	Benzo(b)fluoranthene	U	35.4	ug/kg	10.6	35.4
191-24-2	Benzo(ghi)perylene	U	35.4	ug/kg	10.6	35.4
207-08-9	Benzo(k)fluoranthene	U	35.4	ug/kg	10.6	35.4
85-68-7	Butylbenzylphthalate	U	35.4	ug/kg	10.6	35.4
105-60-2	Caprolactam	U	354	ug/kg	106	354
86-74-8	Carbazole	U	35.4	ug/kg	10.6	35.4
218-01-9	Chrysene	U	35.4	ug/kg	10.6	35.4
84-74-2	Di-n-butylphthalate	U	35.4	ug/kg	10.6	35.4
117-84-0	Di-n-octylphthalate	U	35.4	ug/kg	10.6	35.4

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 10:40**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944006**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S14**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 22:41**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.45 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2318.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
53-70-3	Dibenzo(a,h)anthracene	U	35.4	ug/kg	10.6	35.4
132-64-9	Dibenzofuran	U	354	ug/kg	106	354
84-66-2	Diethylphthalate	U	35.4	ug/kg	10.6	35.4
131-11-3	Dimethylphthalate	U	35.4	ug/kg	10.6	35.4
122-39-4	Diphenylamine	U	354	ug/kg	106	354
206-44-0	Fluoranthene	U	35.4	ug/kg	10.6	35.4
86-73-7	Fluorene	U	35.4	ug/kg	10.6	35.4
118-74-1	Hexachlorobenzene	U	354	ug/kg	106	354
87-68-3	Hexachlorobutadiene	U	354	ug/kg	106	354
77-47-4	Hexachlorocyclopentadiene	U	354	ug/kg	106	354
67-72-1	Hexachloroethane	U	354	ug/kg	106	354
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.4	ug/kg	10.6	35.4
78-59-1	Isophorone	U	354	ug/kg	106	354
621-64-7	N-Nitrosodipropylamine	U	354	ug/kg	106	354
91-20-3	Naphthalene	U	35.4	ug/kg	10.6	35.4
98-95-3	Nitrobenzene	U	354	ug/kg	106	354
87-86-5	Pentachlorophenol	U	354	ug/kg	106	354
85-01-8	Phenanthrene	U	35.4	ug/kg	10.6	35.4
108-95-2	Phenol	U	354	ug/kg	106	354
129-00-0	Pyrene	U	35.4	ug/kg	10.6	35.4
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	354	ug/kg	106	354
111-91-1	bis(2-Chloroethoxy)methane	U	354	ug/kg	106	354
111-44-4	bis(2-Chloroethyl) ether	U	354	ug/kg	106	354
117-81-7	bis(2-Ethylhexyl)phthalate	U	35.4	ug/kg	10.6	35.4
65794-96-9	m,p-Cresols	U	354	ug/kg	106	354
99-09-2	m-Nitroaniline	U	354	ug/kg	106	354
95-48-7	o-Cresol	U	354	ug/kg	106	354
88-74-4	o-Nitroaniline	U	354	ug/kg	117	354
100-01-6	p-Nitroaniline	U	354	ug/kg	106	354

Quantitation Report
GEL Laboratories, LLC

07/24/2018

07/24/2018

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2318.D
Acq On : 23 Jul 2018 22:41
Operator : LOF
InstName : MSDA
Sample : |454944006|1784536|1|SVM|1|URSC
Misc : |MSD827D4_S|MIX[A,B,J]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jul 24 10:48:11 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.640	5.646	1.000	289935	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.416	7.416	1.000	1221965	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.728	9.728	1.000	713886	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.610	11.604	1.000	1497288	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.145	15.139	1.000	1093286	40.00	ng/uL	0.00
87) A Perylene-d12	264	18.522	18.516	1.000	670530	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.640	5.646	1.000	289935	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.416	7.416	1.000	1221965	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.728	9.728	1.000	713886	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.610	11.604	1.000	1497288	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.145	15.139	1.000	1093286	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.522	18.516	1.000	670530	40.00	ng/uL	0.00
150) J Phenanthrene-d10	188	11.610	11.604	1.000	1497288	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.145	15.139	1.000	1093286	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.416	7.416	1.000	1221965	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.728	9.728	1.000	713886	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.610	11.604	1.000	1497288	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.145	15.139	1.000	1093286	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.416	7.416	1.000	1221965	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.522	18.516	1.000	670530	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.963	3.946	0.703	540671	60.81	ng/uL	0.02
7) Phenol-d5	99	5.122	5.116	0.908	594479	55.53	ng/uL	0.00
22) Nitrobenzene-d5	82	6.422	6.434	0.866	225770	21.12	ng/uL	-0.01
43) 2-Fluorobiphenyl	172	8.851	8.863	0.910	575976	20.44	ng/uL	-0.01
62) 2,4,6-Tribromophenol	330	10.728	10.734	1.103	224219	61.35	ng/uL	0.00
79) p-Terphenyl-d14	244	13.592	13.592	0.897	1150232	34.00	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	15 - 88	61%
7) Phenol-d5	100.000	15 - 91	56%
22) Nitrobenzene-d5	50.000	36 - 115	42%
43) 2-Fluorobiphenyl	50.000	32 - 112	41%
62) 2,4,6-Tribromophenol	100.000	32 - 124	61%
79) p-Terphenyl-d14	50.000	36 - 121	68%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2318.D
Acq On    : 23 Jul 2018  22:41
Operator  : LOF
InstName  : MSDA
Sample    : |454944006|1784536|1|SVM|1|URSC
Misc      : |MSD827D4_S|MIX[A,B,J]
ALS Vial  : 18   Sample Multiplier: 1

Quant Time: Jul 24 10:48:11 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title  : BNA01                                        SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE
```

```
#29 BEFORE analyst DELETION
Benzoic acid
Concen:   12.04 ng/uL
RT:   7.052 min  Scan# 895
Delta R.T.  -0.071 min
Lab File:   sAg2318.D
Acq: 23 Jul 2018  22:41

Tgt Ion:105 Resp:     532
Ion  Ratio  Lower  Upper
105  100
122    0.0   46.6  106.6#
 77    0.0   41.0  101.0#
```

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 13:35**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944007**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S15**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 23:09**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2319.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
92-52-4	1,1'-Biphenyl	U	360	ug/kg	108	360
95-94-3	1,2,4,5-Tetrachlorobenzene	U	360	ug/kg	108	360
58-90-2	2,3,4,6-Tetrachlorophenol	U	360	ug/kg	108	360
95-95-4	2,4,5-Trichlorophenol	U	360	ug/kg	108	360
88-06-2	2,4,6-Trichlorophenol	U	360	ug/kg	108	360
120-83-2	2,4-Dichlorophenol	U	360	ug/kg	108	360
105-67-9	2,4-Dimethylphenol	U	360	ug/kg	108	360
51-28-5	2,4-Dinitrophenol	U	720	ug/kg	108	720
121-14-2	2,4-Dinitrotoluene	U	360	ug/kg	108	360
606-20-2	2,6-Dinitrotoluene	U	360	ug/kg	108	360
91-58-7	2-Chloronaphthalene	U	36.0	ug/kg	10.8	36.0
95-57-8	2-Chlorophenol	U	360	ug/kg	108	360
534-52-1	2-Methyl-4,6-dinitrophenol	U	360	ug/kg	108	360
91-57-6	2-Methylnaphthalene	U	36.0	ug/kg	10.8	36.0
88-75-5	2-Nitrophenol	U	360	ug/kg	108	360
91-94-1	3,3'-Dichlorobenzidine	U	360	ug/kg	108	360
101-55-3	4-Bromophenylphenylether	U	360	ug/kg	108	360
59-50-7	4-Chloro-3-methylphenol	U	360	ug/kg	144	360
106-47-8	4-Chloroaniline	U	360	ug/kg	108	360
7005-72-3	4-Chlorophenylphenylether	U	360	ug/kg	108	360
100-02-7	4-Nitrophenol	U	360	ug/kg	108	360
83-32-9	Acenaphthene	U	36.0	ug/kg	10.8	36.0
208-96-8	Acenaphthylene	U	36.0	ug/kg	10.8	36.0
98-86-2	Acetophenone	U	360	ug/kg	108	360
120-12-7	Anthracene	U	36.0	ug/kg	10.8	36.0
1912-24-9	Atrazine	U	360	ug/kg	144	360
100-52-7	Benzaldehyde	U	360	ug/kg	108	360
56-55-3	Benzo(a)anthracene	U	36.0	ug/kg	10.8	36.0
50-32-8	Benzo(a)pyrene	U	36.0	ug/kg	10.8	36.0
205-99-2	Benzo(b)fluoranthene	U	36.0	ug/kg	10.8	36.0
191-24-2	Benzo(ghi)perylene	U	36.0	ug/kg	10.8	36.0
207-08-9	Benzo(k)fluoranthene	U	36.0	ug/kg	10.8	36.0
85-68-7	Butylbenzylphthalate	U	36.0	ug/kg	10.8	36.0
105-60-2	Caprolactam	U	360	ug/kg	108	360
86-74-8	Carbazole	U	36.0	ug/kg	10.8	36.0
218-01-9	Chrysene	U	36.0	ug/kg	10.8	36.0
84-74-2	Di-n-butylphthalate	U	36.0	ug/kg	10.8	36.0
117-84-0	Di-n-octylphthalate	U	36.0	ug/kg	10.8	36.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 13:35**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944007**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S15**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 23:09**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2319.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
53-70-3	Dibenzo(a,h)anthracene	U	36.0	ug/kg	10.8	36.0
132-64-9	Dibenzofuran	U	360	ug/kg	108	360
84-66-2	Diethylphthalate	U	36.0	ug/kg	10.8	36.0
131-11-3	Dimethylphthalate	U	36.0	ug/kg	10.8	36.0
122-39-4	Diphenylamine	U	360	ug/kg	108	360
206-44-0	Fluoranthene	U	36.0	ug/kg	10.8	36.0
86-73-7	Fluorene	U	36.0	ug/kg	10.8	36.0
118-74-1	Hexachlorobenzene	U	360	ug/kg	108	360
87-68-3	Hexachlorobutadiene	U	360	ug/kg	108	360
77-47-4	Hexachlorocyclopentadiene	U	360	ug/kg	108	360
67-72-1	Hexachloroethane	U	360	ug/kg	108	360
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.0	ug/kg	10.8	36.0
78-59-1	Isophorone	U	360	ug/kg	108	360
621-64-7	N-Nitrosodipropylamine	U	360	ug/kg	108	360
91-20-3	Naphthalene	U	36.0	ug/kg	10.8	36.0
98-95-3	Nitrobenzene	U	360	ug/kg	108	360
87-86-5	Pentachlorophenol	U	360	ug/kg	108	360
85-01-8	Phenanthrene	U	36.0	ug/kg	10.8	36.0
108-95-2	Phenol	U	360	ug/kg	108	360
129-00-0	Pyrene	U	36.0	ug/kg	10.8	36.0
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	360	ug/kg	108	360
111-91-1	bis(2-Chloroethoxy)methane	U	360	ug/kg	108	360
111-44-4	bis(2-Chloroethyl) ether	U	360	ug/kg	108	360
117-81-7	bis(2-Ethylhexyl)phthalate	U	36.0	ug/kg	10.8	36.0
65794-96-9	m,p-Cresols	U	360	ug/kg	108	360
99-09-2	m-Nitroaniline	U	360	ug/kg	108	360
95-48-7	o-Cresol	U	360	ug/kg	108	360
88-74-4	o-Nitroaniline	U	360	ug/kg	119	360
100-01-6	p-Nitroaniline	U	360	ug/kg	108	360

Quantitation Report
GEL Laboratories, LLC

07/24/2018

07/24/2018

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2319.D
Acq On : 23 Jul 2018 23:09
Operator : LOF
InstName : MSDA
Sample : |454944007|1784536|1|SVM|1|URSC
Misc : |MSD827D4_S|MIX[A,B,J]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jul 24 10:48:28 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.646	5.646	1.000	392297	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.416	7.416	1.000	1347782	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.728	9.728	1.000	748524	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.604	11.604	1.000	1520370	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.145	15.139	1.000	1123766	40.00	ng/uL	0.00
87) A Perylene-d12	264	18.521	18.516	1.000	712964	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.646	5.646	1.000	392297	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.416	7.416	1.000	1347782	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.728	9.728	1.000	748524	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.604	11.604	1.000	1520370	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.145	15.139	1.000	1123766	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.521	18.516	1.000	712964	40.00	ng/uL	0.00
150) J Phenanthrene-d10	188	11.604	11.604	1.000	1520370	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.145	15.139	1.000	1123766	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.416	7.416	1.000	1347782	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.728	9.728	1.000	748524	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.604	11.604	1.000	1520370	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.145	15.139	1.000	1123766	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.416	7.416	1.000	1347782	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.521	18.516	1.000	712964	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.969	3.946	0.703	728282	60.53	ng/uL	0.02
7) Phenol-d5	99	5.122	5.116	0.907	838633	57.90	ng/uL	0.00
22) Nitrobenzene-d5	82	6.422	6.434	0.866	333251	28.26	ng/uL	-0.01
43) 2-Fluorobiphenyl	172	8.857	8.863	0.911	804655	27.23	ng/uL	0.00
62) 2,4,6-Tribromophenol	330	10.728	10.734	1.103	281133	73.36	ng/uL	0.00
79) p-Terphenyl-d14	244	13.592	13.592	0.897	1283201	36.90	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	15 - 88	61%
7) Phenol-d5	100.000	15 - 91	58%
22) Nitrobenzene-d5	50.000	36 - 115	57%
43) 2-Fluorobiphenyl	50.000	32 - 112	54%
62) 2,4,6-Tribromophenol	100.000	32 - 124	73%
79) p-Terphenyl-d14	50.000	36 - 121	74%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2319.D
Acq On : 23 Jul 2018 23:09
Operator : LOF
InstName : MSDA
Sample : |454944007|1784536|1|SVM|1|URSC
Misc : |MSD827D4_S|MIX[A,B,J]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jul 24 10:48:28 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

#29 BEFORE analyst DELETION
Benzoic acid
Concen: 12.06 ng/uL
RT: 7.051 min Scan# 895
Delta R.T. -0.071 min
Lab File: sAg2319.D
Acq: 23 Jul 2018 23:09

Tgt Ion:105 Resp: 707

Ion	Ratio	Lower	Upper
105	100		
122	0.0	46.6	106.6#
77	0.0	41.0	101.0#

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 13:50**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944008**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**8.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S19**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 23:37**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.13 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2320.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
92-52-4	1,1'-Biphenyl	U	363	ug/kg	109	363
95-94-3	1,2,4,5-Tetrachlorobenzene	U	363	ug/kg	109	363
58-90-2	2,3,4,6-Tetrachlorophenol	U	363	ug/kg	109	363
95-95-4	2,4,5-Trichlorophenol	U	363	ug/kg	109	363
88-06-2	2,4,6-Trichlorophenol	U	363	ug/kg	109	363
120-83-2	2,4-Dichlorophenol	U	363	ug/kg	109	363
105-67-9	2,4-Dimethylphenol	U	363	ug/kg	109	363
51-28-5	2,4-Dinitrophenol	U	727	ug/kg	109	727
121-14-2	2,4-Dinitrotoluene	U	363	ug/kg	109	363
606-20-2	2,6-Dinitrotoluene	U	363	ug/kg	109	363
91-58-7	2-Chloronaphthalene	U	36.3	ug/kg	10.9	36.3
95-57-8	2-Chlorophenol	U	363	ug/kg	109	363
534-52-1	2-Methyl-4,6-dinitrophenol	U	363	ug/kg	109	363
91-57-6	2-Methylnaphthalene	U	36.3	ug/kg	10.9	36.3
88-75-5	2-Nitrophenol	U	363	ug/kg	109	363
91-94-1	3,3'-Dichlorobenzidine	U	363	ug/kg	109	363
101-55-3	4-Bromophenylphenylether	U	363	ug/kg	109	363
59-50-7	4-Chloro-3-methylphenol	U	363	ug/kg	145	363
106-47-8	4-Chloroaniline	U	363	ug/kg	109	363
7005-72-3	4-Chlorophenylphenylether	U	363	ug/kg	109	363
100-02-7	4-Nitrophenol	U	363	ug/kg	109	363
83-32-9	Acenaphthene	U	36.3	ug/kg	10.9	36.3
208-96-8	Acenaphthylene	U	36.3	ug/kg	10.9	36.3
98-86-2	Acetophenone	U	363	ug/kg	109	363
120-12-7	Anthracene	U	36.3	ug/kg	10.9	36.3
1912-24-9	Atrazine	U	363	ug/kg	145	363
100-52-7	Benzaldehyde	U	363	ug/kg	109	363
56-55-3	Benzo(a)anthracene	U	36.3	ug/kg	10.9	36.3
50-32-8	Benzo(a)pyrene	U	36.3	ug/kg	10.9	36.3
205-99-2	Benzo(b)fluoranthene	U	36.3	ug/kg	10.9	36.3
191-24-2	Benzo(ghi)perylene	U	36.3	ug/kg	10.9	36.3
207-08-9	Benzo(k)fluoranthene	U	36.3	ug/kg	10.9	36.3
85-68-7	Butylbenzylphthalate	U	36.3	ug/kg	10.9	36.3
105-60-2	Caprolactam	U	363	ug/kg	109	363
86-74-8	Carbazole	U	36.3	ug/kg	10.9	36.3
218-01-9	Chrysene	U	36.3	ug/kg	10.9	36.3
84-74-2	Di-n-butylphthalate	U	36.3	ug/kg	10.9	36.3
117-84-0	Di-n-octylphthalate	U	36.3	ug/kg	10.9	36.3

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 13:50**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944008**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**8.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S19**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 23:37**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.13 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2320.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
53-70-3	Dibenzo(a,h)anthracene	U	36.3	ug/kg	10.9	36.3
132-64-9	Dibenzofuran	U	363	ug/kg	109	363
84-66-2	Diethylphthalate	U	36.3	ug/kg	10.9	36.3
131-11-3	Dimethylphthalate	U	36.3	ug/kg	10.9	36.3
122-39-4	Diphenylamine	U	363	ug/kg	109	363
206-44-0	Fluoranthene	J	14.2	ug/kg	10.9	36.3
86-73-7	Fluorene	U	36.3	ug/kg	10.9	36.3
118-74-1	Hexachlorobenzene	U	363	ug/kg	109	363
87-68-3	Hexachlorobutadiene	U	363	ug/kg	109	363
77-47-4	Hexachlorocyclopentadiene	U	363	ug/kg	109	363
67-72-1	Hexachloroethane	U	363	ug/kg	109	363
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.3	ug/kg	10.9	36.3
78-59-1	Isophorone	U	363	ug/kg	109	363
621-64-7	N-Nitrosodipropylamine	U	363	ug/kg	109	363
91-20-3	Naphthalene	U	36.3	ug/kg	10.9	36.3
98-95-3	Nitrobenzene	U	363	ug/kg	109	363
87-86-5	Pentachlorophenol	U	363	ug/kg	109	363
85-01-8	Phenanthrene	J	14.5	ug/kg	10.9	36.3
108-95-2	Phenol	U	363	ug/kg	109	363
129-00-0	Pyrene	U	36.3	ug/kg	10.9	36.3
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	363	ug/kg	109	363
111-91-1	bis(2-Chloroethoxy)methane	U	363	ug/kg	109	363
111-44-4	bis(2-Chloroethyl) ether	U	363	ug/kg	109	363
117-81-7	bis(2-Ethylhexyl)phthalate	U	36.3	ug/kg	10.9	36.3
65794-96-9	m,p-Cresols	U	363	ug/kg	109	363
99-09-2	m-Nitroaniline	U	363	ug/kg	109	363
95-48-7	o-Cresol	U	363	ug/kg	109	363
88-74-4	o-Nitroaniline	U	363	ug/kg	120	363
100-01-6	p-Nitroaniline	U	363	ug/kg	109	363

Quantitation Report
GEL Laboratories, LLC

07/24/2018

07/24/2018

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2320.D
Acq On : 23 Jul 2018 23:37
Operator : LOF
InstName : MSDA
Sample : |454944008|1784536|1|SVM|1|URSC
Misc : |MSD827D4_S|MIX[A,B,J]
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jul 24 10:48:57 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.640	5.646	1.000	395595	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.410	7.416	1.000	1515276	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.728	9.728	1.000	804148	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.604	11.604	1.000	1547657	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.145	15.139	1.000	1021703	40.00	ng/uL	0.00
87) A Perylene-d12	264	18.522	18.516	1.000	594328	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.640	5.646	1.000	395595	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.410	7.416	1.000	1515276	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.728	9.728	1.000	804148	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.604	11.604	1.000	1547657	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.145	15.139	1.000	1021703	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.522	18.516	1.000	594328	40.00	ng/uL	0.00
150) J Phenanthrene-d10	188	11.604	11.604	1.000	1547657	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.145	15.139	1.000	1021703	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.410	7.416	1.000	1515276	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.728	9.728	1.000	804148	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.604	11.604	1.000	1547657	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.145	15.139	1.000	1021703	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.410	7.416	1.000	1515276	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.522	18.516	1.000	594328	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.969	3.946	0.704	618899	51.01	ng/uL	0.02
7) Phenol-d5	99	5.116	5.116	0.907	788455	53.98	ng/uL	0.00
22) Nitrobenzene-d5	82	6.416	6.434	0.866	319015	24.06	ng/uL	-0.02
43) 2-Fluorobiphenyl	172	8.852	8.863	0.910	740359	23.32	ng/uL	-0.01
62) 2,4,6-Tribromophenol	330	10.728	10.734	1.103	237107	57.59	ng/uL	0.00
79) p-Terphenyl-d14	244	13.592	13.592	0.897	1048067	33.15	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	15 - 88	51%
7) Phenol-d5	100.000	15 - 91	54%
22) Nitrobenzene-d5	50.000	36 - 115	48%
43) 2-Fluorobiphenyl	50.000	32 - 112	47%
62) 2,4,6-Tribromophenol	100.000	32 - 124	58%
79) p-Terphenyl-d14	50.000	36 - 121	66%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
72) Phenanthrene	178	11.634	11.646	1.003	17677	0.40	ng/uL	99
76) Fluoranthene	202	13.116	13.128	1.130	15477	0.39	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2320.D
Acq On    : 23 Jul 2018  23:37
Operator  : LOF
InstName  : MSDA
Sample    : |454944008|1784536|1|SVM|1|URSC
Misc      : |MSD827D4_S|MIX[A,B,J]
ALS Vial  : 20   Sample Multiplier: 1

Quant Time: Jul 24 10:48:57 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title  : BNA01                                        SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE
```

#3 BEFORE analyst DELETION
N-Methyl-N-nitrosomethylamine
Concen: 1.53 ng/uL
RT: 2.511 min Scan# 123
Delta R.T. -0.082 min
Lab File: sAg2320.D
Acq: 23 Jul 2018 23:37

Tgt Ion: 74 Resp: 10721

Ion	Ratio	Lower	Upper
74	100		
42	22.3	57.0	117.0#
43	339.0	6.6	66.6#

#29 BEFORE analyst DELETION
Benzoic acid
Concen: 12.09 ng/uL
RT: 7.081 min Scan# 900
Delta R.T. -0.041 min
Lab File: sAg2320.D
Acq: 23 Jul 2018 23:37

Tgt Ion:105 Resp: 1054

Ion	Ratio	Lower	Upper
105	100		
122	0.0	46.6	106.6#
77	0.0	41.0	101.0#

#72
Phenanthrene
Concen: 0.40 ng/uL
RT: 11.634 min Scan# 1674
Delta R.T. -0.012 min
Lab File: sAg2320.D
Acq: 23 Jul 2018 23:37

Tgt Ion:178 Resp: 17677

Ion	Ratio	Lower	Upper
178	100		
176	19.1	0.0	48.8
179	16.0	0.0	45.1

#76
Fluoranthene
Concen: 0.39 ng/uL
RT: 13.116 min Scan# 1926
Delta R.T. -0.012 min
Lab File: sAg2320.D
Acq: 23 Jul 2018 23:37

Tgt Ion:202 Resp: 15477

Ion	Ratio	Lower	Upper
202	100		
203	17.2	0.0	47.0
101	13.7	0.0	43.6

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 14:00**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944009**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**SW22**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/24/2018 00:05**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.19 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2321.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
92-52-4	1,1'-Biphenyl	U	356	ug/kg	107	356
95-94-3	1,2,4,5-Tetrachlorobenzene	U	356	ug/kg	107	356
58-90-2	2,3,4,6-Tetrachlorophenol	U	356	ug/kg	107	356
95-95-4	2,4,5-Trichlorophenol	U	356	ug/kg	107	356
88-06-2	2,4,6-Trichlorophenol	U	356	ug/kg	107	356
120-83-2	2,4-Dichlorophenol	U	356	ug/kg	107	356
105-67-9	2,4-Dimethylphenol	U	356	ug/kg	107	356
51-28-5	2,4-Dinitrophenol	U	713	ug/kg	107	713
121-14-2	2,4-Dinitrotoluene	U	356	ug/kg	107	356
606-20-2	2,6-Dinitrotoluene	U	356	ug/kg	107	356
91-58-7	2-Chloronaphthalene	U	35.6	ug/kg	10.7	35.6
95-57-8	2-Chlorophenol	U	356	ug/kg	107	356
534-52-1	2-Methyl-4,6-dinitrophenol	U	356	ug/kg	107	356
91-57-6	2-Methylnaphthalene	U	35.6	ug/kg	10.7	35.6
88-75-5	2-Nitrophenol	U	356	ug/kg	107	356
91-94-1	3,3'-Dichlorobenzidine	U	356	ug/kg	107	356
101-55-3	4-Bromophenylphenylether	U	356	ug/kg	107	356
59-50-7	4-Chloro-3-methylphenol	U	356	ug/kg	143	356
106-47-8	4-Chloroaniline	U	356	ug/kg	107	356
7005-72-3	4-Chlorophenylphenylether	U	356	ug/kg	107	356
100-02-7	4-Nitrophenol	U	356	ug/kg	107	356
83-32-9	Acenaphthene	U	35.6	ug/kg	10.7	35.6
208-96-8	Acenaphthylene	U	35.6	ug/kg	10.7	35.6
98-86-2	Acetophenone	U	356	ug/kg	107	356
120-12-7	Anthracene	U	35.6	ug/kg	10.7	35.6
1912-24-9	Atrazine	U	356	ug/kg	143	356
100-52-7	Benzaldehyde	U	356	ug/kg	107	356
56-55-3	Benzo(a)anthracene	J	17.1	ug/kg	10.7	35.6
50-32-8	Benzo(a)pyrene	U	35.6	ug/kg	10.7	35.6
205-99-2	Benzo(b)fluoranthene	U	35.6	ug/kg	10.7	35.6
191-24-2	Benzo(ghi)perylene	U	35.6	ug/kg	10.7	35.6
207-08-9	Benzo(k)fluoranthene	U	35.6	ug/kg	10.7	35.6
85-68-7	Butylbenzylphthalate	U	35.6	ug/kg	10.7	35.6
105-60-2	Caprolactam	U	356	ug/kg	107	356
86-74-8	Carbazole	U	35.6	ug/kg	10.7	35.6
218-01-9	Chrysene	J	10.7	ug/kg	10.7	35.6
84-74-2	Di-n-butylphthalate	U	35.6	ug/kg	10.7	35.6
117-84-0	Di-n-octylphthalate	U	35.6	ug/kg	10.7	35.6

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 14:00**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944009**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**SW22**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/24/2018 00:05**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.19 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2321.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
53-70-3	Dibenzo(a,h)anthracene	U	35.6	ug/kg	10.7	35.6
132-64-9	Dibenzofuran	U	356	ug/kg	107	356
84-66-2	Diethylphthalate	U	35.6	ug/kg	10.7	35.6
131-11-3	Dimethylphthalate	U	35.6	ug/kg	10.7	35.6
122-39-4	Diphenylamine	U	356	ug/kg	107	356
206-44-0	Fluoranthene	J	32.1	ug/kg	10.7	35.6
86-73-7	Fluorene	U	35.6	ug/kg	10.7	35.6
118-74-1	Hexachlorobenzene	U	356	ug/kg	107	356
87-68-3	Hexachlorobutadiene	U	356	ug/kg	107	356
77-47-4	Hexachlorocyclopentadiene	U	356	ug/kg	107	356
67-72-1	Hexachloroethane	U	356	ug/kg	107	356
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.6	ug/kg	10.7	35.6
78-59-1	Isophorone	U	356	ug/kg	107	356
621-64-7	N-Nitrosodipropylamine	U	356	ug/kg	107	356
91-20-3	Naphthalene	U	35.6	ug/kg	10.7	35.6
98-95-3	Nitrobenzene	U	356	ug/kg	107	356
87-86-5	Pentachlorophenol	U	356	ug/kg	107	356
85-01-8	Phenanthrene	J	21.7	ug/kg	10.7	35.6
108-95-2	Phenol	U	356	ug/kg	107	356
129-00-0	Pyrene	J	21.4	ug/kg	10.7	35.6
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	356	ug/kg	107	356
111-91-1	bis(2-Chloroethoxy)methane	U	356	ug/kg	107	356
111-44-4	bis(2-Chloroethyl) ether	U	356	ug/kg	107	356
117-81-7	bis(2-Ethylhexyl)phthalate	U	35.6	ug/kg	10.7	35.6
65794-96-9	m,p-Cresols	U	356	ug/kg	107	356
99-09-2	m-Nitroaniline	U	356	ug/kg	107	356
95-48-7	o-Cresol	U	356	ug/kg	107	356
88-74-4	o-Nitroaniline	U	356	ug/kg	118	356
100-01-6	p-Nitroaniline	U	356	ug/kg	107	356

Quantitation Report
GEL Laboratories, LLC

07/25/2018

07/24/2018

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2321.D
Acq On : 24 Jul 2018 00:05
Operator : LOF
InstName : MSDA
Sample : |454944009|1784536|1|SVM|1|URSC
Misc : |MSD827D4_S|MIX[A,B,J]
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jul 24 10:49:44 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.646	5.646	1.000	421879	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.410	7.416	1.000	1617590	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.728	9.728	1.000	851284	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.610	11.604	1.000	1626250	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.145	15.139	1.000	1041573	40.00	ng/uL	0.00
87) A Perylene-d12	264	18.521	18.516	1.000	610194	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.646	5.646	1.000	421879	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.410	7.416	1.000	1617590	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.728	9.728	1.000	851284	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.610	11.604	1.000	1626250	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.145	15.139	1.000	1041573	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.521	18.516	1.000	610194	40.00	ng/uL	0.00
150) J Phenanthrene-d10	188	11.610	11.604	1.000	1626250	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.145	15.139	1.000	1041573	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.410	7.416	1.000	1617590	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.728	9.728	1.000	851284	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.610	11.604	1.000	1626250	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.145	15.139	1.000	1041573	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.410	7.416	1.000	1617590	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.521	18.516	1.000	610194	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.969	3.946	0.703	763293	59.00	ng/uL	0.02
7) Phenol-d5	99	5.116	5.116	0.906	982173	63.06	ng/uL	0.00
22) Nitrobenzene-d5	82	6.422	6.434	0.867	395743	27.96	ng/uL	-0.01
43) 2-Fluorobiphenyl	172	8.851	8.863	0.910	925673	27.55	ng/uL	-0.01
62) 2,4,6-Tribromophenol	330	10.728	10.734	1.103	297936	68.36	ng/uL	0.00
79) p-Terphenyl-d14	244	13.592	13.592	0.897	1294908	40.17	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	15 - 88	59%
7) Phenol-d5	100.000	15 - 91	63%
22) Nitrobenzene-d5	50.000	36 - 115	56%
43) 2-Fluorobiphenyl	50.000	32 - 112	55%
62) 2,4,6-Tribromophenol	100.000	32 - 124	68%
79) p-Terphenyl-d14	50.000	36 - 121	80%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
72) Phenanthrene	178	11.634	11.646	1.002	28430	0.61	ng/uL	100
76) Fluoranthene	202	13.116	13.128	1.130	38051	0.90	ng/uL	99
78) Pyrene	202	13.398	13.410	0.885	29908	0.60	ng/uL	98
82) Benzo(a)anthracene	228	15.122	15.134	0.998	15828	0.48	ng/uL	94
83) Chrysene	228	15.186	15.198	1.003	9052	0.30	ng/uL	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2321.D
Acq On : 24 Jul 2018 00:05
Operator : LOF
InstName : MSDA
Sample : |454944009|1784536|1|SVM|1|URSC
Misc : |MSD827D4_S|MIX[A,B,J]
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jul 24 10:49:44 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

#3 BEFORE analyst DELETION
N-Methyl-N-nitrosomethylamine
Concen: 2.00 ng/uL
RT: 2.516 min Scan# 124
Delta R.T. -0.077 min
Lab File: sAg2321.D
Acq: 24 Jul 2018 00:05

Tgt Ion: 74 Resp: 14941

Ion	Ratio	Lower	Upper
74	100		
42	26.5	57.0	117.0#
43	379.0	6.6	66.6#

#29 BEFORE analyst DELETION
Benzoic acid
Concen: 12.10 ng/uL
RT: 7.051 min Scan# 895
Delta R.T. -0.071 min
Lab File: sAg2321.D
Acq: 24 Jul 2018 00:05

Tgt Ion:105 Resp: 1209

Ion	Ratio	Lower	Upper
105	100		
122	45.4	46.6	106.6#
77	0.0	41.0	101.0#

#72
Phenanthrene
Concen: 0.61 ng/uL
RT: 11.634 min Scan# 1674
Delta R.T. -0.012 min
Lab File: sAg2321.D
Acq: 24 Jul 2018 00:05

Tgt Ion:178 Resp: 28430

Ion	Ratio	Lower	Upper
178	100		
176	18.8	0.0	48.8
179	15.0	0.0	45.1

#76
Fluoranthene
Concen: 0.90 ng/uL
RT: 13.116 min Scan# 1926
Delta R.T. -0.012 min
Lab File: sAg2321.D
Acq: 24 Jul 2018 00:05

Tgt Ion:202 Resp: 38051

Ion	Ratio	Lower	Upper
202	100		
203	17.2	0.0	47.0
101	13.1	0.0	43.6

#78
Pyrene
Concen: 0.60 ng/uL
RT: 13.398 min Scan# 1974
Delta R.T. -0.012 min
Lab File: sAg2321.D
Acq: 24 Jul 2018 00:05

Tgt Ion:202 Resp: 29908

Ion	Ratio	Lower	Upper
202	100		
200	20.2	0.0	50.6
101	14.7	0.0	46.1

#82
Benzo(a)anthracene
Concen: 0.48 ng/uL
RT: 15.122 min Scan# 2267
Delta R.T. -0.012 min
Lab File: sAg2321.D
Acq: 24 Jul 2018 00:05

Tgt Ion:228 Resp: 15828

Ion	Ratio	Lower	Upper
228	100		
226	22.3	0.0	56.7
229	19.3	0.0	48.3

#83
Chrysene
Concen: 0.30 ng/uL
RT: 15.186 min Scan# 2278
Delta R.T. -0.012 min
Lab File: sAg2321.D
Acq: 24 Jul 2018 00:05

Tgt Ion:228 Resp: 9052

Ion	Ratio	Lower	Upper
228	100		
229	16.4	0.0	49.1
226	23.9	0.0	59.5

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 14:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944010**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S10**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/25/2018 01:47**	**Analyst:**	**JLD1**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**072418.s\sAg2417.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
92-52-4	1,1'-Biphenyl	U	359	ug/kg	108	359
95-94-3	1,2,4,5-Tetrachlorobenzene	U	359	ug/kg	108	359
58-90-2	2,3,4,6-Tetrachlorophenol	U	359	ug/kg	108	359
95-95-4	2,4,5-Trichlorophenol	U	359	ug/kg	108	359
88-06-2	2,4,6-Trichlorophenol	U	359	ug/kg	108	359
120-83-2	2,4-Dichlorophenol	U	359	ug/kg	108	359
105-67-9	2,4-Dimethylphenol	U	359	ug/kg	108	359
51-28-5	2,4-Dinitrophenol	U	717	ug/kg	108	717
121-14-2	2,4-Dinitrotoluene	U	359	ug/kg	108	359
606-20-2	2,6-Dinitrotoluene	U	359	ug/kg	108	359
91-58-7	2-Chloronaphthalene	U	35.9	ug/kg	10.8	35.9
95-57-8	2-Chlorophenol	U	359	ug/kg	108	359
534-52-1	2-Methyl-4,6-dinitrophenol	U	359	ug/kg	108	359
91-57-6	2-Methylnaphthalene	U	35.9	ug/kg	10.8	35.9
88-75-5	2-Nitrophenol	U	359	ug/kg	108	359
91-94-1	3,3'-Dichlorobenzidine	U	359	ug/kg	108	359
101-55-3	4-Bromophenylphenylether	U	359	ug/kg	108	359
59-50-7	4-Chloro-3-methylphenol	U	359	ug/kg	143	359
106-47-8	4-Chloroaniline	U	359	ug/kg	108	359
7005-72-3	4-Chlorophenylphenylether	U	359	ug/kg	108	359
100-02-7	4-Nitrophenol	U	359	ug/kg	108	359
83-32-9	Acenaphthene	U	35.9	ug/kg	10.8	35.9
208-96-8	Acenaphthylene	U	35.9	ug/kg	10.8	35.9
98-86-2	Acetophenone	U	359	ug/kg	108	359
120-12-7	Anthracene	U	35.9	ug/kg	10.8	35.9
1912-24-9	Atrazine	U	359	ug/kg	143	359
100-52-7	Benzaldehyde	U	359	ug/kg	108	359
56-55-3	Benzo(a)anthracene	U	35.9	ug/kg	10.8	35.9
50-32-8	Benzo(a)pyrene	U	35.9	ug/kg	10.8	35.9
205-99-2	Benzo(b)fluoranthene	U	35.9	ug/kg	10.8	35.9
191-24-2	Benzo(ghi)perylene	U	35.9	ug/kg	10.8	35.9
207-08-9	Benzo(k)fluoranthene	U	35.9	ug/kg	10.8	35.9
85-68-7	Butylbenzylphthalate	U	35.9	ug/kg	10.8	35.9
105-60-2	Caprolactam	U	359	ug/kg	108	359
86-74-8	Carbazole	U	35.9	ug/kg	10.8	35.9
218-01-9	Chrysene	U	35.9	ug/kg	10.8	35.9
84-74-2	Di-n-butylphthalate	U	35.9	ug/kg	10.8	35.9
117-84-0	Di-n-octylphthalate	U	35.9	ug/kg	10.8	35.9

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 14:20**	**Matrix:**	**SOIL**
Lab Sample ID:	**454944010**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**7.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**S10**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/25/2018 01:47**	**Analyst:**	**JLD1**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**072418.s\sAg2417.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
53-70-3	Dibenzo(a,h)anthracene	U	35.9	ug/kg	10.8	35.9
132-64-9	Dibenzofuran	U	359	ug/kg	108	359
84-66-2	Diethylphthalate	U	35.9	ug/kg	10.8	35.9
131-11-3	Dimethylphthalate	U	35.9	ug/kg	10.8	35.9
122-39-4	Diphenylamine	U	359	ug/kg	108	359
206-44-0	Fluoranthene	U	35.9	ug/kg	10.8	35.9
86-73-7	Fluorene	U	35.9	ug/kg	10.8	35.9
118-74-1	Hexachlorobenzene	U	359	ug/kg	108	359
87-68-3	Hexachlorobutadiene	U	359	ug/kg	108	359
77-47-4	Hexachlorocyclopentadiene	U	359	ug/kg	108	359
67-72-1	Hexachloroethane	U	359	ug/kg	108	359
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.9	ug/kg	10.8	35.9
78-59-1	Isophorone	U	359	ug/kg	108	359
621-64-7	N-Nitrosodipropylamine	U	359	ug/kg	108	359
91-20-3	Naphthalene	U	35.9	ug/kg	10.8	35.9
98-95-3	Nitrobenzene	U	359	ug/kg	108	359
87-86-5	Pentachlorophenol	U	359	ug/kg	108	359
85-01-8	Phenanthrene	U	35.9	ug/kg	10.8	35.9
108-95-2	Phenol	U	359	ug/kg	108	359
129-00-0	Pyrene	U	35.9	ug/kg	10.8	35.9
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	359	ug/kg	108	359
111-91-1	bis(2-Chloroethoxy)methane	U	359	ug/kg	108	359
111-44-4	bis(2-Chloroethyl) ether	U	359	ug/kg	108	359
117-81-7	bis(2-Ethylhexyl)phthalate	U	35.9	ug/kg	10.8	35.9
65794-96-9	m,p-Cresols	U	359	ug/kg	108	359
99-09-2	m-Nitroaniline	U	359	ug/kg	108	359
95-48-7	o-Cresol	U	359	ug/kg	108	359
88-74-4	o-Nitroaniline	U	359	ug/kg	118	359
100-01-6	p-Nitroaniline	U	359	ug/kg	108	359

Quantitation Report
GEL Laboratories, LLC

07/25/2018

07/25/2018

Data Path : D:\MSDChem\1\data\072418.s\
Data File : sAg2417.D
Acq On : 25 Jul 2018 01:47
Operator : JLD1
InstName : MSDA
Sample : |454944010|1784536|1|SVM|1|URSC
Misc : |MSD827D4_S|MIX[A,B,J]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 25 10:31:02 2018
Quant Method : D:\MSDChem\1\data\072418.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.605	5.611	1.000	312446	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.381	7.381	1.000	1319879	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.693	9.693	1.000	739214	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.575	11.575	1.000	1416253	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.092	15.092	1.000	936968	40.00	ng/uL	0.00
87) A Perylene-d12	264	18.439	18.433	1.000	641184	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.605	5.611	1.000	312446	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.381	7.381	1.000	1319879	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.693	9.693	1.000	739214	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.575	11.575	1.000	1416253	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.092	15.092	1.000	936968	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.439	18.433	1.000	641184	40.00	ng/uL	0.00
150) J Phenanthrene-d10	188	11.575	11.575	1.000	1416253	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.092	15.092	1.000	936968	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.381	7.381	1.000	1319879	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.693	9.693	1.000	739214	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.575	11.575	1.000	1416253	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.092	15.092	1.000	936968	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.381	7.381	1.000	1319879	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.439	18.433	1.000	641184	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.928	3.911	0.701	737974m	77.02	ng/uL	0.02
7) Phenol-d5	99	5.087	5.081	0.908	803226	69.63	ng/uL	0.00
22) Nitrobenzene-d5	82	6.387	6.399	0.865	316319	27.39	ng/uL	-0.01
43) 2-Fluorobiphenyl	172	8.822	8.822	0.910	770580	26.41	ng/uL	0.00
62) 2,4,6-Tribromophenol	330	10.693	10.698	1.103	262147	69.27	ng/uL	0.00
79) p-Terphenyl-d14	244	13.557	13.557	0.898	1148556	39.61	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	15 - 88	77%
7) Phenol-d5	100.000	15 - 91	70%
22) Nitrobenzene-d5	50.000	36 - 115	55%
43) 2-Fluorobiphenyl	50.000	32 - 112	53%
62) 2,4,6-Tribromophenol	100.000	32 - 124	69%
79) p-Terphenyl-d14	50.000	36 - 121	79%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : D:\MSDChem\1\data\072418.s\
Data File : sAg2417.D
Acq On    : 25 Jul 2018  01:47
Operator  : JLD1
InstName  : MSDA
Sample    : |454944010|1784536|1|SVM|1|URSC
Misc      : |MSD827D4_S|MIX[A,B,J]
ALS Vial  : 7   Sample Multiplier: 1

Quant Time: Jul 25 10:31:02 2018
Quant Method : D:\MSDChem\1\data\072418.s\MSDA_8270d_8270c_062018.m
Quant Title  : BNA01                                        SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE
```

#3 BEFORE analyst DELETION
N-Methyl-N-nitrosomethylamine
Concen: 3.41 ng/uL
RT: 2.487 min Scan# 119
Delta R.T. -0.076 min
Lab File: sAg2417.D
Acq: 25 Jul 2018 01:47

Tgt Ion: 74 Resp: 18873

Ion	Ratio	Lower	Upper
74	100		
42	25.1	50.8	110.8#
43	423.7	5.6	65.6#

#5 BEFORE analyst integration
2-Fluorophenol
Concen: 12.19 ng/uL
RT: 3.899 min Scan# 359
Delta R.T. -0.012 min
Lab File: sAg2417.D
Acq: 25 Jul 2018 01:47

Tgt Ion:112 Resp: 116782

Ion	Ratio	Lower	Upper
112	100		
64	61.8	30.6	90.6

#5 AFTER analyst integration
2-Fluorophenol AB
Concen: 77.02 ng/uL MANUALLY INTEGRATED
RT: 3.928 min Scan# 364
Delta R.T. 0.018 min
Lab File: sAg2417.D
Acq: 25 Jul 2018 01:47

Tgt Ion:112 Resp: 737974

Ion	Ratio	Lower	Upper
112	100		
64	60.6	30.6	90.6

#29 BEFORE analyst DELETION
Benzoic acid
Concen: 12.16 ng/uL
RT: 7.016 min Scan# 889
Delta R.T. -0.065 min
Lab File: sAg2417.D
Acq: 25 Jul 2018 01:47

Tgt Ion:105 Resp: 1502

Ion	Ratio	Lower	Upper
105	100		
122	0.0	46.6	106.6#
77	0.0	41.0	101.0#

Standards

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)										
Naphthalene-d8 (INTERNAL STANDARD)										
Acenaphthene-d10 (INTERNAL STANDARD)										
Phenanthrene-d10 (INTERNAL STANDARD)										
Chrysene-d12 (INTERNAL STANDARD)										
Perylene-d12 (INTERNAL STANDARD)										
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120	30	60
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120	30	60
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120	30	60
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120	30	60
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120	30	60
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120	30	60
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120	30	60
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120	30	60
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120	30	60
Pyridine		10	20	40	50	80	100	120	30	60
Aniline		10	20	40	50	80	100	120	30	60
Phenol		10	20	40	50	80	100	120	30	60
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120	30	60
2-Chlorophenol		10	20	40	50	80	100	120	30	60
n-Decane		10	20	40	50	80	100	120	30	60
1,3-Dichlorobenzene		10	20	40	50	80	100	120	30	60
1,4-Dichlorobenzene		10	20	40	50	80	100	120	30	60
Benzyl Alcohol		10	20	40	50	80	100	120	30	60
1,2-Dichlorobenzene		10	20	40	50	80	100	120	30	60
bis(2-Chloro-1-methylethyl)ether		10	20	40	50	80	100	120	30	60
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120	30	60
N-Nitrosodipropylamine		10	20	40	50	80	100	120	30	60
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120	30	60
Hexachloroethane		10	20	40	50	80	100	120	30	60
Nitrobenzene		10	20	40	50	80	100	120	30	60
Isophorone		10	20	40	50	80	100	120	30	60
2-Nitrophenol		10	20	40	50	80	100	120	30	60
2,4-Dimethylphenol		10	20	40	50	80	100	120	30	60
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120	30	60
2,4-Dichlorophenol		10	20	40	50	80	100	120	30	60
Benzoic Acid			20	40	50	80	100	120	30	60
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120	30	60
Naphthalene	1	10	20	40	50	80	100	120	30	60
alpha-Terpineol		10	20	40	50	80	100	120	30	60
4-Chloroaniline		10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
Hexachlorobutadiene		10	20	40	50	80	100	120	30	60
4-Chloro-3-methylphenol		10	20	40	50	80	100	120	30	60
2-Methylnaphthalene	1	10	20	40	50	80	100	120	30	60
1-Methylnaphthalene	1	10	20	40	50	80	100	120	30	60
Hexachlorocyclopentadiene		10	20	40	50	80	100	120	30	60
2,3-Dichloroaniline		10	20	40	50	80	100	120	30	60
2,4,6-Trichlorophenol		10	20	40	50	80	100	120	30	60
2,4,5-Trichlorophenol		10	20	40	50	80	100	120	30	60
2-Chloronaphthalene	1	10	20	40	50	80	100	120	30	60
o-Nitroaniline		10	20	40	50	80	100	120	30	60
m-Nitroaniline		10	20	40	50	80	100	120	30	60
Dimethylphthalate	1**	10	20	40	50	80	100	120	30	60
2,6-Dinitrotoluene		10	20	40	50	80	100	120	30	60
Acenaphthylene	1	10	20	40	50	80	100	120	30	60
Acenaphthene	1	10	20	40	50	80	100	120	30	60
2,4-Dinitrophenol			20	40	50	80	100	120	30	60
Dibenzofuran		10	20	40	50	80	100	120	30	60
2,4-Dinitrotoluene		10	20	40	50	80	100	120	30	60
Diethylphthalate	1**	10	20	40	50	80	100	120	30	60
4-Nitrophenol		10	20	40	50	80	100	120	30	60
Fluorene	1	10	20	40	50	80	100	120	30	60
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120	30	60
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120	30	60
p-Nitroaniline		10	20	40	50	80	100	120	30	60
Diphenylamine		10	20	40	50	80	100	120	30	60
1,2-Diphenylhydrazine		10	20	40	50	80	100	120	30	60
4-Bromophenyl phenyether		10	20	40	50	80	100	120	30	60
Hexachlorobenzene		10	20	40	50	80	100	120	30	60
Pentachlorophenol		10	20	40	50	80	100	120	30	60
n-Octadecane		10	20	40	50	80	100	120	30	60
Phenanthrene	1	10	20	40	50	80	100	120	30	60
Anthracene	1	10	20	40	50	80	100	120	30	60
Di-n-butylphthalate	1**	10	20	40	50	80	100	120	30	60
Fluoranthene	1	10	20	40	50	80	100	120	30	60
Pyrene	1	10	20	40	50	80	100	120	30	60
Butylbenzylphthalate	1**	10	20	40	50	80	100	120	30	60
Benzo(a)anthracene	1	10	20	40	50	80	100	120	30	60
Chrysene	1	10	20	40	50	80	100	120	30	60
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120	30	60
Di-n-octylphthalate	1**	10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120	30	60
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120	30	60
Benzo(a)pyrene	1	10	20	40	50	80	100	120	30	60
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120	30	60
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120	30	60
Benzo(ghi)perylene	1	10	20	40	50	80	100	120	30	60
m-Dinitrobenzene		10	20	40	50	80	100	120	30	60
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120	30	60
Dinoseb		10	20	40	50	80	100	120	30	60
Carbazole	1	10	20	40	50	80	100	120	30	60
p-Benzoquinone		10	20	40	50	80	100	120	30	60
Methoxychlor		10	20	40	50	80	100	120	30	60
p-Toluidine		10	20	40	50	80	100	120	30	60
m-Toluidine		10	20	40	50	80	10	120	30	60
1,4-Dinitrobenzene		10	20	40	50	80	100	120	30	60
2-Ethoxyethanol		10	20	40	50	80	100	120	30	60
Phthalic anhydride		10	20	40	50	80	100	120	30	60
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120	30	60
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
Benzaldehyde		10	20	40	50	80	100	120	30	60
Acetophenone		10	20	40	50	80	100	120	30	60
Caprolactam		10	20	40	50	80	100	120	30	60
1,1'-Biphenyl		10	20	40	50	80	100	120	30	60
Atrazine		10	20	40	50	80	100	120	30	60
Benzidine		10	20	40	50	80	100	120	30	60
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120	30	60
1,4-Dioxane		10	20	40	50	80	100	120	30	60
Methyl methacrylate		10	20	40	50	80	100	120	30	60
Ethyl methacrylate		10	20	40	50	80	100	120	30	60
2-Picoline		10	20	40	50	80	100	120	30	60
N-Nitrosomethylethylamine		10	20	40	50	80	100	120	30	60
2-Butoxyethanol		10	20	40	50	80	100	120	30	60
Methyl methanesulfonate		10	20	40	50	80	100	120	30	60
N-Nitrosodiethylamine		10	20	40	50	80	100	120	30	60
Ethyl methanesulfonate		10	20	40	50	80	100	120	30	60
Pentachloroethane		10	20	40	50	80	100	120	30	60
N-Nitrosopyrrolidine		10	20	40	50	80	100	120	30	60
N-Nitrosomorpholine		10	20	40	50	80	100	120	30	60
o-Toluidine		10	20	40	50	80	100	120	30	60
N-Nitrosopiperidine		10	20	40	50	80	100	120	30	60
a,a-Dimethylphenethylamine		10	20	40	50	80	100	120	30	60
2,6-Dichlorophenol		10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
Hexachloropropene		10	20	40	50	80	100	120	30	60
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120	30	60
Safrole		10	20	40	50	80	100	120	30	60
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120	30	60
Isosafrole		10	20	40	50	80	100	120	30	60
1,4-Naphthoquinone		10	20	40	50	80	100	120	30	60
Pentachlorobenzene		10	20	40	50	80	100	120	30	60
1-Naphthylamine		10	20	40	50	80	100	120	30	60
2-Naphthylamine		10	20	40	50	80	100	120	30	60
5-Nitro-o-toluidine		10	20	40	50	80	100	120	30	60
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120	30	60
Phenacetin		10	20	40	50	80	100	120	30	60
Diallate		10	20	40	50	80	100	120	30	60
cis-Diallate		1.5	3	6	7.5	12	15	18	4.5	9
trans-Diallate		8.5	17	34	42	68	85	102	25.5	51
4-Aminobiphenyl		10	20	40	50	80	100	120	30	60
Pentachloronitrobenzene		10	20	40	50	80	100	120	30	60
Pronamide		10	20	40	50	80	100	120	30	60
4-Nitroquinoline-1-oxide		10	20	40	50	80	100	120	30	60
Methapyrilene		10	20	40	50	80	100	120	30	60
Isodrin		10	20	40	50	80	100	120	30	60
Aramite		10	20	40	50	80	100	120	30	60
Kepone		10	20	40	50	80	100	120	30	60
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120	30	60
Chlorobenzilate		10	20	40	50	80	100	120	30	60
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120	30	60
2-Acetylaminofluorene		10	20	40	50	80	100	120	30	60
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120	30	60
3-Methylcholanthrene		10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
Hexachlorophene		500	1000	1250	1500	1750	2000			
p-Phenylenediamine		500	1000	1250	1500	1750	2000			

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
bis(Chloromethyl)ether		10	20	40	50	80	100	120	30	60
Tributylphosphate		10	20	40	50	80	100	120	30	60
Triethylphosphorothioate		10	20	40	50	80	100	120	30	60
Thionazin		10	20	40	50	80	100	120	30	60
Sulfotepp		10	20	40	50	80	100	120	30	60
Phorate		10	20	40	50	80	100	120	30	60
Dimethoate		10	20	40	50	80	100	120	30	60
Disulfoton		10	20	40	50	80	100	120	30	60
Methyl parathion		10	20	40	50	80	100	120	30	60
Famphur		10	20	40	50	80	100	120	30	60
Parathion		10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
bis(Chloromethyl)ether		10	20	40	50	80	100	120	30	60
4-Chlorothiophenol		10	20	40	50	80	100	120	30	60
4-Chlorothioanisole		10	20	40	50	80	100	120	30	60
Phthalic acid		10	20	40	50	80	100	120	30	60
Hydroxymethyl phthalimide		10	20	40	50	80	100	120	30	60
Diphenyl sulfide		10	20	40	50	80	100	120	30	60
Diphenyl disulfide		10	20	40	50	80	100	120	30	60
Phenyl sulfone		10	20	40	50	80	100	120	30	60
Octachlorostyrene		10	20	40	50	80	100	120	30	60
Thiophenol		10	20	40	50	80	100	120	30	60
2,2'-Dichlorobenzil		10	20	40	50	80	100	120	30	60
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120	30	60
bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120	30	60

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
** This analyte included in this level at special client request.

EPA 522								
Calibration Standard Concentration Levels#								
	Level 1	Level 2	Level 3	Level 4	Level 5	ICV	CCV	
Tetrahydrofuran-d8 (INTERNAL STANDARD)								
1,4-Dioxane-d8 (SURROGATE)	50	100	200	400	500	200	See Method	
1,4-Dioxane	50	100	200	400	500	200	See Method	

All values are ug/L without the prep factor.
Usual calibration levels using SIM methodology

SW846 8270SIM										
Calibration Standard Concentration Levels*										
MEGASIM analytes (A)	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6#	Level 7	Level 8	Level 9	Level 10
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)										
Naphthalene-d8 (INTERNAL STANDARD)										
Acenaphthene-d10 (INTERNAL STANDARD)										
Phenanthrene-d10 (INTERNAL STANDARD)										
Chrysene-d12 (INTERNAL STANDARD)										
Perylene-d12 (INTERNAL STANDARD)										
5-alpha-Androstane (SURROGATE)	$0.1	0.2	0.5	1	2	5	10	20		
$N-Methyl-N-nitrosomethylamine		0.2	0.5	1	2	5	10	20		
$bis(2-Chloroethyl)ether	0.1	0.2	0.5	1	2	5	10	20		
$N-Nitrosodipropylamine	0.1	0.2	0.5	1	2	5	10	20		
Naphthalene	$0.1	0.2	0.5	1	2	5	10	20		
2-Methylnaphthalene	$0.1	0.2	0.5	1	2	5	10	20		
1-Methylnaphthalene	$0.1	0.2	0.5	1	2	5	10	20		
2-Chloronaphthalene	$0.1	0.2	0.5	1	2	5	10	20		
Acenaphthylene	$0.1	0.2	0.5	1	2	5	10	20		
Acenaphthene	$0.1	0.2	0.5	1	2	5	10	20		
Fluorene	$0.1	0.2	0.5	1	2	5	10	20		
Phenanthrene	$0.1	0.2	0.5	1	2	5	10	20		
Anthracene	$0.1	0.2	0.5	1	2	5	10	20		
Fluoranthene	$0.1	0.2	0.5	1	2	5	10	20		
Pyrene	$0.1	0.2	0.5	1	2	5	10	20		
Benzo(a)anthracene	$0.1	0.2	0.5	1	2	5	10	20		
Chrysene	$0.1	0.2	0.5	1	2	5	10	20		
Benzo(b)fluoranthene	$0.1	0.2	0.5	1	2	5	10	20		
Benzo(k)fluoranthene	$0.1	0.2	0.5	1	2	5	10	20		
Benzo(a)pyrene	$0.1	0.2	0.5	1	2	5	10	20		
Indeno-(1,2,3-cd)pyrene	$0.1	0.2	0.5	1	2	5	10	20		
Dibenzo(a,h)anthracene	$0.1	0.2	0.5	1	2	5	10	20		
Benzo(ghi)perylene	$0.1	0.2	0.5	1	2	5	10	20		

$ By special request - Not for regulatory purposes

SW846 8270SIM										
Calibration Standard Concentration Levels*										
APSIM analytes (A)	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6#	Level 7	Level 8	Level 9	Level 10
$N-Nitrosodimethylamine	0.1	0.2	0.5	1	2	5	10	20		
$N-Nitrosopyrrolidine	0.1	0.2	0.5	1	2	5	10	20		
$N-Nitrosodi-n-butylamine	0.1	0.2	0.5	1	2	5	10	20		
$Benzidine			2.5	5	10	25	50	100		
$3,3'-Dichlorobenzidine	0.1	0.2	0.5	1	2	5	10	20		

$ By special request - Not for regulatory purposes
All values are mg/L without prep factor.
# indicates the calibraton verification concentration level used.
* Usual calibration levels using SIM methodology
(10/16/Full list)

Calibration History Report MSDA
GEL Laboratories, LLC

07/23/2018

Method File : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Last Update : Thu Jun 21 08:48:03 2018
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:1 Amt:1.00 Last Updated with: D:\MSDChem\1\data\062018.s\sAf2005.D

Injection Date	Mix	Calibration File
20 Jun 2018 10:50	A	D:\MSDChem\1\data\062018.s\sAf2005.D

Cal Lvl:2 Amt:10.00 Last Updated with: D:\MSDChem\1\data\062018.s\sAf2042.D

Injection Date	Mix	Calibration File
20 Jun 2018 14:29	A	D:\MSDChem\1\data\062018.s\sAf2011.D
20 Jun 2018 19:42	B	D:\MSDChem\1\data\062018.s\sAf2023.D
21 Jun 2018 00:25	D	D:\MSDChem\1\data\062018.s\sAf2034.D
21 Jun 2018 03:25	E	D:\MSDChem\1\data\062018.s\sAf2042.D
20 Jun 2018 16:17	J	D:\MSDChem\1\data\062018.s\sAf2014.D

Cal Lvl:3 Amt:20.00 Last Updated with: D:\MSDChem\1\data\062018.s\sAf2043.D

Injection Date	Mix	Calibration File
20 Jun 2018 10:16	A	D:\MSDChem\1\data\062018.s\sAf2004.D
20 Jun 2018 20:08	B	D:\MSDChem\1\data\062018.s\sAf2024.D
21 Jun 2018 00:47	D	D:\MSDChem\1\data\062018.s\sAf2035.D
21 Jun 2018 03:48	E	D:\MSDChem\1\data\062018.s\sAf2043.D
20 Jun 2018 17:02	J	D:\MSDChem\1\data\062018.s\sAf2016.D

Cal Lvl:4 Amt:40.00 Last Updated with: D:\MSDChem\1\data\062018.s\sAf2044.D

Injection Date	Mix	Calibration File
20 Jun 2018 11:23	A	D:\MSDChem\1\data\062018.s\sAf2006.D
20 Jun 2018 21:02	B	D:\MSDChem\1\data\062018.s\sAf2026.D
21 Jun 2018 01:10	D	D:\MSDChem\1\data\062018.s\sAf2036.D
21 Jun 2018 04:10	E	D:\MSDChem\1\data\062018.s\sAf2044.D
20 Jun 2018 17:25	J	D:\MSDChem\1\data\062018.s\sAf2017.D

Cal Lvl:5 Amt:50.00 Last Updated with: D:\MSDChem\1\data\062018.s\sAf2045.D

Injection Date	Mix	Calibration File
20 Jun 2018 11:54	A	D:\MSDChem\1\data\062018.s\sAf2007.D
20 Jun 2018 21:28	B	D:\MSDChem\1\data\062018.s\sAf2027.D
21 Jun 2018 01:32	D	D:\MSDChem\1\data\062018.s\sAf2037.D
21 Jun 2018 04:33	E	D:\MSDChem\1\data\062018.s\sAf2045.D
20 Jun 2018 17:48	J	D:\MSDChem\1\data\062018.s\sAf2018.D

Cal Lvl:6 Amt:80.00 Last Updated with: D:\MSDChem\1\data\062018.s\sAf2046.D

Injection Date	Mix	Calibration File
20 Jun 2018 12:26	A	D:\MSDChem\1\data\062018.s\sAf2008.D
20 Jun 2018 22:22	B	D:\MSDChem\1\data\062018.s\sAf2029.D
21 Jun 2018 01:55	D	D:\MSDChem\1\data\062018.s\sAf2038.D
21 Jun 2018 04:56	E	D:\MSDChem\1\data\062018.s\sAf2046.D
20 Jun 2018 18:10	J	D:\MSDChem\1\data\062018.s\sAf2019.D

Calibration History Report MSDA
GEL Laboratories, LLC

Method File : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Last Update : Thu Jun 21 08:48:03 2018
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:7 Amt:100.00 Last Updated with: D:\MSDChem\1\data\062018.s\sAf2047.D

Injection Date	Mix	Calibration File
20 Jun 2018 12:57	A	D:\MSDChem\1\data\062018.s\sAf2009.D
20 Jun 2018 22:49	B	D:\MSDChem\1\data\062018.s\sAf2030.D
21 Jun 2018 02:18	D	D:\MSDChem\1\data\062018.s\sAf2039.D
21 Jun 2018 05:18	E	D:\MSDChem\1\data\062018.s\sAf2047.D
20 Jun 2018 18:33	J	D:\MSDChem\1\data\062018.s\sAf2020.D

Cal Lvl:8 Amt:120.00 Last Updated with: D:\MSDChem\1\data\062018.s\sAf2040.D

Injection Date	Mix	Calibration File
20 Jun 2018 13:29	A	D:\MSDChem\1\data\062018.s\sAf2010.D
20 Jun 2018 23:15	B	D:\MSDChem\1\data\062018.s\sAf2031.D
21 Jun 2018 02:40	D	D:\MSDChem\1\data\062018.s\sAf2040.D
20 Jun 2018 18:55	J	D:\MSDChem\1\data\062018.s\sAf2021.D

Cal Lvl:9 Amt:30.00 Last Updated with: D:\MSDChem\1\data\062018.s\sAf2025.D

Injection Date	Mix	Calibration File
20 Jun 2018 20:35	B	D:\MSDChem\1\data\062018.s\sAf2025.D

Cal Lvl:10 Amt:60.00 Last Updated with: D:\MSDChem\1\data\062018.s\sAf2028.D

Injection Date	Mix	Calibration File
20 Jun 2018 21:55	B	D:\MSDChem\1\data\062018.s\sAf2028.D

Response Factor Report MSDA
GEL Laboratories, LLC

Method File : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Last Update : Thu Jun 21 08:48:03 2018
Integrator : (RTE Integrator) Response via : Initial Calibration

07/23/2018

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
2)A 2-Ethoxyethanol		0.7888776	0.7215089	0.7244312	0.7176292	0.7221201				
	0.7324462	0.7275370					0.7335	AVRG		3.3904
3)AM N-Methyl-N-nitrosomethyl	0.6369699	0.7922185	0.7179242	0.6974947	0.7036654	0.7127798				
	0.7002961	0.7128344					0.7093	AVRG		5.9479
4)AM Pyridine		1.4139881	1.2335353	1.2016722	1.2177569	1.2083150				
	1.2001848	1.2147064					1.2415	AVRG		6.1952
5)SA 2-Fluorophenol		1.4239369	1.2194021	1.1906883	1.1871014	1.1898083				
	1.1805582	1.1955005					1.2267	AVRG		7.1597
6)AM Aniline		2.2275343	1.9463057	1.9001436	1.9008462	1.9257558				
	1.9095086	1.9362014					1.9638	AVRG		5.9905
7)SA Phenol-d5		1.6853181	1.4722479	1.4261095	1.4221295	1.4473835				
	1.4301049	1.4546112					1.4768	AVRG		6.3397
8)AMC Phenol		1.7645387	1.5493368	1.4994949	1.5048219	1.5188206				
	1.5010823	1.5158478					1.5506	AVRG		6.1830
9)AM bis(2-Chloroethyl) ether		1.4476563	1.2785029	1.2360358	1.2424023	1.2424991				
	1.2186992	1.2312155					1.2710	AVRG		6.2971
10)AM 2-Chlorophenol		1.5829453	1.3917387	1.3432219	1.3542471	1.3651864				
	1.3437910	1.3624077					1.3919	AVRG		6.1650
11)AM n-Decane		2.0744804	1.8691403	1.7745435	1.7488527	1.6932795				
	1.6458374	1.6249621					1.7759	AVRG		8.7569
12)AM 1,3-Dichlorobenzene		1.8318257	1.5956619	1.5588264	1.5527143	1.5403880				
	1.4984770	1.5087815					1.5838	AVRG		7.2008
13)AMC 1,4-Dichlorobenzene		1.8831231	1.6306511	1.5873481	1.5721865	1.5564409				
	1.5215879	1.5271535					1.6112	AVRG		7.7893
14)AM 1,2-Dichlorobenzene		1.7860513	1.5427257	1.5041745	1.4887779	1.4631589				
	1.4385909	1.4344030					1.5226	AVRG		8.0290
15)AM bis(2-Chloro-1-methyleth		2.5939512	2.3794096	2.2630849	2.2403152	2.1872297				

Response Factor Report MSDA
GEL Laboratories, LLC

Method File : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Last Update : Thu Jun 21 08:48:03 2018
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound	1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r2
b | m1 | m2	7	8	9	10						
	2.1144597	2.1066575					2.2693	AVRG		7.5379
16)AM Benzyl alcohol		0.9323278	0.8189661	0.8160877	0.8364399	0.8470300				
	0.8328180	0.8518665					0.8479	AVRG		4.6561
17)AM o-Cresol		1.2301139	1.0917099	1.0632991	1.0598901	1.0553254				
	1.0344374	1.0384397					1.0819	AVRG		6.2851
18)AM m,p-Cresols		1.6044332	1.4178660	1.3710377	1.3876580	1.3840996				
	1.3744480	1.4972090					1.4338	AVRG		6.0702
19)AMP N-Nitrosodipropylamine		1.0398415	0.9349521	0.8954823	0.9164614	0.9129135				
	0.8926961	0.8979492					0.9272	AVRG		5.5903
20)AM Hexachloroethane		0.6700343	0.5887099	0.5800549	0.5736691	0.5692566				
	0.5514690	0.5479107					0.5830	AVRG		7.0434
22)SA Nitrobenzene-d5		0.3964081	0.3435289	0.3398355	0.3445605	0.3442663				
	0.3399883	0.3412284					0.3500	AVRG		5.8773
23)AM Nitrobenzene		0.3961466	0.3412741	0.3388977	0.3405745	0.3387133				
	0.3315961	0.3319331					0.3456	AVRG		6.5498
24)AM Isophorone		0.7441411	0.6618552	0.6426969	0.6511160	0.6491108				
	0.6358595						0.6641	AVRG		6.0456
25)AMC 2-Nitrophenol		0.2040146	0.1728331	0.1765300	0.1819966	0.1867275				
	0.1837261	0.1855341					0.1845	AVRG		5.3905
26)AM 2,4-Dimethylphenol		0.3671852	0.3187952	0.3088290	0.3098252	0.3102945				
	0.3035587	0.3052128					0.3177	AVRG		7.0406
27)AM bis(2-Chloroethoxy)metha		0.4838453	0.4274786	0.4139162	0.4182759	0.4143894				
	0.4056272	0.4038885					0.4239	AVRG		6.5049
28)AMC 2,4-Dichlorophenol		0.3414144	0.2985897	0.2927494	0.2955378	0.2974026				
	0.2923253	0.2936929					0.3017	AVRG		5.8606
29)AM Benzoic acid			61836	188726	273492	525410		1/x^2		
-0.0683 | 0.2283 | 0.00	668349	812896						LINR	#	0.9986

Response Factor Report MSDA
GEL Laboratories, LLC

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For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound	1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r2
b | m1 | m2	7	8	9	10						
30)AM 1,2,4-Trichlorobenzene		0.3899869	0.3388614	0.3335795	0.3303332	0.3291113				
	0.3201315	0.3216368					0.3377	AVRG		7.0984
31)AM alpha-Terpineol		0.3974971	0.3597323	0.3457730	0.3444445	0.3390545				
	0.3284488	0.3288836					0.3491	AVRG		6.8427
32)AM Naphthalene	1.3724519	1.2665465	1.1003512	1.0475501	1.0356092	1.0163388				
	0.9865058	0.9781189					1.1004	AVRG		13.0155
33)AM 4-Chloroaniline		0.4703741	0.4093670	0.4058883	0.4107303	0.4116810				
	0.4021379	0.4033653					0.4162	AVRG		5.8033
34)AMC Hexachlorobutadiene		0.2217588	0.1954497	0.1868151	0.1861886	0.1837432				
	0.1796116	0.1792914					0.1904	AVRG		7.8003
35)AMC 4-Chloro-3-methylphenol		0.3267450	0.2939825	0.2909064	0.2963337	0.2975183				
	0.2909499	0.2947570					0.2987	AVRG		4.2167
36)AM 2-Methylnaphthalene	0.8941303	0.8307938	0.7394984	0.7053520	0.7084929	0.6989203				
	0.6761308	0.6808714					0.7418	AVRG		10.6189
37)AM 1-Methylnaphthalene	0.8511007	0.7844819	0.6884662	0.6639109	0.6699745	0.6591562				
	0.6349631	0.6375776					0.6987	AVRG		11.0976
39)AMP Hexachlorocyclopentadien		0.2923261	0.2158788	0.2694846	0.2595056	0.2914096				
	0.2953453	0.3136117					0.2768	AVRG		11.6299
40)AM 2,3-Dichloroaniline		0.8247856	0.6971283	0.6920849	0.6844654	0.6810910				
	0.6733139	0.6719584					0.7035	AVRG		7.7095
41)AMC 2,4,6-Trichlorophenol		0.4672223	0.4120302	0.4052005	0.4040089	0.4096658				
	0.3992308	0.4068410					0.4149	AVRG		5.6496
42)AM 2,4,5-Trichlorophenol		0.4772094	0.4272651	0.4303744	0.4292379	0.4412997				
	0.4415966	0.4408474					0.4411	AVRG		3.8731
43)SA 2-Fluorobiphenyl		1.8527049	1.6352371	1.5611003	1.5391871	1.5060178				
	1.4770121	1.4818001					1.5790	AVRG		8.3842
44)AM 2-Chloronaphthalene	1.6321638	1.5359927	1.3322061	1.2924032	1.2707280	1.2628923				
	1.2383016	1.2457137					1.3513	AVRG		11.0139

Response Factor Report MSDA
GEL Laboratories, LLC

Method File : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Last Update : Thu Jun 21 08:48:03 2018
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For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
45)AM o-Nitroaniline		0.3840700	0.3369508	0.3456224	0.3514930	0.3682327				
	0.3594256	0.3647003					0.3586	AVRG		4.3599
46)A 1,4-Dinitrobenzene		0.1950961	0.1730855	0.1869368	0.1951189	0.2069114				
	0.2008213	0.2095913					0.1954	AVRG		6.3830
47)AM m-Nitroaniline		0.3363101	0.2869453	0.3022760	0.3041254	0.3176309				
	0.3145402	0.3271402					0.3127	AVRG		5.2856
48)AM Dimethylphthalate	1.8789221	1.7695594	1.5778153	1.5263238	1.5245911	1.5233841				
	1.4880359	1.4959834					1.5981	AVRG		9.0788
49)A m-Dinitrobenzene		0.2313094	0.2034842	0.2151435	0.2192473	0.2250140				
	0.2211395	0.2259223					0.2202	AVRG		4.0880
50)AM 2,6-Dinitrotoluene		0.3755331	0.3435503	0.3339720	0.3389382	0.3409338				
	0.3331446	0.3371274					0.3433	AVRG		4.2741
51)AM 2,4-Dinitrotoluene		0.4639937	0.4233635	0.4186581	0.4291997	0.4340254				
	0.4232460	0.4210596					0.4305	AVRG		3.6344
52)AM Acenaphthylene	2.5074965	2.4281634	2.1330953	2.0645846	2.0283677	2.0030175				
	1.9251862	1.9397820					2.1287	AVRG		10.3572
53)AMC Acenaphthene	1.5649097	1.4429627	1.2605394	1.1954703	1.1968255	1.1705638				
	1.1374922	1.1463170					1.2644	AVRG		12.3389
54)AMP 2,4-Dinitrophenol			20735	63246	87246	178542		1/x^2		
-0.0506 | 0.1594 | 0.00	229967	299673						LINR	#	0.9915
55)AM Dibenzofuran		2.1694992	1.8744665	1.8059810	1.7910211	1.7750158				
	1.7131396	1.7158239					1.8350	AVRG		8.5842
56)A 2,3,4,6-Tetrachloropheno		0.3624611	0.3254565	0.3448432	0.3409197	0.3506368				
	0.3464057	0.3483882					0.3456	AVRG		3.2272
57)AM Diethylphthalate	1.7565047	1.7337155	1.5761136	1.5125911	1.5231420	1.5195201				
	1.4650690	1.5054056					1.5740	AVRG		6.9893
58)AMP 4-Nitrophenol		0.1835700	0.1561829	0.1971194	0.1909829	0.2150494				

Response Factor Report MSDA
GEL Laboratories, LLC

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For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
	0.2179233	0.2234136					0.1977	AVRG		11.9311
59)AM Fluorene	1.8085081	1.6659199	1.4664493	1.4155972	1.3946217	1.3732228				
	1.3252489	1.3255693					1.4719	AVRG		11.8451
60)AM 4-Chlorophenylphenylethe		0.8154211	0.7282046	0.6868857	0.6713066	0.6626046				
	0.6389685	0.6335816					0.6910	AVRG		9.1681
61)AM p-Nitroaniline		0.2649164	0.1930914	0.2365992	0.2353831	0.2652226				
	0.2625053	0.2806702					0.2483	AVRG		11.8130
62)SA 2,4,6-Tribromophenol		0.2139689	0.1960431	0.1927126	0.2004390	0.2073346				
	0.2086257	0.2143237					0.2048	AVRG		4.1706
64)AM 2-Methyl-4,6-dinitrophen		21723	39137	98011	143631	266942				
-0.0207 | 0.1175 | 0.00	326522							LINR	#	0.9935
65)AMC Diphenylamine		0.8028461	0.6864538	0.6566154	0.6490317	0.6436606				
	0.6291753	0.6247144					0.6704	AVRG		9.2255
66)AM 1,2-Diphenylhydrazine		0.9081216	0.7883058	0.7473855	0.7350534	0.7243930				
	0.7217970	0.7059883					0.7616	AVRG		9.1523
67)AM 4-Bromophenylphenylether		0.2731946	0.2358075	0.2282131	0.2267171	0.2237595				
	0.2241162	0.2223505					0.2335	AVRG		7.7463
68)AM Hexachlorobenzene		0.2996825	0.2682763	0.2478664	0.2466656	0.2483480				
	0.2445171	0.2434515					0.2570	AVRG		8.0278
69)AMC Pentachlorophenol		0.1071187	0.0954810	0.1173790	0.1213818	0.1341502				
	0.1379666	0.1385765					0.1217	AVRG		13.5129
70)AM n-Octadecane		0.8110204	0.7458223	0.7043662	0.6894171	0.6660183				
	0.6520481	0.6265453					0.6993	AVRG		8.9306
71)A Dinoseb		0.1113316	0.0960654	0.1290109	0.1392166	0.1607998				
							0.1273	AVRG	#	19.6322
72)AM Phenanthrene	1.4538280	1.3072398	1.1388881	1.0852036	1.0700052	1.0482790				
	1.0280317	1.0223942					1.1442	AVRG		13.5793

Response Factor Report MSDA
GEL Laboratories, LLC

Method File : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Last Update : Thu Jun 21 08:48:03 2018
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For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound	1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r2
b | m1 | m2	7	8	9	10						
73)AM Anthracene	1.3911193	1.3107806	1.1558930	1.1022335	1.0900491	1.0735753				
	1.0558611	1.0536459					1.1541	AVRG		11.0450
74)AM Carbazole	0.9541250	0.9454523	0.8395101	0.8226262	0.8184678	0.8270434				
	0.8153350	0.8480571					0.8588	AVRG		6.6621
75)AM Di-n-butylphthalate	1.3640924	1.4536894	1.3865697	1.3070687	1.3177536	1.2993487				
	1.2728233	1.2744486					1.3345	AVRG		4.6944
76)AMC Fluoranthene	1.1669571	1.0822775	1.0428836	0.9919463	1.0116598	1.0032440				
	0.9767557	1.0085686					1.0355	AVRG		6.0202
78)AM Pyrene	2.1233824	2.2155999	2.0414472	1.8059932	1.8355026	1.7842852				
	1.7764365	1.6746984					1.9072	AVRG		10.1347
79)SA p-Terphenyl-d14		1.4414015	1.3029677	1.1791188	1.2162989	1.2094511				
	1.1850187	1.1305888					1.2378	AVRG		8.3884
80)AM Butylbenzylphthalate	0.5903146	0.8176720	0.8373315	0.7692800	0.8368066	0.8261851				
	0.8239735	0.7893910					0.7864	AVRG		10.5149
81)AM bis(2-Ethylhexyl)phthala	0.9543974	1.2608606	1.2846594	1.1469481	1.2274828	1.1916477				
	1.1705267	1.1176998					1.1693	AVRG		8.8479
82)AM Benzo(a)anthracene	1.5077541	1.3951105	1.2372902	1.1930540	1.1992971	1.2072489				
	1.1954053	1.2025506					1.2672	AVRG		9.3447
83)AM Chrysene	1.4339829	1.2859331	1.1423245	1.0976034	1.0851010	1.0653043				
	1.0437948	1.0657235					1.1525	AVRG		11.8994
84)A Methoxychlor		0.7236269	0.7758621	0.7813148	0.8685103	0.8950422				
	0.8871211	0.9020947					0.8334	AVRG		8.5849
85)A Methylenebis(2-chloroani		0.1946030	0.1550430	0.1761309	0.1826930	0.2042497				
	0.2027956	0.2146730					0.1900	AVRG		10.6652
86)AMC Di-n-octylphthalate	12831	159741	412994	848816	1327703	2204930		1/x^2		
-0.0160 | 1.5507 | 0.00	2409392	3510151						LINR	#	0.9965
88)AM Benzo(b)fluoranthene	1.3282401	1.3939724	1.3182997	1.2203071	1.3069337	1.2739021				
	1.3049328	1.3467108					1.3117	AVRG		3.8833

Response Factor Report MSDA
GEL Laboratories, LLC

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Last Update : Thu Jun 21 08:48:03 2018
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
89)AM Benzo(k)fluoranthene	1.2154110	1.4424148	1.2901390	1.2208019	1.2574851	1.2276133				
	1.2533271	1.2932723					1.2751	AVRG		5.7861
90)AMC Benzo(a)pyrene	0.9977674	1.1407141	1.0479787	1.0711815	1.0889483	1.1016184				
	1.1078420	1.1179578					1.0843	AVRG		4.1497
91)AM Indeno(1,2,3-cd)pyrene	0.6570942	0.7830515	0.6469653	0.8023244	0.7052732	0.7496265				
	0.7510535	0.6251389					0.7151	AVRG		9.2925
92)AM Dibenzo(a,h)anthracene	0.6901935	0.7898027	0.6551239	0.8151048	0.7102689	0.7681414				
	0.7646785	0.6396717					0.7291	AVRG		8.8596
93)AM Benzo(ghi)perylene	0.8634966	0.8642800	0.7228199	0.8618620	0.7550819	0.7639573				
	0.7693598	0.6099882					0.7764	AVRG		11.2959
94)A Dibenzo(a,e)pyrene		0.4400374	0.3755288	0.4596894	0.3513152	0.3425555				
	0.3762688						0.3909	AVRG		12.2692
96)BM 1,4-Dioxane		0.5134589	0.4853791	0.4688536	0.4608516	0.4552942				
	0.4526562	0.4453013	0.4668135	0.4518027			0.4667	AVRG		4.5334
97)B Methyl methacrylate		0.2507837	0.2421009	0.2340972	0.2264653	0.2229374				
	0.2232713	0.2195741	0.2299273	0.2241825			0.2304	AVRG		4.4590
98)B Ethyl methacrylate		1.1215517	1.0675770	1.0338622	1.0292073	1.0157677				
	1.0124145	1.0020072	1.0211949	1.0142236			1.0353	AVRG		3.6104
99)B 2-Picoline		1.4924073	1.4122757	1.3938146	1.3877167	1.3793725				
	1.3748518	1.3681974	1.3679321	1.3848213			1.3957	AVRG		2.7797
100)B N-Nitrosomethylethylamin		0.5680052	0.5504536	0.5547845	0.5544533	0.5650857				
	0.5584462	0.5619528	0.5518956	0.5575790			0.5581	AVRG		1.0665
101)B Methyl methanesulfonate		0.6682614	0.6369508	0.6124855	0.6075919	0.6143185				
	0.5712290	0.5689774	0.6241531	0.5941263			0.6109	AVRG		5.1056
102)B N-Nitrosodiethylamine		0.6179371	0.5982824	0.5917193	0.5956057	0.5993524				
	0.5951584	0.5956382	0.5856348	0.5972768			0.5974	AVRG		1.4598
103)B 2-Butoxyethanol		1.6358699	1.6086659	1.6067845	1.6065724	1.6200384				

Response Factor Report MSDA
GEL Laboratories, LLC

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Integrator : (RTE Integrator) Response via : Initial Calibration

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Compound	1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r2
b | m1 | m2	7	8	9	10						
	1.6132112	1.6054527	1.5902850	1.5965398			1.6093	AVRG		0.8191
104)B Ethyl methanesulfonate		0.9872227	0.9590496	0.9538616	0.9474616	0.9563409				
	0.9175687	0.9193875	0.9486279	0.9515844			0.9490	AVRG		2.2083
105)BM Benzaldehyde		1.0972700	1.0206459	0.8440489	0.6732160					
			0.9508180				0.9172	AVRG	#	18.0090
106)B Pentachloroethane		0.5885211	0.5637158	0.5589263	0.5587446	0.5575282				
	0.5551239	0.5500608	0.5490487	0.5514424			0.5592	AVRG		2.1407
107)BM N-Nitrosopyrrolidine		0.6052817	0.6094857	0.6289694	0.6394448	0.6510348				
	0.6386952		0.6192605	0.6374925			0.6287	AVRG		2.5494
108)BM Acetophenone		1.8992983	1.8460897	1.8467690	1.8573685	1.8420076				
	1.8091839	1.8269388	1.8355983	1.8473386			1.8456	AVRG		1.3291
109)B N-Nitrosomorpholine		0.8296621	0.8263094	0.8189690	0.8231593	0.8006302				
	0.7644453	0.7688302	0.8124677	0.8098783			0.8060	AVRG		2.9843
110)B o-Toluidine		2.1691021	2.0868037	2.0595898	2.0536283	2.0094709				
	1.9509996	1.9400424	2.0514735	2.0280554			2.0388	AVRG		3.4041
112)B N-Nitrosopiperidine		0.1788993	0.1756764	0.1748701	0.1774765	0.1775187				
	0.1743372	0.1778037	0.1707671	0.1781613			0.1762	AVRG		1.4485
113)B a,a-Dimethylphenethylami		1.0826407	1.0902056	1.1058845	1.1107767	1.0057093				
			1.0748549	1.1023370			1.0818	AVRG		3.3225
114)BM 2,6-Dichlorophenol		0.2791001	0.2749608	0.2761013	0.2831464	0.2856977				
	0.2863537	0.2903476	0.2703619	0.2823152			0.2809	AVRG		2.2571
115)B Hexachloropropene		0.1627859	0.1536879	0.1193307	0.1078520					
			0.1432700				0.1374	AVRG	#	16.8508
116)BM Caprolactam		0.0846192	0.0865620	0.0908521	0.0923988	0.0935592				
	0.0920009	0.0943218	0.0890479	0.0933472			0.0907	AVRG		3.6903
117)B N-Nitrosodi-n-butylamine		0.3038109	0.2997170	0.2997029	0.3027373	0.2716393				
	0.2648151	0.2633925	0.2914058	0.2824724			0.2866	AVRG		5.7558

Response Factor Report MSDA
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Compound	1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r2
b | m1 | m2	7	8	9	10						
118)B Safrole		0.2926913	0.2899319	0.2863549	0.2846941	0.2843155				
	0.2793031	0.2819219	0.2813939	0.2840677			0.2850	AVRG		1.4767
120)B 1,2,4,5-Tetrachlorobenze		0.7785830	0.7350348	0.7139729	0.7128090	0.7032036				
	0.6951156	0.6899516	0.7003984	0.7202850			0.7166	AVRG		3.7673
121)BM 1,1-Biphenyl		1.8532970	1.7374830	1.7059658	1.6899965	1.6519538				
	1.6364106	1.6151893	1.6893947	1.7128591			1.6992	AVRG		4.1016
122)B Isosafrole		0.5896808	0.5661624	0.5620897	0.5650518	0.5612293				
	0.5653136	0.5655849	0.5566617	0.5734871			0.5673	AVRG		1.6835
123)B 1,4-Naphthoquinone		0.5278912	0.5312327	0.5176322	0.4984200	0.4619262				
	0.4419486	0.4309353	0.5142262	0.4948111			0.4910	AVRG		7.6058
124)B Pentachlorobenzene		0.6651015	0.6280462	0.6201136	0.6136452	0.6126061				
	0.6072934	0.6067770	0.6095062	0.6143804			0.6197	AVRG		2.9486
125)B 1-Naphthylamine		1.3924418	1.3266580	1.1912051	1.1343245	1.0318799				
	0.9935888	0.9644662	1.2680701	1.0844055			1.1541	AVRG		13.0998
126)B 2-Naphthylamine		1.3301192	1.2876131	1.2473035	1.1951032	1.0830069				
	1.0578089	1.0423246	1.2697324	1.1839606			1.1886	AVRG		8.9029
127)B 5-Nitro-o-toluidine		0.2960592	0.3194984	0.3513414	0.3565147	0.3766795				
	0.3830492	0.3824258	0.3372381	0.3613017			0.3516	AVRG		8.4188
129)B 1,3,5-Trinitrobenzene		0.0940896	0.1125022	0.1308705	0.1360854	0.1469335				
	0.1526767	0.1543526	0.1256975	0.1385121			0.1324	AVRG		14.7848
130)B Phenacetin		0.2978389	0.3043645	0.3212100	0.3240156	0.3389509				
	0.3455671	0.3464367	0.3086723	0.3281128			0.3239	AVRG		5.4811
131)B Diallate		0.3086597	0.2941901	0.2936294	0.2874645	0.2810128				
	0.2774022	0.2788437	0.2837637	0.2904904			0.2884	AVRG		3.3907
132)B Cis Diallate		0.3396432	0.3254105	0.3288820	0.3200060	0.3148231				
	0.3111832	0.3140254	0.3186174	0.3235027			0.3218	AVRG		2.7350
133)B Trans Diallate		0.3631290	0.3461060	0.3454464	0.3381936	0.3306033				
	0.3263555	0.3280514	0.3338396	0.3417534			0.3393	AVRG		3.3907

Response Factor Report MSDA
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For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
134)BM50Atrazine		0.2431690	0.2340879	0.2201776	0.2118024					
			0.2231349	0.2063420			0.2231	AVRG		6.1469
135)B 4-Aminobiphenyl		0.7212106	0.6486613	0.6299555	0.6471987					
			0.6167864	0.6475948			0.6519	AVRG		5.5604
136)B Pentachloronitrobenzene		0.0972103	0.0971856	0.0979271	0.0962281	0.0951965				
	0.0934786	0.0952490	0.0949862	0.0966442			0.0960	AVRG		1.4565
137)B Pronamide		0.3706501	0.3655175	0.3613652	0.3603231	0.3598086				
	0.3559314	0.3590309	0.3552302	0.3618059			0.3611	AVRG		1.3100
138)B 4-Nitroquinoline-1-oxide		6189	18479	47551	74803			1/x^2		
-0.0076 | 0.0493 | 0.00			41038	91733				LINR	#	0.9921
139)B Methapyrilene		0.3360729	0.3344515	0.3029660	0.2857822	0.3080977				
	0.2723044	0.2933099	0.3197552	0.2725090			0.3028	AVRG		7.9634
140)B Isodrin		0.1431078	0.1354922	0.1345988	0.1316648	0.1332116				
	0.1313086	0.1339106	0.1323531	0.1330483			0.1343	AVRG		2.6545
142)B Aramite		0.0956949	0.1054284	0.1052601	0.1010514	0.0909349				
	0.0791195	0.0884431	0.1029968	0.1085233			0.0975	AVRG		9.9554
143)B Kepone		0.1602217	0.1622837	0.1484930	0.1373391					
			0.1488654	0.1461509			0.1506	AVRG		6.1750
144)B p-(Dimethylamino)azobenz		0.3107734	0.3231670	0.3215232	0.3166679	0.3000378				
	0.2839027	0.3016060	0.3121291	0.3318498			0.3113	AVRG		4.6397
145)B Chlorobenzilate		0.4775605	0.4986696	0.4895015	0.4761366	0.4547420				
	0.4219168	0.4596974	0.4738337	0.5086493			0.4734	AVRG		5.4634
146)B 2-Acetylaminofluorene		0.2512954	0.2843996	0.3463944	0.3674913					
			0.3399751	0.3582969			0.3246	AVRG		14.2337
148)B 7,12-Dimethylbenz(a)anth		0.6327593	0.6830916	0.6813515	0.6719291	0.6243907				
	0.6598210	0.6954823	0.6485588	0.7087048			0.6673	AVRG		4.2444
149)B 3-Methylcholanthrene		0.0981220	0.1051016	0.1197685	0.1201327	0.1268742				

Response Factor Report MSDA
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Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound	1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r2
b | m1 | m2	7	8	9	10						
	0.1228246	0.1284297	0.1122079	0.1247039			0.1176	AVRG		8.8023
151)JM Benzidine		67849	165888	425106	659607	875250		1/x^2		
-0.0476 | 0.4194 | 0.00	1245101	1285329						LINR	#	0.9901
153)J 3,3'-Dimethylbenzidine		0.5988164	0.7208773	0.8081827	0.8430038	0.8604857				
	0.8709610	0.8402465					0.7918	AVRG		12.4700
154)JM 3,3'-Dichlorobenzidine		0.2517886	0.2930743	0.3326329	0.3551983	0.3452621				
	0.3518778	0.3289334					0.3227	AVRG		11.6370
156)D Triethylphosphorothioate		0.1801909	0.1809657	0.1798731	0.1742887	0.1789382				
	0.1767435	0.1753327					0.1780	AVRG		1.4580
158)D Thionazine		0.2166033	0.2286169	0.2197733	0.2176321	0.2280942				
	0.2268404	0.2195166					0.2224	AVRG		2.3383
159)DM Tributylphosphate		1.6226865	1.7033798	1.6907448	1.6405127	1.7401782				
	1.7232168	1.6604527					1.6830	AVRG		2.5801
161)D Sulfotepp		0.1228092	0.1235729	0.1239360	0.1239567	0.1265191				
	0.1286549	0.1278866					0.1253	AVRG		1.8505
162)D Phorate		0.4564928	0.4608767	0.4756316	0.4616951	0.4762086				
	0.4741899	0.4742163					0.4685	AVRG		1.7943
163)D Dimethoate		0.2240831	0.2381205	0.2480348	0.2548832	0.2790261				
	0.2778083	0.2765318					0.2569	AVRG		8.4446
164)D Disulfoton		0.4296098	0.4150365	0.4114152	0.3976741	0.4048493				
	0.3993861	0.3984089					0.4081	AVRG		2.8490
165)D Methyl parathion		0.1705965	0.2005868	0.2128847	0.2170999	0.2406577				
	0.2414746	0.2450272					0.2183	AVRG		12.3628
166)D Parathion		0.0627958	0.0754388	0.0773743	0.0768977	0.0863941				
	0.0845523	0.0861353					0.0785	AVRG		10.6192
168)D Famphur		0.4471411	0.5367867	0.5425327	0.5575239	0.5840147				
	0.5955759	0.6029996					0.5524	AVRG		9.5998

Response Factor Report MSDA
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Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound	1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r2
b | m1 | m2	7	8	9	10						
170)E p-Phenylenediamine		0.4404428	0.3713393	0.3754215	0.3648993	0.3661026				
							0.3836	AVRG		8.3494
172)E Hexachlorophene		0.0973271	0.1108906	0.1207069	0.1244501	0.1362364				
	0.1367921						0.1211	AVRG		12.5599

(#) = Out of Range ($) = Individual RF Out of Range
AVRG = Average, LINR = Linear Regression, 1/x = the inverse of concentration, 1/x^2 = the inverse square of concentration

Quantitation Report
GEL Laboratories, LLC

JMB 06/21/2018

BJB 06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2004.D
Acq On : 20 Jun 2018 10:16
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-16|ICAL|1|SVM|1|M-3
Misc : |MIX[A]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 21 08:49:23 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.605	5.605	1.000	340334	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.381	7.381	1.000	1292322	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.693	9.693	1.000	646409	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.569	11.569	1.000	1149904	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.080	15.086	1.000	571764	40.00	ng/uL	0.00
87) A Perylene-d12	264	18.410	18.410	1.000	337066	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.605	5.599	1.000	0m	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.381	7.375	1.000	0m	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.693	9.687	1.000	0m	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.569	11.569	1.000	0m	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.080	15.075	1.000	0m	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.410	18.398	1.000	0m	40.00	ng/uL	0.01
150) J Phenanthrene-d10	188	11.569	11.563	1.000	0m	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.080	15.075	1.000	0m	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.381	7.375	1.000	0m	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.693	9.687	1.000	0m	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.569	11.563	1.000	0m	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.080	15.075	1.000	0m	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.381	7.375	1.000	0m	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.410	18.439	1.000	0m	40.00	ng/uL	-0.03
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.881	3.887	0.692	207502	19.88	ng/uL	0.00
7) Phenol-d5	99	5.052	5.058	0.901	250528	19.94	ng/uL	0.00
22) Nitrobenzene-d5	82	6.387	6.393	0.865	221975	19.63	ng/uL	0.00
43) 2-Fluorobiphenyl	172	8.822	8.822	0.910	528516	20.71	ng/uL	0.00
62) 2,4,6-Tribromophenol	330	10.687	10.687	1.103	63362	19.15	ng/uL	0.00
79) p-Terphenyl-d14	244	13.545	13.551	0.898	372495	21.05	ng/uL	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	2.252	2.258	0.402	122777	19.67	ng/uL	99
3) N-Methyl-N-nitrosometh...	74	2.528	2.534	0.451	122167	20.24	ng/uL	95
4) Pyridine	79	2.563	2.564	0.457	209907	19.87	ng/uL	99
6) Aniline	93	5.146	5.152	0.918	331197	19.82	ng/uL	99
8) Phenol	94	5.069	5.075	0.904	263646	19.98	ng/uL	99
9) bis(2-Chloroethyl) ether	93	5.228	5.234	0.933	217559	20.12	ng/uL	99
10) 2-Chlorophenol	128	5.299	5.305	0.945	236828	20.00	ng/uL	99
11) n-Decane	43	5.363	5.363	0.957	318066	21.05	ng/uL	100
12) 1,3-Dichlorobenzene	146	5.522	5.522	0.985	271529	20.15	ng/uL	99
13) 1,4-Dichlorobenzene	146	5.628	5.628	1.004	277483	20.24	ng/uL	99
14) 1,2-Dichlorobenzene	146	5.840	5.840	1.042	262521	20.26	ng/uL	98
15) bis(2-Chloro-1-methyle...	45	5.987	5.993	1.068	404897	20.97	ng/uL	100
16) Benzyl alcohol	108	5.787	5.793	1.033	139361	19.32	ng/uL	99
17) o-Cresol	107	5.928	5.934	1.058	185773	20.18	ng/uL	100
18) m,p-Cresols	107	6.157	6.169	1.099	241274	19.78	ng/uL	99
19) N-Nitrosodipropylamine	70	6.181	6.193	1.103	159098	20.17	ng/uL	99
20) Hexachloroethane	117	6.316	6.316	1.127	100179	20.20	ng/uL	97

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2004.D
Acq On : 20 Jun 2018 10:16
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-16|ICAL|1|SVM|1|M-3
Misc : |MIX[A]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 21 08:49:23 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
23)	Nitrobenzene	77	6.410	6.422	0.869	220518	19.75	ng/uL	100
24)	Isophorone	82	6.746	6.757	0.914	427665	19.93	ng/uL	100
25)	2-Nitrophenol	139	6.851	6.857	0.928	111678	18.74	ng/uL	99
26)	2,4-Dimethylphenol	122	6.904	6.910	0.935	205993	20.07	ng/uL	99
27)	bis(2-Chloroethoxy)met...	93	7.051	7.057	0.955	276220	20.17	ng/uL	98
28)	2,4-Dichlorophenol	162	7.175	7.181	0.972	192937	19.80	ng/uL	99
29)	Benzoic acid	105	7.010	7.063	0.950	61836	20.35	ng/uL	98
30)	1,2,4-Trichlorobenzene	180	7.299	7.299	0.989	218959	20.07	ng/uL	99
31)	alpha-Terpineol	59	7.422	7.428	1.006	232445	20.61	ng/uL	99
32)	Naphthalene	128	7.410	7.410	1.004	711004	20.00	ng/uL	100
33)	4-Chloroaniline	127	7.481	7.487	1.014	264517	19.67	ng/uL	99
34)	Hexachlorobutadiene	225	7.575	7.575	1.026	126292	20.53	ng/uL	98
35)	4-Chloro-3-methylphenol	107	8.122	8.122	1.100	189960	19.68	ng/uL	99
36)	2-Methylnaphthalene	142	8.340	8.340	1.130	477835	19.94	ng/uL	99
37)	1-Methylnaphthalene	142	8.469	8.469	1.147	444860	19.71	ng/uL	100
39)	Hexachlorocyclopentadiene	237	8.540	8.540	0.881	69773	15.60	ng/uL	99
40)	2,3-Dichloroaniline	161	8.704	8.704	0.898	225315	19.82	ng/uL	99
41)	2,4,6-Trichlorophenol	196	8.698	8.704	0.897	133170	19.86	ng/uL	99
42)	2,4,5-Trichlorophenol	196	8.740	8.740	0.902	138094	19.37	ng/uL	99
44)	2-Chloronaphthalene	162	8.975	8.975	0.926	430575	19.72	ng/uL	100
45)	o-Nitroaniline	65	9.104	9.110	0.939	108904	18.79	ng/uL	98
46)	1,4-Dinitrobenzene	168	9.293	9.293	0.959	55942	17.72	ng/uL	96
47)	m-Nitroaniline	138	9.634	9.640	0.994	92742	18.35	ng/uL	99
48)	Dimethylphthalate	163	9.351	9.357	0.965	509957	19.75	ng/uL	100
49)	m-Dinitrobenzene	168	9.381	9.387	0.968	65767	18.48	ng/uL	93
50)	2,6-Dinitrotoluene	165	9.422	9.428	0.972	111037	20.01	ng/uL	100
51)	2,4-Dinitrotoluene	165	9.934	9.940	1.025	136833	19.67	ng/uL	93
52)	Acenaphthylene	152	9.510	9.510	0.981	689426	20.04	ng/uL	100
53)	Acenaphthene	154	9.734	9.734	1.004	407412	19.94	ng/uL	100
54)	2,4-Dinitrophenol	184	9.763	9.763	1.007	20735	20.75	ng/uL	97
55)	Dibenzofuran	168	9.951	9.957	1.027	605836	20.43	ng/uL	100
56)	2,3,4,6-Tetrachlorophenol	232	10.098	10.098	1.042	105189	18.83	ng/uL	94
57)	Diethylphthalate	149	10.245	10.245	1.057	509407	20.03	ng/uL	99
58)	4-Nitrophenol	139	9.828	9.834	1.014	50479	15.80	ng/uL	96
59)	Fluorene	166	10.387	10.387	1.072	473963	19.93	ng/uL	98
60)	4-Chlorophenylphenylether	204	10.387	10.387	1.072	235359	21.08	ng/uL	100
61)	p-Nitroaniline	138	10.404	10.410	1.073	62408	15.55	ng/uL	99
64)	2-Methyl-4,6-dinitroph...	198	10.440	10.445	0.902	39137	18.65	ng/uL	94
65)	Diphenylamine	169	10.534	10.540	0.911	394678	20.48	ng/uL	100
66)	1,2-Diphenylhydrazine	77	10.587	10.587	0.915	453238	20.70	ng/uL	100
67)	4-Bromophenylphenylether	248	11.004	11.004	0.951	135578	20.20	ng/uL	98
68)	Hexachlorobenzene	284	11.069	11.075	0.957	154246	20.88	ng/uL	100
69)	Pentachlorophenol	266	11.316	11.316	0.978	54897	15.69	ng/uL	98
70)	n-Octadecane	57	11.422	11.422	0.987	428812	21.33	ng/uL	99
71)	Dinoseb	211	11.545	11.545	0.998	55233	15.09	ng/uL	97
72)	Phenanthrene	178	11.598	11.598	1.003	654806	19.91	ng/uL	99
73)	Anthracene	178	11.657	11.663	1.008	664583	20.03	ng/uL	100
74)	Carbazole	167	11.857	11.857	1.025	482678	19.55	ng/uL	99
75)	Di-n-butylphthalate	149	12.287	12.287	1.062	797211	20.78	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2004.D
Acq On : 20 Jun 2018 10:16
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-16|ICAL|1|SVM|1|M-3
Misc : |MIX[A]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 21 08:49:23 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
76)	Fluoranthene	202	13.075	13.081	1.130	599608	20.14	ng/uL	100
78)	Pyrene	202	13.363	13.363	0.886	583613	21.41	ng/uL	100
80)	Butylbenzylphthalate	149	14.186	14.186	0.941	239378	21.30	ng/uL	99
81)	bis(2-Ethylhexyl)phtha...	149	15.116	15.116	1.002	367261	21.97	ng/uL	99
82)	Benzo(a)anthracene	228	15.063	15.063	0.999	353719	19.53	ng/uL	99
83)	Chrysene	228	15.128	15.133	1.003	326570	19.82	ng/uL	100
84)	Methoxychlor	227	14.951	14.951	0.991	221805	18.62	ng/uL	99
85)	Methylenebis(2-chloroa...	231	15.028	15.028	0.996	44324	16.32	ng/uL	99
86)	Di-n-octylphthalate	149	16.498	16.498	1.094	412994	19.04	ng/uL	99
88)	Benzo(b)fluoranthene	252	17.369	17.375	0.943	222177	20.10	ng/uL	99
89)	Benzo(k)fluoranthene	252	17.439	17.445	0.947	217431	20.24	ng/uL	100
90)	Benzo(a)pyrene	252	18.245	18.245	0.991	176619	19.33	ng/uL	100
91)	Indeno(1,2,3-cd)pyrene	276	21.786	21.798	1.183	109035	18.10	ng/uL	99
92)	Dibenzo(a,h)anthracene	278	21.880	21.892	1.189	110410	17.97	ng/uL	99
93)	Benzo(ghi)perylene	276	22.439	22.445	1.219	121819	18.62	ng/uL	99
94)	Dibenzo(a,e)pyrene	302	26.598	26.609	1.445	63289	19.21	ng/uL	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2004.D
Acq On    : 20 Jun 2018  10:16
Operator  : JMB3
InstName  : MSDA
Sample    : |WBN180517-16|ICAL|1|SVM|1|M-3
Misc      : |MIX[A]
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Jun 21 08:49:23 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title  : BNA01                                        SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE
```

Quantitation Report
GEL Laboratories, LLC

JMB 06/21/2018

BJB 06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2005.D
Acq On : 20 Jun 2018 10:50
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-18|ICAL|1|SVM|1|M-1
Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 21 08:49:25 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards									Dev(Min)
1)	A 1,4-Dichlorobenzene-d4	152	5.605	5.605	1.000	318194	40.00	ng/uL	0.00
21)	A Naphthalene-d8	136	7.381	7.381	1.000	1201033	40.00	ng/uL	0.00
38)	A Acenaphthene-d10	164	9.687	9.693	1.000	582270	40.00	ng/uL	0.00
63)	A Phenanthrene-d10	188	11.563	11.569	1.000	1016764	40.00	ng/uL	0.00
77)	A Chrysene-d12	240	15.075	15.086	1.000	553061	40.00	ng/uL	-0.01
87)	A Perylene-d12	264	18.410	18.410	1.000	384298	40.00	ng/uL	0.00
95)	B 1,4-Dichlorobenzene-d4	152	5.605	5.599	1.000	0m	40.00	ng/uL	0.00
111)	B Naphthalene-d8	136	7.381	7.375	1.000	0m	40.00	ng/uL	0.00
119)	B Acenaphthene-d10	164	9.687	9.687	1.000	0m	40.00	ng/uL	0.00
128)	B Phenanthrene-d10	188	11.563	11.569	1.000	0m	40.00	ng/uL	0.00
141)	B Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
147)	B Perylene-d12	264	18.410	18.398	1.000	0m	40.00	ng/uL	0.01
150)	J Phenanthrene-d10	188	11.563	11.563	1.000	0m	40.00	ng/uL	0.00
152)	J Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
155)	D Naphthalene-d8	136	7.381	7.375	1.000	0m	40.00	ng/uL	0.00
157)	D Acenaphthene-d10	164	9.687	9.687	1.000	0m	40.00	ng/uL	0.00
160)	D Phenanthrene-d10	188	11.563	11.563	1.000	0m	40.00	ng/uL	0.00
167)	D Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
169)	E Naphthalene-d8	136	7.381	7.375	1.000	0m	40.00	ng/uL	0.00
171)	E Perylene-d12	264	18.410	18.439	1.000	0m	40.00	ng/uL	-0.03
System Monitoring Compounds									Dev(Min)
5)	2-Fluorophenol	112	0.000	3.887	0.000	0d	0.00	ng/uL	
7)	Phenol-d5	99	0.000	5.058	0.000	0d	0.00	ng/uL	
22)	Nitrobenzene-d5	82	0.000	6.393	0.000	0d	0.00	ng/uL	
43)	2-Fluorobiphenyl	172	0.000	8.822	0.000	0d	0.00	ng/uL	
62)	2,4,6-Tribromophenol	330	0.000	10.687	0.000	0d	0.00	ng/uL	
79)	p-Terphenyl-d14	244	0.000	13.551	0.000	0d	0.00	ng/uL	

	Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
3)	N-Methyl-N-nitrosometh...	74	2.552	2.534	0.455	5067	0.90	ng/uL	74
32)	Naphthalene	128	7.405	7.410	1.003	41209	1.25	ng/uL	99
36)	2-Methylnaphthalene	142	8.334	8.340	1.129	26847	1.21	ng/uL	99
37)	1-Methylnaphthalene	142	8.463	8.469	1.147	25555	1.22	ng/uL	99
44)	2-Chloronaphthalene	162	8.969	8.975	0.926	23759	1.21	ng/uL	99
48)	Dimethylphthalate	163	9.340	9.357	0.964	27351	1.18	ng/uL	98
52)	Acenaphthylene	152	9.504	9.510	0.981	36501	1.18	ng/uL	98
53)	Acenaphthene	154	9.728	9.734	1.004	22780	1.24	ng/uL	97
57)	Diethylphthalate	149	10.234	10.245	1.056	25569	1.12	ng/uL	100
59)	Fluorene	166	10.381	10.387	1.072	26326	1.23	ng/uL	100
72)	Phenanthrene	178	11.593	11.598	1.003	36955	1.27	ng/uL	99
73)	Anthracene	178	11.651	11.663	1.008	35361	1.21	ng/uL	100
74)	Carbazole	167	11.851	11.857	1.025	24253	1.11	ng/uL	100
75)	Di-n-butylphthalate	149	12.287	12.287	1.063	34674	1.02	ng/uL	99
76)	Fluoranthene	202	13.069	13.081	1.130	29663	1.13	ng/uL	99
78)	Pyrene	202	13.357	13.363	0.886	29359	1.11	ng/uL	100
80)	Butylbenzylphthalate	149	14.181	14.186	0.941	8162	0.75	ng/uL	96

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2005.D
Acq On : 20 Jun 2018 10:50
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-18|ICAL|1|SVM|1|M-1
Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 21 08:49:25 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
81)	bis(2-Ethylhexyl)phtha...	149	15.110	15.116	1.002	13196	0.82	ng/uL#	95
82)	Benzo(a)anthracene	228	15.057	15.063	0.999	20847	1.19	ng/uL	95
83)	Chrysene	228	15.116	15.133	1.003	19827	1.24	ng/uL	99
86)	Di-n-octylphthalate	149	16.492	16.498	1.094	12831	1.01	ng/uL#	91
88)	Benzo(b)fluoranthene	252	17.363	17.375	0.943	12761	1.01	ng/uL	99
89)	Benzo(k)fluoranthene	252	17.427	17.445	0.947	11677	0.95	ng/uL	91
90)	Benzo(a)pyrene	252	18.233	18.245	0.990	9586	0.92	ng/uL	97
91)	Indeno(1,2,3-cd)pyrene	276	21.774	21.798	1.183	6313	0.92	ng/uL	91
92)	Dibenzo(a,h)anthracene	278	21.874	21.892	1.188	6631	0.95	ng/uL	96
93)	Benzo(ghi)perylene	276	22.427	22.445	1.218	8296	1.11	ng/uL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2005.D
Acq On : 20 Jun 2018 10:50
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-18|ICAL|1|SVM|1|M-1
Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 21 08:49:25 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Quantitation Report
GEL Laboratories, LLC

JMB 06/21/2018

BJB 06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2006.D
Acq On : 20 Jun 2018 11:23
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-15.1|ICAL|1|SVM|1|M-4
Misc : |MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 21 08:49:27 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.605	5.605	1.000	328662	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.381	7.381	1.000	1224098	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.693	9.693	1.000	607018	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.569	11.569	1.000	1086327	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.086	15.086	1.000	578320	40.00	ng/uL	0.00
87) A Perylene-d12	264	18.410	18.410	1.000	408280	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.605	5.599	1.000	0m	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.381	7.375	1.000	0m	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.693	9.687	1.000	0m	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.569	11.569	1.000	0m	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.086	15.075	1.000	0m	40.00	ng/uL	0.01
147) B Perylene-d12	264	18.410	18.398	1.000	0m	40.00	ng/uL	0.01
150) J Phenanthrene-d10	188	11.569	11.563	1.000	0m	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.086	15.075	1.000	0m	40.00	ng/uL	0.01
155) D Naphthalene-d8	136	7.381	7.375	1.000	0m	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.693	9.687	1.000	0m	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.569	11.563	1.000	0m	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.086	15.075	1.000	0m	40.00	ng/uL	0.01
169) E Naphthalene-d8	136	7.381	7.375	1.000	0m	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.410	18.439	1.000	0m	40.00	ng/uL	-0.03
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.887	3.887	0.694	391334	38.83	ng/uL	0.00
7) Phenol-d5	99	5.058	5.058	0.902	468708	38.63	ng/uL	0.00
22) Nitrobenzene-d5	82	6.393	6.393	0.866	415992	38.84	ng/uL	0.00
43) 2-Fluorobiphenyl	172	8.822	8.822	0.910	947616	39.55	ng/uL	0.00
62) 2,4,6-Tribromophenol	330	10.687	10.687	1.103	116980	37.64	ng/uL	0.00
79) p-Terphenyl-d14	244	13.551	13.551	0.898	681908	38.10	ng/uL	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	2.258	2.258	0.403	238093	39.51	ng/uL	100
3) N-Methyl-N-nitrosometh...	74	2.534	2.534	0.452	229240	39.34	ng/uL	100
4) Pyridine	79	2.564	2.564	0.457	394944	38.72	ng/uL	100
6) Aniline	93	5.152	5.152	0.919	624505	38.70	ng/uL	100
8) Phenol	94	5.075	5.075	0.906	492827	38.68	ng/uL	100
9) bis(2-Chloroethyl) ether	93	5.234	5.234	0.934	406238	38.90	ng/uL	100
10) 2-Chlorophenol	128	5.305	5.305	0.946	441466	38.60	ng/uL	100
11) n-Decane	43	5.363	5.363	0.957	583225	39.97	ng/uL	100
12) 1,3-Dichlorobenzene	146	5.522	5.522	0.985	512327	39.37	ng/uL	100
13) 1,4-Dichlorobenzene	146	5.628	5.628	1.004	521701	39.41	ng/uL	100
14) 1,2-Dichlorobenzene	146	5.840	5.840	1.042	494365	39.52	ng/uL	100
15) bis(2-Chloro-1-methyle...	45	5.993	5.993	1.069	743790	39.89	ng/uL	100
16) Benzyl alcohol	108	5.793	5.793	1.034	268217	38.50	ng/uL	100
17) o-Cresol	107	5.934	5.934	1.059	349466	39.31	ng/uL	100
18) m,p-Cresols	107	6.169	6.169	1.101	450608	38.25	ng/uL	100
19) N-Nitrosodipropylamine	70	6.193	6.193	1.105	294311	38.63	ng/uL	100
20) Hexachloroethane	117	6.316	6.316	1.127	190642	39.80	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2006.D
Acq On : 20 Jun 2018 11:23
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-15.1|ICAL|1|SVM|1|M-4
Misc : |MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 21 08:49:27 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
23)	Nitrobenzene	77	6.422	6.422	0.870	414844	39.23	ng/uL	100
24)	Isophorone	82	6.757	6.757	0.916	786724	38.71	ng/uL	100
25)	2-Nitrophenol	139	6.857	6.857	0.929	216090	38.28	ng/uL	100
26)	2,4-Dimethylphenol	122	6.910	6.910	0.936	378037	38.89	ng/uL	100
27)	bis(2-Chloroethoxy)met...	93	7.057	7.057	0.956	506674	39.06	ng/uL	100
28)	2,4-Dichlorophenol	162	7.181	7.181	0.973	358354	38.82	ng/uL	100
29)	Benzoic acid	105	7.063	7.063	0.957	188726	38.98	ng/uL	100
30)	1,2,4-Trichlorobenzene	180	7.299	7.299	0.989	408334	39.52	ng/uL	100
31)	alpha-Terpineol	59	7.428	7.428	1.006	423260	39.62	ng/uL	100
32)	Naphthalene	128	7.410	7.410	1.004	1282304	38.08	ng/uL	100
33)	4-Chloroaniline	127	7.487	7.487	1.014	496847	39.01	ng/uL	100
34)	Hexachlorobutadiene	225	7.575	7.575	1.026	228680	39.25	ng/uL	100
35)	4-Chloro-3-methylphenol	107	8.122	8.122	1.100	356098	38.95	ng/uL	100
36)	2-Methylnaphthalene	142	8.340	8.340	1.130	863420	38.04	ng/uL	100
37)	1-Methylnaphthalene	142	8.469	8.469	1.147	812692	38.01	ng/uL	100
39)	Hexachlorocyclopentadiene	237	8.540	8.540	0.881	163582	38.94	ng/uL	100
40)	2,3-Dichloroaniline	161	8.704	8.704	0.898	420108	39.35	ng/uL	100
41)	2,4,6-Trichlorophenol	196	8.704	8.704	0.898	245964	39.07	ng/uL	100
42)	2,4,5-Trichlorophenol	196	8.740	8.740	0.902	261245	39.03	ng/uL	100
44)	2-Chloronaphthalene	162	8.975	8.975	0.926	784512	38.26	ng/uL	100
45)	o-Nitroaniline	65	9.110	9.110	0.940	209799	38.55	ng/uL	100
46)	1,4-Dinitrobenzene	168	9.293	9.293	0.959	113474	38.27	ng/uL	100
47)	m-Nitroaniline	138	9.640	9.640	0.995	183487	38.67	ng/uL	100
48)	Dimethylphthalate	163	9.357	9.357	0.965	926506	38.20	ng/uL	100
49)	m-Dinitrobenzene	168	9.387	9.387	0.968	130596	39.09	ng/uL	100
50)	2,6-Dinitrotoluene	165	9.428	9.428	0.973	202727	38.91	ng/uL	100
51)	2,4-Dinitrotoluene	165	9.940	9.940	1.025	254133	38.90	ng/uL	100
52)	Acenaphthylene	152	9.510	9.510	0.981	1253240	38.80	ng/uL	100
53)	Acenaphthene	154	9.734	9.734	1.004	725672	37.82	ng/uL	100
54)	2,4-Dinitrophenol	184	9.763	9.763	1.007	63246	38.84	ng/uL	100
55)	Dibenzofuran	168	9.957	9.957	1.027	1096263	39.37	ng/uL	100
56)	2,3,4,6-Tetrachlorophenol	232	10.098	10.098	1.042	209326	39.91	ng/uL	100
57)	Diethylphthalate	149	10.245	10.245	1.057	918170	38.44	ng/uL	100
58)	4-Nitrophenol	139	9.834	9.834	1.015	119655	39.87	ng/uL	100
59)	Fluorene	166	10.387	10.387	1.072	859293	38.47	ng/uL	100
60)	4-Chlorophenylphenylether	204	10.387	10.387	1.072	416952	39.76	ng/uL	100
61)	p-Nitroaniline	138	10.410	10.410	1.074	143620	38.11	ng/uL	100
64)	2-Methyl-4,6-dinitroph...	198	10.445	10.445	0.903	98011	37.77	ng/uL	100
65)	Diphenylamine	169	10.540	10.540	0.911	713299	39.18	ng/uL	100
66)	1,2-Diphenylhydrazine	77	10.587	10.587	0.915	811905	39.25	ng/uL	100
67)	4-Bromophenylphenylether	248	11.004	11.004	0.951	247914	39.10	ng/uL	100
68)	Hexachlorobenzene	284	11.075	11.075	0.957	269264	38.58	ng/uL	100
69)	Pentachlorophenol	266	11.316	11.316	0.978	127512	38.57	ng/uL	100
70)	n-Octadecane	57	11.422	11.422	0.987	765172	40.29	ng/uL	100
71)	Dinoseb	211	11.545	11.545	0.998	140148	40.54	ng/uL	100
72)	Phenanthrene	178	11.598	11.598	1.003	1178886	37.94	ng/uL	100
73)	Anthracene	178	11.663	11.663	1.008	1197386	38.20	ng/uL	100
74)	Carbazole	167	11.857	11.857	1.025	893641	38.31	ng/uL	100
75)	Di-n-butylphthalate	149	12.287	12.287	1.062	1419904	39.18	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2006.D
Acq On : 20 Jun 2018 11:23
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-15.1|ICAL|1|SVM|1|M-4
Misc : |MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 21 08:49:27 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
76)	Fluoranthene	202	13.081	13.081	1.131	1077578	38.32	ng/uL	100
78)	Pyrene	202	13.363	13.363	0.886	1044442	37.88	ng/uL	100
80)	Butylbenzylphthalate	149	14.186	14.186	0.940	444890	39.13	ng/uL	100
81)	bis(2-Ethylhexyl)phtha...	149	15.116	15.116	1.002	663303	39.24	ng/uL	100
82)	Benzo(a)anthracene	228	15.063	15.063	0.998	689967	37.66	ng/uL	100
83)	Chrysene	228	15.133	15.133	1.003	634766	38.10	ng/uL	100
84)	Methoxychlor	227	14.951	14.951	0.991	451850	37.50	ng/uL	100
85)	Methylenebis(2-chloroa...	231	15.028	15.028	0.996	101860	37.07	ng/uL	100
86)	Di-n-octylphthalate	149	16.498	16.498	1.094	848816	38.27	ng/uL	100
88)	Benzo(b)fluoranthene	252	17.375	17.375	0.944	498227	37.21	ng/uL	100
89)	Benzo(k)fluoranthene	252	17.445	17.445	0.948	498429	38.30	ng/uL	100
90)	Benzo(a)pyrene	252	18.245	18.245	0.991	437342	39.52	ng/uL	100
91)	Indeno(1,2,3-cd)pyrene	276	21.798	21.798	1.184	327573	44.88	ng/uL	100
92)	Dibenzo(a,h)anthracene	278	21.892	21.892	1.189	332791	44.72	ng/uL	100
93)	Benzo(ghi)perylene	276	22.445	22.445	1.219	351881	44.41	ng/uL	100
94)	Dibenzo(a,e)pyrene	302	26.609	26.609	1.445	187682	47.04	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2006.D
Acq On : 20 Jun 2018 11:23
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-15.1|ICAL|1|SVM|1|M-4
Misc : |MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 21 08:49:27 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Quantitation Report
GEL Laboratories, LLC

JMB 06/21/2018

BJB 06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2007.D
Acq On : 20 Jun 2018 11:54
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-14|ICAL|1|SVM|1|M-5
Misc : |MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 21 08:49:29 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.605	5.605	1.000	350736	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.381	7.381	1.000	1316794	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.693	9.693	1.000	670213	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.569	11.569	1.000	1225831	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.086	15.086	1.000	656730	40.00	ng/uL	0.00
87) A Perylene-d12	264	18.410	18.410	1.000	411077	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.605	5.599	1.000	0m	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.381	7.375	1.000	0m	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.693	9.687	1.000	0m	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.569	11.569	1.000	0m	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.086	15.075	1.000	0m	40.00	ng/uL	0.01
147) B Perylene-d12	264	18.410	18.398	1.000	0m	40.00	ng/uL	0.01
150) J Phenanthrene-d10	188	11.569	11.563	1.000	0m	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.086	15.075	1.000	0m	40.00	ng/uL	0.01
155) D Naphthalene-d8	136	7.381	7.375	1.000	0m	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.693	9.687	1.000	0m	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.569	11.563	1.000	0m	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.086	15.075	1.000	0m	40.00	ng/uL	0.01
169) E Naphthalene-d8	136	7.381	7.375	1.000	0m	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.410	18.439	1.000	0m	40.00	ng/uL	-0.03
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.887	3.887	0.694	520449	48.39	ng/uL	0.00
7) Phenol-d5	99	5.063	5.058	0.903	623490	48.15	ng/uL	0.00
22) Nitrobenzene-d5	82	6.393	6.393	0.866	567144	49.23	ng/uL	0.00
43) 2-Fluorobiphenyl	172	8.822	8.822	0.910	1289479	48.74	ng/uL	0.00
62) 2,4,6-Tribromophenol	330	10.693	10.687	1.103	167921	48.94	ng/uL	0.00
79) p-Terphenyl-d14	244	13.551	13.551	0.898	998475	49.13	ng/uL	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	2.264	2.258	0.404	314623	48.92	ng/uL	95
3) N-Methyl-N-nitrosometh...	74	2.540	2.534	0.453	308501	49.60	ng/uL	98
4) Pyridine	79	2.569	2.564	0.458	533889	49.05	ng/uL	99
6) Aniline	93	5.158	5.152	0.920	833369	48.40	ng/uL	99
8) Phenol	94	5.081	5.075	0.907	659744	48.53	ng/uL	100
9) bis(2-Chloroethyl) ether	93	5.234	5.234	0.934	544694	48.87	ng/uL	100
10) 2-Chlorophenol	128	5.305	5.305	0.946	593729	48.65	ng/uL	100
11) n-Decane	43	5.363	5.363	0.957	766732	49.24	ng/uL	99
12) 1,3-Dichlorobenzene	146	5.528	5.522	0.986	680741	49.02	ng/uL	100
13) 1,4-Dichlorobenzene	146	5.628	5.628	1.004	689278	48.79	ng/uL	100
14) 1,2-Dichlorobenzene	146	5.846	5.840	1.043	652710	48.89	ng/uL	100
15) bis(2-Chloro-1-methyle...	45	5.993	5.993	1.069	982199	49.36	ng/uL	100
16) Benzyl alcohol	108	5.799	5.793	1.035	366712	49.32	ng/uL	100
17) o-Cresol	107	5.934	5.934	1.059	464677	48.98	ng/uL	99
18) m,p-Cresols	107	6.175	6.169	1.102	608377	48.39	ng/uL	99
19) N-Nitrosodipropylamine	70	6.205	6.193	1.107	401795	49.42	ng/uL	99
20) Hexachloroethane	117	6.322	6.316	1.128	251508	49.20	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2007.D
Acq On : 20 Jun 2018 11:54
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-14|ICAL|1|SVM|1|M-5
Misc : |MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 21 08:49:29 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
23)	Nitrobenzene	77	6.422	6.422	0.870	560583	49.27	ng/uL	100
24)	Isophorone	82	6.758	6.757	0.916	1071732	49.02	ng/uL	100
25)	2-Nitrophenol	139	6.857	6.857	0.929	299565	49.33	ng/uL	100
26)	2,4-Dimethylphenol	122	6.910	6.910	0.936	509970	48.77	ng/uL	99
27)	bis(2-Chloroethoxy)met...	93	7.057	7.057	0.956	688479	49.33	ng/uL	100
28)	2,4-Dichlorophenol	162	7.181	7.181	0.973	486453	48.98	ng/uL	100
29)	Benzoic acid	105	7.093	7.063	0.961	273492	48.36	ng/uL	98
30)	1,2,4-Trichlorobenzene	180	7.305	7.299	0.990	543726	48.91	ng/uL	100
31)	alpha-Terpineol	59	7.434	7.428	1.007	566953	49.33	ng/uL	100
32)	Naphthalene	128	7.416	7.410	1.005	1704605	47.05	ng/uL	100
33)	4-Chloroaniline	127	7.487	7.487	1.014	676059	49.34	ng/uL	100
34)	Hexachlorobutadiene	225	7.575	7.575	1.026	306465	48.89	ng/uL	99
35)	4-Chloro-3-methylphenol	107	8.128	8.122	1.101	487763	49.60	ng/uL	100
36)	2-Methylnaphthalene	142	8.340	8.340	1.130	1166174	47.76	ng/uL	100
37)	1-Methylnaphthalene	142	8.469	8.469	1.147	1102773	47.94	ng/uL	100
39)	Hexachlorocyclopentadiene	237	8.540	8.540	0.881	217405	46.88	ng/uL	100
40)	2,3-Dichloroaniline	161	8.710	8.704	0.899	573422	48.64	ng/uL	100
41)	2,4,6-Trichlorophenol	196	8.704	8.704	0.898	338465	48.69	ng/uL	99
42)	2,4,5-Trichlorophenol	196	8.746	8.740	0.902	359601	48.65	ng/uL	99
44)	2-Chloronaphthalene	162	8.981	8.975	0.927	1064573	47.02	ng/uL	100
45)	o-Nitroaniline	65	9.110	9.110	0.940	294469	49.00	ng/uL	100
46)	1,4-Dinitrobenzene	168	9.299	9.293	0.959	163464	49.94	ng/uL	99
47)	m-Nitroaniline	138	9.646	9.640	0.995	254786	48.63	ng/uL	100
48)	Dimethylphthalate	163	9.363	9.357	0.966	1277251	47.70	ng/uL	100
49)	m-Dinitrobenzene	168	9.393	9.387	0.969	183678	49.79	ng/uL	95
50)	2,6-Dinitrotoluene	165	9.434	9.428	0.973	283951	49.36	ng/uL	99
51)	2,4-Dinitrotoluene	165	9.946	9.940	1.026	359569	49.85	ng/uL	90
52)	Acenaphthylene	152	9.516	9.510	0.982	1699298	47.64	ng/uL	100
53)	Acenaphthene	154	9.740	9.734	1.005	1002660	47.33	ng/uL	99
54)	2,4-Dinitrophenol	184	9.769	9.763	1.008	87246	45.36	ng/uL	99
55)	Dibenzofuran	168	9.957	9.957	1.027	1500457	48.80	ng/uL	100
56)	2,3,4,6-Tetrachlorophenol	232	10.104	10.098	1.042	285611	49.32	ng/uL	96
57)	Diethylphthalate	149	10.251	10.245	1.058	1276037	48.38	ng/uL	100
58)	4-Nitrophenol	139	9.840	9.834	1.015	159999	48.29	ng/uL	99
59)	Fluorene	166	10.393	10.387	1.072	1168367	47.38	ng/uL	100
60)	4-Chlorophenylphenylether	204	10.393	10.387	1.072	562398	48.58	ng/uL	99
61)	p-Nitroaniline	138	10.422	10.410	1.075	197196	47.39	ng/uL	97
64)	2-Methyl-4,6-dinitroph...	198	10.451	10.445	0.903	143631	46.94	ng/uL	99
65)	Diphenylamine	169	10.546	10.540	0.912	994504	48.41	ng/uL	100
66)	1,2-Diphenylhydrazine	77	10.593	10.587	0.916	1126314	48.26	ng/uL	100
67)	4-Bromophenylphenylether	248	11.004	11.004	0.951	347396	48.56	ng/uL	99
68)	Hexachlorobenzene	284	11.075	11.075	0.957	377963	47.99	ng/uL	100
69)	Pentachlorophenol	266	11.316	11.316	0.978	185992	49.86	ng/uL	100
70)	n-Octadecane	57	11.428	11.422	0.988	1056386	49.29	ng/uL	100
71)	Dinoseb	211	11.551	11.545	0.998	213320	54.69	ng/uL	99
72)	Phenanthrene	178	11.604	11.598	1.003	1639557	46.76	ng/uL	99
73)	Anthracene	178	11.669	11.663	1.009	1670270	47.22	ng/uL	100
74)	Carbazole	167	11.863	11.857	1.025	1254129	47.65	ng/uL	100
75)	Di-n-butylphthalate	149	12.292	12.287	1.063	2019179	49.37	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2007.D
Acq On : 20 Jun 2018 11:54
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-14|ICAL|1|SVM|1|M-5
Misc : |MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 21 08:49:29 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
76)	Fluoranthene	202	13.081	13.081	1.131	1550155	48.85	ng/uL	100
78)	Pyrene	202	13.363	13.363	0.886	1506787	48.12	ng/uL	100
80)	Butylbenzylphthalate	149	14.187	14.186	0.940	686945	53.21	ng/uL	99
81)	bis(2-Ethylhexyl)phtha...	149	15.116	15.116	1.002	1007656	52.49	ng/uL	99
82)	Benzo(a)anthracene	228	15.063	15.063	0.998	984518	47.32	ng/uL	100
83)	Chrysene	228	15.134	15.133	1.003	890773	47.08	ng/uL	99
84)	Methoxychlor	227	14.957	14.951	0.991	712971	52.11	ng/uL	100
85)	Methylenebis(2-chloroa...	231	15.028	15.028	0.996	149975	48.07	ng/uL	99
86)	Di-n-octylphthalate	149	16.504	16.498	1.094	1327703	52.56	ng/uL	100
88)	Benzo(b)fluoranthene	252	17.375	17.375	0.944	671563	49.82	ng/uL	99
89)	Benzo(k)fluoranthene	252	17.451	17.445	0.948	646154	49.31	ng/uL	100
90)	Benzo(a)pyrene	252	18.251	18.245	0.991	559552	50.22	ng/uL	100
91)	Indeno(1,2,3-cd)pyrene	276	21.792	21.798	1.184	362402	49.32	ng/uL	99
92)	Dibenzo(a,h)anthracene	278	21.892	21.892	1.189	364969	48.71	ng/uL	99
93)	Benzo(ghi)perylene	276	22.445	22.445	1.219	387996	48.63	ng/uL	99
94)	Dibenzo(a,e)pyrene	302	26.609	26.609	1.445	180522	44.94	ng/uL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2007.D
Acq On    : 20 Jun 2018  11:54
Operator  : JMB3
InstName  : MSDA
Sample    : |WBN180517-14|ICAL|1|SVM|1|M-5
Misc      : |MIX[A]
ALS Vial  : 6   Sample Multiplier: 1

Quant Time: Jun 21 08:49:29 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title  : BNA01                                        SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE
```

Quantitation Report
GEL Laboratories, LLC

JMB 06/21/2018

BJB 06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2008.D
Acq On : 20 Jun 2018 12:26
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-13|ICAL|1|SVM|1|M-6
Misc : |MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 21 08:49:31 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.605	5.605	1.000	356789	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.387	7.381	1.000	1335138	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.699	9.693	1.000	670925	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.575	11.569	1.000	1240580	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.092	15.086	1.000	678187	40.00	ng/uL	0.00
87) A Perylene-d12	264	18.416	18.410	1.000	465221	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.605	5.599	1.000	0m	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.387	7.375	1.000	0m	40.00	ng/uL	0.01
119) B Acenaphthene-d10	164	9.699	9.687	1.000	0m	40.00	ng/uL	0.01
128) B Phenanthrene-d10	188	11.575	11.569	1.000	0m	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.092	15.075	1.000	0m	40.00	ng/uL	0.02
147) B Perylene-d12	264	18.416	18.398	1.000	0m	40.00	ng/uL	0.02
150) J Phenanthrene-d10	188	11.575	11.563	1.000	0m	40.00	ng/uL	0.01
152) J Chrysene-d12	240	15.092	15.075	1.000	0m	40.00	ng/uL	0.02
155) D Naphthalene-d8	136	7.387	7.375	1.000	0m	40.00	ng/uL	0.01
157) D Acenaphthene-d10	164	9.699	9.687	1.000	0m	40.00	ng/uL	0.01
160) D Phenanthrene-d10	188	11.575	11.563	1.000	0m	40.00	ng/uL	0.01
167) D Chrysene-d12	240	15.092	15.075	1.000	0m	40.00	ng/uL	0.02
169) E Naphthalene-d8	136	7.387	7.375	1.000	0m	40.00	ng/uL	0.01
171) E Perylene-d12	264	0.000	18.439	1.000	0	0.00	ng/uL	-18.44
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.893	3.887	0.695	849021	77.59	ng/uL	0.00
7) Phenol-d5	99	5.075	5.058	0.906	1032821	78.40	ng/uL	0.02
22) Nitrobenzene-d5	82	6.405	6.393	0.867	919286	78.70	ng/uL	0.01
43) 2-Fluorobiphenyl	172	8.828	8.822	0.910	2020850	76.30	ng/uL	0.00
62) 2,4,6-Tribromophenol	330	10.698	10.687	1.103	278212	81.00	ng/uL	0.01
79) p-Terphenyl-d14	244	13.557	13.551	0.898	1640468	78.17	ng/uL	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	2.264	2.258	0.404	515289	78.76	ng/uL	91
3) N-Methyl-N-nitrosometh...	74	2.540	2.534	0.453	508624	80.40	ng/uL	88
4) Pyridine	79	2.570	2.564	0.458	862227	77.86	ng/uL	99
6) Aniline	93	5.163	5.152	0.921	1374177	78.45	ng/uL	99
8) Phenol	94	5.099	5.075	0.910	1083797	78.36	ng/uL	100
9) bis(2-Chloroethyl) ether	93	5.246	5.234	0.936	886620	78.21	ng/uL	99
10) 2-Chlorophenol	128	5.311	5.305	0.948	974167	78.46	ng/uL	100
11) n-Decane	43	5.369	5.363	0.958	1208287	76.28	ng/uL	98
12) 1,3-Dichlorobenzene	146	5.528	5.522	0.986	1099187	77.81	ng/uL	99
13) 1,4-Dichlorobenzene	146	5.634	5.628	1.005	1110642	77.28	ng/uL	100
14) 1,2-Dichlorobenzene	146	5.846	5.840	1.043	1044078	76.88	ng/uL	99
15) bis(2-Chloro-1-methyle...	45	5.999	5.993	1.070	1560759	77.11	ng/uL	99
16) Benzyl alcohol	108	5.811	5.793	1.037	604422	79.91	ng/uL	100
17) o-Cresol	107	5.946	5.934	1.061	753057	78.04	ng/uL	100
18) m,p-Cresols	107	6.193	6.169	1.105	987663	77.23	ng/uL	100
19) N-Nitrosodipropylamine	70	6.228	6.193	1.111	651435	78.77	ng/uL	98
20) Hexachloroethane	117	6.322	6.316	1.128	406209	78.11	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2008.D
Acq On : 20 Jun 2018 12:26
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-13|ICAL|1|SVM|1|M-6
Misc : |MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 21 08:49:31 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
23)	Nitrobenzene	77	6.434	6.422	0.871	904458	78.41	ng/uL	99	
24)	Isophorone	82	6.769	6.757	0.916	1733305	78.19	ng/uL	100	
25)	2-Nitrophenol	139	6.863	6.857	0.929	498614	80.97	ng/uL	99	
26)	2,4-Dimethylphenol	122	6.922	6.910	0.937	828572	78.14	ng/uL	100	
27)	bis(2-Chloroethoxy)met...	93	7.063	7.057	0.956	1106534	78.20	ng/uL	99	
28)	2,4-Dichlorophenol	162	7.193	7.181	0.974	794147	78.87	ng/uL	100	
29)	Benzoic acid	105	7.146	7.063	0.967	525410	80.92	ng/uL	97	
30)	1,2,4-Trichlorobenzene	180	7.305	7.299	0.989	878818	77.97	ng/uL	100	
31)	alpha-Terpineol	59	7.440	7.428	1.007	905369	77.69	ng/uL	99	
32)	Naphthalene	128	7.422	7.410	1.005	2713905	73.89	ng/uL	100	
33)	4-Chloroaniline	127	7.493	7.487	1.014	1099302	79.13	ng/uL	100	
34)	Hexachlorobutadiene	225	7.581	7.575	1.026	490645	77.20	ng/uL	99	
35)	4-Chloro-3-methylphenol	107	8.134	8.122	1.101	794456	79.67	ng/uL	99	
36)	2-Methylnaphthalene	142	8.346	8.340	1.130	1866310	75.38	ng/uL	100	
37)	1-Methylnaphthalene	142	8.475	8.469	1.147	1760129	75.47	ng/uL	100	
39)	Hexachlorocyclopentadiene	237	8.540	8.540	0.881	391028	84.22	ng/uL	100	
40)	2,3-Dichloroaniline	161	8.716	8.704	0.899	913922	77.45	ng/uL	100	
41)	2,4,6-Trichlorophenol	196	8.710	8.704	0.898	549710	78.99	ng/uL	100	
42)	2,4,5-Trichlorophenol	196	8.752	8.740	0.902	592158	80.03	ng/uL	99	
44)	2-Chloronaphthalene	162	8.987	8.975	0.927	1694612	74.77	ng/uL	99	
45)	o-Nitroaniline	65	9.116	9.110	0.940	494113	82.14	ng/uL	99	
46)	1,4-Dinitrobenzene	168	9.310	9.293	0.960	277644	84.73	ng/uL	97	
47)	m-Nitroaniline	138	9.657	9.640	0.996	426213	81.26	ng/uL	100	
48)	Dimethylphthalate	163	9.375	9.357	0.967	2044153	76.26	ng/uL	100	
49)	m-Dinitrobenzene	168	9.404	9.387	0.970	301935	81.76	ng/uL	88	
50)	2,6-Dinitrotoluene	165	9.446	9.428	0.974	457482	79.45	ng/uL	98	
51)	2,4-Dinitrotoluene	165	9.951	9.940	1.026	582397	80.65	ng/uL	91	
52)	Acenaphthylene	152	9.522	9.510	0.982	2687749	75.28	ng/uL	100	
53)	Acenaphthene	154	9.746	9.734	1.005	1570721	74.06	ng/uL	100	
54)	2,4-Dinitrophenol	184	9.781	9.763	1.008	178542	79.46	ng/uL	100	
55)	Dibenzofuran	168	9.963	9.957	1.027	2381805	77.39	ng/uL	100	
56)	2,3,4,6-Tetrachlorophenol	232	10.110	10.098	1.042	470502	81.17	ng/uL	97	
57)	Diethylphthalate	149	10.257	10.245	1.058	2038968	77.23	ng/uL	100	
58)	4-Nitrophenol	139	9.851	9.834	1.016	288564	87.00	ng/uL	100	
59)	Fluorene	166	10.398	10.387	1.072	1842659	74.64	ng/uL	100	
60)	4-Chlorophenylphenylether	204	10.393	10.387	1.072	889116	76.71	ng/uL	99	
61)	p-Nitroaniline	138	10.440	10.410	1.076	355889	85.44	ng/uL	99	
64)	2-Methyl-4,6-dinitroph...	198	10.469	10.445	0.904	266942	80.30	ng/uL	98	
65)	Diphenylamine	169	10.551	10.540	0.912	1597025	76.81	ng/uL	100	
66)	1,2-Diphenylhydrazine	77	10.598	10.587	0.916	1797335	76.09	ng/uL	100	
67)	4-Bromophenylphenylether	248	11.010	11.004	0.951	555183	76.68	ng/uL	99	
68)	Hexachlorobenzene	284	11.081	11.075	0.957	616191	77.32	ng/uL	100	
69)	Pentachlorophenol	266	11.322	11.316	0.978	332848	88.17	ng/uL	99	
70)	n-Octadecane	57	11.428	11.422	0.987	1652498	76.19	ng/uL	99	
71)	Dinoseb	211	11.557	11.545	0.998	398970	101.06	ng/uL	99	A
72)	Phenanthrene	178	11.610	11.598	1.003	2600948	73.29	ng/uL	99	
73)	Anthracene	178	11.675	11.663	1.009	2663712	74.42	ng/uL	100	
74)	Carbazole	167	11.869	11.857	1.025	2052027	77.04	ng/uL	100	
75)	Di-n-butylphthalate	149	12.293	12.287	1.062	3223892	77.89	ng/uL	100	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2008.D
Acq On : 20 Jun 2018 12:26
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-13|ICAL|1|SVM|1|M-6
Misc : |MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 21 08:49:31 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
76)	Fluoranthene	202	13.087	13.081	1.131	2489209	77.51	ng/uL	100
78)	Pyrene	202	13.369	13.363	0.886	2420158	74.85	ng/uL	100
80)	Butylbenzylphthalate	149	14.192	14.186	0.940	1120616	84.05	ng/uL	99
81)	bis(2-Ethylhexyl)phtha...	149	15.122	15.116	1.002	1616320	81.53	ng/uL	100
82)	Benzo(a)anthracene	228	15.075	15.063	0.999	1637481	76.21	ng/uL	95
83)	Chrysene	228	15.145	15.133	1.004	1444951	73.95	ng/uL	99
84)	Methoxychlor	227	14.963	14.951	0.991	1214012	85.92	ng/uL	100
85)	Methylenebis(2-chloroa...	231	15.039	15.028	0.996	277039	85.99	ng/uL	98
86)	Di-n-octylphthalate	149	16.510	16.498	1.094	2204930	84.27	ng/uL	99
88)	Benzo(b)fluoranthene	252	17.386	17.375	0.944	1185292	77.70	ng/uL	99
89)	Benzo(k)fluoranthene	252	17.469	17.445	0.949	1142223	77.02	ng/uL	100
90)	Benzo(a)pyrene	252	18.269	18.245	0.992	1024992	81.28	ng/uL	100
91)	Indeno(1,2,3-cd)pyrene	276	21.816	21.798	1.185	697484	83.87	ng/uL	99
92)	Dibenzo(a,h)anthracene	278	21.910	21.892	1.190	714711	84.28	ng/uL	99
93)	Benzo(ghi)perylene	276	22.463	22.445	1.220	710818	78.72	ng/uL	100
94)	Dibenzo(a,e)pyrene	302	26.627	26.609	1.446	318728	70.11	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2008.D
Acq On    : 20 Jun 2018  12:26
Operator  : JMB3
InstName  : MSDA
Sample    : |WBN180517-13|ICAL|1|SVM|1|M-6
Misc      : |MIX[A]
ALS Vial  : 7   Sample Multiplier: 1

Quant Time: Jun 21 08:49:31 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title  : BNA01                                          SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE
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Quantitation Report
GEL Laboratories, LLC

JMB 06/21/2018

BJB 06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2009.D
Acq On : 20 Jun 2018 12:57
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-12|ICAL|1|SVM|1|M-7
Misc : |MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 21 08:49:33 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.611	5.605	1.000	348528	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.387	7.381	1.000	1299406	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.699	9.693	1.000	644860	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.575	11.569	1.000	1170318	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.092	15.086	1.000	616530	40.00	ng/uL	0.00
87) A Perylene-d12	264	18.410	18.410	1.000	379214	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.611	5.599	1.000	0m	40.00	ng/uL	0.01
111) B Naphthalene-d8	136	7.387	7.375	1.000	0m	40.00	ng/uL	0.01
119) B Acenaphthene-d10	164	9.699	9.687	1.000	0m	40.00	ng/uL	0.01
128) B Phenanthrene-d10	188	11.575	11.569	1.000	0m	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.092	15.075	1.000	0m	40.00	ng/uL	0.02
147) B Perylene-d12	264	18.410	18.398	1.000	0m	40.00	ng/uL	0.01
150) J Phenanthrene-d10	188	11.575	11.563	1.000	0m	40.00	ng/uL	0.01
152) J Chrysene-d12	240	15.092	15.075	1.000	0m	40.00	ng/uL	0.02
155) D Naphthalene-d8	136	7.387	7.375	1.000	0m	40.00	ng/uL	0.01
157) D Acenaphthene-d10	164	9.699	9.687	1.000	0m	40.00	ng/uL	0.01
160) D Phenanthrene-d10	188	11.575	11.563	1.000	0m	40.00	ng/uL	0.01
167) D Chrysene-d12	240	15.092	15.075	1.000	0m	40.00	ng/uL	0.02
169) E Naphthalene-d8	136	7.387	7.375	1.000	0m	40.00	ng/uL	0.01
171) E Perylene-d12	264	0.000	18.439	1.000	0	0.00	ng/uL	-18.44
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.893	3.887	0.694	1028644	96.24	ng/uL	0.00
7) Phenol-d5	99	5.081	5.058	0.906	1246079	96.84	ng/uL	0.02
22) Nitrobenzene-d5	82	6.410	6.393	0.868	1104457	97.15	ng/uL	0.02
43) 2-Fluorobiphenyl	172	8.828	8.822	0.910	2381165	93.54	ng/uL	0.00
62) 2,4,6-Tribromophenol	330	10.699	10.687	1.103	336336	101.88	ng/uL	0.01
79) p-Terphenyl-d14	244	13.557	13.551	0.898	1826499	95.73	ng/uL	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	2.270	2.258	0.405	638195	99.86	ng/uL	91
3) N-Methyl-N-nitrosometh...	74	2.546	2.534	0.454	610182	98.73	ng/uL	88
4) Pyridine	79	2.570	2.564	0.458	1045745	96.68	ng/uL	98
6) Aniline	93	5.169	5.152	0.921	1663793	97.24	ng/uL	100
8) Phenol	94	5.105	5.075	0.910	1307923	96.81	ng/uL	100
9) bis(2-Chloroethyl) ether	93	5.246	5.234	0.935	1061877	95.88	ng/uL	100
10) 2-Chlorophenol	128	5.316	5.305	0.948	1170872	96.54	ng/uL	100
11) n-Decane	43	5.369	5.363	0.957	1434051	92.68	ng/uL	98
12) 1,3-Dichlorobenzene	146	5.534	5.522	0.986	1305653	94.61	ng/uL	99
13) 1,4-Dichlorobenzene	146	5.634	5.628	1.004	1325790	94.44	ng/uL	100
14) 1,2-Dichlorobenzene	146	5.852	5.840	1.043	1253473	94.49	ng/uL	99
15) bis(2-Chloro-1-methyle...	45	5.999	5.993	1.069	1842371	93.18	ng/uL	99
16) Benzyl alcohol	108	5.816	5.793	1.037	725651	98.22	ng/uL	100
17) o-Cresol	107	5.946	5.934	1.060	901326	95.61	ng/uL	99
18) m,p-Cresols	107	6.199	6.169	1.105	1197584	95.86	ng/uL	96
19) N-Nitrosodipropylamine	70	6.234	6.193	1.111	777824	96.28	ng/uL	98
20) Hexachloroethane	117	6.322	6.316	1.127	480506	94.59	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2009.D
Acq On : 20 Jun 2018 12:57
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-12|ICAL|1|SVM|1|M-7
Misc : |MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 21 08:49:33 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
23)	Nitrobenzene	77	6.440	6.422	0.872	1077195	95.95	ng/uL	100	
24)	Isophorone	82	6.775	6.757	0.917	2065599	95.74	ng/uL	100	
25)	2-Nitrophenol	139	6.869	6.857	0.930	596837	99.59	ng/uL	99	
26)	2,4-Dimethylphenol	122	6.928	6.910	0.938	986115	95.56	ng/uL	100	
27)	bis(2-Chloroethoxy)met...	93	7.069	7.057	0.957	1317686	95.69	ng/uL	99	
28)	2,4-Dichlorophenol	162	7.199	7.181	0.975	949623	96.90	ng/uL	100	
29)	Benzoic acid	105	7.169	7.063	0.971	668349	102.09	ng/uL	97	
30)	1,2,4-Trichlorobenzene	180	7.310	7.299	0.990	1039952	94.81	ng/uL	100	
31)	alpha-Terpineol	59	7.446	7.428	1.008	1066971	94.08	ng/uL	99	
32)	Naphthalene	128	7.422	7.410	1.005	3204679	89.65	ng/uL	100	
33)	4-Chloroaniline	127	7.499	7.487	1.015	1306351	96.62	ng/uL	99	
34)	Hexachlorobutadiene	225	7.581	7.575	1.026	583471	94.33	ng/uL	99	
35)	4-Chloro-3-methylphenol	107	8.134	8.122	1.101	945155	97.39	ng/uL	100	
36)	2-Methylnaphthalene	142	8.346	8.340	1.130	2196421	91.15	ng/uL	100	
37)	1-Methylnaphthalene	142	8.481	8.469	1.148	2062687	90.88	ng/uL	100	
39)	Hexachlorocyclopentadiene	237	8.546	8.540	0.881	476141	106.70	ng/uL	99	
40)	2,3-Dichloroaniline	161	8.716	8.704	0.899	1085483	95.70	ng/uL	99	
41)	2,4,6-Trichlorophenol	196	8.716	8.704	0.899	643620	96.23	ng/uL	99	
42)	2,4,5-Trichlorophenol	196	8.752	8.740	0.902	711920	100.11	ng/uL	100	
44)	2-Chloronaphthalene	162	8.987	8.975	0.927	1996328	91.64	ng/uL	99	
45)	o-Nitroaniline	65	9.122	9.110	0.941	579448	100.22	ng/uL	99	
46)	1,4-Dinitrobenzene	168	9.310	9.293	0.960	323754	102.79	ng/uL	98	
47)	m-Nitroaniline	138	9.663	9.640	0.996	507086	100.59	ng/uL	98	
48)	Dimethylphthalate	163	9.381	9.357	0.967	2398937	93.11	ng/uL	100	
49)	m-Dinitrobenzene	168	9.410	9.387	0.970	356510	100.44	ng/uL	84	
50)	2,6-Dinitrotoluene	165	9.452	9.428	0.975	537079	97.04	ng/uL	98	
51)	2,4-Dinitrotoluene	165	9.957	9.940	1.027	682336	98.31	ng/uL	91	
52)	Acenaphthylene	152	9.528	9.510	0.982	3103689	90.44	ng/uL	100	
53)	Acenaphthene	154	9.752	9.734	1.005	1833808	89.96	ng/uL	99	
54)	2,4-Dinitrophenol	184	9.787	9.763	1.009	229967	102.17	ng/uL	99	
55)	Dibenzofuran	168	9.969	9.957	1.028	2761838	93.36	ng/uL	99	
56)	2,3,4,6-Tetrachlorophenol	232	10.110	10.098	1.042	558458	100.24	ng/uL	97	
57)	Diethylphthalate	149	10.263	10.245	1.058	2361911	93.08	ng/uL	100	
58)	4-Nitrophenol	139	9.857	9.834	1.016	351325	110.20	ng/uL	99	
59)	Fluorene	166	10.404	10.387	1.073	2136500	90.04	ng/uL	100	
60)	4-Chlorophenylphenylether	204	10.399	10.387	1.072	1030113	92.47	ng/uL	99	
61)	p-Nitroaniline	138	10.446	10.410	1.077	423198	105.70	ng/uL	99	
64)	2-Methyl-4,6-dinitroph...	198	10.475	10.445	0.905	326522	102.02	ng/uL	97	A
65)	Diphenylamine	169	10.557	10.540	0.912	1840838	93.86	ng/uL	100	
66)	1,2-Diphenylhydrazine	77	10.599	10.587	0.916	2111830	94.78	ng/uL	100	
67)	4-Bromophenylphenylether	248	11.016	11.004	0.952	655718	96.00	ng/uL	99	
68)	Hexachlorobenzene	284	11.087	11.075	0.958	715407	95.15	ng/uL	99	
69)	Pentachlorophenol	266	11.322	11.316	0.978	403662	113.35	ng/uL	100	
70)	n-Octadecane	57	11.428	11.422	0.987	1907759	93.24	ng/uL	98	
71)	Dinoseb	211	11.563	11.545	0.999	494035	132.66	ng/uL	99	A
72)	Phenanthrene	178	11.610	11.598	1.003	3007810	89.84	ng/uL	100	
73)	Anthracene	178	11.675	11.663	1.009	3089233	91.48	ng/uL	100	
74)	Carbazole	167	11.869	11.857	1.025	2385503	94.94	ng/uL	100	
75)	Di-n-butylphthalate	149	12.298	12.287	1.063	3724020	95.38	ng/uL	100	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2009.D
Acq On : 20 Jun 2018 12:57
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-12|ICAL|1|SVM|1|M-7
Misc : |MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 21 08:49:33 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
76)	Fluoranthene	202	13.087	13.081	1.131	2857787	94.32	ng/uL	100
78)	Pyrene	202	13.375	13.363	0.886	2738066	93.15	ng/uL	99
80)	Butylbenzylphthalate	149	14.192	14.186	0.940	1270011	104.78	ng/uL	99
81)	bis(2-Ethylhexyl)phtha...	149	15.122	15.116	1.002	1804162	100.11	ng/uL	100
82)	Benzo(a)anthracene	228	15.075	15.063	0.999	1842508	94.33	ng/uL	99
83)	Chrysene	228	15.145	15.133	1.004	1608827	90.57	ng/uL	99
84)	Methoxychlor	227	14.963	14.951	0.991	1367342	106.45	ng/uL	100
85)	Methylenebis(2-chloroa...	231	15.039	15.028	0.996	312574	106.72	ng/uL	99
86)	Di-n-octylphthalate	149	16.510	16.498	1.094	2409392	101.22	ng/uL	99
88)	Benzo(b)fluoranthene	252	17.392	17.375	0.945	1237122	99.49	ng/uL	99
89)	Benzo(k)fluoranthene	252	17.469	17.445	0.949	1188198	98.30	ng/uL	100
90)	Benzo(a)pyrene	252	18.269	18.245	0.992	1050273	102.18	ng/uL	100
91)	Indeno(1,2,3-cd)pyrene	276	21.816	21.798	1.185	712025	105.03	ng/uL	99
92)	Dibenzo(a,h)anthracene	278	21.910	21.892	1.190	724942	104.88	ng/uL	99
93)	Benzo(ghi)perylene	276	22.463	22.445	1.220	729380	99.10	ng/uL	99
94)	Dibenzo(a,e)pyrene	302	26.627	26.609	1.446	356716	96.26	ng/uL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2009.D
Acq On    : 20 Jun 2018  12:57
Operator  : JMB3
InstName  : MSDA
Sample    : |WBN180517-12|ICAL|1|SVM|1|M-7
Misc      : |MIX[A]
ALS Vial  : 8   Sample Multiplier: 1

Quant Time: Jun 21 08:49:33 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title  : BNA01                                        SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE
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Quantitation Report
GEL Laboratories, LLC

JMB 06/21/2018

BJB 06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2010.D
Acq On : 20 Jun 2018 13:29
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-11|ICAL|1|SVM|1|M-8
Misc : |MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 21 08:49:35 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
Internal Standards										Dev(Min)
1)	A 1,4-Dichlorobenzene-d4	152	5.610	5.605	1.000	348555	40.00	ng/uL		0.00
21)	A Naphthalene-d8	136	7.393	7.381	1.000	1305999	40.00	ng/uL		0.01
38)	A Acenaphthene-d10	164	9.704	9.693	1.000	650132	40.00	ng/uL		0.01
63)	A Phenanthrene-d10	188	11.575	11.569	1.000	1212488	40.00	ng/uL		0.00
77)	A Chrysene-d12	240	15.098	15.086	1.000	713499	40.00	ng/uL		0.01
87)	A Perylene-d12	264	18.421	18.410	1.000	457011	40.00	ng/uL		0.01
95)	B 1,4-Dichlorobenzene-d4	152	5.610	5.599	1.000	0m	40.00	ng/uL		0.01
111)	B Naphthalene-d8	136	7.393	7.375	1.000	0m	40.00	ng/uL		0.02
119)	B Acenaphthene-d10	164	9.704	9.687	1.000	0m	40.00	ng/uL		0.02
128)	B Phenanthrene-d10	188	11.575	11.569	1.000	0m	40.00	ng/uL		0.00
141)	B Chrysene-d12	240	15.098	15.075	1.000	0m	40.00	ng/uL		0.02
147)	B Perylene-d12	264	18.421	18.398	1.000	0m	40.00	ng/uL		0.02
150)	J Phenanthrene-d10	188	11.575	11.563	1.000	0m	40.00	ng/uL		0.01
152)	J Chrysene-d12	240	15.098	15.075	1.000	0m	40.00	ng/uL		0.02
155)	D Naphthalene-d8	136	7.393	7.375	1.000	0m	40.00	ng/uL		0.02
157)	D Acenaphthene-d10	164	9.704	9.687	1.000	0m	40.00	ng/uL		0.02
160)	D Phenanthrene-d10	188	11.575	11.563	1.000	0m	40.00	ng/uL		0.01
167)	D Chrysene-d12	240	15.098	15.075	1.000	0m	40.00	ng/uL		0.02
169)	E Naphthalene-d8	136	7.393	7.375	1.000	0m	40.00	ng/uL		0.02
171)	E Perylene-d12	264	0.000	18.439	1.000	0	0.00	ng/uL		-18.44
System Monitoring Compounds										Dev(Min)
5)	2-Fluorophenol	112	3.899	3.887	0.695	1250093	116.95	ng/uL		0.01
7)	Phenol-d5	99	5.087	5.058	0.907	1521036	118.19	ng/uL		0.03
22)	Nitrobenzene-d5	82	6.416	6.393	0.868	1336932	117.00	ng/uL		0.02
43)	2-Fluorobiphenyl	172	8.834	8.822	0.910	2890097	112.61	ng/uL		0.01
62)	2,4,6-Tribromophenol	330	10.704	10.687	1.103	418016	125.59	ng/uL		0.02 A
79)	p-Terphenyl-d14	244	13.557	13.551	0.898	2420022	109.60	ng/uL		0.00

	Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue	
2)	2-Ethoxyethanol	59	2.269	2.258	0.405	760760	119.02	ng/uL	92	
3)	N-Methyl-N-nitrosometh...	74	2.552	2.534	0.455	745386	120.60	ng/uL	89	A
4)	Pyridine	79	2.569	2.564	0.458	1270176	117.41	ng/uL	98	
6)	Aniline	93	5.175	5.152	0.922	2024618	118.32	ng/uL	99	
8)	Phenol	94	5.110	5.075	0.911	1585069	117.31	ng/uL	100	
9)	bis(2-Chloroethyl) ether	93	5.252	5.234	0.936	1287439	116.24	ng/uL	100	
10)	2-Chlorophenol	128	5.316	5.305	0.948	1424622	117.45	ng/uL	99	
11)	n-Decane	43	5.375	5.363	0.958	1699166	109.80	ng/uL	97	
12)	1,3-Dichlorobenzene	146	5.534	5.522	0.986	1577680	114.32	ng/uL	99	
13)	1,4-Dichlorobenzene	146	5.640	5.628	1.005	1596891	113.74	ng/uL	100	
14)	1,2-Dichlorobenzene	146	5.852	5.840	1.043	1499905	113.05	ng/uL	99	
15)	bis(2-Chloro-1-methyle...	45	6.005	5.993	1.070	2202858	111.40	ng/uL	98	
16)	Benzyl alcohol	108	5.822	5.793	1.038	890767	120.56	ng/uL	99	A
17)	o-Cresol	107	5.952	5.934	1.061	1085860	115.18	ng/uL	99	
18)	m,p-Cresols	107	6.205	6.169	1.106	1565579	125.31	ng/uL	80	A
19)	N-Nitrosodipropylamine	70	6.246	6.193	1.113	938954	116.22	ng/uL	92	
20)	Hexachloroethane	117	6.328	6.316	1.128	572931	112.77	ng/uL	98	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2010.D
Acq On : 20 Jun 2018 13:29
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-11|ICAL|1|SVM|1|M-8
Misc : |MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 21 08:49:35 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
23)	Nitrobenzene	77	6.446	6.422	0.872	1300513	115.26	ng/uL	100	
24)	Isophorone	82	6.781	6.757	0.917	1340335	61.81	ng/uL	99	
25)	2-Nitrophenol	139	6.869	6.857	0.929	726922	120.69	ng/uL	99	A
26)	2,4-Dimethylphenol	122	6.934	6.910	0.938	1195823	115.29	ng/uL	99	
27)	bis(2-Chloroethoxy)met...	93	7.075	7.057	0.957	1582434	114.33	ng/uL	99	
28)	2,4-Dichlorophenol	162	7.204	7.181	0.975	1150688	116.83	ng/uL	99	
29)	Benzoic acid	105	7.193	7.063	0.973	812896	121.03	ng/uL	96	A
30)	1,2,4-Trichlorobenzene	180	7.310	7.299	0.989	1260172	114.30	ng/uL	99	
31)	alpha-Terpineol	59	7.451	7.428	1.008	1288565	113.04	ng/uL	99	
32)	Naphthalene	128	7.428	7.410	1.005	3832267	106.66	ng/uL	100	
33)	4-Chloroaniline	127	7.504	7.487	1.015	1580384	116.29	ng/uL	99	
34)	Hexachlorobutadiene	225	7.581	7.575	1.025	702463	112.99	ng/uL	99	
35)	4-Chloro-3-methylphenol	107	8.140	8.122	1.101	1154857	118.40	ng/uL	100	
36)	2-Methylnaphthalene	142	8.351	8.340	1.130	2667652	110.15	ng/uL	100	
37)	1-Methylnaphthalene	142	8.481	8.469	1.147	2498027	109.50	ng/uL	100	
39)	Hexachlorocyclopentadiene	237	8.546	8.540	0.881	611667	135.96	ng/uL	99	A
40)	2,3-Dichloroaniline	161	8.722	8.704	0.899	1310585	114.61	ng/uL	100	
41)	2,4,6-Trichlorophenol	196	8.716	8.704	0.898	793501	117.67	ng/uL	99	
42)	2,4,5-Trichlorophenol	196	8.757	8.740	0.902	859827	119.93	ng/uL	100	
44)	2-Chloronaphthalene	162	8.993	8.975	0.927	2429635	110.62	ng/uL	99	
45)	o-Nitroaniline	65	9.128	9.110	0.941	711310	122.03	ng/uL	99	A
46)	1,4-Dinitrobenzene	168	9.316	9.293	0.960	408786	128.74	ng/uL	96	A
47)	m-Nitroaniline	138	9.669	9.640	0.996	638053	125.54	ng/uL	99	A
48)	Dimethylphthalate	163	9.393	9.357	0.968	2917760	112.33	ng/uL	100	
49)	m-Dinitrobenzene	168	9.416	9.387	0.970	440638	123.13	ng/uL	88	A
50)	2,6-Dinitrotoluene	165	9.457	9.428	0.975	657532	117.84	ng/uL	89	
51)	2,4-Dinitrotoluene	165	9.969	9.940	1.027	821233	117.37	ng/uL	91	
52)	Acenaphthylene	152	9.528	9.510	0.982	3783343	109.35	ng/uL	100	
53)	Acenaphthene	154	9.751	9.734	1.005	2235772	108.79	ng/uL	100	
54)	2,4-Dinitrophenol	184	9.793	9.763	1.009	299673	128.34	ng/uL	99	A
55)	Dibenzofuran	168	9.969	9.957	1.027	3346536	112.21	ng/uL	99	
56)	2,3,4,6-Tetrachlorophenol	232	10.116	10.098	1.042	679495	120.97	ng/uL	96	A
57)	Diethylphthalate	149	10.269	10.245	1.058	2936137	114.77	ng/uL	100	
58)	4-Nitrophenol	139	9.869	9.834	1.017	435745	135.57	ng/uL	100	A
59)	Fluorene	166	10.404	10.387	1.072	2585385	108.07	ng/uL	100	
60)	4-Chlorophenylphenylether	204	10.404	10.387	1.072	1235735	110.03	ng/uL	98	
61)	p-Nitroaniline	138	10.463	10.410	1.078	547418	135.62	ng/uL	97	A
64)	2-Methyl-4,6-dinitroph...	198	10.481	10.445	0.905	434261	128.96	ng/uL	97	A
65)	Diphenylamine	169	10.563	10.540	0.913	2272376	111.83	ng/uL	100	
66)	1,2-Diphenylhydrazine	77	10.604	10.587	0.916	2568007	111.24	ng/uL	100	
67)	4-Bromophenylphenylether	248	11.016	11.004	0.952	808792	114.29	ng/uL	99	
68)	Hexachlorobenzene	284	11.087	11.075	0.958	885546	113.69	ng/uL	100	
69)	Pentachlorophenol	266	11.328	11.316	0.979	504067	136.62	ng/uL	100	A
70)	n-Octadecane	57	11.434	11.422	0.988	2279036	107.51	ng/uL	97	
71)	Dinoseb	211	11.569	11.545	0.999	648351	168.04	ng/uL	99	A
72)	Phenanthrene	178	11.616	11.598	1.004	3718922	107.22	ng/uL	99	
73)	Anthracene	178	11.681	11.663	1.009	3832599	109.55	ng/uL	100	
74)	Carbazole	167	11.875	11.857	1.026	3084777	118.50	ng/uL	100	
75)	Di-n-butylphthalate	149	12.298	12.287	1.063	4635761	114.60	ng/uL	100	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2010.D
Acq On : 20 Jun 2018 13:29
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-11|ICAL|1|SVM|1|M-8
Misc : |MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 21 08:49:35 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
76)	Fluoranthene	202	13.092	13.081	1.131	3668632	116.87	ng/uL	99	
78)	Pyrene	202	13.375	13.363	0.886	3584687	105.37	ng/uL	100	
80)	Butylbenzylphthalate	149	14.198	14.186	0.940	1689689	120.46	ng/uL	99	A
81)	bis(2-Ethylhexyl)phtha...	149	15.122	15.116	1.002	2392433	114.71	ng/uL	100	
82)	Benzo(a)anthracene	228	15.080	15.063	0.999	2574056	113.88	ng/uL	95	
83)	Chrysene	228	15.157	15.133	1.004	2281178	110.97	ng/uL	99	
84)	Methoxychlor	227	14.975	14.951	0.992	1930931	129.90	ng/uL	100	A
85)	Methylenebis(2-chloroa...	231	15.051	15.028	0.997	459507	135.56	ng/uL	99	A
86)	Di-n-octylphthalate	149	16.516	16.498	1.094	3510151	127.31	ng/uL	99	A
88)	Benzo(b)fluoranthene	252	17.404	17.375	0.945	1846385	123.21	ng/uL	100	A
89)	Benzo(k)fluoranthene	252	17.486	17.445	0.949	1773119	121.71	ng/uL	100	A
90)	Benzo(a)pyrene	252	18.280	18.245	0.992	1532757	123.73	ng/uL	100	A
91)	Indeno(1,2,3-cd)pyrene	276	21.821	21.798	1.185	857086	104.91	ng/uL	99	
92)	Dibenzo(a,h)anthracene	278	21.915	21.892	1.190	877011	105.28	ng/uL	100	
93)	Benzo(ghi)perylene	276	22.468	22.445	1.220	836314	94.28	ng/uL	99	
94)	Dibenzo(a,e)pyrene	302	26.639	26.609	1.446	405919	90.89	ng/uL	99	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2010.D
Acq On : 20 Jun 2018 13:29
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-11|ICAL|1|SVM|1|M-8
Misc : |MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 21 08:49:35 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Quantitation Report
GEL Laboratories, LLC

JMB 06/21/2018

BJB 06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2011.D
Acq On : 20 Jun 2018 14:29
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-17|ICAL|1|SVM|1|M-2
Misc : |MIX[A]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 21 08:49:37 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.604	5.605	1.000	324461	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.381	7.381	1.000	1208502	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.687	9.693	1.000	584758	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.563	11.569	1.000	1017824	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.075	15.086	1.000	478451	40.00	ng/uL	-0.01
87) A Perylene-d12	264	18.404	18.410	1.000	317573	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.604	5.599	1.000	0m	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.381	7.375	1.000	0m	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.687	9.687	1.000	0m	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.563	11.569	1.000	0m	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.404	18.398	1.000	0m	40.00	ng/uL	0.00
150) J Phenanthrene-d10	188	11.563	11.563	1.000	0m	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.381	7.375	1.000	0m	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.687	9.687	1.000	0m	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.563	11.563	1.000	0m	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.381	7.375	1.000	0m	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.404	18.439	1.000	0m	40.00	ng/uL	-0.04
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.881	3.887	0.692	115503	11.61	ng/uL	0.00
7) Phenol-d5	99	5.046	5.058	0.900	136705	11.41	ng/uL	-0.01
22) Nitrobenzene-d5	82	6.381	6.393	0.865	119765	11.33	ng/uL	-0.01
43) 2-Fluorobiphenyl	172	8.816	8.822	0.910	270846	11.73	ng/uL	0.00
62) 2,4,6-Tribromophenol	330	10.681	10.687	1.103	31280	10.45	ng/uL	0.00
79) p-Terphenyl-d14	244	13.545	13.551	0.899	172410	11.64	ng/uL	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	2.258	2.258	0.403	63990	10.75	ng/uL	95
3) N-Methyl-N-nitrosometh...	74	2.528	2.534	0.451	64261	11.17	ng/uL	87
4) Pyridine	79	2.569	2.564	0.458	114696	11.39	ng/uL	99
6) Aniline	93	5.140	5.152	0.917	180687	11.34	ng/uL	99
8) Phenol	94	5.063	5.075	0.903	143131	11.38	ng/uL	100
9) bis(2-Chloroethyl) ether	93	5.222	5.234	0.932	117427	11.39	ng/uL	100
10) 2-Chlorophenol	128	5.299	5.305	0.945	128401	11.37	ng/uL	99
11) n-Decane	43	5.363	5.363	0.957	168272	11.68	ng/uL	99
12) 1,3-Dichlorobenzene	146	5.522	5.522	0.985	148589	11.57	ng/uL	100
13) 1,4-Dichlorobenzene	146	5.628	5.628	1.004	152750	11.69	ng/uL	99
14) 1,2-Dichlorobenzene	146	5.840	5.840	1.042	144876	11.73	ng/uL	100
15) bis(2-Chloro-1-methyle...	45	5.987	5.993	1.068	210409	11.43	ng/uL	100
16) Benzyl alcohol	108	5.781	5.793	1.031	75626	11.00	ng/uL	99
17) o-Cresol	107	5.922	5.934	1.057	99781	11.37	ng/uL	99
18) m,p-Cresols	107	6.152	6.169	1.098	130144	11.19	ng/uL	100
19) N-Nitrosodipropylamine	70	6.169	6.193	1.101	84347	11.22	ng/uL	97
20) Hexachloroethane	117	6.316	6.316	1.127	54350	11.49	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2011.D
Acq On : 20 Jun 2018 14:29
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-17|ICAL|1|SVM|1|M-2
Misc : |MIX[A]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 21 08:49:37 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
23)	Nitrobenzene	77	6.404	6.422	0.868	119686	11.46	ng/uL	98
24)	Isophorone	82	6.740	6.757	0.913	224824	11.20	ng/uL	100
25)	2-Nitrophenol	139	6.846	6.857	0.927	61638	11.06	ng/uL	99
26)	2,4-Dimethylphenol	122	6.899	6.910	0.935	110936	11.56	ng/uL	99
27)	bis(2-Chloroethoxy)met...	93	7.046	7.057	0.955	146182	11.41	ng/uL	98
28)	2,4-Dichlorophenol	162	7.169	7.181	0.971	103150	11.32	ng/uL	100
30)	1,2,4-Trichlorobenzene	180	7.298	7.299	0.989	117825	11.55	ng/uL	99
31)	alpha-Terpineol	59	7.416	7.428	1.005	120094	11.39	ng/uL	98
32)	Naphthalene	128	7.404	7.410	1.003	382656	11.51	ng/uL	100
33)	4-Chloroaniline	127	7.475	7.487	1.013	142112	11.30	ng/uL	99
34)	Hexachlorobutadiene	225	7.569	7.575	1.026	66999	11.65	ng/uL	98
35)	4-Chloro-3-methylphenol	107	8.116	8.122	1.100	98718	10.94	ng/uL	99
36)	2-Methylnaphthalene	142	8.334	8.340	1.129	251004	11.20	ng/uL	100
37)	1-Methylnaphthalene	142	8.463	8.469	1.147	237012	11.23	ng/uL	100
39)	Hexachlorocyclopentadiene	237	8.540	8.540	0.882	42735	10.56	ng/uL	99
40)	2,3-Dichloroaniline	161	8.698	8.704	0.898	120575	11.72	ng/uL	99
41)	2,4,6-Trichlorophenol	196	8.698	8.704	0.898	68303	11.26	ng/uL	99
42)	2,4,5-Trichlorophenol	196	8.734	8.740	0.902	69763	10.82	ng/uL	98
44)	2-Chloronaphthalene	162	8.969	8.975	0.926	224546	11.37	ng/uL	100
45)	o-Nitroaniline	65	9.098	9.110	0.939	56147	10.71	ng/uL	98
46)	1,4-Dinitrobenzene	168	9.287	9.293	0.959	28521	9.99	ng/uL	96
47)	m-Nitroaniline	138	9.628	9.640	0.994	49165	10.75	ng/uL	100
48)	Dimethylphthalate	163	9.345	9.357	0.965	258691	11.07	ng/uL	100
49)	m-Dinitrobenzene	168	9.375	9.387	0.968	33815	10.51	ng/uL	93
50)	2,6-Dinitrotoluene	165	9.416	9.428	0.972	54899	10.94	ng/uL	99
51)	2,4-Dinitrotoluene	165	9.928	9.940	1.025	67831	10.78	ng/uL	92
52)	Acenaphthylene	152	9.504	9.510	0.981	354972	11.41	ng/uL	100
53)	Acenaphthene	154	9.728	9.734	1.004	210946	11.41	ng/uL	100
55)	Dibenzofuran	168	9.945	9.957	1.027	317158	11.82	ng/uL	99
56)	2,3,4,6-Tetrachlorophenol	232	10.092	10.098	1.042	52988	10.49	ng/uL	97
57)	Diethylphthalate	149	10.240	10.245	1.057	253451	11.01	ng/uL	99
58)	4-Nitrophenol	139	9.822	9.834	1.014	26836	9.28	ng/uL	95
59)	Fluorene	166	10.381	10.387	1.072	243540	11.32	ng/uL	100
60)	4-Chlorophenylphenylether	204	10.381	10.387	1.072	119206	11.80	ng/uL	100
61)	p-Nitroaniline	138	10.398	10.410	1.073	38728	10.67	ng/uL	99
64)	2-Methyl-4,6-dinitroph...	198	10.434	10.445	0.902	21723	14.33	ng/uL	95
65)	Diphenylamine	169	10.528	10.540	0.910	204289	11.98	ng/uL	99
66)	1,2-Diphenylhydrazine	77	10.581	10.587	0.915	231077	11.92	ng/uL	99
67)	4-Bromophenylphenylether	248	10.998	11.004	0.951	69516	11.70	ng/uL	99
68)	Hexachlorobenzene	284	11.069	11.075	0.957	76256	11.66	ng/uL	98
69)	Pentachlorophenol	266	11.310	11.316	0.978	27257	8.80	ng/uL	99
70)	n-Octadecane	57	11.422	11.422	0.988	206369	11.60	ng/uL	100
71)	Dinoseb	211	11.539	11.545	0.998	28329	8.75	ng/uL	98
72)	Phenanthrene	178	11.592	11.598	1.003	332635	11.42	ng/uL	100
73)	Anthracene	178	11.657	11.663	1.008	333536	11.36	ng/uL	100
74)	Carbazole	167	11.851	11.857	1.025	240576	11.01	ng/uL	100
75)	Di-n-butylphthalate	149	12.286	12.287	1.063	369900	10.89	ng/uL	100
76)	Fluoranthene	202	13.075	13.081	1.131	275392	10.45	ng/uL	99
78)	Pyrene	202	13.357	13.363	0.886	265014	11.62	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2011.D
Acq On : 20 Jun 2018 14:29
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-17|ICAL|1|SVM|1|M-2
Misc : |MIX[A]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 21 08:49:37 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
80)	Butylbenzylphthalate	149	14.180	14.186	0.941	97804	10.40	ng/uL	100
81)	bis(2-Ethylhexyl)phtha...	149	15.110	15.116	1.002	150815	10.78	ng/uL	100
82)	Benzo(a)anthracene	228	15.057	15.063	0.999	166873	11.01	ng/uL	100
83)	Chrysene	228	15.122	15.133	1.003	153814	11.16	ng/uL	99
84)	Methoxychlor	227	14.945	14.951	0.991	86555	8.68	ng/uL	99
85)	Methylenebis(2-chloroa...	231	15.022	15.028	0.996	23277	10.24	ng/uL	99
86)	Di-n-octylphthalate	149	16.492	16.498	1.094	159741	9.02	ng/uL	99
88)	Benzo(b)fluoranthene	252	17.357	17.375	0.943	110672	10.63	ng/uL	99
89)	Benzo(k)fluoranthene	252	17.433	17.445	0.947	114518	11.31	ng/uL	99
90)	Benzo(a)pyrene	252	18.233	18.245	0.991	90565	10.52	ng/uL	99
91)	Indeno(1,2,3-cd)pyrene	276	21.774	21.798	1.183	62169	10.95	ng/uL	98
92)	Dibenzo(a,h)anthracene	278	21.874	21.892	1.189	62705	10.83	ng/uL	99
93)	Benzo(ghi)perylene	276	22.427	22.445	1.219	68618	11.13	ng/uL	99
94)	Dibenzo(a,e)pyrene	302	26.592	26.609	1.445	34936	11.26	ng/uL	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2011.D
Acq On    : 20 Jun 2018  14:29
Operator  : JMB3
InstName  : MSDA
Sample    : |WBN180517-17|ICAL|1|SVM|1|M-2
Misc      : |MIX[A]
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Jun 21 08:49:37 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title  : BNA01                                          SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE
```

Continuing Calibration Summary

Client SDG: 454944

Instrument ID: MSDA.I **Injection Date:** 20-JUN-18 15:01

Data File: 062018.s\sAf2012.D **Init. Cal. Date(s)** 20-JUN-18 10:16 - 20-JUN-18 23:15

Lab Sample ID WBN180517-09.1 **Method:** 062018.s\MSDA_8270d_8270c_062018.m

Quant Type ISTD **Method Update:** 21-JUN-18 08:48

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	2-Fluorophenol	1.2267	1.27091		.01		3.60398	30		Averaged
S	Phenol-d5	1.4768	1.58344		.01		7.22102	30		Averaged
S	Nitrobenzene-d5	0.35	0.36449		.01		4.14	30		Averaged
S	2-Fluorobiphenyl	1.579	1.61944		.01		2.56111	30		Averaged
S	2,4,6-Tribromophenol	0.2048	0.21823		.01		6.55762	30		Averaged
S	p-Terphenyl-d14	1.2378	1.30678		.01		5.57279	30		Averaged
	Phenol	1.5506	1.48045		.8		-4.52406	30		Averaged
	bis(2-Chloroethyl) ether	1.271	1.23446		.7		-2.8749	30		Averaged
	2-Chlorophenol	1.3919	1.3272		.8		-4.64832	30		Averaged
	o-Cresol	1.0819	1.06317		.7		-1.73121	30		Averaged
	bis(2-Chloro-1-methylethyl)eth	2.2693	2.25799		.01		-0.49839	30		Averaged
	m,p-Cresols	1.4338	1.39157		.6		-2.94532	30		Averaged
	N-Nitrosodipropylamine	0.9272	0.92883		.5		0.1758	30		Averaged
	Hexachloroethane	0.583	0.56565		.3		-2.97599	30		Averaged
	Nitrobenzene	0.3456	0.33803		.2		-2.19039	30		Averaged
	Isophorone	0.6641	0.5967		.4		-10.14907	30		Averaged
	2-Nitrophenol	0.1845	0.17783		.1		-3.61518	30		Averaged
	2,4-Dimethylphenol	0.3177	0.28902		.2		-9.02738	30		Averaged
	bis(2-Chloroethoxy)methane	0.4239	0.39668		.3		-6.42133	30		Averaged
	2,4-Dichlorophenol	0.3017	0.29205		.2		-3.19854	30		Averaged
	Naphthalene	1.1004	1.05603		.7		-4.03217	30		Averaged
	4-Chloroaniline	0.4162	0.37016		.01		-11.06199	30		Averaged
	Hexachlorobutadiene	0.1904	0.19443		.01		2.1166	30		Averaged
	4-Chloro-3-methylphenol	0.2987	0.29201		.2		-2.23971	30		Averaged
	2-Methylnaphthalene	0.7418	0.695		.4		-6.30898	30		Averaged
	Hexachlorocyclopentadiene	0.2768	0.22705		.05		-17.97327	30		Averaged
	2,4,6-Trichlorophenol	0.4149	0.40763		.2		-1.75223	30		Averaged
	2,4,5-Trichlorophenol	0.4411	0.43958		.2		-0.34459	30		Averaged
	2-Chloronaphthalene	1.3513	1.23702		.8		-8.45704	30		Averaged
	o-Nitroaniline	0.3586	0.35898		.01		0.10597	30		Averaged
	Dimethylphthalate	1.5981	1.51568		.01		-5.15737	30		Averaged
	2,6-Dinitrotoluene	0.3433	0.33666		.2		-1.93417	30		Averaged
	Acenaphthylene	2.1287	2.11296		.9		-0.73942	30		Averaged
	m-Nitroaniline	0.3127	0.29261		.01		-6.42469	30		Averaged
	Acenaphthene	1.2644	1.26083		.9		-0.28235	30		Averaged
	2,4-Dinitrophenol	40	41.53	40			3.825	30		Linear
	4-Nitrophenol	0.1977	0.19888		.05		0.59686	30		Averaged

Continuing Calibration Summary

Instrument ID: MSDA.I **Injection Date:** 20-JUN-18 15:01

Data File: 062018.s\sAf2012.D **Init. Cal. Date(s)** 20-JUN-18 10:16 20-JUN-18 23:15

Lab Sample ID WBN180517-09.1 **Method:** 062018.s\MSDA_8270d_8270c_062018.m

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
2,4-Dinitrotoluene	0.4305	0.42709		.2		-0.7921	30		Averaged
Dibenzofuran	1.835	1.84289		.8		0.42997	30		Averaged
2,3,4,6-Tetrachlorophenol	0.3456	0.33005		.01		-4.49942	30		Averaged
Diethylphthalate	1.574	1.51798		.01		-3.55909	30		Averaged
4-Chlorophenylphenylether	0.691	0.69367		.4		0.3864	30		Averaged
Fluorene	1.4719	1.45782		.9		-0.95659	30		Averaged
p-Nitroaniline	0.2483	0.25574		.01		2.99638	30		Averaged
2-Methyl-4,6-dinitrophenol	40	42.76	40			6.9	30		Linear
Diphenylamine	0.6704	0.65097		.01		-2.89827	30		Averaged
4-Bromophenylphenylether	0.2335	0.22983		.1		-1.57173	30		Averaged
Hexachlorobenzene	0.257	0.24642		.1		-4.11673	30		Averaged
Pentachlorophenol	0.1217	0.14442		.05		18.66886	30		Averaged
Phenanthrene	1.1442	1.1024		.7		-3.65321	30		Averaged
Anthracene	1.1541	1.09518		.7		-5.10528	30		Averaged
Carbazole	0.8588	0.84184		.01		-1.97485	30		Averaged
Di-n-butylphthalate	1.3345	1.34082		.01		0.47359	30		Averaged
Fluoranthene	1.0355	1.04037		.6		0.4703	30		Averaged
Pyrene	1.9072	1.87293		.6		-1.79688	30		Averaged
Butylbenzylphthalate	0.7864	0.82123		.01		4.42904	30		Averaged
Benzo(a)anthracene	1.2672	1.20324		.8		-5.04735	30		Averaged
bis(2-Ethylhexyl)phthalate	1.1693	1.23599		.01		5.70341	30		Averaged
Chrysene	1.1525	1.08107		.7		-6.19783	30		Averaged
Di-n-octylphthalate	40	37.98	40			-5.05	30		Linear
Benzo(b)fluoranthene	1.3117	1.29902		.7		-0.96668	30		Averaged
Benzo(k)fluoranthene	1.2751	1.30535		.7		2.37236	30		Averaged
Benzo(a)pyrene	1.0843	1.06312		.7		-1.95333	30		Averaged
Indeno(1,2,3-cd)pyrene	0.7151	0.66587		.5		-6.88435	30		Averaged
Dibenzo(a,h)anthracene	0.7291	0.67874		.4		-6.90715	30		Averaged
Benzo(ghi)perylene	0.7764	0.6955		.5		-10.41989	30		Averaged

Quantitation Report
GEL Laboratories, LLC

JMB 06/21/2018

BJB 06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2012.D
Acq On : 20 Jun 2018 15:01
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-09.1|ICV|1|SVM|1|M-ICV
Misc : |MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 21 09:08:06 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.605	5.605	1.000	347950	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.381	7.381	1.000	1313545	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.693	9.693	1.000	672729	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.569	11.569	1.000	1225881	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.086	15.086	1.000	674398	40.00	ng/uL	0.00
87) A Perylene-d12	264	18.410	18.410	1.000	407567	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.605	5.599	1.000	347950	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.381	7.375	1.000	1313545	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.693	9.687	1.000	672729	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.569	11.569	1.000	1225881	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.086	15.075	1.000	674398	40.00	ng/uL	0.01
147) B Perylene-d12	264	18.410	18.398	1.000	407567	40.00	ng/uL	0.01
150) J Phenanthrene-d10	188	11.569	11.563	1.000	1225881	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.086	15.075	1.000	674398	40.00	ng/uL	0.01
155) D Naphthalene-d8	136	7.381	7.375	1.000	1313545	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.693	9.687	1.000	672729	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.569	11.563	1.000	1225881	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.086	15.075	1.000	674398	40.00	ng/uL	0.01
169) E Naphthalene-d8	136	7.381	7.375	1.000	1313545	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.410	18.439	1.000	407567	40.00	ng/uL	-0.03
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.887	3.887	0.694	442212	41.44	ng/uL	0.00
7) Phenol-d5	99	5.063	5.058	0.903	550959	42.89	ng/uL	0.00
22) Nitrobenzene-d5	82	6.393	6.393	0.866	478780	41.66	ng/uL	0.00
43) 2-Fluorobiphenyl	172	8.822	8.822	0.910	1089447	41.02	ng/uL	0.00
62) 2,4,6-Tribromophenol	330	10.687	10.687	1.103	146809	42.63	ng/uL	0.00
79) p-Terphenyl-d14	244	13.551	13.551	0.898	881291	42.23	ng/uL	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	2.258	2.258	0.403	242081	37.94	ng/uL	97
3) N-Methyl-N-nitrosometh...	74	2.528	2.534	0.451	217559	35.26	ng/uL	92
4) Pyridine	79	2.564	2.564	0.457	419389	38.84	ng/uL	98
6) Aniline	93	5.146	5.152	0.918	626498	36.68	ng/uL	100
8) Phenol	94	5.081	5.075	0.907	515121	38.19	ng/uL	100
9) bis(2-Chloroethyl) ether	93	5.234	5.234	0.934	429529	38.85	ng/uL	99
10) 2-Chlorophenol	128	5.305	5.305	0.946	461800	38.14	ng/uL	96
11) n-Decane	43	5.363	5.363	0.957	605508	39.20	ng/uL	99
12) 1,3-Dichlorobenzene	146	5.522	5.522	0.985	523542	38.00	ng/uL	100
13) 1,4-Dichlorobenzene	146	5.628	5.628	1.004	540251	38.55	ng/uL	100
14) 1,2-Dichlorobenzene	146	5.840	5.840	1.042	510570	38.55	ng/uL	99
15) bis(2-Chloro-1-methyle...	45	5.993	5.993	1.069	785669	39.80	ng/uL	99
16) Benzyl alcohol	108	5.793	5.793	1.034	292774	39.69	ng/uL	98
17) o-Cresol	107	5.934	5.934	1.059	369931	39.31	ng/uL	99
18) m,p-Cresols	107	6.169	6.169	1.101	484197	38.82	ng/uL	100
19) N-Nitrosodipropylamine	70	6.187	6.193	1.104	323187	40.07	ng/uL	97
20) Hexachloroethane	117	6.316	6.316	1.127	196819	38.81	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2012.D
Acq On : 20 Jun 2018 15:01
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-09.1|ICV|1|SVM|1|M-ICV
Misc : |MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 21 09:08:06 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
23)	Nitrobenzene	77	6.416	6.422	0.869	444017	39.12	ng/uL	99
24)	Isophorone	82	6.752	6.757	0.915	783792	35.94	ng/uL	100
25)	2-Nitrophenol	139	6.852	6.857	0.928	233585	38.56	ng/uL	100
26)	2,4-Dimethylphenol	122	6.910	6.910	0.936	379637	36.39	ng/uL	99
27)	bis(2-Chloroethoxy)met...	93	7.052	7.057	0.955	521056	37.43	ng/uL	99
28)	2,4-Dichlorophenol	162	7.181	7.181	0.973	383627	38.72	ng/uL	99
29)	Benzoic acid	105	7.075	7.063	0.959	248016	45.05	ng/uL	98
30)	1,2,4-Trichlorobenzene	180	7.299	7.299	0.989	425400	38.36	ng/uL	100
31)	alpha-Terpineol	59	7.428	7.428	1.006	408966	35.67	ng/uL	100
32)	Naphthalene	128	7.410	7.410	1.004	1387138	38.39	ng/uL	100
33)	4-Chloroaniline	127	7.481	7.487	1.014	486219	35.57	ng/uL	99
34)	Hexachlorobutadiene	225	7.575	7.575	1.026	255387	40.84	ng/uL	99
35)	4-Chloro-3-methylphenol	107	8.122	8.122	1.100	383566	39.10	ng/uL	99
36)	2-Methylnaphthalene	142	8.340	8.340	1.130	912912	37.48	ng/uL	100
37)	1-Methylnaphthalene	142	8.469	8.469	1.147	861277	37.54	ng/uL	100
39)	Hexachlorocyclopentadiene	237	8.540	8.540	0.881	152742	32.81	ng/uL	100
40)	2,3-Dichloroaniline	161	8.704	8.704	0.898	451192	38.13	ng/uL	99
41)	2,4,6-Trichlorophenol	196	8.704	8.704	0.898	274227	39.30	ng/uL	99
42)	2,4,5-Trichlorophenol	196	8.740	8.740	0.902	295716	39.86	ng/uL	99
44)	2-Chloronaphthalene	162	8.975	8.975	0.926	832182	36.62	ng/uL	99
45)	o-Nitroaniline	65	9.110	9.110	0.940	241496	40.04	ng/uL	100
46)	1,4-Dinitrobenzene	168	9.293	9.293	0.959	132093	40.20	ng/uL	98
47)	m-Nitroaniline	138	9.640	9.640	0.995	196844	37.43	ng/uL	98
48)	Dimethylphthalate	163	9.357	9.357	0.965	1019640	37.94	ng/uL	100
49)	m-Dinitrobenzene	168	9.387	9.387	0.968	152884	41.29	ng/uL	99
50)	2,6-Dinitrotoluene	165	9.428	9.428	0.973	226484	39.23	ng/uL	98
51)	2,4-Dinitrotoluene	165	9.940	9.940	1.025	287317	39.68	ng/uL	95
52)	Acenaphthylene	152	9.510	9.510	0.981	1421448	39.70	ng/uL	100
53)	Acenaphthene	154	9.740	9.734	1.005	848195	39.89	ng/uL	100
54)	2,4-Dinitrophenol	184	9.763	9.763	1.007	77306	41.53	ng/uL	97
55)	Dibenzofuran	168	9.957	9.957	1.027	1239768	40.17	ng/uL	100
56)	2,3,4,6-Tetrachlorophenol	232	10.098	10.098	1.042	222031	38.20	ng/uL	97
57)	Diethylphthalate	149	10.245	10.245	1.057	1021186	38.58	ng/uL	100
58)	4-Nitrophenol	139	9.834	9.834	1.015	133794	40.23	ng/uL	100
59)	Fluorene	166	10.387	10.387	1.072	980721	39.62	ng/uL	99
60)	4-Chlorophenylphenylether	204	10.387	10.387	1.072	466652	40.15	ng/uL	99
61)	p-Nitroaniline	138	10.416	10.410	1.075	172042	41.19	ng/uL	99
64)	2-Methyl-4,6-dinitroph...	198	10.451	10.445	0.903	128565	42.76	ng/uL	99
65)	Diphenylamine	169	10.540	10.540	0.911	798010	38.84	ng/uL	100
66)	1,2-Diphenylhydrazine	77	10.587	10.587	0.915	930367	39.86	ng/uL	100
67)	4-Bromophenylphenylether	248	11.004	11.004	0.951	281748	39.38	ng/uL	100
68)	Hexachlorobenzene	284	11.075	11.075	0.957	302078	38.36	ng/uL	99
69)	Pentachlorophenol	266	11.316	11.316	0.978	177044	47.46	ng/uL	100
70)	n-Octadecane	57	11.422	11.422	0.987	880967	41.11	ng/uL	99
71)	Dinoseb	211	11.545	11.545	0.998	192920	49.46	ng/uL	99
72)	Phenanthrene	178	11.598	11.598	1.003	1351412	38.54	ng/uL	100
73)	Anthracene	178	11.663	11.663	1.008	1342563	37.96	ng/uL	100
74)	Carbazole	167	11.857	11.857	1.025	1031995	39.21	ng/uL	100
75)	Di-n-butylphthalate	149	12.287	12.287	1.062	1643687	40.19	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2012.D
Acq On : 20 Jun 2018 15:01
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-09.1|ICV|1|SVM|1|M-ICV
Misc : |MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 21 09:08:06 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
76)	Fluoranthene	202	13.081	13.081	1.131	1275367	40.19	ng/uL	100
78)	Pyrene	202	13.363	13.363	0.886	1263101	39.28	ng/uL	100
80)	Butylbenzylphthalate	149	14.186	14.186	0.940	553833	41.77	ng/uL	99
81)	bis(2-Ethylhexyl)phtha...	149	15.116	15.116	1.002	833550	42.28	ng/uL	100
82)	Benzo(a)anthracene	228	15.063	15.063	0.998	811463	37.98	ng/uL	99
83)	Chrysene	228	15.128	15.133	1.003	729073	37.52	ng/uL	99
84)	Methoxychlor	227	14.951	14.951	0.991	624825	44.47	ng/uL	100
85)	Methylenebis(2-chloroa...	231	15.028	15.028	0.996	106620	33.28	ng/uL	99
86)	Di-n-octylphthalate	149	16.498	16.498	1.094	982150	37.98	ng/uL	100
88)	Benzo(b)fluoranthene	252	17.369	17.375	0.943	529438	39.61	ng/uL	100
89)	Benzo(k)fluoranthene	252	17.445	17.445	0.948	532018	40.95	ng/uL	100
90)	Benzo(a)pyrene	252	18.245	18.245	0.991	433291	39.22	ng/uL	99
91)	Indeno(1,2,3-cd)pyrene	276	21.792	21.798	1.184	271388	37.25	ng/uL	99
92)	Dibenzo(a,h)anthracene	278	21.886	21.892	1.189	276633	37.24	ng/uL	100
93)	Benzo(ghi)perylene	276	22.439	22.445	1.219	283461	35.83	ng/uL	99
94)	Dibenzo(a,e)pyrene	302	26.598	26.609	1.445	77880	19.55	ng/uL#	58

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2012.D
Acq On : 20 Jun 2018 15:01
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-09.1|ICV|1|SVM|1|M-ICV
Misc : |MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 21 09:08:06 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Quantitation Report
GEL Laboratories, LLC

JMB 06/21/2018

BJB 06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2014.D
Acq On : 20 Jun 2018 16:17
Operator : JMB3
InstName : MSDA
Sample : |WBN180518-43|ICAL|1|SVM|1|B-2
Misc : |MIX[J]
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 21 08:49:41 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.599	5.605	1.000	0m	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.375	7.381	1.000	0m	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.687	9.693	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.563	11.569	1.000	0m	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.075	15.086	1.000	0m	40.00	ng/uL	-0.01
87) A Perylene-d12	264	18.404	18.410	1.000	0m	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.599	5.599	1.000	0m	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.375	7.375	1.000	0m	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.687	9.687	1.000	0m	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.563	11.569	1.000	0m	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.404	18.398	1.000	0m	40.00	ng/uL	0.00
150) J Phenanthrene-d10	188	11.563	11.563	1.000	1145391	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.075	15.075	1.000	569303	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.375	7.375	1.000	0m	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.687	9.687	1.000	0m	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.563	11.563	1.000	0m	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.375	7.375	1.000	0m	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.404	18.439	1.000	0m	40.00	ng/uL	-0.04
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.887	0.000	0	0.00	ng/uL	
7) Phenol-d5	99	0.000	5.058	0.000	0	0.00	ng/uL	
22) Nitrobenzene-d5	82	0.000	6.393	0.000	0	0.00	ng/uL	
43) 2-Fluorobiphenyl	172	0.000	8.822	0.000	0	0.00	ng/uL	
62) 2,4,6-Tribromophenol	330	0.000	10.687	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	13.551	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
151) Benzidine	184	13.234	13.240	1.144	67849	10.19	ng/uL	98
153) 3,3'-Dimethylbenzidine	212	14.163	14.169	0.940	85227	7.56	ng/uL	99
154) 3,3'-Dichlorobenzidine	252	15.010	15.016	0.996	35836	7.80	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2014.D
Acq On : 20 Jun 2018 16:17
Operator : JMB3
InstName : MSDA
Sample : |WBN180518-43|ICAL|1|SVM|1|B-2
Misc : |MIX[J]
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 21 08:49:41 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Quantitation Report
GEL Laboratories, LLC

JMB 06/21/2018

BJB 06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2016.D
Acq On : 20 Jun 2018 17:02
Operator : JMB3
InstName : MSDA
Sample : |WBN180518-44|ICAL|1|SVM|1|B-3
Misc : |MIX[J]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 21 08:49:45 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.599	5.605	1.000	0m	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.375	7.381	1.000	0m	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.687	9.693	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.563	11.569	1.000	0m	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.075	15.086	1.000	0m	40.00	ng/uL	-0.01
87) A Perylene-d12	264	18.404	18.410	1.000	0m	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.599	5.599	1.000	0m	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.375	7.375	1.000	0m	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.687	9.687	1.000	0m	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.563	11.569	1.000	0m	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.404	18.398	1.000	0m	40.00	ng/uL	0.00
150) J Phenanthrene-d10	188	11.563	11.563	1.000	1131504	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.075	15.075	1.000	607532	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.375	7.375	1.000	0m	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.687	9.687	1.000	0m	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.563	11.563	1.000	0m	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.375	7.375	1.000	0m	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.404	18.439	1.000	0m	40.00	ng/uL	-0.04
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.887	0.000	0	0.00	ng/uL	
7) Phenol-d5	99	0.000	5.058	0.000	0	0.00	ng/uL	
22) Nitrobenzene-d5	82	0.000	6.393	0.000	0	0.00	ng/uL	
43) 2-Fluorobiphenyl	172	0.000	8.822	0.000	0	0.00	ng/uL	
62) 2,4,6-Tribromophenol	330	0.000	10.687	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	13.551	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
151) Benzidine	184	13.233	13.240	1.144	165888	18.53	ng/uL	100
153) 3,3'-Dimethylbenzidine	212	14.163	14.169	0.940	218978	18.21	ng/uL	100
154) 3,3'-Dichlorobenzidine	252	15.010	15.016	0.996	89026	18.16	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2016.D
Acq On : 20 Jun 2018 17:02
Operator : JMB3
InstName : MSDA
Sample : |WBN180518-44|ICAL|1|SVM|1|B-3
Misc : |MIX[J]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 21 08:49:45 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Quantitation Report
GEL Laboratories, LLC

JMB 06/21/2018

BJB 06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2017.D
Acq On : 20 Jun 2018 17:25
Operator : JMB3
InstName : MSDA
Sample : |WBN180518-45.1|ICAL|1|SVM|1|B-4
Misc : |MIX[J]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 21 08:49:47 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.599	5.605	1.000	0m	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.375	7.381	1.000	0m	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.687	9.693	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.563	11.569	1.000	0m	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.075	15.086	1.000	0m	40.00	ng/uL	-0.01
87) A Perylene-d12	264	18.404	18.410	1.000	0m	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.599	5.599	1.000	0m	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.375	7.375	1.000	0m	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.687	9.687	1.000	0m	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.563	11.569	1.000	0m	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.404	18.398	1.000	0m	40.00	ng/uL	0.00
150) J Phenanthrene-d10	188	11.563	11.563	1.000	1150772	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.075	15.075	1.000	665310	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.375	7.375	1.000	0m	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.687	9.687	1.000	0m	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.563	11.563	1.000	0m	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.375	7.375	1.000	0m	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.404	18.439	1.000	0m	40.00	ng/uL	-0.04
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.887	0.000	0	0.00	ng/uL	
7) Phenol-d5	99	0.000	5.058	0.000	0	0.00	ng/uL	
22) Nitrobenzene-d5	82	0.000	6.393	0.000	0	0.00	ng/uL	
43) 2-Fluorobiphenyl	172	0.000	8.822	0.000	0	0.00	ng/uL	
62) 2,4,6-Tribromophenol	330	0.000	10.687	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	13.551	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
151) Benzidine	184	13.240	13.240	1.145	425106	39.78	ng/uL	100
153) 3,3'-Dimethylbenzidine	212	14.169	14.169	0.940	537692	40.83	ng/uL	100
154) 3,3'-Dichlorobenzidine	252	15.016	15.016	0.996	221304	41.23	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2017.D
Acq On    : 20 Jun 2018  17:25
Operator  : JMB3
InstName  : MSDA
Sample    : |WBN180518-45.1|ICAL|1|SVM|1|B-4
Misc      : |MIX[J]
ALS Vial  : 15   Sample Multiplier: 1

Quant Time: Jun 21 08:49:47 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title  : BNA01                                        SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE
```

Quantitation Report
GEL Laboratories, LLC

JMB
06/21/2018

BJB
06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2018.D
Acq On : 20 Jun 2018 17:48
Operator : JMB3
InstName : MSDA
Sample : |WBN180518-46|ICAL|1|SVM|1|B-5
Misc : |MIX[J]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 21 08:49:49 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.599	5.605	1.000	0m	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.375	7.381	1.000	0m	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.687	9.693	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.563	11.569	1.000	0m	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.081	15.086	1.000	0m	40.00	ng/uL	0.00
87) A Perylene-d12	264	18.410	18.410	1.000	0m	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.599	5.599	1.000	0m	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.375	7.375	1.000	0m	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.687	9.687	1.000	0m	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.563	11.569	1.000	0m	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.081	15.075	1.000	0m	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.410	18.398	1.000	0m	40.00	ng/uL	0.01
150) J Phenanthrene-d10	188	11.563	11.563	1.000	1224701	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.081	15.075	1.000	760677	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.375	7.375	1.000	0m	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.687	9.687	1.000	0m	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.563	11.563	1.000	0m	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.081	15.075	1.000	0m	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.375	7.375	1.000	0m	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.410	18.439	1.000	0m	40.00	ng/uL	-0.03
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.887	0.000	0	0.00	ng/uL	
7) Phenol-d5	99	0.000	5.058	0.000	0	0.00	ng/uL	
22) Nitrobenzene-d5	82	0.000	6.393	0.000	0	0.00	ng/uL	
43) 2-Fluorobiphenyl	172	0.000	8.822	0.000	0	0.00	ng/uL	
62) 2,4,6-Tribromophenol	330	0.000	10.687	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	13.551	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
151) Benzidine	184	13.239	13.240	1.145	659607	55.91	ng/uL	100
153) 3,3'-Dimethylbenzidine	212	14.169	14.169	0.940	801567	53.23	ng/uL	100
154) 3,3'-Dichlorobenzidine	252	15.016	15.016	0.996	337739	55.04	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2018.D
Acq On : 20 Jun 2018 17:48
Operator : JMB3
InstName : MSDA
Sample : |WBN180518-46|ICAL|1|SVM|1|B-5
Misc : |MIX[J]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 21 08:49:49 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Quantitation Report
GEL Laboratories, LLC

JMB 06/21/2018

BJB 06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2019.D
Acq On : 20 Jun 2018 18:10
Operator : JMB3
InstName : MSDA
Sample : |WBN180518-47|ICAL|1|SVM|1|B-6
Misc : |MIX[J]
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 21 08:49:51 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.599	5.605	1.000	0m	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.375	7.381	1.000	0m	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.687	9.693	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.563	11.569	1.000	0m	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.075	15.086	1.000	0m	40.00	ng/uL	-0.01
87) A Perylene-d12	264	18.404	18.410	1.000	0m	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.599	5.599	1.000	0m	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.375	7.375	1.000	0m	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.687	9.687	1.000	0m	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.563	11.569	1.000	0m	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.404	18.398	1.000	0m	40.00	ng/uL	0.00
150) J Phenanthrene-d10	188	11.563	11.563	1.000	1126780	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.075	15.075	1.000	605049	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.375	7.375	1.000	0m	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.687	9.687	1.000	0m	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.563	11.563	1.000	0m	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.375	7.375	1.000	0m	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.404	18.439	1.000	0m	40.00	ng/uL	-0.04
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.887	0.000	0	0.00	ng/uL	
7) Phenol-d5	99	0.000	5.058	0.000	0	0.00	ng/uL	
22) Nitrobenzene-d5	82	0.000	6.393	0.000	0	0.00	ng/uL	
43) 2-Fluorobiphenyl	172	0.000	8.822	0.000	0	0.00	ng/uL	
62) 2,4,6-Tribromophenol	330	0.000	10.687	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	13.551	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
151) Benzidine	184	13.245	13.240	1.145	875250	78.63	ng/uL	100
153) 3,3'-Dimethylbenzidine	212	14.175	14.169	0.940	1041272	86.94	ng/uL	100
154) 3,3'-Dichlorobenzidine	252	15.016	15.016	0.996	417801	85.60	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2019.D
Acq On : 20 Jun 2018 18:10
Operator : JMB3
InstName : MSDA
Sample : |WBN180518-47|ICAL|1|SVM|1|B-6
Misc : |MIX[J]
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 21 08:49:51 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Quantitation Report
GEL Laboratories, LLC

JMB 06/21/2018

BJB 06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2020.D
Acq On : 20 Jun 2018 18:33
Operator : JMB3
InstName : MSDA
Sample : |WBN180518-48|ICAL|1|SVM|1|B-7
Misc : |MIX[J]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 21 08:49:53 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.599	5.605	1.000	0m	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.375	7.381	1.000	0m	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.687	9.693	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.563	11.569	1.000	0m	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.075	15.086	1.000	0m	40.00	ng/uL	-0.01
87) A Perylene-d12	264	18.404	18.410	1.000	0m	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.599	5.599	1.000	0m	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.375	7.375	1.000	0m	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.687	9.687	1.000	0m	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.563	11.569	1.000	0m	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.404	18.398	1.000	0m	40.00	ng/uL	0.00
150) J Phenanthrene-d10	188	11.563	11.563	1.000	1173070	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.075	15.075	1.000	688406	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.375	7.375	1.000	0m	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.687	9.687	1.000	0m	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.563	11.563	1.000	0m	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.375	7.375	1.000	0m	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.404	18.439	1.000	0m	40.00	ng/uL	-0.04
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.887	0.000	0	0.00	ng/uL	
7) Phenol-d5	99	0.000	5.058	0.000	0	0.00	ng/uL	
22) Nitrobenzene-d5	82	0.000	6.393	0.000	0	0.00	ng/uL	
43) 2-Fluorobiphenyl	172	0.000	8.822	0.000	0	0.00	ng/uL	
62) 2,4,6-Tribromophenol	330	0.000	10.687	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	13.551	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
151) Benzidine	184	13.245	13.240	1.145	1245101	105.78	ng/uL	100
153) 3,3'-Dimethylbenzidine	212	14.175	14.169	0.940	1498937	110.00	ng/uL	100
154) 3,3'-Dichlorobenzidine	252	15.022	15.016	0.996	605587	109.05	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2020.D
Acq On : 20 Jun 2018 18:33
Operator : JMB3
InstName : MSDA
Sample : |WBN180518-48|ICAL|1|SVM|1|B-7
Misc : |MIX[J]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 21 08:49:53 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Quantitation Report
GEL Laboratories, LLC

JMB 06/21/2018

BJB 06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2021.D
Acq On : 20 Jun 2018 18:55
Operator : JMB3
InstName : MSDA
Sample : |WBN180518-49|ICAL|1|SVM|1|B-8
Misc : |MIX[J]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 21 08:49:55 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.599	5.605	1.000	0m	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.375	7.381	1.000	0m	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.687	9.693	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.563	11.569	1.000	0m	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.075	15.086	1.000	0m	40.00	ng/uL	-0.01
87) A Perylene-d12	264	18.398	18.410	1.000	0m	40.00	ng/uL	-0.01
95) B 1,4-Dichlorobenzene-d4	152	5.599	5.599	1.000	0m	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.375	7.375	1.000	0m	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.687	9.687	1.000	0m	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.563	11.569	1.000	0m	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.398	18.398	1.000	0m	40.00	ng/uL	0.00
150) J Phenanthrene-d10	188	11.563	11.563	1.000	1183266	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.075	15.075	1.000	565463	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.375	7.375	1.000	0m	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.687	9.687	1.000	0m	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.563	11.563	1.000	0m	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.375	7.375	1.000	0m	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.398	18.439	1.000	0m	40.00	ng/uL	-0.04
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.887	0.000	0	0.00	ng/uL	
7) Phenol-d5	99	0.000	5.058	0.000	0	0.00	ng/uL	
22) Nitrobenzene-d5	82	0.000	6.393	0.000	0	0.00	ng/uL	
43) 2-Fluorobiphenyl	172	0.000	8.822	0.000	0	0.00	ng/uL	
62) 2,4,6-Tribromophenol	330	0.000	10.687	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	13.551	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
151) Benzidine	184	13.245	13.240	1.145	1285329	108.15	ng/uL	100
153) 3,3'-Dimethylbenzidine	212	14.175	14.169	0.940	1425385	127.34	ng/uL	100 A
154) 3,3'-Dichlorobenzidine	252	15.022	15.016	0.996	557999	122.33	ng/uL	99 A

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2021.D
Acq On    : 20 Jun 2018  18:55
Operator  : JMB3
InstName  : MSDA
Sample    : |WBN180518-49|ICAL|1|SVM|1|B-8
Misc      : |MIX[J]
ALS Vial  : 19   Sample Multiplier: 1

Quant Time: Jun 21 08:49:55 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title  : BNA01                                        SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE
```

Continuing Calibration Summary

Client SDG: 454944

Instrument ID: MSDA.I

Injection Date: 20-JUN-18 19:18

Data File: 062018.s\sAf2022.D

Init. Cal. Date(s) 20-JUN-18 10:16 - 20-JUN-18 23:15

Lab Sample ID WBN180518-50.2

Method: 062018.s\MSDA_8270d_8270c_062018.m

Quant Type ISTD

Method Update: 21-JUN-18 08:48

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
3,3'-Dichlorobenzidine	0.3227	0.31523		.01		-2.31484	30		Averaged

Quantitation Report
GEL Laboratories, LLC

JMB 06/21/2018

BJB 06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2022.D
Acq On : 20 Jun 2018 19:18
Operator : JMB3
InstName : MSDA
Sample : |WBN180518-50.2|ICV|1|SVM|1|B-ICV
Misc : |MIX[J]
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jun 21 08:49:57 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.599	5.605	1.000	361472	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.375	7.381	1.000	1316915	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.687	9.693	1.000	632988	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.563	11.569	1.000	1112230	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.075	15.086	1.000	612100	40.00	ng/uL	-0.01
87) A Perylene-d12	264	18.398	18.410	1.000	349480	40.00	ng/uL	-0.01
95) B 1,4-Dichlorobenzene-d4	152	5.599	5.599	1.000	361472	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.375	7.375	1.000	1316915	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.687	9.687	1.000	632988	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.563	11.569	1.000	1112230	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.075	15.075	1.000	612100	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.398	18.398	1.000	349480	40.00	ng/uL	0.00
150) J Phenanthrene-d10	188	11.563	11.563	1.000	1112230	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.075	15.075	1.000	612100	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.375	7.375	1.000	1316915	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.687	9.687	1.000	632988	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.563	11.563	1.000	1112230	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.075	15.075	1.000	612100	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.375	7.375	1.000	1316915	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.398	18.439	1.000	349480	40.00	ng/uL	-0.04
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.887	0.000	0	0.00	ng/uL	
7) Phenol-d5	99	0.000	5.058	0.000	0	0.00	ng/uL	
22) Nitrobenzene-d5	82	0.000	6.393	0.000	0	0.00	ng/uL	
43) 2-Fluorobiphenyl	172	0.000	8.822	0.000	0	0.00	ng/uL	
62) 2,4,6-Tribromophenol	330	0.000	10.687	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	13.551	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
151) Benzidine	184	13.240	13.240	1.145	413897	40.04	ng/uL	99
153) 3,3'-Dimethylbenzidine	212	14.163	14.169	0.940	447922	36.97	ng/uL	100
154) 3,3'-Dichlorobenzidine	252	15.010	15.016	0.996	192955	39.08	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2022.D
Acq On : 20 Jun 2018 19:18
Operator : JMB3
InstName : MSDA
Sample : |WBN180518-50.2|ICV|1|SVM|1|B-ICV
Misc : |MIX[J]
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jun 21 08:49:57 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Quantitation Report
GEL Laboratories, LLC

JMB 06/21/2018

BJB 06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2023.D
Acq On : 20 Jun 2018 19:42
Operator : JMB3
InstName : MSDA
Sample : |WBN180410-17|ICAL|1|SVM|1|A-2
Misc : |MIX[B]
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 21 08:49:59 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.599	5.605	1.000	0m	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.375	7.381	1.000	0m	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.687	9.693	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.563	11.569	1.000	0m	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.075	15.086	1.000	0m	40.00	ng/uL	-0.01
87) A Perylene-d12	264	18.404	18.410	1.000	0m	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.599	5.599	1.000	377074	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.375	7.375	1.000	1346456	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.687	9.687	1.000	667880	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.563	11.569	1.000	1201025	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.075	15.075	1.000	617170	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.404	18.398	1.000	382218	40.00	ng/uL	0.00
150) J Phenanthrene-d10	188	11.563	11.563	1.000	0m	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.375	7.375	1.000	0m	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.687	9.687	1.000	0m	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.563	11.563	1.000	0m	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.375	7.375	1.000	0m	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.404	18.439	1.000	0m	40.00	ng/uL	-0.04
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.887	0.000	0	0.00	ng/uL	
7) Phenol-d5	99	0.000	5.058	0.000	0	0.00	ng/uL	
22) Nitrobenzene-d5	82	0.000	6.393	0.000	0	0.00	ng/uL	
43) 2-Fluorobiphenyl	172	0.000	8.822	0.000	0	0.00	ng/uL	
62) 2,4,6-Tribromophenol	330	0.000	10.687	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	13.551	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
96) 1,4-Dioxane	88	2.258	2.252	0.403	48403	11.00	ng/uL	98
97) Methyl methacrylate	100	2.258	2.252	0.403	23641	10.89	ng/uL#	73
98) Ethyl methacrylate	69	2.934	2.934	0.524	105727	10.83	ng/uL	99
99) 2-Picoline	93	3.281	3.275	0.586	140687	10.69	ng/uL	98
100) N-Nitrosomethylethylamine	88	3.387	3.387	0.605	53545	10.18	ng/uL	99
101) Methyl methanesulfonate	80	3.711	3.722	0.663	62996	10.94	ng/uL	99
102) N-Nitrosodiethylamine	102	4.187	4.193	0.748	58252	10.34	ng/uL	99
103) 2-Butoxyethanol	57	4.258	4.270	0.760	154211	10.17	ng/uL	100
104) Ethyl methanesulfonate	79	4.552	4.564	0.813	93064	10.40	ng/uL	99
105) Benzaldehyde	77	5.005	5.005	0.894	103438	11.96	ng/uL	99
106) Pentachloroethane	167	5.210	5.211	0.931	55479	10.52	ng/uL	100
107) N-Nitrosopyrrolidine	100	6.134	6.152	1.096	57059	9.63	ng/uL	96
108) Acetophenone	105	6.163	6.175	1.101	179044	10.29	ng/uL	100
109) N-Nitrosomorpholine	56	6.193	6.211	1.106	78211	10.29	ng/uL	100
110) o-Toluidine	106	6.210	6.222	1.109	204478	10.64	ng/uL	99
112) N-Nitrosopiperidine	114	6.616	6.628	0.897	60220	10.16	ng/uL	99
113) a,a-Dimethylphenethyla...	58	7.140	7.211	0.968	364432	10.01	ng/uL	97

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2023.D
Acq On : 20 Jun 2018 19:42
Operator : JMB3
InstName : MSDA
Sample : |WBN180410-17|ICAL|1|SVM|1|A-2
Misc : |MIX[B]
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 21 08:49:59 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
114)	2,6-Dichlorophenol	162	7.481	7.487	1.014	93949	9.93	ng/uL	99
115)	Hexachloropropene	213	7.522	7.522	1.020	54796	11.85	ng/uL	98
116)	Caprolactam	113	7.916	7.952	1.073	28484	9.32	ng/uL	95
117)	N-Nitrosodi-n-butylamine	84	7.934	7.946	1.076	102267	10.60	ng/uL	98
118)	Safrole	162	8.222	8.222	1.115	98524	10.27	ng/uL	100
120)	1,2,4,5-Tetrachloroben...	216	8.551	8.552	0.883	130000	10.87	ng/uL	99
121)	1,1-Biphenyl	154	8.946	8.952	0.923	309445	10.91	ng/uL	99
122)	Isosafrole	162	8.899	8.905	0.919	98459	10.40	ng/uL	99
123)	1,4-Naphthoquinone	158	9.198	9.205	0.950	88142	10.75	ng/uL	98
124)	Pentachlorobenzene	250	9.887	9.893	1.021	111052	10.73	ng/uL	100
125)	1-Naphthylamine	143	10.045	10.052	1.037	232496	12.07	ng/uL	99
126)	2-Naphthylamine	143	10.145	10.152	1.047	222090	11.19	ng/uL	99
127)	5-Nitro-o-toluidine	152	10.387	10.399	1.072	49433	8.42	ng/uL	94
129)	1,3,5-Trinitrobenzene	75	10.845	10.852	0.938	28251	7.11	ng/uL	97
130)	Phenacetin	108	10.910	10.928	0.944	89428	9.20	ng/uL	98
131)	Diallate	86	10.893	10.893	0.942	92677	10.70	ng/uL	81
132)	Cis Diallate	86	11.004	11.004	0.952	15297	1.58	ng/uL	100
133)	Trans Diallate	86	10.893	10.893	0.942	92677	9.10	ng/uL	81
134)	Atrazine	200	11.198	11.210	0.968	73013	10.90	ng/uL	100
135)	4-Aminobiphenyl	169	11.322	11.328	0.979	216548	11.06	ng/uL	99
136)	Pentachloronitrobenzene	237	11.328	11.334	0.980	29188	10.12	ng/uL	98
137)	Pronamide	173	11.392	11.399	0.985	111290	10.27	ng/uL	99
138)	4-Nitroquinoline-1-oxide	190	12.551	12.557	1.085	6189	10.36	ng/uL#	1
139)	Methapyrilene	97	12.645	12.646	1.094	100908	11.10	ng/uL	100
140)	Isodrin	193	12.887	12.887	1.114	42969	10.66	ng/uL	99
142)	Aramite	185	13.516	13.516	0.897	14765	9.82	ng/uL	95
143)	Kepone	272	14.239	14.240	0.945	24721	10.64	ng/uL	98
144)	p-(Dimethylamino)azobe...	225	13.716	13.722	0.910	47950	9.98	ng/uL	99
145)	Chlorobenzilate	251	13.775	13.781	0.914	73684	10.09	ng/uL	96
146)	2-Acetylaminofluorene	181	14.528	14.534	0.964	38773	7.74	ng/uL	100
148)	7,12-Dimethylbenz(a)an...	256	17.357	17.357	0.943	60463	9.48	ng/uL	99
149)	3-Methylcholanthrene	269	19.304	19.304	1.049	9376	8.35	ng/uL	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2023.D
Acq On : 20 Jun 2018 19:42
Operator : JMB3
InstName : MSDA
Sample : |WBN180410-17|ICAL|1|SVM|1|A-2
Misc : |MIX[B]
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 21 08:49:59 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Quantitation Report
GEL Laboratories, LLC

JMB 06/21/2018

BJB 06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2024.D
Acq On : 20 Jun 2018 20:08
Operator : JMB3
InstName : MSDA
Sample : |WBN180410-16|ICAL|1|SVM|1|A-3
Misc : |MIX[B]
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jun 21 08:50:01 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards									Dev(Min)
1)	A 1,4-Dichlorobenzene-d4	152	5.599	5.605	1.000	0m	40.00	ng/uL	0.00
21)	A Naphthalene-d8	136	7.375	7.381	1.000	0m	40.00	ng/uL	0.00
38)	A Acenaphthene-d10	164	9.687	9.693	1.000	0m	40.00	ng/uL	0.00
63)	A Phenanthrene-d10	188	11.563	11.569	1.000	0m	40.00	ng/uL	0.00
77)	A Chrysene-d12	240	15.075	15.086	1.000	0m	40.00	ng/uL	-0.01
87)	A Perylene-d12	264	18.404	18.410	1.000	0m	40.00	ng/uL	0.00
95)	B 1,4-Dichlorobenzene-d4	152	5.599	5.599	1.000	372035	40.00	ng/uL	0.00
111)	B Naphthalene-d8	136	7.375	7.375	1.000	1356346	40.00	ng/uL	0.00
119)	B Acenaphthene-d10	164	9.687	9.687	1.000	691102	40.00	ng/uL	0.00
128)	B Phenanthrene-d10	188	11.563	11.569	1.000	1252367	40.00	ng/uL	0.00
141)	B Chrysene-d12	240	15.075	15.075	1.000	649825	40.00	ng/uL	0.00
147)	B Perylene-d12	264	18.404	18.398	1.000	377273	40.00	ng/uL	0.00
150)	J Phenanthrene-d10	188	11.563	11.563	1.000	0m	40.00	ng/uL	0.00
152)	J Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
155)	D Naphthalene-d8	136	7.375	7.375	1.000	0m	40.00	ng/uL	0.00
157)	D Acenaphthene-d10	164	9.687	9.687	1.000	0m	40.00	ng/uL	0.00
160)	D Phenanthrene-d10	188	11.563	11.563	1.000	0m	40.00	ng/uL	0.00
167)	D Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
169)	E Naphthalene-d8	136	7.375	7.375	1.000	0m	40.00	ng/uL	0.00
171)	E Perylene-d12	264	18.404	18.439	1.000	0m	40.00	ng/uL	-0.04
System Monitoring Compounds									Dev(Min)
5)	2-Fluorophenol	112	0.000	3.887	0.000	0	0.00	ng/uL	
7)	Phenol-d5	99	0.000	5.058	0.000	0	0.00	ng/uL	
22)	Nitrobenzene-d5	82	0.000	6.393	0.000	0	0.00	ng/uL	
43)	2-Fluorobiphenyl	172	0.000	8.822	0.000	0	0.00	ng/uL	
62)	2,4,6-Tribromophenol	330	0.000	10.687	0.000	0	0.00	ng/uL	
79)	p-Terphenyl-d14	244	0.000	13.551	0.000	0	0.00	ng/uL	

	Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
96)	1,4-Dioxane	88	2.258	2.252	0.403	90289	20.80	ng/uL	97
97)	Methyl methacrylate	100	2.258	2.252	0.403	45035	21.02	ng/uL	92
98)	Ethyl methacrylate	69	2.934	2.934	0.524	198588	20.62	ng/uL	98
99)	2-Picoline	93	3.275	3.275	0.585	262708	20.24	ng/uL	100
100)	N-Nitrosomethylethylamine	88	3.387	3.387	0.605	102394	19.73	ng/uL	99
101)	Methyl methanesulfonate	80	3.717	3.722	0.664	118484	20.85	ng/uL	99
102)	N-Nitrosodiethylamine	102	4.187	4.193	0.748	111291	20.03	ng/uL	99
103)	2-Butoxyethanol	57	4.264	4.270	0.762	299240	19.99	ng/uL	99
104)	Ethyl methanesulfonate	79	4.552	4.564	0.813	178400	20.21	ng/uL	100
105)	Benzaldehyde	77	5.005	5.005	0.894	189858	22.26	ng/uL	99
106)	Pentachloroethane	167	5.211	5.211	0.931	104861	20.16	ng/uL	98
107)	N-Nitrosopyrrolidine	100	6.140	6.152	1.097	113375	19.39	ng/uL	96
108)	Acetophenone	105	6.169	6.175	1.102	343405	20.01	ng/uL	99
109)	N-Nitrosomorpholine	56	6.199	6.211	1.107	153708	20.50	ng/uL	99
110)	o-Toluidine	106	6.216	6.222	1.110	388182	20.47	ng/uL	100
112)	N-Nitrosopiperidine	114	6.622	6.628	0.898	119139	19.94	ng/uL	100
113)	a,a-Dimethylphenethyla...	58	7.134	7.211	0.967	739348	20.16	ng/uL	97

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2024.D
Acq On : 20 Jun 2018 20:08
Operator : JMB3
InstName : MSDA
Sample : |WBN180410-16|ICAL|1|SVM|1|A-3
Misc : |MIX[B]
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jun 21 08:50:01 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
114)	2,6-Dichlorophenol	162	7.481	7.487	1.014	186471	19.57	ng/uL	99
115)	Hexachloropropene	213	7.522	7.522	1.020	104227	22.37	ng/uL	99
116)	Caprolactam	113	7.928	7.952	1.075	58704	19.08	ng/uL	95
117)	N-Nitrosodi-n-butylamine	84	7.940	7.946	1.077	203260	20.91	ng/uL	98
118)	Safrole	162	8.222	8.222	1.115	196624	20.35	ng/uL	100
120)	1,2,4,5-Tetrachloroben...	216	8.552	8.552	0.883	253992	20.51	ng/uL	99
121)	1,1-Biphenyl	154	8.946	8.952	0.923	600389	20.45	ng/uL	100
122)	Isosafrole	162	8.899	8.905	0.919	195638	19.96	ng/uL	99
123)	1,4-Naphthoquinone	158	9.199	9.205	0.950	183568	21.64	ng/uL	99
124)	Pentachlorobenzene	250	9.893	9.893	1.021	217022	20.27	ng/uL	99
125)	1-Naphthylamine	143	10.046	10.052	1.037	458428	22.99	ng/uL	98
126)	2-Naphthylamine	143	10.146	10.152	1.047	444936	21.67	ng/uL	98
127)	5-Nitro-o-toluidine	152	10.393	10.399	1.073	110403	18.18	ng/uL	96
129)	1,3,5-Trinitrobenzene	75	10.846	10.852	0.938	70447	16.99	ng/uL	99
130)	Phenacetin	108	10.916	10.928	0.944	190588	18.79	ng/uL	99
131)	Diallate	86	10.893	10.893	0.942	184217	20.40	ng/uL	98
132)	Cis Diallate	86	11.004	11.004	0.952	30565	3.03	ng/uL	98
133)	Trans Diallate	86	10.893	10.893	0.942	184217	17.34	ng/uL	98
134)	Atrazine	200	11.204	11.210	0.969	146582	20.98	ng/uL	99
135)	4-Aminobiphenyl	169	11.322	11.328	0.979	406181	19.90	ng/uL	100
136)	Pentachloronitrobenzene	237	11.328	11.334	0.980	60856	20.24	ng/uL	99
137)	Pronamide	173	11.393	11.399	0.985	228881	20.25	ng/uL	99
138)	4-Nitroquinoline-1-oxide	190	12.551	12.557	1.085	18479	18.15	ng/uL#	43
139)	Methapyrilene	97	12.645	12.646	1.094	209428	22.09	ng/uL	100
140)	Isodrin	193	12.887	12.887	1.114	84843	20.18	ng/uL	99
142)	Aramite	185	13.516	13.516	0.897	34255	21.63	ng/uL	99
143)	Kepone	272	14.240	14.240	0.945	52728	21.56	ng/uL	98
144)	p-(Dimethylamino)azobe...	225	13.716	13.722	0.910	105001	20.76	ng/uL	100
145)	Chlorobenzilate	251	13.775	13.781	0.914	162024	21.07	ng/uL	99
146)	2-Acetylaminofluorene	181	14.528	14.534	0.964	92405	17.52	ng/uL	99
148)	7,12-Dimethylbenz(a)an...	256	17.351	17.357	0.943	128856	20.47	ng/uL	99
149)	3-Methylcholanthrene	269	19.298	19.304	1.049	19826	17.88	ng/uL	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2024.D
Acq On : 20 Jun 2018 20:08
Operator : JMB3
InstName : MSDA
Sample : |WBN180410-16|ICAL|1|SVM|1|A-3
Misc : |MIX[B]
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jun 21 08:50:01 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Quantitation Report
GEL Laboratories, LLC

JMB 06/21/2018

BJB 06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2025.D
Acq On : 20 Jun 2018 20:35
Operator : JMB3
InstName : MSDA
Sample : |WBN180410-18|ICAL|1|SVM|1|A-9
Misc : |MIX[B]
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jun 21 08:50:03 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards									Dev(Min)
1)	A 1,4-Dichlorobenzene-d4	152	5.599	5.605	1.000	0m	40.00	ng/uL	0.00
21)	A Naphthalene-d8	136	7.375	7.381	1.000	0m	40.00	ng/uL	0.00
38)	A Acenaphthene-d10	164	9.687	9.693	1.000	0m	40.00	ng/uL	0.00
63)	A Phenanthrene-d10	188	11.569	11.569	1.000	0m	40.00	ng/uL	0.00
77)	A Chrysene-d12	240	15.075	15.086	1.000	0m	40.00	ng/uL	-0.01
87)	A Perylene-d12	264	18.404	18.410	1.000	0m	40.00	ng/uL	0.00
95)	B 1,4-Dichlorobenzene-d4	152	5.599	5.599	1.000	387798	40.00	ng/uL	0.00
111)	B Naphthalene-d8	136	7.375	7.375	1.000	1445485	40.00	ng/uL	0.00
119)	B Acenaphthene-d10	164	9.687	9.687	1.000	741142	40.00	ng/uL	0.00
128)	B Phenanthrene-d10	188	11.569	11.569	1.000	1375694	40.00	ng/uL	0.00
141)	B Chrysene-d12	240	15.075	15.075	1.000	779908	40.00	ng/uL	0.00
147)	B Perylene-d12	264	18.404	18.398	1.000	509281	40.00	ng/uL	0.00
150)	J Phenanthrene-d10	188	11.569	11.563	1.000	0m	40.00	ng/uL	0.00
152)	J Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
155)	D Naphthalene-d8	136	7.375	7.375	1.000	0m	40.00	ng/uL	0.00
157)	D Acenaphthene-d10	164	9.687	9.687	1.000	0m	40.00	ng/uL	0.00
160)	D Phenanthrene-d10	188	11.569	11.563	1.000	0m	40.00	ng/uL	0.00
167)	D Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
169)	E Naphthalene-d8	136	7.375	7.375	1.000	0m	40.00	ng/uL	0.00
171)	E Perylene-d12	264	18.404	18.439	1.000	0m	40.00	ng/uL	-0.04
System Monitoring Compounds									Dev(Min)
5)	2-Fluorophenol	112	0.000	3.887	0.000	0	0.00	ng/uL	
7)	Phenol-d5	99	0.000	5.058	0.000	0	0.00	ng/uL	
22)	Nitrobenzene-d5	82	0.000	6.393	0.000	0	0.00	ng/uL	
43)	2-Fluorobiphenyl	172	0.000	8.822	0.000	0	0.00	ng/uL	
62)	2,4,6-Tribromophenol	330	0.000	10.687	0.000	0	0.00	ng/uL	
79)	p-Terphenyl-d14	244	0.000	13.551	0.000	0	0.00	ng/uL	

	Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
96)	1,4-Dioxane	88	2.258	2.252	0.403	135772	30.01	ng/uL	99
97)	Methyl methacrylate	100	2.258	2.252	0.403	66874	29.94	ng/uL	94
98)	Ethyl methacrylate	69	2.934	2.934	0.524	297013	29.59	ng/uL	99
99)	2-Picoline	93	3.275	3.275	0.585	397861	29.40	ng/uL	98
100)	N-Nitrosomethylethylamine	88	3.387	3.387	0.605	160518	29.67	ng/uL	99
101)	Methyl methanesulfonate	80	3.722	3.722	0.665	181534	30.65	ng/uL	98
102)	N-Nitrosodiethylamine	102	4.193	4.193	0.749	170331	29.41	ng/uL	99
103)	2-Butoxyethanol	57	4.264	4.270	0.762	462532	29.65	ng/uL	100
104)	Ethyl methanesulfonate	79	4.558	4.564	0.814	275907	29.99	ng/uL	100
105)	Benzaldehyde	77	5.005	5.005	0.894	276544	31.10	ng/uL	100
106)	Pentachloroethane	167	5.211	5.211	0.931	159690	29.45	ng/uL	100
107)	N-Nitrosopyrrolidine	100	6.152	6.152	1.099	180111	29.55	ng/uL	99
108)	Acetophenone	105	6.169	6.175	1.102	533881	29.84	ng/uL	100
109)	N-Nitrosomorpholine	56	6.205	6.211	1.108	236305	30.24	ng/uL	100
110)	o-Toluidine	106	6.222	6.222	1.111	596668	30.19	ng/uL	100
112)	N-Nitrosopiperidine	114	6.628	6.628	0.899	185131	29.08	ng/uL	100
113)	a,a-Dimethylphenethyla...	58	7.181	7.211	0.974	1165265	29.81	ng/uL	87

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2025.D
Acq On : 20 Jun 2018 20:35
Operator : JMB3
InstName : MSDA
Sample : |WBN180410-18|ICAL|1|SVM|1|A-9
Misc : |MIX[B]
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jun 21 08:50:03 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
114)	2,6-Dichlorophenol	162	7.487	7.487	1.015	293103	28.87	ng/uL	100
115)	Hexachloropropene	213	7.522	7.522	1.020	155321	31.29	ng/uL	100
116)	Caprolactam	113	7.946	7.952	1.077	96538	29.44	ng/uL	99
117)	N-Nitrosodi-n-butylamine	84	7.940	7.946	1.077	315917	30.50	ng/uL	98
118)	Safrole	162	8.222	8.222	1.115	305063	29.62	ng/uL	100
120)	1,2,4,5-Tetrachloroben...	216	8.552	8.552	0.883	389321	29.32	ng/uL	99
121)	1,1-Biphenyl	154	8.952	8.952	0.924	939061	29.83	ng/uL	100
122)	Isosafrole	162	8.904	8.905	0.919	309424	29.44	ng/uL	100
123)	1,4-Naphthoquinone	158	9.204	9.205	0.950	285836	31.42	ng/uL	100
124)	Pentachlorobenzene	250	9.893	9.893	1.021	338798	29.51	ng/uL	99
125)	1-Naphthylamine	143	10.051	10.052	1.038	704865	32.96	ng/uL	100
126)	2-Naphthylamine	143	10.151	10.152	1.048	705789	32.05	ng/uL	99
127)	5-Nitro-o-toluidine	152	10.399	10.399	1.073	187456	28.78	ng/uL	97
129)	1,3,5-Trinitrobenzene	75	10.851	10.852	0.938	129691	28.48	ng/uL	99
130)	Phenacetin	108	10.922	10.928	0.944	318479	28.59	ng/uL	100
131)	Diallate	86	10.893	10.893	0.942	292779	29.52	ng/uL	98
132)	Cis Diallate	86	11.004	11.004	0.951	49311	4.46	ng/uL	100
133)	Trans Diallate	86	10.893	10.893	0.942	292779	25.09	ng/uL	98
134)	Atrazine	200	11.204	11.210	0.968	230224	30.00	ng/uL	100
135)	4-Aminobiphenyl	169	11.328	11.328	0.979	636382	28.38	ng/uL	100
136)	Pentachloronitrobenzene	237	11.334	11.334	0.980	98004	29.68	ng/uL	99
137)	Pronamide	173	11.398	11.399	0.985	366516	29.51	ng/uL	100
138)	4-Nitroquinoline-1-oxide	190	12.557	12.557	1.085	41038	30.40	ng/uL#	88
139)	Methapyrilene	97	12.645	12.646	1.093	329914	31.68	ng/uL	99
140)	Isodrin	193	12.887	12.887	1.114	136558	29.57	ng/uL	99
142)	Aramite	185	13.516	13.516	0.897	60246	31.69	ng/uL	100
143)	Kepone	272	14.239	14.240	0.945	87076	29.66	ng/uL	100
144)	p-(Dimethylamino)azobe...	225	13.722	13.722	0.910	182574	30.08	ng/uL	99
145)	Chlorobenzilate	251	13.781	13.781	0.914	277160	30.03	ng/uL	100
146)	2-Acetylaminofluorene	181	14.534	14.534	0.964	198862	31.42	ng/uL	99
148)	7,12-Dimethylbenz(a)an...	256	17.363	17.357	0.943	247724	29.16	ng/uL	99
149)	3-Methylcholanthrene	269	19.310	19.304	1.049	42859	28.63	ng/uL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2025.D
Acq On : 20 Jun 2018 20:35
Operator : JMB3
InstName : MSDA
Sample : |WBN180410-18|ICAL|1|SVM|1|A-9
Misc : |MIX[B]
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jun 21 08:50:03 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Quantitation Report
GEL Laboratories, LLC

JMB 06/21/2018

BJB 06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2026.D
Acq On : 20 Jun 2018 21:02
Operator : JMB3
InstName : MSDA
Sample : |WBN180410-15.1|ICAL|1|SVM|1|A-4
Misc : |MIX[B]
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 21 08:50:05 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.599	5.605	1.000	0m	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.375	7.381	1.000	0m	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.687	9.693	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.569	11.569	1.000	0m	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.075	15.086	1.000	0m	40.00	ng/uL	-0.01
87) A Perylene-d12	264	18.398	18.410	1.000	0m	40.00	ng/uL	-0.01
95) B 1,4-Dichlorobenzene-d4	152	5.599	5.599	1.000	348885	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.375	7.375	1.000	1282964	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.687	9.687	1.000	658539	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.569	11.569	1.000	1197329	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.075	15.075	1.000	649667	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.398	18.398	1.000	400890	40.00	ng/uL	0.00
150) J Phenanthrene-d10	188	11.569	11.563	1.000	0m	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.375	7.375	1.000	0m	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.687	9.687	1.000	0m	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.569	11.563	1.000	0m	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.375	7.375	1.000	0m	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.398	18.439	1.000	0m	40.00	ng/uL	-0.04
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.887	0.000	0	0.00	ng/uL	
7) Phenol-d5	99	0.000	5.058	0.000	0	0.00	ng/uL	
22) Nitrobenzene-d5	82	0.000	6.393	0.000	0	0.00	ng/uL	
43) 2-Fluorobiphenyl	172	0.000	8.822	0.000	0	0.00	ng/uL	
62) 2,4,6-Tribromophenol	330	0.000	10.687	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	13.551	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
96) 1,4-Dioxane	88	2.252	2.252	0.402	163576	40.18	ng/uL	100
97) Methyl methacrylate	100	2.252	2.252	0.402	81673	40.65	ng/uL	100
98) Ethyl methacrylate	69	2.934	2.934	0.524	360699	39.94	ng/uL	100
99) 2-Picoline	93	3.275	3.275	0.585	486281	39.95	ng/uL	100
100) N-Nitrosomethylethylamine	88	3.387	3.387	0.605	193556	39.76	ng/uL	100
101) Methyl methanesulfonate	80	3.722	3.722	0.665	213687	40.10	ng/uL	100
102) N-Nitrosodiethylamine	102	4.193	4.193	0.749	206442	39.62	ng/uL	100
103) 2-Butoxyethanol	57	4.270	4.270	0.763	560583	39.94	ng/uL	100
104) Ethyl methanesulfonate	79	4.564	4.564	0.815	332788	40.20	ng/uL	100
105) Benzaldehyde	77	5.005	5.005	0.894	294476	36.81	ng/uL	100
106) Pentachloroethane	167	5.211	5.211	0.931	195001	39.98	ng/uL	100
107) N-Nitrosopyrrolidine	100	6.152	6.152	1.099	219438	40.02	ng/uL	100
108) Acetophenone	105	6.175	6.175	1.103	644310	40.02	ng/uL	100
109) N-Nitrosomorpholine	56	6.211	6.211	1.109	285726	40.64	ng/uL	100
110) o-Toluidine	106	6.222	6.222	1.111	718560	40.41	ng/uL	100
112) N-Nitrosopiperidine	114	6.628	6.628	0.899	224352	39.71	ng/uL	100
113) a,a-Dimethylphenethyla...	58	7.211	7.211	0.978	1418810	40.89	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2026.D
Acq On : 20 Jun 2018 21:02
Operator : JMB3
InstName : MSDA
Sample : |WBN180410-15.1|ICAL|1|SVM|1|A-4
Misc : |MIX[B]
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 21 08:50:05 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
114)	2,6-Dichlorophenol	162	7.487	7.487	1.015	354228	39.31	ng/uL	100
115)	Hexachloropropene	213	7.522	7.522	1.020	153097	34.74	ng/uL	100
116)	Caprolactam	113	7.952	7.952	1.078	116560	40.05	ng/uL	100
117)	N-Nitrosodi-n-butylamine	84	7.946	7.946	1.077	384508	41.82	ng/uL	100
118)	Safrole	162	8.222	8.222	1.115	367383	40.20	ng/uL	100
120)	1,2,4,5-Tetrachloroben...	216	8.552	8.552	0.883	470179	39.85	ng/uL	100
121)	1,1-Biphenyl	154	8.952	8.952	0.924	1123445	40.16	ng/uL	100
122)	Isosafrole	162	8.905	8.905	0.919	370158	39.64	ng/uL	100
123)	1,4-Naphthoquinone	158	9.205	9.205	0.950	340881	42.17	ng/uL	100
124)	Pentachlorobenzene	250	9.893	9.893	1.021	408369	40.03	ng/uL	100
125)	1-Naphthylamine	143	10.052	10.052	1.038	784455	41.29	ng/uL	100
126)	2-Naphthylamine	143	10.152	10.152	1.048	821398	41.98	ng/uL	100
127)	5-Nitro-o-toluidine	152	10.399	10.399	1.073	231372	39.97	ng/uL	100
129)	1,3,5-Trinitrobenzene	75	10.852	10.852	0.938	156695	39.53	ng/uL	100
130)	Phenacetin	108	10.928	10.928	0.945	384594	39.67	ng/uL	100
131)	Diallate	86	10.893	10.893	0.942	351571	40.73	ng/uL	100
132)	Cis Diallate	86	11.004	11.004	0.951	59067	6.13	ng/uL	100
133)	Trans Diallate	86	10.893	10.893	0.942	351571	34.62	ng/uL	100
134)	Atrazine	200	11.210	11.210	0.969	263625	39.47	ng/uL	100
135)	4-Aminobiphenyl	169	11.328	11.328	0.979	754264	38.65	ng/uL	100
136)	Pentachloronitrobenzene	237	11.334	11.334	0.980	117251	40.80	ng/uL	100
137)	Pronamide	173	11.399	11.399	0.985	432673	40.03	ng/uL	100
138)	4-Nitroquinoline-1-oxide	190	12.557	12.557	1.085	47551	38.42	ng/uL	100
139)	Methapyrilene	97	12.646	12.646	1.093	362750	40.02	ng/uL	100
140)	Isodrin	193	12.887	12.887	1.114	161159	40.09	ng/uL	100
142)	Aramite	185	13.516	13.516	0.897	68384	43.19	ng/uL	100
143)	Kepone	272	14.240	14.240	0.945	96471	39.45	ng/uL	100
144)	p-(Dimethylamino)azobe...	225	13.722	13.722	0.910	208883	41.31	ng/uL	100
145)	Chlorobenzilate	251	13.781	13.781	0.914	318013	41.36	ng/uL	100
146)	2-Acetylaminofluorene	181	14.534	14.534	0.964	225041	42.68	ng/uL	100
148)	7,12-Dimethylbenz(a)an...	256	17.357	17.357	0.943	273147	40.84	ng/uL	100
149)	3-Methylcholanthrene	269	19.304	19.304	1.049	48014	40.75	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2026.D
Acq On    : 20 Jun 2018  21:02
Operator  : JMB3
InstName  : MSDA
Sample    : |WBN180410-15.1|ICAL|1|SVM|1|A-4
Misc      : |MIX[B]
ALS Vial  : 24   Sample Multiplier: 1

Quant Time: Jun 21 08:50:05 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title  : BNA01                                        SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE
```

Quantitation Report
GEL Laboratories, LLC

JMB 06/21/2018

BJB 06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2027.D
Acq On : 20 Jun 2018 21:28
Operator : JMB3
InstName : MSDA
Sample : |WBN180410-14|ICAL|1|SVM|1|A-5
Misc : |MIX[B]
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 21 08:50:07 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards									Dev(Min)
1)	A 1,4-Dichlorobenzene-d4	152	5.599	5.605	1.000	0m	40.00	ng/uL	0.00
21)	A Naphthalene-d8	136	7.381	7.381	1.000	0m	40.00	ng/uL	0.00
38)	A Acenaphthene-d10	164	9.687	9.693	1.000	0m	40.00	ng/uL	0.00
63)	A Phenanthrene-d10	188	11.569	11.569	1.000	0m	40.00	ng/uL	0.00
77)	A Chrysene-d12	240	15.075	15.086	1.000	0m	40.00	ng/uL	-0.01
87)	A Perylene-d12	264	18.404	18.410	1.000	0m	40.00	ng/uL	0.00
95)	B 1,4-Dichlorobenzene-d4	152	5.599	5.599	1.000	374899	40.00	ng/uL	0.00
111)	B Naphthalene-d8	136	7.381	7.375	1.000	1382191	40.00	ng/uL	0.00
119)	B Acenaphthene-d10	164	9.687	9.687	1.000	707734	40.00	ng/uL	0.00
128)	B Phenanthrene-d10	188	11.569	11.569	1.000	1297209	40.00	ng/uL	0.00
141)	B Chrysene-d12	240	15.075	15.075	1.000	734905	40.00	ng/uL	0.00
147)	B Perylene-d12	264	18.404	18.398	1.000	475168	40.00	ng/uL	0.00
150)	J Phenanthrene-d10	188	11.569	11.563	1.000	0m	40.00	ng/uL	0.00
152)	J Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
155)	D Naphthalene-d8	136	7.381	7.375	1.000	0m	40.00	ng/uL	0.00
157)	D Acenaphthene-d10	164	9.687	9.687	1.000	0m	40.00	ng/uL	0.00
160)	D Phenanthrene-d10	188	11.569	11.563	1.000	0m	40.00	ng/uL	0.00
167)	D Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
169)	E Naphthalene-d8	136	7.381	7.375	1.000	0m	40.00	ng/uL	0.00
171)	E Perylene-d12	264	0.000	18.439	1.000	0	0.00	ng/uL	-18.44
System Monitoring Compounds									Dev(Min)
5)	2-Fluorophenol	112	0.000	3.887	0.000	0	0.00	ng/uL	
7)	Phenol-d5	99	0.000	5.058	0.000	0	0.00	ng/uL	
22)	Nitrobenzene-d5	82	0.000	6.393	0.000	0	0.00	ng/uL	
43)	2-Fluorobiphenyl	172	0.000	8.822	0.000	0	0.00	ng/uL	
62)	2,4,6-Tribromophenol	330	0.000	10.687	0.000	0	0.00	ng/uL	
79)	p-Terphenyl-d14	244	0.000	13.551	0.000	0	0.00	ng/uL	

	Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
96)	1,4-Dioxane	88	2.252	2.252	0.402	215966	49.37	ng/uL	86
97)	Methyl methacrylate	100	2.252	2.252	0.402	106127	49.15	ng/uL	99
98)	Ethyl methacrylate	69	2.934	2.934	0.524	482311	49.71	ng/uL	99
99)	2-Picoline	93	3.275	3.275	0.585	650317	49.71	ng/uL	99
100)	N-Nitrosomethylethylamine	88	3.393	3.387	0.606	259830	49.68	ng/uL	99
101)	Methyl methanesulfonate	80	3.728	3.722	0.666	284732	49.73	ng/uL	94
102)	N-Nitrosodiethylamine	102	4.199	4.193	0.750	279115	49.85	ng/uL	100
103)	2-Butoxyethanol	57	4.269	4.270	0.763	752878	49.92	ng/uL	100
104)	Ethyl methanesulfonate	79	4.569	4.564	0.816	444003	49.92	ng/uL	100
105)	Benzaldehyde	77	5.011	5.005	0.895	315485	36.70	ng/uL	100
106)	Pentachloroethane	167	5.211	5.211	0.931	261841	49.96	ng/uL	99
107)	N-Nitrosopyrrolidine	100	6.163	6.152	1.101	299659	50.85	ng/uL	99
108)	Acetophenone	105	6.181	6.175	1.104	870407	50.32	ng/uL	99
109)	N-Nitrosomorpholine	56	6.216	6.211	1.110	385752	51.06	ng/uL	100
110)	o-Toluidine	106	6.228	6.222	1.112	962379	50.36	ng/uL	100
112)	N-Nitrosopiperidine	114	6.634	6.628	0.899	306633	50.37	ng/uL	99
113)	a,a-Dimethylphenethyla...	58	7.205	7.211	0.976	1919132	51.34	ng/uL	97

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2027.D
Acq On : 20 Jun 2018 21:28
Operator : JMB3
InstName : MSDA
Sample : |WBN180410-14|ICAL|1|SVM|1|A-5
Misc : |MIX[B]
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 21 08:50:07 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
114)	2,6-Dichlorophenol	162	7.493	7.487	1.015	489203	50.39	ng/uL	100
115)	Hexachloropropene	213	7.522	7.522	1.019	186340	39.25	ng/uL	100
116)	Caprolactam	113	7.969	7.952	1.080	159641	50.91	ng/uL#	1
117)	N-Nitrosodi-n-butylamine	84	7.952	7.946	1.077	523051	52.81	ng/uL	100
118)	Safrole	162	8.228	8.222	1.115	491877	49.95	ng/uL	100
120)	1,2,4,5-Tetrachloroben...	216	8.557	8.552	0.883	630599	49.74	ng/uL	99
121)	1,1-Biphenyl	154	8.957	8.952	0.925	1495085	49.73	ng/uL	100
122)	Isosafrole	162	8.910	8.905	0.920	499883	49.81	ng/uL	99
123)	1,4-Naphthoquinone	158	9.210	9.205	0.951	440936	50.76	ng/uL	99
124)	Pentachlorobenzene	250	9.893	9.893	1.021	542872	49.51	ng/uL	99
125)	1-Naphthylamine	143	10.051	10.052	1.038	1003500	49.14	ng/uL	100
126)	2-Naphthylamine	143	10.151	10.152	1.048	1057269	50.28	ng/uL	99
127)	5-Nitro-o-toluidine	152	10.404	10.399	1.074	315397	50.70	ng/uL	99
129)	1,3,5-Trinitrobenzene	75	10.857	10.852	0.938	220664	51.39	ng/uL	99
130)	Phenacetin	108	10.934	10.928	0.945	525395	50.02	ng/uL	99
131)	Diallate	86	10.893	10.893	0.942	466127	49.84	ng/uL	98
132)	Cis Diallate	86	11.004	11.004	0.951	77834	7.46	ng/uL	99
133)	Trans Diallate	86	10.893	10.893	0.942	466127	42.36	ng/uL	98
134)	Atrazine	200	11.216	11.210	0.969	343440	47.46	ng/uL	100
135)	4-Aminobiphenyl	169	11.334	11.328	0.980	1049440	49.64	ng/uL	100
136)	Pentachloronitrobenzene	237	11.334	11.334	0.980	156035	50.11	ng/uL	99
137)	Pronamide	173	11.404	11.399	0.986	584268	49.90	ng/uL	100
138)	4-Nitroquinoline-1-oxide	190	12.557	12.557	1.085	74803	52.99	ng/uL#	81
139)	Methapyrilene	97	12.651	12.646	1.094	463399	47.19	ng/uL	100
140)	Isodrin	193	12.893	12.887	1.114	213496	49.02	ng/uL	100
142)	Aramite	185	13.522	13.516	0.897	92829	51.82	ng/uL	98
143)	Kepone	272	14.240	14.240	0.945	126164	45.61	ng/uL	99
144)	p-(Dimethylamino)azobe...	225	13.722	13.722	0.910	290901	50.86	ng/uL	97
145)	Chlorobenzilate	251	13.781	13.781	0.914	437394	50.29	ng/uL	99
146)	2-Acetylaminofluorene	181	14.539	14.534	0.964	337589	56.60	ng/uL	100
148)	7,12-Dimethylbenz(a)an...	256	17.363	17.357	0.943	399099	50.34	ng/uL	100
149)	3-Methylcholanthrene	269	19.316	19.304	1.050	71354	51.09	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2027.D
Acq On    : 20 Jun 2018  21:28
Operator  : JMB3
InstName  : MSDA
Sample    : |WBN180410-14|ICAL|1|SVM|1|A-5
Misc      : |MIX[B]
ALS Vial  : 25   Sample Multiplier: 1

Quant Time: Jun 21 08:50:07 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title  : BNA01                                        SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE
```

Quantitation Report
GEL Laboratories, LLC

JMB 06/21/2018

BJB 06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2028.D
Acq On : 20 Jun 2018 21:55
Operator : JMB3
InstName : MSDA
Sample : |WBN180410-19|ICAL|1|SVM|1|A-10
Misc : |MIX[B]
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jun 21 08:50:09 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards									Dev(Min)
1)	A 1,4-Dichlorobenzene-d4	152	5.599	5.605	1.000	0m	40.00	ng/uL	0.00
21)	A Naphthalene-d8	136	7.381	7.381	1.000	0m	40.00	ng/uL	0.00
38)	A Acenaphthene-d10	164	9.687	9.693	1.000	0m	40.00	ng/uL	0.00
63)	A Phenanthrene-d10	188	11.569	11.569	1.000	0m	40.00	ng/uL	0.00
77)	A Chrysene-d12	240	15.075	15.086	1.000	0m	40.00	ng/uL	-0.01
87)	A Perylene-d12	264	18.404	18.410	1.000	0m	40.00	ng/uL	0.00
95)	B 1,4-Dichlorobenzene-d4	152	5.599	5.599	1.000	401634	40.00	ng/uL	0.00
111)	B Naphthalene-d8	136	7.381	7.375	1.000	1475573	40.00	ng/uL	0.00
119)	B Acenaphthene-d10	164	9.687	9.687	1.000	740742	40.00	ng/uL	0.00
128)	B Phenanthrene-d10	188	11.569	11.569	1.000	1349355	40.00	ng/uL	0.00
141)	B Chrysene-d12	240	15.075	15.075	1.000	717204	40.00	ng/uL	0.00
147)	B Perylene-d12	264	18.404	18.398	1.000	433384	40.00	ng/uL	0.00
150)	J Phenanthrene-d10	188	11.569	11.563	1.000	0m	40.00	ng/uL	0.00
152)	J Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
155)	D Naphthalene-d8	136	7.381	7.375	1.000	0m	40.00	ng/uL	0.00
157)	D Acenaphthene-d10	164	9.687	9.687	1.000	0m	40.00	ng/uL	0.00
160)	D Phenanthrene-d10	188	11.569	11.563	1.000	0m	40.00	ng/uL	0.00
167)	D Chrysene-d12	240	15.075	15.075	1.000	0m	40.00	ng/uL	0.00
169)	E Naphthalene-d8	136	7.381	7.375	1.000	0m	40.00	ng/uL	0.00
171)	E Perylene-d12	264	18.404	18.439	1.000	0m	40.00	ng/uL	-0.04
System Monitoring Compounds									Dev(Min)
5)	2-Fluorophenol	112	0.000	3.887	0.000	0	0.00	ng/uL	
7)	Phenol-d5	99	0.000	5.058	0.000	0	0.00	ng/uL	
22)	Nitrobenzene-d5	82	0.000	6.393	0.000	0	0.00	ng/uL	
43)	2-Fluorobiphenyl	172	0.000	8.822	0.000	0	0.00	ng/uL	
62)	2,4,6-Tribromophenol	330	0.000	10.687	0.000	0	0.00	ng/uL	
79)	p-Terphenyl-d14	244	0.000	13.551	0.000	0	0.00	ng/uL	

	Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
96)	1,4-Dioxane	88	2.252	2.252	0.402	272189	58.08	ng/uL	87
97)	Methyl methacrylate	100	2.252	2.252	0.402	135059	58.39	ng/uL	98
98)	Ethyl methacrylate	69	2.934	2.934	0.524	611020	58.78	ng/uL	99
99)	2-Picoline	93	3.275	3.275	0.585	834287	59.53	ng/uL	100
100)	N-Nitrosomethylethylamine	88	3.393	3.387	0.606	335914	59.95	ng/uL	99
101)	Methyl methanesulfonate	80	3.734	3.722	0.667	357932	58.35	ng/uL	97
102)	N-Nitrosodiethylamine	102	4.205	4.193	0.751	359830	59.99	ng/uL	100
103)	2-Butoxyethanol	57	4.275	4.270	0.764	961837	59.53	ng/uL	100
104)	Ethyl methanesulfonate	79	4.569	4.564	0.816	573283	60.16	ng/uL	99
105)	Benzaldehyde	77	5.010	5.005	0.895	260077	28.24	ng/uL	99
106)	Pentachloroethane	167	5.210	5.211	0.931	332217	59.16	ng/uL	100
107)	N-Nitrosopyrrolidine	100	6.169	6.152	1.102	384058	60.84	ng/uL	99
108)	Acetophenone	105	6.181	6.175	1.104	1112931	60.06	ng/uL	100
109)	N-Nitrosomorpholine	56	6.222	6.211	1.111	487912	60.29	ng/uL	100
110)	o-Toluidine	106	6.234	6.222	1.113	1221804	59.68	ng/uL	100
112)	N-Nitrosopiperidine	114	6.634	6.628	0.899	394335	60.68	ng/uL	98
113)	a,a-Dimethylphenethyla...	58	7.216	7.211	0.978	2439868	61.14	ng/uL	96

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2028.D
Acq On : 20 Jun 2018 21:55
Operator : JMB3
InstName : MSDA
Sample : |WBN180410-19|ICAL|1|SVM|1|A-10
Misc : |MIX[B]
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jun 21 08:50:09 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
114)	2,6-Dichlorophenol	162	7.493	7.487	1.015	624865	60.30	ng/uL	99	
115)	Hexachloropropene	213	7.522	7.522	1.019	207162	40.88	ng/uL	100	
116)	Caprolactam	113	7.981	7.952	1.081	206611	61.72	ng/uL#	9	
117)	N-Nitrosodi-n-butylamine	84	7.951	7.946	1.077	625213	59.13	ng/uL	95	
118)	Safrole	162	8.228	8.222	1.115	628744	59.81	ng/uL	100	
120)	1,2,4,5-Tetrachloroben...	216	8.557	8.552	0.883	800318	60.31	ng/uL	99	
121)	1,1-Biphenyl	154	8.957	8.952	0.925	1903180	60.48	ng/uL	100	
122)	Isosafrole	162	8.910	8.905	0.920	637209	60.66	ng/uL	100	
123)	1,4-Naphthoquinone	158	9.210	9.205	0.951	549791	60.47	ng/uL	100	
124)	Pentachlorobenzene	250	9.898	9.893	1.022	682646	59.48	ng/uL	99	
125)	1-Naphthylamine	143	10.051	10.052	1.038	1204897	56.38	ng/uL	100	
126)	2-Naphthylamine	143	10.157	10.152	1.049	1315514	59.77	ng/uL	99	
127)	5-Nitro-o-toluidine	152	10.404	10.399	1.074	401447	61.66	ng/uL	99	
129)	1,3,5-Trinitrobenzene	75	10.857	10.852	0.938	280353	62.76	ng/uL	99	
130)	Phenacetin	108	10.940	10.928	0.946	664111	60.78	ng/uL	99	
131)	Diallate	86	10.898	10.893	0.942	587962	60.44	ng/uL	95	
132)	Cis Diallate	86	11.010	11.004	0.952	98217	9.05	ng/uL	99	
133)	Trans Diallate	86	10.898	10.893	0.942	587962	51.37	ng/uL	95	
134)	Atrazine	200	11.216	11.210	0.969	417643	55.49	ng/uL	99	
135)	4-Aminobiphenyl	169	11.334	11.328	0.980	1310753	59.60	ng/uL	100	
136)	Pentachloronitrobenzene	237	11.334	11.334	0.980	195611	60.40	ng/uL	100	
137)	Pronamide	173	11.404	11.399	0.986	732307	60.12	ng/uL	100	
138)	4-Nitroquinoline-1-oxide	190	12.557	12.557	1.085	91733	61.37	ng/uL#	72	A
139)	Methapyrilene	97	12.651	12.646	1.094	551567	54.00	ng/uL	99	
140)	Isodrin	193	12.892	12.887	1.114	269294	59.44	ng/uL	99	
142)	Aramite	185	13.522	13.516	0.897	116750	66.79	ng/uL	97	
143)	Kepone	272	14.239	14.240	0.945	157230	58.24	ng/uL	100	
144)	p-(Dimethylamino)azobe...	225	13.728	13.722	0.911	357006	63.96	ng/uL	99	
145)	Chlorobenzilate	251	13.781	13.781	0.914	547208	64.47	ng/uL	98	
146)	2-Acetylaminofluorene	181	14.539	14.534	0.964	385458	66.22	ng/uL	100	A
148)	7,12-Dimethylbenz(a)an...	256	17.369	17.357	0.944	460712	63.72	ng/uL	100	
149)	3-Methylcholanthrene	269	19.316	19.304	1.050	81067	63.64	ng/uL	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2028.D
Acq On    : 20 Jun 2018  21:55
Operator  : JMB3
InstName  : MSDA
Sample    : |WBN180410-19|ICAL|1|SVM|1|A-10
Misc      : |MIX[B]
ALS Vial  : 26   Sample Multiplier: 1

Quant Time: Jun 21 08:50:09 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title  : BNA01                                        SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE
```

Quantitation Report
GEL Laboratories, LLC

JMB 06/21/2018

BJB 06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2029.D
Acq On : 20 Jun 2018 22:22
Operator : JMB3
InstName : MSDA
Sample : |WBN180410-13|ICAL|1|SVM|1|A-6
Misc : |MIX[B]
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 21 08:50:11 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards									Dev(Min)
1)	A 1,4-Dichlorobenzene-d4	152	5.599	5.605	1.000	0m	40.00	ng/uL	0.00
21)	A Naphthalene-d8	136	7.381	7.381	1.000	0m	40.00	ng/uL	0.00
38)	A Acenaphthene-d10	164	9.687	9.693	1.000	0m	40.00	ng/uL	0.00
63)	A Phenanthrene-d10	188	11.569	11.569	1.000	0m	40.00	ng/uL	0.00
77)	A Chrysene-d12	240	15.080	15.086	1.000	0m	40.00	ng/uL	0.00
87)	A Perylene-d12	264	18.410	18.410	1.000	0m	40.00	ng/uL	0.00
95)	B 1,4-Dichlorobenzene-d4	152	5.599	5.599	1.000	369236	40.00	ng/uL	0.00
111)	B Naphthalene-d8	136	7.381	7.375	1.000	1363735	40.00	ng/uL	0.00
119)	B Acenaphthene-d10	164	9.687	9.687	1.000	696725	40.00	ng/uL	0.00
128)	B Phenanthrene-d10	188	11.569	11.569	1.000	1316803	40.00	ng/uL	0.00
141)	B Chrysene-d12	240	15.080	15.075	1.000	850048	40.00	ng/uL	0.00
147)	B Perylene-d12	264	18.410	18.398	1.000	636020	40.00	ng/uL	0.01
150)	J Phenanthrene-d10	188	11.569	11.563	1.000	0m	40.00	ng/uL	0.00
152)	J Chrysene-d12	240	15.080	15.075	1.000	0m	40.00	ng/uL	0.00
155)	D Naphthalene-d8	136	7.381	7.375	1.000	0m	40.00	ng/uL	0.00
157)	D Acenaphthene-d10	164	9.687	9.687	1.000	0m	40.00	ng/uL	0.00
160)	D Phenanthrene-d10	188	11.569	11.563	1.000	0m	40.00	ng/uL	0.00
167)	D Chrysene-d12	240	15.080	15.075	1.000	0m	40.00	ng/uL	0.00
169)	E Naphthalene-d8	136	7.381	7.375	1.000	0m	40.00	ng/uL	0.00
171)	E Perylene-d12	264	18.410	18.439	1.000	0m	40.00	ng/uL	-0.03
System Monitoring Compounds									Dev(Min)
5)	2-Fluorophenol	112	0.000	3.887	0.000	0	0.00	ng/uL	
7)	Phenol-d5	99	0.000	5.058	0.000	0	0.00	ng/uL	
22)	Nitrobenzene-d5	82	0.000	6.393	0.000	0	0.00	ng/uL	
43)	2-Fluorobiphenyl	172	0.000	8.822	0.000	0	0.00	ng/uL	
62)	2,4,6-Tribromophenol	330	0.000	10.687	0.000	0	0.00	ng/uL	
79)	p-Terphenyl-d14	244	0.000	13.551	0.000	0	0.00	ng/uL	

	Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
96)	1,4-Dioxane	88	2.252	2.252	0.402	336222	78.04	ng/uL	91
97)	Methyl methacrylate	100	2.252	2.252	0.402	164633	77.42	ng/uL	96
98)	Ethyl methacrylate	69	2.934	2.934	0.524	750116	78.49	ng/uL	87
99)	2-Picoline	93	3.275	3.275	0.585	1018628	79.06	ng/uL	100
100)	N-Nitrosomethylethylamine	88	3.393	3.387	0.606	417300	81.01	ng/uL	99
101)	Methyl methanesulfonate	80	3.734	3.722	0.667	453657	80.45	ng/uL	97
102)	N-Nitrosodiethylamine	102	4.205	4.193	0.751	442605	80.26	ng/uL	98
103)	2-Butoxyethanol	57	4.275	4.270	0.764	1196353	80.54	ng/uL	100
104)	Ethyl methanesulfonate	79	4.575	4.564	0.817	706231	80.62	ng/uL	100
105)	Benzaldehyde	77	5.005	5.005	0.894	120217	14.20	ng/uL	99
106)	Pentachloroethane	167	5.210	5.211	0.931	411719	79.76	ng/uL	100
107)	N-Nitrosopyrrolidine	100	6.175	6.152	1.103	480771	82.84	ng/uL	97
108)	Acetophenone	105	6.187	6.175	1.105	1360271	79.84	ng/uL	99
109)	N-Nitrosomorpholine	56	6.228	6.211	1.112	591243	79.46	ng/uL	100
110)	o-Toluidine	106	6.240	6.222	1.115	1483938	78.85	ng/uL	100
112)	N-Nitrosopiperidine	114	6.640	6.628	0.900	484177	80.61	ng/uL	97
113)	a,a-Dimethylphenethyla...	58	7.310	7.211	0.990	2743042	74.37	ng/uL	78

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2029.D
Acq On : 20 Jun 2018 22:22
Operator : JMB3
InstName : MSDA
Sample : |WBN180410-13|ICAL|1|SVM|1|A-6
Misc : |MIX[B]
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 21 08:50:11 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
114)	2,6-Dichlorophenol	162	7.499	7.487	1.016	779232	81.36	ng/uL	100	
115)	Hexachloropropene	213	7.522	7.522	1.019	223236	47.66	ng/uL	100	
116)	Caprolactam	113	7.987	7.952	1.082	255180	82.48	ng/uL#	25	
117)	N-Nitrosodi-n-butylamine	84	7.951	7.946	1.077	740888	75.82	ng/uL	92	
118)	Safrole	162	8.234	8.222	1.116	775462	79.82	ng/uL	100	
120)	1,2,4,5-Tetrachloroben...	216	8.557	8.552	0.883	979879	78.51	ng/uL	99	
121)	1,1-Biphenyl	154	8.963	8.952	0.925	2301915	77.78	ng/uL	100	
122)	Isosafrole	162	8.916	8.905	0.920	782045	79.15	ng/uL	99	
123)	1,4-Naphthoquinone	158	9.216	9.205	0.951	643671	75.26	ng/uL	99	
124)	Pentachlorobenzene	250	9.898	9.893	1.022	853636	79.08	ng/uL	99	
125)	1-Naphthylamine	143	10.057	10.052	1.038	1437873	71.53	ng/uL	100	
126)	2-Naphthylamine	143	10.157	10.152	1.049	1509116	72.90	ng/uL	99	
127)	5-Nitro-o-toluidine	152	10.410	10.399	1.075	524884	85.71	ng/uL	99	
129)	1,3,5-Trinitrobenzene	75	10.863	10.852	0.939	386965	88.77	ng/uL	98	
130)	Phenacetin	108	10.945	10.928	0.946	892663	83.72	ng/uL	99	
131)	Diallate	86	10.898	10.893	0.942	740077	77.96	ng/uL	95	
132)	Cis Diallate	86	11.010	11.004	0.952	124368	11.74	ng/uL	98	
133)	Trans Diallate	86	10.898	10.893	0.942	740077	66.26	ng/uL	95	
134)	Atrazine	200	11.216	11.210	0.969	366903	49.95	ng/uL	100	
135)	4-Aminobiphenyl	169	11.334	11.328	0.980	1374583	64.05	ng/uL	100	A
136)	Pentachloronitrobenzene	237	11.339	11.334	0.980	250710	79.32	ng/uL	98	
137)	Pronamide	173	11.410	11.399	0.986	947594	79.72	ng/uL	100	
138)	4-Nitroquinoline-1-oxide	190	12.563	12.557	1.086	156344	102.58	ng/uL#	56	A
139)	Methapyrilene	97	12.657	12.646	1.094	811408	81.40	ng/uL	99	
140)	Isodrin	193	12.892	12.887	1.114	350827	79.35	ng/uL	99	
142)	Aramite	185	13.522	13.516	0.897	154598	74.62	ng/uL	97	
143)	Kepone	272	14.245	14.240	0.945	206522	64.55	ng/uL	99	A
144)	p-(Dimethylamino)azobe...	225	13.733	13.722	0.911	510093	77.11	ng/uL	98	
145)	Chlorobenzilate	251	13.786	13.781	0.914	773105	76.85	ng/uL	98	
146)	2-Acetylaminofluorene	181	14.551	14.534	0.965	708205	102.65	ng/uL	100	A
148)	7,12-Dimethylbenz(a)an...	256	17.380	17.357	0.944	794250	74.85	ng/uL	99	
149)	3-Methylcholanthrene	269	19.339	19.304	1.050	161389	86.33	ng/uL	99	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2029.D
Acq On : 20 Jun 2018 22:22
Operator : JMB3
InstName : MSDA
Sample : |WBN180410-13|ICAL|1|SVM|1|A-6
Misc : |MIX[B]
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 21 08:50:11 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Quantitation Report
GEL Laboratories, LLC

JMB 06/21/2018

BJB 06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2030.D
Acq On : 20 Jun 2018 22:49
Operator : JMB3
InstName : MSDA
Sample : |WBN180410-12|ICAL|1|SVM|1|A-7
Misc : |MIX[B]
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jun 21 08:50:13 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards									
1)	A 1,4-Dichlorobenzene-d4	152	5.599	5.605	1.000	0m	40.00	ng/uL	0.00
21)	A Naphthalene-d8	136	7.381	7.381	1.000	0m	40.00	ng/uL	0.00
38)	A Acenaphthene-d10	164	9.693	9.693	1.000	0m	40.00	ng/uL	0.00
63)	A Phenanthrene-d10	188	11.575	11.569	1.000	0m	40.00	ng/uL	0.00
77)	A Chrysene-d12	240	15.081	15.086	1.000	0m	40.00	ng/uL	0.00
87)	A Perylene-d12	264	18.410	18.410	1.000	0m	40.00	ng/uL	0.00
95)	B 1,4-Dichlorobenzene-d4	152	5.599	5.599	1.000	375287	40.00	ng/uL	0.00
111)	B Naphthalene-d8	136	7.381	7.375	1.000	1362782	40.00	ng/uL	0.00
119)	B Acenaphthene-d10	164	9.693	9.687	1.000	692381	40.00	ng/uL	0.00
128)	B Phenanthrene-d10	188	11.575	11.569	1.000	1323002	40.00	ng/uL	0.00
141)	B Chrysene-d12	240	15.081	15.075	1.000	913747	40.00	ng/uL	0.00
147)	B Perylene-d12	264	18.410	18.398	1.000	652537	40.00	ng/uL	0.01
150)	J Phenanthrene-d10	188	11.575	11.563	1.000	0m	40.00	ng/uL	0.01
152)	J Chrysene-d12	240	15.081	15.075	1.000	0m	40.00	ng/uL	0.00
155)	D Naphthalene-d8	136	7.381	7.375	1.000	0m	40.00	ng/uL	0.00
157)	D Acenaphthene-d10	164	9.693	9.687	1.000	0m	40.00	ng/uL	0.00
160)	D Phenanthrene-d10	188	11.575	11.563	1.000	0m	40.00	ng/uL	0.01
167)	D Chrysene-d12	240	15.081	15.075	1.000	0m	40.00	ng/uL	0.00
169)	E Naphthalene-d8	136	7.381	7.375	1.000	0m	40.00	ng/uL	0.00
171)	E Perylene-d12	264	18.410	18.439	1.000	0m	40.00	ng/uL	-0.03
System Monitoring Compounds									Dev(Min)
5)	2-Fluorophenol	112	0.000	3.887	0.000	0	0.00	ng/uL	
7)	Phenol-d5	99	0.000	5.058	0.000	0	0.00	ng/uL	
22)	Nitrobenzene-d5	82	0.000	6.393	0.000	0	0.00	ng/uL	
43)	2-Fluorobiphenyl	172	0.000	8.822	0.000	0	0.00	ng/uL	
62)	2,4,6-Tribromophenol	330	0.000	10.687	0.000	0	0.00	ng/uL	
79)	p-Terphenyl-d14	244	0.000	13.551	0.000	0	0.00	ng/uL	

	Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue	
96)	1,4-Dioxane	88	2.258	2.252	0.403	424690	96.99	ng/uL	91	
97)	Methyl methacrylate	100	2.258	2.252	0.403	209477	96.92	ng/uL	96	
98)	Ethyl methacrylate	69	2.940	2.934	0.525	949865	97.79	ng/uL	88	
99)	2-Picoline	93	3.281	3.275	0.586	1289910	98.51	ng/uL	100	
100)	N-Nitrosomethylethylamine	88	3.399	3.387	0.607	523944	100.07	ng/uL	99	
101)	Methyl methanesulfonate	80	3.740	3.722	0.668	535937	93.51	ng/uL	98	
102)	N-Nitrosodiethylamine	102	4.211	4.193	0.752	558388	99.62	ng/uL	98	
103)	2-Butoxyethanol	57	4.281	4.270	0.765	1513543	100.24	ng/uL	100	
104)	Ethyl methanesulfonate	79	4.581	4.564	0.818	860879	96.69	ng/uL	99	
105)	Benzaldehyde	77	5.005	5.005	0.894	135672	15.77	ng/uL	99	
106)	Pentachloroethane	167	5.216	5.211	0.932	520827	99.26	ng/uL	100	
107)	N-Nitrosopyrrolidine	100	6.187	6.152	1.105	599235	101.59	ng/uL	96	A
108)	Acetophenone	105	6.187	6.175	1.105	1697408	98.03	ng/uL	99	
109)	N-Nitrosomorpholine	56	6.234	6.211	1.113	717216	94.84	ng/uL	99	
110)	o-Toluidine	106	6.246	6.222	1.116	1830462	95.69	ng/uL	100	
112)	N-Nitrosopiperidine	114	6.646	6.628	0.900	593959	98.96	ng/uL	97	
113)	a,a-Dimethylphenethyla...	58	7.357	7.211	0.997	2677044	72.64	ng/uL	82	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2030.D
Acq On : 20 Jun 2018 22:49
Operator : JMB3
InstName : MSDA
Sample : |WBN180410-12|ICAL|1|SVM|1|A-7
Misc : |MIX[B]
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jun 21 08:50:13 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
114)	2,6-Dichlorophenol	162	7.505	7.487	1.017	975594	101.93	ng/uL	100	
115)	Hexachloropropene	213	7.522	7.522	1.019	252993	54.05	ng/uL	99	A
116)	Caprolactam	113	7.999	7.952	1.084	313443	101.38	ng/uL#	23	
117)	N-Nitrosodi-n-butylamine	84	7.957	7.946	1.078	902213	92.39	ng/uL	90	
118)	Safrole	162	8.234	8.222	1.116	951573	98.01	ng/uL	100	
120)	1,2,4,5-Tetrachloroben...	216	8.563	8.552	0.883	1203212	97.00	ng/uL	99	
121)	1,1-Biphenyl	154	8.963	8.952	0.925	2832549	96.31	ng/uL	99	
122)	Isosafrole	162	8.922	8.905	0.921	978531	99.66	ng/uL	100	
123)	1,4-Naphthoquinone	158	9.216	9.205	0.951	764992	90.01	ng/uL	99	
124)	Pentachlorobenzene	250	9.904	9.893	1.022	1051196	97.99	ng/uL	100	
125)	1-Naphthylamine	143	10.057	10.052	1.038	1719855	86.09	ng/uL	100	
126)	2-Naphthylamine	143	10.163	10.152	1.049	1831017	89.00	ng/uL	98	
127)	5-Nitro-o-toluidine	152	10.416	10.399	1.075	663040	108.95	ng/uL	100	
129)	1,3,5-Trinitrobenzene	75	10.869	10.852	0.939	504979	115.30	ng/uL	99	
130)	Phenacetin	108	10.951	10.928	0.946	1142965	106.69	ng/uL	100	
131)	Diallate	86	10.898	10.893	0.942	917509	96.19	ng/uL	94	
132)	Cis Diallate	86	11.010	11.004	0.951	154386	14.51	ng/uL	98	
133)	Trans Diallate	86	10.898	10.893	0.942	917509	81.76	ng/uL	94	
134)	Atrazine	200	11.216	11.210	0.969	291969	39.56	ng/uL	100	
135)	4-Aminobiphenyl	169	11.340	11.328	0.980	1534895	71.19	ng/uL	100	A
136)	Pentachloronitrobenzene	237	11.340	11.334	0.980	309181	97.36	ng/uL	97	
137)	Pronamide	173	11.410	11.399	0.986	1177245	98.58	ng/uL	100	
138)	4-Nitroquinoline-1-oxide	190	12.563	12.557	1.085	190879	123.32	ng/uL#	50	A
139)	Methapyrilene	97	12.663	12.646	1.094	900648	89.93	ng/uL	99	
140)	Isodrin	193	12.893	12.887	1.114	434304	97.77	ng/uL	99	
142)	Aramite	185	13.522	13.516	0.897	180738	81.15	ng/uL	97	
143)	Kepone	272	14.245	14.240	0.945	241510	70.22	ng/uL	99	A
144)	p-(Dimethylamino)azobe...	225	13.734	13.722	0.911	648538	91.20	ng/uL	97	
145)	Chlorobenzilate	251	13.787	13.781	0.914	963813	89.12	ng/uL	97	
146)	2-Acetylaminofluorene	181	14.557	14.534	0.965	954598	128.72	ng/uL	99	A
148)	7,12-Dimethylbenz(a)an...	256	17.386	17.357	0.944	1076394	98.87	ng/uL	100	
149)	3-Methylcholanthrene	269	19.351	19.304	1.051	200369	104.47	ng/uL	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2030.D
Acq On : 20 Jun 2018 22:49
Operator : JMB3
InstName : MSDA
Sample : |WBN180410-12|ICAL|1|SVM|1|A-7
Misc : |MIX[B]
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jun 21 08:50:13 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Quantitation Report
GEL Laboratories, LLC

JMB 06/21/2018

BJB 06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2031.D
Acq On : 20 Jun 2018 23:15
Operator : JMB3
InstName : MSDA
Sample : |WBN180410-11|ICAL|1|SVM|1|A-8
Misc : |MIX[B]
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Jun 21 08:50:15 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.599	5.605	1.000	0m	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.381	7.381	1.000	0m	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.693	9.693	1.000	0m	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.575	11.569	1.000	0m	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.080	15.086	1.000	0m	40.00	ng/uL	0.00
87) A Perylene-d12	264	18.410	18.410	1.000	0m	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.599	5.599	1.000	364530	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.381	7.375	1.000	1314701	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.693	9.687	1.000	681069	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.575	11.569	1.000	1291884	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.080	15.075	1.000	853196	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.410	18.398	1.000	566001	40.00	ng/uL	0.01
150) J Phenanthrene-d10	188	11.575	11.563	1.000	0m	40.00	ng/uL	0.01
152) J Chrysene-d12	240	15.080	15.075	1.000	0m	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.381	7.375	1.000	0m	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.693	9.687	1.000	0m	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.575	11.563	1.000	0m	40.00	ng/uL	0.01
167) D Chrysene-d12	240	15.080	15.075	1.000	0m	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.381	7.375	1.000	0m	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.410	18.439	1.000	0m	40.00	ng/uL	-0.03
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.887	0.000	0	0.00	ng/uL	
7) Phenol-d5	99	0.000	5.058	0.000	0	0.00	ng/uL	
22) Nitrobenzene-d5	82	0.000	6.393	0.000	0	0.00	ng/uL	
43) 2-Fluorobiphenyl	172	0.000	8.822	0.000	0	0.00	ng/uL	
62) 2,4,6-Tribromophenol	330	0.000	10.687	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	13.551	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue	
96) 1,4-Dioxane	88	2.264	2.252	0.404	486977	114.49	ng/uL	90	
97) Methyl methacrylate	100	2.264	2.252	0.404	240124	114.38	ng/uL	95	
98) Ethyl methacrylate	69	2.940	2.934	0.525	1095785	116.14	ng/uL	97	
99) 2-Picoline	93	3.287	3.275	0.587	1496247	117.63	ng/uL	100	
100) N-Nitrosomethylethylamine	88	3.399	3.387	0.607	614546	120.83	ng/uL	98	A
101) Methyl methanesulfonate	80	3.746	3.722	0.669	622228	111.77	ng/uL	98	
102) N-Nitrosodiethylamine	102	4.216	4.193	0.753	651384	119.65	ng/uL	98	
103) 2-Butoxyethanol	57	4.287	4.270	0.766	1755707	119.72	ng/uL	100	
104) Ethyl methanesulfonate	79	4.587	4.564	0.819	1005433	116.25	ng/uL	99	
105) Benzaldehyde	77	5.010	5.005	0.895	212866	25.47	ng/uL	99	
106) Pentachloroethane	167	5.216	5.211	0.932	601541	118.03	ng/uL	100	
107) N-Nitrosopyrrolidine	100	6.128	6.152	1.095	19647	3.43	ng/uL	97	
108) Acetophenone	105	6.187	6.175	1.105	1997922	118.79	ng/uL	99	
109) N-Nitrosomorpholine	56	6.240	6.211	1.115	840785	114.46	ng/uL	98	
110) o-Toluidine	106	6.252	6.222	1.117	2121611	114.19	ng/uL	99	
112) N-Nitrosopiperidine	114	6.652	6.628	0.901	701276	121.11	ng/uL	97	A
113) a,a-Dimethylphenethyla...	58	7.316	7.211	0.991	3694904	103.92	ng/uL	96	A

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2031.D
Acq On : 20 Jun 2018 23:15
Operator : JMB3
InstName : MSDA
Sample : |WBN180410-11|ICAL|1|SVM|1|A-8
Misc : |MIX[B]
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Jun 21 08:50:15 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
114)	2,6-Dichlorophenol	162	7.504	7.487	1.017	1145161	124.02	ng/uL	100	A
115)	Hexachloropropene	213	7.528	7.522	1.020	235681	52.19	ng/uL	100	A
116)	Caprolactam	113	8.004	7.952	1.084	372015	124.73	ng/uL#	34	A
117)	N-Nitrosodi-n-butylamine	84	7.957	7.946	1.078	1038847	110.27	ng/uL	90	
118)	Safrole	162	8.234	8.222	1.116	1111929	118.72	ng/uL	99	
120)	1,2,4,5-Tetrachloroben...	216	8.563	8.552	0.883	1409714	115.54	ng/uL	99	
121)	1,1-Biphenyl	154	8.969	8.952	0.925	3300166	114.07	ng/uL	100	
122)	Isosafrole	162	8.922	8.905	0.921	1155607	119.65	ng/uL	99	
123)	1,4-Naphthoquinone	158	9.222	9.205	0.951	880490	105.32	ng/uL	99	
124)	Pentachlorobenzene	250	9.904	9.893	1.022	1239771	117.49	ng/uL	99	
125)	1-Naphthylamine	143	10.063	10.052	1.038	1970604	100.28	ng/uL	100	
126)	2-Naphthylamine	143	10.163	10.152	1.049	2129685	105.24	ng/uL	98	
127)	5-Nitro-o-toluidine	152	10.422	10.399	1.075	781375	130.53	ng/uL	99	A
129)	1,3,5-Trinitrobenzene	75	10.875	10.852	0.940	598217	139.88	ng/uL	99	A
130)	Phenacetin	108	10.963	10.928	0.947	1342668	128.35	ng/uL	99	A
131)	Diallate	86	10.904	10.893	0.942	1080701	116.03	ng/uL	92	
132)	Cis Diallate	86	11.010	11.004	0.951	182558	17.57	ng/uL	98	
133)	Trans Diallate	86	10.904	10.893	0.942	1080701	98.63	ng/uL	92	
134)	Atrazine	200	11.222	11.210	0.970	364065	50.52	ng/uL	100	
135)	4-Aminobiphenyl	169	11.340	11.328	0.980	1719961	81.69	ng/uL	100	A
136)	Pentachloronitrobenzene	237	11.345	11.334	0.980	369152	119.05	ng/uL	97	
137)	Pronamide	173	11.416	11.399	0.986	1391479	119.32	ng/uL	100	
138)	4-Nitroquinoline-1-oxide	190	12.569	12.557	1.086	199720	131.70	ng/uL#	47	A
139)	Methapyrilene	97	12.663	12.646	1.094	1136767	116.24	ng/uL	99	
140)	Isodrin	193	12.898	12.887	1.114	518991	119.65	ng/uL	98	
142)	Aramite	185	13.528	13.516	0.897	226378	108.86	ng/uL	97	
143)	Kepone	272	14.245	14.240	0.945	292447	91.07	ng/uL	99	A
144)	p-(Dimethylamino)azobe...	225	13.739	13.722	0.911	771987	116.26	ng/uL	98	
145)	Chlorobenzilate	251	13.792	13.781	0.915	1176636	116.52	ng/uL	97	
146)	2-Acetylaminofluorene	181	14.557	14.534	0.965	1018403	147.07	ng/uL	99	A
148)	7,12-Dimethylbenz(a)an...	256	17.392	17.357	0.945	1180931	125.06	ng/uL	100	A
149)	3-Methylcholanthrene	269	19.351	19.304	1.051	218074	131.08	ng/uL	99	A

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2031.D
Acq On : 20 Jun 2018 23:15
Operator : JMB3
InstName : MSDA
Sample : |WBN180410-11|ICAL|1|SVM|1|A-8
Misc : |MIX[B]
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Jun 21 08:50:15 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Continuing Calibration Summary

Client SDG: 454944

Instrument ID: MSDA.I

Injection Date: 20-JUN-18 23:42

Data File: 062018.s\sAf2032.D

Init. Cal. Date(s) 20-JUN-18 10:16 - 20-JUN-18 23:15

Lab Sample ID WBN180517-19

Method: 062018.s\MSDA_8270d_8270c_062018.m

Quant Type ISTD

Method Update: 21-JUN-18 08:48

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Benzaldehyde	0.9172	0.74672		.01		-18.587	30		Averaged
Acetophenone	1.8456	1.76559		.01		-4.33518	30		Averaged
Caprolactam	0.0907	0.08572		.01		-5.49063	30		Averaged
1,2,4,5-Tetrachlorobenzene	0.7166	0.69301		.01		-3.29193	30		Averaged
1,1'-Biphenyl	1.6992	1.65454		.01		-2.6283	30		Averaged
Atrazine	0.2231	0.19778		.01		-11.34917	30		Averaged

Quantitation Report
GEL Laboratories, LLC

JMB 06/21/2018

BJB 06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2032.D
Acq On : 20 Jun 2018 23:42
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-19|ICV|1|SVM|1|A-ICV
Misc : |MIX[B]
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Jun 21 08:50:17 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.599	5.605	1.000	388943	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.381	7.381	1.000	1445037	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.687	9.693	1.000	739363	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.569	11.569	1.000	1374019	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.081	15.086	1.000	751834	40.00	ng/uL	0.00
87) A Perylene-d12	264	18.404	18.410	1.000	465435	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.599	5.599	1.000	388943	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.381	7.375	1.000	1445037	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.687	9.687	1.000	739363	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.569	11.569	1.000	1374019	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.081	15.075	1.000	751834	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.404	18.398	1.000	465435	40.00	ng/uL	0.00
150) J Phenanthrene-d10	188	11.569	11.563	1.000	1374019	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.081	15.075	1.000	751834	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.381	7.375	1.000	1445037	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.687	9.687	1.000	739363	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.569	11.563	1.000	1374019	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.081	15.075	1.000	751834	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.381	7.375	1.000	1445037	40.00	ng/uL	0.00
171) E Perylene-d12	264	0.000	18.439	1.000	0	0.00	ng/uL	-18.44
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.887	0.000	0	0.00	ng/uL	
7) Phenol-d5	99	0.000	5.058	0.000	0	0.00	ng/uL	
22) Nitrobenzene-d5	82	0.000	6.393	0.000	0	0.00	ng/uL	
43) 2-Fluorobiphenyl	172	0.000	8.822	0.000	0	0.00	ng/uL	
62) 2,4,6-Tribromophenol	330	0.000	10.687	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	13.551	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
96) 1,4-Dioxane	88	2.258	2.252	0.403	171950	37.89	ng/uL	90
97) Methyl methacrylate	100	2.258	2.252	0.403	87736	39.17	ng/uL	97
98) Ethyl methacrylate	69	2.934	2.934	0.524	386153	38.36	ng/uL	99
99) 2-Picoline	93	3.275	3.275	0.585	523161	38.55	ng/uL	100
100) N-Nitrosomethylethylamine	88	3.387	3.387	0.605	221879	40.89	ng/uL	99
101) Methyl methanesulfonate	80	3.722	3.722	0.665	221873	37.35	ng/uL	100
102) N-Nitrosodiethylamine	102	4.199	4.193	0.750	238694	41.09	ng/uL	98
103) 2-Butoxyethanol	57	4.269	4.270	0.763	648023	41.41	ng/uL	100
104) Ethyl methanesulfonate	79	4.564	4.564	0.815	352849	38.24	ng/uL	100
105) Benzaldehyde	77	5.011	5.005	0.895	290430	32.57	ng/uL	100
106) Pentachloroethane	167	5.211	5.211	0.931	212194	39.02	ng/uL	99
107) N-Nitrosopyrrolidine	100	6.158	6.152	1.100	260369	42.59	ng/uL	98
108) Acetophenone	105	6.175	6.175	1.103	686714	38.27	ng/uL	100
109) N-Nitrosomorpholine	56	6.210	6.211	1.109	329506	42.04	ng/uL	99
110) o-Toluidine	106	6.228	6.222	1.112	817734	41.25	ng/uL	100
112) N-Nitrosopiperidine	114	6.628	6.628	0.898	265546	41.72	ng/uL	97
113) a,a-Dimethylphenethyla...	58	7.175	7.211	0.972	1488747	38.09	ng/uL	97

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2032.D
Acq On : 20 Jun 2018 23:42
Operator : JMB3
InstName : MSDA
Sample : |WBN180517-19|ICV|1|SVM|1|A-ICV
Misc : |MIX[B]
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Jun 21 08:50:17 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
114)	2,6-Dichlorophenol	162	7.493	7.487	1.015	383400	37.78	ng/uL	100
115)	Hexachloropropene	213	7.522	7.522	1.019	223880	45.11	ng/uL	99
116)	Caprolactam	113	7.963	7.952	1.079	123863	37.78	ng/uL#	1
117)	N-Nitrosodi-n-butylamine	84	7.946	7.946	1.077	436480	42.15	ng/uL	99
118)	Safrole	162	8.222	8.222	1.114	387357	37.63	ng/uL	99
120)	1,2,4,5-Tetrachloroben...	216	8.552	8.552	0.883	512387	38.68	ng/uL	100
121)	1,1-Biphenyl	154	8.952	8.952	0.924	1223302	38.95	ng/uL	100
122)	Isosafrole	162	8.904	8.905	0.919	421464	40.20	ng/uL	100
123)	1,4-Naphthoquinone	158	9.204	9.205	0.950	327488	36.08	ng/uL	99
124)	Pentachlorobenzene	250	9.893	9.893	1.021	435564	38.02	ng/uL	99
125)	1-Naphthylamine	143	10.051	10.052	1.038	884072	41.44	ng/uL	100
126)	2-Naphthylamine	143	10.151	10.152	1.048	914158	41.61	ng/uL	99
127)	5-Nitro-o-toluidine	152	10.399	10.399	1.073	267914	41.23	ng/uL	99
129)	1,3,5-Trinitrobenzene	75	10.851	10.852	0.938	163252	35.89	ng/uL	99
130)	Phenacetin	108	10.928	10.928	0.945	434538	39.05	ng/uL	99
131)	Diallate	86	10.893	10.893	0.942	364146	36.76	ng/uL	99
132)	Cis Diallate	86	11.004	11.004	0.951	60339	5.46	ng/uL	98
133)	Trans Diallate	86	10.893	10.893	0.942	364146	31.25	ng/uL	99
134)	Atrazine	200	11.210	11.210	0.969	271753	35.46	ng/uL	100
135)	4-Aminobiphenyl	169	11.328	11.328	0.979	825466	36.86	ng/uL	100
136)	Pentachloronitrobenzene	237	11.334	11.334	0.980	128969	39.10	ng/uL	99
137)	Pronamide	173	11.398	11.399	0.985	439563	35.44	ng/uL	100
138)	4-Nitroquinoline-1-oxide	190	12.557	12.557	1.085	55492	38.97	ng/uL#	76
139)	Methapyrilene	97	12.645	12.646	1.093	339218	32.61	ng/uL	99
140)	Isodrin	193	12.887	12.887	1.114	157110	34.06	ng/uL	100
142)	Aramite	185	13.522	13.516	0.897	76971	42.00	ng/uL	97
143)	Kepone	272	14.245	14.240	0.945	93246	32.95	ng/uL	100
144)	p-(Dimethylamino)azobe...	225	13.722	13.722	0.910	258882	44.25	ng/uL	98
145)	Chlorobenzilate	251	13.781	13.781	0.914	364224	40.93	ng/uL	98
146)	2-Acetylaminofluorene	181	14.534	14.534	0.964	276060	45.24	ng/uL	100
148)	7,12-Dimethylbenz(a)an...	256	17.363	17.357	0.943	292251	37.64	ng/uL	99
149)	3-Methylcholanthrene	269	19.310	19.304	1.049	45929	33.57	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2032.D
Acq On    : 20 Jun 2018  23:42
Operator  : JMB3
InstName  : MSDA
Sample    : |WBN180517-19|ICV|1|SVM|1|A-ICV
Misc      : |MIX[B]
ALS Vial  : 30   Sample Multiplier: 1

Quant Time: Jun 21 08:50:17 2018
Quant Method : D:\MSDChem\1\data\062018.s\MSDA_8270d_8270c_062018.m
Quant Title  : BNA01                                        SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE
```

Continuing Calibration Summary

Client SDG: 454944

Instrument ID: MSDA.I **Injection Date:** 23-JUL-18 15:05

Data File: 072318.s\sAg2302.D **Init. Cal. Date(s)** 20-JUN-18 10:16 - 20-JUN-18 23:15

Lab Sample ID WBN180618-05.3 **Method:** 072318.s\MSDA_8270d_8270c_062018.m

Quant Type ISTD **Method Update:** 21-JUN-18 08:48

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	2-Fluorophenol	1.2267	1.16722		.01		-4.84878	20		Averaged
S	Phenol-d5	1.4768	1.48217		.01		0.36362	20		Averaged
S	Nitrobenzene-d5	0.35	0.35831		.01		2.37429	20		Averaged
S	2-Fluorobiphenyl	1.579	1.61125		.01		2.04243	20		Averaged
S	2,4,6-Tribromophenol	0.2048	0.21922		.01		7.04102	20		Averaged
S	p-Terphenyl-d14	1.2378	1.23043		.01		-0.59541	20		Averaged
	Phenol	1.5506	1.53102		.8		-1.26274	20		Averaged
	bis(2-Chloroethyl) ether	1.271	1.25872		.7		-0.96617	20		Averaged
	2-Chlorophenol	1.3919	1.38481		.8		-0.50938	20		Averaged
	o-Cresol	1.0819	1.05609		.7		-2.38562	20		Averaged
	bis(2-Chloro-1-methylethyl)eth	2.2693	2.17912		.01		-3.97391	20		Averaged
	m,p-Cresols	1.4338	1.37459		.6		-4.12959	20		Averaged
	N-Nitrosodipropylamine	0.9272	0.92041		.5		-0.73231	20		Averaged
	Hexachloroethane	0.583	0.58597		.3		0.50943	20		Averaged
	Nitrobenzene	0.3456	0.35039		.2		1.386	20		Averaged
	Isophorone	0.6641	0.66473		.4		0.09487	20		Averaged
	2-Nitrophenol	0.1845	0.19377		.1		5.02439	20		Averaged
	2,4-Dimethylphenol	0.3177	0.32146		.2		1.18351	20		Averaged
	bis(2-Chloroethoxy)methane	0.4239	0.42948		.3		1.31635	20		Averaged
	2,4-Dichlorophenol	0.3017	0.31629		.2		4.83593	20		Averaged
	Naphthalene	1.1004	1.0619		.7		-3.49873	20		Averaged
	4-Chloroaniline	0.4162	0.41783		.01		0.39164	20		Averaged
	Hexachlorobutadiene	0.1904	0.2067		.01		8.56092	20		Averaged
	4-Chloro-3-methylphenol	0.2987	0.29797		.2		-0.24439	20		Averaged
	2-Methylnaphthalene	0.7418	0.72494		.4		-2.27285	20		Averaged
	Hexachlorocyclopentadiene	0.2768	0.32806		.05		18.51879	20		Averaged
	2,4,6-Trichlorophenol	0.4149	0.45296		.2		9.17329	20		Averaged
	2,4,5-Trichlorophenol	0.4411	0.47661		.2		8.05033	20		Averaged
	2-Chloronaphthalene	1.3513	1.33809		.8		-0.97758	20		Averaged
	o-Nitroaniline	0.3586	0.36545		.01		1.91021	20		Averaged
	Dimethylphthalate	1.5981	1.58348		.01		-0.91484	20		Averaged
	2,6-Dinitrotoluene	0.3433	0.35334		.2		2.92456	20		Averaged
	Acenaphthylene	2.1287	2.11073		.9		-0.84418	20		Averaged
	m-Nitroaniline	0.3127	0.3183		.01		1.79085	20		Averaged
	Acenaphthene	1.2644	1.23024		.9		-2.70168	20		Averaged
	2,4-Dinitrophenol	40	39.45	40			-1.375	20		Linear
	4-Nitrophenol	0.1977	0.21178		.05		7.1219	20		Averaged

Continuing Calibration Summary

Instrument ID: MSDA.I **Injection Date:** 23-JUL-18 15:05

Data File: 072318.s\sAg2302.D **Init. Cal. Date(s)** 20-JUN-18 10:16 20-JUN-18 23:15

Lab Sample ID WBN180618-05.3 **Method:** 072318.s\MSDA_8270d_8270c_062018.m

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
2,4-Dinitrotoluene	0.4305	0.45016		.2		4.56678	20		Averaged
Dibenzofuran	1.835	1.86257		.8		1.50245	20		Averaged
2,3,4,6-Tetrachlorophenol	0.3456	0.3895		.01		12.70255	20		Averaged
Diethylphthalate	1.574	1.55635		.01		-1.12135	20		Averaged
4-Chlorophenylphenylether	0.691	0.74252		.4		7.45586	20		Averaged
Fluorene	1.4719	1.48023		.9		0.56594	20		Averaged
p-Nitroaniline	0.2483	0.26594		.01		7.10431	20		Averaged
2-Methyl-4,6-dinitrophenol	40	42.12	40			5.3	20		Linear
Diphenylamine	0.6704	0.68223		.01		1.76462	20		Averaged
4-Bromophenylphenylether	0.2335	0.24887		.1		6.58244	20		Averaged
Hexachlorobenzene	0.257	0.26712		.1		3.93774	20		Averaged
Pentachlorophenol	0.1217	0.11126		.05		-8.57847	20		Averaged
Phenanthrene	1.1442	1.12439		.7		-1.73134	20		Averaged
Anthracene	1.1541	1.13142		.7		-1.96517	20		Averaged
Carbazole	0.8588	0.85477		.01		-0.46926	20		Averaged
Di-n-butylphthalate	1.3345	1.30139		.01		-2.48108	20		Averaged
Fluoranthene	1.0355	1.0904		.6		5.30179	20		Averaged
Pyrene	1.9072	1.82948		.6		-4.07508	20		Averaged
Butylbenzylphthalate	0.7864	0.78784		.01		0.18311	20		Averaged
Benzo(a)anthracene	1.2672	1.26657		.8		-0.04972	20		Averaged
bis(2-Ethylhexyl)phthalate	1.1693	1.11741		.01		-4.4377	20		Averaged
Chrysene	1.1525	1.15183		.7		-0.05813	20		Averaged
Di-n-octylphthalate	40	40.03	40			0.075	20		Linear
Benzo(b)fluoranthene	1.3117	1.40489		.7		7.10452	20		Averaged
Benzo(k)fluoranthene	1.2751	1.38281		.7		8.44718	20		Averaged
Benzo(a)pyrene	1.0843	1.17333		.7		8.21083	20		Averaged
Indeno(1,2,3-cd)pyrene	0.7151	0.69988		.5		-2.12837	20		Averaged
Dibenzo(a,h)anthracene	0.7291	0.69893		.4		-4.13798	20		Averaged
Benzo(ghi)perylene	0.7764	0.67033		.5		-13.66177	20		Averaged

Quantitation Report
GEL Laboratories, LLC

07/23/2018

07/24/2018

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2302.D
Acq On : 23 Jul 2018 15:05
Operator : LOF
InstName : MSDA
Sample : |WBN180618-05.3|CCV|1|SVM|1|M-CCV
Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 23 15:33:24 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.652	5.652	1.000	424914	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.422	7.422	1.000	1560877	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.734	9.734	1.000	784839	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.610	11.610	1.000	1429331	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.151	15.151	1.000	827917	40.00	ng/uL	0.00
87) A Perylene-d12	264	18.528	18.528	1.000	488815	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.652	5.652	1.000	424914	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.422	7.422	1.000	1560877	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.734	9.734	1.000	784839	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.610	11.610	1.000	1429331	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.151	15.151	1.000	827917	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.528	18.528	1.000	488815	40.00	ng/uL	0.00
150) J Phenanthrene-d10	188	11.610	11.610	1.000	1429331	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.151	15.151	1.000	827917	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.422	7.422	1.000	1560877	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.734	9.734	1.000	784839	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.610	11.610	1.000	1429331	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.151	15.151	1.000	827917	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.422	7.422	1.000	1560877	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.528	18.528	1.000	488815	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.946	3.946	0.698	495968	38.06	ng/uL	0.00
7) Phenol-d5	99	5.116	5.116	0.905	629795	40.14	ng/uL	0.00
22) Nitrobenzene-d5	82	6.434	6.434	0.867	559275	40.95	ng/uL	0.00
43) 2-Fluorobiphenyl	172	8.863	8.863	0.911	1264570	40.82	ng/uL	0.00
62) 2,4,6-Tribromophenol	330	10.734	10.734	1.103	172054	42.82	ng/uL	0.00
79) p-Terphenyl-d14	244	13.592	13.592	0.897	1018693	39.76	ng/uL	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	2.317	2.317	0.410	298902	38.36	ng/uL	95
3) N-Methyl-N-nitrosometh...	74	2.593	2.593	0.459	307217	40.77	ng/uL	95
4) Pyridine	79	2.628	2.628	0.465	494397	37.49	ng/uL	97
6) Aniline	93	5.199	5.199	0.920	824201	39.51	ng/uL	100
8) Phenol	94	5.134	5.134	0.908	650552	39.50	ng/uL	99
9) bis(2-Chloroethyl) ether	93	5.275	5.275	0.933	534849	39.61	ng/uL	100
10) 2-Chlorophenol	128	5.352	5.352	0.947	588425	39.80	ng/uL	99
11) n-Decane	43	5.405	5.405	0.956	725937	38.48	ng/uL	98
12) 1,3-Dichlorobenzene	146	5.569	5.569	0.985	671348	39.90	ng/uL	99
13) 1,4-Dichlorobenzene	146	5.675	5.675	1.004	675051	39.44	ng/uL	100
14) 1,2-Dichlorobenzene	146	5.887	5.887	1.042	638996	39.51	ng/uL	99
15) bis(2-Chloro-1-methyle...	45	6.034	6.034	1.068	925938	38.41	ng/uL	98
16) Benzyl alcohol	108	5.840	5.840	1.033	345470	38.35	ng/uL	99
17) o-Cresol	107	5.987	5.987	1.059	448747	39.05	ng/uL	99
18) m,p-Cresols	107	6.216	6.216	1.100	584081	38.35	ng/uL	99
19) N-Nitrosodipropylamine	70	6.228	6.228	1.102	391094	39.71	ng/uL	95
20) Hexachloroethane	117	6.358	6.358	1.125	248988	40.20	ng/uL	93

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2302.D
Acq On : 23 Jul 2018 15:05
Operator : LOF
InstName : MSDA
Sample : |WBN180618-05.3|CCV|1|SVM|1|M-CCV
Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 23 15:33:24 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
23)	Nitrobenzene	77	6.463	6.463	0.871	546914	40.56	ng/uL	99
24)	Isophorone	82	6.793	6.793	0.915	1037566	40.04	ng/uL	100
25)	2-Nitrophenol	139	6.899	6.899	0.929	302445	42.01	ng/uL	97
26)	2,4-Dimethylphenol	122	6.958	6.958	0.937	501763	40.48	ng/uL	98
27)	bis(2-Chloroethoxy)met...	93	7.093	7.093	0.956	670369	40.53	ng/uL	99
28)	2,4-Dichlorophenol	162	7.228	7.228	0.974	493697	41.94	ng/uL	99
29)	Benzoic acid	105	7.122	7.122	0.960	189919	33.28	ng/uL	98
30)	1,2,4-Trichlorobenzene	180	7.340	7.340	0.989	546416	41.47	ng/uL	99
31)	alpha-Terpineol	59	7.469	7.469	1.006	539169	39.58	ng/uL	100
32)	Naphthalene	128	7.452	7.452	1.004	1657499	38.60	ng/uL	100
33)	4-Chloroaniline	127	7.528	7.528	1.014	652184	40.15	ng/uL	99
34)	Hexachlorobutadiene	225	7.616	7.616	1.026	322641	43.42	ng/uL	99
35)	4-Chloro-3-methylphenol	107	8.175	8.175	1.101	465101	39.90	ng/uL	97
36)	2-Methylnaphthalene	142	8.381	8.381	1.129	1131536	39.09	ng/uL	99
37)	1-Methylnaphthalene	142	8.510	8.510	1.147	1060480	38.90	ng/uL	99
39)	Hexachlorocyclopentadiene	237	8.581	8.581	0.882	257472	47.41	ng/uL	100
40)	2,3-Dichloroaniline	161	8.746	8.746	0.898	572317	41.46	ng/uL	99
41)	2,4,6-Trichlorophenol	196	8.746	8.746	0.898	355499	43.67	ng/uL	100
42)	2,4,5-Trichlorophenol	196	8.793	8.793	0.903	374063	43.22	ng/uL	99
44)	2-Chloronaphthalene	162	9.016	9.016	0.926	1050185	39.61	ng/uL	99
45)	o-Nitroaniline	65	9.152	9.152	0.940	286818	40.76	ng/uL	96
46)	1,4-Dinitrobenzene	168	9.340	9.340	0.960	168429	43.94	ng/uL	93
47)	m-Nitroaniline	138	9.687	9.687	0.995	249812	40.71	ng/uL	99
48)	Dimethylphthalate	163	9.399	9.399	0.966	1242773	39.63	ng/uL	100
49)	m-Dinitrobenzene	168	9.434	9.434	0.969	182322	42.20	ng/uL	92
50)	2,6-Dinitrotoluene	165	9.469	9.469	0.973	277317	41.17	ng/uL	96
51)	2,4-Dinitrotoluene	165	9.981	9.981	1.025	353301	41.83	ng/uL	90
52)	Acenaphthylene	152	9.557	9.557	0.982	1656587	39.66	ng/uL	100
53)	Acenaphthene	154	9.781	9.781	1.005	965542	38.92	ng/uL	99
54)	2,4-Dinitrophenol	184	9.810	9.810	1.008	83671	39.45	ng/uL	94
55)	Dibenzofuran	168	9.999	9.999	1.027	1461816	40.60	ng/uL	98
56)	2,3,4,6-Tetrachlorophenol	232	10.146	10.146	1.042	305696	45.08	ng/uL	96
57)	Diethylphthalate	149	10.287	10.287	1.057	1221485	39.55	ng/uL	99
58)	4-Nitrophenol	139	9.899	9.899	1.017	166210	42.84	ng/uL	97
59)	Fluorene	166	10.434	10.434	1.072	1161746	40.23	ng/uL	99
60)	4-Chlorophenylphenylether	204	10.428	10.428	1.071	582758	42.98	ng/uL	96
61)	p-Nitroaniline	138	10.463	10.463	1.075	208720	42.83	ng/uL	97
64)	2-Methyl-4,6-dinitroph...	198	10.493	10.493	0.904	147248	42.12	ng/uL	93
65)	Diphenylamine	169	10.581	10.581	0.911	975136	40.71	ng/uL	100
66)	1,2-Diphenylhydrazine	77	10.634	10.634	0.916	1057288	38.85	ng/uL	98
67)	4-Bromophenylphenylether	248	11.046	11.046	0.951	355715	42.64	ng/uL	96
68)	Hexachlorobenzene	284	11.116	11.116	0.957	381805	41.58	ng/uL	99
69)	Pentachlorophenol	266	11.363	11.363	0.979	159033	36.56	ng/uL	99
70)	n-Octadecane	57	11.463	11.463	0.987	950248	38.03	ng/uL	99
71)	Dinoseb	211	11.593	11.593	0.998	224901	49.45	ng/uL	97
72)	Phenanthrene	178	11.646	11.646	1.003	1607125	39.31	ng/uL	100
73)	Anthracene	178	11.710	11.710	1.009	1617172	39.21	ng/uL	100
74)	Carbazole	167	11.904	11.904	1.025	1221753	39.81	ng/uL	100
75)	Di-n-butylphthalate	149	12.328	12.328	1.062	1860124	39.01	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2302.D
Acq On : 23 Jul 2018 15:05
Operator : LOF
InstName : MSDA
Sample : |WBN180618-05.3|CCV|1|SVM|1|M-CCV
Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 23 15:33:24 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
76)	Fluoranthene	202	13.128	13.128	1.131	1558537	42.12	ng/uL	99
78)	Pyrene	202	13.410	13.410	0.885	1514657	38.37	ng/uL	99
80)	Butylbenzylphthalate	149	14.234	14.234	0.939	652262	40.07	ng/uL	98
81)	bis(2-Ethylhexyl)phtha...	149	15.169	15.169	1.001	925120	38.23	ng/uL	99
82)	Benzo(a)anthracene	228	15.134	15.134	0.999	1048613	39.98	ng/uL	100
83)	Chrysene	228	15.198	15.198	1.003	953619	39.98	ng/uL	100
84)	Methoxychlor	227	15.010	15.010	0.991	721881	41.85	ng/uL	99
85)	Methylenebis(2-chloroa...	231	15.092	15.092	0.996	155960	39.65	ng/uL	99
86)	Di-n-octylphthalate	149	16.575	16.575	1.094	1271645	40.03	ng/uL	98
88)	Benzo(b)fluoranthene	252	17.481	17.481	0.943	686729	42.84	ng/uL	98
89)	Benzo(k)fluoranthene	252	17.551	17.551	0.947	675939	43.38	ng/uL	98
90)	Benzo(a)pyrene	252	18.363	18.363	0.991	573542	43.29	ng/uL	99
91)	Indeno(1,2,3-cd)pyrene	276	21.916	21.916	1.183	342110	39.15	ng/uL	97
92)	Dibenzo(a,h)anthracene	278	22.010	22.010	1.188	341649	38.34	ng/uL	99
93)	Benzo(ghi)perylene	276	22.551	22.551	1.217	327668	34.54	ng/uL	97
94)	Dibenzo(a,e)pyrene	302	26.792	26.792	1.446	145146	30.38	ng/uL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2302.D
Acq On : 23 Jul 2018 15:05
Operator : LOF
InstName : MSDA
Sample : |WBN180618-05.3|CCV|1|SVM|1|M-CCV
Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 23 15:33:24 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Continuing Calibration Summary

Client SDG: 454944

Instrument ID: MSDA.I

Injection Date: 23-JUL-18 15:38

Data File: 072318.s\sAg2303.D

Init. Cal. Date(s) 20-JUN-18 10:16 - 20-JUN-18 23:15

Lab Sample ID WBN180606-15.2

Method: 072318.s\MSDA_8270d_8270c_062018.m

Quant Type ISTD

Method Update: 21-JUN-18 08:48

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Benzaldehyde	0.9172	0.94079		.01		2.57196	20		Averaged
Acetophenone	1.8456	1.70615		.01		-7.55581	20		Averaged
Caprolactam	0.0907	0.08418		.01		-7.18853	20		Averaged
1,2,4,5-Tetrachlorobenzene	0.7166	0.67362		.01		-5.99777	20		Averaged
1,1'-Biphenyl	1.6992	1.61843		.01		-4.75341	20		Averaged
Atrazine	0.2231	0.2114		.01		-5.24429	20		Averaged

Quantitation Report
GEL Laboratories, LLC

07/23/2018

07/24/2018

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2303.D
Acq On : 23 Jul 2018 15:38
Operator : LOF
InstName : MSDA
Sample : |WBN180606-15.2|CCV|1|SVM|1|A-CCV
Misc : |MIX[B]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 23 16:01:20 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.646	5.646	1.000	414595	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.416	7.416	1.000	1540226	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.728	9.728	1.000	792065	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.610	11.610	1.000	1415340	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.139	15.139	1.000	697104	40.00	ng/uL	0.00
87) A Perylene-d12	264	18.510	18.510	1.000	342059	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.646	5.646	1.000	414595	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.416	7.416	1.000	1540226	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.728	9.728	1.000	792065	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.610	11.610	1.000	1415340	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.139	15.139	1.000	697104	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.510	18.510	1.000	342059	40.00	ng/uL	0.00
150) J Phenanthrene-d10	188	11.610	11.610	1.000	1415340	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.139	15.139	1.000	697104	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.416	7.416	1.000	1540226	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.728	9.728	1.000	792065	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.610	11.610	1.000	1415340	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.139	15.139	1.000	697104	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.416	7.416	1.000	1540226	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.510	18.510	1.000	342059	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.946	0.000	0	0.00	ng/uL	
7) Phenol-d5	99	0.000	5.116	0.000	0	0.00	ng/uL	
22) Nitrobenzene-d5	82	0.000	6.434	0.000	0	0.00	ng/uL	
43) 2-Fluorobiphenyl	172	0.000	8.863	0.000	0	0.00	ng/uL	
62) 2,4,6-Tribromophenol	330	0.000	10.734	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	13.592	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
96) 1,4-Dioxane	88	2.317	2.317	0.410	187996	38.86	ng/uL	99
97) Methyl methacrylate	100	2.317	2.317	0.410	88095	36.89	ng/uL#	75
98) Ethyl methacrylate	69	2.987	2.987	0.529	402159	37.48	ng/uL	98
99) 2-Picoline	93	3.334	3.334	0.591	544261	37.62	ng/uL	99
100) N-Nitrosomethylethylamine	88	3.440	3.440	0.609	211306	36.53	ng/uL	99
101) Methyl methanesulfonate	80	3.775	3.775	0.669	242015	38.22	ng/uL	99
102) N-Nitrosodiethylamine	102	4.240	4.240	0.751	234725	37.91	ng/uL	97
103) 2-Butoxyethanol	57	4.311	4.311	0.764	569334	34.13	ng/uL	99
104) Ethyl methanesulfonate	79	4.605	4.605	0.816	372745	37.89	ng/uL	99
105) Benzaldehyde	77	5.052	5.052	0.895	390046	41.03	ng/uL	99
106) Pentachloroethane	167	5.258	5.258	0.931	222536	38.39	ng/uL	100
107) N-Nitrosopyrrolidine	100	6.193	6.193	1.097	250725	38.48	ng/uL	97
108) Acetophenone	105	6.216	6.216	1.101	707361	36.98	ng/uL	100
109) N-Nitrosomorpholine	56	6.246	6.246	1.106	315315	37.74	ng/uL	99
110) o-Toluidine	106	6.263	6.263	1.109	802741	37.99	ng/uL	100
112) N-Nitrosopiperidine	114	6.663	6.663	0.898	250176	36.88	ng/uL	98
113) a,a-Dimethylphenethyla...	58	7.181	7.181	0.968	1536971	36.90	ng/uL	98

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2303.D
Acq On : 23 Jul 2018 15:38
Operator : LOF
InstName : MSDA
Sample : |WBN180606-15.2|CCV|1|SVM|1|A-CCV
Misc : |MIX[B]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 23 16:01:20 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
114)	2,6-Dichlorophenol	162	7.528	7.528	1.015	408897	37.80	ng/uL	100
115)	Hexachloropropene	213	7.563	7.563	1.020	253342	47.89	ng/uL	100
116)	Caprolactam	113	7.999	7.999	1.079	129663	37.11	ng/uL#	1
117)	N-Nitrosodi-n-butylamine	84	7.981	7.981	1.076	438790	39.76	ng/uL	98
118)	Safrole	162	8.263	8.263	1.114	414625	37.79	ng/uL	99
120)	1,2,4,5-Tetrachloroben...	216	8.593	8.593	0.883	533554	37.60	ng/uL	99
121)	1,1-Biphenyl	154	8.993	8.993	0.924	1281903	38.10	ng/uL	100
122)	Isosafrole	162	8.946	8.946	0.920	416781	37.10	ng/uL	100
123)	1,4-Naphthoquinone	158	9.246	9.246	0.950	369784	38.03	ng/uL	99
124)	Pentachlorobenzene	250	9.934	9.934	1.021	462987	37.73	ng/uL	99
125)	1-Naphthylamine	143	10.093	10.093	1.037	985407	43.12	ng/uL	99
126)	2-Naphthylamine	143	10.193	10.193	1.048	953590	40.52	ng/uL	100
127)	5-Nitro-o-toluidine	152	10.440	10.440	1.073	266978	38.35	ng/uL	99
129)	1,3,5-Trinitrobenzene	75	10.898	10.898	0.939	166670	35.57	ng/uL	99
130)	Phenacetin	108	10.969	10.969	0.945	409548	35.73	ng/uL	98
131)	Diallate	86	10.928	10.928	0.941	391910	38.41	ng/uL	96
132)	Cis Diallate	86	11.045	11.045	0.951	64106	5.63	ng/uL	97
133)	Trans Diallate	86	10.928	10.928	0.941	391910	32.65	ng/uL	96
134)	Atrazine	200	11.251	11.251	0.969	299196	37.90	ng/uL	100
135)	4-Aminobiphenyl	169	11.369	11.369	0.979	942266	40.85	ng/uL	99
136)	Pentachloronitrobenzene	237	11.375	11.375	0.980	131197	38.62	ng/uL	99
137)	Pronamide	173	11.440	11.440	0.985	489710	38.33	ng/uL	100
138)	4-Nitroquinoline-1-oxide	190	12.598	12.598	1.085	32909	25.05	ng/uL#	75
139)	Methapyrilene	97	12.687	12.687	1.093	413524	38.60	ng/uL	100
140)	Isodrin	193	12.928	12.928	1.113	174988	36.82	ng/uL	99
142)	Aramite	185	13.557	13.557	0.895	80494	47.37	ng/uL	97
143)	Kepone	272	14.286	14.286	0.944	36878	14.05	ng/uL	93
144)	p-(Dimethylamino)azobe...	225	13.763	13.763	0.909	232467	42.85	ng/uL	98
145)	Chlorobenzilate	251	13.822	13.822	0.913	361075	43.76	ng/uL	97
146)	2-Acetylaminofluorene	181	14.586	14.586	0.963	199096	35.19	ng/uL	99
148)	7,12-Dimethylbenz(a)an...	256	17.451	17.451	0.943	250158	43.84	ng/uL	100
149)	3-Methylcholanthrene	269	19.422	19.422	1.049	37266	37.06	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2303.D
Acq On    : 23 Jul 2018  15:38
Operator  : LOF
InstName  : MSDA
Sample    : |WBN180606-15.2|CCV|1|SVM|1|A-CCV
Misc      : |MIX[B]
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Jul 23 16:01:20 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title  : BNA01                                        SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE
```

Continuing Calibration Summary

Client SDG: 454944

Instrument ID: MSDA.I

Injection Date: 23-JUL-18 16:05

Data File: 072318.s\sAg2304.D

Init. Cal. Date(s) 20-JUN-18 10:16 - 20-JUN-18 23:15

Lab Sample ID WBN180518-45.2

Method: 072318.s\MSDA_8270d_8270c_062018.m

Quant Type ISTD

Method Update: 21-JUN-18 08:48

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
3,3'-Dichlorobenzidine	0.3227	0.33821		.01		4.80632	20		Averaged

Quantitation Report
GEL Laboratories, LLC

07/23/2018

07/24/2018

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2304.D
Acq On : 23 Jul 2018 16:05
Operator : LOF
InstName : MSDA
Sample : |WBN180518-45.2|CCV|1|SVM|1|B-CCV
Misc : |MIX[J]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 23 17:06:12 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.646	5.646	1.000	428312	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.416	7.416	1.000	1562519	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.728	9.728	1.000	804251	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.604	11.604	1.000	1464632	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.139	15.139	1.000	782945	40.00	ng/uL	0.00
87) A Perylene-d12	264	18.516	18.516	1.000	434327	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.646	5.646	1.000	428312	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.416	7.416	1.000	1562519	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.728	9.728	1.000	804251	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.604	11.604	1.000	1464632	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.139	15.139	1.000	782945	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.516	18.516	1.000	434327	40.00	ng/uL	0.00
150) J Phenanthrene-d10	188	11.604	11.604	1.000	1464632	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.139	15.139	1.000	782945	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.416	7.416	1.000	1562519	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.728	9.728	1.000	804251	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.604	11.604	1.000	1464632	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.139	15.139	1.000	782945	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.416	7.416	1.000	1562519	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.516	18.516	1.000	434327	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.946	0.000	0	0.00	ng/uL	
7) Phenol-d5	99	0.000	5.116	0.000	0	0.00	ng/uL	
22) Nitrobenzene-d5	82	0.000	6.434	0.000	0	0.00	ng/uL	
43) 2-Fluorobiphenyl	172	0.000	8.863	0.000	0	0.00	ng/uL	
62) 2,4,6-Tribromophenol	330	0.000	10.734	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	13.592	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
151) Benzidine	184	13.281	13.281	1.144	528763	38.98	ng/uL	98
153) 3,3'-Dimethylbenzidine	212	14.216	14.216	0.939	662422	42.74	ng/uL	100
154) 3,3'-Dichlorobenzidine	252	15.075	15.075	0.996	264797	41.92	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2304.D
Acq On    : 23 Jul 2018  16:05
Operator  : LOF
InstName  : MSDA
Sample    : |WBN180518-45.2|CCV|1|SVM|1|B-CCV
Misc      : |MIX[J]
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Jul 23 17:06:12 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title  : BNA01                                        SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE
```

Continuing Calibration Summary

Client SDG: 454944

Instrument ID: MSDA.I **Injection Date:** 24-JUL-18 23:26

Data File: 072418.s\sAg2412.D **Init. Cal. Date(s)** 20-JUN-18 10:16 - 20-JUN-18 23:15

Lab Sample ID WBN180722-05 **Method:** 072418.s\MSDA_8270d_8270c_062018.m

Quant Type ISTD **Method Update:** 21-JUN-18 08:48

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	2-Fluorophenol	1.2267	1.13631		.01		-7.36855	20		Averaged
S	Phenol-d5	1.4768	1.41305		.01		-4.31677	20		Averaged
S	Nitrobenzene-d5	0.35	0.3483		.01		-0.48571	20		Averaged
S	2-Fluorobiphenyl	1.579	1.55133		.01		-1.75237	20		Averaged
S	2,4,6-Tribromophenol	0.2048	0.20713		.01		1.1377	20		Averaged
S	p-Terphenyl-d14	1.2378	1.11213		.01		-10.15269	20		Averaged
	Phenol	1.5506	1.47385		.8		-4.9497	20		Averaged
	bis(2-Chloroethyl) ether	1.271	1.21756		.7		-4.20456	20		Averaged
	2-Chlorophenol	1.3919	1.33516		.8		-4.07644	20		Averaged
	o-Cresol	1.0819	1.00377		.7		-7.22155	20		Averaged
	bis(2-Chloro-1-methylethyl)eth	2.2693	2.07031		.01		-8.76878	20		Averaged
	m,p-Cresols	1.4338	1.30144		.6		-9.23141	20		Averaged
	N-Nitrosodipropylamine	0.9272	0.94107		.5		1.4959	20		Averaged
	Hexachloroethane	0.583	0.56846		.3		-2.494	20		Averaged
	Nitrobenzene	0.3456	0.34075		.2		-1.40336	20		Averaged
	Isophorone	0.6641	0.63707		.4		-4.07017	20		Averaged
	2-Nitrophenol	0.1845	0.18741		.1		1.57724	20		Averaged
	2,4-Dimethylphenol	0.3177	0.30363		.2		-4.42871	20		Averaged
	bis(2-Chloroethoxy)methane	0.4239	0.41369		.3		-2.40859	20		Averaged
	2,4-Dichlorophenol	0.3017	0.30504		.2		1.10706	20		Averaged
	Naphthalene	1.1004	1.03066		.7		-6.3377	20		Averaged
	4-Chloroaniline	0.4162	0.42501		.01		2.11677	20		Averaged
	Hexachlorobutadiene	0.1904	0.19994		.01		5.0105	20		Averaged
	4-Chloro-3-methylphenol	0.2987	0.28438		.2		-4.79411	20		Averaged
	2-Methylnaphthalene	0.7418	0.74454		.4		0.36937	20		Averaged
	Hexachlorocyclopentadiene	0.2768	0.32317		.05		16.75217	20		Averaged
	2,4,6-Trichlorophenol	0.4149	0.42474		.2		2.37166	20		Averaged
	2,4,5-Trichlorophenol	0.4411	0.4479		.2		1.5416	20		Averaged
	2-Chloronaphthalene	1.3513	1.29003		.8		-4.53415	20		Averaged
	o-Nitroaniline	0.3586	0.36255		.01		1.10151	20		Averaged
	Dimethylphthalate	1.5981	1.49926		.01		-6.18484	20		Averaged
	2,6-Dinitrotoluene	0.3433	0.33179		.2		-3.35275	20		Averaged
	Acenaphthylene	2.1287	2.04108		.9		-4.11613	20		Averaged
	m-Nitroaniline	0.3127	0.31668		.01		1.27279	20		Averaged
	Acenaphthene	1.2644	1.16728		.9		-7.68111	20		Averaged
	2,4-Dinitrophenol	40	38.56	40			-3.6	20		Linear
	4-Nitrophenol	0.1977	0.1942		.05		-1.77036	20		Averaged

Continuing Calibration Summary

Instrument ID: MSDA.I **Injection Date:** 24-JUL-18 23:26

Data File: 072418.s\sAg2412.D **Init. Cal. Date(s)** 20-JUN-18 10:16 20-JUN-18 23:15

Lab Sample ID WBN180722-05 **Method:** 072418.s\MSDA_8270d_8270c_062018.m

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
2,4-Dinitrotoluene	0.4305	0.4162		.2		-3.32172	20		Averaged
Dibenzofuran	1.835	1.90023		.8		3.55477	20		Averaged
2,3,4,6-Tetrachlorophenol	0.3456	0.35831		.01		3.67766	20		Averaged
Diethylphthalate	1.574	1.43386		.01		-8.90343	20		Averaged
4-Chlorophenylphenylether	0.691	0.69899		.4		1.1563	20		Averaged
Fluorene	1.4719	1.38645		.9		-5.80542	20		Averaged
p-Nitroaniline	0.2483	0.25519		.01		2.77487	20		Averaged
2-Methyl-4,6-dinitrophenol	40	40.47	40			1.175	20		Linear
Diphenylamine	0.6704	0.69806		.01		4.12589	20		Averaged
4-Bromophenylphenylether	0.2335	0.24005		.1		2.80514	20		Averaged
Hexachlorobenzene	0.257	0.26143		.1		1.72374	20		Averaged
Pentachlorophenol	0.1217	0.11315		.05		-7.02547	20		Averaged
Phenanthrene	1.1442	1.07251		.7		-6.26551	20		Averaged
Anthracene	1.1541	1.0879		.7		-5.73607	20		Averaged
Carbazole	0.8588	0.8685		.01		1.12948	20		Averaged
Di-n-butylphthalate	1.3345	1.24618		.01		-6.61821	20		Averaged
Fluoranthene	1.0355	1.08066		.6		4.36118	20		Averaged
Pyrene	1.9072	1.6793		.6		-11.94945	20		Averaged
Butylbenzylphthalate	0.7864	0.72388		.01		-7.95015	20		Averaged
Benzo(a)anthracene	1.2672	1.19635		.8		-5.59107	20		Averaged
bis(2-Ethylhexyl)phthalate	1.1693	1.01531		.01		-13.16942	20		Averaged
Chrysene	1.1525	1.08425		.7		-5.92191	20		Averaged
Di-n-octylphthalate	40	35.16	40			-12.1	20		Linear
Benzo(b)fluoranthene	1.3117	1.25418		.7		-4.38515	20		Averaged
Benzo(k)fluoranthene	1.2751	1.23226		.7		-3.35974	20		Averaged
Benzo(a)pyrene	1.0843	1.06153		.7		-2.09997	20		Averaged
Indeno(1,2,3-cd)pyrene	0.7151	0.70646		.5		-1.20822	20		Averaged
Dibenzo(a,h)anthracene	0.7291	0.71224		.4		-2.31244	20		Averaged
Benzo(ghi)perylene	0.7764	0.73251		.5		-5.65301	20		Averaged

Quantitation Report
GEL Laboratories, LLC

07/25/2018

07/25/2018

Data Path : D:\MSDChem\1\data\072418.s\
Data File : sAg2412.D
Acq On : 24 Jul 2018 23:26
Operator : JLD1
InstName : MSDA
Sample : |WBN180722-05|CCV|1|SVM|1|M-CCV
Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 25 00:22:44 2018
Quant Method : D:\MSDChem\1\data\072418.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.611	5.611	1.000	495231	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.387	7.381	1.000	1794587	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.704	9.693	1.000	887583	40.00	ng/uL	0.01
63) A Phenanthrene-d10	188	11.581	11.575	1.000	1558651	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.104	15.092	1.000	1007257	40.00	ng/uL	0.01
87) A Perylene-d12	264	18.451	18.433	1.000	633024	40.00	ng/uL	0.02
95) B 1,4-Dichlorobenzene-d4	152	5.611	5.611	1.000	495231	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.387	7.381	1.000	1794587	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.704	9.693	1.000	887583	40.00	ng/uL	0.01
128) B Phenanthrene-d10	188	11.581	11.575	1.000	1558651	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.104	15.092	1.000	1007257	40.00	ng/uL	0.01
147) B Perylene-d12	264	18.451	18.433	1.000	633024	40.00	ng/uL	0.02
150) J Phenanthrene-d10	188	11.581	11.575	1.000	1558651	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.104	15.092	1.000	1007257	40.00	ng/uL	0.01
155) D Naphthalene-d8	136	7.387	7.381	1.000	1794587	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.704	9.693	1.000	887583	40.00	ng/uL	0.01
160) D Phenanthrene-d10	188	11.581	11.575	1.000	1558651	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.104	15.092	1.000	1007257	40.00	ng/uL	0.01
169) E Naphthalene-d8	136	7.387	7.381	1.000	1794587	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.451	18.433	1.000	633024	40.00	ng/uL	0.02
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.911	3.911	0.697	562736	37.05	ng/uL	0.00
7) Phenol-d5	99	5.081	5.081	0.906	699787	38.27	ng/uL	0.00
22) Nitrobenzene-d5	82	6.405	6.399	0.867	625050	39.81	ng/uL	0.00
43) 2-Fluorobiphenyl	172	8.828	8.822	0.910	1376938	39.30	ng/uL	0.00
62) 2,4,6-Tribromophenol	330	10.704	10.698	1.103	183847	40.46	ng/uL	0.00
79) p-Terphenyl-d14	244	13.563	13.557	0.898	1120198	35.94	ng/uL	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	2.287	2.287	0.408	359504	39.59	ng/uL	93
3) N-Methyl-N-nitrosometh...	74	2.564	2.564	0.457	375126	42.72	ng/uL	98
4) Pyridine	79	2.599	2.599	0.463	652107	42.43	ng/uL	94
6) Aniline	93	5.164	5.158	0.920	1001398	41.19	ng/uL	100
8) Phenol	94	5.099	5.099	0.909	729898	38.02	ng/uL	98
9) bis(2-Chloroethyl) ether	93	5.240	5.240	0.934	602975	38.32	ng/uL	99
10) 2-Chlorophenol	128	5.316	5.316	0.948	661215	38.37	ng/uL	99
11) n-Decane	43	5.369	5.369	0.957	844213	38.40	ng/uL	96
12) 1,3-Dichlorobenzene	146	5.534	5.534	0.986	807578	41.18	ng/uL	100
13) 1,4-Dichlorobenzene	146	5.640	5.634	1.005	813029	40.76	ng/uL	100
14) 1,2-Dichlorobenzene	146	5.852	5.846	1.043	775930	41.16	ng/uL	100
15) bis(2-Chloro-1-methyle...	45	5.999	5.999	1.069	1025284	36.49	ng/uL	97
16) Benzyl alcohol	108	5.805	5.805	1.035	421368	40.14	ng/uL	97
17) o-Cresol	107	5.952	5.952	1.061	497100	37.11	ng/uL	99
18) m,p-Cresols	107	6.187	6.181	1.103	644514	36.31	ng/uL	99
19) N-Nitrosodipropylamine	70	6.199	6.193	1.105	466045	40.60	ng/uL	93
20) Hexachloroethane	117	6.322	6.322	1.127	281517	39.00	ng/uL	93

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\072418.s\
Data File : sAg2412.D
Acq On : 24 Jul 2018 23:26
Operator : JLD1
InstName : MSDA
Sample : |WBN180722-05|CCV|1|SVM|1|M-CCV
Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 25 00:22:44 2018
Quant Method : D:\MSDChem\1\data\072418.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
23)	Nitrobenzene	77	6.428	6.428	0.870	611502	39.44	ng/uL	100
24)	Isophorone	82	6.763	6.757	0.916	1143278	38.37	ng/uL	100
25)	2-Nitrophenol	139	6.863	6.863	0.929	336329	40.64	ng/uL	97
26)	2,4-Dimethylphenol	122	6.922	6.922	0.937	544883	38.23	ng/uL	99
27)	bis(2-Chloroethoxy)met...	93	7.063	7.057	0.956	742395	39.03	ng/uL	99
28)	2,4-Dichlorophenol	162	7.199	7.193	0.975	547421	40.45	ng/uL	99
29)	Benzoic acid	105	7.140	7.081	0.967	381768	49.24	ng/uL	96
30)	1,2,4-Trichlorobenzene	180	7.311	7.304	0.990	649137	42.85	ng/uL	99
31)	alpha-Terpineol	59	7.434	7.434	1.006	631826	40.34	ng/uL	98
32)	Naphthalene	128	7.416	7.416	1.004	1849613	37.46	ng/uL	100
33)	4-Chloroaniline	127	7.499	7.493	1.015	762726	40.85	ng/uL	99
34)	Hexachlorobutadiene	225	7.581	7.581	1.026	358815	42.00	ng/uL	100
35)	4-Chloro-3-methylphenol	107	8.140	8.140	1.102	510345	38.08	ng/uL	97
36)	2-Methylnaphthalene	142	8.346	8.346	1.130	1336135	40.15	ng/uL	99
37)	1-Methylnaphthalene	142	8.475	8.475	1.147	1245249	39.72	ng/uL	100
39)	Hexachlorocyclopentadiene	237	8.546	8.546	0.881	286843	46.70	ng/uL	100
40)	2,3-Dichloroaniline	161	8.716	8.716	0.898	661233	42.36	ng/uL	99
41)	2,4,6-Trichlorophenol	196	8.716	8.716	0.898	376995	40.95	ng/uL	99
42)	2,4,5-Trichlorophenol	196	8.763	8.757	0.903	397551	40.62	ng/uL	99
44)	2-Chloronaphthalene	162	8.987	8.981	0.926	1145011	38.19	ng/uL	99
45)	o-Nitroaniline	65	9.122	9.122	0.940	321793	40.44	ng/uL	97
46)	1,4-Dinitrobenzene	168	9.310	9.304	0.959	188593	43.50	ng/uL	92
47)	m-Nitroaniline	138	9.657	9.651	0.995	281084	40.51	ng/uL	99
48)	Dimethylphthalate	163	9.369	9.363	0.965	1330717	37.53	ng/uL	100
49)	m-Dinitrobenzene	168	9.405	9.398	0.969	205732	42.11	ng/uL	91
50)	2,6-Dinitrotoluene	165	9.440	9.440	0.973	294488	38.66	ng/uL	96
51)	2,4-Dinitrotoluene	165	9.952	9.945	1.025	369414	38.67	ng/uL	90
52)	Acenaphthylene	152	9.522	9.522	0.981	1811631	38.35	ng/uL	100
53)	Acenaphthene	154	9.746	9.746	1.004	1036060	36.93	ng/uL	99
54)	2,4-Dinitrophenol	184	9.781	9.781	1.008	91486	38.56	ng/uL	96
55)	Dibenzofuran	168	9.963	9.963	1.027	1686613	41.42	ng/uL	98
56)	2,3,4,6-Tetrachlorophenol	232	10.116	10.110	1.042	318031	41.47	ng/uL	96
57)	Diethylphthalate	149	10.257	10.251	1.057	1272668	36.44	ng/uL	99
58)	4-Nitrophenol	139	9.869	9.863	1.017	172373	39.28	ng/uL	97
59)	Fluorene	166	10.399	10.398	1.072	1230587	37.68	ng/uL	100
60)	4-Chlorophenylphenylether	204	10.399	10.393	1.072	620411	40.46	ng/uL	96
61)	p-Nitroaniline	138	10.434	10.428	1.075	226506	41.10	ng/uL	95
64)	2-Methyl-4,6-dinitroph...	198	10.463	10.463	0.903	152995	40.47	ng/uL	92
65)	Diphenylamine	169	10.552	10.545	0.911	1088035	41.65	ng/uL	100
66)	1,2-Diphenylhydrazine	77	10.599	10.598	0.915	1190026	40.10	ng/uL	98
67)	4-Bromophenylphenylether	248	11.016	11.010	0.951	374161	41.13	ng/uL	96
68)	Hexachlorobenzene	284	11.087	11.081	0.957	407477	40.69	ng/uL	99
69)	Pentachlorophenol	266	11.334	11.328	0.979	176364	37.18	ng/uL	99
70)	n-Octadecane	57	11.428	11.428	0.987	1071482	39.32	ng/uL	97
71)	Dinoseb	211	11.557	11.557	0.998	233791	47.14	ng/uL	95
72)	Phenanthrene	178	11.610	11.610	1.003	1671670	37.49	ng/uL	100
73)	Anthracene	178	11.675	11.675	1.008	1695663	37.70	ng/uL	100
74)	Carbazole	167	11.875	11.869	1.025	1353685	40.45	ng/uL	100
75)	Di-n-butylphthalate	149	12.298	12.298	1.062	1942358	37.35	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\072418.s\
Data File : sAg2412.D
Acq On : 24 Jul 2018 23:26
Operator : JLD1
InstName : MSDA
Sample : |WBN180722-05|CCV|1|SVM|1|M-CCV
Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 25 00:22:44 2018
Quant Method : D:\MSDChem\1\data\072418.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
76)	Fluoranthene	202	13.093	13.092	1.131	1684378	41.74	ng/uL	99
78)	Pyrene	202	13.375	13.375	0.886	1691484	35.22	ng/uL	99
80)	Butylbenzylphthalate	149	14.198	14.198	0.940	729138	36.82	ng/uL	98
81)	bis(2-Ethylhexyl)phtha...	149	15.122	15.122	1.001	1022681	34.73	ng/uL	99
82)	Benzo(a)anthracene	228	15.087	15.081	0.999	1205035	37.76	ng/uL	100
83)	Chrysene	228	15.151	15.151	1.003	1092119	37.63	ng/uL	99
84)	Methoxychlor	227	14.969	14.963	0.991	876603	41.77	ng/uL	99
85)	Methylenebis(2-chloroa...	231	15.045	15.045	0.996	177333	37.06	ng/uL	99
86)	Di-n-octylphthalate	149	16.510	16.510	1.093	1356982	35.16	ng/uL	98
88)	Benzo(b)fluoranthene	252	17.404	17.404	0.943	793927	38.25	ng/uL	98
89)	Benzo(k)fluoranthene	252	17.481	17.480	0.947	780048	38.66	ng/uL	98
90)	Benzo(a)pyrene	252	18.281	18.280	0.991	671974	39.16	ng/uL	98
91)	Indeno(1,2,3-cd)pyrene	276	21.839	21.839	1.184	447207	39.52	ng/uL	99
92)	Dibenzo(a,h)anthracene	278	21.933	21.927	1.189	450863	39.07	ng/uL	100
93)	Benzo(ghi)perylene	276	22.480	22.480	1.218	463698	37.74	ng/uL	99
94)	Dibenzo(a,e)pyrene	302	26.680	26.686	1.446	270831	43.78	ng/uL	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\072418.s\
Data File : sAg2412.D
Acq On : 24 Jul 2018 23:26
Operator : JLD1
InstName : MSDA
Sample : |WBN180722-05|CCV|1|SVM|1|M-CCV
Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 25 00:22:44 2018
Quant Method : D:\MSDChem\1\data\072418.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Continuing Calibration Summary

Client SDG: 454944

Instrument ID: MSDA.I

Injection Date: 24-JUL-18 23:59

Data File: 072418.s\sAg2413.D

Init. Cal. Date(s) 20-JUN-18 10:16 - 20-JUN-18 23:15

Lab Sample ID WBN180709-15.2

Method: 072418.s\MSDA_8270d_8270c_062018.m

Quant Type ISTD

Method Update: 21-JUN-18 08:48

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Benzaldehyde	0.9172	0.93317		.01		1.74117	20		Averaged
Acetophenone	1.8456	1.74521		.01		-5.43942	20		Averaged
Caprolactam	0.0907	0.08253		.01		-9.00772	20		Averaged
1,2,4,5-Tetrachlorobenzene	0.7166	0.72268		.01		0.84845	20		Averaged
1,1'-Biphenyl	1.6992	1.70886		.01		0.5685	20		Averaged
Atrazine	0.2231	0.20918		.01		-6.23935	20		Averaged

Quantitation Report
GEL Laboratories, LLC

07/25/2018

07/25/2018

Data Path : D:\MSDChem\1\data\072418.s\
Data File : sAg2413.D
Acq On : 24 Jul 2018 23:59
Operator : JLD1
InstName : MSDA
Sample : |WBN180709-15.2|CCV|1|SVM|1|A-CCV
Misc : |MIX[B]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 25 00:24:35 2018
Quant Method : D:\MSDChem\1\data\072418.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.611	5.611	1.000	492326	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.387	7.381	1.000	1733613	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.699	9.693	1.000	828865	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.575	11.575	1.000	1440588	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.092	15.092	1.000	799051	40.00	ng/uL	0.00
87) A Perylene-d12	264	18.433	18.433	1.000	474311	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.611	5.611	1.000	492326	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.387	7.381	1.000	1733613	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.699	9.693	1.000	828865	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.575	11.575	1.000	1440588	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.092	15.092	1.000	799051	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.433	18.433	1.000	474311	40.00	ng/uL	0.00
150) J Phenanthrene-d10	188	11.575	11.575	1.000	1440588	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.092	15.092	1.000	799051	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.387	7.381	1.000	1733613	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.699	9.693	1.000	828865	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.575	11.575	1.000	1440588	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.092	15.092	1.000	799051	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.387	7.381	1.000	1733613	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.433	18.433	1.000	474311	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.911	0.000	0	0.00	ng/uL	
7) Phenol-d5	99	0.000	5.081	0.000	0	0.00	ng/uL	
22) Nitrobenzene-d5	82	0.000	6.399	0.000	0d	0.00	ng/uL	
43) 2-Fluorobiphenyl	172	0.000	8.822	0.000	0d	0.00	ng/uL	
62) 2,4,6-Tribromophenol	330	0.000	10.698	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	13.557	0.000	0d	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
96) 1,4-Dioxane	88	2.287	2.281	0.408	236130	41.11	ng/uL	100
97) Methyl methacrylate	100	2.287	2.281	0.408	111349	39.27	ng/uL#	75
98) Ethyl methacrylate	69	2.958	2.952	0.527	507382	39.82	ng/uL	97
99) 2-Picoline	93	3.299	3.299	0.588	673179	39.19	ng/uL	99
100) N-Nitrosomethylethylamine	88	3.411	3.411	0.608	264085	38.45	ng/uL	96
101) Methyl methanesulfonate	80	3.746	3.740	0.668	288755	38.40	ng/uL	99
102) N-Nitrosodiethylamine	102	4.211	4.205	0.750	287489	39.10	ng/uL	96
103) 2-Butoxyethanol	57	4.281	4.281	0.763	665709	33.61	ng/uL	99
104) Ethyl methanesulfonate	79	4.575	4.575	0.815	447746	38.33	ng/uL	100
105) Benzaldehyde	77	5.016	5.016	0.894	459426	40.70	ng/uL	100
106) Pentachloroethane	167	5.216	5.216	0.930	274805	39.92	ng/uL	99
107) N-Nitrosopyrrolidine	100	6.163	6.163	1.099	299844	38.75	ng/uL	96
108) Acetophenone	105	6.181	6.181	1.102	859214	37.82	ng/uL	99
109) N-Nitrosomorpholine	56	6.216	6.216	1.108	368899	37.18	ng/uL	99
110) o-Toluidine	106	6.234	6.234	1.111	944745	37.65	ng/uL	100
112) N-Nitrosopiperidine	114	6.634	6.634	0.898	295041	38.64	ng/uL	96
113) a,a-Dimethylphenethyla...	58	7.146	7.146	0.967	1693267	36.12	ng/uL	98

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\072418.s\
Data File : sAg2413.D
Acq On : 24 Jul 2018 23:59
Operator : JLD1
InstName : MSDA
Sample : |WBN180709-15.2|CCV|1|SVM|1|A-CCV
Misc : |MIX[B]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 25 00:24:35 2018
Quant Method : D:\MSDChem\1\data\072418.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
114)	2,6-Dichlorophenol	162	7.499	7.499	1.015	462889	38.02	ng/uL	100
115)	Hexachloropropene	213	7.528	7.528	1.019	248431	41.72	ng/uL	100
116)	Caprolactam	113	7.969	7.963	1.079	143068	36.38	ng/uL#	8
117)	N-Nitrosodi-n-butylamine	84	7.952	7.952	1.076	471764	37.98	ng/uL	93
118)	Safrole	162	8.228	8.228	1.114	470094	38.06	ng/uL	100
120)	1,2,4,5-Tetrachloroben...	216	8.563	8.557	0.883	599008	40.34	ng/uL	99
121)	1,1-Biphenyl	154	8.957	8.957	0.924	1416414	40.23	ng/uL	100
122)	Isosafrole	162	8.910	8.910	0.919	464047	39.48	ng/uL	100
123)	1,4-Naphthoquinone	158	9.216	9.216	0.950	390494	38.38	ng/uL	100
124)	Pentachlorobenzene	250	9.904	9.904	1.021	501021	39.02	ng/uL	100
125)	1-Naphthylamine	143	10.057	10.057	1.037	1019440	42.63	ng/uL	100
126)	2-Naphthylamine	143	10.163	10.157	1.048	980554	39.81	ng/uL	100
127)	5-Nitro-o-toluidine	152	10.410	10.410	1.073	274546	37.69	ng/uL	99
129)	1,3,5-Trinitrobenzene	75	10.869	10.869	0.939	182702	38.31	ng/uL	97
130)	Phenacetin	108	10.940	10.934	0.945	415885	35.65	ng/uL	98
131)	Diallate	86	10.899	10.899	0.942	403584	38.86	ng/uL	94
132)	Cis Diallate	86	11.010	11.010	0.951	66308	5.72	ng/uL	98
133)	Trans Diallate	86	10.899	10.899	0.942	403584	33.03	ng/uL	94
134)	Atrazine	200	11.216	11.216	0.969	301348	37.50	ng/uL	99
135)	4-Aminobiphenyl	169	11.340	11.340	0.980	981891	41.82	ng/uL	99
136)	Pentachloronitrobenzene	237	11.340	11.340	0.980	136304	39.42	ng/uL	99
137)	Pronamide	173	11.410	11.404	0.986	501775	38.59	ng/uL	100
138)	4-Nitroquinoline-1-oxide	190	12.569	12.569	1.086	37914	27.54	ng/uL#	72
139)	Methapyrilene	97	12.657	12.657	1.094	404339	37.08	ng/uL	100
140)	Isodrin	193	12.898	12.898	1.114	183816	38.00	ng/uL	100
142)	Aramite	185	13.528	13.528	0.896	82844	42.54	ng/uL	97
143)	Kepone	272	14.251	14.251	0.944	96645	32.13	ng/uL	99
144)	p-(Dimethylamino)azobe...	225	13.734	13.734	0.910	247546	39.81	ng/uL	99
145)	Chlorobenzilate	251	13.787	13.787	0.913	365786	38.68	ng/uL	97
146)	2-Acetylaminofluorene	181	14.551	14.551	0.964	247632	38.18	ng/uL	99
148)	7,12-Dimethylbenz(a)an...	256	17.381	17.381	0.943	309154	39.07	ng/uL	100
149)	3-Methylcholanthrene	269	19.339	19.339	1.049	53120	38.10	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : D:\MSDChem\1\data\072418.s\
Data File : sAg2413.D
Acq On    : 24 Jul 2018  23:59
Operator  : JLD1
InstName  : MSDA
Sample    : |WBN180709-15.2|CCV|1|SVM|1|A-CCV
Misc      : |MIX[B]
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Jul 25 00:24:35 2018
Quant Method : D:\MSDChem\1\data\072418.s\MSDA_8270d_8270c_062018.m
Quant Title  : BNA01                                        SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE
```

Continuing Calibration Summary

Client SDG: 454944

Instrument ID: MSDA.I

Injection Date: 25-JUL-18 00:27

Data File: 072418.s\sAg2414.D

Init. Cal. Date(s) 20-JUN-18 10:16 - 20-JUN-18 23:15

Lab Sample ID WBN180518-45.2

Method: 072418.s\MSDA_8270d_8270c_062018.m

Quant Type ISTD

Method Update: 21-JUN-18 08:48

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
3,3'-Dichlorobenzidine	0.3227	0.35582		.01		10.2634	20		Averaged

Quantitation Report
GEL Laboratories, LLC

07/25/2018

07/25/2018

Data Path : D:\MSDChem\1\data\072418.s\
Data File : sAg2414.D
Acq On : 25 Jul 2018 00:27
Operator : JLD1
InstName : MSDA
Sample : |WBN180518-45.2|CCV|1|SVM|1|B-CCV
Misc : |MIX[J]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 25 10:23:51 2018
Quant Method : D:\MSDChem\1\data\072418.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.611	5.611	1.000	406906	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.381	7.381	1.000	1446247	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.693	9.693	1.000	701205	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.575	11.575	1.000	1210048	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.092	15.092	1.000	722732	40.00	ng/uL	0.00
87) A Perylene-d12	264	18.433	18.433	1.000	472218	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.611	5.611	1.000	406906	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.381	7.381	1.000	1446247	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.693	9.693	1.000	701205	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.575	11.575	1.000	1210048	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.092	15.092	1.000	722732	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.433	18.433	1.000	472218	40.00	ng/uL	0.00
150) J Phenanthrene-d10	188	11.575	11.575	1.000	1210048	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.092	15.092	1.000	722732	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.381	7.381	1.000	1446247	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.693	9.693	1.000	701205	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.575	11.575	1.000	1210048	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.092	15.092	1.000	722732	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.381	7.381	1.000	1446247	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.433	18.433	1.000	472218	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.911	0.000	0	0.00	ng/uL	
7) Phenol-d5	99	0.000	5.081	0.000	0	0.00	ng/uL	
22) Nitrobenzene-d5	82	0.000	6.399	0.000	0	0.00	ng/uL	
43) 2-Fluorobiphenyl	172	0.000	8.822	0.000	0	0.00	ng/uL	
62) 2,4,6-Tribromophenol	330	0.000	10.698	0.000	0	0.00	ng/uL	
79) p-Terphenyl-d14	244	0.000	13.557	0.000	0d	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
151) Benzidine	184	13.251	13.281	1.145	482932	42.61	ng/uL	98
153) 3,3'-Dimethylbenzidine	212	14.181	14.216	0.940	618332	43.22	ng/uL	100
154) 3,3'-Dichlorobenzidine	252	15.028	15.075	0.996	257161	44.11	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\072418.s\
Data File : sAg2414.D
Acq On : 25 Jul 2018 00:27
Operator : JLD1
InstName : MSDA
Sample : |WBN180518-45.2|CCV|1|SVM|1|B-CCV
Misc : |MIX[J]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 25 10:23:51 2018
Quant Method : D:\MSDChem\1\data\072418.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Quality Control Data

DFTPP Tune Report
GEL Laboratories, LLC

JMB
06/21/2018

BB
06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2001.D
Acq On : 20 Jun 2018 08:51
Operator : JMB3
Sample : |WBN180611-99|DFTPP|1|SVM|1|DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : D:\MSDChem\1\data\062018.s\BNABrk_Down8270D.m
Title : dftpp / endrin / ddt SubList :
Last Update : Thu Apr 19 08:59:19 2018

AutoFind: Scans 299, 300, 301; Background Corrected with Scan 294

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	44.7	79293	PASS
68	69	0.00	2	1.6	1154	PASS
69	198	0.00	100	39.9	70739	PASS
70	69	0.00	2	0.4	311	PASS
127	198	10	80	49.0	86888	PASS
197	198	0.00	2	0.0	0	PASS
198	198	50	100	100.0	177448	PASS
199	198	5	9	6.7	11828	PASS
275	198	10	60	23.0	40770	PASS
365	198	1	100	2.6	4552	PASS
441	442	0.01	24	17.1	24431	PASS
442	198	50	100	80.7	143187	PASS
443	442	15	24	19.4	27840	PASS

This report evaluates the Rel Abn% as passing only if it is greater than the Lower Limit and lower than the Upper Limit.

Quantitation Report
GEL Laboratories, LLC

JMB
06/21/2018

BB
06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2001.D
Acq On : 20 Jun 2018 08:51
Operator : JMB3
InstName : MSDA
Sample : |WBN180611-99|DFTPP|1|SVM|1|DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 20 09:03:06 2018
Quant Method : D:\MSDChem\1\data\062018.s\BNABrk_Down8270D.m
Quant Title : dftpp / endrin / ddt SubList :
QLast Update : Thu Apr 19 08:59:19 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
Internal Standards								Dev(Min)
1) DFTPP	TIC	7.852	7.858	1.000	1733553	5.00	ug/ml #	0.00
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) DFTPP	TIC	7.852	7.858	1.000	1733553	No Calib	#	
3) Pentachlorophenol	266	7.405	7.405	0.943	106876	3.74	ug/ml	99
4) Benzidine	184	8.946	8.952	1.139	462260	3.81	ug/ml	99
5) DDE	246	9.128	9.128	1.163	1574	7.95	ug/ml	96
6) DDD	235	9.469	9.463	1.206	10397	5.97	ug/ml	96
7) DDT	235	9.769	9.769	1.244	302551	3.93	ug/ml	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2001.D
Acq On : 20 Jun 2018 08:51
Operator : JMB3
InstName : MSDA
Sample : |WBN180611-99|DFTPP|1|SVM|1|DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 20 09:03:06 2018
Quant Method : D:\MSDChem\1\data\062018.s\BNABrk_Down8270D.m
Quant Title : dftpp / endrin / ddt SubList :
QLast Update : Thu Apr 19 08:59:19 2018
Response via : Initial Calibration
Integrator: RTE

#3
Pentachlorophenol
Concen: 3.74 ug/ml
RT: 7.405 min Scan# 224
Delta R.T. -0.000 min
Lab File: sAf2001.D
Acq: 20 Jun 2018 08:51

Tgt Ion:266 Resp: 106876

Ion	Ratio	Lower	Upper
266	100		
264	61.9	0.0	163.2
268	62.9	0.0	163.7

#4
Benzidine
Concen: 3.81 ug/ml
RT: 8.946 min Scan# 486
Delta R.T. -0.006 min
Lab File: sAf2001.D
Acq: 20 Jun 2018 08:51

Tgt Ion:184 Resp: 462260

Ion	Ratio	Lower	Upper
184	100		
156	7.0	0.0	107.2

#5
DDE
Concen: 7.95 ug/ml
RT: 9.128 min Scan# 517
Delta R.T. -0.000 min
Lab File: sAf2001.D
Acq: 20 Jun 2018 08:51

Tgt Ion:246 Resp: 1574

Ion	Ratio	Lower	Upper
246	100		
318	47.3	0.0	149.9
316	40.4	0.0	137.9

#6
DDD
Concen: 5.97 ug/ml
RT: 9.469 min Scan# 575
Delta R.T. 0.006 min
Lab File: sAf2001.D
Acq: 20 Jun 2018 08:51

Tgt Ion:235 Resp: 10397

Ion	Ratio	Lower	Upper
235	100		
165	51.4	0.0	154.2

#7
DDT
Concen: 3.93 ug/ml
RT: 9.769 min Scan# 626
Delta R.T. -0.000 min
Lab File: sAf2001.D
Acq: 20 Jun 2018 08:51

Tgt Ion:235 Resp: 302551

Ion	Ratio	Lower	Upper
235	100		
165	49.2	0.0	148.5

8270 Breakdown Report

JMB
06/21/2018

Data File : D:\MSDChem\1\data\062018.s\sAf2001.D Vial: 1
Acq On : 20 Jun 2018 08:51 Operator: JMB3
Sample : |WBN180611-99|DFTPP|1|SVM|1|DFTPP Inst : MSDA
Misc : Multiplr: 1.00
IntFile : rteint.p

06/21/2018

Compounds	Area/%Breakdown	8270C	8270D
DDE	1574		
DDD	10397		
DDT	302551		
Breakdown	3.81%	Pass(<20)	Pass(<20)

Compounds	Tailing Factor	8270C	8270D
Benzidine	0.76	Pass(<3)	Pass(<2)
Pentachlorophenol	0.76	Pass(<5)	Pass(<2)

DFTPP Tune Report
GEL Laboratories, LLC

JMB
06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2013.D
Acq On : 20 Jun 2018 16:03
Operator : JMB3
Sample : |WBN180611-99|DFTPP|1|SVM|1|DFTPP
Misc :
ALS Vial : 11 Sample Multiplier: 1

BB
06/21/2018

Integration File: rteint.p

Method : D:\MSDChem\1\data\062018.s\BNABrk_Down8270D.m
Title : dftpp / endrin / ddt SubList :
Last Update : Thu Apr 19 08:59:19 2018

AutoFind: Scans 299, 300, 301; Background Corrected with Scan 294

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	38.5	86243	PASS
68	69	0.00	2	1.7	1348	PASS
69	198	0.00	100	34.6	77645	PASS
70	69	0.00	2	0.5	363	PASS
127	198	10	80	44.4	99616	PASS
197	198	0.00	2	0.0	0	PASS
198	198	50	100	100.0	224192	PASS
199	198	5	9	6.8	15281	PASS
275	198	10	60	24.3	54517	PASS
365	198	1	100	2.5	5612	PASS
441	442	0.01	24	16.6	33122	PASS
442	198	50	100	89.0	199584	PASS
443	442	15	24	19.0	37912	PASS

This report evaluates the Rel Abn% as passing only if it is greater than the Lower Limit and lower than the Upper Limit.

Quantitation Report
GEL Laboratories, LLC

JMB
06/21/2018

BB
06/21/2018

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2013.D
Acq On : 20 Jun 2018 16:03
Operator : JMB3
InstName : MSDA
Sample : |WBN180611-99|DFTPP|1|SVM|1|DFTPP
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 20 16:13:40 2018
Quant Method : D:\MSDChem\1\data\062018.s\BNABrk_Down8270D.m
Quant Title : dftpp / endrin / ddt SubList :
QLast Update : Thu Apr 19 08:59:19 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) DFTPP	TIC	7.852	7.858	1.000	2095655	5.00	ug/ml #	0.00
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) DFTPP	TIC	7.852	7.858	1.000	2095655	No Calib	#	
3) Pentachlorophenol	266	7.399	7.405	0.942	121576	3.52	ug/ml	98
4) Benzidine	184	8.940	8.952	1.139	340069	2.32	ug/ml	98
5) DDE	246	9.128	9.128	1.163	1955	8.17	ug/ml	99
6) DDD	235	9.463	9.463	1.205	18908	8.99	ug/ml	94
7) DDT	235	9.763	9.769	1.243	328121	3.52	ug/ml	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\062018.s\
Data File : sAf2013.D
Acq On : 20 Jun 2018 16:03
Operator : JMB3
InstName : MSDA
Sample : |WBN180611-99|DFTPP|1|SVM|1|DFTPP
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 20 16:13:40 2018
Quant Method : D:\MSDChem\1\data\062018.s\BNABrk_Down8270D.m
Quant Title : dftpp / endrin / ddt SubList :
QLast Update : Thu Apr 19 08:59:19 2018
Response via : Initial Calibration
Integrator: RTE

#3
Pentachlorophenol
Concen: 3.52 ug/ml
RT: 7.399 min Scan# 223
Delta R.T. -0.006 min
Lab File: sAf2013.D
Acq: 20 Jun 2018 16:03

Tgt Ion:266 Resp: 121576

Ion	Ratio	Lower	Upper
266	100		
264	65.0	0.0	163.2
268	62.9	0.0	163.7

#4
Benzidine
Concen: 2.32 ug/ml
RT: 8.940 min Scan# 485
Delta R.T. -0.012 min
Lab File: sAf2013.D
Acq: 20 Jun 2018 16:03

Tgt Ion:184 Resp: 340069

Ion	Ratio	Lower	Upper
184	100		
156	6.6	0.0	107.2

#5
DDE
Concen: 8.17 ug/ml
RT: 9.128 min Scan# 517
Delta R.T. -0.000 min
Lab File: sAf2013.D
Acq: 20 Jun 2018 16:03

Tgt Ion:246 Resp: 1955

Ion	Ratio	Lower	Upper
246	100		
318	49.4	0.0	149.9
316	36.9	0.0	137.9

#6
DDD
Concen: 8.99 ug/ml
RT: 9.463 min Scan# 574
Delta R.T. -0.000 min
Lab File: sAf2013.D
Acq: 20 Jun 2018 16:03

Tgt Ion:235 Resp: 18908

Ion	Ratio	Lower	Upper
235	100		
165	50.2	0.0	154.2

#7
DDT
Concen: 3.52 ug/ml
RT: 9.763 min Scan# 625
Delta R.T. -0.006 min
Lab File: sAf2013.D
Acq: 20 Jun 2018 16:03

Tgt Ion:235 Resp: 328121

Ion	Ratio	Lower	Upper
235	100		
165	46.3	0.0	148.5

8270 Breakdown Report

Data File : D:\MSDChem\1\data\062018.s\sAf2013.D Vial: 11
Acq On : 20 Jun 2018 16:03 Operator: JMB3
Sample : |WBN180611-99|DFTPP|1|SVM|1|DFTPP Inst : MSDA
Misc : Multiplr: 1.00
IntFile : rteint.p

06/21/2018

Compounds	Area/%Breakdown	8270C	8270D
DDE	1955		
DDD	18908		
DDT	328121		
Breakdown	5.98%	Pass(<20)	Pass(<20)

Compounds	Tailing Factor	8270C	8270D
Benzidine	0.94	Pass(<3)	Pass(<2)
Pentachlorophenol	1.08	Pass(<5)	Pass(<2)

DFTPP Tune Report
GEL Laboratories, LLC

07/23/2018

07/24/2018

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2301.D
Acq On : 23 Jul 2018 14:37
Operator : LOF
Sample : |WBN180611-99|DFTPP|1|SVM|1|DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : D:\MSDChem\1\data\072318.s\BNABrk_Down8270D.m
Title : dftpp / endrin / ddt SubList :
Last Update : Thu Apr 19 08:59:19 2018

AutoFind: Scans 314, 315, 316; Background Corrected with Scan 308

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	37.2	102280	PASS
68	69	0.00	2	1.6	1550	PASS
69	198	0.00	100	34.4	94419	PASS
70	69	0.00	2	0.5	458	PASS
127	198	10	80	43.9	120691	PASS
197	198	0.00	2	0.0	0	PASS
198	198	50	100	100.0	274616	PASS
199	198	5	9	6.9	18845	PASS
275	198	10	60	25.3	69531	PASS
365	198	1	100	2.7	7443	PASS
441	442	0.01	24	15.4	40312	PASS
442	198	50	100	95.4	261888	PASS
443	442	15	24	18.7	49053	PASS

This report evaluates the Rel Abn% as passing only if it is greater than the Lower Limit and lower than the Upper Limit.

Quantitation Report
GEL Laboratories, LLC

07/23/2018

07/24/2018

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2301.D
Acq On : 23 Jul 2018 14:37
Operator : LOF
InstName : MSDA
Sample : |WBN180611-99|DFTPP|1|SVM|1|DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 23 15:01:20 2018
Quant Method : D:\MSDChem\1\data\072318.s\BNABrk_Down8270D.m
Quant Title : dftpp / endrin / ddt SubList :
QLast Update : Thu Apr 19 08:59:19 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) DFTPP	TIC	7.940	7.940	1.000	2661950	5.00	ug/ml #	0.00
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) DFTPP	TIC	7.940	7.940	1.000	2661950	No Calib	#	
3) Pentachlorophenol	266	7.499	7.499	0.944	116762	2.66	ug/ml	99
4) Benzidine	184	9.040	9.040	1.139	609813	3.27	ug/ml	100
5) DDE	246	9.222	9.222	1.161	1158	3.81	ug/ml	91
6) DDD	235	9.558	9.558	1.204	32174	12.04	ug/ml	100
7) DDT	235	9.858	9.858	1.242	416746	3.52	ug/ml	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2301.D
Acq On : 23 Jul 2018 14:37
Operator : LOF
InstName : MSDA
Sample : |WBN180611-99|DFTPP|1|SVM|1|DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 23 15:01:20 2018
Quant Method : D:\MSDChem\1\data\072318.s\BNABrk_Down8270D.m
Quant Title : dftpp / endrin / ddt SubList :
QLast Update : Thu Apr 19 08:59:19 2018
Response via : Initial Calibration
Integrator: RTE

#3
Pentachlorophenol
Concen: 2.66 ug/ml
RT: 7.499 min Scan# 240
Delta R.T. 0.000 min
Lab File: sAg2301.D
Acq: 23 Jul 2018 14:37

Tgt Ion:266 Resp: 116762

Ion	Ratio	Lower	Upper
266	100		
264	62.7	0.0	163.1
268	61.8	0.0	163.3

#4
Benzidine
Concen: 3.27 ug/ml
RT: 9.040 min Scan# 502
Delta R.T. 0.000 min
Lab File: sAg2301.D
Acq: 23 Jul 2018 14:37

Tgt Ion:184 Resp: 609813

Ion	Ratio	Lower	Upper
184	100		
156	6.7	0.0	106.7

#5
DDE
Concen: 3.81 ug/ml
RT: 9.222 min Scan# 533
Delta R.T. 0.000 min
Lab File: sAg2301.D
Acq: 23 Jul 2018 14:37

Tgt Ion:246 Resp: 1158

Ion	Ratio	Lower	Upper
246	100		
318	45.9	0.0	153.5
316	45.9	0.0	141.5

#6
DDD
Concen: 12.04 ug/ml
RT: 9.558 min Scan# 590
Delta R.T. 0.000 min
Lab File: sAg2301.D
Acq: 23 Jul 2018 14:37

Tgt Ion:235 Resp: 32174

Ion	Ratio	Lower	Upper
235	100		
165	51.3	0.0	151.3

#7
DDT
Concen: 3.52 ug/ml
RT: 9.858 min Scan# 641
Delta R.T. 0.000 min
Lab File: sAg2301.D
Acq: 23 Jul 2018 14:37

Tgt Ion:235 Resp: 416746

Ion	Ratio	Lower	Upper
235	100		
165	47.7	0.0	149.4

8270 Breakdown Report

07/23/2018

Data File : D:\MSDChem\1\data\072318.s\sAg2301.D Vial: 1
Acq On : 23 Jul 2018 14:37 Operator: LOF
Sample : |WBN180611-99|DFTPP|1|SVM|1|DFTPP Inst : MSDA
Misc : Multiplr: 1.00
IntFile : rteint.p

07/24/2018

Compounds	Area/%Breakdown	8270C	8270D
DDE	1158		
DDD	32174		
DDT	416746		
Breakdown	7.41%	Pass(<20)	Pass(<20)

Compounds	Tailing Factor	8270C	8270D
Benzidine	0.68	Pass(<3)	Pass(<2)
Pentachlorophenol	1.37	Pass(<5)	Pass(<2)

DFTPP Tune Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\072418.s\
Data File : sAg2411.D
Acq On : 24 Jul 2018 23:11
Operator : JLD1
Sample : |WBN180611-99|DFTPP|1|SVM|1|DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

07/25/2018

Integration File: rteint.p

Method : D:\MSDChem\1\data\072418.s\BNABrk_Down8270D.m
Title : dftpp / endrin / ddt SubList :
Last Update : Thu Apr 19 08:59:19 2018

AutoFind: Scans 311, 312, 313; Background Corrected with Scan 305

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	34.8	94493	PASS
68	69	0.00	2	1.6	1387	PASS
69	198	0.00	100	32.2	87514	PASS
70	69	0.00	2	0.4	389	PASS
127	198	10	80	41.8	113411	PASS
197	198	0.00	2	0.4	991	PASS
198	442	50	100	99.9	271453	PASS
199	198	5	9	6.7	18067	PASS
275	198	10	60	25.3	68573	PASS
365	198	1	100	2.8	7559	PASS
441	442	0.01	24	15.7	42640	PASS
442	442	50	100	100.0	271723	PASS
443	442	15	24	19.0	51549	PASS

This report evaluates the Rel Abn% as passing only if it is greater than the Lower Limit and lower than the Upper Limit.

Quantitation Report
GEL Laboratories, LLC

07/25/2018

07/25/2018

Data Path : D:\MSDChem\1\data\072418.s\
Data File : sAg2411.D
Acq On : 24 Jul 2018 23:11
Operator : JLD1
InstName : MSDA
Sample : |WBN180611-99|DFTPP|1|SVM|1|DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 24 23:23:27 2018
Quant Method : D:\MSDChem\1\data\072418.s\BNABrk_Down8270D.m
Quant Title : dftpp / endrin / ddt SubList :
QLast Update : Thu Apr 19 08:59:19 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) DFTPP	TIC	7.922	7.917	1.000	2738074	5.00	ug/ml #	0.00
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) DFTPP	TIC	7.922	7.917	1.000	2738074	No Calib	#	
3) Pentachlorophenol	266	7.475	7.477	0.944	144907	3.21	ug/ml	99
4) Benzidine	184	9.016	9.013	1.138	753874	3.94	ug/ml	100
5) DDE	246	9.199	9.195	1.161	1453	4.65	ug/ml	90
6) DDD	235	9.540	9.529	1.204	13033	4.74	ug/ml	99
7) DDT	235	9.840	9.829	1.242	484874	3.98	ug/ml	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\072418.s\
Data File : sAg2411.D
Acq On : 24 Jul 2018 23:11
Operator : JLD1
InstName : MSDA
Sample : |WBN180611-99|DFTPP|1|SVM|1|DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 24 23:23:27 2018
Quant Method : D:\MSDChem\1\data\072418.s\BNABrk_Down8270D.m
Quant Title : dftpp / endrin / ddt SubList :
QLast Update : Thu Apr 19 08:59:19 2018
Response via : Initial Calibration
Integrator: RTE

#3
Pentachlorophenol
Concen: 3.21 ug/ml
RT: 7.475 min Scan# 236
Delta R.T. -0.002 min
Lab File: sAg2411.D
Acq: 24 Jul 2018 23:11

Tgt Ion:266 Resp: 144907

Ion	Ratio	Lower	Upper
266	100		
264	63.2	0.0	163.1
268	64.0	0.0	163.3

#4
Benzidine
Concen: 3.94 ug/ml
RT: 9.016 min Scan# 498
Delta R.T. 0.003 min
Lab File: sAg2411.D
Acq: 24 Jul 2018 23:11

Tgt Ion:184 Resp: 753874

Ion	Ratio	Lower	Upper
184	100		
156	6.7	0.0	106.7

#5
DDE
Concen: 4.65 ug/ml
RT: 9.199 min Scan# 529
Delta R.T. 0.004 min
Lab File: sAg2411.D
Acq: 24 Jul 2018 23:11

Tgt Ion:246 Resp: 1453

Ion	Ratio	Lower	Upper
246	100		
318	44.0	0.0	153.5
316	37.2	0.0	141.5

#6
DDD
Concen: 4.74 ug/ml
RT: 9.540 min Scan# 587
Delta R.T. 0.010 min
Lab File: sAg2411.D
Acq: 24 Jul 2018 23:11

Tgt Ion:235 Resp: 13033

Ion	Ratio	Lower	Upper
235	100		
165	51.7	0.0	151.3

#7
DDT
Concen: 3.98 ug/ml
RT: 9.840 min Scan# 638
Delta R.T. 0.011 min
Lab File: sAg2411.D
Acq: 24 Jul 2018 23:11

Tgt Ion:235 Resp: 484874

Ion	Ratio	Lower	Upper
235	100		
165	46.5	0.0	149.4

8270 Breakdown Report

Data File : D:\MSDChem\1\data\072418.s\sAg2411.D Vial: 1
Acq On : 24 Jul 2018 23:11 Operator: JLD1
Sample : |WBN180611-99|DFTPP|1|SVM|1|DFTPP Inst : MSDA
Misc : Multiplr: 1.00
IntFile : rteint.p

07/25/2018

Compounds	Area/%Breakdown	8270C	8270D
DDE	1453		
DDD	13033		
DDT	484874		
Breakdown	2.90%	Pass(<20)	Pass(<20)

Compounds	Tailing Factor	8270C	8270D
Benzidine	1.31	Pass(<3)	Pass(<2)
Pentachlorophenol	1.93	Pass(<5)	Pass(<2)

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**			**Matrix:**	**SOIL**
Lab Sample ID:	**1204074220**				
Client Sample:	**QC for batch 1784534**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**MB for batch 1784534**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 16:35**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.38 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2305.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
92-52-4	1,1'-Biphenyl	U	329	ug/kg	98.7	329
95-94-3	1,2,4,5-Tetrachlorobenzene	U	329	ug/kg	98.7	329
58-90-2	2,3,4,6-Tetrachlorophenol	U	329	ug/kg	98.7	329
95-95-4	2,4,5-Trichlorophenol	U	329	ug/kg	98.7	329
88-06-2	2,4,6-Trichlorophenol	U	329	ug/kg	98.7	329
120-83-2	2,4-Dichlorophenol	U	329	ug/kg	98.7	329
105-67-9	2,4-Dimethylphenol	U	329	ug/kg	98.7	329
51-28-5	2,4-Dinitrophenol	U	658	ug/kg	98.7	658
121-14-2	2,4-Dinitrotoluene	U	329	ug/kg	98.7	329
606-20-2	2,6-Dinitrotoluene	U	329	ug/kg	98.7	329
91-58-7	2-Chloronaphthalene	U	32.9	ug/kg	9.87	32.9
95-57-8	2-Chlorophenol	U	329	ug/kg	98.7	329
534-52-1	2-Methyl-4,6-dinitrophenol	U	329	ug/kg	98.7	329
91-57-6	2-Methylnaphthalene	U	32.9	ug/kg	9.87	32.9
88-75-5	2-Nitrophenol	U	329	ug/kg	98.7	329
91-94-1	3,3'-Dichlorobenzidine	U	329	ug/kg	98.7	329
101-55-3	4-Bromophenylphenylether	U	329	ug/kg	98.7	329
59-50-7	4-Chloro-3-methylphenol	U	329	ug/kg	132	329
106-47-8	4-Chloroaniline	U	329	ug/kg	98.7	329
7005-72-3	4-Chlorophenylphenylether	U	329	ug/kg	98.7	329
100-02-7	4-Nitrophenol	U	329	ug/kg	98.7	329
83-32-9	Acenaphthene	U	32.9	ug/kg	9.87	32.9
208-96-8	Acenaphthylene	U	32.9	ug/kg	9.87	32.9
98-86-2	Acetophenone	U	329	ug/kg	98.7	329
120-12-7	Anthracene	U	32.9	ug/kg	9.87	32.9
1912-24-9	Atrazine	U	329	ug/kg	132	329
100-52-7	Benzaldehyde	U	329	ug/kg	98.7	329
56-55-3	Benzo(a)anthracene	U	32.9	ug/kg	9.87	32.9
50-32-8	Benzo(a)pyrene	U	32.9	ug/kg	9.87	32.9
205-99-2	Benzo(b)fluoranthene	U	32.9	ug/kg	9.87	32.9
191-24-2	Benzo(ghi)perylene	U	32.9	ug/kg	9.87	32.9
207-08-9	Benzo(k)fluoranthene	U	32.9	ug/kg	9.87	32.9
85-68-7	Butylbenzylphthalate	U	32.9	ug/kg	9.87	32.9
105-60-2	Caprolactam	U	329	ug/kg	98.7	329
86-74-8	Carbazole	U	32.9	ug/kg	9.87	32.9
218-01-9	Chrysene	U	32.9	ug/kg	9.87	32.9
84-74-2	Di-n-butylphthalate	U	32.9	ug/kg	9.87	32.9
117-84-0	Di-n-octylphthalate	U	32.9	ug/kg	9.87	32.9

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**			**Matrix:**	**SOIL**
Lab Sample ID:	**1204074220**				
Client Sample:	**QC for batch 1784534**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**MB for batch 1784534**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 16:35**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.38 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2305.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
53-70-3	Dibenzo(a,h)anthracene	U	32.9	ug/kg	9.87	32.9
132-64-9	Dibenzofuran	U	329	ug/kg	98.7	329
84-66-2	Diethylphthalate	U	32.9	ug/kg	9.87	32.9
131-11-3	Dimethylphthalate	U	32.9	ug/kg	9.87	32.9
122-39-4	Diphenylamine	U	329	ug/kg	98.7	329
206-44-0	Fluoranthene	U	32.9	ug/kg	9.87	32.9
86-73-7	Fluorene	U	32.9	ug/kg	9.87	32.9
118-74-1	Hexachlorobenzene	U	329	ug/kg	98.7	329
87-68-3	Hexachlorobutadiene	U	329	ug/kg	98.7	329
77-47-4	Hexachlorocyclopentadiene	U	329	ug/kg	98.7	329
67-72-1	Hexachloroethane	U	329	ug/kg	98.7	329
193-39-5	Indeno(1,2,3-cd)pyrene	U	32.9	ug/kg	9.87	32.9
78-59-1	Isophorone	U	329	ug/kg	98.7	329
621-64-7	N-Nitrosodipropylamine	U	329	ug/kg	98.7	329
91-20-3	Naphthalene	U	32.9	ug/kg	9.87	32.9
98-95-3	Nitrobenzene	U	329	ug/kg	98.7	329
87-86-5	Pentachlorophenol	U	329	ug/kg	98.7	329
85-01-8	Phenanthrene	U	32.9	ug/kg	9.87	32.9
108-95-2	Phenol	U	329	ug/kg	98.7	329
129-00-0	Pyrene	U	32.9	ug/kg	9.87	32.9
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	329	ug/kg	98.7	329
111-91-1	bis(2-Chloroethoxy)methane	U	329	ug/kg	98.7	329
111-44-4	bis(2-Chloroethyl) ether	U	329	ug/kg	98.7	329
117-81-7	bis(2-Ethylhexyl)phthalate	U	32.9	ug/kg	9.87	32.9
65794-96-9	m,p-Cresols	U	329	ug/kg	98.7	329
99-09-2	m-Nitroaniline	U	329	ug/kg	98.7	329
95-48-7	o-Cresol	U	329	ug/kg	98.7	329
88-74-4	o-Nitroaniline	U	329	ug/kg	109	329
100-01-6	p-Nitroaniline	U	329	ug/kg	98.7	329

Quantitation Report
GEL Laboratories, LLC

07/23/2018

07/24/2018

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2305.D
Acq On : 23 Jul 2018 16:35
Operator : LOF
InstName : MSDA
Sample : |1204074220|1784536|1|SVM|1|MB
Misc : |MSD827D4_S|MIX[A,B,J]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 23 19:11:27 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.646	5.646	1.000	414775	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.416	7.416	1.000	1535417	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.728	9.728	1.000	800217	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.610	11.604	1.000	1489844	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.145	15.139	1.000	884565	40.00	ng/uL	0.00
87) A Perylene-d12	264	18.522	18.516	1.000	597117	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.646	5.646	1.000	414775	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.416	7.416	1.000	1535417	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.728	9.728	1.000	800217	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.610	11.604	1.000	1489844	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.145	15.139	1.000	884565	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.522	18.516	1.000	597117	40.00	ng/uL	0.00
150) J Phenanthrene-d10	188	11.610	11.604	1.000	1489844	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.145	15.139	1.000	884565	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.416	7.416	1.000	1535417	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.728	9.728	1.000	800217	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.610	11.604	1.000	1489844	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.145	15.139	1.000	884565	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.416	7.416	1.000	1535417	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.522	18.516	1.000	597117	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.969	3.946	0.703	940910	73.97	ng/uL	0.02
7) Phenol-d5	99	5.122	5.116	0.907	1166152	76.15	ng/uL	0.00
22) Nitrobenzene-d5	82	6.422	6.434	0.866	513946	38.26	ng/uL	-0.01
43) 2-Fluorobiphenyl	172	8.857	8.863	0.911	1161251	36.76	ng/uL	0.00
62) 2,4,6-Tribromophenol	330	10.728	10.734	1.103	324076	79.11	ng/uL	0.00
79) p-Terphenyl-d14	244	13.592	13.592	0.897	1204719	44.01	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	15 - 88	74%
7) Phenol-d5	100.000	15 - 91	76%
22) Nitrobenzene-d5	50.000	36 - 115	77%
43) 2-Fluorobiphenyl	50.000	32 - 112	74%
62) 2,4,6-Tribromophenol	100.000	32 - 124	79%
79) p-Terphenyl-d14	50.000	36 - 121	88%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2305.D
Acq On : 23 Jul 2018 16:35
Operator : LOF
InstName : MSDA
Sample : |1204074220|1784536|1|SVM|1|MB
Misc : |MSD827D4_S|MIX[A,B,J]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 23 19:11:27 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

```
#3 BEFORE analyst DELETION
N-Methyl-N-nitrosomethylamine
Concen:    2.56 ng/uL
RT:   2.511 min  Scan# 123
Delta R.T.  -0.082 min
Lab File:   sAg2305.D
Acq: 23 Jul 2018  16:35

Tgt Ion: 74 Resp:   18795
Ion  Ratio  Lower  Upper
 74  100
 42   24.6   57.0  117.0#
 43  354.0    6.6   66.6#
```

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**			**Matrix:**	**SOIL**
Lab Sample ID:	**1204074221**				
Client Sample:	**QC for batch 1784534**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**LCS for batch 1784534**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/25/2018 00:51**	**Analyst:**	**JLD1**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.12 g**	**Final Volume:**	**1 mL**
Data File:	**072418.s\sAg2415.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
92-52-4	1,1'-Biphenyl		1390	ug/kg	99.6	332
95-94-3	1,2,4,5-Tetrachlorobenzene		1370	ug/kg	99.6	332
58-90-2	2,3,4,6-Tetrachlorophenol		1410	ug/kg	99.6	332
95-95-4	2,4,5-Trichlorophenol		1440	ug/kg	99.6	332
88-06-2	2,4,6-Trichlorophenol		1510	ug/kg	99.6	332
120-83-2	2,4-Dichlorophenol		1430	ug/kg	99.6	332
105-67-9	2,4-Dimethylphenol		1110	ug/kg	99.6	332
51-28-5	2,4-Dinitrophenol		1110	ug/kg	99.6	664
121-14-2	2,4-Dinitrotoluene		1400	ug/kg	99.6	332
606-20-2	2,6-Dinitrotoluene		1390	ug/kg	99.6	332
91-58-7	2-Chloronaphthalene		1320	ug/kg	9.96	33.2
95-57-8	2-Chlorophenol		1380	ug/kg	99.6	332
534-52-1	2-Methyl-4,6-dinitrophenol		1300	ug/kg	99.6	332
91-57-6	2-Methylnaphthalene		1210	ug/kg	9.96	33.2
88-75-5	2-Nitrophenol		1450	ug/kg	99.6	332
91-94-1	3,3'-Dichlorobenzidine		1300	ug/kg	99.6	332
101-55-3	4-Bromophenylphenylether		1430	ug/kg	99.6	332
59-50-7	4-Chloro-3-methylphenol		1370	ug/kg	133	332
106-47-8	4-Chloroaniline		935	ug/kg	99.6	332
7005-72-3	4-Chlorophenylphenylether		1400	ug/kg	99.6	332
100-02-7	4-Nitrophenol		1380	ug/kg	99.6	332
83-32-9	Acenaphthene		1300	ug/kg	9.96	33.2
208-96-8	Acenaphthylene		1330	ug/kg	9.96	33.2
98-86-2	Acetophenone		1290	ug/kg	99.6	332
120-12-7	Anthracene		1280	ug/kg	9.96	33.2
1912-24-9	Atrazine		1280	ug/kg	133	332
100-52-7	Benzaldehyde		696	ug/kg	99.6	332
56-55-3	Benzo(a)anthracene		1330	ug/kg	9.96	33.2
50-32-8	Benzo(a)pyrene		1440	ug/kg	9.96	33.2
205-99-2	Benzo(b)fluoranthene		1370	ug/kg	9.96	33.2
191-24-2	Benzo(ghi)perylene		1460	ug/kg	9.96	33.2
207-08-9	Benzo(k)fluoranthene		1410	ug/kg	9.96	33.2
85-68-7	Butylbenzylphthalate		1310	ug/kg	9.96	33.2
105-60-2	Caprolactam		1330	ug/kg	99.6	332
86-74-8	Carbazole		1400	ug/kg	9.96	33.2
218-01-9	Chrysene		1400	ug/kg	9.96	33.2
84-74-2	Di-n-butylphthalate		1360	ug/kg	9.96	33.2
117-84-0	Di-n-octylphthalate		1220	ug/kg	9.96	33.2

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**			**Matrix:**	**SOIL**
Lab Sample ID:	**1204074221**				
Client Sample:	**QC for batch 1784534**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**LCS for batch 1784534**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/25/2018 00:51**	**Analyst:**	**JLD1**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.12 g**	**Final Volume:**	**1 mL**
Data File:	**072418.s\sAg2415.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
53-70-3	Dibenzo(a,h)anthracene		1520	ug/kg	9.96	33.2
132-64-9	Dibenzofuran		1350	ug/kg	99.6	332
84-66-2	Diethylphthalate		1310	ug/kg	9.96	33.2
131-11-3	Dimethylphthalate		1310	ug/kg	9.96	33.2
122-39-4	Diphenylamine		1400	ug/kg	99.6	332
206-44-0	Fluoranthene		1460	ug/kg	9.96	33.2
86-73-7	Fluorene		1300	ug/kg	9.96	33.2
118-74-1	Hexachlorobenzene		1440	ug/kg	99.6	332
87-68-3	Hexachlorobutadiene		1520	ug/kg	99.6	332
77-47-4	Hexachlorocyclopentadiene		919	ug/kg	99.6	332
67-72-1	Hexachloroethane		1260	ug/kg	99.6	332
193-39-5	Indeno(1,2,3-cd)pyrene		1540	ug/kg	9.96	33.2
78-59-1	Isophorone		1220	ug/kg	99.6	332
621-64-7	N-Nitrosodipropylamine		1350	ug/kg	99.6	332
91-20-3	Naphthalene		1270	ug/kg	9.96	33.2
98-95-3	Nitrobenzene		1420	ug/kg	99.6	332
87-86-5	Pentachlorophenol		1510	ug/kg	99.6	332
85-01-8	Phenanthrene		1300	ug/kg	9.96	33.2
108-95-2	Phenol		1350	ug/kg	99.6	332
129-00-0	Pyrene		1260	ug/kg	9.96	33.2
108-60-1	bis(2-Chloro-1-methylethyl)ether		1260	ug/kg	99.6	332
111-91-1	bis(2-Chloroethoxy)methane		1300	ug/kg	99.6	332
111-44-4	bis(2-Chloroethyl) ether		1320	ug/kg	99.6	332
117-81-7	bis(2-Ethylhexyl)phthalate		1170	ug/kg	9.96	33.2
65794-96-9	m,p-Cresols		1480	ug/kg	99.6	332
99-09-2	m-Nitroaniline		1110	ug/kg	99.6	332
95-48-7	o-Cresol		1310	ug/kg	99.6	332
88-74-4	o-Nitroaniline		1340	ug/kg	110	332
100-01-6	p-Nitroaniline		1380	ug/kg	99.6	332

Quantitation Report
GEL Laboratories, LLC

07/25/2018

07/25/2018

Data Path : D:\MSDChem\1\data\072418.s\
Data File : sAg2415.D
Acq On : 25 Jul 2018 00:51
Operator : JLD1
InstName : MSDA
Sample : |1204074221|1784536|1|SVM|1|LCS
Misc : |MSD827D4_S|MIX[A,B,J]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 25 10:25:47 2018
Quant Method : D:\MSDChem\1\data\072418.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.611	5.611	1.000	387598	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.387	7.381	1.000	1415996	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.699	9.693	1.000	698050	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.575	11.575	1.000	1228255	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.098	15.092	1.000	777015	40.00	ng/uL	0.00
87) A Perylene-d12	264	18.439	18.433	1.000	516244	40.00	ng/uL	0.00
95) B 1,4-Dichlorobenzene-d4	152	5.611	5.611	1.000	387598	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.387	7.381	1.000	1415996	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.699	9.693	1.000	698050	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.575	11.575	1.000	1228255	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.098	15.092	1.000	777015	40.00	ng/uL	0.00
147) B Perylene-d12	264	18.439	18.433	1.000	516244	40.00	ng/uL	0.00
150) J Phenanthrene-d10	188	11.575	11.575	1.000	1228255	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.098	15.092	1.000	777015	40.00	ng/uL	0.00
155) D Naphthalene-d8	136	7.387	7.381	1.000	1415996	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.699	9.693	1.000	698050	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.575	11.575	1.000	1228255	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.098	15.092	1.000	777015	40.00	ng/uL	0.00
169) E Naphthalene-d8	136	7.387	7.381	1.000	1415996	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.439	18.433	1.000	516244	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.934	3.911	0.701	984211	82.80	ng/uL	0.02
7) Phenol-d5	99	5.093	5.081	0.908	1242516	86.83	ng/uL	0.01
22) Nitrobenzene-d5	82	6.399	6.399	0.866	538214	43.44	ng/uL	0.00
43) 2-Fluorobiphenyl	172	8.828	8.822	0.910	1155598	41.94	ng/uL	0.00
62) 2,4,6-Tribromophenol	330	10.704	10.698	1.104	325604	91.11	ng/uL	0.00
79) p-Terphenyl-d14	244	13.557	13.557	0.898	1093667	45.48	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	15 - 88	83%
7) Phenol-d5	100.000	15 - 91	87%
22) Nitrobenzene-d5	50.000	36 - 115	87%
43) 2-Fluorobiphenyl	50.000	32 - 112	84%
62) 2,4,6-Tribromophenol	100.000	32 - 124	91%
79) p-Terphenyl-d14	50.000	36 - 121	91%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
3) N-Methyl-N-nitrosometh...	74	2.575	2.564	0.459	250900	36.51	ng/uL	95
4) Pyridine	79	2.622	2.599	0.467	364676	30.31	ng/uL	97
6) Aniline	93	5.158	5.158	0.919	577683	30.36	ng/uL	100
8) Phenol	94	5.111	5.099	0.911	613220	40.81	ng/uL	97
9) bis(2-Chloroethyl) ether	93	5.240	5.240	0.934	489741	39.76	ng/uL	99
10) 2-Chlorophenol	128	5.322	5.316	0.949	559424	41.48	ng/uL	98
11) n-Decane	43	5.369	5.369	0.957	547763	31.83	ng/uL	97
12) 1,3-Dichlorobenzene	146	5.534	5.534	0.986	581031	37.86	ng/uL	100
13) 1,4-Dichlorobenzene	146	5.640	5.634	1.005	606282	38.83	ng/uL	99
14) 1,2-Dichlorobenzene	146	5.846	5.846	1.042	573110	38.85	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\072418.s\
Data File : sAg2415.D
Acq On : 25 Jul 2018 00:51
Operator : JLD1
InstName : MSDA
Sample : |1204074221|1784536|1|SVM|1|LCS
Misc : |MSD827D4_S|MIX[A,B,J]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 25 10:25:47 2018
Quant Method : D:\MSDChem\1\data\072418.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
15)	bis(2-Chloro-1-methyle...	45	5.993	5.999	1.068	836501	38.04	ng/uL	97
16)	Benzyl alcohol	108	5.805	5.805	1.035	311219	37.88	ng/uL	97
17)	o-Cresol	107	5.958	5.952	1.062	412533	39.35	ng/uL	99
18)	m,p-Cresols	107	6.175	6.181	1.101	618215	44.50	ng/uL#	55
19)	N-Nitrosodipropylamine	70	6.187	6.193	1.103	365897	40.73	ng/uL	82
20)	Hexachloroethane	117	6.322	6.322	1.127	213613	37.81	ng/uL	93
23)	Nitrobenzene	77	6.422	6.428	0.869	522083	42.68	ng/uL	99
24)	Isophorone	82	6.758	6.757	0.915	864869	36.79	ng/uL	100
25)	2-Nitrophenol	139	6.863	6.863	0.929	284930	43.63	ng/uL	97
26)	2,4-Dimethylphenol	122	6.922	6.922	0.937	377601	33.58	ng/uL	99
27)	bis(2-Chloroethoxy)met...	93	7.058	7.057	0.955	587293	39.14	ng/uL	99
28)	2,4-Dichlorophenol	162	7.193	7.193	0.974	460583	43.13	ng/uL	99
29)	Benzoic acid	105	7.122	7.081	0.964	456479	68.45	ng/uL	90
30)	1,2,4-Trichlorobenzene	180	7.305	7.304	0.989	509441	42.62	ng/uL	99
31)	alpha-Terpineol	59	7.434	7.434	1.006	462693	37.44	ng/uL	99
32)	Naphthalene	128	7.416	7.416	1.004	1487799	38.19	ng/uL	100
33)	4-Chloroaniline	127	7.493	7.493	1.014	414800	28.15	ng/uL	99
34)	Hexachlorobutadiene	225	7.575	7.581	1.025	309396	45.90	ng/uL	99
35)	4-Chloro-3-methylphenol	107	8.152	8.140	1.104	435390	41.17	ng/uL	98
36)	2-Methylnaphthalene	142	8.346	8.346	1.130	958562	36.50	ng/uL	100
37)	1-Methylnaphthalene	142	8.475	8.475	1.147	950631	38.43	ng/uL	99
39)	Hexachlorocyclopentadiene	237	8.546	8.546	0.881	133755	27.69	ng/uL	100
40)	2,3-Dichloroaniline	161	8.716	8.716	0.899	478516	38.97	ng/uL	99
41)	2,4,6-Trichlorophenol	196	8.716	8.716	0.899	328381	45.35	ng/uL	99
42)	2,4,5-Trichlorophenol	196	8.769	8.757	0.904	334498	43.45	ng/uL	99
44)	2-Chloronaphthalene	162	8.981	8.981	0.926	935509	39.67	ng/uL	97
45)	o-Nitroaniline	65	9.116	9.122	0.940	253452	40.50	ng/uL	98
47)	m-Nitroaniline	138	9.646	9.651	0.995	182309	33.41	ng/uL	96
48)	Dimethylphthalate	163	9.357	9.363	0.965	1104076	39.59	ng/uL	100
50)	2,6-Dinitrotoluene	165	9.434	9.440	0.973	251635	42.00	ng/uL	96
51)	2,4-Dinitrotoluene	165	9.946	9.945	1.025	317605	42.27	ng/uL	89
52)	Acenaphthylene	152	9.516	9.522	0.981	1493690	40.21	ng/uL	100
53)	Acenaphthene	154	9.740	9.746	1.004	861518	39.04	ng/uL	100
54)	2,4-Dinitrophenol	184	9.781	9.781	1.008	57867	33.50	ng/uL	97
55)	Dibenzofuran	168	9.963	9.963	1.027	1305188	40.76	ng/uL	98
56)	2,3,4,6-Tetrachlorophenol	232	10.110	10.110	1.042	255742	42.41	ng/uL	96
57)	Diethylphthalate	149	10.251	10.251	1.057	1084890	39.50	ng/uL	99
58)	4-Nitrophenol	139	9.869	9.863	1.018	143500	41.58	ng/uL	99
59)	Fluorene	166	10.399	10.398	1.072	1002648	39.03	ng/uL	99
60)	4-Chlorophenylphenylether	204	10.393	10.393	1.072	507835	42.11	ng/uL	96
61)	p-Nitroaniline	138	10.428	10.428	1.075	180633	41.68	ng/uL	94
64)	2-Methyl-4,6-dinitroph...	198	10.457	10.463	0.903	115611	39.10	ng/uL	92
65)	Diphenylamine	169	10.546	10.545	0.911	865914	42.07	ng/uL	98
66)	1,2-Diphenylhydrazine	77	10.598	10.598	0.916	944671	40.40	ng/uL	98
67)	4-Bromophenylphenylether	248	11.010	11.010	0.951	309455	43.17	ng/uL	96
68)	Hexachlorobenzene	284	11.081	11.081	0.957	342147	43.36	ng/uL	99
69)	Pentachlorophenol	266	11.334	11.328	0.979	169699	45.40	ng/uL	99
70)	n-Octadecane	57	11.428	11.428	0.987	801085	37.31	ng/uL	98
72)	Phenanthrene	178	11.610	11.610	1.003	1372847	39.07	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\072418.s\
Data File : sAg2415.D
Acq On : 25 Jul 2018 00:51
Operator : JLD1
InstName : MSDA
Sample : |1204074221|1784536|1|SVM|1|LCS
Misc : |MSD827D4_S|MIX[A,B,J]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 25 10:25:47 2018
Quant Method : D:\MSDChem\1\data\072418.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
73)	Anthracene	178	11.669	11.675	1.008	1370257	38.66	ng/uL	100
74)	Carbazole	167	11.869	11.869	1.025	1114150	42.25	ng/uL	99
75)	Di-n-butylphthalate	149	12.298	12.298	1.063	1684060	41.10	ng/uL	100
76)	Fluoranthene	202	13.087	13.092	1.131	1399750	44.02	ng/uL	98
78)	Pyrene	202	13.375	13.375	0.886	1406194	37.96	ng/uL	99
80)	Butylbenzylphthalate	149	14.192	14.198	0.940	602935	39.47	ng/uL	97
81)	bis(2-Ethylhexyl)phtha...	149	15.122	15.122	1.002	801947	35.31	ng/uL	99
82)	Benzo(a)anthracene	228	15.081	15.081	0.999	989464	40.20	ng/uL	98
83)	Chrysene	228	15.145	15.151	1.003	945290	42.22	ng/uL	100
86)	Di-n-octylphthalate	149	16.504	16.510	1.093	1091216	36.64	ng/uL	98
88)	Benzo(b)fluoranthene	252	17.398	17.404	0.944	697632	41.21	ng/uL	98
89)	Benzo(k)fluoranthene	252	17.475	17.480	0.948	699031	42.48	ng/uL	97
90)	Benzo(a)pyrene	252	18.275	18.280	0.991	605364	43.26	ng/uL	98
91)	Indeno(1,2,3-cd)pyrene	276	21.827	21.839	1.184	429043	46.49	ng/uL	98
92)	Dibenzo(a,h)anthracene	278	21.921	21.927	1.189	429560	45.65	ng/uL	99
93)	Benzo(ghi)perylene	276	22.480	22.480	1.219	440020	43.92	ng/uL	99
96)	1,4-Dioxane	88	2.311	2.281	0.412	120454	26.63	ng/uL	96
105)	Benzaldehyde	77	5.016	5.016	0.894	186211	20.95	ng/uL	99
107)	N-Nitrosopyrrolidine	100	6.169	6.163	1.100	258407	42.42	ng/uL	83
108)	Acetophenone	105	6.187	6.181	1.103	697182	38.98	ng/uL	76
114)	2,6-Dichlorophenol	162	7.505	7.499	1.016	438749	44.12	ng/uL	99
116)	Caprolactam	113	8.005	7.963	1.084	128441	39.98	ng/uL#	66
120)	1,2,4,5-Tetrachloroben...	216	8.563	8.557	0.883	517554	41.39	ng/uL	100
121)	1,1-Biphenyl	154	8.957	8.957	0.924	1243971	41.95	ng/uL	99
134)	Atrazine	200	11.216	11.216	0.969	265089	38.69	ng/uL	99
151)	Benzidine	184	13.251	13.281	1.145	62972	9.43	ng/uL	99
154)	3,3'-Dichlorobenzidine	252	15.034	15.075	0.996	245156	39.11	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\072418.s\
Data File : sAg2415.D
Acq On : 25 Jul 2018 00:51
Operator : JLD1
InstName : MSDA
Sample : |1204074221|1784536|1|SVM|1|LCS
Misc : |MSD827D4_S|MIX[A,B,J]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 25 10:25:47 2018
Quant Method : D:\MSDChem\1\data\072418.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 10:00**	**Matrix:**	**SO**
Lab Sample ID:	**1204074222**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**25.6**
Client Sample:	**QC for batch 1784534**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**RA056-187(454948007MS)**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 18:56**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2310.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
92-52-4	1,1'-Biphenyl		1250	ug/kg	134	447
95-94-3	1,2,4,5-Tetrachlorobenzene		1140	ug/kg	134	447
58-90-2	2,3,4,6-Tetrachlorophenol		1730	ug/kg	134	447
95-95-4	2,4,5-Trichlorophenol		1640	ug/kg	134	447
88-06-2	2,4,6-Trichlorophenol		1560	ug/kg	134	447
120-83-2	2,4-Dichlorophenol		1400	ug/kg	134	447
105-67-9	2,4-Dimethylphenol		1080	ug/kg	134	447
51-28-5	2,4-Dinitrophenol		1650	ug/kg	134	893
121-14-2	2,4-Dinitrotoluene		1670	ug/kg	134	447
606-20-2	2,6-Dinitrotoluene		1510	ug/kg	134	447
91-58-7	2-Chloronaphthalene		1190	ug/kg	13.4	44.7
95-57-8	2-Chlorophenol		1190	ug/kg	134	447
534-52-1	2-Methyl-4,6-dinitrophenol		1700	ug/kg	134	447
91-57-6	2-Methylnaphthalene		1110	ug/kg	13.4	44.7
88-75-5	2-Nitrophenol		1170	ug/kg	134	447
91-94-1	3,3'-Dichlorobenzidine	J	302	ug/kg	134	447
101-55-3	4-Bromophenylphenylether		1570	ug/kg	134	447
59-50-7	4-Chloro-3-methylphenol		1570	ug/kg	179	447
106-47-8	4-Chloroaniline		695	ug/kg	134	447
7005-72-3	4-Chlorophenylphenylether		1550	ug/kg	134	447
100-02-7	4-Nitrophenol		1710	ug/kg	134	447
83-32-9	Acenaphthene		1290	ug/kg	13.4	44.7
208-96-8	Acenaphthylene		1300	ug/kg	13.4	44.7
98-86-2	Acetophenone		1120	ug/kg	134	447
120-12-7	Anthracene		1470	ug/kg	13.4	44.7
1912-24-9	Atrazine		1620	ug/kg	179	447
100-52-7	Benzaldehyde		917	ug/kg	134	447
56-55-3	Benzo(a)anthracene		1610	ug/kg	13.4	44.7
50-32-8	Benzo(a)pyrene		1690	ug/kg	13.4	44.7
205-99-2	Benzo(b)fluoranthene		1620	ug/kg	13.4	44.7
191-24-2	Benzo(ghi)perylene		1360	ug/kg	13.4	44.7
207-08-9	Benzo(k)fluoranthene		1670	ug/kg	13.4	44.7
85-68-7	Butylbenzylphthalate		1570	ug/kg	13.4	44.7
105-60-2	Caprolactam		980	ug/kg	134	447
86-74-8	Carbazole		1740	ug/kg	13.4	44.7
218-01-9	Chrysene		1640	ug/kg	13.4	44.7
84-74-2	Di-n-butylphthalate		1670	ug/kg	13.4	44.7
117-84-0	Di-n-octylphthalate		1750	ug/kg	13.4	44.7

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 10:00**	**Matrix:**	**SO**
Lab Sample ID:	**1204074222**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**25.6**
Client Sample:	**QC for batch 1784534**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**RA056-187(454948007MS)**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 18:56**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2310.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
53-70-3	Dibenzo(a,h)anthracene		1590	ug/kg	13.4	44.7
132-64-9	Dibenzofuran		1410	ug/kg	134	447
84-66-2	Diethylphthalate		1490	ug/kg	13.4	44.7
131-11-3	Dimethylphthalate		1320	ug/kg	13.4	44.7
122-39-4	Diphenylamine		1400	ug/kg	134	447
206-44-0	Fluoranthene		1840	ug/kg	13.4	44.7
86-73-7	Fluorene		1440	ug/kg	13.4	44.7
118-74-1	Hexachlorobenzene		1510	ug/kg	134	447
87-68-3	Hexachlorobutadiene		1140	ug/kg	134	447
77-47-4	Hexachlorocyclopentadiene		805	ug/kg	134	447
67-72-1	Hexachloroethane		840	ug/kg	134	447
193-39-5	Indeno(1,2,3-cd)pyrene		1560	ug/kg	13.4	44.7
78-59-1	Isophorone		1040	ug/kg	134	447
621-64-7	N-Nitrosodipropylamine		1190	ug/kg	134	447
91-20-3	Naphthalene		1030	ug/kg	13.4	44.7
98-95-3	Nitrobenzene		1110	ug/kg	134	447
87-86-5	Pentachlorophenol		2330	ug/kg	134	447
85-01-8	Phenanthrene		1440	ug/kg	13.4	44.7
108-95-2	Phenol		1240	ug/kg	134	447
129-00-0	Pyrene		1360	ug/kg	13.4	44.7
108-60-1	bis(2-Chloro-1-methylethyl)ether		1040	ug/kg	134	447
111-91-1	bis(2-Chloroethoxy)methane		1100	ug/kg	134	447
111-44-4	bis(2-Chloroethyl) ether		1170	ug/kg	134	447
117-81-7	bis(2-Ethylhexyl)phthalate		1530	ug/kg	13.4	44.7
65794-96-9	m,p-Cresols		1450	ug/kg	134	447
99-09-2	m-Nitroaniline		1080	ug/kg	134	447
95-48-7	o-Cresol		1240	ug/kg	134	447
88-74-4	o-Nitroaniline		1460	ug/kg	147	447
100-01-6	p-Nitroaniline		1430	ug/kg	134	447

Quantitation Report
GEL Laboratories, LLC

07/24/2018

07/24/2018

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2310.D
Acq On : 23 Jul 2018 18:56
Operator : LOF
InstName : MSDA
Sample : |1204074222|1784536|1|SVM|1|MS
Misc : |MSD827D4_S|MIX[A,B,J]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 24 10:40:47 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.646	5.646	1.000	442642	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.416	7.416	1.000	1766592	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.734	9.728	1.000	958488	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.610	11.604	1.000	1885068	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.163	15.139	1.000	1370066	40.00	ng/uL	0.02
87) A Perylene-d12	264	18.545	18.516	1.000	940093	40.00	ng/uL	0.03
95) B 1,4-Dichlorobenzene-d4	152	5.646	5.646	1.000	442642	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.416	7.416	1.000	1766592	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.734	9.728	1.000	958488	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.610	11.604	1.000	1885068	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.163	15.139	1.000	1370066	40.00	ng/uL	0.02
147) B Perylene-d12	264	18.545	18.516	1.000	940093	40.00	ng/uL	0.03
150) J Phenanthrene-d10	188	11.610	11.604	1.000	1885068	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.163	15.139	1.000	1370066	40.00	ng/uL	0.02
155) D Naphthalene-d8	136	7.416	7.416	1.000	1766592	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.734	9.728	1.000	958488	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.610	11.604	1.000	1885068	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.163	15.139	1.000	1370066	40.00	ng/uL	0.02
169) E Naphthalene-d8	136	7.416	7.416	1.000	1766592	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.545	18.516	1.000	940093	40.00	ng/uL	0.03
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.970	3.946	0.703	617831	45.51	ng/uL	0.02
7) Phenol-d5	99	5.128	5.116	0.908	841450	51.49	ng/uL	0.01
22) Nitrobenzene-d5	82	6.428	6.434	0.867	340668	22.04	ng/uL	0.00
43) 2-Fluorobiphenyl	172	8.857	8.863	0.910	927420	24.51	ng/uL	0.00
62) 2,4,6-Tribromophenol	330	10.740	10.734	1.103	356583	72.67	ng/uL	0.00
79) p-Terphenyl-d14	244	13.593	13.592	0.896	1426347	33.64	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	15 - 88	46%
7) Phenol-d5	100.000	15 - 91	51%
22) Nitrobenzene-d5	50.000	36 - 115	44%
43) 2-Fluorobiphenyl	50.000	32 - 112	49%
62) 2,4,6-Tribromophenol	100.000	32 - 124	73%
79) p-Terphenyl-d14	50.000	36 - 121	67%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
3) N-Methyl-N-nitrosometh...	74	2.617	2.593	0.463	124268	15.83	ng/uL	95
4) Pyridine	79	2.758	2.758	0.488	53909m	3.92	ng/uL	
6) Aniline	93	5.205	5.199	0.922	235455	10.83	ng/uL	95
8) Phenol	94	5.146	5.134	0.911	477521	27.83	ng/uL	98
9) bis(2-Chloroethyl) ether	93	5.269	5.275	0.933	369755	26.29	ng/uL	88
10) 2-Chlorophenol	128	5.358	5.352	0.949	409833	26.61	ng/uL	98
11) n-Decane	43	5.393	5.405	0.955	108484	5.52	ng/uL	99
12) 1,3-Dichlorobenzene	146	5.564	5.569	0.985	322955	18.43	ng/uL	99
13) 1,4-Dichlorobenzene	146	5.664	5.675	1.003	349459	19.60	ng/uL	100
14) 1,2-Dichlorobenzene	146	5.881	5.887	1.042	352830	20.94	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2310.D
Acq On : 23 Jul 2018 18:56
Operator : LOF
InstName : MSDA
Sample : |1204074222|1784536|1|SVM|1|MS
Misc : |MSD827D4_S|MIX[A,B,J]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 24 10:40:47 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
15)	bis(2-Chloro-1-methyle...	45	6.022	6.034	1.067	584601	23.28	ng/uL	96
16)	Benzyl alcohol	108	5.846	5.840	1.035	254285	27.10	ng/uL	96
17)	o-Cresol	107	5.993	5.987	1.061	332524	27.77	ng/uL	98
18)	m,p-Cresols	107	6.211	6.216	1.100	513233	32.35	ng/uL#	60
19)	N-Nitrosodipropylamine	70	6.216	6.228	1.101	272376	26.55	ng/uL#	62
20)	Hexachloroethane	117	6.352	6.358	1.125	121262	18.80	ng/uL	92
23)	Nitrobenzene	77	6.452	6.463	0.870	379726	24.88	ng/uL	100
24)	Isophorone	82	6.787	6.793	0.915	684089	23.32	ng/uL	99
25)	2-Nitrophenol	139	6.893	6.899	0.929	213168	26.16	ng/uL	97
26)	2,4-Dimethylphenol	122	6.952	6.958	0.937	338194	24.11	ng/uL	100
27)	bis(2-Chloroethoxy)met...	93	7.087	7.093	0.956	462241	24.69	ng/uL	99
28)	2,4-Dichlorophenol	162	7.228	7.228	0.975	418825	31.44	ng/uL	99
29)	Benzoic acid	105	7.169	7.122	0.967	611531	72.62	ng/uL	87
30)	1,2,4-Trichlorobenzene	180	7.334	7.340	0.989	368680	24.72	ng/uL	99
31)	alpha-Terpineol	59	7.463	7.469	1.006	394004	25.55	ng/uL	98
32)	Naphthalene	128	7.446	7.452	1.004	1125572	23.16	ng/uL	100
33)	4-Chloroaniline	127	7.528	7.528	1.015	285946	15.56	ng/uL	99
34)	Hexachlorobutadiene	225	7.611	7.616	1.026	214355	25.49	ng/uL	100
35)	4-Chloro-3-methylphenol	107	8.181	8.175	1.103	465084	35.25	ng/uL	98
36)	2-Methylnaphthalene	142	8.375	8.381	1.129	812214	24.79	ng/uL	99
37)	1-Methylnaphthalene	142	8.505	8.510	1.147	803618	26.04	ng/uL	99
39)	Hexachlorocyclopentadiene	237	8.575	8.581	0.881	119568	18.03	ng/uL	100
40)	2,3-Dichloroaniline	161	8.746	8.746	0.898	492017	29.19	ng/uL	99
41)	2,4,6-Trichlorophenol	196	8.746	8.746	0.898	347079	34.91	ng/uL	99
42)	2,4,5-Trichlorophenol	196	8.799	8.793	0.904	388655	36.77	ng/uL	100
44)	2-Chloronaphthalene	162	9.016	9.016	0.926	865379	26.73	ng/uL	97
45)	o-Nitroaniline	65	9.152	9.152	0.940	280467	32.64	ng/uL	96
47)	m-Nitroaniline	138	9.681	9.687	0.995	181336	24.20	ng/uL	97
48)	Dimethylphthalate	163	9.387	9.399	0.964	1133473	29.60	ng/uL	99
50)	2,6-Dinitrotoluene	165	9.469	9.469	0.973	277815	33.77	ng/uL	96
51)	2,4-Dinitrotoluene	165	9.975	9.981	1.025	386588	37.48	ng/uL	89
52)	Acenaphthylene	152	9.552	9.557	0.981	1482375	29.06	ng/uL	100
53)	Acenaphthene	154	9.775	9.781	1.004	873207	28.82	ng/uL	99
54)	2,4-Dinitrophenol	184	9.810	9.810	1.008	92752	36.98	ng/uL	89
55)	Dibenzofuran	168	9.993	9.999	1.027	1389347	31.60	ng/uL	100
56)	2,3,4,6-Tetrachlorophenol	232	10.146	10.146	1.042	321039	38.77	ng/uL	95
57)	Diethylphthalate	149	10.287	10.287	1.057	1259742	33.40	ng/uL	99
58)	4-Nitrophenol	139	9.904	9.899	1.018	181380	38.28	ng/uL	100
59)	Fluorene	166	10.428	10.434	1.071	1134989	32.18	ng/uL	99
60)	4-Chlorophenylphenylether	204	10.428	10.428	1.071	573065	34.61	ng/uL	96
61)	p-Nitroaniline	138	10.463	10.463	1.075	190152	31.95	ng/uL	89
64)	2-Methyl-4,6-dinitroph...	198	10.493	10.493	0.904	171461	38.02	ng/uL	87
65)	Diphenylamine	169	10.581	10.581	0.911	992342	31.41	ng/uL	96
66)	1,2-Diphenylhydrazine	77	10.628	10.634	0.915	1090273	30.38	ng/uL	98
67)	4-Bromophenylphenylether	248	11.046	11.046	0.951	387295	35.20	ng/uL	95
68)	Hexachlorobenzene	284	11.116	11.116	0.957	408711	33.75	ng/uL	100
69)	Pentachlorophenol	266	11.369	11.363	0.979	298690	52.07	ng/uL	99
70)	n-Octadecane	57	11.457	11.463	0.987	1005108	30.50	ng/uL	98
72)	Phenanthrene	178	11.646	11.646	1.003	1738560	32.24	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2310.D
Acq On : 23 Jul 2018 18:56
Operator : LOF
InstName : MSDA
Sample : |1204074222|1784536|1|SVM|1|MS
Misc : |MSD827D4_S|MIX[A,B,J]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 24 10:40:47 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
73)	Anthracene	178	11.704	11.710	1.008	1791808	32.94	ng/uL	100
74)	Carbazole	167	11.904	11.904	1.025	1579861	39.03	ng/uL	100
75)	Di-n-butylphthalate	149	12.328	12.328	1.062	2344508	37.28	ng/uL	100
76)	Fluoranthene	202	13.128	13.128	1.131	2007829	41.14	ng/uL	99
78)	Pyrene	202	13.410	13.410	0.884	1985434	30.39	ng/uL	99
80)	Butylbenzylphthalate	149	14.234	14.234	0.939	945727	35.11	ng/uL	96
81)	bis(2-Ethylhexyl)phtha...	149	15.175	15.169	1.001	1375366	34.34	ng/uL	98
82)	Benzo(a)anthracene	228	15.140	15.134	0.998	1565857	36.08	ng/uL	98
83)	Chrysene	228	15.210	15.198	1.003	1446713	36.65	ng/uL	99
86)	Di-n-octylphthalate	149	16.575	16.575	1.093	2053969	39.08	ng/uL	98
88)	Benzo(b)fluoranthene	252	17.486	17.481	0.943	1119984	36.33	ng/uL	98
89)	Benzo(k)fluoranthene	252	17.563	17.551	0.947	1117600	37.29	ng/uL	98
90)	Benzo(a)pyrene	252	18.375	18.363	0.991	961252	37.72	ng/uL	98
91)	Indeno(1,2,3-cd)pyrene	276	21.927	21.927	1.182	588028	34.99	ng/uL	99
92)	Dibenzo(a,h)anthracene	278	22.016	22.016	1.187	608822	35.53	ng/uL	100
93)	Benzo(ghi)perylene	276	22.563	22.563	1.217	555133	30.42	ng/uL	100
96)	1,4-Dioxane	88	2.334	2.317	0.413	46220	8.95	ng/uL	95
105)	Benzaldehyde	77	5.052	5.052	0.895	208267	20.52	ng/uL	100
107)	N-Nitrosopyrrolidine	100	6.199	6.193	1.098	185929	26.72	ng/uL#	34
108)	Acetophenone	105	6.216	6.216	1.101	511371	25.04	ng/uL	72
114)	2,6-Dichlorophenol	162	7.534	7.528	1.016	393978	31.75	ng/uL	100
116)	Caprolactam	113	8.028	7.999	1.082	87901m	21.93	ng/uL	
120)	1,2,4,5-Tetrachloroben...	216	8.593	8.593	0.883	438425	25.53	ng/uL	100
121)	1,1-Biphenyl	154	8.987	8.993	0.923	1139263	27.98	ng/uL	100
134)	Atrazine	200	11.257	11.251	0.970	380336	36.17	ng/uL	100
154)	3,3'-Dichlorobenzidine	252	15.092	15.075	0.995	74772	6.77	ng/uL	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2310.D
Acq On : 23 Jul 2018 18:56
Operator : LOF
InstName : MSDA
Sample : |1204074222|1784536|1|SVM|1|MS
Misc : |MSD827D4_S|MIX[A,B,J]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 24 10:40:47 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

#4 BEFORE analyst integration
Pyridine
Concen: Below Cal
Expected RT: 2.76 min

Lab File: sAg2310.D
Acq: 23 Jul 2018 18:56

Tgt Ion: 79

Sig	Exp Ratio
79	100
52	86.4
51	40.0

#4 AFTER analyst integration
Pyridine AB
Concen: 3.92 ng/uL MANUALLY INTEGRATED
RT: 2.758 min Scan# 165
Delta R.T. 0.000 min
Lab File: sAg2310.D
Acq: 23 Jul 2018 18:56

Tgt Ion: 79 Resp: 53909

Ion	Ratio	Lower	Upper
79	100		
52	86.0	56.4	116.4
51	22.1	10.0	70.0

#116 BEFORE analyst integration
Caprolactam
Concen: Below Cal
Expected RT: 8.00 min

Lab File: sAg2310.D
Acq: 23 Jul 2018 18:56

Tgt Ion: 113

Sig	Exp Ratio
113	100
55	249.2
56	189.8

#116 AFTER analyst integration
Caprolactam AP
Concen: 21.93 ng/uL MANUALLY INTEGRATED
RT: 8.028 min Scan# 1061
Delta R.T. 0.030 min
Lab File: sAg2310.D
Acq: 23 Jul 2018 18:56

Tgt Ion:113 Resp: 87901

Ion	Ratio	Lower	Upper
113	100		
55	193.2	219.2	279.2#
56	144.2	159.8	219.8#

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 10:00**	**Matrix:**	**SO**
Lab Sample ID:	**1204074223**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**25.6**
Client Sample:	**QC for batch 1784534**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**RA056-187(454948007MSD)**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 19:24**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.29 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2311.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
92-52-4	1,1'-Biphenyl		1280	ug/kg	133	443
95-94-3	1,2,4,5-Tetrachlorobenzene		1020	ug/kg	133	443
58-90-2	2,3,4,6-Tetrachlorophenol		1910	ug/kg	133	443
95-95-4	2,4,5-Trichlorophenol		1730	ug/kg	133	443
88-06-2	2,4,6-Trichlorophenol		1700	ug/kg	133	443
120-83-2	2,4-Dichlorophenol		1550	ug/kg	133	443
105-67-9	2,4-Dimethylphenol		1170	ug/kg	133	443
51-28-5	2,4-Dinitrophenol		1820	ug/kg	133	887
121-14-2	2,4-Dinitrotoluene		1780	ug/kg	133	443
606-20-2	2,6-Dinitrotoluene		1640	ug/kg	133	443
91-58-7	2-Chloronaphthalene		1210	ug/kg	13.3	44.3
95-57-8	2-Chlorophenol		1300	ug/kg	133	443
534-52-1	2-Methyl-4,6-dinitrophenol		1820	ug/kg	133	443
91-57-6	2-Methylnaphthalene		986	ug/kg	13.3	44.3
88-75-5	2-Nitrophenol		1280	ug/kg	133	443
91-94-1	3,3'-Dichlorobenzidine	U	443	ug/kg	133	443
101-55-3	4-Bromophenylphenylether		1700	ug/kg	133	443
59-50-7	4-Chloro-3-methylphenol		1700	ug/kg	177	443
106-47-8	4-Chloroaniline		658	ug/kg	133	443
7005-72-3	4-Chlorophenylphenylether		1690	ug/kg	133	443
100-02-7	4-Nitrophenol		1710	ug/kg	133	443
83-32-9	Acenaphthene		1380	ug/kg	13.3	44.3
208-96-8	Acenaphthylene		1380	ug/kg	13.3	44.3
98-86-2	Acetophenone		1190	ug/kg	133	443
120-12-7	Anthracene		1560	ug/kg	13.3	44.3
1912-24-9	Atrazine		1770	ug/kg	177	443
100-52-7	Benzaldehyde		676	ug/kg	133	443
56-55-3	Benzo(a)anthracene		1650	ug/kg	13.3	44.3
50-32-8	Benzo(a)pyrene		1740	ug/kg	13.3	44.3
205-99-2	Benzo(b)fluoranthene		1760	ug/kg	13.3	44.3
191-24-2	Benzo(ghi)perylene		1300	ug/kg	13.3	44.3
207-08-9	Benzo(k)fluoranthene		1810	ug/kg	13.3	44.3
85-68-7	Butylbenzylphthalate		1670	ug/kg	13.3	44.3
105-60-2	Caprolactam		1680	ug/kg	133	443
86-74-8	Carbazole		1740	ug/kg	13.3	44.3
218-01-9	Chrysene		1700	ug/kg	13.3	44.3
84-74-2	Di-n-butylphthalate		1720	ug/kg	13.3	44.3
117-84-0	Di-n-octylphthalate		1790	ug/kg	13.3	44.3

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**454944**	**Date Collected:**	**07/18/2018 10:00**	**Matrix:**	**SO**
Lab Sample ID:	**1204074223**	**Date Received:**	**07/19/2018 08:55**	**%Moisture:**	**25.6**
Client Sample:	**QC for batch 1784534**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**RA056-187(454948007MSD)**	**Method:**	**SW846 3541/8270D**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1784536**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**07/23/2018 19:24**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**07/23/2018 11:27**	**Aliquot:**	**30.29 g**	**Final Volume:**	**1 mL**
Data File:	**072318.s\sAg2311.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
53-70-3	Dibenzo(a,h)anthracene		1500	ug/kg	13.3	44.3
132-64-9	Dibenzofuran		1520	ug/kg	133	443
84-66-2	Diethylphthalate		1660	ug/kg	13.3	44.3
131-11-3	Dimethylphthalate		1550	ug/kg	13.3	44.3
122-39-4	Diphenylamine		1540	ug/kg	133	443
206-44-0	Fluoranthene		1860	ug/kg	13.3	44.3
86-73-7	Fluorene		1550	ug/kg	13.3	44.3
118-74-1	Hexachlorobenzene		1670	ug/kg	133	443
87-68-3	Hexachlorobutadiene		508	ug/kg	133	443
77-47-4	Hexachlorocyclopentadiene	J	378	ug/kg	133	443
67-72-1	Hexachloroethane	J	229	ug/kg	133	443
193-39-5	Indeno(1,2,3-cd)pyrene		1550	ug/kg	13.3	44.3
78-59-1	Isophorone		1190	ug/kg	133	443
621-64-7	N-Nitrosodipropylamine		1290	ug/kg	133	443
91-20-3	Naphthalene		781	ug/kg	13.3	44.3
98-95-3	Nitrobenzene		1070	ug/kg	133	443
87-86-5	Pentachlorophenol		2450	ug/kg	133	443
85-01-8	Phenanthrene		1570	ug/kg	13.3	44.3
108-95-2	Phenol		1480	ug/kg	133	443
129-00-0	Pyrene		1490	ug/kg	13.3	44.3
108-60-1	bis(2-Chloro-1-methylethyl)ether		787	ug/kg	133	443
111-91-1	bis(2-Chloroethoxy)methane		1220	ug/kg	133	443
111-44-4	bis(2-Chloroethyl) ether		968	ug/kg	133	443
117-81-7	bis(2-Ethylhexyl)phthalate		1670	ug/kg	13.3	44.3
65794-96-9	m,p-Cresols		1610	ug/kg	133	443
99-09-2	m-Nitroaniline		1070	ug/kg	133	443
95-48-7	o-Cresol		1400	ug/kg	133	443
88-74-4	o-Nitroaniline		1590	ug/kg	146	443
100-01-6	p-Nitroaniline		1270	ug/kg	133	443

Quantitation Report
GEL Laboratories, LLC

07/24/2018

07/24/2018

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2311.D
Acq On : 23 Jul 2018 19:24
Operator : LOF
InstName : MSDA
Sample : |1204074223|1784536|1|SVM|1|MSD
Misc : |MSD827D4_S|MIX[A,B,J]
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 24 10:41:45 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.646	5.646	1.000	387092	40.00	ng/uL	0.00
21) A Naphthalene-d8	136	7.416	7.416	1.000	1517403	40.00	ng/uL	0.00
38) A Acenaphthene-d10	164	9.728	9.728	1.000	822299	40.00	ng/uL	0.00
63) A Phenanthrene-d10	188	11.610	11.604	1.000	1593767	40.00	ng/uL	0.00
77) A Chrysene-d12	240	15.157	15.139	1.000	1062654	40.00	ng/uL	0.02
87) A Perylene-d12	264	18.527	18.516	1.000	620952	40.00	ng/uL	0.01
95) B 1,4-Dichlorobenzene-d4	152	5.646	5.646	1.000	387092	40.00	ng/uL	0.00
111) B Naphthalene-d8	136	7.416	7.416	1.000	1517403	40.00	ng/uL	0.00
119) B Acenaphthene-d10	164	9.728	9.728	1.000	822299	40.00	ng/uL	0.00
128) B Phenanthrene-d10	188	11.610	11.604	1.000	1593767	40.00	ng/uL	0.00
141) B Chrysene-d12	240	15.157	15.139	1.000	1062654	40.00	ng/uL	0.02
147) B Perylene-d12	264	18.527	18.516	1.000	620952	40.00	ng/uL	0.01
150) J Phenanthrene-d10	188	11.610	11.604	1.000	1593767	40.00	ng/uL	0.00
152) J Chrysene-d12	240	15.157	15.139	1.000	1062654	40.00	ng/uL	0.02
155) D Naphthalene-d8	136	7.416	7.416	1.000	1517403	40.00	ng/uL	0.00
157) D Acenaphthene-d10	164	9.728	9.728	1.000	822299	40.00	ng/uL	0.00
160) D Phenanthrene-d10	188	11.610	11.604	1.000	1593767	40.00	ng/uL	0.00
167) D Chrysene-d12	240	15.157	15.139	1.000	1062654	40.00	ng/uL	0.02
169) E Naphthalene-d8	136	7.416	7.416	1.000	1517403	40.00	ng/uL	0.00
171) E Perylene-d12	264	18.527	18.516	1.000	620952	40.00	ng/uL	0.01
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.969	3.946	0.703	645306	54.36	ng/uL	0.02
7) Phenol-d5	99	5.128	5.116	0.908	899249	62.92	ng/uL	0.01
22) Nitrobenzene-d5	82	6.428	6.434	0.867	315472	23.76	ng/uL	0.00
43) 2-Fluorobiphenyl	172	8.857	8.863	0.911	814132	25.08	ng/uL	0.00
62) 2,4,6-Tribromophenol	330	10.734	10.734	1.103	351911	83.59	ng/uL	0.00
79) p-Terphenyl-d14	244	13.592	13.592	0.897	1259306	38.29	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	15 - 88	54%
7) Phenol-d5	100.000	15 - 91	63%
22) Nitrobenzene-d5	50.000	36 - 115	48%
43) 2-Fluorobiphenyl	50.000	32 - 112	50%
62) 2,4,6-Tribromophenol	100.000	32 - 124	84%
79) p-Terphenyl-d14	50.000	36 - 121	77%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
3) N-Methyl-N-nitrosometh...	74	2.605	2.593	0.461	153191	22.32	ng/uL	95
4) Pyridine	79	2.675	2.758	0.474	55547	4.62	ng/uL	86
6) Aniline	93	5.193	5.199	0.920	225918	11.89	ng/uL	93
8) Phenol	94	5.146	5.134	0.911	501058	33.39	ng/uL	98
9) bis(2-Chloroethyl) ether	93	5.269	5.275	0.933	268476	21.83	ng/uL	96
10) 2-Chlorophenol	128	5.358	5.352	0.949	393496	29.21	ng/uL	99
12) 1,3-Dichlorobenzene	146	5.563	5.569	0.985	88001	5.74	ng/uL	99
13) 1,4-Dichlorobenzene	146	5.669	5.675	1.004	103931	6.67	ng/uL	98
14) 1,2-Dichlorobenzene	146	5.881	5.887	1.042	128902	8.75	ng/uL	100
15) bis(2-Chloro-1-methyle...	45	6.028	6.034	1.068	389868	17.75	ng/uL	89

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2311.D
Acq On : 23 Jul 2018 19:24
Operator : LOF
InstName : MSDA
Sample : |1204074223|1784536|1|SVM|1|MSD
Misc : |MSD827D4_S|MIX[A,B,J]
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 24 10:41:45 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
16)	Benzyl alcohol	108	5.840	5.840	1.034	274904	33.50	ng/uL	98
17)	o-Cresol	107	5.993	5.987	1.061	330973	31.61	ng/uL	94
18)	m,p-Cresols	107	6.210	6.216	1.100	505077	36.40	ng/uL#	62
19)	N-Nitrosodipropylamine	70	6.216	6.228	1.101	260527	29.04	ng/uL#	47
20)	Hexachloroethane	117	6.352	6.358	1.125	29161	5.17	ng/uL	93
23)	Nitrobenzene	77	6.452	6.463	0.870	317168	24.19	ng/uL	99
24)	Isophorone	82	6.787	6.793	0.915	678285	26.92	ng/uL	99
25)	2-Nitrophenol	139	6.893	6.899	0.929	201759	28.83	ng/uL	97
26)	2,4-Dimethylphenol	122	6.952	6.958	0.937	319053	26.48	ng/uL	99
27)	bis(2-Chloroethoxy)met...	93	7.087	7.093	0.956	441923	27.48	ng/uL	99
28)	2,4-Dichlorophenol	162	7.228	7.228	0.975	399885	34.94	ng/uL	99
29)	Benzoic acid	105	7.181	7.122	0.968	737403	97.12	ng/uL	89
30)	1,2,4-Trichlorobenzene	180	7.334	7.340	0.989	197334	15.41	ng/uL	99
31)	alpha-Terpineol	59	7.463	7.469	1.006	391234	29.54	ng/uL	99
32)	Naphthalene	128	7.446	7.452	1.004	734573	17.60	ng/uL	100
33)	4-Chloroaniline	127	7.528	7.528	1.015	234382	14.84	ng/uL	99
34)	Hexachlorobutadiene	225	7.610	7.616	1.026	82792	11.46	ng/uL	100
35)	4-Chloro-3-methylphenol	107	8.187	8.175	1.104	435233	38.40	ng/uL	98
36)	2-Methylnaphthalene	142	8.375	8.381	1.129	625656	22.23	ng/uL	98
37)	1-Methylnaphthalene	142	8.504	8.510	1.147	638692	24.10	ng/uL	99
39)	Hexachlorocyclopentadiene	237	8.575	8.581	0.881	48520	8.53	ng/uL	100
40)	2,3-Dichloroaniline	161	8.746	8.746	0.899	465027	32.15	ng/uL	98
41)	2,4,6-Trichlorophenol	196	8.746	8.746	0.899	326219	38.25	ng/uL	99
42)	2,4,5-Trichlorophenol	196	8.799	8.793	0.904	352885	38.91	ng/uL	99
44)	2-Chloronaphthalene	162	9.016	9.016	0.927	754973	27.18	ng/uL	98
45)	o-Nitroaniline	65	9.151	9.152	0.941	263829	35.78	ng/uL	97
47)	m-Nitroaniline	138	9.681	9.687	0.995	155157	24.14	ng/uL	94
48)	Dimethylphthalate	163	9.387	9.399	0.965	1149827	35.00	ng/uL	100
50)	2,6-Dinitrotoluene	165	9.469	9.469	0.973	261581	37.06	ng/uL	96
51)	2,4-Dinitrotoluene	165	9.975	9.981	1.025	355891	40.21	ng/uL	89
52)	Acenaphthylene	152	9.551	9.557	0.982	1361931	31.12	ng/uL	100
53)	Acenaphthene	154	9.775	9.781	1.005	807313	31.06	ng/uL	100
54)	2,4-Dinitrophenol	184	9.810	9.810	1.008	93130	41.11	ng/uL	91
55)	Dibenzofuran	168	9.993	9.999	1.027	1291999	34.25	ng/uL	98
56)	2,3,4,6-Tetrachlorophenol	232	10.146	10.146	1.043	306013	43.07	ng/uL	96
57)	Diethylphthalate	149	10.287	10.287	1.057	1211351	37.44	ng/uL	99
58)	4-Nitrophenol	139	9.910	9.899	1.019	157176	38.66	ng/uL	90
59)	Fluorene	166	10.428	10.434	1.072	1059420	35.01	ng/uL	99
60)	4-Chlorophenylphenylether	204	10.428	10.428	1.072	539953	38.01	ng/uL	96
61)	p-Nitroaniline	138	10.457	10.463	1.075	146330	28.66	ng/uL	86
64)	2-Methyl-4,6-dinitroph...	198	10.493	10.493	0.904	158697	40.95	ng/uL	90
65)	Diphenylamine	169	10.581	10.581	0.911	924677	34.62	ng/uL	98
66)	1,2-Diphenylhydrazine	77	10.628	10.634	0.915	1026148	33.82	ng/uL	98
67)	4-Bromophenylphenylether	248	11.045	11.046	0.951	355667	38.24	ng/uL	96
68)	Hexachlorobenzene	284	11.116	11.116	0.957	385538	37.65	ng/uL	100
69)	Pentachlorophenol	266	11.369	11.363	0.979	267852	55.23	ng/uL	99
70)	n-Octadecane	57	11.457	11.463	0.987	956271	34.32	ng/uL	98
72)	Phenanthrene	178	11.640	11.646	1.003	1613484	35.39	ng/uL	100
73)	Anthracene	178	11.704	11.710	1.008	1613018	35.08	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2311.D
Acq On : 23 Jul 2018 19:24
Operator : LOF
InstName : MSDA
Sample : |1204074223|1784536|1|SVM|1|MSD
Misc : |MSD827D4_S|MIX[A,B,J]
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 24 10:41:45 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
74)	Carbazole	167	11.904	11.904	1.025	1339421	39.14	ng/uL	100
75)	Di-n-butylphthalate	149	12.328	12.328	1.062	2063172	38.80	ng/uL	99
76)	Fluoranthene	202	13.128	13.128	1.131	1727177	41.86	ng/uL	99
78)	Pyrene	202	13.410	13.410	0.885	1707675	33.70	ng/uL	99
80)	Butylbenzylphthalate	149	14.234	14.234	0.939	785589	37.60	ng/uL	96
81)	bis(2-Ethylhexyl)phtha...	149	15.169	15.169	1.001	1170762	37.69	ng/uL	99
82)	Benzo(a)anthracene	228	15.134	15.134	0.998	1250924	37.16	ng/uL	99
83)	Chrysene	228	15.204	15.198	1.003	1174612	38.36	ng/uL	100
86)	Di-n-octylphthalate	149	16.569	16.575	1.093	1647632	40.41	ng/uL	98
88)	Benzo(b)fluoranthene	252	17.480	17.481	0.943	809000	39.73	ng/uL	98
89)	Benzo(k)fluoranthene	252	17.551	17.551	0.947	809818	40.91	ng/uL	98
90)	Benzo(a)pyrene	252	18.369	18.363	0.991	659716	39.19	ng/uL	98
91)	Indeno(1,2,3-cd)pyrene	276	21.921	21.927	1.183	387345	34.89	ng/uL	99
92)	Dibenzo(a,h)anthracene	278	22.004	22.016	1.188	383893	33.92	ng/uL	100
93)	Benzo(ghi)perylene	276	22.551	22.563	1.217	354077	29.38	ng/uL	99
96)	1,4-Dioxane	88	2.328	2.317	0.412	39306	8.70	ng/uL	97
105)	Benzaldehyde	77	5.052	5.052	0.895	135356	15.25	ng/uL	99
107)	N-Nitrosopyrrolidine	100	6.199	6.193	1.098	209872	34.49	ng/uL	82
108)	Acetophenone	105	6.216	6.216	1.101	477501	26.73	ng/uL	70
114)	2,6-Dichlorophenol	162	7.534	7.528	1.016	382388	35.88	ng/uL	100
116)	Caprolactam	113	8.040	7.999	1.084	130644m	37.95	ng/uL	
120)	1,2,4,5-Tetrachloroben...	216	8.593	8.593	0.883	337783	22.93	ng/uL	99
121)	1,1-Biphenyl	154	8.987	8.993	0.924	1006106	28.80	ng/uL	100
134)	Atrazine	200	11.257	11.251	0.970	355123	39.95	ng/uL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\072318.s\
Data File : sAg2311.D
Acq On : 23 Jul 2018 19:24
Operator : LOF
InstName : MSDA
Sample : |1204074223|1784536|1|SVM|1|MSD
Misc : |MSD827D4_S|MIX[A,B,J]
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 24 10:41:45 2018
Quant Method : D:\MSDChem\1\data\072318.s\MSDA_8270d_8270c_062018.m
Quant Title : BNA01 SubList :
QLast Update : Thu Jun 21 08:48:03 2018
Response via : Initial Calibration
Integrator: RTE

#116 BEFORE analyst integration
Caprolactam
Concen: Below Cal
Expected RT: 8.00 min

Lab File: sAg2311.D
Acq: 23 Jul 2018 19:24

Tgt Ion: 113

Sig	Exp Ratio
113	100
55	249.2
56	189.8

#116 AFTER analyst integration
Caprolactam AP
Concen: 37.95 ng/uL MANUALLY INTEGRATED
RT: 8.040 min Scan# 1063
Delta R.T. 0.041 min
Lab File: sAg2311.D
Acq: 23 Jul 2018 19:24

Tgt Ion:113 Resp: 130644

Ion	Ratio	Lower	Upper
113	100		
55	197.3	219.2	279.2#
56	145.4	159.8	219.8#

Miscellaneous

Prep Logbook

Automated Soxhlet Extraction

Batch ID: **1784534** **Verified by:** _____

Analyst: **Stacey Grant**

Method: **SW846 3541**

Lab SOP: **GL-OA-E-066 REV# 8**

Instrument: **Semi-Volatiles Manual**

Sample ID	Prep Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1204074220 MB	23-JUL-2018 11:27:00	30.38	1	0.03292
1204074221 LCS	23-JUL-2018 11:27:00	30.12	1	0.0332
454944002	23-JUL-2018 11:27:00	30.5	1	0.03279
454944003	23-JUL-2018 11:27:00	30.12	1	0.0332
454944004	23-JUL-2018 11:27:00	30.12	1	0.0332
454944005	23-JUL-2018 11:27:00	30.49	1	0.0328
454944006	23-JUL-2018 11:27:00	30.45	1	0.03284
454944007	23-JUL-2018 11:27:00	30.08	1	0.03324
454944008	23-JUL-2018 11:27:00	30.13	1	0.03319
454944009	23-JUL-2018 11:27:00	30.19	1	0.03312
454944010	23-JUL-2018 11:27:00	30.02	1	0.03331
454948001	23-JUL-2018 11:27:00	30.43	1	0.03286
454948004	23-JUL-2018 11:27:00	30.03	1	0.0333
454948007	23-JUL-2018 11:27:00	30.34	1	0.03296
1204074222 MS (454948007)	23-JUL-2018 11:27:00	30.07	1	0.03326
1204074223 MSD (454948007)	23-JUL-2018 11:27:00	30.29	1	0.03301
454948010	23-JUL-2018 11:27:00	30.28	1	0.03303
454948014	23-JUL-2018 11:27:00	30.17	1	0.03315

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1204074221	BENZIDINE/Atrazine LCS	WE180611-49	1	mL
LCS	1204074221	BNA LCS w/o Benzidine/Atrazine 50ppm	WE180706-40	1	mL
MS	1204074222	BENZIDINE/Atrazine LCS	WE180611-49	1	mL
MS	1204074222	BNA LCS w/o Benzidine/Atrazine 50ppm	WE180706-40	1	mL
MSD	1204074223	BENZIDINE/Atrazine LCS	WE180611-49	1	mL
MSD	1204074223	BNA LCS w/o Benzidine/Atrazine 50ppm	WE180706-40	1	mL
SURR	All	BNA for all Surrogate	UE180526-12	1	mL
REGNT	All	Sand pure 40-100 mesh	2675401-A	30	g
REGNT	All	Acetone	2800324-B4	60	mL
REGNT	All	Methylene Chloride	2811213	60	mL

Comments:

Soxtherm Unit:: 7A,8A,9A
Final Solvent: CH2Cl2
Start Time:: 1:20
End Time:: 2:24
Verified by: DB

ORGANIC RUN LOG - INSTRUMENT ID#MSDA

JMB 06/21/2018

GEL ORGANIC RUN LOG

DATE: 20-Jun-18 METHOD: See Data OPERATOR: JMB3 Sequence Number: 062018.S

06/21/2018

Multiplier Voltage: 1348
Internal Std ID: UBN171221-01.3
Internal Std ID: WBN180612-99 (SIM)
Solvent Reference ID: 2593125

Calibration Information:
Initial Calibration Dates: See Calibration History
Initial Calibration Std ID's: See Associated Data and Run Log
GEL SOP: GL-OA-E-009

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Dil. Factor	AS Slot #	Analyst	Comments
06/20/2018	08:51	sAf2001.D	WBN180611-99	DFTPP	DFTPP	1	1	JMB3	√ C/D
06/20/2018	09:06	sAf2002.D	WBN180517-18	M-1	duse	1	2	JMB3	DUSE: see sAf2005
06/20/2018	09:38	sAf2003.D	WBN180517-17	M-2	duse	1	3	JMB3	DUSE: see sAf2011
06/20/2018	10:16	sAf2004.D	WBN180517-16	M-3	ICAL	1	4	JMB3	√ C/D
06/20/2018	10:50	sAf2005.D	WBN180517-18	M-1	ICAL	1	2	JMB3	√ C/D
06/20/2018	11:23	sAf2006.D	WBN180517-15.1	M-4	ICAL	1	5	JMB3	√ C/D
06/20/2018	11:54	sAf2007.D	WBN180517-14	M-5	ICAL	1	6	JMB3	√ C/D
06/20/2018	12:26	sAf2008.D	WBN180517-13	M-6	ICAL	1	7	JMB3	√ C/D
06/20/2018	12:57	sAf2009.D	WBN180517-12	M-7	ICAL	1	8	JMB3	√ C/D
06/20/2018	13:29	sAf2010.D	WBN180517-11	M-8	ICAL	1	9	JMB3	√ C/D
06/20/2018	14:29	sAf2011.D	WBN180517-17	M-2	ICAL	1	3	JMB3	√ C/D
06/20/2018	15:01	sAf2012.D	WBN180517-09.1	M-ICV	ICV	1	10	JMB3	√ C/D
06/20/2018	16:03	sAf2013.D	WBN180611-99	DFTPP	DFTPP	1	11	JMB3	√ C/D
06/20/2018	16:17	sAf2014.D	WBN180518-43	B-2	ICAL	1	12	JMB3	√ C/D
06/20/2018	16:40	sAf2015.D	WBN180518-43	B-2	duse	1	13	JMB3	DUSE: inadvertently loaded B-2 ICAL standard twice
06/20/2018	17:02	sAf2016.D	WBN180518-44	B-3	ICAL	1	14	JMB3	√ C/D
06/20/2018	17:25	sAf2017.D	WBN180518-45.1	B-4	ICAL	1	15	JMB3	√ C/D
06/20/2018	17:48	sAf2018.D	WBN180518-46	B-5	ICAL	1	16	JMB3	√ C/D
06/20/2018	18:10	sAf2019.D	WBN180518-47	B-6	ICAL	1	17	JMB3	√ C/D
06/20/2018	18:33	sAf2020.D	WBN180518-48	B-7	ICAL	1	18	JMB3	√ C/D
06/20/2018	18:55	sAf2021.D	WBN180518-49	B-8	ICAL	1	19	JMB3	√ C/D
06/20/2018	19:18	sAf2022.D	WBN180518-50.2	B-ICV	ICV	1	20	JMB3	√ C/D
06/20/2018	19:42	sAf2023.D	WBN180410-17	A-2	ICAL	1	21	JMB3	√ C/D
06/20/2018	20:08	sAf2024.D	WBN180410-16	A-3	ICAL	1	22	JMB3	√ C/D
06/20/2018	20:35	sAf2025.D	WBN180410-18	A-9	ICAL	1	23	JMB3	√ C/D
06/20/2018	21:02	sAf2026.D	WBN180410-15.1	A-4	ICAL	1	24	JMB3	√ C/D
06/20/2018	21:28	sAf2027.D	WBN180410-14	A-5	ICAL	1	25	JMB3	√ C/D
06/20/2018	21:55	sAf2028.D	WBN180410-19	A-10	ICAL	1	26	JMB3	√ C/D
06/20/2018	22:22	sAf2029.D	WBN180410-13	A-6	ICAL	1	27	JMB3	√ C/D
06/20/2018	22:49	sAf2030.D	WBN180410-12	A-7	ICAL	1	28	JMB3	√ C/D
06/20/2018	23:15	sAf2031.D	WBN180410-11	A-8	ICAL	1	29	JMB3	√ C/D
06/20/2018	23:42	sAf2032.D	WBN180517-19	A-ICV	ICV	1	30	JMB3	√ C/D

ORGANIC RUN LOG - INSTRUMENT ID#MSDA

GEL ORGANIC RUN LOG

06/21/2018 00:09	sAf2033.D	WBN180611-99	DFTPP	DFTPP	1	31	JMB3	√ D only
06/21/2018 00:25	sAf2034.D	WBN180419-25	P-2	ICAL	1	32	JMB3	√ D only
06/21/2018 00:47	sAf2035.D	WBN180419-24	P-3	ICAL	1	33	JMB3	√ D only
06/21/2018 01:10	sAf2036.D	WBN180419-23.1	P-4	ICAL	1	34	JMB3	√ D only
06/21/2018 01:32	sAf2037.D	WBN180419-22	P-5	ICAL	1	35	JMB3	√ D only
06/21/2018 01:55	sAf2038.D	WBN180419-21	P-6	ICAL	1	36	JMB3	√ D only
06/21/2018 02:18	sAf2039.D	WBN180419-20	P-7	ICAL	1	37	JMB3	√ D only
06/21/2018 02:40	sAf2040.D	WBN180419-19	P-8	ICAL	1	38	JMB3	√ D only
06/21/2018 03:03	sAf2041.D	WBN180416-26	P-ICV	ICV	1	39	JMB3	√ D only
06/21/2018 03:25	sAf2042.D	WBN180417-31	H-2	ICAL	1	40	JMB3	√ D only
06/21/2018 03:48	sAf2043.D	WBN180417-32	H-3	ICAL	1	41	JMB3	√ D only
06/21/2018 04:10	sAf2044.D	WBN180417-33.1	H-4	ICAL	1	42	JMB3	√ D only
06/21/2018 04:33	sAf2045.D	WBN180417-34	H-5	ICAL	1	43	JMB3	√ D only
06/21/2018 04:56	sAf2046.D	WBN180417-35	H-6	ICAL	1	44	JMB3	√ D only
06/21/2018 05:18	sAf2047.D	WBN180417-36	H-7	ICAL	1	45	JMB3	√ D only
06/21/2018 05:41	sAf2048.D	WBN180620-37	H-ICV	ICV	1	46	JMB3	√ D only - No Hexachlorophene in this H-ICV standard

ORGANIC RUN LOG - INSTRUMENT ID#MSDA

07/25/2018

GEL ORGANIC RUN LOG

DATE: 23-Jul-18 METHOD: See Data OPERATOR: LOF Sequence Number: 072318.S

07/25/2018

Multiplier Voltage: 1348
Internal Std ID: UBN171221-01.3
Internal Std ID: WBN180612-99 (SIM)
Solvent Reference ID: 2593125

Calibration Information:
Initial Calibration Dates: See Calibration History
Initial Calibration Std ID's: See Associated Data and Run Log
GEL SOP: GL-OA-E-009

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Dil. Factor	AS Slot #	Analyst	Comments
07/23/2018	14:37	sAg2301.D	WBN180611-99	DFTPP	DFTPP	1	1	LOF	USE
07/23/2018	15:05	sAg2302.D	WBN180618-05.3	M-CCV	CCV	1	2	LOF	USE; 424914
07/23/2018	15:38	sAg2303.D	WBN180606-15.2	A-CCV	CCV	1	3	LOF	USE
07/23/2018	16:05	sAg2304.D	WBN180518-45.2	B-CCV	CCV	1	4	LOF	USE
07/23/2018	16:35	sAg2305.D	1204074220	MB	1784536	1	5	LOF	USE
07/23/2018	17:03	sAg2306.D	1204074221	LCS	1784536	1	6	LOF	DUSE; 2 LOW; SEE SAG2415
07/23/2018	17:31	sAg2307.D	454948001	UCOR	1784536	1	7	LOF	USE
07/23/2018	17:59	sAg2308.D	454948004	UCOR	1784536	1	8	LOF	USE
07/23/2018	18:27	sAg2309.D	454948007	UCOR	1784536	1	9	LOF	USE
07/23/2018	18:56	sAg2310.D	1204074222	MS	1784536	1	10	LOF	USE
07/23/2018	19:24	sAg2311.D	1204074223	MSD	1784536	1	11	LOF	USE
07/23/2018	19:52	sAg2312.D	454948010	UCOR	1784536	1	12	LOF	USE
07/23/2018	20:20	sAg2313.D	454948014	UCOR	1784536	1	13	LOF	DUSE; SURR LOW/ISTD LOW; SEE RR SAG2416
07/23/2018	20:48	sAg2314.D	454944002	URSC	1784536	1	14	LOF	USE
07/23/2018	21:16	sAg2315.D	454944003	URSC	1784536	1	15	LOF	USE
07/23/2018	21:44	sAg2316.D	454944004	URSC	1784536	1	16	LOF	USE
07/23/2018	22:13	sAg2317.D	454944005	URSC	1784536	1	17	LOF	USE
07/23/2018	22:41	sAg2318.D	454944006	URSC	1784536	1	18	LOF	USE
07/23/2018	23:09	sAg2319.D	454944007	URSC	1784536	1	19	LOF	USE
07/23/2018	23:37	sAg2320.D	454944008	URSC	1784536	1	20	LOF	USE
07/24/2018	00:05	sAg2321.D	454944009	URSC	1784536	1	21	LOF	USE

ORGANIC RUN LOG - INSTRUMENT ID#MSDA

07/25/2018

GEL ORGANIC RUN LOG

DATE: 24-Jul-18 METHOD: See Data OPERATOR: JLD1 Sequence Number: 072418.S

07/25/2018

Multiplier Voltage: 1348
Internal Std ID: UBN171221-01.3
Internal Std ID: WBN180612-99 (SIM)
Solvent Reference ID: 2593125

Calibration Information:
Initial Calibration Dates: See Calibration History
Initial Calibration Std ID's: See Associated Data and Run Log
GEL SOP: GL-OA-E-009

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Dil. Factor	AS Slot #	Analyst	Comments
07/24/2018	13:13	sAg2401.D	WBN180611-99	DFTPP	DFTPP	1	1	JLD1	DUSE
07/24/2018	13:29	sAg2402.D	WBN180722-05	M-CCV	CCV	1	2	JLD1	DUSE
07/24/2018	15:32	sAg2403.D	WBN180611-99	DFTPP	DFTPP	1	1	JLD1	DUSE
07/24/2018	15:47	sAg2404.D	WBN180722-05	M-CCV	CCV	1	2	JLD1	DUSE
07/24/2018	16:53	sAg2405.D	WBN180709-15.2	A-CCV	CCV	1	3	JLD1	DUSE
07/24/2018	17:21	sAg2406.D	WBN180722-05	M-CCV	CCV	1	2	JLD1	DUSE
07/24/2018	19:29	sAg2407.D	WBN180611-99	DFTPP	DFTPP	1	1	JLD1	DUSE
07/24/2018	19:44	sAg2408.D	WBN180722-05	M-CCV	CCV	1	2	JLD1	DUSE
07/24/2018	20:17	sAg2409.D	WBN180709-15.2	A-CCV	CCV	1	3	JLD1	DUSE
07/24/2018	20:45	sAg2410.D	WBN180518-45.2	B-CCV	CCV	1	4	JLD1	DUSE
07/24/2018	23:11	sAg2411.D	WBN180611-99	DFTPP	DFTPP	1	1	JLD1	USE
07/24/2018	23:26	sAg2412.D	WBN180722-05	M-CCV	CCV	1	2	JLD1	USE; 495231
07/24/2018	23:59	sAg2413.D	WBN180709-15.2	A-CCV	CCV	1	3	JLD1	USE
07/25/2018	00:27	sAg2414.D	WBN180518-45.2	B-CCV	CCV	1	4	JLD1	USE
07/25/2018	00:51	sAg2415.D	1204074221	LCS	1784536	1	5	JLD1	USE
07/25/2018	01:19	sAg2416.D	454948014	UCOR	1784536	1	6	JLD1	SURR LOW; SEE RX
07/25/2018	01:47	sAg2417.D	454944010	URSC	1784536	1	7	JLD1	USE
07/25/2018	02:16	sAg2418.D	454860007	UCOR	1783568	5	8	JLD1	USE
07/25/2018	02:43	sAg2419.D	454860007	UCOR	1783568	1	9	JLD1	DUSE; SAMPLE COULDY BI-PHASIC SEE 5X 2418

Metals Analysis

Case Narrative

Metals
Technical Case Narrative
URS Energy & Construction (URSC)
SDG #: 454944

Product: **Determination of Metals by ICP**
Analytical Method: SW846 3050B/6010D
Analytical Procedure: GL-MA-E-013 REV# 30
Analytical Batch: 1783993

Product: **Determination of Metals by ICP-MS**
Analytical Method: SW846 3050B/6020
Analytical Procedure: GL-MA-E-014 REV# 32
Analytical Batch: 1783991

Product: **Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer**
Analytical Method: SW846 7471A
Analytical Procedure: GL-MA-E-010 REV# 36
Analytical Batch: 1784164

Preparation Method: SW846 3050B
Preparation Procedure: GL-MA-E-009 REV# 28
Preparation Batches: 1783990 and 1783992

Preparation Method: SW846 7471A Prep
Preparation Procedure: GL-MA-E-010 REV# 36
Preparation Batch: 1784162

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
454944002	S09
454944003	S06
454944004	SW24
454944005	S05
454944006	S14
454944007	S15
454944008	S19
454944009	SW22
454944010	S10
1204073117	Method Blank (MB)**ICP**
1204073118	Laboratory Control Sample (LCS)
1204073121	454944002(S09L) Serial Dilution (SD)
1204073119	454944002(S09S) Matrix Spike (MS)
1204073120	454944002(S09SD) Matrix Spike Duplicate (MSD)
1204075175	454944002(S09PS) Post Spike (PS)
1204073112	Method Blank (MB)**ICP-MS**
1204073113	Laboratory Control Sample (LCS)
1204073116	454944002(S09L) Serial Dilution (SD)
1204073114	454944002(S09D) Sample Duplicate (DUP)
1204073115	454944002(S09S) Matrix Spike (MS)
1204073460	Method Blank (MB)**CVAA**

1204073461	Laboratory Control Sample (LCS)
1204073464	454925001(NonSDGL) Serial Dilution (SD)
1204073462	454925001(NonSDGD) Sample Duplicate (DUP)
1204073463	454925001(NonSDGS) Matrix Spike (MS)
1204073562	454925001(NonSDGSD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

CRDL/PQL Requirements
The PQL standard recoveries for SW846 6010C or 6010D met the control limits with the exception of zinc. Client sample concentrations were less than the MDL or greater than two times the PQL; therefore the data were not adversely affected. 454944002 (S09), 454944003 (S06), 454944004 (SW24), 454944005 (S05), 454944006 (S14), 454944007 (S15), 454944008 (S19), 454944009 (SW22) and 454944010 (S10)-ICP.

ICSA/ICSAB Statement
For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Quality Control (QC) Information

Matrix Spike (MS/MSD) Recovery Statement
The percent recoveries (%R) obtained from the MS/MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS/MSD (See Below) did not meet the recommended quality control acceptance criteria for percent recoveries for the following applicable analytes. The post spike recoveries were within the required control limits. This verifies the absence of a matrix interference in the post-spike digested sample. The recoveries may be attributed to possible sample matrix interference and/or non-homogeneity.

Sample	Analyte	Value
1204073119 (S09MS)	Barium	148* (75%-125%)
	Copper	70.1* (75%-125%)
	Potassium	257* (75%-125%)
	Zinc	-19.8* (75%-125%)
1204073120 (S09MSD)	Barium	141* (75%-125%)
	Potassium	275* (75%-125%)
	Zinc	-19.1* (75%-125%)

The MS/MSD (See Below) did not meet the recommended quality control acceptance criteria for percent recoveries for the following applicable analyte.

Sample	Analyte	Value
1204073115 (S09MS)	Selenium	74.3* (75%-125%)

Technical Information

Preparation/Analytical Method Verification

Method SW-846 3050B is not a total digestion technique for most samples. It is a very strong acid digestion that will dissolve almost all elements that could become environmentally available. By design, elements bound in silicate structures are not normally dissolved by this procedure as they are not usually mobile in the environment.
Method SW-846 3050B is not a total digestion technique for most samples. It is a very strong acid digestion that will dissolve almost all elements that could become environmentally available. By design, elements bound in silicate structures are not normally dissolved by this procedure as they are not usually mobile in the environment.

Sample Dilutions

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples required dilutions for antimony in order to minimize suppression due to matrix interferences. 454944002 (S09), 454944003 (S06), 454944004 (SW24), 454944005 (S05), 454944006 (S14), 454944007 (S15), 454944008 (S19), 454944009 (SW22) and 454944010 (S10)-ICP. The ICPMS solid samples in this SDG were diluted the standard two times. ICP-MS.

Analyte	**454944**								
	002	**003**	**004**	**005**	**006**	**007**	**008**	**009**	**010**
Antimony	10X	10X	10X	10X	10X	10X	10X	10X	10X
Selenium	2X	2X	2X	2X	2X	2X	2X	2X	2X

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report
for

URSC013 URS Energy & Construction (2012-SC-SPRU-29463-171)

Client SDG: 454944 GEL Work Order: 454944

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria
B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
J Value is estimated
N Metals--The Matrix spike sample recovery is not within specified control limits
U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: Nik-Cole A. Elmore **Name: Nik-Cole Elmore**

Date: 25 JUL 2018 **Title: Data Validator**

Sample Data Summary

METALS
−1−
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 454944 **METHOD TYPE:** SW846

SAMPLE ID: 454944002 **CLIENT ID:** S09

CONTRACT: URSC00114

MATRIX: Soil **DATE RECEIVED** 19−JUL−18 **LEVEL:** Low **%SOLIDS:** 93.7

CAS No	Analyte	Result	Units	C	Qual	M*	MDL	DF	Inst ID	Analytical Run
7429−90−5	Aluminum	10300	mg/kg			P	7.25	1	OPTIMA3	072318−1
7440−36−0	Antimony	3.52	mg/kg	U		P	3.52	10	OPTIMA3	072418A−2
7440−38−2	Arsenic	9.16	mg/kg			P	0.533	1	OPTIMA3	072318−1
7440−39−3	Barium	76.1	mg/kg		N	P	0.107	1	OPTIMA3	072318−1
7440−41−7	Beryllium	0.763	mg/kg			P	0.107	1	OPTIMA3	072318−1
7440−43−9	Cadmium	0.128	mg/kg	B		P	0.107	1	OPTIMA3	072318−1
7440−70−2	Calcium	24600	mg/kg			P	8.53	1	OPTIMA3	072318−1
7440−47−3	Chromium	16.9	mg/kg			P	0.16	1	OPTIMA3	072318−1
7440−48−4	Cobalt	13	mg/kg			P	0.16	1	OPTIMA3	072318−1
7440−50−8	Copper	41.8	mg/kg		N	P	0.32	1	OPTIMA3	072318−1
7439−89−6	Iron	29100	mg/kg			P	8.53	1	OPTIMA3	072318−1
7439−92−1	Lead	14.9	mg/kg			P	0.352	1	OPTIMA3	072318−1
7439−95−4	Magnesium	11700	mg/kg			P	9.06	1	OPTIMA3	072318−1
7439−96−5	Manganese	628	mg/kg			P	0.213	1	OPTIMA3	072318−1
7439−97−6	Mercury	0.0289	mg/kg			AV	0.00373	1	HG4	072318WS1−4
7440−02−0	Nickel	30.8	mg/kg			P	0.16	1	OPTIMA3	072318−1
7440−09−7	Potassium	1790	mg/kg		N	P	6.82	1	OPTIMA3	072318−1
7782−49−2	Selenium	0.768	mg/kg	B	N	MS	0.367	2	ICPMS14	180723−3
7440−22−4	Silver	0.803	mg/kg			P	0.107	1	OPTIMA3	072318−1
7440−23−5	Sodium	64.6	mg/kg			P	7.46	1	OPTIMA3	072318−1
7440−28−0	Thallium	1.29	mg/kg	B		P	0.533	1	OPTIMA3	072318−1
7440−62−2	Vanadium	22	mg/kg			P	0.107	1	OPTIMA3	072318−1
7440−66−6	Zinc	110	mg/kg		N	P	0.426	1	OPTIMA3	072318−1

***Analytical Methods:**

MS **SW846 3050B/6020**
P **SW846 3050B/6010D**

METALS
−1−
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 454944 **METHOD TYPE:** SW846

SAMPLE ID: 454944002 **CLIENT ID:** S09

CONTRACT: URSC00114

MATRIX: Soil **DATE RECEIVED** 19−JUL−18 **LEVEL:** Low **%SOLIDS:** 93.7

CAS No	Analyte	Result	Units	C	Qual	M*	MDL	DF	Inst ID	Analytical Run
AV	SW846 7471A									

METALS
−1−
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 454944 **METHOD TYPE:** SW846

SAMPLE ID: 454944003 **CLIENT ID:** S06

CONTRACT: URSC00114

MATRIX: Soil **DATE RECEIVED** 19−JUL−18 **LEVEL:** Low **%SOLIDS:** 92.9

CAS No	Analyte	Result	Units	C	Qual	M*	MDL	DF	Inst ID	Analytical Run
7429−90−5	Aluminum	10700	mg/kg			P	7	1	OPTIMA3	072318−1
7440−36−0	Antimony	3.4	mg/kg	U		P	3.4	10	OPTIMA3	072418A−2
7440−38−2	Arsenic	8.36	mg/kg			P	0.515	1	OPTIMA3	072318−1
7440−39−3	Barium	93.6	mg/kg		N	P	0.103	1	OPTIMA3	072318−1
7440−41−7	Beryllium	0.791	mg/kg			P	0.103	1	OPTIMA3	072318−1
7440−43−9	Cadmium	0.103	mg/kg	U		P	0.103	1	OPTIMA3	072318−1
7440−70−2	Calcium	20300	mg/kg			P	8.23	1	OPTIMA3	072318−1
7440−47−3	Chromium	17.3	mg/kg			P	0.154	1	OPTIMA3	072318−1
7440−48−4	Cobalt	12.9	mg/kg			P	0.154	1	OPTIMA3	072318−1
7440−50−8	Copper	32.2	mg/kg		N	P	0.309	1	OPTIMA3	072318−1
7439−89−6	Iron	28600	mg/kg			P	8.23	1	OPTIMA3	072318−1
7439−92−1	Lead	12.6	mg/kg			P	0.34	1	OPTIMA3	072318−1
7439−95−4	Magnesium	10400	mg/kg			P	8.75	1	OPTIMA3	072318−1
7439−96−5	Manganese	463	mg/kg			P	0.206	1	OPTIMA3	072318−1
7439−97−6	Mercury	0.0301	mg/kg			AV	0.00423	1	HG4	072318WS1−4
7440−02−0	Nickel	30.3	mg/kg			P	0.154	1	OPTIMA3	072318−1
7440−09−7	Potassium	1840	mg/kg		N	P	6.59	1	OPTIMA3	072318−1
7782−49−2	Selenium	0.711	mg/kg	B	N	MS	0.354	2	ICPMS14	180723−3
7440−22−4	Silver	0.873	mg/kg			P	0.103	1	OPTIMA3	072318−1
7440−23−5	Sodium	86.2	mg/kg			P	7.2	1	OPTIMA3	072318−1
7440−28−0	Thallium	1.5	mg/kg	B		P	0.515	1	OPTIMA3	072318−1
7440−62−2	Vanadium	22.2	mg/kg			P	0.103	1	OPTIMA3	072318−1
7440−66−6	Zinc	56	mg/kg		N	P	0.412	1	OPTIMA3	072318−1

***Analytical Methods:**

MS **SW846 3050B/6020**
P **SW846 3050B/6010D**

METALS
−1−
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 454944 **METHOD TYPE:** SW846

SAMPLE ID: 454944003 **CLIENT ID:** S06

CONTRACT: URSC00114

MATRIX: Soil **DATE RECEIVED** 19−JUL−18 **LEVEL:** Low **%SOLIDS:** 92.9

CAS No	Analyte	Result	Units	C	Qual	M*	MDL	DF	Inst ID	Analytical Run
AV	SW846 7471A									

METALS
−1−
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 454944 **METHOD TYPE:** SW846

SAMPLE ID: 454944004 **CLIENT ID:** SW24

CONTRACT: URSC00114

MATRIX: Soil **DATE RECEIVED** 19−JUL−18 **LEVEL:** Low **%SOLIDS:** 90.6

CAS No	Analyte	Result	Units	C	Qual	M*	MDL	DF	Inst ID	Analytical Run
7429−90−5	Aluminum	11500	mg/kg			P	6.89	1	OPTIMA3	072318−1
7440−36−0	Antimony	3.34	mg/kg	U		P	3.34	10	OPTIMA3	072418A−2
7440−38−2	Arsenic	8.57	mg/kg			P	0.506	1	OPTIMA3	072318−1
7440−39−3	Barium	81.6	mg/kg		N	P	0.101	1	OPTIMA3	072318−1
7440−41−7	Beryllium	0.81	mg/kg			P	0.101	1	OPTIMA3	072318−1
7440−43−9	Cadmium	0.169	mg/kg	B		P	0.101	1	OPTIMA3	072318−1
7440−70−2	Calcium	21000	mg/kg			P	8.1	1	OPTIMA3	072318−1
7440−47−3	Chromium	18.3	mg/kg			P	0.152	1	OPTIMA3	072318−1
7440−48−4	Cobalt	11.7	mg/kg			P	0.152	1	OPTIMA3	072318−1
7440−50−8	Copper	35.4	mg/kg		N	P	0.304	1	OPTIMA3	072318−1
7439−89−6	Iron	28400	mg/kg			P	8.1	1	OPTIMA3	072318−1
7439−92−1	Lead	11.8	mg/kg			P	0.334	1	OPTIMA3	072318−1
7439−95−4	Magnesium	10800	mg/kg			P	8.61	1	OPTIMA3	072318−1
7439−96−5	Manganese	475	mg/kg			P	0.203	1	OPTIMA3	072318−1
7439−97−6	Mercury	0.0266	mg/kg			AV	0.00391	1	HG4	072318WS1−4
7440−02−0	Nickel	29	mg/kg			P	0.152	1	OPTIMA3	072318−1
7440−09−7	Potassium	2040	mg/kg		N	P	6.48	1	OPTIMA3	072318−1
7782−49−2	Selenium	0.798	mg/kg	B	N	MS	0.364	2	ICPMS14	180723−3
7440−22−4	Silver	0.837	mg/kg			P	0.101	1	OPTIMA3	072318−1
7440−23−5	Sodium	107	mg/kg			P	7.09	1	OPTIMA3	072318−1
7440−28−0	Thallium	1.44	mg/kg	B		P	0.506	1	OPTIMA3	072318−1
7440−62−2	Vanadium	23.3	mg/kg			P	0.101	1	OPTIMA3	072318−1
7440−66−6	Zinc	138	mg/kg		N	P	0.405	1	OPTIMA3	072318−1

***Analytical Methods:**

MS **SW846 3050B/6020**
P **SW846 3050B/6010D**

METALS
−1−
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 454944 **METHOD TYPE:** SW846

SAMPLE ID: 454944004 **CLIENT ID:** SW24

CONTRACT: URSC00114

MATRIX: Soil **DATE RECEIVED** 19−JUL−18 **LEVEL:** Low **%SOLIDS:** 90.6

CAS No	Analyte	Result	Units	C	Qual	M*	MDL	DF	Inst ID	Analytical Run
AV	SW846 7471A									

METALS
−1−
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 454944 **METHOD TYPE:** SW846

SAMPLE ID: 454944005 **CLIENT ID:** S05

CONTRACT: URSC00114

MATRIX: Soil **DATE RECEIVED** 19−JUL−18 **LEVEL:** Low **%SOLIDS:** 91.2

CAS No	Analyte	Result	Units	C	Qual	M*	MDL	DF	Inst ID	Analytical Run
7429−90−5	Aluminum	10600	mg/kg			P	7.23	1	OPTIMA3	072318−1
7440−36−0	Antimony	3.51	mg/kg	U		P	3.51	10	OPTIMA3	072418A−2
7440−38−2	Arsenic	9.41	mg/kg			P	0.531	1	OPTIMA3	072318−1
7440−39−3	Barium	83.1	mg/kg		N	P	0.106	1	OPTIMA3	072318−1
7440−41−7	Beryllium	0.744	mg/kg			P	0.106	1	OPTIMA3	072318−1
7440−43−9	Cadmium	0.106	mg/kg	U		P	0.106	1	OPTIMA3	072318−1
7440−70−2	Calcium	29400	mg/kg			P	8.5	1	OPTIMA3	072318−1
7440−47−3	Chromium	16.9	mg/kg			P	0.159	1	OPTIMA3	072318−1
7440−48−4	Cobalt	12.7	mg/kg			P	0.159	1	OPTIMA3	072318−1
7440−50−8	Copper	43.3	mg/kg		N	P	0.319	1	OPTIMA3	072318−1
7439−89−6	Iron	30200	mg/kg			P	8.5	1	OPTIMA3	072318−1
7439−92−1	Lead	12.1	mg/kg			P	0.351	1	OPTIMA3	072318−1
7439−95−4	Magnesium	14700	mg/kg			P	9.03	1	OPTIMA3	072318−1
7439−96−5	Manganese	551	mg/kg			P	0.213	1	OPTIMA3	072318−1
7439−97−6	Mercury	0.0276	mg/kg			AV	0.00424	1	HG4	072318WS1−4
7440−02−0	Nickel	29.9	mg/kg			P	0.159	1	OPTIMA3	072318−1
7440−09−7	Potassium	1840	mg/kg		N	P	6.8	1	OPTIMA3	072318−1
7782−49−2	Selenium	0.778	mg/kg	B	N	MS	0.364	2	ICPMS14	180723−3
7440−22−4	Silver	0.844	mg/kg			P	0.106	1	OPTIMA3	072318−1
7440−23−5	Sodium	88	mg/kg			P	7.44	1	OPTIMA3	072318−1
7440−28−0	Thallium	1.35	mg/kg	B		P	0.531	1	OPTIMA3	072318−1
7440−62−2	Vanadium	22	mg/kg			P	0.106	1	OPTIMA3	072318−1
7440−66−6	Zinc	84.2	mg/kg		N	P	0.425	1	OPTIMA3	072318−1

***Analytical Methods:**

MS **SW846 3050B/6020**
P **SW846 3050B/6010D**

METALS
−1−
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 454944 **METHOD TYPE:** SW846

SAMPLE ID: 454944005 **CLIENT ID:** S05

CONTRACT: URSC00114

MATRIX: Soil **DATE RECEIVED** 19−JUL−18 **LEVEL:** Low **%SOLIDS:** 91.2

CAS No	Analyte	Result	Units	C	Qual	M*	MDL	DF	Inst ID	Analytical Run
AV	SW846 7471A									

METALS
−1−
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 454944 **METHOD TYPE:** SW846

SAMPLE ID: 454944006 **CLIENT ID:** S14

CONTRACT: URSC00114

MATRIX: Soil **DATE RECEIVED** 19−JUL−18 **LEVEL:** Low **%SOLIDS:** 92.9

CAS No	Analyte	Result	Units	C	Qual	M*	MDL	DF	Inst ID	Analytical Run
7429−90−5	Aluminum	11600	mg/kg			P	7.25	1	OPTIMA3	072318−1
7440−36−0	Antimony	3.52	mg/kg	U		P	3.52	10	OPTIMA3	072418A−2
7440−38−2	Arsenic	8.89	mg/kg			P	0.533	1	OPTIMA3	072318−1
7440−39−3	Barium	153	mg/kg		N	P	0.107	1	OPTIMA3	072318−1
7440−41−7	Beryllium	0.847	mg/kg			P	0.107	1	OPTIMA3	072318−1
7440−43−9	Cadmium	0.107	mg/kg	U		P	0.107	1	OPTIMA3	072318−1
7440−70−2	Calcium	22200	mg/kg			P	8.53	1	OPTIMA3	072318−1
7440−47−3	Chromium	18.9	mg/kg			P	0.16	1	OPTIMA3	072318−1
7440−48−4	Cobalt	12.8	mg/kg			P	0.16	1	OPTIMA3	072318−1
7440−50−8	Copper	32.5	mg/kg		N	P	0.32	1	OPTIMA3	072318−1
7439−89−6	Iron	29300	mg/kg			P	8.53	1	OPTIMA3	072318−1
7439−92−1	Lead	12.5	mg/kg			P	0.352	1	OPTIMA3	072318−1
7439−95−4	Magnesium	10600	mg/kg			P	9.06	1	OPTIMA3	072318−1
7439−96−5	Manganese	488	mg/kg			P	0.213	1	OPTIMA3	072318−1
7439−97−6	Mercury	0.028	mg/kg			AV	0.0041	1	HG4	072318WS1−4
7440−02−0	Nickel	30.9	mg/kg			P	0.16	1	OPTIMA3	072318−1
7440−09−7	Potassium	2140	mg/kg		N	P	6.82	1	OPTIMA3	072318−1
7782−49−2	Selenium	0.84	mg/kg	B	N	MS	0.369	2	ICPMS14	180723−3
7440−22−4	Silver	0.888	mg/kg			P	0.107	1	OPTIMA3	072318−1
7440−23−5	Sodium	75.5	mg/kg			P	7.46	1	OPTIMA3	072318−1
7440−28−0	Thallium	1.47	mg/kg	B		P	0.533	1	OPTIMA3	072318−1
7440−62−2	Vanadium	23.9	mg/kg			P	0.107	1	OPTIMA3	072318−1
7440−66−6	Zinc	62.3	mg/kg		N	P	0.427	1	OPTIMA3	072318−1

***Analytical Methods:**

MS **SW846 3050B/6020**
P **SW846 3050B/6010D**

METALS
−1−
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 454944 **METHOD TYPE:** SW846

SAMPLE ID: 454944006 **CLIENT ID:** S14

CONTRACT: URSC00114

MATRIX: Soil **DATE RECEIVED** 19−JUL−18 **LEVEL:** Low **%SOLIDS:** 92.9

CAS No	Analyte	Result	Units	C	Qual	M*	MDL	DF	Inst ID	Analytical Run
AV	SW846 7471A									

METALS
−1−
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 454944 **METHOD TYPE:** SW846

SAMPLE ID: 454944007 **CLIENT ID:** S15

CONTRACT: URSC00114

MATRIX: Soil **DATE RECEIVED** 19−JUL−18 **LEVEL:** Low **%SOLIDS:** 92.4

CAS No	Analyte	Result	Units	C	Qual	M*	MDL	DF	Inst ID	Analytical Run
7429−90−5	Aluminum	10000	mg/kg			P	7.21	1	OPTIMA3	072318−1
7440−36−0	Antimony	3.5	mg/kg	U		P	3.5	10	OPTIMA3	072418A−2
7440−38−2	Arsenic	8.45	mg/kg			P	0.53	1	OPTIMA3	072318−1
7440−39−3	Barium	68.3	mg/kg		N	P	0.106	1	OPTIMA3	072318−1
7440−41−7	Beryllium	0.772	mg/kg			P	0.106	1	OPTIMA3	072318−1
7440−43−9	Cadmium	0.106	mg/kg	U		P	0.106	1	OPTIMA3	072318−1
7440−70−2	Calcium	31900	mg/kg			P	8.49	1	OPTIMA3	072318−1
7440−47−3	Chromium	16.5	mg/kg			P	0.159	1	OPTIMA3	072318−1
7440−48−4	Cobalt	11.9	mg/kg			P	0.159	1	OPTIMA3	072318−1
7440−50−8	Copper	29.5	mg/kg		N	P	0.318	1	OPTIMA3	072318−1
7439−89−6	Iron	30800	mg/kg			P	8.49	1	OPTIMA3	072318−1
7439−92−1	Lead	13.5	mg/kg			P	0.35	1	OPTIMA3	072318−1
7439−95−4	Magnesium	14700	mg/kg			P	9.02	1	OPTIMA3	072318−1
7439−96−5	Manganese	854	mg/kg			P	0.212	1	OPTIMA3	072318−1
7439−97−6	Mercury	0.0301	mg/kg			AV	0.00385	1	HG4	072318WS1−4
7440−02−0	Nickel	29.1	mg/kg			P	0.159	1	OPTIMA3	072318−1
7440−09−7	Potassium	1840	mg/kg		N	P	6.79	1	OPTIMA3	072318−1
7782−49−2	Selenium	0.806	mg/kg	B	N	MS	0.369	2	ICPMS14	180723−3
7440−22−4	Silver	0.885	mg/kg			P	0.106	1	OPTIMA3	072318−1
7440−23−5	Sodium	62.6	mg/kg			P	7.43	1	OPTIMA3	072318−1
7440−28−0	Thallium	1.28	mg/kg	B		P	0.53	1	OPTIMA3	072318−1
7440−62−2	Vanadium	21.8	mg/kg			P	0.106	1	OPTIMA3	072318−1
7440−66−6	Zinc	50	mg/kg		N	P	0.424	1	OPTIMA3	072318−1

***Analytical Methods:**

MS **SW846 3050B/6020**
P **SW846 3050B/6010D**

METALS
−1−
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 454944 **METHOD TYPE:** SW846

SAMPLE ID: 454944007 **CLIENT ID:** S15

CONTRACT: URSC00114

MATRIX: Soil **DATE RECEIVED** 19−JUL−18 **LEVEL:** Low **%SOLIDS:** 92.4

CAS No	Analyte	Result	Units	C	Qual	M*	MDL	DF	Inst ID	Analytical Run
AV	SW846 7471A									

METALS
−1−
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 454944 **METHOD TYPE:** SW846

SAMPLE ID: 454944008 **CLIENT ID:** S19

CONTRACT: URSC00114

MATRIX: Soil **DATE RECEIVED** 19−JUL−18 **LEVEL:** Low **%SOLIDS:** 91.4

CAS No	Analyte	Result	Units	C	Qual	M*	MDL	DF	Inst ID	Analytical Run
7429−90−5	Aluminum	12200	mg/kg			P	7.18	1	OPTIMA3	072318−1
7440−36−0	Antimony	3.49	mg/kg	U		P	3.49	10	OPTIMA3	072418A−2
7440−38−2	Arsenic	8.69	mg/kg			P	0.528	1	OPTIMA3	072318−1
7440−39−3	Barium	109	mg/kg		N	P	0.106	1	OPTIMA3	072318−1
7440−41−7	Beryllium	0.863	mg/kg			P	0.106	1	OPTIMA3	072318−1
7440−43−9	Cadmium	0.106	mg/kg	U		P	0.106	1	OPTIMA3	072318−1
7440−70−2	Calcium	19800	mg/kg			P	8.45	1	OPTIMA3	072318−1
7440−47−3	Chromium	19.4	mg/kg			P	0.158	1	OPTIMA3	072318−1
7440−48−4	Cobalt	12.7	mg/kg			P	0.158	1	OPTIMA3	072318−1
7440−50−8	Copper	32.7	mg/kg		N	P	0.317	1	OPTIMA3	072318−1
7439−89−6	Iron	30100	mg/kg			P	8.45	1	OPTIMA3	072318−1
7439−92−1	Lead	12.9	mg/kg			P	0.349	1	OPTIMA3	072318−1
7439−95−4	Magnesium	10700	mg/kg			P	8.98	1	OPTIMA3	072318−1
7439−96−5	Manganese	466	mg/kg			P	0.211	1	OPTIMA3	072318−1
7439−97−6	Mercury	0.0295	mg/kg			AV	0.0039	1	HG4	072318WS1−4
7440−02−0	Nickel	31.1	mg/kg			P	0.158	1	OPTIMA3	072318−1
7440−09−7	Potassium	2230	mg/kg		N	P	6.76	1	OPTIMA3	072318−1
7782−49−2	Selenium	0.855	mg/kg	B	N	MS	0.392	2	ICPMS14	180723−3
7440−22−4	Silver	0.915	mg/kg			P	0.106	1	OPTIMA3	072318−1
7440−23−5	Sodium	74.2	mg/kg			P	7.4	1	OPTIMA3	072318−1
7440−28−0	Thallium	1.35	mg/kg	B		P	0.528	1	OPTIMA3	072318−1
7440−62−2	Vanadium	24.3	mg/kg			P	0.106	1	OPTIMA3	072318−1
7440−66−6	Zinc	56.8	mg/kg		N	P	0.423	1	OPTIMA3	072318−1

***Analytical Methods:**

MS **SW846 3050B/6020**
P **SW846 3050B/6010D**

METALS
−1−
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 454944 **METHOD TYPE:** SW846

SAMPLE ID: 454944008 **CLIENT ID:** S19

CONTRACT: URSC00114

MATRIX: Soil **DATE RECEIVED** 19−JUL−18 **LEVEL:** Low **%SOLIDS:** 91.4

CAS No	Analyte	Result	Units	C	Qual	M*	MDL	DF	Inst ID	Analytical Run
AV	SW846 7471A									

METALS
−1−
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 454944 **METHOD TYPE:** SW846

SAMPLE ID: 454944009 **CLIENT ID:** SW22

CONTRACT: URSC00114

MATRIX: Soil **DATE RECEIVED** 19−JUL−18 **LEVEL:** Low **%SOLIDS:** 93

CAS No	Analyte	Result	Units	C	Qual	M*	MDL	DF	Inst ID	Analytical Run
7429−90−5	Aluminum	10500	mg/kg			P	7.2	1	OPTIMA3	072318−1
7440−36−0	Antimony	3.49	mg/kg	U		P	3.49	10	OPTIMA3	072418A−2
7440−38−2	Arsenic	8.59	mg/kg			P	0.529	1	OPTIMA3	072318−1
7440−39−3	Barium	81.4	mg/kg		N	P	0.106	1	OPTIMA3	072318−1
7440−41−7	Beryllium	0.761	mg/kg			P	0.106	1	OPTIMA3	072318−1
7440−43−9	Cadmium	0.106	mg/kg	U		P	0.106	1	OPTIMA3	072318−1
7440−70−2	Calcium	19200	mg/kg			P	8.47	1	OPTIMA3	072318−1
7440−47−3	Chromium	16.9	mg/kg			P	0.159	1	OPTIMA3	072318−1
7440−48−4	Cobalt	12	mg/kg			P	0.159	1	OPTIMA3	072318−1
7440−50−8	Copper	32.2	mg/kg		N	P	0.318	1	OPTIMA3	072318−1
7439−89−6	Iron	27800	mg/kg			P	8.47	1	OPTIMA3	072318−1
7439−92−1	Lead	12.3	mg/kg			P	0.349	1	OPTIMA3	072318−1
7439−95−4	Magnesium	10200	mg/kg			P	9	1	OPTIMA3	072318−1
7439−96−5	Manganese	466	mg/kg			P	0.212	1	OPTIMA3	072318−1
7439−97−6	Mercury	0.0288	mg/kg			AV	0.00395	1	HG4	072318WS1−4
7440−02−0	Nickel	28.9	mg/kg			P	0.159	1	OPTIMA3	072318−1
7440−09−7	Potassium	1750	mg/kg		N	P	6.78	1	OPTIMA3	072318−1
7782−49−2	Selenium	0.759	mg/kg	B	N	MS	0.386	2	ICPMS14	180723−3
7440−22−4	Silver	0.865	mg/kg			P	0.106	1	OPTIMA3	072318−1
7440−23−5	Sodium	70.8	mg/kg			P	7.41	1	OPTIMA3	072318−1
7440−28−0	Thallium	1.6	mg/kg	B		P	0.529	1	OPTIMA3	072318−1
7440−62−2	Vanadium	21.6	mg/kg			P	0.106	1	OPTIMA3	072318−1
7440−66−6	Zinc	65.3	mg/kg		N	P	0.423	1	OPTIMA3	072318−1

***Analytical Methods:**

MS **SW846 3050B/6020**
P **SW846 3050B/6010D**

METALS
−1−
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 454944 **METHOD TYPE:** SW846

SAMPLE ID: 454944009 **CLIENT ID:** SW22

CONTRACT: URSC00114

MATRIX: Soil **DATE RECEIVED** 19−JUL−18 **LEVEL:** Low **%SOLIDS:** 93

CAS No	Analyte	Result	Units	C	Qual	M*	MDL	DF	Inst ID	Analytical Run
AV	SW846 7471A									

METALS
−1−
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 454944 **METHOD TYPE:** SW846

SAMPLE ID: 454944010 **CLIENT ID:** S10

CONTRACT: URSC00114

MATRIX: Soil **DATE RECEIVED** 19−JUL−18 **LEVEL:** Low **%SOLIDS:** 92.9

CAS No	Analyte	Result	Units	C	Qual	M*	MDL	DF	Inst ID	Analytical Run
7429−90−5	Aluminum	10600	mg/kg			P	7.08	1	OPTIMA3	072318−1
7440−36−0	Antimony	3.44	mg/kg	U		P	3.44	10	OPTIMA3	072418A−2
7440−38−2	Arsenic	9.05	mg/kg			P	0.521	1	OPTIMA3	072318−1
7440−39−3	Barium	68.5	mg/kg		N	P	0.104	1	OPTIMA3	072318−1
7440−41−7	Beryllium	0.759	mg/kg			P	0.104	1	OPTIMA3	072318−1
7440−43−9	Cadmium	0.104	mg/kg	U		P	0.104	1	OPTIMA3	072318−1
7440−70−2	Calcium	18500	mg/kg			P	8.33	1	OPTIMA3	072318−1
7440−47−3	Chromium	17.5	mg/kg			P	0.156	1	OPTIMA3	072318−1
7440−48−4	Cobalt	13.6	mg/kg			P	0.156	1	OPTIMA3	072318−1
7440−50−8	Copper	31.5	mg/kg		N	P	0.312	1	OPTIMA3	072318−1
7439−89−6	Iron	28600	mg/kg			P	8.33	1	OPTIMA3	072318−1
7439−92−1	Lead	15.3	mg/kg			P	0.344	1	OPTIMA3	072318−1
7439−95−4	Magnesium	10200	mg/kg			P	8.85	1	OPTIMA3	072318−1
7439−96−5	Manganese	436	mg/kg			P	0.208	1	OPTIMA3	072318−1
7439−97−6	Mercury	0.0242	mg/kg			AV	0.004	1	HG4	072318WS1−4
7440−02−0	Nickel	32.8	mg/kg			P	0.156	1	OPTIMA3	072318−1
7440−09−7	Potassium	1810	mg/kg		N	P	6.66	1	OPTIMA3	072318−1
7782−49−2	Selenium	0.745	mg/kg	B	N	MS	0.371	2	ICPMS14	180723−3
7440−22−4	Silver	0.877	mg/kg			P	0.104	1	OPTIMA3	072318−1
7440−23−5	Sodium	74.1	mg/kg			P	7.29	1	OPTIMA3	072318−1
7440−28−0	Thallium	1.46	mg/kg	B		P	0.521	1	OPTIMA3	072318−1
7440−62−2	Vanadium	21.6	mg/kg			P	0.104	1	OPTIMA3	072318−1
7440−66−6	Zinc	53.6	mg/kg		N	P	0.416	1	OPTIMA3	072318−1

***Analytical Methods:**

MS **SW846 3050B/6020**
P **SW846 3050B/6010D**

METALS
−1−
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 454944 **METHOD TYPE:** SW846

SAMPLE ID: 454944010 **CLIENT ID:** S10

CONTRACT: URSC00114

MATRIX: Soil **DATE RECEIVED** 19−JUL−18 **LEVEL:** Low **%SOLIDS:** 92.9

CAS No	Analyte	Result	Units	C	Qual	M*	MDL	DF	Inst ID	Analytical Run
AV	SW846 7471A									

Quality Control Summary

METALS
−2a−
Initial and Continuing Calibration Verification

SDG No: 454944

Contract: URSC00114 **Lab Code:** GEL

Instrument ID: HG4,ICPMS14,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M*	Analysis Date/Time	Run Number
ICV01										
	Aluminum	5320	ug/L	5000	ug/L	106.4	90.0 − 110.0	P	23−JUL−18 06:04	072318−1
	Arsenic	506	ug/L	500	ug/L	101.1	90.0 − 110.0	P	23−JUL−18 06:04	072318−1
	Barium	507	ug/L	500	ug/L	101.3	90.0 − 110.0	P	23−JUL−18 06:04	072318−1
	Beryllium	248	ug/L	250	ug/L	99.3	90.0 − 110.0	P	23−JUL−18 06:04	072318−1
	Cadmium	504	ug/L	500	ug/L	100.8	90.0 − 110.0	P	23−JUL−18 06:04	072318−1
	Calcium	5400	ug/L	5000	ug/L	108.1	90.0 − 110.0	P	23−JUL−18 06:04	072318−1
	Chromium	499	ug/L	500	ug/L	99.9	90.0 − 110.0	P	23−JUL−18 06:04	072318−1
	Cobalt	502	ug/L	500	ug/L	100.4	90.0 − 110.0	P	23−JUL−18 06:04	072318−1
	Copper	509	ug/L	500	ug/L	101.8	90.0 − 110.0	P	23−JUL−18 06:04	072318−1
	Iron	5210	ug/L	5000	ug/L	104.1	90.0 − 110.0	P	23−JUL−18 06:04	072318−1
	Lead	507	ug/L	500	ug/L	101.4	90.0 − 110.0	P	23−JUL−18 06:04	072318−1
	Magnesium	5390	ug/L	5000	ug/L	107.8	90.0 − 110.0	P	23−JUL−18 06:04	072318−1
	Manganese	505	ug/L	500	ug/L	101	90.0 − 110.0	P	23−JUL−18 06:04	072318−1
	Nickel	500	ug/L	500	ug/L	100	90.0 − 110.0	P	23−JUL−18 06:04	072318−1
	Potassium	2560	ug/L	2500	ug/L	102.5	90.0 − 110.0	P	23−JUL−18 06:04	072318−1
	Silver	252	ug/L	250	ug/L	100.7	90.0 − 110.0	P	23−JUL−18 06:04	072318−1
	Sodium	2530	ug/L	2500	ug/L	101.3	90.0 − 110.0	P	23−JUL−18 06:04	072318−1
	Thallium	515	ug/L	500	ug/L	103	90.0 − 110.0	P	23−JUL−18 06:04	072318−1
	Vanadium	507	ug/L	500	ug/L	101.5	90.0 − 110.0	P	23−JUL−18 06:04	072318−1
	Zinc	508	ug/L	500	ug/L	101.6	90.0 − 110.0	P	23−JUL−18 06:04	072318−1
	Mercury	4.99	ug/L	5	ug/L	99.7	90.0 − 110.0	AV	23−JUL−18 13:57	072318WS1−4
	Selenium	51.3	ug/L	50	ug/L	102.5	90.0 − 110.0	MS	23−JUL−18 19:20	180723−3
	Antimony	501	ug/L	500	ug/L	100.1	90.0 − 110.0	P	24−JUL−18 10:21	072418A−2
CCV01										
	Aluminum	5400	ug/L	5000	ug/L	107.9	90.0 − 110.0	P	23−JUL−18 06:26	072318−1
	Arsenic	523	ug/L	500	ug/L	104.6	90.0 − 110.0	P	23−JUL−18 06:26	072318−1
	Barium	518	ug/L	500	ug/L	103.6	90.0 − 110.0	P	23−JUL−18 06:26	072318−1
	Beryllium	517	ug/L	500	ug/L	103.5	90.0 − 110.0	P	23−JUL−18 06:26	072318−1
	Cadmium	518	ug/L	500	ug/L	103.5	90.0 − 110.0	P	23−JUL−18 06:26	072318−1
	Calcium	5410	ug/L	5000	ug/L	108.1	90.0 − 110.0	P	23−JUL−18 06:26	072318−1
	Chromium	509	ug/L	500	ug/L	101.8	90.0 − 110.0	P	23−JUL−18 06:26	072318−1

METALS
−2a−
Initial and Continuing Calibration Verification

SDG No: 454944

Contract: URSC00114 **Lab Code:** GEL

Instrument ID: HG4,ICPMS14,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M*	Analysis Date/Time	Run Number
	Cobalt	514	ug/L	500	ug/L	102.8	90.0 − 110.0	P	23−JUL−18 06:26	072318−1
	Copper	516	ug/L	500	ug/L	103.3	90.0 − 110.0	P	23−JUL−18 06:26	072318−1
	Iron	5320	ug/L	5000	ug/L	106.4	90.0 − 110.0	P	23−JUL−18 06:26	072318−1
	Lead	515	ug/L	500	ug/L	103	90.0 − 110.0	P	23−JUL−18 06:26	072318−1
	Magnesium	5440	ug/L	5000	ug/L	108.8	90.0 − 110.0	P	23−JUL−18 06:26	072318−1
	Manganese	519	ug/L	500	ug/L	103.8	90.0 − 110.0	P	23−JUL−18 06:26	072318−1
	Nickel	520	ug/L	500	ug/L	103.9	90.0 − 110.0	P	23−JUL−18 06:26	072318−1
	Potassium	5200	ug/L	5000	ug/L	104.1	90.0 − 110.0	P	23−JUL−18 06:26	072318−1
	Silver	516	ug/L	500	ug/L	103.3	90.0 − 110.0	P	23−JUL−18 06:26	072318−1
	Sodium	10500	ug/L	10000	ug/L	105.4	90.0 − 110.0	P	23−JUL−18 06:26	072318−1
	Thallium	514	ug/L	500	ug/L	102.9	90.0 − 110.0	P	23−JUL−18 06:26	072318−1
	Vanadium	519	ug/L	500	ug/L	103.7	90.0 − 110.0	P	23−JUL−18 06:26	072318−1
	Zinc	514	ug/L	500	ug/L	102.7	90.0 − 110.0	P	23−JUL−18 06:26	072318−1
	Mercury	4.99	ug/L	5	ug/L	99.8	80.0 − 120.0	AV	23−JUL−18 14:02	072318WS1−4
	Selenium	49.9	ug/L	50	ug/L	99.9	90.0 − 110.0	MS	23−JUL−18 19:37	180723−3
	Antimony	500	ug/L	500	ug/L	100.1	90.0 − 110.0	P	24−JUL−18 10:39	072418A−2
CCV02										
	Aluminum	4860	ug/L	5000	ug/L	97.2	90.0 − 110.0	P	23−JUL−18 11:49	072318−1
	Arsenic	510	ug/L	500	ug/L	101.9	90.0 − 110.0	P	23−JUL−18 11:49	072318−1
	Barium	483	ug/L	500	ug/L	96.6	90.0 − 110.0	P	23−JUL−18 11:49	072318−1
	Beryllium	485	ug/L	500	ug/L	97	90.0 − 110.0	P	23−JUL−18 11:49	072318−1
	Cadmium	493	ug/L	500	ug/L	98.6	90.0 − 110.0	P	23−JUL−18 11:49	072318−1
	Calcium	5000	ug/L	5000	ug/L	99.9	90.0 − 110.0	P	23−JUL−18 11:49	072318−1
	Chromium	478	ug/L	500	ug/L	95.6	90.0 − 110.0	P	23−JUL−18 11:49	072318−1
	Cobalt	485	ug/L	500	ug/L	97	90.0 − 110.0	P	23−JUL−18 11:49	072318−1
	Copper	473	ug/L	500	ug/L	94.6	90.0 − 110.0	P	23−JUL−18 11:49	072318−1
	Iron	4960	ug/L	5000	ug/L	99.2	90.0 − 110.0	P	23−JUL−18 11:49	072318−1
	Lead	493	ug/L	500	ug/L	98.5	90.0 − 110.0	P	23−JUL−18 11:49	072318−1
	Magnesium	5070	ug/L	5000	ug/L	101.5	90.0 − 110.0	P	23−JUL−18 11:49	072318−1
	Manganese	482	ug/L	500	ug/L	96.4	90.0 − 110.0	P	23−JUL−18 11:49	072318−1
	Nickel	491	ug/L	500	ug/L	98.2	90.0 − 110.0	P	23−JUL−18 11:49	072318−1

METALS
−2a−
Initial and Continuing Calibration Verification

SDG No: 454944

Contract: URSC00114 **Lab Code:** GEL

Instrument ID: HG4,ICPMS14,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M*	Analysis Date/Time	Run Number
	Potassium	4710	ug/L	5000	ug/L	94.3	90.0 − 110.0	P	23−JUL−18 11:49	072318−1
	Silver	490	ug/L	500	ug/L	98	90.0 − 110.0	P	23−JUL−18 11:49	072318−1
	Sodium	9530	ug/L	10000	ug/L	95.3	90.0 − 110.0	P	23−JUL−18 11:49	072318−1
	Thallium	489	ug/L	500	ug/L	97.7	90.0 − 110.0	P	23−JUL−18 11:49	072318−1
	Vanadium	483	ug/L	500	ug/L	96.5	90.0 − 110.0	P	23−JUL−18 11:49	072318−1
	Zinc	478	ug/L	500	ug/L	95.5	90.0 − 110.0	P	23−JUL−18 11:49	072318−1
	Mercury	4.99	ug/L	5	ug/L	99.7	80.0 − 120.0	AV	23−JUL−18 14:22	072318WS1−4
	Selenium	51.8	ug/L	50	ug/L	103.5	90.0 − 110.0	MS	23−JUL−18 19:47	180723−3
	Antimony	507	ug/L	500	ug/L	101.5	90.0 − 110.0	P	24−JUL−18 14:20	072418A−2
CCV03										
	Aluminum	4860	ug/L	5000	ug/L	97.3	90.0 − 110.0	P	23−JUL−18 12:13	072318−1
	Arsenic	515	ug/L	500	ug/L	102.9	90.0 − 110.0	P	23−JUL−18 12:13	072318−1
	Barium	487	ug/L	500	ug/L	97.5	90.0 − 110.0	P	23−JUL−18 12:13	072318−1
	Beryllium	491	ug/L	500	ug/L	98.2	90.0 − 110.0	P	23−JUL−18 12:13	072318−1
	Cadmium	502	ug/L	500	ug/L	100.3	90.0 − 110.0	P	23−JUL−18 12:13	072318−1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 − 110.0	P	23−JUL−18 12:13	072318−1
	Chromium	481	ug/L	500	ug/L	96.3	90.0 − 110.0	P	23−JUL−18 12:13	072318−1
	Cobalt	489	ug/L	500	ug/L	97.8	90.0 − 110.0	P	23−JUL−18 12:13	072318−1
	Copper	476	ug/L	500	ug/L	95.2	90.0 − 110.0	P	23−JUL−18 12:13	072318−1
	Iron	5040	ug/L	5000	ug/L	100.8	90.0 − 110.0	P	23−JUL−18 12:13	072318−1
	Lead	500	ug/L	500	ug/L	100	90.0 − 110.0	P	23−JUL−18 12:13	072318−1
	Magnesium	5210	ug/L	5000	ug/L	104.2	90.0 − 110.0	P	23−JUL−18 12:13	072318−1
	Manganese	486	ug/L	500	ug/L	97.3	90.0 − 110.0	P	23−JUL−18 12:13	072318−1
	Nickel	496	ug/L	500	ug/L	99.3	90.0 − 110.0	P	23−JUL−18 12:13	072318−1
	Potassium	4700	ug/L	5000	ug/L	94.1	90.0 − 110.0	P	23−JUL−18 12:13	072318−1
	Silver	493	ug/L	500	ug/L	98.5	90.0 − 110.0	P	23−JUL−18 12:13	072318−1
	Sodium	9570	ug/L	10000	ug/L	95.7	90.0 − 110.0	P	23−JUL−18 12:13	072318−1
	Thallium	495	ug/L	500	ug/L	98.9	90.0 − 110.0	P	23−JUL−18 12:13	072318−1
	Vanadium	486	ug/L	500	ug/L	97.2	90.0 − 110.0	P	23−JUL−18 12:13	072318−1
	Zinc	483	ug/L	500	ug/L	96.6	90.0 − 110.0	P	23−JUL−18 12:13	072318−1
	Mercury	4.93	ug/L	5	ug/L	98.7	80.0 − 120.0	AV	23−JUL−18 14:43	072318WS1−4

METALS
−2a−
Initial and Continuing Calibration Verification

SDG No: 454944

Contract: URSC00114 **Lab Code:** GEL

Instrument ID: HG4,ICPMS14,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M*	Analysis Date/Time	Run Number
	Selenium	49.4	ug/L	50	ug/L	98.8	90.0 − 110.0	MS	23−JUL−18 20:16	180723−3
	Antimony	517	ug/L	500	ug/L	103.4	90.0 − 110.0	P	24−JUL−18 14:42	072418A−2
CCV04										
	Aluminum	4930	ug/L	5000	ug/L	98.7	90.0 − 110.0	P	23−JUL−18 12:39	072318−1
	Arsenic	515	ug/L	500	ug/L	103	90.0 − 110.0	P	23−JUL−18 12:39	072318−1
	Barium	485	ug/L	500	ug/L	97	90.0 − 110.0	P	23−JUL−18 12:39	072318−1
	Beryllium	489	ug/L	500	ug/L	97.7	90.0 − 110.0	P	23−JUL−18 12:39	072318−1
	Cadmium	498	ug/L	500	ug/L	99.5	90.0 − 110.0	P	23−JUL−18 12:39	072318−1
	Calcium	5080	ug/L	5000	ug/L	101.5	90.0 − 110.0	P	23−JUL−18 12:39	072318−1
	Chromium	477	ug/L	500	ug/L	95.4	90.0 − 110.0	P	23−JUL−18 12:39	072318−1
	Cobalt	484	ug/L	500	ug/L	96.8	90.0 − 110.0	P	23−JUL−18 12:39	072318−1
	Copper	474	ug/L	500	ug/L	94.9	90.0 − 110.0	P	23−JUL−18 12:39	072318−1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 − 110.0	P	23−JUL−18 12:39	072318−1
	Lead	493	ug/L	500	ug/L	98.6	90.0 − 110.0	P	23−JUL−18 12:39	072318−1
	Magnesium	5150	ug/L	5000	ug/L	103.1	90.0 − 110.0	P	23−JUL−18 12:39	072318−1
	Manganese	484	ug/L	500	ug/L	96.9	90.0 − 110.0	P	23−JUL−18 12:39	072318−1
	Nickel	491	ug/L	500	ug/L	98.1	90.0 − 110.0	P	23−JUL−18 12:39	072318−1
	Potassium	4770	ug/L	5000	ug/L	95.4	90.0 − 110.0	P	23−JUL−18 12:39	072318−1
	Silver	491	ug/L	500	ug/L	98.2	90.0 − 110.0	P	23−JUL−18 12:39	072318−1
	Sodium	9630	ug/L	10000	ug/L	96.3	90.0 − 110.0	P	23−JUL−18 12:39	072318−1
	Thallium	488	ug/L	500	ug/L	97.5	90.0 − 110.0	P	23−JUL−18 12:39	072318−1
	Vanadium	485	ug/L	500	ug/L	97	90.0 − 110.0	P	23−JUL−18 12:39	072318−1
	Zinc	480	ug/L	500	ug/L	96	90.0 − 110.0	P	23−JUL−18 12:39	072318−1
	Mercury	4.78	ug/L	5	ug/L	95.6	80.0 − 120.0	AV	23−JUL−18 15:03	072318WS1−4
	Selenium	50	ug/L	50	ug/L	100	90.0 − 110.0	MS	23−JUL−18 20:45	180723−3
	Antimony	529	ug/L	500	ug/L	105.8	90.0 − 110.0	P	24−JUL−18 15:07	072418A−2

***Analytical Methods:**

MS SW846 3050B/6020
P SW846 3050B/6010D
AV SW846 7471A

METALS
−2b−
CRDL Standard for ICP & ICPMS

SDG No: 454944

Contract: URSC00114 **Lab Code:** GEL

Instrument ID: HG4,ICPMS14,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M*	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.188	ug/L	.2	ug/L	94	70.0 − 130.0	AV	23−JUL−18 14:00	072318WS1−4
	Selenium	4.86	ug/L	5	ug/L	97.1	70.0 − 130.0	MS	23−JUL−18 19:27	180723−3
PQL01										
	Aluminum	203	ug/L	200	ug/L	101.4	80.0 − 120.0	P	23−JUL−18 06:09	072318−1
	Arsenic	28.9	ug/L	30	ug/L	96.3	80.0 − 120.0	P	23−JUL−18 06:09	072318−1
	Barium	4.92	ug/L	5	ug/L	98.5	80.0 − 120.0	P	23−JUL−18 06:09	072318−1
	Beryllium	4.88	ug/L	5	ug/L	97.7	80.0 − 120.0	P	23−JUL−18 06:09	072318−1
	Cadmium	5.03	ug/L	5	ug/L	100.6	80.0 − 120.0	P	23−JUL−18 06:09	072318−1
	Calcium	184	ug/L	200	ug/L	92	80.0 − 120.0	P	23−JUL−18 06:09	072318−1
	Chromium	4.98	ug/L	5	ug/L	99.6	80.0 − 120.0	P	23−JUL−18 06:09	072318−1
	Cobalt	5.42	ug/L	5	ug/L	108.5	80.0 − 120.0	P	23−JUL−18 06:09	072318−1
	Copper	10.1	ug/L	10	ug/L	101.1	80.0 − 120.0	P	23−JUL−18 06:09	072318−1
	Iron	103	ug/L	100	ug/L	103.3	80.0 − 120.0	P	23−JUL−18 06:09	072318−1
	Lead	10.7	ug/L	10	ug/L	106.8	80.0 − 120.0	P	23−JUL−18 06:09	072318−1
	Magnesium	328	ug/L	300	ug/L	109.4	80.0 − 120.0	P	23−JUL−18 06:09	072318−1
	Manganese	9.88	ug/L	10	ug/L	98.8	80.0 − 120.0	P	23−JUL−18 06:09	072318−1
	Nickel	4.79	ug/L	5	ug/L	95.8	80.0 − 120.0	P	23−JUL−18 06:09	072318−1
	Potassium	178	ug/L	150	ug/L	118.3	80.0 − 120.0	P	23−JUL−18 06:09	072318−1
	Silver	5.43	ug/L	5	ug/L	108.6	80.0 − 120.0	P	23−JUL−18 06:09	072318−1
	Sodium	284	ug/L	300	ug/L	94.7	80.0 − 120.0	P	23−JUL−18 06:09	072318−1
	Thallium	18.5	ug/L	20	ug/L	92.6	80.0 − 120.0	P	23−JUL−18 06:09	072318−1
	Vanadium	4.7	ug/L	5	ug/L	94	80.0 − 120.0	P	23−JUL−18 06:09	072318−1
	Zinc	7.47	ug/L	10	ug/L	74.7	80.0 − 120.0	P	23−JUL−18 06:09	072318−1
	Antimony	8.23	ug/L	10	ug/L	82.3	80.0 − 120.0	P	24−JUL−18 10:26	072418A−2

***Analytical Methods:**

MS	**SW846 3050B/6020**
P	**SW846 3050B/6010D**
AV	**SW846 7471A**

Metals
−3a−
Initial and Continuing Calibration Blank Summary

SDG No.: 454944

Contract: URSC00114

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M*	Analysis Date/Time	Run
ICB01										
	Aluminum	68.0	+/−100	U	68.0	200	SOL	P	23−JUL−18 06:06	072318−1
	Arsenic	5.0	+/−15	U	5.0	30.0	SOL	P	23−JUL−18 06:06	072318−1
	Barium	1.0	+/−2.5	U	1.0	5.0	SOL	P	23−JUL−18 06:06	072318−1
	Beryllium	1.0	+/−2.5	U	1.0	5.0	SOL	P	23−JUL−18 06:06	072318−1
	Cadmium	1.0	+/−2.5	U	1.0	5.0	SOL	P	23−JUL−18 06:06	072318−1
	Calcium	80.0	+/−125	U	80.0	250	SOL	P	23−JUL−18 06:06	072318−1
	Chromium	1.5	+/−2.5	U	1.5	5.0	SOL	P	23−JUL−18 06:06	072318−1
	Cobalt	1.5	+/−2.5	U	1.5	5.0	SOL	P	23−JUL−18 06:06	072318−1
	Copper	3.0	+/−5	U	3.0	10.0	SOL	P	23−JUL−18 06:06	072318−1
	Iron	80.0	+/−125	U	80.0	250	SOL	P	23−JUL−18 06:06	072318−1
	Lead	3.3	+/−5	U	3.3	10.0	SOL	P	23−JUL−18 06:06	072318−1
	Magnesium	85.0	+/−150	U	85.0	300	SOL	P	23−JUL−18 06:06	072318−1
	Manganese	2.0	+/−5	U	2.0	10.0	SOL	P	23−JUL−18 06:06	072318−1
	Nickel	1.5	+/−2.5	U	1.5	5.0	SOL	P	23−JUL−18 06:06	072318−1
	Potassium	64.0	+/−125	U	64.0	250	SOL	P	23−JUL−18 06:06	072318−1
	Silver	1.0	+/−2.5	U	1.0	5.0	SOL	P	23−JUL−18 06:06	072318−1
	Sodium	70.0	+/−125	U	70.0	250	SOL	P	23−JUL−18 06:06	072318−1
	Thallium	5.0	+/−10	U	5.0	20.0	SOL	P	23−JUL−18 06:06	072318−1
	Vanadium	1.0	+/−2.5	U	1.0	5.0	SOL	P	23−JUL−18 06:06	072318−1
	Zinc	4.0	+/−5	U	4.0	10.0	SOL	P	23−JUL−18 06:06	072318−1
	Mercury	0.067	+/−.2	U	0.067	0.2	SOL	AV	23−JUL−18 13:59	072318WS1−4
	Selenium	1.8	+/−5	U	1.8	5.0	SOL	MS	23−JUL−18 19:24	180723−3
	Antimony	3.3	+/−5	U	3.3	10.0	SOL	P	24−JUL−18 10:23	072418A−2
CCB01										
	Aluminum	68.0	+/−200	U	68.0	200	SOL	P	23−JUL−18 06:28	072318−1
	Arsenic	−5.04	+/−30	B	5.0	30.0	SOL	P	23−JUL−18 06:28	072318−1
	Barium	1.0	+/−5	U	1.0	5.0	SOL	P	23−JUL−18 06:28	072318−1
	Beryllium	1.0	+/−5	U	1.0	5.0	SOL	P	23−JUL−18 06:28	072318−1
	Cadmium	1.0	+/−5	U	1.0	5.0	SOL	P	23−JUL−18 06:28	072318−1
	Calcium	80.0	+/−250	U	80.0	250	SOL	P	23−JUL−18 06:28	072318−1
	Chromium	1.5	+/−5	U	1.5	5.0	SOL	P	23−JUL−18 06:28	072318−1

Metals
−3a−
Initial and Continuing Calibration Blank Summary

SDG No.: 454944

Contract: URSC00114

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M*	Analysis Date/Time	Run
	Cobalt	1.5	+/−5	U	1.5	5.0	SOL	P	23−JUL−18 06:28	072318−1
	Copper	3.0	+/−10	U	3.0	10.0	SOL	P	23−JUL−18 06:28	072318−1
	Iron	80.0	+/−250	U	80.0	250	SOL	P	23−JUL−18 06:28	072318−1
	Lead	3.3	+/−10	U	3.3	10.0	SOL	P	23−JUL−18 06:28	072318−1
	Magnesium	85.0	+/−300	U	85.0	300	SOL	P	23−JUL−18 06:28	072318−1
	Manganese	2.0	+/−10	U	2.0	10.0	SOL	P	23−JUL−18 06:28	072318−1
	Nickel	1.5	+/−5	U	1.5	5.0	SOL	P	23−JUL−18 06:28	072318−1
	Potassium	64.0	+/−250	U	64.0	250	SOL	P	23−JUL−18 06:28	072318−1
	Silver	1.0	+/−5	U	1.0	5.0	SOL	P	23−JUL−18 06:28	072318−1
	Sodium	70.0	+/−250	U	70.0	250	SOL	P	23−JUL−18 06:28	072318−1
	Thallium	5.0	+/−20	U	5.0	20.0	SOL	P	23−JUL−18 06:28	072318−1
	Vanadium	1.0	+/−5	U	1.0	5.0	SOL	P	23−JUL−18 06:28	072318−1
	Zinc	4.0	+/−10	U	4.0	10.0	SOL	P	23−JUL−18 06:28	072318−1
	Mercury	0.067	+/−.2	U	0.067	0.2	SOL	AV	23−JUL−18 14:04	072318WS1−4
	Selenium	1.8	+/−5	U	1.8	5.0	SOL	MS	23−JUL−18 19:40	180723−3
	Antimony	3.3	+/−10	U	3.3	10.0	SOL	P	24−JUL−18 10:41	072418A−2
CCB02										
	Aluminum	68.0	+/−200	U	68.0	200	SOL	P	23−JUL−18 11:52	072318−1
	Arsenic	5.0	+/−30	U	5.0	30.0	SOL	P	23−JUL−18 11:52	072318−1
	Barium	1.0	+/−5	U	1.0	5.0	SOL	P	23−JUL−18 11:52	072318−1
	Beryllium	1.0	+/−5	U	1.0	5.0	SOL	P	23−JUL−18 11:52	072318−1
	Cadmium	1.0	+/−5	U	1.0	5.0	SOL	P	23−JUL−18 11:52	072318−1
	Calcium	80.0	+/−250	U	80.0	250	SOL	P	23−JUL−18 11:52	072318−1
	Chromium	1.5	+/−5	U	1.5	5.0	SOL	P	23−JUL−18 11:52	072318−1
	Cobalt	1.5	+/−5	U	1.5	5.0	SOL	P	23−JUL−18 11:52	072318−1
	Copper	3.0	+/−10	U	3.0	10.0	SOL	P	23−JUL−18 11:52	072318−1
	Iron	80.0	+/−250	U	80.0	250	SOL	P	23−JUL−18 11:52	072318−1
	Lead	3.3	+/−10	U	3.3	10.0	SOL	P	23−JUL−18 11:52	072318−1
	Magnesium	85.0	+/−300	U	85.0	300	SOL	P	23−JUL−18 11:52	072318−1
	Manganese	2.0	+/−10	U	2.0	10.0	SOL	P	23−JUL−18 11:52	072318−1
	Nickel	1.5	+/−5	U	1.5	5.0	SOL	P	23−JUL−18 11:52	072318−1

Metals
−3a−
Initial and Continuing Calibration Blank Summary

SDG No.: 454944

Contract: URSC00114

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M*	Analysis Date/Time	Run
	Potassium	64.0	+/−250	U	64.0	250	SOL	P	23−JUL−18 11:52	072318−1
	Silver	1.0	+/−5	U	1.0	5.0	SOL	P	23−JUL−18 11:52	072318−1
	Sodium	70.0	+/−250	U	70.0	250	SOL	P	23−JUL−18 11:52	072318−1
	Thallium	5.0	+/−20	U	5.0	20.0	SOL	P	23−JUL−18 11:52	072318−1
	Vanadium	1.0	+/−5	U	1.0	5.0	SOL	P	23−JUL−18 11:52	072318−1
	Zinc	4.0	+/−10	U	4.0	10.0	SOL	P	23−JUL−18 11:52	072318−1
	Mercury	0.067	+/−.2	U	0.067	0.2	SOL	AV	23−JUL−18 14:24	072318WS1−4
	Selenium	1.8	+/−5	U	1.8	5.0	SOL	MS	23−JUL−18 19:50	180723−3
	Antimony	3.3	+/−10	U	3.3	10.0	SOL	P	24−JUL−18 14:22	072418A−2
CCB03										
	Aluminum	68.0	+/−200	U	68.0	200	SOL	P	23−JUL−18 12:15	072318−1
	Arsenic	5.0	+/−30	U	5.0	30.0	SOL	P	23−JUL−18 12:15	072318−1
	Barium	1.0	+/−5	U	1.0	5.0	SOL	P	23−JUL−18 12:15	072318−1
	Beryllium	1.0	+/−5	U	1.0	5.0	SOL	P	23−JUL−18 12:15	072318−1
	Cadmium	1.0	+/−5	U	1.0	5.0	SOL	P	23−JUL−18 12:15	072318−1
	Calcium	80.0	+/−250	U	80.0	250	SOL	P	23−JUL−18 12:15	072318−1
	Chromium	1.5	+/−5	U	1.5	5.0	SOL	P	23−JUL−18 12:15	072318−1
	Cobalt	1.5	+/−5	U	1.5	5.0	SOL	P	23−JUL−18 12:15	072318−1
	Copper	3.0	+/−10	U	3.0	10.0	SOL	P	23−JUL−18 12:15	072318−1
	Iron	80.0	+/−250	U	80.0	250	SOL	P	23−JUL−18 12:15	072318−1
	Lead	3.3	+/−10	U	3.3	10.0	SOL	P	23−JUL−18 12:15	072318−1
	Magnesium	85.0	+/−300	U	85.0	300	SOL	P	23−JUL−18 12:15	072318−1
	Manganese	2.0	+/−10	U	2.0	10.0	SOL	P	23−JUL−18 12:15	072318−1
	Nickel	1.5	+/−5	U	1.5	5.0	SOL	P	23−JUL−18 12:15	072318−1
	Potassium	64.0	+/−250	U	64.0	250	SOL	P	23−JUL−18 12:15	072318−1
	Silver	1.0	+/−5	U	1.0	5.0	SOL	P	23−JUL−18 12:15	072318−1
	Sodium	70.0	+/−250	U	70.0	250	SOL	P	23−JUL−18 12:15	072318−1
	Thallium	5.0	+/−20	U	5.0	20.0	SOL	P	23−JUL−18 12:15	072318−1
	Vanadium	1.0	+/−5	U	1.0	5.0	SOL	P	23−JUL−18 12:15	072318−1
	Zinc	4.0	+/−10	U	4.0	10.0	SOL	P	23−JUL−18 12:15	072318−1
	Mercury	0.067	+/−.2	U	0.067	0.2	SOL	AV	23−JUL−18 14:44	072318WS1−4

Metals
−3a−
Initial and Continuing Calibration Blank Summary

SDG No.: 454944

Contract: URSC00114

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M*	Analysis Date/Time	Run
	Selenium	1.8	+/−5	U	1.8	5.0	SOL	MS	23−JUL−18 20:19	180723−3
	Antimony	3.3	+/−10	U	3.3	10.0	SOL	P	24−JUL−18 14:45	072418A−2
CCB04										
	Aluminum	68.0	+/−200	U	68.0	200	SOL	P	23−JUL−18 12:41	072318−1
	Arsenic	5.0	+/−30	U	5.0	30.0	SOL	P	23−JUL−18 12:41	072318−1
	Barium	1.0	+/−5	U	1.0	5.0	SOL	P	23−JUL−18 12:41	072318−1
	Beryllium	1.0	+/−5	U	1.0	5.0	SOL	P	23−JUL−18 12:41	072318−1
	Cadmium	1.0	+/−5	U	1.0	5.0	SOL	P	23−JUL−18 12:41	072318−1
	Calcium	80.0	+/−250	U	80.0	250	SOL	P	23−JUL−18 12:41	072318−1
	Chromium	1.5	+/−5	U	1.5	5.0	SOL	P	23−JUL−18 12:41	072318−1
	Cobalt	1.5	+/−5	U	1.5	5.0	SOL	P	23−JUL−18 12:41	072318−1
	Copper	3.0	+/−10	U	3.0	10.0	SOL	P	23−JUL−18 12:41	072318−1
	Iron	80.0	+/−250	U	80.0	250	SOL	P	23−JUL−18 12:41	072318−1
	Lead	3.3	+/−10	U	3.3	10.0	SOL	P	23−JUL−18 12:41	072318−1
	Magnesium	85.0	+/−300	U	85.0	300	SOL	P	23−JUL−18 12:41	072318−1
	Manganese	2.0	+/−10	U	2.0	10.0	SOL	P	23−JUL−18 12:41	072318−1
	Nickel	1.5	+/−5	U	1.5	5.0	SOL	P	23−JUL−18 12:41	072318−1
	Potassium	64.0	+/−250	U	64.0	250	SOL	P	23−JUL−18 12:41	072318−1
	Silver	1.0	+/−5	U	1.0	5.0	SOL	P	23−JUL−18 12:41	072318−1
	Sodium	70.0	+/−250	U	70.0	250	SOL	P	23−JUL−18 12:41	072318−1
	Thallium	5.0	+/−20	U	5.0	20.0	SOL	P	23−JUL−18 12:41	072318−1
	Vanadium	1.0	+/−5	U	1.0	5.0	SOL	P	23−JUL−18 12:41	072318−1
	Zinc	4.0	+/−10	U	4.0	10.0	SOL	P	23−JUL−18 12:41	072318−1
	Mercury	0.067	+/−.2	U	0.067	0.2	SOL	AV	23−JUL−18 15:05	072318WS1−4
	Selenium	1.8	+/−5	U	1.8	5.0	SOL	MS	23−JUL−18 20:49	180723−3
	Antimony	3.3	+/−10	U	3.3	10.0	SOL	P	24−JUL−18 15:09	072418A−2

***Analytical Methods:**

MS	**SW846 3050B/6020**
P	**SW846 3050B/6010D**
AV	**SW846 7471A**

METALS
−3b−
PREPARATION BLANK SUMMARY

SDG NO. 454944

Contract: URSC00114

Matrix: Water

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M*	MDL	RDL
1204073112								
	Selenium	0.361	mg/kg	+/−1	U	MS	0.361	1
1204073117								
	Vanadium	0.0911	mg/kg	+/−0.228	U	P	0.0911	0.228
	Zinc	0.364	mg/kg	+/−0.455	U	P	0.364	0.455
	Antimony	0.301	mg/kg	+/−0.455	U	P	0.301	0.455
	Barium	0.0911	mg/kg	+/−0.228	U	P	0.0911	0.228
	Cadmium	0.0911	mg/kg	+/−0.228	U	P	0.0911	0.228
	Chromium	0.137	mg/kg	+/−0.228	U	P	0.137	0.228
	Copper	0.273	mg/kg	+/−0.455	U	P	0.273	0.455
	Lead	0.301	mg/kg	+/−0.455	U	P	0.301	0.455
	Thallium	0.455	mg/kg	+/−0.911	U	P	0.455	0.911
	Sodium	6.38	mg/kg	+/−11.4	U	P	6.38	11.4
	Silver	0.0911	mg/kg	+/−0.228	U	P	0.0911	0.228
	Potassium	5.83	mg/kg	+/−11.4	U	P	5.83	11.4
	Nickel	0.137	mg/kg	+/−0.228	U	P	0.137	0.228
	Manganese	0.182	mg/kg	+/−0.455	U	P	0.182	0.455
	Magnesium	7.74	mg/kg	+/−13.7	U	P	7.74	13.7
	Iron	7.29	mg/kg	+/−11.4	U	P	7.29	11.4
	Cobalt	0.137	mg/kg	+/−0.228	U	P	0.137	0.228
	Calcium	7.29	mg/kg	+/−11.4	U	P	7.29	11.4
	Beryllium	0.0911	mg/kg	+/−0.228	U	P	0.0911	0.228
	Arsenic	0.455	mg/kg	+/−1.37	U	P	0.455	1.37
	Aluminum	6.19	mg/kg	+/−9.11	U	P	6.19	9.11
1204073460								
	Mercury	0.00341	mg/kg	+/−0.0102	U	AV	0.00341	0.0102

***Analytical Methods:**

AV	**SW846 7471B**
MS	**SW846 3050B/6020**
P	**SW846 3050B/6010D**

METALS
−4−
Interference Check Sample

SDG No: 454944

Contract: URSC00114 **Lab Code:** GEL

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	491000	ug/L	500000	ug/L	98.2	80.0 − 120.0	23−JUL−18 06:12	072318−1
	Arsenic	−4.38	ug/L					23−JUL−18 06:12	072318−1
	Barium	1.69	ug/L					23−JUL−18 06:12	072318−1
	Beryllium	0.423	ug/L					23−JUL−18 06:12	072318−1
	Cadmium	−0.155	ug/L					23−JUL−18 06:12	072318−1
	Calcium	488000	ug/L	500000	ug/L	97.5	80.0 − 120.0	23−JUL−18 06:12	072318−1
	Chromium	1.12	ug/L					23−JUL−18 06:12	072318−1
	Cobalt	−0.106	ug/L					23−JUL−18 06:12	072318−1
	Copper	0.578	ug/L					23−JUL−18 06:12	072318−1
	Iron	193000	ug/L	200000	ug/L	96.4	80.0 − 120.0	23−JUL−18 06:12	072318−1
	Lead	0.246	ug/L					23−JUL−18 06:12	072318−1
	Magnesium	485000	ug/L	500000	ug/L	97	80.0 − 120.0	23−JUL−18 06:12	072318−1
	Manganese	0.395	ug/L					23−JUL−18 06:12	072318−1
	Nickel	−0.07	ug/L					23−JUL−18 06:12	072318−1
	Potassium	87.2	ug/L					23−JUL−18 06:12	072318−1
	Silver	1.15	ug/L					23−JUL−18 06:12	072318−1
	Sodium	−46.8	ug/L					23−JUL−18 06:12	072318−1
	Thallium	3.74	ug/L					23−JUL−18 06:12	072318−1
	Vanadium	0.884	ug/L					23−JUL−18 06:12	072318−1
	Zinc	6.98	ug/L					23−JUL−18 06:12	072318−1
ICSAB01									
	Aluminum	499000	ug/L	500000	ug/L	99.8	80.0 − 120.0	23−JUL−18 06:15	072318−1
	Arsenic	520	ug/L	500	ug/L	104	80.0 − 120.0	23−JUL−18 06:15	072318−1
	Barium	485	ug/L	500	ug/L	97	80.0 − 120.0	23−JUL−18 06:15	072318−1
	Beryllium	246	ug/L	250	ug/L	98.4	80.0 − 120.0	23−JUL−18 06:15	072318−1
	Cadmium	463	ug/L	500	ug/L	92.6	80.0 − 120.0	23−JUL−18 06:15	072318−1
	Calcium	495000	ug/L	500000	ug/L	99.1	80.0 − 120.0	23−JUL−18 06:15	072318−1
	Chromium	484	ug/L	500	ug/L	96.7	80.0 − 120.0	23−JUL−18 06:15	072318−1
	Cobalt	469	ug/L	500	ug/L	93.9	80.0 − 120.0	23−JUL−18 06:15	072318−1
	Copper	534	ug/L	500	ug/L	107	80.0 − 120.0	23−JUL−18 06:15	072318−1

METALS
−4−
Interference Check Sample

SDG No: 454944

Contract: URSC00114 **Lab Code:** GEL

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Iron	195000	ug/L	200000	ug/L	97.6	80.0 − 120.0	23−JUL−18 06:15	072318−1
	Lead	473	ug/L	500	ug/L	94.6	80.0 − 120.0	23−JUL−18 06:15	072318−1
	Magnesium	487000	ug/L	500000	ug/L	97.5	80.0 − 120.0	23−JUL−18 06:15	072318−1
	Manganese	489	ug/L	500	ug/L	97.8	80.0 − 120.0	23−JUL−18 06:15	072318−1
	Nickel	465	ug/L	500	ug/L	92.9	80.0 − 120.0	23−JUL−18 06:15	072318−1
	Potassium	5500	ug/L	5000	ug/L	110	80.0 − 120.0	23−JUL−18 06:15	072318−1
	Silver	262	ug/L	250	ug/L	105	80.0 − 120.0	23−JUL−18 06:15	072318−1
	Sodium	5180	ug/L	5000	ug/L	104	80.0 − 120.0	23−JUL−18 06:15	072318−1
	Thallium	474	ug/L	500	ug/L	94.7	80.0 − 120.0	23−JUL−18 06:15	072318−1
	Vanadium	503	ug/L	500	ug/L	101	80.0 − 120.0	23−JUL−18 06:15	072318−1
	Zinc	490	ug/L	500	ug/L	98	80.0 − 120.0	23−JUL−18 06:15	072318−1

METALS
−4−
Interference Check Sample

SDG No: 454944

Contract: URSC00114 **Lab Code:** GEL

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	−6.78	ug/L					24−JUL−18 10:30	072418A−2
ICSAB01									
	Antimony	486	ug/L	500	ug/L	97.2	80.0 − 120.0	24−JUL−18 10:32	072418A−2

METALS
−4−
Interference Check Sample

SDG No: 454944

Contract: URSC00114 **Lab Code:** GEL

Instrument: ICPMS14

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Selenium	0.147	ug/L					23−JUL−18 19:30	180723−3
ICSAB01									
	Selenium	19.5	ug/L	20	ug/L	97.2	80.0 − 120.0	23−JUL−18 19:33	180723−3

METALS
−5a−

Matrix Spike Summary

SDG NO. 454944 **Client ID** S09S

Contract: URSC00114 **Level:** Low

Matrix: SOIL **% Solids:** 93.7

Sample ID: 454944002 **Spike ID:** 1204073115

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M*
Selenium	mg/kg	75−125	4.74		0.768	B	5.34	74.3	N	MS

***Analytical Methods:**

MS **SW846 3050B/6020**

METALS
−5a−

Matrix Spike Summary

SDG NO. 454944 **Client ID** S09S

Contract: URSC00114 **Level:** Low

Matrix: SOIL **% Solids:** 93.7

Sample ID: 454944002 **Spike ID:** 1204073119

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M*
Aluminum	mg/kg		13300		10300		530	578	N/A	P
Antimony	mg/kg	75−125	48		3.52	U	53	90.6		P
Arsenic	mg/kg	75−125	56.9		9.16		53	90.1		P
Barium	mg/kg	75−125	155		76.1		53	148	N	P
Beryllium	mg/kg	75−125	47.6		0.763		53	88.5		P
Cadmium	mg/kg	75−125	44.4		0.128	B	53	83.5		P
Calcium	mg/kg		22000		24600		530	−484	N/A	P
Chromium	mg/kg	75−125	65		16.9		53	90.8		P
Cobalt	mg/kg	75−125	57		13		53	83.1		P
Copper	mg/kg	75−125	79		41.8		53	70.1	N	P
Iron	mg/kg		28700		29100		530	−75.7	N/A	P
Lead	mg/kg	75−125	58.9		14.9		53	83		P
Magnesium	mg/kg		10700		11700		530	−177	N/A	P
Manganese	mg/kg		503		628		53	−235	N/A	P
Nickel	mg/kg	75−125	71.9		30.8		53	77.5		P
Potassium	mg/kg	75−125	3150		1790		530	257	N	P
Silver	mg/kg	75−125	10.3		0.803		10.6	89.2		P
Sodium	mg/kg	75−125	544		64.6		530	90.5		P
Thallium	mg/kg	75−125	43.1		1.29	B	53	79		P
Vanadium	mg/kg	75−125	74.2		22		53	98.5		P
Zinc	mg/kg	75−125	99.1		110		53	−19.8	N	P

METALS
−5a−

Matrix Spike Summary

SDG NO.	454944	**Client ID**	S09S
Contract:	URSC00114	**Level:**	Low
Matrix:	SOIL	**% Solids:**	93.7
Sample ID:	454944002	**Spike ID:**	1204073119

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M*

***Analytical Methods:**

P **SW846 3050B/6010D**

METALS
−5a−

Matrix Spike Duplicate Summary

SDG NO. 454944 **Client ID** S09SD

Contract: URSC00114 **Level:** Low

Matrix: SOIL **% Solids:** 93.7

Sample ID: 454944002 **Spike ID:** 1204073120

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M*
Aluminum	mg/kg		13400		10300		517	599	N/A	P
Antimony	mg/kg	75−125	43.6		3.52	U	51.7	84.2		P
Arsenic	mg/kg	75−125	55.1		9.16		51.7	88.9		P
Barium	mg/kg	75−125	149		76.1		51.7	141	N	P
Beryllium	mg/kg	75−125	45.3		0.763		51.7	86		P
Cadmium	mg/kg	75−125	42.4		0.128	B	51.7	81.7		P
Calcium	mg/kg		21300		24600		517	−640	N/A	P
Chromium	mg/kg	75−125	62.8		16.9		51.7	88.6		P
Cobalt	mg/kg	75−125	53.4		13		51.7	78.1		P
Copper	mg/kg	75−125	84.1		41.8		51.7	81.6		P
Iron	mg/kg		28100		29100		517	−191	N/A	P
Lead	mg/kg	75−125	55.7		14.9		51.7	78.8		P
Magnesium	mg/kg		11000		11700		517	−140	N/A	P
Manganese	mg/kg		511		628		51.7	−226	N/A	P
Nickel	mg/kg	75−125	69.7		30.8		51.7	75.1		P
Potassium	mg/kg	75−125	3220		1790		517	275	N	P
Silver	mg/kg	75−125	9.9		0.803		10.3	88		P
Sodium	mg/kg	75−125	508		64.6		517	85.7		P
Thallium	mg/kg	75−125	43.4		1.29	B	51.7	81.4		P
Vanadium	mg/kg	75−125	72.2		22		51.7	97		P
Zinc	mg/kg	75−125	99.7		110		51.7	−19.1	N	P

METALS
−5a−

Matrix Spike Duplicate Summary

SDG NO.	454944	**Client ID:**	S09SD
Contract:	URSC00114	**Level:**	Low
Matrix:	SOIL	**% Solids:**	93.7
Sample ID:	454944002	**Spike ID:**	1204073120

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M*

***Analytical Methods:**

P **SW846 3050B/6010D**

METALS
−5a−

Matrix Spike Summary

SDG NO. 454944 **Client ID** SpikeZone−Primary BackingS

Contract: URSC00114 **Level:** Low

Matrix: SOLID **% Solids:** 98.9

Sample ID: 454925001 **Spike ID:** 1204073463

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M*
Mercury	mg/kg	80−120	0.115		0.00406	U	0.115	100		AV

***Analytical Methods:**

AV **SW846 7471B**

METALS
−5a−

Matrix Spike Duplicate Summary

SDG NO.	454944	**Client ID**	SpikeZone−Primary BackingSD
Contract:	URSC00114	**Level:**	Low
Matrix:	SOLID	**% Solids:**	98.9
Sample ID:	454925001	**Spike ID:**	1204073562

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M*
Mercury	mg/kg	80−120	0.118		0.00406	U	0.118	99.7		AV

***Analytical Methods:**

AV **SW846 7471B**

METALS
−5a−

Spike Summary

SDG NO. 454944 **Client ID** S09PS

Contract: URSC00114 **Level:** Low

Matrix: SOIL **% Solids:** 93.7

Sample ID: 454944002 **Spike ID:** 1204075175

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M*
Barium	ug/L	75−125	1190		715		500	95.3		P
Copper	ug/L	75−125	884		392		500	98.3		P
Potassium	ug/L	75−125	21700		16800		5000	98.3		P
Zinc	ug/L	75−125	1480		1030		500	91.1		P

***Analytical Methods:**

P **SW846 3050B/6010D**

Metals
−6−
Duplicate Sample Summary

SDG No.: 454944 **Lab Code:** GEL

Contract: URSC00114 **Client ID:** S09D

Matrix: SOIL **Level:** Low

Sample ID: 454944002 **Duplicate ID:** 1204073114 **Percent Solids for Dup:** 93.7

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M*
Selenium	mg/kg	+/−1.05	0.768	B	0.744	B	3.09		MS

***Analytical Methods:**
MS SW846 3050B/6020

Metals
−6−
Duplicate Sample Summary

SDG No.: 454944 **Lab Code:** GEL

Contract: URSC00114 **Client ID:** S09SD

Matrix: SOIL **Level:** Low

Sample ID: 1204073119 **Duplicate ID:** 1204073120 **Percent Solids for Dup:** 93.7

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M*
Aluminum	mg/kg	+/−20	13300		13400		.267		P
Antimony	mg/kg	+/−20	48		43.6		9.61		P
Arsenic	mg/kg	+/−20	56.9		55.1		3.09		P
Barium	mg/kg	+/−20	155		149		3.47		P
Beryllium	mg/kg	+/−20	47.6		45.3		5.11		P
Cadmium	mg/kg	+/−20	44.4		42.4		4.54		P
Calcium	mg/kg	+/−20	22000		21300		3.45		P
Chromium	mg/kg	+/−20	65		62.8		3.47		P
Cobalt	mg/kg	+/−20	57		53.4		6.57		P
Copper	mg/kg	+/−20	79		84.1		6.25		P
Iron	mg/kg	+/−20	28700		28100		2.07		P
Lead	mg/kg	+/−20	58.9		55.7		5.61		P
Magnesium	mg/kg	+/−20	10700		11000		1.94		P
Manganese	mg/kg	+/−20	503		511		1.45		P
Nickel	mg/kg	+/−20	71.9		69.7		3.08		P
Potassium	mg/kg	+/−20	3150		3220		1.96		P
Silver	mg/kg	+/−20	10.3		9.9		3.46		P
Sodium	mg/kg	+/−20	544		508		6.76		P
Thallium	mg/kg	+/−20	43.1		43.4		.684		P
Vanadium	mg/kg	+/−20	74.2		72.2		2.72		P
Zinc	mg/kg	+/−20	99.1		99.7		.635		P

***Analytical Methods:**
P SW846 3050B/6010D

Metals
−6−
Duplicate Sample Summary

SDG No.: 454944 **Lab Code:** GEL

Contract: URSC00114 **Client ID:** SpikeZone−Primary BackingD

Matrix: SOLID **Level:** Low

Sample ID: 454925001 **Duplicate ID:** 1204073462 **Percent Solids for Dup:** 98.9

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M*
Mercury	mg/kg		0.00406	U	0.00392	U			AV

***Analytical Methods:**
AV SW846 7471B

Metals
−6−
Duplicate Sample Summary

SDG No.: 454944 **Lab Code:** GEL

Contract: URSC00114 **Client ID:** SpikeZone−Primary BackingSD

Matrix: SOLID **Level:** Low

Sample ID: 1204073463 **Duplicate ID:** 1204073562 **Percent Solids for Dup:** 98.9

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M*
Mercury	mg/kg	+/−20	0.115		0.118		2.23		AV

***Analytical Methods:**
AV SW846 7471B

METALS
−7−
Laboratory Control Sample Summary

SDG NO. 454944

Contract: URSC00114

Aqueous LCS Source:

Solid LCS Source: Inorganic Ventures

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M*
1204073113								
	Selenium	mg/kg	4.6	4.08		88.8	80−120	MS

***Analytical Methods:**

MS **SW846 3050B/6020**

METALS
−7−
Laboratory Control Sample Summary

SDG NO. 454944

Contract: URSC00114

Aqueous LCS Source:

Solid LCS Source: Inorganic Ventures

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M*
1204073118								
	Aluminum	mg/kg	486	439		90.3	80−120	P
	Antimony	mg/kg	48.6	46.4		95.3	80−120	P
	Arsenic	mg/kg	48.6	44.9		92.3	80−120	P
	Barium	mg/kg	48.6	43.8		90.1	80−120	P
	Beryllium	mg/kg	48.6	45.2		92.9	80−120	P
	Cadmium	mg/kg	48.6	44		90.5	80−120	P
	Calcium	mg/kg	486	466		95.8	80−120	P
	Chromium	mg/kg	48.6	43.5		89.4	80−120	P
	Cobalt	mg/kg	48.6	44		90.6	80−120	P
	Copper	mg/kg	48.6	43.7		89.9	80−120	P
	Iron	mg/kg	486	460		94.6	80−120	P
	Lead	mg/kg	48.6	44.4		91.3	80−120	P
	Magnesium	mg/kg	486	472		97	80−120	P
	Manganese	mg/kg	48.6	44		90.5	80−120	P
	Nickel	mg/kg	48.6	44.5		91.4	80−120	P
	Potassium	mg/kg	486	425		87.3	80−120	P
	Silver	mg/kg	9.73	8.87		91.2	80−120	P
	Sodium	mg/kg	486	428		88.1	80−120	P
	Thallium	mg/kg	48.6	45		92.5	80−120	P
	Vanadium	mg/kg	48.6	44.2		90.8	80−120	P
	Zinc	mg/kg	48.6	42.3		87	80−120	P

***Analytical Methods:**

P **SW846 3050B/6010D**

METALS
−7−
Laboratory Control Sample Summary

SDG NO. 454944

Contract: URSC00114

Aqueous LCS Source: **Solid LCS Source:** GEL

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M*
1204073461								
	Mercury	mg/kg	.117	.119		102	80−120	AV

***Analytical Methods:**

AV **SW846 7471B**

METALS
−9−
Serial Dilution Sample Summary

SDG NO. 454944 **Client ID** S09L

Contract: URSC00114

Matrix: SOLID **Level:** Low

Sample ID: 454944002 **Serial Dilution ID:** 1204073116

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M*
Selenium	3.76	B	9	U	7.846			MS

***Analytical Methods:**

MS **SW846 3050B/6020**

METALS
−9−
Serial Dilution Sample Summary

SDG NO. 454944 **Client ID** S09L

Contract: URSC00114

Matrix: SOLID **Level:** Low

Sample ID: 454944002 **Serial Dilution ID:** 1204073121

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M*
Aluminum	96300		108000		12.604		20	P
Antimony	3.3	U	16.5	U				P
Arsenic	86		91.9	B	6.834			P
Barium	715		757		5.957		20	P
Beryllium	7.16		9.3	B	29.923			P
Cadmium	1.2	B	5	U	209.14			P
Calcium	231000		254000		10.115		20	P
Chromium	159		174		9.618		20	P
Cobalt	122		139		13.606			P
Copper	392		400		1.906		20	P
Iron	273000		307000		12.499		20	P
Lead	140		154		9.95			P
Magnesium	110000		123000		12.057		20	P
Manganese	5890		6520		10.652		20	P
Nickel	289		328		13.467		20	P
Potassium	16800		18300		8.627		20	P
Silver	7.54		14.6	B	94.316			P
Sodium	606		615	B	1.488			P
Thallium	12.1	B	25	U	62.107			P
Vanadium	207		224		8.511		20	P
Zinc	1030		1140		10.739		20	P

***Analytical Methods:**

P **SW846 3050B/6010D**

METALS
−9−
Serial Dilution Sample Summary

SDG NO. 454944 **Client ID** SpikeZone−Primary BackingL

Contract: URSC00114

Matrix: SOLID **Level:** Low

Sample ID: 454925001 **Serial Dilution ID:** 1204073464

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M*
Mercury	.067	U	10.1					AV

***Analytical Methods:**

AV **SW846 7471B**

METALS
−13−
SAMPLE PREPARATION SUMMARY

SDG No: 454944 **Method Type:** P

Contract: URSC00114 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	1783992						
1204073117	MB for batch 1783992	MB	S	20−JUL−18	.549g	50mL	
1204073118	LCS for batch 1783992	LCS	S	20−JUL−18	.514g	50mL	
1204073119	S09S	MS	S	20−JUL−18	.504g	50mL	93.7
1204073120	S09SD	MSD	S	20−JUL−18	.516g	50mL	93.7
454944002	S09	SAMPLE	S	20−JUL−18	.501g	50mL	93.7
454944003	S06	SAMPLE	S	20−JUL−18	.523g	50mL	92.9
454944004	SW24	SAMPLE	S	20−JUL−18	.545g	50mL	90.6
454944005	S05	SAMPLE	S	20−JUL−18	.516g	50mL	91.2
454944006	S14	SAMPLE	S	20−JUL−18	.505g	50mL	92.9
454944007	S15	SAMPLE	S	20−JUL−18	.51g	50mL	92.4
454944008	S19	SAMPLE	S	20−JUL−18	.518g	50mL	91.4
454944009	SW22	SAMPLE	S	20−JUL−18	.508g	50mL	93
454944010	S10	SAMPLE	S	20−JUL−18	.517g	50mL	92.9

METALS
−13−
SAMPLE PREPARATION SUMMARY

SDG No: 454944 **Method Type:** MS

Contract: URSC00114 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 1783990							
1204073112	MB for batch 1783990	MB	S	20−JUL−18	.498g	50mL	
1204073113	LCS for batch 1783990	LCS	S	20−JUL−18	.544g	50mL	
1204073115	S09S	MS	S	20−JUL−18	.5g	50mL	93.7
1204073114	S09D	DUP	S	20−JUL−18	.51g	50mL	93.7
454944002	S09	SAMPLE	S	20−JUL−18	.523g	50mL	93.7
454944003	S06	SAMPLE	S	20−JUL−18	.547g	50mL	92.9
454944004	SW24	SAMPLE	S	20−JUL−18	.546g	50mL	90.6
454944005	S05	SAMPLE	S	20−JUL−18	.543g	50mL	91.2
454944006	S14	SAMPLE	S	20−JUL−18	.525g	50mL	92.9
454944007	S15	SAMPLE	S	20−JUL−18	.528g	50mL	92.4
454944008	S19	SAMPLE	S	20−JUL−18	.502g	50mL	91.4
454944009	SW22	SAMPLE	S	20−JUL−18	.502g	50mL	93
454944010	S10	SAMPLE	S	20−JUL−18	.522g	50mL	92.9

METALS
−13−
SAMPLE PREPARATION SUMMARY

SDG No: 454944 **Method Type:** AV

Contract: URSC00114 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 1784162							
1204073460	MB for batch 1784162	MB	c	20−JUL−18	.589g	30mL	
1204073461	LCS for batch 1784162	LCS	c	20−JUL−18	.511g	30mL	
1204073463	SpikeZone−Primary BackingS	MS	c	20−JUL−18	.528g	30mL	98.9
1204073562	SpikeZone−Primary BackingSD	MSD	c	20−JUL−18	.513g	30mL	98.9
1204073462	SpikeZone−Primary BackingD	DUP	c	20−JUL−18	.519g	30mL	98.9
454944002	S09	SAMPLE	S	20−JUL−18	.576g	30mL	93.7
454944003	S06	SAMPLE	S	20−JUL−18	.511g	30mL	92.9
454944004	SW24	SAMPLE	S	20−JUL−18	.568g	30mL	90.6
454944005	S05	SAMPLE	S	20−JUL−18	.52g	30mL	91.2
454944006	S14	SAMPLE	S	20−JUL−18	.528g	30mL	92.9
454944007	S15	SAMPLE	S	20−JUL−18	.565g	30mL	92.4
454944008	S19	SAMPLE	S	20−JUL−18	.564g	30mL	91.4
454944009	SW22	SAMPLE	S	20−JUL−18	.547g	30mL	93
454944010	S10	SAMPLE	S	20−JUL−18	.541g	30mL	92.9

Metals
-14-
Analysis Run Log

Contract: URSC00114

Lab Code : GEL

Client Sdg: 454944

Inst Name: OPTIMA3

Instrument Type: P

Start Date: 23-JUL-18

End Date: 23-JUL-18

Data File: 072318-1

Samp ID	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	05:52:59	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
S0.1	1	05:56:15			X	X	X	X		X	X	X		X		X		X	X		X		X	X	X
S0.5	1	05:58:23	X		X	X	X	X	X	X	X	X		X	X	X		X	X		X		X	X	X
SCAL	1	06:00:47	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
S10	1	06:03:16	X						X				X		X							X			
ICV01	1	06:04:22	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
ICB01	1	06:06:45	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
PQL01	1	06:09:52	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
ICSA01	1	06:12:59	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
ICSAB01	1	06:15:23	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
LR01	1	06:17:01	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
LR02	1	06:23:00	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
CCV01	1	06:26:08	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
CCB01	1	06:28:34	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
ZZZZZZ	1	06:33:46																							
ZZZZZZ	1	06:37:01																							
ZZZZZZ	1	06:39:25																							
ZZZZZZ	1	06:42:32																							
ZZZZZZ	1	06:45:38																							
ZZZZZZ	1	06:48:45																							
ZZZZZZ	1	06:51:52																							
ZZZZZZ	1	06:54:59																							
ZZZZZZ	5	06:57:23																							
CCV	1	07:00:30	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
PQL	1	07:02:57	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
CCB	1	07:06:05	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
ZZZZZZ	10	07:09:12																							
CCV	1	07:12:19	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
CCB	1	07:14:44	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
CCV	1	07:29:41	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
CCB	1	07:32:14	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
ZZZZZZ	1	07:35:21																							
ZZZZZZ	1	07:38:29																							
ZZZZZZ	1	07:40:53																							
ZZZZZZ	1	07:43:21																							
ZZZZZZ	1	07:45:51																							
ZZZZZZ	5	07:48:21																							
ZZZZZZ	1	07:50:43																							
ZZZZZZ	1	07:53:11																							
CCV	1	07:55:39	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
CCB	1	07:58:06	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X

Metals
-14-
Analysis Run Log

Contract: URSC00114

Lab Code : GEL

Client Sdg: 454944

Inst Name: OPTIMA3

Instrument Type: P

Start Date: 23-JUL-18

End Date: 23-JUL-18

Data File: 072318-1

Samp ID	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	08:01:13																							
ZZZZZZ	1	08:04:23																							
ZZZZZZ	1	08:06:47																							
ZZZZZZ	1	08:09:15																							
ZZZZZZ	1	08:11:56																							
ZZZZZZ	5	08:14:38																							
CCV	1	08:17:01	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
CCB	1	08:19:27	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
ZZZZZZ	1	08:22:34																							
ZZZZZZ	1	08:25:16																							
ZZZZZZ	1	08:27:43																							
ZZZZZZ	1	08:30:23																							
ZZZZZZ	1	08:32:52																							
CCV	1	08:35:32	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
CCB	1	08:37:59	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
ZZZZZZ	10	08:41:34																							
ZZZZZZ	10	08:44:04																							
ZZZZZZ	10	08:46:26																							
ZZZZZZ	50	08:48:48																							
ZZZZZZ	10	08:50:54																							
ZZZZZZ	10	08:53:16																							
CCV	1	08:55:38	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
CCB	1	08:58:05	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
ZZZZZZ	10	09:01:12																							
ZZZZZZ	10	09:03:37																							
ZZZZZZ	10	09:05:59																							
ZZZZZZ	50	09:08:21																							
ZZZZZZ	10	09:10:28																							
ZZZZZZ	10	09:12:50																							
ZZZZZZ	10	09:15:12																							
ZZZZZZ	10	09:17:34																							
ZZZZZZ	10	09:19:56																							
CCV	1	09:22:18	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
CCB	1	09:24:45	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
ZZZZZZ	1	09:31:36																							
ZZZZZZ	1	09:34:51																							
ZZZZZZ	1	09:37:15																							
ZZZZZZ	1	09:40:22																							
ZZZZZZ	1	09:43:29																							
ZZZZZZ	5	09:45:53																							
CCV	1	09:49:00	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X

Metals
-14-
Analysis Run Log

Contract: URSC00114

Lab Code : GEL

Client Sdg: 454944

Inst Name: OPTIMA3

Instrument Type: P

Start Date: 23-JUL-18

End Date: 23-JUL-18

Data File: 072318-1

Samp ID	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
PQL	1	09:51:27	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
CCB	1	09:54:35	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
CCV	1	09:57:42	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
CCB	1	10:00:06	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
ZZZZZZ	1	10:03:13																							
ZZZZZZ	1	10:06:22																							
ZZZZZZ	1	10:08:46																							
ZZZZZZ	1	10:11:53																							
ZZZZZZ	1	10:15:00																							
ZZZZZZ	5	10:17:24																							
CCV	1	10:20:31	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
PQL	1	10:22:56	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
CCB	1	10:26:04	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
ZZZZZZ	10	10:29:12																							
CCV	1	10:32:20	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
CCB	1	10:34:45	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
ZZZZZZ	1	10:38:58																							
ZZZZZZ	10	10:41:37																							
ZZZZZZ	1	10:44:01																							
ZZZZZZ	10	10:46:31																							
CCV	1	10:48:55	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
CCB	1	10:51:22	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
ZZZZZZ	1	11:04:28																							
ZZZZZZ	1	11:07:44																							
ZZZZZZ	1	11:10:08																							
ZZZZZZ	1	11:12:32																							
ZZZZZZ	5	11:15:39																							
CCV	1	11:18:46	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
CCB	1	11:21:13	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
ZZZZZZ	1	11:24:21																							
ZZZZZZ	1	11:27:30																							
ZZZZZZ	1	11:29:54																							
ZZZZZZ	1	11:33:01																							
ZZZZZZ	1	11:35:25																							
ZZZZZZ	5	11:37:49																							
CCV	1	11:40:55	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
PQL	1	11:43:23	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
CCB	1	11:46:30	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
CCV02	1	11:49:37	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
CCB02	1	11:52:03	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
1204073117	1	11:55:11	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X

Metals
-14-
Analysis Run Log

Contract: URSC00114

Lab Code : GEL

Client Sdg: 454944

Inst Name: OPTIMA3

Instrument Type: P

Start Date: 23-JUL-18

End Date: 23-JUL-18

Data File: 072318-1

Samp ID	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
1204073118	1	11:58:21	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
454944002	1	12:00:45	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
1204073119	1	12:03:25	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
1204073120	1	12:05:55	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
1204075175	1	12:08:25				X						X							X						X
1204073121	5	12:11:07	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
CCV03	1	12:13:30	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
CCB03	1	12:15:57	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
454944003	1	12:19:05	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
454944004	1	12:21:36	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
454944005	1	12:24:05	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
454944006	1	12:26:46	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
454944007	1	12:29:15	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
454944008	1	12:31:55	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
454944009	1	12:34:24	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
454944010	1	12:36:52	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
CCV04	1	12:39:21	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
CCB04	1	12:41:47	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X

Metals
-14-
Analysis Run Log

Contract: URSC00114

Lab Code : GEL

Client Sdg: 454944

Inst Name: OPTIMA3

Instrument Type: P

Start Date: 24-JUL-18

End Date: 24-JUL-18

Data File: 072418A-2

Samp ID	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	10:09:47		X																					
S0.1	1	10:13:04		X																					
S0.5	1	10:15:12		X																					
SCAL	1	10:17:36		X																					
S10	1	10:20:05																							
ICV01	1	10:21:27		X																					
ICB01	1	10:23:50		X																					
PQL01	1	10:26:57		X																					
ICSA01	1	10:30:04		X																					
ICSAB01	1	10:32:28		X																					
LR01	1	10:34:06		X																					
LR02	1	10:36:02		X																					
CCV01	1	10:39:27		X																					
CCB01	1	10:41:54		X																					
ZZZZZZ	1	10:51:47																							
ZZZZZZ	1	10:55:02																							
ZZZZZZ	1	10:58:09																							
ZZZZZZ	1	11:01:16																							
ZZZZZZ	1	11:03:40																							
ZZZZZZ	1	11:06:48																							
ZZZZZZ	1	11:09:12																							
ZZZZZZ	5	11:11:36																							
ZZZZZZ	1	11:14:43																							
ZZZZZZ	1	11:17:05																							
CCV	1	11:20:14		X																					
PQL	1	11:22:41		X																					
CCB	1	11:25:49		X																					
ZZZZZZ	10	11:28:57																							
CCV	1	11:32:05		X																					
CCB	1	11:34:30		X																					
ZZZZZZ	1	11:41:41																							
ZZZZZZ	1	11:44:57																							
ZZZZZZ	1	11:47:21																							
ZZZZZZ	1	11:50:28																							
ZZZZZZ	1	11:53:35																							
ZZZZZZ	5	11:55:59																							
CCV	1	11:59:06		X																					
CCB	1	12:01:33		X																					
ZZZZZZ	1	12:04:41																							
ZZZZZZ	1	12:07:08																							
ZZZZZZ	1	12:10:15																							

Metals
-14-
Analysis Run Log

Contract: URSC00114

Lab Code : GEL

Client Sdg: 454944

Inst Name: OPTIMA3

Instrument Type: P

Start Date: 24-JUL-18

End Date: 24-JUL-18

Data File: 072418A-2

Samp ID	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	12:13:22																							
ZZZZZZ	1	12:16:29																							
ZZZZZZ	1	12:19:36																							
CCV	1	12:22:43		X																					
CCB	1	12:25:09		X																					
ZZZZZZ	1	12:28:17																							
ZZZZZZ	1	12:31:25																							
ZZZZZZ	1	12:33:49																							
ZZZZZZ	10	12:36:31																							
ZZZZZZ	10	12:38:53																							
ZZZZZZ	10	12:41:15																							
ZZZZZZ	10	12:43:37																							
ZZZZZZ	50	12:46:01																							
CCV	1	12:48:08		X																					
CCB	1	12:50:35		X																					
ZZZZZZ	1	12:53:43																							
ZZZZZZ	1	12:56:53																							
ZZZZZZ	1	12:59:19																							
ZZZZZZ	1	13:01:43																							
ZZZZZZ	5	13:04:50																							
CCV	1	13:07:57		X																					
CCB	1	13:10:23		X																					
ZZZZZZ	1	13:13:31																							
ZZZZZZ	1	13:16:39																							
ZZZZZZ	1	13:19:03																							
ZZZZZZ	1	13:22:10																							
ZZZZZZ	1	13:25:17																							
ZZZZZZ	1	13:28:24																							
CCV	1	14:11:14		X																					
PQL	1	14:13:48		X																					
CCB	1	14:16:56		X																					
CCV02	1	14:20:04		X																					
CCB02	1	14:22:30		X																					
1204073117	1	14:25:38		X																					
1204073118	1	14:28:48		X																					
454944002	10	14:31:12		X																					
1204073119	10	14:33:34		X																					
1204073120	10	14:35:56		X																					
ZZZZZZ	10	14:38:18																							
1204073121	50	14:40:27		X																					
CCV03	1	14:42:34		X																					

Metals
-14-
Analysis Run Log

Contract: URSC00114

Lab Code : GEL

Client Sdg: 454944

Inst Name: OPTIMA3

Instrument Type: P

Start Date: 24-JUL-18

End Date: 24-JUL-18

Data File: 072418A-2

Samp ID	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
CCB03	1	14:45:00		X																					
454944003	10	14:48:08		X																					
454944004	10	14:50:32		X																					
454944005	10	14:52:54		X																					
454944006	10	14:55:16		X																					
454944007	10	14:57:38		X																					
454944008	10	15:00:00		X																					
454944009	10	15:02:22		X																					
454944010	10	15:04:44		X																					
CCV04	1	15:07:06		X																					
CCB04	1	15:09:34		X																					

Metals
-14-
Analysis Run Log

Contract: URSC00114

Lab Code : GEL

Client Sdg: 454944

Inst Name: HG4

Instrument Type: AV

Start Date: 23-JUL-18

End Date: 23-JUL-18

Data File: 072318WS1-4

Samp ID	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	13:47:00															X								
S0.2	1	13:49:00															X								
S0.5	1	13:50:00															X								
S2.0	1	13:52:00															X								
S5.0	1	13:54:00															X								
S10.0	1	13:55:00															X								
ICV01	1	13:57:00															X								
ICB01	1	13:59:00															X								
CRDL01	1	14:00:00															X								
CCV01	1	14:02:00															X								
CCB01	1	14:04:00															X								
1204073460	1	14:06:00															X								
1204073461	1	14:07:00															X								
ZZZZZZ	1	14:09:00																							
ZZZZZZ	1	14:11:00																							
ZZZZZZ	1	14:12:00																							
ZZZZZZ	1	14:14:00																							
ZZZZZZ	1	14:16:00																							
ZZZZZZ	1	14:17:00																							
1204073462	1	14:19:00															X								
1204073463	1	14:21:00															X								
CCV02	1	14:22:00															X								
CCB02	1	14:24:00															X								
1204073464	1	14:26:00															X								
ZZZZZZ	5	14:28:00																							
1204073562	1	14:29:00															X								
ZZZZZZ	1	14:31:00																							
ZZZZZZ	1	14:33:00																							
ZZZZZZ	1	14:34:00																							
ZZZZZZ	1	14:36:00																							
454944002	1	14:38:00															X								
454944003	1	14:39:00															X								
454944004	1	14:41:00															X								
CCV03	1	14:43:00															X								
CCB03	1	14:44:00															X								
454944005	1	14:46:00															X								
454944006	1	14:48:00															X								
454944007	1	14:49:00															X								
454944008	1	14:51:00															X								
454944009	1	14:53:00															X								
454944010	1	14:54:00															X								

Metals
-14-
Analysis Run Log

Contract: URSC00114

Lab Code : GEL

Client Sdg: 454944

Inst Name: HG4

Instrument Type: AV

Start Date: 23-JUL-18

End Date: 23-JUL-18

Data File: 072318WS1-4

Samp ID	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	14:56:00																							
ZZZZZZ	1	14:58:00																							
ZZZZZZ	1	15:00:00																							
ZZZZZZ	1	15:01:00																							
CCV04	1	15:03:00															X								
CCB04	1	15:05:00															X								

Metals
-14-
Analysis Run Log

Contract: URSC00114

Lab Code : GEL

Client Sdg: 454944

Inst Name: ICPMS14

Instrument Type: MS

Start Date: 23-JUL-18

End Date: 23-JUL-18

Data File: 180723-3

Samp ID	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	19:11:00																		X					
S10	1	19:14:16																		X					
S100	1	19:17:32																		X					
ICV01	1	19:20:49																		X					
ICB01	1	19:24:06																		X					
CRDL01	1	19:27:23																		X					
ICSA01	1	19:30:40																		X					
ICSAB01	1	19:33:56																		X					
CCV01	1	19:37:13																		X					
CCB01	1	19:40:28																		X					
LR01	1	19:43:46																		X					
CCV02	1	19:47:02																		X					
CCB02	1	19:50:17																		X					
1204073112	2	19:53:34																		X					
1204073113	2	19:56:49																		X					
454944002	2	20:00:04																		X					
1204073114	2	20:03:20																		X					
1204073115	2	20:06:36																		X					
1204073116	10	20:09:51																		X					
454944003	2	20:13:07																		X					
CCV03	1	20:16:24																		X					
CCB03	1	20:19:41																		X					
454944004	2	20:22:57																		X					
454944005	2	20:26:13																		X					
454944006	2	20:29:29																		X					
454944007	2	20:32:44																		X					
454944008	2	20:36:00																		X					
454944009	2	20:39:16																		X					
454944010	2	20:42:31																		X					
CCV04	1	20:45:48																		X					
CCB04	1	20:49:04																		X					

Standards

METALS
−10−
Instrument Detection Limits

SDG NO. 454944

Contract: URSC00114 **Lab Code: GEL** **MDL** **Effective Date:** 01−SEP−16

Instrument(s): ICPMS14 **Verified on:** 30−MAY−18

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		22.75	50.0
	Arsenic		1.69	5.0
	Barium		0.5	2.0
	Beryllium		0.1	0.5
	Cadmium		0.1	1.0
	Calcium		67.0	200
	Chromium		1.0	3.0
	Cobalt		0.3	1.0
	Copper		0.33	1.0
	Iron		33.0	100
	Lead		0.5	2.0
	Magnesium		10.0	30.0
	Manganese		1.0	5.0
	Nickel		0.5	2.0
	Potassium		80.0	300
	Selenium		1.8	5.0
	Silver		0.3	1.0
	Sodium		80.0	250
	Thallium		0.7	2.0
	Vanadium		1.5	5.0
	Zinc		4.0	10.0

METALS
−10−
Instrument Detection Limits

SDG NO. 454944

Contract: URSC00114 **Lab Code: GEL** **MDL** **Hg Effective Date:** 01−MAY−12

Instrument(s):	**Verified on:**
HG4	18−JUN−18
HG4	18−JUN−18

MERCURY	**Analyte**	**Wavelength (nm)**	**MDL ug/L**	**RDL ug/L**
SOLID	Mercury	253.7	0.067	0.2

METALS
−10−
Instrument Detection Limits

SDG NO. 454944

Contract: URSC00114 **Lab Code: GEL** **MDL** **Effective Date:** 23−JAN−11

Instrument(s): OPTIMA3 **Verified on:** 30−MAR−18

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10.0
	Arsenic	188.979	5.0	30.0
	Barium	233.527	1.0	5.0
	Beryllium	313.107	1.0	5.0
	Cadmium	226.502	1.0	5.0
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5.0
	Cobalt	228.616	1.5	5.0
	Copper	324.752	3.0	10.0
	Iron	238.204	80.0	250
	Lead	220.353	3.3	10.0
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10.0
	Nickel	231.604	1.5	5.0
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30.0
	Silver	328.068	1.0	5.0
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20.0
	Vanadium	292.402	1.0	5.0
	Zinc	213.857	4.0	10.0

METALS
−11−
Interelement Correction Factors

Lab Code: GEL
Contract: URSC00114
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 454944
Effective Dates: 14−FEB−18

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	−0.68182	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.36064	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	−0.20977	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	−2.43110	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.08043	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	367.007	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
−11−
Interelement Correction Factors

Lab Code: GEL
Contract: URSC00114
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 454944
Effective Dates: 14−FEB−18

Parmname	Wavelength	Boron	Cadmium	Calcium	Chromium	Cobalt
Aluminum	**396.153**	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	**206.836**	0.00000	0.00000	0.00000	22.2745	0.00000
Arsenic	**188.979**	0.00000	0.00000	0.00000	−2.87735	0.00000
Barium	**233.527**	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	**313.107**	0.00000	0.00000	−0.01199	−0.23265	0.00000
Boron	**249.677**	0.00000	0.00000	0.00000	0.00000	3.92642
Cadmium	**226.502**	0.00000	0.00000	0.00000	0.00000	−0.12824
Calcium	**317.933**	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	**267.716**	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	**228.616**	0.00000	0.00000	0.00000	0.32429	0.00000
Copper	**324.752**	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	**238.204**	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	**220.353**	0.00000	0.00000	−0.03857	0.00000	−1.84823
Magnesium	**279.077**	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	**257.61**	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	**202.031**	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	**231.604**	0.00000	0.00000	0.00000	0.00000	−0.27570
Phosphorous	**214.914**	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	**766.49**	0.00000	0.00000	−0.07076	0.00000	0.00000
Selenium	**196.026**	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	**251.611**	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	**328.068**	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	**589.592**	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	**421.552**	0.00000	0.00000	0.03037	0.00000	0.00000
Sulfur	**181.975**	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	**190.801**	0.00000	0.00000	0.00000	0.33470	5.79216
Tin	**189.927**	0.00000	0.00000	0.02623	0.00000	0.00000
Titanium	**334.94**	0.00000	0.00000	−0.05535	0.35976	0.00000
Uranium	**367.007**	0.00000	0.00000	0.49135	0.00000	0.00000
Vanadium	**292.402**	0.00000	0.00000	0.00000	−2.00387	0.00000
Zinc	**213.857**	0.00000	0.00000	−0.01057	0.00000	0.00000

METALS
−11−
Interelement Correction Factors

Lab Code: GEL
Contract: URSC00114
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 454944
Effective Dates: 14−FEB−18

Parmname	Wavelength	Copper	Iron	Lead	Magnesium	Manganese
Aluminum	**396.153**	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	**206.836**	0.00000	0.07899	0.00000	0.00000	0.00000
Arsenic	**188.979**	0.00000	0.04587	0.00000	0.00000	0.00000
Barium	**233.527**	0.00000	0.02180	0.00000	0.00000	0.00000
Beryllium	**313.107**	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	**249.677**	0.00000	−3.80099	0.00000	0.00000	0.00000
Cadmium	**226.502**	0.00000	0.09045	0.00000	0.00000	0.00000
Calcium	**317.933**	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	**267.716**	0.00000	−0.02250	0.00000	−0.02746	0.42232
Cobalt	**228.616**	0.00000	−0.00650	0.00000	0.00000	0.00000
Copper	**324.752**	0.00000	−0.06696	0.00000	0.00000	0.00000
Iron	**238.204**	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	**220.353**	−0.05605	−0.04275	0.00000	0.00000	0.00000
Magnesium	**279.077**	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	**257.61**	0.00000	−0.05250	0.00000	0.03779	0.00000
Molybdenum	**202.031**	0.00000	−0.01942	0.00000	0.00000	0.00000
Nickel	**231.604**	0.00000	−0.00835	0.00000	0.00000	0.00000
Phosphorous	**214.914**	11.5616	0.89778	0.00000	0.00000	0.00000
Potassium	**766.49**	0.00000	−1.29103	0.00000	0.00000	0.00000
Selenium	**196.026**	0.00000	−0.42501	0.00000	0.00000	0.00000
Silicon	**251.611**	0.00000	0.17484	0.00000	0.00000	0.00000
Silver	**328.068**	0.00000	−0.16666	0.00000	0.00000	0.00000
Sodium	**589.592**	0.00000	0.66191	0.00000	0.00000	0.00000
Strontium	**421.552**	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	**181.975**	0.00000	−0.02102	0.00000	0.00000	1.20261
Thallium	**190.801**	0.00000	−0.00996	0.00000	0.00000	0.00000
Tin	**189.927**	0.00000	−0.01885	0.00000	0.01769	0.00000
Titanium	**334.94**	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	**367.007**	0.00000	4.68515	0.00000	0.00000	0.00000
Vanadium	**292.402**	0.00000	−0.11818	0.00000	0.00000	0.00000
Zinc	**213.857**	0.26856	0.09024	0.00000	0.04456	0.00000

METALS
−11−
Interelement Correction Factors

Lab Code: GEL
Contract: URSC00114
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 454944
Effective Dates: 14−FEB−18

Parmname	Wavelength	Molybdenum	Nickel	Phosphorous	Potassium	Selenium
Aluminum	**396.153**	46.4992	0.00000	0.00000	0.00000	0.00000
Antimony	**206.836**	−11.3506	0.00000	0.00000	0.00000	0.00000
Arsenic	**188.979**	−6.19920	0.00000	0.00000	0.00000	0.00000
Barium	**233.527**	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	**313.107**	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	**249.677**	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	**226.502**	0.00000	−0.39139	0.00000	0.00000	0.00000
Calcium	**317.933**	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	**267.716**	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	**228.616**	−1.52983	0.00000	0.00000	0.00000	0.00000
Copper	**324.752**	0.65227	0.00000	0.00000	0.00000	0.00000
Iron	**238.204**	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	**220.353**	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	**279.077**	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	**257.61**	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	**202.031**	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	**231.604**	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	**214.914**	8.61561	0.00000	0.00000	0.00000	0.00000
Potassium	**766.49**	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	**196.026**	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	**251.611**	16.5669	0.00000	0.00000	0.00000	0.00000
Silver	**328.068**	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	**589.592**	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	**421.552**	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	**181.975**	−4.19158	0.00000	0.00000	0.00000	0.00000
Thallium	**190.801**	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	**189.927**	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	**334.94**	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	**367.007**	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	**292.402**	−9.86752	0.00000	0.00000	0.00000	0.00000
Zinc	**213.857**	0.00000	5.43263	0.00000	0.00000	0.00000

METALS
−11−
Interelement Correction Factors

Lab Code: GEL
Contract: URSC00114
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 454944
Effective Dates: 14−FEB−18

Parmname	Wavelength	Silicon	Silver	Sodium	Strontium	Sulfur
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	367.007	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
−11−
Interelement Correction Factors

Lab Code: GEL
Contract: URSC00114
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 454944
Effective Dates: 14−FEB−18

Parmname	Wavelength	Thallium	Tin	Titanium	Uranium	Vanadium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	−2.26792	−0.87028	0.00000	−1.35139
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	−0.24653	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.15743	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.79281	−0.47821
Cobalt	228.616	0.00000	0.00000	1.96686	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	−0.61588	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.76728	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.57735	−1.57979
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	−9.70069	−0.39670	−0.15590
Tin	189.927	0.00000	0.00000	−3.68936	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.46265	0.00000
Uranium	367.007	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.86352	−0.58460	0.00000
Zinc	213.857	0.00000	0.00000	−1.79228	0.00000	0.00000

METALS
−11−
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 454944
Contract: URSC00114
Instrument: OPTIMA3
Effective Dates: 14−FEB−18
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Zinc
Aluminum	396.153	0.00000
Antimony	206.836	0.00000
Arsenic	188.979	0.00000
Barium	233.527	0.00000
Beryllium	313.107	0.00000
Boron	249.677	0.00000
Cadmium	226.502	0.00000
Calcium	317.933	0.00000
Chromium	267.716	0.00000
Cobalt	228.616	0.00000
Copper	324.752	0.00000
Iron	238.204	0.00000
Lead	220.353	0.00000
Magnesium	279.077	0.00000
Manganese	257.61	0.00000
Molybdenum	202.031	0.00000
Nickel	231.604	0.00000
Phosphorous	214.914	0.00000
Potassium	766.49	0.00000
Selenium	196.026	0.00000
Silicon	251.611	0.00000
Silver	328.068	0.00000
Sodium	589.592	0.00000
Strontium	421.552	0.00000
Sulfur	181.975	0.00000
Thallium	190.801	0.00000
Tin	189.927	0.00000
Titanium	334.94	0.00000
Uranium	367.007	0.00000
Vanadium	292.402	0.00000
Zinc	213.857	0.00000

METALS
−12−
Linear Ranges

SDG NO. 454944

Contract: URSC00114 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Magnesium	20	500000	ug/L	12−JUN−18
Manganese	20	10000	ug/L	12−JUN−18
Nickel	20	10000	ug/L	12−JUN−18
Potassium	20	200000	ug/L	12−JUN−18
Selenium	20	1000	ug/L	12−JUN−18
Silver	20	1000	ug/L	12−JUN−18
Sodium	20	500000	ug/L	12−JUN−18
Thallium	20	1000	ug/L	12−JUN−18
Vanadium	20	10000	ug/L	12−JUN−18
Zinc	20	15000	ug/L	12−JUN−18
Lead	20	25000	ug/L	12−JUN−18
Aluminum	20	500000	ug/L	12−JUN−18
Antimony	20	1000	ug/L	12−JUN−18
Arsenic	20	10000	ug/L	12−JUN−18
Barium	20	15000	ug/L	12−JUN−18
Beryllium	20	1000	ug/L	12−JUN−18
Cadmium	20	10000	ug/L	12−JUN−18
Calcium	20	500000	ug/L	12−JUN−18
Chromium	20	25000	ug/L	12−JUN−18
Cobalt	20	10000	ug/L	12−JUN−18
Copper	20	20000	ug/L	12−JUN−18
Iron	20	500000	ug/L	12−JUN−18

METALS
−12−
Linear Ranges

SDG NO. 454944

Contract: URSC00114 **Lab Code: GEL**

Instrument ID ICPMS14

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01−AUG−17
Antimony	1000	250	ug/L	01−AUG−17
Arsenic	1000	1000	ug/L	01−AUG−17
Barium	1000	1000	ug/L	01−AUG−17
Beryllium	1000	1000	ug/L	01−AUG−17
Cadmium	1000	1000	ug/L	01−AUG−17
Calcium	500	50000	ug/L	01−AUG−17
Chromium	1000	1000	ug/L	01−AUG−17
Cobalt	1000	1000	ug/L	01−AUG−17
Copper	1000	1000	ug/L	01−AUG−17
Iron	500	50000	ug/L	01−AUG−17
Lead	1000	5000	ug/L	01−AUG−17
Magnesium	1	50000	ug/L	01−AUG−17
Manganese	1000	1000	ug/L	01−AUG−17
Nickel	1000	1000	ug/L	01−AUG−17
Potassium	1	50000	ug/L	01−AUG−17
Selenium	1000	500	ug/L	01−AUG−17
Silver	1000	250	ug/L	01−AUG−17
Sodium	1	50000	ug/L	01−AUG−17
Thallium	1000	500	ug/L	01−AUG−17
Vanadium	1000	100	ug/L	01−AUG−17
Zinc	1000	2500	ug/L	01−AUG−17

Raw Data

Method: Hg_ReAlign
Result: 072318

Sample ID: Hg_ReAlign

Hg 253.652 **Rep: 1**

Intensity: 2701292.0
Conc:

1

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7/23/2018 05:51:50 Hg ReAlign... Actual peak offset (nm): 0.002
Drift (nm): -0.001 Slit adjustment: -4

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Analysis Begun

Start Time: 7/23/2018 05:52:47
Logged In Analyst: Optima3
Spectrometer: Optima 5300 DV, S/N 077C7090601
Plasma On Time: 7/23/2018 04:11:23
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\Users\Public\PerkinElmer\ICP\Data\Sample Information\072318.sif
Batch ID:
Results Data Set: 072318
Results Library: C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb

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Sequence No.: 1
Sample ID: S0
Analyst:
Initial Sample Wt:
Dilution:
Wash Time:
Autosampler Location: 8
Date Collected: 7/23/2018 05:52:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	22124.3	22124.3	100	%	05:53:59
1	Al 396.153Radial†	-82.8	-82.7	[0.00]	µg/L	05:53:59
1	Ca 317.933Radial†	292.1	291.5	[0.00]	µg/L	05:53:59
1	Fe 238.204 Radial†	36.1	36.0	[0.00]	µg/L	05:53:59
1	K 766.490 Radial†	428.9	428.0	[0.00]	µg/L	05:53:39
1	Mg 279.077 IEC†	55.7	55.6	[0.00]	µg/L	05:53:59
1	Na 589.592 Radial†	139.3	139.0	[0.00]	µg/L	05:53:59
1	Sr 421.552†	227.7	227.2	[0.00]	µg/L	05:53:39
1	Sc 361.383	367327.4	367327.4	100.31	%	05:54:55
1	Y 371.029	360951.9	360951.9	100.30	%	05:54:55
1	Ag 328.068†	-660.5	-658.4	[0.00]	µg/L	05:54:55
1	As 188.979†	-11.8	-11.7	[0.00]	µg/L	05:55:16
1	B 249.677†	162.2	161.7	[0.00]	µg/L	05:55:16
1	Ba 233.527†	-17.2	-17.1	[0.00]	µg/L	05:55:16
1	Be 313.107†	-3621.8	-3610.8	[0.00]	µg/L	05:54:55
1	Cd 226.502†	-318.5	-317.5	[0.00]	µg/L	05:55:16
1	Co 228.616†	-223.9	-223.3	[0.00]	µg/L	05:55:16
1	Cr 267.716†	127.3	126.9	[0.00]	µg/L	05:55:16
1	Cu 324.752†	1906.7	1900.9	[0.00]	µg/L	05:54:55
1	Mn 257.610†	436.7	435.3	[0.00]	µg/L	05:55:16
1	Mo 202.031†	30.7	30.6	[0.00]	µg/L	05:55:16
1	Ni 231.604†	-182.4	-181.8	[0.00]	µg/L	05:55:16
1	P 214.914†	142.9	142.5	[0.00]	µg/L	05:55:16
1	Pb 220.353†	-64.0	-63.8	[0.00]	µg/L	05:55:16
1	S 181.975 Axial†	90.2	89.9	[0.00]	µg/L	05:55:16
1	Sb 206.836†	154.4	153.9	[0.00]	µg/L	05:55:16
1	Se 196.026†	-23.7	-23.6	[0.00]	µg/L	05:55:16
1	SiO2†	1056.7	1053.4	[0.00]	µg/L	05:55:16
1	Si 251.611†	-15.9	-15.9	[0.00]	µg/L	05:55:16
1	Sn 189.927†	45.6	45.4	[0.00]	µg/L	05:55:16
1	Ti 334.940†	-764.0	-761.7	[0.00]	µg/L	05:54:55
1	Tl 190.801†	-77.7	-77.4	[0.00]	µg/L	05:55:16
1	U 367.007†	907.9	905.1	[0.00]	µg/L	05:54:55
1	V 292.402†	-119.4	-119.1	[0.00]	µg/L	05:55:16
1	Zn 213.857†	889.6	886.9	[0.00]	µg/L	05:55:16
2	Sc RADIAL	22087.3	22087.3	100	%	05:54:24
2	Al 396.153Radial†	-94.9	-94.9	[0.00]	µg/L	05:54:24
2	Ca 317.933Radial†	287.2	287.1	[0.00]	µg/L	05:54:24
2	Fe 238.204 Radial†	30.4	30.3	[0.00]	µg/L	05:54:24
2	K 766.490 Radial†	466.1	466.0	[0.00]	µg/L	05:54:04
2	Mg 279.077 IEC†	60.3	60.2	[0.00]	µg/L	05:54:24
2	Na 589.592 Radial†	126.5	126.4	[0.00]	µg/L	05:54:24

2	Sr 421.552†	270.9	270.8	[0.00]	µg/L	05:54:04
2	Sc 361.383	368148.4	368148.4	100.53	%	05:55:21
2	Y 371.029	362130.5	362130.5	100.63	%	05:55:21
2	Ag 328.068†	-711.9	-708.2	[0.00]	µg/L	05:55:21
2	As 188.979†	-14.3	-14.3	[0.00]	µg/L	05:55:41
2	B 249.677†	196.5	195.5	[0.00]	µg/L	05:55:41
2	Ba 233.527†	-15.4	-15.4	[0.00]	µg/L	05:55:41
2	Be 313.107†	-3571.1	-3552.3	[0.00]	µg/L	05:55:21
2	Cd 226.502†	-330.6	-328.9	[0.00]	µg/L	05:55:41
2	Co 228.616†	-234.5	-233.3	[0.00]	µg/L	05:55:41
2	Cr 267.716†	102.2	101.6	[0.00]	µg/L	05:55:41
2	Cu 324.752†	1880.3	1870.4	[0.00]	µg/L	05:55:21
2	Mn 257.610†	468.8	466.3	[0.00]	µg/L	05:55:41
2	Mo 202.031†	24.2	24.1	[0.00]	µg/L	05:55:41
2	Ni 231.604†	-197.4	-196.4	[0.00]	µg/L	05:55:41
2	P 214.914†	129.3	128.6	[0.00]	µg/L	05:55:41
2	Pb 220.353†	-64.5	-64.2	[0.00]	µg/L	05:55:41
2	S 181.975 Axial†	93.3	92.8	[0.00]	µg/L	05:55:41
2	Sb 206.836†	154.0	153.2	[0.00]	µg/L	05:55:41
2	Se 196.026†	-23.5	-23.4	[0.00]	µg/L	05:55:41
2	SiO2†	1074.3	1068.7	[0.00]	µg/L	05:55:41
2	Si 251.611†	11.0	11.0	[0.00]	µg/L	05:55:41
2	Sn 189.927†	52.6	52.4	[0.00]	µg/L	05:55:41
2	Ti 334.940†	-676.3	-672.7	[0.00]	µg/L	05:55:21
2	Tl 190.801†	-76.1	-75.7	[0.00]	µg/L	05:55:41
2	U 367.007†	802.9	798.7	[0.00]	µg/L	05:55:21
2	V 292.402†	-151.1	-150.3	[0.00]	µg/L	05:55:41
2	Zn 213.857†	901.2	896.4	[0.00]	µg/L	05:55:41
3	Sc RADIAL	22028.8	22028.8	99.8	%	05:54:49
3	Al 396.153Radial†	-104.1	-104.4	[0.00]	µg/L	05:54:49
3	Ca 317.933Radial†	309.7	310.5	[0.00]	µg/L	05:54:49
3	Fe 238.204 Radial†	38.7	38.8	[0.00]	µg/L	05:54:49
3	K 766.490 Radial†	370.1	371.0	[0.00]	µg/L	05:54:29
3	Mg 279.077 IEC†	52.3	52.4	[0.00]	µg/L	05:54:49
3	Na 589.592 Radial†	117.1	117.3	[0.00]	µg/L	05:54:49
3	Sr 421.552†	282.8	283.5	[0.00]	µg/L	05:54:29
3	Sc 361.383	363139.8	363139.8	99.163	%	05:55:46
3	Y 371.029	356503.9	356503.9	99.067	%	05:55:46
3	Ag 328.068†	-678.7	-684.4	[0.00]	µg/L	05:55:46
3	As 188.979†	-12.3	-12.4	[0.00]	µg/L	05:56:06
3	B 249.677†	161.0	162.4	[0.00]	µg/L	05:56:06
3	Ba 233.527†	-13.9	-14.1	[0.00]	µg/L	05:56:06
3	Be 313.107†	-3528.9	-3558.7	[0.00]	µg/L	05:55:46
3	Cd 226.502†	-320.2	-322.9	[0.00]	µg/L	05:56:06
3	Co 228.616†	-208.9	-210.7	[0.00]	µg/L	05:56:06
3	Cr 267.716†	136.1	137.3	[0.00]	µg/L	05:56:06
3	Cu 324.752†	1972.4	1989.0	[0.00]	µg/L	05:55:46
3	Mn 257.610†	465.0	468.9	[0.00]	µg/L	05:56:06
3	Mo 202.031†	43.8	44.1	[0.00]	µg/L	05:56:06
3	Ni 231.604†	-231.7	-233.7	[0.00]	µg/L	05:56:06
3	P 214.914†	122.9	124.0	[0.00]	µg/L	05:56:06
3	Pb 220.353†	-62.1	-62.6	[0.00]	µg/L	05:56:06
3	S 181.975 Axial†	93.5	94.3	[0.00]	µg/L	05:56:06
3	Sb 206.836†	155.4	156.7	[0.00]	µg/L	05:56:06
3	Se 196.026†	-24.1	-24.3	[0.00]	µg/L	05:56:06
3	SiO2†	1064.6	1073.6	[0.00]	µg/L	05:56:06
3	Si 251.611†	-19.6	-19.7	[0.00]	µg/L	05:56:06
3	Sn 189.927†	44.4	44.8	[0.00]	µg/L	05:56:06
3	Ti 334.940†	-724.1	-730.3	[0.00]	µg/L	05:55:46
3	Tl 190.801†	-81.1	-81.8	[0.00]	µg/L	05:56:06
3	U 367.007†	938.7	946.6	[0.00]	µg/L	05:55:46
3	V 292.402†	-125.2	-126.2	[0.00]	µg/L	05:56:06
3	Zn 213.857†	902.6	910.2	[0.00]	µg/L	05:56:06

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	366205.2	2686.29	0.73%	100.00	%
Sc RADIAL	22080.1	48.19	0.22%	100	%
Y 371.029	359862.1	2967.37	0.82%	100.00	%

Ag 328.068†	-683.7	24.87	3.64%	[0.00]	µg/L
Al 396.153Radial†	-94.0	10.88	11.58%	[0.00]	µg/L
As 188.979†	-12.8	1.31	10.22%	[0.00]	µg/L
B 249.677†	173.2	19.31	11.15%	[0.00]	µg/L
Ba 233.527†	-15.5	1.54	9.94%	[0.00]	µg/L
Be 313.107†	-3573.9	32.06	0.90%	[0.00]	µg/L
Ca 317.933Radial†	296.3	12.41	4.19%	[0.00]	µg/L
Cd 226.502†	-323.1	5.70	1.76%	[0.00]	µg/L
Co 228.616†	-222.4	11.31	5.09%	[0.00]	µg/L
Cr 267.716†	121.9	18.33	15.03%	[0.00]	µg/L
Cu 324.752†	1920.1	61.59	3.21%	[0.00]	µg/L
Fe 238.204 Radial†	35.1	4.31	12.30%	[0.00]	µg/L
K 766.490 Radial†	421.7	47.81	11.34%	[0.00]	µg/L
Mg 279.077 IEC†	56.1	3.95	7.05%	[0.00]	µg/L
Mn 257.610†	456.9	18.69	4.09%	[0.00]	µg/L
Mo 202.031†	33.0	10.21	30.98%	[0.00]	µg/L
Na 589.592 Radial†	127.6	10.87	8.52%	[0.00]	µg/L
Ni 231.604†	-204.0	26.74	13.11%	[0.00]	µg/L
P 214.914†	131.7	9.62	7.31%	[0.00]	µg/L
Pb 220.353†	-63.5	0.81	1.27%	[0.00]	µg/L
S 181.975 Axial†	92.3	2.20	2.38%	[0.00]	µg/L
Sb 206.836†	154.6	1.86	1.20%	[0.00]	µg/L
Se 196.026†	-23.8	0.47	1.99%	[0.00]	µg/L
SiO2†	1065.2	10.52	0.99%	[0.00]	µg/L
Si 251.611†	-8.2	16.73	203.81%	[0.00]	µg/L
Sn 189.927†	47.5	4.20	8.85%	[0.00]	µg/L
Sr 421.552†	260.5	29.50	11.32%	[0.00]	µg/L
Ti 334.940†	-721.5	45.14	6.26%	[0.00]	µg/L
Tl 190.801†	-78.3	3.14	4.00%	[0.00]	µg/L
U 367.007†	883.5	76.29	8.64%	[0.00]	µg/L
V 292.402†	-131.9	16.38	12.42%	[0.00]	µg/L
Zn 213.857†	897.8	11.70	1.30%	[0.00]	µg/L

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Sequence No.: 2 | **Autosampler Location: 2**
Sample ID: S0.1 | **Date Collected: 7/23/2018 05:56:15**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	22529.6	22529.6	102	%	05:56:47
1	K 766.490 Radial†	1593.4	1140.0	[1000]	µg/L	05:56:47
1	Sr 421.552†	17704.0	17090.3	[100]	µg/L	05:56:47
1	Sc 361.383	363962.8	363962.8	99.388	%	05:57:04
1	Y 371.029	355858.6	355858.6	98.887	%	05:57:04
1	Ag 328.068†	9328.4	10069.6	[100]	µg/L	05:57:04
1	As 188.979†	195.2	209.2	[100]	µg/L	05:57:24
1	B 249.677†	3077.1	2922.8	[100]	µg/L	05:57:04
1	Ba 233.527†	11606.0	11693.0	[100]	µg/L	05:57:24
1	Be 313.107†	116788.4	121081.9	[100]	µg/L	05:57:04
1	Cd 226.502†	9445.5	9826.8	[100]	µg/L	05:57:04
1	Co 228.616†	4181.5	4429.7	[100]	µg/L	05:57:24
1	Cr 267.716†	5109.1	5018.7	[100]	µg/L	05:57:24
1	Cu 324.752†	15732.4	13909.2	[100]	µg/L	05:57:04
1	Mn 257.610†	66037.0	65987.0	[100]	µg/L	05:57:04
1	Mo 202.031†	1780.1	1758.1	[100]	µg/L	05:57:24
1	Ni 231.604†	3520.2	3745.9	[100]	µg/L	05:57:24
1	P 214.914†	882.1	755.9	[500]	µg/L	05:57:24
1	Pb 220.353†	761.7	829.9	[100]	µg/L	05:57:24
1	S 181.975 Axial†	260.5	169.8	[200]	µg/L	05:57:24
1	Sb 206.836†	497.3	345.8	[100]	µg/L	05:57:24
1	Se 196.026†	184.9	209.8	[100]	µg/L	05:57:24
1	SiO2†	7321.7	6301.5	[1069.5]	µg/L	05:57:04
1	Si 251.611†	8973.6	9037.1	[500]	µg/L	05:57:04
1	Sn 189.927†	851.9	809.6	[100]	µg/L	05:57:24
1	Ti 334.940†	22686.8	23548.1	[100]	µg/L	05:57:04
1	Tl 190.801†	403.7	484.5	[100]	µg/L	05:57:24
1	U 367.007†	1229.3	353.4	[100]	µg/L	05:57:04
1	V 292.402†	7403.0	7580.5	[100]	µg/L	05:57:04
1	Zn 213.857†	15364.2	14561.0	[100]	µg/L	05:57:04
2	Sc RADIAL	22707.0	22707.0	103	%	05:56:52
2	K 766.490 Radial†	1673.3	1205.4	[1000]	µg/L	05:56:52
2	Sr 421.552†	17886.5	17132.2	[100]	µg/L	05:56:52
2	Sc 361.383	364971.6	364971.6	99.663	%	05:57:29
2	Y 371.029	357014.8	357014.8	99.209	%	05:57:29
2	Ag 328.068†	9369.1	10084.4	[100]	µg/L	05:57:29
2	As 188.979†	217.7	231.2	[100]	µg/L	05:57:49
2	B 249.677†	3095.9	2933.2	[100]	µg/L	05:57:29
2	Ba 233.527†	11610.6	11665.3	[100]	µg/L	05:57:49
2	Be 313.107†	117341.9	121312.5	[100]	µg/L	05:57:29
2	Cd 226.502†	9539.9	9895.2	[100]	µg/L	05:57:29
2	Co 228.616†	4184.2	4420.8	[100]	µg/L	05:57:49
2	Cr 267.716†	5109.7	5005.0	[100]	µg/L	05:57:49
2	Cu 324.752†	15834.4	13967.8	[100]	µg/L	05:57:29
2	Mn 257.610†	66428.0	66195.7	[100]	µg/L	05:57:29
2	Mo 202.031†	1796.5	1769.6	[100]	µg/L	05:57:49
2	Ni 231.604†	3515.7	3731.5	[100]	µg/L	05:57:49
2	P 214.914†	883.0	754.2	[500]	µg/L	05:57:49
2	Pb 220.353†	769.4	835.6	[100]	µg/L	05:57:49
2	S 181.975 Axial†	256.6	165.1	[200]	µg/L	05:57:49
2	Sb 206.836†	485.4	332.5	[100]	µg/L	05:57:49
2	Se 196.026†	179.7	204.1	[100]	µg/L	05:57:49
2	SiO2†	7374.5	6334.2	[1069.5]	µg/L	05:57:29
2	Si 251.611†	9066.6	9105.4	[500]	µg/L	05:57:29
2	Sn 189.927†	845.9	801.3	[100]	µg/L	05:57:49
2	Ti 334.940†	22801.2	23599.8	[100]	µg/L	05:57:29
2	Tl 190.801†	397.6	477.3	[100]	µg/L	05:57:49
2	U 367.007†	1128.9	249.3	[100]	µg/L	05:57:29

2	V 292.402†	7494.1	7651.3	[100]	µg/L	05:57:29
2	Zn 213.857†	15465.9	14620.3	[100]	µg/L	05:57:29
3	Sc RADIAL	22521.8	22521.8	102	%	05:56:57
3	K 766.490 Radial†	1570.8	1118.3	[1000]	µg/L	05:56:57
3	Sr 421.552†	17749.7	17141.1	[100]	µg/L	05:56:57
3	Sc 361.383	366569.7	366569.7	100.10	%	05:57:55
3	Y 371.029	358731.3	358731.3	99.686	%	05:57:55
3	Ag 328.068†	9304.1	9978.5	[100]	µg/L	05:57:55
3	As 188.979†	200.0	212.5	[100]	µg/L	05:58:15
3	B 249.677†	3103.1	2926.8	[100]	µg/L	05:57:55
3	Ba 233.527†	11584.1	11588.1	[100]	µg/L	05:58:15
3	Be 313.107†	116845.7	120303.4	[100]	µg/L	05:57:55
3	Cd 226.502†	9468.2	9781.9	[100]	µg/L	05:57:55
3	Co 228.616†	4190.0	4408.2	[100]	µg/L	05:58:15
3	Cr 267.716†	5084.9	4957.9	[100]	µg/L	05:58:15
3	Cu 324.752†	15735.7	13799.9	[100]	µg/L	05:57:55
3	Mn 257.610†	66191.2	65668.5	[100]	µg/L	05:57:55
3	Mo 202.031†	1800.1	1765.3	[100]	µg/L	05:58:15
3	Ni 231.604†	3480.1	3680.6	[100]	µg/L	05:58:15
3	P 214.914†	887.5	754.9	[500]	µg/L	05:58:15
3	Pb 220.353†	761.4	824.2	[100]	µg/L	05:58:15
3	S 181.975 Axial†	258.0	165.4	[200]	µg/L	05:58:15
3	Sb 206.836†	489.3	334.2	[100]	µg/L	05:58:15
3	Se 196.026†	199.2	222.8	[100]	µg/L	05:58:15
3	SiO2†	7351.8	6279.2	[1069.5]	µg/L	05:57:55
3	Si 251.611†	8965.6	8964.9	[500]	µg/L	05:57:55
3	Sn 189.927†	851.5	803.1	[100]	µg/L	05:58:15
3	Ti 334.940†	22659.4	23358.4	[100]	µg/L	05:57:55
3	Tl 190.801†	395.4	473.4	[100]	µg/L	05:58:15
3	U 367.007†	1323.5	438.8	[100]	µg/L	05:57:55
3	V 292.402†	7473.5	7597.9	[100]	µg/L	05:57:55
3	Zn 213.857†	15396.8	14483.7	[100]	µg/L	05:57:55

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	365168.0	1314.48	0.36%	99.717	%
Sc RADIAL	22586.1	104.74	0.46%	102	%
Y 371.029	357201.6	1445.46	0.40%	99.261	%
Ag 328.068†	10044.2	57.33	0.57%	[100]	µg/L
As 188.979†	217.6	11.86	5.45%	[100]	µg/L
B 249.677†	2927.6	5.24	0.18%	[100]	µg/L
Ba 233.527†	11648.8	54.35	0.47%	[100]	µg/L
Be 313.107†	120899.3	528.74	0.44%	[100]	µg/L
Cd 226.502†	9834.6	57.10	0.58%	[100]	µg/L
Co 228.616†	4419.6	10.78	0.24%	[100]	µg/L
Cr 267.716†	4993.9	31.90	0.64%	[100]	µg/L
Cu 324.752†	13892.3	85.20	0.61%	[100]	µg/L
K 766.490 Radial†	1154.6	45.35	3.93%	[1000]	µg/L
Mn 257.610†	65950.4	265.50	0.40%	[100]	µg/L
Mo 202.031†	1764.4	5.82	0.33%	[100]	µg/L
Ni 231.604†	3719.3	34.29	0.92%	[100]	µg/L
P 214.914†	755.0	0.82	0.11%	[500]	µg/L
Pb 220.353†	829.9	5.68	0.68%	[100]	µg/L
S 181.975 Axial†	166.8	2.64	1.58%	[200]	µg/L
Sb 206.836†	337.5	7.25	2.15%	[100]	µg/L
Se 196.026†	212.2	9.60	4.53%	[100]	µg/L
SiO2†	6305.0	27.64	0.44%	[1069.5]	µg/L
Si 251.611†	9035.8	70.25	0.78%	[500]	µg/L
Sn 189.927†	804.7	4.39	0.55%	[100]	µg/L
Sr 421.552†	17121.2	27.11	0.16%	[100]	µg/L
Ti 334.940†	23502.1	127.08	0.54%	[100]	µg/L
Tl 190.801†	478.4	5.65	1.18%	[100]	µg/L
U 367.007†	347.2	94.89	27.33%	[100]	µg/L
V 292.402†	7609.9	36.89	0.48%	[100]	µg/L
Zn 213.857†	14555.0	68.54	0.47%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:
Wash Time: 5

Autosampler Location: 3
Date Collected: 7/23/2018 05:58:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	22380.5	22380.5	101	%	05:58:59
1	Al 396.153Radial†	16472.8	16345.6	[5000]	µg/L	05:58:59
1	Ca 317.933Radial†	25028.1	24395.8	[5000]	µg/L	05:58:59
1	K 766.490 Radial†	6017.6	5515.1	[5000]	µg/L	05:58:59
1	Mg 279.077 IEC†	3307.8	3207.4	[5000]	µg/L	05:58:59
1	Sr 421.552†	86959.9	85532.1	[500]	µg/L	05:58:54
1	Sc 361.383	367619.8	367619.8	100.39	%	05:59:26
1	Y 371.029	358244.9	358244.9	99.551	%	05:59:26
1	Ag 328.068†	48637.0	49133.6	[500]	µg/L	05:59:26
1	As 188.979†	1123.5	1132.0	[500]	µg/L	05:59:46
1	B 249.677†	15212.1	14980.3	[500]	µg/L	05:59:26
1	Ba 233.527†	59688.6	59474.5	[500]	µg/L	05:59:26
1	Be 313.107†	600779.4	602041.5	[500]	µg/L	05:59:26
1	Cd 226.502†	48339.0	48476.1	[500]	µg/L	05:59:26
1	Co 228.616†	21349.9	21490.2	[500]	µg/L	05:59:46
1	Cr 267.716†	24943.1	24725.2	[500]	µg/L	05:59:46
1	Cu 324.752†	70339.0	68148.2	[500]	µg/L	05:59:26
1	Mn 257.610†	320993.7	319301.7	[500]	µg/L	05:59:26
1	Mo 202.031†	8774.0	8707.3	[500]	µg/L	05:59:46
1	Ni 231.604†	18144.7	18278.8	[500]	µg/L	05:59:46
1	P 214.914†	3857.5	3711.0	[2500]	µg/L	05:59:46
1	Pb 220.353†	3993.5	4041.6	[500]	µg/L	05:59:46
1	S 181.975 Axial†	896.1	800.3	[1000]	µg/L	05:59:46
1	Sb 206.836†	1886.3	1724.4	[500]	µg/L	05:59:46
1	Se 196.026†	1035.1	1054.9	[500]	µg/L	05:59:46
1	SiO2†	32759.2	31567.9	[5347.5]	µg/L	05:59:26
1	Si 251.611†	45287.7	45121.6	[2500]	µg/L	05:59:26
1	Sn 189.927†	4032.2	3969.1	[500]	µg/L	05:59:46
1	Ti 334.940†	115987.1	116262.3	[500]	µg/L	05:59:26
1	Tl 190.801†	2243.0	2312.7	[500]	µg/L	05:59:46
1	U 367.007†	2295.3	1403.0	[500]	µg/L	05:59:26
1	V 292.402†	38209.0	38193.9	[500]	µg/L	05:59:26
1	Zn 213.857†	66603.1	65449.0	[500]	µg/L	05:59:26
2	Sc RADIAL	22371.4	22371.4	101	%	05:59:09
2	Al 396.153Radial†	16389.2	16269.9	[5000]	µg/L	05:59:09
2	Ca 317.933Radial†	25003.1	24381.2	[5000]	µg/L	05:59:09
2	K 766.490 Radial†	5948.1	5449.1	[5000]	µg/L	05:59:09
2	Mg 279.077 IEC†	3325.4	3226.0	[5000]	µg/L	05:59:09
2	Sr 421.552†	86949.7	85557.3	[500]	µg/L	05:59:04
2	Sc 361.383	364916.5	364916.5	99.648	%	05:59:52
2	Y 371.029	355340.9	355340.9	98.744	%	05:59:52
2	Ag 328.068†	48365.3	49219.8	[500]	µg/L	05:59:52
2	As 188.979†	1112.9	1129.6	[500]	µg/L	06:00:12
2	B 249.677†	15223.2	15103.8	[500]	µg/L	05:59:52
2	Ba 233.527†	59351.2	59576.3	[500]	µg/L	05:59:52
2	Be 313.107†	597804.1	603489.2	[500]	µg/L	05:59:52
2	Cd 226.502†	47832.3	48324.3	[500]	µg/L	05:59:52
2	Co 228.616†	21340.1	21637.8	[500]	µg/L	06:00:12
2	Cr 267.716†	24984.8	24951.1	[500]	µg/L	06:00:12
2	Cu 324.752†	70074.2	68401.5	[500]	µg/L	05:59:52
2	Mn 257.610†	319679.8	320351.9	[500]	µg/L	05:59:52
2	Mo 202.031†	8745.8	8743.7	[500]	µg/L	06:00:12
2	Ni 231.604†	18165.5	18433.6	[500]	µg/L	06:00:12
2	P 214.914†	3876.9	3758.9	[2500]	µg/L	06:00:12
2	Pb 220.353†	4011.7	4089.3	[500]	µg/L	06:00:12
2	S 181.975 Axial†	891.0	801.8	[1000]	µg/L	06:00:12
2	Sb 206.836†	1895.1	1747.2	[500]	µg/L	06:00:12
2	Se 196.026†	1041.2	1068.6	[500]	µg/L	06:00:12

2	SiO2†	32641.0	31691.0	[5347.5]	µg/L	05:59:52
2	Si 251.611†	45140.8	45308.5	[2500]	µg/L	05:59:52
2	Sn 189.927†	4038.1	4004.9	[500]	µg/L	06:00:12
2	Ti 334.940†	115743.1	116873.4	[500]	µg/L	05:59:52
2	Tl 190.801†	2261.5	2347.8	[500]	µg/L	06:00:12
2	U 367.007†	2321.3	1446.1	[500]	µg/L	05:59:52
2	V 292.402†	37884.4	38150.0	[500]	µg/L	05:59:52
2	Zn 213.857†	66189.9	65525.9	[500]	µg/L	05:59:52
3	Sc RADIAL	22252.5	22252.5	101	%	05:59:19
3	Al 396.153Radial†	16411.6	16378.5	[5000]	µg/L	05:59:19
3	Ca 317.933Radial†	24855.0	24366.1	[5000]	µg/L	05:59:19
3	K 766.490 Radial†	6061.3	5592.7	[5000]	µg/L	05:59:19
3	Mg 279.077 IEC†	3304.9	3223.2	[5000]	µg/L	05:59:19
3	Sr 421.552†	87095.6	86160.4	[500]	µg/L	05:59:14
3	Sc 361.383	363643.1	363643.1	99.300	%	06:00:18
3	Y 371.029	354606.6	354606.6	98.540	%	06:00:18
3	Ag 328.068†	48339.1	49363.3	[500]	µg/L	06:00:18
3	As 188.979†	1120.5	1141.2	[500]	µg/L	06:00:38
3	B 249.677†	15132.0	15065.4	[500]	µg/L	06:00:18
3	Ba 233.527†	58985.9	59417.1	[500]	µg/L	06:00:18
3	Be 313.107†	594822.3	602587.1	[500]	µg/L	06:00:18
3	Cd 226.502†	47490.5	48148.2	[500]	µg/L	06:00:18
3	Co 228.616†	21548.7	21922.9	[500]	µg/L	06:00:38
3	Cr 267.716†	25166.4	25221.7	[500]	µg/L	06:00:38
3	Cu 324.752†	69652.0	68222.7	[500]	µg/L	06:00:18
3	Mn 257.610†	317777.6	319559.7	[500]	µg/L	06:00:18
3	Mo 202.031†	8824.1	8853.3	[500]	µg/L	06:00:38
3	Ni 231.604†	18304.0	18637.0	[500]	µg/L	06:00:38
3	P 214.914†	3916.5	3812.4	[2500]	µg/L	06:00:38
3	Pb 220.353†	4036.2	4128.1	[500]	µg/L	06:00:38
3	S 181.975 Axial†	905.7	819.8	[1000]	µg/L	06:00:38
3	Sb 206.836†	1873.5	1732.1	[500]	µg/L	06:00:38
3	Se 196.026†	1033.5	1064.6	[500]	µg/L	06:00:38
3	SiO2†	32446.6	31609.9	[5347.5]	µg/L	06:00:18
3	Si 251.611†	44923.8	45248.5	[2500]	µg/L	06:00:18
3	Sn 189.927†	4080.7	4061.9	[500]	µg/L	06:00:38
3	Ti 334.940†	115273.6	116807.3	[500]	µg/L	06:00:18
3	Tl 190.801†	2276.7	2371.0	[500]	µg/L	06:00:38
3	U 367.007†	2377.4	1510.7	[500]	µg/L	06:00:18
3	V 292.402†	37868.9	38267.6	[500]	µg/L	06:00:18
3	Zn 213.857†	65709.9	65275.1	[500]	µg/L	06:00:18

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	365393.1	2030.76	0.56%	99.778	%
Sc RADIAL	22334.8	71.41	0.32%	101	%
Y 371.029	356064.2	1923.95	0.54%	98.945	%
Ag 328.068†	49238.9	116.07	0.24%	[500]	µg/L
Al 396.153Radial†	16331.3	55.70	0.34%	[5000]	µg/L
As 188.979†	1134.2	6.11	0.54%	[500]	µg/L
B 249.677†	15049.8	63.16	0.42%	[500]	µg/L
Ba 233.527†	59489.3	80.64	0.14%	[500]	µg/L
Be 313.107†	602706.0	731.12	0.12%	[500]	µg/L
Ca 317.933Radial†	24381.1	14.84	0.06%	[5000]	µg/L
Cd 226.502†	48316.2	164.08	0.34%	[500]	µg/L
Co 228.616†	21683.7	219.98	1.01%	[500]	µg/L
Cr 267.716†	24966.0	248.62	1.00%	[500]	µg/L
Cu 324.752†	68257.5	130.19	0.19%	[500]	µg/L
K 766.490 Radial†	5519.0	71.89	1.30%	[5000]	µg/L
Mg 279.077 IEC†	3218.9	10.05	0.31%	[5000]	µg/L
Mn 257.610†	319737.8	547.29	0.17%	[500]	µg/L
Mo 202.031†	8768.1	76.03	0.87%	[500]	µg/L
Ni 231.604†	18449.8	179.60	0.97%	[500]	µg/L
P 214.914†	3760.8	50.72	1.35%	[2500]	µg/L
Pb 220.353†	4086.4	43.33	1.06%	[500]	µg/L
S 181.975 Axial†	807.3	10.82	1.34%	[1000]	µg/L
Sb 206.836†	1734.6	11.56	0.67%	[500]	µg/L
Se 196.026†	1062.7	7.06	0.66%	[500]	µg/L
SiO2†	31623.0	62.57	0.20%	[5347.5]	µg/L

Si 251.611†	45226.2	95.39	0.21%	[2500]	µg/L
Sn 189.927†	4012.0	46.81	1.17%	[500]	µg/L
Sr 421.552†	85750.0	355.68	0.41%	[500]	µg/L
Ti 334.940†	116647.7	335.35	0.29%	[500]	µg/L
Tl 190.801†	2343.8	29.37	1.25%	[500]	µg/L
U 367.007†	1453.3	54.19	3.73%	[500]	µg/L
V 292.402†	38203.8	59.41	0.16%	[500]	µg/L
Zn 213.857†	65416.6	128.48	0.20%	[500]	µg/L

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Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:
Wash Time: 5

Autosampler Location: 4
Date Collected: 7/23/2018 06:00:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	22398.5	22398.5	101	%	06:01:23
1	Al 396.153Radial†	32414.3	32047.6	[10000]	µg/L	06:01:23
1	Ca 317.933Radial†	49923.1	48917.2	[10000]	µg/L	06:01:23
1	Fe 238.204 Radial†	53368.7	52575.2	[10000]	µg/L	06:01:23
1	K 766.490 Radial†	11606.2	11019.5	[10000]	µg/L	06:01:23
1	Mg 279.077 IEC†	6525.7	6376.9	[10000]	µg/L	06:01:23
1	Na 589.592 Radial†	6770.6	6546.8	[10000]	µg/L	06:01:23
1	Sr 421.552†	174227.8	171491.1	[1000]	µg/L	06:01:18
1	Sc 361.383	362103.6	362103.6	98.880	%	06:01:52
1	Y 371.029	351472.0	351472.0	97.669	%	06:01:52
1	Ag 328.068†	96954.5	98736.4	[1000]	µg/L	06:01:52
1	As 188.979†	2246.5	2284.8	[1000]	µg/L	06:02:12
1	B 249.677†	29881.5	30046.8	[1000]	µg/L	06:01:52
1	Ba 233.527†	117554.5	118901.6	[1000]	µg/L	06:01:52
1	Be 313.107†	1184892.2	1201887.5	[1000]	µg/L	06:01:52
1	Cd 226.502†	94782.6	96179.3	[1000]	µg/L	06:01:52
1	Co 228.616†	42715.9	43422.1	[1000]	µg/L	06:01:52
1	Cr 267.716†	49844.0	50286.7	[1000]	µg/L	06:01:52
1	Cu 324.752†	136561.5	136188.3	[1000]	µg/L	06:01:52
1	Mn 257.610†	629148.5	635818.1	[1000]	µg/L	06:01:52
1	Mo 202.031†	17432.2	17596.7	[1000]	µg/L	06:02:12
1	Ni 231.604†	35298.5	35902.3	[1000]	µg/L	06:02:12
1	P 214.914†	7523.0	7476.5	[5000]	µg/L	06:02:12
1	Pb 220.353†	7897.3	8050.3	[1000]	µg/L	06:02:12
1	S 181.975 Axial†	1704.0	1631.0	[2000]	µg/L	06:02:12
1	Sb 206.836†	3618.8	3505.2	[1000]	µg/L	06:02:12
1	Se 196.026†	2065.0	2112.2	[1000]	µg/L	06:02:12
1	SiO2†	63613.6	63268.9	[10695]	µg/L	06:01:52
1	Si 251.611†	89295.1	90314.7	[5000]	µg/L	06:01:52
1	Sn 189.927†	7987.4	8030.4	[1000]	µg/L	06:02:12
1	Ti 334.940†	231829.8	235177.3	[1000]	µg/L	06:01:52
1	Tl 190.801†	4512.2	4641.6	[1000]	µg/L	06:02:12
1	U 367.007†	3667.8	2825.8	[1000]	µg/L	06:01:52
1	V 292.402†	75638.2	76626.8	[1000]	µg/L	06:01:52
1	Zn 213.857†	130505.2	131085.6	[1000]	µg/L	06:01:52
2	Sc RADIAL	22516.7	22516.7	102	%	06:01:33
2	Al 396.153Radial†	32437.5	31902.6	[10000]	µg/L	06:01:33
2	Ca 317.933Radial†	49984.5	48719.1	[10000]	µg/L	06:01:33
2	Fe 238.204 Radial†	53348.1	52278.7	[10000]	µg/L	06:01:33
2	K 766.490 Radial†	11551.8	10906.2	[10000]	µg/L	06:01:33
2	Mg 279.077 IEC†	6548.3	6365.3	[10000]	µg/L	06:01:33
2	Na 589.592 Radial†	6795.7	6536.3	[10000]	µg/L	06:01:33
2	Sr 421.552†	172014.9	168419.3	[1000]	µg/L	06:01:28
2	Sc 361.383	361966.3	361966.3	98.842	%	06:02:20
2	Y 371.029	351883.0	351883.0	97.783	%	06:02:20
2	Ag 328.068†	97204.4	99026.4	[1000]	µg/L	06:02:20
2	As 188.979†	2218.1	2256.9	[1000]	µg/L	06:02:40
2	B 249.677†	30017.6	30195.9	[1000]	µg/L	06:02:20
2	Ba 233.527†	117644.1	119037.4	[1000]	µg/L	06:02:20
2	Be 313.107†	1188734.0	1206229.0	[1000]	µg/L	06:02:20
2	Cd 226.502†	95128.5	96565.6	[1000]	µg/L	06:02:20
2	Co 228.616†	42714.1	43436.7	[1000]	µg/L	06:02:20
2	Cr 267.716†	49893.7	50356.0	[1000]	µg/L	06:02:20
2	Cu 324.752†	136625.7	136305.6	[1000]	µg/L	06:02:20
2	Mn 257.610†	630186.2	637109.4	[1000]	µg/L	06:02:20
2	Mo 202.031†	17426.8	17597.9	[1000]	µg/L	06:02:40
2	Ni 231.604†	35286.7	35903.9	[1000]	µg/L	06:02:40
2	P 214.914†	7546.3	7503.0	[5000]	µg/L	06:02:40

2	Pb 220.353†	7904.0	8060.1	[1000]	µg/L	06:02:40
2	S 181.975 Axial†	1701.0	1628.6	[2000]	µg/L	06:02:40
2	Sb 206.836†	3594.5	3482.0	[1000]	µg/L	06:02:40
2	Se 196.026†	2048.8	2096.5	[1000]	µg/L	06:02:40
2	SiO2†	63745.4	63426.6	[10695]	µg/L	06:02:20
2	Si 251.611†	89623.7	90681.5	[5000]	µg/L	06:02:20
2	Sn 189.927†	7988.7	8034.8	[1000]	µg/L	06:02:40
2	Ti 334.940†	232356.4	235799.1	[1000]	µg/L	06:02:20
2	Tl 190.801†	4534.7	4666.1	[1000]	µg/L	06:02:40
2	U 367.007†	3702.7	2862.6	[1000]	µg/L	06:02:20
2	V 292.402†	75794.5	76814.0	[1000]	µg/L	06:02:20
2	Zn 213.857†	130944.0	131579.7	[1000]	µg/L	06:02:20
3	Sc RADIAL	22544.4	22544.4	102	%	06:01:43
3	Al 396.153Radial†	32746.8	32166.4	[10000]	µg/L	06:01:43
3	Ca 317.933Radial†	50460.3	49124.8	[10000]	µg/L	06:01:43
3	Fe 238.204 Radial†	54016.8	52869.4	[10000]	µg/L	06:01:43
3	K 766.490 Radial†	11705.3	11042.6	[10000]	µg/L	06:01:43
3	Mg 279.077 IEC†	6628.3	6435.7	[10000]	µg/L	06:01:43
3	Na 589.592 Radial†	6871.2	6602.1	[10000]	µg/L	06:01:43
3	Sr 421.552†	172969.8	169147.2	[1000]	µg/L	06:01:38
3	Sc 361.383	361154.6	361154.6	98.621	%	06:02:47
3	Y 371.029	350985.3	350985.3	97.533	%	06:02:47
3	Ag 328.068†	96628.9	98663.9	[1000]	µg/L	06:02:47
3	As 188.979†	2251.1	2295.3	[1000]	µg/L	06:03:07
3	B 249.677†	29781.6	30024.9	[1000]	µg/L	06:02:47
3	Ba 233.527†	116775.4	118424.0	[1000]	µg/L	06:02:47
3	Be 313.107†	1180977.5	1201066.9	[1000]	µg/L	06:02:47
3	Cd 226.502†	94509.0	96153.7	[1000]	µg/L	06:02:47
3	Co 228.616†	42492.6	43309.2	[1000]	µg/L	06:02:47
3	Cr 267.716†	49608.2	50180.0	[1000]	µg/L	06:02:47
3	Cu 324.752†	135865.6	135845.5	[1000]	µg/L	06:02:47
3	Mn 257.610†	626186.8	634486.9	[1000]	µg/L	06:02:47
3	Mo 202.031†	17549.5	17762.0	[1000]	µg/L	06:03:07
3	Ni 231.604†	35387.5	36086.4	[1000]	µg/L	06:03:07
3	P 214.914†	7580.0	7554.3	[5000]	µg/L	06:03:07
3	Pb 220.353†	7917.4	8091.6	[1000]	µg/L	06:03:07
3	S 181.975 Axial†	1699.8	1631.2	[2000]	µg/L	06:03:07
3	Sb 206.836†	3609.3	3505.1	[1000]	µg/L	06:03:07
3	Se 196.026†	2078.3	2131.1	[1000]	µg/L	06:03:07
3	SiO2†	63361.3	63182.1	[10695]	µg/L	06:02:47
3	Si 251.611†	88960.5	90212.8	[5000]	µg/L	06:02:47
3	Sn 189.927†	8038.7	8103.6	[1000]	µg/L	06:03:07
3	Ti 334.940†	230681.7	234629.2	[1000]	µg/L	06:02:47
3	Tl 190.801†	4564.8	4706.9	[1000]	µg/L	06:03:07
3	U 367.007†	3607.5	2774.5	[1000]	µg/L	06:02:47
3	V 292.402†	75286.3	76471.1	[1000]	µg/L	06:02:47
3	Zn 213.857†	130056.9	130977.9	[1000]	µg/L	06:02:47

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	361741.5	512.87	0.14%	98.781	%
Sc RADIAL	22486.5	77.51	0.34%	102	%
Y 371.029	351446.8	449.40	0.13%	97.662	%
Ag 328.068†	98808.9	191.81	0.19%	[1000]	µg/L
Al 396.153Radial†	32038.9	132.14	0.41%	[10000]	µg/L
As 188.979†	2279.0	19.86	0.87%	[1000]	µg/L
B 249.677†	30089.2	93.08	0.31%	[1000]	µg/L
Ba 233.527†	118787.7	322.19	0.27%	[1000]	µg/L
Be 313.107†	1203061.1	2773.97	0.23%	[1000]	µg/L
Ca 317.933Radial†	48920.4	202.88	0.41%	[10000]	µg/L
Cd 226.502†	96299.6	230.78	0.24%	[1000]	µg/L
Co 228.616†	43389.4	69.77	0.16%	[1000]	µg/L
Cr 267.716†	50274.3	88.67	0.18%	[1000]	µg/L
Cu 324.752†	136113.1	239.10	0.18%	[1000]	µg/L
Fe 238.204 Radial†	52574.4	295.35	0.56%	[10000]	µg/L
K 766.490 Radial†	10989.5	73.01	0.66%	[10000]	µg/L
Mg 279.077 IEC†	6392.6	37.76	0.59%	[10000]	µg/L
Mn 257.610†	635804.8	1311.29	0.21%	[1000]	µg/L
Mo 202.031†	17652.2	95.09	0.54%	[1000]	µg/L

Na 589.592 Radial†	6561.7	35.33	0.54%	[10000]	µg/L
Ni 231.604†	35964.2	105.84	0.29%	[1000]	µg/L
P 214.914†	7511.3	39.56	0.53%	[5000]	µg/L
Pb 220.353†	8067.3	21.61	0.27%	[1000]	µg/L
S 181.975 Axial†	1630.3	1.46	0.09%	[2000]	µg/L
Sb 206.836†	3497.4	13.41	0.38%	[1000]	µg/L
Se 196.026†	2113.3	17.34	0.82%	[1000]	µg/L
SiO2†	63292.6	123.97	0.20%	[10695]	µg/L
Si 251.611†	90403.0	246.50	0.27%	[5000]	µg/L
Sn 189.927†	8056.2	41.07	0.51%	[1000]	µg/L
Sr 421.552†	169685.9	1605.19	0.95%	[1000]	µg/L
Ti 334.940†	235201.9	585.31	0.25%	[1000]	µg/L
Tl 190.801†	4671.5	33.01	0.71%	[1000]	µg/L
U 367.007†	2821.0	44.28	1.57%	[1000]	µg/L
V 292.402†	76637.3	171.69	0.22%	[1000]	µg/L
Zn 213.857†	131214.4	320.90	0.24%	[1000]	µg/L

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Sequence No.: 5 | **Autosampler Location: 5**
Sample ID: S10 | **Date Collected: 7/23/2018 06:03:16**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	22016.2	22016.2	99.7	%	06:03:46
1	Al 396.153Radial†	155179.7	155724.4	[50000]	µg/L	06:03:46
1	Ca 317.933Radial†	233301.2	233682.5	[50000]	µg/L	06:03:46
1	Fe 238.204 Radial†	102225.7	102487.6	[20000]	µg/L	06:03:46
1	Mg 279.077 IEC†	30619.3	30652.2	[50000]	µg/L	06:03:46
1	Na 589.592 Radial†	13060.0	12970.3	[20000]	µg/L	06:03:46
1	Sc 361.383	358762.2	358762.2	97.968	%	06:04:03
1	Y 371.029	348117.5	348117.5	96.736	%	06:04:03
2	Sc RADIAL	22132.5	22132.5	100	%	06:03:52
2	Al 396.153Radial†	155193.0	154919.6	[50000]	µg/L	06:03:52
2	Ca 317.933Radial†	233081.6	232233.5	[50000]	µg/L	06:03:52
2	Fe 238.204 Radial†	102212.6	101935.6	[20000]	µg/L	06:03:52
2	Mg 279.077 IEC†	30537.0	30408.7	[50000]	µg/L	06:03:52
2	Na 589.592 Radial†	13097.5	12938.9	[20000]	µg/L	06:03:52
2	Sc 361.383	357252.2	357252.2	97.555	%	06:04:09
2	Y 371.029	346545.5	346545.5	96.300	%	06:04:09
3	Sc RADIAL	22230.7	22230.7	101	%	06:03:57
3	Al 396.153Radial†	155914.8	154952.7	[50000]	µg/L	06:03:57
3	Ca 317.933Radial†	234749.7	232863.3	[50000]	µg/L	06:03:57
3	Fe 238.204 Radial†	102789.1	102057.8	[20000]	µg/L	06:03:57
3	Mg 279.077 IEC†	30777.8	30513.3	[50000]	µg/L	06:03:57
3	Na 589.592 Radial†	13238.4	13021.1	[20000]	µg/L	06:03:57
3	Sc 361.383	357704.3	357704.3	97.679	%	06:04:14
3	Y 371.029	347004.3	347004.3	96.427	%	06:04:14

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	357906.3	774.98	0.22%	97.734	%
Sc RADIAL	22126.5	107.39	0.49%	100	%
Y 371.029	347222.4	808.35	0.23%	96.488	%
Al 396.153Radial†	155198.9	455.43	0.29%	[50000]	µg/L
Ca 317.933Radial†	232926.4	726.58	0.31%	[50000]	µg/L
Fe 238.204 Radial†	102160.3	289.95	0.28%	[20000]	µg/L
Mg 279.077 IEC†	30524.7	122.18	0.40%	[50000]	µg/L
Na 589.592 Radial†	12976.8	41.46	0.32%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	98.76	0.00000	0.999998	
Al 396.153Radial	3	Lin Thru 0	0.0	3.109	0.00000	0.999969	
As 188.979	3	Lin Thru 0	0.0	2.276	0.00000	0.999991	
B 249.677	3	Lin Thru 0	0.0	30.08	0.00000	0.999997	
Ba 233.527	3	Lin Thru 0	0.0	118.8	0.00000	0.999998	
Be 313.107	3	Lin Thru 0	0.0	1204	0.00000	1.000000	
Ca 317.933Radial	3	Lin Thru 0	0.0	4.669	0.00000	0.999945	
Cd 226.502	3	Lin Thru 0	0.0	96.38	0.00000	0.999997	
Co 228.616	3	Lin Thru 0	0.0	43.39	0.00000	0.999999	
Cr 267.716	3	Lin Thru 0	0.0	50.20	0.00000	0.999996	
Cu 324.752	3	Lin Thru 0	0.0	136.2	0.00000	0.999998	
Fe 238.204 Radia	2	Lin Thru 0	0.0	5.138	0.00000	0.999932	
K 766.490 Radial	3	Lin Thru 0	0.0	1.100	0.00000	0.999989	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.6119	0.00000	0.999946	
Mn 257.610	3	Lin Thru 0	0.0	636.7	0.00000	0.999992	
Mo 202.031	3	Lin Thru 0	0.0	17.63	0.00000	0.999997	

Na 589.592 Radia	2	Lin Thru 0	0.0	0.6503	0.00000	0.999990
Ni 231.604	3	Lin Thru 0	0.0	36.16	0.00000	0.999944
P 214.914	3	Lin Thru 0	0.0	1.503	0.00000	1.000000
Pb 220.353	3	Lin Thru 0	0.0	8.090	0.00000	0.999984
S 181.975 Axial	3	Lin Thru 0	0.0	0.8137	0.00000	0.999990
Sb 206.836	3	Lin Thru 0	0.0	3.491	0.00000	0.999990
Se 196.026	3	Lin Thru 0	0.0	2.116	0.00000	0.999997
SiO2	3	Lin Thru 0	0.0	5.917	0.00000	1.000000
Si 251.611	3	Lin Thru 0	0.0	18.08	0.00000	1.000000
Sn 189.927	3	Lin Thru 0	0.0	8.050	0.00000	0.999999
Sr 421.552	3	Lin Thru 0	0.0	170.1	0.00000	0.999991
Ti 334.940	3	Lin Thru 0	0.0	234.8	0.00000	0.999995
Tl 190.801	3	Lin Thru 0	0.0	4.676	0.00000	0.999997
U 367.007	3	Lin Thru 0	0.0	2.843	0.00000	0.999733
V 292.402	3	Lin Thru 0	0.0	76.59	0.00000	0.999999
Zn 213.857	3	Lin Thru 0	0.0	131.3	0.00000	0.999952

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Sequence No.: 6 | **Autosampler Location: 9**
Sample ID: ICV | **Date Collected: 7/23/2018 06:04:22**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	22464.8	22464.8	102	%			06:04:58
1	Al 396.153Radial†	16906.9	16711.3	5351.2	µg/L	5351.2	ppb	06:04:58
1	Ca 317.933Radial†	25956.5	25215.7	5400.1	µg/L	5400.1	ppb	06:04:58
1	Fe 238.204 Radial†	27185.7	26685.1	5193.8	µg/L	5193.8	ppb	06:04:58
1	K 766.490 Radial†	3317.3	2838.8	2579.4	µg/L	2579.4	ppb	06:04:58
1	Mg 279.077 IEC†	3426.7	3312.0	5412.5	µg/L	5412.5	ppb	06:04:58
1	Na 589.592 Radial†	1803.1	1644.7	2522.3	µg/L	2522.3	ppb	06:04:58
1	Sr 421.552†	87985.5	86218.2	506.90	µg/L	506.90	ppb	06:04:53
1	Sc 361.383	366620.7	366620.7	100.11	%			06:05:25
1	Y 371.029	358080.4	358080.4	99.505	%			06:05:25
1	Ag 328.068†	24015.9	24672.3	251.26	µg/L	251.26	ppb	06:05:25
1	As 188.979†	1122.0	1133.5	502.87	µg/L	502.87	ppb	06:05:45
1	B 249.677†	15370.1	15179.5	522.82	µg/L	522.82	ppb	06:05:25
1	Ba 233.527†	60088.4	60035.9	505.19	µg/L	505.19	ppb	06:05:25
1	Be 313.107†	294741.4	297981.3	247.89	µg/L	247.89	ppb	06:05:25
1	Cd 226.502†	48280.4	48548.8	503.33	µg/L	503.33	ppb	06:05:25
1	Co 228.616†	21544.3	21742.3	501.03	µg/L	501.03	ppb	06:05:45
1	Cr 267.716†	25215.1	25064.6	498.97	µg/L	498.97	ppb	06:05:45
1	Cu 324.752†	71143.3	69142.5	507.90	µg/L	507.90	ppb	06:05:25
1	Mn 257.610†	321284.7	320463.7	503.63	µg/L	503.63	ppb	06:05:25
1	Mo 202.031†	8899.4	8856.3	502.47	µg/L	502.47	ppb	06:05:45
1	Ni 231.604†	17862.8	18046.5	498.91	µg/L	498.91	ppb	06:05:45
1	P 214.914†	3862.2	3726.2	2465.9	µg/L	2465.9	ppb	06:05:45
1	Pb 220.353†	4033.1	4092.1	506.20	µg/L	506.20	ppb	06:05:45
1	S 181.975 Axial†	2063.7	1969.0	2417.0	µg/L	2417.0	ppb	06:05:45
1	Sb 206.836†	1906.4	1749.6	497.70	µg/L	497.70	ppb	06:05:45
1	Se 196.026†	5324.3	5342.0	2527.2	µg/L	2527.2	ppb	06:05:45
1	SiO2†	64402.8	63264.6	10668	µg/L	10668	ppb	06:05:25
1	Si 251.611†	90424.4	90330.2	4986.7	µg/L	4986.7	ppb	06:05:25
1	Sn 189.927†	4117.9	4065.7	506.94	µg/L	506.94	ppb	06:05:45
1	Ti 334.940†	117780.4	118368.5	503.91	µg/L	503.91	ppb	06:05:25
1	Tl 190.801†	2320.2	2395.9	513.96	µg/L	513.96	ppb	06:05:45
1	U 367.007†	2342.8	1456.7	489.4	µg/L	489.4	ppb	06:05:25
1	V 292.402†	38245.2	38333.7	506.72	µg/L	506.72	ppb	06:05:25
1	Zn 213.857†	67953.7	66978.9	506.77	µg/L	506.77	ppb	06:05:25
2	Sc RADIAL	22412.6	22412.6	102	%			06:05:08
2	Al 396.153Radial†	16760.4	16605.7	5317.3	µg/L	5317.3	ppb	06:05:08
2	Ca 317.933Radial†	25936.9	25255.8	5408.7	µg/L	5408.7	ppb	06:05:08
2	Fe 238.204 Radial†	27239.2	26800.1	5216.1	µg/L	5216.1	ppb	06:05:08
2	K 766.490 Radial†	3278.9	2808.6	2552.0	µg/L	2552.0	ppb	06:05:08
2	Mg 279.077 IEC†	3414.0	3307.3	5404.8	µg/L	5404.8	ppb	06:05:08
2	Na 589.592 Radial†	1821.0	1666.4	2555.7	µg/L	2555.7	ppb	06:05:08
2	Sr 421.552†	87597.6	86037.7	505.84	µg/L	505.84	ppb	06:05:03
2	Sc 361.383	366113.1	366113.1	99.975	%			06:05:51
2	Y 371.029	357454.4	357454.4	99.331	%			06:05:51
2	Ag 328.068†	23998.2	24687.9	251.44	µg/L	251.44	ppb	06:05:51
2	As 188.979†	1126.7	1139.8	505.63	µg/L	505.63	ppb	06:06:11
2	B 249.677†	15399.1	15229.7	524.58	µg/L	524.58	ppb	06:05:51
2	Ba 233.527†	60181.1	60211.8	506.67	µg/L	506.67	ppb	06:05:51
2	Be 313.107†	294894.7	298542.8	248.35	µg/L	248.35	ppb	06:05:51
2	Cd 226.502†	48205.8	48541.0	503.24	µg/L	503.24	ppb	06:05:51
2	Co 228.616†	21517.4	21745.2	501.10	µg/L	501.10	ppb	06:06:11
2	Cr 267.716†	25158.9	25043.3	498.57	µg/L	498.57	ppb	06:06:11
2	Cu 324.752†	71148.4	69246.2	508.64	µg/L	508.64	ppb	06:05:51
2	Mn 257.610†	321454.6	321078.6	504.59	µg/L	504.59	ppb	06:05:51
2	Mo 202.031†	8886.3	8855.6	502.42	µg/L	502.42	ppb	06:06:11
2	Ni 231.604†	17841.3	18049.8	499.00	µg/L	499.00	ppb	06:06:11
2	P 214.914†	3864.0	3733.3	2470.6	µg/L	2470.6	ppb	06:06:11

2	Pb 220.353†	4024.5	4089.1	505.85 µg/L	505.85 ppb	06:06:11
2	S 181.975 Axial†	2050.5	1958.7	2404.2 µg/L	2404.2 ppb	06:06:11
2	Sb 206.836†	1892.8	1738.7	494.57 µg/L	494.57 ppb	06:06:11
2	Se 196.026†	5295.8	5320.9	2517.2 µg/L	2517.2 ppb	06:06:11
2	SiO2†	64411.7	63362.7	10684 µg/L	10684 ppb	06:05:51
2	Si 251.611†	90584.0	90615.0	5002.5 µg/L	5002.5 ppb	06:05:51
2	Sn 189.927†	4109.9	4063.4	506.65 µg/L	506.65 ppb	06:06:11
2	Ti 334.940†	117625.6	118376.7	503.95 µg/L	503.95 ppb	06:05:51
2	Tl 190.801†	2319.0	2397.9	514.39 µg/L	514.39 ppb	06:06:11
2	U 367.007†	2271.5	1388.6	465.3 µg/L	465.3 ppb	06:05:51
2	V 292.402†	38169.2	38310.6	506.41 µg/L	506.41 ppb	06:05:51
2	Zn 213.857†	68009.6	67128.9	507.91 µg/L	507.91 ppb	06:05:51
3	Sc RADIAL	22391.3	22391.3	101 %		06:05:18
3	Al 396.153Radial†	16671.6	16533.9	5294.0 µg/L	5294.0 ppb	06:05:18
3	Ca 317.933Radial†	25885.8	25229.8	5403.1 µg/L	5403.1 ppb	06:05:18
3	Fe 238.204 Radial†	27185.6	26772.8	5210.8 µg/L	5210.8 ppb	06:05:18
3	K 766.490 Radial†	3277.7	2810.5	2553.7 µg/L	2553.7 ppb	06:05:18
3	Mg 279.077 IEC†	3374.5	3271.5	5346.4 µg/L	5346.4 ppb	06:05:18
3	Na 589.592 Radial†	1795.7	1643.1	2519.9 µg/L	2519.9 ppb	06:05:18
3	Sr 421.552†	87049.3	85579.3	503.14 µg/L	503.14 ppb	06:05:13
3	Sc 361.383	364276.6	364276.6	99.473 %		06:06:16
3	Y 371.029	355632.3	355632.3	98.825 %		06:06:16
3	Ag 328.068†	24014.2	24825.1	252.81 µg/L	252.81 ppb	06:06:16
3	As 188.979†	1127.1	1145.9	508.33 µg/L	508.33 ppb	06:06:36
3	B 249.677†	15428.8	15337.3	528.12 µg/L	528.12 ppb	06:06:16
3	Ba 233.527†	60018.0	60351.3	507.85 µg/L	507.85 ppb	06:06:16
3	Be 313.107†	293996.9	299127.4	248.84 µg/L	248.84 ppb	06:06:16
3	Cd 226.502†	48151.5	48729.5	505.20 µg/L	505.20 ppb	06:06:16
3	Co 228.616†	21525.5	21861.9	503.79 µg/L	503.79 ppb	06:06:36
3	Cr 267.716†	25147.9	25159.1	500.84 µg/L	500.84 ppb	06:06:36
3	Cu 324.752†	71035.9	69491.9	510.47 µg/L	510.47 ppb	06:06:16
3	Mn 257.610†	320720.6	321961.7	505.98 µg/L	505.98 ppb	06:06:16
3	Mo 202.031†	8903.6	8917.8	505.95 µg/L	505.95 ppb	06:06:36
3	Ni 231.604†	17869.9	18168.5	502.28 µg/L	502.28 ppb	06:06:36
3	P 214.914†	3846.8	3735.4	2472.0 µg/L	2472.0 ppb	06:06:36
3	Pb 220.353†	4030.8	4115.7	509.10 µg/L	509.10 ppb	06:06:36
3	S 181.975 Axial†	2057.0	1975.5	2424.9 µg/L	2424.9 ppb	06:06:36
3	Sb 206.836†	1917.9	1773.4	504.54 µg/L	504.54 ppb	06:06:36
3	Se 196.026†	5312.3	5364.2	2537.7 µg/L	2537.7 ppb	06:06:36
3	SiO2†	64174.3	63448.9	10699 µg/L	10699 ppb	06:06:16
3	Si 251.611†	90326.7	90813.1	5013.4 µg/L	5013.4 ppb	06:06:16
3	Sn 189.927†	4115.9	4090.2	509.99 µg/L	509.99 ppb	06:06:36
3	Ti 334.940†	117472.3	118815.8	505.81 µg/L	505.81 ppb	06:06:16
3	Tl 190.801†	2320.5	2411.1	517.23 µg/L	517.23 ppb	06:06:36
3	U 367.007†	2370.7	1499.8	504.5 µg/L	504.5 ppb	06:06:16
3	V 292.402†	38177.4	38511.4	509.08 µg/L	509.08 ppb	06:06:16
3	Zn 213.857†	67807.3	67268.5	508.96 µg/L	508.96 ppb	06:06:16

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	365670.1	99.854	%	0.3368				0.34%
Sc RADIAL	22422.9	102	%	0.17				0.17%
Y 371.029	357055.7	99.220	%	0.3534				0.36%
Ag 328.068†	24728.4	251.84	µg/L	0.846	251.84	ppb	0.846	0.34%
QC value within limits for Ag 328.068 Recovery = 100.73%								
Al 396.153Radial†	16617.0	5320.8	µg/L	28.77	5320.8	ppb	28.77	0.54%
QC value within limits for Al 396.153Radial Recovery = 106.42%								
As 188.979†	1139.7	505.61	µg/L	2.729	505.61	ppb	2.729	0.54%
QC value within limits for As 188.979 Recovery = 101.12%								
B 249.677†	15248.8	525.18	µg/L	2.700	525.18	ppb	2.700	0.51%
QC value within limits for B 249.677 Recovery = 105.04%								
Ba 233.527†	60199.7	506.57	µg/L	1.330	506.57	ppb	1.330	0.26%
QC value within limits for Ba 233.527 Recovery = 101.31%								
Be 313.107†	298550.5	248.36	µg/L	0.478	248.36	ppb	0.478	0.19%
QC value within limits for Be 313.107 Recovery = 99.34%								
Ca 317.933Radial†	25233.8	5404.0	µg/L	4.36	5404.0	ppb	4.36	0.08%
QC value within limits for Ca 317.933Radial Recovery = 108.08%								
Cd 226.502†	48606.4	503.92	µg/L	1.107	503.92	ppb	1.107	0.22%
QC value within limits for Cd 226.502 Recovery = 100.78%								

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Co 228.616†            21783.1      501.97 µg/L         1.574      501.97 ppb          1.574   0.31%
   QC value within limits for Co 228.616  Recovery = 100.39%
Cr 267.716†            25089.0      499.46 µg/L         1.213      499.46 ppb          1.213   0.24%
   QC value within limits for Cr 267.716  Recovery = 99.89%
Cu 324.752†            69293.5      509.00 µg/L         1.324      509.00 ppb          1.324   0.26%
   QC value within limits for Cu 324.752  Recovery = 101.80%
Fe 238.204 Radial†     26752.7      5206.9 µg/L         11.69      5206.9 ppb          11.69   0.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.14%
K 766.490 Radial†       2819.3      2561.7 µg/L         15.37      2561.7 ppb          15.37   0.60%
   QC value within limits for K 766.490 Radial  Recovery = 102.47%
Mg 279.077 IEC†         3296.9      5387.9 µg/L         36.17      5387.9 ppb          36.17   0.67%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.76%
Mn 257.610†           321168.0      504.73 µg/L         1.183      504.73 ppb          1.183   0.23%
   QC value within limits for Mn 257.610  Recovery = 100.95%
Mo 202.031†             8876.6      503.61 µg/L         2.025      503.61 ppb          2.025   0.40%
   QC value within limits for Mo 202.031  Recovery = 100.72%
Na 589.592 Radial†      1651.4      2532.6 µg/L         20.02      2532.6 ppb          20.02   0.79%
   QC value within limits for Na 589.592 Radial  Recovery = 101.31%
Ni 231.604†            18088.3      500.07 µg/L         1.921      500.07 ppb          1.921   0.38%
   QC value within limits for Ni 231.604  Recovery = 100.01%
P 214.914†              3731.6      2469.5 µg/L          3.19      2469.5 ppb           3.19   0.13%
   QC value within limits for P 214.914  Recovery = 98.78%
Pb 220.353†             4098.9      507.05 µg/L         1.787      507.05 ppb          1.787   0.35%
   QC value within limits for Pb 220.353  Recovery = 101.41%
S 181.975 Axial†        1967.7      2415.4 µg/L         10.44      2415.4 ppb          10.44   0.43%
   QC value within limits for S 181.975 Axial  Recovery = 96.61%
Sb 206.836†             1753.9      498.94 µg/L         5.098      498.94 ppb          5.098   1.02%
   QC value within limits for Sb 206.836  Recovery = 99.79%
Se 196.026†             5342.4      2527.4 µg/L         10.22      2527.4 ppb          10.22   0.40%
   QC value within limits for Se 196.026  Recovery = 101.10%
SiO2†                  63358.7       10684 µg/L         15.50       10684 ppb          15.50   0.15%
   QC value within limits for SiO2  Recovery = 99.89%
Si 251.611†            90586.1      5000.9 µg/L         13.40      5000.9 ppb          13.40   0.27%
   QC value within limits for Si 251.611  Recovery = 100.02%
Sn 189.927†             4073.1      507.86 µg/L         1.849      507.86 ppb          1.849   0.36%
   QC value within limits for Sn 189.927  Recovery = 101.57%
Sr 421.552†            85945.0      505.29 µg/L         1.937      505.29 ppb          1.937   0.38%
   QC value within limits for Sr 421.552  Recovery = 101.06%
Ti 334.940†           118520.3      504.56 µg/L         1.082      504.56 ppb          1.082   0.21%
   QC value within limits for Ti 334.940  Recovery = 100.91%
Tl 190.801†             2401.6      515.19 µg/L         1.772      515.19 ppb          1.772   0.34%
   QC value within limits for Tl 190.801  Recovery = 103.04%
U 367.007†              1448.4       486.4 µg/L         19.75       486.4 ppb          19.75   4.06%
   QC value within limits for U 367.007  Recovery = 97.28%
V 292.402†             38385.2      507.40 µg/L         1.463      507.40 ppb          1.463   0.29%
   QC value within limits for V 292.402  Recovery = 101.48%
Zn 213.857†            67125.4      507.88 µg/L         1.093      507.88 ppb          1.093   0.22%
   QC value within limits for Zn 213.857  Recovery = 101.58%
All analyte(s) passed QC.
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Sequence No.: 7 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 7/23/2018 06:06:45**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	22182.1	22182.1	100	%			06:07:36
1	Al 396.153Radial†	-104.5	-10.1	-3.2662	µg/L	-3.2662	ppb	06:07:36
1	Ca 317.933Radial†	281.8	-15.8	-3.3918	µg/L	-3.3918	ppb	06:07:36
1	Fe 238.204 Radial†	28.4	-6.8	-1.3258	µg/L	-1.3258	ppb	06:07:36
1	K 766.490 Radial†	529.2	105.1	95.497	µg/L	95.497	ppb	06:07:16
1	Mg 279.077 IEC†	62.7	6.4	10.407	µg/L	10.407	ppb	06:07:36
1	Na 589.592 Radial†	99.7	-28.3	-43.558	µg/L	-43.558	ppb	06:07:36
1	Sr 421.552†	196.3	-65.1	-0.3827	µg/L	-0.3827	ppb	06:07:16
1	Sc 361.383	362307.2	362307.2	98.936	%			06:08:32
1	Y 371.029	356044.2	356044.2	98.939	%			06:08:32
1	Ag 328.068†	-724.3	-48.4	-0.4940	µg/L	-0.4940	ppb	06:08:32
1	As 188.979†	-14.0	-1.4	-0.6044	µg/L	-0.6044	ppb	06:08:52
1	B 249.677†	225.5	54.7	1.8110	µg/L	1.8110	ppb	06:08:52
1	Ba 233.527†	-8.1	7.3	0.0618	µg/L	0.0618	ppb	06:08:52
1	Be 313.107†	-3527.8	8.1	0.0081	µg/L	0.0081	ppb	06:08:32
1	Cd 226.502†	-307.3	12.5	0.1300	µg/L	0.1300	ppb	06:08:52
1	Co 228.616†	-206.1	14.1	0.3267	µg/L	0.3267	ppb	06:08:52
1	Cr 267.716†	120.6	0.0	-0.0042	µg/L	-0.0042	ppb	06:08:52
1	Cu 324.752†	1934.8	35.5	0.2634	µg/L	0.2634	ppb	06:08:32
1	Mn 257.610†	574.9	124.2	0.1950	µg/L	0.1950	ppb	06:08:52
1	Mo 202.031†	45.2	12.8	0.7246	µg/L	0.7246	ppb	06:08:52
1	Ni 231.604†	-177.1	25.0	0.6904	µg/L	0.6904	ppb	06:08:52
1	P 214.914†	115.2	-15.3	-10.183	µg/L	-10.183	ppb	06:08:52
1	Pb 220.353†	-52.8	10.2	1.2550	µg/L	1.2550	ppb	06:08:52
1	S 181.975 Axial†	92.3	1.0	1.2215	µg/L	1.2215	ppb	06:08:52
1	Sb 206.836†	164.0	11.1	3.1967	µg/L	3.1967	ppb	06:08:52
1	Se 196.026†	-29.0	-5.5	-2.6012	µg/L	-2.6012	ppb	06:08:52
1	SiO2†	1069.5	15.8	2.6336	µg/L	2.6336	ppb	06:08:52
1	Si 251.611†	23.6	32.1	1.7618	µg/L	1.7618	ppb	06:08:52
1	Sn 189.927†	53.4	6.4	0.8018	µg/L	0.8018	ppb	06:08:52
1	Ti 334.940†	-669.7	44.6	0.1874	µg/L	0.1874	ppb	06:08:32
1	Tl 190.801†	-88.9	-11.5	-2.4676	µg/L	-2.4676	ppb	06:08:52
1	U 367.007†	889.4	15.5	5.451	µg/L	5.451	ppb	06:08:32
1	V 292.402†	-154.7	-24.5	-0.3104	µg/L	-0.3104	ppb	06:08:52
1	Zn 213.857†	834.2	-54.7	-0.4204	µg/L	-0.4204	ppb	06:08:52
2	Sc RADIAL	22149.3	22149.3	100	%			06:08:01
2	Al 396.153Radial†	-135.8	-41.4	-13.302	µg/L	-13.302	ppb	06:08:01
2	Ca 317.933Radial†	275.6	-21.6	-4.6323	µg/L	-4.6323	ppb	06:08:01
2	Fe 238.204 Radial†	39.4	4.3	0.8314	µg/L	0.8314	ppb	06:08:01
2	K 766.490 Radial†	415.0	-8.0	-7.2377	µg/L	-7.2377	ppb	06:07:41
2	Mg 279.077 IEC†	71.7	15.4	25.229	µg/L	25.229	ppb	06:08:01
2	Na 589.592 Radial†	118.6	-9.3	-14.311	µg/L	-14.311	ppb	06:08:01
2	Sr 421.552†	216.9	-44.3	-0.2602	µg/L	-0.2602	ppb	06:07:41
2	Sc 361.383	364623.4	364623.4	99.568	%			06:08:58
2	Y 371.029	358316.3	358316.3	99.570	%			06:08:58
2	Ag 328.068†	-680.6	0.1	-0.0146	µg/L	-0.0146	ppb	06:08:58
2	As 188.979†	-12.1	0.6	0.2754	µg/L	0.2754	ppb	06:09:18
2	B 249.677†	231.8	59.6	1.9829	µg/L	1.9829	ppb	06:09:18
2	Ba 233.527†	-7.3	8.2	0.0693	µg/L	0.0693	ppb	06:09:18
2	Be 313.107†	-3557.2	1.3	0.0081	µg/L	0.0081	ppb	06:08:58
2	Cd 226.502†	-300.8	21.0	0.2175	µg/L	0.2175	ppb	06:09:18
2	Co 228.616†	-211.1	10.4	0.2381	µg/L	0.2381	ppb	06:09:18
2	Cr 267.716†	101.0	-20.5	-0.4317	µg/L	-0.4317	ppb	06:09:18
2	Cu 324.752†	1989.8	78.3	0.5931	µg/L	0.5931	ppb	06:08:58
2	Mn 257.610†	526.4	71.8	0.1128	µg/L	0.1128	ppb	06:09:18
2	Mo 202.031†	28.3	-4.5	-0.2556	µg/L	-0.2556	ppb	06:09:18
2	Ni 231.604†	-212.0	-9.0	-0.2494	µg/L	-0.2494	ppb	06:09:18
2	P 214.914†	132.5	1.3	0.8833	µg/L	0.8833	ppb	06:09:18

2	Pb 220.353†	-73.7	-10.5	-1.3268	µg/L	-1.3268	ppb	06:09:18
2	S 181.975 Axial†	92.1	0.2	0.2587	µg/L	0.2587	ppb	06:09:18
2	Sb 206.836†	156.2	2.2	0.6467	µg/L	0.6467	ppb	06:09:18
2	Se 196.026†	-23.0	0.6	0.2954	µg/L	0.2954	ppb	06:09:18
2	SiO2†	1060.6	-0.1	0.0020	µg/L	0.0020	ppb	06:09:18
2	Si 251.611†	12.0	20.3	1.1266	µg/L	1.1266	ppb	06:09:18
2	Sn 189.927†	43.0	-4.3	-0.5348	µg/L	-0.5348	ppb	06:09:18
2	Ti 334.940†	-631.1	87.7	0.3602	µg/L	0.3602	ppb	06:08:58
2	Tl 190.801†	-85.4	-7.4	-1.5773	µg/L	-1.5773	ppb	06:09:18
2	U 367.007†	961.8	82.5	29.01	µg/L	29.01	ppb	06:08:58
2	V 292.402†	-110.3	21.0	0.2889	µg/L	0.2889	ppb	06:09:18
2	Zn 213.857†	825.6	-68.6	-0.5224	µg/L	-0.5224	ppb	06:09:18
3	Sc RADIAL	22135.6	22135.6	100	%			06:08:26
3	Al 396.153Radial†	-135.8	-41.5	-13.360	µg/L	-13.360	ppb	06:08:26
3	Ca 317.933Radial†	284.0	-13.0	-2.7872	µg/L	-2.7872	ppb	06:08:26
3	Fe 238.204 Radial†	36.9	1.8	0.3476	µg/L	0.3476	ppb	06:08:26
3	K 766.490 Radial†	398.8	-23.9	-21.696	µg/L	-21.696	ppb	06:08:06
3	Mg 279.077 IEC†	56.4	0.1	0.2384	µg/L	0.2384	ppb	06:08:26
3	Na 589.592 Radial†	114.2	-13.7	-21.055	µg/L	-21.055	ppb	06:08:26
3	Sr 421.552†	301.4	40.1	0.2361	µg/L	0.2361	ppb	06:08:06
3	Sc 361.383	362027.9	362027.9	98.859	%			06:09:23
3	Y 371.029	355402.2	355402.2	98.761	%			06:09:23
3	Ag 328.068†	-672.3	3.7	0.0221	µg/L	0.0221	ppb	06:09:23
3	As 188.979†	-7.8	4.9	2.1580	µg/L	2.1580	ppb	06:09:43
3	B 249.677†	208.7	37.9	1.2570	µg/L	1.2570	ppb	06:09:43
3	Ba 233.527†	-7.8	7.6	0.0642	µg/L	0.0642	ppb	06:09:43
3	Be 313.107†	-3374.5	160.5	0.1391	µg/L	0.1391	ppb	06:09:23
3	Cd 226.502†	-310.1	9.4	0.0974	µg/L	0.0974	ppb	06:09:43
3	Co 228.616†	-182.1	38.2	0.8812	µg/L	0.8812	ppb	06:09:43
3	Cr 267.716†	109.5	-11.2	-0.2424	µg/L	-0.2424	ppb	06:09:43
3	Cu 324.752†	1909.7	11.7	0.0998	µg/L	0.0998	ppb	06:09:23
3	Mn 257.610†	506.6	55.6	0.0873	µg/L	0.0873	ppb	06:09:43
3	Mo 202.031†	43.1	10.6	0.6026	µg/L	0.6026	ppb	06:09:43
3	Ni 231.604†	-203.2	-1.6	-0.0456	µg/L	-0.0456	ppb	06:09:43
3	P 214.914†	105.2	-25.2	-16.810	µg/L	-16.810	ppb	06:09:43
3	Pb 220.353†	-69.4	-6.7	-0.8421	µg/L	-0.8421	ppb	06:09:43
3	S 181.975 Axial†	86.6	-4.8	-5.8611	µg/L	-5.8611	ppb	06:09:43
3	Sb 206.836†	150.4	-2.4	-0.6879	µg/L	-0.6879	ppb	06:09:43
3	Se 196.026†	-16.6	6.9	3.2813	µg/L	3.2813	ppb	06:09:43
3	SiO2†	1062.2	9.2	1.5246	µg/L	1.5246	ppb	06:09:43
3	Si 251.611†	14.7	23.1	1.2665	µg/L	1.2665	ppb	06:09:43
3	Sn 189.927†	43.0	-4.0	-0.4965	µg/L	-0.4965	ppb	06:09:43
3	Ti 334.940†	-672.6	41.2	0.1642	µg/L	0.1642	ppb	06:09:23
3	Tl 190.801†	-89.6	-12.3	-2.6300	µg/L	-2.6300	ppb	06:09:43
3	U 367.007†	940.3	67.7	23.80	µg/L	23.80	ppb	06:09:23
3	V 292.402†	-177.7	-47.9	-0.6063	µg/L	-0.6063	ppb	06:09:43
3	Zn 213.857†	811.3	-77.2	-0.5878	µg/L	-0.5878	ppb	06:09:43

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	362986.2	99.121	%	0.3891				0.39%
Sc RADIAL	22155.7	100	%	0.11				0.11%
Y 371.029	356587.6	99.090	%	0.4255				0.43%
Ag 328.068†	-14.9	-0.1622	µg/L	0.28797	-0.1622	ppb	0.28797	177.59%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-31.0	-9.9761	µg/L	5.81102	-9.9761	ppb	5.81102	58.25%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.4	0.6097	µg/L	1.41123	0.6097	ppb	1.41123	231.48%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	50.7	1.6837	µg/L	0.37935	1.6837	ppb	0.37935	22.53%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.7	0.0651	µg/L	0.00386	0.0651	ppb	0.00386	5.93%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	56.6	0.0518	µg/L	0.07567	0.0518	ppb	0.07567	146.19%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-16.8	-3.6038	µg/L	0.94066	-3.6038	ppb	0.94066	26.10%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	14.3	0.1483	µg/L	0.06208	0.1483	ppb	0.06208	41.86%
QC value within limits for Cd 226.502 Recovery = Not calculated								

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Co 228.616†                20.9      0.4820 µg/L       0.34854      0.4820 ppb        0.34854  72.31%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -10.6     -0.2261 µg/L       0.21421     -0.2261 ppb        0.21421  94.76%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                41.8      0.3188 µg/L       0.25123      0.3188 ppb        0.25123  78.81%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.3     -0.0490 µg/L       1.13191     -0.0490 ppb        1.13191 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          24.4      22.188 µg/L       63.8980      22.188 ppb        63.8980 287.99%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             7.3      11.958 µg/L       12.5672      11.958 ppb        12.5672 105.10%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                83.9      0.1317 µg/L       0.05627      0.1317 ppb        0.05627  42.73%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 6.3      0.3572 µg/L       0.53415      0.3572 ppb        0.53415 149.54%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -17.1     -26.308 µg/L       15.3148     -26.308 ppb        15.3148  58.21%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 4.8      0.1318 µg/L       0.49438      0.1318 ppb        0.49438 375.13%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -13.1     -8.7032 µg/L       8.93886     -8.7032 ppb        8.93886 102.71%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.3     -0.3046 µg/L       1.37228     -0.3046 ppb        1.37228 450.47%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.2     -1.4603 µg/L       3.84152     -1.4603 ppb        3.84152 263.07%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.6      1.0518 µg/L       1.97372      1.0518 ppb        1.97372 187.65%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.7      0.3252 µg/L       2.94132      0.3252 ppb        2.94132 904.52%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                       8.3      1.3867 µg/L       1.32120      1.3867 ppb        1.32120  95.28%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                25.2      1.3850 µg/L       0.33372      1.3850 ppb        0.33372  24.10%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.6     -0.0765 µg/L       0.76089     -0.0765 ppb        0.76089 994.75%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -23.1     -0.1356 µg/L       0.32768     -0.1356 ppb        0.32768 241.65%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                57.8      0.2373 µg/L       0.10709      0.2373 ppb        0.10709  45.13%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -10.4     -2.2249 µg/L       0.56673     -2.2249 ppb        0.56673  25.47%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†                 55.2       19.42 µg/L        12.374       19.42 ppb         12.374  63.72%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†                -17.1     -0.2092 µg/L       0.45610     -0.2092 ppb        0.45610 217.97%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -66.8     -0.5102 µg/L       0.08436     -0.5102 ppb        0.08436  16.54%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 8 | **Autosampler Location: 101**
Sample ID: PQL | **Date Collected: 7/23/2018 06:09:52**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	22177.6	22177.6	100	%			06:10:43
1	Al 396.153Radial†	520.4	612.1	196.39	µg/L	196.39	ppb	06:10:43
1	Ca 317.933Radial†	1161.2	859.7	184.12	µg/L	184.12	ppb	06:10:43
1	Fe 238.204 Radial†	563.8	526.3	102.44	µg/L	102.44	ppb	06:10:43
1	K 766.490 Radial†	629.8	205.4	186.68	µg/L	186.68	ppb	06:10:23
1	Mg 279.077 IEC†	264.5	207.3	338.73	µg/L	338.73	ppb	06:10:43
1	Na 589.592 Radial†	317.2	188.2	289.28	µg/L	289.28	ppb	06:10:43
1	Sr 421.552†	1114.5	849.1	4.9895	µg/L	4.9895	ppb	06:10:23
1	Sc 361.383	363111.2	363111.2	99.155	%			06:11:39
1	Y 371.029	356248.5	356248.5	98.996	%			06:11:39
1	Ag 328.068†	-120.5	562.2	5.6735	µg/L	5.6735	ppb	06:11:39
1	As 188.979†	48.4	61.6	27.164	µg/L	27.164	ppb	06:12:00
1	B 249.677†	1596.9	1437.3	48.153	µg/L	48.153	ppb	06:12:00
1	Ba 233.527†	554.3	574.5	4.8331	µg/L	4.8331	ppb	06:12:00
1	Be 313.107†	2239.9	5832.9	4.8680	µg/L	4.8680	ppb	06:11:39
1	Cd 226.502†	159.1	483.5	5.0074	µg/L	5.0074	ppb	06:12:00
1	Co 228.616†	15.4	237.9	5.4898	µg/L	5.4898	ppb	06:12:00
1	Cr 267.716†	363.1	244.3	4.8111	µg/L	4.8111	ppb	06:12:00
1	Cu 324.752†	3243.4	1350.9	9.9628	µg/L	9.9628	ppb	06:11:39
1	Mn 257.610†	6675.9	6275.9	9.8624	µg/L	9.8624	ppb	06:11:39
1	Mo 202.031†	207.6	176.4	10.009	µg/L	10.009	ppb	06:12:00
1	Ni 231.604†	-35.9	167.7	4.6377	µg/L	4.6377	ppb	06:12:00
1	P 214.914†	345.4	216.6	143.89	µg/L	143.89	ppb	06:12:00
1	Pb 220.353†	24.4	88.1	10.856	µg/L	10.856	ppb	06:12:00
1	S 181.975 Axial†	166.8	75.9	93.249	µg/L	93.249	ppb	06:12:00
1	Sb 206.836†	185.5	32.5	9.3350	µg/L	9.3350	ppb	06:12:00
1	Se 196.026†	42.7	66.8	31.637	µg/L	31.637	ppb	06:12:00
1	SiO2†	2229.2	1183.0	199.43	µg/L	199.43	ppb	06:12:00
1	Si 251.611†	1726.5	1749.4	96.574	µg/L	96.574	ppb	06:12:00
1	Sn 189.927†	120.2	73.7	9.1753	µg/L	9.1753	ppb	06:12:00
1	Ti 334.940†	500.4	1226.2	5.1941	µg/L	5.1941	ppb	06:11:39
1	Tl 190.801†	10.9	89.3	19.140	µg/L	19.140	ppb	06:12:00
1	U 367.007†	1085.9	211.7	73.97	µg/L	73.97	ppb	06:11:39
1	V 292.402†	208.8	342.4	4.6284	µg/L	4.6284	ppb	06:12:00
1	Zn 213.857†	1870.2	988.3	7.4829	µg/L	7.4829	ppb	06:12:00
2	Sc RADIAL	22237.2	22237.2	101	%			06:11:08
2	Al 396.153Radial†	580.0	669.8	214.94	µg/L	214.94	ppb	06:11:08
2	Ca 317.933Radial†	1164.0	859.4	184.05	µg/L	184.05	ppb	06:11:08
2	Fe 238.204 Radial†	578.6	539.5	105.00	µg/L	105.00	ppb	06:11:08
2	K 766.490 Radial†	578.1	152.4	138.50	µg/L	138.50	ppb	06:10:48
2	Mg 279.077 IEC†	256.2	198.4	324.16	µg/L	324.16	ppb	06:11:08
2	Na 589.592 Radial†	314.7	184.9	284.15	µg/L	284.15	ppb	06:11:08
2	Sr 421.552†	1183.8	914.9	5.3768	µg/L	5.3768	ppb	06:10:48
2	Sc 361.383	363345.1	363345.1	99.219	%			06:12:05
2	Y 371.029	356740.6	356740.6	99.133	%			06:12:05
2	Ag 328.068†	-165.4	517.0	5.2212	µg/L	5.2212	ppb	06:12:05
2	As 188.979†	58.1	71.4	31.445	µg/L	31.445	ppb	06:12:25
2	B 249.677†	1603.1	1442.6	48.337	µg/L	48.337	ppb	06:12:25
2	Ba 233.527†	566.5	586.4	4.9335	µg/L	4.9335	ppb	06:12:25
2	Be 313.107†	2244.6	5836.2	4.8685	µg/L	4.8685	ppb	06:12:05
2	Cd 226.502†	166.8	491.2	5.0864	µg/L	5.0864	ppb	06:12:25
2	Co 228.616†	12.4	235.0	5.4226	µg/L	5.4226	ppb	06:12:25
2	Cr 267.716†	380.1	261.1	5.1536	µg/L	5.1536	ppb	06:12:25
2	Cu 324.752†	3293.1	1398.9	10.309	µg/L	10.309	ppb	06:12:05
2	Mn 257.610†	6724.0	6320.1	9.9321	µg/L	9.9321	ppb	06:12:05
2	Mo 202.031†	217.4	186.2	10.562	µg/L	10.562	ppb	06:12:25
2	Ni 231.604†	-59.6	143.9	3.9791	µg/L	3.9791	ppb	06:12:25
2	P 214.914†	319.6	190.4	126.46	µg/L	126.46	ppb	06:12:25

2	Pb 220.353†	31.4	95.2	11.740 µg/L	11.740 ppb	06:12:25
2	S 181.975 Axial†	162.7	71.6	87.951 µg/L	87.951 ppb	06:12:25
2	Sb 206.836†	178.5	25.3	7.2741 µg/L	7.2741 ppb	06:12:25
2	Se 196.026†	34.6	58.7	27.777 µg/L	27.777 ppb	06:12:25
2	SiO2†	2200.4	1152.4	194.24 µg/L	194.24 ppb	06:12:25
2	Si 251.611†	1726.7	1748.5	96.514 µg/L	96.514 ppb	06:12:25
2	Sn 189.927†	126.3	79.8	9.9282 µg/L	9.9282 ppb	06:12:25
2	Ti 334.940†	433.6	1158.5	4.9101 µg/L	4.9101 ppb	06:12:05
2	Tl 190.801†	6.7	85.1	18.245 µg/L	18.245 ppb	06:12:25
2	U 367.007†	1059.8	184.7	64.44 µg/L	64.44 ppb	06:12:05
2	V 292.402†	202.0	335.5	4.5382 µg/L	4.5382 ppb	06:12:25
2	Zn 213.857†	1883.9	1000.9	7.5816 µg/L	7.5816 ppb	06:12:25
3	Sc RADIAL	22146.5	22146.5	100 %		06:11:33
3	Al 396.153Radial†	521.9	614.3	197.11 µg/L	197.11 ppb	06:11:33
3	Ca 317.933Radial†	1158.8	859.0	183.95 µg/L	183.95 ppb	06:11:33
3	Fe 238.204 Radial†	563.2	526.5	102.47 µg/L	102.47 ppb	06:11:33
3	K 766.490 Radial†	651.8	228.1	207.34 µg/L	207.34 ppb	06:11:13
3	Mg 279.077 IEC†	253.5	196.6	321.37 µg/L	321.37 ppb	06:11:33
3	Na 589.592 Radial†	310.0	181.5	278.91 µg/L	278.91 ppb	06:11:33
3	Sr 421.552†	1087.6	823.8	4.8411 µg/L	4.8411 ppb	06:11:13
3	Sc 361.383	365175.7	365175.7	99.719 %		06:12:30
3	Y 371.029	358059.1	358059.1	99.499 %		06:12:30
3	Ag 328.068†	-148.9	534.4	5.3990 µg/L	5.3990 ppb	06:12:30
3	As 188.979†	50.7	63.7	28.046 µg/L	28.046 ppb	06:12:50
3	B 249.677†	1600.8	1432.1	47.981 µg/L	47.981 ppb	06:12:50
3	Ba 233.527†	578.1	595.2	5.0073 µg/L	5.0073 ppb	06:12:50
3	Be 313.107†	2311.5	5891.9	4.9142 µg/L	4.9142 ppb	06:12:30
3	Cd 226.502†	159.3	482.8	5.0003 µg/L	5.0003 ppb	06:12:50
3	Co 228.616†	9.8	232.2	5.3574 µg/L	5.3574 ppb	06:12:50
3	Cr 267.716†	372.6	251.7	4.9685 µg/L	4.9685 ppb	06:12:50
3	Cu 324.752†	3277.2	1366.3	10.069 µg/L	10.069 ppb	06:12:30
3	Mn 257.610†	6704.8	6266.8	9.8482 µg/L	9.8482 ppb	06:12:30
3	Mo 202.031†	205.1	172.7	9.8004 µg/L	9.8004 ppb	06:12:50
3	Ni 231.604†	4.3	208.3	5.7589 µg/L	5.7589 ppb	06:12:50
3	P 214.914†	336.5	205.8	136.68 µg/L	136.68 ppb	06:12:50
3	Pb 220.353†	13.2	76.7	9.4569 µg/L	9.4569 ppb	06:12:50
3	S 181.975 Axial†	164.8	72.9	89.525 µg/L	89.525 ppb	06:12:50
3	Sb 206.836†	183.7	29.6	8.5091 µg/L	8.5091 ppb	06:12:50
3	Se 196.026†	41.2	65.1	30.805 µg/L	30.805 ppb	06:12:50
3	SiO2†	2203.7	1144.7	192.97 µg/L	192.97 ppb	06:12:50
3	Si 251.611†	1721.5	1734.5	95.753 µg/L	95.753 ppb	06:12:50
3	Sn 189.927†	123.6	76.4	9.5090 µg/L	9.5090 ppb	06:12:50
3	Ti 334.940†	506.6	1229.6	5.2139 µg/L	5.2139 ppb	06:12:30
3	Tl 190.801†	6.4	84.7	18.166 µg/L	18.166 ppb	06:12:50
3	U 367.007†	1059.2	178.7	62.36 µg/L	62.36 ppb	06:12:30
3	V 292.402†	233.7	366.2	4.9305 µg/L	4.9305 ppb	06:12:50
3	Zn 213.857†	1862.6	970.0	7.3376 µg/L	7.3376 ppb	06:12:50

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	363877.4	99.364	%	0.3087				0.31%
Sc RADIAL	22187.1	100	%	0.21				0.21%
Y 371.029	357016.1	99.209	%	0.2601				0.26%
Ag 328.068†	537.8	5.4312	µg/L	0.22786	5.4312	ppb	0.22786	4.20%
QC value within limits for Ag 328.068 Recovery = 108.62%								
Al 396.153Radial†	632.1	202.81	µg/L	10.508	202.81	ppb	10.508	5.18%
QC value within limits for Al 396.153Radial Recovery = 101.41%								
As 188.979†	65.6	28.885	µg/L	2.2608	28.885	ppb	2.2608	7.83%
QC value within limits for As 188.979 Recovery = 96.28%								
B 249.677†	1437.3	48.157	µg/L	0.1784	48.157	ppb	0.1784	0.37%
QC value within limits for B 249.677 Recovery = 96.31%								
Ba 233.527†	585.4	4.9246	µg/L	0.08746	4.9246	ppb	0.08746	1.78%
QC value within limits for Ba 233.527 Recovery = 98.49%								
Be 313.107†	5853.7	4.8836	µg/L	0.02654	4.8836	ppb	0.02654	0.54%
QC value within limits for Be 313.107 Recovery = 97.67%								
Ca 317.933Radial†	859.4	184.04	µg/L	0.081	184.04	ppb	0.081	0.04%
QC value within limits for Ca 317.933Radial Recovery = 92.02%								
Cd 226.502†	485.9	5.0314	µg/L	0.04778	5.0314	ppb	0.04778	0.95%
QC value within limits for Cd 226.502 Recovery = 100.63%								

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Co 228.616†              235.0      5.4232 µg/L       0.06620      5.4232 ppb        0.06620   1.22%
   QC value within limits for Co 228.616  Recovery = 108.46%
Cr 267.716†              252.4      4.9777 µg/L       0.17142      4.9777 ppb        0.17142   3.44%
   QC value within limits for Cr 267.716  Recovery = 99.55%
Cu 324.752†             1372.0      10.114 µg/L        0.1774      10.114 ppb         0.1774   1.75%
   QC value within limits for Cu 324.752  Recovery = 101.14%
Fe 238.204 Radial†       530.8      103.30 µg/L         1.470      103.30 ppb          1.470   1.42%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.30%
K 766.490 Radial†        195.3      177.51 µg/L        35.323      177.51 ppb         35.323  19.90%
   QC value within limits for K 766.490 Radial  Recovery = 118.34%
Mg 279.077 IEC†          200.8      328.08 µg/L         9.323      328.08 ppb          9.323   2.84%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.36%
Mn 257.610†             6287.6      9.8809 µg/L       0.04487      9.8809 ppb        0.04487   0.45%
   QC value within limits for Mn 257.610  Recovery = 98.81%
Mo 202.031†              178.4      10.124 µg/L        0.3937      10.124 ppb         0.3937   3.89%
   QC value within limits for Mo 202.031  Recovery = 101.24%
Na 589.592 Radial†       184.8      284.11 µg/L         5.186      284.11 ppb          5.186   1.83%
   QC value within limits for Na 589.592 Radial  Recovery = 94.70%
Ni 231.604†              173.3      4.7919 µg/L       0.89987      4.7919 ppb        0.89987  18.78%
   QC value within limits for Ni 231.604  Recovery = 95.84%
P 214.914†               204.3      135.67 µg/L         8.756      135.67 ppb          8.756   6.45%
   QC value within limits for P 214.914  Recovery = 90.45%
Pb 220.353†               86.7      10.684 µg/L        1.1512      10.684 ppb         1.1512  10.77%
   QC value within limits for Pb 220.353  Recovery = 106.84%
S 181.975 Axial†          73.5      90.241 µg/L        2.7205      90.241 ppb         2.7205   3.01%
   QC value within limits for S 181.975 Axial  Recovery = 90.24%
Sb 206.836†               29.1      8.3727 µg/L       1.03719      8.3727 ppb        1.03719  12.39%
   QC value within limits for Sb 206.836  Recovery = 83.73%
Se 196.026†               63.5      30.073 µg/L        2.0313      30.073 ppb         2.0313   6.75%
   QC value within limits for Se 196.026  Recovery = 100.24%
SiO2†                    1160.0      195.55 µg/L         3.422      195.55 ppb          3.422   1.75%
   QC value within limits for SiO2  Recovery = 91.81%
Si 251.611†             1744.2      96.280 µg/L        0.4577      96.280 ppb         0.4577   0.48%
   QC value within limits for Si 251.611  Recovery = 96.28%
Sn 189.927†               76.6      9.5375 µg/L       0.37724      9.5375 ppb        0.37724   3.96%
   QC value within limits for Sn 189.927  Recovery = 95.38%
Sr 421.552†              862.6      5.0691 µg/L       0.27661      5.0691 ppb        0.27661   5.46%
   QC value within limits for Sr 421.552  Recovery = 101.38%
Ti 334.940†             1204.8      5.1060 µg/L       0.16997      5.1060 ppb        0.16997   3.33%
   QC value within limits for Ti 334.940  Recovery = 102.12%
Tl 190.801†               86.4      18.517 µg/L        0.5407      18.517 ppb         0.5407   2.92%
   QC value within limits for Tl 190.801  Recovery = 92.59%
U 367.007†               191.7       66.93 µg/L         6.191       66.93 ppb          6.191   9.25%
   QC value greater than the upper limit for U 367.007  Recovery = 133.85%
V 292.402†               348.0      4.6990 µg/L       0.20548      4.6990 ppb        0.20548   4.37%
   QC value within limits for V 292.402  Recovery = 93.98%
Zn 213.857†              986.4      7.4674 µg/L       0.12271      7.4674 ppb        0.12271   1.64%
   QC value within limits for Zn 213.857  Recovery = 74.67%
QC Failed.  Continue with analysis.
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Sequence No.: 9 | **Autosampler Location: 103**
Sample ID: ICSA | **Date Collected: 7/23/2018 06:12:59**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	21637.8	21637.8	98.0	%			06:13:36
1	Al 396.153Radial†	1478277.7	1508591.2	485180	µg/L	485180	ppb	06:13:31
1	Ca 317.933Radial†	2205012.9	2249792.2	481810	µg/L	481810	ppb	06:13:31
1	Fe 238.204 Radial†	959600.5	979182.0	190580	µg/L	190580	ppb	06:13:31
1	K 766.490 Radial†	524.6	113.6	149.16	µg/L	149.16	ppb	06:13:36
1	Mg 279.077 IEC†	288570.1	294413.1	481140	µg/L	481140	ppb	06:13:36
1	Na 589.592 Radial†	244.4	121.8	-62.038	µg/L	-62.038	ppb	06:13:36
1	Sr 421.552†	1664.4	1437.9	-0.0449	µg/L	-0.0449	ppb	06:13:36
1	Sc 361.383	325909.0	325909.0	88.996	%			06:14:03
1	Y 371.029	313366.5	313366.5	87.080	%			06:14:03
1	Ag 328.068†	-2905.3	-2580.8	1.6248	µg/L	1.6248	ppb	06:14:03
1	As 188.979†	-38.7	-30.7	-3.4891	µg/L	-3.4891	ppb	06:14:23
1	B 249.677†	-19618.4	-22217.3	4.0476	µg/L	4.0476	ppb	06:14:03
1	Ba 233.527†	648.2	743.8	1.5687	µg/L	1.5687	ppb	06:14:23
1	Be 313.107†	-9193.5	-6756.3	0.4000	µg/L	0.4000	ppb	06:14:23
1	Cd 226.502†	1483.2	1989.7	-0.1967	µg/L	-0.1967	ppb	06:14:23
1	Co 228.616†	-160.4	42.2	0.2179	µg/L	0.2179	ppb	06:14:23
1	Cr 267.716†	-383.1	-552.4	0.5431	µg/L	0.5431	ppb	06:14:23
1	Cu 324.752†	343.9	-1533.6	0.7054	µg/L	0.7054	ppb	06:14:23
1	Mn 257.610†	-5744.6	-6911.8	0.3636	µg/L	0.3636	ppb	06:14:03
1	Mo 202.031†	-31.3	-68.1	-0.2795	µg/L	-0.2795	ppb	06:14:23
1	Ni 231.604†	-297.2	-130.0	0.1348	µg/L	0.1348	ppb	06:14:23
1	P 214.914†	199.5	92.5	-7.5968	µg/L	-7.5968	ppb	06:14:23
1	Pb 220.353†	-387.1	-371.4	5.3273	µg/L	5.3273	ppb	06:14:23
1	S 181.975 Axial†	169.8	98.4	-6.3167	µg/L	-6.3167	ppb	06:14:23
1	Sb 206.836†	229.2	102.9	3.4128	µg/L	3.4128	ppb	06:14:23
1	Se 196.026†	-192.5	-192.6	-6.2577	µg/L	-6.2577	ppb	06:14:23
1	SiO2†	1316.0	413.4	26.113	µg/L	26.113	ppb	06:14:23
1	Si 251.611†	384.1	439.8	10.267	µg/L	10.267	ppb	06:14:23
1	Sn 189.927†	57.3	16.9	-2.4555	µg/L	-2.4555	ppb	06:14:23
1	Ti 334.940†	-5049.8	-4952.7	0.5517	µg/L	0.5517	ppb	06:14:23
1	Tl 190.801†	-134.7	-73.0	1.6847	µg/L	1.6847	ppb	06:14:23
1	U 367.007†	3253.1	2771.8	-27.77	µg/L	-27.77	ppb	06:14:03
1	V 292.402†	-2766.5	-2976.7	0.5542	µg/L	0.5542	ppb	06:14:23
1	Zn 213.857†	4575.1	4242.9	6.8726	µg/L	6.8726	ppb	06:14:23
2	Sc RADIAL	21577.0	21577.0	97.7	%			06:13:46
2	Al 396.153Radial†	1499941.8	1535011.0	493680	µg/L	493680	ppb	06:13:41
2	Ca 317.933Radial†	2240215.3	2292155.7	490880	µg/L	490880	ppb	06:13:41
2	Fe 238.204 Radial†	973760.2	996431.0	193940	µg/L	193940	ppb	06:13:41
2	K 766.490 Radial†	437.4	25.9	70.320	µg/L	70.320	ppb	06:13:46
2	Mg 279.077 IEC†	289906.2	296610.1	484730	µg/L	484730	ppb	06:13:46
2	Na 589.592 Radial†	250.0	128.3	-56.504	µg/L	-56.504	ppb	06:13:46
2	Sr 421.552†	1699.3	1478.4	0.0331	µg/L	0.0331	ppb	06:13:46
2	Sc 361.383	326002.9	326002.9	89.022	%			06:14:29
2	Y 371.029	313605.9	313605.9	87.146	%			06:14:29
2	Ag 328.068†	-3061.2	-2755.1	0.3548	µg/L	0.3548	ppb	06:14:29
2	As 188.979†	-36.1	-27.8	-2.0392	µg/L	-2.0392	ppb	06:14:49
2	B 249.677†	-19809.5	-22425.6	10.203	µg/L	10.203	ppb	06:14:29
2	Ba 233.527†	679.9	779.3	1.7846	µg/L	1.7846	ppb	06:14:49
2	Be 313.107†	-9283.1	-6854.0	0.4300	µg/L	0.4300	ppb	06:14:49
2	Cd 226.502†	1530.6	2042.4	-0.0174	µg/L	-0.0174	ppb	06:14:49
2	Co 228.616†	-166.6	35.3	0.0462	µg/L	0.0462	ppb	06:14:49
2	Cr 267.716†	-339.6	-503.4	1.6369	µg/L	1.6369	ppb	06:14:49
2	Cu 324.752†	247.8	-1641.8	0.1163	µg/L	0.1163	ppb	06:14:49
2	Mn 257.610†	-5855.3	-7034.2	0.3798	µg/L	0.3798	ppb	06:14:29
2	Mo 202.031†	-14.1	-48.8	0.8777	µg/L	0.8777	ppb	06:14:49
2	Ni 231.604†	-300.7	-133.9	0.0922	µg/L	0.0922	ppb	06:14:49
2	P 214.914†	202.5	95.8	-6.6527	µg/L	-6.6527	ppb	06:14:49

2	Pb 220.353†	-449.4	-441.2	-2.3832 µg/L	-2.3832 ppb		06:14:49
2	S 181.975 Axial†	153.9	80.6	-30.462 µg/L	-30.462 ppb		06:14:49
2	Sb 206.836†	207.9	78.9	-3.9473 µg/L	-3.9473 ppb		06:14:49
2	Se 196.026†	-192.7	-192.7	-4.8259 µg/L	-4.8259 ppb		06:14:49
2	SiO2†	1291.1	385.1	20.501 µg/L	20.501 ppb		06:14:49
2	Si 251.611†	391.8	448.3	10.471 µg/L	10.471 ppb		06:14:49
2	Sn 189.927†	44.4	2.4	-4.3136 µg/L	-4.3136 ppb		06:14:49
2	Ti 334.940†	-5086.4	-4992.1	0.7951 µg/L	0.7951 ppb		06:14:49
2	Tl 190.801†	-119.6	-56.0	5.6199 µg/L	5.6199 ppb		06:14:49
2	U 367.007†	3276.6	2797.3	-36.81 µg/L	-36.81 ppb		06:14:29
2	V 292.402†	-2783.1	-2994.4	1.0243 µg/L	1.0243 ppb		06:14:49
2	Zn 213.857†	4617.4	4288.9	6.8415 µg/L	6.8415 ppb		06:14:49
3	Sc RADIAL	21431.5	21431.5	97.1 %			06:13:57
3	Al 396.153Radial†	1490766.3	1535981.2	493990 µg/L	493990 ppb		06:13:52
3	Ca 317.933Radial†	2222220.2	2289183.6	490240 µg/L	490240 ppb		06:13:52
3	Fe 238.204 Radial†	966498.0	995715.9	193800 µg/L	193800 ppb		06:13:52
3	K 766.490 Radial†	404.4	-5.0	42.175 µg/L	42.175 ppb		06:13:57
3	Mg 279.077 IEC†	290107.3	298831.9	488360 µg/L	488360 ppb		06:13:57
3	Na 589.592 Radial†	270.1	150.7	-21.802 µg/L	-21.802 ppb		06:13:57
3	Sr 421.552†	1689.7	1480.3	0.0556 µg/L	0.0556 ppb		06:13:57
3	Sc 361.383	324264.5	324264.5	88.547 %			06:14:54
3	Y 371.029	311988.9	311988.9	86.697 %			06:14:54
3	Ag 328.068†	-2945.3	-2642.5	1.4618 µg/L	1.4618 ppb		06:14:54
3	As 188.979†	-47.1	-40.4	-7.6236 µg/L	-7.6236 ppb		06:15:14
3	B 249.677†	-19637.6	-22350.7	12.153 µg/L	12.153 ppb		06:14:54
3	Ba 233.527†	668.9	770.9	1.7172 µg/L	1.7172 ppb		06:15:14
3	Be 313.107†	-9222.1	-6841.0	0.4382 µg/L	0.4382 ppb		06:15:14
3	Cd 226.502†	1501.3	2018.6	-0.2497 µg/L	-0.2497 ppb		06:15:14
3	Co 228.616†	-189.7	8.1	-0.5827 µg/L	-0.5827 ppb		06:15:14
3	Cr 267.716†	-360.7	-529.3	1.1709 µg/L	1.1709 ppb		06:15:14
3	Cu 324.752†	341.7	-1534.2	0.9122 µg/L	0.9122 ppb		06:15:14
3	Mn 257.610†	-5780.2	-6984.7	0.4406 µg/L	0.4406 ppb		06:14:54
3	Mo 202.031†	-57.3	-97.6	-1.8937 µg/L	-1.8937 ppb		06:15:14
3	Ni 231.604†	-316.0	-153.0	-0.4378 µg/L	-0.4378 ppb		06:15:14
3	P 214.914†	197.8	91.7	-9.1580 µg/L	-9.1580 ppb		06:15:14
3	Pb 220.353†	-445.7	-439.8	-2.2050 µg/L	-2.2050 ppb		06:15:14
3	S 181.975 Axial†	164.5	93.5	-14.668 µg/L	-14.668 ppb		06:15:14
3	Sb 206.836†	222.4	96.6	1.1121 µg/L	1.1121 ppb		06:15:14
3	Se 196.026†	-191.1	-192.1	-4.5848 µg/L	-4.5848 ppb		06:15:14
3	SiO2†	1309.0	413.0	25.386 µg/L	25.386 ppb		06:15:14
3	Si 251.611†	392.2	451.1	10.682 µg/L	10.682 ppb		06:15:14
3	Sn 189.927†	44.2	2.4	-4.3267 µg/L	-4.3267 ppb		06:15:14
3	Ti 334.940†	-5136.5	-5079.4	0.3852 µg/L	0.3852 ppb		06:15:14
3	Tl 190.801†	-126.0	-63.9	3.9260 µg/L	3.9260 ppb		06:15:14
3	U 367.007†	3310.7	2855.4	-15.46 µg/L	-15.46 ppb		06:14:54
3	V 292.402†	-2762.1	-2987.5	1.0730 µg/L	1.0730 ppb		06:15:14
3	Zn 213.857†	4642.3	4344.9	7.2352 µg/L	7.2352 ppb		06:15:14

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	325392.1	88.855	%	0.2670				0.30%
Sc RADIAL	21548.8	97.6	%	0.48				0.49%
Y 371.029	312987.1	86.974	%	0.2425				0.28%
Ag 328.068†	-2659.5	1.1472	µg/L	0.69102	1.1472	ppb	0.69102	60.24%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1526527.8	490950	µg/L	4998.23	490950	ppb	4998.23	1.02%
QC value within limits for Al 396.153Radial Recovery = 98.19%								
As 188.979†	-33.0	-4.3840	µg/L	2.89777	-4.3840	ppb	2.89777	66.10%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-22331.2	8.8010	µg/L	4.23048	8.8010	ppb	4.23048	48.07%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	764.7	1.6902	µg/L	0.11050	1.6902	ppb	0.11050	6.54%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-6817.1	0.4228	µg/L	0.02008	0.4228	ppb	0.02008	4.75%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2277043.8	487640	µg/L	5064.21	487640	ppb	5064.21	1.04%
QC value within limits for Ca 317.933Radial Recovery = 97.53%								
Cd 226.502†	2016.9	-0.1546	µg/L	0.12176	-0.1546	ppb	0.12176	78.75%
QC value within limits for Cd 226.502 Recovery = Not calculated								

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Co 228.616†                28.6     -0.1062 µg/L       0.42152     -0.1062 ppb        0.42152 396.83%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -528.4      1.1169 µg/L       0.54888      1.1169 ppb        0.54888  49.14%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -1569.9      0.5780 µg/L       0.41296      0.5780 ppb        0.41296  71.45%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    990443.0      192770 µg/L       1899.38      192770 ppb        1899.38   0.99%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.39%
K 766.490 Radial†         44.8      87.218 µg/L       55.4569      87.218 ppb        55.4569  63.58%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       296618.4      484740 µg/L       3610.73      484740 ppb        3610.73   0.74%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.95%
Mn 257.610†            -6976.9      0.3947 µg/L       0.04059      0.3947 ppb        0.04059  10.28%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -71.5     -0.4318 µg/L       1.39200     -0.4318 ppb        1.39200 322.35%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       133.6     -46.782 µg/L       21.8091     -46.782 ppb        21.8091  46.62%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -138.9     -0.0703 µg/L       0.31901     -0.0703 ppb        0.31901 454.00%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                93.3     -7.8025 µg/L       1.26527     -7.8025 ppb        1.26527  16.22%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -417.5      0.2464 µg/L       4.40112      0.2464 ppb        4.40112 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          90.8     -17.149 µg/L       12.2623     -17.149 ppb        12.2623  71.51%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               92.8      0.1925 µg/L       3.76525      0.1925 ppb        3.76525 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -192.4     -5.2228 µg/L       0.90431     -5.2228 ppb        0.90431  17.31%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    403.9      24.000 µg/L        3.0517      24.000 ppb         3.0517  12.72%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              446.4      10.473 µg/L        0.2073      10.473 ppb         0.2073   1.98%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                7.2     -3.6986 µg/L       1.07660     -3.6986 ppb        1.07660  29.11%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             1465.5      0.0146 µg/L       0.05275      0.0146 ppb        0.05275 360.88%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -5008.1      0.5773 µg/L       0.20617      0.5773 ppb        0.20617  35.71%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -64.3      3.7435 µg/L       1.97390      3.7435 ppb        1.97390  52.73%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†              2808.2      -26.68 µg/L        10.714      -26.68 ppb         10.714  40.16%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†             -2986.2      0.8838 µg/L       0.28653      0.8838 ppb        0.28653  32.42%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             4292.3      6.9831 µg/L       0.21890      6.9831 ppb        0.21890   3.13%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 10 **Autosampler Location: 104**
Sample ID: ICSAB **Date Collected: 7/23/2018 06:15:23**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	21432.9	21432.9	97.1	%			06:15:59
1	Al 396.153Radial†	1486524.7	1531512.1	492530	µg/L	492530	ppb	06:15:54
1	Ca 317.933Radial†	2214951.3	2281547.1	488610	µg/L	488610	ppb	06:15:54
1	Fe 238.204 Radial†	961625.0	990631.3	192810	µg/L	192810	ppb	06:15:54
1	K 766.490 Radial†	6206.5	5972.2	5474.0	µg/L	5474.0	ppb	06:15:59
1	Mg 279.077 IEC†	288921.2	297590.7	486330	µg/L	486330	ppb	06:15:59
1	Na 589.592 Radial†	3529.9	3509.0	5143.6	µg/L	5143.6	ppb	06:15:59
1	Sr 421.552†	81309.2	83504.3	482.41	µg/L	482.41	ppb	06:15:59
1	Sc 361.383	323371.1	323371.1	88.303	%			06:16:27
1	Y 371.029	311719.3	311719.3	86.622	%			06:16:27
1	Ag 328.068†	19732.0	23029.3	261.99	µg/L	261.99	ppb	06:16:32
1	As 188.979†	990.7	1134.7	513.14	µg/L	513.14	ppb	06:16:32
1	B 249.677†	-5363.6	-6247.2	541.73	µg/L	541.73	ppb	06:16:27
1	Ba 233.527†	51308.8	58120.8	484.45	µg/L	484.45	ppb	06:16:32
1	Be 313.107†	251561.4	288457.5	245.98	µg/L	245.98	ppb	06:16:27
1	Cd 226.502†	40812.2	46541.4	461.96	µg/L	461.96	ppb	06:16:32
1	Co 228.616†	17769.7	20345.9	468.09	µg/L	468.09	ppb	06:16:32
1	Cr 267.716†	21041.9	23707.2	483.51	µg/L	483.51	ppb	06:16:32
1	Cu 324.752†	64588.9	71224.3	534.91	µg/L	534.91	ppb	06:16:27
1	Mn 257.610†	269197.1	304398.4	489.42	µg/L	489.42	ppb	06:16:27
1	Mo 202.031†	7735.4	8727.0	498.66	µg/L	498.66	ppb	06:16:32
1	Ni 231.604†	14504.0	16629.2	463.40	µg/L	463.40	ppb	06:16:32
1	P 214.914†	3607.4	3953.6	2550.9	µg/L	2550.9	ppb	06:16:32
1	Pb 220.353†	2984.2	3443.0	477.46	µg/L	477.46	ppb	06:16:32
1	S 181.975 Axial†	2074.8	2257.3	2644.4	µg/L	2644.4	ppb	06:16:32
1	Sb 206.836†	1732.8	1807.7	488.93	µg/L	488.93	ppb	06:16:32
1	Se 196.026†	4150.6	4724.2	2318.6	µg/L	2318.6	ppb	06:16:32
1	SiO2†	56084.1	62447.8	10487	µg/L	10487	ppb	06:16:32
1	Si 251.611†	81983.4	92851.2	5112.4	µg/L	5112.4	ppb	06:16:27
1	Sn 189.927†	3474.4	3887.1	480.12	µg/L	480.12	ppb	06:16:32
1	Ti 334.940†	100049.2	114023.3	507.16	µg/L	507.16	ppb	06:16:27
1	Tl 190.801†	1801.8	2118.7	471.74	µg/L	471.74	ppb	06:16:32
1	U 367.007†	4288.2	3972.7	382.2	µg/L	382.2	ppb	06:16:32
1	V 292.402†	30791.6	35002.2	501.93	µg/L	501.93	ppb	06:16:32
1	Zn 213.857†	60760.7	67911.2	488.92	µg/L	488.92	ppb	06:16:32
2	Sc RADIAL	21094.4	21094.4	95.5	%			06:16:10
2	Al 396.153Radial†	1494047.9	1563954.4	502960	µg/L	502960	ppb	06:16:04
2	Ca 317.933Radial†	2223482.6	2327083.1	498360	µg/L	498360	ppb	06:16:04
2	Fe 238.204 Radial†	964295.2	1009318.9	196450	µg/L	196450	ppb	06:16:04
2	K 766.490 Radial†	6165.2	6031.6	5529.0	µg/L	5529.0	ppb	06:16:10
2	Mg 279.077 IEC†	287155.8	300517.7	491120	µg/L	491120	ppb	06:16:10
2	Na 589.592 Radial†	3532.5	3570.0	5232.6	µg/L	5232.6	ppb	06:16:10
2	Sr 421.552†	81025.7	84551.3	488.40	µg/L	488.40	ppb	06:16:10
2	Sc 361.383	323946.3	323946.3	88.460	%			06:16:37
2	Y 371.029	312025.7	312025.7	86.707	%			06:16:37
2	Ag 328.068†	19745.5	23005.0	262.29	µg/L	262.29	ppb	06:16:42
2	As 188.979†	998.4	1141.4	516.31	µg/L	516.31	ppb	06:16:42
2	B 249.677†	-5341.8	-6211.8	557.06	µg/L	557.06	ppb	06:16:37
2	Ba 233.527†	51619.8	58369.1	486.46	µg/L	486.46	ppb	06:16:42
2	Be 313.107†	251467.2	287845.1	245.58	µg/L	245.58	ppb	06:16:37
2	Cd 226.502†	41195.8	46893.0	465.21	µg/L	465.21	ppb	06:16:42
2	Co 228.616†	17935.7	20497.8	471.58	µg/L	471.58	ppb	06:16:42
2	Cr 267.716†	21157.5	23795.6	485.43	µg/L	485.43	ppb	06:16:42
2	Cu 324.752†	64499.8	70993.7	533.43	µg/L	533.43	ppb	06:16:37
2	Mn 257.610†	269400.2	304086.7	489.16	µg/L	489.16	ppb	06:16:37
2	Mo 202.031†	7820.7	8808.0	503.32	µg/L	503.32	ppb	06:16:42
2	Ni 231.604†	14649.6	16764.6	467.22	µg/L	467.22	ppb	06:16:42
2	P 214.914†	3628.6	3970.3	2560.9	µg/L	2560.9	ppb	06:16:42

2	Pb 220.353†	2905.4	3347.9	466.82 µg/L	466.82 ppb		06:16:42
2	S 181.975 Axial†	2066.5	2243.7	2625.1 µg/L	2625.1 ppb		06:16:42
2	Sb 206.836†	1741.8	1814.4	490.38 µg/L	490.38 ppb		06:16:42
2	Se 196.026†	4163.2	4730.1	2323.0 µg/L	2323.0 ppb		06:16:42
2	SiO2†	56383.0	62673.0	10524 µg/L	10524 ppb		06:16:42
2	Si 251.611†	81943.3	92641.1	5100.4 µg/L	5100.4 ppb		06:16:37
2	Sn 189.927†	3489.8	3897.6	481.35 µg/L	481.35 ppb		06:16:42
2	Ti 334.940†	100114.0	113895.4	507.07 µg/L	507.07 ppb		06:16:37
2	Tl 190.801†	1810.4	2124.9	473.37 µg/L	473.37 ppb		06:16:42
2	U 367.007†	4263.1	3935.8	349.8 µg/L	349.8 ppb		06:16:42
2	V 292.402†	31032.9	35213.0	505.46 µg/L	505.46 ppb		06:16:42
2	Zn 213.857†	61303.7	68402.9	492.22 µg/L	492.22 ppb		06:16:42
3	Sc RADIAL	21430.9	21430.9	97.1 %			06:16:20
3	Al 396.153Radial†	1513735.9	1559684.4	501590 µg/L	501590 ppb		06:16:15
3	Ca 317.933Radial†	2262374.5	2330610.5	499110 µg/L	499110 ppb		06:16:15
3	Fe 238.204 Radial†	980329.2	1009990.5	196580 µg/L	196580 ppb		06:16:15
3	K 766.490 Radial†	6232.0	5999.1	5499.5 µg/L	5499.5 ppb		06:16:20
3	Mg 279.077 IEC†	287720.8	296380.5	484360 µg/L	484360 ppb		06:16:20
3	Na 589.592 Radial†	3550.7	3530.7	5172.0 µg/L	5172.0 ppb		06:16:20
3	Sr 421.552†	81036.3	83230.5	480.62 µg/L	480.62 ppb		06:16:20
3	Sc 361.383	325715.1	325715.1	88.943 %			06:16:47
3	Y 371.029	314127.6	314127.6	87.291 %			06:16:47
3	Ag 328.068†	19800.4	22945.5	261.72 µg/L	261.72 ppb		06:16:53
3	As 188.979†	1029.9	1170.7	529.17 µg/L	529.17 ppb		06:16:53
3	B 249.677†	-5408.9	-6254.5	556.16 µg/L	556.16 ppb		06:16:47
3	Ba 233.527†	51626.9	58060.2	483.85 µg/L	483.85 ppb		06:16:53
3	Be 313.107†	253554.0	288647.6	246.25 µg/L	246.25 ppb		06:16:47
3	Cd 226.502†	41079.0	46508.7	461.21 µg/L	461.21 ppb		06:16:53
3	Co 228.616†	17899.7	20347.3	468.11 µg/L	468.11 ppb		06:16:53
3	Cr 267.716†	21123.5	23627.5	481.97 µg/L	481.97 ppb		06:16:53
3	Cu 324.752†	64902.6	71050.6	533.84 µg/L	533.84 ppb		06:16:47
3	Mn 257.610†	270818.9	304027.9	489.09 µg/L	489.09 ppb		06:16:47
3	Mo 202.031†	7838.4	8779.8	501.73 µg/L	501.73 ppb		06:16:53
3	Ni 231.604†	14591.1	16608.9	462.92 µg/L	462.92 ppb		06:16:53
3	P 214.914†	3564.4	3875.8	2497.6 µg/L	2497.6 ppb		06:16:53
3	Pb 220.353†	2976.5	3410.0	474.41 µg/L	474.41 ppb		06:16:53
3	S 181.975 Axial†	2058.7	2222.3	2599.0 µg/L	2599.0 ppb		06:16:53
3	Sb 206.836†	1759.0	1823.1	492.89 µg/L	492.89 ppb		06:16:53
3	Se 196.026†	4147.7	4687.0	2302.7 µg/L	2302.7 ppb		06:16:53
3	SiO2†	56301.8	62235.5	10450 µg/L	10450 ppb		06:16:53
3	Si 251.611†	82350.5	92595.8	5097.9 µg/L	5097.9 ppb		06:16:47
3	Sn 189.927†	3517.4	3907.1	482.56 µg/L	482.56 ppb		06:16:53
3	Ti 334.940†	100484.3	113697.2	506.27 µg/L	506.27 ppb		06:16:47
3	Tl 190.801†	1830.7	2136.6	475.87 µg/L	475.87 ppb		06:16:53
3	U 367.007†	4237.8	3881.1	329.7 µg/L	329.7 ppb		06:16:53
3	V 292.402†	31016.1	35003.7	502.72 µg/L	502.72 ppb		06:16:53
3	Zn 213.857†	61260.8	67978.3	489.08 µg/L	489.08 ppb		06:16:53

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	324344.2	88.569	%	0.3336				0.38%
Sc RADIAL	21319.4	96.6	%	0.88				0.91%
Y 371.029	312624.2	86.873	%	0.3643				0.42%
Ag 328.068†	22993.3	262.00	µg/L	0.289	262.00	ppb	0.289	0.11%
QC value within limits for Ag 328.068 Recovery = 104.80%								
Al 396.153Radial†	1551717.0	499030	µg/L	5669.19	499030	ppb	5669.19	1.14%
QC value within limits for Al 396.153Radial Recovery = 99.81%								
As 188.979†	1148.9	519.54	µg/L	8.486	519.54	ppb	8.486	1.63%
QC value within limits for As 188.979 Recovery = 103.91%								
B 249.677†	-6237.9	551.65	µg/L	8.606	551.65	ppb	8.606	1.56%
QC value within limits for B 249.677 Recovery = 110.33%								
Ba 233.527†	58183.4	484.92	µg/L	1.363	484.92	ppb	1.363	0.28%
QC value within limits for Ba 233.527 Recovery = 96.98%								
Be 313.107†	288316.7	245.94	µg/L	0.337	245.94	ppb	0.337	0.14%
QC value within limits for Be 313.107 Recovery = 98.38%								
Ca 317.933Radial†	2313080.3	495360	µg/L	5860.46	495360	ppb	5860.46	1.18%
QC value within limits for Ca 317.933Radial Recovery = 99.07%								
Cd 226.502†	46647.7	462.80	µg/L	2.128	462.80	ppb	2.128	0.46%
QC value within limits for Cd 226.502 Recovery = 92.56%								

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Co 228.616†            20397.0      469.26 µg/L         2.011      469.26 ppb          2.011   0.43%
   QC value within limits for Co 228.616  Recovery = 93.85%
Cr 267.716†            23710.1      483.63 µg/L         1.734      483.63 ppb          1.734   0.36%
   QC value within limits for Cr 267.716  Recovery = 96.73%
Cu 324.752†            71089.5      534.06 µg/L         0.767      534.06 ppb          0.767   0.14%
   QC value within limits for Cu 324.752  Recovery = 106.81%
Fe 238.204 Radial†   1003313.6      195280 µg/L       2138.67      195280 ppb        2138.67   1.10%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.64%
K 766.490 Radial†       6001.0      5500.8 µg/L         27.51      5500.8 ppb          27.51   0.50%
   QC value within limits for K 766.490 Radial  Recovery = 110.02%
Mg 279.077 IEC†       298162.9      487270 µg/L       3476.23      487270 ppb        3476.23   0.71%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.45%
Mn 257.610†           304171.0      489.22 µg/L         0.177      489.22 ppb          0.177   0.04%
   QC value within limits for Mn 257.610  Recovery = 97.84%
Mo 202.031†             8771.6      501.24 µg/L         2.368      501.24 ppb          2.368   0.47%
   QC value within limits for Mo 202.031  Recovery = 100.25%
Na 589.592 Radial†      3536.5      5182.7 µg/L         45.50      5182.7 ppb          45.50   0.88%
   QC value within limits for Na 589.592 Radial  Recovery = 103.65%
Ni 231.604†            16667.6      464.51 µg/L         2.355      464.51 ppb          2.355   0.51%
   QC value within limits for Ni 231.604  Recovery = 92.90%
P 214.914†              3933.2      2536.5 µg/L         34.00      2536.5 ppb          34.00   1.34%
   QC value within limits for P 214.914  Recovery = 101.46%
Pb 220.353†             3400.3      472.89 µg/L         5.482      472.89 ppb          5.482   1.16%
   QC value within limits for Pb 220.353  Recovery = 94.58%
S 181.975 Axial†        2241.1      2622.8 µg/L         22.79      2622.8 ppb          22.79   0.87%
   QC value within limits for S 181.975 Axial  Recovery = 104.91%
Sb 206.836†             1815.1      490.73 µg/L         2.005      490.73 ppb          2.005   0.41%
   QC value within limits for Sb 206.836  Recovery = 98.15%
Se 196.026†             4713.8      2314.8 µg/L         10.68      2314.8 ppb          10.68   0.46%
   QC value within limits for Se 196.026  Recovery = 92.59%
SiO2†                  62452.1       10487 µg/L         36.95       10487 ppb          36.95   0.35%
   QC value within limits for SiO2  Recovery = 98.05%
Si 251.611†            92696.0      5103.6 µg/L          7.73      5103.6 ppb           7.73   0.15%
   QC value within limits for Si 251.611  Recovery = 102.07%
Sn 189.927†             3897.2      481.34 µg/L         1.222      481.34 ppb          1.222   0.25%
   QC value within limits for Sn 189.927  Recovery = 96.27%
Sr 421.552†            83762.0      483.81 µg/L         4.074      483.81 ppb          4.074   0.84%
   QC value within limits for Sr 421.552  Recovery = 96.76%
Ti 334.940†           113872.0      506.83 µg/L         0.490      506.83 ppb          0.490   0.10%
   QC value within limits for Ti 334.940  Recovery = 101.37%
Tl 190.801†             2126.7      473.66 µg/L         2.082      473.66 ppb          2.082   0.44%
   QC value within limits for Tl 190.801  Recovery = 94.73%
U 367.007†              3929.9       353.9 µg/L         26.53       353.9 ppb          26.53   7.50%
   QC value less than the lower limit for U 367.007  Recovery = 70.78%
V 292.402†             35073.0      503.37 µg/L         1.852      503.37 ppb          1.852   0.37%
   QC value within limits for V 292.402  Recovery = 100.67%
Zn 213.857†            68097.5      490.07 µg/L         1.860      490.07 ppb          1.860   0.38%
   QC value within limits for Zn 213.857  Recovery = 98.01%
QC Failed.  Continue with analysis.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:
Wash Time: 5

Autosampler Location: 105
Date Collected: 7/23/2018 06:17:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Auto Dilution Factor: 1

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	20827.8	20827.8	94.3	%			06:17:37
1	Al 396.153Radial†	1427033.2	1512934.8	486110	µg/L	486110	ppb	06:17:32
1	Ca 317.933Radial†	2144805.3	2273476.3	486880	µg/L	486880	ppb	06:17:32
1	Fe 238.204 Radial†	2286191.6	2423625.5	471720	µg/L	471720	ppb	06:17:32
1	K 766.490 Radial†	227528.8	240788.5	218800	µg/L	218800	ppb	06:17:37
1	Mg 279.077 IEC†	280979.9	297819.2	486710	µg/L	486710	ppb	06:17:37
1	Na 589.592 Radial†	302509.1	320571.4	492340	µg/L	492340	ppb	06:17:32
1	Sr 421.552†	1520190.5	1611339.3	9466.6	µg/L	9466.6	ppb	06:17:32
1	Sc 361.383	317158.6	317158.6	86.607	%			06:18:11
1	Y 371.029	304528.7	304528.7	84.624	%			06:18:11
1	Ag 328.068†	-7256.4	-7694.9	2.4635	µg/L	2.4635	ppb	06:18:11
1	As 188.979†	20059.8	23174.7	10339	µg/L	10339	ppb	06:18:16
1	B 249.677†	1323647.7	1528168.2	52597	µg/L	52597	ppb	06:18:11
1	Ba 233.527†	1481574.1	1710705.7	14387	µg/L	14387	ppb	06:18:11
1	Be 313.107†	-14827.5	-13546.5	3.8972	µg/L	3.8972	ppb	06:18:11
1	Cd 226.502†	769423.3	888732.8	9172.6	µg/L	9172.6	ppb	06:18:11
1	Co 228.616†	350610.0	405052.1	9331.5	µg/L	9331.5	ppb	06:18:11
1	Cr 267.716†	1038226.6	1198659.9	23880	µg/L	23880	ppb	06:18:11
1	Cu 324.752†	2438281.0	2813425.7	20685	µg/L	20685	ppb	06:18:11
1	Mn 257.610†	5093152.3	5880319.4	9264.6	µg/L	9264.6	ppb	06:18:11
1	Mo 202.031†	152800.6	176397.3	10015	µg/L	10015	ppb	06:18:11
1	Ni 231.604†	288800.2	333665.3	9231.8	µg/L	9231.8	ppb	06:18:11
1	P 214.914†	744.7	728.1	-161.89	µg/L	-161.89	ppb	06:18:16
1	Pb 220.353†	161361.1	186378.1	23081	µg/L	23081	ppb	06:18:11
1	S 181.975 Axial†	37138.2	42789.0	52372	µg/L	52372	ppb	06:18:16
1	Sb 206.836†	1393.1	1454.0	-37.124	µg/L	-37.124	ppb	06:18:16
1	Se 196.026†	-469.9	-518.8	-35.414	µg/L	-35.414	ppb	06:18:16
1	SiO2†	553169.5	637648.4	107230	µg/L	107230	ppb	06:18:11
1	Si 251.611†	793836.7	916606.8	50490	µg/L	50490	ppb	06:18:11
1	Sn 189.927†	-281.7	-372.8	-7.3232	µg/L	-7.3232	ppb	06:18:16
1	Ti 334.940†	2043702.2	2360469.5	10059	µg/L	10059	ppb	06:18:11
1	Tl 190.801†	-316.9	-287.6	2.9215	µg/L	2.9215	ppb	06:18:16
1	U 367.007†	38331.6	43375.8	13170	µg/L	13170	ppb	06:18:11
1	V 292.402†	657196.2	758959.4	10129	µg/L	10129	ppb	06:18:11
1	Zn 213.857†	1611677.6	1860015.5	14051	µg/L	14051	ppb	06:18:11
2	Sc RADIAL	20881.2	20881.2	94.6	%			06:17:48
2	Al 396.153Radial†	1452169.3	1535643.4	493420	µg/L	493420	ppb	06:17:43
2	Ca 317.933Radial†	2183953.0	2309054.0	494500	µg/L	494500	ppb	06:17:43
2	Fe 238.204 Radial†	2325772.0	2459277.3	478650	µg/L	478650	ppb	06:17:43
2	K 766.490 Radial†	227988.4	240657.3	218680	µg/L	218680	ppb	06:17:48
2	Mg 279.077 IEC†	280933.0	297007.5	485380	µg/L	485380	ppb	06:17:48
2	Na 589.592 Radial†	307248.6	324762.5	498770	µg/L	498770	ppb	06:17:43
2	Sr 421.552†	1545656.1	1634143.5	9600.6	µg/L	9600.6	ppb	06:17:43
2	Sc 361.383	314755.2	314755.2	85.950	%			06:18:27
2	Y 371.029	302202.5	302202.5	83.977	%			06:18:27
2	Ag 328.068†	-7251.3	-7752.9	2.9190	µg/L	2.9190	ppb	06:18:27
2	As 188.979†	20116.8	23417.9	10447	µg/L	10447	ppb	06:18:32
2	B 249.677†	1317323.9	1532481.1	52767	µg/L	52767	ppb	06:18:27
2	Ba 233.527†	1472919.1	1713698.6	14412	µg/L	14412	ppb	06:18:27
2	Be 313.107†	-14621.5	-13437.6	4.1104	µg/L	4.1104	ppb	06:18:27
2	Cd 226.502†	764128.0	889355.8	9178.3	µg/L	9178.3	ppb	06:18:27
2	Co 228.616†	348619.0	405826.8	9349.3	µg/L	9349.3	ppb	06:18:27
2	Cr 267.716†	1033285.6	1202065.0	23948	µg/L	23948	ppb	06:18:27
2	Cu 324.752†	2425957.6	2820585.6	20738	µg/L	20738	ppb	06:18:27
2	Mn 257.610†	5067255.9	5895095.0	9288.3	µg/L	9288.3	ppb	06:18:27
2	Mo 202.031†	152118.1	176950.5	10046	µg/L	10046	ppb	06:18:27
2	Ni 231.604†	287155.1	334297.5	9249.4	µg/L	9249.4	ppb	06:18:27
2	P 214.914†	786.6	783.5	-130.63	µg/L	-130.63	ppb	06:18:32

2	Pb 220.353†	160410.6	186694.9	23120	µg/L	23120	ppb	06:18:27
2	S 181.975 Axial†	37274.8	43275.4	52966	µg/L	52966	ppb	06:18:32
2	Sb 206.836†	1412.8	1489.1	-29.083	µg/L	-29.083	ppb	06:18:32
2	Se 196.026†	-476.5	-530.6	-37.907	µg/L	-37.907	ppb	06:18:32
2	SiO2†	549928.9	638755.3	107410	µg/L	107410	ppb	06:18:27
2	Si 251.611†	789963.5	919099.5	50626	µg/L	50626	ppb	06:18:27
2	Sn 189.927†	-298.4	-394.7	-9.8736	µg/L	-9.8736	ppb	06:18:32
2	Ti 334.940†	2033503.1	2366622.0	10085	µg/L	10085	ppb	06:18:27
2	Tl 190.801†	-335.4	-312.0	-1.5881	µg/L	-1.5881	ppb	06:18:32
2	U 367.007†	38195.4	43555.4	13200	µg/L	13200	ppb	06:18:27
2	V 292.402†	653794.1	760795.4	10154	µg/L	10154	ppb	06:18:27
2	Zn 213.857†	1601876.1	1862821.6	14071	µg/L	14071	ppb	06:18:27
3	Sc RADIAL	20976.1	20976.1	95.0	%			06:17:59
3	Al 396.153Radial†	1435322.6	1510962.8	485480	µg/L	485480	ppb	06:17:54
3	Ca 317.933Radial†	2151809.0	2264770.2	485010	µg/L	485010	ppb	06:17:54
3	Fe 238.204 Radial†	2291659.0	2412242.3	469500	µg/L	469500	ppb	06:17:54
3	K 766.490 Radial†	229414.1	241067.4	219050	µg/L	219050	ppb	06:17:59
3	Mg 279.077 IEC†	283037.2	297878.4	486800	µg/L	486800	ppb	06:17:59
3	Na 589.592 Radial†	304129.1	320009.0	491470	µg/L	491470	ppb	06:17:54
3	Sr 421.552†	1527483.8	1607620.4	9444.8	µg/L	9444.8	ppb	06:17:54
3	Sc 361.383	314264.3	314264.3	85.816	%			06:18:43
3	Y 371.029	301577.3	301577.3	83.804	%			06:18:43
3	Ag 328.068†	-7265.1	-7782.2	1.2437	µg/L	1.2437	ppb	06:18:43
3	As 188.979†	20025.3	23347.8	10416	µg/L	10416	ppb	06:18:48
3	B 249.677†	1317559.7	1535150.0	52820	µg/L	52820	ppb	06:18:43
3	Ba 233.527†	1471832.8	1715109.8	14425	µg/L	14425	ppb	06:18:43
3	Be 313.107†	-14690.5	-13544.6	3.9188	µg/L	3.9188	ppb	06:18:43
3	Cd 226.502†	763313.4	889795.3	9183.9	µg/L	9183.9	ppb	06:18:43
3	Co 228.616†	348194.0	405965.2	9352.5	µg/L	9352.5	ppb	06:18:43
3	Cr 267.716†	1031791.2	1202201.6	23950	µg/L	23950	ppb	06:18:43
3	Cu 324.752†	2424781.2	2823623.9	20760	µg/L	20760	ppb	06:18:43
3	Mn 257.610†	5062852.1	5899173.0	9294.1	µg/L	9294.1	ppb	06:18:43
3	Mo 202.031†	151888.4	176959.3	10047	µg/L	10047	ppb	06:18:43
3	Ni 231.604†	286962.4	334594.9	9257.4	µg/L	9257.4	ppb	06:18:43
3	P 214.914†	715.0	701.4	-178.93	µg/L	-178.93	ppb	06:18:48
3	Pb 220.353†	160189.7	186729.1	23124	µg/L	23124	ppb	06:18:43
3	S 181.975 Axial†	37049.8	43081.0	52731	µg/L	52731	ppb	06:18:48
3	Sb 206.836†	1380.2	1453.7	-37.994	µg/L	-37.994	ppb	06:18:48
3	Se 196.026†	-440.1	-489.0	-22.334	µg/L	-22.334	ppb	06:18:48
3	SiO2†	549223.0	638932.2	107440	µg/L	107440	ppb	06:18:43
3	Si 251.611†	789273.7	919731.4	50662	µg/L	50662	ppb	06:18:43
3	Sn 189.927†	-218.3	-301.9	1.5870	µg/L	1.5870	ppb	06:18:48
3	Ti 334.940†	2032560.6	2369219.6	10096	µg/L	10096	ppb	06:18:43
3	Tl 190.801†	-336.8	-314.1	-2.8197	µg/L	-2.8197	ppb	06:18:48
3	U 367.007†	38238.2	43674.7	13290	µg/L	13290	ppb	06:18:43
3	V 292.402†	653078.0	761149.2	10157	µg/L	10157	ppb	06:18:43
3	Zn 213.857†	1601364.5	1865136.9	14090	µg/L	14090	ppb	06:18:43

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	315392.7	86.125	%	0.4230				0.49%
Sc RADIAL	20895.0	94.6	%	0.34				0.36%
Y 371.029	302769.5	84.135	%	0.4322				0.51%
Ag 328.068†	-7743.3	2.2087	µg/L	0.86625	2.2087	ppb	0.86625	39.22%
Al 396.153Radial†	1519847.0	488340	µg/L	4410.73	488340	ppb	4410.73	0.90%
QC value within limits for Al 396.153Radial Recovery = 97.67%								
As 188.979†	23313.5	10401	µg/L	55.35	10401	ppb	55.35	0.53%
QC value within limits for As 188.979 Recovery = 104.01%								
B 249.677†	1531933.1	52728	µg/L	116.70	52728	ppb	116.70	0.22%
QC value within limits for B 249.677 Recovery = 105.46%								
Ba 233.527†	1713171.4	14408	µg/L	18.93	14408	ppb	18.93	0.13%
QC value within limits for Ba 233.527 Recovery = 96.05%								
Be 313.107†	-13509.6	3.9754	µg/L	0.11734	3.9754	ppb	0.11734	2.95%
Ca 317.933Radial†	2282433.5	488800	µg/L	5024.40	488800	ppb	5024.40	1.03%
QC value within limits for Ca 317.933Radial Recovery = 97.76%								
Cd 226.502†	889294.6	9178.3	µg/L	5.64	9178.3	ppb	5.64	0.06%
QC value within limits for Cd 226.502 Recovery = 91.78%								
Co 228.616†	405614.7	9344.4	µg/L	11.33	9344.4	ppb	11.33	0.12%
QC value within limits for Co 228.616 Recovery = 93.44%								

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Cr 267.716†          1200975.5       23926 µg/L         39.94       23926 ppb          39.94   0.17%
   QC value within limits for Cr 267.716  Recovery = 95.70%
Cu 324.752†          2819211.7       20728 µg/L         38.46       20728 ppb          38.46   0.19%
   QC value within limits for Cu 324.752  Recovery = 103.64%
Fe 238.204 Radial†   2431715.0      473290 µg/L       4776.03      473290 ppb        4776.03   1.01%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.66%
K 766.490 Radial†     240837.7      218840 µg/L        190.55      218840 ppb         190.55   0.09%
   QC value within limits for K 766.490 Radial  Recovery = 109.42%
Mg 279.077 IEC†       297568.3      486300 µg/L        795.25      486300 ppb         795.25   0.16%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.26%
Mn 257.610†          5891529.1      9282.4 µg/L         15.61      9282.4 ppb          15.61   0.17%
   QC value within limits for Mn 257.610  Recovery = 92.82%
Mo 202.031†           176769.0       10036 µg/L         18.29       10036 ppb          18.29   0.18%
   QC value within limits for Mo 202.031  Recovery = 100.36%
Na 589.592 Radial†    321781.0      494190 µg/L       3987.82      494190 ppb        3987.82   0.81%
   QC value within limits for Na 589.592 Radial  Recovery = 98.84%
Ni 231.604†           334185.9      9246.2 µg/L         13.12      9246.2 ppb          13.12   0.14%
   QC value within limits for Ni 231.604  Recovery = 92.46%
P 214.914†               737.7     -157.15 µg/L        24.498     -157.15 ppb         24.498  15.59%
Pb 220.353†           186600.7       23108 µg/L         24.05       23108 ppb          24.05   0.10%
   QC value within limits for Pb 220.353  Recovery = 92.43%
S 181.975 Axial†       43048.5       52690 µg/L        299.51       52690 ppb         299.51   0.57%
   QC value within limits for S 181.975 Axial  Recovery = 105.38%
Sb 206.836†             1465.6     -34.733 µg/L        4.9131     -34.733 ppb         4.9131  14.15%
Se 196.026†             -512.8     -31.885 µg/L        8.3647     -31.885 ppb         8.3647  26.23%
SiO2†                 638445.3      107360 µg/L        116.63      107360 ppb         116.63   0.11%
   QC value within limits for SiO2  Recovery = 100.81%
Si 251.611†           918479.2       50593 µg/L         91.03       50593 ppb          91.03   0.18%
   QC value within limits for Si 251.611  Recovery = 101.19%
Sn 189.927†             -356.5     -5.2033 µg/L       6.01724     -5.2033 ppb        6.01724 115.64%
Sr 421.552†          1617701.0      9504.0 µg/L         84.36      9504.0 ppb          84.36   0.89%
   QC value within limits for Sr 421.552  Recovery = 95.04%
Ti 334.940†          2365437.0       10080 µg/L         19.11       10080 ppb          19.11   0.19%
   QC value within limits for Ti 334.940  Recovery = 100.80%
Tl 190.801†             -304.6     -0.4954 µg/L       3.02256     -0.4954 ppb        3.02256 610.11%
U 367.007†             43535.3       13220 µg/L         59.15       13220 ppb          59.15   0.45%
   QC value less than the lower limit for U 367.007  Recovery = 88.14%
V 292.402†            760301.4       10147 µg/L         15.75       10147 ppb          15.75   0.16%
   QC value within limits for V 292.402  Recovery = 101.47%
Zn 213.857†          1862658.0       14071 µg/L         19.54       14071 ppb          19.54   0.14%
   QC value within limits for Zn 213.857  Recovery = 93.80%
QC Failed.  Continue with analysis.
```

User canceled analysis.

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Analysis Begun

Start Time: 7/23/2018 06:22:59 **Plasma On Time: 7/23/2018 04:11:23**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer: Optima 5300 DV, S/N 077C7090601 **Autosampler: ESI**

Sample Information File: C:\Users\Public\PerkinElmer\ICP\Data\Sample Information\072318.sif
Batch ID:
Results Data Set: 072318
Results Library: C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb

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Sequence No.: 12 **Autosampler Location: 108**
Sample ID: LR2 **Date Collected: 7/23/2018 06:23:00**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	21540.0	21540.0	97.6	%			06:23:52
1	Al 396.153Radial†	-78.8	13.2	4.2624	µg/L	4.2624	ppb	06:23:52
1	Ca 317.933Radial†	99.6	-194.2	-41.592	µg/L	-41.592	ppb	06:23:52
1	Fe 238.204 Radial†	48.9	15.1	2.9378	µg/L	2.9378	ppb	06:23:52
1	K 766.490 Radial†	488.0	78.6	71.411	µg/L	71.411	ppb	06:23:32
1	Mg 279.077 IEC†	27.8	-27.6	-45.030	µg/L	-45.030	ppb	06:23:52
1	Na 589.592 Radial†	98.5	-26.6	-40.886	µg/L	-40.886	ppb	06:23:52
1	Sr 421.552†	351.9	100.2	0.5898	µg/L	0.5898	ppb	06:23:32
1	Sc 361.383	346721.9	346721.9	94.680	%			06:24:49
1	Y 371.029	342252.1	342252.1	95.106	%			06:24:49
1	Ag 328.068†	-300.6	366.1	-1.8229	µg/L	-1.8229	ppb	06:24:49
1	As 188.979†	-15.0	-3.1	-1.3243	µg/L	-1.3243	ppb	06:25:09
1	B 249.677†	645.9	509.0	16.923	µg/L	16.923	ppb	06:25:09
1	Ba 233.527†	-133.2	-125.2	-1.0535	µg/L	-1.0535	ppb	06:25:09
1	Be 313.107†	-6518.3	-3310.7	-0.3919	µg/L	-0.3919	ppb	06:24:49
1	Cd 226.502†	-308.0	-2.3	-0.0245	µg/L	-0.0245	ppb	06:25:09
1	Co 228.616†	-134.1	80.7	1.8476	µg/L	1.8476	ppb	06:25:09
1	Cr 267.716†	422.8	324.6	-1.1202	µg/L	-1.1202	ppb	06:25:09
1	Cu 324.752†	1363.1	-480.4	2.3635	µg/L	2.3635	ppb	06:24:49
1	Mn 257.610†	945.0	541.2	0.8503	µg/L	0.8503	ppb	06:25:09
1	Mo 202.031†	27.9	-3.5	-0.1963	µg/L	-0.1963	ppb	06:25:09
1	Ni 231.604†	-208.3	-16.0	-0.4441	µg/L	-0.4441	ppb	06:25:09
1	P 214.914†	143.9	20.2	13.508	µg/L	13.508	ppb	06:25:09
1	Pb 220.353†	23.7	88.5	3.6057	µg/L	3.6057	ppb	06:25:09
1	S 181.975 Axial†	97.7	10.9	13.388	µg/L	13.388	ppb	06:25:09
1	Sb 206.836†	135.3	-11.7	-3.5049	µg/L	-3.5049	ppb	06:25:09
1	Se 196.026†	-43.2	-21.8	-10.314	µg/L	-10.314	ppb	06:25:09
1	SiO2†	1192.4	194.2	32.843	µg/L	32.843	ppb	06:25:09
1	Si 251.611†	-19.0	-11.9	-0.6535	µg/L	-0.6535	ppb	06:25:09
1	Sn 189.927†	47.7	2.9	0.3784	µg/L	0.3784	ppb	06:25:09
1	Ti 334.940†	484.4	1233.2	0.8228	µg/L	0.8228	ppb	06:24:49
1	Tl 190.801†	-103.5	-31.0	-2.8289	µg/L	-2.8289	ppb	06:25:09
1	U 367.007†	26580.4	27190.5	9564	µg/L	9564	ppb	06:24:49
1	V 292.402†	-480.2	-375.3	0.6942	µg/L	0.6942	ppb	06:24:49
1	Zn 213.857†	986.1	143.6	1.1036	µg/L	1.1036	ppb	06:25:09
2	Sc RADIAL	21395.8	21395.8	96.9	%			06:24:18
2	Al 396.153Radial†	-69.0	22.7	7.3028	µg/L	7.3028	ppb	06:24:18
2	Ca 317.933Radial†	87.9	-205.6	-44.034	µg/L	-44.034	ppb	06:24:18
2	Fe 238.204 Radial†	57.0	23.8	4.6279	µg/L	4.6279	ppb	06:24:18
2	K 766.490 Radial†	542.4	138.1	125.46	µg/L	125.46	ppb	06:23:57
2	Mg 279.077 IEC†	34.2	-20.7	-33.894	µg/L	-33.894	ppb	06:24:18
2	Na 589.592 Radial†	74.5	-50.7	-78.005	µg/L	-78.005	ppb	06:24:18
2	Sr 421.552†	313.6	63.1	0.3719	µg/L	0.3719	ppb	06:23:57
2	Sc 361.383	347481.6	347481.6	94.887	%			06:25:14
2	Y 371.029	342976.0	342976.0	95.308	%			06:25:14

2	Ag 328.068†	-245.4	425.1	-1.2427	µg/L	-1.2427	ppb	06:25:14
2	As 188.979†	-21.7	-10.1	-4.4177	µg/L	-4.4177	ppb	06:25:34
2	B 249.677†	606.9	466.4	15.514	µg/L	15.514	ppb	06:25:34
2	Ba 233.527†	-138.0	-129.9	-1.0935	µg/L	-1.0935	ppb	06:25:34
2	Be 313.107†	-6596.7	-3378.2	-0.4408	µg/L	-0.4408	ppb	06:25:14
2	Cd 226.502†	-283.4	24.4	0.2515	µg/L	0.2515	ppb	06:25:34
2	Co 228.616†	-133.5	81.7	1.8695	µg/L	1.8695	ppb	06:25:34
2	Cr 267.716†	412.3	312.6	-1.3833	µg/L	-1.3833	ppb	06:25:34
2	Cu 324.752†	1375.9	-470.0	2.4580	µg/L	2.4580	ppb	06:25:14
2	Mn 257.610†	920.2	512.9	0.8059	µg/L	0.8059	ppb	06:25:34
2	Mo 202.031†	32.8	1.6	0.0928	µg/L	0.0928	ppb	06:25:34
2	Ni 231.604†	-225.6	-33.8	-0.9357	µg/L	-0.9357	ppb	06:25:34
2	P 214.914†	150.7	27.1	18.086	µg/L	18.086	ppb	06:25:34
2	Pb 220.353†	21.8	86.5	3.3278	µg/L	3.3278	ppb	06:25:34
2	S 181.975 Axial†	94.1	6.8	8.3712	µg/L	8.3712	ppb	06:25:34
2	Sb 206.836†	124.3	-23.6	-6.8910	µg/L	-6.8910	ppb	06:25:34
2	Se 196.026†	-36.9	-15.1	-7.1459	µg/L	-7.1459	ppb	06:25:34
2	SiO2†	1200.5	199.9	33.794	µg/L	33.794	ppb	06:25:34
2	Si 251.611†	-15.4	-8.0	-0.4431	µg/L	-0.4431	ppb	06:25:34
2	Sn 189.927†	50.9	6.1	0.7841	µg/L	0.7841	ppb	06:25:34
2	Ti 334.940†	577.3	1329.9	1.2210	µg/L	1.2210	ppb	06:25:14
2	Tl 190.801†	-107.0	-34.5	-3.5602	µg/L	-3.5602	ppb	06:25:34
2	U 367.007†	26719.0	27275.2	9593	µg/L	9593	ppb	06:25:14
2	V 292.402†	-464.7	-357.8	0.9423	µg/L	0.9423	ppb	06:25:14
2	Zn 213.857†	1014.0	170.8	1.3135	µg/L	1.3135	ppb	06:25:34
3	Sc RADIAL	21318.5	21318.5	96.6	%			06:24:43
3	Al 396.153Radial†	-70.2	21.3	6.8605	µg/L	6.8605	ppb	06:24:43
3	Ca 317.933Radial†	117.2	-174.9	-37.459	µg/L	-37.459	ppb	06:24:43
3	Fe 238.204 Radial†	60.1	27.2	5.2915	µg/L	5.2915	ppb	06:24:43
3	K 766.490 Radial†	579.9	178.9	162.59	µg/L	162.59	ppb	06:24:23
3	Mg 279.077 IEC†	28.1	-27.0	-44.120	µg/L	-44.120	ppb	06:24:43
3	Na 589.592 Radial†	95.7	-28.5	-43.763	µg/L	-43.763	ppb	06:24:43
3	Sr 421.552†	325.4	76.5	0.4504	µg/L	0.4504	ppb	06:24:23
3	Sc 361.383	348248.7	348248.7	95.097	%			06:25:40
3	Y 371.029	343936.9	343936.9	95.575	%			06:25:40
3	Ag 328.068†	-279.0	390.3	-1.6392	µg/L	-1.6392	ppb	06:25:40
3	As 188.979†	-18.3	-6.5	-2.8255	µg/L	-2.8255	ppb	06:26:00
3	B 249.677†	520.4	374.1	12.448	µg/L	12.448	ppb	06:26:00
3	Ba 233.527†	-119.0	-109.6	-0.9230	µg/L	-0.9230	ppb	06:26:00
3	Be 313.107†	-6530.3	-3293.1	-0.3518	µg/L	-0.3518	ppb	06:25:40
3	Cd 226.502†	-311.7	-4.7	-0.0503	µg/L	-0.0503	ppb	06:26:00
3	Co 228.616†	-146.5	68.4	1.5614	µg/L	1.5614	ppb	06:26:00
3	Cr 267.716†	411.4	310.7	-1.4796	µg/L	-1.4796	ppb	06:26:00
3	Cu 324.752†	1345.5	-505.2	2.2455	µg/L	2.2455	ppb	06:25:40
3	Mn 257.610†	981.8	575.6	0.9044	µg/L	0.9044	ppb	06:26:00
3	Mo 202.031†	25.4	-6.3	-0.3567	µg/L	-0.3567	ppb	06:26:00
3	Ni 231.604†	-198.4	-4.7	-0.1314	µg/L	-0.1314	ppb	06:26:00
3	P 214.914†	138.5	14.0	9.3486	µg/L	9.3486	ppb	06:26:00
3	Pb 220.353†	13.1	77.3	2.1330	µg/L	2.1330	ppb	06:26:00
3	S 181.975 Axial†	99.7	12.5	15.337	µg/L	15.337	ppb	06:26:00
3	Sb 206.836†	127.9	-20.1	-5.8945	µg/L	-5.8945	ppb	06:26:00
3	Se 196.026†	-19.9	2.8	1.3352	µg/L	1.3352	ppb	06:26:00
3	SiO2†	1195.0	191.3	32.368	µg/L	32.368	ppb	06:26:00
3	Si 251.611†	0.9	9.2	0.5136	µg/L	0.5136	ppb	06:26:00
3	Sn 189.927†	43.0	-2.3	-0.2596	µg/L	-0.2596	ppb	06:26:00
3	Ti 334.940†	547.3	1297.1	1.0472	µg/L	1.0472	ppb	06:25:40
3	Tl 190.801†	-104.0	-31.1	-2.8011	µg/L	-2.8011	ppb	06:26:00
3	U 367.007†	26977.3	27484.9	9667	µg/L	9667	ppb	06:25:40
3	V 292.402†	-529.5	-425.0	0.1051	µg/L	0.1051	ppb	06:25:40
3	Zn 213.857†	989.4	142.6	1.0940	µg/L	1.0940	ppb	06:26:00

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	347484.0	94.888	%	0.2085				0.22%
Sc RADIAL	21418.1	97.0	%	0.51				0.53%
Y 371.029	343055.0	95.330	%	0.2349				0.25%
Ag 328.068†	393.8	-1.5683	µg/L	0.29653	-1.5683	ppb	0.29653	18.91%
Al 396.153Radial†	19.1	6.1419	µg/L	1.64264	6.1419	ppb	1.64264	26.74%
As 188.979†	-6.5	-2.8558	µg/L	1.54692	-2.8558	ppb	1.54692	54.17%

B 249.677†	449.8	14.962	µg/L	2.2878	14.962	ppb	2.2878	15.29%
Ba 233.527†	-121.6	-1.0233	µg/L	0.08918	-1.0233	ppb	0.08918	8.72%
Be 313.107†	-3327.3	-0.3949	µg/L	0.04459	-0.3949	ppb	0.04459	11.29%
Ca 317.933Radial†	-191.6	-41.028	µg/L	3.3238	-41.028	ppb	3.3238	8.10%
Cd 226.502†	5.8	0.0589	µg/L	0.16729	0.0589	ppb	0.16729	284.00%
Co 228.616†	76.9	1.7595	µg/L	0.17192	1.7595	ppb	0.17192	9.77%
Cr 267.716†	316.0	-1.3277	µg/L	0.18608	-1.3277	ppb	0.18608	14.02%
Cu 324.752†	-485.2	2.3557	µg/L	0.10642	2.3557	ppb	0.10642	4.52%
Fe 238.204 Radial†	22.0	4.2857	µg/L	1.21358	4.2857	ppb	1.21358	28.32%
K 766.490 Radial†	131.9	119.82	µg/L	45.853	119.82	ppb	45.853	38.27%
Mg 279.077 IEC†	-25.1	-41.014	µg/L	6.1836	-41.014	ppb	6.1836	15.08%
Mn 257.610†	543.2	0.8535	µg/L	0.04936	0.8535	ppb	0.04936	5.78%
Mo 202.031†	-2.7	-0.1534	µg/L	0.22778	-0.1534	ppb	0.22778	148.48%
Na 589.592 Radial†	-35.3	-54.218	µg/L	20.6503	-54.218	ppb	20.6503	38.09%
Ni 231.604†	-18.2	-0.5038	µg/L	0.40545	-0.5038	ppb	0.40545	80.49%
P 214.914†	20.4	13.648	µg/L	4.3704	13.648	ppb	4.3704	32.02%
Pb 220.353†	84.1	3.0222	µg/L	0.78248	3.0222	ppb	0.78248	25.89%
S 181.975 Axial†	10.1	12.365	µg/L	3.5937	12.365	ppb	3.5937	29.06%
Sb 206.836†	-18.5	-5.4302	µg/L	1.74015	-5.4302	ppb	1.74015	32.05%
Se 196.026†	-11.4	-5.3747	µg/L	6.02294	-5.3747	ppb	6.02294	112.06%
SiO2†	195.1	33.002	µg/L	0.7264	33.002	ppb	0.7264	2.20%
Si 251.611†	-3.6	-0.1943	µg/L	0.62204	-0.1943	ppb	0.62204	320.07%
Sn 189.927†	2.3	0.3010	µg/L	0.52614	0.3010	ppb	0.52614	174.82%
Sr 421.552†	79.9	0.4707	µg/L	0.11038	0.4707	ppb	0.11038	23.45%
Ti 334.940†	1286.7	1.0303	µg/L	0.19964	1.0303	ppb	0.19964	19.38%
Tl 190.801†	-32.2	-3.0634	µg/L	0.43045	-3.0634	ppb	0.43045	14.05%
U 367.007†	27316.9	9608	µg/L	53.29	9608	ppb	53.29	0.55%
QC value within limits for U 367.007 Recovery = 96.08%								
V 292.402†	-386.0	0.5805	µg/L	0.42998	0.5805	ppb	0.42998	74.07%
Zn 213.857†	152.4	1.1704	µg/L	0.12402	1.1704	ppb	0.12402	10.60%

All analyte(s) passed QC.

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Sequence No.: 13 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 7/23/2018 06:26:08**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	21630.0	21630.0	98.0	%			06:26:46
1	Al 396.153Radial†	16460.3	16896.8	5410.6	µg/L	5410.6	ppb	06:26:46
1	Ca 317.933Radial†	25066.2	25291.5	5416.3	µg/L	5416.3	ppb	06:26:46
1	Fe 238.204 Radial†	26859.0	27382.9	5329.6	µg/L	5329.6	ppb	06:26:46
1	K 766.490 Radial†	6084.0	5788.9	5260.4	µg/L	5260.4	ppb	06:26:46
1	Mg 279.077 IEC†	3320.8	3333.9	5448.3	µg/L	5448.3	ppb	06:26:46
1	Na 589.592 Radial†	6883.5	6899.1	10602	µg/L	10602	ppb	06:26:46
1	Sr 421.552†	86031.5	87561.4	514.80	µg/L	514.80	ppb	06:26:41
1	Sc 361.383	352517.7	352517.7	96.262	%			06:27:13
1	Y 371.029	343012.7	343012.7	95.318	%			06:27:13
1	Ag 328.068†	48327.0	50887.1	516.75	µg/L	516.75	ppb	06:27:13
1	As 188.979†	1114.5	1170.6	519.24	µg/L	519.24	ppb	06:27:34
1	B 249.677†	15571.7	16003.1	550.68	µg/L	550.68	ppb	06:27:13
1	Ba 233.527†	59465.6	61790.0	519.96	µg/L	519.96	ppb	06:27:13
1	Be 313.107†	596898.2	623648.4	518.48	µg/L	518.48	ppb	06:27:13
1	Cd 226.502†	47894.3	50077.0	519.17	µg/L	519.17	ppb	06:27:13
1	Co 228.616†	21246.3	22293.7	513.74	µg/L	513.74	ppb	06:27:34
1	Cr 267.716†	24738.4	25577.0	509.16	µg/L	509.16	ppb	06:27:34
1	Cu 324.752†	69738.3	70526.0	518.07	µg/L	518.07	ppb	06:27:13
1	Mn 257.610†	319396.3	331340.9	520.72	µg/L	520.72	ppb	06:27:13
1	Mo 202.031†	8670.4	8974.1	509.15	µg/L	509.15	ppb	06:27:34
1	Ni 231.604†	17886.0	18784.4	519.31	µg/L	519.31	ppb	06:27:34
1	P 214.914†	3778.4	3793.4	2510.3	µg/L	2510.3	ppb	06:27:34
1	Pb 220.353†	3958.5	4175.8	516.55	µg/L	516.55	ppb	06:27:34
1	S 181.975 Axial†	891.5	833.8	1021.8	µg/L	1021.8	ppb	06:27:34
1	Sb 206.836†	1859.4	1777.0	505.42	µg/L	505.42	ppb	06:27:34
1	Se 196.026†	1031.7	1095.5	520.15	µg/L	520.15	ppb	06:27:34
1	SiO2†	32576.0	32775.6	5514.5	µg/L	5514.5	ppb	06:27:13
1	Si 251.611†	44917.6	46669.9	2572.1	µg/L	2572.1	ppb	06:27:13
1	Sn 189.927†	3987.8	4095.1	510.63	µg/L	510.63	ppb	06:27:34
1	Ti 334.940†	115592.7	120802.5	514.26	µg/L	514.26	ppb	06:27:13
1	Tl 190.801†	2232.3	2397.3	514.29	µg/L	514.29	ppb	06:27:34
1	U 367.007†	2304.4	1510.4	507.8	µg/L	507.8	ppb	06:27:13
1	V 292.402†	37742.1	39339.4	519.95	µg/L	519.95	ppb	06:27:13
1	Zn 213.857†	66367.4	68046.4	514.78	µg/L	514.78	ppb	06:27:13
2	Sc RADIAL	21567.4	21567.4	97.7	%			06:26:56
2	Al 396.153Radial†	16357.2	16840.1	5392.3	µg/L	5392.3	ppb	06:26:56
2	Ca 317.933Radial†	24942.2	25238.9	5405.1	µg/L	5405.1	ppb	06:26:56
2	Fe 238.204 Radial†	26703.3	27303.1	5314.1	µg/L	5314.1	ppb	06:26:56
2	K 766.490 Radial†	5969.9	5690.1	5170.7	µg/L	5170.7	ppb	06:26:56
2	Mg 279.077 IEC†	3287.2	3309.3	5408.1	µg/L	5408.1	ppb	06:26:56
2	Na 589.592 Radial†	6805.3	6839.5	10510	µg/L	10510	ppb	06:26:56
2	Sr 421.552†	86064.2	87849.9	516.49	µg/L	516.49	ppb	06:26:51
2	Sc 361.383	350868.8	350868.8	95.812	%			06:27:40
2	Y 371.029	341468.9	341468.9	94.889	%			06:27:40
2	Ag 328.068†	47993.1	50774.5	515.59	µg/L	515.59	ppb	06:27:40
2	As 188.979†	1124.1	1186.0	526.01	µg/L	526.01	ppb	06:28:00
2	B 249.677†	15465.3	15968.1	549.45	µg/L	549.45	ppb	06:27:40
2	Ba 233.527†	58790.2	61375.4	516.47	µg/L	516.47	ppb	06:27:40
2	Be 313.107†	591520.6	620949.8	516.24	µg/L	516.24	ppb	06:27:40
2	Cd 226.502†	47422.0	49817.9	516.49	µg/L	516.49	ppb	06:27:40
2	Co 228.616†	21172.3	22320.1	514.35	µg/L	514.35	ppb	06:28:00
2	Cr 267.716†	24608.8	25562.5	508.85	µg/L	508.85	ppb	06:28:00
2	Cu 324.752†	69066.5	70165.2	515.43	µg/L	515.43	ppb	06:27:40
2	Mn 257.610†	316303.8	329672.6	518.10	µg/L	518.10	ppb	06:27:40
2	Mo 202.031†	8646.4	8991.3	510.13	µg/L	510.13	ppb	06:28:00
2	Ni 231.604†	17850.5	18834.7	520.70	µg/L	520.70	ppb	06:28:00
2	P 214.914†	3783.4	3817.1	2526.1	µg/L	2526.1	ppb	06:28:00

2	Pb 220.353†	3936.9	4172.5	516.12 µg/L	516.12 ppb	06:28:00
2	S 181.975 Axial†	885.7	832.0	1019.7 µg/L	1019.7 ppb	06:28:00
2	Sb 206.836†	1857.1	1783.6	507.33 µg/L	507.33 ppb	06:28:00
2	Se 196.026†	1038.2	1107.4	525.76 µg/L	525.76 ppb	06:28:00
2	SiO2†	32257.7	32602.4	5485.2 µg/L	5485.2 ppb	06:27:40
2	Si 251.611†	44516.6	46470.6	2561.1 µg/L	2561.1 ppb	06:27:40
2	Sn 189.927†	3978.1	4104.5	511.78 µg/L	511.78 ppb	06:28:00
2	Ti 334.940†	114269.8	119986.1	510.77 µg/L	510.77 ppb	06:27:40
2	Tl 190.801†	2213.7	2388.8	512.48 µg/L	512.48 ppb	06:28:00
2	U 367.007†	2355.3	1574.8	530.4 µg/L	530.4 ppb	06:27:40
2	V 292.402†	37371.0	39136.3	517.32 µg/L	517.32 ppb	06:27:40
2	Zn 213.857†	65902.0	67884.7	513.54 µg/L	513.54 ppb	06:27:40
3	Sc RADIAL	21523.5	21523.5	97.5 %		06:27:06
3	Al 396.153Radial†	16306.9	16822.6	5386.6 µg/L	5386.6 ppb	06:27:06
3	Ca 317.933Radial†	24853.1	25199.5	5396.6 µg/L	5396.6 ppb	06:27:06
3	Fe 238.204 Radial†	26633.9	27287.6	5311.0 µg/L	5311.0 ppb	06:27:06
3	K 766.490 Radial†	5970.8	5703.6	5182.9 µg/L	5182.9 ppb	06:27:06
3	Mg 279.077 IEC†	3308.9	3338.4	5455.7 µg/L	5455.7 ppb	06:27:06
3	Na 589.592 Radial†	6791.4	6839.4	10510 µg/L	10510 ppb	06:27:06
3	Sr 421.552†	86186.3	88154.8	518.29 µg/L	518.29 ppb	06:27:01
3	Sc 361.383	352621.2	352621.2	96.291 %		06:28:06
3	Y 371.029	343176.6	343176.6	95.363 %		06:28:06
3	Ag 328.068†	48326.2	50871.5	516.59 µg/L	516.59 ppb	06:28:06
3	As 188.979†	1123.2	1179.3	523.06 µg/L	523.06 ppb	06:28:26
3	B 249.677†	15557.2	15983.3	549.95 µg/L	549.95 ppb	06:28:06
3	Ba 233.527†	59164.3	61459.0	517.17 µg/L	517.17 ppb	06:28:06
3	Be 313.107†	595861.2	622389.4	517.43 µg/L	517.43 ppb	06:28:06
3	Cd 226.502†	47746.4	49908.8	517.43 µg/L	517.43 ppb	06:28:06
3	Co 228.616†	21250.1	22291.2	513.68 µg/L	513.68 ppb	06:28:26
3	Cr 267.716†	24704.3	25534.1	508.31 µg/L	508.31 ppb	06:28:26
3	Cu 324.752†	69409.3	70163.0	515.40 µg/L	515.40 ppb	06:28:06
3	Mn 257.610†	318326.2	330132.2	518.82 µg/L	518.82 ppb	06:28:06
3	Mo 202.031†	8688.5	8990.3	510.07 µg/L	510.07 ppb	06:28:26
3	Ni 231.604†	17870.9	18763.3	518.73 µg/L	518.73 ppb	06:28:26
3	P 214.914†	3772.0	3785.6	2505.2 µg/L	2505.2 ppb	06:28:26
3	Pb 220.353†	3930.0	4144.9	512.74 µg/L	512.74 ppb	06:28:26
3	S 181.975 Axial†	887.2	829.1	1016.0 µg/L	1016.0 ppb	06:28:26
3	Sb 206.836†	1845.9	1762.4	501.26 µg/L	501.26 ppb	06:28:26
3	Se 196.026†	1034.1	1097.7	521.19 µg/L	521.19 ppb	06:28:26
3	SiO2†	32495.7	32682.3	5498.7 µg/L	5498.7 ppb	06:28:06
3	Si 251.611†	44801.7	46535.8	2564.7 µg/L	2564.7 ppb	06:28:06
3	Sn 189.927†	4000.3	4106.8	512.08 µg/L	512.08 ppb	06:28:26
3	Ti 334.940†	115325.2	120489.4	512.93 µg/L	512.93 ppb	06:28:06
3	Tl 190.801†	2240.4	2405.0	515.93 µg/L	515.93 ppb	06:28:26
3	U 367.007†	2281.3	1485.7	499.1 µg/L	499.1 ppb	06:28:06
3	V 292.402†	37653.8	39236.2	518.60 µg/L	518.60 ppb	06:28:06
3	Zn 213.857†	66103.9	67752.6	512.55 µg/L	512.55 ppb	06:28:06

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	352002.6	96.122	%	0.2685				0.28%
Sc RADIAL	21573.6	97.7	%	0.24				0.25%
Y 371.029	342552.7	95.190	%	0.2618				0.28%
Ag 328.068†	50844.4	516.31	µg/L	0.629	516.31	ppb	0.629	0.12%
QC value within limits for Ag 328.068 Recovery = 103.26%								
Al 396.153Radial†	16853.2	5396.5	µg/L	12.51	5396.5	ppb	12.51	0.23%
QC value within limits for Al 396.153Radial Recovery = 107.93%								
As 188.979†	1178.6	522.77	µg/L	3.396	522.77	ppb	3.396	0.65%
QC value within limits for As 188.979 Recovery = 104.55%								
B 249.677†	15984.8	550.03	µg/L	0.617	550.03	ppb	0.617	0.11%
QC value greater than the upper limit for B 249.677 Recovery = 110.01%								
Ba 233.527†	61541.5	517.86	µg/L	1.845	517.86	ppb	1.845	0.36%
QC value within limits for Ba 233.527 Recovery = 103.57%								
Be 313.107†	622329.2	517.38	µg/L	1.119	517.38	ppb	1.119	0.22%
QC value within limits for Be 313.107 Recovery = 103.48%								
Ca 317.933Radial†	25243.3	5406.0	µg/L	9.88	5406.0	ppb	9.88	0.18%
QC value within limits for Ca 317.933Radial Recovery = 108.12%								
Cd 226.502†	49934.6	517.70	µg/L	1.363	517.70	ppb	1.363	0.26%
QC value within limits for Cd 226.502 Recovery = 103.54%								

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Co 228.616†            22301.7      513.92 µg/L         0.372      513.92 ppb          0.372   0.07%
   QC value within limits for Co 228.616  Recovery = 102.78%
Cr 267.716†            25557.8      508.78 µg/L         0.429      508.78 ppb          0.429   0.08%
   QC value within limits for Cr 267.716  Recovery = 101.76%
Cu 324.752†            70284.8      516.30 µg/L         1.532      516.30 ppb          1.532   0.30%
   QC value within limits for Cu 324.752  Recovery = 103.26%
Fe 238.204 Radial†     27324.5      5318.2 µg/L          9.95      5318.2 ppb           9.95   0.19%
   QC value within limits for Fe 238.204 Radial  Recovery = 106.36%
K 766.490 Radial†       5727.5      5204.7 µg/L         48.68      5204.7 ppb          48.68   0.94%
   QC value within limits for K 766.490 Radial  Recovery = 104.09%
Mg 279.077 IEC†         3327.2      5437.4 µg/L         25.59      5437.4 ppb          25.59   0.47%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.75%
Mn 257.610†           330381.9      519.21 µg/L         1.354      519.21 ppb          1.354   0.26%
   QC value within limits for Mn 257.610  Recovery = 103.84%
Mo 202.031†             8985.2      509.78 µg/L         0.546      509.78 ppb          0.546   0.11%
   QC value within limits for Mo 202.031  Recovery = 101.96%
Na 589.592 Radial†      6859.4       10541 µg/L         52.95       10541 ppb          52.95   0.50%
   QC value within limits for Na 589.592 Radial  Recovery = 105.41%
Ni 231.604†            18794.1      519.58 µg/L         1.014      519.58 ppb          1.014   0.20%
   QC value within limits for Ni 231.604  Recovery = 103.92%
P 214.914†              3798.7      2513.9 µg/L         10.91      2513.9 ppb          10.91   0.43%
   QC value within limits for P 214.914  Recovery = 100.55%
Pb 220.353†             4164.4      515.14 µg/L         2.085      515.14 ppb          2.085   0.40%
   QC value within limits for Pb 220.353  Recovery = 103.03%
S 181.975 Axial†         831.6      1019.1 µg/L          2.91      1019.1 ppb           2.91   0.29%
   QC value within limits for S 181.975 Axial  Recovery = 101.91%
Sb 206.836†             1774.3      504.67 µg/L         3.104      504.67 ppb          3.104   0.61%
   QC value within limits for Sb 206.836  Recovery = 100.93%
Se 196.026†             1100.2      522.37 µg/L         2.984      522.37 ppb          2.984   0.57%
   QC value within limits for Se 196.026  Recovery = 104.47%
SiO2†                  32686.8      5499.4 µg/L         14.68      5499.4 ppb          14.68   0.27%
   QC value within limits for SiO2  Recovery = 102.84%
Si 251.611†            46558.8      2566.0 µg/L          5.63      2566.0 ppb           5.63   0.22%
   QC value within limits for Si 251.611  Recovery = 102.64%
Sn 189.927†             4102.1      511.50 µg/L         0.769      511.50 ppb          0.769   0.15%
   QC value within limits for Sn 189.927  Recovery = 102.30%
Sr 421.552†            87855.3      516.52 µg/L         1.745      516.52 ppb          1.745   0.34%
   QC value within limits for Sr 421.552  Recovery = 103.30%
Ti 334.940†           120426.0      512.66 µg/L         1.760      512.66 ppb          1.760   0.34%
   QC value within limits for Ti 334.940  Recovery = 102.53%
Tl 190.801†             2397.0      514.24 µg/L         1.726      514.24 ppb          1.726   0.34%
   QC value within limits for Tl 190.801  Recovery = 102.85%
U 367.007†              1523.6       512.4 µg/L         16.18       512.4 ppb          16.18   3.16%
   QC value within limits for U 367.007  Recovery = 102.49%
V 292.402†             39237.3      518.63 µg/L         1.315      518.63 ppb          1.315   0.25%
   QC value within limits for V 292.402  Recovery = 103.73%
Zn 213.857†            67894.6      513.62 µg/L         1.118      513.62 ppb          1.118   0.22%
   QC value within limits for Zn 213.857  Recovery = 102.72%
QC Failed.  Continue with analysis.
```

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Sequence No.: 14 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 7/23/2018 06:28:34**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	21353.4	21353.4	96.7	%			06:29:25
1	Al 396.153Radial†	-98.4	-7.8	-2.5407	µg/L	-2.5407	ppb	06:29:25
1	Ca 317.933Radial†	363.5	79.5	17.029	µg/L	17.029	ppb	06:29:25
1	Fe 238.204 Radial†	58.3	25.2	4.9125	µg/L	4.9125	ppb	06:29:25
1	K 766.490 Radial†	379.2	-29.5	-26.818	µg/L	-26.818	ppb	06:29:05
1	Mg 279.077 IEC†	68.9	15.2	24.858	µg/L	24.858	ppb	06:29:25
1	Na 589.592 Radial†	98.4	-25.8	-39.649	µg/L	-39.649	ppb	06:29:25
1	Sr 421.552†	158.2	-96.9	-0.5703	µg/L	-0.5703	ppb	06:29:05
1	Sc 361.383	348845.7	348845.7	95.260	%			06:30:21
1	Y 371.029	343089.9	343089.9	95.339	%			06:30:21
1	Ag 328.068†	-594.3	59.8	0.5913	µg/L	0.5913	ppb	06:30:21
1	As 188.979†	-22.3	-10.6	-4.6345	µg/L	-4.6345	ppb	06:30:41
1	B 249.677†	467.7	317.8	10.581	µg/L	10.581	ppb	06:30:41
1	Ba 233.527†	-17.0	-2.3	-0.0199	µg/L	-0.0199	ppb	06:30:41
1	Be 313.107†	-3517.7	-118.8	-0.0924	µg/L	-0.0924	ppb	06:30:21
1	Cd 226.502†	-306.9	0.9	0.0081	µg/L	0.0081	ppb	06:30:41
1	Co 228.616†	-206.7	5.5	0.1273	µg/L	0.1273	ppb	06:30:41
1	Cr 267.716†	131.3	15.9	0.2986	µg/L	0.2986	ppb	06:30:41
1	Cu 324.752†	2028.3	209.1	1.5497	µg/L	1.5497	ppb	06:30:21
1	Mn 257.610†	442.6	7.7	0.0124	µg/L	0.0124	ppb	06:30:41
1	Mo 202.031†	48.1	17.5	0.9946	µg/L	0.9946	ppb	06:30:41
1	Ni 231.604†	-235.7	-43.4	-1.2013	µg/L	-1.2013	ppb	06:30:41
1	P 214.914†	116.1	-9.9	-6.5883	µg/L	-6.5883	ppb	06:30:41
1	Pb 220.353†	-60.2	0.3	0.0155	µg/L	0.0155	ppb	06:30:41
1	S 181.975 Axial†	86.7	-1.3	-1.6184	µg/L	-1.6184	ppb	06:30:41
1	Sb 206.836†	159.3	12.7	3.6336	µg/L	3.6336	ppb	06:30:41
1	Se 196.026†	-21.2	1.5	0.6924	µg/L	0.6924	ppb	06:30:41
1	SiO2†	1029.0	15.0	2.4809	µg/L	2.4809	ppb	06:30:41
1	Si 251.611†	10.4	19.2	1.0431	µg/L	1.0431	ppb	06:30:41
1	Sn 189.927†	33.9	-11.9	-1.4803	µg/L	-1.4803	ppb	06:30:41
1	Ti 334.940†	-650.3	38.9	0.1549	µg/L	0.1549	ppb	06:30:21
1	Tl 190.801†	-85.6	-11.6	-2.4631	µg/L	-2.4631	ppb	06:30:41
1	U 367.007†	907.6	69.3	24.34	µg/L	24.34	ppb	06:30:21
1	V 292.402†	-152.0	-27.7	-0.3373	µg/L	-0.3373	ppb	06:30:41
1	Zn 213.857†	990.0	141.4	1.0816	µg/L	1.0816	ppb	06:30:41
2	Sc RADIAL	21262.6	21262.6	96.3	%			06:29:50
2	Al 396.153Radial†	-94.5	-4.1	-1.3200	µg/L	-1.3200	ppb	06:29:50
2	Ca 317.933Radial†	356.9	74.3	15.906	µg/L	15.906	ppb	06:29:50
2	Fe 238.204 Radial†	54.5	21.6	4.2007	µg/L	4.2007	ppb	06:29:50
2	K 766.490 Radial†	442.0	37.4	33.956	µg/L	33.956	ppb	06:29:30
2	Mg 279.077 IEC†	48.6	-5.6	-9.2169	µg/L	-9.2169	ppb	06:29:50
2	Na 589.592 Radial†	111.5	-11.8	-18.200	µg/L	-18.200	ppb	06:29:50
2	Sr 421.552†	257.0	6.4	0.0374	µg/L	0.0374	ppb	06:29:30
2	Sc 361.383	346709.6	346709.6	94.676	%			06:30:46
2	Y 371.029	340321.0	340321.0	94.570	%			06:30:46
2	Ag 328.068†	-603.0	46.8	0.4503	µg/L	0.4503	ppb	06:30:46
2	As 188.979†	-18.6	-6.9	-3.0226	µg/L	-3.0226	ppb	06:31:07
2	B 249.677†	450.6	302.7	10.076	µg/L	10.076	ppb	06:31:07
2	Ba 233.527†	-20.3	-6.0	-0.0502	µg/L	-0.0502	ppb	06:31:07
2	Be 313.107†	-3435.6	-54.9	-0.0351	µg/L	-0.0351	ppb	06:30:46
2	Cd 226.502†	-307.1	-1.2	-0.0131	µg/L	-0.0131	ppb	06:31:07
2	Co 228.616†	-194.9	16.6	0.3810	µg/L	0.3810	ppb	06:31:07
2	Cr 267.716†	118.7	3.4	0.0353	µg/L	0.0353	ppb	06:31:07
2	Cu 324.752†	1995.2	187.3	1.4011	µg/L	1.4011	ppb	06:30:46
2	Mn 257.610†	462.7	31.9	0.0504	µg/L	0.0504	ppb	06:31:07
2	Mo 202.031†	26.5	-4.9	-0.2800	µg/L	-0.2800	ppb	06:31:07
2	Ni 231.604†	-188.6	4.7	0.1300	µg/L	0.1300	ppb	06:31:07
2	P 214.914†	90.4	-36.2	-24.127	µg/L	-24.127	ppb	06:31:07

2	Pb 220.353†	-68.6	-8.9	-1.1353	µg/L	-1.1353	ppb	06:31:07
2	S 181.975 Axial†	103.0	16.4	20.178	µg/L	20.178	ppb	06:31:07
2	Sb 206.836†	147.6	1.3	0.3655	µg/L	0.3655	ppb	06:31:07
2	Se 196.026†	-6.1	17.3	8.1673	µg/L	8.1673	ppb	06:31:07
2	SiO2†	1046.9	40.6	6.8687	µg/L	6.8687	ppb	06:31:07
2	Si 251.611†	0.8	9.0	0.5046	µg/L	0.5046	ppb	06:31:07
2	Sn 189.927†	48.0	3.1	0.3890	µg/L	0.3890	ppb	06:31:07
2	Ti 334.940†	-612.8	74.2	0.2976	µg/L	0.2976	ppb	06:30:46
2	Tl 190.801†	-79.8	-5.9	-1.2489	µg/L	-1.2489	ppb	06:31:07
2	U 367.007†	948.4	118.3	41.58	µg/L	41.58	ppb	06:30:46
2	V 292.402†	-133.9	-9.6	-0.1023	µg/L	-0.1023	ppb	06:31:07
2	Zn 213.857†	979.0	136.2	1.0357	µg/L	1.0357	ppb	06:31:07
3	Sc RADIAL	21352.5	21352.5	96.7	%			06:30:15
3	Al 396.153Radial†	-92.1	-1.3	-0.4292	µg/L	-0.4292	ppb	06:30:15
3	Ca 317.933Radial†	373.0	89.4	19.146	µg/L	19.146	ppb	06:30:15
3	Fe 238.204 Radial†	52.3	19.0	3.7022	µg/L	3.7022	ppb	06:30:15
3	K 766.490 Radial†	468.7	63.0	57.290	µg/L	57.290	ppb	06:29:55
3	Mg 279.077 IEC†	62.0	8.0	13.140	µg/L	13.140	ppb	06:30:15
3	Na 589.592 Radial†	86.8	-37.8	-58.204	µg/L	-58.204	ppb	06:30:15
3	Sr 421.552†	285.9	35.2	0.2065	µg/L	0.2065	ppb	06:29:55
3	Sc 361.383	348140.8	348140.8	95.067	%			06:31:12
3	Y 371.029	341945.2	341945.2	95.021	%			06:31:12
3	Ag 328.068†	-645.7	4.5	0.0314	µg/L	0.0314	ppb	06:31:12
3	As 188.979†	-28.3	-17.0	-7.4702	µg/L	-7.4702	ppb	06:31:32
3	B 249.677†	446.6	296.5	9.8686	µg/L	9.8686	ppb	06:31:32
3	Ba 233.527†	0.4	15.9	0.1341	µg/L	0.1341	ppb	06:31:32
3	Be 313.107†	-3453.8	-59.1	-0.0430	µg/L	-0.0430	ppb	06:31:12
3	Cd 226.502†	-266.2	43.1	0.4466	µg/L	0.4466	ppb	06:31:32
3	Co 228.616†	-184.3	28.6	0.6586	µg/L	0.6586	ppb	06:31:32
3	Cr 267.716†	132.6	17.6	0.3311	µg/L	0.3311	ppb	06:31:32
3	Cu 324.752†	1997.2	180.7	1.3411	µg/L	1.3411	ppb	06:31:12
3	Mn 257.610†	482.9	51.1	0.0805	µg/L	0.0805	ppb	06:31:32
3	Mo 202.031†	37.6	6.6	0.3732	µg/L	0.3732	ppb	06:31:32
3	Ni 231.604†	-212.2	-19.2	-0.5323	µg/L	-0.5323	ppb	06:31:32
3	P 214.914†	117.9	-7.7	-5.1620	µg/L	-5.1620	ppb	06:31:32
3	Pb 220.353†	-50.4	10.5	1.2785	µg/L	1.2785	ppb	06:31:32
3	S 181.975 Axial†	97.7	10.4	12.782	µg/L	12.782	ppb	06:31:32
3	Sb 206.836†	159.7	13.4	3.8442	µg/L	3.8442	ppb	06:31:32
3	Se 196.026†	-30.9	-8.7	-4.1293	µg/L	-4.1293	ppb	06:31:32
3	SiO2†	1036.2	24.7	4.1630	µg/L	4.1630	ppb	06:31:32
3	Si 251.611†	2.1	10.4	0.5680	µg/L	0.5680	ppb	06:31:32
3	Sn 189.927†	42.0	-3.4	-0.4200	µg/L	-0.4200	ppb	06:31:32
3	Ti 334.940†	-602.8	87.5	0.3623	µg/L	0.3623	ppb	06:31:12
3	Tl 190.801†	-88.6	-14.9	-3.1683	µg/L	-3.1683	ppb	06:31:32
3	U 367.007†	903.4	66.8	23.48	µg/L	23.48	ppb	06:31:12
3	V 292.402†	-156.6	-32.9	-0.4113	µg/L	-0.4113	ppb	06:31:32
3	Zn 213.857†	986.7	140.0	1.0681	µg/L	1.0681	ppb	06:31:32

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	347898.7	95.001	%	0.2972				0.31%
Sc RADIAL	21322.8	96.6	%	0.24				0.24%
Y 371.029	341785.4	94.977	%	0.3866				0.41%
Ag 328.068†	37.0	0.3576	µg/L	0.29121	0.3576	ppb	0.29121	81.42%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.4	-1.4300	µg/L	1.06005	-1.4300	ppb	1.06005	74.13%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-11.5	-5.0424	µg/L	2.25167	-5.0424	ppb	2.25167	44.65%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	305.7	10.175	µg/L	0.3665	10.175	ppb	0.3665	3.60%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.5	0.0213	µg/L	0.09883	0.0213	ppb	0.09883	463.37%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-77.6	-0.0569	µg/L	0.03104	-0.0569	ppb	0.03104	54.59%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	81.1	17.360	µg/L	1.6451	17.360	ppb	1.6451	9.48%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	14.3	0.1472	µg/L	0.25954	0.1472	ppb	0.25954	176.32%
QC value within limits for Cd 226.502 Recovery = Not calculated								

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Co 228.616†                16.9      0.3890 µg/L       0.26575      0.3890 ppb        0.26575  68.32%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                12.3      0.2217 µg/L       0.16221      0.2217 ppb        0.16221  73.16%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               192.4      1.4306 µg/L       0.10736      1.4306 ppb        0.10736   7.50%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         21.9      4.2718 µg/L       0.60826      4.2718 ppb        0.60826  14.24%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          23.6      21.476 µg/L       43.4208      21.476 ppb        43.4208 202.18%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             5.9      9.5938 µg/L      17.31220      9.5938 ppb       17.31220 180.45%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                30.2      0.0478 µg/L       0.03415      0.0478 ppb        0.03415  71.51%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 6.4      0.3626 µg/L       0.63733      0.3626 ppb        0.63733 175.76%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -25.2     -38.684 µg/L       20.0192     -38.684 ppb        20.0192  51.75%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -19.3     -0.5345 µg/L       0.66562     -0.5345 ppb        0.66562 124.52%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -17.9     -11.959 µg/L       10.5618     -11.959 ppb        10.5618  88.32%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.6      0.0529 µg/L       1.20734      0.0529 ppb        1.20734 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            8.5      10.447 µg/L       11.0843      10.447 ppb        11.0843 106.10%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 9.1      2.6144 µg/L       1.95050      2.6144 ppb        1.95050  74.61%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.3      1.5768 µg/L       6.19579      1.5768 ppb        6.19579 392.93%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      26.8      4.5042 µg/L       2.21372      4.5042 ppb        2.21372  49.15%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                12.9      0.7052 µg/L       0.29431      0.7052 ppb        0.29431  41.73%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -4.1     -0.5038 µg/L       0.93747     -0.5038 ppb        0.93747 186.10%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -18.5     -0.1088 µg/L       0.40851     -0.1088 ppb        0.40851 375.45%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                66.9      0.2716 µg/L       0.10610      0.2716 ppb        0.10610  39.06%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -10.8     -2.2934 µg/L       0.97088     -2.2934 ppb        0.97088  42.33%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†                 84.8       29.80 µg/L        10.213       29.80 ppb         10.213  34.27%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†                -23.4     -0.2836 µg/L       0.16133     -0.2836 ppb        0.16133  56.88%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               139.2      1.0618 µg/L       0.02362      1.0618 ppb        0.02362   2.22%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 17 | **Autosampler Location: 1**
Sample ID: CCV | **Date Collected: 7/23/2018 11:49:37**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	25223.6	25223.6	114	%			11:50:14
1	Al 396.153Radial†	17161.3	15116.6	4838.8	µg/L	4838.8	ppb	11:50:14
1	Ca 317.933Radial†	26907.0	23257.4	4980.7	µg/L	4980.7	ppb	11:50:14
1	Fe 238.204 Radial†	29008.9	25358.6	4935.6	µg/L	4935.6	ppb	11:50:14
1	K 766.490 Radial†	6474.0	5245.6	4766.7	µg/L	4766.7	ppb	11:50:14
1	Mg 279.077 IEC†	3610.9	3104.9	5074.1	µg/L	5074.1	ppb	11:50:14
1	Na 589.592 Radial†	7255.4	6223.6	9563.8	µg/L	9563.8	ppb	11:50:14
1	Sr 421.552†	91549.1	79879.3	469.63	µg/L	469.63	ppb	11:50:09
1	Sc 361.383	408809.4	408809.4	111.63	%			11:50:42
1	Y 371.029	399316.1	399316.1	110.96	%			11:50:42
1	Ag 328.068†	52866.2	48040.4	487.83	µg/L	487.83	ppb	11:50:42
1	As 188.979†	1260.8	1142.2	506.56	µg/L	506.56	ppb	11:51:02
1	B 249.677†	16393.1	14511.5	499.68	µg/L	499.68	ppb	11:50:42
1	Ba 233.527†	63658.9	57040.2	479.99	µg/L	479.99	ppb	11:50:42
1	Be 313.107†	644238.2	580672.7	482.74	µg/L	482.74	ppb	11:50:42
1	Cd 226.502†	52354.0	47221.0	489.57	µg/L	489.57	ppb	11:50:42
1	Co 228.616†	23165.3	20973.5	483.33	µg/L	483.33	ppb	11:51:02
1	Cr 267.716†	26842.2	23922.9	476.26	µg/L	476.26	ppb	11:51:02
1	Cu 324.752†	73701.8	64100.9	470.84	µg/L	470.84	ppb	11:50:42
1	Mn 257.610†	340849.0	304870.5	479.12	µg/L	479.12	ppb	11:50:42
1	Mo 202.031†	9735.2	8687.7	492.89	µg/L	492.89	ppb	11:51:02
1	Ni 231.604†	19491.7	17664.3	488.35	µg/L	488.35	ppb	11:51:02
1	P 214.914†	4168.2	3602.1	2384.0	µg/L	2384.0	ppb	11:51:02
1	Pb 220.353†	4357.7	3967.1	490.74	µg/L	490.74	ppb	11:51:02
1	S 181.975 Axial†	1001.5	804.8	986.44	µg/L	986.44	ppb	11:51:02
1	Sb 206.836†	2070.1	1699.8	483.79	µg/L	483.79	ppb	11:51:02
1	Se 196.026†	1150.5	1054.4	500.54	µg/L	500.54	ppb	11:51:02
1	SiO2†	34899.9	30197.5	5079.6	µg/L	5079.6	ppb	11:50:42
1	Si 251.611†	48102.3	43097.6	2374.9	µg/L	2374.9	ppb	11:50:42
1	Sn 189.927†	4552.4	4030.5	502.49	µg/L	502.49	ppb	11:51:02
1	Ti 334.940†	126178.0	113749.9	484.25	µg/L	484.25	ppb	11:50:42
1	Tl 190.801†	2440.2	2264.2	485.72	µg/L	485.72	ppb	11:51:02
1	U 367.007†	2451.1	1312.2	439.8	µg/L	439.8	ppb	11:50:42
1	V 292.402†	40435.6	36353.5	480.68	µg/L	480.68	ppb	11:50:42
1	Zn 213.857†	71124.1	62814.1	475.16	µg/L	475.16	ppb	11:50:42
2	Sc RADIAL	25085.1	25085.1	114	%			11:50:24
2	Al 396.153Radial†	17177.2	15213.5	4869.7	µg/L	4869.7	ppb	11:50:24
2	Ca 317.933Radial†	26834.3	23323.5	4994.9	µg/L	4994.9	ppb	11:50:24
2	Fe 238.204 Radial†	29058.1	25542.2	4971.3	µg/L	4971.3	ppb	11:50:24
2	K 766.490 Radial†	6290.8	5115.6	4648.5	µg/L	4648.5	ppb	11:50:24
2	Mg 279.077 IEC†	3587.4	3101.6	5068.7	µg/L	5068.7	ppb	11:50:24
2	Na 589.592 Radial†	7146.0	6162.4	9469.7	µg/L	9469.7	ppb	11:50:24
2	Sr 421.552†	92175.6	80873.4	475.48	µg/L	475.48	ppb	11:50:19
2	Sc 361.383	406297.0	406297.0	110.95	%			11:51:08
2	Y 371.029	396050.3	396050.3	110.06	%			11:51:08
2	Ag 328.068†	52820.7	48292.2	490.38	µg/L	490.38	ppb	11:51:08
2	As 188.979†	1268.7	1156.3	512.80	µg/L	512.80	ppb	11:51:28
2	B 249.677†	16301.9	14520.1	500.09	µg/L	500.09	ppb	11:51:08
2	Ba 233.527†	63708.2	57437.2	483.33	µg/L	483.33	ppb	11:51:08
2	Be 313.107†	643422.6	583506.1	485.10	µg/L	485.10	ppb	11:51:08
2	Cd 226.502†	52354.1	47511.1	492.58	µg/L	492.58	ppb	11:51:08
2	Co 228.616†	23240.0	21169.2	487.84	µg/L	487.84	ppb	11:51:28
2	Cr 267.716†	26905.9	24129.0	480.36	µg/L	480.36	ppb	11:51:28
2	Cu 324.752†	73609.9	64426.3	473.24	µg/L	473.24	ppb	11:51:08
2	Mn 257.610†	341167.4	307045.4	482.54	µg/L	482.54	ppb	11:51:08
2	Mo 202.031†	9762.5	8766.2	497.35	µg/L	497.35	ppb	11:51:28
2	Ni 231.604†	19576.4	17848.7	493.44	µg/L	493.44	ppb	11:51:28
2	P 214.914†	4215.2	3667.6	2427.4	µg/L	2427.4	ppb	11:51:28

2	Pb 220.353†	4371.0	4003.2	495.19 µg/L	495.19 ppb	11:51:28
2	S 181.975 Axial†	1003.4	812.1	995.31 µg/L	995.31 ppb	11:51:28
2	Sb 206.836†	2077.9	1718.3	489.07 µg/L	489.07 ppb	11:51:28
2	Se 196.026†	1162.0	1071.1	508.48 µg/L	508.48 ppb	11:51:28
2	SiO2†	34813.4	30312.9	5098.9 µg/L	5098.9 ppb	11:51:08
2	Si 251.611†	48105.2	43366.6	2389.7 µg/L	2389.7 ppb	11:51:08
2	Sn 189.927†	4589.6	4089.2	509.80 µg/L	509.80 ppb	11:51:28
2	Ti 334.940†	126140.3	114414.9	487.08 µg/L	487.08 ppb	11:51:08
2	Tl 190.801†	2461.4	2296.8	492.71 µg/L	492.71 ppb	11:51:28
2	U 367.007†	2468.3	1341.3	449.9 µg/L	449.9 ppb	11:51:08
2	V 292.402†	40385.8	36532.5	483.07 µg/L	483.07 ppb	11:51:08
2	Zn 213.857†	71045.3	63137.0	477.58 µg/L	477.58 ppb	11:51:08
3	Sc RADIAL	25397.3	25397.3	115 %		11:50:34
3	Al 396.153Radial†	17412.9	15232.6	4876.0 µg/L	4876.0 ppb	11:50:34
3	Ca 317.933Radial†	27267.2	23409.5	5013.3 µg/L	5013.3 ppb	11:50:34
3	Fe 238.204 Radial†	29457.7	25575.2	4977.8 µg/L	4977.8 ppb	11:50:34
3	K 766.490 Radial†	6467.3	5200.9	4726.1 µg/L	4726.1 ppb	11:50:34
3	Mg 279.077 IEC†	3639.4	3107.9	5079.1 µg/L	5079.1 ppb	11:50:34
3	Na 589.592 Radial†	7288.9	6209.3	9541.7 µg/L	9541.7 ppb	11:50:34
3	Sr 421.552†	91562.4	79342.9	466.48 µg/L	466.48 ppb	11:50:29
3	Sc 361.383	409003.3	409003.3	111.69 %		11:51:34
3	Y 371.029	398672.3	398672.3	110.78 %		11:51:34
3	Ag 328.068†	53327.7	48431.2	491.80 µg/L	491.80 ppb	11:51:34
3	As 188.979†	1269.5	1149.4	509.74 µg/L	509.74 ppb	11:51:54
3	B 249.677†	16613.9	14702.2	506.19 µg/L	506.19 ppb	11:51:34
3	Ba 233.527†	64347.4	57629.6	484.95 µg/L	484.95 ppb	11:51:34
3	Be 313.107†	651143.5	586581.7	487.65 µg/L	487.65 ppb	11:51:34
3	Cd 226.502†	53123.9	47888.1	496.49 µg/L	496.49 ppb	11:51:34
3	Co 228.616†	23227.9	21019.8	484.39 µg/L	484.39 ppb	11:51:54
3	Cr 267.716†	26928.5	23988.7	477.58 µg/L	477.58 ppb	11:51:54
3	Cu 324.752†	74418.3	64711.0	475.32 µg/L	475.32 ppb	11:51:34
3	Mn 257.610†	344635.1	308115.6	484.22 µg/L	484.22 ppb	11:51:34
3	Mo 202.031†	9766.4	8711.5	494.25 µg/L	494.25 ppb	11:51:54
3	Ni 231.604†	19615.9	17767.3	491.19 µg/L	491.19 ppb	11:51:54
3	P 214.914†	4197.2	3626.3	2400.0 µg/L	2400.0 ppb	11:51:54
3	Pb 220.353†	4370.0	3976.2	491.88 µg/L	491.88 ppb	11:51:54
3	S 181.975 Axial†	1006.3	808.6	991.09 µg/L	991.09 ppb	11:51:54
3	Sb 206.836†	2064.2	1693.6	482.01 µg/L	482.01 ppb	11:51:54
3	Se 196.026†	1140.8	1045.2	496.22 µg/L	496.22 ppb	11:51:54
3	SiO2†	35209.5	30460.0	5123.9 µg/L	5123.9 ppb	11:51:34
3	Si 251.611†	48631.4	43550.8	2399.9 µg/L	2399.9 ppb	11:51:34
3	Sn 189.927†	4577.2	4050.7	505.02 µg/L	505.02 ppb	11:51:54
3	Ti 334.940†	127563.0	114936.3	489.31 µg/L	489.31 ppb	11:51:34
3	Tl 190.801†	2450.2	2272.1	487.42 µg/L	487.42 ppb	11:51:54
3	U 367.007†	2423.5	1286.4	430.5 µg/L	430.5 ppb	11:51:34
3	V 292.402†	40730.1	36599.9	483.91 µg/L	483.91 ppb	11:51:34
3	Zn 213.857†	71868.5	63450.3	479.98 µg/L	479.98 ppb	11:51:34

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	408036.6	111.42	%	0.412				0.37%
Sc RADIAL	25235.3	114	%	0.71				0.62%
Y 371.029	398012.9	110.60	%	0.481				0.43%
Ag 328.068†	48254.6	490.01	µg/L	2.014	490.01	ppb	2.014	0.41%
QC value within limits for Ag 328.068 Recovery = 98.00%								
Al 396.153Radial†	15187.6	4861.5	µg/L	19.95	4861.5	ppb	19.95	0.41%
QC value within limits for Al 396.153Radial Recovery = 97.23%								
As 188.979†	1149.3	509.70	µg/L	3.122	509.70	ppb	3.122	0.61%
QC value within limits for As 188.979 Recovery = 101.94%								
B 249.677†	14578.0	501.99	µg/L	3.641	501.99	ppb	3.641	0.73%
QC value within limits for B 249.677 Recovery = 100.40%								
Ba 233.527†	57369.0	482.75	µg/L	2.529	482.75	ppb	2.529	0.52%
QC value within limits for Ba 233.527 Recovery = 96.55%								
Be 313.107†	583586.9	485.16	µg/L	2.455	485.16	ppb	2.455	0.51%
QC value within limits for Be 313.107 Recovery = 97.03%								
Ca 317.933Radial†	23330.1	4996.3	µg/L	16.33	4996.3	ppb	16.33	0.33%
QC value within limits for Ca 317.933Radial Recovery = 99.93%								
Cd 226.502†	47540.1	492.88	µg/L	3.468	492.88	ppb	3.468	0.70%
QC value within limits for Cd 226.502 Recovery = 98.58%								

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Co 228.616†            21054.1      485.19 µg/L         2.359      485.19 ppb          2.359   0.49%
   QC value within limits for Co 228.616  Recovery = 97.04%
Cr 267.716†            24013.5      478.07 µg/L         2.091      478.07 ppb          2.091   0.44%
   QC value within limits for Cr 267.716  Recovery = 95.61%
Cu 324.752†            64412.7      473.13 µg/L         2.240      473.13 ppb          2.240   0.47%
   QC value within limits for Cu 324.752  Recovery = 94.63%
Fe 238.204 Radial†     25492.0      4961.6 µg/L         22.72      4961.6 ppb          22.72   0.46%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.23%
K 766.490 Radial†       5187.3      4713.7 µg/L         60.04      4713.7 ppb          60.04   1.27%
   QC value within limits for K 766.490 Radial  Recovery = 94.27%
Mg 279.077 IEC†         3104.8      5074.0 µg/L          5.20      5074.0 ppb           5.20   0.10%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.48%
Mn 257.610†           306677.2      481.96 µg/L         2.599      481.96 ppb          2.599   0.54%
   QC value within limits for Mn 257.610  Recovery = 96.39%
Mo 202.031†             8721.8      494.83 µg/L         2.285      494.83 ppb          2.285   0.46%
   QC value within limits for Mo 202.031  Recovery = 98.97%
Na 589.592 Radial†      6198.4      9525.1 µg/L         49.20      9525.1 ppb          49.20   0.52%
   QC value within limits for Na 589.592 Radial  Recovery = 95.25%
Ni 231.604†            17760.1      490.99 µg/L         2.554      490.99 ppb          2.554   0.52%
   QC value within limits for Ni 231.604  Recovery = 98.20%
P 214.914†              3632.0      2403.8 µg/L         21.97      2403.8 ppb          21.97   0.91%
   QC value within limits for P 214.914  Recovery = 96.15%
Pb 220.353†             3982.2      492.60 µg/L         2.315      492.60 ppb          2.315   0.47%
   QC value within limits for Pb 220.353  Recovery = 98.52%
S 181.975 Axial†         808.5      990.95 µg/L         4.437      990.95 ppb          4.437   0.45%
   QC value within limits for S 181.975 Axial  Recovery = 99.09%
Sb 206.836†             1703.9      484.96 µg/L         3.668      484.96 ppb          3.668   0.76%
   QC value within limits for Sb 206.836  Recovery = 96.99%
Se 196.026†             1056.9      501.74 µg/L         6.217      501.74 ppb          6.217   1.24%
   QC value within limits for Se 196.026  Recovery = 100.35%
SiO2†                  30323.5      5100.8 µg/L         22.20      5100.8 ppb          22.20   0.44%
   QC value within limits for SiO2  Recovery = 95.39%
Si 251.611†            43338.3      2388.1 µg/L         12.59      2388.1 ppb          12.59   0.53%
   QC value within limits for Si 251.611  Recovery = 95.53%
Sn 189.927†             4056.8      505.77 µg/L         3.710      505.77 ppb          3.710   0.73%
   QC value within limits for Sn 189.927  Recovery = 101.15%
Sr 421.552†            80031.9      470.53 µg/L         4.567      470.53 ppb          4.567   0.97%
   QC value within limits for Sr 421.552  Recovery = 94.11%
Ti 334.940†           114367.0      486.88 µg/L         2.535      486.88 ppb          2.535   0.52%
   QC value within limits for Ti 334.940  Recovery = 97.38%
Tl 190.801†             2277.7      488.62 µg/L         3.643      488.62 ppb          3.643   0.75%
   QC value within limits for Tl 190.801  Recovery = 97.72%
U 367.007†              1313.3       440.1 µg/L          9.67       440.1 ppb           9.67   2.20%
   QC value less than the lower limit for U 367.007  Recovery = 88.01%
V 292.402†             36495.3      482.55 µg/L         1.677      482.55 ppb          1.677   0.35%
   QC value within limits for V 292.402  Recovery = 96.51%
Zn 213.857†            63133.8      477.57 µg/L         2.413      477.57 ppb          2.413   0.51%
   QC value within limits for Zn 213.857  Recovery = 95.51%
QC Failed.  Continue with analysis.
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Sequence No.: 18 | **Autosampler Location: 6**
Sample ID: CCB | **Date Collected: 7/23/2018 11:52:03**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	25051.7	25051.7	113	%			11:52:55
1	Al 396.153Radial†	-110.1	-3.0	-0.9823	µg/L	-0.9823	ppb	11:52:55
1	Ca 317.933Radial†	434.0	86.1	18.447	µg/L	18.447	ppb	11:52:55
1	Fe 238.204 Radial†	38.7	-0.9	-0.1825	µg/L	-0.1825	ppb	11:52:55
1	K 766.490 Radial†	495.7	15.3	13.879	µg/L	13.879	ppb	11:52:35
1	Mg 279.077 IEC†	69.7	5.3	8.6927	µg/L	8.6927	ppb	11:52:55
1	Na 589.592 Radial†	124.2	-18.1	-27.869	µg/L	-27.869	ppb	11:52:55
1	Sr 421.552†	269.2	-23.3	-0.1371	µg/L	-0.1371	ppb	11:52:35
1	Sc 361.383	412727.8	412727.8	112.70	%			11:53:51
1	Y 371.029	406260.5	406260.5	112.89	%			11:53:51
1	Ag 328.068†	-750.5	17.8	0.1718	µg/L	0.1718	ppb	11:53:51
1	As 188.979†	-21.8	-6.5	-2.8763	µg/L	-2.8763	ppb	11:54:12
1	B 249.677†	254.0	52.2	1.7290	µg/L	1.7290	ppb	11:54:12
1	Ba 233.527†	-11.0	5.7	0.0484	µg/L	0.0484	ppb	11:54:12
1	Be 313.107†	-3526.0	445.4	0.3735	µg/L	0.3735	ppb	11:53:51
1	Cd 226.502†	-277.6	76.8	0.7968	µg/L	0.7968	ppb	11:54:12
1	Co 228.616†	-201.7	43.5	1.0016	µg/L	1.0016	ppb	11:54:12
1	Cr 267.716†	106.0	-27.9	-0.5662	µg/L	-0.5662	ppb	11:54:12
1	Cu 324.752†	2079.9	-74.6	-0.5397	µg/L	-0.5397	ppb	11:53:51
1	Mn 257.610†	505.9	-8.0	-0.0126	µg/L	-0.0126	ppb	11:54:12
1	Mo 202.031†	39.7	2.2	0.1274	µg/L	0.1274	ppb	11:54:12
1	Ni 231.604†	-232.7	-2.5	-0.0692	µg/L	-0.0692	ppb	11:54:12
1	P 214.914†	99.1	-43.8	-29.118	µg/L	-29.118	ppb	11:54:12
1	Pb 220.353†	-87.3	-13.9	-1.7331	µg/L	-1.7331	ppb	11:54:12
1	S 181.975 Axial†	98.6	-4.8	-5.9534	µg/L	-5.9534	ppb	11:54:12
1	Sb 206.836†	173.9	-0.3	-0.0812	µg/L	-0.0812	ppb	11:54:12
1	Se 196.026†	-16.5	9.2	4.3288	µg/L	4.3288	ppb	11:54:12
1	SiO2†	1153.7	-41.6	-7.0353	µg/L	-7.0353	ppb	11:54:12
1	Si 251.611†	51.1	53.6	2.9605	µg/L	2.9605	ppb	11:54:12
1	Sn 189.927†	51.4	-1.9	-0.2316	µg/L	-0.2316	ppb	11:54:12
1	Ti 334.940†	-670.3	126.8	0.5349	µg/L	0.5349	ppb	11:53:51
1	Tl 190.801†	-87.3	0.9	0.1967	µg/L	0.1967	ppb	11:54:12
1	U 367.007†	1039.5	38.8	13.65	µg/L	13.65	ppb	11:53:51
1	V 292.402†	-157.3	-7.7	-0.0922	µg/L	-0.0922	ppb	11:54:12
1	Zn 213.857†	1114.3	90.9	0.6937	µg/L	0.6937	ppb	11:54:12
2	Sc RADIAL	25129.5	25129.5	114	%			11:53:20
2	Al 396.153Radial†	-80.2	23.5	7.5601	µg/L	7.5601	ppb	11:53:20
2	Ca 317.933Radial†	430.4	81.8	17.516	µg/L	17.516	ppb	11:53:20
2	Fe 238.204 Radial†	40.9	0.9	0.1681	µg/L	0.1681	ppb	11:53:20
2	K 766.490 Radial†	404.3	-66.4	-60.327	µg/L	-60.327	ppb	11:53:00
2	Mg 279.077 IEC†	46.0	-15.7	-25.590	µg/L	-25.590	ppb	11:53:20
2	Na 589.592 Radial†	114.0	-27.4	-42.153	µg/L	-42.153	ppb	11:53:20
2	Sr 421.552†	252.4	-38.8	-0.2282	µg/L	-0.2282	ppb	11:53:00
2	Sc 361.383	411611.4	411611.4	112.40	%			11:54:17
2	Y 371.029	404866.1	404866.1	112.51	%			11:54:17
2	Ag 328.068†	-813.1	-39.7	-0.4083	µg/L	-0.4083	ppb	11:54:17
2	As 188.979†	-22.3	-7.1	-3.1030	µg/L	-3.1030	ppb	11:54:37
2	B 249.677†	280.3	76.2	2.5285	µg/L	2.5285	ppb	11:54:37
2	Ba 233.527†	-14.7	2.4	0.0202	µg/L	0.0202	ppb	11:54:37
2	Be 313.107†	-3607.0	364.8	0.3058	µg/L	0.3058	ppb	11:54:17
2	Cd 226.502†	-305.5	51.3	0.5320	µg/L	0.5320	ppb	11:54:37
2	Co 228.616†	-195.3	48.7	1.1209	µg/L	1.1209	ppb	11:54:37
2	Cr 267.716†	127.7	-8.3	-0.1749	µg/L	-0.1749	ppb	11:54:37
2	Cu 324.752†	2156.9	-1.2	-0.0020	µg/L	-0.0020	ppb	11:54:17
2	Mn 257.610†	505.6	-7.0	-0.0110	µg/L	-0.0110	ppb	11:54:37
2	Mo 202.031†	32.0	-4.5	-0.2562	µg/L	-0.2562	ppb	11:54:37
2	Ni 231.604†	-248.3	-16.9	-0.4687	µg/L	-0.4687	ppb	11:54:37
2	P 214.914†	98.5	-44.0	-29.307	µg/L	-29.307	ppb	11:54:37

2	Pb 220.353†	-56.8	13.0	1.5965	µg/L	1.5965	ppb	11:54:37
2	S 181.975 Axial†	95.2	-7.6	-9.3657	µg/L	-9.3657	ppb	11:54:37
2	Sb 206.836†	172.1	-1.5	-0.4293	µg/L	-0.4293	ppb	11:54:37
2	Se 196.026†	-10.2	14.7	6.9364	µg/L	6.9364	ppb	11:54:37
2	SiO2†	1156.5	-36.3	-6.1313	µg/L	-6.1313	ppb	11:54:37
2	Si 251.611†	45.1	48.3	2.6748	µg/L	2.6748	ppb	11:54:37
2	Sn 189.927†	32.0	-19.1	-2.3665	µg/L	-2.3665	ppb	11:54:37
2	Ti 334.940†	-776.4	30.8	0.1272	µg/L	0.1272	ppb	11:54:17
2	Tl 190.801†	-93.2	-4.6	-0.9841	µg/L	-0.9841	ppb	11:54:37
2	U 367.007†	1025.9	29.3	10.29	µg/L	10.29	ppb	11:54:17
2	V 292.402†	-163.5	-13.6	-0.1736	µg/L	-0.1736	ppb	11:54:37
2	Zn 213.857†	1107.0	87.0	0.6661	µg/L	0.6661	ppb	11:54:37
3	Sc RADIAL	25210.9	25210.9	114	%			11:53:45
3	Al 396.153Radial†	-109.9	-2.3	-0.7600	µg/L	-0.7600	ppb	11:53:45
3	Ca 317.933Radial†	415.5	67.6	14.470	µg/L	14.470	ppb	11:53:45
3	Fe 238.204 Radial†	32.1	-6.9	-1.3500	µg/L	-1.3500	ppb	11:53:45
3	K 766.490 Radial†	452.7	-25.2	-22.874	µg/L	-22.874	ppb	11:53:25
3	Mg 279.077 IEC†	86.3	19.5	31.823	µg/L	31.823	ppb	11:53:45
3	Na 589.592 Radial†	104.8	-35.8	-55.048	µg/L	-55.048	ppb	11:53:45
3	Sr 421.552†	248.0	-43.3	-0.2551	µg/L	-0.2551	ppb	11:53:25
3	Sc 361.383	411626.2	411626.2	112.40	%			11:54:42
3	Y 371.029	404977.6	404977.6	112.54	%			11:54:42
3	Ag 328.068†	-739.2	26.1	0.2521	µg/L	0.2521	ppb	11:54:42
3	As 188.979†	-15.1	-0.6	-0.2604	µg/L	-0.2604	ppb	11:55:02
3	B 249.677†	247.7	47.2	1.5569	µg/L	1.5569	ppb	11:55:02
3	Ba 233.527†	3.9	19.0	0.1601	µg/L	0.1601	ppb	11:55:02
3	Be 313.107†	-3684.2	296.2	0.2512	µg/L	0.2512	ppb	11:54:42
3	Cd 226.502†	-294.6	61.0	0.6329	µg/L	0.6329	ppb	11:55:02
3	Co 228.616†	-186.5	56.5	1.3017	µg/L	1.3017	ppb	11:55:02
3	Cr 267.716†	138.2	1.0	0.0055	µg/L	0.0055	ppb	11:55:02
3	Cu 324.752†	2238.1	71.0	0.5328	µg/L	0.5328	ppb	11:54:42
3	Mn 257.610†	530.7	15.3	0.0238	µg/L	0.0238	ppb	11:55:02
3	Mo 202.031†	51.8	13.2	0.7461	µg/L	0.7461	ppb	11:55:02
3	Ni 231.604†	-227.4	1.6	0.0436	µg/L	0.0436	ppb	11:55:02
3	P 214.914†	77.4	-62.8	-41.820	µg/L	-41.820	ppb	11:55:02
3	Pb 220.353†	-88.0	-14.8	-1.8417	µg/L	-1.8417	ppb	11:55:02
3	S 181.975 Axial†	94.7	-8.1	-9.9704	µg/L	-9.9704	ppb	11:55:02
3	Sb 206.836†	160.8	-11.6	-3.3061	µg/L	-3.3061	ppb	11:55:02
3	Se 196.026†	-21.6	4.6	2.1632	µg/L	2.1632	ppb	11:55:02
3	SiO2†	1150.9	-41.4	-7.0259	µg/L	-7.0259	ppb	11:55:02
3	Si 251.611†	39.5	43.3	2.3839	µg/L	2.3839	ppb	11:55:02
3	Sn 189.927†	52.1	-1.2	-0.1488	µg/L	-0.1488	ppb	11:55:02
3	Ti 334.940†	-652.0	141.5	0.5939	µg/L	0.5939	ppb	11:54:42
3	Tl 190.801†	-89.2	-1.0	-0.2064	µg/L	-0.2064	ppb	11:55:02
3	U 367.007†	1056.8	56.7	19.95	µg/L	19.95	ppb	11:54:42
3	V 292.402†	-160.0	-10.4	-0.1186	µg/L	-0.1186	ppb	11:55:02
3	Zn 213.857†	1128.5	106.2	0.8083	µg/L	0.8083	ppb	11:55:02

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	411988.4	112.50	%	0.175				0.16%
Sc RADIAL	25130.7	114	%	0.36				0.32%
Y 371.029	405368.1	112.65	%	0.215				0.19%
Ag 328.068†	1.4	0.0052	µg/L	0.36037	0.0052	ppb	0.36037	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.1	1.9392	µg/L	4.86906	1.9392	ppb	4.86906	251.08%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.7	-2.0799	µg/L	1.57981	-2.0799	ppb	1.57981	75.96%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	58.5	1.9381	µg/L	0.51844	1.9381	ppb	0.51844	26.75%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.1	0.0762	µg/L	0.07401	0.0762	ppb	0.07401	97.07%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	368.8	0.3102	µg/L	0.06127	0.3102	ppb	0.06127	19.75%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	78.5	16.811	µg/L	2.0798	16.811	ppb	2.0798	12.37%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	63.0	0.6539	µg/L	0.13364	0.6539	ppb	0.13364	20.44%
QC value within limits for Cd 226.502 Recovery = Not calculated								

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Co 228.616†                49.5      1.1414 µg/L       0.15111      1.1414 ppb        0.15111  13.24%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -11.7     -0.2452 µg/L       0.29224     -0.2452 ppb        0.29224 119.18%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                -1.6     -0.0030 µg/L       0.53624     -0.0030 ppb        0.53624 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.3     -0.4548 µg/L       0.79486     -0.4548 ppb        0.79486 174.78%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -25.4     -23.107 µg/L       37.1033     -23.107 ppb        37.1033 160.57%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             3.0      4.9754 µg/L      28.88673      4.9754 ppb       28.88673 580.60%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 0.1      0.0001 µg/L       0.02056      0.0001 ppb        0.02056 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.6      0.2057 µg/L       0.50572      0.2057 ppb        0.50572 245.80%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -27.1     -41.690 µg/L       13.5958     -41.690 ppb        13.5958  32.61%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -5.9     -0.1648 µg/L       0.26919     -0.1648 ppb        0.26919 163.37%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -50.2     -33.415 µg/L        7.2794     -33.415 ppb         7.2794  21.78%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.3     -0.6594 µg/L       1.95442     -0.6594 ppb        1.95442 296.38%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -6.9     -8.4298 µg/L       2.16586     -8.4298 ppb        2.16586  25.69%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -4.5     -1.2722 µg/L       1.77000     -1.2722 ppb        1.77000 139.13%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 9.5      4.4761 µg/L       2.38999      4.4761 ppb        2.38999  53.39%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -39.8     -6.7308 µg/L       0.51922     -6.7308 ppb        0.51922   7.71%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                48.4      2.6731 µg/L       0.28830      2.6731 ppb        0.28830  10.79%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -7.4     -0.9156 µg/L       1.25715     -0.9156 ppb        1.25715 137.30%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -35.1     -0.2068 µg/L       0.06183     -0.2068 ppb        0.06183  29.89%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                99.7      0.4187 µg/L       0.25415      0.4187 ppb        0.25415  60.70%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.6     -0.3313 µg/L       0.60018     -0.3313 ppb        0.60018 181.19%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†                 41.6       14.63 µg/L         4.905       14.63 ppb          4.905  33.53%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†                -10.6     -0.1281 µg/L       0.04152     -0.1281 ppb        0.04152  32.41%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                94.7      0.7227 µg/L       0.07539      0.7227 ppb        0.07539  10.43%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 19 | **Autosampler Location: 312**
Sample ID: 1204073117|1783993|1| | **Date Collected: 7/23/2018 11:55:11**
Analyst: HSC | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: 1204073117|1783993|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	24541.3	24541.3	111	%			11:56:05
1	Al 396.153Radial†	-131.0	-23.9	-7.6865	µg/L	-7.6865	ppb	11:56:05
1	Ca 317.933Radial†	252.7	-69.0	-14.767	µg/L	-14.767	ppb	11:56:05
1	Fe 238.204 Radial†	92.1	47.8	9.3015	µg/L	9.3015	ppb	11:56:05
1	K 766.490 Radial†	524.1	49.9	45.302	µg/L	45.302	ppb	11:55:45
1	Mg 279.077 IEC†	69.9	6.8	11.159	µg/L	11.159	ppb	11:56:05
1	Na 589.592 Radial†	119.2	-20.4	-31.325	µg/L	-31.325	ppb	11:56:05
1	Sr 421.552†	252.6	-33.2	-0.1950	µg/L	-0.1950	ppb	11:55:45
1	Sc 361.383	402318.0	402318.0	109.86	%			11:57:02
1	Y 371.029	395332.4	395332.4	109.86	%			11:57:02
1	Ag 328.068†	-715.8	32.1	0.3244	µg/L	0.3244	ppb	11:57:02
1	As 188.979†	-15.9	-1.6	-0.7199	µg/L	-0.7199	ppb	11:57:22
1	B 249.677†	302.6	102.3	3.4325	µg/L	3.4325	ppb	11:57:22
1	Ba 233.527†	23.0	36.5	0.3068	µg/L	0.3068	ppb	11:57:22
1	Be 313.107†	-3521.9	368.2	0.3064	µg/L	0.3064	ppb	11:57:02
1	Cd 226.502†	-270.0	77.3	0.8012	µg/L	0.8012	ppb	11:57:22
1	Co 228.616†	-204.8	36.0	0.8277	µg/L	0.8277	ppb	11:57:22
1	Cr 267.716†	132.7	-1.1	-0.0240	µg/L	-0.0240	ppb	11:57:22
1	Cu 324.752†	1994.2	-104.9	-0.7678	µg/L	-0.7678	ppb	11:57:02
1	Mn 257.610†	498.0	-3.6	-0.0051	µg/L	-0.0051	ppb	11:57:22
1	Mo 202.031†	35.2	-0.9	-0.0532	µg/L	-0.0532	ppb	11:57:22
1	Ni 231.604†	-239.2	-13.8	-0.3811	µg/L	-0.3811	ppb	11:57:22
1	P 214.914†	98.1	-42.4	-28.240	µg/L	-28.240	ppb	11:57:22
1	Pb 220.353†	-82.5	-11.6	-1.4361	µg/L	-1.4361	ppb	11:57:22
1	S 181.975 Axial†	190.1	80.7	99.214	µg/L	99.214	ppb	11:57:22
1	Sb 206.836†	147.1	-20.7	-5.9227	µg/L	-5.9227	ppb	11:57:22
1	Se 196.026†	-12.7	12.2	5.7537	µg/L	5.7537	ppb	11:57:22
1	SiO2†	1206.2	32.7	5.5304	µg/L	5.5304	ppb	11:57:22
1	Si 251.611†	141.9	137.4	7.5981	µg/L	7.5981	ppb	11:57:22
1	Sn 189.927†	54.0	1.6	0.2040	µg/L	0.2040	ppb	11:57:22
1	Ti 334.940†	-666.6	114.8	0.4869	µg/L	0.4869	ppb	11:57:02
1	Tl 190.801†	-95.4	-8.5	-1.8103	µg/L	-1.8103	ppb	11:57:22
1	U 367.007†	979.5	8.1	2.813	µg/L	2.813	ppb	11:57:02
1	V 292.402†	-182.5	-34.2	-0.4438	µg/L	-0.4438	ppb	11:57:22
1	Zn 213.857†	969.7	-15.1	-0.1134	µg/L	-0.1134	ppb	11:57:22
2	Sc RADIAL	24686.8	24686.8	112	%			11:56:30
2	Al 396.153Radial†	-116.4	-10.2	-3.2552	µg/L	-3.2552	ppb	11:56:30
2	Ca 317.933Radial†	246.1	-76.2	-16.328	µg/L	-16.328	ppb	11:56:30
2	Fe 238.204 Radial†	97.5	52.1	10.149	µg/L	10.149	ppb	11:56:30
2	K 766.490 Radial†	516.4	40.2	36.572	µg/L	36.572	ppb	11:56:10
2	Mg 279.077 IEC†	74.0	10.1	16.516	µg/L	16.516	ppb	11:56:30
2	Na 589.592 Radial†	117.9	-22.1	-34.033	µg/L	-34.033	ppb	11:56:30
2	Sr 421.552†	308.2	15.2	0.0897	µg/L	0.0897	ppb	11:56:10
2	Sc 361.383	403437.2	403437.2	110.17	%			11:57:27
2	Y 371.029	397110.4	397110.4	110.35	%			11:57:27
2	Ag 328.068†	-771.1	-16.3	-0.1684	µg/L	-0.1684	ppb	11:57:27
2	As 188.979†	-14.7	-0.6	-0.2559	µg/L	-0.2559	ppb	11:57:47
2	B 249.677†	262.0	64.6	2.1828	µg/L	2.1828	ppb	11:57:47
2	Ba 233.527†	24.3	37.6	0.3163	µg/L	0.3163	ppb	11:57:47
2	Be 313.107†	-3552.5	349.3	0.2918	µg/L	0.2918	ppb	11:57:27
2	Cd 226.502†	-321.7	31.1	0.3211	µg/L	0.3211	ppb	11:57:47
2	Co 228.616†	-197.4	43.3	0.9958	µg/L	0.9958	ppb	11:57:47
2	Cr 267.716†	141.7	6.7	0.1284	µg/L	0.1284	ppb	11:57:47
2	Cu 324.752†	2006.5	-98.8	-0.7201	µg/L	-0.7201	ppb	11:57:27
2	Mn 257.610†	476.4	-24.4	-0.0378	µg/L	-0.0378	ppb	11:57:47
2	Mo 202.031†	32.4	-3.5	-0.2003	µg/L	-0.2003	ppb	11:57:47
2	Ni 231.604†	-238.2	-12.3	-0.3405	µg/L	-0.3405	ppb	11:57:47
2	P 214.914†	90.0	-50.0	-33.295	µg/L	-33.295	ppb	11:57:47

2	Pb 220.353†	-96.8	-24.4	-3.0155	µg/L	-3.0155	ppb	11:57:47
2	S 181.975 Axial†	182.6	73.4	90.193	µg/L	90.193	ppb	11:57:47
2	Sb 206.836†	145.5	-22.5	-6.4472	µg/L	-6.4472	ppb	11:57:47
2	Se 196.026†	-9.6	15.1	7.1380	µg/L	7.1380	ppb	11:57:47
2	SiO2†	1188.0	13.1	2.2207	µg/L	2.2207	ppb	11:57:47
2	Si 251.611†	157.7	151.3	8.3713	µg/L	8.3713	ppb	11:57:47
2	Sn 189.927†	47.9	-4.0	-0.5005	µg/L	-0.5005	ppb	11:57:47
2	Ti 334.940†	-642.2	138.6	0.5862	µg/L	0.5862	ppb	11:57:27
2	Tl 190.801†	-89.0	-2.5	-0.5261	µg/L	-0.5261	ppb	11:57:47
2	U 367.007†	995.2	19.9	6.969	µg/L	6.969	ppb	11:57:27
2	V 292.402†	-183.8	-35.0	-0.4523	µg/L	-0.4523	ppb	11:57:47
2	Zn 213.857†	950.0	-35.5	-0.2688	µg/L	-0.2688	ppb	11:57:47
3	Sc RADIAL	24803.6	24803.6	112	%			11:56:55
3	Al 396.153Radial†	-102.3	3.0	0.9189	µg/L	0.9189	ppb	11:56:55
3	Ca 317.933Radial†	250.7	-73.1	-15.663	µg/L	-15.663	ppb	11:56:55
3	Fe 238.204 Radial†	103.2	56.8	11.063	µg/L	11.063	ppb	11:56:55
3	K 766.490 Radial†	448.8	-22.2	-20.149	µg/L	-20.149	ppb	11:56:35
3	Mg 279.077 IEC†	70.3	6.5	10.585	µg/L	10.585	ppb	11:56:55
3	Na 589.592 Radial†	114.0	-26.1	-40.105	µg/L	-40.105	ppb	11:56:55
3	Sr 421.552†	243.8	-43.5	-0.2553	µg/L	-0.2553	ppb	11:56:35
3	Sc 361.383	403977.1	403977.1	110.31	%			11:57:53
3	Y 371.029	397011.9	397011.9	110.32	%			11:57:53
3	Ag 328.068†	-711.2	38.9	0.3934	µg/L	0.3934	ppb	11:57:53
3	As 188.979†	-16.8	-2.4	-1.0629	µg/L	-1.0629	ppb	11:58:13
3	B 249.677†	262.1	64.4	2.1797	µg/L	2.1797	ppb	11:58:13
3	Ba 233.527†	17.4	31.3	0.2628	µg/L	0.2628	ppb	11:58:13
3	Be 313.107†	-3490.2	410.0	0.3415	µg/L	0.3415	ppb	11:57:53
3	Cd 226.502†	-305.6	46.1	0.4767	µg/L	0.4767	ppb	11:58:13
3	Co 228.616†	-201.1	40.1	0.9246	µg/L	0.9246	ppb	11:58:13
3	Cr 267.716†	116.5	-16.3	-0.3277	µg/L	-0.3277	ppb	11:58:13
3	Cu 324.752†	2062.7	-50.3	-0.3666	µg/L	-0.3666	ppb	11:57:53
3	Mn 257.610†	479.9	-21.8	-0.0336	µg/L	-0.0336	ppb	11:58:13
3	Mo 202.031†	49.4	11.8	0.6696	µg/L	0.6696	ppb	11:58:13
3	Ni 231.604†	-250.1	-22.8	-0.6297	µg/L	-0.6297	ppb	11:58:13
3	P 214.914†	96.5	-44.3	-29.468	µg/L	-29.468	ppb	11:58:13
3	Pb 220.353†	-78.4	-7.5	-0.9331	µg/L	-0.9331	ppb	11:58:13
3	S 181.975 Axial†	194.1	83.6	102.78	µg/L	102.78	ppb	11:58:13
3	Sb 206.836†	163.2	-6.7	-1.9030	µg/L	-1.9030	ppb	11:58:13
3	Se 196.026†	-10.3	14.4	6.8028	µg/L	6.8028	ppb	11:58:13
3	SiO2†	1172.2	-2.7	-0.4844	µg/L	-0.4844	ppb	11:58:13
3	Si 251.611†	140.0	135.1	7.4600	µg/L	7.4600	ppb	11:58:13
3	Sn 189.927†	53.1	0.7	0.0836	µg/L	0.0836	ppb	11:58:13
3	Ti 334.940†	-664.4	119.3	0.5055	µg/L	0.5055	ppb	11:57:53
3	Tl 190.801†	-92.0	-5.1	-1.0929	µg/L	-1.0929	ppb	11:58:13
3	U 367.007†	987.8	12.0	4.175	µg/L	4.175	ppb	11:57:53
3	V 292.402†	-145.2	0.3	0.0135	µg/L	0.0135	ppb	11:58:13
3	Zn 213.857†	964.6	-23.4	-0.1755	µg/L	-0.1755	ppb	11:58:13

Mean Data: 1204073117|1783993|1|

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	403244.1	110.11	%	0.231				0.21%
Sc RADIAL	24677.2	112	%	0.60				0.53%
Y 371.029	396484.9	110.18	%	0.278				0.25%
Ag 328.068†	18.3	0.1831	µg/L	0.30637	0.1831	ppb	0.30637	167.28%
Al 396.153Radial†	-10.4	-3.3409	µg/L	4.30334	-3.3409	ppb	4.30334	128.81%
As 188.979†	-1.5	-0.6795	µg/L	0.40497	-0.6795	ppb	0.40497	59.59%
B 249.677†	77.1	2.5983	µg/L	0.72239	2.5983	ppb	0.72239	27.80%
Ba 233.527†	35.1	0.2953	µg/L	0.02854	0.2953	ppb	0.02854	9.66%
Be 313.107†	375.8	0.3132	µg/L	0.02554	0.3132	ppb	0.02554	8.15%
Ca 317.933Radial†	-72.8	-15.586	µg/L	0.7831	-15.586	ppb	0.7831	5.02%
Cd 226.502†	51.5	0.5330	µg/L	0.24497	0.5330	ppb	0.24497	45.96%
Co 228.616†	39.8	0.9160	µg/L	0.08437	0.9160	ppb	0.08437	9.21%
Cr 267.716†	-3.6	-0.0744	µg/L	0.23221	-0.0744	ppb	0.23221	312.01%
Cu 324.752†	-84.7	-0.6182	µg/L	0.21916	-0.6182	ppb	0.21916	35.45%
Fe 238.204 Radial†	52.3	10.171	µg/L	0.8810	10.171	ppb	0.8810	8.66%
K 766.490 Radial†	22.6	20.575	µg/L	35.5369	20.575	ppb	35.5369	172.72%
Mg 279.077 IEC†	7.8	12.753	µg/L	3.2712	12.753	ppb	3.2712	25.65%
Mn 257.610†	-16.6	-0.0255	µg/L	0.01780	-0.0255	ppb	0.01780	69.90%
Mo 202.031†	2.4	0.1387	µg/L	0.46566	0.1387	ppb	0.46566	335.74%

Na 589.592 Radial†	-22.9	-35.154	µg/L	4.4965	-35.154	ppb	4.4965	12.79%
Ni 231.604†	-16.3	-0.4504	µg/L	0.15655	-0.4504	ppb	0.15655	34.76%
P 214.914†	-45.6	-30.334	µg/L	2.6364	-30.334	ppb	2.6364	8.69%
Pb 220.353†	-14.5	-1.7949	µg/L	1.08658	-1.7949	ppb	1.08658	60.54%
S 181.975 Axial†	79.3	97.396	µg/L	6.4889	97.396	ppb	6.4889	6.66%
Sb 206.836†	-16.6	-4.7576	µg/L	2.48603	-4.7576	ppb	2.48603	52.25%
Se 196.026†	13.9	6.5648	µg/L	0.72216	6.5648	ppb	0.72216	11.00%
SiO2†	14.4	2.4222	µg/L	3.01248	2.4222	ppb	3.01248	124.37%
Si 251.611†	141.3	7.8098	µg/L	0.49113	7.8098	ppb	0.49113	6.29%
Sn 189.927†	-0.6	-0.0710	µg/L	0.37685	-0.0710	ppb	0.37685	530.84%
Sr 421.552†	-20.5	-0.1202	µg/L	0.18425	-0.1202	ppb	0.18425	153.24%
Ti 334.940†	124.2	0.5262	µg/L	0.05281	0.5262	ppb	0.05281	10.04%
Tl 190.801†	-5.4	-1.1431	µg/L	0.64356	-1.1431	ppb	0.64356	56.30%
U 367.007†	13.3	4.652	µg/L	2.1185	4.652	ppb	2.1185	45.54%
V 292.402†	-23.0	-0.2942	µg/L	0.26648	-0.2942	ppb	0.26648	90.58%
Zn 213.857†	-24.7	-0.1859	µg/L	0.07819	-0.1859	ppb	0.07819	42.06%

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Sequence No.: 20 **Autosampler Location: 313**
Sample ID: 1204073118|1783993|1| **Date Collected: 7/23/2018 11:58:21**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: 1204073118|1783993|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	24959.2	24959.2	113	%			11:58:57
1	Al 396.153Radial†	15781.6	14055.2	4498.8	µg/L	4498.8	ppb	11:58:57
1	Ca 317.933Radial†	25671.6	22414.0	4800.1	µg/L	4800.1	ppb	11:58:57
1	Fe 238.204 Radial†	27588.0	24370.6	4743.3	µg/L	4743.3	ppb	11:58:57
1	K 766.490 Radial†	5819.8	4726.8	4295.2	µg/L	4295.2	ppb	11:58:57
1	Mg 279.077 IEC†	3439.8	2987.0	4881.4	µg/L	4881.4	ppb	11:58:57
1	Na 589.592 Radial†	3376.2	2859.2	4390.4	µg/L	4390.4	ppb	11:58:57
1	Sr 421.552†	83790.6	73864.8	434.27	µg/L	434.27	ppb	11:58:52
1	Sc 361.383	403147.5	403147.5	110.09	%			11:59:24
1	Y 371.029	393794.3	393794.3	109.43	%			11:59:24
1	Ag 328.068†	8960.6	8823.2	90.660	µg/L	90.660	ppb	11:59:24
1	As 188.979†	1142.0	1050.1	465.81	µg/L	465.81	ppb	11:59:44
1	B 249.677†	15253.0	13682.1	471.48	µg/L	471.48	ppb	11:59:24
1	Ba 233.527†	58669.9	53309.2	448.59	µg/L	448.59	ppb	11:59:24
1	Be 313.107†	608594.0	556399.6	462.55	µg/L	462.55	ppb	11:59:24
1	Cd 226.502†	47537.9	43504.9	451.03	µg/L	451.03	ppb	11:59:24
1	Co 228.616†	21459.1	19715.1	454.34	µg/L	454.34	ppb	11:59:44
1	Cr 267.716†	24949.0	22540.8	448.76	µg/L	448.76	ppb	11:59:44
1	Cu 324.752†	69170.2	60911.7	447.41	µg/L	447.41	ppb	11:59:24
1	Mn 257.610†	316262.6	286825.1	450.77	µg/L	450.77	ppb	11:59:24
1	Mo 202.031†	9010.9	8152.2	462.52	µg/L	462.52	ppb	11:59:44
1	Ni 231.604†	18035.9	16587.1	458.57	µg/L	458.57	ppb	11:59:44
1	P 214.914†	855.5	645.4	417.03	µg/L	417.03	ppb	11:59:44
1	Pb 220.353†	4010.8	3706.8	458.55	µg/L	458.55	ppb	11:59:44
1	S 181.975 Axial†	4285.5	3800.5	4667.9	µg/L	4667.9	ppb	11:59:44
1	Sb 206.836†	1890.4	1562.5	444.60	µg/L	444.60	ppb	11:59:44
1	Se 196.026†	1015.3	946.0	449.25	µg/L	449.25	ppb	11:59:44
1	SiO2†	63293.6	56428.4	9514.2	µg/L	9514.2	ppb	11:59:24
1	Si 251.611†	88709.8	80589.2	4448.7	µg/L	4448.7	ppb	11:59:24
1	Sn 189.927†	4181.4	3750.7	467.60	µg/L	467.60	ppb	11:59:44
1	Ti 334.940†	115152.1	105321.7	448.38	µg/L	448.38	ppb	11:59:24
1	Tl 190.801†	2298.2	2165.9	464.59	µg/L	464.59	ppb	11:59:44
1	U 367.007†	2285.6	1192.7	398.6	µg/L	398.6	ppb	11:59:24
1	V 292.402†	37522.2	34215.7	452.41	µg/L	452.41	ppb	11:59:24
1	Zn 213.857†	64035.4	57269.7	433.10	µg/L	433.10	ppb	11:59:24
2	Sc RADIAL	25068.3	25068.3	114	%			11:59:07
2	Al 396.153Radial†	15914.5	14111.5	4517.0	µg/L	4517.0	ppb	11:59:07
2	Ca 317.933Radial†	25658.8	22303.9	4776.5	µg/L	4776.5	ppb	11:59:07
2	Fe 238.204 Radial†	27578.4	24256.0	4721.0	µg/L	4721.0	ppb	11:59:07
2	K 766.490 Radial†	5995.9	4859.5	4415.8	µg/L	4415.8	ppb	11:59:07
2	Mg 279.077 IEC†	3420.9	2957.0	4832.5	µg/L	4832.5	ppb	11:59:07
2	Na 589.592 Radial†	3368.0	2839.0	4359.4	µg/L	4359.4	ppb	11:59:07
2	Sr 421.552†	84995.4	74603.4	438.61	µg/L	438.61	ppb	11:59:02
2	Sc 361.383	404242.3	404242.3	110.39	%			11:59:50
2	Y 371.029	394705.5	394705.5	109.68	%			11:59:50
2	Ag 328.068†	9122.8	8948.0	91.915	µg/L	91.915	ppb	11:59:50
2	As 188.979†	1130.3	1036.7	459.91	µg/L	459.91	ppb	12:00:10
2	B 249.677†	15295.7	13683.2	471.44	µg/L	471.44	ppb	11:59:50
2	Ba 233.527†	59091.4	53546.7	450.59	µg/L	450.59	ppb	11:59:50
2	Be 313.107†	612346.8	558302.0	464.14	µg/L	464.14	ppb	11:59:50
2	Cd 226.502†	47787.5	43614.0	452.16	µg/L	452.16	ppb	11:59:50
2	Co 228.616†	21430.3	19636.3	452.52	µg/L	452.52	ppb	12:00:10
2	Cr 267.716†	24897.8	22433.1	446.60	µg/L	446.60	ppb	12:00:10
2	Cu 324.752†	69655.9	61181.5	449.40	µg/L	449.40	ppb	11:59:50
2	Mn 257.610†	318419.4	288000.9	452.61	µg/L	452.61	ppb	11:59:50
2	Mo 202.031†	8985.6	8107.2	459.96	µg/L	459.96	ppb	12:00:10
2	Ni 231.604†	18019.4	16527.9	456.93	µg/L	456.93	ppb	12:00:10
2	P 214.914†	853.0	641.0	414.13	µg/L	414.13	ppb	12:00:10

2	Pb 220.353†	4018.0	3703.4	458.12 µg/L	458.12 ppb		12:00:10
2	S 181.975 Axial†	4260.6	3767.3	4627.2 µg/L	4627.2 ppb		12:00:10
2	Sb 206.836†	1885.4	1553.4	441.99 µg/L	441.99 ppb		12:00:10
2	Se 196.026†	1008.4	937.3	445.11 µg/L	445.11 ppb		12:00:10
2	SiO2†	63761.8	56696.9	9559.7 µg/L	9559.7 ppb		11:59:50
2	Si 251.611†	89439.6	81032.0	4473.3 µg/L	4473.3 ppb		11:59:50
2	Sn 189.927†	4156.1	3717.5	463.49 µg/L	463.49 ppb		12:00:10
2	Ti 334.940†	116068.7	105868.8	450.70 µg/L	450.70 ppb		11:59:50
2	Tl 190.801†	2290.2	2153.0	461.85 µg/L	461.85 ppb		12:00:10
2	U 367.007†	2340.7	1237.0	414.3 µg/L	414.3 ppb		11:59:50
2	V 292.402†	37736.9	34318.0	453.73 µg/L	453.73 ppb		11:59:50
2	Zn 213.857†	64518.3	57549.6	435.25 µg/L	435.25 ppb		11:59:50
3	Sc RADIAL	25056.5	25056.5	113 %			11:59:17
3	Al 396.153Radial†	15952.4	14151.5	4529.9 µg/L	4529.9 ppb		11:59:17
3	Ca 317.933Radial†	25739.7	22385.9	4794.1 µg/L	4794.1 ppb		11:59:17
3	Fe 238.204 Radial†	27590.0	24277.6	4725.2 µg/L	4725.2 ppb		11:59:17
3	K 766.490 Radial†	5960.2	4830.6	4389.6 µg/L	4389.6 ppb		11:59:17
3	Mg 279.077 IEC†	3424.8	2961.9	4840.4 µg/L	4840.4 ppb		11:59:17
3	Na 589.592 Radial†	3439.8	2903.6	4458.8 µg/L	4458.8 ppb		11:59:17
3	Sr 421.552†	85971.9	75499.1	443.88 µg/L	443.88 ppb		11:59:12
3	Sc 361.383	403918.4	403918.4	110.30 %			12:00:16
3	Y 371.029	394639.8	394639.8	109.66 %			12:00:16
3	Ag 328.068†	9025.8	8866.7	91.090 µg/L	91.090 ppb		12:00:16
3	As 188.979†	1128.0	1035.5	459.35 µg/L	459.35 ppb		12:00:36
3	B 249.677†	15377.9	13768.9	474.31 µg/L	474.31 ppb		12:00:16
3	Ba 233.527†	59339.5	53814.6	452.84 µg/L	452.84 ppb		12:00:16
3	Be 313.107†	614422.4	560628.8	466.07 µg/L	466.07 ppb		12:00:16
3	Cd 226.502†	47922.1	43770.8	453.79 µg/L	453.79 ppb		12:00:16
3	Co 228.616†	21364.7	19592.3	451.50 µg/L	451.50 ppb		12:00:36
3	Cr 267.716†	24853.3	22410.9	446.15 µg/L	446.15 ppb		12:00:36
3	Cu 324.752†	69849.9	61408.0	451.07 µg/L	451.07 ppb		12:00:16
3	Mn 257.610†	318986.3	288746.2	453.78 µg/L	453.78 ppb		12:00:16
3	Mo 202.031†	8973.3	8102.5	459.70 µg/L	459.70 ppb		12:00:36
3	Ni 231.604†	17942.0	16470.8	455.35 µg/L	455.35 ppb		12:00:36
3	P 214.914†	865.8	653.2	422.24 µg/L	422.24 ppb		12:00:36
3	Pb 220.353†	3974.1	3666.6	453.56 µg/L	453.56 ppb		12:00:36
3	S 181.975 Axial†	4235.2	3747.4	4602.7 µg/L	4602.7 ppb		12:00:36
3	Sb 206.836†	1885.6	1555.0	442.45 µg/L	442.45 ppb		12:00:36
3	Se 196.026†	984.2	916.1	435.09 µg/L	435.09 ppb		12:00:36
3	SiO2†	63905.7	56873.7	9589.6 µg/L	9589.6 ppb		12:00:16
3	Si 251.611†	89534.6	81183.1	4481.6 µg/L	4481.6 ppb		12:00:16
3	Sn 189.927†	4142.7	3708.4	462.36 µg/L	462.36 ppb		12:00:36
3	Ti 334.940†	116234.6	106103.5	451.70 µg/L	451.70 ppb		12:00:16
3	Tl 190.801†	2281.9	2147.1	460.59 µg/L	460.59 ppb		12:00:36
3	U 367.007†	2369.4	1264.7	424.0 µg/L	424.0 ppb		12:00:16
3	V 292.402†	37879.9	34475.0	455.78 µg/L	455.78 ppb		12:00:16
3	Zn 213.857†	64588.0	57659.7	436.09 µg/L	436.09 ppb		12:00:16

Mean Data: 1204073118|1783993|1|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	403769.4	110.26	%	0.154				0.14%
Sc RADIAL	25028.0	113	%	0.27				0.24%
Y 371.029	394379.9	109.59	%	0.141				0.13%
Ag 328.068†	8879.3	91.222	µg/L	0.6374	91.222	ppb	0.6374	0.70%
Al 396.153Radial†	14106.0	4515.3	µg/L	15.63	4515.3	ppb	15.63	0.35%
As 188.979†	1040.8	461.69	µg/L	3.579	461.69	ppb	3.579	0.78%
B 249.677†	13711.4	472.41	µg/L	1.645	472.41	ppb	1.645	0.35%
Ba 233.527†	53556.8	450.67	µg/L	2.128	450.67	ppb	2.128	0.47%
Be 313.107†	558443.5	464.26	µg/L	1.763	464.26	ppb	1.763	0.38%
Ca 317.933Radial†	22367.9	4790.2	µg/L	12.26	4790.2	ppb	12.26	0.26%
Cd 226.502†	43629.9	452.33	µg/L	1.387	452.33	ppb	1.387	0.31%
Co 228.616†	19647.9	452.79	µg/L	1.438	452.79	ppb	1.438	0.32%
Cr 267.716†	22461.6	447.17	µg/L	1.396	447.17	ppb	1.396	0.31%
Cu 324.752†	61167.1	449.30	µg/L	1.832	449.30	ppb	1.832	0.41%
Fe 238.204 Radial†	24301.4	4729.8	µg/L	11.85	4729.8	ppb	11.85	0.25%
K 766.490 Radial†	4805.6	4366.9	µg/L	63.41	4366.9	ppb	63.41	1.45%
Mg 279.077 IEC†	2968.6	4851.4	µg/L	26.25	4851.4	ppb	26.25	0.54%
Mn 257.610†	287857.4	452.39	µg/L	1.521	452.39	ppb	1.521	0.34%
Mo 202.031†	8120.6	460.73	µg/L	1.557	460.73	ppb	1.557	0.34%

Na 589.592 Radial†	2867.3	4402.9	µg/L	50.86	4402.9	ppb	50.86	1.16%
Ni 231.604†	16528.6	456.95	µg/L	1.608	456.95	ppb	1.608	0.35%
P 214.914†	646.6	417.80	µg/L	4.110	417.80	ppb	4.110	0.98%
Pb 220.353†	3692.3	456.74	µg/L	2.765	456.74	ppb	2.765	0.61%
S 181.975 Axial†	3771.7	4632.6	µg/L	32.95	4632.6	ppb	32.95	0.71%
Sb 206.836†	1557.0	443.01	µg/L	1.395	443.01	ppb	1.395	0.31%
Se 196.026†	933.1	443.15	µg/L	7.277	443.15	ppb	7.277	1.64%
SiO2†	56666.3	9554.5	µg/L	37.96	9554.5	ppb	37.96	0.40%
Si 251.611†	80934.8	4467.9	µg/L	17.10	4467.9	ppb	17.10	0.38%
Sn 189.927†	3725.5	464.48	µg/L	2.762	464.48	ppb	2.762	0.59%
Sr 421.552†	74655.7	438.92	µg/L	4.813	438.92	ppb	4.813	1.10%
Ti 334.940†	105764.7	450.26	µg/L	1.703	450.26	ppb	1.703	0.38%
Tl 190.801†	2155.3	462.34	µg/L	2.040	462.34	ppb	2.040	0.44%
U 367.007†	1231.4	412.3	µg/L	12.82	412.3	ppb	12.82	3.11%
V 292.402†	34336.2	453.97	µg/L	1.697	453.97	ppb	1.697	0.37%
Zn 213.857†	57493.0	434.81	µg/L	1.541	434.81	ppb	1.541	0.35%

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Sequence No.: 21 **Autosampler Location: 314**
Sample ID: 454944002|1783993|1| **Date Collected: 7/23/2018 12:00:45**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: 454944002|1783993|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	26445.5	26445.5	120	%			12:01:21
1	Al 396.153Radial†	354718.4	296259.4	95281	µg/L	95281	ppb	12:01:16
1	Ca 317.933Radial†	1288691.9	1075672.5	230360	µg/L	230360	ppb	12:01:16
1	Fe 238.204 Radial†	1673662.7	1397357.9	271970	µg/L	271970	ppb	12:01:16
1	K 766.490 Radial†	22647.0	18487.0	16777	µg/L	16777	ppb	12:01:21
1	Mg 279.077 IEC†	80441.6	67107.1	109670	µg/L	109670	ppb	12:01:21
1	Na 589.592 Radial†	929.1	648.1	640.77	µg/L	640.77	ppb	12:01:21
1	Sr 421.552†	157471.1	131217.0	767.54	µg/L	767.54	ppb	12:01:21
1	Sc 361.383	411778.0	411778.0	112.44	%			12:01:54
1	Y 371.029	426634.1	426634.1	118.55	%			12:01:54
1	Ag 328.068†	-4398.0	-3227.6	7.5043	µg/L	7.5043	ppb	12:01:54
1	As 188.979†	167.3	161.6	85.798	µg/L	85.798	ppb	12:02:14
1	B 249.677†	-31016.8	-27757.3	136.53	µg/L	136.53	ppb	12:01:54
1	Ba 233.527†	95725.7	85147.0	709.99	µg/L	709.99	ppb	12:01:54
1	Be 313.107†	1517.6	4923.5	7.1539	µg/L	7.1539	ppb	12:02:14
1	Cd 226.502†	3002.6	2993.4	1.2809	µg/L	1.2809	ppb	12:02:14
1	Co 228.616†	5833.2	5410.0	122.00	µg/L	122.00	ppb	12:02:14
1	Cr 267.716†	8907.7	7799.9	157.62	µg/L	157.62	ppb	12:02:14
1	Cu 324.752†	59376.6	50885.1	390.44	µg/L	390.44	ppb	12:01:54
1	Mn 257.610†	4163390.6	3702157.8	5831.7	µg/L	5831.7	ppb	12:01:49
1	Mo 202.031†	144.1	95.2	10.516	µg/L	10.516	ppb	12:02:14
1	Ni 231.604†	11265.1	10222.3	287.96	µg/L	287.96	ppb	12:02:14
1	P 214.914†	7457.5	6500.5	4097.2	µg/L	4097.2	ppb	12:02:14
1	Pb 220.353†	1100.8	1042.4	141.38	µg/L	141.38	ppb	12:02:14
1	S 181.975 Axial†	73037.8	64862.1	79616	µg/L	79616	ppb	12:01:54
1	Sb 206.836†	199.4	22.7	-33.086	µg/L	-33.086	ppb	12:02:14
1	Se 196.026†	-286.7	-231.2	11.670	µg/L	11.670	ppb	12:02:14
1	SiO2†	154631.2	136452.4	22999	µg/L	22999	ppb	12:01:54
1	Si 251.611†	219255.2	194997.7	10764	µg/L	10764	ppb	12:01:54
1	Sn 189.927†	53.5	0.1	6.6324	µg/L	6.6324	ppb	12:02:14
1	Ti 334.940†	266390.7	237629.9	1022.0	µg/L	1022.0	ppb	12:01:54
1	Tl 190.801†	-175.0	-77.3	10.806	µg/L	10.806	ppb	12:02:14
1	U 367.007†	4436.1	3061.7	-97.05	µg/L	-97.05	ppb	12:01:54
1	V 292.402†	12815.4	11528.9	206.29	µg/L	206.29	ppb	12:02:14
1	Zn 213.857†	156322.0	138123.5	1021.0	µg/L	1021.0	ppb	12:01:54
2	Sc RADIAL	26707.9	26707.9	121	%			12:01:32
2	Al 396.153Radial†	364613.4	301529.6	96976	µg/L	96976	ppb	12:01:26
2	Ca 317.933Radial†	1312502.0	1084784.4	232310	µg/L	232310	ppb	12:01:26
2	Fe 238.204 Radial†	1707861.2	1411899.7	274800	µg/L	274800	ppb	12:01:26
2	K 766.490 Radial†	22932.5	18537.3	16822	µg/L	16822	ppb	12:01:32
2	Mg 279.077 IEC†	81255.9	67120.3	109690	µg/L	109690	ppb	12:01:32
2	Na 589.592 Radial†	914.3	628.3	606.63	µg/L	606.63	ppb	12:01:32
2	Sr 421.552†	160466.6	132401.5	774.47	µg/L	774.47	ppb	12:01:32
2	Sc 361.383	412982.4	412982.4	112.77	%			12:02:25
2	Y 371.029	427583.5	427583.5	118.82	%			12:02:25
2	Ag 328.068†	-4419.4	-3235.2	7.8566	µg/L	7.8566	ppb	12:02:25
2	As 188.979†	154.8	150.1	80.915	µg/L	80.915	ppb	12:02:46
2	B 249.677†	-31480.1	-28087.7	136.57	µg/L	136.57	ppb	12:02:25
2	Ba 233.527†	96569.4	85646.8	714.12	µg/L	714.12	ppb	12:02:25
2	Be 313.107†	1540.5	4939.9	7.1881	µg/L	7.1881	ppb	12:02:46
2	Cd 226.502†	3019.4	3000.5	1.0443	µg/L	1.0443	ppb	12:02:46
2	Co 228.616†	5875.3	5432.2	122.50	µg/L	122.50	ppb	12:02:46
2	Cr 267.716†	8998.7	7857.6	158.80	µg/L	158.80	ppb	12:02:46
2	Cu 324.752†	59791.2	51098.8	392.17	µg/L	392.17	ppb	12:02:25
2	Mn 257.610†	4208377.5	3731251.6	5877.6	µg/L	5877.6	ppb	12:02:20
2	Mo 202.031†	147.2	97.6	10.701	µg/L	10.701	ppb	12:02:46
2	Ni 231.604†	11355.1	10272.9	289.41	µg/L	289.41	ppb	12:02:46
2	P 214.914†	7505.5	6523.7	4110.5	µg/L	4110.5	ppb	12:02:46

2	Pb 220.353†	1105.0	1043.4	141.69	µg/L	141.69	ppb	12:02:46
2	S 181.975 Axial†	73916.6	65452.0	80339	µg/L	80339	ppb	12:02:25
2	Sb 206.836†	229.3	48.7	-26.051	µg/L	-26.051	ppb	12:02:46
2	Se 196.026†	-279.9	-224.4	16.141	µg/L	16.141	ppb	12:02:46
2	SiO2†	155829.1	137113.6	23110	µg/L	23110	ppb	12:02:25
2	Si 251.611†	220919.5	195904.8	10814	µg/L	10814	ppb	12:02:25
2	Sn 189.927†	34.7	-16.8	4.5982	µg/L	4.5982	ppb	12:02:46
2	Ti 334.940†	268629.3	238924.1	1027.6	µg/L	1027.6	ppb	12:02:25
2	Tl 190.801†	-164.9	-67.9	13.077	µg/L	13.077	ppb	12:02:46
2	U 367.007†	4409.4	3026.5	-121.4	µg/L	-121.4	ppb	12:02:25
2	V 292.402†	12852.8	11528.8	206.86	µg/L	206.86	ppb	12:02:46
2	Zn 213.857†	158043.9	139245.0	1029.2	µg/L	1029.2	ppb	12:02:25
3	Sc RADIAL	26611.6	26611.6	121	%			12:01:42
3	Al 396.153Radial†	362323.3	300720.2	96715	µg/L	96715	ppb	12:01:37
3	Ca 317.933Radial†	1292142.1	1071817.2	229540	µg/L	229540	ppb	12:01:37
3	Fe 238.204 Radial†	1683286.5	1396618.2	271830	µg/L	271830	ppb	12:01:37
3	K 766.490 Radial†	22945.6	18616.7	16895	µg/L	16895	ppb	12:01:42
3	Mg 279.077 IEC†	80890.4	67060.1	109590	µg/L	109590	ppb	12:01:42
3	Na 589.592 Radial†	880.1	602.6	570.99	µg/L	570.99	ppb	12:01:42
3	Sr 421.552†	160711.1	133084.4	778.53	µg/L	778.53	ppb	12:01:42
3	Sc 361.383	410864.6	410864.6	112.20	%			12:02:57
3	Y 371.029	425238.2	425238.2	118.17	%			12:02:57
3	Ag 328.068†	-4414.0	-3250.5	7.2546	µg/L	7.2546	ppb	12:02:57
3	As 188.979†	180.9	174.0	91.281	µg/L	91.281	ppb	12:03:17
3	B 249.677†	-31392.6	-28153.5	122.79	µg/L	122.79	ppb	12:02:57
3	Ba 233.527†	96797.8	86291.8	719.62	µg/L	719.62	ppb	12:02:57
3	Be 313.107†	1506.4	4916.6	7.1379	µg/L	7.1379	ppb	12:03:17
3	Cd 226.502†	2993.1	2990.8	1.2689	µg/L	1.2689	ppb	12:03:17
3	Co 228.616†	5850.2	5436.7	122.60	µg/L	122.60	ppb	12:03:17
3	Cr 267.716†	8992.6	7893.2	159.40	µg/L	159.40	ppb	12:03:17
3	Cu 324.752†	59912.1	51479.8	394.79	µg/L	394.79	ppb	12:02:57
3	Mn 257.610†	4248556.2	3786297.6	5963.8	µg/L	5963.8	ppb	12:02:51
3	Mo 202.031†	159.5	109.2	11.308	µg/L	11.308	ppb	12:03:17
3	Ni 231.604†	11358.2	10327.6	290.86	µg/L	290.86	ppb	12:03:17
3	P 214.914†	7492.5	6546.4	4128.2	µg/L	4128.2	ppb	12:03:17
3	Pb 220.353†	1061.0	1009.2	137.37	µg/L	137.37	ppb	12:03:17
3	S 181.975 Axial†	73984.6	65850.4	80830	µg/L	80830	ppb	12:02:57
3	Sb 206.836†	211.8	34.2	-29.807	µg/L	-29.807	ppb	12:03:17
3	Se 196.026†	-310.3	-252.8	1.3847	µg/L	1.3847	ppb	12:03:17
3	SiO2†	156524.3	138445.4	23336	µg/L	23336	ppb	12:02:57
3	Si 251.611†	221816.6	197714.2	10914	µg/L	10914	ppb	12:02:57
3	Sn 189.927†	43.0	-9.2	5.5331	µg/L	5.5331	ppb	12:03:17
3	Ti 334.940†	269394.7	240834.1	1035.6	µg/L	1035.6	ppb	12:02:57
3	Tl 190.801†	-166.1	-69.7	12.457	µg/L	12.457	ppb	12:03:17
3	U 367.007†	4416.7	3053.1	-99.05	µg/L	-99.05	ppb	12:02:57
3	V 292.402†	12884.3	11615.7	207.40	µg/L	207.40	ppb	12:03:17
3	Zn 213.857†	158080.8	140000.2	1035.3	µg/L	1035.3	ppb	12:02:57

Mean Data: 454944002|1783993|1|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	411875.0	112.47	%	0.290				0.26%
Sc RADIAL	26588.3	120	%	0.60				0.50%
Y 371.029	426485.3	118.51	%	0.328				0.28%
Ag 328.068†	-3237.8	7.5385	µg/L	0.30241	7.5385	ppb	0.30241	4.01%
Al 396.153Radial†	299503.1	96324	µg/L	912.76	96324	ppb	912.76	0.95%
As 188.979†	161.9	85.998	µg/L	5.1857	85.998	ppb	5.1857	6.03%
B 249.677†	-27999.5	131.96	µg/L	7.942	131.96	ppb	7.942	6.02%
Ba 233.527†	85695.2	714.58	µg/L	4.836	714.58	ppb	4.836	0.68%
Be 313.107†	4926.7	7.1600	µg/L	0.02565	7.1600	ppb	0.02565	0.36%
Ca 317.933Radial†	1077424.7	230740	µg/L	1426.01	230740	ppb	1426.01	0.62%
Cd 226.502†	2994.9	1.1980	µg/L	0.13324	1.1980	ppb	0.13324	11.12%
Co 228.616†	5426.3	122.37	µg/L	0.319	122.37	ppb	0.319	0.26%
Cr 267.716†	7850.2	158.61	µg/L	0.904	158.61	ppb	0.904	0.57%
Cu 324.752†	51154.5	392.47	µg/L	2.193	392.47	ppb	2.193	0.56%
Fe 238.204 Radial†	1401958.6	272870	µg/L	1677.18	272870	ppb	1677.18	0.61%
K 766.490 Radial†	18547.0	16831	µg/L	59.39	16831	ppb	59.39	0.35%
Mg 279.077 IEC†	67095.9	109650	µg/L	51.69	109650	ppb	51.69	0.05%
Mn 257.610†	3739902.3	5891.0	µg/L	67.09	5891.0	ppb	67.09	1.14%
Mo 202.031†	100.7	10.841	µg/L	0.4144	10.841	ppb	0.4144	3.82%

Na 589.592 Radial†	626.3	606.13	µg/L	34.891	606.13	ppb	34.891	5.76%
Ni 231.604†	10274.3	289.41	µg/L	1.454	289.41	ppb	1.454	0.50%
P 214.914†	6523.5	4112.0	µg/L	15.53	4112.0	ppb	15.53	0.38%
Pb 220.353†	1031.7	140.15	µg/L	2.408	140.15	ppb	2.408	1.72%
S 181.975 Axial†	65388.2	80262	µg/L	610.79	80262	ppb	610.79	0.76%
Concentration greater than upper limit for S 181.975 Axial.								
Sb 206.836†	35.2	-29.648	µg/L	3.5204	-29.648	ppb	3.5204	11.87%
Concentration less than lower limit for Sb 206.836.								
Se 196.026†	-236.2	9.7320	µg/L	7.56670	9.7320	ppb	7.56670	77.75%
SiO2†	137337.2	23148	µg/L	171.64	23148	ppb	171.64	0.74%
Si 251.611†	196205.6	10830	µg/L	76.50	10830	ppb	76.50	0.71%
Sn 189.927†	-8.6	5.5879	µg/L	1.01821	5.5879	ppb	1.01821	18.22%
Sr 421.552†	132234.3	773.51	µg/L	5.560	773.51	ppb	5.560	0.72%
Ti 334.940†	239129.4	1028.4	µg/L	6.84	1028.4	ppb	6.84	0.67%
Tl 190.801†	-71.7	12.113	µg/L	1.1739	12.113	ppb	1.1739	9.69%
U 367.007†	3047.1	-105.8	µg/L	13.52	-105.8	ppb	13.52	12.78%
Concentration less than lower limit for U 367.007.								
V 292.402†	11557.8	206.85	µg/L	0.552	206.85	ppb	0.552	0.27%
Zn 213.857†	139122.9	1028.5	µg/L	7.18	1028.5	ppb	7.18	0.70%

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Sequence No.: 22 | **Autosampler Location: 315**
Sample ID: 1204073119|1783993|1| | **Date Collected: 7/23/2018 12:03:25**
Analyst: HSC | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: 1204073119|1783993|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	26074.3	26074.3	118	%			12:04:01
1	Al 396.153Radial†	459241.4	388987.1	125080	µg/L	125080	ppb	12:03:56
1	Ca 317.933Radial†	1151314.6	974655.7	208730	µg/L	208730	ppb	12:03:56
1	Fe 238.204 Radial†	1648062.8	1395571.5	271620	µg/L	271620	ppb	12:03:56
1	K 766.490 Radial†	39353.6	32903.6	29874	µg/L	29874	ppb	12:04:01
1	Mg 279.077 IEC†	74177.5	62758.6	102560	µg/L	102560	ppb	12:04:01
1	Na 589.592 Radial†	4383.7	3584.6	5156.8	µg/L	5156.8	ppb	12:04:01
1	Sr 421.552†	246147.6	208181.3	1220.5	µg/L	1220.5	ppb	12:03:56
1	Sc 361.383	409329.9	409329.9	111.78	%			12:04:31
1	Y 371.029	428122.3	428122.3	118.97	%			12:04:31
1	Ag 328.068†	5350.6	5470.5	96.275	µg/L	96.275	ppb	12:04:31
1	As 188.979†	1285.5	1162.8	529.74	µg/L	529.74	ppb	12:04:51
1	B 249.677†	-13892.0	-12601.6	637.31	µg/L	637.31	ppb	12:04:31
1	Ba 233.527†	194163.8	173723.3	1455.5	µg/L	1455.5	ppb	12:04:31
1	Be 313.107†	595202.4	536069.2	448.39	µg/L	448.39	ppb	12:04:31
1	Cd 226.502†	47850.5	43132.4	417.85	µg/L	417.85	ppb	12:04:31
1	Co 228.616†	25976.3	23462.0	537.41	µg/L	537.41	ppb	12:04:51
1	Cr 267.716†	34422.5	30674.0	613.75	µg/L	613.75	ppb	12:04:31
1	Cu 324.752†	112825.0	99018.2	743.69	µg/L	743.69	ppb	12:04:31
1	Mn 257.610†	3362242.4	3007558.8	4740.8	µg/L	4740.8	ppb	12:04:31
1	Mo 202.031†	8722.8	7770.8	445.90	µg/L	445.90	ppb	12:04:51
1	Ni 231.604†	26961.6	24325.1	677.74	µg/L	677.74	ppb	12:04:51
1	P 214.914†	8167.1	7174.9	4544.8	µg/L	4544.8	ppb	12:04:51
1	Pb 220.353†	4826.7	4381.7	556.15	µg/L	556.15	ppb	12:04:51
1	S 181.975 Axial†	77288.4	69053.4	84763	µg/L	84763	ppb	12:04:31
1	Sb 206.836†	1806.9	1462.0	376.78	µg/L	376.78	ppb	12:04:51
1	Se 196.026†	674.9	627.5	417.40	µg/L	417.40	ppb	12:04:51
1	SiO2†	342314.5	305184.9	51496	µg/L	51496	ppb	12:04:31
1	Si 251.611†	487305.4	435973.9	24083	µg/L	24083	ppb	12:04:31
1	Sn 189.927†	3914.5	3454.6	439.20	µg/L	439.20	ppb	12:04:51
1	Ti 334.940†	487855.8	437179.6	1870.4	µg/L	1870.4	ppb	12:04:31
1	Tl 190.801†	1881.9	1762.0	406.22	µg/L	406.22	ppb	12:04:51
1	U 367.007†	5439.2	3982.7	240.4	µg/L	240.4	ppb	12:04:31
1	V 292.402†	54596.7	48976.6	699.34	µg/L	699.34	ppb	12:04:31
1	Zn 213.857†	142701.8	126769.7	932.60	µg/L	932.60	ppb	12:04:31
2	Sc RADIAL	26471.9	26471.9	120	%			12:04:12
2	Al 396.153Radial†	470167.4	392259.8	126140	µg/L	126140	ppb	12:04:07
2	Ca 317.933Radial†	1167242.2	973298.6	208440	µg/L	208440	ppb	12:04:07
2	Fe 238.204 Radial†	1670811.4	1393586.2	271240	µg/L	271240	ppb	12:04:07
2	K 766.490 Radial†	39566.3	32580.5	29581	µg/L	29581	ppb	12:04:12
2	Mg 279.077 IEC†	73835.6	61530.1	100550	µg/L	100550	ppb	12:04:12
2	Na 589.592 Radial†	4395.4	3538.6	5086.6	µg/L	5086.6	ppb	12:04:12
2	Sr 421.552†	251464.6	209485.7	1228.2	µg/L	1228.2	ppb	12:04:07
2	Sc 361.383	409405.5	409405.5	111.80	%			12:04:59
2	Y 371.029	428893.8	428893.8	119.18	%			12:04:59
2	Ag 328.068†	5427.5	5538.5	96.896	µg/L	96.896	ppb	12:04:59
2	As 188.979†	1316.6	1190.5	541.88	µg/L	541.88	ppb	12:05:19
2	B 249.677†	-14118.5	-12801.9	629.14	µg/L	629.14	ppb	12:04:59
2	Ba 233.527†	194494.7	173987.2	1457.8	µg/L	1457.8	ppb	12:04:59
2	Be 313.107†	596829.2	537426.0	449.52	µg/L	449.52	ppb	12:04:59
2	Cd 226.502†	47930.9	43196.4	418.55	µg/L	418.55	ppb	12:04:59
2	Co 228.616†	26024.3	23500.7	538.28	µg/L	538.28	ppb	12:05:19
2	Cr 267.716†	34291.8	30551.4	611.24	µg/L	611.24	ppb	12:04:59
2	Cu 324.752†	113093.8	99240.1	745.31	µg/L	745.31	ppb	12:04:59
2	Mn 257.610†	3368449.5	3012555.6	4748.6	µg/L	4748.6	ppb	12:04:59
2	Mo 202.031†	8756.1	7799.2	447.51	µg/L	447.51	ppb	12:05:19
2	Ni 231.604†	26982.2	24339.0	678.12	µg/L	678.12	ppb	12:05:19
2	P 214.914†	8200.4	7203.4	4564.3	µg/L	4564.3	ppb	12:05:19

2	Pb 220.353†	4822.2	4376.8	555.62	µg/L	555.62	ppb	12:05:19
2	S 181.975 Axial†	77452.2	69187.2	84927	µg/L	84927	ppb	12:04:59
2	Sb 206.836†	1784.0	1441.2	370.96	µg/L	370.96	ppb	12:05:19
2	Se 196.026†	702.3	652.0	428.79	µg/L	428.79	ppb	12:05:19
2	SiO2†	342945.2	305692.5	51582	µg/L	51582	ppb	12:04:59
2	Si 251.611†	488633.6	437081.4	24144	µg/L	24144	ppb	12:04:59
2	Sn 189.927†	3902.9	3443.5	437.88	µg/L	437.88	ppb	12:05:19
2	Ti 334.940†	491281.9	440163.6	1883.1	µg/L	1883.1	ppb	12:04:59
2	Tl 190.801†	1887.5	1766.6	407.22	µg/L	407.22	ppb	12:05:19
2	U 367.007†	5504.6	4040.3	262.3	µg/L	262.3	ppb	12:04:59
2	V 292.402†	54686.7	49048.1	700.21	µg/L	700.21	ppb	12:04:59
2	Zn 213.857†	143112.8	127113.8	935.29	µg/L	935.29	ppb	12:04:59
3	Sc RADIAL	26286.9	26286.9	119	%			12:04:22
3	Al 396.153Radial†	467227.5	392549.0	126230	µg/L	126230	ppb	12:04:17
3	Ca 317.933Radial†	1148979.6	964807.0	206620	µg/L	206620	ppb	12:04:17
3	Fe 238.204 Radial†	1647276.2	1383620.3	269300	µg/L	269300	ppb	12:04:17
3	K 766.490 Radial†	39699.7	32924.7	29894	µg/L	29894	ppb	12:04:22
3	Mg 279.077 IEC†	73842.1	61968.8	101270	µg/L	101270	ppb	12:04:22
3	Na 589.592 Radial†	4415.7	3581.4	5154.9	µg/L	5154.9	ppb	12:04:22
3	Sr 421.552†	249748.7	209519.8	1228.4	µg/L	1228.4	ppb	12:04:17
3	Sc 361.383	408632.5	408632.5	111.59	%			12:05:27
3	Y 371.029	428042.4	428042.4	118.95	%			12:05:27
3	Ag 328.068†	5481.2	5595.8	97.183	µg/L	97.183	ppb	12:05:27
3	As 188.979†	1306.6	1183.7	538.81	µg/L	538.81	ppb	12:05:47
3	B 249.677†	-14085.1	-12795.9	621.78	µg/L	621.78	ppb	12:05:27
3	Ba 233.527†	194834.9	174621.2	1463.2	µg/L	1463.2	ppb	12:05:27
3	Be 313.107†	597496.6	539033.9	450.83	µg/L	450.83	ppb	12:05:27
3	Cd 226.502†	47962.0	43305.3	419.90	µg/L	419.90	ppb	12:05:27
3	Co 228.616†	26057.9	23574.8	540.00	µg/L	540.00	ppb	12:05:47
3	Cr 267.716†	34439.8	30742.0	615.00	µg/L	615.00	ppb	12:05:27
3	Cu 324.752†	113225.7	99549.6	747.48	µg/L	747.48	ppb	12:05:27
3	Mn 257.610†	3374786.8	3023934.2	4766.4	µg/L	4766.4	ppb	12:05:27
3	Mo 202.031†	8738.7	7798.5	447.43	µg/L	447.43	ppb	12:05:47
3	Ni 231.604†	26988.5	24390.3	679.50	µg/L	679.50	ppb	12:05:47
3	P 214.914†	8215.5	7230.8	4584.3	µg/L	4584.3	ppb	12:05:47
3	Pb 220.353†	4822.6	4385.4	556.63	µg/L	556.63	ppb	12:05:47
3	S 181.975 Axial†	77574.1	69427.4	85223	µg/L	85223	ppb	12:05:27
3	Sb 206.836†	1809.0	1466.6	378.44	µg/L	378.44	ppb	12:05:47
3	Se 196.026†	673.7	627.5	416.35	µg/L	416.35	ppb	12:05:47
3	SiO2†	343460.7	306734.8	51758	µg/L	51758	ppb	12:05:27
3	Si 251.611†	489110.9	438335.9	24214	µg/L	24214	ppb	12:05:27
3	Sn 189.927†	3933.8	3477.9	442.12	µg/L	442.12	ppb	12:05:47
3	Ti 334.940†	490371.7	440179.2	1883.1	µg/L	1883.1	ppb	12:05:27
3	Tl 190.801†	1886.7	1769.2	407.59	µg/L	407.59	ppb	12:05:47
3	U 367.007†	5540.8	4082.1	285.5	µg/L	285.5	ppb	12:05:27
3	V 292.402†	54765.9	49211.6	701.96	µg/L	701.96	ppb	12:05:27
3	Zn 213.857†	143362.7	127579.8	939.02	µg/L	939.02	ppb	12:05:27

Mean Data: 1204073119|1783993|1|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	409122.6	111.72	%	0.116				0.10%
Sc RADIAL	26277.7	119	%	0.90				0.76%
Y 371.029	428352.8	119.03	%	0.131				0.11%
Ag 328.068†	5534.9	96.785	µg/L	0.4638	96.785	ppb	0.4638	0.48%
Al 396.153Radial†	391265.3	125820	µg/L	636.19	125820	ppb	636.19	0.51%
As 188.979†	1179.0	536.81	µg/L	6.311	536.81	ppb	6.311	1.18%
B 249.677†	-12733.1	629.41	µg/L	7.769	629.41	ppb	7.769	1.23%
Ba 233.527†	174110.6	1458.8	µg/L	3.91	1458.8	ppb	3.91	0.27%
Be 313.107†	537509.7	449.58	µg/L	1.225	449.58	ppb	1.225	0.27%
Ca 317.933Radial†	970920.5	207930	µg/L	1143.10	207930	ppb	1143.10	0.55%
Cd 226.502†	43211.4	418.77	µg/L	1.040	418.77	ppb	1.040	0.25%
Co 228.616†	23512.5	538.56	µg/L	1.318	538.56	ppb	1.318	0.24%
Cr 267.716†	30655.8	613.33	µg/L	1.913	613.33	ppb	1.913	0.31%
Cu 324.752†	99269.3	745.49	µg/L	1.898	745.49	ppb	1.898	0.25%
Fe 238.204 Radial†	1390926.0	270720	µg/L	1246.48	270720	ppb	1246.48	0.46%
K 766.490 Radial†	32803.0	29783	µg/L	175.34	29783	ppb	175.34	0.59%
Mg 279.077 IEC†	62085.8	101460	µg/L	1017.43	101460	ppb	1017.43	1.00%
Mn 257.610†	3014682.9	4751.9	µg/L	13.10	4751.9	ppb	13.10	0.28%
Mo 202.031†	7789.5	446.95	µg/L	0.903	446.95	ppb	0.903	0.20%

Na 589.592 Radial†	3568.2	5132.8 µg/L	40.02	5132.8 ppb	40.02	0.78%
Ni 231.604†	24351.5	678.45 µg/L	0.925	678.45 ppb	0.925	0.14%
P 214.914†	7203.0	4564.5 µg/L	19.72	4564.5 ppb	19.72	0.43%
Pb 220.353†	4381.3	556.13 µg/L	0.509	556.13 ppb	0.509	0.09%
S 181.975 Axial†	69222.7	84971 µg/L	233.14	84971 ppb	233.14	0.27%
Concentration greater than upper limit for S 181.975 Axial.						
Sb 206.836†	1456.6	375.39 µg/L	3.930	375.39 ppb	3.930	1.05%
Se 196.026†	635.7	420.85 µg/L	6.899	420.85 ppb	6.899	1.64%
SiO2†	305870.7	51612 µg/L	133.79	51612 ppb	133.79	0.26%
Si 251.611†	437130.4	24147 µg/L	65.43	24147 ppb	65.43	0.27%
Sn 189.927†	3458.7	439.73 µg/L	2.169	439.73 ppb	2.169	0.49%
Sr 421.552†	209062.3	1225.7 µg/L	4.50	1225.7 ppb	4.50	0.37%
Ti 334.940†	439174.1	1878.9 µg/L	7.32	1878.9 ppb	7.32	0.39%
Tl 190.801†	1765.9	407.01 µg/L	0.709	407.01 ppb	0.709	0.17%
U 367.007†	4035.0	262.7 µg/L	22.54	262.7 ppb	22.54	8.58%
V 292.402†	49078.8	700.50 µg/L	1.336	700.50 ppb	1.336	0.19%
Zn 213.857†	127154.5	935.64 µg/L	3.228	935.64 ppb	3.228	0.34%

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Sequence No.: 23 | **Autosampler Location: 316**
Sample ID: 1204073120|1783993|1| | **Date Collected: 7/23/2018 12:05:55**
Analyst: HSC | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: 1204073120|1783993|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	26350.8	26350.8	119	%			12:06:31
1	Al 396.153Radial†	472644.6	396137.7	127380	µg/L	127380	ppb	12:06:26
1	Ca 317.933Radial†	1140916.5	955713.4	204670	µg/L	204670	ppb	12:06:26
1	Fe 238.204 Radial†	1655790.5	1387403.8	270030	µg/L	270030	ppb	12:06:26
1	K 766.490 Radial†	41075.6	33996.8	30868	µg/L	30868	ppb	12:06:31
1	Mg 279.077 IEC†	77379.2	64782.4	105870	µg/L	105870	ppb	12:06:31
1	Na 589.592 Radial†	4180.2	3375.2	4836.8	µg/L	4836.8	ppb	12:06:31
1	Sr 421.552†	233471.1	195372.3	1145.2	µg/L	1145.2	ppb	12:06:26
1	Sc 361.383	408153.1	408153.1	111.45	%			12:07:01
1	Y 371.029	426389.1	426389.1	118.49	%			12:07:01
1	Ag 328.068†	5256.7	5400.1	95.326	µg/L	95.326	ppb	12:07:01
1	As 188.979†	1297.5	1176.9	535.81	µg/L	535.81	ppb	12:07:21
1	B 249.677†	-13938.5	-12679.1	628.61	µg/L	628.61	ppb	12:07:01
1	Ba 233.527†	191969.8	172255.7	1443.2	µg/L	1443.2	ppb	12:07:01
1	Be 313.107†	578870.2	522950.7	437.43	µg/L	437.43	ppb	12:07:01
1	Cd 226.502†	46815.9	42327.5	409.67	µg/L	409.67	ppb	12:07:01
1	Co 228.616†	24923.7	22584.5	517.19	µg/L	517.19	ppb	12:07:21
1	Cr 267.716†	33878.4	30274.6	605.72	µg/L	605.72	ppb	12:07:01
1	Cu 324.752†	122951.7	108395.2	812.43	µg/L	812.43	ppb	12:07:01
1	Mn 257.610†	3490906.2	3131671.6	4935.6	µg/L	4935.6	ppb	12:07:01
1	Mo 202.031†	8647.0	7725.3	443.29	µg/L	443.29	ppb	12:07:21
1	Ni 231.604†	26803.6	24252.9	675.72	µg/L	675.72	ppb	12:07:21
1	P 214.914†	8328.1	7340.5	4656.1	µg/L	4656.1	ppb	12:07:21
1	Pb 220.353†	4658.7	4243.4	539.14	µg/L	539.14	ppb	12:07:21
1	S 181.975 Axial†	70632.2	63280.6	77669	µg/L	77669	ppb	12:07:01
1	Sb 206.836†	1791.2	1452.5	374.41	µg/L	374.41	ppb	12:07:21
1	Se 196.026†	669.7	624.6	415.32	µg/L	415.32	ppb	12:07:21
1	SiO2†	245019.4	218772.3	36892	µg/L	36892	ppb	12:07:01
1	Si 251.611†	348196.9	312419.2	17250	µg/L	17250	ppb	12:07:01
1	Sn 189.927†	3862.8	3418.3	434.66	µg/L	434.66	ppb	12:07:21
1	Ti 334.940†	484840.5	435732.6	1864.1	µg/L	1864.1	ppb	12:07:01
1	Tl 190.801†	1957.7	1834.8	421.65	µg/L	421.65	ppb	12:07:21
1	U 367.007†	5393.8	3956.0	239.4	µg/L	239.4	ppb	12:07:01
1	V 292.402†	54245.9	48802.7	696.71	µg/L	696.71	ppb	12:07:01
1	Zn 213.857†	147017.5	131009.9	964.95	µg/L	964.95	ppb	12:07:01
2	Sc RADIAL	26141.1	26141.1	118	%			12:06:42
2	Al 396.153Radial†	480958.8	406337.1	130660	µg/L	130660	ppb	12:06:37
2	Ca 317.933Radial†	1148720.7	969973.7	207730	µg/L	207730	ppb	12:06:37
2	Fe 238.204 Radial†	1667930.4	1408786.9	274190	µg/L	274190	ppb	12:06:37
2	K 766.490 Radial†	41152.1	34337.6	31177	µg/L	31177	ppb	12:06:42
2	Mg 279.077 IEC†	76788.1	64803.2	105900	µg/L	105900	ppb	12:06:42
2	Na 589.592 Radial†	4249.6	3461.8	4964.6	µg/L	4964.6	ppb	12:06:42
2	Sr 421.552†	237634.1	200457.8	1175.1	µg/L	1175.1	ppb	12:06:37
2	Sc 361.383	411678.0	411678.0	112.42	%			12:07:29
2	Y 371.029	429579.2	429579.2	119.37	%			12:07:29
2	Ag 328.068†	5378.1	5467.8	96.630	µg/L	96.630	ppb	12:07:29
2	As 188.979†	1277.4	1149.1	523.79	µg/L	523.79	ppb	12:07:49
2	B 249.677†	-14175.6	-12783.1	641.38	µg/L	641.38	ppb	12:07:29
2	Ba 233.527†	193739.1	172354.7	1444.0	µg/L	1444.0	ppb	12:07:29
2	Be 313.107†	584906.2	523873.1	438.24	µg/L	438.24	ppb	12:07:29
2	Cd 226.502†	47386.9	42475.7	410.75	µg/L	410.75	ppb	12:07:29
2	Co 228.616†	25025.6	22483.7	514.86	µg/L	514.86	ppb	12:07:49
2	Cr 267.716†	34302.6	30391.7	608.11	µg/L	608.11	ppb	12:07:29
2	Cu 324.752†	124071.4	108446.7	813.07	µg/L	813.07	ppb	12:07:29
2	Mn 257.610†	3525544.6	3135666.4	4942.2	µg/L	4942.2	ppb	12:07:29
2	Mo 202.031†	8667.3	7677.0	440.63	µg/L	440.63	ppb	12:07:49
2	Ni 231.604†	26874.2	24109.7	671.84	µg/L	671.84	ppb	12:07:49
2	P 214.914†	8356.9	7302.1	4627.5	µg/L	4627.5	ppb	12:07:49

2	Pb 220.353†	4676.7	4223.7	537.05	µg/L	537.05 ppb	12:07:49
2	S 181.975 Axial†	71531.8	63538.2	77984	µg/L	77984 ppb	12:07:29
2	Sb 206.836†	1796.4	1443.4	371.15	µg/L	371.15 ppb	12:07:49
2	Se 196.026†	673.1	622.5	416.17	µg/L	416.17 ppb	12:07:49
2	SiO2†	246957.6	218614.2	36864	µg/L	36864 ppb	12:07:29
2	Si 251.611†	351216.8	312430.7	17251	µg/L	17251 ppb	12:07:29
2	Sn 189.927†	3880.1	3404.0	432.93	µg/L	432.93 ppb	12:07:49
2	Ti 334.940†	487511.8	434384.2	1858.5	µg/L	1858.5 ppb	12:07:29
2	Tl 190.801†	1943.1	1806.8	416.02	µg/L	416.02 ppb	12:07:49
2	U 367.007†	5481.3	3992.4	234.5	µg/L	234.5 ppb	12:07:29
2	V 292.402†	54962.9	49023.7	700.43	µg/L	700.43 ppb	12:07:29
2	Zn 213.857†	148518.2	131215.4	966.10	µg/L	966.10 ppb	12:07:29
3	Sc RADIAL	26373.2	26373.2	119	%		12:06:52
3	Al 396.153Radial†	480696.1	402541.2	129440	µg/L	129440 ppb	12:06:47
3	Ca 317.933Radial†	1141416.4	955317.6	204590	µg/L	204590 ppb	12:06:47
3	Fe 238.204 Radial†	1658331.8	1388349.7	270220	µg/L	270220 ppb	12:06:47
3	K 766.490 Radial†	41604.2	34410.1	31243	µg/L	31243 ppb	12:06:52
3	Mg 279.077 IEC†	77506.8	64834.0	105950	µg/L	105950 ppb	12:06:52
3	Na 589.592 Radial†	4258.4	3437.6	4932.6	µg/L	4932.6 ppb	12:06:52
3	Sr 421.552†	237460.9	198546.0	1163.9	µg/L	1163.9 ppb	12:06:47
3	Sc 361.383	410916.8	410916.8	112.21	%		12:07:57
3	Y 371.029	429035.8	429035.8	119.22	%		12:07:57
3	Ag 328.068†	5276.0	5385.6	95.215	µg/L	95.215 ppb	12:07:57
3	As 188.979†	1314.4	1184.2	538.99	µg/L	538.99 ppb	12:08:17
3	B 249.677†	-14038.0	-12683.7	629.18	µg/L	629.18 ppb	12:07:57
3	Ba 233.527†	192920.8	171944.7	1440.6	µg/L	1440.6 ppb	12:07:57
3	Be 313.107†	581422.8	521732.6	436.42	µg/L	436.42 ppb	12:07:57
3	Cd 226.502†	47026.2	42232.4	408.66	µg/L	408.66 ppb	12:07:57
3	Co 228.616†	25079.3	22572.9	516.93	µg/L	516.93 ppb	12:08:17
3	Cr 267.716†	34111.0	30277.5	605.80	µg/L	605.80 ppb	12:07:57
3	Cu 324.752†	123697.3	108317.8	811.87	µg/L	811.87 ppb	12:07:57
3	Mn 257.610†	3510508.2	3128075.6	4930.0	µg/L	4930.0 ppb	12:07:57
3	Mo 202.031†	8688.7	7710.3	442.44	µg/L	442.44 ppb	12:08:17
3	Ni 231.604†	26872.7	24152.6	672.95	µg/L	672.95 ppb	12:08:17
3	P 214.914†	8375.4	7332.3	4651.0	µg/L	4651.0 ppb	12:08:17
3	Pb 220.353†	4684.5	4238.3	538.69	µg/L	538.69 ppb	12:08:17
3	S 181.975 Axial†	70992.2	63175.3	77539	µg/L	77539 ppb	12:07:57
3	Sb 206.836†	1817.0	1464.7	377.86	µg/L	377.86 ppb	12:08:17
3	Se 196.026†	683.8	633.1	419.42	µg/L	419.42 ppb	12:08:17
3	SiO2†	246188.8	218336.0	36818	µg/L	36818 ppb	12:07:57
3	Si 251.611†	349794.1	311741.5	17213	µg/L	17213 ppb	12:07:57
3	Sn 189.927†	3897.3	3425.7	435.57	µg/L	435.57 ppb	12:08:17
3	Ti 334.940†	486251.6	434064.5	1857.0	µg/L	1857.0 ppb	12:07:57
3	Tl 190.801†	1967.6	1831.8	421.00	µg/L	421.00 ppb	12:08:17
3	U 367.007†	5385.5	3916.1	224.7	µg/L	224.7 ppb	12:07:57
3	V 292.402†	54605.9	48796.2	696.65	µg/L	696.65 ppb	12:07:57
3	Zn 213.857†	147431.1	130491.4	960.99	µg/L	960.99 ppb	12:07:57

Mean Data: 1204073120|1783993|1|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	410249.3	112.03	%	0.506				0.45%
Sc RADIAL	26288.4	119	%	0.58				0.49%
Y 371.029	428334.7	119.03	%	0.474				0.40%
Ag 328.068†	5417.8	95.723	µg/L	0.7868	95.723	ppb	0.7868	0.82%
Al 396.153Radial†	401672.0	129160	µg/L	1657.95	129160	ppb	1657.95	1.28%
As 188.979†	1170.1	532.86	µg/L	8.015	532.86	ppb	8.015	1.50%
B 249.677†	-12715.3	633.06	µg/L	7.215	633.06	ppb	7.215	1.14%
Ba 233.527†	172185.0	1442.6	µg/L	1.76	1442.6	ppb	1.76	0.12%
Be 313.107†	522852.1	437.36	µg/L	0.914	437.36	ppb	0.914	0.21%
Ca 317.933Radial†	960334.9	205660	µg/L	1788.16	205660	ppb	1788.16	0.87%
Cd 226.502†	42345.2	409.69	µg/L	1.045	409.69	ppb	1.045	0.25%
Co 228.616†	22547.1	516.33	µg/L	1.279	516.33	ppb	1.279	0.25%
Cr 267.716†	30314.6	606.54	µg/L	1.358	606.54	ppb	1.358	0.22%
Cu 324.752†	108386.6	812.46	µg/L	0.601	812.46	ppb	0.601	0.07%
Fe 238.204 Radial†	1394846.8	271480	µg/L	2351.49	271480	ppb	2351.49	0.87%
K 766.490 Radial†	34248.2	31096	µg/L	200.43	31096	ppb	200.43	0.64%
Mg 279.077 IEC†	64806.5	105910	µg/L	42.41	105910	ppb	42.41	0.04%
Mn 257.610†	3131804.6	4935.9	µg/L	6.09	4935.9	ppb	6.09	0.12%
Mo 202.031†	7704.2	442.12	µg/L	1.361	442.12	ppb	1.361	0.31%

Na 589.592 Radial†	3424.9	4911.3 µg/L	66.53	4911.3 ppb	66.53	1.35%
Ni 231.604†	24171.7	673.51 µg/L	1.997	673.51 ppb	1.997	0.30%
P 214.914†	7325.0	4644.9 µg/L	15.23	4644.9 ppb	15.23	0.33%
Pb 220.353†	4235.1	538.30 µg/L	1.104	538.30 ppb	1.104	0.21%
S 181.975 Axial†	63331.4	77730 µg/L	228.74	77730 ppb	228.74	0.29%
Concentration greater than upper limit for S 181.975 Axial.						
Sb 206.836†	1453.5	374.47 µg/L	3.354	374.47 ppb	3.354	0.90%
Se 196.026†	626.8	416.97 µg/L	2.162	416.97 ppb	2.162	0.52%
SiO2†	218574.2	36858 µg/L	37.27	36858 ppb	37.27	0.10%
Si 251.611†	312197.1	17238 µg/L	21.74	17238 ppb	21.74	0.13%
Sn 189.927†	3416.0	434.39 µg/L	1.343	434.39 ppb	1.343	0.31%
Sr 421.552†	198125.4	1161.4 µg/L	15.08	1161.4 ppb	15.08	1.30%
Ti 334.940†	434727.1	1859.9 µg/L	3.74	1859.9 ppb	3.74	0.20%
Tl 190.801†	1824.5	419.56 µg/L	3.081	419.56 ppb	3.081	0.73%
U 367.007†	3954.8	232.8 µg/L	7.48	232.8 ppb	7.48	3.21%
V 292.402†	48874.2	697.93 µg/L	2.168	697.93 ppb	2.168	0.31%
Zn 213.857†	130905.6	964.02 µg/L	2.678	964.02 ppb	2.678	0.28%

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Sequence No.: 24 **Autosampler Location: 317**
Sample ID: 1204075175|1783993|1| **Date Collected: 7/23/2018 12:08:25**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: 1204075175|1783993|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	26574.4	26574.4	120	%			12:09:01
1	Al 396.153Radial†	375434.5	312035.4	100330	µg/L	100330	ppb	12:08:56
1	Ca 317.933Radial†	1346571.6	1118544.6	239540	µg/L	239540	ppb	12:08:56
1	Fe 238.204 Radial†	1738425.4	1444389.9	281120	µg/L	281120	ppb	12:08:56
1	K 766.490 Radial†	29252.7	23883.9	21681	µg/L	21681	ppb	12:09:01
1	Mg 279.077 IEC†	86320.2	71665.8	117120	µg/L	117120	ppb	12:09:01
1	Na 589.592 Radial†	4474.0	3589.7	5152.2	µg/L	5152.2	ppb	12:09:01
1	Sr 421.552†	244608.8	202980.3	1189.4	µg/L	1189.4	ppb	12:08:56
1	Sc 361.383	410721.3	410721.3	112.16	%			12:09:35
1	Y 371.029	425812.0	425812.0	118.33	%			12:09:35
1	Ag 328.068†	5765.1	5823.9	101.19	µg/L	101.19	ppb	12:09:35
1	As 188.979†	1420.9	1279.7	581.90	µg/L	581.90	ppb	12:09:55
1	B 249.677†	-15464.4	-13961.5	629.03	µg/L	629.03	ppb	12:09:35
1	Ba 233.527†	160397.0	143027.9	1196.9	µg/L	1196.9	ppb	12:09:35
1	Be 313.107†	647344.9	580756.3	485.92	µg/L	485.92	ppb	12:09:30
1	Cd 226.502†	52182.2	46849.6	455.46	µg/L	455.46	ppb	12:09:35
1	Co 228.616†	27180.5	24457.0	560.87	µg/L	560.87	ppb	12:09:55
1	Cr 267.716†	35568.1	31591.1	631.31	µg/L	631.31	ppb	12:09:35
1	Cu 324.752†	135320.3	118733.4	889.05	µg/L	889.05	ppb	12:09:35
1	Mn 257.610†	4583985.3	4086692.9	6436.2	µg/L	6436.2	ppb	12:09:30
1	Mo 202.031†	9599.8	8526.4	488.94	µg/L	488.94	ppb	12:09:55
1	Ni 231.604†	29135.4	26181.5	729.25	µg/L	729.25	ppb	12:09:55
1	P 214.914†	8394.2	7352.7	4647.4	µg/L	4647.4	ppb	12:09:55
1	Pb 220.353†	5152.6	4657.7	588.71	µg/L	588.71	ppb	12:09:55
1	S 181.975 Axial†	81327.0	72420.0	88900	µg/L	88900	ppb	12:09:35
1	Sb 206.836†	2034.0	1658.9	431.74	µg/L	431.74	ppb	12:09:55
1	Se 196.026†	750.6	693.0	452.59	µg/L	452.59	ppb	12:09:55
1	SiO2†	233620.1	207233.9	34937	µg/L	34937	ppb	12:09:35
1	Si 251.611†	331506.4	295584.3	16318	µg/L	16318	ppb	12:09:35
1	Sn 189.927†	4271.4	3760.9	475.72	µg/L	475.72	ppb	12:09:55
1	Ti 334.940†	397581.6	355211.2	1522.7	µg/L	1522.7	ppb	12:09:35
1	Tl 190.801†	2221.6	2059.2	469.67	µg/L	469.67	ppb	12:09:55
1	U 367.007†	5861.9	4343.1	313.3	µg/L	313.3	ppb	12:09:35
1	V 292.402†	54308.7	48554.3	696.45	µg/L	696.45	ppb	12:09:35
1	Zn 213.857†	225950.0	200562.6	1493.1	µg/L	1493.1	ppb	12:09:35
2	Sc RADIAL	26647.7	26647.7	121	%			12:09:12
2	Al 396.153Radial†	382632.5	317141.1	101970	µg/L	101970	ppb	12:09:07
2	Ca 317.933Radial†	1350381.6	1118622.2	239560	µg/L	239560	ppb	12:09:07
2	Fe 238.204 Radial†	1748686.5	1448916.7	282010	µg/L	282010	ppb	12:09:07
2	K 766.490 Radial†	29573.0	24082.4	21861	µg/L	21861	ppb	12:09:12
2	Mg 279.077 IEC†	86697.3	71780.9	117310	µg/L	117310	ppb	12:09:12
2	Na 589.592 Radial†	4535.6	3630.6	5214.0	µg/L	5214.0	ppb	12:09:12
2	Sr 421.552†	248611.7	205737.7	1205.6	µg/L	1205.6	ppb	12:09:07
2	Sc 361.383	414540.4	414540.4	113.20	%			12:10:07
2	Y 371.029	430158.0	430158.0	119.53	%			12:10:07
2	Ag 328.068†	5847.3	5849.2	101.58	µg/L	101.58	ppb	12:10:07
2	As 188.979†	1412.6	1260.7	573.58	µg/L	573.58	ppb	12:10:27
2	B 249.677†	-15354.9	-13737.7	639.91	µg/L	639.91	ppb	12:10:07
2	Ba 233.527†	160812.2	142077.1	1188.9	µg/L	1188.9	ppb	12:10:07
2	Be 313.107†	646386.2	574591.9	480.79	µg/L	480.79	ppb	12:10:01
2	Cd 226.502†	52207.1	46442.9	451.14	µg/L	451.14	ppb	12:10:07
2	Co 228.616†	27358.0	24390.5	559.35	µg/L	559.35	ppb	12:10:27
2	Cr 267.716†	35661.7	31381.6	627.21	µg/L	627.21	ppb	12:10:07
2	Cu 324.752†	135404.2	117696.0	881.47	µg/L	881.47	ppb	12:10:07
2	Mn 257.610†	4581466.2	4046812.9	6373.6	µg/L	6373.6	ppb	12:10:01
2	Mo 202.031†	9677.1	8515.8	488.36	µg/L	488.36	ppb	12:10:27
2	Ni 231.604†	29246.5	26040.3	725.37	µg/L	725.37	ppb	12:10:27
2	P 214.914†	8430.4	7315.7	4622.4	µg/L	4622.4	ppb	12:10:27

2	Pb 220.353†	5186.4	4645.2	587.33 µg/L	587.33 ppb		12:10:27
2	S 181.975 Axial†	81395.6	71812.6	88153 µg/L	88153 ppb		12:10:07
2	Sb 206.836†	2039.2	1646.8	428.21 µg/L	428.21 ppb		12:10:27
2	Se 196.026†	777.4	710.5	461.25 µg/L	461.25 ppb		12:10:27
2	SiO2†	234290.4	205907.0	34713 µg/L	34713 ppb		12:10:07
2	Si 251.611†	332305.7	293567.2	16206 µg/L	16206 ppb		12:10:07
2	Sn 189.927†	4292.2	3744.2	473.61 µg/L	473.61 ppb		12:10:27
2	Ti 334.940†	397595.2	351957.3	1508.9 µg/L	1508.9 ppb		12:10:07
2	Tl 190.801†	2235.7	2053.3	468.45 µg/L	468.45 ppb		12:10:27
2	U 367.007†	5853.8	4287.8	290.5 µg/L	290.5 ppb		12:10:07
2	V 292.402†	54516.2	48291.5	693.19 µg/L	693.19 ppb		12:10:07
2	Zn 213.857†	226009.7	198759.2	1479.2 µg/L	1479.2 ppb		12:10:07
3	Sc RADIAL	26638.0	26638.0	121 %			12:09:22
3	Al 396.153Radial†	386907.0	320799.3	103150 µg/L	103150 ppb		12:09:17
3	Ca 317.933Radial†	1362404.0	1128993.8	241780 µg/L	241780 ppb		12:09:17
3	Fe 238.204 Radial†	1762640.4	1461009.0	284360 µg/L	284360 ppb		12:09:17
3	K 766.490 Radial†	29335.9	23894.7	21690 µg/L	21690 ppb		12:09:22
3	Mg 279.077 IEC†	85588.1	70887.5	115850 µg/L	115850 ppb		12:09:22
3	Na 589.592 Radial†	4510.3	3611.0	5180.6 µg/L	5180.6 ppb		12:09:22
3	Sr 421.552†	251580.7	208273.5	1220.5 µg/L	1220.5 ppb		12:09:17
3	Sc 361.383	414102.6	414102.6	113.08 %			12:10:38
3	Y 371.029	429270.3	429270.3	119.29 %			12:10:38
3	Ag 328.068†	5818.7	5829.4	101.72 µg/L	101.72 ppb		12:10:38
3	As 188.979†	1423.1	1271.3	578.38 µg/L	578.38 ppb		12:10:58
3	B 249.677†	-15411.6	-13802.2	646.93 µg/L	646.93 ppb		12:10:38
3	Ba 233.527†	160360.2	141827.6	1186.8 µg/L	1186.8 ppb		12:10:38
3	Be 313.107†	643850.1	572952.7	479.46 µg/L	479.46 ppb		12:10:33
3	Cd 226.502†	52125.4	46419.4	450.64 µg/L	450.64 ppb		12:10:38
3	Co 228.616†	27391.5	24445.6	560.61 µg/L	560.61 ppb		12:10:58
3	Cr 267.716†	35610.0	31369.2	626.98 µg/L	626.98 ppb		12:10:38
3	Cu 324.752†	135259.7	117694.7	881.60 µg/L	881.60 ppb		12:10:38
3	Mn 257.610†	4564477.4	4036067.5	6356.9 µg/L	6356.9 ppb		12:10:33
3	Mo 202.031†	9677.5	8525.2	488.93 µg/L	488.93 ppb		12:10:58
3	Ni 231.604†	29281.3	26098.4	727.02 µg/L	727.02 ppb		12:10:58
3	P 214.914†	8422.0	7316.2	4620.8 µg/L	4620.8 ppb		12:10:58
3	Pb 220.353†	5180.2	4644.5	587.39 µg/L	587.39 ppb		12:10:58
3	S 181.975 Axial†	81243.0	71753.7	88079 µg/L	88079 ppb		12:10:38
3	Sb 206.836†	2037.3	1647.1	427.98 µg/L	427.98 ppb		12:10:58
3	Se 196.026†	773.8	708.1	461.13 µg/L	461.13 ppb		12:10:58
3	SiO2†	233142.0	205110.3	34577 µg/L	34577 ppb		12:10:38
3	Si 251.611†	330710.3	292466.7	16145 µg/L	16145 ppb		12:10:38
3	Sn 189.927†	4295.7	3751.3	474.52 µg/L	474.52 ppb		12:10:58
3	Ti 334.940†	396978.4	351783.2	1508.2 µg/L	1508.2 ppb		12:10:38
3	Tl 190.801†	2230.8	2051.1	468.20 µg/L	468.20 ppb		12:10:58
3	U 367.007†	5853.8	4293.3	282.1 µg/L	282.1 ppb		12:10:38
3	V 292.402†	54395.4	48235.6	692.94 µg/L	692.94 ppb		12:10:38
3	Zn 213.857†	225986.6	198949.9	1480.5 µg/L	1480.5 ppb		12:10:38

Mean Data: 1204075175|1783993|1|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	413121.4	112.81	%	0.571				0.51%
Sc RADIAL	26620.0	121	%	0.18				0.15%
Y 371.029	428413.4	119.05	%	0.638				0.54%
Ag 328.068†	5834.2	101.50	µg/L	0.279	101.50	ppb	0.279	0.27%
Al 396.153Radial†	316658.6	101820	µg/L	1415.69	101820	ppb	1415.69	1.39%
As 188.979†	1270.6	577.96	µg/L	4.177	577.96	ppb	4.177	0.72%
B 249.677†	-13833.8	638.62	µg/L	9.017	638.62	ppb	9.017	1.41%
Ba 233.527†	142310.8	1190.9	µg/L	5.37	1190.9	ppb	5.37	0.45%
Be 313.107†	576100.3	482.06	µg/L	3.412	482.06	ppb	3.412	0.71%
Ca 317.933Radial†	1122053.5	240290	µg/L	1287.20	240290	ppb	1287.20	0.54%
Cd 226.502†	46570.6	452.41	µg/L	2.648	452.41	ppb	2.648	0.59%
Co 228.616†	24431.0	560.28	µg/L	0.811	560.28	ppb	0.811	0.14%
Cr 267.716†	31447.3	628.50	µg/L	2.436	628.50	ppb	2.436	0.39%
Cu 324.752†	118041.4	884.04	µg/L	4.336	884.04	ppb	4.336	0.49%
Fe 238.204 Radial†	1451438.5	282500	µg/L	1672.24	282500	ppb	1672.24	0.59%
K 766.490 Radial†	23953.7	21744	µg/L	101.39	21744	ppb	101.39	0.47%
Mg 279.077 IEC†	71444.7	116760	µg/L	794.20	116760	ppb	794.20	0.68%
Mn 257.610†	4056524.4	6388.9	µg/L	41.80	6388.9	ppb	41.80	0.65%
Mo 202.031†	8522.5	488.74	µg/L	0.334	488.74	ppb	0.334	0.07%

Na 589.592 Radial†	3610.4	5182.3 µg/L	30.89	5182.3 ppb	30.89	0.60%
Ni 231.604†	26106.7	727.21 µg/L	1.950	727.21 ppb	1.950	0.27%
P 214.914†	7328.2	4630.2 µg/L	14.89	4630.2 ppb	14.89	0.32%
Pb 220.353†	4649.1	587.81 µg/L	0.782	587.81 ppb	0.782	0.13%
S 181.975 Axial†	71995.4	88377 µg/L	453.82	88377 ppb	453.82	0.51%
Concentration greater than upper limit for S 181.975 Axial.						
Sb 206.836†	1650.9	429.31 µg/L	2.108	429.31 ppb	2.108	0.49%
Se 196.026†	703.9	458.32 µg/L	4.966	458.32 ppb	4.966	1.08%
SiO2†	206083.7	34742 µg/L	181.67	34742 ppb	181.67	0.52%
Si 251.611†	293872.7	16223 µg/L	87.55	16223 ppb	87.55	0.54%
Sn 189.927†	3752.1	474.62 µg/L	1.054	474.62 ppb	1.054	0.22%
Sr 421.552†	205663.9	1205.1 µg/L	15.55	1205.1 ppb	15.55	1.29%
Ti 334.940†	352983.9	1513.3 µg/L	8.18	1513.3 ppb	8.18	0.54%
Tl 190.801†	2054.5	468.77 µg/L	0.789	468.77 ppb	0.789	0.17%
U 367.007†	4308.1	295.3 µg/L	16.16	295.3 ppb	16.16	5.47%
V 292.402†	48360.5	694.19 µg/L	1.960	694.19 ppb	1.960	0.28%
Zn 213.857†	199423.9	1484.2 µg/L	7.65	1484.2 ppb	7.65	0.52%

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Sequence No.: 25 | **Autosampler Location: 318**
Sample ID: 1204073121|1783993|5| | **Date Collected: 7/23/2018 12:11:07**
Analyst: HSC | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: 1204073121|1783993|5|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	26515.3	26515.3	120	%			12:11:43
1	Al 396.153Radial†	80903.0	67464.4	21697	µg/L	21697	ppb	12:11:43
1	Ca 317.933Radial†	285208.2	237205.1	50799	µg/L	50799	ppb	12:11:43
1	Fe 238.204 Radial†	379786.2	316224.4	61547	µg/L	61547	ppb	12:11:38
1	K 766.490 Radial†	5377.8	4056.6	3681.0	µg/L	3681.0	ppb	12:11:43
1	Mg 279.077 IEC†	18110.2	15024.8	24554	µg/L	24554	ppb	12:11:43
1	Na 589.592 Radial†	278.6	104.4	80.051	µg/L	80.051	ppb	12:11:43
1	Sr 421.552†	34794.2	28713.7	167.95	µg/L	167.95	ppb	12:11:43
1	Sc 361.383	422675.0	422675.0	115.42	%			12:12:10
1	Y 371.029	417754.7	417754.7	116.09	%			12:12:10
1	Ag 328.068†	-1466.5	-586.9	3.1265	µg/L	3.1265	ppb	12:12:30
1	As 188.979†	24.4	33.9	18.267	µg/L	18.267	ppb	12:12:30
1	B 249.677†	-6853.7	-6111.3	36.553	µg/L	36.553	ppb	12:12:10
1	Ba 233.527†	21020.1	18227.4	151.90	µg/L	151.90	ppb	12:12:30
1	Be 313.107†	-2491.7	1415.1	1.8620	µg/L	1.8620	ppb	12:12:30
1	Cd 226.502†	444.7	708.4	0.6135	µg/L	0.6135	ppb	12:12:30
1	Co 228.616†	1182.4	1246.9	28.145	µg/L	28.145	ppb	12:12:30
1	Cr 267.716†	2123.7	1718.1	34.703	µg/L	34.703	ppb	12:12:30
1	Cu 324.752†	14279.0	10451.2	80.566	µg/L	80.566	ppb	12:12:10
1	Mn 257.610†	960101.4	831374.1	1309.6	µg/L	1309.6	ppb	12:12:10
1	Mo 202.031†	80.8	37.1	3.2611	µg/L	3.2611	ppb	12:12:30
1	Ni 231.604†	2467.7	2342.0	65.956	µg/L	65.956	ppb	12:12:30
1	P 214.914†	1705.4	1345.8	843.99	µg/L	843.99	ppb	12:12:30
1	Pb 220.353†	167.4	208.5	28.564	µg/L	28.564	ppb	12:12:30
1	S 181.975 Axial†	16073.7	13833.9	16979	µg/L	16979	ppb	12:12:30
1	Sb 206.836†	183.0	4.0	-7.8039	µg/L	-7.8039	ppb	12:12:30
1	Se 196.026†	-69.7	-36.6	10.062	µg/L	10.062	ppb	12:12:30
1	SiO2†	36368.5	30444.4	5131.1	µg/L	5131.1	ppb	12:12:10
1	Si 251.611†	50078.0	43395.7	2395.3	µg/L	2395.3	ppb	12:12:10
1	Sn 189.927†	63.2	7.2	2.3815	µg/L	2.3815	ppb	12:12:30
1	Ti 334.940†	58543.0	51443.1	221.26	µg/L	221.26	ppb	12:12:10
1	Tl 190.801†	-96.4	-5.2	5.0521	µg/L	5.0521	ppb	12:12:30
1	U 367.007†	1942.9	799.9	16.43	µg/L	16.43	ppb	12:12:10
1	V 292.402†	2694.5	2466.4	44.857	µg/L	44.857	ppb	12:12:30
1	Zn 213.857†	36813.4	30997.2	229.06	µg/L	229.06	ppb	12:12:10
2	Sc RADIAL	26503.0	26503.0	120	%			12:11:53
2	Al 396.153Radial†	80847.4	67449.4	21693	µg/L	21693	ppb	12:11:53
2	Ca 317.933Radial†	285093.6	237220.3	50802	µg/L	50802	ppb	12:11:53
2	Fe 238.204 Radial†	377696.4	314630.6	61237	µg/L	61237	ppb	12:11:48
2	K 766.490 Radial†	5364.5	4047.6	3672.9	µg/L	3672.9	ppb	12:11:53
2	Mg 279.077 IEC†	18169.3	15081.1	24646	µg/L	24646	ppb	12:11:53
2	Na 589.592 Radial†	330.0	147.4	146.46	µg/L	146.46	ppb	12:11:53
2	Sr 421.552†	34744.7	28685.9	167.79	µg/L	167.79	ppb	12:11:53
2	Sc 361.383	423457.9	423457.9	115.63	%			12:12:36
2	Y 371.029	417526.3	417526.3	116.02	%			12:12:36
2	Ag 328.068†	-1496.8	-610.8	2.8375	µg/L	2.8375	ppb	12:12:56
2	As 188.979†	23.5	33.1	17.866	µg/L	17.866	ppb	12:12:56
2	B 249.677†	-6800.1	-6053.9	37.254	µg/L	37.254	ppb	12:12:36
2	Ba 233.527†	20924.8	18111.2	150.93	µg/L	150.93	ppb	12:12:56
2	Be 313.107†	-2515.4	1398.6	1.8487	µg/L	1.8487	ppb	12:12:56
2	Cd 226.502†	456.9	718.2	0.7490	µg/L	0.7490	ppb	12:12:56
2	Co 228.616†	1137.2	1205.9	27.203	µg/L	27.203	ppb	12:12:56
2	Cr 267.716†	2121.1	1712.4	34.588	µg/L	34.588	ppb	12:12:56
2	Cu 324.752†	14150.2	10316.9	79.564	µg/L	79.564	ppb	12:12:36
2	Mn 257.610†	957490.7	827578.5	1303.6	µg/L	1303.6	ppb	12:12:36
2	Mo 202.031†	64.0	22.4	2.4203	µg/L	2.4203	ppb	12:12:56
2	Ni 231.604†	2470.8	2340.7	65.916	µg/L	65.916	ppb	12:12:56
2	P 214.914†	1745.5	1377.8	865.56	µg/L	865.56	ppb	12:12:56

2	Pb 220.353†	202.3	238.4	32.261 µg/L	32.261 ppb		12:12:56
2	S 181.975 Axial†	16050.0	13787.7	16923 µg/L	16923 ppb		12:12:56
2	Sb 206.836†	177.6	-1.0	-9.2034 µg/L	-9.2034 ppb		12:12:56
2	Se 196.026†	-70.8	-37.5	9.5232 µg/L	9.5232 ppb		12:12:56
2	SiO2†	36281.1	30310.5	5108.6 µg/L	5108.6 ppb		12:12:36
2	Si 251.611†	49905.1	43166.0	2382.6 µg/L	2382.6 ppb		12:12:36
2	Sn 189.927†	56.2	1.1	1.6066 µg/L	1.6066 ppb		12:12:56
2	Ti 334.940†	58228.6	51077.5	219.70 µg/L	219.70 ppb		12:12:36
2	Tl 190.801†	-108.6	-15.6	2.8130 µg/L	2.8130 ppb		12:12:56
2	U 367.007†	1951.5	804.2	19.13 µg/L	19.13 ppb		12:12:36
2	V 292.402†	2694.9	2462.4	44.736 µg/L	44.736 ppb		12:12:56
2	Zn 213.857†	36651.2	30798.0	227.58 µg/L	227.58 ppb		12:12:36
3	Sc RADIAL	26571.4	26571.4	120 %			12:12:03
3	Al 396.153Radial†	81042.5	67438.1	21689 µg/L	21689 ppb		12:12:03
3	Ca 317.933Radial†	286076.8	237425.9	50846 µg/L	50846 ppb		12:12:03
3	Fe 238.204 Radial†	379683.8	315472.1	61401 µg/L	61401 ppb		12:11:58
3	K 766.490 Radial†	5302.9	3984.9	3615.9 µg/L	3615.9 ppb		12:12:03
3	Mg 279.077 IEC†	18125.5	15005.8	24523 µg/L	24523 ppb		12:12:03
3	Na 589.592 Radial†	328.0	145.0	142.59 µg/L	142.59 ppb		12:12:03
3	Sr 421.552†	34723.3	28593.7	167.24 µg/L	167.24 ppb		12:12:03
3	Sc 361.383	421035.2	421035.2	114.97 %			12:13:02
3	Y 371.029	415254.5	415254.5	115.39 %			12:13:02
3	Ag 328.068†	-1493.0	-614.9	2.8251 µg/L	2.8251 ppb		12:13:22
3	As 188.979†	26.2	35.6	18.992 µg/L	18.992 ppb		12:13:22
3	B 249.677†	-6806.0	-6092.9	36.595 µg/L	36.595 ppb		12:13:02
3	Ba 233.527†	20876.9	18173.7	151.46 µg/L	151.46 ppb		12:13:22
3	Be 313.107†	-2468.9	1426.5	1.8707 µg/L	1.8707 ppb		12:13:22
3	Cd 226.502†	468.5	730.6	0.8595 µg/L	0.8595 ppb		12:13:22
3	Co 228.616†	1173.7	1243.2	28.063 µg/L	28.063 ppb		12:13:22
3	Cr 267.716†	2133.7	1733.9	35.027 µg/L	35.027 ppb		12:13:22
3	Cu 324.752†	14111.6	10353.8	79.839 µg/L	79.839 ppb		12:13:02
3	Mn 257.610†	947752.5	823872.9	1297.8 µg/L	1297.8 ppb		12:13:02
3	Mo 202.031†	69.8	27.7	2.7283 µg/L	2.7283 ppb		12:13:22
3	Ni 231.604†	2425.1	2313.2	65.159 µg/L	65.159 ppb		12:13:22
3	P 214.914†	1720.0	1364.3	856.42 µg/L	856.42 ppb		12:13:22
3	Pb 220.353†	195.2	233.3	31.633 µg/L	31.633 ppb		12:13:22
3	S 181.975 Axial†	15998.3	13822.6	16965 µg/L	16965 ppb		12:13:22
3	Sb 206.836†	205.0	23.7	-2.1333 µg/L	-2.1333 ppb		12:13:22
3	Se 196.026†	-70.7	-37.7	9.4936 µg/L	9.4936 ppb		12:13:22
3	SiO2†	36010.4	30255.7	5099.3 µg/L	5099.3 ppb		12:13:02
3	Si 251.611†	49498.6	43060.7	2376.8 µg/L	2376.8 ppb		12:13:02
3	Sn 189.927†	65.5	9.4	2.6445 µg/L	2.6445 ppb		12:13:22
3	Ti 334.940†	57934.0	51111.0	219.85 µg/L	219.85 ppb		12:13:02
3	Tl 190.801†	-102.1	-10.5	3.9164 µg/L	3.9164 ppb		12:13:22
3	U 367.007†	1916.3	783.3	11.13 µg/L	11.13 ppb		12:13:02
3	V 292.402†	2706.9	2486.2	45.079 µg/L	45.079 ppb		12:13:22
3	Zn 213.857†	36316.3	30689.2	226.74 µg/L	226.74 ppb		12:13:02

Mean Data: 1204073121|1783993|5|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	422389.4	115.34	%	0.338				0.29%
Sc RADIAL	26529.9	120	%	0.17				0.14%
Y 371.029	416845.2	115.83	%	0.384				0.33%
Ag 328.068†	-604.2	2.9297	µg/L	0.17052	2.9297	ppb	0.17052	5.82%
Al 396.153Radial†	67450.6	21693	µg/L	4.22	21693	ppb	4.22	0.02%
As 188.979†	34.2	18.375	µg/L	0.5705	18.375	ppb	0.5705	3.10%
B 249.677†	-6086.0	36.801	µg/L	0.3931	36.801	ppb	0.3931	1.07%
Ba 233.527†	18170.8	151.43	µg/L	0.485	151.43	ppb	0.485	0.32%
Be 313.107†	1413.4	1.8605	µg/L	0.01108	1.8605	ppb	0.01108	0.60%
Ca 317.933Radial†	237283.8	50816	µg/L	26.41	50816	ppb	26.41	0.05%
Cd 226.502†	719.1	0.7407	µg/L	0.12320	0.7407	ppb	0.12320	16.63%
Co 228.616†	1232.0	27.804	µg/L	0.5219	27.804	ppb	0.5219	1.88%
Cr 267.716†	1721.4	34.773	µg/L	0.2273	34.773	ppb	0.2273	0.65%
Cu 324.752†	10374.0	79.990	µg/L	0.5179	79.990	ppb	0.5179	0.65%
Fe 238.204 Radial†	315442.4	61395	µg/L	155.18	61395	ppb	155.18	0.25%
K 766.490 Radial†	4029.7	3656.6	µg/L	35.50	3656.6	ppb	35.50	0.97%
Mg 279.077 IEC†	15037.2	24574	µg/L	63.99	24574	ppb	63.99	0.26%
Mn 257.610†	827608.5	1303.7	µg/L	5.90	1303.7	ppb	5.90	0.45%
Mo 202.031†	29.1	2.8033	µg/L	0.42540	2.8033	ppb	0.42540	15.18%

Na 589.592 Radial†	132.2	123.03	µg/L	37.274	123.03	ppb	37.274	30.30%
Ni 231.604†	2332.0	65.677	µg/L	0.4492	65.677	ppb	0.4492	0.68%
P 214.914†	1362.6	855.32	µg/L	10.824	855.32	ppb	10.824	1.27%
Pb 220.353†	226.8	30.819	µg/L	1.9778	30.819	ppb	1.9778	6.42%
S 181.975 Axial†	13814.7	16956	µg/L	29.57	16956	ppb	29.57	0.17%
Sb 206.836†	8.9	-6.3802	µg/L	3.74389	-6.3802	ppb	3.74389	58.68%
Se 196.026†	-37.3	9.6929	µg/L	0.31984	9.6929	ppb	0.31984	3.30%
SiO2†	30336.9	5113.0	µg/L	16.37	5113.0	ppb	16.37	0.32%
Si 251.611†	43207.5	2384.9	µg/L	9.46	2384.9	ppb	9.46	0.40%
Sn 189.927†	5.9	2.2109	µg/L	0.53961	2.2109	ppb	0.53961	24.41%
Sr 421.552†	28664.4	167.66	µg/L	0.370	167.66	ppb	0.370	0.22%
Ti 334.940†	51210.5	220.27	µg/L	0.860	220.27	ppb	0.860	0.39%
Tl 190.801†	-10.4	3.9272	µg/L	1.11959	3.9272	ppb	1.11959	28.51%
U 367.007†	795.8	15.56	µg/L	4.072	15.56	ppb	4.072	26.16%
V 292.402†	2471.7	44.891	µg/L	0.1741	44.891	ppb	0.1741	0.39%
Zn 213.857†	30828.1	227.79	µg/L	1.178	227.79	ppb	1.178	0.52%

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Sequence No.: 26 | **Autosampler Location: 1**
Sample ID: CCV | **Date Collected: 7/23/2018 12:13:30**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	25994.3	25994.3	118	%			12:14:09
1	Al 396.153Radial†	17780.3	15196.9	4864.5	µg/L	4864.5	ppb	12:14:09
1	Ca 317.933Radial†	28218.1	23672.7	5069.7	µg/L	5069.7	ppb	12:14:09
1	Fe 238.204 Radial†	30549.5	25914.3	5043.8	µg/L	5043.8	ppb	12:14:09
1	K 766.490 Radial†	6657.2	5233.1	4755.3	µg/L	4755.3	ppb	12:14:09
1	Mg 279.077 IEC†	3832.8	3199.6	5228.9	µg/L	5228.9	ppb	12:14:09
1	Na 589.592 Radial†	7481.6	6227.5	9569.6	µg/L	9569.6	ppb	12:14:09
1	Sr 421.552†	95313.8	80701.0	474.46	µg/L	474.46	ppb	12:14:03
1	Sc 361.383	415293.9	415293.9	113.40	%			12:14:36
1	Y 371.029	405524.7	405524.7	112.69	%			12:14:36
1	Ag 328.068†	53939.7	48247.6	489.94	µg/L	489.94	ppb	12:14:36
1	As 188.979†	1304.4	1163.0	515.72	µg/L	515.72	ppb	12:14:56
1	B 249.677†	16658.1	14515.9	500.24	µg/L	500.24	ppb	12:14:36
1	Ba 233.527†	65120.6	57438.7	483.34	µg/L	483.34	ppb	12:14:36
1	Be 313.107†	660362.9	585880.5	487.07	µg/L	487.07	ppb	12:14:36
1	Cd 226.502†	53994.3	47935.1	496.97	µg/L	496.97	ppb	12:14:36
1	Co 228.616†	23683.1	21106.1	486.39	µg/L	486.39	ppb	12:14:56
1	Cr 267.716†	27408.5	24046.8	478.73	µg/L	478.73	ppb	12:14:56
1	Cu 324.752†	75189.7	64382.0	472.91	µg/L	472.91	ppb	12:14:36
1	Mn 257.610†	348712.9	307037.4	482.53	µg/L	482.53	ppb	12:14:36
1	Mo 202.031†	9934.2	8727.0	495.13	µg/L	495.13	ppb	12:14:56
1	Ni 231.604†	19995.6	17836.0	493.09	µg/L	493.09	ppb	12:14:56
1	P 214.914†	4316.3	3674.4	2431.9	µg/L	2431.9	ppb	12:14:56
1	Pb 220.353†	4486.7	4019.9	497.26	µg/L	497.26	ppb	12:14:56
1	S 181.975 Axial†	1052.5	835.8	1024.4	µg/L	1024.4	ppb	12:14:56
1	Sb 206.836†	2100.1	1697.3	483.06	µg/L	483.06	ppb	12:14:56
1	Se 196.026†	1191.4	1074.3	510.03	µg/L	510.03	ppb	12:14:56
1	SiO2†	36237.0	30888.5	5196.2	µg/L	5196.2	ppb	12:14:36
1	Si 251.611†	49972.8	44074.2	2428.8	µg/L	2428.8	ppb	12:14:36
1	Sn 189.927†	4689.0	4087.2	509.55	µg/L	509.55	ppb	12:14:56
1	Ti 334.940†	128435.6	113975.8	485.21	µg/L	485.21	ppb	12:14:36
1	Tl 190.801†	2499.7	2282.5	489.64	µg/L	489.64	ppb	12:14:56
1	U 367.007†	2507.2	1327.4	444.7	µg/L	444.7	ppb	12:14:36
1	V 292.402†	41162.1	36428.5	481.70	µg/L	481.70	ppb	12:14:36
1	Zn 213.857†	72785.1	63283.9	478.70	µg/L	478.70	ppb	12:14:36
2	Sc RADIAL	25862.0	25862.0	117	%			12:14:19
2	Al 396.153Radial†	17660.0	15171.5	4856.1	µg/L	4856.1	ppb	12:14:19
2	Ca 317.933Radial†	28051.1	23652.8	5065.4	µg/L	5065.4	ppb	12:14:19
2	Fe 238.204 Radial†	30327.5	25857.5	5032.7	µg/L	5032.7	ppb	12:14:19
2	K 766.490 Radial†	6556.6	5176.2	4703.6	µg/L	4703.6	ppb	12:14:19
2	Mg 279.077 IEC†	3778.6	3170.0	5180.5	µg/L	5180.5	ppb	12:14:19
2	Na 589.592 Radial†	7446.2	6229.7	9573.1	µg/L	9573.1	ppb	12:14:19
2	Sr 421.552†	94796.2	80673.3	474.30	µg/L	474.30	ppb	12:14:14
2	Sc 361.383	413900.0	413900.0	113.02	%			12:15:02
2	Y 371.029	404159.2	404159.2	112.31	%			12:15:02
2	Ag 328.068†	54153.0	48596.5	493.48	µg/L	493.48	ppb	12:15:02
2	As 188.979†	1289.3	1153.5	511.57	µg/L	511.57	ppb	12:15:22
2	B 249.677†	16799.9	14690.8	506.00	µg/L	506.00	ppb	12:15:02
2	Ba 233.527†	65503.7	57971.0	487.82	µg/L	487.82	ppb	12:15:02
2	Be 313.107†	664611.1	591600.2	491.83	µg/L	491.83	ppb	12:15:02
2	Cd 226.502†	54347.3	48407.8	501.88	µg/L	501.88	ppb	12:15:02
2	Co 228.616†	23804.3	21283.7	490.48	µg/L	490.48	ppb	12:15:22
2	Cr 267.716†	27536.8	24241.8	482.60	µg/L	482.60	ppb	12:15:22
2	Cu 324.752†	75491.7	64872.5	476.52	µg/L	476.52	ppb	12:15:02
2	Mn 257.610†	351134.8	310215.8	487.52	µg/L	487.52	ppb	12:15:02
2	Mo 202.031†	9996.4	8811.5	499.92	µg/L	499.92	ppb	12:15:22
2	Ni 231.604†	20118.9	18004.5	497.75	µg/L	497.75	ppb	12:15:22
2	P 214.914†	4329.4	3698.8	2448.1	µg/L	2448.1	ppb	12:15:22

2	Pb 220.353†	4508.0	4052.0	501.23 µg/L	501.23 ppb	12:15:22
2	S 181.975 Axial†	1059.3	844.9	1035.6 µg/L	1035.6 ppb	12:15:22
2	Sb 206.836†	2121.4	1722.3	490.22 µg/L	490.22 ppb	12:15:22
2	Se 196.026†	1180.7	1068.4	507.24 µg/L	507.24 ppb	12:15:22
2	SiO2†	36521.2	31247.5	5256.7 µg/L	5256.7 ppb	12:15:02
2	Si 251.611†	50225.8	44446.4	2449.3 µg/L	2449.3 ppb	12:15:02
2	Sn 189.927†	4705.8	4116.0	513.14 µg/L	513.14 ppb	12:15:22
2	Ti 334.940†	129493.1	115292.8	490.81 µg/L	490.81 ppb	12:15:02
2	Tl 190.801†	2529.5	2316.3	496.90 µg/L	496.90 ppb	12:15:22
2	U 367.007†	2549.5	1372.2	460.5 µg/L	460.5 ppb	12:15:02
2	V 292.402†	41589.4	36928.9	488.29 µg/L	488.29 ppb	12:15:02
2	Zn 213.857†	73415.1	64057.4	484.57 µg/L	484.57 ppb	12:15:02
3	Sc RADIAL	25989.2	25989.2	118 %		12:14:29
3	Al 396.153Radial†	17792.3	15210.2	4868.6 µg/L	4868.6 ppb	12:14:29
3	Ca 317.933Radial†	28211.8	23672.1	5069.5 µg/L	5069.5 ppb	12:14:29
3	Fe 238.204 Radial†	30531.9	25904.6	5041.9 µg/L	5041.9 ppb	12:14:29
3	K 766.490 Radial†	6521.4	5118.9	4651.5 µg/L	4651.5 ppb	12:14:29
3	Mg 279.077 IEC†	3823.3	3192.2	5216.7 µg/L	5216.7 ppb	12:14:29
3	Na 589.592 Radial†	7473.1	6221.5	9560.4 µg/L	9560.4 ppb	12:14:29
3	Sr 421.552†	94590.1	80102.3	470.94 µg/L	470.94 ppb	12:14:24
3	Sc 361.383	416225.4	416225.4	113.66 %		12:15:28
3	Y 371.029	405972.9	405972.9	112.81 %		12:15:28
3	Ag 328.068†	54543.9	48672.8	494.27 µg/L	494.27 ppb	12:15:28
3	As 188.979†	1309.8	1165.2	516.71 µg/L	516.71 ppb	12:15:48
3	B 249.677†	17099.4	14871.3	512.03 µg/L	512.03 ppb	12:15:28
3	Ba 233.527†	66281.6	58331.6	490.85 µg/L	490.85 ppb	12:15:28
3	Be 313.107†	671300.6	594200.4	493.98 µg/L	493.98 ppb	12:15:28
3	Cd 226.502†	55083.8	48787.2	505.82 µg/L	505.82 ppb	12:15:28
3	Co 228.616†	23933.3	21279.5	490.38 µg/L	490.38 ppb	12:15:48
3	Cr 267.716†	27714.3	24261.8	483.03 µg/L	483.03 ppb	12:15:48
3	Cu 324.752†	76119.0	65051.2	477.81 µg/L	477.81 ppb	12:15:28
3	Mn 257.610†	354479.6	311422.9	489.42 µg/L	489.42 ppb	12:15:28
3	Mo 202.031†	10035.2	8796.3	499.06 µg/L	499.06 ppb	12:15:48
3	Ni 231.604†	20241.9	18013.3	498.00 µg/L	498.00 ppb	12:15:48
3	P 214.914†	4371.7	3714.6	2458.6 µg/L	2458.6 ppb	12:15:48
3	Pb 220.353†	4541.0	4058.8	502.09 µg/L	502.09 ppb	12:15:48
3	S 181.975 Axial†	1066.3	845.8	1036.8 µg/L	1036.8 ppb	12:15:48
3	Sb 206.836†	2156.2	1742.4	495.96 µg/L	495.96 ppb	12:15:48
3	Se 196.026†	1185.7	1066.9	506.53 µg/L	506.53 ppb	12:15:48
3	SiO2†	36748.8	31267.2	5260.1 µg/L	5260.1 ppb	12:15:28
3	Si 251.611†	50803.7	44706.5	2463.7 µg/L	2463.7 ppb	12:15:28
3	Sn 189.927†	4744.6	4126.9	514.50 µg/L	514.50 ppb	12:15:48
3	Ti 334.940†	130608.1	115633.7	492.28 µg/L	492.28 ppb	12:15:28
3	Tl 190.801†	2545.4	2317.8	497.20 µg/L	497.20 ppb	12:15:48
3	U 367.007†	2443.0	1265.9	423.0 µg/L	423.0 ppb	12:15:28
3	V 292.402†	41854.2	36956.3	488.62 µg/L	488.62 ppb	12:15:28
3	Zn 213.857†	74103.9	64300.5	486.41 µg/L	486.41 ppb	12:15:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	415139.8	113.36	%	0.320				0.28%
Sc RADIAL	25948.5	118	%	0.34				0.29%
Y 371.029	405218.9	112.60	%	0.263				0.23%
Ag 328.068†	48505.6	492.56	µg/L	2.305	492.56	ppb	2.305	0.47%
QC value within limits for Ag 328.068 Recovery = 98.51%								
Al 396.153Radial†	15192.9	4863.1	µg/L	6.36	4863.1	ppb	6.36	0.13%
QC value within limits for Al 396.153Radial Recovery = 97.26%								
As 188.979†	1160.6	514.67	µg/L	2.726	514.67	ppb	2.726	0.53%
QC value within limits for As 188.979 Recovery = 102.93%								
B 249.677†	14692.7	506.09	µg/L	5.896	506.09	ppb	5.896	1.16%
QC value within limits for B 249.677 Recovery = 101.22%								
Ba 233.527†	57913.8	487.34	µg/L	3.781	487.34	ppb	3.781	0.78%
QC value within limits for Ba 233.527 Recovery = 97.47%								
Be 313.107†	590560.3	490.96	µg/L	3.535	490.96	ppb	3.535	0.72%
QC value within limits for Be 313.107 Recovery = 98.19%								
Ca 317.933Radial†	23665.9	5068.2	µg/L	2.43	5068.2	ppb	2.43	0.05%
QC value within limits for Ca 317.933Radial Recovery = 101.36%								
Cd 226.502†	48376.7	501.56	µg/L	4.430	501.56	ppb	4.430	0.88%
QC value within limits for Cd 226.502 Recovery = 100.31%								

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Co 228.616†            21223.1      489.08 µg/L         2.334      489.08 ppb          2.334   0.48%
   QC value within limits for Co 228.616  Recovery = 97.82%
Cr 267.716†            24183.4      481.45 µg/L         2.368      481.45 ppb          2.368   0.49%
   QC value within limits for Cr 267.716  Recovery = 96.29%
Cu 324.752†            64768.5      475.75 µg/L         2.538      475.75 ppb          2.538   0.53%
   QC value within limits for Cu 324.752  Recovery = 95.15%
Fe 238.204 Radial†     25892.1      5039.4 µg/L          5.91      5039.4 ppb           5.91   0.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.79%
K 766.490 Radial†       5176.0      4703.5 µg/L         51.92      4703.5 ppb          51.92   1.10%
   QC value within limits for K 766.490 Radial  Recovery = 94.07%
Mg 279.077 IEC†         3187.2      5208.7 µg/L         25.18      5208.7 ppb          25.18   0.48%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.17%
Mn 257.610†           309558.7      486.49 µg/L         3.558      486.49 ppb          3.558   0.73%
   QC value within limits for Mn 257.610  Recovery = 97.30%
Mo 202.031†             8778.3      498.04 µg/L         2.553      498.04 ppb          2.553   0.51%
   QC value within limits for Mo 202.031  Recovery = 99.61%
Na 589.592 Radial†      6226.2      9567.7 µg/L          6.58      9567.7 ppb           6.58   0.07%
   QC value within limits for Na 589.592 Radial  Recovery = 95.68%
Ni 231.604†            17951.3      496.28 µg/L         2.762      496.28 ppb          2.762   0.56%
   QC value within limits for Ni 231.604  Recovery = 99.26%
P 214.914†              3696.0      2446.2 µg/L         13.45      2446.2 ppb          13.45   0.55%
   QC value within limits for P 214.914  Recovery = 97.85%
Pb 220.353†             4043.6      500.19 µg/L         2.575      500.19 ppb          2.575   0.51%
   QC value within limits for Pb 220.353  Recovery = 100.04%
S 181.975 Axial†         842.2      1032.3 µg/L          6.82      1032.3 ppb           6.82   0.66%
   QC value within limits for S 181.975 Axial  Recovery = 103.23%
Sb 206.836†             1720.7      489.75 µg/L         6.467      489.75 ppb          6.467   1.32%
   QC value within limits for Sb 206.836  Recovery = 97.95%
Se 196.026†             1069.9      507.93 µg/L         1.853      507.93 ppb          1.853   0.36%
   QC value within limits for Se 196.026  Recovery = 101.59%
SiO2†                  31134.4      5237.7 µg/L         35.92      5237.7 ppb          35.92   0.69%
   QC value within limits for SiO2  Recovery = 97.95%
Si 251.611†            44409.0      2447.3 µg/L         17.54      2447.3 ppb          17.54   0.72%
   QC value within limits for Si 251.611  Recovery = 97.89%
Sn 189.927†             4110.1      512.40 µg/L         2.561      512.40 ppb          2.561   0.50%
   QC value within limits for Sn 189.927  Recovery = 102.48%
Sr 421.552†            80492.2      473.23 µg/L         1.987      473.23 ppb          1.987   0.42%
   QC value within limits for Sr 421.552  Recovery = 94.65%
Ti 334.940†           114967.4      489.44 µg/L         3.730      489.44 ppb          3.730   0.76%
   QC value within limits for Ti 334.940  Recovery = 97.89%
Tl 190.801†             2305.5      494.58 µg/L         4.278      494.58 ppb          4.278   0.86%
   QC value within limits for Tl 190.801  Recovery = 98.92%
U 367.007†              1321.8       442.7 µg/L         18.79       442.7 ppb          18.79   4.24%
   QC value less than the lower limit for U 367.007  Recovery = 88.55%
V 292.402†             36771.2      486.20 µg/L         3.900      486.20 ppb          3.900   0.80%
   QC value within limits for V 292.402  Recovery = 97.24%
Zn 213.857†            63880.6      483.22 µg/L         4.030      483.22 ppb          4.030   0.83%
   QC value within limits for Zn 213.857  Recovery = 96.64%
QC Failed.  Continue with analysis.
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Sequence No.: 27 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 7/23/2018 12:15:57**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	25558.7	25558.7	116	%			12:16:49
1	Al 396.153Radial†	-152.7	-37.9	-12.196	µg/L	-12.196	ppb	12:16:49
1	Ca 317.933Radial†	453.1	95.1	20.369	µg/L	20.369	ppb	12:16:49
1	Fe 238.204 Radial†	45.3	4.1	0.7950	µg/L	0.7950	ppb	12:16:49
1	K 766.490 Radial†	502.8	12.7	11.551	µg/L	11.551	ppb	12:16:29
1	Mg 279.077 IEC†	72.1	6.2	10.212	µg/L	10.212	ppb	12:16:49
1	Na 589.592 Radial†	101.7	-39.8	-61.131	µg/L	-61.131	ppb	12:16:49
1	Sr 421.552†	284.9	-14.4	-0.0848	µg/L	-0.0848	ppb	12:16:29
1	Sc 361.383	413498.8	413498.8	112.91	%			12:17:45
1	Y 371.029	407336.4	407336.4	113.19	%			12:17:45
1	Ag 328.068†	-761.3	9.4	0.0947	µg/L	0.0947	ppb	12:17:45
1	As 188.979†	-22.8	-7.4	-3.2646	µg/L	-3.2646	ppb	12:18:05
1	B 249.677†	259.7	56.8	1.8871	µg/L	1.8871	ppb	12:18:05
1	Ba 233.527†	-0.6	15.0	0.1261	µg/L	0.1261	ppb	12:18:05
1	Be 313.107†	-3757.9	245.9	0.2046	µg/L	0.2046	ppb	12:17:45
1	Cd 226.502†	-331.6	29.4	0.3055	µg/L	0.3055	ppb	12:18:05
1	Co 228.616†	-214.9	32.1	0.7389	µg/L	0.7389	ppb	12:18:05
1	Cr 267.716†	153.3	13.9	0.2759	µg/L	0.2759	ppb	12:18:05
1	Cu 324.752†	2106.4	-54.6	-0.4008	µg/L	-0.4008	ppb	12:17:45
1	Mn 257.610†	593.8	69.0	0.1084	µg/L	0.1084	ppb	12:18:05
1	Mo 202.031†	39.8	2.3	0.1314	µg/L	0.1314	ppb	12:18:05
1	Ni 231.604†	-234.4	-3.6	-0.1007	µg/L	-0.1007	ppb	12:18:05
1	P 214.914†	93.5	-48.9	-32.535	µg/L	-32.535	ppb	12:18:05
1	Pb 220.353†	-91.7	-17.7	-2.1893	µg/L	-2.1893	ppb	12:18:05
1	S 181.975 Axial†	115.2	9.7	11.962	µg/L	11.962	ppb	12:18:05
1	Sb 206.836†	182.1	6.6	1.8928	µg/L	1.8928	ppb	12:18:05
1	Se 196.026†	-23.6	2.8	1.3473	µg/L	1.3473	ppb	12:18:05
1	SiO2†	1397.9	172.8	29.191	µg/L	29.191	ppb	12:18:05
1	Si 251.611†	392.0	355.3	19.649	µg/L	19.649	ppb	12:18:05
1	Sn 189.927†	36.0	-15.6	-1.9403	µg/L	-1.9403	ppb	12:18:05
1	Ti 334.940†	-801.6	11.6	0.0501	µg/L	0.0501	ppb	12:17:45
1	Tl 190.801†	-73.0	13.7	2.9297	µg/L	2.9297	ppb	12:18:05
1	U 367.007†	998.1	0.5	0.167	µg/L	0.167	ppb	12:17:45
1	V 292.402†	-182.3	-29.6	-0.3843	µg/L	-0.3843	ppb	12:18:05
1	Zn 213.857†	1167.5	136.2	1.0382	µg/L	1.0382	ppb	12:18:05
2	Sc RADIAL	25452.1	25452.1	115	%			12:17:14
2	Al 396.153Radial†	-113.1	-4.2	-1.3582	µg/L	-1.3582	ppb	12:17:14
2	Ca 317.933Radial†	460.4	103.1	22.079	µg/L	22.079	ppb	12:17:14
2	Fe 238.204 Radial†	39.0	-1.2	-0.2357	µg/L	-0.2357	ppb	12:17:14
2	K 766.490 Radial†	491.8	5.0	4.5588	µg/L	4.5588	ppb	12:16:54
2	Mg 279.077 IEC†	67.4	2.4	3.9897	µg/L	3.9897	ppb	12:17:14
2	Na 589.592 Radial†	123.9	-20.1	-30.892	µg/L	-30.892	ppb	12:17:14
2	Sr 421.552†	273.1	-23.6	-0.1392	µg/L	-0.1392	ppb	12:16:54
2	Sc 361.383	414276.8	414276.8	113.13	%			12:18:11
2	Y 371.029	407583.0	407583.0	113.26	%			12:18:11
2	Ag 328.068†	-788.5	-13.3	-0.1597	µg/L	-0.1597	ppb	12:18:11
2	As 188.979†	-20.2	-5.1	-2.2254	µg/L	-2.2254	ppb	12:18:31
2	B 249.677†	227.1	27.6	0.9121	µg/L	0.9121	ppb	12:18:31
2	Ba 233.527†	9.6	24.0	0.2024	µg/L	0.2024	ppb	12:18:31
2	Be 313.107†	-3717.0	288.2	0.2502	µg/L	0.2502	ppb	12:18:11
2	Cd 226.502†	-304.2	54.2	0.5624	µg/L	0.5624	ppb	12:18:31
2	Co 228.616†	-210.1	36.7	0.8451	µg/L	0.8451	ppb	12:18:31
2	Cr 267.716†	155.6	15.7	0.2783	µg/L	0.2783	ppb	12:18:31
2	Cu 324.752†	2051.2	-106.9	-0.7593	µg/L	-0.7593	ppb	12:18:11
2	Mn 257.610†	608.1	80.7	0.1267	µg/L	0.1267	ppb	12:18:31
2	Mo 202.031†	46.3	8.0	0.4522	µg/L	0.4522	ppb	12:18:31
2	Ni 231.604†	-239.7	-7.9	-0.2192	µg/L	-0.2192	ppb	12:18:31
2	P 214.914†	87.9	-54.0	-35.921	µg/L	-35.921	ppb	12:18:31

2	Pb 220.353†	-92.7	-18.4	-2.3047	µg/L	-2.3047	ppb	12:18:31
2	S 181.975 Axial†	114.6	8.9	10.993	µg/L	10.993	ppb	12:18:31
2	Sb 206.836†	185.3	9.2	2.6232	µg/L	2.6232	ppb	12:18:31
2	Se 196.026†	-11.1	14.0	6.6044	µg/L	6.6044	ppb	12:18:31
2	SiO2†	1416.1	186.5	31.500	µg/L	31.500	ppb	12:18:31
2	Si 251.611†	407.7	368.6	20.379	µg/L	20.379	ppb	12:18:31
2	Sn 189.927†	45.6	-7.2	-0.8953	µg/L	-0.8953	ppb	12:18:31
2	Ti 334.940†	-758.0	51.5	0.2008	µg/L	0.2008	ppb	12:18:11
2	Tl 190.801†	-94.3	-5.0	-1.0576	µg/L	-1.0576	ppb	12:18:31
2	U 367.007†	1134.9	119.7	42.10	µg/L	42.10	ppb	12:18:11
2	V 292.402†	-174.6	-22.5	-0.2643	µg/L	-0.2643	ppb	12:18:31
2	Zn 213.857†	1136.9	107.2	0.8187	µg/L	0.8187	ppb	12:18:31
3	Sc RADIAL	25306.0	25306.0	115	%			12:17:39
3	Al 396.153Radial†	-113.2	-4.8	-1.5407	µg/L	-1.5407	ppb	12:17:39
3	Ca 317.933Radial†	442.8	90.0	19.284	µg/L	19.284	ppb	12:17:39
3	Fe 238.204 Radial†	57.7	15.3	2.9724	µg/L	2.9724	ppb	12:17:39
3	K 766.490 Radial†	500.5	15.0	13.655	µg/L	13.655	ppb	12:17:19
3	Mg 279.077 IEC†	55.8	-7.4	-12.064	µg/L	-12.064	ppb	12:17:39
3	Na 589.592 Radial†	105.0	-35.9	-55.263	µg/L	-55.263	ppb	12:17:39
3	Sr 421.552†	366.3	59.1	0.3473	µg/L	0.3473	ppb	12:17:19
3	Sc 361.383	414631.4	414631.4	113.22	%			12:18:36
3	Y 371.029	407713.0	407713.0	113.30	%			12:18:36
3	Ag 328.068†	-783.3	-8.1	-0.0947	µg/L	-0.0947	ppb	12:18:36
3	As 188.979†	-22.2	-6.8	-3.0089	µg/L	-3.0089	ppb	12:18:56
3	B 249.677†	242.3	40.8	1.3628	µg/L	1.3628	ppb	12:18:56
3	Ba 233.527†	2.9	18.1	0.1520	µg/L	0.1520	ppb	12:18:56
3	Be 313.107†	-3660.5	340.9	0.2891	µg/L	0.2891	ppb	12:18:36
3	Cd 226.502†	-306.7	52.2	0.5415	µg/L	0.5415	ppb	12:18:56
3	Co 228.616†	-204.4	41.8	0.9636	µg/L	0.9636	ppb	12:18:56
3	Cr 267.716†	137.3	-0.6	-0.0312	µg/L	-0.0312	ppb	12:18:56
3	Cu 324.752†	2018.1	-137.7	-0.9968	µg/L	-0.9968	ppb	12:18:36
3	Mn 257.610†	634.8	103.8	0.1633	µg/L	0.1633	ppb	12:18:56
3	Mo 202.031†	34.0	-3.0	-0.1676	µg/L	-0.1676	ppb	12:18:56
3	Ni 231.604†	-227.2	3.3	0.0898	µg/L	0.0898	ppb	12:18:56
3	P 214.914†	74.9	-65.6	-43.616	µg/L	-43.616	ppb	12:18:56
3	Pb 220.353†	-81.9	-8.8	-1.1042	µg/L	-1.1042	ppb	12:18:56
3	S 181.975 Axial†	111.2	5.8	7.1856	µg/L	7.1856	ppb	12:18:56
3	Sb 206.836†	180.8	5.1	1.4494	µg/L	1.4494	ppb	12:18:56
3	Se 196.026†	-8.6	16.2	7.6356	µg/L	7.6356	ppb	12:18:56
3	SiO2†	1392.1	164.3	27.768	µg/L	27.768	ppb	12:18:56
3	Si 251.611†	378.9	342.9	18.965	µg/L	18.965	ppb	12:18:56
3	Sn 189.927†	46.3	-6.6	-0.8249	µg/L	-0.8249	ppb	12:18:56
3	Ti 334.940†	-733.9	73.3	0.3025	µg/L	0.3025	ppb	12:18:36
3	Tl 190.801†	-92.2	-3.2	-0.6663	µg/L	-0.6663	ppb	12:18:56
3	U 367.007†	1074.0	65.1	22.86	µg/L	22.86	ppb	12:18:36
3	V 292.402†	-138.8	9.3	0.1333	µg/L	0.1333	ppb	12:18:56
3	Zn 213.857†	1193.4	156.1	1.1902	µg/L	1.1902	ppb	12:18:56

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	414135.7	113.09	%	0.158				0.14%
Sc RADIAL	25438.9	115	%	0.57				0.50%
Y 371.029	407544.1	113.25	%	0.053				0.05%
Ag 328.068†	-4.0	-0.0532	µg/L	0.13219	-0.0532	ppb	0.13219	248.36%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-15.6	-5.0317	µg/L	6.20527	-5.0317	ppb	6.20527	123.32%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-6.5	-2.8330	µg/L	0.54148	-2.8330	ppb	0.54148	19.11%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	41.7	1.3873	µg/L	0.48796	1.3873	ppb	0.48796	35.17%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	19.0	0.1602	µg/L	0.03881	0.1602	ppb	0.03881	24.23%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	291.7	0.2480	µg/L	0.04228	0.2480	ppb	0.04228	17.05%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	96.1	20.577	µg/L	1.4088	20.577	ppb	1.4088	6.85%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	45.3	0.4698	µg/L	0.14271	0.4698	ppb	0.14271	30.38%
QC value within limits for Cd 226.502 Recovery = Not calculated								

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Co 228.616†                36.9      0.8492 µg/L       0.11245      0.8492 ppb        0.11245  13.24%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 9.6      0.1743 µg/L       0.17801      0.1743 ppb        0.17801 102.12%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -99.8     -0.7190 µg/L       0.30001     -0.7190 ppb        0.30001  41.73%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          6.0      1.1772 µg/L       1.63784      1.1772 ppb        1.63784 139.13%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          10.9      9.9217 µg/L       4.76206      9.9217 ppb        4.76206  48.00%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.4      0.7129 µg/L      11.49385      0.7129 ppb       11.49385 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                84.5      0.1328 µg/L       0.02794      0.1328 ppb        0.02794  21.04%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.4      0.1387 µg/L       0.30993      0.1387 ppb        0.30993 223.51%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -31.9     -49.095 µg/L       16.0354     -49.095 ppb        16.0354  32.66%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -2.8     -0.0767 µg/L       0.15590     -0.0767 ppb        0.15590 203.23%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -56.1     -37.357 µg/L        5.6784     -37.357 ppb         5.6784  15.20%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -15.0     -1.8661 µg/L       0.66229     -1.8661 ppb        0.66229  35.49%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           8.2      10.047 µg/L        2.5249      10.047 ppb         2.5249  25.13%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 7.0      1.9885 µg/L       0.59275      1.9885 ppb        0.59275  29.81%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                11.0      5.1958 µg/L       3.37251      5.1958 ppb        3.37251  64.91%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     174.5      29.486 µg/L        1.8838      29.486 ppb         1.8838   6.39%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               355.6      19.664 µg/L        0.7073      19.664 ppb         0.7073   3.60%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -9.8     -1.2202 µg/L       0.62467     -1.2202 ppb        0.62467  51.20%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 7.0      0.0411 µg/L       0.26660      0.0411 ppb        0.26660 649.00%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                45.5      0.1845 µg/L       0.12700      0.1845 ppb        0.12700  68.84%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.8      0.4019 µg/L       2.19785      0.4019 ppb        2.19785 546.82%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†                 61.8       21.71 µg/L        20.991       21.71 ppb         20.991  96.68%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†                -14.3     -0.1718 µg/L       0.27093     -0.1718 ppb        0.27093 157.74%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               133.2      1.0157 µg/L       0.18677      1.0157 ppb        0.18677  18.39%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 28 **Autosampler Location: 319**
Sample ID: 454944003|1783993|1| **Date Collected: 7/23/2018 12:19:05**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: 454944003|1783993|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	25862.6	25862.6	117	%			12:19:44
1	Al 396.153Radial†	375664.3	320816.7	103180	µg/L	103180	ppb	12:19:39
1	Ca 317.933Radial†	1087249.4	927940.9	198720	µg/L	198720	ppb	12:19:39
1	Fe 238.204 Radial†	1678428.5	1432920.3	278890	µg/L	278890	ppb	12:19:39
1	K 766.490 Radial†	23487.6	19630.8	17809	µg/L	17809	ppb	12:19:44
1	Mg 279.077 IEC†	72860.8	62148.7	101570	µg/L	101570	ppb	12:19:44
1	Na 589.592 Radial†	1060.9	778.1	831.66	µg/L	831.66	ppb	12:19:44
1	Sr 421.552†	175180.8	149299.8	874.43	µg/L	874.43	ppb	12:19:44
1	Sc 361.383	407740.6	407740.6	111.34	%			12:20:13
1	Y 371.029	426805.6	426805.6	118.60	%			12:20:13
1	Ag 328.068†	-4340.3	-3214.5	8.6961	µg/L	8.6961	ppb	12:20:13
1	As 188.979†	163.6	159.8	85.398	µg/L	85.398	ppb	12:20:33
1	B 249.677†	-30335.7	-27418.7	174.74	µg/L	174.74	ppb	12:20:13
1	Ba 233.527†	121393.5	109043.0	910.95	µg/L	910.95	ppb	12:20:13
1	Be 313.107†	2625.3	5931.8	7.6089	µg/L	7.6089	ppb	12:20:13
1	Cd 226.502†	2732.5	2777.2	-1.7504	µg/L	-1.7504	ppb	12:20:33
1	Co 228.616†	5914.3	5534.2	124.55	µg/L	124.55	ppb	12:20:33
1	Cr 267.716†	9309.6	8239.4	167.17	µg/L	167.17	ppb	12:20:33
1	Cu 324.752†	46866.6	40172.3	312.19	µg/L	312.19	ppb	12:20:13
1	Mn 257.610†	3181368.1	2856834.2	4504.5	µg/L	4504.5	ppb	12:20:13
1	Mo 202.031†	133.7	87.2	10.188	µg/L	10.188	ppb	12:20:33
1	Ni 231.604†	11382.9	10427.3	293.76	µg/L	293.76	ppb	12:20:33
1	P 214.914†	7966.1	7022.9	4441.3	µg/L	4441.3	ppb	12:20:33
1	Pb 220.353†	919.5	889.3	122.48	µg/L	122.48	ppb	12:20:33
1	S 181.975 Axial†	71506.3	64129.8	78714	µg/L	78714	ppb	12:20:13
1	Sb 206.836†	211.0	34.9	-30.540	µg/L	-30.540	ppb	12:20:33
1	Se 196.026†	-293.3	-239.6	10.766	µg/L	10.766	ppb	12:20:33
1	SiO2†	136521.3	121549.0	20479	µg/L	20479	ppb	12:20:13
1	Si 251.611†	193114.2	173450.4	9571.4	µg/L	9571.4	ppb	12:20:13
1	Sn 189.927†	31.6	-19.1	5.6697	µg/L	5.6697	ppb	12:20:33
1	Ti 334.940†	320252.2	288350.6	1236.5	µg/L	1236.5	ppb	12:20:13
1	Tl 190.801†	-164.5	-69.4	13.707	µg/L	13.707	ppb	12:20:33
1	U 367.007†	4322.9	2999.1	-127.9	µg/L	-127.9	ppb	12:20:13
1	V 292.402†	13363.9	12134.4	215.48	µg/L	215.48	ppb	12:20:33
1	Zn 213.857†	85414.2	75815.4	545.72	µg/L	545.72	ppb	12:20:13
2	Sc RADIAL	25991.6	25991.6	118	%			12:19:54
2	Al 396.153Radial†	380292.1	323155.9	103930	µg/L	103930	ppb	12:19:49
2	Ca 317.933Radial†	1083283.1	919963.3	197020	µg/L	197020	ppb	12:19:49
2	Fe 238.204 Radial†	1674738.3	1422671.6	276900	µg/L	276900	ppb	12:19:49
2	K 766.490 Radial†	23892.3	19875.1	18031	µg/L	18031	ppb	12:19:54
2	Mg 279.077 IEC†	72571.0	61593.7	100660	µg/L	100660	ppb	12:19:54
2	Na 589.592 Radial†	1062.9	775.4	830.01	µg/L	830.01	ppb	12:19:54
2	Sr 421.552†	176631.0	149789.2	877.34	µg/L	877.34	ppb	12:19:54
2	Sc 361.383	407340.8	407340.8	111.23	%			12:20:40
2	Y 371.029	426636.7	426636.7	118.56	%			12:20:40
2	Ag 328.068†	-4328.8	-3208.0	8.4687	µg/L	8.4687	ppb	12:20:40
2	As 188.979†	154.0	151.2	81.540	µg/L	81.540	ppb	12:21:00
2	B 249.677†	-30289.7	-27404.1	167.45	µg/L	167.45	ppb	12:20:40
2	Ba 233.527†	121134.7	108917.3	909.94	µg/L	909.94	ppb	12:20:40
2	Be 313.107†	2788.1	6080.5	7.7121	µg/L	7.7121	ppb	12:20:40
2	Cd 226.502†	2787.5	2829.1	-0.9938	µg/L	-0.9938	ppb	12:21:00
2	Co 228.616†	5995.9	5612.9	126.36	µg/L	126.36	ppb	12:21:00
2	Cr 267.716†	9431.2	8356.8	169.46	µg/L	169.46	ppb	12:21:00
2	Cu 324.752†	46932.5	40272.8	312.81	µg/L	312.81	ppb	12:20:40
2	Mn 257.610†	3175183.3	2854078.7	4500.1	µg/L	4500.1	ppb	12:20:40
2	Mo 202.031†	134.8	88.3	10.213	µg/L	10.213	ppb	12:21:00
2	Ni 231.604†	11450.3	10497.9	295.67	µg/L	295.67	ppb	12:21:00
2	P 214.914†	8027.3	7084.9	4484.5	µg/L	4484.5	ppb	12:21:00

2	Pb 220.353†	899.7	872.4	120.41 µg/L	120.41 ppb		12:21:00
2	S 181.975 Axial†	70732.8	63497.5	77938 µg/L	77938 ppb		12:20:40
2	Sb 206.836†	217.6	41.1	-28.545 µg/L	-28.545 ppb		12:21:00
2	Se 196.026†	-292.7	-239.4	10.012 µg/L	10.012 ppb		12:21:00
2	SiO2†	136025.2	121223.4	20424 µg/L	20424 ppb		12:20:40
2	Si 251.611†	192142.5	172747.1	9532.7 µg/L	9532.7 ppb		12:20:40
2	Sn 189.927†	52.7	-0.1	8.0145 µg/L	8.0145 ppb		12:21:00
2	Ti 334.940†	320336.0	288708.2	1238.0 µg/L	1238.0 ppb		12:20:40
2	Tl 190.801†	-166.2	-71.1	13.174 µg/L	13.174 ppb		12:21:00
2	U 367.007†	4312.7	2993.7	-121.2 µg/L	-121.2 ppb		12:20:40
2	V 292.402†	13480.3	12250.9	216.59 µg/L	216.59 ppb		12:21:00
2	Zn 213.857†	85074.2	75585.1	544.18 µg/L	544.18 ppb		12:20:40
3	Sc RADIAL	25901.8	25901.8	117 %			12:20:05
3	Al 396.153Radial†	381087.5	324954.4	104510 µg/L	104510 ppb		12:19:59
3	Ca 317.933Radial†	1078066.2	918708.0	196750 µg/L	196750 ppb		12:19:59
3	Fe 238.204 Radial†	1667635.7	1421551.6	276680 µg/L	276680 ppb		12:19:59
3	K 766.490 Radial†	23645.9	19735.5	17904 µg/L	17904 ppb		12:20:05
3	Mg 279.077 IEC†	71566.2	60951.0	99608 µg/L	99608 ppb		12:20:05
3	Na 589.592 Radial†	1074.6	788.5	850.47 µg/L	850.47 ppb		12:20:05
3	Sr 421.552†	175212.7	149100.6	873.29 µg/L	873.29 ppb		12:20:05
3	Sc 361.383	408569.4	408569.4	111.57 %			12:21:08
3	Y 371.029	427977.6	427977.6	118.93 %			12:21:08
3	Ag 328.068†	-4357.5	-3222.0	8.2907 µg/L	8.2907 ppb		12:21:08
3	As 188.979†	142.4	140.4	76.801 µg/L	76.801 ppb		12:21:28
3	B 249.677†	-30393.5	-27415.3	166.23 µg/L	166.23 ppb		12:21:08
3	Ba 233.527†	121337.1	108771.3	908.72 µg/L	908.72 ppb		12:21:08
3	Be 313.107†	2852.1	6130.3	7.7511 µg/L	7.7511 ppb		12:21:08
3	Cd 226.502†	2749.0	2787.0	-1.4073 µg/L	-1.4073 ppb		12:21:28
3	Co 228.616†	5949.4	5554.9	125.03 µg/L	125.03 ppb		12:21:28
3	Cr 267.716†	9382.5	8287.7	168.06 µg/L	168.06 ppb		12:21:28
3	Cu 324.752†	47041.1	40243.3	312.58 µg/L	312.58 ppb		12:21:08
3	Mn 257.610†	3182957.8	2852463.0	4497.5 µg/L	4497.5 ppb		12:21:08
3	Mo 202.031†	139.9	92.4	10.445 µg/L	10.445 ppb		12:21:28
3	Ni 231.604†	11400.6	10422.4	293.58 µg/L	293.58 ppb		12:21:28
3	P 214.914†	7970.8	7012.6	4436.7 µg/L	4436.7 ppb		12:21:28
3	Pb 220.353†	930.2	897.3	123.53 µg/L	123.53 ppb		12:21:28
3	S 181.975 Axial†	70867.4	63426.9	77851 µg/L	77851 ppb		12:21:08
3	Sb 206.836†	220.8	43.3	-27.835 µg/L	-27.835 ppb		12:21:28
3	Se 196.026†	-287.3	-233.8	12.565 µg/L	12.565 ppb		12:21:28
3	SiO2†	136079.1	120903.9	20370 µg/L	20370 ppb		12:21:08
3	Si 251.611†	192515.7	172562.2	9522.5 µg/L	9522.5 ppb		12:21:08
3	Sn 189.927†	33.1	-17.9	5.8197 µg/L	5.8197 ppb		12:21:28
3	Ti 334.940†	321666.7	289034.9	1239.3 µg/L	1239.3 ppb		12:21:08
3	Tl 190.801†	-147.4	-53.8	16.844 µg/L	16.844 ppb		12:21:28
3	U 367.007†	4340.0	3006.6	-115.6 µg/L	-115.6 ppb		12:21:08
3	V 292.402†	13456.3	12192.9	215.79 µg/L	215.79 ppb		12:21:28
3	Zn 213.857†	85185.3	75454.6	543.23 µg/L	543.23 ppb		12:21:08

Mean Data: 454944003|1783993|1|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	407883.6	111.38	%	0.171				0.15%
Sc RADIAL	25918.7	117	%	0.30				0.26%
Y 371.029	427140.0	118.70	%	0.203				0.17%
Ag 328.068†	-3214.8	8.4852	µg/L	0.20321	8.4852	ppb	0.20321	2.39%
Al 396.153Radial†	322975.7	103870	µg/L	667.25	103870	ppb	667.25	0.64%
As 188.979†	150.5	81.247	µg/L	4.3059	81.247	ppb	4.3059	5.30%
B 249.677†	-27412.7	169.47	µg/L	4.602	169.47	ppb	4.602	2.72%
Ba 233.527†	108910.6	909.87	µg/L	1.118	909.87	ppb	1.118	0.12%
Be 313.107†	6047.5	7.6907	µg/L	0.07344	7.6907	ppb	0.07344	0.95%
Ca 317.933Radial†	922204.1	197500	µg/L	1072.43	197500	ppb	1072.43	0.54%
Cd 226.502†	2797.8	-1.3838	µg/L	0.37887	-1.3838	ppb	0.37887	27.38%
Co 228.616†	5567.3	125.31	µg/L	0.941	125.31	ppb	0.941	0.75%
Cr 267.716†	8294.6	168.23	µg/L	1.157	168.23	ppb	1.157	0.69%
Cu 324.752†	40229.5	312.53	µg/L	0.312	312.53	ppb	0.312	0.10%
Fe 238.204 Radial†	1425714.5	277490	µg/L	1219.46	277490	ppb	1219.46	0.44%
K 766.490 Radial†	19747.1	17914	µg/L	111.46	17914	ppb	111.46	0.62%
Mg 279.077 IEC†	61564.5	100610	µg/L	979.58	100610	ppb	979.58	0.97%
Mn 257.610†	2854458.6	4500.7	µg/L	3.54	4500.7	ppb	3.54	0.08%
Mo 202.031†	89.3	10.282	µg/L	0.1418	10.282	ppb	0.1418	1.38%

Na 589.592 Radial†	780.7	837.38	µg/L	11.370	837.38	ppb	11.370	1.36%
Ni 231.604†	10449.2	294.34	µg/L	1.159	294.34	ppb	1.159	0.39%
P 214.914†	7040.2	4454.1	µg/L	26.38	4454.1	ppb	26.38	0.59%
Pb 220.353†	886.3	122.14	µg/L	1.589	122.14	ppb	1.589	1.30%
S 181.975 Axial†	63684.8	78167	µg/L	475.43	78167	ppb	475.43	0.61%
Concentration greater than upper limit for S 181.975 Axial.								
Sb 206.836†	39.8	-28.973	µg/L	1.4022	-28.973	ppb	1.4022	4.84%
Concentration less than lower limit for Sb 206.836.								
Se 196.026†	-237.6	11.115	µg/L	1.3117	11.115	ppb	1.3117	11.80%
SiO2†	121225.4	20424	µg/L	54.26	20424	ppb	54.26	0.27%
Si 251.611†	172919.9	9542.2	µg/L	25.83	9542.2	ppb	25.83	0.27%
Sn 189.927†	-12.4	6.5013	µg/L	1.31258	6.5013	ppb	1.31258	20.19%
Sr 421.552†	149396.6	875.02	µg/L	2.086	875.02	ppb	2.086	0.24%
Ti 334.940†	288697.9	1237.9	µg/L	1.41	1237.9	ppb	1.41	0.11%
Tl 190.801†	-64.8	14.575	µg/L	1.9831	14.575	ppb	1.9831	13.61%
U 367.007†	2999.8	-121.6	µg/L	6.13	-121.6	ppb	6.13	5.04%
Concentration less than lower limit for U 367.007.								
V 292.402†	12192.7	215.95	µg/L	0.575	215.95	ppb	0.575	0.27%
Zn 213.857†	75618.4	544.38	µg/L	1.256	544.38	ppb	1.256	0.23%

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Sequence No.: 29 **Autosampler Location: 320**
Sample ID: 454944004|1783993|1| **Date Collected: 7/23/2018 12:21:36**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: 454944004|1783993|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	25661.6	25661.6	116	%			12:22:12
1	Al 396.153Radial†	403792.9	347531.9	111770	µg/L	111770	ppb	12:22:07
1	Ca 317.933Radial†	1124937.7	967640.5	207230	µg/L	207230	ppb	12:22:07
1	Fe 238.204 Radial†	1672151.9	1438744.7	280030	µg/L	280030	ppb	12:22:07
1	K 766.490 Radial†	26322.4	22227.1	20170	µg/L	20170	ppb	12:22:12
1	Mg 279.077 IEC†	77196.9	66366.9	108460	µg/L	108460	ppb	12:22:12
1	Na 589.592 Radial†	1262.0	958.3	1107.2	µg/L	1107.2	ppb	12:22:12
1	Sr 421.552†	199751.8	171613.1	1005.5	µg/L	1005.5	ppb	12:22:12
1	Sc 361.383	403062.4	403062.4	110.06	%			12:22:42
1	Y 371.029	422417.6	422417.6	117.38	%			12:22:42
1	Ag 328.068†	-4399.3	-3313.3	7.8710	µg/L	7.8710	ppb	12:22:42
1	As 188.979†	160.3	158.4	84.905	µg/L	84.905	ppb	12:23:02
1	B 249.677†	-30355.0	-27752.4	168.10	µg/L	168.10	ppb	12:22:42
1	Ba 233.527†	106259.4	96558.2	805.84	µg/L	805.84	ppb	12:22:42
1	Be 313.107†	2894.4	6203.6	7.9484	µg/L	7.9484	ppb	12:22:42
1	Cd 226.502†	3087.7	3128.5	1.7632	µg/L	1.7632	ppb	12:23:02
1	Co 228.616†	5458.7	5182.0	116.31	µg/L	116.31	ppb	12:23:02
1	Cr 267.716†	9939.5	8908.7	180.52	µg/L	180.52	ppb	12:23:02
1	Cu 324.752†	51774.7	45120.2	348.60	µg/L	348.60	ppb	12:22:42
1	Mn 257.610†	3276322.0	2976268.7	4692.2	µg/L	4692.2	ppb	12:22:42
1	Mo 202.031†	102.5	60.2	8.6779	µg/L	8.6779	ppb	12:23:02
1	Ni 231.604†	10971.9	10172.5	286.74	µg/L	286.74	ppb	12:23:02
1	P 214.914†	7898.3	7044.3	4455.9	µg/L	4455.9	ppb	12:23:02
1	Pb 220.353†	855.9	841.1	117.40	µg/L	117.40	ppb	12:23:02
1	S 181.975 Axial†	60028.9	54447.4	66813	µg/L	66813	ppb	12:22:42
1	Sb 206.836†	235.0	58.9	-24.090	µg/L	-24.090	ppb	12:23:02
1	Se 196.026†	-299.7	-248.6	7.0545	µg/L	7.0545	ppb	12:23:02
1	SiO2†	173454.4	156528.0	26390	µg/L	26390	ppb	12:22:42
1	Si 251.611†	245929.7	223449.4	12336	µg/L	12336	ppb	12:22:42
1	Sn 189.927†	38.2	-12.9	6.3876	µg/L	6.3876	ppb	12:23:02
1	Ti 334.940†	321124.2	292481.2	1254.5	µg/L	1254.5	ppb	12:22:42
1	Tl 190.801†	-168.5	-74.8	12.725	µg/L	12.725	ppb	12:23:02
1	U 367.007†	4382.0	3097.8	-102.3	µg/L	-102.3	ppb	12:22:42
1	V 292.402†	14394.2	13209.8	229.76	µg/L	229.76	ppb	12:23:02
1	Zn 213.857†	202688.7	183256.4	1364.1	µg/L	1364.1	ppb	12:22:42
2	Sc RADIAL	25975.1	25975.1	118	%			12:22:23
2	Al 396.153Radial†	411668.1	350033.0	112570	µg/L	112570	ppb	12:22:18
2	Ca 317.933Radial†	1129729.5	960031.6	205600	µg/L	205600	ppb	12:22:18
2	Fe 238.204 Radial†	1683102.1	1430688.0	278460	µg/L	278460	ppb	12:22:18
2	K 766.490 Radial†	26373.9	21997.5	19961	µg/L	19961	ppb	12:22:23
2	Mg 279.077 IEC†	76453.4	64933.2	106120	µg/L	106120	ppb	12:22:23
2	Na 589.592 Radial†	1225.4	914.1	1041.2	µg/L	1041.2	ppb	12:22:23
2	Sr 421.552†	200144.3	169872.4	995.28	µg/L	995.28	ppb	12:22:23
2	Sc 361.383	405499.3	405499.3	110.73	%			12:23:09
2	Y 371.029	424606.8	424606.8	117.99	%			12:23:09
2	Ag 328.068†	-4401.1	-3290.9	7.8713	µg/L	7.8713	ppb	12:23:09
2	As 188.979†	156.8	154.4	83.053	µg/L	83.053	ppb	12:23:29
2	B 249.677†	-30517.9	-27733.8	162.61	µg/L	162.61	ppb	12:23:09
2	Ba 233.527†	106791.5	96458.6	805.04	µg/L	805.04	ppb	12:23:09
2	Be 313.107†	3037.1	6316.7	8.0189	µg/L	8.0189	ppb	12:23:09
2	Cd 226.502†	3082.4	3106.8	1.7091	µg/L	1.7091	ppb	12:23:29
2	Co 228.616†	5460.8	5154.1	115.67	µg/L	115.67	ppb	12:23:29
2	Cr 267.716†	9951.1	8864.8	179.59	µg/L	179.59	ppb	12:23:29
2	Cu 324.752†	52169.1	45193.7	349.04	µg/L	349.04	ppb	12:23:09
2	Mn 257.610†	3294193.0	2974518.8	4689.3	µg/L	4689.3	ppb	12:23:09
2	Mo 202.031†	126.8	81.6	9.8640	µg/L	9.8640	ppb	12:23:29
2	Ni 231.604†	10949.6	10092.5	284.49	µg/L	284.49	ppb	12:23:29
2	P 214.914†	7890.9	6994.6	4424.4	µg/L	4424.4	ppb	12:23:29

2	Pb 220.353†	852.4	833.3	116.48	µg/L	116.48	ppb	12:23:29
2	S 181.975 Axial†	60188.5	54263.7	66588	µg/L	66588	ppb	12:23:09
2	Sb 206.836†	221.3	45.3	-27.751	µg/L	-27.751	ppb	12:23:29
2	Se 196.026†	-294.6	-242.3	9.3042	µg/L	9.3042	ppb	12:23:29
2	SiO2†	174552.2	156572.3	26398	µg/L	26398	ppb	12:23:09
2	Si 251.611†	247612.0	223625.8	12346	µg/L	12346	ppb	12:23:09
2	Sn 189.927†	33.4	-17.4	5.8305	µg/L	5.8305	ppb	12:23:29
2	Ti 334.940†	323481.7	292856.9	1256.0	µg/L	1256.0	ppb	12:23:09
2	Tl 190.801†	-163.3	-69.2	13.788	µg/L	13.788	ppb	12:23:29
2	U 367.007†	4361.0	3054.9	-110.4	µg/L	-110.4	ppb	12:23:09
2	V 292.402†	14406.1	13142.0	228.56	µg/L	228.56	ppb	12:23:29
2	Zn 213.857†	203414.4	182805.1	1360.9	µg/L	1360.9	ppb	12:23:09
3	Sc RADIAL	25689.5	25689.5	116	%			12:22:33
3	Al 396.153Radial†	415467.3	357188.4	114880	µg/L	114880	ppb	12:22:28
3	Ca 317.933Radial†	1136633.1	976640.6	209150	µg/L	209150	ppb	12:22:28
3	Fe 238.204 Radial†	1692464.0	1454638.9	283120	µg/L	283120	ppb	12:22:28
3	K 766.490 Radial†	26350.5	22226.6	20169	µg/L	20169	ppb	12:22:33
3	Mg 279.077 IEC†	76059.5	65317.1	106740	µg/L	106740	ppb	12:22:33
3	Na 589.592 Radial†	1202.9	906.3	1023.2	µg/L	1023.2	ppb	12:22:33
3	Sr 421.552†	200473.0	172046.2	1008.0	µg/L	1008.0	ppb	12:22:33
3	Sc 361.383	404125.5	404125.5	110.35	%			12:23:36
3	Y 371.029	423413.4	423413.4	117.66	%			12:23:36
3	Ag 328.068†	-4333.3	-3243.0	9.0526	µg/L	9.0526	ppb	12:23:36
3	As 188.979†	162.5	160.1	85.787	µg/L	85.787	ppb	12:23:56
3	B 249.677†	-30523.5	-27832.6	177.49	µg/L	177.49	ppb	12:23:36
3	Ba 233.527†	106649.9	96658.2	806.60	µg/L	806.60	ppb	12:23:36
3	Be 313.107†	2962.4	6258.4	8.0131	µg/L	8.0131	ppb	12:23:36
3	Cd 226.502†	3106.4	3138.0	1.5238	µg/L	1.5238	ppb	12:23:56
3	Co 228.616†	5445.1	5156.6	115.71	µg/L	115.71	ppb	12:23:56
3	Cr 267.716†	9959.7	8903.2	180.44	µg/L	180.44	ppb	12:23:56
3	Cu 324.752†	52130.8	45319.1	350.24	µg/L	350.24	ppb	12:23:36
3	Mn 257.610†	3286167.1	2977359.8	4694.1	µg/L	4694.1	ppb	12:23:36
3	Mo 202.031†	127.8	82.8	10.022	µg/L	10.022	ppb	12:23:56
3	Ni 231.604†	11022.1	10191.8	287.33	µg/L	287.33	ppb	12:23:56
3	P 214.914†	7916.1	7041.6	4452.0	µg/L	4452.0	ppb	12:23:56
3	Pb 220.353†	845.5	829.7	116.31	µg/L	116.31	ppb	12:23:56
3	S 181.975 Axial†	59934.5	54218.3	66531	µg/L	66531	ppb	12:23:36
3	Sb 206.836†	222.8	47.3	-27.827	µg/L	-27.827	ppb	12:23:56
3	Se 196.026†	-279.7	-229.7	17.361	µg/L	17.361	ppb	12:23:56
3	SiO2†	173899.3	156516.6	26387	µg/L	26387	ppb	12:23:36
3	Si 251.611†	246462.9	223344.8	12330	µg/L	12330	ppb	12:23:36
3	Sn 189.927†	31.9	-18.6	5.7478	µg/L	5.7478	ppb	12:23:56
3	Ti 334.940†	322847.9	293275.7	1258.0	µg/L	1258.0	ppb	12:23:36
3	Tl 190.801†	-153.4	-60.7	16.011	µg/L	16.011	ppb	12:23:56
3	U 367.007†	4344.3	3053.2	-130.9	µg/L	-130.9	ppb	12:23:36
3	V 292.402†	14427.6	13205.7	230.34	µg/L	230.34	ppb	12:23:56
3	Zn 213.857†	203001.7	183055.6	1362.3	µg/L	1362.3	ppb	12:23:36

Mean Data: 454944004|1783993|1|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	404229.1	110.38	%	0.334				0.30%
Sc RADIAL	25775.4	117	%	0.79				0.67%
Y 371.029	423479.3	117.68	%	0.305				0.26%
Ag 328.068†	-3282.4	8.2650	µg/L	0.68211	8.2650	ppb	0.68211	8.25%
Al 396.153Radial†	351584.4	113070	µg/L	1611.80	113070	ppb	1611.80	1.43%
As 188.979†	157.6	84.582	µg/L	1.3954	84.582	ppb	1.3954	1.65%
B 249.677†	-27772.9	169.40	µg/L	7.525	169.40	ppb	7.525	4.44%
Ba 233.527†	96558.4	805.82	µg/L	0.782	805.82	ppb	0.782	0.10%
Be 313.107†	6259.6	7.9935	µg/L	0.03913	7.9935	ppb	0.03913	0.49%
Ca 317.933Radial†	968104.2	207330	µg/L	1780.53	207330	ppb	1780.53	0.86%
Cd 226.502†	3124.4	1.6654	µg/L	0.12555	1.6654	ppb	0.12555	7.54%
Co 228.616†	5164.2	115.90	µg/L	0.359	115.90	ppb	0.359	0.31%
Cr 267.716†	8892.2	180.18	µg/L	0.516	180.18	ppb	0.516	0.29%
Cu 324.752†	45211.0	349.29	µg/L	0.846	349.29	ppb	0.846	0.24%
Fe 238.204 Radial†	1441357.2	280530	µg/L	2372.04	280530	ppb	2372.04	0.85%
K 766.490 Radial†	22150.4	20100	µg/L	120.19	20100	ppb	120.19	0.60%
Mg 279.077 IEC†	65539.1	107110	µg/L	1212.86	107110	ppb	1212.86	1.13%
Mn 257.610†	2976049.1	4691.9	µg/L	2.40	4691.9	ppb	2.40	0.05%
Mo 202.031†	74.9	9.5211	µg/L	0.73452	9.5211	ppb	0.73452	7.71%

Na 589.592 Radial†	926.2	1057.2	µg/L	44.23	1057.2	ppb	44.23	4.18%
Ni 231.604†	10152.3	286.19	µg/L	1.497	286.19	ppb	1.497	0.52%
P 214.914†	7026.9	4444.1	µg/L	17.19	4444.1	ppb	17.19	0.39%
Pb 220.353†	834.7	116.73	µg/L	0.589	116.73	ppb	0.589	0.50%
S 181.975 Axial†	54309.8	66644	µg/L	149.47	66644	ppb	149.47	0.22%
Concentration greater than upper limit for S 181.975 Axial.								
Sb 206.836†	50.5	-26.556	µg/L	2.1359	-26.556	ppb	2.1359	8.04%
Concentration less than lower limit for Sb 206.836.								
Se 196.026†	-240.2	11.240	µg/L	5.4191	11.240	ppb	5.4191	48.21%
SiO2†	156539.0	26392	µg/L	5.45	26392	ppb	5.45	0.02%
Si 251.611†	223473.3	12338	µg/L	8.02	12338	ppb	8.02	0.07%
Sn 189.927†	-16.3	5.9886	µg/L	0.34800	5.9886	ppb	0.34800	5.81%
Sr 421.552†	171177.2	1002.9	µg/L	6.74	1002.9	ppb	6.74	0.67%
Ti 334.940†	292871.3	1256.1	µg/L	1.74	1256.1	ppb	1.74	0.14%
Tl 190.801†	-68.2	14.175	µg/L	1.6770	14.175	ppb	1.6770	11.83%
U 367.007†	3068.6	-114.5	µg/L	14.76	-114.5	ppb	14.76	12.88%
Concentration less than lower limit for U 367.007.								
V 292.402†	13185.8	229.55	µg/L	0.910	229.55	ppb	0.910	0.40%
Zn 213.857†	183039.1	1362.4	µg/L	1.62	1362.4	ppb	1.62	0.12%

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Sequence No.: 30 **Autosampler Location: 321**
Sample ID: 454944005|1783993|1| **Date Collected: 7/23/2018 12:24:05**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: 454944005|1783993|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	25758.1	25758.1	117	%			12:24:41
1	Al 396.153Radial†	359089.5	307909.2	99027	µg/L	99027	ppb	12:24:36
1	Ca 317.933Radial†	1518645.2	1301502.1	278720	µg/L	278720	ppb	12:24:36
1	Fe 238.204 Radial†	1716029.9	1470963.6	286300	µg/L	286300	ppb	12:24:36
1	K 766.490 Radial†	22829.6	19148.1	17384	µg/L	17384	ppb	12:24:41
1	Mg 279.077 IEC†	99735.5	85438.2	139630	µg/L	139630	ppb	12:24:41
1	Na 589.592 Radial†	1054.2	776.1	818.79	µg/L	818.79	ppb	12:24:41
1	Sr 421.552†	174629.9	149434.0	873.81	µg/L	873.81	ppb	12:24:41
1	Sc 361.383	398273.3	398273.3	108.76	%			12:25:15
1	Y 371.029	420699.6	420699.6	116.91	%			12:25:15
1	Ag 328.068†	-4406.4	-3368.0	8.2041	µg/L	8.2041	ppb	12:25:15
1	As 188.979†	167.1	166.4	88.721	µg/L	88.721	ppb	12:25:35
1	B 249.677†	-31348.2	-28997.3	151.13	µg/L	151.13	ppb	12:25:15
1	Ba 233.527†	101803.5	93622.1	780.97	µg/L	780.97	ppb	12:25:15
1	Be 313.107†	535.3	4066.2	7.0263	µg/L	7.0263	ppb	12:25:15
1	Cd 226.502†	2947.1	3032.9	0.0905	µg/L	0.0905	ppb	12:25:35
1	Co 228.616†	5606.9	5377.8	120.86	µg/L	120.86	ppb	12:25:35
1	Cr 267.716†	8664.0	7844.5	159.68	µg/L	159.68	ppb	12:25:35
1	Cu 324.752†	59862.1	53122.0	407.72	µg/L	407.72	ppb	12:25:15
1	Mn 257.610†	3604246.5	3313584.0	5222.3	µg/L	5222.3	ppb	12:25:09
1	Mo 202.031†	226.2	175.0	15.310	µg/L	15.310	ppb	12:25:35
1	Ni 231.604†	10672.9	10017.5	282.57	µg/L	282.57	ppb	12:25:35
1	P 214.914†	7597.9	6854.4	4320.5	µg/L	4320.5	ppb	12:25:35
1	Pb 220.353†	817.7	815.4	114.66	µg/L	114.66	ppb	12:25:35
1	S 181.975 Axial†	81233.9	74600.8	91580	µg/L	91580	ppb	12:25:15
1	Sb 206.836†	206.0	34.8	-31.372	µg/L	-31.372	ppb	12:25:35
1	Se 196.026†	-282.6	-236.1	15.755	µg/L	15.755	ppb	12:25:35
1	SiO2†	160950.7	146926.1	24765	µg/L	24765	ppb	12:25:15
1	Si 251.611†	228143.4	209782.0	11580	µg/L	11580	ppb	12:25:15
1	Sn 189.927†	35.8	-14.6	5.0744	µg/L	5.0744	ppb	12:25:35
1	Ti 334.940†	308843.0	284697.2	1224.6	µg/L	1224.6	ppb	12:25:15
1	Tl 190.801†	-175.6	-83.1	11.409	µg/L	11.409	ppb	12:25:35
1	U 367.007†	4351.2	3117.3	-159.7	µg/L	-159.7	ppb	12:25:15
1	V 292.402†	12301.5	11442.9	208.03	µg/L	208.03	ppb	12:25:35
1	Zn 213.857†	118799.3	108336.0	792.38	µg/L	792.38	ppb	12:25:15
2	Sc RADIAL	26139.0	26139.0	118	%			12:24:52
2	Al 396.153Radial†	364768.8	308220.9	99127	µg/L	99127	ppb	12:24:47
2	Ca 317.933Radial†	1523593.9	1286711.5	275560	µg/L	275560	ppb	12:24:47
2	Fe 238.204 Radial†	1723849.0	1456132.0	283410	µg/L	283410	ppb	12:24:47
2	K 766.490 Radial†	23010.8	19016.0	17264	µg/L	17264	ppb	12:24:52
2	Mg 279.077 IEC†	99707.0	84168.2	137550	µg/L	137550	ppb	12:24:52
2	Na 589.592 Radial†	1084.0	788.1	841.11	µg/L	841.11	ppb	12:24:52
2	Sr 421.552†	176343.9	148700.5	869.55	µg/L	869.55	ppb	12:24:52
2	Sc 361.383	402737.6	402737.6	109.98	%			12:25:46
2	Y 371.029	425356.4	425356.4	118.20	%			12:25:46
2	Ag 328.068†	-4451.5	-3364.1	7.8039	µg/L	7.8039	ppb	12:25:46
2	As 188.979†	163.1	161.1	86.235	µg/L	86.235	ppb	12:26:06
2	B 249.677†	-31495.0	-28811.3	146.07	µg/L	146.07	ppb	12:25:46
2	Ba 233.527†	102937.3	93615.4	780.98	µg/L	780.98	ppb	12:25:46
2	Be 313.107†	544.8	4069.3	6.9937	µg/L	6.9937	ppb	12:25:46
2	Cd 226.502†	2959.4	3014.0	0.2092	µg/L	0.2092	ppb	12:26:06
2	Co 228.616†	5627.7	5339.6	120.00	µg/L	120.00	ppb	12:26:06
2	Cr 267.716†	8695.1	7784.5	158.42	µg/L	158.42	ppb	12:26:06
2	Cu 324.752†	60337.2	52943.9	406.25	µg/L	406.25	ppb	12:25:46
2	Mn 257.610†	3597091.7	3270342.3	5154.2	µg/L	5154.2	ppb	12:25:40
2	Mo 202.031†	243.4	188.4	16.015	µg/L	16.015	ppb	12:26:06
2	Ni 231.604†	10730.9	9961.4	280.96	µg/L	280.96	ppb	12:26:06
2	P 214.914†	7613.1	6790.8	4280.8	µg/L	4280.8	ppb	12:26:06

2	Pb 220.353†	805.6	796.0	112.20	µg/L	112.20	ppb	12:26:06
2	S 181.975 Axial†	81937.4	74412.5	91349	µg/L	91349	ppb	12:25:46
2	Sb 206.836†	223.6	48.8	-26.944	µg/L	-26.944	ppb	12:26:06
2	Se 196.026†	-287.2	-237.4	13.825	µg/L	13.825	ppb	12:26:06
2	SiO2†	162609.1	146793.6	24744	µg/L	24744	ppb	12:25:46
2	Si 251.611†	230655.8	209741.2	11578	µg/L	11578	ppb	12:25:46
2	Sn 189.927†	51.6	-0.6	6.8011	µg/L	6.8011	ppb	12:26:06
2	Ti 334.940†	312154.1	284560.1	1223.9	µg/L	1223.9	ppb	12:25:46
2	Tl 190.801†	-167.4	-73.9	13.122	µg/L	13.122	ppb	12:26:06
2	U 367.007†	4438.8	3152.7	-134.4	µg/L	-134.4	ppb	12:25:46
2	V 292.402†	12328.1	11341.7	206.13	µg/L	206.13	ppb	12:26:06
2	Zn 213.857†	119862.9	108092.3	790.86	µg/L	790.86	ppb	12:25:46
3	Sc RADIAL	26052.6	26052.6	118	%			12:25:02
3	Al 396.153Radial†	366021.3	310305.2	99798	µg/L	99798	ppb	12:24:57
3	Ca 317.933Radial†	1520109.6	1288030.6	275840	µg/L	275840	ppb	12:24:57
3	Fe 238.204 Radial†	1721371.6	1458865.9	283940	µg/L	283940	ppb	12:24:57
3	K 766.490 Radial†	23106.8	19161.9	17396	µg/L	17396	ppb	12:25:02
3	Mg 279.077 IEC†	99836.5	84557.6	138190	µg/L	138190	ppb	12:25:02
3	Na 589.592 Radial†	1068.4	777.9	824.73	µg/L	824.73	ppb	12:25:02
3	Sr 421.552†	176907.1	149672.2	875.26	µg/L	875.26	ppb	12:25:02
3	Sc 361.383	402091.8	402091.8	109.80	%			12:26:17
3	Y 371.029	424928.1	424928.1	118.08	%			12:26:17
3	Ag 328.068†	-4451.5	-3370.5	7.8276	µg/L	7.8276	ppb	12:26:17
3	As 188.979†	173.5	170.8	90.515	µg/L	90.515	ppb	12:26:37
3	B 249.677†	-31569.4	-28925.0	144.37	µg/L	144.37	ppb	12:26:17
3	Ba 233.527†	103153.0	93962.1	783.89	µg/L	783.89	ppb	12:26:17
3	Be 313.107†	536.2	4062.3	6.9869	µg/L	6.9869	ppb	12:26:17
3	Cd 226.502†	2930.3	2991.9	-0.0830	µg/L	-0.0830	ppb	12:26:37
3	Co 228.616†	5565.1	5290.8	118.83	µg/L	118.83	ppb	12:26:37
3	Cr 267.716†	8651.1	7757.1	157.90	µg/L	157.90	ppb	12:26:37
3	Cu 324.752†	60488.2	53169.5	407.93	µg/L	407.93	ppb	12:26:17
3	Mn 257.610†	3604270.8	3282133.6	5172.7	µg/L	5172.7	ppb	12:26:12
3	Mo 202.031†	222.9	170.1	14.986	µg/L	14.986	ppb	12:26:37
3	Ni 231.604†	10653.1	9906.3	279.45	µg/L	279.45	ppb	12:26:37
3	P 214.914†	7587.9	6779.0	4272.6	µg/L	4272.6	ppb	12:26:37
3	Pb 220.353†	817.1	807.7	113.72	µg/L	113.72	ppb	12:26:37
3	S 181.975 Axial†	82048.7	74633.5	91621	µg/L	91621	ppb	12:26:17
3	Sb 206.836†	231.7	56.4	-24.809	µg/L	-24.809	ppb	12:26:37
3	Se 196.026†	-283.8	-234.7	15.351	µg/L	15.351	ppb	12:26:37
3	SiO2†	162993.8	147381.4	24843	µg/L	24843	ppb	12:26:17
3	Si 251.611†	231167.2	210543.8	11622	µg/L	11622	ppb	12:26:17
3	Sn 189.927†	59.7	6.9	7.8114	µg/L	7.8114	ppb	12:26:37
3	Ti 334.940†	317234.6	289643.1	1245.5	µg/L	1245.5	ppb	12:26:17
3	Tl 190.801†	-165.2	-72.2	13.595	µg/L	13.595	ppb	12:26:37
3	U 367.007†	4377.8	3103.6	-153.8	µg/L	-153.8	ppb	12:26:17
3	V 292.402†	12297.1	11331.4	206.07	µg/L	206.07	ppb	12:26:37
3	Zn 213.857†	120127.0	108507.8	793.98	µg/L	793.98	ppb	12:26:17

Mean Data: 454944005|1783993|1|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	401034.2	109.51	%	0.659				0.60%
Sc RADIAL	25983.2	118	%	0.90				0.77%
Y 371.029	423661.4	117.73	%	0.715				0.61%
Ag 328.068†	-3367.5	7.9452	µg/L	0.22450	7.9452	ppb	0.22450	2.83%
Al 396.153Radial†	308811.8	99317	µg/L	418.99	99317	ppb	418.99	0.42%
As 188.979†	166.1	88.490	µg/L	2.1489	88.490	ppb	2.1489	2.43%
B 249.677†	-28911.2	147.19	µg/L	3.517	147.19	ppb	3.517	2.39%
Ba 233.527†	93733.2	781.95	µg/L	1.682	781.95	ppb	1.682	0.22%
Be 313.107†	4065.9	7.0023	µg/L	0.02106	7.0023	ppb	0.02106	0.30%
Ca 317.933Radial†	1292081.4	276710	µg/L	1752.91	276710	ppb	1752.91	0.63%
Cd 226.502†	3012.9	0.0722	µg/L	0.14698	0.0722	ppb	0.14698	203.47%
Co 228.616†	5336.1	119.90	µg/L	1.022	119.90	ppb	1.022	0.85%
Cr 267.716†	7795.3	158.67	µg/L	0.912	158.67	ppb	0.912	0.57%
Cu 324.752†	53078.5	407.30	µg/L	0.915	407.30	ppb	0.915	0.22%
Fe 238.204 Radial†	1461987.2	284550	µg/L	1536.25	284550	ppb	1536.25	0.54%
K 766.490 Radial†	19108.6	17348	µg/L	73.16	17348	ppb	73.16	0.42%
Mg 279.077 IEC†	84721.3	138450	µg/L	1063.30	138450	ppb	1063.30	0.77%
Mn 257.610†	3288686.6	5183.1	µg/L	35.20	5183.1	ppb	35.20	0.68%
Mo 202.031†	177.8	15.437	µg/L	0.5258	15.437	ppb	0.5258	3.41%

Na 589.592 Radial†	780.7	828.21	µg/L	11.556	828.21	ppb	11.556	1.40%
Ni 231.604†	9961.7	281.00	µg/L	1.560	281.00	ppb	1.560	0.56%
P 214.914†	6808.1	4291.3	µg/L	25.62	4291.3	ppb	25.62	0.60%
Pb 220.353†	806.3	113.53	µg/L	1.242	113.53	ppb	1.242	1.09%
S 181.975 Axial†	74548.9	91517	µg/L	146.32	91517	ppb	146.32	0.16%
Concentration greater than upper limit for S 181.975 Axial.								
Sb 206.836†	46.7	-27.708	µg/L	3.3475	-27.708	ppb	3.3475	12.08%
Concentration less than lower limit for Sb 206.836.								
Se 196.026†	-236.1	14.977	µg/L	1.0181	14.977	ppb	1.0181	6.80%
SiO2†	147033.7	24784	µg/L	52.17	24784	ppb	52.17	0.21%
Si 251.611†	210022.4	11593	µg/L	25.04	11593	ppb	25.04	0.22%
Sn 189.927†	-2.8	6.5623	µg/L	1.38403	6.5623	ppb	1.38403	21.09%
Sr 421.552†	149268.9	872.87	µg/L	2.967	872.87	ppb	2.967	0.34%
Ti 334.940†	286300.1	1231.3	µg/L	12.30	1231.3	ppb	12.30	1.00%
Tl 190.801†	-76.4	12.708	µg/L	1.1499	12.708	ppb	1.1499	9.05%
U 367.007†	3124.5	-149.3	µg/L	13.24	-149.3	ppb	13.24	8.87%
Concentration less than lower limit for U 367.007.								
V 292.402†	11372.0	206.74	µg/L	1.113	206.74	ppb	1.113	0.54%
Zn 213.857†	108312.1	792.41	µg/L	1.561	792.41	ppb	1.561	0.20%

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Sequence No.: 31 **Autosampler Location: 322**
Sample ID: 454944006|1783993|1| **Date Collected: 7/23/2018 12:26:46**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: 454944006|1783993|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	25926.2	25926.2	117	%			12:27:23
1	Al 396.153Radial†	397525.5	338647.9	108910	µg/L	108910	ppb	12:27:18
1	Ca 317.933Radial†	1148873.0	978145.3	209480	µg/L	209480	ppb	12:27:18
1	Fe 238.204 Radial†	1669445.4	1421753.9	276720	µg/L	276720	ppb	12:27:18
1	K 766.490 Radial†	26714.8	22330.1	20264	µg/L	20264	ppb	12:27:23
1	Mg 279.077 IEC†	72524.6	61709.8	100850	µg/L	100850	ppb	12:27:23
1	Na 589.592 Radial†	957.2	687.6	695.26	µg/L	695.26	ppb	12:27:23
1	Sr 421.552†	164592.0	139914.8	819.05	µg/L	819.05	ppb	12:27:23
1	Sc 361.383	411909.0	411909.0	112.48	%			12:27:52
1	Y 371.029	432094.0	432094.0	120.07	%			12:27:52
1	Ag 328.068†	-4447.4	-3270.2	7.8377	µg/L	7.8377	ppb	12:27:52
1	As 188.979†	158.3	153.5	82.584	µg/L	82.584	ppb	12:28:12
1	B 249.677†	-30021.6	-26863.7	184.74	µg/L	184.74	ppb	12:27:52
1	Ba 233.527†	191758.7	170497.5	1428.3	µg/L	1428.3	ppb	12:27:52
1	Be 313.107†	2920.9	6170.7	7.9336	µg/L	7.9336	ppb	12:27:52
1	Cd 226.502†	2819.5	2829.8	-0.9926	µg/L	-0.9926	ppb	12:28:12
1	Co 228.616†	5718.7	5306.6	119.38	µg/L	119.38	ppb	12:28:12
1	Cr 267.716†	9957.3	8730.5	176.88	µg/L	176.88	ppb	12:28:12
1	Cu 324.752†	46079.9	39046.9	303.79	µg/L	303.79	ppb	12:27:52
1	Mn 257.610†	3260507.7	2898278.1	4569.5	µg/L	4569.5	ppb	12:27:52
1	Mo 202.031†	154.5	104.4	11.128	µg/L	11.128	ppb	12:28:12
1	Ni 231.604†	11269.8	10223.3	288.08	µg/L	288.08	ppb	12:28:12
1	P 214.914†	7752.4	6760.5	4269.9	µg/L	4269.9	ppb	12:28:12
1	Pb 220.353†	852.2	821.1	114.79	µg/L	114.79	ppb	12:28:12
1	S 181.975 Axial†	70662.0	62729.3	76993	µg/L	76993	ppb	12:27:52
1	Sb 206.836†	227.7	47.9	-26.583	µg/L	-26.583	ppb	12:28:12
1	Se 196.026†	-297.9	-241.1	9.1150	µg/L	9.1150	ppb	12:28:12
1	SiO2†	181483.5	160281.6	27025	µg/L	27025	ppb	12:27:52
1	Si 251.611†	257091.1	228573.5	12620	µg/L	12620	ppb	12:27:52
1	Sn 189.927†	35.4	-16.0	6.3784	µg/L	6.3784	ppb	12:28:12
1	Ti 334.940†	360742.8	321437.8	1377.9	µg/L	1377.9	ppb	12:27:52
1	Tl 190.801†	-154.7	-59.2	16.075	µg/L	16.075	ppb	12:28:12
1	U 367.007†	4301.5	2940.7	-146.1	µg/L	-146.1	ppb	12:27:52
1	V 292.402†	14309.4	12853.6	224.35	µg/L	224.35	ppb	12:28:12
1	Zn 213.857†	91744.8	80667.4	583.08	µg/L	583.08	ppb	12:27:52
2	Sc RADIAL	26491.2	26491.2	120	%			12:27:33
2	Al 396.153Radial†	405612.2	338167.0	108760	µg/L	108760	ppb	12:27:28
2	Ca 317.933Radial†	1160327.4	966823.1	207050	µg/L	207050	ppb	12:27:28
2	Fe 238.204 Radial†	1686810.8	1405902.2	273630	µg/L	273630	ppb	12:27:28
2	K 766.490 Radial†	27003.2	22085.2	20042	µg/L	20042	ppb	12:27:33
2	Mg 279.077 IEC†	73051.7	60831.7	99413	µg/L	99413	ppb	12:27:33
2	Na 589.592 Radial†	980.9	690.0	702.94	µg/L	702.94	ppb	12:27:33
2	Sr 421.552†	166845.1	138802.9	812.56	µg/L	812.56	ppb	12:27:33
2	Sc 361.383	411569.4	411569.4	112.39	%			12:28:19
2	Y 371.029	431209.6	431209.6	119.83	%			12:28:19
2	Ag 328.068†	-4315.2	-3155.9	8.5497	µg/L	8.5497	ppb	12:28:19
2	As 188.979†	157.6	153.1	82.213	µg/L	82.213	ppb	12:28:39
2	B 249.677†	-30072.6	-26931.1	170.47	µg/L	170.47	ppb	12:28:19
2	Ba 233.527†	191378.1	170299.5	1426.7	µg/L	1426.7	ppb	12:28:19
2	Be 313.107†	3020.6	6261.6	7.9744	µg/L	7.9744	ppb	12:28:19
2	Cd 226.502†	2812.0	2825.1	-0.7023	µg/L	-0.7023	ppb	12:28:39
2	Co 228.616†	5788.7	5373.1	120.92	µg/L	120.92	ppb	12:28:39
2	Cr 267.716†	9993.3	8769.9	177.61	µg/L	177.61	ppb	12:28:39
2	Cu 324.752†	46027.8	39034.4	303.50	µg/L	303.50	ppb	12:28:19
2	Mn 257.610†	3254304.7	2895150.6	4564.4	µg/L	4564.4	ppb	12:28:19
2	Mo 202.031†	145.4	96.4	10.612	µg/L	10.612	ppb	12:28:39
2	Ni 231.604†	11353.8	10306.3	290.31	µg/L	290.31	ppb	12:28:39
2	P 214.914†	7734.4	6750.2	4265.8	µg/L	4265.8	ppb	12:28:39

2	Pb 220.353†	878.6	845.2	117.72 µg/L	117.72 ppb		12:28:39
2	S 181.975 Axial†	70183.0	62355.0	76533 µg/L	76533 ppb		12:28:19
2	Sb 206.836†	218.8	40.1	-28.413 µg/L	-28.413 ppb		12:28:39
2	Se 196.026†	-296.2	-239.8	8.3539 µg/L	8.3539 ppb		12:28:39
2	SiO2†	180968.1	159956.1	26971 µg/L	26971 ppb		12:28:19
2	Si 251.611†	256807.8	228510.0	12617 µg/L	12617 ppb		12:28:19
2	Sn 189.927†	37.2	-14.5	6.5427 µg/L	6.5427 ppb		12:28:39
2	Ti 334.940†	360739.0	321699.0	1378.9 µg/L	1378.9 ppb		12:28:19
2	Tl 190.801†	-163.5	-67.1	14.102 µg/L	14.102 ppb		12:28:39
2	U 367.007†	4222.7	2873.8	-156.4 µg/L	-156.4 ppb		12:28:19
2	V 292.402†	14304.2	12859.4	223.78 µg/L	223.78 ppb		12:28:39
2	Zn 213.857†	91467.5	80487.9	582.05 µg/L	582.05 ppb		12:28:19
3	Sc RADIAL	26430.1	26430.1	120 %			12:27:44
3	Al 396.153Radial†	406604.7	339778.2	109280 µg/L	109280 ppb		12:27:39
3	Ca 317.933Radial†	1157296.6	966528.3	206990 µg/L	206990 ppb		12:27:39
3	Fe 238.204 Radial†	1684152.2	1406933.5	273830 µg/L	273830 ppb		12:27:39
3	K 766.490 Radial†	26883.0	22036.8	19998 µg/L	19998 ppb		12:27:44
3	Mg 279.077 IEC†	72436.7	60458.7	98804 µg/L	98804 ppb		12:27:44
3	Na 589.592 Radial†	995.8	704.3	724.81 µg/L	724.81 ppb		12:27:44
3	Sr 421.552†	166200.2	138585.9	811.28 µg/L	811.28 ppb		12:27:44
3	Sc 361.383	412808.9	412808.9	112.73 %			12:28:47
3	Y 371.029	432537.6	432537.6	120.20 %			12:28:47
3	Ag 328.068†	-4323.5	-3151.7	8.6007 µg/L	8.6007 ppb		12:28:47
3	As 188.979†	166.4	160.4	85.451 µg/L	85.451 ppb		12:29:07
3	B 249.677†	-30543.2	-27268.3	160.05 µg/L	160.05 ppb		12:28:47
3	Ba 233.527†	193525.8	171693.4	1438.4 µg/L	1438.4 ppb		12:28:47
3	Be 313.107†	2948.8	6189.9	7.9241 µg/L	7.9241 ppb		12:28:47
3	Cd 226.502†	2811.3	2817.0	-0.8105 µg/L	-0.8105 ppb		12:29:07
3	Co 228.616†	5788.4	5357.3	120.54 µg/L	120.54 ppb		12:29:07
3	Cr 267.716†	10075.3	8815.9	178.47 µg/L	178.47 ppb		12:29:07
3	Cu 324.752†	46536.9	39363.0	305.94 µg/L	305.94 ppb		12:28:47
3	Mn 257.610†	3291117.5	2919112.7	4602.0 µg/L	4602.0 ppb		12:28:47
3	Mo 202.031†	145.2	95.9	10.588 µg/L	10.588 ppb		12:29:07
3	Ni 231.604†	11423.7	10338.0	291.19 µg/L	291.19 ppb		12:29:07
3	P 214.914†	7780.6	6770.5	4279.2 µg/L	4279.2 ppb		12:29:07
3	Pb 220.353†	888.6	851.8	118.54 µg/L	118.54 ppb		12:29:07
3	S 181.975 Axial†	71467.7	63307.0	77703 µg/L	77703 ppb		12:28:47
3	Sb 206.836†	236.9	55.5	-24.016 µg/L	-24.016 ppb		12:29:07
3	Se 196.026†	-277.4	-222.4	16.683 µg/L	16.683 ppb		12:29:07
3	SiO2†	183117.9	161379.7	27211 µg/L	27211 ppb		12:28:47
3	Si 251.611†	259664.8	230358.3	12719 µg/L	12719 ppb		12:28:47
3	Sn 189.927†	33.8	-17.5	6.2149 µg/L	6.2149 ppb		12:29:07
3	Ti 334.940†	364951.9	324472.5	1390.7 µg/L	1390.7 ppb		12:28:47
3	Tl 190.801†	-179.1	-80.6	11.297 µg/L	11.297 ppb		12:29:07
3	U 367.007†	4363.3	2987.3	-117.2 µg/L	-117.2 ppb		12:28:47
3	V 292.402†	14428.3	12931.3	224.77 µg/L	224.77 ppb		12:29:07
3	Zn 213.857†	92704.4	81340.8	588.53 µg/L	588.53 ppb		12:28:47

Mean Data: 454944006|1783993|1|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	412095.8	112.53	%	0.175				0.16%
Sc RADIAL	26282.5	119	%	1.40				1.18%
Y 371.029	431947.1	120.03	%	0.188				0.16%
Ag 328.068†	-3192.6	8.3293	µg/L	0.42657	8.3293	ppb	0.42657	5.12%
Al 396.153Radial†	338864.4	108980	µg/L	266.02	108980	ppb	266.02	0.24%
As 188.979†	155.7	83.416	µg/L	1.7721	83.416	ppb	1.7721	2.12%
B 249.677†	-27021.0	171.75	µg/L	12.396	171.75	ppb	12.396	7.22%
Ba 233.527†	170830.1	1431.1	µg/L	6.36	1431.1	ppb	6.36	0.44%
Be 313.107†	6207.4	7.9440	µg/L	0.02674	7.9440	ppb	0.02674	0.34%
Ca 317.933Radial†	970498.9	207840	µg/L	1418.48	207840	ppb	1418.48	0.68%
Cd 226.502†	2824.0	-0.8351	µg/L	0.14671	-0.8351	ppb	0.14671	17.57%
Co 228.616†	5345.7	120.28	µg/L	0.803	120.28	ppb	0.803	0.67%
Cr 267.716†	8772.1	177.65	µg/L	0.792	177.65	ppb	0.792	0.45%
Cu 324.752†	39148.1	304.41	µg/L	1.338	304.41	ppb	1.338	0.44%
Fe 238.204 Radial†	1411529.9	274730	µg/L	1726.24	274730	ppb	1726.24	0.63%
K 766.490 Radial†	22150.7	20101	µg/L	142.74	20101	ppb	142.74	0.71%
Mg 279.077 IEC†	61000.1	99688	µg/L	1049.66	99688	ppb	1049.66	1.05%
Mn 257.610†	2904180.5	4578.6	µg/L	20.42	4578.6	ppb	20.42	0.45%
Mo 202.031†	98.9	10.776	µg/L	0.3047	10.776	ppb	0.3047	2.83%

Na 589.592 Radial†	694.0	707.67	µg/L	15.330	707.67	ppb	15.330	2.17%
Ni 231.604†	10289.2	289.86	µg/L	1.606	289.86	ppb	1.606	0.55%
P 214.914†	6760.4	4271.6	µg/L	6.88	4271.6	ppb	6.88	0.16%
Pb 220.353†	839.4	117.01	µg/L	1.974	117.01	ppb	1.974	1.69%
S 181.975 Axial†	62797.1	77076	µg/L	589.41	77076	ppb	589.41	0.76%
Concentration greater than upper limit for S 181.975 Axial.								
Sb 206.836†	47.8	-26.337	µg/L	2.2086	-26.337	ppb	2.2086	8.39%
Concentration less than lower limit for Sb 206.836.								
Se 196.026†	-234.4	11.384	µg/L	4.6046	11.384	ppb	4.6046	40.45%
SiO2†	160539.1	27069	µg/L	126.17	27069	ppb	126.17	0.47%
Si 251.611†	229147.3	12652	µg/L	58.08	12652	ppb	58.08	0.46%
Sn 189.927†	-16.0	6.3787	µg/L	0.16394	6.3787	ppb	0.16394	2.57%
Sr 421.552†	139101.2	814.30	µg/L	4.167	814.30	ppb	4.167	0.51%
Ti 334.940†	322536.4	1382.5	µg/L	7.12	1382.5	ppb	7.12	0.51%
Tl 190.801†	-69.0	13.825	µg/L	2.4007	13.825	ppb	2.4007	17.37%
U 367.007†	2933.9	-139.9	µg/L	20.31	-139.9	ppb	20.31	14.51%
Concentration less than lower limit for U 367.007.								
V 292.402†	12881.4	224.30	µg/L	0.500	224.30	ppb	0.500	0.22%
Zn 213.857†	80832.0	584.56	µg/L	3.484	584.56	ppb	3.484	0.60%

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Sequence No.: 32 **Autosampler Location: 323**
Sample ID: 454944007|1783993|1| **Date Collected: 7/23/2018 12:29:15**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: 454944007|1783993|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	26502.1	26502.1	120	%			12:29:51
1	Al 396.153Radial†	352840.0	294061.0	94574	µg/L	94574	ppb	12:29:46
1	Ca 317.933Radial†	1707399.1	1422215.5	304580	µg/L	304580	ppb	12:29:46
1	Fe 238.204 Radial†	1809826.6	1507813.8	293470	µg/L	293470	ppb	12:29:46
1	K 766.490 Radial†	23457.3	19121.7	17363	µg/L	17363	ppb	12:29:51
1	Mg 279.077 IEC†	102608.7	85431.9	139620	µg/L	139620	ppb	12:29:51
1	Na 589.592 Radial†	904.9	626.4	579.20	µg/L	579.20	ppb	12:29:51
1	Sr 421.552†	166252.3	138251.9	807.60	µg/L	807.60	ppb	12:29:51
1	Sc 361.383	408958.7	408958.7	111.67	%			12:30:24
1	Y 371.029	428586.4	428586.4	119.10	%			12:30:24
1	Ag 328.068†	-4598.4	-3434.0	8.5699	µg/L	8.5699	ppb	12:30:24
1	As 188.979†	153.0	149.8	81.736	µg/L	81.736	ppb	12:30:44
1	B 249.677†	-32938.9	-29668.6	156.79	µg/L	156.79	ppb	12:30:24
1	Ba 233.527†	86363.6	77350.5	643.83	µg/L	643.83	ppb	12:30:24
1	Be 313.107†	513.6	4033.8	7.3213	µg/L	7.3213	ppb	12:30:24
1	Cd 226.502†	3031.4	3037.6	-0.6225	µg/L	-0.6225	ppb	12:30:44
1	Co 228.616†	5375.5	5035.9	113.18	µg/L	113.18	ppb	12:30:44
1	Cr 267.716†	8824.1	7779.7	156.73	µg/L	156.73	ppb	12:30:44
1	Cu 324.752†	41619.3	35348.2	277.70	µg/L	277.70	ppb	12:30:24
1	Mn 257.610†	5712658.2	5114986.6	8051.9	µg/L	8051.9	ppb	12:30:19
1	Mo 202.031†	93.9	51.2	8.4199	µg/L	8.4199	ppb	12:30:44
1	Ni 231.604†	10685.5	9772.3	275.94	µg/L	275.94	ppb	12:30:44
1	P 214.914†	7112.5	6237.3	3904.0	µg/L	3904.0	ppb	12:30:44
1	Pb 220.353†	937.7	903.2	125.69	µg/L	125.69	ppb	12:30:44
1	S 181.975 Axial†	74103.8	66264.5	81331	µg/L	81331	ppb	12:30:24
1	Sb 206.836†	202.9	27.1	-34.805	µg/L	-34.805	ppb	12:30:44
1	Se 196.026†	-304.3	-248.7	12.967	µg/L	12.967	ppb	12:30:44
1	SiO2†	157488.1	139958.7	23587	µg/L	23587	ppb	12:30:24
1	Si 251.611†	223394.2	200048.3	11041	µg/L	11041	ppb	12:30:24
1	Sn 189.927†	33.8	-17.3	3.9585	µg/L	3.9585	ppb	12:30:44
1	Ti 334.940†	272856.6	245053.1	1056.9	µg/L	1056.9	ppb	12:30:24
1	Tl 190.801†	-169.9	-73.9	13.585	µg/L	13.585	ppb	12:30:44
1	U 367.007†	4626.0	3259.0	-151.9	µg/L	-151.9	ppb	12:30:24
1	V 292.402†	12402.1	11237.4	206.87	µg/L	206.87	ppb	12:30:44
1	Zn 213.857†	74935.3	66203.6	470.74	µg/L	470.74	ppb	12:30:24
2	Sc RADIAL	26849.2	26849.2	122	%			12:30:01
2	Al 396.153Radial†	353637.8	290916.8	93562	µg/L	93562	ppb	12:29:56
2	Ca 317.933Radial†	1685361.1	1385702.3	296760	µg/L	296760	ppb	12:29:56
2	Fe 238.204 Radial†	1791668.8	1473388.5	286770	µg/L	286770	ppb	12:29:56
2	K 766.490 Radial†	23582.1	18971.7	17227	µg/L	17227	ppb	12:30:01
2	Mg 279.077 IEC†	102087.7	83898.3	137110	µg/L	137110	ppb	12:30:01
2	Na 589.592 Radial†	936.6	642.7	613.02	µg/L	613.02	ppb	12:30:01
2	Sr 421.552†	166501.2	136665.9	798.41	µg/L	798.41	ppb	12:30:01
2	Sc 361.383	410364.8	410364.8	112.06	%			12:30:55
2	Y 371.029	430304.6	430304.6	119.57	%			12:30:55
2	Ag 328.068†	-4583.4	-3406.5	7.8599	µg/L	7.8599	ppb	12:30:55
2	As 188.979†	136.9	135.0	74.886	µg/L	74.886	ppb	12:31:16
2	B 249.677†	-33030.8	-29649.5	131.33	µg/L	131.33	ppb	12:30:55
2	Ba 233.527†	86548.9	77250.9	643.16	µg/L	643.16	ppb	12:30:55
2	Be 313.107†	514.5	4033.0	7.2224	µg/L	7.2224	ppb	12:30:55
2	Cd 226.502†	3059.0	3053.0	0.2688	µg/L	0.2688	ppb	12:31:16
2	Co 228.616†	5332.3	4980.9	111.94	µg/L	111.94	ppb	12:31:16
2	Cr 267.716†	8786.3	7718.9	155.39	µg/L	155.39	ppb	12:31:16
2	Cu 324.752†	41747.6	35335.0	277.19	µg/L	277.19	ppb	12:30:55
2	Mn 257.610†	5710348.7	5095397.6	8020.7	µg/L	8020.7	ppb	12:30:50
2	Mo 202.031†	106.6	62.2	8.9181	µg/L	8.9181	ppb	12:31:16
2	Ni 231.604†	10656.5	9713.7	274.18	µg/L	274.18	ppb	12:31:16
2	P 214.914†	7073.3	6180.4	3872.0	µg/L	3872.0	ppb	12:31:16

2	Pb 220.353†	966.6	926.1	128.27	µg/L	128.27	ppb	12:31:16
2	S 181.975 Axial†	74405.4	66306.2	81384	µg/L	81384	ppb	12:30:55
2	Sb 206.836†	222.0	43.6	-29.123	µg/L	-29.123	ppb	12:31:16
2	Se 196.026†	-302.5	-246.2	11.183	µg/L	11.183	ppb	12:31:16
2	SiO2†	158100.0	140021.6	23599	µg/L	23599	ppb	12:30:55
2	Si 251.611†	224044.3	199942.9	11036	µg/L	11036	ppb	12:30:55
2	Sn 189.927†	40.4	-11.5	4.6317	µg/L	4.6317	ppb	12:31:16
2	Ti 334.940†	273517.6	244805.7	1055.5	µg/L	1055.5	ppb	12:30:55
2	Tl 190.801†	-184.8	-86.6	10.258	µg/L	10.258	ppb	12:31:16
2	U 367.007†	4586.9	3209.8	-139.1	µg/L	-139.1	ppb	12:30:55
2	V 292.402†	12444.8	11237.5	205.50	µg/L	205.50	ppb	12:31:16
2	Zn 213.857†	74989.2	66021.7	470.10	µg/L	470.10	ppb	12:30:55
3	Sc RADIAL	26547.7	26547.7	120	%			12:30:12
3	Al 396.153Radial†	356133.9	296296.1	95293	µg/L	95293	ppb	12:30:07
3	Ca 317.933Radial†	1690985.3	1406122.2	301130	µg/L	301130	ppb	12:30:07
3	Fe 238.204 Radial†	1797333.6	1494835.0	290940	µg/L	290940	ppb	12:30:07
3	K 766.490 Radial†	23643.4	19243.0	17473	µg/L	17473	ppb	12:30:12
3	Mg 279.077 IEC†	101719.9	84545.9	138170	µg/L	138170	ppb	12:30:12
3	Na 589.592 Radial†	903.2	623.6	578.28	µg/L	578.28	ppb	12:30:12
3	Sr 421.552†	166703.0	138388.9	808.46	µg/L	808.46	ppb	12:30:12
3	Sc 361.383	409778.6	409778.6	111.90	%			12:31:27
3	Y 371.029	429128.5	429128.5	119.25	%			12:31:27
3	Ag 328.068†	-4565.3	-3396.2	8.5802	µg/L	8.5802	ppb	12:31:27
3	As 188.979†	154.8	151.2	82.212	µg/L	82.212	ppb	12:31:47
3	B 249.677†	-33197.8	-29841.0	141.22	µg/L	141.22	ppb	12:31:27
3	Ba 233.527†	86738.2	77530.5	645.41	µg/L	645.41	ppb	12:31:27
3	Be 313.107†	511.1	4030.6	7.2750	µg/L	7.2750	ppb	12:31:27
3	Cd 226.502†	3043.9	3043.4	-0.2880	µg/L	-0.2880	ppb	12:31:47
3	Co 228.616†	5363.8	5015.9	112.72	µg/L	112.72	ppb	12:31:47
3	Cr 267.716†	8777.1	7721.8	155.51	µg/L	155.51	ppb	12:31:47
3	Cu 324.752†	41799.7	35434.8	278.18	µg/L	278.18	ppb	12:31:27
3	Mn 257.610†	5732209.4	5122223.7	8063.1	µg/L	8063.1	ppb	12:31:21
3	Mo 202.031†	77.6	36.4	7.5369	µg/L	7.5369	ppb	12:31:47
3	Ni 231.604†	10633.2	9706.5	274.07	µg/L	274.07	ppb	12:31:47
3	P 214.914†	7084.6	6199.6	3881.4	µg/L	3881.4	ppb	12:31:47
3	Pb 220.353†	952.9	915.1	127.15	µg/L	127.15	ppb	12:31:47
3	S 181.975 Axial†	74588.0	66564.4	81700	µg/L	81700	ppb	12:31:27
3	Sb 206.836†	211.6	34.5	-32.312	µg/L	-32.312	ppb	12:31:47
3	Se 196.026†	-283.3	-229.4	20.967	µg/L	20.967	ppb	12:31:47
3	SiO2†	157812.1	139966.1	23588	µg/L	23588	ppb	12:31:27
3	Si 251.611†	223859.4	200063.7	11042	µg/L	11042	ppb	12:31:27
3	Sn 189.927†	56.1	2.6	6.4338	µg/L	6.4338	ppb	12:31:47
3	Ti 334.940†	274229.7	245791.3	1059.9	µg/L	1059.9	ppb	12:31:27
3	Tl 190.801†	-175.0	-78.0	12.471	µg/L	12.471	ppb	12:31:47
3	U 367.007†	4607.7	3234.2	-149.0	µg/L	-149.0	ppb	12:31:27
3	V 292.402†	12344.7	11164.0	205.38	µg/L	205.38	ppb	12:31:47
3	Zn 213.857†	75328.9	66421.0	472.69	µg/L	472.69	ppb	12:31:27

Mean Data: 454944007|1783993|1|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	409700.7	111.88	%	0.193				0.17%
Sc RADIAL	26633.0	121	%	0.85				0.71%
Y 371.029	429339.8	119.31	%	0.244				0.20%
Ag 328.068†	-3412.2	8.3367	µg/L	0.41290	8.3367	ppb	0.41290	4.95%
Al 396.153Radial†	293758.0	94476	µg/L	869.16	94476	ppb	869.16	0.92%
As 188.979†	145.3	79.611	µg/L	4.0989	79.611	ppb	4.0989	5.15%
B 249.677†	-29719.7	143.11	µg/L	12.837	143.11	ppb	12.837	8.97%
Ba 233.527†	77377.3	644.13	µg/L	1.156	644.13	ppb	1.156	0.18%
Be 313.107†	4032.5	7.2729	µg/L	0.04949	7.2729	ppb	0.04949	0.68%
Ca 317.933Radial†	1404680.0	300820	µg/L	3918.89	300820	ppb	3918.89	1.30%
Cd 226.502†	3044.6	-0.2139	µg/L	0.45021	-0.2139	ppb	0.45021	210.49%
Co 228.616†	5010.9	112.62	µg/L	0.625	112.62	ppb	0.625	0.56%
Cr 267.716†	7740.1	155.87	µg/L	0.741	155.87	ppb	0.741	0.48%
Cu 324.752†	35372.7	277.69	µg/L	0.494	277.69	ppb	0.494	0.18%
Fe 238.204 Radial†	1492012.4	290390	µg/L	3383.74	290390	ppb	3383.74	1.17%
K 766.490 Radial†	19112.1	17354	µg/L	123.39	17354	ppb	123.39	0.71%
Mg 279.077 IEC†	84625.4	138300	µg/L	1258.13	138300	ppb	1258.13	0.91%
Mn 257.610†	5110869.3	8045.3	µg/L	21.97	8045.3	ppb	21.97	0.27%
Mo 202.031†	49.9	8.2916	µg/L	0.69950	8.2916	ppb	0.69950	8.44%

Na 589.592 Radial†	630.9	590.17	µg/L	19.799	590.17	ppb	19.799	3.35%
Ni 231.604†	9730.8	274.73	µg/L	1.047	274.73	ppb	1.047	0.38%
P 214.914†	6205.8	3885.8	µg/L	16.47	3885.8	ppb	16.47	0.42%
Pb 220.353†	914.8	127.03	µg/L	1.294	127.03	ppb	1.294	1.02%
S 181.975 Axial†	66378.4	81472	µg/L	199.54	81472	ppb	199.54	0.24%
Concentration greater than upper limit for S 181.975 Axial.								
Sb 206.836†	35.0	-32.080	µg/L	2.8478	-32.080	ppb	2.8478	8.88%
Concentration less than lower limit for Sb 206.836.								
Se 196.026†	-241.4	15.039	µg/L	5.2106	15.039	ppb	5.2106	34.65%
SiO2†	139982.1	23591	µg/L	6.54	23591	ppb	6.54	0.03%
Si 251.611†	200018.3	11040	µg/L	3.43	11040	ppb	3.43	0.03%
Sn 189.927†	-8.7	5.0080	µg/L	1.27986	5.0080	ppb	1.27986	25.56%
Sr 421.552†	137768.9	804.82	µg/L	5.572	804.82	ppb	5.572	0.69%
Ti 334.940†	245216.7	1057.5	µg/L	2.24	1057.5	ppb	2.24	0.21%
Tl 190.801†	-79.5	12.105	µg/L	1.6933	12.105	ppb	1.6933	13.99%
U 367.007†	3234.3	-146.7	µg/L	6.73	-146.7	ppb	6.73	4.59%
Concentration less than lower limit for U 367.007.								
V 292.402†	11213.0	205.92	µg/L	0.828	205.92	ppb	0.828	0.40%
Zn 213.857†	66215.4	471.18	µg/L	1.351	471.18	ppb	1.351	0.29%

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Sequence No.: 33 **Autosampler Location: 324**
Sample ID: 454944008|1783993|1| **Date Collected: 7/23/2018 12:31:55**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: 454944008|1783993|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	26580.2	26580.2	120	%			12:32:31
1	Al 396.153Radial†	426909.1	354727.2	114080	µg/L	114080	ppb	12:32:26
1	Ca 317.933Radial†	1051840.0	873466.8	187060	µg/L	187060	ppb	12:32:26
1	Fe 238.204 Radial†	1757078.4	1459569.4	284080	µg/L	284080	ppb	12:32:26
1	K 766.490 Radial†	28453.8	23214.9	21062	µg/L	21062	ppb	12:32:31
1	Mg 279.077 IEC†	75030.7	62271.9	101770	µg/L	101770	ppb	12:32:31
1	Na 589.592 Radial†	1002.4	705.1	712.55	µg/L	712.55	ppb	12:32:31
1	Sr 421.552†	148970.6	123489.3	722.86	µg/L	722.86	ppb	12:32:31
1	Sc 361.383	418563.3	418563.3	114.30	%			12:33:01
1	Y 371.029	437567.8	437567.8	121.59	%			12:33:01
1	Ag 328.068†	-4576.0	-3319.9	8.4131	µg/L	8.4131	ppb	12:33:01
1	As 188.979†	164.3	156.5	84.294	µg/L	84.294	ppb	12:33:21
1	B 249.677†	-32092.2	-28251.0	167.30	µg/L	167.30	ppb	12:33:01
1	Ba 233.527†	141133.7	123494.9	1032.5	µg/L	1032.5	ppb	12:33:01
1	Be 313.107†	3679.5	6793.1	8.1952	µg/L	8.1952	ppb	12:33:01
1	Cd 226.502†	2957.5	2910.6	-0.9107	µg/L	-0.9107	ppb	12:33:21
1	Co 228.616†	5883.1	5369.6	121.10	µg/L	121.10	ppb	12:33:21
1	Cr 267.716†	10540.5	9100.0	184.44	µg/L	184.44	ppb	12:33:21
1	Cu 324.752†	47613.8	39737.6	309.33	µg/L	309.33	ppb	12:33:01
1	Mn 257.610†	3200292.1	2799510.9	4414.9	µg/L	4414.9	ppb	12:33:01
1	Mo 202.031†	126.8	78.0	9.7658	µg/L	9.7658	ppb	12:33:21
1	Ni 231.604†	11719.6	10457.5	294.70	µg/L	294.70	ppb	12:33:21
1	P 214.914†	7720.2	6622.8	4172.7	µg/L	4172.7	ppb	12:33:21
1	Pb 220.353†	934.1	880.8	122.09	µg/L	122.09	ppb	12:33:21
1	S 181.975 Axial†	69312.3	60549.7	74312	µg/L	74312	ppb	12:33:01
1	Sb 206.836†	208.3	27.7	-33.832	µg/L	-33.832	ppb	12:33:21
1	Se 196.026†	-309.1	-246.7	9.7576	µg/L	9.7576	ppb	12:33:21
1	SiO2†	177890.0	154572.5	26059	µg/L	26059	ppb	12:33:01
1	Si 251.611†	252430.2	220862.0	12193	µg/L	12193	ppb	12:33:01
1	Sn 189.927†	41.5	-11.2	6.3943	µg/L	6.3943	ppb	12:33:21
1	Ti 334.940†	289405.2	253925.0	1089.4	µg/L	1089.4	ppb	12:33:01
1	Tl 190.801†	-174.6	-74.5	12.692	µg/L	12.692	ppb	12:33:21
1	U 367.007†	4522.6	3073.4	-115.1	µg/L	-115.1	ppb	12:33:01
1	V 292.402†	14932.7	13196.7	230.52	µg/L	230.52	ppb	12:33:21
1	Zn 213.857†	86736.7	74989.0	538.74	µg/L	538.74	ppb	12:33:01
2	Sc RADIAL	26656.7	26656.7	121	%			12:32:42
2	Al 396.153Radial†	433946.5	359537.5	115630	µg/L	115630	ppb	12:32:36
2	Ca 317.933Radial†	1057847.3	875932.4	187590	µg/L	187590	ppb	12:32:36
2	Fe 238.204 Radial†	1768885.0	1465155.5	285170	µg/L	285170	ppb	12:32:36
2	K 766.490 Radial†	28525.2	23206.1	21054	µg/L	21054	ppb	12:32:42
2	Mg 279.077 IEC†	74655.9	61782.4	100970	µg/L	100970	ppb	12:32:42
2	Na 589.592 Radial†	1024.6	721.1	735.71	µg/L	735.71	ppb	12:32:42
2	Sr 421.552†	149672.2	123714.9	724.18	µg/L	724.18	ppb	12:32:42
2	Sc 361.383	419143.9	419143.9	114.46	%			12:33:28
2	Y 371.029	437485.8	437485.8	121.57	%			12:33:28
2	Ag 328.068†	-4579.1	-3317.1	8.6041	µg/L	8.6041	ppb	12:33:28
2	As 188.979†	156.9	149.9	81.446	µg/L	81.446	ppb	12:33:48
2	B 249.677†	-32054.8	-28179.4	173.92	µg/L	173.92	ppb	12:33:28
2	Ba 233.527†	141629.4	123756.9	1034.6	µg/L	1034.6	ppb	12:33:28
2	Be 313.107†	3642.0	6755.9	8.1690	µg/L	8.1690	ppb	12:33:28
2	Cd 226.502†	2942.1	2893.6	-1.2075	µg/L	-1.2075	ppb	12:33:48
2	Co 228.616†	5813.4	5301.5	119.52	µg/L	119.52	ppb	12:33:48
2	Cr 267.716†	10475.8	9030.7	183.07	µg/L	183.07	ppb	12:33:48
2	Cu 324.752†	47914.7	39942.8	310.89	µg/L	310.89	ppb	12:33:28
2	Mn 257.610†	3207093.7	2801574.4	4418.2	µg/L	4418.2	ppb	12:33:28
2	Mo 202.031†	131.6	82.0	10.015	µg/L	10.015	ppb	12:33:48
2	Ni 231.604†	11672.4	10402.1	293.19	µg/L	293.19	ppb	12:33:48
2	P 214.914†	7713.0	6607.1	4161.6	µg/L	4161.6	ppb	12:33:48

2	Pb 220.353†	943.8	888.1	123.14	µg/L	123.14	ppb	12:33:48
2	S 181.975 Axial†	69262.7	60422.4	74155	µg/L	74155	ppb	12:33:28
2	Sb 206.836†	227.3	44.0	-29.285	µg/L	-29.285	ppb	12:33:48
2	Se 196.026†	-293.0	-232.3	17.046	µg/L	17.046	ppb	12:33:48
2	SiO2†	178419.6	154819.6	26100	µg/L	26100	ppb	12:33:28
2	Si 251.611†	252984.7	221040.5	12203	µg/L	12203	ppb	12:33:28
2	Sn 189.927†	23.5	-27.0	4.4683	µg/L	4.4683	ppb	12:33:48
2	Ti 334.940†	290703.9	254708.9	1092.7	µg/L	1092.7	ppb	12:33:28
2	Tl 190.801†	-179.2	-78.2	11.992	µg/L	11.992	ppb	12:33:48
2	U 367.007†	4511.9	3058.6	-124.8	µg/L	-124.8	ppb	12:33:28
2	V 292.402†	14827.2	13086.4	229.30	µg/L	229.30	ppb	12:33:48
2	Zn 213.857†	86839.5	74973.7	538.53	µg/L	538.53	ppb	12:33:28
3	Sc RADIAL	26720.1	26720.1	121	%			12:32:52
3	Al 396.153Radial†	436941.3	361160.0	116150	µg/L	116150	ppb	12:32:47
3	Ca 317.933Radial†	1060014.3	875645.5	187520	µg/L	187520	ppb	12:32:47
3	Fe 238.204 Radial†	1773551.8	1465538.0	285240	µg/L	285240	ppb	12:32:47
3	K 766.490 Radial†	28658.4	23260.2	21103	µg/L	21103	ppb	12:32:52
3	Mg 279.077 IEC†	74469.3	61481.6	100480	µg/L	100480	ppb	12:32:52
3	Na 589.592 Radial†	965.5	670.2	657.43	µg/L	657.43	ppb	12:32:52
3	Sr 421.552†	149884.4	123596.3	723.48	µg/L	723.48	ppb	12:32:52
3	Sc 361.383	417494.9	417494.9	114.01	%			12:33:55
3	Y 371.029	435995.4	435995.4	121.16	%			12:33:55
3	Ag 328.068†	-4521.6	-3282.5	8.9755	µg/L	8.9755	ppb	12:33:55
3	As 188.979†	155.2	148.9	81.017	µg/L	81.017	ppb	12:34:15
3	B 249.677†	-31864.3	-28122.9	176.08	µg/L	176.08	ppb	12:33:55
3	Ba 233.527†	140426.2	123190.2	1029.9	µg/L	1029.9	ppb	12:33:55
3	Be 313.107†	3585.4	6718.9	8.1348	µg/L	8.1348	ppb	12:33:55
3	Cd 226.502†	2916.8	2881.6	-1.3396	µg/L	-1.3396	ppb	12:34:15
3	Co 228.616†	5829.3	5335.5	120.31	µg/L	120.31	ppb	12:34:15
3	Cr 267.716†	10503.1	9090.8	184.28	µg/L	184.28	ppb	12:34:15
3	Cu 324.752†	47245.4	39521.2	307.79	µg/L	307.79	ppb	12:33:55
3	Mn 257.610†	3180338.5	2789173.4	4398.7	µg/L	4398.7	ppb	12:33:55
3	Mo 202.031†	135.6	86.0	10.243	µg/L	10.243	ppb	12:34:15
3	Ni 231.604†	11659.6	10431.2	293.99	µg/L	293.99	ppb	12:34:15
3	P 214.914†	7679.0	6604.0	4159.6	µg/L	4159.6	ppb	12:34:15
3	Pb 220.353†	913.2	864.6	120.28	µg/L	120.28	ppb	12:34:15
3	S 181.975 Axial†	68675.1	60145.9	73815	µg/L	73815	ppb	12:33:55
3	Sb 206.836†	222.3	40.4	-30.347	µg/L	-30.347	ppb	12:34:15
3	Se 196.026†	-308.9	-247.2	10.033	µg/L	10.033	ppb	12:34:15
3	SiO2†	177076.3	154257.0	26005	µg/L	26005	ppb	12:33:55
3	Si 251.611†	251061.1	220226.1	12158	µg/L	12158	ppb	12:33:55
3	Sn 189.927†	47.3	-6.0	7.0638	µg/L	7.0638	ppb	12:34:15
3	Ti 334.940†	288361.5	253657.5	1088.3	µg/L	1088.3	ppb	12:33:55
3	Tl 190.801†	-169.4	-70.3	13.680	µg/L	13.680	ppb	12:34:15
3	U 367.007†	4455.2	3024.4	-137.1	µg/L	-137.1	ppb	12:33:55
3	V 292.402†	14916.6	13215.9	231.01	µg/L	231.01	ppb	12:34:15
3	Zn 213.857†	86066.8	74595.5	535.64	µg/L	535.64	ppb	12:33:55

Mean Data: 454944008|1783993|1|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	418400.7	114.25	%	0.228				0.20%
Sc RADIAL	26652.3	121	%	0.32				0.26%
Y 371.029	437016.3	121.44	%	0.246				0.20%
Ag 328.068†	-3306.5	8.6643	µg/L	0.28599	8.6643	ppb	0.28599	3.30%
Al 396.153Radial†	358474.9	115290	µg/L	1075.93	115290	ppb	1075.93	0.93%
As 188.979†	151.8	82.252	µg/L	1.7812	82.252	ppb	1.7812	2.17%
B 249.677†	-28184.4	172.43	µg/L	4.578	172.43	ppb	4.578	2.66%
Ba 233.527†	123480.7	1032.3	µg/L	2.39	1032.3	ppb	2.39	0.23%
Be 313.107†	6756.0	8.1663	µg/L	0.03028	8.1663	ppb	0.03028	0.37%
Ca 317.933Radial†	875014.9	187390	µg/L	288.75	187390	ppb	288.75	0.15%
Cd 226.502†	2895.3	-1.1526	µg/L	0.21965	-1.1526	ppb	0.21965	19.06%
Co 228.616†	5335.6	120.31	µg/L	0.789	120.31	ppb	0.789	0.66%
Cr 267.716†	9073.9	183.93	µg/L	0.751	183.93	ppb	0.751	0.41%
Cu 324.752†	39733.9	309.34	µg/L	1.549	309.34	ppb	1.549	0.50%
Fe 238.204 Radial†	1463420.9	284830	µg/L	650.27	284830	ppb	650.27	0.23%
K 766.490 Radial†	23227.1	21073	µg/L	26.31	21073	ppb	26.31	0.12%
Mg 279.077 IEC†	61845.3	101070	µg/L	651.93	101070	ppb	651.93	0.65%
Mn 257.610†	2796752.9	4410.6	µg/L	10.42	4410.6	ppb	10.42	0.24%
Mo 202.031†	82.0	10.008	µg/L	0.2385	10.008	ppb	0.2385	2.38%

Na 589.592 Radial†	698.8	701.90	µg/L	40.212	701.90	ppb	40.212	5.73%
Ni 231.604†	10430.3	293.96	µg/L	0.755	293.96	ppb	0.755	0.26%
P 214.914†	6611.3	4164.6	µg/L	7.07	4164.6	ppb	7.07	0.17%
Pb 220.353†	877.8	121.84	µg/L	1.445	121.84	ppb	1.445	1.19%
S 181.975 Axial†	60372.7	74094	µg/L	253.95	74094	ppb	253.95	0.34%
Concentration greater than upper limit for S 181.975 Axial.								
Sb 206.836†	37.3	-31.155	µg/L	2.3783	-31.155	ppb	2.3783	7.63%
Concentration less than lower limit for Sb 206.836.								
Se 196.026†	-242.0	12.279	µg/L	4.1308	12.279	ppb	4.1308	33.64%
SiO2†	154549.7	26055	µg/L	47.68	26055	ppb	47.68	0.18%
Si 251.611†	220709.5	12185	µg/L	23.69	12185	ppb	23.69	0.19%
Sn 189.927†	-14.8	5.9755	µg/L	1.34747	5.9755	ppb	1.34747	22.55%
Sr 421.552†	123600.2	723.51	µg/L	0.659	723.51	ppb	0.659	0.09%
Ti 334.940†	254097.2	1090.1	µg/L	2.33	1090.1	ppb	2.33	0.21%
Tl 190.801†	-74.3	12.788	µg/L	0.8481	12.788	ppb	0.8481	6.63%
U 367.007†	3052.1	-125.6	µg/L	11.00	-125.6	ppb	11.00	8.76%
Concentration less than lower limit for U 367.007.								
V 292.402†	13166.3	230.28	µg/L	0.879	230.28	ppb	0.879	0.38%
Zn 213.857†	74852.7	537.64	µg/L	1.731	537.64	ppb	1.731	0.32%

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Sequence No.: 34 **Autosampler Location: 325**
Sample ID: 454944009|1783993|1| **Date Collected: 7/23/2018 12:34:24**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: 454944009|1783993|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	26900.8	26900.8	122	%			12:35:00
1	Al 396.153Radial†	367520.9	301754.7	97048	µg/L	97048	ppb	12:34:55
1	Ca 317.933Radial†	1023059.7	839430.0	179770	µg/L	179770	ppb	12:34:55
1	Fe 238.204 Radial†	1625508.0	1334180.2	259670	µg/L	259670	ppb	12:34:55
1	K 766.490 Radial†	22661.1	18178.5	16490	µg/L	16490	ppb	12:35:00
1	Mg 279.077 IEC†	72092.7	59117.5	96612	µg/L	96612	ppb	12:35:00
1	Na 589.592 Radial†	924.7	631.4	631.19	µg/L	631.19	ppb	12:35:00
1	Sr 421.552†	150090.1	122933.3	719.72	µg/L	719.72	ppb	12:35:00
1	Sc 361.383	415272.2	415272.2	113.40	%			12:35:29
1	Y 371.029	433418.0	433418.0	120.44	%			12:35:29
1	Ag 328.068†	-4205.4	-3024.9	7.7832	µg/L	7.7832	ppb	12:35:29
1	As 188.979†	146.6	142.0	76.566	µg/L	76.566	ppb	12:35:49
1	B 249.677†	-29624.0	-26297.0	137.19	µg/L	137.19	ppb	12:35:29
1	Ba 233.527†	104727.0	92368.4	771.07	µg/L	771.07	ppb	12:35:29
1	Be 313.107†	2344.4	5641.3	7.1207	µg/L	7.1207	ppb	12:35:29
1	Cd 226.502†	2701.2	2705.1	-0.3983	µg/L	-0.3983	ppb	12:35:49
1	Co 228.616†	5505.3	5077.2	114.08	µg/L	114.08	ppb	12:35:49
1	Cr 267.716†	9132.1	7931.2	160.73	µg/L	160.73	ppb	12:35:49
1	Cu 324.752†	46835.2	39381.2	305.19	µg/L	305.19	ppb	12:35:29
1	Mn 257.610†	3179131.2	2803040.6	4418.8	µg/L	4418.8	ppb	12:35:29
1	Mo 202.031†	82.8	40.1	7.1577	µg/L	7.1577	ppb	12:35:49
1	Ni 231.604†	10846.2	9768.6	275.17	µg/L	275.17	ppb	12:35:49
1	P 214.914†	7682.6	6643.1	4204.6	µg/L	4204.6	ppb	12:35:49
1	Pb 220.353†	884.5	843.5	115.92	µg/L	115.92	ppb	12:35:49
1	S 181.975 Axial†	64792.7	57044.7	70013	µg/L	70013	ppb	12:35:29
1	Sb 206.836†	223.7	42.7	-25.615	µg/L	-25.615	ppb	12:35:49
1	Se 196.026†	-279.6	-222.8	10.186	µg/L	10.186	ppb	12:35:49
1	SiO2†	139160.6	121652.7	20501	µg/L	20501	ppb	12:35:29
1	Si 251.611†	196779.9	173537.4	9577.7	µg/L	9577.7	ppb	12:35:29
1	Sn 189.927†	36.6	-15.2	5.8056	µg/L	5.8056	ppb	12:35:49
1	Ti 334.940†	314312.9	277896.4	1191.2	µg/L	1191.2	ppb	12:35:29
1	Tl 190.801†	-151.0	-54.8	14.969	µg/L	14.969	ppb	12:35:49
1	U 367.007†	4164.0	2788.5	-117.5	µg/L	-117.5	ppb	12:35:29
1	V 292.402†	13030.9	11623.1	204.83	µg/L	204.83	ppb	12:35:49
1	Zn 213.857†	97825.0	85368.5	620.66	µg/L	620.66	ppb	12:35:29
2	Sc RADIAL	26500.7	26500.7	120	%			12:35:10
2	Al 396.153Radial†	376322.7	313642.5	100870	µg/L	100870	ppb	12:35:05
2	Ca 317.933Radial†	1036325.2	863160.0	184850	µg/L	184850	ppb	12:35:05
2	Fe 238.204 Radial†	1646154.9	1371525.6	266940	µg/L	266940	ppb	12:35:05
2	K 766.490 Radial†	22466.8	18297.4	16597	µg/L	16597	ppb	12:35:10
2	Mg 279.077 IEC†	70771.9	58910.4	96273	µg/L	96273	ppb	12:35:10
2	Na 589.592 Radial†	959.8	672.1	684.28	µg/L	684.28	ppb	12:35:10
2	Sr 421.552†	148785.4	123706.1	724.17	µg/L	724.17	ppb	12:35:10
2	Sc 361.383	419409.0	419409.0	114.53	%			12:35:57
2	Y 371.029	436927.4	436927.4	121.42	%			12:35:57
2	Ag 328.068†	-4264.9	-3040.2	8.7006	µg/L	8.7006	ppb	12:35:57
2	As 188.979†	153.2	146.5	78.918	µg/L	78.918	ppb	12:36:17
2	B 249.677†	-29986.6	-26355.9	163.56	µg/L	163.56	ppb	12:35:57
2	Ba 233.527†	105447.8	92086.8	768.52	µg/L	768.52	ppb	12:35:57
2	Be 313.107†	2466.9	5727.9	7.2555	µg/L	7.2555	ppb	12:35:57
2	Cd 226.502†	2713.0	2692.0	-1.3309	µg/L	-1.3309	ppb	12:36:17
2	Co 228.616†	5492.5	5018.2	112.70	µg/L	112.70	ppb	12:36:17
2	Cr 267.716†	9100.6	7824.3	158.71	µg/L	158.71	ppb	12:36:17
2	Cu 324.752†	47076.9	39184.9	304.19	µg/L	304.19	ppb	12:35:57
2	Mn 257.610†	3200198.1	2793782.7	4404.8	µg/L	4404.8	ppb	12:35:57
2	Mo 202.031†	99.7	54.1	8.0865	µg/L	8.0865	ppb	12:36:17
2	Ni 231.604†	10775.4	9612.4	270.99	µg/L	270.99	ppb	12:36:17
2	P 214.914†	7687.5	6580.6	4157.3	µg/L	4157.3	ppb	12:36:17

2	Pb 220.353†	885.8	837.0	115.54	µg/L	115.54	ppb	12:36:17
2	S 181.975 Axial†	65185.2	56823.9	69739	µg/L	69739	ppb	12:35:57
2	Sb 206.836†	218.2	35.9	-28.504	µg/L	-28.504	ppb	12:36:17
2	Se 196.026†	-277.2	-218.3	15.557	µg/L	15.557	ppb	12:36:17
2	SiO2†	140793.9	121868.4	20535	µg/L	20535	ppb	12:35:57
2	Si 251.611†	198963.9	173732.7	9588.0	µg/L	9588.0	ppb	12:35:57
2	Sn 189.927†	33.4	-18.4	5.5108	µg/L	5.5108	ppb	12:36:17
2	Ti 334.940†	316510.9	277081.7	1187.9	µg/L	1187.9	ppb	12:35:57
2	Tl 190.801†	-156.0	-57.9	14.952	µg/L	14.952	ppb	12:36:17
2	U 367.007†	4237.9	2816.9	-138.3	µg/L	-138.3	ppb	12:35:57
2	V 292.402†	12967.3	11454.2	204.12	µg/L	204.12	ppb	12:36:17
2	Zn 213.857†	98099.7	84757.5	615.27	µg/L	615.27	ppb	12:35:57
3	Sc RADIAL	27022.3	27022.3	122	%			12:35:21
3	Al 396.153Radial†	375666.4	307053.4	98752	µg/L	98752	ppb	12:35:16
3	Ca 317.933Radial†	1030864.5	842029.6	180330	µg/L	180330	ppb	12:35:16
3	Fe 238.204 Radial†	1639707.6	1339780.6	260760	µg/L	260760	ppb	12:35:16
3	K 766.490 Radial†	22633.9	18072.6	16394	µg/L	16394	ppb	12:35:21
3	Mg 279.077 IEC†	71440.8	58318.6	95306	µg/L	95306	ppb	12:35:21
3	Na 589.592 Radial†	977.5	671.2	690.87	µg/L	690.87	ppb	12:35:21
3	Sr 421.552†	150700.3	122877.6	719.38	µg/L	719.38	ppb	12:35:21
3	Sc 361.383	420132.3	420132.3	114.73	%			12:36:24
3	Y 371.029	438391.7	438391.7	121.82	%			12:36:24
3	Ag 328.068†	-4241.6	-3013.5	8.0383	µg/L	8.0383	ppb	12:36:24
3	As 188.979†	177.5	167.5	87.818	µg/L	87.818	ppb	12:36:44
3	B 249.677†	-29956.1	-26284.2	141.86	µg/L	141.86	ppb	12:36:24
3	Ba 233.527†	105442.2	91923.5	767.30	µg/L	767.30	ppb	12:36:24
3	Be 313.107†	2457.2	5715.8	7.1969	µg/L	7.1969	ppb	12:36:24
3	Cd 226.502†	2751.8	2721.7	-0.3458	µg/L	-0.3458	ppb	12:36:44
3	Co 228.616†	5532.1	5044.4	113.33	µg/L	113.33	ppb	12:36:44
3	Cr 267.716†	9145.3	7849.5	159.08	µg/L	159.08	ppb	12:36:44
3	Cu 324.752†	46986.4	39035.2	302.74	µg/L	302.74	ppb	12:36:24
3	Mn 257.610†	3196612.2	2785846.6	4391.9	µg/L	4391.9	ppb	12:36:24
3	Mo 202.031†	90.6	46.0	7.5138	µg/L	7.5138	ppb	12:36:44
3	Ni 231.604†	10864.3	9673.8	272.57	µg/L	272.57	ppb	12:36:44
3	P 214.914†	7694.2	6574.9	4158.6	µg/L	4158.6	ppb	12:36:44
3	Pb 220.353†	915.9	861.9	118.32	µg/L	118.32	ppb	12:36:44
3	S 181.975 Axial†	65111.7	56661.8	69542	µg/L	69542	ppb	12:36:24
3	Sb 206.836†	184.5	6.3	-36.163	µg/L	-36.163	ppb	12:36:44
3	Se 196.026†	-276.9	-217.6	13.140	µg/L	13.140	ppb	12:36:44
3	SiO2†	140067.4	121023.5	20394	µg/L	20394	ppb	12:36:24
3	Si 251.611†	197896.9	172503.6	9520.5	µg/L	9520.5	ppb	12:36:24
3	Sn 189.927†	47.9	-5.8	6.9870	µg/L	6.9870	ppb	12:36:44
3	Ti 334.940†	316568.7	276656.3	1185.9	µg/L	1185.9	ppb	12:36:24
3	Tl 190.801†	-150.1	-52.6	15.549	µg/L	15.549	ppb	12:36:44
3	U 367.007†	4319.8	2881.9	-89.14	µg/L	-89.14	ppb	12:36:24
3	V 292.402†	13007.2	11469.5	203.07	µg/L	203.07	ppb	12:36:44
3	Zn 213.857†	98193.6	84691.9	615.42	µg/L	615.42	ppb	12:36:24

Mean Data: 454944009|1783993|1|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	418271.2	114.22	%	0.716				0.63%
Sc RADIAL	26807.9	121	%	1.24				1.02%
Y 371.029	436245.7	121.23	%	0.710				0.59%
Ag 328.068†	-3026.2	8.1740	µg/L	0.47353	8.1740	ppb	0.47353	5.79%
Al 396.153Radial†	307483.5	98891	µg/L	1915.35	98891	ppb	1915.35	1.94%
As 188.979†	152.0	81.101	µg/L	5.9348	81.101	ppb	5.9348	7.32%
B 249.677†	-26312.4	147.54	µg/L	14.070	147.54	ppb	14.070	9.54%
Ba 233.527†	92126.2	768.96	µg/L	1.924	768.96	ppb	1.924	0.25%
Be 313.107†	5695.0	7.1911	µg/L	0.06761	7.1911	ppb	0.06761	0.94%
Ca 317.933Radial†	848206.5	181650	µg/L	2787.27	181650	ppb	2787.27	1.53%
Cd 226.502†	2706.3	-0.6916	µg/L	0.55422	-0.6916	ppb	0.55422	80.13%
Co 228.616†	5046.6	113.37	µg/L	0.693	113.37	ppb	0.693	0.61%
Cr 267.716†	7868.3	159.51	µg/L	1.073	159.51	ppb	1.073	0.67%
Cu 324.752†	39200.4	304.04	µg/L	1.234	304.04	ppb	1.234	0.41%
Fe 238.204 Radial†	1348495.5	262460	µg/L	3919.95	262460	ppb	3919.95	1.49%
K 766.490 Radial†	18182.9	16494	µg/L	101.86	16494	ppb	101.86	0.62%
Mg 279.077 IEC†	58782.2	96064	µg/L	677.54	96064	ppb	677.54	0.71%
Mn 257.610†	2794223.3	4405.2	µg/L	13.47	4405.2	ppb	13.47	0.31%
Mo 202.031†	46.7	7.5860	µg/L	0.46858	7.5860	ppb	0.46858	6.18%

Na 589.592 Radial†	658.2	668.78	µg/L	32.719	668.78	ppb	32.719	4.89%
Ni 231.604†	9684.9	272.91	µg/L	2.109	272.91	ppb	2.109	0.77%
P 214.914†	6599.5	4173.5	µg/L	26.95	4173.5	ppb	26.95	0.65%
Pb 220.353†	847.4	116.59	µg/L	1.508	116.59	ppb	1.508	1.29%
S 181.975 Axial†	56843.5	69765	µg/L	236.60	69765	ppb	236.60	0.34%
Concentration greater than upper limit for S 181.975 Axial.								
Sb 206.836†	28.3	-30.094	µg/L	5.4511	-30.094	ppb	5.4511	18.11%
Concentration less than lower limit for Sb 206.836.								
Se 196.026†	-219.5	12.961	µg/L	2.6902	12.961	ppb	2.6902	20.76%
SiO2†	121514.9	20477	µg/L	73.66	20477	ppb	73.66	0.36%
Si 251.611†	173257.9	9562.0	µg/L	36.38	9562.0	ppb	36.38	0.38%
Sn 189.927†	-13.1	6.1011	µg/L	0.78119	6.1011	ppb	0.78119	12.80%
Sr 421.552†	123172.3	721.09	µg/L	2.674	721.09	ppb	2.674	0.37%
Ti 334.940†	277211.5	1188.3	µg/L	2.66	1188.3	ppb	2.66	0.22%
Tl 190.801†	-55.1	15.157	µg/L	0.3398	15.157	ppb	0.3398	2.24%
U 367.007†	2829.1	-115.0	µg/L	24.67	-115.0	ppb	24.67	21.46%
Concentration less than lower limit for U 367.007.								
V 292.402†	11515.6	204.01	µg/L	0.885	204.01	ppb	0.885	0.43%
Zn 213.857†	84939.3	617.12	µg/L	3.071	617.12	ppb	3.071	0.50%

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Sequence No.: 35 **Autosampler Location: 326**
Sample ID: 454944010|1783993|1| **Date Collected: 7/23/2018 12:36:52**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: 454944010|1783993|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	26717.0	26717.0	121	%			12:37:28
1	Al 396.153Radial†	381902.0	315714.8	101540	µg/L	101540	ppb	12:37:23
1	Ca 317.933Radial†	1007221.5	832116.3	178200	µg/L	178200	ppb	12:37:23
1	Fe 238.204 Radial†	1708937.8	1412307.2	274880	µg/L	274880	ppb	12:37:23
1	K 766.490 Radial†	23779.6	19230.9	17442	µg/L	17442	ppb	12:37:28
1	Mg 279.077 IEC†	73089.2	60348.1	98623	µg/L	98623	ppb	12:37:28
1	Na 589.592 Radial†	996.2	695.8	710.22	µg/L	710.22	ppb	12:37:28
1	Sr 421.552†	163986.9	135265.6	792.26	µg/L	792.26	ppb	12:37:28
1	Sc 361.383	420935.1	420935.1	114.95	%			12:37:57
1	Y 371.029	438122.8	438122.8	121.75	%			12:37:57
1	Ag 328.068†	-4511.9	-3241.6	7.8178	µg/L	7.8178	ppb	12:37:57
1	As 188.979†	171.4	161.9	86.140	µg/L	86.140	ppb	12:38:18
1	B 249.677†	-31149.9	-27273.0	163.92	µg/L	163.92	ppb	12:37:57
1	Ba 233.527†	90833.1	79038.5	658.50	µg/L	658.50	ppb	12:37:57
1	Be 313.107†	2550.8	5793.1	7.2453	µg/L	7.2453	ppb	12:37:57
1	Cd 226.502†	2864.3	2814.9	-0.8780	µg/L	-0.8780	ppb	12:38:18
1	Co 228.616†	6436.3	5821.8	131.43	µg/L	131.43	ppb	12:38:18
1	Cr 267.716†	9656.2	8278.7	168.03	µg/L	168.03	ppb	12:38:18
1	Cu 324.752†	46846.8	38835.6	302.13	µg/L	302.13	ppb	12:37:57
1	Mn 257.610†	3059302.9	2661076.3	4196.8	µg/L	4196.8	ppb	12:37:57
1	Mo 202.031†	147.7	95.6	10.590	µg/L	10.590	ppb	12:38:18
1	Ni 231.604†	12659.9	11217.8	315.54	µg/L	315.54	ppb	12:38:18
1	P 214.914†	7885.9	6728.9	4249.0	µg/L	4249.0	ppb	12:38:18
1	Pb 220.353†	1202.6	1109.8	149.15	µg/L	149.15	ppb	12:38:18
1	S 181.975 Axial†	82529.5	71706.7	88027	µg/L	88027	ppb	12:37:57
1	Sb 206.836†	222.8	39.3	-28.962	µg/L	-28.962	ppb	12:38:18
1	Se 196.026†	-314.2	-249.6	4.2884	µg/L	4.2884	ppb	12:38:18
1	SiO2†	198828.0	171911.2	28991	µg/L	28991	ppb	12:37:57
1	Si 251.611†	282344.6	245642.5	13564	µg/L	13564	ppb	12:37:57
1	Sn 189.927†	46.8	-6.8	6.6216	µg/L	6.6216	ppb	12:38:18
1	Ti 334.940†	274087.8	239172.5	1026.2	µg/L	1026.2	ppb	12:37:57
1	Tl 190.801†	-161.6	-62.3	14.276	µg/L	14.276	ppb	12:38:18
1	U 367.007†	4428.9	2969.6	-111.3	µg/L	-111.3	ppb	12:37:57
1	V 292.402†	13233.7	11644.9	208.39	µg/L	208.39	ppb	12:38:18
1	Zn 213.857†	83657.4	71882.5	515.93	µg/L	515.93	ppb	12:37:57
2	Sc RADIAL	27036.7	27036.7	122	%			12:37:38
2	Al 396.153Radial†	389516.0	318200.9	102340	µg/L	102340	ppb	12:37:33
2	Ca 317.933Radial†	1018683.8	831634.6	178100	µg/L	178100	ppb	12:37:33
2	Fe 238.204 Radial†	1727132.5	1410466.4	274520	µg/L	274520	ppb	12:37:33
2	K 766.490 Radial†	23950.3	19137.9	17358	µg/L	17358	ppb	12:37:38
2	Mg 279.077 IEC†	73207.9	59730.8	97614	µg/L	97614	ppb	12:37:38
2	Na 589.592 Radial†	1034.0	716.9	743.15	µg/L	743.15	ppb	12:37:38
2	Sr 421.552†	165504.5	134902.4	790.13	µg/L	790.13	ppb	12:37:38
2	Sc 361.383	422895.6	422895.6	115.48	%			12:38:25
2	Y 371.029	440065.4	440065.4	122.29	%			12:38:25
2	Ag 328.068†	-4357.8	-3090.0	9.3110	µg/L	9.3110	ppb	12:38:25
2	As 188.979†	174.6	164.0	87.021	µg/L	87.021	ppb	12:38:45
2	B 249.677†	-31421.3	-27382.4	158.90	µg/L	158.90	ppb	12:38:25
2	Ba 233.527†	91010.1	78825.5	656.71	µg/L	656.71	ppb	12:38:25
2	Be 313.107†	2630.8	5852.1	7.2868	µg/L	7.2868	ppb	12:38:25
2	Cd 226.502†	2857.0	2797.1	-1.0241	µg/L	-1.0241	ppb	12:38:45
2	Co 228.616†	6402.8	5766.9	130.17	µg/L	130.17	ppb	12:38:45
2	Cr 267.716†	9670.4	8252.1	167.49	µg/L	167.49	ppb	12:38:45
2	Cu 324.752†	47021.5	38798.0	301.82	µg/L	301.82	ppb	12:38:25
2	Mn 257.610†	3066748.4	2655185.1	4187.6	µg/L	4187.6	ppb	12:38:25
2	Mo 202.031†	161.9	107.3	11.247	µg/L	11.247	ppb	12:38:45
2	Ni 231.604†	12625.8	11137.2	313.30	µg/L	313.30	ppb	12:38:45
2	P 214.914†	7843.3	6660.2	4203.8	µg/L	4203.8	ppb	12:38:45

2	Pb 220.353†	1153.8	1062.6	143.41 µg/L	143.41 ppb		12:38:45
2	S 181.975 Axial†	83005.3	71785.9	88124 µg/L	88124 ppb		12:38:25
2	Sb 206.836†	219.0	35.0	-30.115 µg/L	-30.115 ppb		12:38:45
2	Se 196.026†	-291.6	-228.7	13.990 µg/L	13.990 ppb		12:38:45
2	SiO2†	200131.6	172238.2	29046 µg/L	29046 ppb		12:38:25
2	Si 251.611†	284020.0	245954.5	13581 µg/L	13581 ppb		12:38:25
2	Sn 189.927†	45.3	-8.3	6.4338 µg/L	6.4338 ppb		12:38:45
2	Ti 334.940†	274755.6	238645.4	1023.9 µg/L	1023.9 ppb		12:38:25
2	Tl 190.801†	-168.9	-68.0	13.015 µg/L	13.015 ppb		12:38:45
2	U 367.007†	4367.0	2898.1	-135.0 µg/L	-135.0 ppb		12:38:25
2	V 292.402†	13135.1	11506.2	206.50 µg/L	206.50 ppb		12:38:45
2	Zn 213.857†	83766.8	71639.8	514.15 µg/L	514.15 ppb		12:38:25
3	Sc RADIAL	27151.3	27151.3	123 %			12:37:49
3	Al 396.153Radial†	392534.2	319312.5	102690 µg/L	102690 ppb		12:37:44
3	Ca 317.933Radial†	1019370.6	828681.1	177470 µg/L	177470 ppb		12:37:44
3	Fe 238.204 Radial†	1729066.3	1406084.6	273670 µg/L	273670 ppb		12:37:44
3	K 766.490 Radial†	23963.7	19066.2	17293 µg/L	17293 ppb		12:37:49
3	Mg 279.077 IEC†	73119.0	59406.1	97083 µg/L	97083 ppb		12:37:49
3	Na 589.592 Radial†	988.5	676.3	681.91 µg/L	681.91 ppb		12:37:49
3	Sr 421.552†	166394.9	135056.0	791.05 µg/L	791.05 ppb		12:37:49
3	Sc 361.383	422293.3	422293.3	115.32 %			12:38:52
3	Y 371.029	439491.9	439491.9	122.13 %			12:38:52
3	Ag 328.068†	-4468.1	-3191.0	8.1479 µg/L	8.1479 ppb		12:38:52
3	As 188.979†	176.1	165.5	87.639 µg/L	87.639 ppb		12:39:12
3	B 249.677†	-31278.1	-27297.0	158.41 µg/L	158.41 ppb		12:38:52
3	Ba 233.527†	90977.8	78909.8	657.45 µg/L	657.45 ppb		12:38:52
3	Be 313.107†	2686.1	5903.3	7.3286 µg/L	7.3286 ppb		12:38:52
3	Cd 226.502†	2861.1	2804.2	-0.8571 µg/L	-0.8571 ppb		12:39:12
3	Co 228.616†	6470.0	5833.1	131.70 µg/L	131.70 ppb		12:39:12
3	Cr 267.716†	9693.4	8284.0	168.08 µg/L	168.08 ppb		12:39:12
3	Cu 324.752†	47060.1	38889.5	302.46 µg/L	302.46 ppb		12:38:52
3	Mn 257.610†	3064041.5	2656625.2	4189.8 µg/L	4189.8 ppb		12:38:52
3	Mo 202.031†	148.3	95.6	10.571 µg/L	10.571 ppb		12:39:12
3	Ni 231.604†	12691.7	11210.0	315.30 µg/L	315.30 ppb		12:39:12
3	P 214.914†	7899.8	6718.8	4243.6 µg/L	4243.6 ppb		12:39:12
3	Pb 220.353†	1202.7	1106.5	148.83 µg/L	148.83 ppb		12:39:12
3	S 181.975 Axial†	82711.7	71633.7	87938 µg/L	87938 ppb		12:38:52
3	Sb 206.836†	231.1	45.8	-26.926 µg/L	-26.926 ppb		12:39:12
3	Se 196.026†	-315.5	-249.8	3.6204 µg/L	3.6204 ppb		12:39:12
3	SiO2†	199653.3	172070.6	29018 µg/L	29018 ppb		12:38:52
3	Si 251.611†	283264.5	245650.1	13565 µg/L	13565 ppb		12:38:52
3	Sn 189.927†	37.3	-15.2	5.5681 µg/L	5.5681 ppb		12:39:12
3	Ti 334.940†	274282.0	238574.0	1023.6 µg/L	1023.6 ppb		12:38:52
3	Tl 190.801†	-158.0	-58.7	14.925 µg/L	14.925 ppb		12:39:12
3	U 367.007†	4449.8	2975.3	-104.2 µg/L	-104.2 ppb		12:38:52
3	V 292.402†	13245.8	11618.4	207.80 µg/L	207.80 ppb		12:39:12
3	Zn 213.857†	83648.5	71640.6	514.24 µg/L	514.24 ppb		12:38:52

Mean Data: 454944010|1783993|1|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	422041.3	115.25	%	0.274				0.24%
Sc RADIAL	26968.3	122	%	1.02				0.83%
Y 371.029	439226.7	122.05	%	0.277				0.23%
Ag 328.068†	-3174.2	8.4256	µg/L	0.78439	8.4256	ppb	0.78439	9.31%
Al 396.153Radial†	317742.7	102190	µg/L	592.45	102190	ppb	592.45	0.58%
As 188.979†	163.8	86.933	µg/L	0.7534	86.933	ppb	0.7534	0.87%
B 249.677†	-27317.5	160.41	µg/L	3.054	160.41	ppb	3.054	1.90%
Ba 233.527†	78924.6	657.55	µg/L	0.897	657.55	ppb	0.897	0.14%
Be 313.107†	5849.5	7.2869	µg/L	0.04163	7.2869	ppb	0.04163	0.57%
Ca 317.933Radial†	830810.7	177920	µg/L	398.31	177920	ppb	398.31	0.22%
Cd 226.502†	2805.4	-0.9197	µg/L	0.09102	-0.9197	ppb	0.09102	9.90%
Co 228.616†	5807.3	131.10	µg/L	0.816	131.10	ppb	0.816	0.62%
Cr 267.716†	8271.6	167.87	µg/L	0.325	167.87	ppb	0.325	0.19%
Cu 324.752†	38841.1	302.14	µg/L	0.319	302.14	ppb	0.319	0.11%
Fe 238.204 Radial†	1409619.4	274360	µg/L	622.16	274360	ppb	622.16	0.23%
K 766.490 Radial†	19145.0	17364	µg/L	74.95	17364	ppb	74.95	0.43%
Mg 279.077 IEC†	59828.3	97774	µg/L	782.01	97774	ppb	782.01	0.80%
Mn 257.610†	2657628.8	4191.4	µg/L	4.84	4191.4	ppb	4.84	0.12%
Mo 202.031†	99.5	10.803	µg/L	0.3848	10.803	ppb	0.3848	3.56%

Na 589.592 Radial†	696.3	711.76	µg/L	30.648	711.76	ppb	30.648	4.31%
Ni 231.604†	11188.3	314.71	µg/L	1.226	314.71	ppb	1.226	0.39%
P 214.914†	6702.6	4232.1	µg/L	24.71	4232.1	ppb	24.71	0.58%
Pb 220.353†	1093.0	147.13	µg/L	3.226	147.13	ppb	3.226	2.19%
S 181.975 Axial†	71708.8	88030	µg/L	93.41	88030	ppb	93.41	0.11%
Concentration greater than upper limit for S 181.975 Axial.								
Sb 206.836†	40.0	-28.668	µg/L	1.6147	-28.668	ppb	1.6147	5.63%
Concentration less than lower limit for Sb 206.836.								
Se 196.026†	-242.7	7.2997	µg/L	5.80385	7.2997	ppb	5.80385	79.51%
SiO2†	172073.3	29018	µg/L	27.66	29018	ppb	27.66	0.10%
Si 251.611†	245749.0	13570	µg/L	9.83	13570	ppb	9.83	0.07%
Sn 189.927†	-10.1	6.2078	µg/L	0.56196	6.2078	ppb	0.56196	9.05%
Sr 421.552†	135074.7	791.15	µg/L	1.070	791.15	ppb	1.070	0.14%
Ti 334.940†	238797.3	1024.5	µg/L	1.40	1024.5	ppb	1.40	0.14%
Tl 190.801†	-63.0	14.072	µg/L	0.9708	14.072	ppb	0.9708	6.90%
U 367.007†	2947.7	-116.9	µg/L	16.12	-116.9	ppb	16.12	13.80%
Concentration less than lower limit for U 367.007.								
V 292.402†	11589.8	207.56	µg/L	0.968	207.56	ppb	0.968	0.47%
Zn 213.857†	71721.0	514.77	µg/L	1.006	514.77	ppb	1.006	0.20%

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Sequence No.: 36 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 7/23/2018 12:39:21**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	26922.5	26922.5	122	%			12:39:59
1	Al 396.153Radial†	18649.9	15389.5	4926.7	µg/L	4926.7	ppb	12:39:59
1	Ca 317.933Radial†	29163.3	23621.6	5058.7	µg/L	5058.7	ppb	12:39:59
1	Fe 238.204 Radial†	31687.7	25953.3	5051.3	µg/L	5051.3	ppb	12:39:59
1	K 766.490 Radial†	6887.2	5226.8	4749.6	µg/L	4749.6	ppb	12:39:59
1	Mg 279.077 IEC†	3882.1	3127.8	5111.6	µg/L	5111.6	ppb	12:39:59
1	Na 589.592 Radial†	7820.3	6286.2	9659.9	µg/L	9659.9	ppb	12:39:59
1	Sr 421.552†	99244.5	81133.7	477.00	µg/L	477.00	ppb	12:39:54
1	Sc 361.383	435699.3	435699.3	118.98	%			12:40:26
1	Y 371.029	425349.9	425349.9	118.20	%			12:40:26
1	Ag 328.068†	56609.7	48264.1	490.13	µg/L	490.13	ppb	12:40:26
1	As 188.979†	1352.9	1149.9	509.91	µg/L	509.91	ppb	12:40:46
1	B 249.677†	17525.3	14556.8	501.66	µg/L	501.66	ppb	12:40:26
1	Ba 233.527†	68238.0	57369.6	482.75	µg/L	482.75	ppb	12:40:26
1	Be 313.107†	692800.2	585872.4	487.06	µg/L	487.06	ppb	12:40:26
1	Cd 226.502†	56486.2	47799.7	495.56	µg/L	495.56	ppb	12:40:26
1	Co 228.616†	24492.8	20808.6	479.52	µg/L	479.52	ppb	12:40:46
1	Cr 267.716†	28405.1	23752.5	472.89	µg/L	472.89	ppb	12:40:46
1	Cu 324.752†	79046.7	64518.6	473.91	µg/L	473.91	ppb	12:40:26
1	Mn 257.610†	365899.7	307081.8	482.60	µg/L	482.60	ppb	12:40:26
1	Mo 202.031†	10300.0	8624.2	489.29	µg/L	489.29	ppb	12:40:46
1	Ni 231.604†	20669.5	17576.6	485.93	µg/L	485.93	ppb	12:40:46
1	P 214.914†	4445.2	3604.5	2385.4	µg/L	2385.4	ppb	12:40:46
1	Pb 220.353†	4597.4	3927.7	485.88	µg/L	485.88	ppb	12:40:46
1	S 181.975 Axial†	1103.3	835.0	1023.4	µg/L	1023.4	ppb	12:40:46
1	Sb 206.836†	2182.2	1679.6	478.02	µg/L	478.02	ppb	12:40:46
1	Se 196.026†	1191.2	1024.9	486.68	µg/L	486.68	ppb	12:40:46
1	SiO2†	37929.8	30814.8	5184.0	µg/L	5184.0	ppb	12:40:26
1	Si 251.611†	52475.9	44114.2	2431.1	µg/L	2431.1	ppb	12:40:26
1	Sn 189.927†	4839.7	4020.3	501.24	µg/L	501.24	ppb	12:40:46
1	Ti 334.940†	135486.4	114597.9	487.88	µg/L	487.88	ppb	12:40:26
1	Tl 190.801†	2591.7	2256.6	484.12	µg/L	484.12	ppb	12:40:46
1	U 367.007†	2550.5	1260.3	421.0	µg/L	421.0	ppb	12:40:26
1	V 292.402†	43345.4	36563.7	483.39	µg/L	483.39	ppb	12:40:26
1	Zn 213.857†	76324.4	63252.8	478.50	µg/L	478.50	ppb	12:40:26
2	Sc RADIAL	26777.3	26777.3	121	%			12:40:09
2	Al 396.153Radial†	18540.1	15381.8	4924.0	µg/L	4924.0	ppb	12:40:09
2	Ca 317.933Radial†	29128.3	23722.4	5080.3	µg/L	5080.3	ppb	12:40:09
2	Fe 238.204 Radial†	31554.6	25984.3	5057.4	µg/L	5057.4	ppb	12:40:09
2	K 766.490 Radial†	6884.9	5255.5	4775.7	µg/L	4775.7	ppb	12:40:09
2	Mg 279.077 IEC†	3898.6	3158.6	5162.0	µg/L	5162.0	ppb	12:40:09
2	Na 589.592 Radial†	7766.6	6276.7	9645.2	µg/L	9645.2	ppb	12:40:09
2	Sr 421.552†	98898.0	81289.1	477.92	µg/L	477.92	ppb	12:40:04
2	Sc 361.383	429721.4	429721.4	117.34	%			12:40:52
2	Y 371.029	419130.5	419130.5	116.47	%			12:40:52
2	Ag 328.068†	55872.2	48297.5	490.48	µg/L	490.48	ppb	12:40:52
2	As 188.979†	1341.0	1155.6	512.43	µg/L	512.43	ppb	12:41:13
2	B 249.677†	17370.4	14629.7	504.08	µg/L	504.08	ppb	12:40:52
2	Ba 233.527†	67533.2	57566.8	484.42	µg/L	484.42	ppb	12:40:52
2	Be 313.107†	684249.0	586685.6	487.73	µg/L	487.73	ppb	12:40:52
2	Cd 226.502†	55816.0	47889.1	496.49	µg/L	496.49	ppb	12:40:52
2	Co 228.616†	24413.7	21027.6	484.57	µg/L	484.57	ppb	12:41:13
2	Cr 267.716†	28311.2	24004.7	477.92	µg/L	477.92	ppb	12:41:13
2	Cu 324.752†	77842.0	64416.2	473.14	µg/L	473.14	ppb	12:40:52
2	Mn 257.610†	361708.9	307788.6	483.71	µg/L	483.71	ppb	12:40:52
2	Mo 202.031†	10263.4	8713.5	494.36	µg/L	494.36	ppb	12:41:13
2	Ni 231.604†	20634.0	17788.1	491.77	µg/L	491.77	ppb	12:41:13
2	P 214.914†	4433.3	3646.3	2413.2	µg/L	2413.2	ppb	12:41:13

2	Pb 220.353†	4621.2	4001.7	495.06 µg/L	495.06 ppb	12:41:13
2	S 181.975 Axial†	1097.7	843.2	1033.5 µg/L	1033.5 ppb	12:41:13
2	Sb 206.836†	2166.7	1691.8	481.50 µg/L	481.50 ppb	12:41:13
2	Se 196.026†	1210.9	1055.7	501.21 µg/L	501.21 ppb	12:41:13
2	SiO2†	37450.6	30849.9	5189.7 µg/L	5189.7 ppb	12:40:52
2	Si 251.611†	51864.6	44206.8	2436.2 µg/L	2436.2 ppb	12:40:52
2	Sn 189.927†	4831.8	4070.1	507.42 µg/L	507.42 ppb	12:41:13
2	Ti 334.940†	133712.6	114670.4	488.19 µg/L	488.19 ppb	12:40:52
2	Tl 190.801†	2584.0	2280.4	489.19 µg/L	489.19 ppb	12:41:13
2	U 367.007†	2450.1	1204.5	401.4 µg/L	401.4 ppb	12:40:52
2	V 292.402†	42845.6	36644.5	484.49 µg/L	484.49 ppb	12:40:52
2	Zn 213.857†	75301.5	63273.5	478.62 µg/L	478.62 ppb	12:40:52
3	Sc RADIAL	26401.7	26401.7	120 %		12:40:19
3	Al 396.153Radial†	18379.6	15465.1	4950.7 µg/L	4950.7 ppb	12:40:19
3	Ca 317.933Radial†	28781.0	23773.7	5091.3 µg/L	5091.3 ppb	12:40:19
3	Fe 238.204 Radial†	31181.1	26042.1	5068.6 µg/L	5068.6 ppb	12:40:19
3	K 766.490 Radial†	6794.4	5260.6	4780.3 µg/L	4780.3 ppb	12:40:19
3	Mg 279.077 IEC†	3863.1	3174.7	5188.2 µg/L	5188.2 ppb	12:40:19
3	Na 589.592 Radial†	7615.6	6241.4	9591.0 µg/L	9591.0 ppb	12:40:19
3	Sr 421.552†	98253.6	81910.4	481.57 µg/L	481.57 ppb	12:40:14
3	Sc 361.383	428357.9	428357.9	116.97 %		12:41:19
3	Y 371.029	417707.4	417707.4	116.07 %		12:41:19
3	Ag 328.068†	55944.7	48511.0	492.62 µg/L	492.62 ppb	12:41:19
3	As 188.979†	1365.1	1179.8	523.13 µg/L	523.13 ppb	12:41:39
3	B 249.677†	17405.9	14707.1	506.69 µg/L	506.69 ppb	12:41:19
3	Ba 233.527†	67766.0	57949.0	487.63 µg/L	487.63 ppb	12:41:19
3	Be 313.107†	686616.6	590565.7	490.96 µg/L	490.96 ppb	12:41:19
3	Cd 226.502†	56108.5	48290.6	500.66 µg/L	500.66 ppb	12:41:19
3	Co 228.616†	24495.4	21163.7	487.71 µg/L	487.71 ppb	12:41:39
3	Cr 267.716†	28365.6	24128.0	480.35 µg/L	480.35 ppb	12:41:39
3	Cu 324.752†	78084.9	64835.0	476.24 µg/L	476.24 ppb	12:41:19
3	Mn 257.610†	362785.9	309690.6	486.70 µg/L	486.70 ppb	12:41:19
3	Mo 202.031†	10273.4	8749.9	496.42 µg/L	496.42 ppb	12:41:39
3	Ni 231.604†	20677.1	17880.9	494.34 µg/L	494.34 ppb	12:41:39
3	P 214.914†	4468.4	3688.4	2441.2 µg/L	2441.2 ppb	12:41:39
3	Pb 220.353†	4639.8	4030.1	498.53 µg/L	498.53 ppb	12:41:39
3	S 181.975 Axial†	1095.8	844.5	1035.1 µg/L	1035.1 ppb	12:41:39
3	Sb 206.836†	2186.8	1714.9	488.08 µg/L	488.08 ppb	12:41:39
3	Se 196.026†	1208.2	1056.7	501.68 µg/L	501.68 ppb	12:41:39
3	SiO2†	37625.1	31100.6	5232.0 µg/L	5232.0 ppb	12:41:19
3	Si 251.611†	51943.4	44414.9	2447.6 µg/L	2447.6 ppb	12:41:19
3	Sn 189.927†	4833.7	4084.9	509.27 µg/L	509.27 ppb	12:41:39
3	Ti 334.940†	133996.9	115276.1	490.75 µg/L	490.75 ppb	12:41:19
3	Tl 190.801†	2575.9	2280.5	489.22 µg/L	489.22 ppb	12:41:39
3	U 367.007†	2577.4	1320.0	441.9 µg/L	441.9 ppb	12:41:19
3	V 292.402†	42887.1	36796.3	486.52 µg/L	486.52 ppb	12:41:19
3	Zn 213.857†	75818.6	63919.9	483.53 µg/L	483.53 ppb	12:41:19

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	431259.5	117.76	%	1.066				0.91%
Sc RADIAL	26700.5	121	%	1.22				1.01%
Y 371.029	420729.2	116.91	%	1.129				0.97%
Ag 328.068†	48357.6	491.08	µg/L	1.351	491.08	ppb	1.351	0.28%
QC value within limits for Ag 328.068 Recovery = 98.22%								
Al 396.153Radial†	15412.1	4933.8	µg/L	14.70	4933.8	ppb	14.70	0.30%
QC value within limits for Al 396.153Radial Recovery = 98.68%								
As 188.979†	1161.8	515.16	µg/L	7.017	515.16	ppb	7.017	1.36%
QC value within limits for As 188.979 Recovery = 103.03%								
B 249.677†	14631.2	504.14	µg/L	2.516	504.14	ppb	2.516	0.50%
QC value within limits for B 249.677 Recovery = 100.83%								
Ba 233.527†	57628.5	484.93	µg/L	2.479	484.93	ppb	2.479	0.51%
QC value within limits for Ba 233.527 Recovery = 96.99%								
Be 313.107†	587707.9	488.58	µg/L	2.089	488.58	ppb	2.089	0.43%
QC value within limits for Be 313.107 Recovery = 97.72%								
Ca 317.933Radial†	23705.9	5076.8	µg/L	16.57	5076.8	ppb	16.57	0.33%
QC value within limits for Ca 317.933Radial Recovery = 101.54%								
Cd 226.502†	47993.1	497.57	µg/L	2.713	497.57	ppb	2.713	0.55%
QC value within limits for Cd 226.502 Recovery = 99.51%								

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Co 228.616†            20999.9      483.93 µg/L         4.132      483.93 ppb          4.132   0.85%
   QC value within limits for Co 228.616  Recovery = 96.79%
Cr 267.716†            23961.7      477.05 µg/L         3.807      477.05 ppb          3.807   0.80%
   QC value within limits for Cr 267.716  Recovery = 95.41%
Cu 324.752†            64589.9      474.43 µg/L         1.614      474.43 ppb          1.614   0.34%
   QC value within limits for Cu 324.752  Recovery = 94.89%
Fe 238.204 Radial†     25993.3      5059.1 µg/L          8.78      5059.1 ppb           8.78   0.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.18%
K 766.490 Radial†       5247.6      4768.5 µg/L         16.57      4768.5 ppb          16.57   0.35%
   QC value within limits for K 766.490 Radial  Recovery = 95.37%
Mg 279.077 IEC†         3153.7      5153.9 µg/L         38.96      5153.9 ppb          38.96   0.76%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.08%
Mn 257.610†           308187.0      484.34 µg/L         2.120      484.34 ppb          2.120   0.44%
   QC value within limits for Mn 257.610  Recovery = 96.87%
Mo 202.031†             8695.8      493.36 µg/L         3.669      493.36 ppb          3.669   0.74%
   QC value within limits for Mo 202.031  Recovery = 98.67%
Na 589.592 Radial†      6268.1      9632.0 µg/L         36.25      9632.0 ppb          36.25   0.38%
   QC value within limits for Na 589.592 Radial  Recovery = 96.32%
Ni 231.604†            17748.5      490.68 µg/L         4.311      490.68 ppb          4.311   0.88%
   QC value within limits for Ni 231.604  Recovery = 98.14%
P 214.914†              3646.4      2413.3 µg/L         27.87      2413.3 ppb          27.87   1.15%
   QC value within limits for P 214.914  Recovery = 96.53%
Pb 220.353†             3986.5      493.16 µg/L         6.535      493.16 ppb          6.535   1.33%
   QC value within limits for Pb 220.353  Recovery = 98.63%
S 181.975 Axial†         840.9      1030.7 µg/L          6.31      1030.7 ppb           6.31   0.61%
   QC value within limits for S 181.975 Axial  Recovery = 103.07%
Sb 206.836†             1695.4      482.54 µg/L         5.108      482.54 ppb          5.108   1.06%
   QC value within limits for Sb 206.836  Recovery = 96.51%
Se 196.026†             1045.8      496.53 µg/L         8.528      496.53 ppb          8.528   1.72%
   QC value within limits for Se 196.026  Recovery = 99.31%
SiO2†                  30921.8      5201.9 µg/L         26.21      5201.9 ppb          26.21   0.50%
   QC value within limits for SiO2  Recovery = 97.28%
Si 251.611†            44245.3      2438.3 µg/L          8.46      2438.3 ppb           8.46   0.35%
   QC value within limits for Si 251.611  Recovery = 97.53%
Sn 189.927†             4058.4      505.98 µg/L         4.209      505.98 ppb          4.209   0.83%
   QC value within limits for Sn 189.927  Recovery = 101.20%
Sr 421.552†            81444.4      478.83 µg/L         2.417      478.83 ppb          2.417   0.50%
   QC value within limits for Sr 421.552  Recovery = 95.77%
Ti 334.940†           114848.1      488.94 µg/L         1.578      488.94 ppb          1.578   0.32%
   QC value within limits for Ti 334.940  Recovery = 97.79%
Tl 190.801†             2272.5      487.51 µg/L         2.938      487.51 ppb          2.938   0.60%
   QC value within limits for Tl 190.801  Recovery = 97.50%
U 367.007†              1261.6       421.4 µg/L         20.28       421.4 ppb          20.28   4.81%
   QC value less than the lower limit for U 367.007  Recovery = 84.29%
V 292.402†             36668.2      484.80 µg/L         1.585      484.80 ppb          1.585   0.33%
   QC value within limits for V 292.402  Recovery = 96.96%
Zn 213.857†            63482.0      480.22 µg/L         2.870      480.22 ppb          2.870   0.60%
   QC value within limits for Zn 213.857  Recovery = 96.04%
QC Failed.  Continue with analysis.
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Sequence No.: 37 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 7/23/2018 12:41:47**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	26027.8	26027.8	118	%			12:42:39
1	Al 396.153Radial†	-36.1	63.4	20.366	µg/L	20.366	ppb	12:42:39
1	Ca 317.933Radial†	622.3	231.5	49.585	µg/L	49.585	ppb	12:42:39
1	Fe 238.204 Radial†	171.6	110.5	21.507	µg/L	21.507	ppb	12:42:39
1	K 766.490 Radial†	507.7	9.0	8.2174	µg/L	8.2174	ppb	12:42:19
1	Mg 279.077 IEC†	81.9	13.4	21.893	µg/L	21.893	ppb	12:42:39
1	Na 589.592 Radial†	107.8	-36.2	-55.648	µg/L	-55.648	ppb	12:42:39
1	Sr 421.552†	335.7	24.3	0.1420	µg/L	0.1420	ppb	12:42:19
1	Sc 361.383	420788.5	420788.5	114.91	%			12:43:36
1	Y 371.029	414481.2	414481.2	115.18	%			12:43:36
1	Ag 328.068†	-793.2	-6.7	-0.0713	µg/L	-0.0713	ppb	12:43:36
1	As 188.979†	-16.5	-1.6	-0.7026	µg/L	-0.7026	ppb	12:43:56
1	B 249.677†	234.4	30.8	1.1025	µg/L	1.1025	ppb	12:43:56
1	Ba 233.527†	-6.4	10.0	0.0833	µg/L	0.0833	ppb	12:43:56
1	Be 313.107†	-3675.7	375.0	0.3153	µg/L	0.3153	ppb	12:43:36
1	Cd 226.502†	-300.8	61.3	0.6339	µg/L	0.6339	ppb	12:43:56
1	Co 228.616†	-194.0	53.6	1.2357	µg/L	1.2357	ppb	12:43:56
1	Cr 267.716†	144.4	3.7	0.0650	µg/L	0.0650	ppb	12:43:56
1	Cu 324.752†	2145.1	-53.3	-0.3827	µg/L	-0.3827	ppb	12:43:36
1	Mn 257.610†	779.4	221.4	0.3491	µg/L	0.3491	ppb	12:43:56
1	Mo 202.031†	47.6	8.5	0.4815	µg/L	0.4815	ppb	12:43:56
1	Ni 231.604†	-207.8	23.1	0.6386	µg/L	0.6386	ppb	12:43:56
1	P 214.914†	101.6	-43.3	-28.804	µg/L	-28.804	ppb	12:43:56
1	Pb 220.353†	-91.7	-16.3	-2.0201	µg/L	-2.0201	ppb	12:43:56
1	S 181.975 Axial†	122.5	14.3	17.507	µg/L	17.507	ppb	12:43:56
1	Sb 206.836†	189.5	10.3	2.9524	µg/L	2.9524	ppb	12:43:56
1	Se 196.026†	-12.4	12.9	6.1213	µg/L	6.1213	ppb	12:43:56
1	SiO2†	1388.2	142.9	24.125	µg/L	24.125	ppb	12:43:56
1	Si 251.611†	351.1	313.8	17.342	µg/L	17.342	ppb	12:43:56
1	Sn 189.927†	38.8	-13.8	-1.7133	µg/L	-1.7133	ppb	12:43:56
1	Ti 334.940†	-745.4	72.8	0.3065	µg/L	0.3065	ppb	12:43:36
1	Tl 190.801†	-90.9	-0.8	-0.1591	µg/L	-0.1591	ppb	12:43:56
1	U 367.007†	1055.8	35.4	12.34	µg/L	12.34	ppb	12:43:36
1	V 292.402†	-149.4	1.8	0.0399	µg/L	0.0399	ppb	12:43:56
1	Zn 213.857†	1369.0	293.6	2.2315	µg/L	2.2315	ppb	12:43:56
2	Sc RADIAL	25944.3	25944.3	118	%			12:43:04
2	Al 396.153Radial†	-90.0	17.3	5.5572	µg/L	5.5572	ppb	12:43:04
2	Ca 317.933Radial†	665.8	270.3	57.883	µg/L	57.883	ppb	12:43:04
2	Fe 238.204 Radial†	173.9	112.9	21.976	µg/L	21.976	ppb	12:43:04
2	K 766.490 Radial†	414.9	-68.5	-62.267	µg/L	-62.267	ppb	12:42:44
2	Mg 279.077 IEC†	70.2	3.6	5.9365	µg/L	5.9365	ppb	12:43:04
2	Na 589.592 Radial†	112.2	-32.1	-49.372	µg/L	-49.372	ppb	12:43:04
2	Sr 421.552†	254.9	-43.6	-0.2572	µg/L	-0.2572	ppb	12:42:44
2	Sc 361.383	421350.4	421350.4	115.06	%			12:44:01
2	Y 371.029	414900.8	414900.8	115.29	%			12:44:01
2	Ag 328.068†	-720.9	57.1	0.5630	µg/L	0.5630	ppb	12:44:01
2	As 188.979†	-25.4	-9.2	-4.0557	µg/L	-4.0557	ppb	12:44:21
2	B 249.677†	196.2	-2.7	-0.0071	µg/L	-0.0071	ppb	12:44:21
2	Ba 233.527†	32.6	43.8	0.3683	µg/L	0.3683	ppb	12:44:21
2	Be 313.107†	-3699.7	358.5	0.3064	µg/L	0.3064	ppb	12:44:01
2	Cd 226.502†	-282.8	77.3	0.7993	µg/L	0.7993	ppb	12:44:21
2	Co 228.616†	-218.8	32.2	0.7426	µg/L	0.7426	ppb	12:44:21
2	Cr 267.716†	162.4	19.2	0.3580	µg/L	0.3580	ppb	12:44:21
2	Cu 324.752†	2139.4	-60.8	-0.4255	µg/L	-0.4255	ppb	12:44:01
2	Mn 257.610†	1484.3	833.2	1.3100	µg/L	1.3100	ppb	12:44:21
2	Mo 202.031†	47.2	8.1	0.4593	µg/L	0.4593	ppb	12:44:21
2	Ni 231.604†	-227.0	6.6	0.1837	µg/L	0.1837	ppb	12:44:21
2	P 214.914†	112.1	-34.2	-22.801	µg/L	-22.801	ppb	12:44:21

2	Pb 220.353†	-91.1	-15.7	-1.9601	µg/L	-1.9601	ppb	12:44:21
2	S 181.975 Axial†	135.1	25.0	30.772	µg/L	30.772	ppb	12:44:21
2	Sb 206.836†	159.0	-16.4	-4.7187	µg/L	-4.7187	ppb	12:44:21
2	Se 196.026†	-25.8	1.3	0.6383	µg/L	0.6383	ppb	12:44:21
2	SiO2†	1398.4	150.2	25.353	µg/L	25.353	ppb	12:44:21
2	Si 251.611†	389.2	346.5	19.152	µg/L	19.152	ppb	12:44:21
2	Sn 189.927†	46.9	-6.8	-0.8375	µg/L	-0.8375	ppb	12:44:21
2	Ti 334.940†	-710.9	103.7	0.4296	µg/L	0.4296	ppb	12:44:01
2	Tl 190.801†	-90.8	-0.6	-0.1161	µg/L	-0.1161	ppb	12:44:21
2	U 367.007†	1120.0	90.0	31.53	µg/L	31.53	ppb	12:44:01
2	V 292.402†	-151.3	0.4	0.0327	µg/L	0.0327	ppb	12:44:21
2	Zn 213.857†	1433.0	347.6	2.6461	µg/L	2.6461	ppb	12:44:21
3	Sc RADIAL	25746.3	25746.3	117	%			12:43:29
3	Al 396.153Radial†	-86.9	19.5	6.2456	µg/L	6.2456	ppb	12:43:29
3	Ca 317.933Radial†	644.7	256.5	54.933	µg/L	54.933	ppb	12:43:29
3	Fe 238.204 Radial†	199.6	136.1	26.495	µg/L	26.495	ppb	12:43:29
3	K 766.490 Radial†	493.2	1.3	1.1834	µg/L	1.1834	ppb	12:43:09
3	Mg 279.077 IEC†	87.1	18.7	30.503	µg/L	30.503	ppb	12:43:29
3	Na 589.592 Radial†	97.1	-44.3	-68.118	µg/L	-68.118	ppb	12:43:29
3	Sr 421.552†	332.5	24.6	0.1439	µg/L	0.1439	ppb	12:43:09
3	Sc 361.383	421021.4	421021.4	114.97	%			12:44:26
3	Y 371.029	414090.2	414090.2	115.07	%			12:44:26
3	Ag 328.068†	-681.2	91.2	0.9232	µg/L	0.9232	ppb	12:44:26
3	As 188.979†	-27.2	-10.9	-4.7655	µg/L	-4.7655	ppb	12:44:46
3	B 249.677†	246.5	41.2	1.4685	µg/L	1.4685	ppb	12:44:46
3	Ba 233.527†	18.4	31.6	0.2650	µg/L	0.2650	ppb	12:44:46
3	Be 313.107†	-3688.5	365.6	0.3061	µg/L	0.3061	ppb	12:44:26
3	Cd 226.502†	-286.5	73.9	0.7639	µg/L	0.7639	ppb	12:44:46
3	Co 228.616†	-211.5	38.5	0.8862	µg/L	0.8862	ppb	12:44:46
3	Cr 267.716†	123.1	-14.9	-0.3010	µg/L	-0.3010	ppb	12:44:46
3	Cu 324.752†	2093.6	-99.1	-0.7222	µg/L	-0.7222	ppb	12:44:26
3	Mn 257.610†	913.2	337.5	0.5316	µg/L	0.5316	ppb	12:44:46
3	Mo 202.031†	48.1	8.9	0.5069	µg/L	0.5069	ppb	12:44:46
3	Ni 231.604†	-197.4	32.3	0.8924	µg/L	0.8924	ppb	12:44:46
3	P 214.914†	102.8	-42.2	-28.134	µg/L	-28.134	ppb	12:44:46
3	Pb 220.353†	-88.8	-13.7	-1.6970	µg/L	-1.6970	ppb	12:44:46
3	S 181.975 Axial†	121.7	13.5	16.615	µg/L	16.615	ppb	12:44:46
3	Sb 206.836†	173.1	-4.0	-1.1484	µg/L	-1.1484	ppb	12:44:46
3	Se 196.026†	-10.7	14.5	6.8582	µg/L	6.8582	ppb	12:44:46
3	SiO2†	1350.8	109.7	18.500	µg/L	18.500	ppb	12:44:46
3	Si 251.611†	318.3	285.1	15.757	µg/L	15.757	ppb	12:44:46
3	Sn 189.927†	59.0	3.8	0.4732	µg/L	0.4732	ppb	12:44:46
3	Ti 334.940†	-636.5	167.9	0.7145	µg/L	0.7145	ppb	12:44:26
3	Tl 190.801†	-91.8	-1.5	-0.3149	µg/L	-0.3149	ppb	12:44:46
3	U 367.007†	1038.1	19.5	6.732	µg/L	6.732	ppb	12:44:26
3	V 292.402†	-159.7	-7.1	-0.0789	µg/L	-0.0789	ppb	12:44:46
3	Zn 213.857†	1388.3	309.7	2.3530	µg/L	2.3530	ppb	12:44:46

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	421053.4	114.98	%	0.077				0.07%
Sc RADIAL	25906.1	117	%	0.65				0.56%
Y 371.029	414490.7	115.18	%	0.113				0.10%
Ag 328.068†	47.2	0.4716	µg/L	0.50352	0.4716	ppb	0.50352	106.76%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	33.4	10.723	µg/L	8.3581	10.723	ppb	8.3581	77.95%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-7.2	-3.1746	µg/L	2.16999	-3.1746	ppb	2.16999	68.35%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	23.1	0.8546	µg/L	0.76836	0.8546	ppb	0.76836	89.91%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	28.4	0.2389	µg/L	0.14430	0.2389	ppb	0.14430	60.42%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	366.4	0.3093	µg/L	0.00523	0.3093	ppb	0.00523	1.69%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	252.8	54.134	µg/L	4.2060	54.134	ppb	4.2060	7.77%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	70.8	0.7324	µg/L	0.08708	0.7324	ppb	0.08708	11.89%
QC value within limits for Cd 226.502 Recovery = Not calculated								

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Co 228.616†                41.4      0.9548 µg/L       0.25358      0.9548 ppb        0.25358  26.56%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 2.7      0.0407 µg/L       0.33018      0.0407 ppb        0.33018 811.55%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -71.1     -0.5101 µg/L       0.18492     -0.5101 ppb        0.18492  36.25%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        119.8      23.326 µg/L        2.7542      23.326 ppb         2.7542  11.81%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -19.4     -17.622 µg/L       38.8231     -17.622 ppb        38.8231 220.31%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            11.9      19.444 µg/L       12.4651      19.444 ppb        12.4651  64.11%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               464.0      0.7302 µg/L       0.51030      0.7302 ppb        0.51030  69.88%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 8.5      0.4825 µg/L       0.02380      0.4825 ppb        0.02380   4.93%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -37.5     -57.713 µg/L        9.5423     -57.713 ppb         9.5423  16.53%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                20.7      0.5716 µg/L       0.35908      0.5716 ppb        0.35908  62.82%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -39.9     -26.579 µg/L        3.2898     -26.579 ppb         3.2898  12.38%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -15.2     -1.8924 µg/L       0.17186     -1.8924 ppb        0.17186   9.08%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           17.6      21.631 µg/L        7.9287      21.631 ppb         7.9287  36.65%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -3.4     -0.9715 µg/L       3.83860     -0.9715 ppb        3.83860 395.10%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 9.6      4.5393 µg/L       3.39834      4.5393 ppb        3.39834  74.87%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     134.2      22.660 µg/L        3.6540      22.660 ppb         3.6540  16.13%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               315.1      17.417 µg/L        1.6987      17.417 ppb         1.6987   9.75%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -5.6     -0.6925 µg/L       1.10044     -0.6925 ppb        1.10044 158.91%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 1.8      0.0095 µg/L       0.23101      0.0095 ppb        0.23101 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               114.8      0.4835 µg/L       0.20926      0.4835 ppb        0.20926  43.28%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.0     -0.1967 µg/L       0.10456     -0.1967 ppb        0.10456  53.16%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†                 48.3       16.86 µg/L        13.002       16.86 ppb         13.002  77.10%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†                 -1.6     -0.0021 µg/L       0.06659     -0.0021 ppb        0.06659 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               317.0      2.4102 µg/L       0.21314      2.4102 ppb        0.21314   8.84%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Method: Hg_ReAlign
Result: 072418

Sample ID: Hg_ReAlign

Hg 253.652 **Rep: 1**

Intensity: 2972224.2
Conc:

1

==========

Reprocessing Begun
Logged In Analyst: Optima3 **Technique: ICP Continuous**

Results Data Set (original): 072418
Results Library (original): C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb
Results Data Set (reprocessed): 072418A
Results Library (reprocessed): C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 7/24/2018 10:09:47**
Analyst: **Data Type: Reprocessed on 7/24/2018 10:49:46**
Logged In Analyst (Original) : Optima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time:

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	391437.2	391437.2	99.760	%	10:11:45
1	Sc RADIAL	23829.6	23829.6	100	%	10:10:48
1	Y 371.029	383195.4	383195.4	99.819	%	10:11:45
1	Ag 328.068†	-708.3	-710.0	[0.00]	µg/L	10:11:45
1	Al 396.153Radial†	-104.8	-104.6	[0.00]	µg/L	10:10:48
1	As 188.979†	-21.4	-21.5	[0.00]	µg/L	10:12:05
1	B 249.677†	191.5	191.9	[0.00]	µg/L	10:12:05
1	Ba 233.527†	1.2	1.2	[0.00]	µg/L	10:12:05
1	Be 313.107†	-3844.8	-3854.0	[0.00]	µg/L	10:11:45
1	Ca 317.933Radial†	339.3	338.6	[0.00]	µg/L	10:10:48
1	Cd 226.502†	-359.1	-359.9	[0.00]	µg/L	10:12:05
1	Co 228.616†	-224.4	-224.9	[0.00]	µg/L	10:12:05
1	Cr 267.716†	136.0	136.4	[0.00]	µg/L	10:12:05
1	Cu 324.752†	2206.2	2211.5	[0.00]	µg/L	10:11:45
1	Fe 238.204 Radial†	47.5	47.4	[0.00]	µg/L	10:10:48
1	K 766.490 Radial†	373.0	372.2	[0.00]	µg/L	10:10:28
1	Mg 279.077 IEC†	61.1	61.0	[0.00]	µg/L	10:10:48
1	Mn 257.610†	558.6	559.9	[0.00]	µg/L	10:12:05
1	Mo 202.031†	29.1	29.1	[0.00]	µg/L	10:12:05
1	Na 589.592 Radial†	115.4	115.2	[0.00]	µg/L	10:10:48
1	Ni 231.604†	-192.2	-192.7	[0.00]	µg/L	10:12:05
1	P 214.914†	155.7	156.1	[0.00]	µg/L	10:12:05
1	Pb 220.353†	-47.2	-47.3	[0.00]	µg/L	10:12:05
1	S 181.975 Axial†	94.6	94.8	[0.00]	µg/L	10:12:05
1	Sb 206.836†	180.3	180.7	[0.00]	µg/L	10:12:05
1	Se 196.026†	-9.5	-9.5	[0.00]	µg/L	10:12:05
1	SiO2†	1275.1	1278.1	[0.00]	µg/L	10:12:05
1	Si 251.611†	142.9	143.2	[0.00]	µg/L	10:12:05
1	Sn 189.927†	58.5	58.6	[0.00]	µg/L	10:12:05
1	Sr 421.552†	315.9	315.2	[0.00]	µg/L	10:10:28
1	Ti 334.940†	-808.2	-810.2	[0.00]	µg/L	10:11:45
1	Tl 190.801†	-93.3	-93.5	[0.00]	µg/L	10:12:05
1	U 367.007†	1023.5	1026.0	[0.00]	µg/L	10:11:45
1	V 292.402†	-208.8	-209.3	[0.00]	µg/L	10:11:45
1	Zn 213.857†	1000.1	1002.5	[0.00]	µg/L	10:12:05
2	Sc 361.383	392836.0	392836.0	100.12	%	10:12:10
2	Sc RADIAL	23717.4	23717.4	99.7	%	10:11:13
2	Y 371.029	384003.8	384003.8	100.03	%	10:12:10
2	Ag 328.068†	-833.6	-832.6	[0.00]	µg/L	10:12:10
2	Al 396.153Radial†	-104.7	-104.9	[0.00]	µg/L	10:11:13
2	As 188.979†	-19.2	-19.2	[0.00]	µg/L	10:12:30
2	B 249.677†	194.6	194.4	[0.00]	µg/L	10:12:30
2	Ba 233.527†	18.7	18.6	[0.00]	µg/L	10:12:30
2	Be 313.107†	-3930.6	-3926.1	[0.00]	µg/L	10:12:10
2	Ca 317.933Radial†	352.2	353.1	[0.00]	µg/L	10:11:13
2	Cd 226.502†	-353.2	-352.8	[0.00]	µg/L	10:12:30
2	Co 228.616†	-241.0	-240.7	[0.00]	µg/L	10:12:30
2	Cr 267.716†	122.0	121.8	[0.00]	µg/L	10:12:30

2	Cu 324.752†	2218.8	2216.2	[0.00]	µg/L	10:12:10
2	Fe 238.204 Radial†	36.9	37.0	[0.00]	µg/L	10:11:13
2	K 766.490 Radial†	349.7	350.6	[0.00]	µg/L	10:10:53
2	Mg 279.077 IEC†	61.5	61.7	[0.00]	µg/L	10:11:13
2	Mn 257.610†	521.7	521.1	[0.00]	µg/L	10:12:30
2	Mo 202.031†	4.5	4.5	[0.00]	µg/L	10:12:30
2	Na 589.592 Radial†	91.4	91.6	[0.00]	µg/L	10:11:13
2	Ni 231.604†	-218.3	-218.0	[0.00]	µg/L	10:12:30
2	P 214.914†	163.8	163.6	[0.00]	µg/L	10:12:30
2	Pb 220.353†	-54.6	-54.5	[0.00]	µg/L	10:12:30
2	S 181.975 Axial†	84.6	84.5	[0.00]	µg/L	10:12:30
2	Sb 206.836†	170.0	169.8	[0.00]	µg/L	10:12:30
2	Se 196.026†	-35.5	-35.4	[0.00]	µg/L	10:12:30
2	SiO2†	1277.5	1276.0	[0.00]	µg/L	10:12:30
2	Si 251.611†	236.3	236.0	[0.00]	µg/L	10:12:30
2	Sn 189.927†	37.9	37.8	[0.00]	µg/L	10:12:30
2	Sr 421.552†	291.3	292.1	[0.00]	µg/L	10:10:53
2	Ti 334.940†	-772.8	-771.9	[0.00]	µg/L	10:12:10
2	Tl 190.801†	-78.9	-78.8	[0.00]	µg/L	10:12:30
2	U 367.007†	1080.1	1078.8	[0.00]	µg/L	10:12:10
2	V 292.402†	-224.3	-224.1	[0.00]	µg/L	10:12:10
2	Zn 213.857†	989.8	988.7	[0.00]	µg/L	10:12:30
3	Sc 361.383	392860.3	392860.3	100.12	%	10:12:35
3	Sc RADIAL	23792.2	23792.2	100	%	10:11:38
3	Y 371.029	384467.2	384467.2	100.15	%	10:12:35
3	Ag 328.068†	-623.3	-622.6	[0.00]	µg/L	10:12:35
3	Al 396.153Radial†	-164.3	-164.3	[0.00]	µg/L	10:11:38
3	As 188.979†	-23.4	-23.4	[0.00]	µg/L	10:12:55
3	B 249.677†	196.0	195.8	[0.00]	µg/L	10:12:55
3	Ba 233.527†	-8.1	-8.1	[0.00]	µg/L	10:12:55
3	Be 313.107†	-4128.2	-4123.1	[0.00]	µg/L	10:12:35
3	Ca 317.933Radial†	357.1	356.9	[0.00]	µg/L	10:11:38
3	Cd 226.502†	-372.1	-371.7	[0.00]	µg/L	10:12:55
3	Co 228.616†	-248.4	-248.1	[0.00]	µg/L	10:12:55
3	Cr 267.716†	110.8	110.6	[0.00]	µg/L	10:12:55
3	Cu 324.752†	2183.9	2181.2	[0.00]	µg/L	10:12:35
3	Fe 238.204 Radial†	46.7	46.6	[0.00]	µg/L	10:11:38
3	K 766.490 Radial†	446.2	446.0	[0.00]	µg/L	10:11:18
3	Mg 279.077 IEC†	74.6	74.6	[0.00]	µg/L	10:11:38
3	Mn 257.610†	527.3	526.6	[0.00]	µg/L	10:12:55
3	Mo 202.031†	23.0	23.0	[0.00]	µg/L	10:12:55
3	Na 589.592 Radial†	123.2	123.1	[0.00]	µg/L	10:11:38
3	Ni 231.604†	-183.3	-183.1	[0.00]	µg/L	10:12:55
3	P 214.914†	175.4	175.2	[0.00]	µg/L	10:12:55
3	Pb 220.353†	-71.2	-71.1	[0.00]	µg/L	10:12:55
3	S 181.975 Axial†	96.0	95.9	[0.00]	µg/L	10:12:55
3	Sb 206.836†	175.4	175.2	[0.00]	µg/L	10:12:55
3	Se 196.026†	-30.7	-30.7	[0.00]	µg/L	10:12:55
3	SiO2†	1321.9	1320.3	[0.00]	µg/L	10:12:55
3	Si 251.611†	275.8	275.5	[0.00]	µg/L	10:12:55
3	Sn 189.927†	51.2	51.1	[0.00]	µg/L	10:12:55
3	Sr 421.552†	298.7	298.6	[0.00]	µg/L	10:11:18
3	Ti 334.940†	-760.8	-759.9	[0.00]	µg/L	10:12:35
3	Tl 190.801†	-94.2	-94.1	[0.00]	µg/L	10:12:55
3	U 367.007†	1101.1	1099.7	[0.00]	µg/L	10:12:35
3	V 292.402†	-132.0	-131.8	[0.00]	µg/L	10:12:35
3	Zn 213.857†	975.8	974.6	[0.00]	µg/L	10:12:55

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	392377.8	814.72	0.21%	100.00	%
Sc RADIAL	23779.7	57.11	0.24%	100	%
Y 371.029	383888.8	643.67	0.17%	100.00	%
Ag 328.068†	-721.7	105.54	14.62%	[0.00]	µg/L
Al 396.153Radial†	-124.6	34.35	27.57%	[0.00]	µg/L
As 188.979†	-21.4	2.09	9.79%	[0.00]	µg/L
B 249.677†	194.0	1.95	1.00%	[0.00]	µg/L
Ba 233.527†	3.9	13.58	347.83%	[0.00]	µg/L
Be 313.107†	-3967.7	139.33	3.51%	[0.00]	µg/L

Ca 317.933Radial†	349.5	9.65	2.76%	[0.00]	µg/L
Cd 226.502†	-361.5	9.52	2.63%	[0.00]	µg/L
Co 228.616†	-237.9	11.83	4.97%	[0.00]	µg/L
Cr 267.716†	123.0	12.90	10.49%	[0.00]	µg/L
Cu 324.752†	2203.0	18.99	0.86%	[0.00]	µg/L
Fe 238.204 Radial†	43.7	5.80	13.27%	[0.00]	µg/L
K 766.490 Radial†	389.6	50.00	12.83%	[0.00]	µg/L
Mg 279.077 IEC†	65.7	7.65	11.63%	[0.00]	µg/L
Mn 257.610†	535.9	21.00	3.92%	[0.00]	µg/L
Mo 202.031†	18.9	12.85	68.09%	[0.00]	µg/L
Na 589.592 Radial†	110.0	16.39	14.90%	[0.00]	µg/L
Ni 231.604†	-197.9	18.08	9.13%	[0.00]	µg/L
P 214.914†	164.9	9.61	5.83%	[0.00]	µg/L
Pb 220.353†	-57.7	12.20	21.16%	[0.00]	µg/L
S 181.975 Axial†	91.7	6.26	6.82%	[0.00]	µg/L
Sb 206.836†	175.2	5.48	3.13%	[0.00]	µg/L
Se 196.026†	-25.2	13.80	54.73%	[0.00]	µg/L
SiO2†	1291.5	24.96	1.93%	[0.00]	µg/L
Si 251.611†	218.2	67.88	31.11%	[0.00]	µg/L
Sn 189.927†	49.2	10.54	21.43%	[0.00]	µg/L
Sr 421.552†	302.0	11.93	3.95%	[0.00]	µg/L
Ti 334.940†	-780.7	26.26	3.36%	[0.00]	µg/L
Tl 190.801†	-88.8	8.67	9.76%	[0.00]	µg/L
U 367.007†	1068.2	38.00	3.56%	[0.00]	µg/L
V 292.402†	-188.4	49.55	26.30%	[0.00]	µg/L
Zn 213.857†	988.6	13.96	1.41%	[0.00]	µg/L

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Sequence No.: 2
Sample ID: S0.1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 2
Date Collected: 7/24/2018 10:13:04
Data Type: Reprocessed on 7/24/2018 10:49:47

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	394023.5	394023.5	100.42	%	10:13:53
1	Sc RADIAL	24709.6	24709.6	104	%	10:13:36
1	Y 371.029	385046.4	385046.4	100.30	%	10:13:53
1	Ag 328.068†	10823.1	11499.6	[100]	µg/L	10:13:53
1	As 188.979†	265.6	285.8	[100]	µg/L	10:14:13
1	B 249.677†	3695.3	3485.9	[100]	µg/L	10:13:53
1	Ba 233.527†	14198.0	14134.8	[100]	µg/L	10:13:53
1	Be 313.107†	138461.5	141851.0	[100]	µg/L	10:13:53
1	Cd 226.502†	11618.7	11931.6	[100]	µg/L	10:13:53
1	Co 228.616†	4990.9	5208.0	[100]	µg/L	10:14:13
1	Cr 267.716†	6045.6	5897.4	[100]	µg/L	10:14:13
1	Cu 324.752†	18023.1	15744.8	[100]	µg/L	10:13:53
1	K 766.490 Radial†	1794.6	1337.5	[1000]	µg/L	10:13:36
1	Mn 257.610†	76981.5	76124.1	[100]	µg/L	10:13:53
1	Mo 202.031†	2130.0	2102.2	[100]	µg/L	10:14:13
1	Ni 231.604†	4276.0	4456.1	[100]	µg/L	10:14:13
1	P 214.914†	1055.6	886.3	[500]	µg/L	10:14:13
1	Pb 220.353†	951.4	1005.0	[100]	µg/L	10:14:13
1	S 181.975 Axial†	290.3	197.4	[200]	µg/L	10:14:13
1	Sb 206.836†	566.9	389.3	[100]	µg/L	10:14:13
1	Se 196.026†	214.9	239.3	[100]	µg/L	10:14:13
1	SiO2†	8612.2	7284.8	[1069.5]	µg/L	10:13:53
1	Si 251.611†	10575.5	10313.1	[500]	µg/L	10:13:53
1	Sn 189.927†	1027.1	973.6	[100]	µg/L	10:14:13
1	Sr 421.552†	19879.7	18829.6	[100]	µg/L	10:13:36
1	Ti 334.940†	26161.7	26833.1	[100]	µg/L	10:13:53
1	Tl 190.801†	476.1	562.9	[100]	µg/L	10:14:13
1	U 367.007†	1386.5	312.6	[100]	µg/L	10:13:53
1	V 292.402†	8732.1	8884.1	[100]	µg/L	10:13:53
1	Zn 213.857†	18456.1	17390.4	[100]	µg/L	10:13:53
2	Sc 361.383	396488.0	396488.0	101.05	%	10:14:18
2	Sc RADIAL	24549.5	24549.5	103	%	10:13:41
2	Y 371.029	387214.1	387214.1	100.87	%	10:14:18
2	Ag 328.068†	10850.4	11459.7	[100]	µg/L	10:14:18
2	As 188.979†	263.1	281.7	[100]	µg/L	10:14:38
2	B 249.677†	3740.6	3507.8	[100]	µg/L	10:14:18
2	Ba 233.527†	14162.0	14011.3	[100]	µg/L	10:14:18
2	Be 313.107†	138900.4	141428.3	[100]	µg/L	10:14:18
2	Cd 226.502†	11606.6	11847.7	[100]	µg/L	10:14:18
2	Co 228.616†	4979.5	5165.8	[100]	µg/L	10:14:38
2	Cr 267.716†	6011.1	5825.8	[100]	µg/L	10:14:38
2	Cu 324.752†	18010.3	15620.6	[100]	µg/L	10:14:18
2	K 766.490 Radial†	1857.5	1409.7	[1000]	µg/L	10:13:41
2	Mn 257.610†	77239.5	75902.9	[100]	µg/L	10:14:18
2	Mo 202.031†	2121.3	2080.5	[100]	µg/L	10:14:38
2	Ni 231.604†	4264.6	4418.3	[100]	µg/L	10:14:38
2	P 214.914†	1073.4	897.4	[500]	µg/L	10:14:38
2	Pb 220.353†	938.5	986.4	[100]	µg/L	10:14:38
2	S 181.975 Axial†	284.7	190.0	[200]	µg/L	10:14:38
2	Sb 206.836†	589.5	408.1	[100]	µg/L	10:14:38
2	Se 196.026†	222.3	245.3	[100]	µg/L	10:14:38
2	SiO2†	8653.5	7272.3	[1069.5]	µg/L	10:14:18
2	Si 251.611†	10584.5	10256.5	[500]	µg/L	10:14:18
2	Sn 189.927†	1022.2	962.5	[100]	µg/L	10:14:38
2	Sr 421.552†	20017.3	19087.7	[100]	µg/L	10:13:41
2	Ti 334.940†	26155.1	26664.7	[100]	µg/L	10:14:18
2	Tl 190.801†	483.2	567.0	[100]	µg/L	10:14:38

2	U 367.007†	1474.8	391.3	[100]	µg/L	10:14:18
2	V 292.402†	8721.4	8819.4	[100]	µg/L	10:14:18
2	Zn 213.857†	18526.9	17346.2	[100]	µg/L	10:14:18
3	Sc 361.383	395908.9	395908.9	100.90	%	10:14:44
3	Sc RADIAL	24398.0	24398.0	103	%	10:13:46
3	Y 371.029	386911.3	386911.3	100.79	%	10:14:44
3	Ag 328.068†	10770.3	11396.0	[100]	µg/L	10:14:44
3	As 188.979†	263.1	282.1	[100]	µg/L	10:15:04
3	B 249.677†	3694.2	3467.2	[100]	µg/L	10:14:44
3	Ba 233.527†	14128.2	13998.3	[100]	µg/L	10:14:44
3	Be 313.107†	138063.7	140800.0	[100]	µg/L	10:14:44
3	Cd 226.502†	11578.7	11836.9	[100]	µg/L	10:14:44
3	Co 228.616†	4967.7	5161.3	[100]	µg/L	10:15:04
3	Cr 267.716†	6029.9	5853.2	[100]	µg/L	10:15:04
3	Cu 324.752†	17925.9	15563.1	[100]	µg/L	10:14:44
3	K 766.490 Radial†	1718.0	1284.9	[1000]	µg/L	10:13:46
3	Mn 257.610†	76891.6	75669.9	[100]	µg/L	10:14:44
3	Mo 202.031†	2118.1	2080.3	[100]	µg/L	10:15:04
3	Ni 231.604†	4251.2	4411.2	[100]	µg/L	10:15:04
3	P 214.914†	1074.4	899.9	[500]	µg/L	10:15:04
3	Pb 220.353†	945.7	994.9	[100]	µg/L	10:15:04
3	S 181.975 Axial†	290.8	196.4	[200]	µg/L	10:15:04
3	Sb 206.836†	577.0	396.6	[100]	µg/L	10:15:04
3	Se 196.026†	237.3	260.4	[100]	µg/L	10:15:04
3	SiO2†	8650.6	7282.0	[1069.5]	µg/L	10:14:44
3	Si 251.611†	10609.3	10296.4	[500]	µg/L	10:14:44
3	Sn 189.927†	1029.2	970.8	[100]	µg/L	10:15:04
3	Sr 421.552†	19945.6	19138.3	[100]	µg/L	10:13:46
3	Ti 334.940†	26111.6	26659.4	[100]	µg/L	10:14:44
3	Tl 190.801†	469.8	554.4	[100]	µg/L	10:15:04
3	U 367.007†	1400.6	319.9	[100]	µg/L	10:14:44
3	V 292.402†	8734.6	8845.1	[100]	µg/L	10:14:44
3	Zn 213.857†	18442.2	17289.2	[100]	µg/L	10:14:44

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	395473.5	1288.64	0.33%	100.79	%
Sc RADIAL	24552.4	155.85	0.63%	103	%
Y 371.029	386390.6	1173.90	0.30%	100.65	%
Ag 328.068†	11451.8	52.26	0.46%	[100]	µg/L
As 188.979†	283.2	2.29	0.81%	[100]	µg/L
B 249.677†	3486.9	20.31	0.58%	[100]	µg/L
Ba 233.527†	14048.1	75.30	0.54%	[100]	µg/L
Be 313.107†	141359.8	528.81	0.37%	[100]	µg/L
Cd 226.502†	11872.1	51.85	0.44%	[100]	µg/L
Co 228.616†	5178.3	25.74	0.50%	[100]	µg/L
Cr 267.716†	5858.8	36.12	0.62%	[100]	µg/L
Cu 324.752†	15642.8	92.89	0.59%	[100]	µg/L
K 766.490 Radial†	1344.0	62.67	4.66%	[1000]	µg/L
Mn 257.610†	75899.0	227.12	0.30%	[100]	µg/L
Mo 202.031†	2087.7	12.59	0.60%	[100]	µg/L
Ni 231.604†	4428.5	24.16	0.55%	[100]	µg/L
P 214.914†	894.5	7.24	0.81%	[500]	µg/L
Pb 220.353†	995.5	9.31	0.93%	[100]	µg/L
S 181.975 Axial†	194.6	4.03	2.07%	[200]	µg/L
Sb 206.836†	398.0	9.47	2.38%	[100]	µg/L
Se 196.026†	248.3	10.91	4.39%	[100]	µg/L
SiO2†	7279.7	6.51	0.09%	[1069.5]	µg/L
Si 251.611†	10288.7	29.05	0.28%	[500]	µg/L
Sn 189.927†	969.0	5.80	0.60%	[100]	µg/L
Sr 421.552†	19018.5	165.54	0.87%	[100]	µg/L
Ti 334.940†	26719.0	98.79	0.37%	[100]	µg/L
Tl 190.801†	561.5	6.42	1.14%	[100]	µg/L
U 367.007†	341.3	43.51	12.75%	[100]	µg/L
V 292.402†	8849.5	32.55	0.37%	[100]	µg/L
Zn 213.857†	17341.9	50.75	0.29%	[100]	µg/L

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Sequence No.: 3
Sample ID: S0.5
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 3
Date Collected: 7/24/2018 10:15:12
Data Type: Reprocessed on 7/24/2018 10:49:48

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	392580.8	392580.8	100.05	%	10:16:15
1	Sc RADIAL	24372.3	24372.3	102	%	10:15:48
1	Y 371.029	380330.4	380330.4	99.073	%	10:16:15
1	Ag 328.068†	56053.0	56745.7	[500]	µg/L	10:16:15
1	Al 396.153Radial†	18330.1	18009.1	[5000]	µg/L	10:15:48
1	As 188.979†	1330.7	1351.3	[500]	µg/L	10:16:35
1	B 249.677†	17439.4	17236.4	[500]	µg/L	10:16:15
1	Ba 233.527†	68259.0	68219.8	[500]	µg/L	10:16:15
1	Be 313.107†	690954.3	694564.9	[500]	µg/L	10:16:15
1	Ca 317.933Radial†	29081.6	28025.1	[5000]	µg/L	10:15:48
1	Cd 226.502†	57146.1	57478.1	[500]	µg/L	10:16:15
1	Co 228.616†	24899.2	25124.3	[500]	µg/L	10:16:35
1	Cr 267.716†	28860.9	28723.0	[500]	µg/L	10:16:35
1	Cu 324.752†	78553.1	76309.5	[500]	µg/L	10:16:15
1	K 766.490 Radial†	6870.2	6313.6	[5000]	µg/L	10:15:48
1	Mg 279.077 IEC†	4012.7	3849.4	[5000]	µg/L	10:15:48
1	Mn 257.610†	365259.6	364534.9	[500]	µg/L	10:16:15
1	Mo 202.031†	10454.3	10430.0	[500]	µg/L	10:16:35
1	Ni 231.604†	21365.8	21552.7	[500]	µg/L	10:16:35
1	P 214.914†	4646.8	4479.5	[2500]	µg/L	10:16:35
1	Pb 220.353†	4783.3	4838.5	[500]	µg/L	10:16:35
1	S 181.975 Axial†	1079.5	987.2	[1000]	µg/L	10:16:35
1	Sb 206.836†	2244.7	2068.3	[500]	µg/L	10:16:35
1	Se 196.026†	1235.9	1260.5	[500]	µg/L	10:16:35
1	SiO2†	37297.2	35986.5	[5347.5]	µg/L	10:16:15
1	Si 251.611†	51728.2	51483.3	[2500]	µg/L	10:16:15
1	Sn 189.927†	4963.6	4911.8	[500]	µg/L	10:16:35
1	Sr 421.552†	96367.5	93722.8	[500]	µg/L	10:15:43
1	Ti 334.940†	133913.0	134624.4	[500]	µg/L	10:16:15
1	Tl 190.801†	2656.1	2743.6	[500]	µg/L	10:16:35
1	U 367.007†	2619.5	1549.9	[500]	µg/L	10:16:15
1	V 292.402†	43420.2	43586.2	[500]	µg/L	10:16:15
1	Zn 213.857†	76706.0	75677.7	[500]	µg/L	10:16:15
2	Sc 361.383	394203.0	394203.0	100.47	%	10:16:41
2	Sc RADIAL	24157.8	24157.8	102	%	10:15:58
2	Y 371.029	382664.5	382664.5	99.681	%	10:16:41
2	Ag 328.068†	56351.8	56812.7	[500]	µg/L	10:16:41
2	Al 396.153Radial†	18322.2	18160.0	[5000]	µg/L	10:15:58
2	As 188.979†	1332.2	1347.4	[500]	µg/L	10:17:01
2	B 249.677†	17526.7	17251.5	[500]	µg/L	10:16:41
2	Ba 233.527†	68604.4	68282.9	[500]	µg/L	10:16:41
2	Be 313.107†	694273.5	695026.7	[500]	µg/L	10:16:41
2	Ca 317.933Radial†	29110.6	28305.5	[5000]	µg/L	10:15:58
2	Cd 226.502†	57476.7	57572.1	[500]	µg/L	10:16:41
2	Co 228.616†	24846.8	24969.6	[500]	µg/L	10:17:01
2	Cr 267.716†	28888.3	28631.6	[500]	µg/L	10:17:01
2	Cu 324.752†	78839.0	76271.0	[500]	µg/L	10:16:41
2	K 766.490 Radial†	6660.1	6166.3	[5000]	µg/L	10:15:58
2	Mg 279.077 IEC†	3989.3	3861.1	[5000]	µg/L	10:15:58
2	Mn 257.610†	366699.9	364466.2	[500]	µg/L	10:16:41
2	Mo 202.031†	10517.9	10450.3	[500]	µg/L	10:17:01
2	Ni 231.604†	21385.1	21484.0	[500]	µg/L	10:17:01
2	P 214.914†	4672.8	4486.2	[2500]	µg/L	10:17:01
2	Pb 220.353†	4770.4	4806.0	[500]	µg/L	10:17:01
2	S 181.975 Axial†	1083.1	986.4	[1000]	µg/L	10:17:01
2	Sb 206.836†	2244.6	2058.9	[500]	µg/L	10:17:01
2	Se 196.026†	1239.0	1258.4	[500]	µg/L	10:17:01

2	SiO2†	37464.3	35999.4	[5347.5]	µg/L	10:16:41
2	Si 251.611†	52047.5	51588.3	[2500]	µg/L	10:16:41
2	Sn 189.927†	4954.2	4882.1	[500]	µg/L	10:17:01
2	Sr 421.552†	96806.6	94989.5	[500]	µg/L	10:15:53
2	Ti 334.940†	134467.3	134625.4	[500]	µg/L	10:16:41
2	Tl 190.801†	2654.1	2730.7	[500]	µg/L	10:17:01
2	U 367.007†	2699.2	1618.5	[500]	µg/L	10:16:41
2	V 292.402†	43700.8	43686.9	[500]	µg/L	10:16:41
2	Zn 213.857†	77010.9	75665.7	[500]	µg/L	10:16:41
3	Sc 361.383	395476.6	395476.6	100.79	%	10:17:07
3	Sc RADIAL	24375.5	24375.5	103	%	10:16:08
3	Y 371.029	383517.4	383517.4	99.903	%	10:17:07
3	Ag 328.068†	56144.1	56425.9	[500]	µg/L	10:17:07
3	Al 396.153Radial†	18415.3	18089.8	[5000]	µg/L	10:16:08
3	As 188.979†	1337.0	1347.8	[500]	µg/L	10:17:28
3	B 249.677†	17573.7	17242.0	[500]	µg/L	10:17:07
3	Ba 233.527†	68401.7	67861.9	[500]	µg/L	10:17:07
3	Be 313.107†	693213.5	691749.6	[500]	µg/L	10:17:07
3	Ca 317.933Radial†	29303.5	28237.7	[5000]	µg/L	10:16:08
3	Cd 226.502†	57355.1	57267.2	[500]	µg/L	10:17:07
3	Co 228.616†	24866.8	24909.9	[500]	µg/L	10:17:28
3	Cr 267.716†	28928.7	28579.1	[500]	µg/L	10:17:28
3	Cu 324.752†	78779.7	75959.4	[500]	µg/L	10:17:07
3	K 766.490 Radial†	6829.9	6273.3	[5000]	µg/L	10:16:08
3	Mg 279.077 IEC†	4006.0	3842.4	[5000]	µg/L	10:16:08
3	Mn 257.610†	365684.0	362282.8	[500]	µg/L	10:17:07
3	Mo 202.031†	10500.9	10399.7	[500]	µg/L	10:17:28
3	Ni 231.604†	21393.0	21423.3	[500]	µg/L	10:17:28
3	P 214.914†	4663.9	4462.4	[2500]	µg/L	10:17:28
3	Pb 220.353†	4762.1	4782.4	[500]	µg/L	10:17:28
3	S 181.975 Axial†	1081.5	981.3	[1000]	µg/L	10:17:28
3	Sb 206.836†	2239.7	2046.9	[500]	µg/L	10:17:28
3	Se 196.026†	1226.1	1241.7	[500]	µg/L	10:17:28
3	SiO2†	37436.5	35851.7	[5347.5]	µg/L	10:17:07
3	Si 251.611†	51923.4	51298.4	[2500]	µg/L	10:17:07
3	Sn 189.927†	4952.5	4864.6	[500]	µg/L	10:17:28
3	Sr 421.552†	96849.8	94180.9	[500]	µg/L	10:16:03
3	Ti 334.940†	134262.7	133991.4	[500]	µg/L	10:17:07
3	Tl 190.801†	2665.6	2733.5	[500]	µg/L	10:17:28
3	U 367.007†	2676.3	1587.1	[500]	µg/L	10:17:07
3	V 292.402†	43655.7	43502.0	[500]	µg/L	10:17:07
3	Zn 213.857†	76733.9	75144.1	[500]	µg/L	10:17:07

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	394086.8	1451.39	0.37%	100.44	%
Sc RADIAL	24301.8	124.74	0.51%	102	%
Y 371.029	382170.7	1649.89	0.43%	99.552	%
Ag 328.068†	56661.4	206.70	0.36%	[500]	µg/L
Al 396.153Radial†	18086.3	75.52	0.42%	[5000]	µg/L
As 188.979†	1348.9	2.15	0.16%	[500]	µg/L
B 249.677†	17243.3	7.63	0.04%	[500]	µg/L
Ba 233.527†	68121.5	227.06	0.33%	[500]	µg/L
Be 313.107†	693780.4	1773.81	0.26%	[500]	µg/L
Ca 317.933Radial†	28189.4	146.30	0.52%	[5000]	µg/L
Cd 226.502†	57439.1	156.15	0.27%	[500]	µg/L
Co 228.616†	25001.3	110.64	0.44%	[500]	µg/L
Cr 267.716†	28644.6	72.80	0.25%	[500]	µg/L
Cu 324.752†	76180.0	191.96	0.25%	[500]	µg/L
K 766.490 Radial†	6251.1	76.13	1.22%	[5000]	µg/L
Mg 279.077 IEC†	3851.0	9.47	0.25%	[5000]	µg/L
Mn 257.610†	363761.3	1280.87	0.35%	[500]	µg/L
Mo 202.031†	10426.7	25.44	0.24%	[500]	µg/L
Ni 231.604†	21486.7	64.74	0.30%	[500]	µg/L
P 214.914†	4476.0	12.26	0.27%	[2500]	µg/L
Pb 220.353†	4809.0	28.15	0.59%	[500]	µg/L
S 181.975 Axial†	984.9	3.18	0.32%	[1000]	µg/L
Sb 206.836†	2058.1	10.72	0.52%	[500]	µg/L
Se 196.026†	1253.6	10.30	0.82%	[500]	µg/L

SiO2†	35945.8	81.81	0.23%	[5347.5]	µg/L
Si 251.611†	51456.6	146.77	0.29%	[2500]	µg/L
Sn 189.927†	4886.2	23.91	0.49%	[500]	µg/L
Sr 421.552†	94297.7	641.42	0.68%	[500]	µg/L
Ti 334.940†	134413.7	365.76	0.27%	[500]	µg/L
Tl 190.801†	2735.9	6.77	0.25%	[500]	µg/L
U 367.007†	1585.2	34.32	2.16%	[500]	µg/L
V 292.402†	43591.7	92.55	0.21%	[500]	µg/L
Zn 213.857†	75495.8	304.69	0.40%	[500]	µg/L

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Sequence No.: 4
Sample ID: SCAL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 4
Date Collected: 7/24/2018 10:17:36
Data Type: Reprocessed on 7/24/2018 10:49:49

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	395122.5	395122.5	100.70	%	10:18:41
1	Sc RADIAL	24381.3	24381.3	103	%	10:18:12
1	Y 371.029	382137.0	382137.0	99.544	%	10:18:41
1	Ag 328.068†	111800.7	111745.8	[1000]	µg/L	10:18:41
1	Al 396.153Radial†	36401.3	35627.7	[10000]	µg/L	10:18:12
1	As 188.979†	2716.1	2718.6	[1000]	µg/L	10:19:01
1	B 249.677†	35250.8	34811.9	[1000]	µg/L	10:18:41
1	Ba 233.527†	137438.3	136479.6	[1000]	µg/L	10:18:41
1	Be 313.107†	1399565.5	1393811.3	[1000]	µg/L	10:18:41
1	Ca 317.933Radial†	59095.7	57288.0	[10000]	µg/L	10:18:12
1	Cd 226.502†	115564.9	115123.6	[1000]	µg/L	10:18:41
1	Co 228.616†	50584.3	50470.8	[1000]	µg/L	10:18:41
1	Cr 267.716†	58921.8	58389.5	[1000]	µg/L	10:18:41
1	Cu 324.752†	156003.3	152716.7	[1000]	µg/L	10:18:41
1	Fe 238.204 Radial†	63689.1	62074.0	[10000]	µg/L	10:18:12
1	K 766.490 Radial†	13140.9	12427.1	[10000]	µg/L	10:18:12
1	Mg 279.077 IEC†	7884.5	7624.2	[10000]	µg/L	10:18:12
1	Mn 257.610†	732858.9	727232.2	[1000]	µg/L	10:18:41
1	Mo 202.031†	20527.9	20366.4	[1000]	µg/L	10:19:01
1	Na 589.592 Radial†	7318.0	7027.4	[10000]	µg/L	10:18:12
1	Ni 231.604†	43488.1	43384.0	[1000]	µg/L	10:18:41
1	P 214.914†	9224.3	8995.3	[5000]	µg/L	10:19:01
1	Pb 220.353†	9580.8	9571.9	[1000]	µg/L	10:19:01
1	S 181.975 Axial†	2053.2	1947.2	[2000]	µg/L	10:19:01
1	Sb 206.836†	4251.7	4046.9	[1000]	µg/L	10:19:01
1	Se 196.026†	2503.9	2511.7	[1000]	µg/L	10:19:01
1	SiO2†	74022.4	72216.8	[10695]	µg/L	10:18:41
1	Si 251.611†	104413.2	103469.7	[5000]	µg/L	10:18:41
1	Sn 189.927†	9700.9	9584.3	[1000]	µg/L	10:19:01
1	Sr 421.552†	192862.1	187801.4	[1000]	µg/L	10:18:07
1	Ti 334.940†	265867.2	264801.0	[1000]	µg/L	10:18:41
1	Tl 190.801†	5428.2	5479.3	[1000]	µg/L	10:19:01
1	U 367.007†	4302.2	3204.1	[1000]	µg/L	10:18:41
1	V 292.402†	88430.4	88004.5	[1000]	µg/L	10:18:41
1	Zn 213.857†	155682.1	153612.1	[1000]	µg/L	10:18:41
2	Sc 361.383	398885.0	398885.0	101.66	%	10:19:09
2	Sc RADIAL	24407.8	24407.8	103	%	10:18:22
2	Y 371.029	386406.0	386406.0	100.66	%	10:19:09
2	Ag 328.068†	112144.4	111036.6	[1000]	µg/L	10:19:09
2	Al 396.153Radial†	36250.8	35442.6	[10000]	µg/L	10:18:22
2	As 188.979†	2715.6	2692.6	[1000]	µg/L	10:19:29
2	B 249.677†	35395.0	34623.5	[1000]	µg/L	10:19:09
2	Ba 233.527†	138083.6	135827.1	[1000]	µg/L	10:19:09
2	Be 313.107†	1405610.9	1386648.4	[1000]	µg/L	10:19:09
2	Ca 317.933Radial†	58994.7	57127.2	[10000]	µg/L	10:18:22
2	Cd 226.502†	116149.9	114616.6	[1000]	µg/L	10:19:09
2	Co 228.616†	50830.5	50239.2	[1000]	µg/L	10:19:09
2	Cr 267.716†	58960.0	57875.2	[1000]	µg/L	10:19:09
2	Cu 324.752†	156495.0	151739.1	[1000]	µg/L	10:19:09
2	Fe 238.204 Radial†	63374.2	61699.8	[10000]	µg/L	10:18:22
2	K 766.490 Radial†	13162.1	12433.8	[10000]	µg/L	10:18:22
2	Mg 279.077 IEC†	7822.2	7555.2	[10000]	µg/L	10:18:22
2	Mn 257.610†	735234.5	722704.5	[1000]	µg/L	10:19:09
2	Mo 202.031†	20563.5	20209.2	[1000]	µg/L	10:19:29
2	Na 589.592 Radial†	7328.4	7029.9	[10000]	µg/L	10:18:22
2	Ni 231.604†	43834.0	43316.9	[1000]	µg/L	10:19:09
2	P 214.914†	9246.7	8930.9	[5000]	µg/L	10:19:29

2	Pb 220.353†	9569.3	9470.8	[1000]	µg/L	10:19:29
2	S 181.975 Axial†	2065.7	1940.3	[2000]	µg/L	10:19:29
2	Sb 206.836†	4274.1	4029.1	[1000]	µg/L	10:19:29
2	Se 196.026†	2495.4	2479.9	[1000]	µg/L	10:19:29
2	SiO2†	74316.2	71812.4	[10695]	µg/L	10:19:09
2	Si 251.611†	104710.3	102783.8	[5000]	µg/L	10:19:09
2	Sn 189.927†	9695.5	9488.1	[1000]	µg/L	10:19:29
2	Sr 421.552†	195043.6	189723.1	[1000]	µg/L	10:18:17
2	Ti 334.940†	266888.6	263315.4	[1000]	µg/L	10:19:09
2	Tl 190.801†	5415.2	5415.6	[1000]	µg/L	10:19:29
2	U 367.007†	4236.0	3098.7	[1000]	µg/L	10:19:09
2	V 292.402†	88705.3	87446.6	[1000]	µg/L	10:19:09
2	Zn 213.857†	156071.8	152537.1	[1000]	µg/L	10:19:09
3	Sc 361.383	399116.5	399116.5	101.72	%	10:19:37
3	Sc RADIAL	24429.6	24429.6	103	%	10:18:32
3	Y 371.029	386570.2	386570.2	100.70	%	10:19:37
3	Ag 328.068†	111801.1	110635.1	[1000]	µg/L	10:19:37
3	Al 396.153Radial†	36420.5	35576.3	[10000]	µg/L	10:18:32
3	As 188.979†	2732.7	2707.9	[1000]	µg/L	10:19:57
3	B 249.677†	35444.0	34651.5	[1000]	µg/L	10:19:37
3	Ba 233.527†	137864.4	135532.8	[1000]	µg/L	10:19:37
3	Be 313.107†	1402820.2	1383102.6	[1000]	µg/L	10:19:37
3	Ca 317.933Radial†	59289.5	57362.8	[10000]	µg/L	10:18:32
3	Cd 226.502†	115873.5	114278.6	[1000]	µg/L	10:19:37
3	Co 228.616†	50730.5	50111.8	[1000]	µg/L	10:19:37
3	Cr 267.716†	58940.4	57822.3	[1000]	µg/L	10:19:37
3	Cu 324.752†	156217.6	151377.1	[1000]	µg/L	10:19:37
3	Fe 238.204 Radial†	63725.9	61987.0	[10000]	µg/L	10:18:32
3	K 766.490 Radial†	13156.4	12416.8	[10000]	µg/L	10:18:32
3	Mg 279.077 IEC†	7835.3	7561.2	[10000]	µg/L	10:18:32
3	Mn 257.610†	734049.1	721119.5	[1000]	µg/L	10:19:37
3	Mo 202.031†	20591.7	20225.1	[1000]	µg/L	10:19:57
3	Na 589.592 Radial†	7299.3	6995.2	[10000]	µg/L	10:18:32
3	Ni 231.604†	43638.3	43099.4	[1000]	µg/L	10:19:37
3	P 214.914†	9261.9	8940.6	[5000]	µg/L	10:19:57
3	Pb 220.353†	9616.6	9511.9	[1000]	µg/L	10:19:57
3	S 181.975 Axial†	2060.1	1933.6	[2000]	µg/L	10:19:57
3	Sb 206.836†	4278.5	4031.0	[1000]	µg/L	10:19:57
3	Se 196.026†	2516.4	2499.1	[1000]	µg/L	10:19:57
3	SiO2†	74169.9	71626.1	[10695]	µg/L	10:19:37
3	Si 251.611†	104594.5	102610.2	[5000]	µg/L	10:19:37
3	Sn 189.927†	9709.3	9496.2	[1000]	µg/L	10:19:57
3	Sr 421.552†	194814.1	189329.8	[1000]	µg/L	10:18:27
3	Ti 334.940†	266372.4	262655.6	[1000]	µg/L	10:19:37
3	Tl 190.801†	5444.0	5440.9	[1000]	µg/L	10:19:57
3	U 367.007†	4246.6	3106.7	[1000]	µg/L	10:19:37
3	V 292.402†	88453.7	87148.6	[1000]	µg/L	10:19:37
3	Zn 213.857†	156101.2	152477.0	[1000]	µg/L	10:19:37

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	397708.0	2242.09	0.56%	101.36	%
Sc RADIAL	24406.2	24.17	0.10%	103	%
Y 371.029	385037.7	2513.47	0.65%	100.30	%
Ag 328.068†	111139.2	562.39	0.51%	[1000]	µg/L
Al 396.153Radial†	35548.9	95.54	0.27%	[10000]	µg/L
As 188.979†	2706.4	13.03	0.48%	[1000]	µg/L
B 249.677†	34695.6	101.66	0.29%	[1000]	µg/L
Ba 233.527†	135946.5	484.59	0.36%	[1000]	µg/L
Be 313.107†	1387854.1	5455.16	0.39%	[1000]	µg/L
Ca 317.933Radial†	57259.3	120.40	0.21%	[10000]	µg/L
Cd 226.502†	114672.9	425.29	0.37%	[1000]	µg/L
Co 228.616†	50274.0	182.00	0.36%	[1000]	µg/L
Cr 267.716†	58029.0	313.34	0.54%	[1000]	µg/L
Cu 324.752†	151944.3	692.99	0.46%	[1000]	µg/L
Fe 238.204 Radial†	61920.3	195.79	0.32%	[10000]	µg/L
K 766.490 Radial†	12425.9	8.57	0.07%	[10000]	µg/L
Mg 279.077 IEC†	7580.2	38.23	0.50%	[10000]	µg/L
Mn 257.610†	723685.4	3172.23	0.44%	[1000]	µg/L

Mo 202.031†	20266.9	86.53	0.43%	[1000]	µg/L
Na 589.592 Radial†	7017.5	19.36	0.28%	[10000]	µg/L
Ni 231.604†	43266.8	148.74	0.34%	[1000]	µg/L
P 214.914†	8955.6	34.71	0.39%	[5000]	µg/L
Pb 220.353†	9518.2	50.82	0.53%	[1000]	µg/L
S 181.975 Axial†	1940.3	6.80	0.35%	[2000]	µg/L
Sb 206.836†	4035.7	9.80	0.24%	[1000]	µg/L
Se 196.026†	2496.9	16.00	0.64%	[1000]	µg/L
SiO2†	71885.1	301.96	0.42%	[10695]	µg/L
Si 251.611†	102954.6	454.46	0.44%	[5000]	µg/L
Sn 189.927†	9522.9	53.35	0.56%	[1000]	µg/L
Sr 421.552†	188951.4	1015.21	0.54%	[1000]	µg/L
Ti 334.940†	263590.7	1098.89	0.42%	[1000]	µg/L
Tl 190.801†	5445.3	32.04	0.59%	[1000]	µg/L
U 367.007†	3136.5	58.70	1.87%	[1000]	µg/L
V 292.402†	87533.2	434.47	0.50%	[1000]	µg/L
Zn 213.857†	152875.4	638.71	0.42%	[1000]	µg/L

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Sequence No.: 5
Sample ID: S10
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 5
Date Collected: 7/24/2018 10:20:05
Data Type: Reprocessed on 7/24/2018 10:49:50

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	392986.0	392986.0	100.15	%	10:21:08
1	Sc RADIAL	24197.4	24197.4	102	%	10:20:41
1	Y 371.029	379178.9	379178.9	98.773	%	10:21:08
1	Al 396.153Radial†	173677.7	170804.3	[50000]	µg/L	10:20:36
1	Ca 317.933Radial†	279489.2	274315.3	[50000]	µg/L	10:20:41
1	Fe 238.204 Radial†	124009.8	121825.5	[20000]	µg/L	10:20:41
1	Mg 279.077 IEC†	37385.1	36674.1	[50000]	µg/L	10:20:41
1	Na 589.592 Radial†	14306.7	13949.8	[20000]	µg/L	10:20:41
2	Sc 361.383	391041.9	391041.9	99.660	%	10:21:14
2	Sc RADIAL	24295.6	24295.6	102	%	10:20:51
2	Y 371.029	377526.4	377526.4	98.343	%	10:21:14
2	Al 396.153Radial†	175679.0	172073.5	[50000]	µg/L	10:20:46
2	Ca 317.933Radial†	282144.3	275804.1	[50000]	µg/L	10:20:51
2	Fe 238.204 Radial†	125193.1	122491.3	[20000]	µg/L	10:20:51
2	Mg 279.077 IEC†	37728.5	36861.7	[50000]	µg/L	10:20:51
2	Na 589.592 Radial†	14418.5	14002.4	[20000]	µg/L	10:20:51
3	Sc 361.383	390757.3	390757.3	99.587	%	10:21:19
3	Sc RADIAL	24258.1	24258.1	102	%	10:21:01
3	Y 371.029	376709.8	376709.8	98.130	%	10:21:19
3	Al 396.153Radial†	174459.5	171144.1	[50000]	µg/L	10:20:56
3	Ca 317.933Radial†	280769.2	274883.5	[50000]	µg/L	10:21:01
3	Fe 238.204 Radial†	124685.4	122183.2	[20000]	µg/L	10:21:01
3	Mg 279.077 IEC†	37525.7	36720.1	[50000]	µg/L	10:21:01
3	Na 589.592 Radial†	14350.7	13957.8	[20000]	µg/L	10:21:01

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	391595.1	1212.93	0.31%	99.801	%
Sc RADIAL	24250.4	49.54	0.20%	102	%
Y 371.029	377805.0	1257.92	0.33%	98.415	%
Al 396.153Radial†	171340.6	656.99	0.38%	[50000]	µg/L
Ca 317.933Radial†	275000.9	751.33	0.27%	[50000]	µg/L
Fe 238.204 Radial†	122166.7	333.17	0.27%	[20000]	µg/L
Mg 279.077 IEC†	36751.9	97.77	0.27%	[50000]	µg/L
Na 589.592 Radial†	13970.0	28.35	0.20%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	111.6	0.00000	0.999967	
Al 396.153Radial	3	Lin Thru 0	0.0	3.434	0.00000	0.999961	
As 188.979	3	Lin Thru 0	0.0	2.706	0.00000	0.999990	
B 249.677	3	Lin Thru 0	0.0	34.66	0.00000	0.999997	
Ba 233.527	3	Lin Thru 0	0.0	136.0	0.00000	0.999995	
Be 313.107	3	Lin Thru 0	0.0	1388	0.00000	0.999999	
Ca 317.933Radial	3	Lin Thru 0	0.0	5.510	0.00000	0.999967	
Cd 226.502	3	Lin Thru 0	0.0	114.7	0.00000	0.999995	
Co 228.616	3	Lin Thru 0	0.0	50.23	0.00000	0.999994	
Cr 267.716	3	Lin Thru 0	0.0	57.89	0.00000	0.999986	
Cu 324.752	3	Lin Thru 0	0.0	152.1	0.00000	0.999996	
Fe 238.204 Radia	2	Lin Thru 0	0.0	6.125	0.00000	0.999985	
K 766.490 Radial	3	Lin Thru 0	0.0	1.245	0.00000	0.999972	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.7362	0.00000	0.999972	
Mn 257.610	3	Lin Thru 0	0.0	724.7	0.00000	0.999989	

Mo 202.031	3	Lin Thru 0	0.0	20.39	0.00000	0.999932
Na 589.592 Radia	2	Lin Thru 0	0.0	0.6992	0.00000	0.999998
Ni 231.604	3	Lin Thru 0	0.0	43.22	0.00000	0.999994
P 214.914	3	Lin Thru 0	0.0	1.791	0.00000	1.000000
Pb 220.353	3	Lin Thru 0	0.0	9.541	0.00000	0.999984
S 181.975 Axial	3	Lin Thru 0	0.0	0.9731	0.00000	0.999982
Sb 206.836	3	Lin Thru 0	0.0	4.051	0.00000	0.999967
Se 196.026	3	Lin Thru 0	0.0	2.499	0.00000	0.999999
SiO2	3	Lin Thru 0	0.0	6.722	0.00000	0.999999
Si 251.611	3	Lin Thru 0	0.0	20.59	0.00000	1.000000
Sn 189.927	3	Lin Thru 0	0.0	9.574	0.00000	0.999946
Sr 421.552	3	Lin Thru 0	0.0	188.9	0.00000	1.000000
Ti 334.940	3	Lin Thru 0	0.0	264.7	0.00000	0.999969
Tl 190.801	3	Lin Thru 0	0.0	5.452	0.00000	0.999995
U 367.007	3	Lin Thru 0	0.0	3.145	0.00000	0.999962
V 292.402	3	Lin Thru 0	0.0	87.47	0.00000	0.999998
Zn 213.857	3	Lin Thru 0	0.0	152.7	0.00000	0.999914

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Sequence No.: 6
Sample ID: ICV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 9
Date Collected: 7/24/2018 10:21:27
Data Type: Reprocessed on 7/24/2018 10:49:51

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	398119.5	398119.5	101.46	%			10:22:30
1	Sc RADIAL	24588.7	24588.7	103	%			10:22:03
1	Y 371.029	386698.9	386698.9	100.73	%			10:22:30
1	Ag 328.068†	27642.8	27965.9	252.03	µg/L	252.03	ppb	10:22:30
1	Al 396.153Radial†	18879.7	18383.1	5330.5	µg/L	5330.5	ppb	10:22:03
1	As 188.979†	1356.9	1358.7	507.06	µg/L	507.06	ppb	10:22:50
1	B 249.677†	18150.3	17694.5	528.73	µg/L	528.73	ppb	10:22:30
1	Ba 233.527†	70700.7	69677.2	512.05	µg/L	512.05	ppb	10:22:30
1	Be 313.107†	347927.4	346877.4	250.22	µg/L	250.22	ppb	10:22:30
1	Ca 317.933Radial†	30823.7	29460.0	5346.7	µg/L	5346.7	ppb	10:22:03
1	Cd 226.502†	58869.9	58382.3	508.41	µg/L	508.41	ppb	10:22:30
1	Co 228.616†	25444.1	25315.0	503.92	µg/L	503.92	ppb	10:22:50
1	Cr 267.716†	29589.2	29039.5	501.37	µg/L	501.37	ppb	10:22:50
1	Cu 324.752†	81325.8	77949.9	512.91	µg/L	512.91	ppb	10:22:30
1	Fe 238.204 Radial†	32765.1	31643.4	5166.2	µg/L	5166.2	ppb	10:22:03
1	K 766.490 Radial†	3606.4	3098.2	2485.6	µg/L	2485.6	ppb	10:22:03
1	Mg 279.077 IEC†	4101.0	3900.3	5297.5	µg/L	5297.5	ppb	10:22:03
1	Mn 257.610†	374043.8	368113.4	508.26	µg/L	508.26	ppb	10:22:30
1	Mo 202.031†	10491.6	10321.5	506.35	µg/L	506.35	ppb	10:22:50
1	Na 589.592 Radial†	1999.3	1823.6	2601.5	µg/L	2601.5	ppb	10:22:03
1	Ni 231.604†	21414.4	21303.5	492.78	µg/L	492.78	ppb	10:22:50
1	P 214.914†	4749.5	4516.1	2507.8	µg/L	2507.8	ppb	10:22:50
1	Pb 220.353†	4906.8	4893.7	513.28	µg/L	513.28	ppb	10:22:50
1	S 181.975 Axial†	2493.7	2366.0	2428.5	µg/L	2428.5	ppb	10:22:50
1	Sb 206.836†	2252.0	2044.3	501.14	µg/L	501.14	ppb	10:22:50
1	Se 196.026†	6444.1	6376.4	2554.1	µg/L	2554.1	ppb	10:22:50
1	SiO2†	74823.1	72452.6	10753	µg/L	10753	ppb	10:22:30
1	Si 251.611†	105827.1	104082.6	5046.4	µg/L	5046.4	ppb	10:22:30
1	Sn 189.927†	5019.2	4897.6	513.45	µg/L	513.45	ppb	10:22:50
1	Sr 421.552†	98719.2	95169.2	503.74	µg/L	503.74	ppb	10:21:58
1	Ti 334.940†	135495.5	134322.0	507.36	µg/L	507.36	ppb	10:22:30
1	Tl 190.801†	2760.3	2809.3	516.83	µg/L	516.83	ppb	10:22:50
1	U 367.007†	2713.0	1605.7	487.6	µg/L	487.6	ppb	10:22:30
1	V 292.402†	44758.4	44301.3	512.69	µg/L	512.69	ppb	10:22:30
1	Zn 213.857†	81048.1	78890.6	512.90	µg/L	512.90	ppb	10:22:30
2	Sc 361.383	399789.7	399789.7	101.89	%			10:22:56
2	Sc RADIAL	24705.8	24705.8	104	%			10:22:13
2	Y 371.029	388391.1	388391.1	101.17	%			10:22:56
2	Ag 328.068†	27699.1	27907.3	251.50	µg/L	251.50	ppb	10:22:56
2	Al 396.153Radial†	18918.9	18334.3	5316.3	µg/L	5316.3	ppb	10:22:13
2	As 188.979†	1349.2	1345.6	502.20	µg/L	502.20	ppb	10:23:16
2	B 249.677†	18237.3	17705.2	529.04	µg/L	529.04	ppb	10:22:56
2	Ba 233.527†	70829.4	69512.4	510.84	µg/L	510.84	ppb	10:22:56
2	Be 313.107†	349062.4	346558.7	249.99	µg/L	249.99	ppb	10:22:56
2	Ca 317.933Radial†	31067.1	29553.0	5363.6	µg/L	5363.6	ppb	10:22:13
2	Cd 226.502†	59102.3	58368.0	508.29	µg/L	508.29	ppb	10:22:56
2	Co 228.616†	25446.0	25212.1	501.88	µg/L	501.88	ppb	10:23:16
2	Cr 267.716†	29553.0	28882.1	498.65	µg/L	498.65	ppb	10:23:16
2	Cu 324.752†	81633.9	77917.5	512.70	µg/L	512.70	ppb	10:22:56
2	Fe 238.204 Radial†	32903.1	31626.1	5163.4	µg/L	5163.4	ppb	10:22:13
2	K 766.490 Radial†	3820.5	3287.7	2637.8	µg/L	2637.8	ppb	10:22:13
2	Mg 279.077 IEC†	4159.5	3937.8	5348.5	µg/L	5348.5	ppb	10:22:13
2	Mn 257.610†	375331.9	367837.6	507.87	µg/L	507.87	ppb	10:22:56
2	Mo 202.031†	10534.8	10320.6	506.30	µg/L	506.30	ppb	10:23:16
2	Na 589.592 Radial†	1961.5	1778.0	2536.3	µg/L	2536.3	ppb	10:22:13
2	Ni 231.604†	21474.3	21274.1	492.10	µg/L	492.10	ppb	10:23:16
2	P 214.914†	4738.7	4485.9	2490.9	µg/L	2490.9	ppb	10:23:16

2	Pb 220.353†	4905.1	4871.8	510.97 µg/L	510.97 ppb		10:23:16
2	S 181.975 Axial†	2491.7	2353.7	2415.9 µg/L	2415.9 ppb		10:23:16
2	Sb 206.836†	2243.7	2026.9	496.89 µg/L	496.89 ppb		10:23:16
2	Se 196.026†	6443.7	6349.5	2543.3 µg/L	2543.3 ppb		10:23:16
2	SiO2†	75352.6	72664.1	10785 µg/L	10785 ppb		10:22:56
2	Si 251.611†	106194.6	104007.6	5042.8 µg/L	5042.8 ppb		10:22:56
2	Sn 189.927†	5010.1	4868.0	510.36 µg/L	510.36 ppb		10:23:16
2	Sr 421.552†	98520.5	94525.5	500.33 µg/L	500.33 ppb		10:22:08
2	Ti 334.940†	135769.0	134032.6	506.26 µg/L	506.26 ppb		10:22:56
2	Tl 190.801†	2787.8	2824.9	519.71 µg/L	519.71 ppb		10:23:16
2	U 367.007†	2746.9	1627.8	494.7 µg/L	494.7 ppb		10:22:56
2	V 292.402†	44830.3	44187.6	511.39 µg/L	511.39 ppb		10:22:56
2	Zn 213.857†	81254.8	78759.8	512.04 µg/L	512.04 ppb		10:22:56
3	Sc 361.383	396050.8	396050.8	100.94 %			10:23:21
3	Sc RADIAL	24686.8	24686.8	104 %			10:22:23
3	Y 371.029	384514.8	384514.8	100.16 %			10:23:21
3	Ag 328.068†	27628.4	28093.9	253.18 µg/L	253.18 ppb		10:23:21
3	Al 396.153Radial†	18963.0	18390.9	5332.6 µg/L	5332.6 ppb		10:22:23
3	As 188.979†	1355.8	1364.6	509.28 µg/L	509.28 ppb		10:23:41
3	B 249.677†	18206.9	17844.0	533.09 µg/L	533.09 ppb		10:23:21
3	Ba 233.527†	70412.0	69755.1	512.62 µg/L	512.62 ppb		10:23:21
3	Be 313.107†	347949.7	348690.5	251.53 µg/L	251.53 ppb		10:23:21
3	Ca 317.933Radial†	31068.6	29577.5	5368.0 µg/L	5368.0 ppb		10:22:23
3	Cd 226.502†	58975.0	58789.5	511.96 µg/L	511.96 ppb		10:23:21
3	Co 228.616†	25423.7	25425.8	506.13 µg/L	506.13 ppb		10:23:41
3	Cr 267.716†	29597.2	29199.8	504.13 µg/L	504.13 ppb		10:23:41
3	Cu 324.752†	81204.3	78248.3	514.88 µg/L	514.88 ppb		10:23:21
3	Fe 238.204 Radial†	32976.0	31720.7	5178.8 µg/L	5178.8 ppb		10:22:23
3	K 766.490 Radial†	3754.3	3226.8	2588.8 µg/L	2588.8 ppb		10:22:23
3	Mg 279.077 IEC†	4143.9	3925.9	5332.3 µg/L	5332.3 ppb		10:22:23
3	Mn 257.610†	373510.6	369510.8	510.18 µg/L	510.18 ppb		10:23:21
3	Mo 202.031†	10515.0	10398.6	510.13 µg/L	510.13 ppb		10:23:41
3	Na 589.592 Radial†	1988.2	1805.2	2575.2 µg/L	2575.2 ppb		10:22:23
3	Ni 231.604†	21409.3	21408.7	495.21 µg/L	495.21 ppb		10:23:41
3	P 214.914†	4727.9	4519.1	2509.4 µg/L	2509.4 ppb		10:23:41
3	Pb 220.353†	4888.6	4900.9	514.03 µg/L	514.03 ppb		10:23:41
3	S 181.975 Axial†	2497.2	2382.3	2445.3 µg/L	2445.3 ppb		10:23:41
3	Sb 206.836†	2250.0	2053.9	503.49 µg/L	503.49 ppb		10:23:41
3	Se 196.026†	6441.5	6407.0	2566.3 µg/L	2566.3 ppb		10:23:41
3	SiO2†	74913.2	72927.0	10824 µg/L	10824 ppb		10:23:21
3	Si 251.611†	105786.5	104587.2	5070.9 µg/L	5070.9 ppb		10:23:21
3	Sn 189.927†	5007.1	4911.5	514.90 µg/L	514.90 ppb		10:23:41
3	Sr 421.552†	99086.4	95143.9	503.60 µg/L	503.60 ppb		10:22:18
3	Ti 334.940†	135096.1	134623.9	508.49 µg/L	508.49 ppb		10:23:21
3	Tl 190.801†	2773.7	2836.8	521.88 µg/L	521.88 ppb		10:23:41
3	U 367.007†	2746.5	1652.8	502.6 µg/L	502.6 ppb		10:23:21
3	V 292.402†	44605.2	44379.9	513.64 µg/L	513.64 ppb		10:23:21
3	Zn 213.857†	81041.5	79301.4	515.57 µg/L	515.57 ppb		10:23:21

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	397986.7	101.43	%	0.477				0.47%
Sc RADIAL	24660.4	104	%	0.26				0.25%
Y 371.029	386534.9	100.69	%	0.506				0.50%
Ag 328.068†	27989.0	252.24	µg/L	0.855	252.24	ppb	0.855	0.34%
QC value within limits for Ag 328.068 Recovery = 100.89%								
Al 396.153Radial†	18369.4	5326.5	µg/L	8.86	5326.5	ppb	8.86	0.17%
QC value within limits for Al 396.153Radial Recovery = 106.53%								
As 188.979†	1356.3	506.18	µg/L	3.617	506.18	ppb	3.617	0.71%
QC value within limits for As 188.979 Recovery = 101.24%								
B 249.677†	17747.9	530.29	µg/L	2.431	530.29	ppb	2.431	0.46%
QC value within limits for B 249.677 Recovery = 106.06%								
Ba 233.527†	69648.2	511.84	µg/L	0.911	511.84	ppb	0.911	0.18%
QC value within limits for Ba 233.527 Recovery = 102.37%								
Be 313.107†	347375.5	250.58	µg/L	0.831	250.58	ppb	0.831	0.33%
QC value within limits for Be 313.107 Recovery = 100.23%								
Ca 317.933Radial†	29530.2	5359.4	µg/L	11.25	5359.4	ppb	11.25	0.21%
QC value within limits for Ca 317.933Radial Recovery = 107.19%								
Cd 226.502†	58513.3	509.55	µg/L	2.086	509.55	ppb	2.086	0.41%

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   QC value within limits for Cd 226.502  Recovery = 101.91%
Co 228.616†            25317.6      503.98 µg/L         2.128      503.98 ppb          2.128   0.42%
   QC value within limits for Co 228.616  Recovery = 100.80%
Cr 267.716†            29040.5      501.39 µg/L         2.741      501.39 ppb          2.741   0.55%
   QC value within limits for Cr 267.716  Recovery = 100.28%
Cu 324.752†            78038.6      513.50 µg/L         1.202      513.50 ppb          1.202   0.23%
   QC value within limits for Cu 324.752  Recovery = 102.70%
Fe 238.204 Radial†     31663.4      5169.5 µg/L          8.23      5169.5 ppb           8.23   0.16%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.39%
K 766.490 Radial†       3204.2      2570.7 µg/L         77.72      2570.7 ppb          77.72   3.02%
   QC value within limits for K 766.490 Radial  Recovery = 102.83%
Mg 279.077 IEC†         3921.3      5326.1 µg/L         26.03      5326.1 ppb          26.03   0.49%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.52%
Mn 257.610†           368487.3      508.77 µg/L         1.238      508.77 ppb          1.238   0.24%
   QC value within limits for Mn 257.610  Recovery = 101.75%
Mo 202.031†            10346.9      507.59 µg/L         2.197      507.59 ppb          2.197   0.43%
   QC value within limits for Mo 202.031  Recovery = 101.52%
Na 589.592 Radial†      1802.2      2571.0 µg/L         32.82      2571.0 ppb          32.82   1.28%
   QC value within limits for Na 589.592 Radial  Recovery = 102.84%
Ni 231.604†            21328.8      493.36 µg/L         1.636      493.36 ppb          1.636   0.33%
   QC value within limits for Ni 231.604  Recovery = 98.67%
P 214.914†              4507.0      2502.7 µg/L         10.23      2502.7 ppb          10.23   0.41%
   QC value within limits for P 214.914  Recovery = 100.11%
Pb 220.353†             4888.8      512.76 µg/L         1.592      512.76 ppb          1.592   0.31%
   QC value within limits for Pb 220.353  Recovery = 102.55%
S 181.975 Axial†        2367.3      2429.9 µg/L         14.72      2429.9 ppb          14.72   0.61%
   QC value within limits for S 181.975 Axial  Recovery = 97.20%
Sb 206.836†             2041.7      500.50 µg/L         3.344      500.50 ppb          3.344   0.67%
   QC value within limits for Sb 206.836  Recovery = 100.10%
Se 196.026†             6377.6      2554.5 µg/L         11.52      2554.5 ppb          11.52   0.45%
   QC value within limits for Se 196.026  Recovery = 102.18%
SiO2†                  72681.2       10787 µg/L         35.26       10787 ppb          35.26   0.33%
   QC value within limits for SiO2  Recovery = 100.86%
Si 251.611†           104225.8      5053.4 µg/L         15.27      5053.4 ppb          15.27   0.30%
   QC value within limits for Si 251.611  Recovery = 101.07%
Sn 189.927†             4892.4      512.90 µg/L         2.322      512.90 ppb          2.322   0.45%
   QC value within limits for Sn 189.927  Recovery = 102.58%
Sr 421.552†            94946.2      502.56 µg/L         1.930      502.56 ppb          1.930   0.38%
   QC value within limits for Sr 421.552  Recovery = 100.51%
Ti 334.940†           134326.2      507.37 µg/L         1.114      507.37 ppb          1.114   0.22%
   QC value within limits for Ti 334.940  Recovery = 101.47%
Tl 190.801†             2823.7      519.48 µg/L         2.532      519.48 ppb          2.532   0.49%
   QC value within limits for Tl 190.801  Recovery = 103.90%
U 367.007†              1628.8       495.0 µg/L          7.47       495.0 ppb           7.47   1.51%
   QC value within limits for U 367.007  Recovery = 98.99%
V 292.402†             44289.6      512.57 µg/L         1.128      512.57 ppb          1.128   0.22%
   QC value within limits for V 292.402  Recovery = 102.51%
Zn 213.857†            78983.9      513.51 µg/L         1.840      513.51 ppb          1.840   0.36%
   QC value within limits for Zn 213.857  Recovery = 102.70%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 10
Date Collected: 7/24/2018 10:23:50
Data Type: Reprocessed on 7/24/2018 10:49:52

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	394503.7	394503.7	100.54	%			10:25:38
1	Sc RADIAL	24253.2	24253.2	102	%			10:24:41
1	Y 371.029	385472.8	385472.8	100.41	%			10:25:38
1	Ag 328.068†	-822.4	-96.2	-0.8667	µg/L	-0.8667	ppb	10:25:38
1	Al 396.153Radial†	-114.1	12.7	3.6501	µg/L	3.6501	ppb	10:24:41
1	As 188.979†	-19.6	1.9	0.7083	µg/L	0.7083	ppb	10:25:58
1	B 249.677†	230.2	35.0	1.0057	µg/L	1.0057	ppb	10:25:58
1	Ba 233.527†	0.2	-3.7	-0.0271	µg/L	-0.0271	ppb	10:25:58
1	Be 313.107†	-3928.7	60.2	0.0451	µg/L	0.0451	ppb	10:25:38
1	Ca 317.933Radial†	270.0	-84.8	-15.385	µg/L	-15.385	ppb	10:24:41
1	Cd 226.502†	-356.8	6.6	0.0572	µg/L	0.0572	ppb	10:25:58
1	Co 228.616†	-235.2	4.0	0.0802	µg/L	0.0802	ppb	10:25:58
1	Cr 267.716†	136.7	13.0	0.2197	µg/L	0.2197	ppb	10:25:58
1	Cu 324.752†	2186.7	-28.1	-0.1807	µg/L	-0.1807	ppb	10:25:38
1	Fe 238.204 Radial†	40.1	-4.4	-0.7193	µg/L	-0.7193	ppb	10:24:41
1	K 766.490 Radial†	412.8	15.2	12.194	µg/L	12.194	ppb	10:24:21
1	Mg 279.077 IEC†	69.8	2.7	3.6177	µg/L	3.6177	ppb	10:24:41
1	Mn 257.610†	466.2	-72.2	-0.0997	µg/L	-0.0997	ppb	10:25:58
1	Mo 202.031†	40.1	21.0	1.0287	µg/L	1.0287	ppb	10:25:58
1	Na 589.592 Radial†	129.1	16.7	23.819	µg/L	23.819	ppb	10:24:41
1	Ni 231.604†	-211.6	-12.5	-0.2900	µg/L	-0.2900	ppb	10:25:58
1	P 214.914†	154.1	-11.7	-6.5228	µg/L	-6.5228	ppb	10:25:58
1	Pb 220.353†	-80.1	-22.0	-2.3160	µg/L	-2.3160	ppb	10:25:58
1	S 181.975 Axial†	88.0	-4.2	-4.3366	µg/L	-4.3366	ppb	10:25:58
1	Sb 206.836†	171.9	-4.3	-1.0517	µg/L	-1.0517	ppb	10:25:58
1	Se 196.026†	-16.8	8.5	3.3933	µg/L	3.3933	ppb	10:25:58
1	SiO2†	1189.8	-108.0	-16.121	µg/L	-16.121	ppb	10:25:58
1	Si 251.611†	50.0	-168.5	-8.1989	µg/L	-8.1989	ppb	10:25:58
1	Sn 189.927†	55.6	6.1	0.6385	µg/L	0.6385	ppb	10:25:58
1	Sr 421.552†	310.6	2.6	0.0139	µg/L	0.0139	ppb	10:24:21
1	Ti 334.940†	-655.8	128.4	0.4811	µg/L	0.4811	ppb	10:25:38
1	Tl 190.801†	-90.7	-1.4	-0.2573	µg/L	-0.2573	ppb	10:25:58
1	U 367.007†	1097.4	23.3	7.434	µg/L	7.434	ppb	10:25:38
1	V 292.402†	-192.8	-3.3	-0.0246	µg/L	-0.0246	ppb	10:25:38
1	Zn 213.857†	860.4	-132.8	-0.8678	µg/L	-0.8678	ppb	10:25:58
2	Sc 361.383	396477.6	396477.6	101.04	%			10:26:03
2	Sc RADIAL	24196.1	24196.1	102	%			10:25:06
2	Y 371.029	388134.8	388134.8	101.11	%			10:26:03
2	Ag 328.068†	-805.8	-75.7	-0.6839	µg/L	-0.6839	ppb	10:26:03
2	Al 396.153Radial†	-101.7	24.7	7.1504	µg/L	7.1504	ppb	10:25:06
2	As 188.979†	-9.9	11.6	4.2881	µg/L	4.2881	ppb	10:26:23
2	B 249.677†	238.5	42.0	1.2170	µg/L	1.2170	ppb	10:26:23
2	Ba 233.527†	-17.5	-21.2	-0.1561	µg/L	-0.1561	ppb	10:26:23
2	Be 313.107†	-3900.6	107.4	0.0795	µg/L	0.0795	ppb	10:26:03
2	Ca 317.933Radial†	303.1	-51.7	-9.3813	µg/L	-9.3813	ppb	10:25:06
2	Cd 226.502†	-344.7	20.3	0.1766	µg/L	0.1766	ppb	10:26:23
2	Co 228.616†	-244.3	-3.9	-0.0773	µg/L	-0.0773	ppb	10:26:23
2	Cr 267.716†	138.1	13.7	0.2311	µg/L	0.2311	ppb	10:26:23
2	Cu 324.752†	2162.0	-63.3	-0.4115	µg/L	-0.4115	ppb	10:26:03
2	Fe 238.204 Radial†	50.8	6.2	1.0146	µg/L	1.0146	ppb	10:25:06
2	K 766.490 Radial†	475.1	77.4	62.141	µg/L	62.141	ppb	10:24:46
2	Mg 279.077 IEC†	88.1	20.9	28.338	µg/L	28.338	ppb	10:25:06
2	Mn 257.610†	453.3	-87.3	-0.1204	µg/L	-0.1204	ppb	10:26:23
2	Mo 202.031†	35.0	15.8	0.7730	µg/L	0.7730	ppb	10:26:23
2	Na 589.592 Radial†	126.8	14.7	20.978	µg/L	20.978	ppb	10:25:06
2	Ni 231.604†	-219.1	-18.9	-0.4369	µg/L	-0.4369	ppb	10:26:23
2	P 214.914†	156.8	-9.7	-5.4366	µg/L	-5.4366	ppb	10:26:23

2	Pb 220.353†	-86.8	-28.2	-2.9634 µg/L	-2.9634 ppb		10:26:23
2	S 181.975 Axial†	90.9	-1.8	-1.8847 µg/L	-1.8847 ppb		10:26:23
2	Sb 206.836†	171.1	-5.9	-1.4529 µg/L	-1.4529 ppb		10:26:23
2	Se 196.026†	-15.6	9.8	3.9280 µg/L	3.9280 ppb		10:26:23
2	SiO2†	1200.0	-103.8	-15.485 µg/L	-15.485 ppb		10:26:23
2	Si 251.611†	65.5	-153.4	-7.4651 µg/L	-7.4651 ppb		10:26:23
2	Sn 189.927†	58.7	8.9	0.9286 µg/L	0.9286 ppb		10:26:23
2	Sr 421.552†	324.2	16.6	0.0882 µg/L	0.0882 ppb		10:24:46
2	Ti 334.940†	-628.3	158.9	0.5957 µg/L	0.5957 ppb		10:26:03
2	Tl 190.801†	-90.9	-1.2	-0.2058 µg/L	-0.2058 ppb		10:26:23
2	U 367.007†	1107.1	27.5	8.752 µg/L	8.752 ppb		10:26:03
2	V 292.402†	-211.9	-21.3	-0.2314 µg/L	-0.2314 ppb		10:26:03
2	Zn 213.857†	836.3	-160.9	-1.0517 µg/L	-1.0517 ppb		10:26:23
3	Sc 361.383	395562.3	395562.3	100.81 %			10:26:28
3	Sc RADIAL	24144.3	24144.3	102 %			10:25:31
3	Y 371.029	387290.1	387290.1	100.89 %			10:26:28
3	Ag 328.068†	-777.0	-49.0	-0.4499 µg/L	-0.4499 ppb		10:26:28
3	Al 396.153Radial†	-89.8	36.2	10.506 µg/L	10.506 ppb		10:25:31
3	As 188.979†	-12.6	8.9	3.2845 µg/L	3.2845 ppb		10:26:48
3	B 249.677†	258.6	62.5	1.8027 µg/L	1.8027 ppb		10:26:48
3	Ba 233.527†	-5.4	-9.3	-0.0683 µg/L	-0.0683 ppb		10:26:48
3	Be 313.107†	-3986.0	13.8	0.0147 µg/L	0.0147 ppb		10:26:28
3	Ca 317.933Radial†	295.7	-58.3	-10.584 µg/L	-10.584 ppb		10:25:31
3	Cd 226.502†	-345.0	19.3	0.1682 µg/L	0.1682 ppb		10:26:48
3	Co 228.616†	-221.5	18.2	0.3628 µg/L	0.3628 ppb		10:26:48
3	Cr 267.716†	153.0	28.8	0.4832 µg/L	0.4832 ppb		10:26:48
3	Cu 324.752†	2137.2	-82.9	-0.5337 µg/L	-0.5337 ppb		10:26:28
3	Fe 238.204 Radial†	45.5	1.1	0.1784 µg/L	0.1784 ppb		10:25:31
3	K 766.490 Radial†	366.6	-28.6	-22.947 µg/L	-22.947 ppb		10:25:11
3	Mg 279.077 IEC†	70.8	4.0	5.4180 µg/L	5.4180 ppb		10:25:31
3	Mn 257.610†	421.7	-117.5	-0.1622 µg/L	-0.1622 ppb		10:26:48
3	Mo 202.031†	33.0	13.9	0.6796 µg/L	0.6796 ppb		10:26:48
3	Na 589.592 Radial†	119.0	7.2	10.272 µg/L	10.272 ppb		10:25:31
3	Ni 231.604†	-189.8	9.7	0.2244 µg/L	0.2244 ppb		10:26:48
3	P 214.914†	159.9	-6.4	-3.5506 µg/L	-3.5506 ppb		10:26:48
3	Pb 220.353†	-81.0	-22.7	-2.3925 µg/L	-2.3925 ppb		10:26:48
3	S 181.975 Axial†	88.9	-3.5	-3.6186 µg/L	-3.6186 ppb		10:26:48
3	Sb 206.836†	185.2	8.4	2.0781 µg/L	2.0781 ppb		10:26:48
3	Se 196.026†	-18.5	6.8	2.7301 µg/L	2.7301 ppb		10:26:48
3	SiO2†	1189.1	-111.9	-16.685 µg/L	-16.685 ppb		10:26:48
3	Si 251.611†	82.7	-136.2	-6.6246 µg/L	-6.6246 ppb		10:26:48
3	Sn 189.927†	51.6	2.0	0.2089 µg/L	0.2089 ppb		10:26:48
3	Sr 421.552†	246.8	-58.9	-0.3115 µg/L	-0.3115 ppb		10:25:11
3	Ti 334.940†	-658.0	128.0	0.4739 µg/L	0.4739 ppb		10:26:28
3	Tl 190.801†	-107.5	-17.8	-3.2634 µg/L	-3.2634 ppb		10:26:48
3	U 367.007†	1138.7	61.3	19.51 µg/L	19.51 ppb		10:26:28
3	V 292.402†	-173.3	16.5	0.2061 µg/L	0.2061 ppb		10:26:28
3	Zn 213.857†	849.5	-145.9	-0.9564 µg/L	-0.9564 ppb		10:26:48

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	395514.5	100.80	%	0.252				0.25%
Sc RADIAL	24197.8	102	%	0.23				0.23%
Y 371.029	386965.9	100.80	%	0.354				0.35%
Ag 328.068†	-73.6	-0.6668	µg/L	0.20891	-0.6668	ppb	0.20891	31.33%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	24.5	7.1021	µg/L	3.42806	7.1021	ppb	3.42806	48.27%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.5	2.7603	µg/L	1.84655	2.7603	ppb	1.84655	66.90%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	46.5	1.3418	µg/L	0.41290	1.3418	ppb	0.41290	30.77%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-11.4	-0.0838	µg/L	0.06590	-0.0838	ppb	0.06590	78.63%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	60.5	0.0464	µg/L	0.03241	0.0464	ppb	0.03241	69.79%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-64.9	-11.784	µg/L	3.1764	-11.784	ppb	3.1764	26.96%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	15.4	0.1340	µg/L	0.06666	0.1340	ppb	0.06666	49.74%

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   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                6.1      0.1219 µg/L       0.22303      0.1219 ppb        0.22303 182.97%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               18.5      0.3113 µg/L       0.14895      0.3113 ppb        0.14895  47.85%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -58.1     -0.3753 µg/L       0.17926     -0.3753 ppb        0.17926  47.76%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.0      0.1579 µg/L       0.86712      0.1579 ppb        0.86712 549.22%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         21.3      17.130 µg/L       42.7580      17.130 ppb        42.7580 249.62%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            9.2      12.458 µg/L       13.7820      12.458 ppb        13.7820 110.63%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -92.4     -0.1275 µg/L       0.03181     -0.1275 ppb        0.03181  24.96%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               16.9      0.8271 µg/L       0.18077      0.8271 ppb        0.18077  21.86%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        12.8      18.356 µg/L        7.1438      18.356 ppb         7.1438  38.92%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -7.2     -0.1675 µg/L       0.34722     -0.1675 ppb        0.34722 207.28%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -9.3     -5.1700 µg/L       1.50393     -5.1700 ppb        1.50393  29.09%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -24.3     -2.5573 µg/L       0.35376     -2.5573 ppb        0.35376  13.83%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -3.2     -3.2800 µg/L       1.26054     -3.2800 ppb        1.26054  38.43%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -0.6     -0.1421 µg/L       1.93326     -0.1421 ppb        1.93326 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                8.4      3.3504 µg/L       0.60010      3.3504 ppb        0.60010  17.91%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -107.9     -16.097 µg/L        0.6002     -16.097 ppb         0.6002   3.73%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -152.7     -7.4295 µg/L       0.78778     -7.4295 ppb        0.78778  10.60%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.6      0.5920 µg/L       0.36212      0.5920 ppb        0.36212  61.17%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -13.2     -0.0698 µg/L       0.21260     -0.0698 ppb        0.21260 304.56%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              138.4      0.5169 µg/L       0.06838      0.5169 ppb        0.06838  13.23%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -6.8     -1.2422 µg/L       1.75058     -1.2422 ppb        1.75058 140.93%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†                37.4       11.90 µg/L         6.623       11.90 ppb          6.623  55.66%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†                -2.7     -0.0166 µg/L       0.21886     -0.0166 ppb        0.21886 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -146.6     -0.9586 µg/L       0.09198     -0.9586 ppb        0.09198   9.59%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 8
Sample ID: PQL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 101
Date Collected: 7/24/2018 10:26:57
Data Type: Reprocessed on 7/24/2018 10:49:53

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	397899.1	397899.1	101.41	%			10:28:45
1	Sc RADIAL	24220.6	24220.6	102	%			10:27:48
1	Y 371.029	389910.3	389910.3	101.57	%			10:28:45
1	Ag 328.068†	-230.7	494.2	4.4207	µg/L	4.4207	ppb	10:28:45
1	Al 396.153Radial†	612.9	726.4	211.05	µg/L	211.05	ppb	10:27:48
1	As 188.979†	50.5	71.1	26.376	µg/L	26.376	ppb	10:29:05
1	B 249.677†	1914.4	1693.9	49.254	µg/L	49.254	ppb	10:28:45
1	Ba 233.527†	659.6	646.6	4.7501	µg/L	4.7501	ppb	10:29:05
1	Be 313.107†	2858.4	6786.4	4.9063	µg/L	4.9063	ppb	10:28:45
1	Ca 317.933Radial†	1454.5	1078.5	195.73	µg/L	195.73	ppb	10:27:48
1	Cd 226.502†	234.2	592.4	5.1532	µg/L	5.1532	ppb	10:29:05
1	Co 228.616†	43.0	280.3	5.5878	µg/L	5.5878	ppb	10:29:05
1	Cr 267.716†	412.2	283.5	4.8582	µg/L	4.8582	ppb	10:29:05
1	Cu 324.752†	3743.8	1488.9	9.8238	µg/L	9.8238	ppb	10:28:45
1	Fe 238.204 Radial†	683.5	627.4	102.43	µg/L	102.43	ppb	10:27:48
1	K 766.490 Radial†	667.5	265.8	213.46	µg/L	213.46	ppb	10:27:28
1	Mg 279.077 IEC†	313.8	242.3	329.13	µg/L	329.13	ppb	10:27:48
1	Mn 257.610†	7893.7	7248.3	10.007	µg/L	10.007	ppb	10:28:45
1	Mo 202.031†	243.4	221.1	10.849	µg/L	10.849	ppb	10:29:05
1	Na 589.592 Radial†	352.1	235.7	336.95	µg/L	336.95	ppb	10:27:48
1	Ni 231.604†	14.6	212.3	4.9115	µg/L	4.9115	ppb	10:29:05
1	P 214.914†	393.9	223.5	124.55	µg/L	124.55	ppb	10:29:05
1	Pb 220.353†	6.7	64.3	6.7180	µg/L	6.7180	ppb	10:29:05
1	S 181.975 Axial†	188.2	93.9	96.378	µg/L	96.378	ppb	10:29:05
1	Sb 206.836†	216.2	38.0	9.4067	µg/L	9.4067	ppb	10:29:05
1	Se 196.026†	47.4	72.0	28.842	µg/L	28.842	ppb	10:29:05
1	SiO2†	2558.3	1231.3	182.63	µg/L	182.63	ppb	10:29:05
1	Si 251.611†	2075.8	1828.8	88.634	µg/L	88.634	ppb	10:29:05
1	Sn 189.927†	137.6	86.5	9.0506	µg/L	9.0506	ppb	10:29:05
1	Sr 421.552†	1278.9	953.7	5.0454	µg/L	5.0454	ppb	10:27:28
1	Ti 334.940†	513.2	1286.7	4.8438	µg/L	4.8438	ppb	10:28:45
1	Tl 190.801†	7.5	96.2	17.690	µg/L	17.690	ppb	10:29:05
1	U 367.007†	1257.7	172.1	54.20	µg/L	54.20	ppb	10:28:45
1	V 292.402†	213.1	398.5	4.7094	µg/L	4.7094	ppb	10:28:45
1	Zn 213.857†	2470.4	1447.5	9.4212	µg/L	9.4212	ppb	10:29:05
2	Sc 361.383	400008.5	400008.5	101.94	%			10:29:10
2	Sc RADIAL	24121.9	24121.9	101	%			10:28:13
2	Y 371.029	391350.1	391350.1	101.94	%			10:29:10
2	Ag 328.068†	-214.3	511.6	4.5826	µg/L	4.5826	ppb	10:29:10
2	Al 396.153Radial†	633.2	748.8	217.62	µg/L	217.62	ppb	10:28:13
2	As 188.979†	55.4	75.7	28.059	µg/L	28.059	ppb	10:29:30
2	B 249.677†	1949.2	1718.0	49.950	µg/L	49.950	ppb	10:29:10
2	Ba 233.527†	661.4	644.9	4.7379	µg/L	4.7379	ppb	10:29:30
2	Be 313.107†	2842.7	6756.2	4.8827	µg/L	4.8827	ppb	10:29:10
2	Ca 317.933Radial†	1463.9	1093.6	198.48	µg/L	198.48	ppb	10:28:13
2	Cd 226.502†	257.3	613.8	5.3400	µg/L	5.3400	ppb	10:29:30
2	Co 228.616†	22.6	260.0	5.1842	µg/L	5.1842	ppb	10:29:30
2	Cr 267.716†	417.3	286.4	4.9154	µg/L	4.9154	ppb	10:29:30
2	Cu 324.752†	3692.1	1418.7	9.3583	µg/L	9.3583	ppb	10:29:10
2	Fe 238.204 Radial†	678.4	625.1	102.06	µg/L	102.06	ppb	10:28:13
2	K 766.490 Radial†	748.0	347.8	279.31	µg/L	279.31	ppb	10:27:53
2	Mg 279.077 IEC†	308.3	238.1	323.46	µg/L	323.46	ppb	10:28:13
2	Mn 257.610†	7912.2	7225.4	9.9757	µg/L	9.9757	ppb	10:29:10
2	Mo 202.031†	230.9	207.6	10.183	µg/L	10.183	ppb	10:29:30
2	Na 589.592 Radial†	331.1	216.5	309.47	µg/L	309.47	ppb	10:28:13
2	Ni 231.604†	-10.4	187.8	4.3437	µg/L	4.3437	ppb	10:29:30
2	P 214.914†	406.5	233.8	130.30	µg/L	130.30	ppb	10:29:30

2	Pb 220.353†	11.6	69.0	7.2221 µg/L	7.2221 ppb		10:29:30
2	S 181.975 Axial†	184.6	89.3	91.699 µg/L	91.699 ppb		10:29:30
2	Sb 206.836†	211.8	32.5	8.0506 µg/L	8.0506 ppb		10:29:30
2	Se 196.026†	48.7	73.0	29.255 µg/L	29.255 ppb		10:29:30
2	SiO2†	2534.8	1195.0	177.26 µg/L	177.26 ppb		10:29:30
2	Si 251.611†	2034.3	1777.2	86.143 µg/L	86.143 ppb		10:29:30
2	Sn 189.927†	141.2	89.3	9.3488 µg/L	9.3488 ppb		10:29:30
2	Sr 421.552†	1276.8	956.7	5.0616 µg/L	5.0616 ppb		10:27:53
2	Ti 334.940†	533.5	1304.0	4.9126 µg/L	4.9126 ppb		10:29:10
2	Tl 190.801†	14.6	103.1	18.953 µg/L	18.953 ppb		10:29:30
2	U 367.007†	1239.6	147.8	46.48 µg/L	46.48 ppb		10:29:10
2	V 292.402†	306.1	488.6	5.7292 µg/L	5.7292 ppb		10:29:10
2	Zn 213.857†	2472.0	1436.2	9.3511 µg/L	9.3511 ppb		10:29:30
3	Sc 361.383	400499.2	400499.2	102.07 %			10:29:36
3	Sc RADIAL	24171.6	24171.6	102 %			10:28:38
3	Y 371.029	391958.2	391958.2	102.10 %			10:29:36
3	Ag 328.068†	-267.9	459.3	4.1083 µg/L	4.1083 ppb		10:29:36
3	Al 396.153Radial†	631.3	745.6	216.67 µg/L	216.67 ppb		10:28:38
3	As 188.979†	66.7	86.7	32.141 µg/L	32.141 ppb		10:29:56
3	B 249.677†	1901.5	1669.0	48.534 µg/L	48.534 ppb		10:29:36
3	Ba 233.527†	664.0	646.6	4.7507 µg/L	4.7507 ppb		10:29:56
3	Be 313.107†	2906.9	6815.7	4.9274 µg/L	4.9274 ppb		10:29:36
3	Ca 317.933Radial†	1475.2	1101.7	199.95 µg/L	199.95 ppb		10:28:38
3	Cd 226.502†	203.3	560.7	4.8769 µg/L	4.8769 ppb		10:29:56
3	Co 228.616†	24.3	261.7	5.2174 µg/L	5.2174 ppb		10:29:56
3	Cr 267.716†	445.5	313.5	5.3762 µg/L	5.3762 ppb		10:29:56
3	Cu 324.752†	3681.7	1404.1	9.2659 µg/L	9.2659 ppb		10:29:36
3	Fe 238.204 Radial†	676.9	622.3	101.59 µg/L	101.59 ppb		10:28:38
3	K 766.490 Radial†	597.4	198.1	159.06 µg/L	159.06 ppb		10:28:18
3	Mg 279.077 IEC†	298.0	227.4	308.91 µg/L	308.91 ppb		10:28:38
3	Mn 257.610†	7895.2	7199.2	9.9396 µg/L	9.9396 ppb		10:29:36
3	Mo 202.031†	239.3	215.6	10.576 µg/L	10.576 ppb		10:29:56
3	Na 589.592 Radial†	338.5	223.0	318.84 µg/L	318.84 ppb		10:28:38
3	Ni 231.604†	-8.6	189.5	4.3836 µg/L	4.3836 ppb		10:29:56
3	P 214.914†	427.2	253.6	141.33 µg/L	141.33 ppb		10:29:56
3	Pb 220.353†	23.4	80.6	8.4327 µg/L	8.4327 ppb		10:29:56
3	S 181.975 Axial†	177.6	82.2	84.448 µg/L	84.448 ppb		10:29:56
3	Sb 206.836†	208.6	29.2	7.2269 µg/L	7.2269 ppb		10:29:56
3	Se 196.026†	57.8	81.8	32.796 µg/L	32.796 ppb		10:29:56
3	SiO2†	2562.7	1219.2	180.85 µg/L	180.85 ppb		10:29:56
3	Si 251.611†	2064.7	1804.6	87.465 µg/L	87.465 ppb		10:29:56
3	Sn 189.927†	142.7	90.6	9.4817 µg/L	9.4817 ppb		10:29:56
3	Sr 421.552†	1371.3	1047.1	5.5400 µg/L	5.5400 ppb		10:28:18
3	Ti 334.940†	479.1	1250.0	4.7053 µg/L	4.7053 ppb		10:29:36
3	Tl 190.801†	22.4	110.7	20.346 µg/L	20.346 ppb		10:29:56
3	U 367.007†	1264.0	170.2	53.61 µg/L	53.61 ppb		10:29:36
3	V 292.402†	211.9	396.0	4.6780 µg/L	4.6780 ppb		10:29:36
3	Zn 213.857†	2494.7	1455.5	9.4777 µg/L	9.4777 ppb		10:29:56

Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	399468.9	101.81	%	0.352				0.35%
Sc RADIAL	24171.4	102	%	0.21				0.20%
Y 371.029	391072.9	101.87	%	0.274				0.27%
Ag 328.068†	488.4	4.3705	µg/L	0.24109	4.3705	ppb	0.24109	5.52%
QC value within limits for Ag 328.068 Recovery = 87.41%								
Al 396.153Radial†	740.3	215.12	µg/L	3.549	215.12	ppb	3.549	1.65%
QC value within limits for Al 396.153Radial Recovery = 107.56%								
As 188.979†	77.8	28.859	µg/L	2.9648	28.859	ppb	2.9648	10.27%
QC value within limits for As 188.979 Recovery = 96.20%								
B 249.677†	1693.6	49.246	µg/L	0.7084	49.246	ppb	0.7084	1.44%
QC value within limits for B 249.677 Recovery = 98.49%								
Ba 233.527†	646.0	4.7462	µg/L	0.00723	4.7462	ppb	0.00723	0.15%
QC value within limits for Ba 233.527 Recovery = 94.92%								
Be 313.107†	6786.1	4.9055	µg/L	0.02238	4.9055	ppb	0.02238	0.46%
QC value within limits for Be 313.107 Recovery = 98.11%								
Ca 317.933Radial†	1091.3	198.05	µg/L	2.141	198.05	ppb	2.141	1.08%
QC value within limits for Ca 317.933Radial Recovery = 99.03%								
Cd 226.502†	589.0	5.1234	µg/L	0.23300	5.1234	ppb	0.23300	4.55%

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   QC value within limits for Cd 226.502  Recovery = 102.47%
Co 228.616†              267.3      5.3298 µg/L       0.22405      5.3298 ppb        0.22405   4.20%
   QC value within limits for Co 228.616  Recovery = 106.60%
Cr 267.716†              294.5      5.0499 µg/L       0.28400      5.0499 ppb        0.28400   5.62%
   QC value within limits for Cr 267.716  Recovery = 101.00%
Cu 324.752†             1437.2      9.4826 µg/L       0.29902      9.4826 ppb        0.29902   3.15%
   QC value within limits for Cu 324.752  Recovery = 94.83%
Fe 238.204 Radial†       624.9      102.03 µg/L         0.420      102.03 ppb          0.420   0.41%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.03%
K 766.490 Radial†        270.6      217.28 µg/L        60.217      217.28 ppb         60.217  27.71%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 144.85%
Mg 279.077 IEC†          236.0      320.50 µg/L        10.430      320.50 ppb         10.430   3.25%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.83%
Mn 257.610†             7224.3      9.9742 µg/L       0.03385      9.9742 ppb        0.03385   0.34%
   QC value within limits for Mn 257.610  Recovery = 99.74%
Mo 202.031†              214.8      10.536 µg/L        0.3344      10.536 ppb         0.3344   3.17%
   QC value within limits for Mo 202.031  Recovery = 105.36%
Na 589.592 Radial†       225.0      321.75 µg/L        13.973      321.75 ppb         13.973   4.34%
   QC value within limits for Na 589.592 Radial  Recovery = 107.25%
Ni 231.604†              196.5      4.5462 µg/L       0.31695      4.5462 ppb        0.31695   6.97%
   QC value within limits for Ni 231.604  Recovery = 90.92%
P 214.914†               237.0      132.06 µg/L         8.528      132.06 ppb          8.528   6.46%
   QC value within limits for P 214.914  Recovery = 88.04%
Pb 220.353†               71.3      7.4576 µg/L       0.88125      7.4576 ppb        0.88125  11.82%
   QC value within limits for Pb 220.353  Recovery = 74.58%
S 181.975 Axial†          88.5      90.842 µg/L        6.0107      90.842 ppb         6.0107   6.62%
   QC value within limits for S 181.975 Axial  Recovery = 90.84%
Sb 206.836†               33.2      8.2281 µg/L       1.10066      8.2281 ppb        1.10066  13.38%
   QC value within limits for Sb 206.836  Recovery = 82.28%
Se 196.026†               75.6      30.298 µg/L        2.1732      30.298 ppb         2.1732   7.17%
   QC value within limits for Se 196.026  Recovery = 100.99%
SiO2†                    1215.2      180.25 µg/L         2.734      180.25 ppb          2.734   1.52%
   QC value within limits for SiO2  Recovery = 84.62%
Si 251.611†             1803.5      87.414 µg/L        1.2461      87.414 ppb         1.2461   1.43%
   QC value within limits for Si 251.611  Recovery = 87.41%
Sn 189.927†               88.8      9.2937 µg/L       0.22077      9.2937 ppb        0.22077   2.38%
   QC value within limits for Sn 189.927  Recovery = 92.94%
Sr 421.552†              985.8      5.2156 µg/L       0.28102      5.2156 ppb        0.28102   5.39%
   QC value within limits for Sr 421.552  Recovery = 104.31%
Ti 334.940†             1280.2      4.8206 µg/L       0.10554      4.8206 ppb        0.10554   2.19%
   QC value within limits for Ti 334.940  Recovery = 96.41%
Tl 190.801†              103.4      18.996 µg/L        1.3285      18.996 ppb         1.3285   6.99%
   QC value within limits for Tl 190.801  Recovery = 94.98%
U 367.007†               163.3       51.43 µg/L         4.295       51.43 ppb          4.295   8.35%
   QC value within limits for U 367.007  Recovery = 102.86%
V 292.402†               427.7      5.0389 µg/L       0.59803      5.0389 ppb        0.59803  11.87%
   QC value within limits for V 292.402  Recovery = 100.78%
Zn 213.857†             1446.4      9.4167 µg/L       0.06338      9.4167 ppb        0.06338   0.67%
   QC value within limits for Zn 213.857  Recovery = 94.17%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 103
Date Collected: 7/24/2018 10:30:04
Data Type: Reprocessed on 7/24/2018 10:49:55

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	358931.5	358931.5	91.476	%			10:31:09
1	Sc RADIAL	23770.1	23770.1	100.0	%			10:30:41
1	Y 371.029	344054.9	344054.9	89.624	%			10:31:09
1	Ag 328.068†	-3612.3	-3227.2	-1.6785	µg/L	-1.6785	ppb	10:31:09
1	Al 396.153Radial†	1658145.3	1658940.1	483160	µg/L	483160	ppb	10:30:36
1	As 188.979†	-47.4	-30.4	-1.4548	µg/L	-1.4548	ppb	10:31:29
1	B 249.677†	-22999.5	-25336.7	-1.8314	µg/L	-1.8314	ppb	10:31:09
1	Ba 233.527†	774.9	843.2	1.5895	µg/L	1.5895	ppb	10:31:29
1	Be 313.107†	-11039.0	-8099.9	0.0651	µg/L	0.0651	ppb	10:31:09
1	Ca 317.933Radial†	2599926.2	2600627.5	471990	µg/L	471990	ppb	10:30:36
1	Cd 226.502†	1689.2	2208.1	-1.2244	µg/L	-1.2244	ppb	10:31:29
1	Co 228.616†	-219.1	-1.6	-0.7737	µg/L	-0.7737	ppb	10:31:29
1	Cr 267.716†	-407.5	-568.4	1.4080	µg/L	1.4080	ppb	10:31:29
1	Cu 324.752†	277.2	-1899.9	-0.7202	µg/L	-0.7202	ppb	10:31:09
1	Fe 238.204 Radial†	1146038.4	1146457.9	187170	µg/L	187170	ppb	10:30:36
1	K 766.490 Radial†	493.7	104.3	-5.2312	µg/L	-5.2312	ppb	10:30:41
1	Mg 279.077 IEC†	344608.0	344681.5	468160	µg/L	468160	ppb	10:30:41
1	Mn 257.610†	-6880.9	-8058.0	-0.0905	µg/L	-0.0905	ppb	10:31:09
1	Mo 202.031†	-80.1	-106.4	-1.6985	µg/L	-1.6985	ppb	10:31:29
1	Na 589.592 Radial†	275.3	165.5	-8.2138	µg/L	-8.2138	ppb	10:30:41
1	Ni 231.604†	-269.4	-96.6	1.4276	µg/L	1.4276	ppb	10:31:29
1	P 214.914†	231.2	87.8	-17.484	µg/L	-17.484	ppb	10:31:29
1	Pb 220.353†	-513.2	-503.4	-1.9169	µg/L	-1.9169	ppb	10:31:29
1	S 181.975 Axial†	211.6	139.6	17.402	µg/L	17.402	ppb	10:31:29
1	Sb 206.836†	204.8	48.7	-13.644	µg/L	-13.644	ppb	10:31:29
1	Se 196.026†	-204.3	-198.1	3.9492	µg/L	3.9492	ppb	10:31:29
1	SiO2†	1458.3	302.7	2.1320	µg/L	2.1320	ppb	10:31:29
1	Si 251.611†	344.6	158.5	-6.0793	µg/L	-6.0793	ppb	10:31:29
1	Sn 189.927†	30.9	-15.4	-6.0478	µg/L	-6.0478	ppb	10:31:29
1	Sr 421.552†	1922.4	1621.2	0.2559	µg/L	0.2559	ppb	10:30:41
1	Ti 334.940†	-6094.6	-5881.9	-1.0410	µg/L	-1.0410	ppb	10:31:09
1	Tl 190.801†	-149.9	-75.0	3.2454	µg/L	3.2454	ppb	10:31:29
1	U 367.007†	3837.2	3126.6	9.906	µg/L	9.906	ppb	10:31:09
1	V 292.402†	-3306.6	-3426.3	-0.4431	µg/L	-0.4431	ppb	10:31:29
1	Zn 213.857†	7446.6	7152.0	0.2621	µg/L	0.2621	ppb	10:31:29
2	Sc 361.383	361597.7	361597.7	92.155	%			10:31:34
2	Sc RADIAL	23945.0	23945.0	101	%			10:30:52
2	Y 371.029	346829.3	346829.3	90.346	%			10:31:34
2	Ag 328.068†	-3561.9	-3143.4	-0.7408	µg/L	-0.7408	ppb	10:31:34
2	Al 396.153Radial†	1680079.3	1668605.9	485980	µg/L	485980	ppb	10:30:46
2	As 188.979†	-37.7	-19.5	2.6393	µg/L	2.6393	ppb	10:31:54
2	B 249.677†	-23084.3	-25243.3	5.2717	µg/L	5.2717	ppb	10:31:34
2	Ba 233.527†	769.3	830.9	1.4712	µg/L	1.4712	ppb	10:31:54
2	Be 313.107†	-11076.7	-8051.8	0.1294	µg/L	0.1294	ppb	10:31:34
2	Ca 317.933Radial†	2636113.2	2617565.9	475060	µg/L	475060	ppb	10:30:46
2	Cd 226.502†	1725.4	2233.7	-1.1249	µg/L	-1.1249	ppb	10:31:54
2	Co 228.616†	-230.4	-12.1	-0.9866	µg/L	-0.9866	ppb	10:31:54
2	Cr 267.716†	-380.6	-536.0	1.9641	µg/L	1.9641	ppb	10:31:54
2	Cu 324.752†	285.7	-1892.9	-0.6258	µg/L	-0.6258	ppb	10:31:34
2	Fe 238.204 Radial†	1161448.4	1153386.9	188310	µg/L	188310	ppb	10:30:46
2	K 766.490 Radial†	498.7	105.6	-4.6727	µg/L	-4.6727	ppb	10:30:52
2	Mg 279.077 IEC†	345305.4	342856.0	465680	µg/L	465680	ppb	10:30:52
2	Mn 257.610†	-6983.4	-8113.7	-0.0889	µg/L	-0.0889	ppb	10:31:34
2	Mo 202.031†	-70.6	-95.5	-1.1409	µg/L	-1.1409	ppb	10:31:54
2	Na 589.592 Radial†	314.4	202.3	42.906	µg/L	42.906	ppb	10:30:52
2	Ni 231.604†	-287.5	-114.1	1.0453	µg/L	1.0453	ppb	10:31:54
2	P 214.914†	269.6	127.6	4.2986	µg/L	4.2986	ppb	10:31:54

2	Pb 220.353†	-507.6	-493.2	-0.5220	µg/L	-0.5220	ppb	10:31:54
2	S 181.975 Axial†	207.8	133.7	10.598	µg/L	10.598	ppb	10:31:54
2	Sb 206.836†	260.3	107.2	0.6557	µg/L	0.6557	ppb	10:31:54
2	Se 196.026†	-213.4	-206.3	1.1673	µg/L	1.1673	ppb	10:31:54
2	SiO2†	1456.6	289.1	-0.1849	µg/L	-0.1849	ppb	10:31:54
2	Si 251.611†	414.7	231.7	-2.6165	µg/L	-2.6165	ppb	10:31:54
2	Sn 189.927†	42.5	-3.1	-4.7560	µg/L	-4.7560	ppb	10:31:54
2	Sr 421.552†	1897.8	1582.7	-0.0022	µg/L	-0.0022	ppb	10:30:52
2	Ti 334.940†	-6079.5	-5816.4	-0.6386	µg/L	-0.6386	ppb	10:31:34
2	Tl 190.801†	-128.5	-50.7	7.8044	µg/L	7.8044	ppb	10:31:54
2	U 367.007†	3778.1	3031.5	-26.39	µg/L	-26.39	ppb	10:31:34
2	V 292.402†	-3278.5	-3369.2	0.4281	µg/L	0.4281	ppb	10:31:54
2	Zn 213.857†	7432.7	7076.8	-0.3603	µg/L	-0.3603	ppb	10:31:54
3	Sc 361.383	359214.2	359214.2	91.548	%			10:32:00
3	Sc RADIAL	23964.1	23964.1	101	%			10:31:02
3	Y 371.029	344173.3	344173.3	89.654	%			10:32:00
3	Ag 328.068†	-3652.4	-3267.8	-1.9934	µg/L	-1.9934	ppb	10:32:00
3	Al 396.153Radial†	1671803.2	1659069.5	483200	µg/L	483200	ppb	10:30:57
3	As 188.979†	-60.2	-44.4	-6.5808	µg/L	-6.5808	ppb	10:32:20
3	B 249.677†	-23195.8	-25531.3	-6.0851	µg/L	-6.0851	ppb	10:32:00
3	Ba 233.527†	762.6	829.1	1.4773	µg/L	1.4773	ppb	10:32:20
3	Be 313.107†	-10974.6	-8020.1	0.1278	µg/L	0.1278	ppb	10:32:00
3	Ca 317.933Radial†	2622758.9	2602237.0	472280	µg/L	472280	ppb	10:30:57
3	Cd 226.502†	1678.8	2195.3	-1.3745	µg/L	-1.3745	ppb	10:32:20
3	Co 228.616†	-221.0	-3.5	-0.8118	µg/L	-0.8118	ppb	10:32:20
3	Cr 267.716†	-431.5	-594.3	0.9042	µg/L	0.9042	ppb	10:32:20
3	Cu 324.752†	197.7	-1987.0	-1.2681	µg/L	-1.2681	ppb	10:32:00
3	Fe 238.204 Radial†	1157544.7	1148598.0	187520	µg/L	187520	ppb	10:30:57
3	K 766.490 Radial†	516.9	123.4	9.9044	µg/L	9.9044	ppb	10:31:02
3	Mg 279.077 IEC†	345201.8	342481.0	465170	µg/L	465170	ppb	10:31:02
3	Mn 257.610†	-6921.2	-8096.1	-0.1139	µg/L	-0.1139	ppb	10:32:00
3	Mo 202.031†	-73.0	-98.6	-1.3121	µg/L	-1.3121	ppb	10:32:20
3	Na 589.592 Radial†	313.0	200.6	41.563	µg/L	41.563	ppb	10:31:02
3	Ni 231.604†	-301.6	-131.6	0.6254	µg/L	0.6254	ppb	10:32:20
3	P 214.914†	230.9	87.2	-18.093	µg/L	-18.093	ppb	10:32:20
3	Pb 220.353†	-534.4	-526.1	-4.2963	µg/L	-4.2963	ppb	10:32:20
3	S 181.975 Axial†	209.2	136.7	14.369	µg/L	14.369	ppb	10:32:20
3	Sb 206.836†	228.4	74.3	-7.3548	µg/L	-7.3548	ppb	10:32:20
3	Se 196.026†	-175.5	-166.5	16.755	µg/L	16.755	ppb	10:32:20
3	SiO2†	1455.7	298.7	1.4241	µg/L	1.4241	ppb	10:32:20
3	Si 251.611†	370.9	186.9	-4.7319	µg/L	-4.7319	ppb	10:32:20
3	Sn 189.927†	46.9	2.0	-4.2026	µg/L	-4.2026	ppb	10:32:20
3	Sr 421.552†	1868.7	1552.3	-0.1140	µg/L	-0.1140	ppb	10:31:02
3	Ti 334.940†	-6065.5	-5844.8	-0.8907	µg/L	-0.8907	ppb	10:32:00
3	Tl 190.801†	-143.3	-67.8	4.6083	µg/L	4.6083	ppb	10:32:20
3	U 367.007†	3860.5	3148.8	15.46	µg/L	15.46	ppb	10:32:00
3	V 292.402†	-3249.4	-3361.0	0.3810	µg/L	0.3810	ppb	10:32:20
3	Zn 213.857†	7424.5	7121.3	0.0973	µg/L	0.0973	ppb	10:32:20

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	359914.5	91.727	%	0.3732				0.41%
Sc RADIAL	23893.1	100	%	0.45				0.45%
Y 371.029	345019.2	89.875	%	0.4086				0.45%
Ag 328.068†	-3212.8	-1.4709	µg/L	0.65157	-1.4709	ppb	0.65157	44.30%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1662205.2	484110	µg/L	1614.54	484110	ppb	1614.54	0.33%
QC value within limits for Al 396.153Radial Recovery = 96.82%								
As 188.979†	-31.5	-1.7988	µg/L	4.61966	-1.7988	ppb	4.61966	256.82%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-25370.5	-0.8816	µg/L	5.73763	-0.8816	ppb	5.73763	650.80%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	834.4	1.5127	µg/L	0.06662	1.5127	ppb	0.06662	4.40%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-8057.3	0.1075	µg/L	0.03664	0.1075	ppb	0.03664	34.10%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2606810.1	473110	µg/L	1696.83	473110	ppb	1696.83	0.36%
QC value within limits for Ca 317.933Radial Recovery = 94.62%								
Cd 226.502†	2212.4	-1.2413	µg/L	0.12566	-1.2413	ppb	0.12566	10.12%

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   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -5.7     -0.8574 µg/L       0.11352     -0.8574 ppb        0.11352  13.24%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -566.2      1.4254 µg/L       0.53013      1.4254 ppb        0.53013  37.19%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -1926.6     -0.8714 µg/L       0.34677     -0.8714 ppb        0.34677  39.80%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†   1149480.9      187670 µg/L        579.23      187670 ppb         579.23   0.31%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.83%
K 766.490 Radial†        111.1      0.0002 µg/L       8.58183      0.0002 ppb        8.58183 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       343339.5      466340 µg/L       1598.97      466340 ppb        1598.97   0.34%
   QC value within limits for Mg 279.077 IEC  Recovery = 93.27%
Mn 257.610†            -8089.3     -0.0978 µg/L       0.01398     -0.0978 ppb        0.01398  14.31%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -100.2     -1.3838 µg/L       0.28566     -1.3838 ppb        0.28566  20.64%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       189.5      25.419 µg/L       29.1341      25.419 ppb        29.1341 114.62%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -114.1      1.0328 µg/L       0.40128      1.0328 ppb        0.40128  38.85%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               100.9     -10.426 µg/L       12.7555     -10.426 ppb        12.7555 122.34%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -507.6     -2.2451 µg/L       1.90840     -2.2451 ppb        1.90840  85.00%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         136.7      14.123 µg/L        3.4085      14.123 ppb         3.4085  24.13%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               76.7     -6.7811 µg/L       7.16715     -6.7811 ppb        7.16715 105.69%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -190.3      7.2906 µg/L       8.31392      7.2906 ppb        8.31392 114.04%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     296.8      1.1237 µg/L       1.18730      1.1237 ppb        1.18730 105.66%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              192.4     -4.4759 µg/L       1.74556     -4.4759 ppb        1.74556  39.00%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -5.5     -5.0021 µg/L       0.94688     -5.0021 ppb        0.94688  18.93%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              1585.4      0.0466 µg/L       0.18971      0.0466 ppb        0.18971 407.23%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -5847.7     -0.8567 µg/L       0.20331     -0.8567 ppb        0.20331  23.73%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -64.5      5.2194 µg/L       2.34013      5.2194 ppb        2.34013  44.84%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†               3102.3      -0.341 µg/L       22.7264      -0.341 ppb        22.7264 >999.9%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†              -3385.5      0.1220 µg/L       0.49000      0.1220 ppb        0.49000 401.65%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              7116.7     -0.0003 µg/L       0.32248     -0.0003 ppb        0.32248 >999.9%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 104
Date Collected: 7/24/2018 10:32:28
Data Type: Reprocessed on 7/24/2018 10:49:56

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	358284.5	358284.5	91.311	%			10:33:32
1	Sc RADIAL	23654.7	23654.7	99.5	%			10:33:04
1	Y 371.029	343932.4	343932.4	89.592	%			10:33:32
1	Ag 328.068†	22243.5	25081.9	253.23	µg/L	253.23	ppb	10:33:37
1	Al 396.153Radial†	1685215.6	1694251.0	493420	µg/L	493420	ppb	10:32:59
1	As 188.979†	1201.0	1336.6	508.52	µg/L	508.52	ppb	10:33:37
1	B 249.677†	-6606.3	-7429.0	527.99	µg/L	527.99	ppb	10:33:32
1	Ba 233.527†	59928.1	65626.8	477.70	µg/L	477.70	ppb	10:33:37
1	Be 313.107†	298524.9	330899.4	244.64	µg/L	244.64	ppb	10:33:32
1	Ca 317.933Radial†	2640871.4	2654485.9	481760	µg/L	481760	ppb	10:32:59
1	Cd 226.502†	49448.0	54514.8	454.36	µg/L	454.36	ppb	10:33:37
1	Co 228.616†	21116.9	23364.2	464.34	µg/L	464.34	ppb	10:33:37
1	Cr 267.716†	24676.1	26901.3	475.72	µg/L	475.72	ppb	10:33:37
1	Cu 324.752†	74152.5	79005.7	531.52	µg/L	531.52	ppb	10:33:32
1	Fe 238.204 Radial†	1163792.9	1169902.9	191000	µg/L	191000	ppb	10:32:59
1	K 766.490 Radial†	7046.6	6694.3	5286.3	µg/L	5286.3	ppb	10:33:04
1	Mg 279.077 IEC†	347808.5	349581.8	474810	µg/L	474810	ppb	10:33:04
1	Mn 257.610†	315242.6	344704.3	486.89	µg/L	486.89	ppb	10:33:32
1	Mo 202.031†	9233.6	10093.4	498.65	µg/L	498.65	ppb	10:33:37
1	Na 589.592 Radial†	3863.1	3773.5	5147.4	µg/L	5147.4	ppb	10:33:04
1	Ni 231.604†	17525.8	19391.4	452.19	µg/L	452.19	ppb	10:33:37
1	P 214.914†	4368.9	4619.7	2501.2	µg/L	2501.2	ppb	10:33:37
1	Pb 220.353†	3582.7	3981.3	469.03	µg/L	469.03	ppb	10:33:37
1	S 181.975 Axial†	2473.2	2616.8	2559.8	µg/L	2559.8	ppb	10:33:37
1	Sb 206.836†	2037.2	2055.8	478.93	µg/L	478.93	ppb	10:33:37
1	Se 196.026†	5097.6	5607.9	2329.1	µg/L	2329.1	ppb	10:33:37
1	SiO2†	68123.8	73314.8	10839	µg/L	10839	ppb	10:33:32
1	Si 251.611†	96570.5	105541.7	5103.7	µg/L	5103.7	ppb	10:33:32
1	Sn 189.927†	4224.5	4577.3	475.44	µg/L	475.44	ppb	10:33:37
1	Sr 421.552†	91516.0	91698.0	476.96	µg/L	476.96	ppb	10:33:04
1	Ti 334.940†	115400.0	127161.8	501.73	µg/L	501.73	ppb	10:33:32
1	Tl 190.801†	2147.6	2440.7	466.13	µg/L	466.13	ppb	10:33:37
1	U 367.007†	5133.2	4553.5	443.4	µg/L	443.4	ppb	10:33:32
1	V 292.402†	35694.5	39279.5	493.61	µg/L	493.61	ppb	10:33:37
1	Zn 213.857†	68851.3	74414.4	437.30	µg/L	437.30	ppb	10:33:37
2	Sc 361.383	355979.6	355979.6	90.724	%			10:33:42
2	Sc RADIAL	23647.0	23647.0	99.4	%			10:33:15
2	Y 371.029	341804.9	341804.9	89.037	%			10:33:42
2	Ag 328.068†	22248.0	25244.5	254.56	µg/L	254.56	ppb	10:33:47
2	Al 396.153Radial†	1676900.6	1686438.8	491150	µg/L	491150	ppb	10:33:09
2	As 188.979†	1224.3	1370.9	521.15	µg/L	521.15	ppb	10:33:47
2	B 249.677†	-6402.5	-7251.1	528.88	µg/L	528.88	ppb	10:33:42
2	Ba 233.527†	60042.2	66177.5	481.78	µg/L	481.78	ppb	10:33:47
2	Be 313.107†	295725.7	329930.8	243.91	µg/L	243.91	ppb	10:33:42
2	Ca 317.933Radial†	2626623.6	2641019.0	479320	µg/L	479320	ppb	10:33:09
2	Cd 226.502†	49569.5	54999.4	458.71	µg/L	458.71	ppb	10:33:47
2	Co 228.616†	21186.1	23590.2	468.84	µg/L	468.84	ppb	10:33:47
2	Cr 267.716†	24850.3	27268.3	482.03	µg/L	482.03	ppb	10:33:47
2	Cu 324.752†	73509.7	78822.9	530.23	µg/L	530.23	ppb	10:33:42
2	Fe 238.204 Radial†	1156817.3	1163267.6	189920	µg/L	189920	ppb	10:33:09
2	K 766.490 Radial†	7085.6	6735.8	5320.1	µg/L	5320.1	ppb	10:33:15
2	Mg 279.077 IEC†	346291.2	348169.4	472900	µg/L	472900	ppb	10:33:15
2	Mn 257.610†	312757.0	344199.9	486.13	µg/L	486.13	ppb	10:33:42
2	Mo 202.031†	9168.5	10087.1	498.32	µg/L	498.32	ppb	10:33:47
2	Na 589.592 Radial†	3823.9	3735.4	5094.2	µg/L	5094.2	ppb	10:33:15
2	Ni 231.604†	17560.0	19553.4	455.91	µg/L	455.91	ppb	10:33:47
2	P 214.914†	4390.0	4673.9	2532.0	µg/L	2532.0	ppb	10:33:47

2	Pb 220.353†	3634.7	4064.0	477.48 µg/L	477.48 ppb		10:33:47
2	S 181.975 Axial†	2475.1	2636.5	2580.7 µg/L	2580.7 ppb		10:33:47
2	Sb 206.836†	2073.8	2110.6	492.47 µg/L	492.47 ppb		10:33:47
2	Se 196.026†	5079.8	5624.4	2335.3 µg/L	2335.3 ppb		10:33:47
2	SiO2†	67511.8	73123.2	10811 µg/L	10811 ppb		10:33:42
2	Si 251.611†	95807.9	105385.9	5096.2 µg/L	5096.2 ppb		10:33:42
2	Sn 189.927†	4189.2	4568.3	474.51 µg/L	474.51 ppb		10:33:47
2	Sr 421.552†	91323.1	91533.8	476.13 µg/L	476.13 ppb		10:33:15
2	Ti 334.940†	114511.4	127000.6	501.02 µg/L	501.02 ppb		10:33:42
2	Tl 190.801†	2174.9	2486.1	474.33 µg/L	474.33 ppb		10:33:47
2	U 367.007†	5001.4	4444.7	414.3 µg/L	414.3 ppb		10:33:42
2	V 292.402†	35908.0	39767.9	498.96 µg/L	498.96 ppb		10:33:47
2	Zn 213.857†	69168.5	75252.2	443.01 µg/L	443.01 ppb		10:33:47
3	Sc 361.383	357084.5	357084.5	91.005 %			10:33:53
3	Sc RADIAL	23629.4	23629.4	99.4 %			10:33:25
3	Y 371.029	342910.3	342910.3	89.325 %			10:33:53
3	Ag 328.068†	22102.5	25008.7	252.49 µg/L	252.49 ppb		10:33:58
3	Al 396.153Radial†	1680974.6	1691797.0	492710 µg/L	492710 ppb		10:33:20
3	As 188.979†	1176.7	1314.4	500.24 µg/L	500.24 ppb		10:33:58
3	B 249.677†	-6386.2	-7211.4	531.98 µg/L	531.98 ppb		10:33:53
3	Ba 233.527†	59586.9	65472.4	476.58 µg/L	476.58 ppb		10:33:58
3	Be 313.107†	296510.6	329784.6	243.82 µg/L	243.82 ppb		10:33:53
3	Ca 317.933Radial†	2633088.3	2649495.9	480860 µg/L	480860 ppb		10:33:20
3	Cd 226.502†	49130.3	54347.6	452.97 µg/L	452.97 ppb		10:33:58
3	Co 228.616†	20991.3	23303.9	463.13 µg/L	463.13 ppb		10:33:58
3	Cr 267.716†	24510.9	26810.5	474.14 µg/L	474.14 ppb		10:33:58
3	Cu 324.752†	73673.9	78752.7	529.81 µg/L	529.81 ppb		10:33:53
3	Fe 238.204 Radial†	1158965.3	1166297.4	190410 µg/L	190410 ppb		10:33:20
3	K 766.490 Radial†	7053.7	6709.0	5298.4 µg/L	5298.4 ppb		10:33:25
3	Mg 279.077 IEC†	347227.3	349371.3	474530 µg/L	474530 ppb		10:33:25
3	Mn 257.610†	313308.2	343738.9	485.52 µg/L	485.52 ppb		10:33:53
3	Mo 202.031†	9131.5	10015.2	494.81 µg/L	494.81 ppb		10:33:58
3	Na 589.592 Radial†	3804.8	3719.0	5070.2 µg/L	5070.2 ppb		10:33:25
3	Ni 231.604†	17395.0	19312.2	450.34 µg/L	450.34 ppb		10:33:58
3	P 214.914†	4344.7	4609.1	2495.8 µg/L	2495.8 ppb		10:33:58
3	Pb 220.353†	3492.0	3894.8	459.88 µg/L	459.88 ppb		10:33:58
3	S 181.975 Axial†	2455.9	2606.9	2549.9 µg/L	2549.9 ppb		10:33:58
3	Sb 206.836†	2057.6	2085.7	486.38 µg/L	486.38 ppb		10:33:58
3	Se 196.026†	5016.7	5537.7	2300.8 µg/L	2300.8 ppb		10:33:58
3	SiO2†	67689.3	73088.0	10806 µg/L	10806 ppb		10:33:53
3	Si 251.611†	96147.5	105432.2	5098.5 µg/L	5098.5 ppb		10:33:53
3	Sn 189.927†	4152.8	4514.1	468.84 µg/L	468.84 ppb		10:33:58
3	Sr 421.552†	91711.3	91993.0	478.53 µg/L	478.53 ppb		10:33:25
3	Ti 334.940†	114908.2	127046.1	501.25 µg/L	501.25 ppb		10:33:53
3	Tl 190.801†	2190.4	2495.7	476.14 µg/L	476.14 ppb		10:33:58
3	U 367.007†	5089.0	4523.8	436.7 µg/L	436.7 ppb		10:33:53
3	V 292.402†	35712.1	39430.2	495.18 µg/L	495.18 ppb		10:33:58
3	Zn 213.857†	68692.4	74493.2	437.93 µg/L	437.93 ppb		10:33:58

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	357116.2	91.013	%	0.2938				0.32%
Sc RADIAL	23643.7	99.4	%	0.05				0.05%
Y 371.029	342882.5	89.318	%	0.2772				0.31%
Ag 328.068†	25111.7	253.43	µg/L	1.045	253.43	ppb	1.045	0.41%
QC value within limits for Ag 328.068 Recovery = 101.37%								
Al 396.153Radial†	1690828.9	492430	µg/L	1163.57	492430	ppb	1163.57	0.24%
QC value within limits for Al 396.153Radial Recovery = 98.49%								
As 188.979†	1340.6	509.97	µg/L	10.529	509.97	ppb	10.529	2.06%
QC value within limits for As 188.979 Recovery = 101.99%								
B 249.677†	-7297.2	529.62	µg/L	2.094	529.62	ppb	2.094	0.40%
QC value within limits for B 249.677 Recovery = 105.92%								
Ba 233.527†	65758.9	478.69	µg/L	2.734	478.69	ppb	2.734	0.57%
QC value within limits for Ba 233.527 Recovery = 95.74%								
Be 313.107†	330204.9	244.12	µg/L	0.450	244.12	ppb	0.450	0.18%
QC value within limits for Be 313.107 Recovery = 97.65%								
Ca 317.933Radial†	2648333.6	480650	µg/L	1235.63	480650	ppb	1235.63	0.26%
QC value within limits for Ca 317.933Radial Recovery = 96.13%								
Cd 226.502†	54620.6	455.35	µg/L	2.992	455.35	ppb	2.992	0.66%

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   QC value within limits for Cd 226.502  Recovery = 91.07%
Co 228.616†            23419.5      465.44 µg/L         3.010      465.44 ppb          3.010   0.65%
   QC value within limits for Co 228.616  Recovery = 93.09%
Cr 267.716†            26993.4      477.30 µg/L         4.176      477.30 ppb          4.176   0.87%
   QC value within limits for Cr 267.716  Recovery = 95.46%
Cu 324.752†            78860.4      530.52 µg/L         0.887      530.52 ppb          0.887   0.17%
   QC value within limits for Cu 324.752  Recovery = 106.10%
Fe 238.204 Radial†   1166489.3      190440 µg/L        542.33      190440 ppb         542.33   0.28%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.22%
K 766.490 Radial†       6713.0      5301.6 µg/L         17.16      5301.6 ppb          17.16   0.32%
   QC value within limits for K 766.490 Radial  Recovery = 106.03%
Mg 279.077 IEC†       349040.9      474080 µg/L       1034.96      474080 ppb        1034.96   0.22%
   QC value within limits for Mg 279.077 IEC  Recovery = 94.82%
Mn 257.610†           344214.4      486.18 µg/L         0.686      486.18 ppb          0.686   0.14%
   QC value within limits for Mn 257.610  Recovery = 97.24%
Mo 202.031†            10065.2      497.26 µg/L         2.133      497.26 ppb          2.133   0.43%
   QC value within limits for Mo 202.031  Recovery = 99.45%
Na 589.592 Radial†      3742.6      5103.9 µg/L         39.49      5103.9 ppb          39.49   0.77%
   QC value within limits for Na 589.592 Radial  Recovery = 102.08%
Ni 231.604†            19419.0      452.82 µg/L         2.836      452.82 ppb          2.836   0.63%
   QC value within limits for Ni 231.604  Recovery = 90.56%
P 214.914†              4634.2      2509.7 µg/L         19.54      2509.7 ppb          19.54   0.78%
   QC value within limits for P 214.914  Recovery = 100.39%
Pb 220.353†             3980.0      468.80 µg/L         8.799      468.80 ppb          8.799   1.88%
   QC value within limits for Pb 220.353  Recovery = 93.76%
S 181.975 Axial†        2620.1      2563.5 µg/L         15.70      2563.5 ppb          15.70   0.61%
   QC value within limits for S 181.975 Axial  Recovery = 102.54%
Sb 206.836†             2084.0      485.92 µg/L         6.780      485.92 ppb          6.780   1.40%
   QC value within limits for Sb 206.836  Recovery = 97.18%
Se 196.026†             5590.0      2321.7 µg/L         18.38      2321.7 ppb          18.38   0.79%
   QC value within limits for Se 196.026  Recovery = 92.87%
SiO2†                  73175.3       10819 µg/L         17.98       10819 ppb          17.98   0.17%
   QC value within limits for SiO2  Recovery = 101.16%
Si 251.611†           105453.3      5099.5 µg/L          3.84      5099.5 ppb           3.84   0.08%
   QC value within limits for Si 251.611  Recovery = 101.99%
Sn 189.927†             4553.2      472.93 µg/L         3.576      472.93 ppb          3.576   0.76%
   QC value within limits for Sn 189.927  Recovery = 94.59%
Sr 421.552†            91741.6      477.21 µg/L         1.221      477.21 ppb          1.221   0.26%
   QC value within limits for Sr 421.552  Recovery = 95.44%
Ti 334.940†           127069.5      501.33 µg/L         0.360      501.33 ppb          0.360   0.07%
   QC value within limits for Ti 334.940  Recovery = 100.27%
Tl 190.801†             2474.2      472.20 µg/L         5.338      472.20 ppb          5.338   1.13%
   QC value within limits for Tl 190.801  Recovery = 94.44%
U 367.007†              4507.3       431.5 µg/L         15.22       431.5 ppb          15.22   3.53%
   QC value within limits for U 367.007  Recovery = 86.29%
V 292.402†             39492.5      495.92 µg/L         2.750      495.92 ppb          2.750   0.55%
   QC value within limits for V 292.402  Recovery = 99.18%
Zn 213.857†            74720.0      439.42 µg/L         3.131      439.42 ppb          3.131   0.71%
   QC value within limits for Zn 213.857  Recovery = 87.88%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 105
Date Collected: 7/24/2018 10:34:06
Data Type: Reprocessed on 7/24/2018 10:49:57

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	349599.7	349599.7	89.098	%			10:35:17
1	Sc RADIAL	23133.8	23133.8	97.3	%			10:34:43
1	Y 371.029	334657.4	334657.4	87.176	%			10:35:17
1	Ag 328.068†	-8780.4	-9133.1	-2.9976	µg/L	-2.9976	ppb	10:35:17
1	Al 396.153Radial†	1629565.0	1675190.6	487430	µg/L	487430	ppb	10:34:38
1	As 188.979†	23948.7	26900.5	10099	µg/L	10099	ppb	10:35:22
1	B 249.677†	1559512.2	1750144.8	52268	µg/L	52268	ppb	10:35:17
1	Ba 233.527†	1737200.7	1949766.0	14321	µg/L	14321	ppb	10:35:17
1	Be 313.107†	-16957.1	-15064.2	4.2660	µg/L	4.2660	ppb	10:35:17
1	Ca 317.933Radial†	2572211.5	2643683.7	479800	µg/L	479800	ppb	10:34:38
1	Cd 226.502†	936953.4	1051963.3	9120.3	µg/L	9120.3	ppb	10:35:17
1	Co 228.616†	416822.5	468064.1	9314.7	µg/L	9314.7	ppb	10:35:17
1	Cr 267.716†	1227956.9	1378090.5	23810	µg/L	23810	ppb	10:35:17
1	Cu 324.752†	2794247.4	3133957.1	20640	µg/L	20640	ppb	10:35:17
1	Fe 238.204 Radial†	2757795.9	2834755.9	462810	µg/L	462810	ppb	10:34:38
1	K 766.490 Radial†	261184.9	268088.1	215080	µg/L	215080	ppb	10:34:38
1	Mg 279.077 IEC†	338024.0	347396.7	471850	µg/L	471850	ppb	10:34:43
1	Mn 257.610†	5943508.6	6670238.7	9232.6	µg/L	9232.6	ppb	10:35:17
1	Mo 202.031†	180788.2	202891.1	9960.1	µg/L	9960.1	ppb	10:35:17
1	Na 589.592 Radial†	332321.1	341490.3	487830	µg/L	487830	ppb	10:34:38
1	Ni 231.604†	348865.3	391751.5	9068.9	µg/L	9068.9	ppb	10:35:17
1	P 214.914†	958.8	911.1	-128.43	µg/L	-128.43	ppb	10:35:22
1	Pb 220.353†	195850.6	219873.1	23086	µg/L	23086	ppb	10:35:17
1	S 181.975 Axial†	45389.2	50851.4	52046	µg/L	52046	ppb	10:35:22
1	Sb 206.836†	1619.8	1642.8	-46.115	µg/L	-46.115	ppb	10:35:22
1	Se 196.026†	-476.3	-509.3	1.9936	µg/L	1.9936	ppb	10:35:22
1	SiO2†	646562.3	724386.2	107230	µg/L	107230	ppb	10:35:17
1	Si 251.611†	931248.7	1044980.9	50555	µg/L	50555	ppb	10:35:17
1	Sn 189.927†	-263.1	-344.5	2.6743	µg/L	2.6743	ppb	10:35:22
1	Sr 421.552†	1726059.1	1773952.5	9383.0	µg/L	9383.0	ppb	10:34:38
1	Ti 334.940†	2350930.5	2639378.3	9979.0	µg/L	9979.0	ppb	10:35:17
1	Tl 190.801†	-364.2	-320.0	4.8672	µg/L	4.8672	ppb	10:35:22
1	U 367.007†	44477.3	48851.5	13480	µg/L	13480	ppb	10:35:17
1	V 292.402†	769867.9	864259.7	10097	µg/L	10097	ppb	10:35:17
1	Zn 213.857†	1923497.3	2157873.7	13984	µg/L	13984	ppb	10:35:17
2	Sc 361.383	350584.0	350584.0	89.349	%			10:35:33
2	Sc RADIAL	23435.2	23435.2	98.6	%			10:34:53
2	Y 371.029	335144.7	335144.7	87.303	%			10:35:33
2	Ag 328.068†	-8692.6	-9007.1	-2.2308	µg/L	-2.2308	ppb	10:35:33
2	Al 396.153Radial†	1643256.3	1667541.2	485210	µg/L	485210	ppb	10:34:48
2	As 188.979†	24027.5	26913.3	10103	µg/L	10103	ppb	10:35:38
2	B 249.677†	1557835.7	1743354.7	52062	µg/L	52062	ppb	10:35:33
2	Ba 233.527†	1736547.7	1943561.4	14275	µg/L	14275	ppb	10:35:33
2	Be 313.107†	-17071.6	-15139.0	4.1108	µg/L	4.1108	ppb	10:35:33
2	Ca 317.933Radial†	2591813.6	2629570.8	477240	µg/L	477240	ppb	10:34:48
2	Cd 226.502†	936244.8	1048218.1	9088.0	µg/L	9088.0	ppb	10:35:33
2	Co 228.616†	416562.5	466459.8	9282.8	µg/L	9282.8	ppb	10:35:33
2	Cr 267.716†	1225471.3	1371439.5	23695	µg/L	23695	ppb	10:35:33
2	Cu 324.752†	2788757.5	3119008.4	20542	µg/L	20542	ppb	10:35:33
2	Fe 238.204 Radial†	2778481.7	2819289.2	460290	µg/L	460290	ppb	10:34:48
2	K 766.490 Radial†	263586.7	267072.5	214270	µg/L	214270	ppb	10:34:48
2	Mg 279.077 IEC†	340319.5	345257.3	468940	µg/L	468940	ppb	10:34:53
2	Mn 257.610†	5940700.0	6648368.1	9202.3	µg/L	9202.3	ppb	10:35:33
2	Mo 202.031†	180302.8	201778.3	9905.5	µg/L	9905.5	ppb	10:35:33
2	Na 589.592 Radial†	334044.8	338846.2	484050	µg/L	484050	ppb	10:34:48
2	Ni 231.604†	348172.0	389876.2	9025.4	µg/L	9025.4	ppb	10:35:33
2	P 214.914†	991.4	944.7	-106.30	µg/L	-106.30	ppb	10:35:38

2	Pb 220.353†	195687.3	219073.3	23003	µg/L	23003	ppb	10:35:33
2	S 181.975 Axial†	45466.0	50794.4	51988	µg/L	51988	ppb	10:35:38
2	Sb 206.836†	1630.1	1649.2	-42.396	µg/L	-42.396	ppb	10:35:38
2	Se 196.026†	-562.4	-604.2	-37.088	µg/L	-37.088	ppb	10:35:38
2	SiO2†	646118.7	721852.5	106850	µg/L	106850	ppb	10:35:33
2	Si 251.611†	930411.1	1041109.2	50368	µg/L	50368	ppb	10:35:33
2	Sn 189.927†	-304.6	-390.0	-2.2765	µg/L	-2.2765	ppb	10:35:38
2	Sr 421.552†	1739192.4	1764461.2	9332.8	µg/L	9332.8	ppb	10:34:48
2	Ti 334.940†	2345818.1	2626248.8	9929.4	µg/L	9929.4	ppb	10:35:33
2	Tl 190.801†	-353.1	-306.4	6.9687	µg/L	6.9687	ppb	10:35:38
2	U 367.007†	44101.9	48291.3	13320	µg/L	13320	ppb	10:35:33
2	V 292.402†	768394.1	860184.4	10049	µg/L	10049	ppb	10:35:33
2	Zn 213.857†	1920359.2	2148300.8	13922	µg/L	13922	ppb	10:35:33
3	Sc 361.383	348609.1	348609.1	88.845	%			10:35:49
3	Sc RADIAL	23312.1	23312.1	98.0	%			10:35:04
3	Y 371.029	333818.9	333818.9	86.957	%			10:35:49
3	Ag 328.068†	-8729.1	-9103.3	-2.4460	µg/L	-2.4460	ppb	10:35:49
3	Al 396.153Radial†	1648775.7	1681973.0	489410	µg/L	489410	ppb	10:34:59
3	As 188.979†	24026.0	27063.8	10160	µg/L	10160	ppb	10:35:54
3	B 249.677†	1559038.4	1754585.4	52403	µg/L	52403	ppb	10:35:49
3	Ba 233.527†	1736499.3	1954517.1	14356	µg/L	14356	ppb	10:35:49
3	Be 313.107†	-16851.5	-14999.5	4.3404	µg/L	4.3404	ppb	10:35:49
3	Ca 317.933Radial†	2598225.9	2649993.9	480950	µg/L	480950	ppb	10:34:59
3	Cd 226.502†	936292.6	1054207.8	9139.7	µg/L	9139.7	ppb	10:35:49
3	Co 228.616†	416486.9	469015.8	9333.7	µg/L	9333.7	ppb	10:35:49
3	Cr 267.716†	1226924.7	1380845.1	23858	µg/L	23858	ppb	10:35:49
3	Cu 324.752†	2790864.6	3139061.4	20674	µg/L	20674	ppb	10:35:49
3	Fe 238.204 Radial†	2789359.8	2845267.7	464530	µg/L	464530	ppb	10:34:59
3	K 766.490 Radial†	264280.2	269191.8	215970	µg/L	215970	ppb	10:34:59
3	Mg 279.077 IEC†	339410.9	346153.4	470160	µg/L	470160	ppb	10:35:04
3	Mn 257.610†	5940475.0	6685779.9	9254.1	µg/L	9254.1	ppb	10:35:49
3	Mo 202.031†	180416.0	203048.8	9967.9	µg/L	9967.9	ppb	10:35:49
3	Na 589.592 Radial†	335404.3	342022.1	488590	µg/L	488590	ppb	10:34:59
3	Ni 231.604†	348714.2	392694.0	9090.7	µg/L	9090.7	ppb	10:35:49
3	P 214.914†	953.1	907.9	-131.84	µg/L	-131.84	ppb	10:35:54
3	Pb 220.353†	195715.6	220345.8	23136	µg/L	23136	ppb	10:35:49
3	S 181.975 Axial†	45448.5	51062.9	52263	µg/L	52263	ppb	10:35:54
3	Sb 206.836†	1674.8	1709.9	-30.731	µg/L	-30.731	ppb	10:35:54
3	Se 196.026†	-556.9	-601.6	-34.144	µg/L	-34.144	ppb	10:35:54
3	SiO2†	645703.6	725481.7	107390	µg/L	107390	ppb	10:35:49
3	Si 251.611†	930466.0	1047070.0	50656	µg/L	50656	ppb	10:35:49
3	Sn 189.927†	-335.4	-426.6	-5.8286	µg/L	-5.8286	ppb	10:35:54
3	Sr 421.552†	1747062.2	1781804.5	9424.5	µg/L	9424.5	ppb	10:34:59
3	Ti 334.940†	2346985.5	2642435.8	9990.6	µg/L	9990.6	ppb	10:35:49
3	Tl 190.801†	-379.6	-338.4	1.6517	µg/L	1.6517	ppb	10:35:54
3	U 367.007†	44384.8	48889.3	13490	µg/L	13490	ppb	10:35:49
3	V 292.402†	769129.2	865883.6	10116	µg/L	10116	ppb	10:35:49
3	Zn 213.857†	1921242.4	2161470.3	14007	µg/L	14007	ppb	10:35:49

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	349597.6	89.097	%	0.2516				0.28%
Sc RADIAL	23293.7	98.0	%	0.64				0.65%
Y 371.029	334540.3	87.145	%	0.1747				0.20%
Ag 328.068†	-9081.2	-2.5581	µg/L	0.39546	-2.5581	ppb	0.39546	15.46%
Al 396.153Radial†	1674901.6	487350	µg/L	2101.40	487350	ppb	2101.40	0.43%
QC value within limits for Al 396.153Radial Recovery = 97.47%								
As 188.979†	26959.2	10120	µg/L	33.95	10120	ppb	33.95	0.34%
QC value within limits for As 188.979 Recovery = 101.20%								
B 249.677†	1749361.6	52244	µg/L	171.42	52244	ppb	171.42	0.33%
QC value within limits for B 249.677 Recovery = 104.49%								
Ba 233.527†	1949281.5	14317	µg/L	40.33	14317	ppb	40.33	0.28%
QC value within limits for Ba 233.527 Recovery = 95.45%								
Be 313.107†	-15067.6	4.2390	µg/L	0.11715	4.2390	ppb	0.11715	2.76%
Ca 317.933Radial†	2641082.8	479330	µg/L	1897.85	479330	ppb	1897.85	0.40%
QC value within limits for Ca 317.933Radial Recovery = 95.87%								
Cd 226.502†	1051463.1	9116.0	µg/L	26.15	9116.0	ppb	26.15	0.29%
QC value within limits for Cd 226.502 Recovery = 91.16%								
Co 228.616†	467846.5	9310.4	µg/L	25.70	9310.4	ppb	25.70	0.28%

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   QC value within limits for Co 228.616  Recovery = 93.10%
Cr 267.716†          1376791.7       23788 µg/L         83.50       23788 ppb          83.50   0.35%
   QC value within limits for Cr 267.716  Recovery = 95.15%
Cu 324.752†          3130675.6       20619 µg/L         68.70       20619 ppb          68.70   0.33%
   QC value within limits for Cu 324.752  Recovery = 103.09%
Fe 238.204 Radial†   2833104.3      462540 µg/L       2133.49      462540 ppb        2133.49   0.46%
   QC value within limits for Fe 238.204 Radial  Recovery = 92.51%
K 766.490 Radial†     268117.5      215110 µg/L        850.21      215110 ppb         850.21   0.40%
   QC value within limits for K 766.490 Radial  Recovery = 107.55%
Mg 279.077 IEC†       346269.1      470320 µg/L       1459.21      470320 ppb        1459.21   0.31%
   QC value within limits for Mg 279.077 IEC  Recovery = 94.06%
Mn 257.610†          6668128.9      9229.7 µg/L         26.07      9229.7 ppb          26.07   0.28%
   QC value within limits for Mn 257.610  Recovery = 92.30%
Mo 202.031†           202572.8      9944.5 µg/L         34.01      9944.5 ppb          34.01   0.34%
   QC value within limits for Mo 202.031  Recovery = 99.45%
Na 589.592 Radial†    340786.2      486820 µg/L       2430.27      486820 ppb        2430.27   0.50%
   QC value within limits for Na 589.592 Radial  Recovery = 97.36%
Ni 231.604†           391440.6      9061.7 µg/L         33.22      9061.7 ppb          33.22   0.37%
   QC value within limits for Ni 231.604  Recovery = 90.62%
P 214.914†               921.2     -122.19 µg/L        13.868     -122.19 ppb         13.868  11.35%
Pb 220.353†           219764.1       23075 µg/L         67.56       23075 ppb          67.56   0.29%
   QC value within limits for Pb 220.353  Recovery = 92.30%
S 181.975 Axial†       50902.9       52099 µg/L        144.52       52099 ppb         144.52   0.28%
   QC value within limits for S 181.975 Axial  Recovery = 104.20%
Sb 206.836†             1667.3     -39.747 µg/L        8.0267     -39.747 ppb         8.0267  20.19%
Se 196.026†             -571.7     -23.080 µg/L       21.7638     -23.080 ppb        21.7638  94.30%
SiO2†                 723906.8      107160 µg/L        275.01      107160 ppb         275.01   0.26%
   QC value within limits for SiO2  Recovery = 100.62%
Si 251.611†          1044386.7       50526 µg/L        146.19       50526 ppb         146.19   0.29%
   QC value within limits for Si 251.611  Recovery = 101.05%
Sn 189.927†             -387.1     -1.8102 µg/L       4.27056     -1.8102 ppb        4.27056 235.91%
Sr 421.552†          1773406.1      9380.1 µg/L         45.94      9380.1 ppb          45.94   0.49%
   QC value within limits for Sr 421.552  Recovery = 93.80%
Ti 334.940†          2636021.0      9966.4 µg/L         32.50      9966.4 ppb          32.50   0.33%
   QC value within limits for Ti 334.940  Recovery = 99.66%
Tl 190.801†             -321.6      4.4959 µg/L       2.67790      4.4959 ppb        2.67790  59.56%
U 367.007†             48677.4       13430 µg/L         97.81       13430 ppb          97.81   0.73%
   QC value less than the lower limit for U 367.007  Recovery = 89.53%
V 292.402†            863442.5       10088 µg/L         34.45       10088 ppb          34.45   0.34%
   QC value within limits for V 292.402  Recovery = 100.88%
Zn 213.857†          2155881.6       13971 µg/L         44.00       13971 ppb          44.00   0.31%
   QC value within limits for Zn 213.857  Recovery = 93.14%
QC Failed.  Continue with analysis.
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Sequence No.: 12
Sample ID: LR2
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 108
Date Collected: 7/24/2018 10:36:02
Data Type: Reprocessed on 7/24/2018 10:49:58

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	398072.4	398072.4	101.45	%			10:37:52
1	Sc RADIAL	24098.6	24098.6	101	%			10:36:54
1	Y 371.029	392635.5	392635.5	102.28	%			10:37:52
1	Ag 328.068†	-225.7	499.3	-1.1124	µg/L	-1.1124	ppb	10:37:57
1	Al 396.153Radial†	42.3	166.4	48.390	µg/L	48.390	ppb	10:36:54
1	As 188.979†	-14.7	6.9	2.5898	µg/L	2.5898	ppb	10:38:17
1	B 249.677†	2707.9	2475.1	62.001	µg/L	62.001	ppb	10:37:57
1	Ba 233.527†	-80.0	-82.7	-0.6084	µg/L	-0.6084	ppb	10:37:57
1	Be 313.107†	-7610.6	-3534.0	-0.1614	µg/L	-0.1614	ppb	10:37:57
1	Ca 317.933Radial†	291.3	-62.1	-11.277	µg/L	-11.277	ppb	10:36:54
1	Cd 226.502†	528151.8	520957.9	4542.4	µg/L	4542.4	ppb	10:37:52
1	Co 228.616†	122471.3	120957.2	2408.0	µg/L	2408.0	ppb	10:37:57
1	Cr 267.716†	719.8	586.5	-0.3974	µg/L	-0.3974	ppb	10:38:17
1	Cu 324.752†	1359.3	-863.1	0.2756	µg/L	0.2756	ppb	10:37:57
1	Fe 238.204 Radial†	101.0	56.0	9.1403	µg/L	9.1403	ppb	10:36:54
1	K 766.490 Radial†	558.6	161.6	129.80	µg/L	129.80	ppb	10:36:34
1	Mg 279.077 IEC†	21.8	-44.2	-60.100	µg/L	-60.100	ppb	10:36:54
1	Mn 257.610†	3435595.8	3385912.8	4672.0	µg/L	4672.0	ppb	10:37:52
1	Mo 202.031†	50.3	30.8	1.5089	µg/L	1.5089	ppb	10:38:17
1	Na 589.592 Radial†	135.5	23.8	33.959	µg/L	33.959	ppb	10:36:54
1	Ni 231.604†	219043.0	216107.5	4999.3	µg/L	4999.3	ppb	10:37:57
1	P 214.914†	142.5	-24.5	-13.621	µg/L	-13.621	ppb	10:38:17
1	Pb 220.353†	109735.8	108223.6	11336	µg/L	11336	ppb	10:37:57
1	S 181.975 Axial†	99.2	6.0	0.5868	µg/L	0.5868	ppb	10:38:17
1	Sb 206.836†	168.4	-9.2	-2.4843	µg/L	-2.4843	ppb	10:38:17
1	Se 196.026†	-26.2	-0.6	-0.2508	µg/L	-0.2508	ppb	10:38:17
1	SiO2†	1494.7	181.9	27.002	µg/L	27.002	ppb	10:37:57
1	Si 251.611†	103.8	-115.9	-5.6544	µg/L	-5.6544	ppb	10:38:17
1	Sn 189.927†	49.4	-0.5	-0.0288	µg/L	-0.0288	ppb	10:38:17
1	Sr 421.552†	379.5	72.5	0.3839	µg/L	0.3839	ppb	10:36:34
1	Ti 334.940†	818.7	1587.7	1.5238	µg/L	1.5238	ppb	10:37:57
1	Tl 190.801†	-128.1	-37.5	-5.6083	µg/L	-5.6083	ppb	10:38:17
1	U 367.007†	31922.1	30397.3	9664	µg/L	9664	ppb	10:37:57
1	V 292.402†	-561.8	-365.3	1.4975	µg/L	1.4975	ppb	10:37:57
1	Zn 213.857†	399232.0	392532.3	2544.0	µg/L	2544.0	ppb	10:37:57
2	Sc 361.383	397540.0	397540.0	101.32	%			10:38:23
2	Sc RADIAL	24071.6	24071.6	101	%			10:37:19
2	Y 371.029	392071.4	392071.4	102.13	%			10:38:23
2	Ag 328.068†	-250.0	475.0	-1.3325	µg/L	-1.3325	ppb	10:38:28
2	Al 396.153Radial†	35.3	159.4	46.364	µg/L	46.364	ppb	10:37:19
2	As 188.979†	-15.1	6.5	2.4412	µg/L	2.4412	ppb	10:38:48
2	B 249.677†	2278.5	2054.9	49.846	µg/L	49.846	ppb	10:38:28
2	Ba 233.527†	-106.9	-109.4	-0.8043	µg/L	-0.8043	ppb	10:38:28
2	Be 313.107†	-7502.7	-3437.5	-0.0908	µg/L	-0.0908	ppb	10:38:28
2	Ca 317.933Radial†	256.2	-96.4	-17.499	µg/L	-17.499	ppb	10:37:19
2	Cd 226.502†	531481.7	524941.7	4577.1	µg/L	4577.1	ppb	10:38:23
2	Co 228.616†	122463.2	121110.9	2411.0	µg/L	2411.0	ppb	10:38:28
2	Cr 267.716†	679.5	547.7	-1.0903	µg/L	-1.0903	ppb	10:38:48
2	Cu 324.752†	1330.7	-889.6	0.1045	µg/L	0.1045	ppb	10:38:28
2	Fe 238.204 Radial†	73.4	28.8	4.7022	µg/L	4.7022	ppb	10:37:19
2	K 766.490 Radial†	367.9	-26.2	-21.024	µg/L	-21.024	ppb	10:36:59
2	Mg 279.077 IEC†	32.4	-33.8	-45.869	µg/L	-45.869	ppb	10:37:19
2	Mn 257.610†	3452652.1	3407282.6	4701.5	µg/L	4701.5	ppb	10:38:23
2	Mo 202.031†	49.0	29.5	1.4473	µg/L	1.4473	ppb	10:38:48
2	Na 589.592 Radial†	123.7	12.2	17.432	µg/L	17.432	ppb	10:37:19
2	Ni 231.604†	219305.6	216655.8	5011.9	µg/L	5011.9	ppb	10:38:28
2	P 214.914†	152.0	-14.9	-8.2746	µg/L	-8.2746	ppb	10:38:48

2	Pb 220.353†	109993.3	108622.7	11378	µg/L	11378	ppb	10:38:28
2	S 181.975 Axial†	97.3	4.3	-1.2345	µg/L	-1.2345	ppb	10:38:48
2	Sb 206.836†	164.1	-13.2	-3.4640	µg/L	-3.4640	ppb	10:38:48
2	Se 196.026†	-35.5	-9.8	-3.9175	µg/L	-3.9175	ppb	10:38:48
2	SiO2†	1436.0	125.9	18.684	µg/L	18.684	ppb	10:38:28
2	Si 251.611†	117.4	-102.4	-4.9961	µg/L	-4.9961	ppb	10:38:48
2	Sn 189.927†	47.5	-2.3	-0.2160	µg/L	-0.2160	ppb	10:38:48
2	Sr 421.552†	437.1	129.8	0.6875	µg/L	0.6875	ppb	10:36:59
2	Ti 334.940†	770.7	1541.4	1.3463	µg/L	1.3463	ppb	10:38:28
2	Tl 190.801†	-127.2	-36.8	-5.4850	µg/L	-5.4850	ppb	10:38:48
2	U 367.007†	31897.1	30414.7	9669	µg/L	9669	ppb	10:38:28
2	V 292.402†	-509.5	-314.4	2.0803	µg/L	2.0803	ppb	10:38:28
2	Zn 213.857†	399701.7	393522.8	2550.5	µg/L	2550.5	ppb	10:38:28
3	Sc 361.383	399606.5	399606.5	101.84	%			10:38:54
3	Sc RADIAL	24036.4	24036.4	101	%			10:37:44
3	Y 371.029	393874.5	393874.5	102.60	%			10:38:54
3	Ag 328.068†	-248.0	478.2	-1.2914	µg/L	-1.2914	ppb	10:38:59
3	Al 396.153Radial†	-4.9	119.8	34.798	µg/L	34.798	ppb	10:37:44
3	As 188.979†	-25.8	-4.0	-1.4241	µg/L	-1.4241	ppb	10:39:19
3	B 249.677†	1986.5	1756.6	41.219	µg/L	41.219	ppb	10:38:59
3	Ba 233.527†	-88.5	-90.8	-0.6674	µg/L	-0.6674	ppb	10:38:59
3	Be 313.107†	-7606.9	-3501.6	-0.1424	µg/L	-0.1424	ppb	10:38:59
3	Ca 317.933Radial†	251.7	-100.5	-18.246	µg/L	-18.246	ppb	10:37:44
3	Cd 226.502†	534150.5	524849.5	4576.3	µg/L	4576.3	ppb	10:38:54
3	Co 228.616†	123381.2	121387.2	2416.5	µg/L	2416.5	ppb	10:38:59
3	Cr 267.716†	646.5	511.9	-1.6860	µg/L	-1.6860	ppb	10:39:19
3	Cu 324.752†	1417.5	-811.1	0.6069	µg/L	0.6069	ppb	10:38:59
3	Fe 238.204 Radial†	78.1	33.6	5.4898	µg/L	5.4898	ppb	10:37:44
3	K 766.490 Radial†	434.3	40.1	32.190	µg/L	32.190	ppb	10:37:24
3	Mg 279.077 IEC†	28.2	-37.8	-51.380	µg/L	-51.380	ppb	10:37:44
3	Mn 257.610†	3463555.1	3400365.4	4691.9	µg/L	4691.9	ppb	10:38:54
3	Mo 202.031†	58.1	38.2	1.8739	µg/L	1.8739	ppb	10:39:19
3	Na 589.592 Radial†	108.4	-2.8	-3.9762	µg/L	-3.9762	ppb	10:37:44
3	Ni 231.604†	220850.2	217053.0	5021.1	µg/L	5021.1	ppb	10:38:59
3	P 214.914†	150.6	-17.1	-9.5048	µg/L	-9.5048	ppb	10:39:19
3	Pb 220.353†	110790.1	108843.6	11401	µg/L	11401	ppb	10:38:59
3	S 181.975 Axial†	102.5	8.9	3.4928	µg/L	3.4928	ppb	10:39:19
3	Sb 206.836†	156.6	-21.5	-5.4741	µg/L	-5.4741	ppb	10:39:19
3	Se 196.026†	-31.1	-5.3	-2.1275	µg/L	-2.1275	ppb	10:39:19
3	SiO2†	1435.4	118.0	17.475	µg/L	17.475	ppb	10:38:59
3	Si 251.611†	104.3	-115.8	-5.6544	µg/L	-5.6544	ppb	10:39:19
3	Sn 189.927†	48.2	-1.8	-0.1641	µg/L	-0.1641	ppb	10:39:19
3	Sr 421.552†	397.3	91.1	0.4827	µg/L	0.4827	ppb	10:37:24
3	Ti 334.940†	984.8	1747.7	2.1360	µg/L	2.1360	ppb	10:38:59
3	Tl 190.801†	-126.9	-35.8	-5.3154	µg/L	-5.3154	ppb	10:39:19
3	U 367.007†	31993.7	30346.8	9648	µg/L	9648	ppb	10:38:59
3	V 292.402†	-527.3	-329.3	1.9003	µg/L	1.9003	ppb	10:38:59
3	Zn 213.857†	402948.4	394670.7	2557.9	µg/L	2557.9	ppb	10:38:59

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	398406.3	101.54	%	0.273				0.27%
Sc RADIAL	24068.9	101	%	0.13				0.13%
Y 371.029	392860.4	102.34	%	0.240				0.23%
Ag 328.068†	484.2	-1.2454	µg/L	0.11704	-1.2454	ppb	0.11704	9.40%
Al 396.153Radial†	148.5	43.184	µg/L	7.3328	43.184	ppb	7.3328	16.98%
As 188.979†	3.1	1.2023	µg/L	2.27573	1.2023	ppb	2.27573	189.28%
B 249.677†	2095.5	51.022	µg/L	10.4406	51.022	ppb	10.4406	20.46%
Ba 233.527†	-94.3	-0.6934	µg/L	0.10054	-0.6934	ppb	0.10054	14.50%
Be 313.107†	-3491.0	-0.1315	µg/L	0.03654	-0.1315	ppb	0.03654	27.78%
Ca 317.933Radial†	-86.4	-15.674	µg/L	3.8264	-15.674	ppb	3.8264	24.41%
Cd 226.502†	523583.1	4565.3	µg/L	19.82	4565.3	ppb	19.82	0.43%
Co 228.616†	121151.8	2411.8	µg/L	4.34	2411.8	ppb	4.34	0.18%
Cr 267.716†	548.7	-1.0579	µg/L	0.64489	-1.0579	ppb	0.64489	60.96%
Cu 324.752†	-854.6	0.3290	µg/L	0.25542	0.3290	ppb	0.25542	77.64%
Fe 238.204 Radial†	39.5	6.4441	µg/L	2.36792	6.4441	ppb	2.36792	36.75%
K 766.490 Radial†	58.5	46.988	µg/L	76.4917	46.988	ppb	76.4917	162.79%
Mg 279.077 IEC†	-38.6	-52.450	µg/L	7.1758	-52.450	ppb	7.1758	13.68%
Mn 257.610†	3397853.6	4688.5	µg/L	15.05	4688.5	ppb	15.05	0.32%

Mo 202.031†	32.8	1.6100	µg/L	0.23060	1.6100	ppb	0.23060	14.32%
Na 589.592 Radial†	11.1	15.805	µg/L	19.0196	15.805	ppb	19.0196	120.34%
Ni 231.604†	216605.4	5010.8	µg/L	10.98	5010.8	ppb	10.98	0.22%
P 214.914†	-18.8	-10.467	µg/L	2.8001	-10.467	ppb	2.8001	26.75%
Pb 220.353†	108563.3	11372	µg/L	32.94	11372	ppb	32.94	0.29%
S 181.975 Axial†	6.4	0.9483	µg/L	2.38429	0.9483	ppb	2.38429	251.42%
Sb 206.836†	-14.6	-3.8075	µg/L	1.52420	-3.8075	ppb	1.52420	40.03%
Se 196.026†	-5.3	-2.0986	µg/L	1.83356	-2.0986	ppb	1.83356	87.37%
SiO2†	141.9	21.054	µg/L	5.1867	21.054	ppb	5.1867	24.64%
Si 251.611†	-111.3	-5.4350	µg/L	0.38005	-5.4350	ppb	0.38005	6.99%
Sn 189.927†	-1.5	-0.1363	µg/L	0.09665	-0.1363	ppb	0.09665	70.92%
Sr 421.552†	97.8	0.5181	µg/L	0.15483	0.5181	ppb	0.15483	29.89%
Ti 334.940†	1625.6	1.6687	µg/L	0.41432	1.6687	ppb	0.41432	24.83%
Tl 190.801†	-36.7	-5.4696	µg/L	0.14709	-5.4696	ppb	0.14709	2.69%
U 367.007†	30386.3	9660	µg/L	11.22	9660	ppb	11.22	0.12%
QC value within limits for U 367.007 Recovery = 96.60%								
V 292.402†	-336.4	1.8260	µg/L	0.29842	1.8260	ppb	0.29842	16.34%
Zn 213.857†	393575.3	2550.8	µg/L	6.95	2550.8	ppb	6.95	0.27%

All analyte(s) passed QC.

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Sequence No.: 13
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 7
Date Collected: 7/24/2018 10:39:27
Data Type: Reprocessed on 7/24/2018 10:49:59

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	399084.5	399084.5	101.71	%			10:40:33
1	Sc RADIAL	24595.0	24595.0	103	%			10:40:05
1	Y 371.029	386763.0	386763.0	100.75	%			10:40:33
1	Ag 328.068†	56586.5	56357.3	506.41	µg/L	506.41	ppb	10:40:33
1	Al 396.153Radial†	18372.5	17888.0	5186.3	µg/L	5186.3	ppb	10:40:05
1	As 188.979†	1368.5	1366.9	510.05	µg/L	510.05	ppb	10:40:53
1	B 249.677†	18581.3	18075.0	539.24	µg/L	539.24	ppb	10:40:33
1	Ba 233.527†	68970.1	67807.1	498.31	µg/L	498.31	ppb	10:40:33
1	Be 313.107†	699183.2	691401.1	498.42	µg/L	498.42	ppb	10:40:33
1	Ca 317.933Radial†	29405.9	28081.6	5096.5	µg/L	5096.5	ppb	10:40:05
1	Cd 226.502†	58140.3	57524.7	500.95	µg/L	500.95	ppb	10:40:33
1	Co 228.616†	25090.5	24906.8	495.80	µg/L	495.80	ppb	10:40:53
1	Cr 267.716†	28989.1	28379.0	489.97	µg/L	489.97	ppb	10:40:53
1	Cu 324.752†	78956.5	75426.7	496.30	µg/L	496.30	ppb	10:40:33
1	Fe 238.204 Radial†	31961.4	30858.3	5038.0	µg/L	5038.0	ppb	10:40:05
1	K 766.490 Radial†	6782.3	6167.9	4951.4	µg/L	4951.4	ppb	10:40:05
1	Mg 279.077 IEC†	4006.3	3807.7	5171.8	µg/L	5171.8	ppb	10:40:05
1	Mn 257.610†	369017.3	362280.0	500.20	µg/L	500.20	ppb	10:40:33
1	Mo 202.031†	10517.5	10321.9	506.36	µg/L	506.36	ppb	10:40:53
1	Na 589.592 Radial†	7335.4	6982.3	9980.2	µg/L	9980.2	ppb	10:40:05
1	Ni 231.604†	21483.8	21320.7	493.18	µg/L	493.18	ppb	10:40:53
1	P 214.914†	4687.5	4443.8	2467.7	µg/L	2467.7	ppb	10:40:53
1	Pb 220.353†	4804.2	4781.2	501.48	µg/L	501.48	ppb	10:40:53
1	S 181.975 Axial†	1095.0	984.8	1009.3	µg/L	1009.3	ppb	10:40:53
1	Sb 206.836†	2229.5	2016.8	494.59	µg/L	494.59	ppb	10:40:53
1	Se 196.026†	1253.9	1258.1	505.71	µg/L	505.71	ppb	10:40:53
1	SiO2†	37697.6	35772.7	5296.9	µg/L	5296.9	ppb	10:40:33
1	Si 251.611†	52289.0	51192.0	2477.6	µg/L	2477.6	ppb	10:40:33
1	Sn 189.927†	4986.2	4853.2	508.81	µg/L	508.81	ppb	10:40:53
1	Sr 421.552†	96121.8	92633.5	490.32	µg/L	490.32	ppb	10:40:00
1	Ti 334.940†	135134.4	133644.1	504.80	µg/L	504.80	ppb	10:40:33
1	Tl 190.801†	2679.1	2722.9	500.97	µg/L	500.97	ppb	10:40:53
1	U 367.007†	2655.6	1542.8	468.3	µg/L	468.3	ppb	10:40:33
1	V 292.402†	43980.4	43429.7	502.67	µg/L	502.67	ppb	10:40:33
1	Zn 213.857†	77867.9	75570.7	491.19	µg/L	491.19	ppb	10:40:33
2	Sc 361.383	395700.8	395700.8	100.85	%			10:40:59
2	Sc RADIAL	24517.3	24517.3	103	%			10:40:15
2	Y 371.029	383186.9	383186.9	99.817	%			10:40:59
2	Ag 328.068†	56011.8	56263.2	505.57	µg/L	505.57	ppb	10:40:59
2	Al 396.153Radial†	18313.8	17887.5	5185.8	µg/L	5185.8	ppb	10:40:15
2	As 188.979†	1363.5	1373.4	512.53	µg/L	512.53	ppb	10:41:19
2	B 249.677†	18351.5	18003.3	537.33	µg/L	537.33	ppb	10:40:59
2	Ba 233.527†	68303.3	67725.8	497.71	µg/L	497.71	ppb	10:40:59
2	Be 313.107†	691821.8	689979.9	497.40	µg/L	497.40	ppb	10:40:59
2	Ca 317.933Radial†	29528.3	28290.5	5134.4	µg/L	5134.4	ppb	10:40:15
2	Cd 226.502†	57384.3	57263.9	498.67	µg/L	498.67	ppb	10:40:59
2	Co 228.616†	25158.4	25185.0	501.34	µg/L	501.34	ppb	10:41:19
2	Cr 267.716†	29131.8	28764.2	496.62	µg/L	496.62	ppb	10:41:19
2	Cu 324.752†	78213.3	75353.6	495.82	µg/L	495.82	ppb	10:40:59
2	Fe 238.204 Radial†	32150.3	31139.4	5083.9	µg/L	5083.9	ppb	10:40:15
2	K 766.490 Radial†	6760.5	6167.5	4951.1	µg/L	4951.1	ppb	10:40:15
2	Mg 279.077 IEC†	4025.7	3838.9	5214.1	µg/L	5214.1	ppb	10:40:15
2	Mn 257.610†	365550.6	361944.9	499.74	µg/L	499.74	ppb	10:40:59
2	Mo 202.031†	10582.6	10474.9	513.87	µg/L	513.87	ppb	10:41:19
2	Na 589.592 Radial†	7401.1	7068.4	10103	µg/L	10103	ppb	10:40:15
2	Ni 231.604†	21546.7	21563.7	498.80	µg/L	498.80	ppb	10:41:19
2	P 214.914†	4691.8	4487.5	2492.0	µg/L	2492.0	ppb	10:41:19

2	Pb 220.353†	4858.0	4874.9	511.30 µg/L	511.30 ppb	10:41:19
2	S 181.975 Axial†	1096.7	995.8	1020.5 µg/L	1020.5 ppb	10:41:19
2	Sb 206.836†	2252.8	2058.6	504.87 µg/L	504.87 ppb	10:41:19
2	Se 196.026†	1238.6	1253.4	503.86 µg/L	503.86 ppb	10:41:19
2	SiO2†	37384.6	35779.2	5297.5 µg/L	5297.5 ppb	10:40:59
2	Si 251.611†	51705.2	51052.7	2470.7 µg/L	2470.7 ppb	10:40:59
2	Sn 189.927†	5013.6	4922.3	516.02 µg/L	516.02 ppb	10:41:19
2	Sr 421.552†	96865.5	93649.4	495.70 µg/L	495.70 ppb	10:40:10
2	Ti 334.940†	134014.1	133669.4	504.89 µg/L	504.89 ppb	10:40:59
2	Tl 190.801†	2679.3	2745.6	505.13 µg/L	505.13 ppb	10:41:19
2	U 367.007†	2655.1	1564.6	475.0 µg/L	475.0 ppb	10:40:59
2	V 292.402†	43467.1	43290.5	501.17 µg/L	501.17 ppb	10:40:59
2	Zn 213.857†	76967.0	75332.1	489.59 µg/L	489.59 ppb	10:40:59
3	Sc 361.383	398002.1	398002.1	101.43 %		10:41:25
3	Sc RADIAL	24464.6	24464.6	103 %		10:40:25
3	Y 371.029	385805.5	385805.5	100.50 %		10:41:25
3	Ag 328.068†	56354.5	56279.9	505.72 µg/L	505.72 ppb	10:41:25
3	Al 396.153Radial†	18335.1	17946.4	5203.1 µg/L	5203.1 ppb	10:40:25
3	As 188.979†	1368.0	1370.0	511.24 µg/L	511.24 ppb	10:41:45
3	B 249.677†	18428.9	17974.4	536.51 µg/L	536.51 ppb	10:41:25
3	Ba 233.527†	69031.9	68052.5	500.11 µg/L	500.11 ppb	10:41:25
3	Be 313.107†	697887.1	691992.9	498.85 µg/L	498.85 ppb	10:41:25
3	Ca 317.933Radial†	29421.9	28248.7	5126.9 µg/L	5126.9 ppb	10:40:25
3	Cd 226.502†	57926.5	57469.4	500.46 µg/L	500.46 ppb	10:41:25
3	Co 228.616†	25155.8	25038.2	498.42 µg/L	498.42 ppb	10:41:45
3	Cr 267.716†	29104.5	28570.2	493.28 µg/L	493.28 ppb	10:41:45
3	Cu 324.752†	78998.3	75679.0	497.96 µg/L	497.96 ppb	10:41:25
3	Fe 238.204 Radial†	32081.0	31139.3	5083.9 µg/L	5083.9 ppb	10:40:25
3	K 766.490 Radial†	6775.4	6196.1	4974.1 µg/L	4974.1 ppb	10:40:25
3	Mg 279.077 IEC†	4034.5	3855.8	5237.1 µg/L	5237.1 ppb	10:40:25
3	Mn 257.610†	368974.7	363224.7	501.50 µg/L	501.50 ppb	10:41:25
3	Mo 202.031†	10566.8	10398.6	510.13 µg/L	510.13 ppb	10:41:45
3	Na 589.592 Radial†	7384.5	7067.8	10102 µg/L	10102 ppb	10:40:25
3	Ni 231.604†	21594.1	21486.9	497.02 µg/L	497.02 ppb	10:41:45
3	P 214.914†	4706.5	4475.1	2485.1 µg/L	2485.1 ppb	10:41:45
3	Pb 220.353†	4818.1	4807.7	504.26 µg/L	504.26 ppb	10:41:45
3	S 181.975 Axial†	1092.2	985.1	1009.5 µg/L	1009.5 ppb	10:41:45
3	Sb 206.836†	2251.4	2044.4	501.38 µg/L	501.38 ppb	10:41:45
3	Se 196.026†	1246.2	1253.8	504.01 µg/L	504.01 ppb	10:41:45
3	SiO2†	37688.7	35864.6	5310.4 µg/L	5310.4 ppb	10:41:25
3	Si 251.611†	52279.6	51322.6	2483.9 µg/L	2483.9 ppb	10:41:25
3	Sn 189.927†	5016.2	4896.2	513.29 µg/L	513.29 ppb	10:41:45
3	Sr 421.552†	96533.9	93529.5	495.06 µg/L	495.06 ppb	10:40:20
3	Ti 334.940†	135122.9	133994.1	506.12 µg/L	506.12 ppb	10:41:25
3	Tl 190.801†	2676.2	2727.2	501.77 µg/L	501.77 ppb	10:41:45
3	U 367.007†	2664.4	1558.6	473.1 µg/L	473.1 ppb	10:41:25
3	V 292.402†	43736.5	43306.8	501.32 µg/L	501.32 ppb	10:41:25
3	Zn 213.857†	77646.3	75560.5	491.09 µg/L	491.09 ppb	10:41:25

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	397595.8	101.33	%	0.440				0.43%
Sc RADIAL	24525.7	103	%	0.28				0.27%
Y 371.029	385251.8	100.36	%	0.482				0.48%
Ag 328.068†	56300.1	505.90	µg/L	0.450	505.90	ppb	0.450	0.09%
QC value within limits for Ag 328.068 Recovery = 101.18%								
Al 396.153Radial†	17907.3	5191.7	µg/L	9.87	5191.7	ppb	9.87	0.19%
QC value within limits for Al 396.153Radial Recovery = 103.83%								
As 188.979†	1370.1	511.27	µg/L	1.242	511.27	ppb	1.242	0.24%
QC value within limits for As 188.979 Recovery = 102.25%								
B 249.677†	18017.6	537.70	µg/L	1.403	537.70	ppb	1.403	0.26%
QC value within limits for B 249.677 Recovery = 107.54%								
Ba 233.527†	67861.8	498.71	µg/L	1.250	498.71	ppb	1.250	0.25%
QC value within limits for Ba 233.527 Recovery = 99.74%								
Be 313.107†	691124.6	498.23	µg/L	0.744	498.23	ppb	0.744	0.15%
QC value within limits for Be 313.107 Recovery = 99.65%								
Ca 317.933Radial†	28206.9	5119.3	µg/L	20.06	5119.3	ppb	20.06	0.39%
QC value within limits for Ca 317.933Radial Recovery = 102.39%								
Cd 226.502†	57419.3	500.03	µg/L	1.198	500.03	ppb	1.198	0.24%

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   QC value within limits for Cd 226.502  Recovery = 100.01%
Co 228.616†            25043.3      498.52 µg/L         2.775      498.52 ppb          2.775   0.56%
   QC value within limits for Co 228.616  Recovery = 99.70%
Cr 267.716†            28571.1      493.29 µg/L         3.325      493.29 ppb          3.325   0.67%
   QC value within limits for Cr 267.716  Recovery = 98.66%
Cu 324.752†            75486.4      496.69 µg/L         1.124      496.69 ppb          1.124   0.23%
   QC value within limits for Cu 324.752  Recovery = 99.34%
Fe 238.204 Radial†     31045.6      5068.6 µg/L         26.49      5068.6 ppb          26.49   0.52%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.37%
K 766.490 Radial†       6177.2      4958.9 µg/L         13.18      4958.9 ppb          13.18   0.27%
   QC value within limits for K 766.490 Radial  Recovery = 99.18%
Mg 279.077 IEC†         3834.1      5207.6 µg/L         33.11      5207.6 ppb          33.11   0.64%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.15%
Mn 257.610†           362483.2      500.48 µg/L         0.916      500.48 ppb          0.916   0.18%
   QC value within limits for Mn 257.610  Recovery = 100.10%
Mo 202.031†            10398.5      510.12 µg/L         3.754      510.12 ppb          3.754   0.74%
   QC value within limits for Mo 202.031  Recovery = 102.02%
Na 589.592 Radial†      7039.5       10062 µg/L         70.83       10062 ppb          70.83   0.70%
   QC value within limits for Na 589.592 Radial  Recovery = 100.62%
Ni 231.604†            21457.1      496.33 µg/L         2.873      496.33 ppb          2.873   0.58%
   QC value within limits for Ni 231.604  Recovery = 99.27%
P 214.914†              4468.8      2481.6 µg/L         12.52      2481.6 ppb          12.52   0.50%
   QC value within limits for P 214.914  Recovery = 99.26%
Pb 220.353†             4821.2      505.68 µg/L         5.064      505.68 ppb          5.064   1.00%
   QC value within limits for Pb 220.353  Recovery = 101.14%
S 181.975 Axial†         988.5      1013.1 µg/L          6.44      1013.1 ppb           6.44   0.64%
   QC value within limits for S 181.975 Axial  Recovery = 101.31%
Sb 206.836†             2039.9      500.28 µg/L         5.225      500.28 ppb          5.225   1.04%
   QC value within limits for Sb 206.836  Recovery = 100.06%
Se 196.026†             1255.1      504.52 µg/L         1.027      504.52 ppb          1.027   0.20%
   QC value within limits for Se 196.026  Recovery = 100.90%
SiO2†                  35805.5      5301.6 µg/L          7.62      5301.6 ppb           7.62   0.14%
   QC value within limits for SiO2  Recovery = 99.14%
Si 251.611†            51189.1      2477.4 µg/L          6.59      2477.4 ppb           6.59   0.27%
   QC value within limits for Si 251.611  Recovery = 99.10%
Sn 189.927†             4890.6      512.71 µg/L         3.642      512.71 ppb          3.642   0.71%
   QC value within limits for Sn 189.927  Recovery = 102.54%
Sr 421.552†            93270.8      493.69 µg/L         2.939      493.69 ppb          2.939   0.60%
   QC value within limits for Sr 421.552  Recovery = 98.74%
Ti 334.940†           133769.2      505.27 µg/L         0.737      505.27 ppb          0.737   0.15%
   QC value within limits for Ti 334.940  Recovery = 101.05%
Tl 190.801†             2731.9      502.62 µg/L         2.209      502.62 ppb          2.209   0.44%
   QC value within limits for Tl 190.801  Recovery = 100.52%
U 367.007†              1555.3       472.1 µg/L          3.46       472.1 ppb           3.46   0.73%
   QC value within limits for U 367.007  Recovery = 94.43%
V 292.402†             43342.3      501.72 µg/L         0.828      501.72 ppb          0.828   0.17%
   QC value within limits for V 292.402  Recovery = 100.34%
Zn 213.857†            75487.7      490.62 µg/L         0.898      490.62 ppb          0.898   0.18%
   QC value within limits for Zn 213.857  Recovery = 98.12%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 8
Date Collected: 7/24/2018 10:41:54
Data Type: Reprocessed on 7/24/2018 10:50:01

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	401220.8	401220.8	102.25	%			10:43:42
1	Sc RADIAL	24337.4	24337.4	102	%			10:42:45
1	Y 371.029	392610.8	392610.8	102.27	%			10:43:42
1	Ag 328.068†	-825.1	-85.2	-0.7778	µg/L	-0.7778	ppb	10:43:42
1	Al 396.153Radial†	-147.3	-19.4	-5.6865	µg/L	-5.6865	ppb	10:42:45
1	As 188.979†	-21.5	0.3	0.1174	µg/L	0.1174	ppb	10:44:02
1	B 249.677†	695.3	485.9	14.032	µg/L	14.032	ppb	10:44:02
1	Ba 233.527†	-15.1	-18.6	-0.1371	µg/L	-0.1371	ppb	10:44:02
1	Be 313.107†	-4000.6	55.3	0.0463	µg/L	0.0463	ppb	10:43:42
1	Ca 317.933Radial†	363.5	5.6	1.0226	µg/L	1.0226	ppb	10:42:45
1	Cd 226.502†	-301.0	67.1	0.5844	µg/L	0.5844	ppb	10:44:02
1	Co 228.616†	-233.5	9.6	0.1921	µg/L	0.1921	ppb	10:44:02
1	Cr 267.716†	122.1	-3.5	-0.0817	µg/L	-0.0817	ppb	10:44:02
1	Cu 324.752†	2220.7	-31.2	-0.1898	µg/L	-0.1898	ppb	10:43:42
1	Fe 238.204 Radial†	62.7	17.6	2.8773	µg/L	2.8773	ppb	10:42:45
1	K 766.490 Radial†	372.7	-25.4	-20.394	µg/L	-20.394	ppb	10:42:25
1	Mg 279.077 IEC†	63.3	-3.9	-5.2403	µg/L	-5.2403	ppb	10:42:45
1	Mn 257.610†	603.7	54.5	0.0754	µg/L	0.0754	ppb	10:44:02
1	Mo 202.031†	40.1	20.4	0.9986	µg/L	0.9986	ppb	10:44:02
1	Na 589.592 Radial†	121.9	9.1	13.007	µg/L	13.007	ppb	10:42:45
1	Ni 231.604†	-203.8	-1.4	-0.0325	µg/L	-0.0325	ppb	10:44:02
1	P 214.914†	149.4	-18.8	-10.525	µg/L	-10.525	ppb	10:44:02
1	Pb 220.353†	-43.2	15.4	1.5900	µg/L	1.5900	ppb	10:44:02
1	S 181.975 Axial†	95.9	2.0	2.0553	µg/L	2.0553	ppb	10:44:02
1	Sb 206.836†	158.1	-20.6	-5.0820	µg/L	-5.0820	ppb	10:44:02
1	Se 196.026†	-29.3	-3.5	-1.3929	µg/L	-1.3929	ppb	10:44:02
1	SiO2†	1151.2	-165.7	-24.697	µg/L	-24.697	ppb	10:44:02
1	Si 251.611†	-5.9	-224.0	-10.897	µg/L	-10.897	ppb	10:44:02
1	Sn 189.927†	40.8	-9.3	-0.9716	µg/L	-0.9716	ppb	10:44:02
1	Sr 421.552†	327.6	18.1	0.0958	µg/L	0.0958	ppb	10:42:25
1	Ti 334.940†	-763.6	33.9	0.1159	µg/L	0.1159	ppb	10:43:42
1	Tl 190.801†	-101.5	-10.5	-1.9091	µg/L	-1.9091	ppb	10:44:02
1	U 367.007†	1176.9	82.8	26.30	µg/L	26.30	ppb	10:43:42
1	V 292.402†	-168.1	24.0	0.2991	µg/L	0.2991	ppb	10:43:42
1	Zn 213.857†	1048.6	36.9	0.2416	µg/L	0.2416	ppb	10:44:02
2	Sc 361.383	400476.3	400476.3	102.06	%			10:44:07
2	Sc RADIAL	24162.6	24162.6	102	%			10:43:10
2	Y 371.029	391904.3	391904.3	102.09	%			10:44:07
2	Ag 328.068†	-745.5	-8.7	-0.0698	µg/L	-0.0698	ppb	10:44:07
2	Al 396.153Radial†	-113.9	12.5	3.6275	µg/L	3.6275	ppb	10:43:10
2	As 188.979†	-26.0	-4.1	-1.5015	µg/L	-1.5015	ppb	10:44:27
2	B 249.677†	624.0	417.4	12.047	µg/L	12.047	ppb	10:44:27
2	Ba 233.527†	22.1	17.7	0.1303	µg/L	0.1303	ppb	10:44:27
2	Be 313.107†	-4015.0	33.9	0.0212	µg/L	0.0212	ppb	10:44:07
2	Ca 317.933Radial†	353.3	-1.9	-0.3415	µg/L	-0.3415	ppb	10:43:10
2	Cd 226.502†	-329.0	39.1	0.3409	µg/L	0.3409	ppb	10:44:27
2	Co 228.616†	-223.0	19.4	0.3853	µg/L	0.3853	ppb	10:44:27
2	Cr 267.716†	161.4	35.2	0.6190	µg/L	0.6190	ppb	10:44:27
2	Cu 324.752†	2223.7	-24.2	-0.1678	µg/L	-0.1678	ppb	10:44:07
2	Fe 238.204 Radial†	52.8	8.3	1.3581	µg/L	1.3581	ppb	10:43:10
2	K 766.490 Radial†	415.0	18.9	15.156	µg/L	15.156	ppb	10:42:50
2	Mg 279.077 IEC†	75.4	8.5	11.563	µg/L	11.563	ppb	10:43:10
2	Mn 257.610†	626.7	78.1	0.1079	µg/L	0.1079	ppb	10:44:27
2	Mo 202.031†	29.7	10.3	0.5041	µg/L	0.5041	ppb	10:44:27
2	Na 589.592 Radial†	99.7	-11.9	-16.979	µg/L	-16.979	ppb	10:43:10
2	Ni 231.604†	-184.2	17.5	0.4037	µg/L	0.4037	ppb	10:44:27
2	P 214.914†	152.0	-16.0	-8.9400	µg/L	-8.9400	ppb	10:44:27

2	Pb 220.353†	-68.6	-9.6	-0.9939	µg/L	-0.9939	ppb	10:44:27
2	S 181.975 Axial†	92.2	-1.4	-1.4245	µg/L	-1.4245	ppb	10:44:27
2	Sb 206.836†	184.0	5.0	1.2363	µg/L	1.2363	ppb	10:44:27
2	Se 196.026†	-19.7	5.9	2.3656	µg/L	2.3656	ppb	10:44:27
2	SiO2†	1152.7	-162.0	-24.129	µg/L	-24.129	ppb	10:44:27
2	Si 251.611†	-11.7	-229.7	-11.163	µg/L	-11.163	ppb	10:44:27
2	Sn 189.927†	38.0	-11.9	-1.2450	µg/L	-1.2450	ppb	10:44:27
2	Sr 421.552†	336.3	29.0	0.1536	µg/L	0.1536	ppb	10:42:50
2	Ti 334.940†	-676.6	117.7	0.4508	µg/L	0.4508	ppb	10:44:07
2	Tl 190.801†	-95.0	-4.3	-0.7904	µg/L	-0.7904	ppb	10:44:27
2	U 367.007†	1047.2	-42.2	-13.41	µg/L	-13.41	ppb	10:44:07
2	V 292.402†	-165.3	26.4	0.2993	µg/L	0.2993	ppb	10:44:07
2	Zn 213.857†	1019.6	10.4	0.0658	µg/L	0.0658	ppb	10:44:27
3	Sc 361.383	398518.8	398518.8	101.57	%			10:44:32
3	Sc RADIAL	24336.2	24336.2	102	%			10:43:35
3	Y 371.029	388820.5	388820.5	101.28	%			10:44:32
3	Ag 328.068†	-786.3	-52.4	-0.4778	µg/L	-0.4778	ppb	10:44:32
3	Al 396.153Radial†	-103.3	23.6	6.8393	µg/L	6.8393	ppb	10:43:35
3	As 188.979†	-27.5	-5.8	-2.1188	µg/L	-2.1188	ppb	10:44:52
3	B 249.677†	629.1	425.4	12.283	µg/L	12.283	ppb	10:44:52
3	Ba 233.527†	2.5	-1.5	-0.0109	µg/L	-0.0109	ppb	10:44:52
3	Be 313.107†	-4001.3	28.1	0.0246	µg/L	0.0246	ppb	10:44:32
3	Ca 317.933Radial†	340.4	-16.9	-3.0692	µg/L	-3.0692	ppb	10:43:35
3	Cd 226.502†	-300.5	65.6	0.5715	µg/L	0.5715	ppb	10:44:52
3	Co 228.616†	-230.4	11.0	0.2200	µg/L	0.2200	ppb	10:44:52
3	Cr 267.716†	154.9	29.5	0.4966	µg/L	0.4966	ppb	10:44:52
3	Cu 324.752†	2146.2	-89.8	-0.5805	µg/L	-0.5805	ppb	10:44:32
3	Fe 238.204 Radial†	59.4	14.4	2.3438	µg/L	2.3438	ppb	10:43:35
3	K 766.490 Radial†	493.2	92.4	74.184	µg/L	74.184	ppb	10:43:15
3	Mg 279.077 IEC†	76.1	8.6	11.743	µg/L	11.743	ppb	10:43:35
3	Mn 257.610†	644.5	98.7	0.1363	µg/L	0.1363	ppb	10:44:52
3	Mo 202.031†	39.7	20.2	0.9901	µg/L	0.9901	ppb	10:44:52
3	Na 589.592 Radial†	106.0	-6.4	-9.1304	µg/L	-9.1304	ppb	10:43:35
3	Ni 231.604†	-170.0	30.6	0.7070	µg/L	0.7070	ppb	10:44:52
3	P 214.914†	127.7	-39.2	-21.907	µg/L	-21.907	ppb	10:44:52
3	Pb 220.353†	-89.0	-30.0	-3.1527	µg/L	-3.1527	ppb	10:44:52
3	S 181.975 Axial†	92.5	-0.7	-0.6702	µg/L	-0.6702	ppb	10:44:52
3	Sb 206.836†	189.0	10.8	2.6746	µg/L	2.6746	ppb	10:44:52
3	Se 196.026†	-16.6	8.8	3.5312	µg/L	3.5312	ppb	10:44:52
3	SiO2†	1150.9	-158.3	-23.593	µg/L	-23.593	ppb	10:44:52
3	Si 251.611†	-20.4	-238.3	-11.592	µg/L	-11.592	ppb	10:44:52
3	Sn 189.927†	47.8	-2.1	-0.2216	µg/L	-0.2216	ppb	10:44:52
3	Sr 421.552†	283.3	-25.1	-0.1328	µg/L	-0.1328	ppb	10:43:15
3	Ti 334.940†	-669.4	121.6	0.4509	µg/L	0.4509	ppb	10:44:32
3	Tl 190.801†	-86.5	3.6	0.6702	µg/L	0.6702	ppb	10:44:52
3	U 367.007†	1141.0	55.2	17.55	µg/L	17.55	ppb	10:44:32
3	V 292.402†	-102.6	87.4	1.0194	µg/L	1.0194	ppb	10:44:32
3	Zn 213.857†	1033.3	28.8	0.1849	µg/L	0.1849	ppb	10:44:52

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	400072.0	101.96	%	0.356				0.35%
Sc RADIAL	24278.7	102	%	0.42				0.41%
Y 371.029	391111.8	101.88	%	0.525				0.52%
Ag 328.068†	-48.8	-0.4418	µg/L	0.35539	-0.4418	ppb	0.35539	80.44%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.6	1.5934	µg/L	6.50588	1.5934	ppb	6.50588	408.29%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.2	-1.1676	µg/L	1.15485	-1.1676	ppb	1.15485	98.90%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	442.9	12.787	µg/L	1.0844	12.787	ppb	1.0844	8.48%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.8	-0.0059	µg/L	0.13376	-0.0059	ppb	0.13376	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	39.1	0.0307	µg/L	0.01361	0.0307	ppb	0.01361	44.29%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-4.4	-0.7960	µg/L	2.08340	-0.7960	ppb	2.08340	261.73%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	57.3	0.4989	µg/L	0.13702	0.4989	ppb	0.13702	27.46%

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   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                13.3      0.2658 µg/L       0.10441      0.2658 ppb        0.10441  39.28%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                20.4      0.3446 µg/L       0.37426      0.3446 ppb        0.37426 108.60%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -48.4     -0.3127 µg/L       0.23219     -0.3127 ppb        0.23219  74.25%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         13.4      2.1931 µg/L       0.77073      2.1931 ppb        0.77073  35.14%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          28.6      22.982 µg/L       47.7722      22.982 ppb        47.7722 207.87%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             4.4      6.0218 µg/L       9.75363      6.0218 ppb        9.75363 161.97%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                77.1      0.1065 µg/L       0.03048      0.1065 ppb        0.03048  28.61%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                16.9      0.8310 µg/L       0.28309      0.8310 ppb        0.28309  34.07%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -3.1     -4.3674 µg/L      15.54966     -4.3674 ppb       15.54966 356.04%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                15.5      0.3594 µg/L       0.37175      0.3594 ppb        0.37175 103.43%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -24.7     -13.791 µg/L        7.0738     -13.791 ppb         7.0738  51.29%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -8.1     -0.8522 µg/L       2.37450     -0.8522 ppb        2.37450 278.63%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.0     -0.0131 µg/L       1.83062     -0.0131 ppb        1.83062 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.6     -0.3903 µg/L       4.12627     -0.3903 ppb        4.12627 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.7      1.5013 µg/L       2.57332      1.5013 ppb        2.57332 171.41%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -162.0     -24.140 µg/L        0.5522     -24.140 ppb         0.5522   2.29%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -230.7     -11.217 µg/L        0.3504     -11.217 ppb         0.3504   3.12%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -7.8     -0.8128 µg/L       0.52987     -0.8128 ppb        0.52987  65.19%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 7.3      0.0389 µg/L       0.15149      0.0389 ppb        0.15149 389.75%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                91.1      0.3392 µg/L       0.19335      0.3392 ppb        0.19335  57.00%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -3.7     -0.6764 µg/L       1.29346     -0.6764 ppb        1.29346 191.22%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†                 31.9       10.14 µg/L        20.866       10.14 ppb         20.866 205.68%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†                 45.9      0.5393 µg/L       0.41581      0.5393 ppb        0.41581  77.11%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                25.3      0.1641 µg/L       0.08969      0.1641 ppb        0.08969  54.66%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 4 | **Autosampler Location: 1**
Sample ID: CCV | **Date Collected: 7/24/2018 14:20:04**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	25000.1	25000.1	105	%			14:20:41
1	Al 396.153Radial†	18513.8	17734.6	5141.3	µg/L	5141.3	ppb	14:20:41
1	Ca 317.933Radial†	30097.5	28278.8	5132.3	µg/L	5132.3	ppb	14:20:41
1	Fe 238.204 Radial†	32629.2	30992.6	5060.0	µg/L	5060.0	ppb	14:20:41
1	K 766.490 Radial†	6879.9	6154.5	4940.6	µg/L	4940.6	ppb	14:20:41
1	Mg 279.077 IEC†	4098.3	3832.5	5205.4	µg/L	5205.4	ppb	14:20:41
1	Na 589.592 Radial†	7567.3	7087.9	10131	µg/L	10131	ppb	14:20:41
1	Sr 421.552†	97634.0	92566.0	489.96	µg/L	489.96	ppb	14:20:36
1	Sc 361.383	401317.0	401317.0	102.28	%			14:21:09
1	Y 371.029	388397.7	388397.7	101.17	%			14:21:09
1	Ag 328.068†	57267.7	56713.9	509.61	µg/L	509.61	ppb	14:21:09
1	As 188.979†	1379.6	1370.2	511.34	µg/L	511.34	ppb	14:21:29
1	B 249.677†	17873.5	17281.3	516.40	µg/L	516.40	ppb	14:21:09
1	Ba 233.527†	70144.5	68578.1	503.97	µg/L	503.97	ppb	14:21:09
1	Be 313.107†	710009.1	698161.6	503.30	µg/L	503.30	ppb	14:21:09
1	Cd 226.502†	58958.0	58006.2	505.15	µg/L	505.15	ppb	14:21:09
1	Co 228.616†	25598.2	25265.9	502.95	µg/L	502.95	ppb	14:21:29
1	Cr 267.716†	29459.8	28680.7	495.17	µg/L	495.17	ppb	14:21:29
1	Cu 324.752†	80141.7	76153.7	501.08	µg/L	501.08	ppb	14:21:09
1	Mn 257.610†	374435.8	365559.4	504.72	µg/L	504.72	ppb	14:21:09
1	Mo 202.031†	10736.4	10478.3	514.04	µg/L	514.04	ppb	14:21:29
1	Ni 231.604†	21920.1	21629.8	500.32	µg/L	500.32	ppb	14:21:29
1	P 214.914†	4788.2	4516.6	2508.2	µg/L	2508.2	ppb	14:21:29
1	Pb 220.353†	4870.9	4820.1	505.55	µg/L	505.55	ppb	14:21:29
1	S 181.975 Axial†	1116.6	1000.0	1024.8	µg/L	1024.8	ppb	14:21:29
1	Sb 206.836†	2300.2	2073.7	508.64	µg/L	508.64	ppb	14:21:29
1	Se 196.026†	1271.1	1268.0	509.68	µg/L	509.68	ppb	14:21:29
1	SiO2†	38177.8	36035.9	5335.7	µg/L	5335.7	ppb	14:21:09
1	Si 251.611†	53174.0	51771.3	2505.6	µg/L	2505.6	ppb	14:21:09
1	Sn 189.927†	5094.5	4931.9	517.04	µg/L	517.04	ppb	14:21:29
1	Ti 334.940†	137221.6	134945.7	509.71	µg/L	509.71	ppb	14:21:09
1	Tl 190.801†	2735.1	2763.0	508.34	µg/L	508.34	ppb	14:21:29
1	U 367.007†	2717.2	1588.5	482.7	µg/L	482.7	ppb	14:21:09
1	V 292.402†	44523.3	43719.9	506.08	µg/L	506.08	ppb	14:21:09
1	Zn 213.857†	79000.1	76251.8	495.61	µg/L	495.61	ppb	14:21:09
2	Sc RADIAL	24621.2	24621.2	104	%			14:20:51
2	Al 396.153Radial†	18638.8	18126.3	5255.3	µg/L	5255.3	ppb	14:20:51
2	Ca 317.933Radial†	30173.3	28792.5	5225.6	µg/L	5225.6	ppb	14:20:51
2	Fe 238.204 Radial†	32781.4	31617.3	5161.9	µg/L	5161.9	ppb	14:20:51
2	K 766.490 Radial†	6984.0	6355.7	5102.2	µg/L	5102.2	ppb	14:20:51
2	Mg 279.077 IEC†	4095.6	3889.9	5283.3	µg/L	5283.3	ppb	14:20:51
2	Na 589.592 Radial†	7555.9	7187.7	10274	µg/L	10274	ppb	14:20:51
2	Sr 421.552†	98716.9	95041.0	503.06	µg/L	503.06	ppb	14:20:46
2	Sc 361.383	399096.0	399096.0	101.71	%			14:21:35
2	Y 371.029	385813.5	385813.5	100.50	%			14:21:35
2	Ag 328.068†	57193.3	56952.3	511.76	µg/L	511.76	ppb	14:21:35
2	As 188.979†	1353.8	1352.4	504.77	µg/L	504.77	ppb	14:21:55
2	B 249.677†	17956.7	17460.4	521.96	µg/L	521.96	ppb	14:21:35
2	Ba 233.527†	70194.9	69009.4	507.14	µg/L	507.14	ppb	14:21:35
2	Be 313.107†	708911.3	700945.6	505.31	µg/L	505.31	ppb	14:21:35
2	Cd 226.502†	58891.1	58261.2	507.36	µg/L	507.36	ppb	14:21:35
2	Co 228.616†	25488.7	25297.5	503.58	µg/L	503.58	ppb	14:21:55
2	Cr 267.716†	29308.6	28692.3	495.38	µg/L	495.38	ppb	14:21:55
2	Cu 324.752†	80052.3	76501.8	503.38	µg/L	503.38	ppb	14:21:35
2	Mn 257.610†	374767.6	367923.1	507.99	µg/L	507.99	ppb	14:21:35
2	Mo 202.031†	10687.3	10488.5	514.54	µg/L	514.54	ppb	14:21:55
2	Ni 231.604†	21861.7	21691.6	501.76	µg/L	501.76	ppb	14:21:55
2	P 214.914†	4787.8	4542.2	2522.4	µg/L	2522.4	ppb	14:21:55

2	Pb 220.353†	4884.1	4859.5	509.69 µg/L	509.69 ppb	14:21:55
2	S 181.975 Axial†	1097.7	987.5	1012.0 µg/L	1012.0 ppb	14:21:55
2	Sb 206.836†	2286.1	2072.3	508.30 µg/L	508.30 ppb	14:21:55
2	Se 196.026†	1263.9	1267.9	509.68 µg/L	509.68 ppb	14:21:55
2	SiO2†	38179.2	36245.0	5366.8 µg/L	5366.8 ppb	14:21:35
2	Si 251.611†	53011.1	51900.5	2511.9 µg/L	2511.9 ppb	14:21:35
2	Sn 189.927†	5084.6	4949.8	518.92 µg/L	518.92 ppb	14:21:55
2	Ti 334.940†	137179.4	135650.9	512.38 µg/L	512.38 ppb	14:21:35
2	Tl 190.801†	2728.8	2771.7	509.96 µg/L	509.96 ppb	14:21:55
2	U 367.007†	2712.8	1598.9	485.6 µg/L	485.6 ppb	14:21:35
2	V 292.402†	44487.0	43926.5	508.47 µg/L	508.47 ppb	14:21:35
2	Zn 213.857†	78803.1	76488.0	497.13 µg/L	497.13 ppb	14:21:35
3	Sc RADIAL	24563.7	24563.7	103 %		14:21:01
3	Al 396.153Radial†	18413.4	17950.3	5204.1 µg/L	5204.1 ppb	14:21:01
3	Ca 317.933Radial†	29794.4	28493.9	5171.4 µg/L	5171.4 ppb	14:21:01
3	Fe 238.204 Radial†	32432.5	31353.7	5118.9 µg/L	5118.9 ppb	14:21:01
3	K 766.490 Radial†	6856.3	6247.9	5015.7 µg/L	5015.7 ppb	14:21:01
3	Mg 279.077 IEC†	4042.8	3848.1	5226.6 µg/L	5226.6 ppb	14:21:01
3	Na 589.592 Radial†	7454.7	7106.8	10158 µg/L	10158 ppb	14:21:01
3	Sr 421.552†	98534.3	95087.5	503.31 µg/L	503.31 ppb	14:20:56
3	Sc 361.383	399960.8	399960.8	101.93 %		14:22:01
3	Y 371.029	386545.0	386545.0	100.69 %		14:22:01
3	Ag 328.068†	57242.0	56878.4	511.10 µg/L	511.10 ppb	14:22:01
3	As 188.979†	1369.5	1364.9	509.39 µg/L	509.39 ppb	14:22:21
3	B 249.677†	18022.4	17486.7	522.56 µg/L	522.56 ppb	14:22:01
3	Ba 233.527†	70340.0	69002.5	507.09 µg/L	507.09 ppb	14:22:01
3	Be 313.107†	710488.7	700986.1	505.33 µg/L	505.33 ppb	14:22:01
3	Cd 226.502†	59006.3	58249.1	507.26 µg/L	507.26 ppb	14:22:01
3	Co 228.616†	25423.8	25179.6	501.23 µg/L	501.23 ppb	14:22:21
3	Cr 267.716†	29313.9	28635.2	494.40 µg/L	494.40 ppb	14:22:21
3	Cu 324.752†	80319.9	76594.2	503.98 µg/L	503.98 ppb	14:22:01
3	Mn 257.610†	375468.0	367813.6	507.84 µg/L	507.84 ppb	14:22:01
3	Mo 202.031†	10672.1	10450.9	512.69 µg/L	512.69 ppb	14:22:21
3	Ni 231.604†	21823.3	21607.4	499.81 µg/L	499.81 ppb	14:22:21
3	P 214.914†	4795.1	4539.3	2520.8 µg/L	2520.8 ppb	14:22:21
3	Pb 220.353†	4891.9	4856.9	509.42 µg/L	509.42 ppb	14:22:21
3	S 181.975 Axial†	1099.0	986.4	1010.9 µg/L	1010.9 ppb	14:22:21
3	Sb 206.836†	2278.5	2060.1	505.29 µg/L	505.29 ppb	14:22:21
3	Se 196.026†	1244.4	1246.0	500.90 µg/L	500.90 ppb	14:22:21
3	SiO2†	38273.8	36256.6	5368.6 µg/L	5368.6 ppb	14:22:01
3	Si 251.611†	53150.4	51924.5	2513.1 µg/L	2513.1 ppb	14:22:01
3	Sn 189.927†	5074.2	4928.8	516.73 µg/L	516.73 ppb	14:22:21
3	Ti 334.940†	137333.8	135510.7	511.85 µg/L	511.85 ppb	14:22:01
3	Tl 190.801†	2730.5	2767.6	509.19 µg/L	509.19 ppb	14:22:21
3	U 367.007†	2669.1	1550.3	470.3 µg/L	470.3 ppb	14:22:01
3	V 292.402†	44516.9	43861.3	507.68 µg/L	507.68 ppb	14:22:01
3	Zn 213.857†	78988.6	76502.5	497.24 µg/L	497.24 ppb	14:22:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	400124.6	101.97	%	0.285				0.28%
Sc RADIAL	24728.4	104	%	1.00				0.96%
Y 371.029	386918.7	100.79	%	0.347				0.34%
Ag 328.068†	56848.2	510.82	µg/L	1.104	510.82	ppb	1.104	0.22%
QC value within limits for Ag 328.068 Recovery = 102.16%								
Al 396.153Radial†	17937.1	5200.2	µg/L	57.13	5200.2	ppb	57.13	1.10%
QC value within limits for Al 396.153Radial Recovery = 104.00%								
As 188.979†	1362.5	508.50	µg/L	3.376	508.50	ppb	3.376	0.66%
QC value within limits for As 188.979 Recovery = 101.70%								
B 249.677†	17409.5	520.31	µg/L	3.398	520.31	ppb	3.398	0.65%
QC value within limits for B 249.677 Recovery = 104.06%								
Ba 233.527†	68863.3	506.07	µg/L	1.815	506.07	ppb	1.815	0.36%
QC value within limits for Ba 233.527 Recovery = 101.21%								
Be 313.107†	700031.1	504.65	µg/L	1.166	504.65	ppb	1.166	0.23%
QC value within limits for Be 313.107 Recovery = 100.93%								
Ca 317.933Radial†	28521.7	5176.4	µg/L	46.82	5176.4	ppb	46.82	0.90%
QC value within limits for Ca 317.933Radial Recovery = 103.53%								
Cd 226.502†	58172.2	506.59	µg/L	1.248	506.59	ppb	1.248	0.25%
QC value within limits for Cd 226.502 Recovery = 101.32%								

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Co 228.616†            25247.7      502.58 µg/L         1.216      502.58 ppb          1.216   0.24%
   QC value within limits for Co 228.616  Recovery = 100.52%
Cr 267.716†            28669.4      494.98 µg/L         0.515      494.98 ppb          0.515   0.10%
   QC value within limits for Cr 267.716  Recovery = 99.00%
Cu 324.752†            76416.5      502.81 µg/L         1.528      502.81 ppb          1.528   0.30%
   QC value within limits for Cu 324.752  Recovery = 100.56%
Fe 238.204 Radial†     31321.2      5113.6 µg/L         51.20      5113.6 ppb          51.20   1.00%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.27%
K 766.490 Radial†       6252.7      5019.5 µg/L         80.84      5019.5 ppb          80.84   1.61%
   QC value within limits for K 766.490 Radial  Recovery = 100.39%
Mg 279.077 IEC†         3856.8      5238.4 µg/L         40.29      5238.4 ppb          40.29   0.77%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.77%
Mn 257.610†           367098.7      506.85 µg/L         1.844      506.85 ppb          1.844   0.36%
   QC value within limits for Mn 257.610  Recovery = 101.37%
Mo 202.031†            10472.6      513.76 µg/L         0.954      513.76 ppb          0.954   0.19%
   QC value within limits for Mo 202.031  Recovery = 102.75%
Na 589.592 Radial†      7127.5       10188 µg/L         75.77       10188 ppb          75.77   0.74%
   QC value within limits for Na 589.592 Radial  Recovery = 101.88%
Ni 231.604†            21642.9      500.63 µg/L         1.009      500.63 ppb          1.009   0.20%
   QC value within limits for Ni 231.604  Recovery = 100.13%
P 214.914†              4532.7      2517.2 µg/L          7.77      2517.2 ppb           7.77   0.31%
   QC value within limits for P 214.914  Recovery = 100.69%
Pb 220.353†             4845.5      508.22 µg/L         2.316      508.22 ppb          2.316   0.46%
   QC value within limits for Pb 220.353  Recovery = 101.64%
S 181.975 Axial†         991.3      1015.9 µg/L          7.77      1015.9 ppb           7.77   0.76%
   QC value within limits for S 181.975 Axial  Recovery = 101.59%
Sb 206.836†             2068.7      507.41 µg/L         1.848      507.41 ppb          1.848   0.36%
   QC value within limits for Sb 206.836  Recovery = 101.48%
Se 196.026†             1260.6      506.75 µg/L         5.071      506.75 ppb          5.071   1.00%
   QC value within limits for Se 196.026  Recovery = 101.35%
SiO2†                  36179.2      5357.0 µg/L         18.48      5357.0 ppb          18.48   0.34%
   QC value within limits for SiO2  Recovery = 100.18%
Si 251.611†            51865.5      2510.2 µg/L          4.01      2510.2 ppb           4.01   0.16%
   QC value within limits for Si 251.611  Recovery = 100.41%
Sn 189.927†             4936.8      517.56 µg/L         1.187      517.56 ppb          1.187   0.23%
   QC value within limits for Sn 189.927  Recovery = 103.51%
Sr 421.552†            94231.5      498.78 µg/L         7.636      498.78 ppb          7.636   1.53%
   QC value within limits for Sr 421.552  Recovery = 99.76%
Ti 334.940†           135369.1      511.31 µg/L         1.413      511.31 ppb          1.413   0.28%
   QC value within limits for Ti 334.940  Recovery = 102.26%
Tl 190.801†             2767.4      509.16 µg/L         0.807      509.16 ppb          0.807   0.16%
   QC value within limits for Tl 190.801  Recovery = 101.83%
U 367.007†              1579.3       479.5 µg/L          8.11       479.5 ppb           8.11   1.69%
   QC value within limits for U 367.007  Recovery = 95.91%
V 292.402†             43835.9      507.41 µg/L         1.217      507.41 ppb          1.217   0.24%
   QC value within limits for V 292.402  Recovery = 101.48%
Zn 213.857†            76414.1      496.66 µg/L         0.912      496.66 ppb          0.912   0.18%
   QC value within limits for Zn 213.857  Recovery = 99.33%
All analyte(s) passed QC.
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Sequence No.: 5 | **Autosampler Location: 6**
Sample ID: CCB | **Date Collected: 7/24/2018 14:22:30**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	24354.3	24354.3	102	%			14:23:22
1	Al 396.153Radial†	-109.1	18.1	5.2403	µg/L	5.2403	ppb	14:23:22
1	Ca 317.933Radial†	323.0	-34.2	-6.2036	µg/L	-6.2036	ppb	14:23:22
1	Fe 238.204 Radial†	49.3	4.5	0.7303	µg/L	0.7303	ppb	14:23:22
1	K 766.490 Radial†	484.3	83.3	66.900	µg/L	66.900	ppb	14:23:02
1	Mg 279.077 IEC†	64.0	-3.3	-4.4769	µg/L	-4.4769	ppb	14:23:22
1	Na 589.592 Radial†	113.5	0.9	1.2553	µg/L	1.2553	ppb	14:23:22
1	Sr 421.552†	300.1	-8.9	-0.0472	µg/L	-0.0472	ppb	14:23:02
1	Sc 361.383	397690.1	397690.1	101.35	%			14:24:19
1	Y 371.029	388129.9	388129.9	101.10	%			14:24:19
1	Ag 328.068†	-701.7	29.4	0.2634	µg/L	0.2634	ppb	14:24:19
1	As 188.979†	-8.4	13.1	4.8317	µg/L	4.8317	ppb	14:24:39
1	B 249.677†	271.0	73.4	2.1193	µg/L	2.1193	ppb	14:24:39
1	Ba 233.527†	-0.3	-4.2	-0.0309	µg/L	-0.0309	ppb	14:24:39
1	Be 313.107†	-3938.2	82.1	0.0590	µg/L	0.0590	ppb	14:24:19
1	Cd 226.502†	-344.4	21.7	0.1892	µg/L	0.1892	ppb	14:24:39
1	Co 228.616†	-238.5	2.6	0.0521	µg/L	0.0521	ppb	14:24:39
1	Cr 267.716†	122.6	-1.9	-0.0334	µg/L	-0.0334	ppb	14:24:39
1	Cu 324.752†	2179.6	-52.5	-0.3457	µg/L	-0.3457	ppb	14:24:19
1	Mn 257.610†	470.9	-71.3	-0.0983	µg/L	-0.0983	ppb	14:24:39
1	Mo 202.031†	30.8	11.5	0.5663	µg/L	0.5663	ppb	14:24:39
1	Ni 231.604†	-188.9	11.5	0.2672	µg/L	0.2672	ppb	14:24:39
1	P 214.914†	162.7	-4.4	-2.4628	µg/L	-2.4628	ppb	14:24:39
1	Pb 220.353†	-67.1	-8.5	-0.8924	µg/L	-0.8924	ppb	14:24:39
1	S 181.975 Axial†	90.1	-2.8	-2.9247	µg/L	-2.9247	ppb	14:24:39
1	Sb 206.836†	165.3	-12.1	-2.9842	µg/L	-2.9842	ppb	14:24:39
1	Se 196.026†	-31.5	-5.8	-2.3339	µg/L	-2.3339	ppb	14:24:39
1	SiO2†	1108.5	-197.7	-29.445	µg/L	-29.445	ppb	14:24:39
1	Si 251.611†	-49.8	-267.4	-12.995	µg/L	-12.995	ppb	14:24:39
1	Sn 189.927†	47.7	-2.2	-0.2255	µg/L	-0.2255	ppb	14:24:39
1	Ti 334.940†	-723.6	66.7	0.2519	µg/L	0.2519	ppb	14:24:19
1	Tl 190.801†	-91.7	-1.6	-0.2995	µg/L	-0.2995	ppb	14:24:39
1	U 367.007†	1081.7	-1.0	-0.303	µg/L	-0.303	ppb	14:24:19
1	V 292.402†	-192.8	-1.8	-0.0157	µg/L	-0.0157	ppb	14:24:19
1	Zn 213.857†	940.4	-60.8	-0.3991	µg/L	-0.3991	ppb	14:24:39
2	Sc RADIAL	24348.3	24348.3	102	%			14:23:47
2	Al 396.153Radial†	-123.3	4.2	1.1782	µg/L	1.1782	ppb	14:23:47
2	Ca 317.933Radial†	317.7	-39.3	-7.1251	µg/L	-7.1251	ppb	14:23:47
2	Fe 238.204 Radial†	40.5	-4.2	-0.6787	µg/L	-0.6787	ppb	14:23:47
2	K 766.490 Radial†	447.2	47.2	37.910	µg/L	37.910	ppb	14:23:27
2	Mg 279.077 IEC†	77.8	10.2	13.852	µg/L	13.852	ppb	14:23:47
2	Na 589.592 Radial†	135.0	21.8	31.233	µg/L	31.233	ppb	14:23:47
2	Sr 421.552†	278.8	-29.6	-0.1568	µg/L	-0.1568	ppb	14:23:27
2	Sc 361.383	395655.7	395655.7	100.84	%			14:24:44
2	Y 371.029	385914.1	385914.1	100.53	%			14:24:44
2	Ag 328.068†	-694.8	32.7	0.2720	µg/L	0.2720	ppb	14:24:44
2	As 188.979†	-19.1	2.4	0.8907	µg/L	0.8907	ppb	14:25:04
2	B 249.677†	225.5	29.6	0.8505	µg/L	0.8505	ppb	14:25:04
2	Ba 233.527†	18.0	13.9	0.1025	µg/L	0.1025	ppb	14:25:04
2	Be 313.107†	-3913.9	86.2	0.0710	µg/L	0.0710	ppb	14:24:44
2	Cd 226.502†	-351.2	13.2	0.1152	µg/L	0.1152	ppb	14:25:04
2	Co 228.616†	-239.5	0.3	0.0073	µg/L	0.0073	ppb	14:25:04
2	Cr 267.716†	132.9	8.9	0.1250	µg/L	0.1250	ppb	14:25:04
2	Cu 324.752†	2125.7	-94.9	-0.6021	µg/L	-0.6021	ppb	14:24:44
2	Mn 257.610†	472.1	-67.7	-0.0934	µg/L	-0.0934	ppb	14:25:04
2	Mo 202.031†	35.2	16.1	0.7875	µg/L	0.7875	ppb	14:25:04
2	Ni 231.604†	-206.1	-6.4	-0.1489	µg/L	-0.1489	ppb	14:25:04
2	P 214.914†	170.3	3.9	2.2057	µg/L	2.2057	ppb	14:25:04

2	Pb 220.353†	-51.1	6.9	0.6997	µg/L	0.6997	ppb	14:25:04
2	S 181.975 Axial†	86.1	-6.4	-6.5622	µg/L	-6.5622	ppb	14:25:04
2	Sb 206.836†	174.6	-2.1	-0.5178	µg/L	-0.5178	ppb	14:25:04
2	Se 196.026†	-37.5	-11.9	-4.7818	µg/L	-4.7818	ppb	14:25:04
2	SiO2†	1117.5	-183.3	-27.301	µg/L	-27.301	ppb	14:25:04
2	Si 251.611†	-11.4	-229.6	-11.163	µg/L	-11.163	ppb	14:25:04
2	Sn 189.927†	53.2	3.6	0.3759	µg/L	0.3759	ppb	14:25:04
2	Ti 334.940†	-699.8	86.7	0.3103	µg/L	0.3103	ppb	14:24:44
2	Tl 190.801†	-98.4	-8.7	-1.5869	µg/L	-1.5869	ppb	14:25:04
2	U 367.007†	1192.2	114.2	36.31	µg/L	36.31	ppb	14:24:44
2	V 292.402†	-182.7	7.2	0.1108	µg/L	0.1108	ppb	14:24:44
2	Zn 213.857†	939.9	-56.5	-0.3687	µg/L	-0.3687	ppb	14:25:04
3	Sc RADIAL	24314.0	24314.0	102	%			14:24:12
3	Al 396.153Radial†	-124.4	3.0	0.8195	µg/L	0.8195	ppb	14:24:12
3	Ca 317.933Radial†	326.7	-30.0	-5.4474	µg/L	-5.4474	ppb	14:24:12
3	Fe 238.204 Radial†	41.0	-3.6	-0.5835	µg/L	-0.5835	ppb	14:24:12
3	K 766.490 Radial†	435.6	36.5	29.286	µg/L	29.286	ppb	14:23:52
3	Mg 279.077 IEC†	68.5	1.2	1.6517	µg/L	1.6517	ppb	14:24:12
3	Na 589.592 Radial†	106.5	-5.8	-8.3151	µg/L	-8.3151	ppb	14:24:12
3	Sr 421.552†	255.5	-52.1	-0.2755	µg/L	-0.2755	ppb	14:23:52
3	Sc 361.383	399882.8	399882.8	101.91	%			14:25:09
3	Y 371.029	390210.4	390210.4	101.65	%			14:25:09
3	Ag 328.068†	-807.4	-70.6	-0.6335	µg/L	-0.6335	ppb	14:25:09
3	As 188.979†	-19.0	2.7	0.9991	µg/L	0.9991	ppb	14:25:30
3	B 249.677†	252.8	54.1	1.5591	µg/L	1.5591	ppb	14:25:30
3	Ba 233.527†	14.5	10.4	0.0762	µg/L	0.0762	ppb	14:25:30
3	Be 313.107†	-3836.0	203.7	0.1475	µg/L	0.1475	ppb	14:25:09
3	Cd 226.502†	-361.4	6.8	0.0593	µg/L	0.0593	ppb	14:25:30
3	Co 228.616†	-255.5	-12.8	-0.2540	µg/L	-0.2540	ppb	14:25:30
3	Cr 267.716†	121.4	-3.8	-0.0687	µg/L	-0.0687	ppb	14:25:30
3	Cu 324.752†	2176.7	-67.1	-0.4399	µg/L	-0.4399	ppb	14:25:09
3	Mn 257.610†	477.0	-67.8	-0.0936	µg/L	-0.0936	ppb	14:25:30
3	Mo 202.031†	38.9	19.3	0.9459	µg/L	0.9459	ppb	14:25:30
3	Ni 231.604†	-188.9	12.6	0.2921	µg/L	0.2921	ppb	14:25:30
3	P 214.914†	166.3	-1.7	-0.9603	µg/L	-0.9603	ppb	14:25:30
3	Pb 220.353†	-87.2	-27.9	-2.9311	µg/L	-2.9311	ppb	14:25:30
3	S 181.975 Axial†	84.3	-9.1	-9.3081	µg/L	-9.3081	ppb	14:25:30
3	Sb 206.836†	171.3	-7.2	-1.7535	µg/L	-1.7535	ppb	14:25:30
3	Se 196.026†	-30.4	-4.7	-1.8650	µg/L	-1.8650	ppb	14:25:30
3	SiO2†	1129.6	-183.1	-27.278	µg/L	-27.278	ppb	14:25:30
3	Si 251.611†	-26.2	-243.9	-11.862	µg/L	-11.862	ppb	14:25:30
3	Sn 189.927†	55.8	5.5	0.5795	µg/L	0.5795	ppb	14:25:30
3	Ti 334.940†	-641.7	151.0	0.5686	µg/L	0.5686	ppb	14:25:09
3	Tl 190.801†	-77.3	13.0	2.3817	µg/L	2.3817	ppb	14:25:30
3	U 367.007†	1099.5	10.7	3.403	µg/L	3.403	ppb	14:25:09
3	V 292.402†	-157.9	33.5	0.3924	µg/L	0.3924	ppb	14:25:09
3	Zn 213.857†	931.7	-74.4	-0.4879	µg/L	-0.4879	ppb	14:25:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	397742.8	101.37	%	0.539				0.53%
Sc RADIAL	24338.9	102	%	0.09				0.09%
Y 371.029	388084.8	101.09	%	0.560				0.55%
Ag 328.068†	-2.8	-0.0327	µg/L	0.52032	-0.0327	ppb	0.52032	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	8.4	2.4126	µg/L	2.45538	2.4126	ppb	2.45538	101.77%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.0	2.2405	µg/L	2.24473	2.2405	ppb	2.24473	100.19%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	52.3	1.5096	µg/L	0.63583	1.5096	ppb	0.63583	42.12%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.7	0.0493	µg/L	0.07066	0.0493	ppb	0.07066	143.39%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	124.0	0.0925	µg/L	0.04800	0.0925	ppb	0.04800	51.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-34.5	-6.2587	µg/L	0.84022	-6.2587	ppb	0.84022	13.42%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	13.9	0.1212	µg/L	0.06513	0.1212	ppb	0.06513	53.73%
QC value within limits for Cd 226.502 Recovery = Not calculated								

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Co 228.616†                -3.3     -0.0649 µg/L       0.16533     -0.0649 ppb        0.16533 254.84%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 1.0      0.0076 µg/L       0.10316      0.0076 ppb        0.10316 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -71.5     -0.4626 µg/L       0.12967     -0.4626 ppb        0.12967  28.03%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.1     -0.1773 µg/L       0.78747     -0.1773 ppb        0.78747 444.14%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          55.6      44.698 µg/L       19.7045      44.698 ppb        19.7045  44.08%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             2.7      3.6757 µg/L       9.33067      3.6757 ppb        9.33067 253.85%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -68.9     -0.0951 µg/L       0.00278     -0.0951 ppb        0.00278   2.92%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                15.6      0.7665 µg/L       0.19067      0.7665 ppb        0.19067  24.87%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          5.6      8.0576 µg/L      20.63282      8.0576 ppb       20.63282 256.07%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 5.9      0.1368 µg/L       0.24771      0.1368 ppb        0.24771 181.07%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -0.7     -0.4058 µg/L       2.38316     -0.4058 ppb        2.38316 587.30%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -9.8     -1.0413 µg/L       1.81996     -1.0413 ppb        1.81996 174.78%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -6.1     -6.2650 µg/L       3.20207     -6.2650 ppb        3.20207  51.11%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -7.1     -1.7518 µg/L       1.23320     -1.7518 ppb        1.23320  70.40%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -7.5     -2.9936 µg/L       1.56632     -2.9936 ppb        1.56632  52.32%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -188.0     -28.008 µg/L        1.2444     -28.008 ppb         1.2444   4.44%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -247.0     -12.007 µg/L        0.9245     -12.007 ppb         0.9245   7.70%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.3      0.2433 µg/L       0.41856      0.2433 ppb        0.41856 172.05%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -30.2     -0.1598 µg/L       0.11414     -0.1598 ppb        0.11414  71.42%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               101.4      0.3769 µg/L       0.16856      0.3769 ppb        0.16856  44.72%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.9      0.1651 µg/L       2.02465      0.1651 ppb        2.02465 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†                 41.3       13.14 µg/L        20.154       13.14 ppb         20.154 153.42%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†                 13.0      0.1625 µg/L       0.20889      0.1625 ppb        0.20889 128.52%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -63.9     -0.4186 µg/L       0.06191     -0.4186 ppb        0.06191  14.79%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 6 | **Autosampler Location: 333**
Sample ID: 1204073117|1783993|1| | **Date Collected: 7/24/2018 14:25:38**
Analyst: HSC | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: 1204073117|1783993|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	23527.8	23527.8	98.9	%			14:26:32
1	Al 396.153Radial†	-115.8	7.5	2.1707	µg/L	2.1707	ppb	14:26:32
1	Ca 317.933Radial†	284.9	-61.6	-11.185	µg/L	-11.185	ppb	14:26:32
1	Fe 238.204 Radial†	69.3	26.4	4.3065	µg/L	4.3065	ppb	14:26:32
1	K 766.490 Radial†	535.2	151.3	121.53	µg/L	121.53	ppb	14:26:12
1	Mg 279.077 IEC†	54.1	-11.1	-15.028	µg/L	-15.028	ppb	14:26:32
1	Na 589.592 Radial†	113.4	4.7	6.6745	µg/L	6.6745	ppb	14:26:32
1	Sr 421.552†	409.9	112.3	0.5948	µg/L	0.5948	ppb	14:26:12
1	Sc 361.383	385839.0	385839.0	98.334	%			14:27:29
1	Y 371.029	375764.9	375764.9	97.884	%			14:27:29
1	Ag 328.068†	-736.6	-27.4	-0.2627	µg/L	-0.2627	ppb	14:27:29
1	As 188.979†	-21.9	-0.9	-0.3217	µg/L	-0.3217	ppb	14:27:49
1	B 249.677†	255.5	65.8	1.9164	µg/L	1.9164	ppb	14:27:49
1	Ba 233.527†	13.8	10.1	0.0741	µg/L	0.0741	ppb	14:27:49
1	Be 313.107†	-3977.7	-77.4	-0.0478	µg/L	-0.0478	ppb	14:27:29
1	Cd 226.502†	-347.1	8.5	0.0739	µg/L	0.0739	ppb	14:27:49
1	Co 228.616†	-245.8	-12.1	-0.2387	µg/L	-0.2387	ppb	14:27:49
1	Cr 267.716†	128.6	7.8	0.1096	µg/L	0.1096	ppb	14:27:49
1	Cu 324.752†	2150.9	-15.7	-0.0830	µg/L	-0.0830	ppb	14:27:29
1	Mn 257.610†	503.0	-24.4	-0.0334	µg/L	-0.0334	ppb	14:27:49
1	Mo 202.031†	29.7	11.4	0.5577	µg/L	0.5577	ppb	14:27:49
1	Ni 231.604†	-185.4	9.4	0.2183	µg/L	0.2183	ppb	14:27:49
1	P 214.914†	172.1	10.1	5.6307	µg/L	5.6307	ppb	14:27:49
1	Pb 220.353†	-80.9	-24.6	-2.6003	µg/L	-2.6003	ppb	14:27:49
1	S 181.975 Axial†	118.7	28.9	29.743	µg/L	29.743	ppb	14:27:49
1	Sb 206.836†	176.1	3.9	0.9644	µg/L	0.9644	ppb	14:27:49
1	Se 196.026†	-24.0	0.8	0.3362	µg/L	0.3362	ppb	14:27:49
1	SiO2†	1185.8	-85.6	-12.759	µg/L	-12.759	ppb	14:27:49
1	Si 251.611†	41.4	-176.1	-8.5631	µg/L	-8.5631	ppb	14:27:49
1	Sn 189.927†	47.1	-1.3	-0.1320	µg/L	-0.1320	ppb	14:27:49
1	Ti 334.940†	-827.1	-60.5	-0.2442	µg/L	-0.2442	ppb	14:27:29
1	Tl 190.801†	-101.0	-13.9	-2.5302	µg/L	-2.5302	ppb	14:27:49
1	U 367.007†	1151.3	102.6	32.61	µg/L	32.61	ppb	14:27:29
1	V 292.402†	-158.6	27.1	0.3349	µg/L	0.3349	ppb	14:27:49
1	Zn 213.857†	1029.3	58.1	0.3796	µg/L	0.3796	ppb	14:27:49
2	Sc RADIAL	23601.8	23601.8	99.3	%			14:26:57
2	Al 396.153Radial†	-140.0	-16.4	-4.7996	µg/L	-4.7996	ppb	14:26:57
2	Ca 317.933Radial†	291.1	-56.3	-10.213	µg/L	-10.213	ppb	14:26:57
2	Fe 238.204 Radial†	64.0	20.8	3.3963	µg/L	3.3963	ppb	14:26:57
2	K 766.490 Radial†	518.9	133.2	107.02	µg/L	107.02	ppb	14:26:37
2	Mg 279.077 IEC†	65.5	0.3	0.3631	µg/L	0.3631	ppb	14:26:57
2	Na 589.592 Radial†	119.5	10.4	14.847	µg/L	14.847	ppb	14:26:57
2	Sr 421.552†	264.7	-35.2	-0.1863	µg/L	-0.1863	ppb	14:26:37
2	Sc 361.383	386139.3	386139.3	98.410	%			14:27:54
2	Y 371.029	376287.6	376287.6	98.020	%			14:27:54
2	Ag 328.068†	-645.9	65.4	0.5626	µg/L	0.5626	ppb	14:27:54
2	As 188.979†	-16.4	4.7	1.7269	µg/L	1.7269	ppb	14:28:14
2	B 249.677†	231.3	41.0	1.1978	µg/L	1.1978	ppb	14:28:14
2	Ba 233.527†	16.9	13.3	0.0974	µg/L	0.0974	ppb	14:28:14
2	Be 313.107†	-3862.6	42.7	0.0408	µg/L	0.0408	ppb	14:27:54
2	Cd 226.502†	-354.7	1.0	0.0084	µg/L	0.0084	ppb	14:28:14
2	Co 228.616†	-240.6	-6.5	-0.1306	µg/L	-0.1306	ppb	14:28:14
2	Cr 267.716†	126.5	5.6	0.0644	µg/L	0.0644	ppb	14:28:14
2	Cu 324.752†	2076.7	-92.7	-0.5844	µg/L	-0.5844	ppb	14:27:54
2	Mn 257.610†	498.1	-29.7	-0.0408	µg/L	-0.0408	ppb	14:28:14
2	Mo 202.031†	24.2	5.8	0.2824	µg/L	0.2824	ppb	14:28:14
2	Ni 231.604†	-206.7	-12.1	-0.2794	µg/L	-0.2794	ppb	14:28:14
2	P 214.914†	173.9	11.8	6.5652	µg/L	6.5652	ppb	14:28:14

2	Pb 220.353†	-73.4	-17.0	-1.8092	µg/L	-1.8092	ppb	14:28:14
2	S 181.975 Axial†	135.0	45.4	46.705	µg/L	46.705	ppb	14:28:14
2	Sb 206.836†	168.3	-4.2	-1.0329	µg/L	-1.0329	ppb	14:28:14
2	Se 196.026†	-28.1	-3.3	-1.3305	µg/L	-1.3305	ppb	14:28:14
2	SiO2†	1174.5	-98.0	-14.596	µg/L	-14.596	ppb	14:28:14
2	Si 251.611†	58.1	-159.2	-7.7382	µg/L	-7.7382	ppb	14:28:14
2	Sn 189.927†	36.8	-11.8	-1.2329	µg/L	-1.2329	ppb	14:28:14
2	Ti 334.940†	-675.0	94.7	0.3384	µg/L	0.3384	ppb	14:27:54
2	Tl 190.801†	-92.5	-5.2	-0.9326	µg/L	-0.9326	ppb	14:28:14
2	U 367.007†	1178.6	129.5	41.15	µg/L	41.15	ppb	14:27:54
2	V 292.402†	-173.6	11.9	0.1637	µg/L	0.1637	ppb	14:28:14
2	Zn 213.857†	988.0	15.4	0.1027	µg/L	0.1027	ppb	14:28:14
3	Sc RADIAL	23707.6	23707.6	99.7	%			14:27:22
3	Al 396.153Radial†	-92.3	32.0	9.3122	µg/L	9.3122	ppb	14:27:22
3	Ca 317.933Radial†	290.3	-58.4	-10.592	µg/L	-10.592	ppb	14:27:22
3	Fe 238.204 Radial†	82.2	38.8	6.3306	µg/L	6.3306	ppb	14:27:22
3	K 766.490 Radial†	448.3	60.0	48.221	µg/L	48.221	ppb	14:27:02
3	Mg 279.077 IEC†	62.2	-3.3	-4.4804	µg/L	-4.4804	ppb	14:27:22
3	Na 589.592 Radial†	135.5	25.9	37.043	µg/L	37.043	ppb	14:27:22
3	Sr 421.552†	283.9	-17.2	-0.0908	µg/L	-0.0908	ppb	14:27:02
3	Sc 361.383	384537.1	384537.1	98.002	%			14:28:19
3	Y 371.029	374218.4	374218.4	97.481	%			14:28:19
3	Ag 328.068†	-801.9	-96.5	-0.8763	µg/L	-0.8763	ppb	14:28:19
3	As 188.979†	-24.3	-3.5	-1.2798	µg/L	-1.2798	ppb	14:28:39
3	B 249.677†	227.0	37.6	1.1099	µg/L	1.1099	ppb	14:28:39
3	Ba 233.527†	19.1	15.6	0.1145	µg/L	0.1145	ppb	14:28:39
3	Be 313.107†	-3819.6	70.2	0.0564	µg/L	0.0564	ppb	14:28:19
3	Cd 226.502†	-325.8	29.0	0.2516	µg/L	0.2516	ppb	14:28:39
3	Co 228.616†	-240.3	-7.4	-0.1472	µg/L	-0.1472	ppb	14:28:39
3	Cr 267.716†	146.3	26.3	0.4368	µg/L	0.4368	ppb	14:28:39
3	Cu 324.752†	2198.3	40.2	0.2787	µg/L	0.2787	ppb	14:28:19
3	Mn 257.610†	470.1	-56.2	-0.0771	µg/L	-0.0771	ppb	14:28:39
3	Mo 202.031†	23.0	4.6	0.2239	µg/L	0.2239	ppb	14:28:39
3	Ni 231.604†	-203.1	-9.3	-0.2146	µg/L	-0.2146	ppb	14:28:39
3	P 214.914†	178.8	17.5	9.7471	µg/L	9.7471	ppb	14:28:39
3	Pb 220.353†	-84.3	-28.3	-2.9879	µg/L	-2.9879	ppb	14:28:39
3	S 181.975 Axial†	135.0	46.0	47.234	µg/L	47.234	ppb	14:28:39
3	Sb 206.836†	189.3	17.9	4.4092	µg/L	4.4092	ppb	14:28:39
3	Se 196.026†	-25.3	-0.6	-0.2229	µg/L	-0.2229	ppb	14:28:39
3	SiO2†	1133.1	-135.3	-20.133	µg/L	-20.133	ppb	14:28:39
3	Si 251.611†	52.4	-164.8	-8.0064	µg/L	-8.0064	ppb	14:28:39
3	Sn 189.927†	53.2	5.1	0.5401	µg/L	0.5401	ppb	14:28:39
3	Ti 334.940†	-623.9	144.1	0.5329	µg/L	0.5329	ppb	14:28:19
3	Tl 190.801†	-97.3	-10.5	-1.9171	µg/L	-1.9171	ppb	14:28:39
3	U 367.007†	1119.0	73.7	23.40	µg/L	23.40	ppb	14:28:19
3	V 292.402†	-153.7	31.5	0.3777	µg/L	0.3777	ppb	14:28:39
3	Zn 213.857†	968.5	-0.3	-0.0017	µg/L	-0.0017	ppb	14:28:39

Mean Data: 1204073117|1783993|1|

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	385505.1	98.248	%	0.2171				0.22%
Sc RADIAL	23612.4	99.3	%	0.38				0.38%
Y 371.029	375423.6	97.795	%	0.2803				0.29%
Ag 328.068†	-19.5	-0.1921	µg/L	0.72207	-0.1921	ppb	0.72207	375.81%
Al 396.153Radial†	7.7	2.2278	µg/L	7.05609	2.2278	ppb	7.05609	316.73%
As 188.979†	0.1	0.0418	µg/L	1.53594	0.0418	ppb	1.53594	>999.9%
B 249.677†	48.1	1.4080	µg/L	0.44246	1.4080	ppb	0.44246	31.42%
Ba 233.527†	13.0	0.0953	µg/L	0.02027	0.0953	ppb	0.02027	21.27%
Be 313.107†	11.9	0.0165	µg/L	0.05622	0.0165	ppb	0.05622	341.69%
Ca 317.933Radial†	-58.8	-10.663	µg/L	0.4902	-10.663	ppb	0.4902	4.60%
Cd 226.502†	12.8	0.1113	µg/L	0.12585	0.1113	ppb	0.12585	113.05%
Co 228.616†	-8.7	-0.1722	µg/L	0.05822	-0.1722	ppb	0.05822	33.82%
Cr 267.716†	13.3	0.2036	µg/L	0.20323	0.2036	ppb	0.20323	99.82%
Cu 324.752†	-22.7	-0.1295	µg/L	0.43345	-0.1295	ppb	0.43345	334.61%
Fe 238.204 Radial†	28.7	4.6778	µg/L	1.50194	4.6778	ppb	1.50194	32.11%
K 766.490 Radial†	114.9	92.258	µg/L	38.8211	92.258	ppb	38.8211	42.08%
Mg 279.077 IEC†	-4.7	-6.3819	µg/L	7.86997	-6.3819	ppb	7.86997	123.32%
Mn 257.610†	-36.8	-0.0504	µg/L	0.02341	-0.0504	ppb	0.02341	46.41%
Mo 202.031†	7.2	0.3547	µg/L	0.17823	0.3547	ppb	0.17823	50.25%

Na 589.592 Radial†	13.7	19.521	µg/L	15.7145	19.521	ppb	15.7145	80.50%
Ni 231.604†	-4.0	-0.0919	µg/L	0.27058	-0.0919	ppb	0.27058	294.41%
P 214.914†	13.1	7.3144	µg/L	2.15806	7.3144	ppb	2.15806	29.50%
Pb 220.353†	-23.3	-2.4658	µg/L	0.60079	-2.4658	ppb	0.60079	24.36%
S 181.975 Axial†	40.1	41.227	µg/L	9.9496	41.227	ppb	9.9496	24.13%
Sb 206.836†	5.9	1.4469	µg/L	2.75294	1.4469	ppb	2.75294	190.26%
Se 196.026†	-1.0	-0.4057	µg/L	0.84827	-0.4057	ppb	0.84827	209.07%
SiO2†	-106.3	-15.829	µg/L	3.8390	-15.829	ppb	3.8390	24.25%
Si 251.611†	-166.7	-8.1026	µg/L	0.42079	-8.1026	ppb	0.42079	5.19%
Sn 189.927†	-2.6	-0.2749	µg/L	0.89511	-0.2749	ppb	0.89511	325.60%
Sr 421.552†	20.0	0.1059	µg/L	0.42607	0.1059	ppb	0.42607	402.29%
Ti 334.940†	59.4	0.2090	µg/L	0.40437	0.2090	ppb	0.40437	193.46%
Tl 190.801†	-9.9	-1.7933	µg/L	0.80597	-1.7933	ppb	0.80597	44.94%
U 367.007†	101.9	32.39	µg/L	8.879	32.39	ppb	8.879	27.42%
V 292.402†	23.5	0.2921	µg/L	0.11324	0.2921	ppb	0.11324	38.77%
Zn 213.857†	24.4	0.1602	µg/L	0.19701	0.1602	ppb	0.19701	122.97%

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Sequence No.: 7 | **Autosampler Location: 334**
Sample ID: 1204073118|1783993|1| | **Date Collected: 7/24/2018 14:28:48**
Analyst: HSC | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: 1204073118|1783993|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	23385.0	23385.0	98.3	%			14:29:24
1	Al 396.153Radial†	16773.9	17181.7	4981.2	µg/L	4981.2	ppb	14:29:24
1	Ca 317.933Radial†	27766.7	27885.9	5061.0	µg/L	5061.0	ppb	14:29:24
1	Fe 238.204 Radial†	30172.4	30638.1	5002.1	µg/L	5002.1	ppb	14:29:24
1	K 766.490 Radial†	6183.3	5898.1	4734.8	µg/L	4734.8	ppb	14:29:24
1	Mg 279.077 IEC†	3798.5	3796.8	5157.0	µg/L	5157.0	ppb	14:29:24
1	Na 589.592 Radial†	3454.3	3402.6	4860.2	µg/L	4860.2	ppb	14:29:24
1	Sr 421.552†	88767.5	89964.0	476.19	µg/L	476.19	ppb	14:29:19
1	Sc 361.383	382561.0	382561.0	97.498	%			14:29:51
1	Y 371.029	370523.8	370523.8	96.519	%			14:29:51
1	Ag 328.068†	9759.3	10731.5	97.548	µg/L	97.548	ppb	14:29:51
1	As 188.979†	1200.3	1252.4	467.61	µg/L	467.61	ppb	14:30:11
1	B 249.677†	16604.8	16836.8	503.44	µg/L	503.44	ppb	14:29:51
1	Ba 233.527†	64179.4	65822.4	483.72	µg/L	483.72	ppb	14:29:51
1	Be 313.107†	666270.3	687335.1	495.49	µg/L	495.49	ppb	14:29:51
1	Cd 226.502†	52942.6	54662.6	476.01	µg/L	476.01	ppb	14:29:51
1	Co 228.616†	23268.7	24103.7	479.82	µg/L	479.82	ppb	14:30:11
1	Cr 267.716†	27022.8	27593.3	476.40	µg/L	476.40	ppb	14:30:11
1	Cu 324.752†	75007.8	74729.7	491.72	µg/L	491.72	ppb	14:29:51
1	Mn 257.610†	344890.7	353205.0	487.67	µg/L	487.67	ppb	14:29:51
1	Mo 202.031†	9794.5	10026.9	491.90	µg/L	491.90	ppb	14:30:11
1	Ni 231.604†	19930.2	20639.5	477.42	µg/L	477.42	ppb	14:30:11
1	P 214.914†	1027.1	888.6	482.78	µg/L	482.78	ppb	14:30:11
1	Pb 220.353†	4457.4	4629.4	485.55	µg/L	485.55	ppb	14:30:11
1	S 181.975 Axial†	4688.1	4716.7	4844.3	µg/L	4844.3	ppb	14:30:11
1	Sb 206.836†	2055.3	1932.8	473.92	µg/L	473.92	ppb	14:30:11
1	Se 196.026†	1092.6	1145.8	460.78	µg/L	460.78	ppb	14:30:11
1	SiO2†	68820.6	69295.1	10284	µg/L	10284	ppb	14:29:51
1	Si 251.611†	97020.0	99291.4	4814.0	µg/L	4814.0	ppb	14:29:51
1	Sn 189.927†	4586.8	4655.3	488.06	µg/L	488.06	ppb	14:30:11
1	Ti 334.940†	124717.3	128698.4	486.12	µg/L	486.12	ppb	14:29:51
1	Tl 190.801†	2513.1	2666.4	490.57	µg/L	490.57	ppb	14:30:11
1	U 367.007†	2541.4	1538.4	467.0	µg/L	467.0	ppb	14:29:51
1	V 292.402†	41143.9	42388.1	490.62	µg/L	490.62	ppb	14:29:51
1	Zn 213.857†	70138.8	70950.1	461.01	µg/L	461.01	ppb	14:29:51
2	Sc RADIAL	23610.5	23610.5	99.3	%			14:29:34
2	Al 396.153Radial†	17015.2	17261.8	5004.6	µg/L	5004.6	ppb	14:29:34
2	Ca 317.933Radial†	27837.8	27687.8	5025.1	µg/L	5025.1	ppb	14:29:34
2	Fe 238.204 Radial†	30080.4	30252.3	4939.1	µg/L	4939.1	ppb	14:29:34
2	K 766.490 Radial†	6190.6	5845.4	4692.4	µg/L	4692.4	ppb	14:29:34
2	Mg 279.077 IEC†	3782.7	3744.1	5085.3	µg/L	5085.3	ppb	14:29:34
2	Na 589.592 Radial†	3500.6	3415.7	4879.1	µg/L	4879.1	ppb	14:29:34
2	Sr 421.552†	90334.0	90679.4	479.97	µg/L	479.97	ppb	14:29:29
2	Sc 361.383	383097.7	383097.7	97.635	%			14:30:17
2	Y 371.029	370549.4	370549.4	96.525	%			14:30:17
2	Ag 328.068†	9649.3	10604.8	96.401	µg/L	96.401	ppb	14:30:17
2	As 188.979†	1196.6	1246.9	465.59	µg/L	465.59	ppb	14:30:37
2	B 249.677†	16595.7	16803.7	502.24	µg/L	502.24	ppb	14:30:17
2	Ba 233.527†	64379.9	65935.5	484.55	µg/L	484.55	ppb	14:30:17
2	Be 313.107†	666031.7	686133.3	494.62	µg/L	494.62	ppb	14:30:17
2	Cd 226.502†	52846.9	54488.5	474.49	µg/L	474.49	ppb	14:30:17
2	Co 228.616†	23285.9	24087.9	479.50	µg/L	479.50	ppb	14:30:37
2	Cr 267.716†	26993.7	27524.7	475.21	µg/L	475.21	ppb	14:30:37
2	Cu 324.752†	75228.8	74848.1	492.50	µg/L	492.50	ppb	14:30:17
2	Mn 257.610†	345698.1	353536.3	488.13	µg/L	488.13	ppb	14:30:17
2	Mo 202.031†	9807.4	10026.1	491.85	µg/L	491.85	ppb	14:30:37
2	Ni 231.604†	19909.7	20589.9	476.27	µg/L	476.27	ppb	14:30:37
2	P 214.914†	997.4	856.7	465.02	µg/L	465.02	ppb	14:30:37

2	Pb 220.353†	4420.0	4584.7	480.86 µg/L	480.86 ppb		14:30:37
2	S 181.975 Axial†	4665.5	4686.8	4813.6 µg/L	4813.6 ppb		14:30:37
2	Sb 206.836†	2074.5	1949.5	478.06 µg/L	478.06 ppb		14:30:37
2	Se 196.026†	1092.1	1143.8	459.91 µg/L	459.91 ppb		14:30:37
2	SiO2†	68980.6	69360.1	10294 µg/L	10294 ppb		14:30:17
2	Si 251.611†	97310.2	99449.2	4821.7 µg/L	4821.7 ppb		14:30:17
2	Sn 189.927†	4565.2	4626.6	485.07 µg/L	485.07 ppb		14:30:37
2	Ti 334.940†	125252.3	129067.1	487.51 µg/L	487.51 ppb		14:30:17
2	Tl 190.801†	2519.0	2668.9	491.02 µg/L	491.02 ppb		14:30:37
2	U 367.007†	2548.9	1542.4	468.6 µg/L	468.6 ppb		14:30:17
2	V 292.402†	41126.8	42311.4	489.73 µg/L	489.73 ppb		14:30:17
2	Zn 213.857†	70195.8	70907.6	460.75 µg/L	460.75 ppb		14:30:17
3	Sc RADIAL	23798.9	23798.9	100 %			14:29:44
3	Al 396.153Radial†	17113.5	17224.4	4993.6 µg/L	4993.6 ppb		14:29:44
3	Ca 317.933Radial†	27822.3	27450.4	4982.0 µg/L	4982.0 ppb		14:29:44
3	Fe 238.204 Radial†	30274.0	30205.9	4931.5 µg/L	4931.5 ppb		14:29:44
3	K 766.490 Radial†	6382.0	5987.3	4806.4 µg/L	4806.4 ppb		14:29:44
3	Mg 279.077 IEC†	3808.5	3739.7	5079.4 µg/L	5079.4 ppb		14:29:44
3	Na 589.592 Radial†	3481.9	3369.1	4812.4 µg/L	4812.4 ppb		14:29:44
3	Sr 421.552†	91015.6	90640.4	479.77 µg/L	479.77 ppb		14:29:39
3	Sc 361.383	381851.0	381851.0	97.317 %			14:30:43
3	Y 371.029	370188.8	370188.8	96.431 %			14:30:43
3	Ag 328.068†	9749.3	10739.8	97.618 µg/L	97.618 ppb		14:30:43
3	As 188.979†	1192.2	1246.5	465.43 µg/L	465.43 ppb		14:31:04
3	B 249.677†	16623.1	16887.3	504.62 µg/L	504.62 ppb		14:30:43
3	Ba 233.527†	64398.6	66170.1	486.28 µg/L	486.28 ppb		14:30:43
3	Be 313.107†	666221.5	688555.6	496.37 µg/L	496.37 ppb		14:30:43
3	Cd 226.502†	52819.0	54636.6	475.79 µg/L	475.79 ppb		14:30:43
3	Co 228.616†	23295.9	24176.0	481.26 µg/L	481.26 ppb		14:31:04
3	Cr 267.716†	27052.7	27675.5	477.82 µg/L	477.82 ppb		14:31:04
3	Cu 324.752†	75206.0	75076.3	493.99 µg/L	493.99 ppb		14:30:43
3	Mn 257.610†	345353.4	354338.2	489.23 µg/L	489.23 ppb		14:30:43
3	Mo 202.031†	9811.8	10063.4	493.68 µg/L	493.68 ppb		14:31:04
3	Ni 231.604†	19951.2	20699.1	478.80 µg/L	478.80 ppb		14:31:04
3	P 214.914†	1005.2	868.0	471.32 µg/L	471.32 ppb		14:31:04
3	Pb 220.353†	4415.4	4594.8	481.93 µg/L	481.93 ppb		14:31:04
3	S 181.975 Axial†	4674.8	4711.9	4839.4 µg/L	4839.4 ppb		14:31:04
3	Sb 206.836†	2067.5	1949.3	477.98 µg/L	477.98 ppb		14:31:04
3	Se 196.026†	1083.3	1138.4	457.76 µg/L	457.76 ppb		14:31:04
3	SiO2†	68987.2	69597.5	10329 µg/L	10329 ppb		14:30:43
3	Si 251.611†	97253.9	99716.7	4834.6 µg/L	4834.6 ppb		14:30:43
3	Sn 189.927†	4569.5	4646.2	487.12 µg/L	487.12 ppb		14:31:04
3	Ti 334.940†	125084.9	129313.8	488.44 µg/L	488.44 ppb		14:30:43
3	Tl 190.801†	2523.7	2682.0	493.44 µg/L	493.44 ppb		14:31:04
3	U 367.007†	2536.9	1538.7	467.4 µg/L	467.4 ppb		14:30:43
3	V 292.402†	41288.2	42614.8	493.22 µg/L	493.22 ppb		14:30:43
3	Zn 213.857†	69969.2	70909.5	460.75 µg/L	460.75 ppb		14:30:43

Mean Data: 1204073118|1783993|1|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	382503.2	97.483	%	0.1594				0.16%
Sc RADIAL	23598.1	99.2	%	0.87				0.88%
Y 371.029	370420.6	96.492	%	0.0524				0.05%
Ag 328.068†	10692.0	97.189	µg/L	0.6831	97.189	ppb	0.6831	0.70%
Al 396.153Radial†	17222.6	4993.1	µg/L	11.67	4993.1	ppb	11.67	0.23%
As 188.979†	1248.6	466.21	µg/L	1.218	466.21	ppb	1.218	0.26%
B 249.677†	16842.6	503.43	µg/L	1.189	503.43	ppb	1.189	0.24%
Ba 233.527†	65976.0	484.85	µg/L	1.304	484.85	ppb	1.304	0.27%
Be 313.107†	687341.3	495.49	µg/L	0.872	495.49	ppb	0.872	0.18%
Ca 317.933Radial†	27674.7	5022.7	µg/L	39.57	5022.7	ppb	39.57	0.79%
Cd 226.502†	54595.9	475.43	µg/L	0.816	475.43	ppb	0.816	0.17%
Co 228.616†	24122.6	480.19	µg/L	0.936	480.19	ppb	0.936	0.19%
Cr 267.716†	27597.8	476.48	µg/L	1.306	476.48	ppb	1.306	0.27%
Cu 324.752†	74884.7	492.74	µg/L	1.156	492.74	ppb	1.156	0.23%
Fe 238.204 Radial†	30365.4	4957.6	µg/L	38.73	4957.6	ppb	38.73	0.78%
K 766.490 Radial†	5910.3	4744.5	µg/L	57.61	4744.5	ppb	57.61	1.21%
Mg 279.077 IEC†	3760.2	5107.2	µg/L	43.19	5107.2	ppb	43.19	0.85%
Mn 257.610†	353693.2	488.34	µg/L	0.802	488.34	ppb	0.802	0.16%
Mo 202.031†	10038.8	492.48	µg/L	1.045	492.48	ppb	1.045	0.21%

Na 589.592 Radial†	3395.8	4850.6	µg/L	34.35	4850.6	ppb	34.35	0.71%
Ni 231.604†	20642.9	477.50	µg/L	1.264	477.50	ppb	1.264	0.26%
P 214.914†	871.1	473.04	µg/L	9.000	473.04	ppb	9.000	1.90%
Pb 220.353†	4603.0	482.78	µg/L	2.459	482.78	ppb	2.459	0.51%
S 181.975 Axial†	4705.1	4832.4	µg/L	16.50	4832.4	ppb	16.50	0.34%
Sb 206.836†	1943.9	476.66	µg/L	2.367	476.66	ppb	2.367	0.50%
Se 196.026†	1142.7	459.49	µg/L	1.552	459.49	ppb	1.552	0.34%
SiO2†	69417.6	10303	µg/L	23.64	10303	ppb	23.64	0.23%
Si 251.611†	99485.7	4823.4	µg/L	10.43	4823.4	ppb	10.43	0.22%
Sn 189.927†	4642.7	486.75	µg/L	1.528	486.75	ppb	1.528	0.31%
Sr 421.552†	90428.0	478.64	µg/L	2.130	478.64	ppb	2.130	0.45%
Ti 334.940†	129026.4	487.35	µg/L	1.168	487.35	ppb	1.168	0.24%
Tl 190.801†	2672.4	491.68	µg/L	1.543	491.68	ppb	1.543	0.31%
U 367.007†	1539.8	467.7	µg/L	0.80	467.7	ppb	0.80	0.17%
V 292.402†	42438.1	491.19	µg/L	1.811	491.19	ppb	1.811	0.37%
Zn 213.857†	70922.4	460.84	µg/L	0.150	460.84	ppb	0.150	0.03%

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Sequence No.: 8 **Autosampler Location: 335**
Sample ID: 454944002|1783993|10| **Date Collected: 7/24/2018 14:31:12**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: 454944002|1783993|10|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	25549.0	25549.0	107	%			14:31:48
1	Al 396.153Radial†	45920.7	42865.3	12484	µg/L	12484	ppb	14:31:48
1	Ca 317.933Radial†	160320.3	148868.8	27018	µg/L	27018	ppb	14:31:48
1	Fe 238.204 Radial†	212913.8	198126.2	32347	µg/L	32347	ppb	14:31:43
1	K 766.490 Radial†	3143.6	2536.4	2019.1	µg/L	2019.1	ppb	14:31:48
1	Mg 279.077 IEC†	10402.6	9616.5	13061	µg/L	13061	ppb	14:31:48
1	Na 589.592 Radial†	190.1	67.0	53.478	µg/L	53.478	ppb	14:31:48
1	Sr 421.552†	19441.0	17792.8	93.720	µg/L	93.720	ppb	14:31:48
1	Sc 361.383	402118.2	402118.2	102.48	%			14:32:15
1	Y 371.029	393117.8	393117.8	102.40	%			14:32:15
1	Ag 328.068†	-1256.7	-504.6	0.2381	µg/L	0.2381	ppb	14:32:35
1	As 188.979†	-2.3	19.1	8.8396	µg/L	8.8396	ppb	14:32:35
1	B 249.677†	-3833.4	-3934.6	12.436	µg/L	12.436	ppb	14:32:35
1	Ba 233.527†	11961.0	11667.4	84.967	µg/L	84.967	ppb	14:32:35
1	Be 313.107†	-3086.0	956.5	1.0583	µg/L	1.0583	ppb	14:32:35
1	Cd 226.502†	67.3	427.1	0.1811	µg/L	0.1811	ppb	14:32:35
1	Co 228.616†	542.2	767.0	14.949	µg/L	14.949	ppb	14:32:35
1	Cr 267.716†	1281.1	1127.1	19.687	µg/L	19.687	ppb	14:32:35
1	Cu 324.752†	8370.7	5965.0	41.257	µg/L	41.257	ppb	14:32:35
1	Mn 257.610†	541889.0	528227.1	730.92	µg/L	730.92	ppb	14:32:15
1	Mo 202.031†	43.7	23.8	1.7748	µg/L	1.7748	ppb	14:32:35
1	Ni 231.604†	1354.7	1519.8	35.792	µg/L	35.792	ppb	14:32:35
1	P 214.914†	1096.6	905.1	478.51	µg/L	478.51	ppb	14:32:35
1	Pb 220.353†	107.4	162.5	18.579	µg/L	18.579	ppb	14:32:35
1	S 181.975 Axial†	9195.8	8881.3	9115.2	µg/L	9115.2	ppb	14:32:35
1	Sb 206.836†	168.5	-10.8	-7.3834	µg/L	-7.3834	ppb	14:32:35
1	Se 196.026†	-47.6	-21.3	5.8771	µg/L	5.8771	ppb	14:32:35
1	SiO2†	19269.7	17511.5	2597.6	µg/L	2597.6	ppb	14:32:35
1	Si 251.611†	26217.3	25364.0	1229.5	µg/L	1229.5	ppb	14:32:35
1	Sn 189.927†	62.3	11.6	2.0125	µg/L	2.0125	ppb	14:32:35
1	Ti 334.940†	32079.9	32083.5	122.38	µg/L	122.38	ppb	14:32:15
1	Tl 190.801†	-112.4	-20.9	-0.5641	µg/L	-0.5641	ppb	14:32:35
1	U 367.007†	1627.9	520.3	26.01	µg/L	26.01	ppb	14:32:15
1	V 292.402†	1469.5	1622.3	25.206	µg/L	25.206	ppb	14:32:35
1	Zn 213.857†	21931.0	20411.1	128.11	µg/L	128.11	ppb	14:32:35
2	Sc RADIAL	25189.3	25189.3	106	%			14:31:58
2	Al 396.153Radial†	45352.8	42939.5	12506	µg/L	12506	ppb	14:31:58
2	Ca 317.933Radial†	158343.7	149133.4	27066	µg/L	27066	ppb	14:31:58
2	Fe 238.204 Radial†	213577.5	201582.3	32911	µg/L	32911	ppb	14:31:53
2	K 766.490 Radial†	3124.5	2560.1	2037.8	µg/L	2037.8	ppb	14:31:58
2	Mg 279.077 IEC†	10291.7	9650.1	13107	µg/L	13107	ppb	14:31:58
2	Na 589.592 Radial†	219.2	96.9	95.563	µg/L	95.563	ppb	14:31:58
2	Sr 421.552†	19254.7	17875.3	94.156	µg/L	94.156	ppb	14:31:58
2	Sc 361.383	397069.9	397069.9	101.20	%			14:32:40
2	Y 371.029	387840.1	387840.1	101.03	%			14:32:40
2	Ag 328.068†	-1229.9	-493.6	0.4112	µg/L	0.4112	ppb	14:33:00
2	As 188.979†	-0.5	20.9	9.5304	µg/L	9.5304	ppb	14:33:00
2	B 249.677†	-3818.6	-3967.5	13.686	µg/L	13.686	ppb	14:33:00
2	Ba 233.527†	11958.7	11813.4	86.027	µg/L	86.027	ppb	14:33:00
2	Be 313.107†	-3168.8	836.4	0.9760	µg/L	0.9760	ppb	14:33:00
2	Cd 226.502†	71.7	432.3	0.1649	µg/L	0.1649	ppb	14:33:00
2	Co 228.616†	519.8	751.5	14.639	µg/L	14.639	ppb	14:33:00
2	Cr 267.716†	1306.6	1168.2	20.395	µg/L	20.395	ppb	14:33:00
2	Cu 324.752†	8364.8	6063.0	41.943	µg/L	41.943	ppb	14:33:00
2	Mn 257.610†	536636.0	529758.8	733.07	µg/L	733.07	ppb	14:32:40
2	Mo 202.031†	48.8	29.3	2.0569	µg/L	2.0569	ppb	14:33:00
2	Ni 231.604†	1337.2	1519.4	35.793	µg/L	35.793	ppb	14:33:00
2	P 214.914†	1102.6	924.6	488.89	µg/L	488.89	ppb	14:33:00

2	Pb 220.353†	57.6	114.6	13.557 µg/L	13.557 ppb		14:33:00
2	S 181.975 Axial†	9218.8	9018.2	9255.7 µg/L	9255.7 ppb		14:33:00
2	Sb 206.836†	190.6	13.1	-1.5756 µg/L	-1.5756 ppb		14:33:00
2	Se 196.026†	-49.7	-23.9	5.0559 µg/L	5.0559 ppb		14:33:00
2	SiO2†	19218.7	17700.2	2625.5 µg/L	2625.5 ppb		14:33:00
2	Si 251.611†	26136.9	25609.9	1241.4 µg/L	1241.4 ppb		14:33:00
2	Sn 189.927†	52.5	2.7	1.0902 µg/L	1.0902 ppb		14:33:00
2	Ti 334.940†	31837.5	32242.0	122.98 µg/L	122.98 ppb		14:32:40
2	Tl 190.801†	-105.2	-15.2	0.5434 µg/L	0.5434 ppb		14:33:00
2	U 367.007†	1651.8	564.1	37.73 µg/L	37.73 ppb		14:32:40
2	V 292.402†	1406.6	1578.3	24.829 µg/L	24.829 ppb		14:33:00
2	Zn 213.857†	21955.7	20707.7	129.97 µg/L	129.97 ppb		14:33:00
3	Sc RADIAL	25128.2	25128.2	106 %			14:32:08
3	Al 396.153Radial†	45448.8	43134.5	12563 µg/L	12563 ppb		14:32:08
3	Ca 317.933Radial†	159079.1	150192.8	27259 µg/L	27259 ppb		14:32:08
3	Fe 238.204 Radial†	213948.0	202423.2	33048 µg/L	33048 ppb		14:32:03
3	K 766.490 Radial†	3278.7	2713.1	2160.6 µg/L	2160.6 ppb		14:32:08
3	Mg 279.077 IEC†	10367.0	9744.9	13236 µg/L	13236 ppb		14:32:08
3	Na 589.592 Radial†	235.4	112.8	118.09 µg/L	118.09 ppb		14:32:08
3	Sr 421.552†	19256.7	17921.4	94.396 µg/L	94.396 ppb		14:32:08
3	Sc 361.383	397484.6	397484.6	101.30 %			14:33:05
3	Y 371.029	387919.8	387919.8	101.05 %			14:33:05
3	Ag 328.068†	-1275.3	-537.2	0.0166 µg/L	0.0166 ppb		14:33:26
3	As 188.979†	2.7	24.0	10.676 µg/L	10.676 ppb		14:33:26
3	B 249.677†	-3791.2	-3936.5	15.112 µg/L	15.112 ppb		14:33:26
3	Ba 233.527†	11945.8	11788.4	85.840 µg/L	85.840 ppb		14:33:26
3	Be 313.107†	-3172.7	835.8	0.9886 µg/L	0.9886 ppb		14:33:26
3	Cd 226.502†	81.6	442.0	0.2340 µg/L	0.2340 ppb		14:33:26
3	Co 228.616†	544.3	775.2	15.111 µg/L	15.111 ppb		14:33:26
3	Cr 267.716†	1292.9	1153.3	20.109 µg/L	20.109 ppb		14:33:26
3	Cu 324.752†	8385.1	6074.5	42.054 µg/L	42.054 ppb		14:33:26
3	Mn 257.610†	536177.5	528752.9	731.69 µg/L	731.69 ppb		14:33:05
3	Mo 202.031†	53.1	33.6	2.2685 µg/L	2.2685 ppb		14:33:26
3	Ni 231.604†	1330.5	1511.3	35.609 µg/L	35.609 ppb		14:33:26
3	P 214.914†	1114.7	935.4	494.80 µg/L	494.80 ppb		14:33:26
3	Pb 220.353†	96.3	152.8	17.530 µg/L	17.530 ppb		14:33:26
3	S 181.975 Axial†	9183.4	8973.7	9209.9 µg/L	9209.9 ppb		14:33:26
3	Sb 206.836†	209.5	31.6	2.9785 µg/L	2.9785 ppb		14:33:26
3	Se 196.026†	-57.0	-31.1	2.2589 µg/L	2.2589 ppb		14:33:26
3	SiO2†	19220.5	17682.1	2622.8 µg/L	2622.8 ppb		14:33:26
3	Si 251.611†	26102.9	25549.3	1238.4 µg/L	1238.4 ppb		14:33:26
3	Sn 189.927†	74.8	24.7	3.3847 µg/L	3.3847 ppb		14:33:26
3	Ti 334.940†	31738.9	32111.8	122.47 µg/L	122.47 ppb		14:33:05
3	Tl 190.801†	-101.8	-11.7	1.2125 µg/L	1.2125 ppb		14:33:26
3	U 367.007†	1792.8	701.6	80.80 µg/L	80.80 ppb		14:33:05
3	V 292.402†	1419.3	1589.5	25.012 µg/L	25.012 ppb		14:33:26
3	Zn 213.857†	21904.1	20634.1	129.46 µg/L	129.46 ppb		14:33:26

Mean Data: 454944002|1783993|10|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	398890.9	101.66	%	0.714				0.70%
Sc RADIAL	25288.8	106	%	0.96				0.90%
Y 371.029	389625.9	101.49	%	0.788				0.78%
Ag 328.068†	-511.8	0.2220	µg/L	0.19783	0.2220	ppb	0.19783	89.13%
Al 396.153Radial†	42979.8	12518	µg/L	40.47	12518	ppb	40.47	0.32%
As 188.979†	21.3	9.6819	µg/L	0.92734	9.6819	ppb	0.92734	9.58%
B 249.677†	-3946.2	13.745	µg/L	1.3389	13.745	ppb	1.3389	9.74%
Ba 233.527†	11756.4	85.611	µg/L	0.5656	85.611	ppb	0.5656	0.66%
Be 313.107†	876.2	1.0076	µg/L	0.04437	1.0076	ppb	0.04437	4.40%
Ca 317.933Radial†	149398.3	27114	µg/L	127.16	27114	ppb	127.16	0.47%
Cd 226.502†	433.8	0.1933	µg/L	0.03616	0.1933	ppb	0.03616	18.70%
Co 228.616†	764.6	14.900	µg/L	0.2395	14.900	ppb	0.2395	1.61%
Cr 267.716†	1149.6	20.064	µg/L	0.3564	20.064	ppb	0.3564	1.78%
Cu 324.752†	6034.2	41.751	µg/L	0.4316	41.751	ppb	0.4316	1.03%
Fe 238.204 Radial†	200710.5	32769	µg/L	371.79	32769	ppb	371.79	1.13%
K 766.490 Radial†	2603.2	2072.5	µg/L	76.90	2072.5	ppb	76.90	3.71%
Mg 279.077 IEC†	9670.5	13135	µg/L	90.44	13135	ppb	90.44	0.69%
Mn 257.610†	528912.9	731.89	µg/L	1.089	731.89	ppb	1.089	0.15%
Mo 202.031†	28.9	2.0334	µg/L	0.24768	2.0334	ppb	0.24768	12.18%

Na 589.592 Radial†	92.2	89.043	µg/L	32.7946	89.043	ppb	32.7946	36.83%
Ni 231.604†	1516.8	35.731	µg/L	0.1061	35.731	ppb	0.1061	0.30%
P 214.914†	921.7	487.40	µg/L	8.246	487.40	ppb	8.246	1.69%
Pb 220.353†	143.3	16.555	µg/L	2.6488	16.555	ppb	2.6488	16.00%
S 181.975 Axial†	8957.7	9193.6	µg/L	71.64	9193.6	ppb	71.64	0.78%
Sb 206.836†	11.3	-1.9935	µg/L	5.19356	-1.9935	ppb	5.19356	260.52%
Se 196.026†	-25.4	4.3973	µg/L	1.89684	4.3973	ppb	1.89684	43.14%
SiO2†	17631.3	2615.3	µg/L	15.39	2615.3	ppb	15.39	0.59%
Si 251.611†	25507.7	1236.4	µg/L	6.19	1236.4	ppb	6.19	0.50%
Sn 189.927†	13.0	2.1625	µg/L	1.15456	2.1625	ppb	1.15456	53.39%
Sr 421.552†	17863.2	94.090	µg/L	0.3430	94.090	ppb	0.3430	0.36%
Ti 334.940†	32145.7	122.61	µg/L	0.320	122.61	ppb	0.320	0.26%
Tl 190.801†	-15.9	0.3973	µg/L	0.89725	0.3973	ppb	0.89725	225.85%
U 367.007†	595.3	48.18	µg/L	28.850	48.18	ppb	28.850	59.88%
V 292.402†	1596.7	25.016	µg/L	0.1882	25.016	ppb	0.1882	0.75%
Zn 213.857†	20584.3	129.18	µg/L	0.960	129.18	ppb	0.960	0.74%

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Sequence No.: 9 | **Autosampler Location: 336**
Sample ID: 1204073119|1783993|10| | **Date Collected: 7/24/2018 14:33:34**
Analyst: HSC | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: 1204073119|1783993|10|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	24651.5	24651.5	104	%			14:34:10
1	Al 396.153Radial†	55773.2	53925.4	15703	µg/L	15703	ppb	14:34:10
1	Ca 317.933Radial†	136054.5	130893.4	23756	µg/L	23756	ppb	14:34:10
1	Fe 238.204 Radial†	200370.1	193240.4	31549	µg/L	31549	ppb	14:34:05
1	K 766.490 Radial†	5042.5	4474.6	3576.3	µg/L	3576.3	ppb	14:34:10
1	Mg 279.077 IEC†	9106.9	8719.1	11843	µg/L	11843	ppb	14:34:10
1	Na 589.592 Radial†	557.2	427.5	570.15	µg/L	570.15	ppb	14:34:10
1	Sr 421.552†	29429.6	28086.9	148.27	µg/L	148.27	ppb	14:34:10
1	Sc 361.383	394626.8	394626.8	100.57	%			14:34:37
1	Y 371.029	386053.6	386053.6	100.56	%			14:34:37
1	Ag 328.068†	-115.7	606.7	10.133	µg/L	10.133	ppb	14:34:57
1	As 188.979†	131.4	152.0	58.372	µg/L	58.372	ppb	14:34:57
1	B 249.677†	-1697.4	-1881.8	68.363	µg/L	68.363	ppb	14:34:57
1	Ba 233.527†	23089.9	22954.4	167.95	µg/L	167.95	ppb	14:34:57
1	Be 313.107†	67259.1	70843.5	51.402	µg/L	51.402	ppb	14:34:37
1	Cd 226.502†	5713.9	6042.8	49.219	µg/L	49.219	ppb	14:34:57
1	Co 228.616†	3095.2	3315.5	65.624	µg/L	65.624	ppb	14:34:57
1	Cr 267.716†	4285.5	4138.1	71.721	µg/L	71.721	ppb	14:34:57
1	Cu 324.752†	14546.8	12261.0	82.631	µg/L	82.631	ppb	14:34:37
1	Mn 257.610†	420908.3	417973.7	578.74	µg/L	578.74	ppb	14:34:37
1	Mo 202.031†	1072.0	1047.0	51.949	µg/L	51.949	ppb	14:34:57
1	Ni 231.604†	3348.1	3526.9	82.193	µg/L	82.193	ppb	14:34:57
1	P 214.914†	1167.1	995.5	529.47	µg/L	529.47	ppb	14:34:57
1	Pb 220.353†	576.1	630.5	67.793	µg/L	67.793	ppb	14:34:57
1	S 181.975 Axial†	9360.1	9215.0	9458.1	µg/L	9458.1	ppb	14:34:57
1	Sb 206.836†	387.5	210.0	46.952	µg/L	46.952	ppb	14:34:57
1	Se 196.026†	70.2	95.0	52.052	µg/L	52.052	ppb	14:34:57
1	SiO2†	39929.0	38410.0	5704.3	µg/L	5704.3	ppb	14:34:37
1	Si 251.611†	55520.4	54985.7	2667.4	µg/L	2667.4	ppb	14:34:37
1	Sn 189.927†	543.2	490.9	52.444	µg/L	52.444	ppb	14:34:57
1	Ti 334.940†	56187.3	56647.7	214.99	µg/L	214.99	ppb	14:34:37
1	Tl 190.801†	164.1	252.0	49.650	µg/L	49.650	ppb	14:34:57
1	U 367.007†	1857.3	778.5	113.0	µg/L	113.0	ppb	14:34:37
1	V 292.402†	6209.2	6362.2	79.739	µg/L	79.739	ppb	14:34:57
1	Zn 213.857†	18752.7	17657.3	110.02	µg/L	110.02	ppb	14:34:57
2	Sc RADIAL	24698.3	24698.3	104	%			14:34:20
2	Al 396.153Radial†	56058.2	54097.9	15753	µg/L	15753	ppb	14:34:20
2	Ca 317.933Radial†	136207.9	130792.6	23738	µg/L	23738	ppb	14:34:20
2	Fe 238.204 Radial†	202069.2	194510.4	31756	µg/L	31756	ppb	14:34:15
2	K 766.490 Radial†	5004.1	4428.4	3539.0	µg/L	3539.0	ppb	14:34:20
2	Mg 279.077 IEC†	9047.8	8645.6	11743	µg/L	11743	ppb	14:34:20
2	Na 589.592 Radial†	580.7	449.1	600.83	µg/L	600.83	ppb	14:34:20
2	Sr 421.552†	29632.4	28228.4	149.02	µg/L	149.02	ppb	14:34:20
2	Sc 361.383	393420.0	393420.0	100.27	%			14:35:02
2	Y 371.029	384454.7	384454.7	100.15	%			14:35:02
2	Ag 328.068†	-80.6	641.4	10.477	µg/L	10.477	ppb	14:35:22
2	As 188.979†	126.2	147.2	56.631	µg/L	56.631	ppb	14:35:22
2	B 249.677†	-1707.7	-1897.2	68.725	µg/L	68.725	ppb	14:35:22
2	Ba 233.527†	23165.0	23099.7	169.02	µg/L	169.02	ppb	14:35:22
2	Be 313.107†	67261.3	71050.8	51.551	µg/L	51.551	ppb	14:35:02
2	Cd 226.502†	5738.1	6084.4	49.559	µg/L	49.559	ppb	14:35:22
2	Co 228.616†	3094.1	3323.8	65.787	µg/L	65.787	ppb	14:35:22
2	Cr 267.716†	4316.3	4181.9	72.481	µg/L	72.481	ppb	14:35:22
2	Cu 324.752†	14601.3	12359.6	83.289	µg/L	83.289	ppb	14:35:02
2	Mn 257.610†	421599.3	419946.6	581.48	µg/L	581.48	ppb	14:35:02
2	Mo 202.031†	1078.3	1056.6	52.422	µg/L	52.422	ppb	14:35:22
2	Ni 231.604†	3389.5	3578.4	83.388	µg/L	83.388	ppb	14:35:22
2	P 214.914†	1163.7	995.7	529.38	µg/L	529.38	ppb	14:35:22

2	Pb 220.353†	568.0	624.2	67.142 µg/L	67.142 ppb		14:35:22
2	S 181.975 Axial†	9369.2	9252.6	9496.6 µg/L	9496.6 ppb		14:35:22
2	Sb 206.836†	365.4	189.2	41.758 µg/L	41.758 ppb		14:35:22
2	Se 196.026†	72.2	97.2	53.013 µg/L	53.013 ppb		14:35:22
2	SiO2†	39753.9	38357.1	5696.4 µg/L	5696.4 ppb		14:35:02
2	Si 251.611†	55157.1	54792.8	2658.0 µg/L	2658.0 ppb		14:35:02
2	Sn 189.927†	525.9	475.3	50.822 µg/L	50.822 ppb		14:35:22
2	Ti 334.940†	56233.2	56864.9	215.81 µg/L	215.81 ppb		14:35:02
2	Tl 190.801†	148.1	236.5	46.834 µg/L	46.834 ppb		14:35:22
2	U 367.007†	1837.6	764.6	107.8 µg/L	107.8 ppb		14:35:02
2	V 292.402†	6176.0	6348.0	79.621 µg/L	79.621 ppb		14:35:22
2	Zn 213.857†	18825.5	17787.1	110.84 µg/L	110.84 ppb		14:35:22
3	Sc RADIAL	24768.7	24768.7	104 %			14:34:30
3	Al 396.153Radial†	56040.4	53927.5	15704 µg/L	15704 ppb		14:34:30
3	Ca 317.933Radial†	136972.4	131154.0	23803 µg/L	23803 ppb		14:34:30
3	Fe 238.204 Radial†	203166.4	195010.9	31838 µg/L	31838 ppb		14:34:25
3	K 766.490 Radial†	5004.5	4415.1	3528.3 µg/L	3528.3 ppb		14:34:30
3	Mg 279.077 IEC†	9174.6	8742.5	11874 µg/L	11874 ppb		14:34:30
3	Na 589.592 Radial†	582.1	448.9	600.42 µg/L	600.42 ppb		14:34:30
3	Sr 421.552†	29589.8	28106.4	148.38 µg/L	148.38 ppb		14:34:30
3	Sc 361.383	392821.8	392821.8	100.11 %			14:35:28
3	Y 371.029	383333.8	383333.8	99.855 %			14:35:28
3	Ag 328.068†	-95.9	626.0	10.364 µg/L	10.364 ppb		14:35:48
3	As 188.979†	135.3	156.5	60.061 µg/L	60.061 ppb		14:35:48
3	B 249.677†	-1708.9	-1901.0	68.931 µg/L	68.931 ppb		14:35:48
3	Ba 233.527†	23179.5	23149.4	169.38 µg/L	169.38 ppb		14:35:48
3	Be 313.107†	67626.1	71517.4	51.883 µg/L	51.883 ppb		14:35:28
3	Cd 226.502†	5738.6	6093.6	49.630 µg/L	49.630 ppb		14:35:48
3	Co 228.616†	3111.2	3345.6	66.219 µg/L	66.219 ppb		14:35:48
3	Cr 267.716†	4322.4	4194.6	72.718 µg/L	72.718 ppb		14:35:48
3	Cu 324.752†	14555.0	12335.6	83.124 µg/L	83.124 ppb		14:35:28
3	Mn 257.610†	423184.2	422170.1	584.55 µg/L	584.55 ppb		14:35:28
3	Mo 202.031†	1071.0	1051.0	52.146 µg/L	52.146 ppb		14:35:48
3	Ni 231.604†	3345.9	3540.0	82.501 µg/L	82.501 ppb		14:35:48
3	P 214.914†	1141.8	975.6	518.06 µg/L	518.06 ppb		14:35:48
3	Pb 220.353†	552.9	610.0	65.665 µg/L	65.665 ppb		14:35:48
3	S 181.975 Axial†	9380.5	9278.1	9522.8 µg/L	9522.8 ppb		14:35:48
3	Sb 206.836†	386.7	211.0	47.133 µg/L	47.133 ppb		14:35:48
3	Se 196.026†	66.2	91.3	50.700 µg/L	50.700 ppb		14:35:48
3	SiO2†	39641.4	38305.1	5688.7 µg/L	5688.7 ppb		14:35:28
3	Si 251.611†	54937.9	54657.6	2651.5 µg/L	2651.5 ppb		14:35:28
3	Sn 189.927†	554.2	504.4	53.861 µg/L	53.861 ppb		14:35:48
3	Ti 334.940†	56431.7	57148.6	216.90 µg/L	216.90 ppb		14:35:28
3	Tl 190.801†	164.9	253.5	49.951 µg/L	49.951 ppb		14:35:48
3	U 367.007†	1770.5	700.3	86.99 µg/L	86.99 ppb		14:35:28
3	V 292.402†	6237.2	6418.6	80.430 µg/L	80.430 ppb		14:35:48
3	Zn 213.857†	18799.4	17789.6	110.85 µg/L	110.85 ppb		14:35:48

Mean Data: 1204073119|1783993|10|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	393622.9	100.32	%	0.234				0.23%
Sc RADIAL	24706.2	104	%	0.25				0.24%
Y 371.029	384614.1	100.19	%	0.356				0.36%
Ag 328.068†	624.7	10.325	µg/L	0.1755	10.325	ppb	0.1755	1.70%
Al 396.153Radial†	53983.6	15720	µg/L	28.83	15720	ppb	28.83	0.18%
As 188.979†	151.9	58.354	µg/L	1.7151	58.354	ppb	1.7151	2.94%
B 249.677†	-1893.3	68.673	µg/L	0.2875	68.673	ppb	0.2875	0.42%
Ba 233.527†	23067.9	168.78	µg/L	0.741	168.78	ppb	0.741	0.44%
Be 313.107†	71137.3	51.612	µg/L	0.2459	51.612	ppb	0.2459	0.48%
Ca 317.933Radial†	130946.7	23766	µg/L	33.84	23766	ppb	33.84	0.14%
Cd 226.502†	6073.6	49.469	µg/L	0.2199	49.469	ppb	0.2199	0.44%
Co 228.616†	3328.3	65.876	µg/L	0.3073	65.876	ppb	0.3073	0.47%
Cr 267.716†	4171.5	72.307	µg/L	0.5207	72.307	ppb	0.5207	0.72%
Cu 324.752†	12318.7	83.015	µg/L	0.3424	83.015	ppb	0.3424	0.41%
Fe 238.204 Radial†	194253.9	31715	µg/L	149.01	31715	ppb	149.01	0.47%
K 766.490 Radial†	4439.4	3547.9	µg/L	25.18	3547.9	ppb	25.18	0.71%
Mg 279.077 IEC†	8702.4	11820	µg/L	68.69	11820	ppb	68.69	0.58%
Mn 257.610†	420030.1	581.59	µg/L	2.906	581.59	ppb	2.906	0.50%
Mo 202.031†	1051.5	52.172	µg/L	0.2375	52.172	ppb	0.2375	0.46%

Na 589.592 Radial†	441.8	590.47	µg/L	17.599	590.47	ppb	17.599	2.98%
Ni 231.604†	3548.5	82.694	µg/L	0.6206	82.694	ppb	0.6206	0.75%
P 214.914†	989.0	525.64	µg/L	6.561	525.64	ppb	6.561	1.25%
Pb 220.353†	621.5	66.867	µg/L	1.0903	66.867	ppb	1.0903	1.63%
S 181.975 Axial†	9248.6	9492.5	µg/L	32.57	9492.5	ppb	32.57	0.34%
Sb 206.836†	203.4	45.281	µg/L	3.0521	45.281	ppb	3.0521	6.74%
Se 196.026†	94.5	51.922	µg/L	1.1623	51.922	ppb	1.1623	2.24%
SiO2†	38357.4	5696.5	µg/L	7.83	5696.5	ppb	7.83	0.14%
Si 251.611†	54812.0	2659.0	µg/L	8.02	2659.0	ppb	8.02	0.30%
Sn 189.927†	490.2	52.375	µg/L	1.5207	52.375	ppb	1.5207	2.90%
Sr 421.552†	28140.6	148.56	µg/L	0.406	148.56	ppb	0.406	0.27%
Ti 334.940†	56887.1	215.90	µg/L	0.956	215.90	ppb	0.956	0.44%
Tl 190.801†	247.3	48.812	µg/L	1.7192	48.812	ppb	1.7192	3.52%
U 367.007†	747.8	102.6	µg/L	13.76	102.6	ppb	13.76	13.41%
V 292.402†	6376.2	79.930	µg/L	0.4370	79.930	ppb	0.4370	0.55%
Zn 213.857†	17744.6	110.57	µg/L	0.473	110.57	ppb	0.473	0.43%

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Sequence No.: 10 **Autosampler Location: 337**
Sample ID: 1204073120|1783993|10| **Date Collected: 7/24/2018 14:35:56**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: 1204073120|1783993|10|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	24956.7	24956.7	105	%			14:36:32
1	Al 396.153Radial†	55991.8	53475.8	15572	µg/L	15572	ppb	14:36:32
1	Ca 317.933Radial†	132365.8	125774.0	22827	µg/L	22827	ppb	14:36:32
1	Fe 238.204 Radial†	197147.8	187806.8	30662	µg/L	30662	ppb	14:36:27
1	K 766.490 Radial†	4997.8	4372.5	3494.8	µg/L	3494.8	ppb	14:36:32
1	Mg 279.077 IEC†	9391.0	8882.4	12064	µg/L	12064	ppb	14:36:32
1	Na 589.592 Radial†	589.5	451.8	606.03	µg/L	606.03	ppb	14:36:32
1	Sr 421.552†	27286.7	25697.9	135.64	µg/L	135.64	ppb	14:36:32
1	Sc 361.383	398023.6	398023.6	101.44	%			14:36:59
1	Y 371.029	388880.9	388880.9	101.30	%			14:36:59
1	Ag 328.068†	-100.9	622.3	10.151	µg/L	10.151	ppb	14:37:19
1	As 188.979†	123.2	142.8	54.919	µg/L	54.919	ppb	14:37:19
1	B 249.677†	-1648.6	-1819.3	66.729	µg/L	66.729	ppb	14:37:19
1	Ba 233.527†	22617.8	22293.0	163.11	µg/L	163.11	ppb	14:37:19
1	Be 313.107†	65322.3	68363.5	49.598	µg/L	49.598	ppb	14:36:59
1	Cd 226.502†	5525.0	5808.1	47.269	µg/L	47.269	ppb	14:37:19
1	Co 228.616†	2884.7	3081.7	60.976	µg/L	60.976	ppb	14:37:19
1	Cr 267.716†	4213.1	4030.4	69.859	µg/L	69.859	ppb	14:37:19
1	Cu 324.752†	15558.5	13134.8	88.310	µg/L	88.310	ppb	14:36:59
1	Mn 257.610†	436141.2	429418.8	594.48	µg/L	594.48	ppb	14:36:59
1	Mo 202.031†	1043.4	1009.7	50.102	µg/L	50.102	ppb	14:37:19
1	Ni 231.604†	3267.5	3419.1	79.682	µg/L	79.682	ppb	14:37:19
1	P 214.914†	1146.7	965.5	513.43	µg/L	513.43	ppb	14:37:19
1	Pb 220.353†	523.3	573.6	61.811	µg/L	61.811	ppb	14:37:19
1	S 181.975 Axial†	8462.2	8250.4	8467.0	µg/L	8467.0	ppb	14:37:19
1	Sb 206.836†	363.7	183.3	40.494	µg/L	40.494	ppb	14:37:19
1	Se 196.026†	67.9	92.2	50.522	µg/L	50.522	ppb	14:37:19
1	SiO2†	28788.7	27088.9	4020.5	µg/L	4020.5	ppb	14:36:59
1	Si 251.611†	39361.4	38584.8	1870.9	µg/L	1870.9	ppb	14:36:59
1	Sn 189.927†	521.4	464.9	49.693	µg/L	49.693	ppb	14:37:19
1	Ti 334.940†	55371.1	55366.3	210.12	µg/L	210.12	ppb	14:36:59
1	Tl 190.801†	170.3	256.7	50.415	µg/L	50.415	ppb	14:37:19
1	U 367.007†	1792.2	698.6	91.51	µg/L	91.51	ppb	14:36:59
1	V 292.402†	6098.2	6200.1	77.675	µg/L	77.675	ppb	14:37:19
1	Zn 213.857†	19050.7	17791.9	111.04	µg/L	111.04	ppb	14:37:19
2	Sc RADIAL	24788.5	24788.5	104	%			14:36:42
2	Al 396.153Radial†	55673.7	53532.6	15589	µg/L	15589	ppb	14:36:42
2	Ca 317.933Radial†	131013.1	125332.0	22747	µg/L	22747	ppb	14:36:42
2	Fe 238.204 Radial†	197351.8	189276.8	30902	µg/L	30902	ppb	14:36:37
2	K 766.490 Radial†	5088.5	4491.8	3590.5	µg/L	3590.5	ppb	14:36:42
2	Mg 279.077 IEC†	9309.2	8864.7	12040	µg/L	12040	ppb	14:36:42
2	Na 589.592 Radial†	551.8	419.4	559.43	µg/L	559.43	ppb	14:36:42
2	Sr 421.552†	27073.7	25670.0	135.50	µg/L	135.50	ppb	14:36:42
2	Sc 361.383	400163.2	400163.2	101.98	%			14:37:24
2	Y 371.029	390285.3	390285.3	101.67	%			14:37:24
2	Ag 328.068†	-100.0	623.7	10.217	µg/L	10.217	ppb	14:37:44
2	As 188.979†	125.8	144.7	55.618	µg/L	55.618	ppb	14:37:44
2	B 249.677†	-1670.7	-1832.2	67.290	µg/L	67.290	ppb	14:37:44
2	Ba 233.527†	22694.7	22249.2	162.79	µg/L	162.79	ppb	14:37:44
2	Be 313.107†	64980.8	67684.3	49.100	µg/L	49.100	ppb	14:37:24
2	Cd 226.502†	5547.1	5800.7	47.179	µg/L	47.179	ppb	14:37:44
2	Co 228.616†	2905.9	3087.2	61.088	µg/L	61.088	ppb	14:37:44
2	Cr 267.716†	4278.1	4071.9	70.606	µg/L	70.606	ppb	14:37:44
2	Cu 324.752†	15684.5	13176.4	88.580	µg/L	88.580	ppb	14:37:24
2	Mn 257.610†	434336.8	425350.6	588.88	µg/L	588.88	ppb	14:37:24
2	Mo 202.031†	1039.6	1000.5	49.653	µg/L	49.653	ppb	14:37:44
2	Ni 231.604†	3312.9	3446.4	80.319	µg/L	80.319	ppb	14:37:44
2	P 214.914†	1157.5	970.0	515.71	µg/L	515.71	ppb	14:37:44

2	Pb 220.353†	506.4	554.2	59.803 µg/L	59.803 ppb		14:37:44
2	S 181.975 Axial†	8506.9	8249.7	8466.2 µg/L	8466.2 ppb		14:37:44
2	Sb 206.836†	372.4	189.9	42.050 µg/L	42.050 ppb		14:37:44
2	Se 196.026†	69.5	93.3	51.092 µg/L	51.092 ppb		14:37:44
2	SiO2†	28569.8	26722.5	3965.9 µg/L	3965.9 ppb		14:37:24
2	Si 251.611†	39093.2	38114.4	1848.1 µg/L	1848.1 ppb		14:37:24
2	Sn 189.927†	523.2	463.8	49.588 µg/L	49.588 ppb		14:37:44
2	Ti 334.940†	55308.2	55012.8	208.79 µg/L	208.79 ppb		14:37:24
2	Tl 190.801†	164.5	250.1	49.226 µg/L	49.226 ppb		14:37:44
2	U 367.007†	1707.7	606.3	61.28 µg/L	61.28 ppb		14:37:24
2	V 292.402†	6146.9	6215.7	77.882 µg/L	77.882 ppb		14:37:44
2	Zn 213.857†	19125.5	17764.8	110.83 µg/L	110.83 ppb		14:37:44
3	Sc RADIAL	25072.5	25072.5	105 %			14:36:52
3	Al 396.153Radial†	56243.2	53468.0	15570 µg/L	15570 ppb		14:36:52
3	Ca 317.933Radial†	132648.4	125459.5	22770 µg/L	22770 ppb		14:36:52
3	Fe 238.204 Radial†	196863.9	186670.0	30476 µg/L	30476 ppb		14:36:47
3	K 766.490 Radial†	5048.9	4399.0	3516.1 µg/L	3516.1 ppb		14:36:52
3	Mg 279.077 IEC†	9448.4	8895.5	12082 µg/L	12082 ppb		14:36:52
3	Na 589.592 Radial†	530.8	393.5	522.89 µg/L	522.89 ppb		14:36:52
3	Sr 421.552†	27369.5	25656.4	135.43 µg/L	135.43 ppb		14:36:52
3	Sc 361.383	394308.1	394308.1	100.49 %			14:37:50
3	Y 371.029	384300.5	384300.5	100.11 %			14:37:50
3	Ag 328.068†	-159.6	562.9	9.5926 µg/L	9.5926 ppb		14:38:10
3	As 188.979†	137.3	158.0	60.507 µg/L	60.507 ppb		14:38:10
3	B 249.677†	-1695.1	-1880.8	64.224 µg/L	64.224 ppb		14:38:10
3	Ba 233.527†	22781.5	22666.0	165.86 µg/L	165.86 ppb		14:38:10
3	Be 313.107†	64967.8	68617.5	49.781 µg/L	49.781 ppb		14:37:50
3	Cd 226.502†	5596.6	5930.7	48.359 µg/L	48.359 ppb		14:38:10
3	Co 228.616†	2934.7	3158.2	62.500 µg/L	62.500 ppb		14:38:10
3	Cr 267.716†	4277.4	4133.5	71.633 µg/L	71.633 ppb		14:38:10
3	Cu 324.752†	15615.4	13336.0	89.624 µg/L	89.624 ppb		14:37:50
3	Mn 257.610†	434709.5	432045.5	598.09 µg/L	598.09 ppb		14:37:50
3	Mo 202.031†	1047.4	1023.4	50.771 µg/L	50.771 ppb		14:38:10
3	Ni 231.604†	3283.9	3465.7	80.757 µg/L	80.757 ppb		14:38:10
3	P 214.914†	1156.2	985.6	524.79 µg/L	524.79 ppb		14:38:10
3	Pb 220.353†	521.0	576.1	62.078 µg/L	62.078 ppb		14:38:10
3	S 181.975 Axial†	8513.4	8379.9	8600.2 µg/L	8600.2 ppb		14:38:10
3	Sb 206.836†	373.7	196.7	43.778 µg/L	43.778 ppb		14:38:10
3	Se 196.026†	57.5	82.4	46.541 µg/L	46.541 ppb		14:38:10
3	SiO2†	28581.8	27150.4	4029.6 µg/L	4029.6 ppb		14:37:50
3	Si 251.611†	39083.6	38674.0	1875.3 µg/L	1875.3 ppb		14:37:50
3	Sn 189.927†	514.5	462.8	49.483 µg/L	49.483 ppb		14:38:10
3	Ti 334.940†	55314.4	55824.3	211.84 µg/L	211.84 ppb		14:37:50
3	Tl 190.801†	165.2	253.2	49.773 µg/L	49.773 ppb		14:38:10
3	U 367.007†	1785.5	708.6	95.43 µg/L	95.43 ppb		14:37:50
3	V 292.402†	6174.0	6332.2	79.155 µg/L	79.155 ppb		14:38:10
3	Zn 213.857†	19233.9	18151.1	113.42 µg/L	113.42 ppb		14:38:10

Mean Data: 1204073120|1783993|10|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	397498.3	101.30	%	0.755				0.75%
Sc RADIAL	24939.2	105	%	0.60				0.57%
Y 371.029	387822.3	101.02	%	0.815				0.81%
Ag 328.068†	602.9	9.9870	µg/L	0.34306	9.9870	ppb	0.34306	3.44%
Al 396.153Radial†	53492.1	15577	µg/L	10.30	15577	ppb	10.30	0.07%
As 188.979†	148.5	57.014	µg/L	3.0446	57.014	ppb	3.0446	5.34%
B 249.677†	-1844.1	66.081	µg/L	1.6326	66.081	ppb	1.6326	2.47%
Ba 233.527†	22402.8	163.92	µg/L	1.688	163.92	ppb	1.688	1.03%
Be 313.107†	68221.8	49.493	µg/L	0.3523	49.493	ppb	0.3523	0.71%
Ca 317.933Radial†	125521.8	22781	µg/L	41.29	22781	ppb	41.29	0.18%
Cd 226.502†	5846.5	47.602	µg/L	0.6564	47.602	ppb	0.6564	1.38%
Co 228.616†	3109.0	61.521	µg/L	0.8493	61.521	ppb	0.8493	1.38%
Cr 267.716†	4078.6	70.700	µg/L	0.8907	70.700	ppb	0.8907	1.26%
Cu 324.752†	13215.7	88.838	µg/L	0.6937	88.838	ppb	0.6937	0.78%
Fe 238.204 Radial†	187917.9	30680	µg/L	213.38	30680	ppb	213.38	0.70%
K 766.490 Radial†	4421.1	3533.8	µg/L	50.24	3533.8	ppb	50.24	1.42%
Mg 279.077 IEC†	8880.8	12062	µg/L	21.02	12062	ppb	21.02	0.17%
Mn 257.610†	428938.3	593.81	µg/L	4.641	593.81	ppb	4.641	0.78%
Mo 202.031†	1011.2	50.176	µg/L	0.5625	50.176	ppb	0.5625	1.12%

Na 589.592 Radial†	421.5	562.79	µg/L	41.670	562.79	ppb	41.670	7.40%
Ni 231.604†	3443.7	80.253	µg/L	0.5407	80.253	ppb	0.5407	0.67%
P 214.914†	973.7	517.98	µg/L	6.009	517.98	ppb	6.009	1.16%
Pb 220.353†	568.0	61.231	µg/L	1.2440	61.231	ppb	1.2440	2.03%
S 181.975 Axial†	8293.3	8511.1	µg/L	77.12	8511.1	ppb	77.12	0.91%
Sb 206.836†	190.0	42.107	µg/L	1.6427	42.107	ppb	1.6427	3.90%
Se 196.026†	89.3	49.385	µg/L	2.4793	49.385	ppb	2.4793	5.02%
SiO2†	26987.3	4005.3	µg/L	34.44	4005.3	ppb	34.44	0.86%
Si 251.611†	38457.7	1864.8	µg/L	14.61	1864.8	ppb	14.61	0.78%
Sn 189.927†	463.8	49.588	µg/L	0.1048	49.588	ppb	0.1048	0.21%
Sr 421.552†	25674.8	135.52	µg/L	0.111	135.52	ppb	0.111	0.08%
Ti 334.940†	55401.1	210.25	µg/L	1.530	210.25	ppb	1.530	0.73%
Tl 190.801†	253.3	49.805	µg/L	0.5950	49.805	ppb	0.5950	1.19%
U 367.007†	671.1	82.74	µg/L	18.686	82.74	ppb	18.686	22.58%
V 292.402†	6249.3	78.237	µg/L	0.8020	78.237	ppb	0.8020	1.03%
Zn 213.857†	17902.6	111.76	µg/L	1.437	111.76	ppb	1.437	1.29%

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Sequence No.: 12 | **Autosampler Location: 339**
Sample ID: 1204073121|1783993|50| | **Date Collected: 7/24/2018 14:40:27**
Analyst: HSC | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: 1204073121|1783993|50|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	24566.9	24566.9	103	%			14:40:58
1	Al 396.153Radial†	9206.8	9036.4	2631.8	µg/L	2631.8	ppb	14:40:58
1	Ca 317.933Radial†	33758.2	32327.0	5867.0	µg/L	5867.0	ppb	14:40:58
1	Fe 238.204 Radial†	44148.0	42689.7	6969.7	µg/L	6969.7	ppb	14:40:58
1	K 766.490 Radial†	1038.3	615.4	490.41	µg/L	490.41	ppb	14:40:58
1	Mg 279.077 IEC†	2219.9	2083.0	2829.2	µg/L	2829.2	ppb	14:40:58
1	Na 589.592 Radial†	88.5	-24.3	-43.911	µg/L	-43.911	ppb	14:40:58
1	Sr 421.552†	4204.9	3768.3	19.846	µg/L	19.846	ppb	14:40:58
1	Sc 361.383	396142.9	396142.9	100.96	%			14:41:14
1	Y 371.029	387571.1	387571.1	100.96	%			14:41:14
1	Ag 328.068†	-881.8	-151.7	-0.3226	µg/L	-0.3226	ppb	14:41:35
1	As 188.979†	-21.8	-0.2	0.3063	µg/L	0.3063	ppb	14:41:35
1	B 249.677†	-613.5	-801.7	4.0117	µg/L	4.0117	ppb	14:41:35
1	Ba 233.527†	2508.6	2480.9	18.065	µg/L	18.065	ppb	14:41:35
1	Be 313.107†	-3702.8	300.1	0.2916	µg/L	0.2916	ppb	14:41:35
1	Cd 226.502†	-285.2	78.9	-0.0751	µg/L	-0.0751	ppb	14:41:35
1	Co 228.616†	-103.3	135.6	2.6339	µg/L	2.6339	ppb	14:41:35
1	Cr 267.716†	395.4	268.7	4.7054	µg/L	4.7054	ppb	14:41:35
1	Cu 324.752†	3304.3	1069.9	7.4611	µg/L	7.4611	ppb	14:41:35
1	Mn 257.610†	113723.6	112106.8	155.13	µg/L	155.13	ppb	14:41:14
1	Mo 202.031†	34.2	15.0	0.8678	µg/L	0.8678	ppb	14:41:35
1	Ni 231.604†	97.2	294.2	6.9428	µg/L	6.9428	ppb	14:41:35
1	P 214.914†	350.0	181.7	95.658	µg/L	95.658	ppb	14:41:35
1	Pb 220.353†	-45.0	13.1	1.7158	µg/L	1.7158	ppb	14:41:35
1	S 181.975 Axial†	1953.9	1843.6	1892.1	µg/L	1892.1	ppb	14:41:35
1	Sb 206.836†	188.1	11.1	1.7063	µg/L	1.7063	ppb	14:41:35
1	Se 196.026†	-35.9	-10.3	-1.0243	µg/L	-1.0243	ppb	14:41:35
1	SiO2†	5050.1	3710.6	550.37	µg/L	550.37	ppb	14:41:35
1	Si 251.611†	5650.4	5378.5	260.70	µg/L	260.70	ppb	14:41:35
1	Sn 189.927†	57.6	7.8	0.9826	µg/L	0.9826	ppb	14:41:35
1	Ti 334.940†	5708.9	6435.3	24.576	µg/L	24.576	ppb	14:41:35
1	Tl 190.801†	-100.7	-10.9	-1.3140	µg/L	-1.3140	ppb	14:41:35
1	U 367.007†	1129.5	50.6	-13.99	µg/L	-13.99	ppb	14:41:14
1	V 292.402†	167.6	354.4	5.4806	µg/L	5.4806	ppb	14:41:35
1	Zn 213.857†	5768.2	4724.7	29.747	µg/L	29.747	ppb	14:41:35
2	Sc RADIAL	24736.5	24736.5	104	%			14:41:03
2	Al 396.153Radial†	9282.6	9048.1	2635.2	µg/L	2635.2	ppb	14:41:03
2	Ca 317.933Radial†	33928.8	32266.9	5856.1	µg/L	5856.1	ppb	14:41:03
2	Fe 238.204 Radial†	44441.8	42679.2	6967.9	µg/L	6967.9	ppb	14:41:03
2	K 766.490 Radial†	957.7	531.1	422.65	µg/L	422.65	ppb	14:41:03
2	Mg 279.077 IEC†	2247.8	2095.2	2845.7	µg/L	2845.7	ppb	14:41:03
2	Na 589.592 Radial†	132.0	16.9	15.043	µg/L	15.043	ppb	14:41:03
2	Sr 421.552†	4339.9	3870.1	20.385	µg/L	20.385	ppb	14:41:03
2	Sc 361.383	395496.7	395496.7	100.79	%			14:41:40
2	Y 371.029	386022.4	386022.4	100.56	%			14:41:40
2	Ag 328.068†	-831.5	-103.2	0.1005	µg/L	0.1005	ppb	14:42:00
2	As 188.979†	-13.5	7.9	3.3206	µg/L	3.3206	ppb	14:42:00
2	B 249.677†	-597.1	-786.4	4.4431	µg/L	4.4431	ppb	14:42:00
2	Ba 233.527†	2493.6	2470.1	17.985	µg/L	17.985	ppb	14:42:00
2	Be 313.107†	-3680.4	316.4	0.3077	µg/L	0.3077	ppb	14:42:00
2	Cd 226.502†	-255.0	108.5	0.1833	µg/L	0.1833	ppb	14:42:00
2	Co 228.616†	-83.4	155.1	3.0233	µg/L	3.0233	ppb	14:42:00
2	Cr 267.716†	401.9	275.7	4.8125	µg/L	4.8125	ppb	14:42:00
2	Cu 324.752†	3329.1	1099.9	7.6693	µg/L	7.6693	ppb	14:42:00
2	Mn 257.610†	114238.2	112801.4	156.09	µg/L	156.09	ppb	14:41:40
2	Mo 202.031†	30.9	11.8	0.7078	µg/L	0.7078	ppb	14:42:00
2	Ni 231.604†	131.1	328.0	7.7238	µg/L	7.7238	ppb	14:42:00
2	P 214.914†	348.0	180.3	94.874	µg/L	94.874	ppb	14:42:00

2	Pb 220.353†	-37.6	20.4	2.4671	µg/L	2.4671	ppb	14:42:00
2	S 181.975 Axial†	1944.1	1837.1	1885.4	µg/L	1885.4	ppb	14:42:00
2	Sb 206.836†	172.8	-3.8	-1.9522	µg/L	-1.9522	ppb	14:42:00
2	Se 196.026†	-40.8	-15.2	-2.9932	µg/L	-2.9932	ppb	14:42:00
2	SiO2†	5043.7	3712.4	550.64	µg/L	550.64	ppb	14:42:00
2	Si 251.611†	5627.8	5365.2	260.06	µg/L	260.06	ppb	14:42:00
2	Sn 189.927†	63.1	13.4	1.5639	µg/L	1.5639	ppb	14:42:00
2	Ti 334.940†	5656.5	6392.5	24.405	µg/L	24.405	ppb	14:42:00
2	Tl 190.801†	-94.4	-4.8	-0.1874	µg/L	-0.1874	ppb	14:42:00
2	U 367.007†	1185.3	107.8	4.212	µg/L	4.212	ppb	14:41:40
2	V 292.402†	123.6	311.1	4.9946	µg/L	4.9946	ppb	14:42:00
2	Zn 213.857†	5743.9	4710.0	29.646	µg/L	29.646	ppb	14:42:00
3	Sc RADIAL	24812.9	24812.9	104	%			14:41:08
3	Al 396.153Radial†	9331.5	9067.6	2640.9	µg/L	2640.9	ppb	14:41:08
3	Ca 317.933Radial†	33898.0	32137.0	5832.6	µg/L	5832.6	ppb	14:41:08
3	Fe 238.204 Radial†	44502.7	42606.0	6956.0	µg/L	6956.0	ppb	14:41:08
3	K 766.490 Radial†	980.3	549.9	437.79	µg/L	437.79	ppb	14:41:08
3	Mg 279.077 IEC†	2240.2	2081.2	2826.8	µg/L	2826.8	ppb	14:41:08
3	Na 589.592 Radial†	116.4	1.6	-6.7814	µg/L	-6.7814	ppb	14:41:08
3	Sr 421.552†	4342.1	3859.3	20.329	µg/L	20.329	ppb	14:41:08
3	Sc 361.383	394556.5	394556.5	100.56	%			14:42:05
3	Y 371.029	384638.6	384638.6	100.20	%			14:42:05
3	Ag 328.068†	-834.7	-108.4	0.0304	µg/L	0.0304	ppb	14:42:25
3	As 188.979†	-4.8	16.6	6.5245	µg/L	6.5245	ppb	14:42:25
3	B 249.677†	-610.0	-800.7	3.9859	µg/L	3.9859	ppb	14:42:25
3	Ba 233.527†	2473.4	2455.8	17.881	µg/L	17.881	ppb	14:42:25
3	Be 313.107†	-3652.9	335.0	0.3302	µg/L	0.3302	ppb	14:42:25
3	Cd 226.502†	-276.2	86.7	-0.0054	µg/L	-0.0054	ppb	14:42:25
3	Co 228.616†	-72.9	165.4	3.2279	µg/L	3.2279	ppb	14:42:25
3	Cr 267.716†	376.4	251.4	4.3602	µg/L	4.3602	ppb	14:42:25
3	Cu 324.752†	3361.1	1139.6	7.9529	µg/L	7.9529	ppb	14:42:25
3	Mn 257.610†	113942.5	112777.4	156.06	µg/L	156.06	ppb	14:42:05
3	Mo 202.031†	38.3	19.2	1.0743	µg/L	1.0743	ppb	14:42:25
3	Ni 231.604†	113.5	310.8	7.3252	µg/L	7.3252	ppb	14:42:25
3	P 214.914†	367.1	200.1	105.96	µg/L	105.96	ppb	14:42:25
3	Pb 220.353†	-34.8	23.0	2.7151	µg/L	2.7151	ppb	14:42:25
3	S 181.975 Axial†	1939.0	1836.6	1884.8	µg/L	1884.8	ppb	14:42:25
3	Sb 206.836†	177.8	1.6	-0.6126	µg/L	-0.6126	ppb	14:42:25
3	Se 196.026†	-20.5	4.8	5.0177	µg/L	5.0177	ppb	14:42:25
3	SiO2†	5023.5	3704.3	549.42	µg/L	549.42	ppb	14:42:25
3	Si 251.611†	5628.5	5379.2	260.73	µg/L	260.73	ppb	14:42:25
3	Sn 189.927†	46.3	-3.2	-0.1651	µg/L	-0.1651	ppb	14:42:25
3	Ti 334.940†	5729.0	6478.0	24.709	µg/L	24.709	ppb	14:42:25
3	Tl 190.801†	-99.0	-9.6	-1.0501	µg/L	-1.0501	ppb	14:42:25
3	U 367.007†	1303.8	228.4	42.62	µg/L	42.62	ppb	14:42:05
3	V 292.402†	126.5	314.2	5.0535	µg/L	5.0535	ppb	14:42:25
3	Zn 213.857†	5761.5	4741.0	29.854	µg/L	29.854	ppb	14:42:25

Mean Data: 1204073121|1783993|50|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	395398.7	100.77	%	0.203				0.20%
Sc RADIAL	24705.5	104	%	0.53				0.51%
Y 371.029	386077.4	100.57	%	0.382				0.38%
Ag 328.068†	-121.1	-0.0639	µg/L	0.22678	-0.0639	ppb	0.22678	354.90%
Al 396.153Radial†	9050.7	2636.0	µg/L	4.58	2636.0	ppb	4.58	0.17%
As 188.979†	8.1	3.3838	µg/L	3.10961	3.3838	ppb	3.10961	91.90%
B 249.677†	-796.3	4.1469	µg/L	0.25688	4.1469	ppb	0.25688	6.19%
Ba 233.527†	2468.9	17.977	µg/L	0.0922	17.977	ppb	0.0922	0.51%
Be 313.107†	317.2	0.3098	µg/L	0.01939	0.3098	ppb	0.01939	6.26%
Ca 317.933Radial†	32243.6	5851.9	µg/L	17.62	5851.9	ppb	17.62	0.30%
Cd 226.502†	91.4	0.0343	µg/L	0.13367	0.0343	ppb	0.13367	389.90%
Co 228.616†	152.0	2.9617	µg/L	0.30176	2.9617	ppb	0.30176	10.19%
Cr 267.716†	265.3	4.6260	µg/L	0.23638	4.6260	ppb	0.23638	5.11%
Cu 324.752†	1103.1	7.6945	µg/L	0.24686	7.6945	ppb	0.24686	3.21%
Fe 238.204 Radial†	42658.3	6964.5	µg/L	7.44	6964.5	ppb	7.44	0.11%
K 766.490 Radial†	565.5	450.28	µg/L	35.566	450.28	ppb	35.566	7.90%
Mg 279.077 IEC†	2086.5	2833.9	µg/L	10.30	2833.9	ppb	10.30	0.36%
Mn 257.610†	112561.9	155.76	µg/L	0.544	155.76	ppb	0.544	0.35%
Mo 202.031†	15.3	0.8833	µg/L	0.18377	0.8833	ppb	0.18377	20.80%

Na 589.592 Radial†	-1.9	-11.883	µg/L	29.8063	-11.883	ppb	29.8063	250.83%
Ni 231.604†	311.0	7.3306	µg/L	0.39053	7.3306	ppb	0.39053	5.33%
P 214.914†	187.4	98.832	µg/L	6.1885	98.832	ppb	6.1885	6.26%
Pb 220.353†	18.8	2.2994	µg/L	0.52033	2.2994	ppb	0.52033	22.63%
S 181.975 Axial†	1839.1	1887.4	µg/L	4.02	1887.4	ppb	4.02	0.21%
Sb 206.836†	3.0	-0.2862	µg/L	1.85094	-0.2862	ppb	1.85094	646.81%
Se 196.026†	-6.9	0.3334	µg/L	4.17450	0.3334	ppb	4.17450	>999.9%
SiO2†	3709.1	550.14	µg/L	0.640	550.14	ppb	0.640	0.12%
Si 251.611†	5374.3	260.50	µg/L	0.380	260.50	ppb	0.380	0.15%
Sn 189.927†	6.0	0.7938	µg/L	0.87980	0.7938	ppb	0.87980	110.83%
Sr 421.552†	3832.6	20.187	µg/L	0.2965	20.187	ppb	0.2965	1.47%
Ti 334.940†	6435.3	24.563	µg/L	0.1526	24.563	ppb	0.1526	0.62%
Tl 190.801†	-8.5	-0.8505	µg/L	0.58922	-0.8505	ppb	0.58922	69.28%
U 367.007†	128.9	10.95	µg/L	28.902	10.95	ppb	28.902	264.00%
V 292.402†	326.6	5.1762	µg/L	0.26523	5.1762	ppb	0.26523	5.12%
Zn 213.857†	4725.3	29.749	µg/L	0.1040	29.749	ppb	0.1040	0.35%

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Sequence No.: 13 | **Autosampler Location: 1**
Sample ID: CCV | **Date Collected: 7/24/2018 14:42:34**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	24830.2	24830.2	104	%			14:43:12
1	Al 396.153Radial†	18766.3	18097.0	5246.2	µg/L	5246.2	ppb	14:43:12
1	Ca 317.933Radial†	30513.8	28873.4	5240.2	µg/L	5240.2	ppb	14:43:12
1	Fe 238.204 Radial†	33137.4	31691.8	5174.1	µg/L	5174.1	ppb	14:43:12
1	K 766.490 Radial†	6932.9	6250.0	5017.3	µg/L	5017.3	ppb	14:43:12
1	Mg 279.077 IEC†	4146.8	3905.6	5304.7	µg/L	5304.7	ppb	14:43:12
1	Na 589.592 Radial†	7564.9	7134.9	10198	µg/L	10198	ppb	14:43:12
1	Sr 421.552†	99911.8	95383.1	504.87	µg/L	504.87	ppb	14:43:07
1	Sc 361.383	394374.6	394374.6	100.51	%			14:43:39
1	Y 371.029	381549.5	381549.5	99.391	%			14:43:39
1	Ag 328.068†	57511.3	57941.8	520.63	µg/L	520.63	ppb	14:43:39
1	As 188.979†	1374.8	1389.2	518.50	µg/L	518.50	ppb	14:44:00
1	B 249.677†	17995.9	17710.8	529.19	µg/L	529.19	ppb	14:43:39
1	Ba 233.527†	70320.9	69961.0	514.14	µg/L	514.14	ppb	14:43:39
1	Be 313.107†	711420.7	711786.5	513.13	µg/L	513.13	ppb	14:43:39
1	Cd 226.502†	58991.8	59054.6	514.27	µg/L	514.27	ppb	14:43:39
1	Co 228.616†	25751.0	25858.5	514.75	µg/L	514.75	ppb	14:44:00
1	Cr 267.716†	29691.2	29417.9	507.89	µg/L	507.89	ppb	14:44:00
1	Cu 324.752†	80451.9	77841.7	512.20	µg/L	512.20	ppb	14:43:39
1	Mn 257.610†	375480.4	373043.4	515.06	µg/L	515.06	ppb	14:43:39
1	Mo 202.031†	10819.0	10745.4	527.14	µg/L	527.14	ppb	14:44:00
1	Ni 231.604†	22109.2	22195.1	513.40	µg/L	513.40	ppb	14:44:00
1	P 214.914†	4824.5	4635.1	2574.1	µg/L	2574.1	ppb	14:44:00
1	Pb 220.353†	4939.3	4972.0	521.46	µg/L	521.46	ppb	14:44:00
1	S 181.975 Axial†	1125.6	1028.2	1053.8	µg/L	1053.8	ppb	14:44:00
1	Sb 206.836†	2313.3	2126.3	521.55	µg/L	521.55	ppb	14:44:00
1	Se 196.026†	1253.8	1272.6	511.59	µg/L	511.59	ppb	14:44:00
1	SiO2†	38295.9	36810.5	5450.3	µg/L	5450.3	ppb	14:43:39
1	Si 251.611†	53184.1	52696.6	2550.3	µg/L	2550.3	ppb	14:43:39
1	Sn 189.927†	5146.2	5071.0	531.61	µg/L	531.61	ppb	14:44:00
1	Ti 334.940†	137816.7	137899.6	520.86	µg/L	520.86	ppb	14:43:39
1	Tl 190.801†	2758.7	2833.6	521.32	µg/L	521.32	ppb	14:44:00
1	U 367.007†	2774.2	1692.0	515.1	µg/L	515.1	ppb	14:43:39
1	V 292.402†	44761.6	44723.4	517.72	µg/L	517.72	ppb	14:43:39
1	Zn 213.857†	78957.0	77568.7	504.14	µg/L	504.14	ppb	14:43:39
2	Sc RADIAL	24527.6	24527.6	103	%			14:43:22
2	Al 396.153Radial†	18751.1	18304.0	5306.8	µg/L	5306.8	ppb	14:43:22
2	Ca 317.933Radial†	30342.2	29067.5	5275.5	µg/L	5275.5	ppb	14:43:22
2	Fe 238.204 Radial†	33024.9	31974.3	5220.2	µg/L	5220.2	ppb	14:43:22
2	K 766.490 Radial†	6944.6	6343.3	5092.2	µg/L	5092.2	ppb	14:43:22
2	Mg 279.077 IEC†	4171.4	3978.5	5403.7	µg/L	5403.7	ppb	14:43:22
2	Na 589.592 Radial†	7696.3	7351.7	10508	µg/L	10508	ppb	14:43:22
2	Sr 421.552†	99811.9	96466.7	510.61	µg/L	510.61	ppb	14:43:17
2	Sc 361.383	397772.0	397772.0	101.37	%			14:44:05
2	Y 371.029	384055.7	384055.7	100.04	%			14:44:05
2	Ag 328.068†	57798.6	57736.5	518.81	µg/L	518.81	ppb	14:44:05
2	As 188.979†	1350.3	1353.4	505.18	µg/L	505.18	ppb	14:44:26
2	B 249.677†	18158.7	17718.4	529.62	µg/L	529.62	ppb	14:44:05
2	Ba 233.527†	70916.0	69950.4	514.06	µg/L	514.06	ppb	14:44:05
2	Be 313.107†	716679.1	710927.9	512.50	µg/L	512.50	ppb	14:44:05
2	Cd 226.502†	59579.2	59132.7	514.95	µg/L	514.95	ppb	14:44:05
2	Co 228.616†	25578.7	25469.7	507.00	µg/L	507.00	ppb	14:44:26
2	Cr 267.716†	29523.2	28999.9	500.69	µg/L	500.69	ppb	14:44:26
2	Cu 324.752†	81120.7	77817.6	512.03	µg/L	512.03	ppb	14:44:05
2	Mn 257.610†	378611.2	372940.9	514.92	µg/L	514.92	ppb	14:44:05
2	Mo 202.031†	10769.8	10604.9	520.25	µg/L	520.25	ppb	14:44:26
2	Ni 231.604†	21970.7	21870.7	505.90	µg/L	505.90	ppb	14:44:26
2	P 214.914†	4784.0	4554.2	2528.9	µg/L	2528.9	ppb	14:44:26

2	Pb 220.353†	4925.9	4916.8	515.70 µg/L	515.70 ppb	14:44:26
2	S 181.975 Axial†	1117.9	1011.0	1036.1 µg/L	1036.1 ppb	14:44:26
2	Sb 206.836†	2294.2	2087.8	512.09 µg/L	512.09 ppb	14:44:26
2	Se 196.026†	1274.2	1282.2	515.43 µg/L	515.43 ppb	14:44:26
2	SiO2†	38494.7	36681.2	5431.4 µg/L	5431.4 ppb	14:44:05
2	Si 251.611†	53657.9	52712.1	2551.2 µg/L	2551.2 ppb	14:44:05
2	Sn 189.927†	5089.2	4971.0	521.16 µg/L	521.16 ppb	14:44:26
2	Ti 334.940†	138737.1	137636.3	519.88 µg/L	519.88 ppb	14:44:05
2	Tl 190.801†	2734.0	2785.7	512.54 µg/L	512.54 ppb	14:44:26
2	U 367.007†	2699.9	1595.1	484.1 µg/L	484.1 ppb	14:44:05
2	V 292.402†	44960.3	44539.0	515.53 µg/L	515.53 ppb	14:44:05
2	Zn 213.857†	79819.8	77748.7	505.35 µg/L	505.35 ppb	14:44:05
3	Sc RADIAL	24327.6	24327.6	102 %		14:43:32
3	Al 396.153Radial†	18753.3	18455.6	5350.7 µg/L	5350.7 ppb	14:43:32
3	Ca 317.933Radial†	30151.4	29122.8	5285.5 µg/L	5285.5 ppb	14:43:32
3	Fe 238.204 Radial†	32905.4	32120.6	5244.1 µg/L	5244.1 ppb	14:43:32
3	K 766.490 Radial†	6991.6	6444.6	5173.5 µg/L	5173.5 ppb	14:43:32
3	Mg 279.077 IEC†	4091.0	3933.1	5342.1 µg/L	5342.1 ppb	14:43:32
3	Na 589.592 Radial†	7583.7	7302.9	10439 µg/L	10439 ppb	14:43:32
3	Sr 421.552†	99901.7	97349.7	515.28 µg/L	515.28 ppb	14:43:27
3	Sc 361.383	394573.2	394573.2	100.56 %		14:44:32
3	Y 371.029	381158.4	381158.4	99.289 %		14:44:32
3	Ag 328.068†	57860.4	58260.2	523.52 µg/L	523.52 ppb	14:44:32
3	As 188.979†	1369.4	1383.1	516.23 µg/L	516.23 ppb	14:44:52
3	B 249.677†	18173.5	17878.3	534.30 µg/L	534.30 ppb	14:44:32
3	Ba 233.527†	70724.9	70327.5	516.83 µg/L	516.83 ppb	14:44:32
3	Be 313.107†	715878.9	715863.6	516.06 µg/L	516.06 ppb	14:44:32
3	Cd 226.502†	59387.0	59418.1	517.43 µg/L	517.43 ppb	14:44:32
3	Co 228.616†	25674.2	25769.2	512.96 µg/L	512.96 ppb	14:44:52
3	Cr 267.716†	29560.5	29273.1	505.42 µg/L	505.42 ppb	14:44:52
3	Cu 324.752†	80960.4	78307.0	515.24 µg/L	515.24 ppb	14:44:32
3	Mn 257.610†	378185.7	375545.7	518.52 µg/L	518.52 ppb	14:44:32
3	Mo 202.031†	10800.9	10721.9	525.99 µg/L	525.99 ppb	14:44:52
3	Ni 231.604†	22044.9	22120.2	511.67 µg/L	511.67 ppb	14:44:52
3	P 214.914†	4821.1	4629.3	2570.8 µg/L	2570.8 ppb	14:44:52
3	Pb 220.353†	4920.3	4950.5	519.25 µg/L	519.25 ppb	14:44:52
3	S 181.975 Axial†	1117.0	1019.0	1044.3 µg/L	1044.3 ppb	14:44:52
3	Sb 206.836†	2296.9	2108.9	517.27 µg/L	517.27 ppb	14:44:52
3	Se 196.026†	1271.3	1289.4	518.35 µg/L	518.35 ppb	14:44:52
3	SiO2†	38485.3	36979.7	5475.5 µg/L	5475.5 ppb	14:44:32
3	Si 251.611†	53493.0	52977.2	2564.0 µg/L	2564.0 ppb	14:44:32
3	Sn 189.927†	5112.3	5034.7	527.83 µg/L	527.83 ppb	14:44:52
3	Ti 334.940†	138651.1	138660.4	523.75 µg/L	523.75 ppb	14:44:32
3	Tl 190.801†	2753.9	2827.4	520.20 µg/L	520.20 ppb	14:44:52
3	U 367.007†	2656.6	1573.6	477.2 µg/L	477.2 ppb	14:44:32
3	V 292.402†	45006.7	44944.7	520.23 µg/L	520.23 ppb	14:44:32
3	Zn 213.857†	79699.0	78267.0	508.71 µg/L	508.71 ppb	14:44:32

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	395573.3	100.81	%	0.486				0.48%
Sc RADIAL	24561.8	103	%	1.06				1.03%
Y 371.029	382254.5	99.574	%	0.4095				0.41%
Ag 328.068†	57979.5	520.99	µg/L	2.375	520.99	ppb	2.375	0.46%
QC value within limits for Ag 328.068 Recovery = 104.20%								
Al 396.153Radial†	18285.5	5301.2	µg/L	52.46	5301.2	ppb	52.46	0.99%
QC value within limits for Al 396.153Radial Recovery = 106.02%								
As 188.979†	1375.2	513.31	µg/L	7.125	513.31	ppb	7.125	1.39%
QC value within limits for As 188.979 Recovery = 102.66%								
B 249.677†	17769.2	531.04	µg/L	2.837	531.04	ppb	2.837	0.53%
QC value within limits for B 249.677 Recovery = 106.21%								
Ba 233.527†	70079.6	515.01	µg/L	1.578	515.01	ppb	1.578	0.31%
QC value within limits for Ba 233.527 Recovery = 103.00%								
Be 313.107†	712859.3	513.89	µg/L	1.898	513.89	ppb	1.898	0.37%
QC value within limits for Be 313.107 Recovery = 102.78%								
Ca 317.933Radial†	29021.2	5267.1	µg/L	23.77	5267.1	ppb	23.77	0.45%
QC value within limits for Ca 317.933Radial Recovery = 105.34%								
Cd 226.502†	59201.8	515.55	µg/L	1.664	515.55	ppb	1.664	0.32%
QC value within limits for Cd 226.502 Recovery = 103.11%								

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Co 228.616†            25699.1      511.57 µg/L         4.057      511.57 ppb          4.057   0.79%
   QC value within limits for Co 228.616  Recovery = 102.31%
Cr 267.716†            29230.3      504.67 µg/L         3.656      504.67 ppb          3.656   0.72%
   QC value within limits for Cr 267.716  Recovery = 100.93%
Cu 324.752†            77988.8      513.16 µg/L         1.807      513.16 ppb          1.807   0.35%
   QC value within limits for Cu 324.752  Recovery = 102.63%
Fe 238.204 Radial†     31928.9      5212.8 µg/L         35.58      5212.8 ppb          35.58   0.68%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.26%
K 766.490 Radial†       6345.9      5094.3 µg/L         78.15      5094.3 ppb          78.15   1.53%
   QC value within limits for K 766.490 Radial  Recovery = 101.89%
Mg 279.077 IEC†         3939.1      5350.2 µg/L         49.97      5350.2 ppb          49.97   0.93%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.00%
Mn 257.610†           373843.3      516.16 µg/L         2.037      516.16 ppb          2.037   0.39%
   QC value within limits for Mn 257.610  Recovery = 103.23%
Mo 202.031†            10690.7      524.46 µg/L         3.690      524.46 ppb          3.690   0.70%
   QC value within limits for Mo 202.031  Recovery = 104.89%
Na 589.592 Radial†      7263.2       10382 µg/L        162.61       10382 ppb         162.61   1.57%
   QC value within limits for Na 589.592 Radial  Recovery = 103.82%
Ni 231.604†            22062.0      510.32 µg/L         3.928      510.32 ppb          3.928   0.77%
   QC value within limits for Ni 231.604  Recovery = 102.06%
P 214.914†              4606.2      2557.9 µg/L         25.15      2557.9 ppb          25.15   0.98%
   QC value within limits for P 214.914  Recovery = 102.32%
Pb 220.353†             4946.4      518.80 µg/L         2.906      518.80 ppb          2.906   0.56%
   QC value within limits for Pb 220.353  Recovery = 103.76%
S 181.975 Axial†        1019.4      1044.7 µg/L          8.87      1044.7 ppb           8.87   0.85%
   QC value within limits for S 181.975 Axial  Recovery = 104.47%
Sb 206.836†             2107.7      516.97 µg/L         4.735      516.97 ppb          4.735   0.92%
   QC value within limits for Sb 206.836  Recovery = 103.39%
Se 196.026†             1281.4      515.12 µg/L         3.393      515.12 ppb          3.393   0.66%
   QC value within limits for Se 196.026  Recovery = 103.02%
SiO2†                  36823.8      5452.4 µg/L         22.14      5452.4 ppb          22.14   0.41%
   QC value within limits for SiO2  Recovery = 101.96%
Si 251.611†            52795.3      2555.2 µg/L          7.64      2555.2 ppb           7.64   0.30%
   QC value within limits for Si 251.611  Recovery = 102.21%
Sn 189.927†             5025.5      526.87 µg/L         5.289      526.87 ppb          5.289   1.00%
   QC value within limits for Sn 189.927  Recovery = 105.37%
Sr 421.552†            96399.8      510.25 µg/L         5.214      510.25 ppb          5.214   1.02%
   QC value within limits for Sr 421.552  Recovery = 102.05%
Ti 334.940†           138065.4      521.50 µg/L         2.013      521.50 ppb          2.013   0.39%
   QC value within limits for Ti 334.940  Recovery = 104.30%
Tl 190.801†             2815.6      518.02 µg/L         4.780      518.02 ppb          4.780   0.92%
   QC value within limits for Tl 190.801  Recovery = 103.60%
U 367.007†              1620.3       492.1 µg/L         20.20       492.1 ppb          20.20   4.10%
   QC value within limits for U 367.007  Recovery = 98.43%
V 292.402†             44735.7      517.83 µg/L         2.349      517.83 ppb          2.349   0.45%
   QC value within limits for V 292.402  Recovery = 103.57%
Zn 213.857†            77861.5      506.06 µg/L         2.368      506.06 ppb          2.368   0.47%
   QC value within limits for Zn 213.857  Recovery = 101.21%
All analyte(s) passed QC.
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Sequence No.: 14 | **Autosampler Location: 6**
Sample ID: CCB | **Date Collected: 7/24/2018 14:45:00**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	23948.0	23948.0	101	%			14:45:52
1	Al 396.153Radial†	-104.0	21.3	6.1619	µg/L	6.1619	ppb	14:45:52
1	Ca 317.933Radial†	323.0	-28.9	-5.2361	µg/L	-5.2361	ppb	14:45:52
1	Fe 238.204 Radial†	47.1	3.0	0.4970	µg/L	0.4970	ppb	14:45:52
1	K 766.490 Radial†	464.1	71.2	57.207	µg/L	57.207	ppb	14:45:32
1	Mg 279.077 IEC†	79.5	13.2	17.877	µg/L	17.877	ppb	14:45:52
1	Na 589.592 Radial†	108.6	-2.1	-3.0549	µg/L	-3.0549	ppb	14:45:52
1	Sr 421.552†	320.4	16.2	0.0860	µg/L	0.0860	ppb	14:45:32
1	Sc 361.383	390591.6	390591.6	99.545	%			14:46:49
1	Y 371.029	381348.6	381348.6	99.338	%			14:46:49
1	Ag 328.068†	-764.6	-46.4	-0.4302	µg/L	-0.4302	ppb	14:46:49
1	As 188.979†	-15.3	6.0	2.2211	µg/L	2.2211	ppb	14:47:09
1	B 249.677†	238.3	45.3	1.3106	µg/L	1.3106	ppb	14:47:09
1	Ba 233.527†	22.9	19.1	0.1403	µg/L	0.1403	ppb	14:47:09
1	Be 313.107†	-3924.8	25.0	0.0241	µg/L	0.0241	ppb	14:46:49
1	Cd 226.502†	-348.1	11.8	0.1028	µg/L	0.1028	ppb	14:47:09
1	Co 228.616†	-242.3	-5.5	-0.1076	µg/L	-0.1076	ppb	14:47:09
1	Cr 267.716†	151.7	29.5	0.4900	µg/L	0.4900	ppb	14:47:09
1	Cu 324.752†	2086.6	-106.8	-0.6879	µg/L	-0.6879	ppb	14:46:49
1	Mn 257.610†	744.0	211.5	0.2918	µg/L	0.2918	ppb	14:47:09
1	Mo 202.031†	43.0	24.3	1.1918	µg/L	1.1918	ppb	14:47:09
1	Ni 231.604†	-203.6	-6.6	-0.1523	µg/L	-0.1523	ppb	14:47:09
1	P 214.914†	157.1	-7.1	-3.9592	µg/L	-3.9592	ppb	14:47:09
1	Pb 220.353†	-92.4	-35.2	-3.7023	µg/L	-3.7023	ppb	14:47:09
1	S 181.975 Axial†	102.6	11.3	11.629	µg/L	11.629	ppb	14:47:09
1	Sb 206.836†	161.4	-13.1	-3.2314	µg/L	-3.2314	ppb	14:47:09
1	Se 196.026†	-44.9	-19.9	-7.9502	µg/L	-7.9502	ppb	14:47:09
1	SiO2†	1175.3	-110.8	-16.535	µg/L	-16.535	ppb	14:47:09
1	Si 251.611†	62.4	-155.5	-7.5729	µg/L	-7.5729	ppb	14:47:09
1	Sn 189.927†	42.7	-6.3	-0.6536	µg/L	-0.6536	ppb	14:47:09
1	Ti 334.940†	-757.2	20.0	0.0637	µg/L	0.0637	ppb	14:46:49
1	Tl 190.801†	-92.2	-3.8	-0.6937	µg/L	-0.6937	ppb	14:47:09
1	U 367.007†	1139.9	76.9	24.45	µg/L	24.45	ppb	14:46:49
1	V 292.402†	-223.5	-36.2	-0.3877	µg/L	-0.3877	ppb	14:46:49
1	Zn 213.857†	997.1	13.1	0.0867	µg/L	0.0867	ppb	14:47:09
2	Sc RADIAL	23968.0	23968.0	101	%			14:46:17
2	Al 396.153Radial†	-108.2	17.2	4.9856	µg/L	4.9856	ppb	14:46:17
2	Ca 317.933Radial†	330.9	-21.3	-3.8598	µg/L	-3.8598	ppb	14:46:17
2	Fe 238.204 Radial†	39.2	-4.8	-0.7857	µg/L	-0.7857	ppb	14:46:17
2	K 766.490 Radial†	485.0	91.6	73.569	µg/L	73.569	ppb	14:45:57
2	Mg 279.077 IEC†	79.1	12.7	17.275	µg/L	17.275	ppb	14:46:17
2	Na 589.592 Radial†	128.5	17.5	25.033	µg/L	25.033	ppb	14:46:17
2	Sr 421.552†	343.3	38.7	0.2047	µg/L	0.2047	ppb	14:45:57
2	Sc 361.383	391378.3	391378.3	99.745	%			14:47:14
2	Y 371.029	381588.5	381588.5	99.401	%			14:47:14
2	Ag 328.068†	-796.4	-76.7	-0.7046	µg/L	-0.7046	ppb	14:47:14
2	As 188.979†	-11.7	9.7	3.5713	µg/L	3.5713	ppb	14:47:34
2	B 249.677†	242.6	49.2	1.4190	µg/L	1.4190	ppb	14:47:34
2	Ba 233.527†	15.5	11.7	0.0857	µg/L	0.0857	ppb	14:47:34
2	Be 313.107†	-3956.3	1.3	0.0084	µg/L	0.0084	ppb	14:47:14
2	Cd 226.502†	-336.0	24.6	0.2146	µg/L	0.2146	ppb	14:47:34
2	Co 228.616†	-260.4	-23.1	-0.4604	µg/L	-0.4604	ppb	14:47:34
2	Cr 267.716†	113.6	-9.0	-0.1800	µg/L	-0.1800	ppb	14:47:34
2	Cu 324.752†	2169.5	-27.9	-0.1653	µg/L	-0.1653	ppb	14:47:14
2	Mn 257.610†	554.7	20.3	0.0279	µg/L	0.0279	ppb	14:47:34
2	Mo 202.031†	33.4	14.6	0.7150	µg/L	0.7150	ppb	14:47:34
2	Ni 231.604†	-198.2	-0.8	-0.0176	µg/L	-0.0176	ppb	14:47:34
2	P 214.914†	146.9	-17.7	-9.8800	µg/L	-9.8800	ppb	14:47:34

2	Pb 220.353†	-67.2	-9.7	-1.0450	µg/L	-1.0450	ppb	14:47:34
2	S 181.975 Axial†	105.1	13.6	13.962	µg/L	13.962	ppb	14:47:34
2	Sb 206.836†	177.5	2.7	0.6865	µg/L	0.6865	ppb	14:47:34
2	Se 196.026†	-35.1	-10.0	-3.9869	µg/L	-3.9869	ppb	14:47:34
2	SiO2†	1166.2	-122.3	-18.233	µg/L	-18.233	ppb	14:47:34
2	Si 251.611†	67.0	-151.1	-7.3485	µg/L	-7.3485	ppb	14:47:34
2	Sn 189.927†	53.9	4.8	0.5039	µg/L	0.5039	ppb	14:47:34
2	Ti 334.940†	-652.0	127.0	0.4657	µg/L	0.4657	ppb	14:47:14
2	Tl 190.801†	-88.5	0.1	0.0321	µg/L	0.0321	ppb	14:47:34
2	U 367.007†	1161.4	96.2	30.60	µg/L	30.60	ppb	14:47:14
2	V 292.402†	-171.6	16.4	0.2110	µg/L	0.2110	ppb	14:47:14
2	Zn 213.857†	970.0	-16.1	-0.1054	µg/L	-0.1054	ppb	14:47:34
3	Sc RADIAL	23996.5	23996.5	101	%			14:46:42
3	Al 396.153Radial†	-122.3	3.4	0.9661	µg/L	0.9661	ppb	14:46:42
3	Ca 317.933Radial†	312.8	-39.6	-7.1810	µg/L	-7.1810	ppb	14:46:42
3	Fe 238.204 Radial†	37.7	-6.3	-1.0243	µg/L	-1.0243	ppb	14:46:42
3	K 766.490 Radial†	385.4	-7.6	-6.1377	µg/L	-6.1377	ppb	14:46:22
3	Mg 279.077 IEC†	65.1	-1.2	-1.6978	µg/L	-1.6978	ppb	14:46:42
3	Na 589.592 Radial†	121.3	10.2	14.603	µg/L	14.603	ppb	14:46:42
3	Sr 421.552†	242.1	-62.0	-0.3281	µg/L	-0.3281	ppb	14:46:22
3	Sc 361.383	388871.5	388871.5	99.106	%			14:47:39
3	Y 371.029	379174.9	379174.9	98.772	%			14:47:39
3	Ag 328.068†	-751.4	-36.5	-0.3316	µg/L	-0.3316	ppb	14:47:39
3	As 188.979†	-25.1	-4.0	-1.4618	µg/L	-1.4618	ppb	14:47:59
3	B 249.677†	222.8	30.7	0.8841	µg/L	0.8841	ppb	14:47:59
3	Ba 233.527†	-30.1	-34.3	-0.2520	µg/L	-0.2520	ppb	14:47:59
3	Be 313.107†	-3934.8	-2.6	0.0010	µg/L	0.0010	ppb	14:47:39
3	Cd 226.502†	-337.2	21.2	0.1850	µg/L	0.1850	ppb	14:47:59
3	Co 228.616†	-249.5	-13.9	-0.2759	µg/L	-0.2759	ppb	14:47:59
3	Cr 267.716†	138.3	16.6	0.2772	µg/L	0.2772	ppb	14:47:59
3	Cu 324.752†	2186.2	3.0	0.0265	µg/L	0.0265	ppb	14:47:39
3	Mn 257.610†	543.6	12.6	0.0173	µg/L	0.0173	ppb	14:47:59
3	Mo 202.031†	28.3	9.7	0.4760	µg/L	0.4760	ppb	14:47:59
3	Ni 231.604†	-220.0	-24.0	-0.5557	µg/L	-0.5557	ppb	14:47:59
3	P 214.914†	152.2	-11.4	-6.3658	µg/L	-6.3658	ppb	14:47:59
3	Pb 220.353†	-85.1	-28.3	-2.9702	µg/L	-2.9702	ppb	14:47:59
3	S 181.975 Axial†	91.5	0.6	0.5883	µg/L	0.5883	ppb	14:47:59
3	Sb 206.836†	185.2	11.7	2.8838	µg/L	2.8838	ppb	14:47:59
3	Se 196.026†	-9.0	16.1	6.4586	µg/L	6.4586	ppb	14:47:59
3	SiO2†	1168.6	-112.3	-16.731	µg/L	-16.731	ppb	14:47:59
3	Si 251.611†	53.2	-164.6	-8.0003	µg/L	-8.0003	ppb	14:47:59
3	Sn 189.927†	59.3	10.7	1.1175	µg/L	1.1175	ppb	14:47:59
3	Ti 334.940†	-766.9	6.8	0.0199	µg/L	0.0199	ppb	14:47:39
3	Tl 190.801†	-98.0	-10.0	-1.8379	µg/L	-1.8379	ppb	14:47:59
3	U 367.007†	1095.7	37.4	11.90	µg/L	11.90	ppb	14:47:39
3	V 292.402†	-82.0	105.7	1.2192	µg/L	1.2192	ppb	14:47:39
3	Zn 213.857†	966.2	-13.7	-0.0865	µg/L	-0.0865	ppb	14:47:59

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	390280.5	99.465	%	0.3267				0.33%
Sc RADIAL	23970.8	101	%	0.10				0.10%
Y 371.029	380704.0	99.170	%	0.3464				0.35%
Ag 328.068†	-53.2	-0.4888	µg/L	0.19331	-0.4888	ppb	0.19331	39.55%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	14.0	4.0379	µg/L	2.72448	4.0379	ppb	2.72448	67.47%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.9	1.4435	µg/L	2.60508	1.4435	ppb	2.60508	180.47%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	41.8	1.2046	µg/L	0.28278	1.2046	ppb	0.28278	23.48%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.2	-0.0087	µg/L	0.21251	-0.0087	ppb	0.21251	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	7.9	0.0112	µg/L	0.01178	0.0112	ppb	0.01178	105.27%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-29.9	-5.4256	µg/L	1.66869	-5.4256	ppb	1.66869	30.76%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.2	0.1675	µg/L	0.05792	0.1675	ppb	0.05792	34.58%
QC value within limits for Cd 226.502 Recovery = Not calculated								

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Co 228.616†              -14.2     -0.2813 µg/L       0.17648     -0.2813 ppb        0.17648  62.74%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               12.3      0.1958 µg/L       0.34237      0.1958 ppb        0.34237 174.90%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -43.9     -0.2756 µg/L       0.36974     -0.2756 ppb        0.36974 134.18%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -2.7     -0.4377 µg/L       0.81818     -0.4377 ppb        0.81818 186.95%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         51.7      41.546 µg/L       42.0978      41.546 ppb        42.0978 101.33%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            8.2      11.151 µg/L       11.1318      11.151 ppb        11.1318  99.82%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               81.4      0.1123 µg/L       0.15553      0.1123 ppb        0.15553 138.46%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               16.2      0.7943 µg/L       0.36444      0.7943 ppb        0.36444  45.88%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         8.5      12.194 µg/L       14.1979      12.194 ppb        14.1979 116.44%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -10.5     -0.2418 µg/L       0.28002     -0.2418 ppb        0.28002 115.79%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -12.1     -6.7350 µg/L       2.97758     -6.7350 ppb        2.97758  44.21%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -24.4     -2.5725 µg/L       1.37259     -2.5725 ppb        1.37259  53.36%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           8.5      8.7265 µg/L       7.14375      8.7265 ppb        7.14375  81.86%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                0.4      0.1130 µg/L       3.09768      0.1130 ppb        3.09768 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -4.6     -1.8262 µg/L       7.44344     -1.8262 ppb        7.44344 407.59%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -115.1     -17.167 µg/L        0.9289     -17.167 ppb         0.9289   5.41%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -157.0     -7.6406 µg/L       0.33110     -7.6406 ppb        0.33110   4.33%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.1      0.3226 µg/L       0.89937      0.3226 ppb        0.89937 278.79%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -2.4     -0.0125 µg/L       0.27971     -0.0125 ppb        0.27971 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               51.3      0.1831 µg/L       0.24568      0.1831 ppb        0.24568 134.18%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -4.6     -0.8332 µg/L       0.94280     -0.8332 ppb        0.94280 113.16%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†                70.2       22.32 µg/L         9.531       22.32 ppb          9.531  42.71%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†                28.6      0.3475 µg/L       0.81208      0.3475 ppb        0.81208 233.69%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -5.6     -0.0351 µg/L       0.10590     -0.0351 ppb        0.10590 301.97%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 15 **Autosampler Location: 340**
Sample ID: 454944003|1783993|10| **Date Collected: 7/24/2018 14:48:08**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: 454944003|1783993|10|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	24321.5	24321.5	102	%			14:48:46
1	Al 396.153Radial†	45099.9	44220.0	12879	µg/L	12879	ppb	14:48:46
1	Ca 317.933Radial†	124594.0	121469.3	22045	µg/L	22045	ppb	14:48:46
1	Fe 238.204 Radial†	198439.6	193976.0	31669	µg/L	31669	ppb	14:48:40
1	K 766.490 Radial†	3110.0	2651.1	2111.4	µg/L	2111.4	ppb	14:48:46
1	Mg 279.077 IEC†	8688.4	8429.1	11449	µg/L	11449	ppb	14:48:46
1	Na 589.592 Radial†	215.1	100.3	102.05	µg/L	102.05	ppb	14:48:46
1	Sr 421.552†	19987.4	19240.2	101.47	µg/L	101.47	ppb	14:48:46
1	Sc 361.383	389918.2	389918.2	99.373	%			14:49:12
1	Y 371.029	381393.7	381393.7	99.350	%			14:49:12
1	Ag 328.068†	-1257.8	-544.0	-0.2168	µg/L	-0.2168	ppb	14:49:32
1	As 188.979†	-9.6	11.7	6.0403	µg/L	6.0403	ppb	14:49:32
1	B 249.677†	-3531.4	-3747.7	15.191	µg/L	15.191	ppb	14:49:32
1	Ba 233.527†	14171.6	14257.1	104.02	µg/L	104.02	ppb	14:49:32
1	Be 313.107†	-3143.0	804.9	0.8898	µg/L	0.8898	ppb	14:49:32
1	Cd 226.502†	4.3	365.8	-0.2829	µg/L	-0.2829	ppb	14:49:32
1	Co 228.616†	488.6	729.6	14.184	µg/L	14.184	ppb	14:49:32
1	Cr 267.716†	1259.1	1144.1	20.054	µg/L	20.054	ppb	14:49:32
1	Cu 324.752†	6695.0	4534.3	31.809	µg/L	31.809	ppb	14:49:32
1	Mn 257.610†	389116.8	391035.5	541.58	µg/L	541.58	ppb	14:49:12
1	Mo 202.031†	31.8	13.1	1.2403	µg/L	1.2403	ppb	14:49:32
1	Ni 231.604†	1234.7	1440.4	33.942	µg/L	33.942	ppb	14:49:32
1	P 214.914†	1091.4	933.3	495.05	µg/L	495.05	ppb	14:49:32
1	Pb 220.353†	50.2	108.1	12.811	µg/L	12.811	ppb	14:49:32
1	S 181.975 Axial†	8284.9	8245.5	8462.2	µg/L	8462.2	ppb	14:49:32
1	Sb 206.836†	164.7	-9.5	-6.9718	µg/L	-6.9718	ppb	14:49:32
1	Se 196.026†	-69.6	-44.8	-3.8519	µg/L	-3.8519	ppb	14:49:32
1	SiO2†	15887.5	14696.3	2179.0	µg/L	2179.0	ppb	14:49:32
1	Si 251.611†	21312.2	21228.4	1028.7	µg/L	1028.7	ppb	14:49:32
1	Sn 189.927†	47.0	-1.9	0.7246	µg/L	0.7246	ppb	14:49:32
1	Ti 334.940†	35967.1	36974.7	140.63	µg/L	140.63	ppb	14:49:12
1	Tl 190.801†	-103.2	-15.0	0.5034	µg/L	0.5034	ppb	14:49:32
1	U 367.007†	1581.3	523.1	32.30	µg/L	32.30	ppb	14:49:12
1	V 292.402†	1403.2	1600.5	24.803	µg/L	24.803	ppb	14:49:32
1	Zn 213.857†	11464.3	10548.1	63.739	µg/L	63.739	ppb	14:49:32
2	Sc RADIAL	24590.5	24590.5	103	%			14:48:56
2	Al 396.153Radial†	45305.6	43936.5	12796	µg/L	12796	ppb	14:48:56
2	Ca 317.933Radial†	125566.2	121076.9	21974	µg/L	21974	ppb	14:48:56
2	Fe 238.204 Radial†	198223.8	191644.9	31289	µg/L	31289	ppb	14:48:51
2	K 766.490 Radial†	3172.6	2678.4	2133.5	µg/L	2133.5	ppb	14:48:56
2	Mg 279.077 IEC†	8735.7	8382.0	11385	µg/L	11385	ppb	14:48:56
2	Na 589.592 Radial†	230.3	112.7	120.31	µg/L	120.31	ppb	14:48:56
2	Sr 421.552†	20124.9	19159.5	101.04	µg/L	101.04	ppb	14:48:56
2	Sc 361.383	388387.3	388387.3	98.983	%			14:49:38
2	Y 371.029	379654.3	379654.3	98.897	%			14:49:38
2	Ag 328.068†	-1227.0	-517.9	-0.0566	µg/L	-0.0566	ppb	14:49:58
2	As 188.979†	-3.1	18.2	8.4383	µg/L	8.4383	ppb	14:49:58
2	B 249.677†	-3527.8	-3758.0	13.411	µg/L	13.411	ppb	14:49:58
2	Ba 233.527†	14127.8	14269.1	104.12	µg/L	104.12	ppb	14:49:58
2	Be 313.107†	-3161.5	773.7	0.8737	µg/L	0.8737	ppb	14:49:58
2	Cd 226.502†	2.4	363.9	-0.2572	µg/L	-0.2572	ppb	14:49:58
2	Co 228.616†	474.3	717.1	13.937	µg/L	13.937	ppb	14:49:58
2	Cr 267.716†	1267.3	1157.4	20.255	µg/L	20.255	ppb	14:49:58
2	Cu 324.752†	6696.5	4562.3	31.988	µg/L	31.988	ppb	14:49:58
2	Mn 257.610†	386165.9	389597.7	539.57	µg/L	539.57	ppb	14:49:38
2	Mo 202.031†	38.8	20.4	1.5868	µg/L	1.5868	ppb	14:49:58
2	Ni 231.604†	1285.3	1496.4	35.231	µg/L	35.231	ppb	14:49:58
2	P 214.914†	1100.5	946.9	502.95	µg/L	502.95	ppb	14:49:58

2	Pb 220.353†	42.3	100.4	11.969	µg/L	11.969	ppb	14:49:58
2	S 181.975 Axial†	8271.2	8264.5	8481.8	µg/L	8481.8	ppb	14:49:58
2	Sb 206.836†	184.4	11.0	-1.8603	µg/L	-1.8603	ppb	14:49:58
2	Se 196.026†	-62.2	-37.7	-1.1619	µg/L	-1.1619	ppb	14:49:58
2	SiO2†	15805.4	14676.4	2176.1	µg/L	2176.1	ppb	14:49:58
2	Si 251.611†	21243.6	21243.6	1029.5	µg/L	1029.5	ppb	14:49:58
2	Sn 189.927†	31.8	-17.0	-0.8660	µg/L	-0.8660	ppb	14:49:58
2	Ti 334.940†	35781.9	36930.2	140.45	µg/L	140.45	ppb	14:49:38
2	Tl 190.801†	-113.5	-25.9	-1.5140	µg/L	-1.5140	ppb	14:49:58
2	U 367.007†	1665.3	614.3	62.79	µg/L	62.79	ppb	14:49:38
2	V 292.402†	1403.0	1605.8	24.807	µg/L	24.807	ppb	14:49:58
2	Zn 213.857†	11462.3	10591.4	64.074	µg/L	64.074	ppb	14:49:58
3	Sc RADIAL	24086.7	24086.7	101	%			14:49:06
3	Al 396.153Radial†	45022.0	44572.9	12982	µg/L	12982	ppb	14:49:06
3	Ca 317.933Radial†	124375.9	122441.6	22222	µg/L	22222	ppb	14:49:06
3	Fe 238.204 Radial†	198033.5	195466.5	31913	µg/L	31913	ppb	14:49:01
3	K 766.490 Radial†	3169.3	2739.3	2182.1	µg/L	2182.1	ppb	14:49:06
3	Mg 279.077 IEC†	8649.7	8473.8	11509	µg/L	11509	ppb	14:49:06
3	Na 589.592 Radial†	203.4	90.9	88.217	µg/L	88.217	ppb	14:49:06
3	Sr 421.552†	20042.5	19485.1	102.76	µg/L	102.76	ppb	14:49:06
3	Sc 361.383	388380.9	388380.9	98.981	%			14:50:03
3	Y 371.029	379596.3	379596.3	98.882	%			14:50:03
3	Ag 328.068†	-1152.4	-442.6	0.7216	µg/L	0.7216	ppb	14:50:23
3	As 188.979†	-6.2	15.1	7.3391	µg/L	7.3391	ppb	14:50:23
3	B 249.677†	-3510.0	-3740.1	16.358	µg/L	16.358	ppb	14:50:23
3	Ba 233.527†	14051.8	14192.5	103.54	µg/L	103.54	ppb	14:50:23
3	Be 313.107†	-3106.5	829.2	0.9123	µg/L	0.9123	ppb	14:50:23
3	Cd 226.502†	24.2	385.9	-0.1337	µg/L	-0.1337	ppb	14:50:23
3	Co 228.616†	486.7	729.6	14.182	µg/L	14.182	ppb	14:50:23
3	Cr 267.716†	1254.2	1144.2	20.052	µg/L	20.052	ppb	14:50:23
3	Cu 324.752†	6652.4	4517.9	31.723	µg/L	31.723	ppb	14:50:23
3	Mn 257.610†	387541.3	390993.7	541.54	µg/L	541.54	ppb	14:50:03
3	Mo 202.031†	30.3	11.8	1.1773	µg/L	1.1773	ppb	14:50:23
3	Ni 231.604†	1261.0	1471.9	34.676	µg/L	34.676	ppb	14:50:23
3	P 214.914†	1090.6	936.9	496.87	µg/L	496.87	ppb	14:50:23
3	Pb 220.353†	62.6	120.9	14.149	µg/L	14.149	ppb	14:50:23
3	S 181.975 Axial†	8214.1	8206.9	8422.5	µg/L	8422.5	ppb	14:50:23
3	Sb 206.836†	177.6	4.2	-3.6303	µg/L	-3.6303	ppb	14:50:23
3	Se 196.026†	-55.9	-31.3	1.6639	µg/L	1.6639	ppb	14:50:23
3	SiO2†	15765.2	14635.9	2169.9	µg/L	2169.9	ppb	14:50:23
3	Si 251.611†	21168.2	21167.8	1025.7	µg/L	1025.7	ppb	14:50:23
3	Sn 189.927†	63.6	15.1	2.4988	µg/L	2.4988	ppb	14:50:23
3	Ti 334.940†	35903.7	37053.9	140.94	µg/L	140.94	ppb	14:50:03
3	Tl 190.801†	-101.1	-13.3	0.8469	µg/L	0.8469	ppb	14:50:23
3	U 367.007†	1612.1	560.5	43.15	µg/L	43.15	ppb	14:50:03
3	V 292.402†	1416.9	1619.8	25.080	µg/L	25.080	ppb	14:50:23
3	Zn 213.857†	11369.1	10497.5	63.365	µg/L	63.365	ppb	14:50:23

Mean Data: 454944003|1783993|10|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	388895.5	99.112	%	0.2257				0.23%
Sc RADIAL	24332.9	102	%	1.06				1.04%
Y 371.029	380214.8	99.043	%	0.2661				0.27%
Ag 328.068†	-501.5	0.1494	µg/L	0.50196	0.1494	ppb	0.50196	336.01%
Al 396.153Radial†	44243.1	12886	µg/L	92.87	12886	ppb	92.87	0.72%
As 188.979†	15.0	7.2726	µg/L	1.20037	7.2726	ppb	1.20037	16.51%
B 249.677†	-3748.6	14.987	µg/L	1.4841	14.987	ppb	1.4841	9.90%
Ba 233.527†	14239.6	103.89	µg/L	0.309	103.89	ppb	0.309	0.30%
Be 313.107†	802.6	0.8919	µg/L	0.01943	0.8919	ppb	0.01943	2.18%
Ca 317.933Radial†	121662.6	22081	µg/L	127.51	22081	ppb	127.51	0.58%
Cd 226.502†	371.9	-0.2246	µg/L	0.07976	-0.2246	ppb	0.07976	35.51%
Co 228.616†	725.4	14.101	µg/L	0.1418	14.101	ppb	0.1418	1.01%
Cr 267.716†	1148.6	20.120	µg/L	0.1167	20.120	ppb	0.1167	0.58%
Cu 324.752†	4538.2	31.840	µg/L	0.1353	31.840	ppb	0.1353	0.42%
Fe 238.204 Radial†	193695.8	31623	µg/L	314.46	31623	ppb	314.46	0.99%
K 766.490 Radial†	2689.6	2142.3	µg/L	36.15	2142.3	ppb	36.15	1.69%
Mg 279.077 IEC†	8428.3	11448	µg/L	62.35	11448	ppb	62.35	0.54%
Mn 257.610†	390542.3	540.90	µg/L	1.148	540.90	ppb	1.148	0.21%
Mo 202.031†	15.1	1.3348	µg/L	0.22048	1.3348	ppb	0.22048	16.52%

Na 589.592 Radial†	101.3	103.53	µg/L	16.099	103.53	ppb	16.099	15.55%
Ni 231.604†	1469.6	34.617	µg/L	0.6464	34.617	ppb	0.6464	1.87%
P 214.914†	939.0	498.29	µg/L	4.137	498.29	ppb	4.137	0.83%
Pb 220.353†	109.8	12.976	µg/L	1.0996	12.976	ppb	1.0996	8.47%
S 181.975 Axial†	8238.9	8455.5	µg/L	30.24	8455.5	ppb	30.24	0.36%
Sb 206.836†	1.9	-4.1541	µg/L	2.59573	-4.1541	ppb	2.59573	62.49%
Se 196.026†	-37.9	-1.1166	µg/L	2.75820	-1.1166	ppb	2.75820	247.01%
SiO2†	14669.5	2175.0	µg/L	4.61	2175.0	ppb	4.61	0.21%
Si 251.611†	21213.3	1028.0	µg/L	1.97	1028.0	ppb	1.97	0.19%
Sn 189.927†	-1.3	0.7858	µg/L	1.68319	0.7858	ppb	1.68319	214.20%
Sr 421.552†	19295.0	101.76	µg/L	0.896	101.76	ppb	0.896	0.88%
Ti 334.940†	36986.3	140.67	µg/L	0.246	140.67	ppb	0.246	0.17%
Tl 190.801†	-18.1	-0.0545	µg/L	1.27551	-0.0545	ppb	1.27551	>999.9%
U 367.007†	566.0	46.08	µg/L	15.452	46.08	ppb	15.452	33.53%
V 292.402†	1608.7	24.897	µg/L	0.1589	24.897	ppb	0.1589	0.64%
Zn 213.857†	10545.7	63.726	µg/L	0.3550	63.726	ppb	0.3550	0.56%

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Sequence No.: 16 **Autosampler Location: 341**
Sample ID: 454944004|1783993|10| **Date Collected: 7/24/2018 14:50:32**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: 454944004|1783993|10|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	24301.5	24301.5	102	%			14:51:08
1	Al 396.153Radial†	48764.1	47841.8	13934	µg/L	13934	ppb	14:51:08
1	Ca 317.933Radial†	131471.9	128299.8	23285	µg/L	23285	ppb	14:51:08
1	Fe 238.204 Radial†	201561.4	197190.4	32194	µg/L	32194	ppb	14:51:03
1	K 766.490 Radial†	3512.4	3047.4	2429.5	µg/L	2429.5	ppb	14:51:08
1	Mg 279.077 IEC†	9286.1	9021.0	12253	µg/L	12253	ppb	14:51:08
1	Na 589.592 Radial†	247.8	132.5	147.45	µg/L	147.45	ppb	14:51:08
1	Sr 421.552†	22893.9	22100.4	116.59	µg/L	116.59	ppb	14:51:08
1	Sc 361.383	385888.8	385888.8	98.346	%			14:51:35
1	Y 371.029	377508.0	377508.0	98.338	%			14:51:35
1	Ag 328.068†	-1212.9	-511.6	0.1522	µg/L	0.1522	ppb	14:51:55
1	As 188.979†	-3.5	17.8	8.3302	µg/L	8.3302	ppb	14:51:55
1	B 249.677†	-3560.7	-3814.6	15.308	µg/L	15.308	ppb	14:51:55
1	Ba 233.527†	12586.9	12794.6	93.257	µg/L	93.257	ppb	14:51:55
1	Be 313.107†	-3127.5	787.7	0.8940	µg/L	0.8940	ppb	14:51:55
1	Cd 226.502†	46.6	408.9	0.0350	µg/L	0.0350	ppb	14:51:55
1	Co 228.616†	438.3	683.6	13.252	µg/L	13.252	ppb	14:51:55
1	Cr 267.716†	1352.8	1252.6	21.931	µg/L	21.931	ppb	14:51:55
1	Cu 324.752†	7289.9	5209.5	36.283	µg/L	36.283	ppb	14:51:55
1	Mn 257.610†	405378.2	411659.1	570.07	µg/L	570.07	ppb	14:51:35
1	Mo 202.031†	40.7	22.6	1.7122	µg/L	1.7122	ppb	14:51:55
1	Ni 231.604†	1232.7	1451.3	34.206	µg/L	34.206	ppb	14:51:55
1	P 214.914†	1094.4	947.9	502.87	µg/L	502.87	ppb	14:51:55
1	Pb 220.353†	52.0	110.5	13.170	µg/L	13.170	ppb	14:51:55
1	S 181.975 Axial†	7128.5	7156.6	7342.9	µg/L	7342.9	ppb	14:51:55
1	Sb 206.836†	186.9	14.9	-1.0616	µg/L	-1.0616	ppb	14:51:55
1	Se 196.026†	-58.4	-34.2	0.6415	µg/L	0.6415	ppb	14:51:55
1	SiO2†	20323.9	19374.1	2874.7	µg/L	2874.7	ppb	14:51:55
1	Si 251.611†	28490.6	28751.5	1394.0	µg/L	1394.0	ppb	14:51:35
1	Sn 189.927†	53.8	5.5	1.5048	µg/L	1.5048	ppb	14:51:55
1	Ti 334.940†	36428.6	37821.8	143.89	µg/L	143.89	ppb	14:51:35
1	Tl 190.801†	-100.3	-13.2	0.9043	µg/L	0.9043	ppb	14:51:55
1	U 367.007†	1582.0	540.4	35.09	µg/L	35.09	ppb	14:51:35
1	V 292.402†	1558.3	1772.9	26.889	µg/L	26.889	ppb	14:51:55
1	Zn 213.857†	25509.9	24950.3	157.96	µg/L	157.96	ppb	14:51:55
2	Sc RADIAL	24279.5	24279.5	102	%			14:51:18
2	Al 396.153Radial†	48700.9	47823.1	13928	µg/L	13928	ppb	14:51:18
2	Ca 317.933Radial†	131004.9	127958.9	23223	µg/L	23223	ppb	14:51:18
2	Fe 238.204 Radial†	201334.0	197146.4	32187	µg/L	32187	ppb	14:51:13
2	K 766.490 Radial†	3479.6	3018.3	2406.1	µg/L	2406.1	ppb	14:51:18
2	Mg 279.077 IEC†	9286.7	9029.8	12265	µg/L	12265	ppb	14:51:18
2	Na 589.592 Radial†	231.4	116.7	124.74	µg/L	124.74	ppb	14:51:18
2	Sr 421.552†	22793.5	22022.4	116.18	µg/L	116.18	ppb	14:51:18
2	Sc 361.383	384383.4	384383.4	97.963	%			14:52:00
2	Y 371.029	376028.6	376028.6	97.952	%			14:52:00
2	Ag 328.068†	-1191.0	-494.1	0.2830	µg/L	0.2830	ppb	14:52:20
2	As 188.979†	-12.3	8.8	5.0242	µg/L	5.0242	ppb	14:52:20
2	B 249.677†	-3637.0	-3906.7	12.623	µg/L	12.623	ppb	14:52:20
2	Ba 233.527†	12584.6	12842.4	93.609	µg/L	93.609	ppb	14:52:20
2	Be 313.107†	-3081.2	822.5	0.9292	µg/L	0.9292	ppb	14:52:20
2	Cd 226.502†	77.5	440.6	0.3121	µg/L	0.3121	ppb	14:52:20
2	Co 228.616†	443.0	690.1	13.379	µg/L	13.379	ppb	14:52:20
2	Cr 267.716†	1384.3	1290.1	22.542	µg/L	22.542	ppb	14:52:20
2	Cu 324.752†	7283.8	5232.3	36.460	µg/L	36.460	ppb	14:52:20
2	Mn 257.610†	407114.2	415045.5	574.74	µg/L	574.74	ppb	14:52:00
2	Mo 202.031†	37.7	19.6	1.5671	µg/L	1.5671	ppb	14:52:20
2	Ni 231.604†	1238.7	1462.4	34.461	µg/L	34.461	ppb	14:52:20
2	P 214.914†	1112.1	970.2	515.36	µg/L	515.36	ppb	14:52:20

2	Pb 220.353†	45.6	104.2	12.474	µg/L	12.474	ppb	14:52:20
2	S 181.975 Axial†	7130.3	7186.8	7374.0	µg/L	7374.0	ppb	14:52:20
2	Sb 206.836†	169.6	-2.1	-5.2681	µg/L	-5.2681	ppb	14:52:20
2	Se 196.026†	-67.7	-43.9	-3.2653	µg/L	-3.2653	ppb	14:52:20
2	SiO2†	20259.0	19388.9	2876.9	µg/L	2876.9	ppb	14:52:20
2	Si 251.611†	28487.3	28861.6	1399.4	µg/L	1399.4	ppb	14:52:00
2	Sn 189.927†	49.5	1.3	1.0666	µg/L	1.0666	ppb	14:52:20
2	Ti 334.940†	36627.6	38170.0	145.18	µg/L	145.18	ppb	14:52:00
2	Tl 190.801†	-105.5	-18.9	-0.1302	µg/L	-0.1302	ppb	14:52:20
2	U 367.007†	1709.6	677.0	78.57	µg/L	78.57	ppb	14:52:00
2	V 292.402†	1558.8	1779.6	26.988	µg/L	26.988	ppb	14:52:20
2	Zn 213.857†	25494.6	25036.2	158.52	µg/L	158.52	ppb	14:52:20
3	Sc RADIAL	24347.5	24347.5	102	%			14:51:28
3	Al 396.153Radial†	49161.8	48140.0	14021	µg/L	14021	ppb	14:51:28
3	Ca 317.933Radial†	132559.0	129118.4	23434	µg/L	23434	ppb	14:51:28
3	Fe 238.204 Radial†	202040.0	197285.0	32209	µg/L	32209	ppb	14:51:23
3	K 766.490 Radial†	3406.8	2937.8	2341.4	µg/L	2341.4	ppb	14:51:28
3	Mg 279.077 IEC†	9369.0	9084.8	12339	µg/L	12339	ppb	14:51:28
3	Na 589.592 Radial†	215.8	100.8	102.04	µg/L	102.04	ppb	14:51:28
3	Sr 421.552†	23021.4	22182.6	117.02	µg/L	117.02	ppb	14:51:28
3	Sc 361.383	381610.0	381610.0	97.256	%			14:52:25
3	Y 371.029	372976.9	372976.9	97.158	%			14:52:25
3	Ag 328.068†	-1208.0	-520.3	0.0543	µg/L	0.0543	ppb	14:52:46
3	As 188.979†	8.9	30.5	13.052	µg/L	13.052	ppb	14:52:46
3	B 249.677†	-3566.3	-3861.0	14.030	µg/L	14.030	ppb	14:52:46
3	Ba 233.527†	12584.8	12936.0	94.296	µg/L	94.296	ppb	14:52:46
3	Be 313.107†	-3086.8	793.8	0.9095	µg/L	0.9095	ppb	14:52:46
3	Cd 226.502†	62.7	426.0	0.1818	µg/L	0.1818	ppb	14:52:46
3	Co 228.616†	437.3	687.6	13.329	µg/L	13.329	ppb	14:52:46
3	Cr 267.716†	1324.2	1238.6	21.658	µg/L	21.658	ppb	14:52:46
3	Cu 324.752†	7313.3	5316.7	37.013	µg/L	37.013	ppb	14:52:46
3	Mn 257.610†	404642.8	415524.7	575.40	µg/L	575.40	ppb	14:52:25
3	Mo 202.031†	35.7	17.8	1.4784	µg/L	1.4784	ppb	14:52:46
3	Ni 231.604†	1201.7	1433.6	33.795	µg/L	33.795	ppb	14:52:46
3	P 214.914†	1078.5	944.0	500.70	µg/L	500.70	ppb	14:52:46
3	Pb 220.353†	83.7	143.7	16.630	µg/L	16.630	ppb	14:52:46
3	S 181.975 Axial†	7125.2	7234.5	7422.9	µg/L	7422.9	ppb	14:52:46
3	Sb 206.836†	175.5	5.3	-3.4262	µg/L	-3.4262	ppb	14:52:46
3	Se 196.026†	-66.5	-43.2	-2.9644	µg/L	-2.9644	ppb	14:52:46
3	SiO2†	20288.4	19569.4	2903.8	µg/L	2903.8	ppb	14:52:46
3	Si 251.611†	28336.5	28917.8	1402.1	µg/L	1402.1	ppb	14:52:25
3	Sn 189.927†	60.0	12.5	2.2379	µg/L	2.2379	ppb	14:52:46
3	Ti 334.940†	36407.8	38215.8	145.37	µg/L	145.37	ppb	14:52:25
3	Tl 190.801†	-112.6	-26.9	-1.6017	µg/L	-1.6017	ppb	14:52:46
3	U 367.007†	1680.1	659.4	72.76	µg/L	72.76	ppb	14:52:25
3	V 292.402†	1556.1	1788.4	27.088	µg/L	27.088	ppb	14:52:46
3	Zn 213.857†	25479.7	25210.1	159.66	µg/L	159.66	ppb	14:52:46

Mean Data: 454944004|1783993|10|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	383960.7	97.855	%	0.5532				0.57%
Sc RADIAL	24309.5	102	%	0.15				0.14%
Y 371.029	375504.5	97.816	%	0.6019				0.62%
Ag 328.068†	-508.7	0.1632	µg/L	0.11474	0.1632	ppb	0.11474	70.31%
Al 396.153Radial†	47935.0	13961	µg/L	51.80	13961	ppb	51.80	0.37%
As 188.979†	19.0	8.8020	µg/L	4.03448	8.8020	ppb	4.03448	45.84%
B 249.677†	-3860.8	13.987	µg/L	1.3430	13.987	ppb	1.3430	9.60%
Ba 233.527†	12857.7	93.720	µg/L	0.5283	93.720	ppb	0.5283	0.56%
Be 313.107†	801.3	0.9109	µg/L	0.01764	0.9109	ppb	0.01764	1.94%
Ca 317.933Radial†	128459.0	23314	µg/L	108.15	23314	ppb	108.15	0.46%
Cd 226.502†	425.2	0.1763	µg/L	0.13864	0.1763	ppb	0.13864	78.65%
Co 228.616†	687.1	13.320	µg/L	0.0641	13.320	ppb	0.0641	0.48%
Cr 267.716†	1260.4	22.044	µg/L	0.4528	22.044	ppb	0.4528	2.05%
Cu 324.752†	5252.9	36.585	µg/L	0.3806	36.585	ppb	0.3806	1.04%
Fe 238.204 Radial†	197207.3	32197	µg/L	11.57	32197	ppb	11.57	0.04%
K 766.490 Radial†	3001.2	2392.3	µg/L	45.62	2392.3	ppb	45.62	1.91%
Mg 279.077 IEC†	9045.2	12286	µg/L	46.92	12286	ppb	46.92	0.38%
Mn 257.610†	414076.4	573.40	µg/L	2.908	573.40	ppb	2.908	0.51%
Mo 202.031†	20.0	1.5859	µg/L	0.11805	1.5859	ppb	0.11805	7.44%

Na 589.592 Radial†	116.7	124.74	µg/L	22.704	124.74	ppb	22.704	18.20%
Ni 231.604†	1449.1	34.154	µg/L	0.3361	34.154	ppb	0.3361	0.98%
P 214.914†	954.0	506.31	µg/L	7.916	506.31	ppb	7.916	1.56%
Pb 220.353†	119.5	14.091	µg/L	2.2261	14.091	ppb	2.2261	15.80%
S 181.975 Axial†	7192.7	7379.9	µg/L	40.32	7379.9	ppb	40.32	0.55%
Sb 206.836†	6.0	-3.2520	µg/L	2.10864	-3.2520	ppb	2.10864	64.84%
Se 196.026†	-40.4	-1.8627	µg/L	2.17393	-1.8627	ppb	2.17393	116.71%
SiO2†	19444.2	2885.1	µg/L	16.17	2885.1	ppb	16.17	0.56%
Si 251.611†	28843.6	1398.5	µg/L	4.11	1398.5	ppb	4.11	0.29%
Sn 189.927†	6.5	1.6031	µg/L	0.59179	1.6031	ppb	0.59179	36.92%
Sr 421.552†	22101.8	116.60	µg/L	0.422	116.60	ppb	0.422	0.36%
Ti 334.940†	38069.2	144.81	µg/L	0.805	144.81	ppb	0.805	0.56%
Tl 190.801†	-19.7	-0.2759	µg/L	1.25931	-0.2759	ppb	1.25931	456.48%
U 367.007†	625.6	62.14	µg/L	23.603	62.14	ppb	23.603	37.98%
V 292.402†	1780.3	26.988	µg/L	0.0993	26.988	ppb	0.0993	0.37%
Zn 213.857†	25065.5	158.71	µg/L	0.865	158.71	ppb	0.865	0.54%

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Sequence No.: 17 **Autosampler Location: 342**
Sample ID: 454944005|1783993|10| **Date Collected: 7/24/2018 14:52:54**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: 454944005|1783993|10|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	24157.4	24157.4	102	%			14:53:30
1	Al 396.153Radial†	42828.9	42283.9	12315	µg/L	12315	ppb	14:53:30
1	Ca 317.933Radial†	175170.3	172082.2	31231	µg/L	31231	ppb	14:53:30
1	Fe 238.204 Radial†	204750.6	201505.9	32899	µg/L	32899	ppb	14:53:25
1	K 766.490 Radial†	3104.6	2666.5	2123.5	µg/L	2123.5	ppb	14:53:30
1	Mg 279.077 IEC†	12111.9	11856.8	16104	µg/L	16104	ppb	14:53:30
1	Na 589.592 Radial†	203.3	90.1	85.886	µg/L	85.886	ppb	14:53:30
1	Sr 421.552†	19951.3	19337.4	101.82	µg/L	101.82	ppb	14:53:30
1	Sc 361.383	384873.2	384873.2	98.087	%			14:53:57
1	Y 371.029	377208.1	377208.1	98.260	%			14:53:57
1	Ag 328.068†	-1243.0	-545.5	-0.0693	µg/L	-0.0693	ppb	14:54:17
1	As 188.979†	9.8	31.4	13.397	µg/L	13.397	ppb	14:54:17
1	B 249.677†	-3712.6	-3979.1	13.307	µg/L	13.307	ppb	14:54:17
1	Ba 233.527†	12119.6	12352.0	89.986	µg/L	89.986	ppb	14:54:17
1	Be 313.107†	-3365.9	536.2	0.8144	µg/L	0.8144	ppb	14:54:17
1	Cd 226.502†	47.9	410.3	-0.0292	µg/L	-0.0292	ppb	14:54:17
1	Co 228.616†	460.3	707.1	13.727	µg/L	13.727	ppb	14:54:17
1	Cr 267.716†	1202.4	1102.9	19.379	µg/L	19.379	ppb	14:54:17
1	Cu 324.752†	8348.2	6308.0	43.566	µg/L	43.566	ppb	14:53:57
1	Mn 257.610†	436908.7	444892.1	615.96	µg/L	615.96	ppb	14:53:57
1	Mo 202.031†	60.6	42.9	2.7252	µg/L	2.7252	ppb	14:54:17
1	Ni 231.604†	1220.0	1441.7	33.996	µg/L	33.996	ppb	14:54:17
1	P 214.914†	1068.2	924.1	488.55	µg/L	488.55	ppb	14:54:17
1	Pb 220.353†	28.8	87.0	10.717	µg/L	10.717	ppb	14:54:17
1	S 181.975 Axial†	9646.3	9742.6	10000	µg/L	10000	ppb	14:54:17
1	Sb 206.836†	187.7	16.1	-0.7801	µg/L	-0.7801	ppb	14:54:17
1	Se 196.026†	-56.5	-32.4	1.6641	µg/L	1.6641	ppb	14:54:17
1	SiO2†	18941.5	18019.4	2673.0	µg/L	2673.0	ppb	14:54:17
1	Si 251.611†	25712.0	25995.1	1260.1	µg/L	1260.1	ppb	14:54:17
1	Sn 189.927†	74.7	26.9	3.6122	µg/L	3.6122	ppb	14:54:17
1	Ti 334.940†	35133.7	36599.4	139.62	µg/L	139.62	ppb	14:53:57
1	Tl 190.801†	-99.0	-12.1	1.1613	µg/L	1.1613	ppb	14:54:17
1	U 367.007†	1663.9	628.2	55.83	µg/L	55.83	ppb	14:53:57
1	V 292.402†	1291.2	1504.8	23.992	µg/L	23.992	ppb	14:54:17
1	Zn 213.857†	15622.5	14938.5	92.058	µg/L	92.058	ppb	14:54:17
2	Sc RADIAL	24318.3	24318.3	102	%			14:53:40
2	Al 396.153Radial†	42875.6	42050.6	12247	µg/L	12247	ppb	14:53:40
2	Ca 317.933Radial†	174530.8	170315.8	30911	µg/L	30911	ppb	14:53:40
2	Fe 238.204 Radial†	205067.9	200482.5	32731	µg/L	32731	ppb	14:53:35
2	K 766.490 Radial†	3075.1	2617.4	2084.1	µg/L	2084.1	ppb	14:53:40
2	Mg 279.077 IEC†	12094.5	11760.9	15974	µg/L	15974	ppb	14:53:40
2	Na 589.592 Radial†	226.7	111.7	116.92	µg/L	116.92	ppb	14:53:40
2	Sr 421.552†	19995.9	19251.1	101.37	µg/L	101.37	ppb	14:53:40
2	Sc 361.383	386431.6	386431.6	98.485	%			14:54:22
2	Y 371.029	377994.6	377994.6	98.465	%			14:54:22
2	Ag 328.068†	-1181.3	-477.7	0.5050	µg/L	0.5050	ppb	14:54:42
2	As 188.979†	4.9	26.4	11.533	µg/L	11.533	ppb	14:54:42
2	B 249.677†	-3699.3	-3950.3	13.485	µg/L	13.485	ppb	14:54:42
2	Ba 233.527†	12130.0	12312.8	89.702	µg/L	89.702	ppb	14:54:42
2	Be 313.107†	-3325.4	591.2	0.8536	µg/L	0.8536	ppb	14:54:42
2	Cd 226.502†	23.4	385.2	-0.2303	µg/L	-0.2303	ppb	14:54:42
2	Co 228.616†	470.4	715.5	13.893	µg/L	13.893	ppb	14:54:42
2	Cr 267.716†	1190.3	1085.7	19.064	µg/L	19.064	ppb	14:54:42
2	Cu 324.752†	8499.0	6426.8	44.346	µg/L	44.346	ppb	14:54:22
2	Mn 257.610†	440494.4	446736.6	618.50	µg/L	618.50	ppb	14:54:22
2	Mo 202.031†	58.9	40.9	2.6219	µg/L	2.6219	ppb	14:54:42
2	Ni 231.604†	1170.9	1386.9	32.724	µg/L	32.724	ppb	14:54:42
2	P 214.914†	1051.0	902.3	476.46	µg/L	476.46	ppb	14:54:42

2	Pb 220.353†	14.6	72.5	9.1748 µg/L	9.1748 ppb		14:54:42
2	S 181.975 Axial†	9662.1	9719.0	9976.2 µg/L	9976.2 ppb		14:54:42
2	Sb 206.836†	179.0	6.5	-3.1251 µg/L	-3.1251 ppb		14:54:42
2	Se 196.026†	-50.4	-25.9	4.1841 µg/L	4.1841 ppb		14:54:42
2	SiO2†	18954.2	17954.4	2663.3 µg/L	2663.3 ppb		14:54:42
2	Si 251.611†	25761.6	25939.8	1257.4 µg/L	1257.4 ppb		14:54:42
2	Sn 189.927†	59.0	10.7	1.9224 µg/L	1.9224 ppb		14:54:42
2	Ti 334.940†	35408.7	36734.2	140.11 µg/L	140.11 ppb		14:54:22
2	Tl 190.801†	-103.5	-16.3	0.3828 µg/L	0.3828 ppb		14:54:42
2	U 367.007†	1715.1	673.4	71.01 µg/L	71.01 ppb		14:54:22
2	V 292.402†	1292.6	1500.9	23.920 µg/L	23.920 ppb		14:54:42
2	Zn 213.857†	15605.7	14857.2	91.564 µg/L	91.564 ppb		14:54:42
3	Sc RADIAL	24063.1	24063.1	101 %			14:53:50
3	Al 396.153Radial†	42565.7	42189.0	12287 µg/L	12287 ppb		14:53:50
3	Ca 317.933Radial†	173895.4	171498.0	31125 µg/L	31125 ppb		14:53:50
3	Fe 238.204 Radial†	205516.4	203052.4	33151 µg/L	33151 ppb		14:53:45
3	K 766.490 Radial†	2949.4	2525.1	2009.7 µg/L	2009.7 ppb		14:53:50
3	Mg 279.077 IEC†	11986.3	11779.4	15999 µg/L	15999 ppb		14:53:50
3	Na 589.592 Radial†	214.5	102.0	102.47 µg/L	102.47 ppb		14:53:50
3	Sr 421.552†	19948.0	19411.1	102.21 µg/L	102.21 ppb		14:53:50
3	Sc 361.383	386508.2	386508.2	98.504 %			14:54:47
3	Y 371.029	378098.5	378098.5	98.492 %			14:54:47
3	Ag 328.068†	-1183.8	-480.0	0.5611 µg/L	0.5611 ppb		14:55:08
3	As 188.979†	-2.5	18.8	8.7571 µg/L	8.7571 ppb		14:55:08
3	B 249.677†	-3684.7	-3934.7	15.570 µg/L	15.570 ppb		14:55:08
3	Ba 233.527†	12087.6	12267.3	89.357 µg/L	89.357 ppb		14:55:08
3	Be 313.107†	-3384.7	531.6	0.8073 µg/L	0.8073 ppb		14:55:08
3	Cd 226.502†	47.7	409.9	-0.0607 µg/L	-0.0607 ppb		14:55:08
3	Co 228.616†	476.3	721.5	14.010 µg/L	14.010 ppb		14:55:08
3	Cr 267.716†	1192.6	1087.7	19.125 µg/L	19.125 ppb		14:55:08
3	Cu 324.752†	8631.9	6560.0	45.232 µg/L	45.232 ppb		14:54:47
3	Mn 257.610†	440343.6	446494.9	618.19 µg/L	618.19 ppb		14:54:47
3	Mo 202.031†	46.0	27.9	1.9897 µg/L	1.9897 ppb		14:55:08
3	Ni 231.604†	1196.7	1412.8	33.331 µg/L	33.331 ppb		14:55:08
3	P 214.914†	1053.8	904.9	477.56 µg/L	477.56 ppb		14:55:08
3	Pb 220.353†	52.2	110.6	13.198 µg/L	13.198 ppb		14:55:08
3	S 181.975 Axial†	9619.7	9674.0	9929.8 µg/L	9929.8 ppb		14:55:08
3	Sb 206.836†	192.6	20.3	0.2103 µg/L	0.2103 ppb		14:55:08
3	Se 196.026†	-62.0	-37.8	-0.3700 µg/L	-0.3700 ppb		14:55:08
3	SiO2†	18890.9	17886.3	2653.1 µg/L	2653.1 ppb		14:55:08
3	Si 251.611†	25703.3	25875.4	1254.3 µg/L	1254.3 ppb		14:55:08
3	Sn 189.927†	57.1	8.8	1.7235 µg/L	1.7235 ppb		14:55:08
3	Ti 334.940†	35342.1	36659.5	139.85 µg/L	139.85 ppb		14:54:47
3	Tl 190.801†	-101.2	-13.9	0.8432 µg/L	0.8432 ppb		14:55:08
3	U 367.007†	1640.7	597.4	45.13 µg/L	45.13 ppb		14:54:47
3	V 292.402†	1286.4	1494.4	23.912 µg/L	23.912 ppb		14:55:08
3	Zn 213.857†	15575.0	14822.9	91.271 µg/L	91.271 ppb		14:55:08

Mean Data: 454944005|1783993|10|

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	385937.7	98.359	%	0.2351				0.24%
Sc RADIAL	24179.6	102	%	0.54				0.53%
Y 371.029	377767.1	98.405	%	0.1268				0.13%
Ag 328.068†	-501.1	0.3323	µg/L	0.34890	0.3323	ppb	0.34890	105.01%
Al 396.153Radial†	42174.5	12283	µg/L	34.17	12283	ppb	34.17	0.28%
As 188.979†	25.5	11.229	µg/L	2.3348	11.229	ppb	2.3348	20.79%
B 249.677†	-3954.7	14.121	µg/L	1.2582	14.121	ppb	1.2582	8.91%
Ba 233.527†	12310.7	89.682	µg/L	0.3151	89.682	ppb	0.3151	0.35%
Be 313.107†	553.0	0.8251	µg/L	0.02495	0.8251	ppb	0.02495	3.02%
Ca 317.933Radial†	171298.7	31089	µg/L	163.33	31089	ppb	163.33	0.53%
Cd 226.502†	401.8	-0.1067	µg/L	0.10818	-0.1067	ppb	0.10818	101.35%
Co 228.616†	714.7	13.877	µg/L	0.1420	13.877	ppb	0.1420	1.02%
Cr 267.716†	1092.1	19.189	µg/L	0.1669	19.189	ppb	0.1669	0.87%
Cu 324.752†	6431.6	44.382	µg/L	0.8338	44.382	ppb	0.8338	1.88%
Fe 238.204 Radial†	201680.3	32927	µg/L	211.23	32927	ppb	211.23	0.64%
K 766.490 Radial†	2603.0	2072.5	µg/L	57.78	2072.5	ppb	57.78	2.79%
Mg 279.077 IEC†	11799.0	16026	µg/L	69.16	16026	ppb	69.16	0.43%
Mn 257.610†	446041.2	617.55	µg/L	1.383	617.55	ppb	1.383	0.22%
Mo 202.031†	37.2	2.4456	µg/L	0.39820	2.4456	ppb	0.39820	16.28%

Na 589.592 Radial†	101.3	101.76	µg/L	15.528	101.76	ppb	15.528	15.26%
Ni 231.604†	1413.8	33.351	µg/L	0.6362	33.351	ppb	0.6362	1.91%
P 214.914†	910.4	480.86	µg/L	6.682	480.86	ppb	6.682	1.39%
Pb 220.353†	90.0	11.030	µg/L	2.0295	11.030	ppb	2.0295	18.40%
S 181.975 Axial†	9711.9	9968.8	µg/L	35.85	9968.8	ppb	35.85	0.36%
Sb 206.836†	14.3	-1.2316	µg/L	1.71291	-1.2316	ppb	1.71291	139.08%
Se 196.026†	-32.0	1.8261	µg/L	2.28135	1.8261	ppb	2.28135	124.93%
SiO2†	17953.4	2663.1	µg/L	9.91	2663.1	ppb	9.91	0.37%
Si 251.611†	25936.8	1257.3	µg/L	2.91	1257.3	ppb	2.91	0.23%
Sn 189.927†	15.5	2.4194	µg/L	1.03778	2.4194	ppb	1.03778	42.89%
Sr 421.552†	19333.2	101.80	µg/L	0.422	101.80	ppb	0.422	0.41%
Ti 334.940†	36664.4	139.86	µg/L	0.244	139.86	ppb	0.244	0.17%
Tl 190.801†	-14.1	0.7958	µg/L	0.39141	0.7958	ppb	0.39141	49.19%
U 367.007†	633.0	57.32	µg/L	13.003	57.32	ppb	13.003	22.68%
V 292.402†	1500.0	23.942	µg/L	0.0442	23.942	ppb	0.0442	0.18%
Zn 213.857†	14872.9	91.631	µg/L	0.3979	91.631	ppb	0.3979	0.43%

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Sequence No.: 18 **Autosampler Location: 343**
Sample ID: 454944006|1783993|10| **Date Collected: 7/24/2018 14:55:16**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: 454944006|1783993|10|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	24021.0	24021.0	101	%			14:55:52
1	Al 396.153Radial†	46793.1	46447.8	13528	µg/L	13528	ppb	14:55:52
1	Ca 317.933Radial†	131274.7	129606.8	23522	µg/L	23522	ppb	14:55:52
1	Fe 238.204 Radial†	193954.4	191962.9	31341	µg/L	31341	ppb	14:55:47
1	K 766.490 Radial†	3398.0	2974.3	2371.2	µg/L	2371.2	ppb	14:55:52
1	Mg 279.077 IEC†	8721.2	8567.9	11637	µg/L	11637	ppb	14:55:52
1	Na 589.592 Radial†	212.3	100.2	102.29	µg/L	102.29	ppb	14:55:52
1	Sr 421.552†	18599.3	18110.5	95.463	µg/L	95.463	ppb	14:55:52
1	Sc 361.383	386853.8	386853.8	98.592	%			14:56:19
1	Y 371.029	378302.8	378302.8	98.545	%			14:56:19
1	Ag 328.068†	-1207.3	-502.8	0.0986	µg/L	0.0986	ppb	14:56:39
1	As 188.979†	-0.2	21.1	9.5235	µg/L	9.5235	ppb	14:56:39
1	B 249.677†	-3485.1	-3728.9	14.454	µg/L	14.454	ppb	14:56:39
1	Ba 233.527†	22012.2	22322.6	163.32	µg/L	163.32	ppb	14:56:39
1	Be 313.107†	-3095.1	828.5	0.9275	µg/L	0.9275	ppb	14:56:39
1	Cd 226.502†	4.0	365.5	-0.2518	µg/L	-0.2518	ppb	14:56:39
1	Co 228.616†	463.6	708.1	13.764	µg/L	13.764	ppb	14:56:39
1	Cr 267.716†	1310.4	1206.1	21.108	µg/L	21.108	ppb	14:56:39
1	Cu 324.752†	6556.7	4447.4	31.225	µg/L	31.225	ppb	14:56:39
1	Mn 257.610†	395074.8	400180.3	554.18	µg/L	554.18	ppb	14:56:19
1	Mo 202.031†	34.0	15.7	1.3574	µg/L	1.3574	ppb	14:56:39
1	Ni 231.604†	1248.9	1464.7	34.497	µg/L	34.497	ppb	14:56:39
1	P 214.914†	1047.3	897.3	475.39	µg/L	475.39	ppb	14:56:39
1	Pb 220.353†	70.3	129.0	15.075	µg/L	15.075	ppb	14:56:39
1	S 181.975 Axial†	8158.4	8183.2	8398.1	µg/L	8398.1	ppb	14:56:39
1	Sb 206.836†	199.4	27.0	2.0923	µg/L	2.0923	ppb	14:56:39
1	Se 196.026†	-62.2	-37.9	-1.2208	µg/L	-1.2208	ppb	14:56:39
1	SiO2†	20634.0	19637.1	2914.0	µg/L	2914.0	ppb	14:56:39
1	Si 251.611†	28890.9	29085.2	1410.3	µg/L	1410.3	ppb	14:56:19
1	Sn 189.927†	59.7	11.4	2.1476	µg/L	2.1476	ppb	14:56:39
1	Ti 334.940†	40304.9	41661.1	158.40	µg/L	158.40	ppb	14:56:19
1	Tl 190.801†	-100.0	-12.6	0.9729	µg/L	0.9729	ppb	14:56:39
1	U 367.007†	1604.0	558.8	44.07	µg/L	44.07	ppb	14:56:19
1	V 292.402†	1494.5	1704.2	25.921	µg/L	25.921	ppb	14:56:39
1	Zn 213.857†	12115.0	11299.4	68.693	µg/L	68.693	ppb	14:56:39
2	Sc RADIAL	24111.2	24111.2	101	%			14:56:02
2	Al 396.153Radial†	46957.2	46436.2	13524	µg/L	13524	ppb	14:56:02
2	Ca 317.933Radial†	131611.4	129452.6	23494	µg/L	23494	ppb	14:56:02
2	Fe 238.204 Radial†	196377.7	193634.3	31613	µg/L	31613	ppb	14:55:57
2	K 766.490 Radial†	3389.6	2953.4	2354.3	µg/L	2354.3	ppb	14:56:02
2	Mg 279.077 IEC†	8700.3	8514.9	11565	µg/L	11565	ppb	14:56:02
2	Na 589.592 Radial†	212.8	99.9	101.48	µg/L	101.48	ppb	14:56:02
2	Sr 421.552†	18694.6	18135.6	95.597	µg/L	95.597	ppb	14:56:02
2	Sc 361.383	383940.9	383940.9	97.850	%			14:56:44
2	Y 371.029	375793.6	375793.6	97.891	%			14:56:44
2	Ag 328.068†	-1138.5	-441.8	0.6823	µg/L	0.6823	ppb	14:57:04
2	As 188.979†	7.6	29.1	12.497	µg/L	12.497	ppb	14:57:04
2	B 249.677†	-3471.1	-3741.4	15.156	µg/L	15.156	ppb	14:57:04
2	Ba 233.527†	21985.0	22464.2	164.35	µg/L	164.35	ppb	14:57:04
2	Be 313.107†	-3048.3	852.4	0.9464	µg/L	0.9464	ppb	14:57:04
2	Cd 226.502†	33.2	395.4	-0.0213	µg/L	-0.0213	ppb	14:57:04
2	Co 228.616†	468.0	716.2	13.924	µg/L	13.924	ppb	14:57:04
2	Cr 267.716†	1317.1	1223.1	21.398	µg/L	21.398	ppb	14:57:04
2	Cu 324.752†	6554.1	4495.2	31.559	µg/L	31.559	ppb	14:57:04
2	Mn 257.610†	392782.0	400877.4	555.16	µg/L	555.16	ppb	14:56:44
2	Mo 202.031†	52.0	34.2	2.2741	µg/L	2.2741	ppb	14:57:04
2	Ni 231.604†	1221.8	1446.5	34.083	µg/L	34.083	ppb	14:57:04
2	P 214.914†	1062.7	921.1	488.43	µg/L	488.43	ppb	14:57:04

2	Pb 220.353†	50.7	109.5	13.027 µg/L	13.027 ppb		14:57:04
2	S 181.975 Axial†	8166.9	8254.6	8471.4 µg/L	8471.4 ppb		14:57:04
2	Sb 206.836†	174.8	3.4	-3.7748 µg/L	-3.7748 ppb		14:57:04
2	Se 196.026†	-42.5	-18.2	6.7599 µg/L	6.7599 ppb		14:57:04
2	SiO2†	20623.3	19785.0	2935.9 µg/L	2935.9 ppb		14:57:04
2	Si 251.611†	28805.2	29220.0	1416.8 µg/L	1416.8 ppb		14:56:44
2	Sn 189.927†	63.1	15.3	2.5660 µg/L	2.5660 ppb		14:57:04
2	Ti 334.940†	40058.5	41719.5	158.62 µg/L	158.62 ppb		14:56:44
2	Tl 190.801†	-108.3	-21.9	-0.7071 µg/L	-0.7071 ppb		14:57:04
2	U 367.007†	1615.7	583.0	50.74 µg/L	50.74 ppb		14:56:44
2	V 292.402†	1506.7	1728.2	26.263 µg/L	26.263 ppb		14:57:04
2	Zn 213.857†	12108.0	11385.4	69.221 µg/L	69.221 ppb		14:57:04
3	Sc RADIAL	24125.8	24125.8	101 %			14:56:12
3	Al 396.153Radial†	47180.2	46628.0	13580 µg/L	13580 ppb		14:56:12
3	Ca 317.933Radial†	132467.6	130217.8	23633 µg/L	23633 ppb		14:56:12
3	Fe 238.204 Radial†	196218.0	193359.6	31569 µg/L	31569 ppb		14:56:07
3	K 766.490 Radial†	3419.9	2981.3	2376.7 µg/L	2376.7 ppb		14:56:12
3	Mg 279.077 IEC†	8754.9	8563.6	11631 µg/L	11631 ppb		14:56:12
3	Na 589.592 Radial†	223.6	110.4	116.66 µg/L	116.66 ppb		14:56:12
3	Sr 421.552†	18787.4	18215.9	96.019 µg/L	96.019 ppb		14:56:12
3	Sc 361.383	383075.6	383075.6	97.629 %			14:57:09
3	Y 371.029	375370.6	375370.6	97.781 %			14:57:09
3	Ag 328.068†	-1160.7	-467.2	0.4464 µg/L	0.4464 ppb		14:57:30
3	As 188.979†	-6.6	14.6	7.1353 µg/L	7.1353 ppb		14:57:30
3	B 249.677†	-3521.8	-3801.4	13.251 µg/L	13.251 ppb		14:57:30
3	Ba 233.527†	21967.6	22497.1	164.59 µg/L	164.59 ppb		14:57:30
3	Be 313.107†	-3048.2	845.5	0.9438 µg/L	0.9438 ppb		14:57:30
3	Cd 226.502†	44.4	407.0	0.0841 µg/L	0.0841 ppb		14:57:30
3	Co 228.616†	470.9	720.3	14.004 µg/L	14.004 ppb		14:57:30
3	Cr 267.716†	1333.0	1242.5	21.728 µg/L	21.728 ppb		14:57:30
3	Cu 324.752†	6537.5	4493.3	31.546 µg/L	31.546 ppb		14:57:30
3	Mn 257.610†	395229.9	404291.4	559.86 µg/L	559.86 ppb		14:57:09
3	Mo 202.031†	47.2	29.5	2.0418 µg/L	2.0418 ppb		14:57:30
3	Ni 231.604†	1227.0	1454.8	34.272 µg/L	34.272 ppb		14:57:30
3	P 214.914†	1035.9	896.2	474.53 µg/L	474.53 ppb		14:57:30
3	Pb 220.353†	37.8	96.4	11.657 µg/L	11.657 ppb		14:57:30
3	S 181.975 Axial†	8182.7	8289.6	8507.5 µg/L	8507.5 ppb		14:57:30
3	Sb 206.836†	163.5	-7.7	-6.5214 µg/L	-6.5214 ppb		14:57:30
3	Se 196.026†	-53.8	-29.8	2.0955 µg/L	2.0955 ppb		14:57:30
3	SiO2†	20571.2	19779.2	2935.1 µg/L	2935.1 ppb		14:57:30
3	Si 251.611†	28909.1	29392.8	1425.2 µg/L	1425.2 ppb		14:57:09
3	Sn 189.927†	71.0	23.6	3.4295 µg/L	3.4295 ppb		14:57:30
3	Ti 334.940†	40209.4	41966.5	159.56 µg/L	159.56 ppb		14:57:09
3	Tl 190.801†	-104.4	-18.1	-0.0142 µg/L	-0.0142 ppb		14:57:30
3	U 367.007†	1619.6	590.7	53.29 µg/L	53.29 ppb		14:57:09
3	V 292.402†	1490.8	1715.4	26.107 µg/L	26.107 ppb		14:57:30
3	Zn 213.857†	12051.5	11355.5	69.028 µg/L	69.028 ppb		14:57:30

Mean Data: 454944006|1783993|10|

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	384623.4	98.024	%	0.5045				0.51%
Sc RADIAL	24086.0	101	%	0.24				0.24%
Y 371.029	376489.0	98.072	%	0.4129				0.42%
Ag 328.068†	-470.6	0.4091	µg/L	0.29364	0.4091	ppb	0.29364	71.78%
Al 396.153Radial†	46504.0	13544	µg/L	31.32	13544	ppb	31.32	0.23%
As 188.979†	21.6	9.7187	µg/L	2.68629	9.7187	ppb	2.68629	27.64%
B 249.677†	-3757.2	14.287	µg/L	0.9635	14.287	ppb	0.9635	6.74%
Ba 233.527†	22428.0	164.09	µg/L	0.678	164.09	ppb	0.678	0.41%
Be 313.107†	842.1	0.9392	µg/L	0.01024	0.9392	ppb	0.01024	1.09%
Ca 317.933Radial†	129759.0	23550	µg/L	73.45	23550	ppb	73.45	0.31%
Cd 226.502†	389.3	-0.0630	µg/L	0.17180	-0.0630	ppb	0.17180	272.74%
Co 228.616†	714.9	13.897	µg/L	0.1223	13.897	ppb	0.1223	0.88%
Cr 267.716†	1223.9	21.411	µg/L	0.3100	21.411	ppb	0.3100	1.45%
Cu 324.752†	4478.6	31.443	µg/L	0.1894	31.443	ppb	0.1894	0.60%
Fe 238.204 Radial†	192985.6	31507	µg/L	146.33	31507	ppb	146.33	0.46%
K 766.490 Radial†	2969.7	2367.4	µg/L	11.68	2367.4	ppb	11.68	0.49%
Mg 279.077 IEC†	8548.8	11611	µg/L	39.95	11611	ppb	39.95	0.34%
Mn 257.610†	401783.0	556.40	µg/L	3.041	556.40	ppb	3.041	0.55%
Mo 202.031†	26.5	1.8911	µg/L	0.47652	1.8911	ppb	0.47652	25.20%

Na 589.592 Radial†	103.5	106.81	µg/L	8.537	106.81	ppb	8.537	7.99%
Ni 231.604†	1455.3	34.284	µg/L	0.2077	34.284	ppb	0.2077	0.61%
P 214.914†	904.9	479.45	µg/L	7.787	479.45	ppb	7.787	1.62%
Pb 220.353†	111.6	13.253	µg/L	1.7200	13.253	ppb	1.7200	12.98%
S 181.975 Axial†	8242.5	8459.0	µg/L	55.70	8459.0	ppb	55.70	0.66%
Sb 206.836†	7.6	-2.7346	µg/L	4.40006	-2.7346	ppb	4.40006	160.90%
Se 196.026†	-28.7	2.5448	µg/L	4.00930	2.5448	ppb	4.00930	157.55%
SiO2†	19733.8	2928.4	µg/L	12.40	2928.4	ppb	12.40	0.42%
Si 251.611†	29232.7	1417.5	µg/L	7.48	1417.5	ppb	7.48	0.53%
Sn 189.927†	16.8	2.7144	µg/L	0.65372	2.7144	ppb	0.65372	24.08%
Sr 421.552†	18154.0	95.693	µg/L	0.2902	95.693	ppb	0.2902	0.30%
Ti 334.940†	41782.3	158.86	µg/L	0.614	158.86	ppb	0.614	0.39%
Tl 190.801†	-17.6	0.0838	µg/L	0.84427	0.0838	ppb	0.84427	>999.9%
U 367.007†	577.5	49.37	µg/L	4.763	49.37	ppb	4.763	9.65%
V 292.402†	1715.9	26.097	µg/L	0.1712	26.097	ppb	0.1712	0.66%
Zn 213.857†	11346.8	68.981	µg/L	0.2673	68.981	ppb	0.2673	0.39%

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Sequence No.: 19 **Autosampler Location: 344**
Sample ID: 454944007|1783993|10| **Date Collected: 7/24/2018 14:57:38**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: 454944007|1783993|10|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	23974.3	23974.3	101	%			14:58:14
1	Al 396.153Radial†	41119.0	40909.9	11915	µg/L	11915	ppb	14:58:14
1	Ca 317.933Radial†	193367.8	191448.8	34746	µg/L	34746	ppb	14:58:09
1	Fe 238.204 Radial†	209473.8	207729.9	33915	µg/L	33915	ppb	14:58:09
1	K 766.490 Radial†	2979.1	2565.4	2041.8	µg/L	2041.8	ppb	14:58:14
1	Mg 279.077 IEC†	12138.3	11974.0	16264	µg/L	16264	ppb	14:58:14
1	Na 589.592 Radial†	195.4	83.8	75.536	µg/L	75.536	ppb	14:58:14
1	Sr 421.552†	18734.7	18280.7	96.166	µg/L	96.166	ppb	14:58:14
1	Sc 361.383	381164.9	381164.9	97.142	%			14:58:41
1	Y 371.029	372999.2	372999.2	97.163	%			14:58:41
1	Ag 328.068†	-1208.8	-522.7	0.2690	µg/L	0.2690	ppb	14:59:01
1	As 188.979†	-4.3	17.0	8.1180	µg/L	8.1180	ppb	14:59:01
1	B 249.677†	-3785.8	-4091.2	14.032	µg/L	14.032	ppb	14:59:01
1	Ba 233.527†	10057.1	10349.0	75.238	µg/L	75.238	ppb	14:59:01
1	Be 313.107†	-3328.1	541.7	0.8686	µg/L	0.8686	ppb	14:59:01
1	Cd 226.502†	27.8	390.0	-0.3145	µg/L	-0.3145	ppb	14:59:01
1	Co 228.616†	420.0	670.2	13.010	µg/L	13.010	ppb	14:59:01
1	Cr 267.716†	1190.6	1102.6	19.145	µg/L	19.145	ppb	14:59:01
1	Cu 324.752†	6047.2	4022.2	28.615	µg/L	28.615	ppb	14:59:01
1	Mn 257.610†	689365.5	709109.0	980.60	µg/L	980.60	ppb	14:58:41
1	Mo 202.031†	44.4	26.9	1.9550	µg/L	1.9550	ppb	14:59:01
1	Ni 231.604†	1192.6	1425.6	33.644	µg/L	33.644	ppb	14:59:01
1	P 214.914†	994.8	859.1	451.43	µg/L	451.43	ppb	14:59:01
1	Pb 220.353†	49.2	108.3	12.976	µg/L	12.976	ppb	14:59:01
1	S 181.975 Axial†	8546.5	8706.2	8934.6	µg/L	8934.6	ppb	14:59:01
1	Sb 206.836†	188.0	18.3	-0.4184	µg/L	-0.4184	ppb	14:59:01
1	Se 196.026†	-58.9	-35.4	0.9182	µg/L	0.9182	ppb	14:59:01
1	SiO2†	18169.5	17412.5	2582.5	µg/L	2582.5	ppb	14:59:01
1	Si 251.611†	24651.6	25158.6	1219.4	µg/L	1219.4	ppb	14:59:01
1	Sn 189.927†	56.2	8.6	1.6171	µg/L	1.6171	ppb	14:59:01
1	Ti 334.940†	30511.6	32189.9	123.11	µg/L	123.11	ppb	14:58:41
1	Tl 190.801†	-103.2	-17.5	0.2326	µg/L	0.2326	ppb	14:59:01
1	U 367.007†	1747.9	731.1	82.67	µg/L	82.67	ppb	14:58:41
1	V 292.402†	1306.6	1533.4	24.550	µg/L	24.550	ppb	14:59:01
1	Zn 213.857†	10170.5	9481.1	56.121	µg/L	56.121	ppb	14:59:01
2	Sc RADIAL	23970.3	23970.3	101	%			14:58:24
2	Al 396.153Radial†	41353.1	41149.0	11984	µg/L	11984	ppb	14:58:24
2	Ca 317.933Radial†	194707.1	192810.0	34993	µg/L	34993	ppb	14:58:19
2	Fe 238.204 Radial†	211179.7	209457.5	34197	µg/L	34197	ppb	14:58:19
2	K 766.490 Radial†	3098.3	2684.1	2137.1	µg/L	2137.1	ppb	14:58:24
2	Mg 279.077 IEC†	12234.3	12071.4	16396	µg/L	16396	ppb	14:58:24
2	Na 589.592 Radial†	214.1	102.4	101.78	µg/L	101.78	ppb	14:58:24
2	Sr 421.552†	18788.4	18337.1	96.461	µg/L	96.461	ppb	14:58:24
2	Sc 361.383	380412.2	380412.2	96.950	%			14:59:06
2	Y 371.029	371838.1	371838.1	96.861	%			14:59:06
2	Ag 328.068†	-1238.3	-555.5	0.0148	µg/L	0.0148	ppb	14:59:26
2	As 188.979†	-3.0	18.3	8.6143	µg/L	8.6143	ppb	14:59:26
2	B 249.677†	-3803.6	-4117.2	14.379	µg/L	14.379	ppb	14:59:26
2	Ba 233.527†	10063.7	10376.3	75.431	µg/L	75.431	ppb	14:59:26
2	Be 313.107†	-3389.9	471.2	0.8213	µg/L	0.8213	ppb	14:59:26
2	Cd 226.502†	83.4	447.5	0.1555	µg/L	0.1555	ppb	14:59:26
2	Co 228.616†	443.1	694.9	13.503	µg/L	13.503	ppb	14:59:26
2	Cr 267.716†	1170.1	1083.9	18.831	µg/L	18.831	ppb	14:59:26
2	Cu 324.752†	6102.7	4091.6	29.091	µg/L	29.091	ppb	14:59:26
2	Mn 257.610†	683624.4	704591.5	974.39	µg/L	974.39	ppb	14:59:06
2	Mo 202.031†	39.9	22.3	1.7372	µg/L	1.7372	ppb	14:59:26
2	Ni 231.604†	1167.0	1401.7	33.095	µg/L	33.095	ppb	14:59:26
2	P 214.914†	986.8	852.9	447.73	µg/L	447.73	ppb	14:59:26

2	Pb 220.353†	23.9	82.3	10.256	µg/L	10.256	ppb	14:59:26
2	S 181.975 Axial†	8594.5	8773.0	9003.3	µg/L	9003.3	ppb	14:59:26
2	Sb 206.836†	168.6	-1.4	-5.3006	µg/L	-5.3006	ppb	14:59:26
2	Se 196.026†	-56.1	-32.6	2.1424	µg/L	2.1424	ppb	14:59:26
2	SiO2†	18280.7	17564.2	2605.0	µg/L	2605.0	ppb	14:59:26
2	Si 251.611†	24761.7	25322.3	1227.3	µg/L	1227.3	ppb	14:59:26
2	Sn 189.927†	60.9	13.6	2.1361	µg/L	2.1361	ppb	14:59:26
2	Ti 334.940†	30193.1	31923.4	122.11	µg/L	122.11	ppb	14:59:06
2	Tl 190.801†	-106.2	-20.7	-0.3437	µg/L	-0.3437	ppb	14:59:26
2	U 367.007†	1753.4	740.4	84.38	µg/L	84.38	ppb	14:59:06
2	V 292.402†	1307.0	1536.5	24.643	µg/L	24.643	ppb	14:59:26
2	Zn 213.857†	10191.8	9523.8	56.355	µg/L	56.355	ppb	14:59:26
3	Sc RADIAL	23675.9	23675.9	99.6	%			14:58:34
3	Al 396.153Radial†	41193.0	41498.4	12086	µg/L	12086	ppb	14:58:34
3	Ca 317.933Radial†	190880.5	191368.5	34732	µg/L	34732	ppb	14:58:29
3	Fe 238.204 Radial†	207084.5	207949.4	33951	µg/L	33951	ppb	14:58:29
3	K 766.490 Radial†	3043.3	2667.1	2123.5	µg/L	2123.5	ppb	14:58:34
3	Mg 279.077 IEC†	12191.9	12179.6	16543	µg/L	16543	ppb	14:58:34
3	Na 589.592 Radial†	193.4	84.3	76.171	µg/L	76.171	ppb	14:58:34
3	Sr 421.552†	18838.7	18619.4	97.959	µg/L	97.959	ppb	14:58:34
3	Sc 361.383	377766.1	377766.1	96.276	%			14:59:31
3	Y 371.029	369669.1	369669.1	96.296	%			14:59:31
3	Ag 328.068†	-1253.6	-580.3	-0.2379	µg/L	-0.2379	ppb	14:59:52
3	As 188.979†	-2.0	19.3	8.9753	µg/L	8.9753	ppb	14:59:52
3	B 249.677†	-3801.8	-4142.9	12.680	µg/L	12.680	ppb	14:59:52
3	Ba 233.527†	10025.3	10409.2	75.679	µg/L	75.679	ppb	14:59:52
3	Be 313.107†	-3338.2	500.4	0.8367	µg/L	0.8367	ppb	14:59:52
3	Cd 226.502†	28.9	391.5	-0.3061	µg/L	-0.3061	ppb	14:59:52
3	Co 228.616†	412.9	666.7	12.939	µg/L	12.939	ppb	14:59:52
3	Cr 267.716†	1192.6	1115.8	19.383	µg/L	19.383	ppb	14:59:52
3	Cu 324.752†	6107.0	4140.3	29.389	µg/L	29.389	ppb	14:59:52
3	Mn 257.610†	684631.0	710576.2	982.63	µg/L	982.63	ppb	14:59:31
3	Mo 202.031†	36.8	19.4	1.5894	µg/L	1.5894	ppb	14:59:52
3	Ni 231.604†	1142.5	1384.7	32.697	µg/L	32.697	ppb	14:59:52
3	P 214.914†	978.7	851.7	447.27	µg/L	447.27	ppb	14:59:52
3	Pb 220.353†	47.1	106.6	12.812	µg/L	12.812	ppb	14:59:52
3	S 181.975 Axial†	8495.0	8731.8	8960.9	µg/L	8960.9	ppb	14:59:52
3	Sb 206.836†	183.2	15.1	-1.2128	µg/L	-1.2128	ppb	14:59:52
3	Se 196.026†	-58.4	-35.4	0.9228	µg/L	0.9228	ppb	14:59:52
3	SiO2†	18165.1	17576.2	2606.8	µg/L	2606.8	ppb	14:59:52
3	Si 251.611†	24594.4	25327.5	1227.6	µg/L	1227.6	ppb	14:59:52
3	Sn 189.927†	64.2	17.5	2.5435	µg/L	2.5435	ppb	14:59:52
3	Ti 334.940†	30297.0	32249.5	123.33	µg/L	123.33	ppb	14:59:31
3	Tl 190.801†	-107.8	-23.2	-0.8081	µg/L	-0.8081	ppb	14:59:52
3	U 367.007†	1708.3	706.2	74.62	µg/L	74.62	ppb	14:59:31
3	V 292.402†	1302.7	1541.5	24.641	µg/L	24.641	ppb	14:59:52
3	Zn 213.857†	10143.9	9547.6	56.548	µg/L	56.548	ppb	14:59:52

Mean Data: 454944007|1783993|10|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	379781.1	96.790	%	0.4550				0.47%
Sc RADIAL	23873.5	100	%	0.72				0.72%
Y 371.029	371502.1	96.773	%	0.4403				0.45%
Ag 328.068†	-552.8	0.0153	µg/L	0.25345	0.0153	ppb	0.25345	>999.9%
Al 396.153Radial†	41185.7	11995	µg/L	86.21	11995	ppb	86.21	0.72%
As 188.979†	18.2	8.5692	µg/L	0.43041	8.5692	ppb	0.43041	5.02%
B 249.677†	-4117.1	13.697	µg/L	0.8975	13.697	ppb	0.8975	6.55%
Ba 233.527†	10378.2	75.449	µg/L	0.2213	75.449	ppb	0.2213	0.29%
Be 313.107†	504.4	0.8422	µg/L	0.02409	0.8422	ppb	0.02409	2.86%
Ca 317.933Radial†	191875.8	34824	µg/L	147.02	34824	ppb	147.02	0.42%
Cd 226.502†	409.7	-0.1550	µg/L	0.26897	-0.1550	ppb	0.26897	173.52%
Co 228.616†	677.3	13.151	µg/L	0.3069	13.151	ppb	0.3069	2.33%
Cr 267.716†	1100.8	19.119	µg/L	0.2769	19.119	ppb	0.2769	1.45%
Cu 324.752†	4084.7	29.031	µg/L	0.3905	29.031	ppb	0.3905	1.35%
Fe 238.204 Radial†	208379.0	34021	µg/L	153.55	34021	ppb	153.55	0.45%
K 766.490 Radial†	2638.8	2100.8	µg/L	51.52	2100.8	ppb	51.52	2.45%
Mg 279.077 IEC†	12075.0	16401	µg/L	139.68	16401	ppb	139.68	0.85%
Mn 257.610†	708092.3	979.20	µg/L	4.295	979.20	ppb	4.295	0.44%
Mo 202.031†	22.9	1.7605	µg/L	0.18391	1.7605	ppb	0.18391	10.45%

Na 589.592 Radial†	90.2	84.494	µg/L	14.9696	84.494	ppb	14.9696	17.72%
Ni 231.604†	1404.0	33.145	µg/L	0.4753	33.145	ppb	0.4753	1.43%
P 214.914†	854.6	448.81	µg/L	2.285	448.81	ppb	2.285	0.51%
Pb 220.353†	99.1	12.014	µg/L	1.5253	12.014	ppb	1.5253	12.70%
S 181.975 Axial†	8737.0	8966.3	µg/L	34.64	8966.3	ppb	34.64	0.39%
Sb 206.836†	10.7	-2.3106	µg/L	2.61966	-2.3106	ppb	2.61966	113.38%
Se 196.026†	-34.5	1.3278	µg/L	0.70550	1.3278	ppb	0.70550	53.13%
SiO2†	17517.6	2598.1	µg/L	13.56	2598.1	ppb	13.56	0.52%
Si 251.611†	25269.5	1224.8	µg/L	4.66	1224.8	ppb	4.66	0.38%
Sn 189.927†	13.3	2.0989	µg/L	0.46435	2.0989	ppb	0.46435	22.12%
Sr 421.552†	18412.4	96.862	µg/L	0.9616	96.862	ppb	0.9616	0.99%
Ti 334.940†	32120.9	122.85	µg/L	0.651	122.85	ppb	0.651	0.53%
Tl 190.801†	-20.5	-0.3064	µg/L	0.52135	-0.3064	ppb	0.52135	170.16%
U 367.007†	725.9	80.56	µg/L	5.213	80.56	ppb	5.213	6.47%
V 292.402†	1537.2	24.611	µg/L	0.0533	24.611	ppb	0.0533	0.22%
Zn 213.857†	9517.5	56.341	µg/L	0.2139	56.341	ppb	0.2139	0.38%

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Sequence No.: 20 **Autosampler Location: 345**
Sample ID: 454944008|1783993|10| **Date Collected: 7/24/2018 15:00:00**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: 454944008|1783993|10|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	23957.7	23957.7	101	%			15:00:36
1	Al 396.153Radial†	49899.6	49653.5	14461	µg/L	14461	ppb	15:00:36
1	Ca 317.933Radial†	118527.9	117297.7	21288	µg/L	21288	ppb	15:00:36
1	Fe 238.204 Radial†	204929.7	203363.4	33202	µg/L	33202	ppb	15:00:31
1	K 766.490 Radial†	3524.9	3109.1	2478.3	µg/L	2478.3	ppb	15:00:36
1	Mg 279.077 IEC†	8684.4	8554.1	11619	µg/L	11619	ppb	15:00:36
1	Na 589.592 Radial†	193.6	82.2	74.062	µg/L	74.062	ppb	15:00:36
1	Sr 421.552†	16599.4	16174.1	85.251	µg/L	85.251	ppb	15:00:36
1	Sc 361.383	381799.7	381799.7	97.304	%			15:01:03
1	Y 371.029	373648.9	373648.9	97.333	%			15:01:03
1	Ag 328.068†	-1216.0	-528.0	0.1518	µg/L	0.1518	ppb	15:01:23
1	As 188.979†	-4.0	17.3	8.2119	µg/L	8.2119	ppb	15:01:23
1	B 249.677†	-3736.8	-4034.4	12.891	µg/L	12.891	ppb	15:01:23
1	Ba 233.527†	16092.8	16534.8	120.72	µg/L	120.72	ppb	15:01:23
1	Be 313.107†	-2964.7	920.9	0.9682	µg/L	0.9682	ppb	15:01:23
1	Cd 226.502†	22.3	384.4	-0.2852	µg/L	-0.2852	ppb	15:01:23
1	Co 228.616†	474.3	725.3	14.132	µg/L	14.132	ppb	15:01:23
1	Cr 267.716†	1371.7	1286.7	22.536	µg/L	22.536	ppb	15:01:23
1	Cu 324.752†	6678.1	4660.2	32.735	µg/L	32.735	ppb	15:01:23
1	Mn 257.610†	382940.2	393014.1	544.41	µg/L	544.41	ppb	15:01:03
1	Mo 202.031†	54.4	37.1	2.4434	µg/L	2.4434	ppb	15:01:23
1	Ni 231.604†	1276.0	1509.3	35.566	µg/L	35.566	ppb	15:01:23
1	P 214.914†	1029.3	892.9	471.42	µg/L	471.42	ppb	15:01:23
1	Pb 220.353†	71.5	131.1	15.327	µg/L	15.327	ppb	15:01:23
1	S 181.975 Axial†	7884.5	8011.2	8220.8	µg/L	8220.8	ppb	15:01:23
1	Sb 206.836†	177.1	6.7	-3.2215	µg/L	-3.2215	ppb	15:01:23
1	Se 196.026†	-67.2	-43.9	-2.7879	µg/L	-2.7879	ppb	15:01:23
1	SiO2†	20119.5	19385.4	2876.1	µg/L	2876.1	ppb	15:01:23
1	Si 251.611†	28065.9	28625.2	1387.8	µg/L	1387.8	ppb	15:01:03
1	Sn 189.927†	48.2	0.3	0.9547	µg/L	0.9547	ppb	15:01:23
1	Ti 334.940†	31718.4	33377.8	127.00	µg/L	127.00	ppb	15:01:03
1	Tl 190.801†	-104.5	-18.6	-0.0410	µg/L	-0.0410	ppb	15:01:23
1	U 367.007†	1589.7	565.6	40.33	µg/L	40.33	ppb	15:01:03
1	V 292.402†	1587.8	1820.2	27.657	µg/L	27.657	ppb	15:01:23
1	Zn 213.857†	11474.7	10804.0	65.179	µg/L	65.179	ppb	15:01:23
2	Sc RADIAL	24046.4	24046.4	101	%			15:00:46
2	Al 396.153Radial†	50087.0	49656.2	14462	µg/L	14462	ppb	15:00:46
2	Ca 317.933Radial†	119027.9	117358.5	21299	µg/L	21299	ppb	15:00:46
2	Fe 238.204 Radial†	203091.7	200796.0	32783	µg/L	32783	ppb	15:00:41
2	K 766.490 Radial†	3568.2	3139.1	2502.6	µg/L	2502.6	ppb	15:00:46
2	Mg 279.077 IEC†	8701.9	8539.7	11599	µg/L	11599	ppb	15:00:46
2	Na 589.592 Radial†	197.4	85.3	79.087	µg/L	79.087	ppb	15:00:46
2	Sr 421.552†	16664.8	16178.1	85.272	µg/L	85.272	ppb	15:00:46
2	Sc 361.383	377440.0	377440.0	96.193	%			15:01:28
2	Y 371.029	369270.2	369270.2	96.192	%			15:01:28
2	Ag 328.068†	-1239.0	-566.3	-0.2663	µg/L	-0.2663	ppb	15:01:48
2	As 188.979†	1.5	22.9	10.261	µg/L	10.261	ppb	15:01:48
2	B 249.677†	-3671.8	-4011.1	11.929	µg/L	11.929	ppb	15:01:48
2	Ba 233.527†	16079.3	16711.8	122.04	µg/L	122.04	ppb	15:01:48
2	Be 313.107†	-2985.5	864.1	0.9324	µg/L	0.9324	ppb	15:01:48
2	Cd 226.502†	12.5	374.4	-0.3266	µg/L	-0.3266	ppb	15:01:48
2	Co 228.616†	472.1	728.7	14.199	µg/L	14.199	ppb	15:01:48
2	Cr 267.716†	1365.7	1296.8	22.685	µg/L	22.685	ppb	15:01:48
2	Cu 324.752†	6658.8	4719.4	33.112	µg/L	33.112	ppb	15:01:48
2	Mn 257.610†	380300.2	394815.4	546.87	µg/L	546.87	ppb	15:01:28
2	Mo 202.031†	47.3	30.3	2.1043	µg/L	2.1043	ppb	15:01:48
2	Ni 231.604†	1262.8	1510.7	35.590	µg/L	35.590	ppb	15:01:48
2	P 214.914†	1033.2	909.2	480.89	µg/L	480.89	ppb	15:01:48

2	Pb 220.353†	68.2	128.5	15.044	µg/L	15.044	ppb	15:01:48
2	S 181.975 Axial†	7903.7	8124.8	8337.6	µg/L	8337.6	ppb	15:01:48
2	Sb 206.836†	160.4	-8.5	-6.9316	µg/L	-6.9316	ppb	15:01:48
2	Se 196.026†	-41.0	-17.4	7.6199	µg/L	7.6199	ppb	15:01:48
2	SiO2†	20135.3	19640.8	2914.2	µg/L	2914.2	ppb	15:01:48
2	Si 251.611†	27945.2	28832.9	1397.9	µg/L	1397.9	ppb	15:01:28
2	Sn 189.927†	54.1	7.1	1.6505	µg/L	1.6505	ppb	15:01:48
2	Ti 334.940†	31522.1	33550.3	127.64	µg/L	127.64	ppb	15:01:28
2	Tl 190.801†	-106.0	-21.4	-0.5953	µg/L	-0.5953	ppb	15:01:48
2	U 367.007†	1633.3	629.8	62.35	µg/L	62.35	ppb	15:01:28
2	V 292.402†	1549.1	1798.8	27.336	µg/L	27.336	ppb	15:01:48
2	Zn 213.857†	11535.1	11003.1	66.544	µg/L	66.544	ppb	15:01:48
3	Sc RADIAL	23652.7	23652.7	99.5	%			15:00:56
3	Al 396.153Radial†	49807.3	50199.3	14620	µg/L	14620	ppb	15:00:56
3	Ca 317.933Radial†	118219.8	118505.0	21508	µg/L	21508	ppb	15:00:56
3	Fe 238.204 Radial†	205025.6	206082.8	33646	µg/L	33646	ppb	15:00:51
3	K 766.490 Radial†	3465.8	3094.8	2466.6	µg/L	2466.6	ppb	15:00:56
3	Mg 279.077 IEC†	8621.5	8602.0	11684	µg/L	11684	ppb	15:00:56
3	Na 589.592 Radial†	174.7	65.6	49.824	µg/L	49.824	ppb	15:00:56
3	Sr 421.552†	16514.5	16301.2	85.920	µg/L	85.920	ppb	15:00:56
3	Sc 361.383	379501.4	379501.4	96.718	%			15:01:53
3	Y 371.029	370979.2	370979.2	96.637	%			15:01:53
3	Ag 328.068†	-1198.6	-517.6	0.2952	µg/L	0.2952	ppb	15:02:14
3	As 188.979†	4.9	26.4	11.605	µg/L	11.605	ppb	15:02:14
3	B 249.677†	-3654.7	-3972.7	16.402	µg/L	16.402	ppb	15:02:14
3	Ba 233.527†	16051.3	16592.0	121.13	µg/L	121.13	ppb	15:02:14
3	Be 313.107†	-2997.3	868.7	0.9400	µg/L	0.9400	ppb	15:02:14
3	Cd 226.502†	10.3	372.1	-0.4416	µg/L	-0.4416	ppb	15:02:14
3	Co 228.616†	456.9	710.3	13.828	µg/L	13.828	ppb	15:02:14
3	Cr 267.716†	1397.2	1321.6	23.123	µg/L	23.123	ppb	15:02:14
3	Cu 324.752†	6619.7	4641.3	32.655	µg/L	32.655	ppb	15:02:14
3	Mn 257.610†	383810.2	396296.9	548.97	µg/L	548.97	ppb	15:01:53
3	Mo 202.031†	37.6	20.0	1.6126	µg/L	1.6126	ppb	15:02:14
3	Ni 231.604†	1238.3	1478.3	34.857	µg/L	34.857	ppb	15:02:14
3	P 214.914†	1043.8	914.3	483.02	µg/L	483.02	ppb	15:02:14
3	Pb 220.353†	58.6	118.2	13.976	µg/L	13.976	ppb	15:02:14
3	S 181.975 Axial†	7872.8	8048.2	8258.6	µg/L	8258.6	ppb	15:02:14
3	Sb 206.836†	182.9	13.9	-1.5494	µg/L	-1.5494	ppb	15:02:14
3	Se 196.026†	-56.2	-32.9	1.8086	µg/L	1.8086	ppb	15:02:14
3	SiO2†	20037.4	19425.8	2882.1	µg/L	2882.1	ppb	15:02:14
3	Si 251.611†	28210.5	28949.4	1403.5	µg/L	1403.5	ppb	15:01:53
3	Sn 189.927†	48.9	1.4	1.0753	µg/L	1.0753	ppb	15:02:14
3	Ti 334.940†	31813.3	33673.4	128.12	µg/L	128.12	ppb	15:01:53
3	Tl 190.801†	-106.5	-21.3	-0.4811	µg/L	-0.4811	ppb	15:02:14
3	U 367.007†	1661.9	650.1	65.39	µg/L	65.39	ppb	15:01:53
3	V 292.402†	1556.6	1797.8	27.500	µg/L	27.500	ppb	15:02:14
3	Zn 213.857†	11483.9	10885.0	65.644	µg/L	65.644	ppb	15:02:14

Mean Data: 454944008|1783993|10|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	379580.4	96.738	%	0.5558				0.57%
Sc RADIAL	23885.6	100	%	0.87				0.86%
Y 371.029	371299.4	96.721	%	0.5749				0.59%
Ag 328.068†	-537.3	0.0602	µg/L	0.29172	0.0602	ppb	0.29172	484.38%
Al 396.153Radial†	49836.3	14515	µg/L	91.57	14515	ppb	91.57	0.63%
As 188.979†	22.2	10.026	µg/L	1.7088	10.026	ppb	1.7088	17.04%
B 249.677†	-4006.1	13.740	µg/L	2.3544	13.740	ppb	2.3544	17.14%
Ba 233.527†	16612.9	121.30	µg/L	0.671	121.30	ppb	0.671	0.55%
Be 313.107†	884.6	0.9469	µg/L	0.01885	0.9469	ppb	0.01885	1.99%
Ca 317.933Radial†	117720.4	21365	µg/L	123.44	21365	ppb	123.44	0.58%
Cd 226.502†	377.0	-0.3511	µg/L	0.08100	-0.3511	ppb	0.08100	23.07%
Co 228.616†	721.4	14.053	µg/L	0.1978	14.053	ppb	0.1978	1.41%
Cr 267.716†	1301.7	22.781	µg/L	0.3053	22.781	ppb	0.3053	1.34%
Cu 324.752†	4673.6	32.834	µg/L	0.2442	32.834	ppb	0.2442	0.74%
Fe 238.204 Radial†	203414.1	33210	µg/L	431.63	33210	ppb	431.63	1.30%
K 766.490 Radial†	3114.3	2482.5	µg/L	18.38	2482.5	ppb	18.38	0.74%
Mg 279.077 IEC†	8565.3	11634	µg/L	44.33	11634	ppb	44.33	0.38%
Mn 257.610†	394708.8	546.75	µg/L	2.281	546.75	ppb	2.281	0.42%
Mo 202.031†	29.1	2.0534	µg/L	0.41768	2.0534	ppb	0.41768	20.34%

Na 589.592 Radial†	77.7	67.658	µg/L	15.6471	67.658	ppb	15.6471	23.13%
Ni 231.604†	1499.4	35.338	µg/L	0.4166	35.338	ppb	0.4166	1.18%
P 214.914†	905.5	478.44	µg/L	6.171	478.44	ppb	6.171	1.29%
Pb 220.353†	126.0	14.782	µg/L	0.7123	14.782	ppb	0.7123	4.82%
S 181.975 Axial†	8061.4	8272.4	µg/L	59.58	8272.4	ppb	59.58	0.72%
Sb 206.836†	4.0	-3.9009	µg/L	2.75466	-3.9009	ppb	2.75466	70.62%
Se 196.026†	-31.4	2.2135	µg/L	5.21566	2.2135	ppb	5.21566	235.63%
SiO2†	19484.0	2890.8	µg/L	20.49	2890.8	ppb	20.49	0.71%
Si 251.611†	28802.5	1396.4	µg/L	7.97	1396.4	ppb	7.97	0.57%
Sn 189.927†	2.9	1.2268	µg/L	0.37182	1.2268	ppb	0.37182	30.31%
Sr 421.552†	16217.8	85.481	µg/L	0.3804	85.481	ppb	0.3804	0.45%
Ti 334.940†	33533.9	127.59	µg/L	0.559	127.59	ppb	0.559	0.44%
Tl 190.801†	-20.4	-0.3725	µg/L	0.29271	-0.3725	ppb	0.29271	78.59%
U 367.007†	615.2	56.02	µg/L	13.676	56.02	ppb	13.676	24.41%
V 292.402†	1805.6	27.498	µg/L	0.1610	27.498	ppb	0.1610	0.59%
Zn 213.857†	10897.4	65.789	µg/L	0.6941	65.789	ppb	0.6941	1.06%

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Sequence No.: 21 **Autosampler Location: 346**
Sample ID: 454944009|1783993|10| **Date Collected: 7/24/2018 15:02:22**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: 454944009|1783993|10|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	23671.5	23671.5	99.5	%			15:02:58
1	Al 396.153Radial†	42756.0	43076.1	12546	µg/L	12546	ppb	15:02:58
1	Ca 317.933Radial†	114762.0	114937.1	20860	µg/L	20860	ppb	15:02:58
1	Fe 238.204 Radial†	186539.4	187348.5	30587	µg/L	30587	ppb	15:02:53
1	K 766.490 Radial†	2813.7	2437.0	1940.0	µg/L	1940.0	ppb	15:02:58
1	Mg 279.077 IEC†	8252.1	8224.1	11170	µg/L	11170	ppb	15:02:58
1	Na 589.592 Radial†	220.9	111.9	120.08	µg/L	120.08	ppb	15:02:58
1	Sr 421.552†	16477.7	16251.0	85.666	µg/L	85.666	ppb	15:02:58
1	Sc 361.383	378415.4	378415.4	96.442	%			15:03:25
1	Y 371.029	369749.2	369749.2	96.317	%			15:03:25
1	Ag 328.068†	-1152.4	-473.2	0.2385	µg/L	0.2385	ppb	15:03:45
1	As 188.979†	-0.1	21.3	9.5437	µg/L	9.5437	ppb	15:03:45
1	B 249.677†	-3339.5	-3656.7	13.604	µg/L	13.604	ppb	15:03:45
1	Ba 233.527†	11864.7	12298.6	89.650	µg/L	89.650	ppb	15:03:45
1	Be 313.107†	-3165.1	685.9	0.7967	µg/L	0.7967	ppb	15:03:45
1	Cd 226.502†	1.0	362.5	-0.1932	µg/L	-0.1932	ppb	15:03:45
1	Co 228.616†	429.4	683.1	13.259	µg/L	13.259	ppb	15:03:45
1	Cr 267.716†	1177.0	1097.5	19.205	µg/L	19.205	ppb	15:03:45
1	Cu 324.752†	6584.1	4624.1	32.352	µg/L	32.352	ppb	15:03:45
1	Mn 257.610†	375961.9	389298.0	539.11	µg/L	539.11	ppb	15:03:25
1	Mo 202.031†	34.0	16.4	1.3777	µg/L	1.3777	ppb	15:03:45
1	Ni 231.604†	1130.5	1370.1	32.295	µg/L	32.295	ppb	15:03:45
1	P 214.914†	1024.4	897.2	475.79	µg/L	475.79	ppb	15:03:45
1	Pb 220.353†	45.9	105.2	12.431	µg/L	12.431	ppb	15:03:45
1	S 181.975 Axial†	7297.9	7475.4	7671.2	µg/L	7671.2	ppb	15:03:45
1	Sb 206.836†	192.7	24.6	1.6169	µg/L	1.6169	ppb	15:03:45
1	Se 196.026†	-56.9	-33.7	0.1005	µg/L	0.1005	ppb	15:03:45
1	SiO2†	15720.3	15008.8	2225.7	µg/L	2225.7	ppb	15:03:45
1	Si 251.611†	21040.3	21598.4	1046.7	µg/L	1046.7	ppb	15:03:45
1	Sn 189.927†	55.9	8.8	1.8166	µg/L	1.8166	ppb	15:03:45
1	Ti 334.940†	34162.6	36203.8	137.65	µg/L	137.65	ppb	15:03:25
1	Tl 190.801†	-103.1	-18.1	-0.1422	µg/L	-0.1422	ppb	15:03:45
1	U 367.007†	1621.7	613.4	65.81	µg/L	65.81	ppb	15:03:25
1	V 292.402†	1319.3	1556.4	24.097	µg/L	24.097	ppb	15:03:45
1	Zn 213.857†	12703.1	12183.2	74.637	µg/L	74.637	ppb	15:03:45
2	Sc RADIAL	23803.4	23803.4	100	%			15:03:08
2	Al 396.153Radial†	42737.2	42819.3	12471	µg/L	12471	ppb	15:03:08
2	Ca 317.933Radial†	114835.2	114371.6	20757	µg/L	20757	ppb	15:03:08
2	Fe 238.204 Radial†	186962.6	186733.3	30487	µg/L	30487	ppb	15:03:03
2	K 766.490 Radial†	2775.7	2383.3	1897.0	µg/L	1897.0	ppb	15:03:08
2	Mg 279.077 IEC†	8216.4	8142.5	11059	µg/L	11059	ppb	15:03:08
2	Na 589.592 Radial†	212.2	102.1	106.09	µg/L	106.09	ppb	15:03:08
2	Sr 421.552†	16525.4	16207.1	85.435	µg/L	85.435	ppb	15:03:08
2	Sc 361.383	380243.0	380243.0	96.907	%			15:03:50
2	Y 371.029	371804.8	371804.8	96.852	%			15:03:50
2	Ag 328.068†	-1157.8	-473.0	0.2457	µg/L	0.2457	ppb	15:04:10
2	As 188.979†	0.4	21.8	9.7260	µg/L	9.7260	ppb	15:04:10
2	B 249.677†	-3334.6	-3635.1	13.839	µg/L	13.839	ppb	15:04:10
2	Ba 233.527†	11781.1	12153.2	88.584	µg/L	88.584	ppb	15:04:10
2	Be 313.107†	-3097.7	771.2	0.8479	µg/L	0.8479	ppb	15:04:10
2	Cd 226.502†	1.3	362.8	-0.1795	µg/L	-0.1795	ppb	15:04:10
2	Co 228.616†	412.5	663.6	12.873	µg/L	12.873	ppb	15:04:10
2	Cr 267.716†	1201.9	1117.3	19.572	µg/L	19.572	ppb	15:04:10
2	Cu 324.752†	6510.5	4515.3	31.607	µg/L	31.607	ppb	15:04:10
2	Mn 257.610†	376674.9	388159.9	537.54	µg/L	537.54	ppb	15:03:50
2	Mo 202.031†	58.4	41.4	2.6025	µg/L	2.6025	ppb	15:04:10
2	Ni 231.604†	1132.5	1366.6	32.212	µg/L	32.212	ppb	15:04:10
2	P 214.914†	1025.5	893.3	473.65	µg/L	473.65	ppb	15:04:10

2	Pb 220.353†	22.7	81.1	9.9166	µg/L	9.9166	ppb	15:04:10
2	S 181.975 Axial†	7213.6	7352.1	7544.5	µg/L	7544.5	ppb	15:04:10
2	Sb 206.836†	174.5	4.9	-3.2405	µg/L	-3.2405	ppb	15:04:10
2	Se 196.026†	-54.4	-30.9	1.1989	µg/L	1.1989	ppb	15:04:10
2	SiO2†	15618.4	14825.3	2198.4	µg/L	2198.4	ppb	15:04:10
2	Si 251.611†	20935.7	21385.6	1036.4	µg/L	1036.4	ppb	15:04:10
2	Sn 189.927†	45.9	-1.8	0.7149	µg/L	0.7149	ppb	15:04:10
2	Ti 334.940†	34190.3	36062.1	137.13	µg/L	137.13	ppb	15:03:50
2	Tl 190.801†	-100.0	-14.4	0.5104	µg/L	0.5104	ppb	15:04:10
2	U 367.007†	1517.2	497.4	29.40	µg/L	29.40	ppb	15:03:50
2	V 292.402†	1306.7	1536.8	23.843	µg/L	23.843	ppb	15:04:10
2	Zn 213.857†	12607.7	12021.4	73.597	µg/L	73.597	ppb	15:04:10
3	Sc RADIAL	23803.8	23803.8	100	%			15:03:18
3	Al 396.153Radial†	42586.4	42667.9	12427	µg/L	12427	ppb	15:03:18
3	Ca 317.933Radial†	114214.7	113749.5	20644	µg/L	20644	ppb	15:03:18
3	Fe 238.204 Radial†	188548.6	188314.0	30745	µg/L	30745	ppb	15:03:13
3	K 766.490 Radial†	2849.5	2457.1	1956.0	µg/L	1956.0	ppb	15:03:18
3	Mg 279.077 IEC†	8207.0	8132.9	11046	µg/L	11046	ppb	15:03:18
3	Na 589.592 Radial†	180.3	70.1	60.105	µg/L	60.105	ppb	15:03:18
3	Sr 421.552†	16437.4	16118.8	84.970	µg/L	84.970	ppb	15:03:18
3	Sc 361.383	378165.6	378165.6	96.378	%			15:04:15
3	Y 371.029	369632.4	369632.4	96.286	%			15:04:15
3	Ag 328.068†	-1161.1	-483.0	0.1828	µg/L	0.1828	ppb	15:04:35
3	As 188.979†	-0.6	20.8	9.3590	µg/L	9.3590	ppb	15:04:35
3	B 249.677†	-3376.9	-3697.8	13.031	µg/L	13.031	ppb	15:04:35
3	Ba 233.527†	11768.6	12207.0	88.973	µg/L	88.973	ppb	15:04:35
3	Be 313.107†	-3119.8	730.7	0.8226	µg/L	0.8226	ppb	15:04:35
3	Cd 226.502†	-9.6	351.5	-0.3068	µg/L	-0.3068	ppb	15:04:35
3	Co 228.616†	430.0	684.0	13.276	µg/L	13.276	ppb	15:04:35
3	Cr 267.716†	1173.3	1094.5	19.163	µg/L	19.163	ppb	15:04:35
3	Cu 324.752†	6518.3	4560.3	31.932	µg/L	31.932	ppb	15:04:35
3	Mn 257.610†	377697.6	391356.4	541.96	µg/L	541.96	ppb	15:04:15
3	Mo 202.031†	44.1	26.9	1.8989	µg/L	1.8989	ppb	15:04:35
3	Ni 231.604†	1123.9	1364.1	32.158	µg/L	32.158	ppb	15:04:35
3	P 214.914†	1009.7	882.7	467.50	µg/L	467.50	ppb	15:04:35
3	Pb 220.353†	44.5	103.8	12.277	µg/L	12.277	ppb	15:04:35
3	S 181.975 Axial†	7252.3	7433.1	7627.7	µg/L	7627.7	ppb	15:04:35
3	Sb 206.836†	182.1	13.7	-1.0797	µg/L	-1.0797	ppb	15:04:35
3	Se 196.026†	-41.4	-17.7	6.5909	µg/L	6.5909	ppb	15:04:35
3	SiO2†	15594.9	14889.6	2207.9	µg/L	2207.9	ppb	15:04:35
3	Si 251.611†	20884.9	21451.5	1039.6	µg/L	1039.6	ppb	15:04:35
3	Sn 189.927†	54.8	7.7	1.7130	µg/L	1.7130	ppb	15:04:35
3	Ti 334.940†	34315.0	36385.3	138.34	µg/L	138.34	ppb	15:04:15
3	Tl 190.801†	-106.3	-21.5	-0.7722	µg/L	-0.7722	ppb	15:04:35
3	U 367.007†	1574.8	565.8	50.20	µg/L	50.20	ppb	15:04:15
3	V 292.402†	1335.0	1573.6	24.321	µg/L	24.321	ppb	15:04:35
3	Zn 213.857†	12599.0	12083.9	73.972	µg/L	73.972	ppb	15:04:35

Mean Data: 454944009|1783993|10|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	378941.3	96.576	%	0.2891				0.30%
Sc RADIAL	23759.6	99.9	%	0.32				0.32%
Y 371.029	370395.5	96.485	%	0.3183				0.33%
Ag 328.068†	-476.4	0.2223	µg/L	0.03442	0.2223	ppb	0.03442	15.48%
Al 396.153Radial†	42854.4	12481	µg/L	60.11	12481	ppb	60.11	0.48%
As 188.979†	21.3	9.5429	µg/L	0.18350	9.5429	ppb	0.18350	1.92%
B 249.677†	-3663.2	13.492	µg/L	0.4155	13.492	ppb	0.4155	3.08%
Ba 233.527†	12219.6	89.069	µg/L	0.5396	89.069	ppb	0.5396	0.61%
Be 313.107†	729.2	0.8224	µg/L	0.02561	0.8224	ppb	0.02561	3.11%
Ca 317.933Radial†	114352.7	20754	µg/L	107.81	20754	ppb	107.81	0.52%
Cd 226.502†	358.9	-0.2265	µg/L	0.06984	-0.2265	ppb	0.06984	30.83%
Co 228.616†	676.9	13.136	µg/L	0.2283	13.136	ppb	0.2283	1.74%
Cr 267.716†	1103.1	19.313	µg/L	0.2252	19.313	ppb	0.2252	1.17%
Cu 324.752†	4566.6	31.964	µg/L	0.3734	31.964	ppb	0.3734	1.17%
Fe 238.204 Radial†	187465.3	30606	µg/L	130.09	30606	ppb	130.09	0.43%
K 766.490 Radial†	2425.8	1931.0	µg/L	30.54	1931.0	ppb	30.54	1.58%
Mg 279.077 IEC†	8166.5	11092	µg/L	68.04	11092	ppb	68.04	0.61%
Mn 257.610†	389604.8	539.54	µg/L	2.244	539.54	ppb	2.244	0.42%
Mo 202.031†	28.2	1.9597	µg/L	0.61466	1.9597	ppb	0.61466	31.37%

Na 589.592 Radial†	94.7	95.424	µg/L	31.3773	95.424	ppb	31.3773	32.88%
Ni 231.604†	1366.9	32.222	µg/L	0.0688	32.222	ppb	0.0688	0.21%
P 214.914†	891.1	472.31	µg/L	4.305	472.31	ppb	4.305	0.91%
Pb 220.353†	96.7	11.542	µg/L	1.4095	11.542	ppb	1.4095	12.21%
S 181.975 Axial†	7420.2	7614.5	µg/L	64.37	7614.5	ppb	64.37	0.85%
Sb 206.836†	14.4	-0.9011	µg/L	2.43361	-0.9011	ppb	2.43361	270.06%
Se 196.026†	-27.4	2.6301	µg/L	3.47384	2.6301	ppb	3.47384	132.08%
SiO2†	14907.9	2210.6	µg/L	13.87	2210.6	ppb	13.87	0.63%
Si 251.611†	21478.5	1040.9	µg/L	5.30	1040.9	ppb	5.30	0.51%
Sn 189.927†	4.9	1.4148	µg/L	0.60832	1.4148	ppb	0.60832	43.00%
Sr 421.552†	16192.3	85.357	µg/L	0.3545	85.357	ppb	0.3545	0.42%
Ti 334.940†	36217.0	137.71	µg/L	0.605	137.71	ppb	0.605	0.44%
Tl 190.801†	-18.0	-0.1346	µg/L	0.64136	-0.1346	ppb	0.64136	476.35%
U 367.007†	558.8	48.47	µg/L	18.268	48.47	ppb	18.268	37.69%
V 292.402†	1555.6	24.087	µg/L	0.2393	24.087	ppb	0.2393	0.99%
Zn 213.857†	12096.2	74.069	µg/L	0.5265	74.069	ppb	0.5265	0.71%

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Sequence No.: 22 **Autosampler Location: 347**
Sample ID: 454944010|1783993|10| **Date Collected: 7/24/2018 15:04:44**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: 454944010|1783993|10|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	23390.4	23390.4	98.4	%			15:05:20
1	Al 396.153Radial†	44508.0	45373.4	13215	µg/L	13215	ppb	15:05:20
1	Ca 317.933Radial†	112066.8	113582.5	20614	µg/L	20614	ppb	15:05:20
1	Fe 238.204 Radial†	196074.3	199294.2	32537	µg/L	32537	ppb	15:05:15
1	K 766.490 Radial†	3066.1	2727.5	2172.2	µg/L	2172.2	ppb	15:05:20
1	Mg 279.077 IEC†	8387.2	8461.1	11492	µg/L	11492	ppb	15:05:20
1	Na 589.592 Radial†	186.9	80.1	71.968	µg/L	71.968	ppb	15:05:20
1	Sr 421.552†	18212.6	18213.8	96.061	µg/L	96.061	ppb	15:05:20
1	Sc 361.383	377667.1	377667.1	96.251	%			15:05:47
1	Y 371.029	369712.2	369712.2	96.307	%			15:05:47
1	Ag 328.068†	-1173.0	-497.0	0.3081	µg/L	0.3081	ppb	15:06:07
1	As 188.979†	0.4	21.7	9.8207	µg/L	9.8207	ppb	15:06:07
1	B 249.677†	-3546.5	-3878.6	14.790	µg/L	14.790	ppb	15:06:07
1	Ba 233.527†	10225.8	10620.2	77.265	µg/L	77.265	ppb	15:06:07
1	Be 313.107†	-3087.4	760.1	0.8509	µg/L	0.8509	ppb	15:06:07
1	Cd 226.502†	4.2	365.9	-0.3722	µg/L	-0.3722	ppb	15:06:07
1	Co 228.616†	536.7	795.5	15.515	µg/L	15.515	ppb	15:06:07
1	Cr 267.716†	1237.6	1162.8	20.370	µg/L	20.370	ppb	15:06:07
1	Cu 324.752†	6575.6	4628.8	32.507	µg/L	32.507	ppb	15:06:07
1	Mn 257.610†	364665.1	378333.6	524.11	µg/L	524.11	ppb	15:05:47
1	Mo 202.031†	58.8	42.2	2.6808	µg/L	2.6808	ppb	15:06:07
1	Ni 231.604†	1353.7	1604.4	37.753	µg/L	37.753	ppb	15:06:07
1	P 214.914†	1020.3	895.1	473.00	µg/L	473.00	ppb	15:06:07
1	Pb 220.353†	81.6	142.5	16.377	µg/L	16.377	ppb	15:06:07
1	S 181.975 Axial†	9216.8	9484.0	9734.7	µg/L	9734.7	ppb	15:06:07
1	Sb 206.836†	186.7	18.8	-0.1177	µg/L	-0.1177	ppb	15:06:07
1	Se 196.026†	-55.1	-32.0	1.6722	µg/L	1.6722	ppb	15:06:07
1	SiO2†	22089.7	21658.7	3214.4	µg/L	3214.4	ppb	15:06:07
1	Si 251.611†	31572.0	32583.5	1580.1	µg/L	1580.1	ppb	15:05:47
1	Sn 189.927†	55.4	8.3	1.7600	µg/L	1.7600	ppb	15:06:07
1	Ti 334.940†	29877.9	31822.4	121.08	µg/L	121.08	ppb	15:05:47
1	Tl 190.801†	-96.3	-11.2	1.2405	µg/L	1.2405	ppb	15:06:07
1	U 367.007†	1660.7	657.2	72.40	µg/L	72.40	ppb	15:05:47
1	V 292.402†	1318.3	1558.1	24.545	µg/L	24.545	ppb	15:06:07
1	Zn 213.857†	11031.8	10472.9	63.103	µg/L	63.103	ppb	15:06:07
2	Sc RADIAL	23612.3	23612.3	99.3	%			15:05:30
2	Al 396.153Radial†	44660.3	45101.6	13136	µg/L	13136	ppb	15:05:30
2	Ca 317.933Radial†	112786.6	113236.9	20551	µg/L	20551	ppb	15:05:30
2	Fe 238.204 Radial†	197317.8	198673.4	32436	µg/L	32436	ppb	15:05:25
2	K 766.490 Radial†	2986.8	2618.4	2084.6	µg/L	2084.6	ppb	15:05:30
2	Mg 279.077 IEC†	8382.6	8376.3	11377	µg/L	11377	ppb	15:05:30
2	Na 589.592 Radial†	183.4	74.7	64.403	µg/L	64.403	ppb	15:05:30
2	Sr 421.552†	18405.0	18233.6	96.167	µg/L	96.167	ppb	15:05:30
2	Sc 361.383	377029.7	377029.7	96.088	%			15:06:12
2	Y 371.029	368924.4	368924.4	96.102	%			15:06:12
2	Ag 328.068†	-1160.7	-486.2	0.3955	µg/L	0.3955	ppb	15:06:32
2	As 188.979†	-0.3	21.0	9.5539	µg/L	9.5539	ppb	15:06:32
2	B 249.677†	-3569.5	-3908.8	13.525	µg/L	13.525	ppb	15:06:32
2	Ba 233.527†	10259.3	10673.0	77.656	µg/L	77.656	ppb	15:06:32
2	Be 313.107†	-3113.9	727.1	0.8240	µg/L	0.8240	ppb	15:06:32
2	Cd 226.502†	-15.2	345.6	-0.5373	µg/L	-0.5373	ppb	15:06:32
2	Co 228.616†	535.9	795.6	15.516	µg/L	15.516	ppb	15:06:32
2	Cr 267.716†	1249.2	1177.1	20.623	µg/L	20.623	ppb	15:06:32
2	Cu 324.752†	6492.1	4553.4	32.000	µg/L	32.000	ppb	15:06:32
2	Mn 257.610†	361647.1	375833.1	520.65	µg/L	520.65	ppb	15:06:12
2	Mo 202.031†	36.6	19.3	1.5552	µg/L	1.5552	ppb	15:06:32
2	Ni 231.604†	1369.2	1622.9	38.179	µg/L	38.179	ppb	15:06:32
2	P 214.914†	1039.4	916.7	485.15	µg/L	485.15	ppb	15:06:32

2	Pb 220.353†	71.3	131.9	15.267 µg/L	15.267 ppb		15:06:32
2	S 181.975 Axial†	9193.4	9475.9	9726.4 µg/L	9726.4 ppb		15:06:32
2	Sb 206.836†	174.7	6.6	-3.1373 µg/L	-3.1373 ppb		15:06:32
2	Se 196.026†	-62.2	-39.5	-1.3909 µg/L	-1.3909 ppb		15:06:32
2	SiO2†	22199.0	21811.2	3237.2 µg/L	3237.2 ppb		15:06:32
2	Si 251.611†	31224.4	32277.3	1565.3 µg/L	1565.3 ppb		15:06:12
2	Sn 189.927†	51.0	3.9	1.2909 µg/L	1.2909 ppb		15:06:32
2	Ti 334.940†	29685.5	31674.6	120.52 µg/L	120.52 ppb		15:06:12
2	Tl 190.801†	-105.2	-20.7	-0.5119 µg/L	-0.5119 ppb		15:06:32
2	U 367.007†	1628.6	626.7	63.13 µg/L	63.13 ppb		15:06:12
2	V 292.402†	1330.8	1573.3	24.684 µg/L	24.684 ppb		15:06:32
2	Zn 213.857†	10997.4	10456.5	63.013 µg/L	63.013 ppb		15:06:32
3	Sc RADIAL	23473.8	23473.8	98.7 %			15:05:40
3	Al 396.153Radial†	44456.9	45160.9	13153 µg/L	13153 ppb		15:05:40
3	Ca 317.933Radial†	112099.5	113210.7	20547 µg/L	20547 ppb		15:05:40
3	Fe 238.204 Radial†	197688.7	200221.2	32689 µg/L	32689 ppb		15:05:35
3	K 766.490 Radial†	2978.9	2628.1	2092.2 µg/L	2092.2 ppb		15:05:40
3	Mg 279.077 IEC†	8371.8	8415.2	11430 µg/L	11430 ppb		15:05:40
3	Na 589.592 Radial†	218.3	111.2	116.30 µg/L	116.30 ppb		15:05:40
3	Sr 421.552†	18324.9	18261.8	96.317 µg/L	96.317 ppb		15:05:40
3	Sc 361.383	374149.2	374149.2	95.354 %			15:06:37
3	Y 371.029	365845.7	365845.7	95.300 %			15:06:37
3	Ag 328.068†	-1185.8	-521.8	0.1209 µg/L	0.1209 ppb		15:06:57
3	As 188.979†	-3.9	17.3	8.1934 µg/L	8.1934 ppb		15:06:57
3	B 249.677†	-3578.6	-3946.9	13.409 µg/L	13.409 ppb		15:06:57
3	Ba 233.527†	10265.4	10761.6	78.300 µg/L	78.300 ppb		15:06:57
3	Be 313.107†	-3045.1	774.3	0.8553 µg/L	0.8553 ppb		15:06:57
3	Cd 226.502†	22.2	384.7	-0.2247 µg/L	-0.2247 ppb		15:06:57
3	Co 228.616†	535.3	799.3	15.588 µg/L	15.588 ppb		15:06:57
3	Cr 267.716†	1277.9	1217.2	21.327 µg/L	21.327 ppb		15:06:57
3	Cu 324.752†	6527.8	4642.9	32.596 µg/L	32.596 ppb		15:06:57
3	Mn 257.610†	362076.4	379181.0	525.29 µg/L	525.29 ppb		15:06:37
3	Mo 202.031†	55.6	39.4	2.5483 µg/L	2.5483 ppb		15:06:57
3	Ni 231.604†	1347.4	1611.0	37.908 µg/L	37.908 ppb		15:06:57
3	P 214.914†	1060.5	947.2	501.92 µg/L	501.92 ppb		15:06:57
3	Pb 220.353†	88.7	150.7	17.250 µg/L	17.250 ppb		15:06:57
3	S 181.975 Axial†	9238.9	9597.3	9851.0 µg/L	9851.0 ppb		15:06:57
3	Sb 206.836†	180.0	13.6	-1.4506 µg/L	-1.4506 ppb		15:06:57
3	Se 196.026†	-55.2	-32.7	1.4483 µg/L	1.4483 ppb		15:06:57
3	SiO2†	22242.6	22034.8	3270.4 µg/L	3270.4 ppb		15:06:57
3	Si 251.611†	31259.7	32564.4	1579.2 µg/L	1579.2 ppb		15:06:37
3	Sn 189.927†	52.3	5.7	1.4940 µg/L	1.4940 ppb		15:06:57
3	Ti 334.940†	29824.5	32058.2	121.98 µg/L	121.98 ppb		15:06:37
3	Tl 190.801†	-101.4	-17.6	0.0812 µg/L	0.0812 ppb		15:06:57
3	U 367.007†	1581.1	589.9	50.47 µg/L	50.47 ppb		15:06:37
3	V 292.402†	1340.2	1593.9	24.972 µg/L	24.972 ppb		15:06:57
3	Zn 213.857†	11011.2	10559.1	63.648 µg/L	63.648 ppb		15:06:57

Mean Data: 454944010|1783993|10|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	376282.0	95.898	%	0.4777				0.50%
Sc RADIAL	23492.2	98.8	%	0.47				0.48%
Y 371.029	368160.8	95.903	%	0.5322				0.55%
Ag 328.068†	-501.7	0.2748	µg/L	0.14027	0.2748	ppb	0.14027	51.04%
Al 396.153Radial†	45212.0	13168	µg/L	41.61	13168	ppb	41.61	0.32%
As 188.979†	20.0	9.1893	µg/L	0.87274	9.1893	ppb	0.87274	9.50%
B 249.677†	-3911.5	13.908	µg/L	0.7664	13.908	ppb	0.7664	5.51%
Ba 233.527†	10684.9	77.740	µg/L	0.5230	77.740	ppb	0.5230	0.67%
Be 313.107†	753.8	0.8434	µg/L	0.01692	0.8434	ppb	0.01692	2.01%
Ca 317.933Radial†	113343.4	20571	µg/L	37.66	20571	ppb	37.66	0.18%
Cd 226.502†	365.4	-0.3781	µg/L	0.15642	-0.3781	ppb	0.15642	41.37%
Co 228.616†	796.8	15.540	µg/L	0.0417	15.540	ppb	0.0417	0.27%
Cr 267.716†	1185.7	20.773	µg/L	0.4960	20.773	ppb	0.4960	2.39%
Cu 324.752†	4608.4	32.368	µg/L	0.3213	32.368	ppb	0.3213	0.99%
Fe 238.204 Radial†	199396.3	32554	µg/L	127.17	32554	ppb	127.17	0.39%
K 766.490 Radial†	2658.0	2116.3	µg/L	48.49	2116.3	ppb	48.49	2.29%
Mg 279.077 IEC†	8417.5	11433	µg/L	57.66	11433	ppb	57.66	0.50%
Mn 257.610†	377782.6	523.35	µg/L	2.409	523.35	ppb	2.409	0.46%
Mo 202.031†	33.6	2.2614	µg/L	0.61523	2.2614	ppb	0.61523	27.21%

Na 589.592 Radial†	88.7	84.222	µg/L	28.0326	84.222	ppb	28.0326	33.28%
Ni 231.604†	1612.7	37.946	µg/L	0.2157	37.946	ppb	0.2157	0.57%
P 214.914†	919.7	486.69	µg/L	14.518	486.69	ppb	14.518	2.98%
Pb 220.353†	141.7	16.298	µg/L	0.9935	16.298	ppb	0.9935	6.10%
S 181.975 Axial†	9519.1	9770.7	µg/L	69.69	9770.7	ppb	69.69	0.71%
Sb 206.836†	13.0	-1.5685	µg/L	1.51326	-1.5685	ppb	1.51326	96.48%
Se 196.026†	-34.7	0.5765	µg/L	1.70756	0.5765	ppb	1.70756	296.18%
SiO2†	21834.9	3240.7	µg/L	28.13	3240.7	ppb	28.13	0.87%
Si 251.611†	32475.1	1574.9	µg/L	8.32	1574.9	ppb	8.32	0.53%
Sn 189.927†	6.0	1.5149	µg/L	0.23525	1.5149	ppb	0.23525	15.53%
Sr 421.552†	18236.4	96.182	µg/L	0.1283	96.182	ppb	0.1283	0.13%
Ti 334.940†	31851.8	121.19	µg/L	0.734	121.19	ppb	0.734	0.61%
Tl 190.801†	-16.5	0.2699	µg/L	0.89129	0.2699	ppb	0.89129	330.18%
U 367.007†	624.6	62.00	µg/L	11.012	62.00	ppb	11.012	17.76%
V 292.402†	1575.1	24.734	µg/L	0.2177	24.734	ppb	0.2177	0.88%
Zn 213.857†	10496.2	63.255	µg/L	0.3437	63.255	ppb	0.3437	0.54%

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Sequence No.: 23 | **Autosampler Location: 1**
Sample ID: CCV | **Date Collected: 7/24/2018 15:07:06**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	23228.2	23228.2	97.7	%			15:07:45
1	Al 396.153Radial†	18642.5	19209.7	5569.9	µg/L	5569.9	ppb	15:07:45
1	Ca 317.933Radial†	29529.0	29880.6	5423.0	µg/L	5423.0	ppb	15:07:45
1	Fe 238.204 Radial†	32250.5	32972.5	5383.2	µg/L	5383.2	ppb	15:07:45
1	K 766.490 Radial†	6895.7	6669.8	5354.4	µg/L	5354.4	ppb	15:07:45
1	Mg 279.077 IEC†	4019.0	4048.7	5499.1	µg/L	5499.1	ppb	15:07:45
1	Na 589.592 Radial†	7470.0	7537.4	10774	µg/L	10774	ppb	15:07:45
1	Sr 421.552†	97465.0	99477.1	526.54	µg/L	526.54	ppb	15:07:40
1	Sc 361.383	382276.7	382276.7	97.426	%			15:08:13
1	Y 371.029	370437.6	370437.6	96.496	%			15:08:13
1	Ag 328.068†	57047.3	59276.4	532.65	µg/L	532.65	ppb	15:08:13
1	As 188.979†	1331.5	1388.0	518.13	µg/L	518.13	ppb	15:08:33
1	B 249.677†	17698.3	17971.9	537.52	µg/L	537.52	ppb	15:08:13
1	Ba 233.527†	69284.4	71111.2	522.59	µg/L	522.59	ppb	15:08:13
1	Be 313.107†	701088.9	723581.9	521.62	µg/L	521.62	ppb	15:08:13
1	Cd 226.502†	57627.5	59511.7	518.24	µg/L	518.24	ppb	15:08:13
1	Co 228.616†	25161.1	26063.8	518.83	µg/L	518.83	ppb	15:08:33
1	Cr 267.716†	29159.0	29806.5	514.63	µg/L	514.63	ppb	15:08:33
1	Cu 324.752†	79916.3	79825.0	525.24	µg/L	525.24	ppb	15:08:13
1	Mn 257.610†	370408.4	379660.0	524.20	µg/L	524.20	ppb	15:08:13
1	Mo 202.031†	10627.6	10889.6	534.22	µg/L	534.22	ppb	15:08:33
1	Ni 231.604†	21611.2	22380.2	517.68	µg/L	517.68	ppb	15:08:33
1	P 214.914†	4716.3	4676.0	2596.5	µg/L	2596.5	ppb	15:08:33
1	Pb 220.353†	4797.5	4981.9	522.55	µg/L	522.55	ppb	15:08:33
1	S 181.975 Axial†	1094.1	1031.3	1056.9	µg/L	1056.9	ppb	15:08:33
1	Sb 206.836†	2263.8	2148.4	526.93	µg/L	526.93	ppb	15:08:33
1	Se 196.026†	1236.5	1294.4	520.38	µg/L	520.38	ppb	15:08:33
1	SiO2†	37801.3	37508.7	5553.8	µg/L	5553.8	ppb	15:08:13
1	Si 251.611†	52492.9	53661.7	2597.1	µg/L	2597.1	ppb	15:08:13
1	Sn 189.927†	4993.4	5076.1	532.19	µg/L	532.19	ppb	15:08:33
1	Ti 334.940†	136349.2	140732.7	531.58	µg/L	531.58	ppb	15:08:13
1	Tl 190.801†	2702.3	2862.5	526.66	µg/L	526.66	ppb	15:08:33
1	U 367.007†	2607.7	1608.4	487.6	µg/L	487.6	ppb	15:08:13
1	V 292.402†	44111.2	45465.1	526.29	µg/L	526.29	ppb	15:08:13
1	Zn 213.857†	77839.7	78907.9	512.84	µg/L	512.84	ppb	15:08:13
2	Sc RADIAL	23342.8	23342.8	98.2	%			15:07:55
2	Al 396.153Radial†	18669.3	19143.3	5550.7	µg/L	5550.7	ppb	15:07:55
2	Ca 317.933Radial†	29631.5	29836.5	5415.0	µg/L	5415.0	ppb	15:07:55
2	Fe 238.204 Radial†	32349.4	32911.2	5373.2	µg/L	5373.2	ppb	15:07:55
2	K 766.490 Radial†	6921.4	6661.4	5347.7	µg/L	5347.7	ppb	15:07:55
2	Mg 279.077 IEC†	4033.4	4043.2	5491.6	µg/L	5491.6	ppb	15:07:55
2	Na 589.592 Radial†	7552.8	7584.1	10841	µg/L	10841	ppb	15:07:55
2	Sr 421.552†	98489.9	100031.3	529.48	µg/L	529.48	ppb	15:07:50
2	Sc 361.383	382732.1	382732.1	97.542	%			15:08:39
2	Y 371.029	370307.1	370307.1	96.462	%			15:08:39
2	Ag 328.068†	57130.4	59291.9	532.78	µg/L	532.78	ppb	15:08:39
2	As 188.979†	1333.8	1388.8	518.40	µg/L	518.40	ppb	15:08:59
2	B 249.677†	17732.3	17985.1	537.87	µg/L	537.87	ppb	15:08:39
2	Ba 233.527†	69747.1	71500.9	525.45	µg/L	525.45	ppb	15:08:39
2	Be 313.107†	703271.5	724963.3	522.62	µg/L	522.62	ppb	15:08:39
2	Cd 226.502†	57949.6	59771.5	520.50	µg/L	520.50	ppb	15:08:39
2	Co 228.616†	25151.2	26022.9	518.01	µg/L	518.01	ppb	15:08:59
2	Cr 267.716†	29136.5	29747.8	513.59	µg/L	513.59	ppb	15:08:59
2	Cu 324.752†	80198.0	80016.2	526.51	µg/L	526.51	ppb	15:08:39
2	Mn 257.610†	372221.8	381066.8	526.14	µg/L	526.14	ppb	15:08:39
2	Mo 202.031†	10596.1	10844.3	531.99	µg/L	531.99	ppb	15:08:59
2	Ni 231.604†	21552.2	22293.3	515.68	µg/L	515.68	ppb	15:08:59
2	P 214.914†	4687.6	4640.8	2576.9	µg/L	2576.9	ppb	15:08:59

2	Pb 220.353†	4822.1	5001.3	524.56 µg/L	524.56 ppb		15:08:59
2	S 181.975 Axial†	1087.5	1023.2	1048.6 µg/L	1048.6 ppb		15:08:59
2	Sb 206.836†	2254.4	2136.0	523.86 µg/L	523.86 ppb		15:08:59
2	Se 196.026†	1220.6	1276.5	513.25 µg/L	513.25 ppb		15:08:59
2	SiO2†	37920.9	37585.1	5565.3 µg/L	5565.3 ppb		15:08:39
2	Si 251.611†	52708.0	53818.2	2604.7 µg/L	2604.7 ppb		15:08:39
2	Sn 189.927†	4985.5	5062.0	530.72 µg/L	530.72 ppb		15:08:59
2	Ti 334.940†	137071.3	141306.5	533.74 µg/L	533.74 ppb		15:08:39
2	Tl 190.801†	2693.1	2849.8	524.35 µg/L	524.35 ppb		15:08:59
2	U 367.007†	2692.5	1692.1	514.3 µg/L	514.3 ppb		15:08:39
2	V 292.402†	44370.1	45676.7	528.70 µg/L	528.70 ppb		15:08:39
2	Zn 213.857†	78087.9	79067.3	513.90 µg/L	513.90 ppb		15:08:39
3	Sc RADIAL	23457.0	23457.0	98.6 %			15:08:06
3	Al 396.153Radial†	18579.6	18959.8	5496.9 µg/L	5496.9 ppb		15:08:06
3	Ca 317.933Radial†	29524.6	29581.2	5368.7 µg/L	5368.7 ppb		15:08:06
3	Fe 238.204 Radial†	32372.1	32773.8	5350.8 µg/L	5350.8 ppb		15:08:06
3	K 766.490 Radial†	6854.4	6559.1	5265.5 µg/L	5265.5 ppb		15:08:06
3	Mg 279.077 IEC†	4011.3	4000.7	5433.9 µg/L	5433.9 ppb		15:08:06
3	Na 589.592 Radial†	7546.3	7540.1	10778 µg/L	10778 ppb		15:08:06
3	Sr 421.552†	99281.8	100345.8	531.14 µg/L	531.14 ppb		15:08:00
3	Sc 361.383	376700.2	376700.2	96.004 %			15:09:05
3	Y 371.029	364838.5	364838.5	95.038 %			15:09:05
3	Ag 328.068†	56778.6	59863.4	537.90 µg/L	537.90 ppb		15:09:05
3	As 188.979†	1339.1	1416.2	528.59 µg/L	528.59 ppb		15:09:25
3	B 249.677†	17596.6	18134.9	542.07 µg/L	542.07 ppb		15:09:05
3	Ba 233.527†	69118.4	71991.1	529.05 µg/L	529.05 ppb		15:09:05
3	Be 313.107†	698107.7	731129.5	527.07 µg/L	527.07 ppb		15:09:05
3	Cd 226.502†	57350.6	60098.9	523.36 µg/L	523.36 ppb		15:09:05
3	Co 228.616†	25175.6	26461.2	526.74 µg/L	526.74 ppb		15:09:25
3	Cr 267.716†	29114.0	30202.7	521.44 µg/L	521.44 ppb		15:09:25
3	Cu 324.752†	79472.4	80577.0	530.20 µg/L	530.20 ppb		15:09:05
3	Mn 257.610†	369496.9	384338.9	530.66 µg/L	530.66 ppb		15:09:05
3	Mo 202.031†	10588.8	11010.6	540.15 µg/L	540.15 ppb		15:09:25
3	Ni 231.604†	21540.8	22635.2	523.58 µg/L	523.58 ppb		15:09:25
3	P 214.914†	4691.7	4722.0	2622.2 µg/L	2622.2 ppb		15:09:25
3	Pb 220.353†	4806.6	5064.3	531.15 µg/L	531.15 ppb		15:09:25
3	S 181.975 Axial†	1089.5	1043.0	1069.0 µg/L	1069.0 ppb		15:09:25
3	Sb 206.836†	2267.1	2186.2	536.21 µg/L	536.21 ppb		15:09:25
3	Se 196.026†	1232.8	1309.3	526.35 µg/L	526.35 ppb		15:09:25
3	SiO2†	37621.1	37895.3	5611.1 µg/L	5611.1 ppb		15:09:05
3	Si 251.611†	52219.5	54174.5	2621.9 µg/L	2621.9 ppb		15:09:05
3	Sn 189.927†	5002.2	5161.2	541.10 µg/L	541.10 ppb		15:09:25
3	Ti 334.940†	135965.1	142404.4	537.88 µg/L	537.88 ppb		15:09:05
3	Tl 190.801†	2701.9	2903.1	534.14 µg/L	534.14 ppb		15:09:25
3	U 367.007†	2672.1	1715.1	521.7 µg/L	521.7 ppb		15:09:05
3	V 292.402†	44023.2	46043.8	532.98 µg/L	532.98 ppb		15:09:05
3	Zn 213.857†	77565.3	79804.9	518.69 µg/L	518.69 ppb		15:09:05

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	380569.7	96.991	%	0.8560				0.88%
Sc RADIAL	23342.7	98.2	%	0.48				0.49%
Y 371.029	368527.7	95.999	%	0.8324				0.87%
Ag 328.068†	59477.2	534.44	µg/L	2.994	534.44	ppb	2.994	0.56%
QC value within limits for Ag 328.068 Recovery = 106.89%								
Al 396.153Radial†	19104.3	5539.2	µg/L	37.86	5539.2	ppb	37.86	0.68%
QC value greater than the upper limit for Al 396.153Radial Recovery = 110.78%								
As 188.979†	1397.7	521.71	µg/L	5.959	521.71	ppb	5.959	1.14%
QC value within limits for As 188.979 Recovery = 104.34%								
B 249.677†	18030.7	539.15	µg/L	2.530	539.15	ppb	2.530	0.47%
QC value within limits for B 249.677 Recovery = 107.83%								
Ba 233.527†	71534.4	525.70	µg/L	3.241	525.70	ppb	3.241	0.62%
QC value within limits for Ba 233.527 Recovery = 105.14%								
Be 313.107†	726558.3	523.77	µg/L	2.899	523.77	ppb	2.899	0.55%
QC value within limits for Be 313.107 Recovery = 104.75%								
Ca 317.933Radial†	29766.1	5402.3	µg/L	29.33	5402.3	ppb	29.33	0.54%
QC value within limits for Ca 317.933Radial Recovery = 108.05%								
Cd 226.502†	59794.0	520.70	µg/L	2.567	520.70	ppb	2.567	0.49%
QC value within limits for Cd 226.502 Recovery = 104.14%								

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Co 228.616†            26182.7      521.19 µg/L         4.821      521.19 ppb          4.821   0.93%
   QC value within limits for Co 228.616  Recovery = 104.24%
Cr 267.716†            29919.0      516.55 µg/L         4.265      516.55 ppb          4.265   0.83%
   QC value within limits for Cr 267.716  Recovery = 103.31%
Cu 324.752†            80139.4      527.31 µg/L         2.576      527.31 ppb          2.576   0.49%
   QC value within limits for Cu 324.752  Recovery = 105.46%
Fe 238.204 Radial†     32885.8      5369.1 µg/L         16.61      5369.1 ppb          16.61   0.31%
   QC value within limits for Fe 238.204 Radial  Recovery = 107.38%
K 766.490 Radial†       6630.1      5322.5 µg/L         49.51      5322.5 ppb          49.51   0.93%
   QC value within limits for K 766.490 Radial  Recovery = 106.45%
Mg 279.077 IEC†         4030.9      5474.9 µg/L         35.67      5474.9 ppb          35.67   0.65%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.50%
Mn 257.610†           381688.5      527.00 µg/L         3.311      527.00 ppb          3.311   0.63%
   QC value within limits for Mn 257.610  Recovery = 105.40%
Mo 202.031†            10914.8      535.45 µg/L         4.217      535.45 ppb          4.217   0.79%
   QC value within limits for Mo 202.031  Recovery = 107.09%
Na 589.592 Radial†      7553.9       10797 µg/L         37.51       10797 ppb          37.51   0.35%
   QC value within limits for Na 589.592 Radial  Recovery = 107.97%
Ni 231.604†            22436.2      518.98 µg/L         4.110      518.98 ppb          4.110   0.79%
   QC value within limits for Ni 231.604  Recovery = 103.80%
P 214.914†              4679.6      2598.5 µg/L         22.69      2598.5 ppb          22.69   0.87%
   QC value within limits for P 214.914  Recovery = 103.94%
Pb 220.353†             5015.8      526.09 µg/L         4.501      526.09 ppb          4.501   0.86%
   QC value within limits for Pb 220.353  Recovery = 105.22%
S 181.975 Axial†        1032.5      1058.1 µg/L         10.26      1058.1 ppb          10.26   0.97%
   QC value within limits for S 181.975 Axial  Recovery = 105.81%
Sb 206.836†             2156.8      529.00 µg/L         6.432      529.00 ppb          6.432   1.22%
   QC value within limits for Sb 206.836  Recovery = 105.80%
Se 196.026†             1293.4      519.99 µg/L         6.562      519.99 ppb          6.562   1.26%
   QC value within limits for Se 196.026  Recovery = 104.00%
SiO2†                  37663.0      5576.7 µg/L         30.29      5576.7 ppb          30.29   0.54%
   QC value within limits for SiO2  Recovery = 104.29%
Si 251.611†            53884.8      2607.9 µg/L         12.71      2607.9 ppb          12.71   0.49%
   QC value within limits for Si 251.611  Recovery = 104.32%
Sn 189.927†             5099.8      534.67 µg/L         5.616      534.67 ppb          5.616   1.05%
   QC value within limits for Sn 189.927  Recovery = 106.93%
Sr 421.552†            99951.4      529.05 µg/L         2.329      529.05 ppb          2.329   0.44%
   QC value within limits for Sr 421.552  Recovery = 105.81%
Ti 334.940†           141481.2      534.40 µg/L         3.200      534.40 ppb          3.200   0.60%
   QC value within limits for Ti 334.940  Recovery = 106.88%
Tl 190.801†             2871.8      528.38 µg/L         5.119      528.38 ppb          5.119   0.97%
   QC value within limits for Tl 190.801  Recovery = 105.68%
U 367.007†              1671.9       507.9 µg/L         17.92       507.9 ppb          17.92   3.53%
   QC value within limits for U 367.007  Recovery = 101.58%
V 292.402†             45728.6      529.32 µg/L         3.386      529.32 ppb          3.386   0.64%
   QC value within limits for V 292.402  Recovery = 105.86%
Zn 213.857†            79260.0      515.14 µg/L         3.117      515.14 ppb          3.117   0.61%
   QC value within limits for Zn 213.857  Recovery = 103.03%
QC Failed.  Continue with analysis.
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Sequence No.: 24 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 7/24/2018 15:09:34**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	23021.3	23021.3	96.8	%			15:10:26
1	Al 396.153Radial†	-125.0	-4.6	-1.3457	µg/L	-1.3457	ppb	15:10:26
1	Ca 317.933Radial†	296.2	-43.5	-7.9016	µg/L	-7.9016	ppb	15:10:26
1	Fe 238.204 Radial†	36.6	-5.9	-0.9605	µg/L	-0.9605	ppb	15:10:26
1	K 766.490 Radial†	348.2	-29.9	-24.033	µg/L	-24.033	ppb	15:10:06
1	Mg 279.077 IEC†	72.2	8.9	12.056	µg/L	12.056	ppb	15:10:26
1	Na 589.592 Radial†	115.3	9.1	12.986	µg/L	12.986	ppb	15:10:26
1	Sr 421.552†	360.2	70.1	0.3711	µg/L	0.3711	ppb	15:10:06
1	Sc 361.383	377898.3	377898.3	96.310	%			15:11:23
1	Y 371.029	369670.4	369670.4	96.296	%			15:11:23
1	Ag 328.068†	-857.9	-169.0	-1.5252	µg/L	-1.5252	ppb	15:11:23
1	As 188.979†	-13.8	7.1	2.6119	µg/L	2.6119	ppb	15:11:43
1	B 249.677†	217.9	32.3	0.9277	µg/L	0.9277	ppb	15:11:43
1	Ba 233.527†	-11.7	-16.1	-0.1180	µg/L	-0.1180	ppb	15:11:43
1	Be 313.107†	-3910.5	-92.6	-0.0630	µg/L	-0.0630	ppb	15:11:23
1	Cd 226.502†	-353.4	-5.5	-0.0480	µg/L	-0.0480	ppb	15:11:43
1	Co 228.616†	-232.1	-3.1	-0.0612	µg/L	-0.0612	ppb	15:11:43
1	Cr 267.716†	134.5	16.7	0.2758	µg/L	0.2758	ppb	15:11:43
1	Cu 324.752†	2165.8	45.9	0.3107	µg/L	0.3107	ppb	15:11:23
1	Mn 257.610†	511.1	-5.3	-0.0073	µg/L	-0.0073	ppb	15:11:43
1	Mo 202.031†	25.4	7.5	0.3689	µg/L	0.3689	ppb	15:11:43
1	Ni 231.604†	-194.5	-4.0	-0.0933	µg/L	-0.0933	ppb	15:11:43
1	P 214.914†	175.3	17.1	9.5554	µg/L	9.5554	ppb	15:11:43
1	Pb 220.353†	-77.5	-22.8	-2.4002	µg/L	-2.4002	ppb	15:11:43
1	S 181.975 Axial†	85.0	-3.5	-3.5746	µg/L	-3.5746	ppb	15:11:43
1	Sb 206.836†	162.7	-6.3	-1.5515	µg/L	-1.5515	ppb	15:11:43
1	Se 196.026†	-37.6	-13.8	-5.5281	µg/L	-5.5281	ppb	15:11:43
1	SiO2†	1130.6	-117.6	-17.511	µg/L	-17.511	ppb	15:11:43
1	Si 251.611†	72.4	-143.1	-6.9567	µg/L	-6.9567	ppb	15:11:43
1	Sn 189.927†	50.2	2.9	0.3017	µg/L	0.3017	ppb	15:11:43
1	Ti 334.940†	-753.2	-1.4	-0.0128	µg/L	-0.0128	ppb	15:11:23
1	Tl 190.801†	-90.7	-5.4	-0.9861	µg/L	-0.9861	ppb	15:11:43
1	U 367.007†	1074.5	47.5	15.11	µg/L	15.11	ppb	15:11:23
1	V 292.402†	-248.4	-69.5	-0.7823	µg/L	-0.7823	ppb	15:11:23
1	Zn 213.857†	914.9	-38.7	-0.2533	µg/L	-0.2533	ppb	15:11:43
2	Sc RADIAL	23071.2	23071.2	97.0	%			15:10:51
2	Al 396.153Radial†	-155.2	-35.4	-10.332	µg/L	-10.332	ppb	15:10:51
2	Ca 317.933Radial†	318.2	-21.5	-3.9067	µg/L	-3.9067	ppb	15:10:51
2	Fe 238.204 Radial†	47.4	5.1	0.8391	µg/L	0.8391	ppb	15:10:51
2	K 766.490 Radial†	463.3	88.0	70.660	µg/L	70.660	ppb	15:10:31
2	Mg 279.077 IEC†	63.2	-0.6	-0.7536	µg/L	-0.7536	ppb	15:10:51
2	Na 589.592 Radial†	110.9	4.3	6.1437	µg/L	6.1437	ppb	15:10:51
2	Sr 421.552†	279.2	-14.2	-0.0752	µg/L	-0.0752	ppb	15:10:31
2	Sc 361.383	378283.8	378283.8	96.408	%			15:11:48
2	Y 371.029	370142.3	370142.3	96.419	%			15:11:48
2	Ag 328.068†	-721.3	-26.4	-0.2554	µg/L	-0.2554	ppb	15:11:48
2	As 188.979†	-23.8	-3.3	-1.2221	µg/L	-1.2221	ppb	15:12:08
2	B 249.677†	235.2	49.9	1.4447	µg/L	1.4447	ppb	15:12:08
2	Ba 233.527†	-20.3	-25.0	-0.1838	µg/L	-0.1838	ppb	15:12:08
2	Be 313.107†	-3866.7	-43.1	-0.0227	µg/L	-0.0227	ppb	15:11:48
2	Cd 226.502†	-358.4	-10.3	-0.0897	µg/L	-0.0897	ppb	15:12:08
2	Co 228.616†	-242.8	-14.0	-0.2781	µg/L	-0.2781	ppb	15:12:08
2	Cr 267.716†	162.7	45.8	0.7646	µg/L	0.7646	ppb	15:12:08
2	Cu 324.752†	2136.2	12.8	0.1047	µg/L	0.1047	ppb	15:11:48
2	Mn 257.610†	484.6	-33.2	-0.0458	µg/L	-0.0458	ppb	15:12:08
2	Mo 202.031†	29.9	12.2	0.5968	µg/L	0.5968	ppb	15:12:08
2	Ni 231.604†	-211.2	-21.1	-0.4886	µg/L	-0.4886	ppb	15:12:08
2	P 214.914†	164.7	5.9	3.2632	µg/L	3.2632	ppb	15:12:08

2	Pb 220.353†	-66.0	-10.8	-1.1569	µg/L	-1.1569	ppb	15:12:08
2	S 181.975 Axial†	91.7	3.4	3.4482	µg/L	3.4482	ppb	15:12:08
2	Sb 206.836†	166.3	-2.8	-0.6970	µg/L	-0.6970	ppb	15:12:08
2	Se 196.026†	-25.1	-0.8	-0.3189	µg/L	-0.3189	ppb	15:12:08
2	SiO2†	1118.5	-131.2	-19.552	µg/L	-19.552	ppb	15:12:08
2	Si 251.611†	-2.6	-220.9	-10.738	µg/L	-10.738	ppb	15:12:08
2	Sn 189.927†	58.1	11.1	1.1549	µg/L	1.1549	ppb	15:12:08
2	Ti 334.940†	-743.6	9.3	0.0193	µg/L	0.0193	ppb	15:11:48
2	Tl 190.801†	-89.2	-3.7	-0.6731	µg/L	-0.6731	ppb	15:12:08
2	U 367.007†	1131.1	105.1	33.41	µg/L	33.41	ppb	15:11:48
2	V 292.402†	-151.5	31.3	0.3836	µg/L	0.3836	ppb	15:11:48
2	Zn 213.857†	927.1	-27.0	-0.1741	µg/L	-0.1741	ppb	15:12:08
3	Sc RADIAL	23032.4	23032.4	96.9	%			15:11:16
3	Al 396.153Radial†	-109.0	12.1	3.5301	µg/L	3.5301	ppb	15:11:16
3	Ca 317.933Radial†	316.1	-23.2	-4.2092	µg/L	-4.2092	ppb	15:11:16
3	Fe 238.204 Radial†	50.6	8.5	1.3955	µg/L	1.3955	ppb	15:11:16
3	K 766.490 Radial†	469.1	94.7	76.074	µg/L	76.074	ppb	15:10:56
3	Mg 279.077 IEC†	61.8	-1.9	-2.5585	µg/L	-2.5585	ppb	15:11:16
3	Na 589.592 Radial†	113.1	6.8	9.6684	µg/L	9.6684	ppb	15:11:16
3	Sr 421.552†	283.7	-9.1	-0.0481	µg/L	-0.0481	ppb	15:10:56
3	Sc 361.383	375641.2	375641.2	95.735	%			15:12:13
3	Y 371.029	366891.2	366891.2	95.572	%			15:12:13
3	Ag 328.068†	-727.6	-38.3	-0.3480	µg/L	-0.3480	ppb	15:12:13
3	As 188.979†	-21.5	-1.1	-0.3993	µg/L	-0.3993	ppb	15:12:33
3	B 249.677†	201.7	16.6	0.4860	µg/L	0.4860	ppb	15:12:33
3	Ba 233.527†	-8.8	-13.1	-0.0963	µg/L	-0.0963	ppb	15:12:33
3	Be 313.107†	-3799.6	-1.2	0.0017	µg/L	0.0017	ppb	15:12:13
3	Cd 226.502†	-349.5	-3.6	-0.0320	µg/L	-0.0320	ppb	15:12:33
3	Co 228.616†	-238.7	-11.5	-0.2288	µg/L	-0.2288	ppb	15:12:33
3	Cr 267.716†	132.1	15.1	0.2523	µg/L	0.2523	ppb	15:12:33
3	Cu 324.752†	2079.3	-31.0	-0.1976	µg/L	-0.1976	ppb	15:12:13
3	Mn 257.610†	487.0	-27.2	-0.0374	µg/L	-0.0374	ppb	15:12:33
3	Mo 202.031†	16.4	-1.7	-0.0843	µg/L	-0.0843	ppb	15:12:33
3	Ni 231.604†	-208.2	-19.5	-0.4520	µg/L	-0.4520	ppb	15:12:33
3	P 214.914†	169.6	12.2	6.8030	µg/L	6.8030	ppb	15:12:33
3	Pb 220.353†	-60.0	-5.0	-0.5355	µg/L	-0.5355	ppb	15:12:33
3	S 181.975 Axial†	91.6	3.9	4.0341	µg/L	4.0341	ppb	15:12:33
3	Sb 206.836†	170.4	2.7	0.6709	µg/L	0.6709	ppb	15:12:33
3	Se 196.026†	-36.0	-12.4	-4.9726	µg/L	-4.9726	ppb	15:12:33
3	SiO2†	1136.0	-104.9	-15.595	µg/L	-15.595	ppb	15:12:33
3	Si 251.611†	20.0	-197.3	-9.5831	µg/L	-9.5831	ppb	15:12:33
3	Sn 189.927†	42.4	-4.9	-0.5146	µg/L	-0.5146	ppb	15:12:33
3	Ti 334.940†	-747.2	0.1	-0.0044	µg/L	-0.0044	ppb	15:12:13
3	Tl 190.801†	-91.9	-7.2	-1.3162	µg/L	-1.3162	ppb	15:12:33
3	U 367.007†	1052.9	31.7	10.07	µg/L	10.07	ppb	15:12:13
3	V 292.402†	-144.0	38.0	0.4397	µg/L	0.4397	ppb	15:12:13
3	Zn 213.857†	933.7	-13.3	-0.0845	µg/L	-0.0845	ppb	15:12:33

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	377274.4	96.151	%	0.3638				0.38%
Sc RADIAL	23041.7	96.9	%	0.11				0.11%
Y 371.029	368901.3	96.096	%	0.4576				0.48%
Ag 328.068†	-77.9	-0.7095	µg/L	0.70792	-0.7095	ppb	0.70792	99.78%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.3	-2.7159	µg/L	7.03192	-2.7159	ppb	7.03192	258.92%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.9	0.3302	µg/L	2.01839	0.3302	ppb	2.01839	611.29%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	32.9	0.9528	µg/L	0.47987	0.9528	ppb	0.47987	50.36%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-18.1	-0.1327	µg/L	0.04554	-0.1327	ppb	0.04554	34.32%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-45.6	-0.0280	µg/L	0.03269	-0.0280	ppb	0.03269	116.68%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-29.4	-5.3392	µg/L	2.22426	-5.3392	ppb	2.22426	41.66%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-6.5	-0.0566	µg/L	0.02978	-0.0566	ppb	0.02978	52.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								

```
Co 228.616†                -9.5     -0.1894 µg/L       0.11370     -0.1894 ppb        0.11370  60.04%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                25.8      0.4309 µg/L       0.28920      0.4309 ppb        0.28920  67.12%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 9.2      0.0726 µg/L       0.25564      0.0726 ppb        0.25564 352.15%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.6      0.4247 µg/L       1.23146      0.4247 ppb        1.23146 289.95%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          50.9      40.900 µg/L       56.2991      40.900 ppb        56.2991 137.65%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             2.1      2.9145 µg/L       7.96769      2.9145 ppb        7.96769 273.38%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -21.9     -0.0302 µg/L       0.02023     -0.0302 ppb        0.02023  67.02%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 6.0      0.2938 µg/L       0.34670      0.2938 ppb        0.34670 118.01%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          6.7      9.5995 µg/L       3.42191      9.5995 ppb        3.42191  35.65%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -14.9     -0.3446 µg/L       0.21844     -0.3446 ppb        0.21844  63.38%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 11.7      6.5405 µg/L       3.15433      6.5405 ppb        3.15433  48.23%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -12.9     -1.3642 µg/L       0.94946     -1.3642 ppb        0.94946  69.60%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.3      1.3026 µg/L       4.23391      1.3026 ppb        4.23391 325.05%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -2.1     -0.5259 µg/L       1.12104     -0.5259 ppb        1.12104 213.17%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -9.0     -3.6066 µg/L       2.86072     -3.6066 ppb        2.86072  79.32%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -117.9     -17.553 µg/L        1.9789     -17.553 ppb         1.9789  11.27%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -187.1     -9.0927 µg/L       1.93793     -9.0927 ppb        1.93793  21.31%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.0      0.3140 µg/L       0.83483      0.3140 ppb        0.83483 265.85%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                15.6      0.0826 µg/L       0.25023      0.0826 ppb        0.25023 302.94%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 2.7      0.0007 µg/L       0.01665      0.0007 ppb        0.01665 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -5.5     -0.9918 µg/L       0.32162     -0.9918 ppb        0.32162  32.43%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†                 61.4       19.53 µg/L        12.281       19.53 ppb         12.281  62.88%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†                 -0.1      0.0136 µg/L       0.68988      0.0136 ppb        0.68988 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -26.3     -0.1706 µg/L       0.08445     -0.1706 ppb        0.08445  49.50%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #14 Daily Performance

Sample ID: Sample
Sample Date/Time: Monday, July 23, 2018 09:28:08
Sample Description:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Daily 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\Sample.1426
Mass Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default1.tun
Dual Detector Mode: Pulse
Acquisition Date/Time&Time Zone: Monday, July 23, 2018 09:28:08 Eastern Daylight Time
Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	37049.4	37049.434	306.286	0.8
	Mg	24.0	207709.1	207709.100	1218.327	0.6
	Co	58.9	69250.3	69250.346	443.851	0.6
	Rh	102.9	66709.8	66709.807	678.550	1.0
	In	114.9	299196.9	299196.917	1708.087	0.6
	Pb	208.0	153507.4	153507.407	1427.455	0.9
>	Ba	137.9	198380.4	198380.408	633.728	0.3
	Ba++	69.0	2854.5	0.014	0.000	1.7
>	Ce	139.9	232699.6	232699.620	1500.345	0.6
	CeO	155.9	3568.8	0.015	0.000	1.6
	Bkgd	220.0	0.2	0.150	0.137	91.3

Current Conditions

C Val	Description
1.01	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-11.00	Deflector Voltage
1600.00	ICP RF Power
-1675.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-14.00	Cell Rod Offset STD [CRO]
10.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
1.03	DRC Mode NEB
-8.50	DRC Mode QRO
-3.00	DRC Mode CRO
-13.00	DRC Mode Cell Entrance/Exit Voltage
0.10	Cell Gas A
375.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-7.00	KED Mode Cell Entrance Voltage
-23.00	KED Mode Cell Exit Voltage
3.00	KED Cell Gas A
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9.012	41	-12.5	3936.5
Mg	23.985	41	-14.5	68797.3
In	114.904	41	-12.0	33022.1
Ce	139.905	41	-10.0	32045.9
Pb	207.977	41	-7.5	23964.1
U	238.050	41	-7.0	46120.3

ICPMS #14 Instrument Tuning Report

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res DAC	Meas. Pk. Width
Be	9.0	9.0	1618	2068	0.707
Mg	24.0	24.0	4616	2068	0.734
Mg	25.0	25.0	4798	2068	0.714
Mg	26.0	26.0	5016	2068	0.695
Co	58.9	59.0	11587	2068	0.741
Rh	102.9	102.9	20372	2069	0.771
In	114.9	114.9	22764	2069	0.773
Ce	139.9	139.9	27767	2080	0.670
Pb	206.0	206.0	40973	2080	0.686
Pb	207.0	207.0	41180	2078	0.740
Pb	208.0	208.0	41370	2075	0.751
U	238.1	238.0	47391	2090	0.627

ICPMS #14 - Summary Report

Sample ID: Cal Blank
Sample Date/Time: Monday, July 23, 2018 19:11:00
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\Cal Blank.221

Concentration Results

Summary

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7		ug/L		23.333	
Be	9		ug/L		2.667	
B	11		ug/L		754.687	
Na	23		ug/L		6238.029	
Mg	24		ug/L		240.669	
Al	27		ug/L		128.667	
P	31		ug/L		61.333	
K	39		ug/L		60402.793	
Ca	44		ug/L		247.336	
>Sc	45		ug/L		753652.742	
Ti	47		ug/L		4.000	
V	51		ug/L		4085.251	
Cr	52		ug/L		148.001	
Cr	53		ug/L		1573.420	
Mn	55		ug/L		39.333	
Fe	57		ug/L		59.333	
Co	59		ug/L		16.667	
Ni	60		ug/L		10.000	
Cu	63		ug/L		44.000	
Cu	65		ug/L		30.000	
Zn	66		ug/L		241.335	
Zn	67		ug/L		48.667	
Zn	68		ug/L		148.001	
>Ge	74		ug/L		254831.027	
As	75		ug/L		280.892	
Se	77		ug/L		112.000	
Se	78		ug/L		97.131	
Se	82		ug/L		12.000	
Kr	83		ug/L		6.667	
Sr	88		ug/L		52.667	
Zr	90		ug/L		115.334	
Mo	98		ug/L		42.895	
Ag	107		ug/L		16.667	
Cd	111		ug/L		8.000	
Cd	114		ug/L		13.760	
>In	115		ug/L		208410.498	
Sn	120		ug/L		159.941	
Sb	121		ug/L		140.667	
Sb	123		ug/L		98.746	
Ba	135		ug/L		10.000	
Ba	137		ug/L		18.667	
>Lu	175		ug/L		373639.514	
Tl	205		ug/L		44.667	
Pb	208		ug/L		372.002	
Th	232		ug/L		1332.729	
U	238		ug/L		92.000	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	44					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	78					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #14 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Monday, July 23, 2018 19:14:16
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\Standard 1.222

Concentration Results

Summary

Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**10.000**	**ug/L**	2.894	5847.197	0.008
Be	9	**10.000**	**ug/L**	2.208	1693.100	0.002
B	11	**20.000**	**ug/L**	4.327	1724.104	0.001
Na	23	**1000.000**	**ug/L**	1.539	784177.206	1.022
Mg	24	**1000.000**	**ug/L**	0.653	367057.315	0.482
Al	27	**1000.000**	**ug/L**	0.806	162069.767	0.213
P	31	**1000.000**	**ug/L**	1.365	11231.747	0.015
K	39	**1000.000**	**ug/L**	3.200	423160.645	0.476
Ca	44	**1000.000**	**ug/L**	1.496	16230.548	0.021
>Sc	45		**ug/L**		761119.208	761119.208
Ti	47	**10.000**	**ug/L**	1.360	784.355	0.001
V	51	**10.000**	**ug/L**	0.592	22331.442	0.024
Cr	52	**10.000**	**ug/L**	1.472	20915.967	0.027
Cr	53		**ug/L**		4019.899	0.003
Mn	55	**10.000**	**ug/L**	2.691	13532.407	0.018
Fe	57	**1000.000**	**ug/L**	2.678	43898.017	0.058
Co	59	**10.000**	**ug/L**	1.045	31544.790	0.041
Ni	60	**10.000**	**ug/L**	1.824	8538.551	0.011
Cu	63		**ug/L**		23050.584	0.030
Cu	65	**10.000**	**ug/L**	0.384	11630.734	0.015
Zn	66	**10.000**	**ug/L**	3.788	4341.994	0.016
Zn	67		**ug/L**		745.353	0.003
Zn	68		**ug/L**		3221.698	0.012
>Ge	74		**ug/L**		257586.902	257586.902
As	75	**10.000**	**ug/L**	0.625	2478.882	0.009
Se	77		**ug/L**		187.335	0.000
Se	78	**10.000**	**ug/L**	1.065	376.432	0.001
Se	82		**ug/L**		136.667	0.000
Kr	83		**ug/L**		7.867	0.000
Sr	88	**10.000**	**ug/L**	2.172	20351.824	0.095
Zr	90	**10.000**	**ug/L**	1.997	25128.085	0.117
Mo	98	**10.000**	**ug/L**	2.073	16158.553	0.076
Ag	107	**10.000**	**ug/L**	0.595	33711.730	0.158
Cd	111	**10.000**	**ug/L**	1.045	5280.309	0.025
Cd	114		**ug/L**		12783.958	0.060
>In	115		**ug/L**		213131.439	213131.439
Sn	120	**10.000**	**ug/L**	1.108	18088.753	0.084
Sb	121	**10.000**	**ug/L**	1.032	13589.794	0.063
Sb	123		**ug/L**		10532.966	0.049
Ba	135		**ug/L**		3189.690	0.008
Ba	137	**10.000**	**ug/L**	2.587	5611.769	0.015
>Lu	175		**ug/L**		380946.418	380946.418
Tl	205	**10.000**	**ug/L**	1.255	65540.007	0.172
Pb	208	**10.000**	**ug/L**	0.650	94509.753	0.247
Th	232	**10.000**	**ug/L**	1.738	78466.940	0.202
U	238	**10.000**	**ug/L**	0.267	74242.754	0.195

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	44					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	78					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #14 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Monday, July 23, 2018 19:17:32
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\Standard 2.223

Concentration Results

Summary

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**100.026**	**ug/L**	2.441	60653.828	0.079
Be	9	**99.990**	**ug/L**	3.848	16964.069	0.022
B	11	**200.127**	**ug/L**	3.097	11186.379	0.013
Na	23	**10002.222**	**ug/L**	2.953	8070617.433	10.454
Mg	24	**10003.462**	**ug/L**	3.110	3852405.350	4.994
Al	27	**9997.722**	**ug/L**	3.494	1604210.841	2.080
P	31	**9998.309**	**ug/L**	3.035	111372.476	0.144
K	39	**10006.604**	**ug/L**	1.887	3996121.542	5.100
Ca	44	**9996.424**	**ug/L**	3.282	156627.880	0.203
>Sc	45		**ug/L**		771690.995	771690.995
Ti	47	**99.987**	**ug/L**	3.302	7808.468	0.010
V	51	**99.984**	**ug/L**	3.421	185685.952	0.235
Cr	52	**99.968**	**ug/L**	3.460	203980.264	0.264
Cr	53		**ug/L**		26227.389	0.032
Mn	55	**99.982**	**ug/L**	2.583	134344.179	0.174
Fe	57	**9999.245**	**ug/L**	3.191	441093.198	0.572
Co	59	**99.985**	**ug/L**	1.504	315008.125	0.408
Ni	60	**99.972**	**ug/L**	1.490	84115.595	0.109
Cu	63		**ug/L**		224888.506	0.291
Cu	65	**99.950**	**ug/L**	2.503	111959.022	0.145
Zn	66	**99.814**	**ug/L**	3.876	34496.951	0.134
Zn	67		**ug/L**		5575.755	0.022
Zn	68		**ug/L**		25690.423	0.100
>Ge	74		**ug/L**		255999.008	255999.008
As	75	**99.992**	**ug/L**	3.167	21923.034	0.085
Se	77		**ug/L**		941.364	0.003
Se	78	**99.971**	**ug/L**	2.635	2782.710	0.010
Se	82		**ug/L**		1346.064	0.005
Kr	83		**ug/L**		7.467	0.000
Sr	88	**100.017**	**ug/L**	1.848	201947.395	0.969
Zr	90	**100.037**	**ug/L**	2.674	253987.368	1.219
Mo	98	**100.035**	**ug/L**	2.457	163342.233	0.784
Ag	107	**100.018**	**ug/L**	1.735	335239.955	1.609
Cd	111	**100.021**	**ug/L**	3.059	52624.757	0.253
Cd	114		**ug/L**		129723.696	0.623
>In	115		**ug/L**		208334.848	208334.848
Sn	120	**100.031**	**ug/L**	4.513	180980.931	0.868
Sb	121	**100.013**	**ug/L**	2.326	133250.573	0.639
Sb	123		**ug/L**		105028.048	0.504
Ba	135		**ug/L**		32339.245	0.084
Ba	137	**100.013**	**ug/L**	2.123	57174.864	0.149
>Lu	175		**ug/L**		384193.864	384193.864
Tl	205	**100.005**	**ug/L**	1.158	663593.233	1.727
Pb	208	**99.986**	**ug/L**	1.313	935992.234	2.435
Th	232	**100.033**	**ug/L**	2.254	805403.268	2.093
U	238	**100.019**	**ug/L**	2.456	762448.665	1.985

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	44					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	78					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #14 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Monday, July 23, 2018 19:20:49
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\QC Std 1.224

Concentration Results

Summary

Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**50.432**	**ug/L**	1.003	30382.275	0.040
Be	9	**50.961**	**ug/L**	1.366	8589.916	0.011
B	11	**102.520**	**ug/L**	1.310	6065.955	0.007
Na	23	**4971.427**	**ug/L**	0.418	3987420.808	5.196
Mg	24	**4720.995**	**ug/L**	1.939	1805769.579	2.357
Al	27	**5094.409**	**ug/L**	1.796	811920.171	1.060
P	31	**5049.933**	**ug/L**	1.620	55900.505	0.073
K	39	**4647.111**	**ug/L**	0.698	1875894.350	2.368
Ca	44	**4933.988**	**ug/L**	0.909	76887.689	0.100
>Sc	45		**ug/L**		766171.544	766171.544
Ti	47	**48.872**	**ug/L**	1.265	3792.837	0.005
V	51	**50.509**	**ug/L**	1.778	95211.569	0.119
Cr	52	**51.958**	**ug/L**	1.242	105375.259	0.137
Cr	53		**ug/L**		14163.685	0.016
Mn	55	**51.099**	**ug/L**	1.495	68216.558	0.089
Fe	57	**4892.420**	**ug/L**	0.651	214386.092	0.280
Co	59	**49.840**	**ug/L**	0.807	155932.482	0.204
Ni	60	**51.080**	**ug/L**	1.299	42679.660	0.056
Cu	63		**ug/L**		113412.484	0.148
Cu	65	**50.867**	**ug/L**	0.654	56603.926	0.074
Zn	66	**52.584**	**ug/L**	0.797	18038.715	0.071
Zn	67		**ug/L**		2890.293	0.011
Zn	68		**ug/L**		13314.870	0.052
>Ge	74		**ug/L**		252417.861	252417.861
As	75	**51.593**	**ug/L**	0.397	11291.127	0.044
Se	77		**ug/L**		506.009	0.002
Se	78	**51.245**	**ug/L**	2.823	1453.576	0.005
Se	82		**ug/L**		703.351	0.003
Kr	83		**ug/L**		7.600	0.000
Sr	88	**49.957**	**ug/L**	0.146	101422.087	0.484
Zr	90	**49.469**	**ug/L**	1.221	126325.460	0.603
Mo	98	**49.940**	**ug/L**	0.231	81996.285	0.391
Ag	107	**49.566**	**ug/L**	1.596	167010.085	0.798
Cd	111	**50.441**	**ug/L**	1.699	26686.241	0.127
Cd	114		**ug/L**		65405.772	0.312
>In	115		**ug/L**		209370.505	209370.505
Sn	120	**50.338**	**ug/L**	1.472	91661.746	0.437
Sb	121	**48.207**	**ug/L**	0.871	64639.246	0.308
Sb	123		**ug/L**		50060.577	0.239
Ba	135		**ug/L**		16083.049	0.042
Ba	137	**50.542**	**ug/L**	1.887	28551.172	0.075
>Lu	175		**ug/L**		379509.178	379509.178
Tl	205	**49.310**	**ug/L**	1.016	323231.854	0.852
Pb	208	**51.574**	**ug/L**	1.641	477073.073	1.256
Th	232	**52.103**	**ug/L**	1.253	415033.904	1.090
U	238	**49.632**	**ug/L**	1.347	373790.762	0.985

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7	100.864				
	Be	9	101.922				
	B	11	102.520				
	Na	23	99.429				
	Mg	24	94.420				
	Al	27	100.879				
	P	31	100.999				
	K	39	92.942				
	Ca	44	98.680				
>	Sc	45		101.66			
	Ti	47	97.744				
	V	51	101.018				
	Cr	52	103.916				
	Cr	53					
	Mn	55	102.199				
	Fe	57	97.848				
	Co	59	99.679				
	Ni	60	102.160				
	Cu	63					
	Cu	65	101.734				
	Zn	66	105.169				
	Zn	67					
	Zn	68					
>	Ge	74		99.05			
	As	75	103.185				
	Se	77					
	Se	78	102.491				
	Se	82					
	Kr	83					
	Sr	88	99.914				
	Zr	90	98.938				
	Mo	98	99.881				
	Ag	107	99.132				
	Cd	111	100.882				
	Cd	114					
>	In	115		100.46			
	Sn	120	100.675				
	Sb	121	96.413				
	Sb	123					
	Ba	135					
	Ba	137	101.085				
>	Lu	175		101.57			
	Tl	205	98.621				
	Pb	208	103.148				
	Th	232	104.206				
	U	238	99.265				

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #14 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Monday, July 23, 2018 19:24:06
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\QC Std 2.225

Concentration Results

Summary

Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**0.010**	**ug/L**	121.703	29.333	0.000
Be	9	**-0.006**	**ug/L**	153.490	1.667	-0.000
B	11	**-1.089**	**ug/L**	56.812	700.017	-0.000
Na	23	**-0.947**	**ug/L**	16.260	5499.058	-0.001
Mg	24	**-0.092**	**ug/L**	43.411	206.668	-0.000
Al	27	**0.013**	**ug/L**	907.364	130.667	0.000
P	31	**0.058**	**ug/L**	964.586	62.000	0.000
K	39	**-3.569**	**ug/L**	187.895	59090.690	-0.002
Ca	44	**-1.235**	**ug/L**	110.298	228.669	-0.000
>Sc	45		**ug/L**		754737.134	754737.134
Ti	47	**0.013**	**ug/L**	104.914	5.000	0.000
V	51	**0.074**	**ug/L**	63.908	4222.624	0.000
Cr	52	**0.017**	**ug/L**	40.409	181.334	0.000
Cr	53		**ug/L**		1546.084	-0.000
Mn	55	**-0.001**	**ug/L**	340.574	38.000	-0.000
Fe	57	**0.169**	**ug/L**	211.726	66.667	0.000
Co	59	**0.002**	**ug/L**	212.814	21.333	0.000
Ni	60	**0.006**	**ug/L**	80.762	15.333	0.000
Cu	63		**ug/L**		56.667	0.000
Cu	65	**-0.001**	**ug/L**	1762.598	29.333	-0.000
Zn	66	**-0.053**	**ug/L**	221.120	220.668	-0.000
Zn	67		**ug/L**		38.000	-0.000
Zn	68		**ug/L**		153.334	0.000
>Ge	74		**ug/L**		251943.968	251943.968
As	75	**-0.005**	**ug/L**	918.334	276.447	-0.000
Se	77		**ug/L**		123.334	0.000
Se	78	**0.044**	**ug/L**	744.994	97.106	0.000
Se	82		**ug/L**		7.333	-0.000
Kr	83		**ug/L**		7.467	0.000
Sr	88	**-0.001**	**ug/L**	574.486	50.000	-0.000
Zr	90	**0.008**	**ug/L**	77.770	134.001	0.000
Mo	98	**0.056**	**ug/L**	28.545	132.083	0.000
Ag	107	**0.001**	**ug/L**	108.619	19.333	0.000
Cd	111	**-0.002**	**ug/L**	332.002	6.667	-0.000
Cd	114		**ug/L**		9.912	-0.000
>In	115		**ug/L**		205301.358	205301.358
Sn	120	**0.028**	**ug/L**	31.444	206.634	0.000
Sb	121	**0.146**	**ug/L**	4.741	330.004	0.001
Sb	123		**ug/L**		288.334	0.001
Ba	135		**ug/L**		11.333	0.000
Ba	137	**-0.023**	**ug/L**	15.668	6.000	-0.000
>Lu	175		**ug/L**		373663.169	373663.169
Tl	205	**0.025**	**ug/L**	6.283	206.001	0.000
Pb	208	**0.002**	**ug/L**	56.284	393.336	0.000
Th	232	**0.049**	**ug/L**	15.126	1712.769	0.001
U	238	**0.005**	**ug/L**	39.598	128.667	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	44					
>	Sc	45		100.14			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.87			
	As	75					
	Se	77					
	Se	78					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.51			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		100.01			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #14 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Monday, July 23, 2018 19:27:23
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\QC Std 3.226

Concentration Results

Summary

Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**9.872**	**ug/L**	2.529	5941.235	0.008
Be	9	**0.538**	**ug/L**	6.632	93.000	0.000
B	11	**12.632**	**ug/L**	8.673	1414.070	0.001
Na	23	**238.991**	**ug/L**	1.361	196909.918	0.250
Mg	24	**28.122**	**ug/L**	2.288	10954.199	0.014
Al	27	**49.930**	**ug/L**	0.933	8055.605	0.010
P	31	**51.372**	**ug/L**	11.981	627.347	0.001
K	39	**276.020**	**ug/L**	2.314	168479.799	0.141
Ca	44	**214.175**	**ug/L**	0.666	3563.778	0.004
>Sc	45		**ug/L**		763037.376	763037.376
Ti	47	**10.105**	**ug/L**	3.564	784.022	0.001
V	51	**10.067**	**ug/L**	1.893	22211.255	0.024
Cr	52	**10.089**	**ug/L**	1.781	20497.363	0.027
Cr	53		**ug/L**		4023.233	0.003
Mn	55	**5.119**	**ug/L**	1.532	6839.637	0.009
Fe	57	**100.021**	**ug/L**	3.371	4423.352	0.006
Co	59	**1.039**	**ug/L**	1.825	3253.037	0.004
Ni	60	**2.119**	**ug/L**	3.757	1773.444	0.002
Cu	63		**ug/L**		2379.532	0.003
Cu	65	**1.016**	**ug/L**	4.838	1156.047	0.001
Zn	66	**11.034**	**ug/L**	1.480	4010.563	0.015
Zn	67		**ug/L**		588.012	0.002
Zn	68		**ug/L**		2911.630	0.011
>Ge	74		**ug/L**		254734.403	254734.403
As	75	**5.250**	**ug/L**	4.175	1411.625	0.004
Se	77		**ug/L**		156.001	0.000
Se	78	**4.855**	**ug/L**	4.439	226.874	0.001
Se	82		**ug/L**		80.667	0.000
Kr	83		**ug/L**		6.400	-0.000
Sr	88	**10.033**	**ug/L**	2.704	20274.378	0.097
Zr	90	**9.698**	**ug/L**	2.203	24691.321	0.118
Mo	98	**0.516**	**ug/L**	6.195	884.621	0.004
Ag	107	**1.006**	**ug/L**	2.875	3383.734	0.016
Cd	111	**1.078**	**ug/L**	10.375	574.012	0.003
Cd	114		**ug/L**		1296.106	0.006
>In	115		**ug/L**		208020.174	208020.174
Sn	120	**5.067**	**ug/L**	2.337	9307.672	0.044
Sb	121	**2.853**	**ug/L**	1.423	3931.874	0.018
Sb	123		**ug/L**		3097.418	0.014
Ba	135		**ug/L**		690.683	0.002
Ba	137	**2.103**	**ug/L**	2.162	1203.384	0.003
>Lu	175		**ug/L**		378596.512	378596.512
Tl	205	**1.993**	**ug/L**	1.953	13075.316	0.034
Pb	208	**2.088**	**ug/L**	1.064	19629.440	0.051
Th	232	**2.073**	**ug/L**	1.169	17773.717	0.043
U	238	**0.201**	**ug/L**	0.568	1602.757	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7	98.719				
	Be	9	107.592				
	B	11	84.212				
	Na	23	95.597				
	Mg	24	93.739				
	Al	27	99.859				
	P	31	102.743				
	K	39	92.007				
	Ca	44	107.088				
>	Sc	45		101.25			
	Ti	47	101.051				
	V	51	100.666				
	Cr	52	100.888				
	Cr	53					
	Mn	55	102.371				
	Fe	57	100.021				
	Co	59	103.858				
	Ni	60	105.974				
	Cu	63					
	Cu	65	101.641				
	Zn	66	110.338				
	Zn	67					
	Zn	68					
>	Ge	74		99.96			
	As	75	104.992				
	Se	77					
	Se	78	97.097				
	Se	82					
	Kr	83					
	Sr	88	100.335				
	Zr	90	96.976				
	Mo	98	103.212				
	Ag	107	100.617				
	Cd	111	107.841				
	Cd	114					
>	In	115		99.81			
	Sn	120	101.335				
	Sb	121	95.085				
	Sb	123					
	Ba	135					
	Ba	137	105.146				
>	Lu	175		101.33			
	Tl	205	99.632				
	Pb	208	104.387				
	Th	232	103.668				
	U	238	100.476				

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #14 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Monday, July 23, 2018 19:30:40
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\QC Std 4.227

Concentration Results

Summary

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**0.160**	**ug/L**	30.544	110.000	0.000
Be	9	**-0.012**	**ug/L**	31.482	0.667	-0.000
B	11	**-2.160**	**ug/L**	84.571	602.680	-0.000
Na	23	**96803.223**	**ug/L**	1.354	71238784.143	101.180
Mg	24	**95507.198**	**ug/L**	2.198	33567324.109	47.679
Al	27	**102203.209**	**ug/L**	1.880	14966937.364	21.259
P	31	**94412.100**	**ug/L**	2.143	959342.308	1.363
K	39	**96776.559**	**ug/L**	0.379	34780649.974	49.319
Ca	44	**96061.427**	**ug/L**	1.670	1371337.985	1.948
>Sc	45		**ug/L**		704065.328	704065.328
Ti	47	**1941.615**	**ug/L**	1.196	138313.711	0.196
V	51	**0.052**	**ug/L**	102.003	3902.533	0.000
Cr	52	**0.961**	**ug/L**	3.522	1926.130	0.003
Cr	53		**ug/L**		1758.108	0.000
Mn	55	**3.757**	**ug/L**	1.287	4642.754	0.007
Fe	57	**103404.151**	**ug/L**	0.766	4162761.546	5.913
Co	59	**0.343**	**ug/L**	3.234	1002.702	0.001
Ni	60	**0.241**	**ug/L**	4.962	194.668	0.000
Cu	63		**ug/L**		464.674	0.001
Cu	65	**0.217**	**ug/L**	10.283	250.002	0.000
Zn	66	**2.411**	**ug/L**	4.592	930.030	0.003
Zn	67		**ug/L**		129.334	0.000
Zn	68		**ug/L**		615.347	0.002
>Ge	74		**ug/L**		222563.452	222563.452
As	75	**0.185**	**ug/L**	18.063	280.225	0.000
Se	77		**ug/L**		106.000	0.000
Se	78	**0.147**	**ug/L**	173.561	88.302	0.000
Se	82		**ug/L**		8.667	-0.000
Kr	83		**ug/L**		7.600	0.000
Sr	88	**1.675**	**ug/L**	0.638	3051.659	0.016
Zr	90	**0.624**	**ug/L**	8.621	1508.080	0.008
Mo	98	**2321.794**	**ug/L**	2.898	3366622.827	18.198
Ag	107	**0.155**	**ug/L**	5.513	477.341	0.002
Cd	111	**0.637**	**ug/L**	7.273	304.670	0.002
Cd	114		**ug/L**		563.907	0.003
>In	115		**ug/L**		185082.554	185082.554
Sn	120	**0.087**	**ug/L**	8.479	281.952	0.001
Sb	121	**0.111**	**ug/L**	19.434	256.669	0.001
Sb	123		**ug/L**		208.831	0.001
Ba	135		**ug/L**		223.335	0.001
Ba	137	**0.678**	**ug/L**	11.135	385.339	0.001
>Lu	175		**ug/L**		364715.121	364715.121
Tl	205	**0.014**	**ug/L**	11.008	132.667	0.000
Pb	208	**0.235**	**ug/L**	6.706	2448.087	0.006
Th	232	**0.286**	**ug/L**	12.086	3478.424	0.006
U	238	**0.022**	**ug/L**	19.261	245.669	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	96.803				
	Mg	24	95.507				
	Al	27	102.203				
	P	31	94.412				
	K	39	96.777				
	Ca	44	96.061				
>	Sc	45		93.42			
	Ti	47	97.081				
	V	51					
	Cr	52					
	Cr	53					
	Mn	55	34.181				
	Fe	57	103.404				
	Co	59	96.176				
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		87.34			
	As	75					
	Se	77					
	Se	78					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98	116.090				
	Ag	107					
	Cd	111	85.041				
	Cd	114					
>	In	115		88.81			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137	89.176				
>	Lu	175		97.61			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #14 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Monday, July 23, 2018 19:33:56
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\QC Std 5.228

Concentration Results

Summary

Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**19.616**	**ug/L**	0.894	10453.824	0.015
Be	9	**18.431**	**ug/L**	2.159	2746.598	0.004
B	11	**16.257**	**ug/L**	5.975	1420.071	0.001
Na	23	**98159.385**	**ug/L**	1.667	69450692.042	102.597
Mg	24	**94500.352**	**ug/L**	1.562	31935870.034	47.176
Al	27	**101129.946**	**ug/L**	1.820	14240173.503	21.036
P	31	**93443.315**	**ug/L**	1.098	912972.986	1.349
K	39	**96322.185**	**ug/L**	0.411	33280626.095	49.087
Ca	44	**95153.553**	**ug/L**	0.517	1306002.476	1.929
>Sc	45		**ug/L**		676888.922	676888.922
Ti	47	**1931.654**	**ug/L**	0.531	132301.548	0.195
V	51	**19.996**	**ug/L**	1.779	35519.439	0.047
Cr	52	**20.403**	**ug/L**	1.080	36638.262	0.054
Cr	53		**ug/L**		5864.537	0.007
Mn	55	**23.170**	**ug/L**	1.068	27342.811	0.040
Fe	57	**104145.842**	**ug/L**	1.987	4030561.477	5.955
Co	59	**19.314**	**ug/L**	1.178	53396.282	0.079
Ni	60	**18.505**	**ug/L**	4.047	13665.873	0.020
Cu	63		**ug/L**		36872.190	0.054
Cu	65	**18.562**	**ug/L**	1.956	18263.668	0.027
Zn	66	**29.935**	**ug/L**	1.104	8733.336	0.040
Zn	67		**ug/L**		1372.066	0.006
Zn	68		**ug/L**		6540.163	0.030
>Ge	74		**ug/L**		212538.128	212538.128
As	75	**20.435**	**ug/L**	1.868	3906.756	0.017
Se	77		**ug/L**		226.668	0.001
Se	78	**19.448**	**ug/L**	5.119	514.865	0.002
Se	82		**ug/L**		231.335	0.001
Kr	83		**ug/L**		6.933	0.000
Sr	88	**21.996**	**ug/L**	0.762	38122.801	0.213
Zr	90	**21.071**	**ug/L**	0.964	45965.175	0.257
Mo	98	**2329.607**	**ug/L**	0.964	3261456.893	18.259
Ag	107	**18.660**	**ug/L**	2.171	53641.869	0.300
Cd	111	**19.440**	**ug/L**	2.501	8779.365	0.049
Cd	114		**ug/L**		21777.182	0.122
>In	115		**ug/L**		178628.720	178628.720
Sn	120	**20.450**	**ug/L**	2.314	31850.093	0.178
Sb	121	**19.814**	**ug/L**	1.927	22735.412	0.127
Sb	123		**ug/L**		17550.940	0.098
Ba	135		**ug/L**		5805.846	0.016
Ba	137	**19.340**	**ug/L**	1.622	10408.458	0.029
>Lu	175		**ug/L**		361115.304	361115.304
Tl	205	**18.478**	**ug/L**	0.382	115290.701	0.319
Pb	208	**19.030**	**ug/L**	0.425	167745.009	0.464
Th	232	**19.927**	**ug/L**	0.097	151844.741	0.417
U	238	**19.380**	**ug/L**	0.463	138948.846	0.385

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7	98.082				
	Be	9	92.155				
	B	11	81.286				
	Na	23	98.159				
	Mg	24	94.500				
	Al	27	101.130				
	P	31	93.443				
	K	39	96.322				
	Ca	44	95.154				
>	Sc	45		89.81			
	Ti	47	96.583				
	V	51	99.980				
	Cr	52	102.013				
	Cr	53					
	Mn	55	74.761				
	Fe	57	104.146				
	Co	59	94.879				
	Ni	60	92.525				
	Cu	63					
	Cu	65	92.808				
	Zn	66	149.674				
	Zn	67					
	Zn	68					
>	Ge	74		83.40			
	As	75	102.174				
	Se	77					
	Se	78	97.242				
	Se	82					
	Kr	83					
	Sr	88	109.980				
	Zr	90	105.357				
	Mo	98	116.480				
	Ag	107	93.298				
	Cd	111	93.689				
	Cd	114					
>	In	115		85.71			
	Sn	120	102.252				
	Sb	121	99.070				
	Sb	123					
	Ba	135					
	Ba	137	93.160				
>	Lu	175		96.65			
	Tl	205	92.392				
	Pb	208	95.152				
	Th	232	99.634				
	U	238	96.900				

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Mn	55	ICSAB is out of limits
QC Std 5	Zn	66	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS #14 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, July 23, 2018 19:37:13
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\QC Std 6.229

Concentration Results

Summary

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**50.596**	**ug/L**	2.576	27793.015	0.040
Be	9	**52.049**	**ug/L**	3.588	7997.905	0.011
B	11	**98.083**	**ug/L**	3.492	5322.325	0.007
Na	23	**5068.491**	**ug/L**	1.795	3706605.430	5.298
Mg	24	**4684.850**	**ug/L**	1.407	1634144.163	2.339
Al	27	**5034.341**	**ug/L**	2.531	731619.973	1.047
P	31	**4996.087**	**ug/L**	1.585	50430.859	0.072
K	39	**4662.033**	**ug/L**	2.508	1715672.543	2.376
Ca	44	**4928.814**	**ug/L**	1.269	70041.289	0.100
>Sc	45		**ug/L**		698708.729	698708.729
Ti	47	**49.067**	**ug/L**	3.488	3471.422	0.005
V	51	**50.784**	**ug/L**	2.732	87268.429	0.120
Cr	52	**52.303**	**ug/L**	2.471	96714.300	0.138
Cr	53		**ug/L**		12919.841	0.016
Mn	55	**51.348**	**ug/L**	3.024	62486.382	0.089
Fe	57	**5014.752**	**ug/L**	2.546	200351.925	0.287
Co	59	**51.679**	**ug/L**	1.073	147436.937	0.211
Ni	60	**51.582**	**ug/L**	0.612	39306.003	0.056
Cu	63		**ug/L**		105983.025	0.152
Cu	65	**51.579**	**ug/L**	3.164	52330.368	0.075
Zn	66	**53.160**	**ug/L**	3.492	16819.899	0.071
Zn	67		**ug/L**		2691.587	0.011
Zn	68		**ug/L**		12257.923	0.052
>Ge	74		**ug/L**		232940.474	232940.474
As	75	**52.064**	**ug/L**	2.441	10508.975	0.044
Se	77		**ug/L**		488.008	0.002
Se	78	**49.938**	**ug/L**	2.630	1309.154	0.005
Se	82		**ug/L**		614.680	0.003
Kr	83		**ug/L**		7.867	0.000
Sr	88	**49.169**	**ug/L**	1.851	93009.829	0.477
Zr	90	**48.755**	**ug/L**	0.259	116018.572	0.594
Mo	98	**50.353**	**ug/L**	1.576	77029.128	0.395
Ag	107	**49.526**	**ug/L**	1.287	155486.952	0.797
Cd	111	**50.506**	**ug/L**	0.843	24899.684	0.128
Cd	114		**ug/L**		61250.126	0.314
>In	115		**ug/L**		195101.900	195101.900
Sn	120	**50.241**	**ug/L**	2.178	85235.496	0.436
Sb	121	**49.290**	**ug/L**	1.340	61579.101	0.315
Sb	123		**ug/L**		47674.339	0.244
Ba	135		**ug/L**		15087.964	0.041
Ba	137	**49.093**	**ug/L**	3.359	26640.823	0.073
>Lu	175		**ug/L**		364680.332	364680.332
Tl	205	**49.429**	**ug/L**	2.482	311251.598	0.854
Pb	208	**51.961**	**ug/L**	2.301	461759.234	1.266
Th	232	**52.326**	**ug/L**	2.797	400377.103	1.095
U	238	**49.898**	**ug/L**	2.033	361035.770	0.990

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7	101.193				
	Be	9	104.098				
	B	11	98.083				
	Na	23	101.370				
	Mg	24	93.697				
	Al	27	99.690				
	P	31	99.922				
	K	39	93.241				
	Ca	44	98.576				
>	Sc	45		92.71			
	Ti	47	98.133				
	V	51	101.567				
	Cr	52	104.606				
	Cr	53					
	Mn	55	102.695				
	Fe	57	100.295				
	Co	59	103.357				
	Ni	60	103.165				
	Cu	63					
	Cu	65	103.159				
	Zn	66	106.319				
	Zn	67					
	Zn	68					
>	Ge	74		91.41			
	As	75	104.128				
	Se	77					
	Se	78	99.875				
	Se	82					
	Kr	83					
	Sr	88	98.338				
	Zr	90	97.511				
	Mo	98	100.706				
	Ag	107	99.051				
	Cd	111	101.013				
	Cd	114					
>	In	115		93.61			
	Sn	120	100.483				
	Sb	121	98.580				
	Sb	123					
	Ba	135					
	Ba	137	98.187				
>	Lu	175		97.60			
	Tl	205	98.857				
	Pb	208	103.922				
	Th	232	104.652				
	U	238	99.797				

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #14 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, July 23, 2018 19:40:28
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\QC Std 7.230

Concentration Results

Summary

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**0.017**	**ug/L**	63.165	30.667	0.000
Be	9	**-0.012**	**ug/L**	64.727	0.667	-0.000
B	11	**-2.837**	**ug/L**	25.833	556.678	-0.000
Na	23	**0.834**	**ug/L**	25.384	6289.385	0.001
Mg	24	**0.781**	**ug/L**	10.411	487.342	0.000
Al	27	**1.110**	**ug/L**	9.594	276.003	0.000
P	31	**1.479**	**ug/L**	74.458	70.667	0.000
K	39	**0.943**	**ug/L**	346.013	55426.006	0.000
Ca	44	**-0.778**	**ug/L**	246.701	214.668	-0.000
>Sc	45		**ug/L**		687460.260	687460.260
Ti	47	**0.063**	**ug/L**	23.625	8.000	0.000
V	51	**-0.053**	**ug/L**	58.475	3639.797	-0.000
Cr	52	**0.002**	**ug/L**	351.994	138.001	0.000
Cr	53		**ug/L**		1326.062	-0.000
Mn	55	**-0.000**	**ug/L**	579.129	35.333	-0.000
Fe	57	**1.777**	**ug/L**	33.994	124.001	0.000
Co	59	**0.003**	**ug/L**	124.596	22.667	0.000
Ni	60	**0.003**	**ug/L**	208.791	11.333	0.000
Cu	63		**ug/L**		58.000	0.000
Cu	65	**-0.003**	**ug/L**	449.567	24.667	-0.000
Zn	66	**-0.082**	**ug/L**	58.109	194.001	-0.000
Zn	67		**ug/L**		34.000	-0.000
Zn	68		**ug/L**		144.667	0.000
>Ge	74		**ug/L**		231693.813	231693.813
As	75	**-0.117**	**ug/L**	69.559	232.446	-0.000
Se	77		**ug/L**		98.000	-0.000
Se	78	**0.111**	**ug/L**	120.570	90.993	0.000
Se	82		**ug/L**		4.667	-0.000
Kr	83		**ug/L**		6.800	0.000
Sr	88	**-0.001**	**ug/L**	544.524	46.667	-0.000
Zr	90	**-0.003**	**ug/L**	337.600	100.000	-0.000
Mo	98	**0.203**	**ug/L**	8.323	346.680	0.002
Ag	107	**-0.001**	**ug/L**	374.336	13.333	-0.000
Cd	111	**0.009**	**ug/L**	86.188	12.000	0.000
Cd	114		**ug/L**		12.979	0.000
>In	115		**ug/L**		193410.147	193410.147
Sn	120	**0.027**	**ug/L**	28.145	193.284	0.000
Sb	121	**0.147**	**ug/L**	18.653	312.670	0.001
Sb	123		**ug/L**		226.832	0.001
Ba	135		**ug/L**		15.333	0.000
Ba	137	**0.001**	**ug/L**	2999.966	18.000	0.000
>Lu	175		**ug/L**		354309.254	354309.254
Tl	205	**0.026**	**ug/L**	7.991	202.668	0.000
Pb	208	**0.000**	**ug/L**	1201.318	356.002	0.000
Th	232	**0.020**	**ug/L**	37.507	1414.070	0.000
U	238	**0.004**	**ug/L**	96.308	112.667	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	44					
>	Sc	45		91.22			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.92			
	As	75					
	Se	77					
	Se	78					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.80			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		94.83			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #14 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Monday, July 23, 2018 19:43:46
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\QC Std 10.231

Concentration Results

Summary

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**979.791**	**ug/L**	2.377	542350.725	0.770
Be	9	**968.026**	**ug/L**	1.303	149993.666	0.213
B	11	**-5.502**	**ug/L**	2.210	444.007	-0.000
Na	23	**49761.505**	**ug/L**	1.081	36648797.992	52.011
Mg	24	**47780.133**	**ug/L**	1.353	16804491.424	23.853
Al	27	**51106.558**	**ug/L**	3.155	7488781.018	10.631
P	31	**23869.545**	**ug/L**	1.694	242757.332	0.345
K	39	**48098.194**	**ug/L**	2.001	17324579.160	24.512
Ca	44	**49599.667**	**ug/L**	1.896	708653.277	1.006
>Sc	45		**ug/L**		704558.809	704558.809
Ti	47	**8.141**	**ug/L**	4.441	584.012	0.001
V	51	**995.299**	**ug/L**	1.816	1653924.408	2.342
Cr	52	**992.119**	**ug/L**	1.895	1847649.366	2.623
Cr	53		**ug/L**		221270.000	0.312
Mn	55	**975.265**	**ug/L**	1.561	1196357.230	1.698
Fe	57	**47778.659**	**ug/L**	0.957	1924770.494	2.732
Co	59	**1079.406**	**ug/L**	1.612	3105009.999	4.407
Ni	60	**963.370**	**ug/L**	1.738	740043.307	1.050
Cu	63		**ug/L**		1955734.499	2.776
Cu	65	**958.686**	**ug/L**	2.571	980436.830	1.392
Zn	66	**2444.351**	**ug/L**	2.323	745519.555	3.278
Zn	67		**ug/L**		113808.203	0.500
Zn	68		**ug/L**		532532.908	2.341
>Ge	74		**ug/L**		227413.374	227413.374
As	75	**1003.948**	**ug/L**	1.722	193296.078	0.849
Se	77		**ug/L**		3597.120	0.015
Se	78	**489.106**	**ug/L**	1.502	11758.299	0.051
Se	82		**ug/L**		5701.138	0.025
Kr	83		**ug/L**		8.933	0.000
Sr	88	**1000.948**	**ug/L**	2.838	1832355.603	9.701
Zr	90	**515.700**	**ug/L**	2.741	1187079.902	6.284
Mo	98	**1034.002**	**ug/L**	1.811	1531003.083	8.104
Ag	107	**238.285**	**ug/L**	1.977	724325.975	3.834
Cd	111	**961.432**	**ug/L**	2.227	458798.046	2.429
Cd	114		**ug/L**		1136647.912	6.017
>In	115		**ug/L**		188934.810	188934.810
Sn	120	**1013.543**	**ug/L**	2.463	1662275.355	8.799
Sb	121	**231.044**	**ug/L**	2.555	279019.459	1.476
Sb	123		**ug/L**		217681.241	1.152
Ba	135		**ug/L**		293316.618	0.798
Ba	137	**954.750**	**ug/L**	2.147	522124.657	1.420
>Lu	175		**ug/L**		367640.842	367640.842
Tl	205	**547.318**	**ug/L**	0.577	3475234.960	9.453
Pb	208	**5561.888**	**ug/L**	2.063	49799532.020	135.474
Th	232	**2976.076**	**ug/L**	3.296	22888087.614	62.267
U	238	**5740.460**	**ug/L**	2.152	41868066.301	113.898

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7	97.979				
	Be	9	96.803				
	B	11					
	Na	23	99.523				
	Mg	24	95.560				
	Al	27	102.213				
	P	31	95.478				
	K	39	96.196				
	Ca	44	99.199				
>	Sc	45		93.49			
	Ti	47					
	V	51	99.530				
	Cr	52	99.212				
	Cr	53					
	Mn	55	97.526				
	Fe	57	95.557				
	Co	59	107.941				
	Ni	60	96.337				
	Cu	63					
	Cu	65	95.869				
	Zn	66	97.774				
	Zn	67					
	Zn	68					
>	Ge	74		89.24			
	As	75	100.395				
	Se	77					
	Se	78	97.821				
	Se	82					
	Kr	83					
	Sr	88	100.095				
	Zr	90	103.140				
	Mo	98	103.400				
	Ag	107	95.314				
	Cd	111	96.143				
	Cd	114					
>	In	115		90.66			
	Sn	120	101.354				
	Sb	121	92.417				
	Sb	123					
	Ba	135					
	Ba	137	95.475				
>	Lu	175		98.39			
	Tl	205	109.464				
	Pb	208	111.238				
	Th	232	119.043				
	U	238	114.809				

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Pb	208	LRS is out of limits (+/- 10%)
QC Std 10	Th	232	LRS is out of limits (+/- 10%)
QC Std 10	U	238	LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS #14 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Monday, July 23, 2018 19:47:02
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\QC Std 11.232

Concentration Results

Summary

Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**51.235**	**ug/L**	3.980	29088.262	0.040
Be	9	**51.175**	**ug/L**	3.340	8129.646	0.011
B	11	**96.134**	**ug/L**	2.909	5406.356	0.006
Na	23	**5103.097**	**ug/L**	1.805	3858099.909	5.334
Mg	24	**4766.895**	**ug/L**	2.407	1718743.830	2.380
Al	27	**5088.869**	**ug/L**	1.260	764739.015	1.059
P	31	**5036.300**	**ug/L**	2.335	52553.170	0.073
K	39	**4669.645**	**ug/L**	1.996	1776519.755	2.380
Ca	44	**5012.074**	**ug/L**	3.073	73613.206	0.102
>Sc	45		**ug/L**		722383.702	722383.702
Ti	47	**48.659**	**ug/L**	3.243	3559.110	0.005
V	51	**50.345**	**ug/L**	2.879	89466.618	0.118
Cr	52	**52.149**	**ug/L**	2.550	99690.681	0.138
Cr	53		**ug/L**		13403.619	0.016
Mn	55	**50.691**	**ug/L**	3.164	63768.692	0.088
Fe	57	**4998.070**	**ug/L**	4.104	206385.242	0.286
Co	59	**51.210**	**ug/L**	0.617	151051.865	0.209
Ni	60	**51.592**	**ug/L**	1.787	40637.721	0.056
Cu	63		**ug/L**		108817.571	0.151
Cu	65	**51.321**	**ug/L**	2.120	53829.226	0.074
Zn	66	**52.985**	**ug/L**	0.346	17375.227	0.071
Zn	67		**ug/L**		2811.610	0.011
Zn	68		**ug/L**		12835.097	0.053
>Ge	74		**ug/L**		241312.399	241312.399
As	75	**51.751**	**ug/L**	1.133	10826.768	0.044
Se	77		**ug/L**		498.009	0.002
Se	78	**51.746**	**ug/L**	3.202	1402.294	0.005
Se	82		**ug/L**		636.681	0.003
Kr	83		**ug/L**		5.733	-0.000
Sr	88	**49.925**	**ug/L**	1.622	96798.957	0.484
Zr	90	**49.839**	**ug/L**	2.813	121511.988	0.607
Mo	98	**51.311**	**ug/L**	1.650	80443.657	0.402
Ag	107	**49.386**	**ug/L**	0.504	158916.490	0.795
Cd	111	**50.720**	**ug/L**	1.682	25624.298	0.128
Cd	114		**ug/L**		62136.239	0.311
>In	115		**ug/L**		199966.988	199966.988
Sn	120	**51.350**	**ug/L**	1.578	89281.429	0.446
Sb	121	**50.732**	**ug/L**	1.335	64953.338	0.324
Sb	123		**ug/L**		50502.115	0.252
Ba	135		**ug/L**		15519.094	0.042
Ba	137	**49.284**	**ug/L**	2.726	27016.217	0.073
>Lu	175		**ug/L**		368162.254	368162.254
Tl	205	**49.868**	**ug/L**	2.096	317063.610	0.861
Pb	208	**51.857**	**ug/L**	2.972	465251.522	1.263
Th	232	**53.238**	**ug/L**	2.827	411292.033	1.114
U	238	**49.849**	**ug/L**	1.944	364142.789	0.989

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7	102.469				
	Be	9	102.351				
	B	11	96.134				
	Na	23	102.062				
	Mg	24	95.338				
	Al	27	100.770				
	P	31	100.726				
	K	39	93.393				
	Ca	44	100.241				
>	Sc	45		95.85			
	Ti	47	97.319				
	V	51	100.690				
	Cr	52	104.298				
	Cr	53					
	Mn	55	101.381				
	Fe	57	99.961				
	Co	59	102.420				
	Ni	60	103.184				
	Cu	63					
	Cu	65	102.641				
	Zn	66	105.971				
	Zn	67					
	Zn	68					
>	Ge	74		94.70			
	As	75	103.502				
	Se	77					
	Se	78	103.492				
	Se	82					
	Kr	83					
	Sr	88	99.849				
	Zr	90	99.678				
	Mo	98	102.622				
	Ag	107	98.771				
	Cd	111	101.440				
	Cd	114					
>	In	115		95.95			
	Sn	120	102.699				
	Sb	121	101.464				
	Sb	123					
	Ba	135					
	Ba	137	98.568				
>	Lu	175		98.53			
	Tl	205	99.736				
	Pb	208	103.715				
	Th	232	106.477				
	U	238	99.698				

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #14 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Monday, July 23, 2018 19:50:17
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\QC Std 12.233

Concentration Results

Summary

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**0.071**	**ug/L**	35.271	62.667	0.000
Be	9	**0.015**	**ug/L**	187.780	5.000	0.000
B	11	**-5.086**	**ug/L**	19.850	476.008	-0.000
Na	23	**-0.385**	**ug/L**	283.642	5691.149	-0.000
Mg	24	**0.825**	**ug/L**	122.276	528.013	0.000
Al	27	**0.928**	**ug/L**	107.062	262.670	0.000
P	31	**0.048**	**ug/L**	611.874	59.333	0.000
K	39	**-4.471**	**ug/L**	30.386	56294.710	-0.002
Ca	44	**0.144**	**ug/L**	1386.697	239.335	0.000
>Sc	45		**ug/L**		722938.048	722938.048
Ti	47	**0.043**	**ug/L**	109.311	7.000	0.000
V	51	**-0.131**	**ug/L**	17.043	3695.145	-0.000
Cr	52	**0.033**	**ug/L**	95.081	205.335	0.000
Cr	53		**ug/L**		1380.733	-0.000
Mn	55	**0.014**	**ug/L**	123.349	55.333	0.000
Fe	57	**1.287**	**ug/L**	128.418	110.001	0.000
Co	59	**0.019**	**ug/L**	92.386	73.334	0.000
Ni	60	**0.029**	**ug/L**	110.450	32.667	0.000
Cu	63		**ug/L**		128.001	0.000
Cu	65	**0.041**	**ug/L**	56.802	72.000	0.000
Zn	66	**-0.024**	**ug/L**	213.457	221.335	-0.000
Zn	67		**ug/L**		36.667	-0.000
Zn	68		**ug/L**		151.334	0.000
>Ge	74		**ug/L**		242097.564	242097.564
As	75	**-0.112**	**ug/L**	71.120	243.780	-0.000
Se	77		**ug/L**		90.000	-0.000
Se	78	**-0.062**	**ug/L**	118.981	90.706	-0.000
Se	82		**ug/L**		6.000	-0.000
Kr	83		**ug/L**		7.467	0.000
Sr	88	**0.010**	**ug/L**	94.507	70.000	0.000
Zr	90	**0.016**	**ug/L**	82.320	150.001	0.000
Mo	98	**0.180**	**ug/L**	8.563	324.086	0.001
Ag	107	**0.008**	**ug/L**	122.318	43.333	0.000
Cd	111	**0.019**	**ug/L**	139.802	17.333	0.000
Cd	114		**ug/L**		37.558	0.000
>In	115		**ug/L**		200801.786	200801.786
Sn	120	**0.135**	**ug/L**	14.218	389.963	0.001
Sb	121	**0.725**	**ug/L**	6.535	1066.040	0.005
Sb	123		**ug/L**		815.604	0.004
Ba	135		**ug/L**		12.000	0.000
Ba	137	**0.007**	**ug/L**	402.490	22.000	0.000
>Lu	175		**ug/L**		361898.256	361898.256
Tl	205	**0.040**	**ug/L**	42.160	292.003	0.001
Pb	208	**0.089**	**ug/L**	86.423	1145.356	0.002
Th	232	**0.113**	**ug/L**	36.294	2145.497	0.002
U	238	**0.088**	**ug/L**	87.767	719.025	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	44					
>	Sc	45		95.92			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.00			
	As	75					
	Se	77					
	Se	78					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.35			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		96.86			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #14 - Summary Report

Sample ID: 1204073112
Sample Date/Time: Monday, July 23, 2018 19:53:34
Sample Type: Sample
Sample Description: QC A 6020 MB
Number of Replicates: 3
Batch ID: 1783991|2|skj
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\1204073112.234

Concentration Results

Summary

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**0.043**	**ug/L**	47.655	50.667	0.000
Be	9	**0.009**	**ug/L**	95.630	4.333	0.000
B	11	**-5.359**	**ug/L**	1.485	500.675	-0.000
Na	23	**0.620**	**ug/L**	31.797	6982.373	0.001
Mg	24	**1.111**	**ug/L**	4.439	684.016	0.001
Al	27	**1.845**	**ug/L**	5.548	434.007	0.000
P	31	**9.301**	**ug/L**	22.958	168.668	0.000
K	39	**-10.133**	**ug/L**	24.318	58668.919	-0.005
Ca	44	**19.367**	**ug/L**	8.267	564.011	0.000
>Sc	45		**ug/L**		782431.825	782431.825
Ti	47	**0.137**	**ug/L**	32.878	15.000	0.000
V	51	**-0.369**	**ug/L**	7.518	3561.111	-0.001
Cr	52	**0.243**	**ug/L**	6.512	656.682	0.001
Cr	53		**ug/L**		1366.732	-0.000
Mn	55	**0.112**	**ug/L**	15.104	194.001	0.000
Fe	57	**4.392**	**ug/L**	7.344	258.002	0.000
Co	59	**0.008**	**ug/L**	44.871	44.000	0.000
Ni	60	**0.146**	**ug/L**	6.348	135.334	0.000
Cu	63		**ug/L**		414.006	0.000
Cu	65	**0.145**	**ug/L**	7.825	195.335	0.000
Zn	66	**5.959**	**ug/L**	6.617	2293.518	0.008
Zn	67		**ug/L**		362.005	0.001
Zn	68		**ug/L**		1647.429	0.006
>Ge	74		**ug/L**		256640.073	256640.073
As	75	**-0.289**	**ug/L**	17.168	220.224	-0.000
Se	77		**ug/L**		74.667	-0.000
Se	78	**-0.119**	**ug/L**	42.463	94.618	-0.000
Se	82		**ug/L**		6.000	-0.000
Kr	83		**ug/L**		6.000	-0.000
Sr	88	**0.016**	**ug/L**	30.988	87.334	0.000
Zr	90	**0.050**	**ug/L**	3.830	251.336	0.001
Mo	98	**0.225**	**ug/L**	2.592	423.723	0.002
Ag	107	**0.001**	**ug/L**	73.784	21.333	0.000
Cd	111	**0.004**	**ug/L**	268.029	10.667	0.000
Cd	114		**ug/L**		-26.693	-0.000
>In	115		**ug/L**		215215.470	215215.470
Sn	120	**7.017**	**ug/L**	2.633	13274.817	0.061
Sb	121	**0.163**	**ug/L**	21.559	369.338	0.001
Sb	123		**ug/L**		264.501	0.001
Ba	135		**ug/L**		15.333	0.000
Ba	137	**0.002**	**ug/L**	1173.960	20.667	0.000
>Lu	175		**ug/L**		390853.395	390853.395
Tl	205	**0.009**	**ug/L**	13.880	106.000	0.000
Pb	208	**0.086**	**ug/L**	4.261	1210.021	0.002
Th	232	**0.082**	**ug/L**	16.028	2066.150	0.002
U	238	**0.024**	**ug/L**	1.463	283.336	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	44					
>	Sc	45		103.82			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.71			
	As	75					
	Se	77					
	Se	78					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.27			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		104.61			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #14 - Summary Report

Sample ID: 1204073113
Sample Date/Time: Monday, July 23, 2018 19:56:49
Sample Type: Sample
Sample Description: QC A 6020 LCS
Number of Replicates: 3
Batch ID: 1783991|2|skj
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\1204073113.235

Concentration Results

Summary

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**24.262**	**ug/L**	0.910	15250.803	0.019
Be	9	**23.174**	**ug/L**	4.132	4072.581	0.005
B	11	**42.699**	**ug/L**	6.297	3099.670	0.003
Na	23	**926.639**	**ug/L**	1.803	780194.562	0.969
Mg	24	**896.372**	**ug/L**	1.576	357661.122	0.447
Al	27	**941.962**	**ug/L**	0.345	156641.501	0.196
P	31	**880.547**	**ug/L**	2.731	10214.318	0.013
K	39	**897.072**	**ug/L**	2.484	429103.414	0.457
Ca	44	**997.810**	**ug/L**	2.379	16417.429	0.020
>Sc	45		**ug/L**		798769.101	798769.101
Ti	47	**23.916**	**ug/L**	2.200	1937.465	0.002
V	51	**23.583**	**ug/L**	1.097	48657.394	0.055
Cr	52	**24.631**	**ug/L**	2.269	52153.030	0.065
Cr	53		**ug/L**		7672.728	0.008
Mn	55	**24.387**	**ug/L**	1.403	33955.640	0.042
Fe	57	**943.775**	**ug/L**	1.731	43161.103	0.054
Co	59	**24.262**	**ug/L**	2.313	79132.576	0.099
Ni	60	**24.919**	**ug/L**	1.569	21714.496	0.027
Cu	63		**ug/L**		57281.956	0.072
Cu	65	**24.601**	**ug/L**	2.347	28551.171	0.036
Zn	66	**26.422**	**ug/L**	2.017	9284.351	0.035
Zn	67		**ug/L**		1456.741	0.006
Zn	68		**ug/L**		6888.327	0.026
>Ge	74		**ug/L**		255170.238	255170.238
As	75	**22.622**	**ug/L**	1.790	5162.711	0.019
Se	77		**ug/L**		271.336	0.001
Se	78	**22.191**	**ug/L**	3.829	691.373	0.002
Se	82		**ug/L**		288.670	0.001
Kr	83		**ug/L**		8.000	0.000
Sr	88	**23.625**	**ug/L**	0.397	49770.549	0.229
Zr	90	**23.365**	**ug/L**	1.111	61944.697	0.285
Mo	98	**24.707**	**ug/L**	0.830	42092.370	0.194
Ag	107	**24.235**	**ug/L**	0.815	84695.002	0.390
Cd	111	**22.735**	**ug/L**	2.003	12478.115	0.057
Cd	114		**ug/L**		30762.604	0.142
>In	115		**ug/L**		217136.236	217136.236
Sn	120	**30.523**	**ug/L**	0.786	57705.599	0.265
Sb	121	**23.502**	**ug/L**	1.271	32756.849	0.150
Sb	123		**ug/L**		25339.959	0.116
Ba	135		**ug/L**		8044.264	0.020
Ba	137	**23.795**	**ug/L**	1.655	14020.878	0.035
>Lu	175		**ug/L**		395531.557	395531.557
Tl	205	**23.750**	**ug/L**	1.040	162286.620	0.410
Pb	208	**24.611**	**ug/L**	1.389	237489.123	0.599
Th	232	**23.504**	**ug/L**	1.475	195908.918	0.492
U	238	**23.647**	**ug/L**	1.149	185669.482	0.469

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	44					
>	Sc	45		105.99			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.13			
	As	75					
	Se	77					
	Se	78					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		104.19			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		105.86			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #14 - Summary Report

Sample ID: 454944002
Sample Date/Time: Monday, July 23, 2018 20:00:04
Sample Type: Sample
Sample Description: URSC 6020
Number of Replicates: 3
Batch ID: 1783991|2|skj
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\454944002.236

Concentration Results

Summary

Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**140.058**	**ug/L**	1.329	81483.062	0.110
Be	9	**3.654**	**ug/L**	3.661	597.679	0.001
B	11	**55.522**	**ug/L**	0.992	3513.765	0.004
Na	23	**704.789**	**ug/L**	1.604	551437.659	0.737
Mg	24	**56079.710**	**ug/L**	1.718	20722836.287	27.996
Al	27	**74328.669**	**ug/L**	0.988	11446014.161	15.461
P	31	**1906.596**	**ug/L**	1.252	20431.270	0.028
K	39	**18669.458**	**ug/L**	0.984	7102224.866	9.514
Ca	44	**125280.150**	**ug/L**	0.855	1880436.358	2.540
>Sc	45		**ug/L**		740283.772	740283.772
Ti	47	**530.387**	**ug/L**	1.332	39727.497	0.054
V	51	**137.259**	**ug/L**	2.470	243100.594	0.323
Cr	52	**109.577**	**ug/L**	1.345	214550.457	0.290
Cr	53		**ug/L**		26283.491	0.033
Mn	55	**2634.679**	**ug/L**	1.969	3395753.064	4.587
Fe	57	**146800.290**	**ug/L**	1.774	6213627.284	8.394
Co	59	**61.952**	**ug/L**	0.925	187268.117	0.253
Ni	60	**150.353**	**ug/L**	0.591	121372.095	0.164
Cu	63		**ug/L**		306210.479	0.414
Cu	65	**141.213**	**ug/L**	2.245	151758.564	0.205
Zn	66	**287.925**	**ug/L**	0.886	87707.096	0.386
Zn	67		**ug/L**		14980.517	0.066
Zn	68		**ug/L**		67315.561	0.297
>Ge	74		**ug/L**		226596.370	226596.370
As	75	**37.685**	**ug/L**	1.964	7470.620	0.032
Se	77		**ug/L**		198.668	0.000
Se	78	**3.760**	**ug/L**	11.783	175.836	0.000
Se	82		**ug/L**		120.667	0.000
Kr	83		**ug/L**		49.200	0.000
Sr	88	**457.382**	**ug/L**	1.890	857436.015	4.433
Zr	90	**19.642**	**ug/L**	0.432	46401.906	0.239
Mo	98	**6.836**	**ug/L**	1.207	10403.349	0.054
Ag	107	**0.228**	**ug/L**	4.372	726.018	0.004
Cd	111	**0.496**	**ug/L**	5.929	250.002	0.001
Cd	114		**ug/L**		602.501	0.003
>In	115		**ug/L**		193422.966	193422.966
Sn	120	**2.149**	**ug/L**	1.181	3757.025	0.019
Sb	121	**0.393**	**ug/L**	4.364	616.680	0.003
Sb	123		**ug/L**		467.332	0.002
Ba	135		**ug/L**		184470.083	0.488
Ba	137	**583.723**	**ug/L**	1.922	327969.457	0.868
>Lu	175		**ug/L**		377667.108	377667.108
Tl	205	**0.739**	**ug/L**	3.668	4867.496	0.013
Pb	208	**67.246**	**ug/L**	1.056	618955.422	1.638
Th	232	**22.885**	**ug/L**	0.849	182172.191	0.479
U	238	**2.898**	**ug/L**	1.062	21805.630	0.057

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	44					
>	Sc	45		98.23			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		88.92			
	As	75					
	Se	77					
	Se	78					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.81			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		101.08			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mg 24 Upper, S, EE	Mg	24	Sample is out of limits (over linear range)
Al 27 Upper, S, EE	Al	27	Sample is out of limits (over linear range)
Ca 44 Upper, S, EE	Ca	44	Sample is out of limits (over linear range)
Ti 47 Upper, S, EE	Ti	47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS #14 - Summary Report

Sample ID: 1204073114
Sample Date/Time: Monday, July 23, 2018 20:03:20
Sample Type: Sample
Sample Description: QC A 6020 DUP
Number of Replicates: 3
Batch ID: 1783991|2|skj
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\1204073114.237

Concentration Results

Summary

Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**132.604**	**ug/L**	1.667	77382.367	0.104
Be	9	**3.483**	**ug/L**	4.656	571.345	0.001
B	11	**47.640**	**ug/L**	4.242	3129.009	0.003
Na	23	**585.607**	**ug/L**	2.310	460587.119	0.612
Mg	24	**58085.587**	**ug/L**	0.847	21530627.883	28.997
Al	27	**68071.179**	**ug/L**	0.742	10513726.777	14.160
P	31	**1883.213**	**ug/L**	0.768	20241.664	0.027
K	39	**16405.817**	**ug/L**	1.726	6267267.554	8.361
Ca	44	**114549.212**	**ug/L**	0.802	1724687.624	2.322
>Sc	45		**ug/L**		742545.463	742545.463
Ti	47	**429.611**	**ug/L**	2.038	32276.089	0.043
V	51	**126.333**	**ug/L**	2.720	224758.801	0.297
Cr	52	**101.279**	**ug/L**	3.024	198898.805	0.268
Cr	53		**ug/L**		24826.889	0.031
Mn	55	**2572.213**	**ug/L**	0.987	3325496.933	4.479
Fe	57	**148607.286**	**ug/L**	0.689	6309794.178	8.497
Co	59	**67.708**	**ug/L**	1.605	205283.172	0.276
Ni	60	**158.694**	**ug/L**	0.663	128493.295	0.173
Cu	63		**ug/L**		301890.533	0.407
Cu	65	**137.426**	**ug/L**	2.451	148136.184	0.199
Zn	66	**319.013**	**ug/L**	1.384	96356.545	0.428
Zn	67		**ug/L**		15972.926	0.071
Zn	68		**ug/L**		73289.539	0.326
>Ge	74		**ug/L**		224757.820	224757.820
As	75	**43.922**	**ug/L**	1.739	8594.585	0.037
Se	77		**ug/L**		176.001	0.000
Se	78	**3.555**	**ug/L**	1.515	169.512	0.000
Se	82		**ug/L**		112.000	0.000
Kr	83		**ug/L**		51.067	0.000
Sr	88	**415.654**	**ug/L**	1.300	772957.096	4.028
Zr	90	**21.314**	**ug/L**	2.353	49935.808	0.260
Mo	98	**6.888**	**ug/L**	3.388	10397.200	0.054
Ag	107	**0.214**	**ug/L**	4.465	677.349	0.003
Cd	111	**0.642**	**ug/L**	3.923	318.670	0.002
Cd	114		**ug/L**		706.135	0.004
>In	115		**ug/L**		191876.740	191876.740
Sn	120	**2.353**	**ug/L**	2.470	4066.443	0.020
Sb	121	**0.287**	**ug/L**	2.993	482.008	0.002
Sb	123		**ug/L**		400.663	0.002
Ba	135		**ug/L**		159556.123	0.416
Ba	137	**503.190**	**ug/L**	1.444	287013.960	0.749
>Lu	175		**ug/L**		383414.642	383414.642
Tl	205	**0.908**	**ug/L**	0.497	6058.618	0.016
Pb	208	**71.673**	**ug/L**	1.443	669684.398	1.746
Th	232	**21.012**	**ug/L**	1.914	169911.272	0.440
U	238	**2.986**	**ug/L**	0.452	22809.862	0.059

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	44					
>	Sc	45		98.53			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		88.20			
	As	75					
	Se	77					
	Se	78					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.07			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		102.62			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mg 24 Upper, S, EE	Mg	24	Sample is out of limits (over linear range)
Al 27 Upper, S, EE	Al	27	Sample is out of limits (over linear range)
Ca 44 Upper, S, EE	Ca	44	Sample is out of limits (over linear range)
Ti 47 Upper, S, EE	Ti	47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS #14 - Summary Report

Sample ID: 1204073115
Sample Date/Time: Monday, July 23, 2018 20:06:36
Sample Type: Sample
Sample Description: QC A 6020 MS
Number of Replicates: 3
Batch ID: 1783991|2|skj
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\1204073115.238

Concentration Results

Summary

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**148.421**	**ug/L**	2.517	88978.952	0.117
Be	9	**22.342**	**ug/L**	3.270	3750.826	0.005
B	11	**97.315**	**ug/L**	3.103	5773.167	0.007
Na	23	**1413.433**	**ug/L**	1.587	1133301.510	1.477
Mg	24	**45073.445**	**ug/L**	1.040	17165888.889	22.501
Al	27	**74078.517**	**ug/L**	1.490	11755397.313	15.409
P	31	**2407.888**	**ug/L**	2.245	26571.357	0.035
K	39	**19895.177**	**ug/L**	0.663	7796068.705	10.139
Ca	44	**85583.889**	**ug/L**	1.957	1323848.458	1.735
>Sc	45		**ug/L**		762927.081	762927.081
Ti	47	**529.983**	**ug/L**	1.556	40917.536	0.054
V	51	**161.678**	**ug/L**	2.105	294424.952	0.380
Cr	52	**124.877**	**ug/L**	0.677	251994.129	0.330
Cr	53		**ug/L**		31495.347	0.039
Mn	55	**2364.330**	**ug/L**	1.232	3140660.360	4.117
Fe	57	**131311.934**	**ug/L**	1.598	5727767.665	7.508
Co	59	**75.336**	**ug/L**	1.022	234689.536	0.308
Ni	60	**152.193**	**ug/L**	1.341	126614.703	0.166
Cu	63		**ug/L**		335231.843	0.439
Cu	65	**149.426**	**ug/L**	1.716	165499.159	0.217
Zn	66	**291.910**	**ug/L**	1.777	91169.382	0.391
Zn	67		**ug/L**		15364.925	0.066
Zn	68		**ug/L**		70827.813	0.304
>Ge	74		**ug/L**		232329.287	232329.287
As	75	**54.289**	**ug/L**	0.696	10922.396	0.046
Se	77		**ug/L**		342.671	0.001
Se	78	**22.179**	**ug/L**	1.794	629.327	0.002
Se	82		**ug/L**		337.337	0.001
Kr	83		**ug/L**		48.800	0.000
Sr	88	**405.976**	**ug/L**	1.353	779394.351	3.935
Zr	90	**37.785**	**ug/L**	0.784	91310.218	0.460
Mo	98	**26.117**	**ug/L**	2.009	40584.689	0.205
Ag	107	**19.866**	**ug/L**	0.324	63336.765	0.320
Cd	111	**20.012**	**ug/L**	0.962	10021.515	0.051
Cd	114		**ug/L**		24639.731	0.124
>In	115		**ug/L**		198083.616	198083.616
Sn	120	**7.219**	**ug/L**	0.834	12565.422	0.063
Sb	121	**5.519**	**ug/L**	1.462	7119.774	0.035
Sb	123		**ug/L**		5554.073	0.028
Ba	135		**ug/L**		211042.808	0.545
Ba	137	**652.702**	**ug/L**	0.868	375826.762	0.971
>Lu	175		**ug/L**		387055.023	387055.023
Tl	205	**20.536**	**ug/L**	0.398	137325.569	0.355
Pb	208	**77.081**	**ug/L**	0.695	727069.470	1.878
Th	232	**41.495**	**ug/L**	0.278	337414.488	0.868
U	238	**22.983**	**ug/L**	0.222	176597.924	0.456

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	44					
>	Sc	45		101.23			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		91.17			
	As	75					
	Se	77					
	Se	78					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.04			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		103.59			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EE	Al	27	Sample is out of limits (over linear range)
Ca 44 Upper, S, EE	Ca	44	Sample is out of limits (over linear range)
Ti 47 Upper, S, EE	Ti	47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS #14 - Summary Report

Sample ID: 1204073116
Sample Date/Time: Monday, July 23, 2018 20:09:51
Sample Type: Sample
Sample Description: QC A 6020 SDILT
Number of Replicates: 3
Batch ID: 1783991|10|skj
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\1204073116.239

Concentration Results

Summary

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**29.296**	**ug/L**	3.134	16604.312	0.023
Be	9	**0.813**	**ug/L**	10.374	131.334	0.000
B	11	**7.412**	**ug/L**	14.520	1081.374	0.001
Na	23	**146.012**	**ug/L**	2.904	115913.139	0.153
Mg	24	**11780.895**	**ug/L**	3.492	4236450.918	5.881
Al	27	**15536.086**	**ug/L**	4.419	2327592.290	3.232
P	31	**422.586**	**ug/L**	5.348	4450.694	0.006
K	39	**3481.844**	**ug/L**	2.587	1336011.064	1.774
Ca	44	**25114.323**	**ug/L**	1.582	367086.633	0.509
>Sc	45		**ug/L**		720640.276	720640.276
Ti	47	**108.862**	**ug/L**	2.164	7939.206	0.011
V	51	**27.715**	**ug/L**	3.358	50887.145	0.065
Cr	52	**22.651**	**ug/L**	3.113	43272.110	0.060
Cr	53		**ug/L**		6169.332	0.006
Mn	55	**500.773**	**ug/L**	2.141	628258.896	0.872
Fe	57	**27958.024**	**ug/L**	2.607	1151678.709	1.599
Co	59	**13.077**	**ug/L**	2.119	38485.773	0.053
Ni	60	**32.168**	**ug/L**	1.737	25280.349	0.035
Cu	63		**ug/L**		63992.342	0.089
Cu	65	**30.486**	**ug/L**	2.968	31907.596	0.044
Zn	66	**63.482**	**ug/L**	1.343	20169.562	0.085
Zn	67		**ug/L**		3433.746	0.014
Zn	68		**ug/L**		15836.774	0.067
>Ge	74		**ug/L**		234322.133	234322.133
As	75	**7.803**	**ug/L**	1.110	1804.558	0.007
Se	77		**ug/L**		88.000	-0.000
Se	78	**0.693**	**ug/L**	20.237	106.354	0.000
Se	82		**ug/L**		24.667	0.000
Kr	83		**ug/L**		14.667	0.000
Sr	88	**90.252**	**ug/L**	1.257	171977.172	0.875
Zr	90	**3.860**	**ug/L**	2.145	9354.397	0.047
Mo	98	**1.325**	**ug/L**	5.289	2082.673	0.010
Ag	107	**0.044**	**ug/L**	10.648	156.001	0.001
Cd	111	**0.098**	**ug/L**	3.928	56.000	0.000
Cd	114		**ug/L**		154.410	0.001
>In	115		**ug/L**		196554.377	196554.377
Sn	120	**0.439**	**ug/L**	3.222	899.952	0.004
Sb	121	**0.081**	**ug/L**	34.609	234.002	0.001
Sb	123		**ug/L**		201.246	0.001
Ba	135		**ug/L**		37590.067	0.101
Ba	137	**119.056**	**ug/L**	1.510	66091.201	0.177
>Lu	175		**ug/L**		373079.658	373079.658
Tl	205	**0.158**	**ug/L**	4.628	1065.373	0.003
Pb	208	**14.055**	**ug/L**	1.449	128088.418	0.342
Th	232	**4.555**	**ug/L**	0.567	36888.235	0.095
U	238	**0.581**	**ug/L**	1.218	4391.342	0.012

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	44					
>	Sc	45		95.62			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		91.95			
	As	75					
	Se	77					
	Se	78					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		94.31			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		99.85			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS #14 - Summary Report

Sample ID: 454944003
Sample Date/Time: Monday, July 23, 2018 20:13:07
Sample Type: Sample
Sample Description: URSC 6020
Number of Replicates: 3
Batch ID: 1783991|2|skj
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\454944003.240

Concentration Results

Summary

Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**126.922**	**ug/L**	1.575	75134.425	0.100
Be	9	**3.395**	**ug/L**	4.857	565.011	0.001
B	11	**49.918**	**ug/L**	1.989	3290.379	0.003
Na	23	**656.853**	**ug/L**	0.387	523329.232	0.687
Mg	24	**43617.568**	**ug/L**	1.154	16400425.846	21.775
Al	27	**64742.321**	**ug/L**	0.727	10143250.571	13.467
P	31	**1750.346**	**ug/L**	1.772	19088.080	0.025
K	39	**16604.556**	**ug/L**	0.343	6433748.531	8.462
Ca	44	**88473.843**	**ug/L**	0.542	1351244.854	1.794
>Sc	45		**ug/L**		753182.709	753182.709
Ti	47	**471.194**	**ug/L**	0.543	35912.083	0.048
V	51	**122.216**	**ug/L**	0.470	220709.891	0.288
Cr	52	**94.052**	**ug/L**	1.902	187393.297	0.249
Cr	53		**ug/L**		23687.628	0.029
Mn	55	**2416.040**	**ug/L**	0.669	3168535.705	4.207
Fe	57	**129925.501**	**ug/L**	1.264	5595388.327	7.429
Co	59	**55.968**	**ug/L**	0.153	172139.583	0.229
Ni	60	**132.525**	**ug/L**	1.030	108848.472	0.145
Cu	63		**ug/L**		304877.041	0.405
Cu	65	**137.380**	**ug/L**	0.154	150235.180	0.199
Zn	66	**303.051**	**ug/L**	0.378	93126.556	0.406
Zn	67		**ug/L**		15647.231	0.068
Zn	68		**ug/L**		71050.929	0.310
>Ge	74		**ug/L**		228613.408	228613.408
As	75	**35.587**	**ug/L**	0.900	7132.002	0.030
Se	77		**ug/L**		182.668	0.000
Se	78	**3.614**	**ug/L**	15.930	173.811	0.000
Se	82		**ug/L**		103.334	0.000
Kr	83		**ug/L**		50.000	0.000
Sr	88	**432.258**	**ug/L**	0.942	822560.245	4.189
Zr	90	**20.430**	**ug/L**	1.739	48984.518	0.249
Mo	98	**5.703**	**ug/L**	1.357	8816.355	0.045
Ag	107	**0.205**	**ug/L**	3.178	663.349	0.003
Cd	111	**0.432**	**ug/L**	14.265	222.002	0.001
Cd	114		**ug/L**		492.755	0.002
>In	115		**ug/L**		196336.854	196336.854
Sn	120	**1.698**	**ug/L**	1.346	3045.497	0.015
Sb	121	**0.300**	**ug/L**	10.213	508.676	0.002
Sb	123		**ug/L**		419.745	0.002
Ba	135		**ug/L**		187420.764	0.486
Ba	137	**576.102**	**ug/L**	2.143	330543.764	0.857
>Lu	175		**ug/L**		385763.825	385763.825
Tl	205	**0.648**	**ug/L**	4.358	4362.666	0.011
Pb	208	**58.457**	**ug/L**	2.103	549505.491	1.424
Th	232	**19.996**	**ug/L**	2.592	162712.765	0.418
U	238	**2.548**	**ug/L**	1.248	19593.095	0.051

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	44					
>	Sc	45		99.94			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		89.71			
	As	75					
	Se	77					
	Se	78					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		94.21			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		103.24			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EE	Al	27	Sample is out of limits (over linear range)
Ca 44 Upper, S, EE	Ca	44	Sample is out of limits (over linear range)
Ti 47 Upper, S, EE	Ti	47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS #14 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, July 23, 2018 20:16:24
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\QC Std 6.241

Concentration Results

Summary

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**50.229**	**ug/L**	2.069	27551.212	0.039
Be	9	**50.865**	**ug/L**	2.898	7805.800	0.011
B	11	**92.901**	**ug/L**	3.285	5069.566	0.006
Na	23	**4991.360**	**ug/L**	1.660	3644952.692	5.217
Mg	24	**4641.730**	**ug/L**	1.798	1616680.792	2.317
Al	27	**4939.898**	**ug/L**	2.799	716860.657	1.028
P	31	**4933.744**	**ug/L**	1.048	49729.743	0.071
K	39	**4646.293**	**ug/L**	0.599	1707703.840	2.368
Ca	44	**4862.632**	**ug/L**	2.099	68996.239	0.099
>Sc	45		**ug/L**		697603.246	697603.246
Ti	47	**48.418**	**ug/L**	0.941	3421.076	0.005
V	51	**50.816**	**ug/L**	3.251	87194.063	0.120
Cr	52	**52.065**	**ug/L**	3.065	96133.171	0.138
Cr	53		**ug/L**		12924.514	0.016
Mn	55	**50.950**	**ug/L**	3.008	61916.608	0.089
Fe	57	**4921.578**	**ug/L**	3.113	196342.595	0.281
Co	59	**51.343**	**ug/L**	2.821	146245.666	0.210
Ni	60	**51.477**	**ug/L**	2.856	39160.953	0.056
Cu	63		**ug/L**		106384.737	0.152
Cu	65	**51.806**	**ug/L**	2.255	52486.260	0.075
Zn	66	**52.035**	**ug/L**	1.411	16583.620	0.070
Zn	67		**ug/L**		2619.574	0.011
Zn	68		**ug/L**		12321.313	0.052
>Ge	74		**ug/L**		234496.490	234496.490
As	75	**50.957**	**ug/L**	2.529	10361.312	0.043
Se	77		**ug/L**		454.007	0.001
Se	78	**49.407**	**ug/L**	1.986	1305.036	0.005
Se	82		**ug/L**		626.014	0.003
Kr	83		**ug/L**		7.333	0.000
Sr	88	**49.706**	**ug/L**	1.812	93372.868	0.482
Zr	90	**49.241**	**ug/L**	1.603	116348.595	0.600
Mo	98	**50.297**	**ug/L**	1.835	76409.695	0.394
Ag	107	**49.333**	**ug/L**	2.533	153797.672	0.794
Cd	111	**50.163**	**ug/L**	1.455	24556.423	0.127
Cd	114		**ug/L**		61082.525	0.315
>In	115		**ug/L**		193734.767	193734.767
Sn	120	**50.501**	**ug/L**	2.609	85080.630	0.438
Sb	121	**49.014**	**ug/L**	1.411	60809.824	0.313
Sb	123		**ug/L**		47948.590	0.247
Ba	135		**ug/L**		14967.842	0.041
Ba	137	**48.923**	**ug/L**	0.638	26323.568	0.073
>Lu	175		**ug/L**		361428.126	361428.126
Tl	205	**49.362**	**ug/L**	1.463	308135.721	0.853
Pb	208	**51.887**	**ug/L**	1.275	457096.008	1.264
Th	232	**52.395**	**ug/L**	1.893	397459.365	1.096
U	238	**49.941**	**ug/L**	1.550	358190.629	0.991

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7	100.459				
	Be	9	101.730				
	B	11	92.901				
	Na	23	99.827				
	Mg	24	92.835				
	Al	27	97.820				
	P	31	98.675				
	K	39	92.926				
	Ca	44	97.253				
>	Sc	45		92.56			
	Ti	47	96.835				
	V	51	101.631				
	Cr	52	104.129				
	Cr	53					
	Mn	55	101.901				
	Fe	57	98.432				
	Co	59	102.686				
	Ni	60	102.954				
	Cu	63					
	Cu	65	103.613				
	Zn	66	104.069				
	Zn	67					
	Zn	68					
>	Ge	74		92.02			
	As	75	101.913				
	Se	77					
	Se	78	98.814				
	Se	82					
	Kr	83					
	Sr	88	99.412				
	Zr	90	98.481				
	Mo	98	100.594				
	Ag	107	98.667				
	Cd	111	100.327				
	Cd	114					
>	In	115		92.96			
	Sn	120	101.002				
	Sb	121	98.029				
	Sb	123					
	Ba	135					
	Ba	137	97.846				
>	Lu	175		96.73			
	Tl	205	98.724				
	Pb	208	103.773				
	Th	232	104.789				
	U	238	99.881				

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #14 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, July 23, 2018 20:19:41
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\QC Std 7.242

Concentration Results

Summary

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**0.030**	**ug/L**	42.148	38.000	0.000
Be	9	**-0.001**	**ug/L**	762.996	2.333	-0.000
B	11	**-6.210**	**ug/L**	10.395	407.339	-0.000
Na	23	**-2.302**	**ug/L**	11.282	4107.258	-0.002
Mg	24	**0.525**	**ug/L**	11.334	406.672	0.000
Al	27	**1.062**	**ug/L**	5.436	274.003	0.000
P	31	**-0.090**	**ug/L**	1554.223	56.000	-0.000
K	39	**-8.393**	**ug/L**	46.871	53074.439	-0.004
Ca	44	**0.543**	**ug/L**	185.236	237.335	0.000
>Sc	45		**ug/L**		699623.441	699623.441
Ti	47	**0.070**	**ug/L**	31.464	8.667	0.000
V	51	**-0.001**	**ug/L**	4942.134	3790.503	-0.000
Cr	52	**0.011**	**ug/L**	225.381	156.668	0.000
Cr	53		**ug/L**		1362.065	-0.000
Mn	55	**0.032**	**ug/L**	26.840	75.334	0.000
Fe	57	**2.007**	**ug/L**	18.357	135.334	0.000
Co	59	**0.002**	**ug/L**	42.951	21.333	0.000
Ni	60	**-0.001**	**ug/L**	390.664	8.667	-0.000
Cu	63		**ug/L**		86.667	0.000
Cu	65	**0.009**	**ug/L**	202.496	37.333	0.000
Zn	66	**-0.023**	**ug/L**	213.157	214.002	-0.000
Zn	67		**ug/L**		29.333	-0.000
Zn	68		**ug/L**		147.334	0.000
>Ge	74		**ug/L**		233682.491	233682.491
As	75	**-0.141**	**ug/L**	49.853	229.557	-0.000
Se	77		**ug/L**		81.334	-0.000
Se	78	**0.031**	**ug/L**	534.866	89.826	0.000
Se	82		**ug/L**		4.667	-0.000
Kr	83		**ug/L**		5.733	-0.000
Sr	88	**0.001**	**ug/L**	395.038	51.333	0.000
Zr	90	**0.003**	**ug/L**	41.593	114.667	0.000
Mo	98	**0.037**	**ug/L**	40.393	97.270	0.000
Ag	107	**-0.002**	**ug/L**	84.192	10.667	-0.000
Cd	111	**0.001**	**ug/L**	382.050	8.000	0.000
Cd	114		**ug/L**		13.573	0.000
>In	115		**ug/L**		194591.434	194591.434
Sn	120	**0.016**	**ug/L**	157.340	177.258	0.000
Sb	121	**0.198**	**ug/L**	17.104	378.005	0.001
Sb	123		**ug/L**		285.248	0.001
Ba	135		**ug/L**		18.000	0.000
Ba	137	**0.012**	**ug/L**	135.723	24.000	0.000
>Lu	175		**ug/L**		355495.233	355495.233
Tl	205	**0.022**	**ug/L**	14.766	178.668	0.000
Pb	208	**0.007**	**ug/L**	8.675	416.002	0.000
Th	232	**0.029**	**ug/L**	29.683	1482.077	0.001
U	238	**0.004**	**ug/L**	3.289	118.000	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	44					
>	Sc	45		92.83			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		91.70			
	As	75					
	Se	77					
	Se	78					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.37			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		95.14			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #14 - Summary Report

Sample ID: 454944004
Sample Date/Time: Monday, July 23, 2018 20:22:57
Sample Type: Sample
Sample Description: URSC 6020
Number of Replicates: 3
Batch ID: 1783991|2|skj
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\454944004.243

Concentration Results

Summary

Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**138.407**	**ug/L**	2.239	81865.256	0.109
Be	9	**3.503**	**ug/L**	7.148	582.345	0.001
B	11	**47.849**	**ug/L**	2.697	3183.021	0.003
Na	23	**820.181**	**ug/L**	0.439	651458.828	0.857
Mg	24	**49429.795**	**ug/L**	0.205	18573476.084	24.676
Al	27	**68854.579**	**ug/L**	1.169	10779463.148	14.322
P	31	**1911.321**	**ug/L**	2.455	20821.833	0.028
K	39	**16418.961**	**ug/L**	0.922	6358033.049	8.367
Ca	44	**96273.163**	**ug/L**	0.687	1469313.784	1.952
>Sc	45		**ug/L**		752676.605	752676.605
Ti	47	**504.764**	**ug/L**	1.058	38443.327	0.051
V	51	**127.768**	**ug/L**	0.476	230390.993	0.301
Cr	52	**101.224**	**ug/L**	2.258	201524.455	0.268
Cr	53		**ug/L**		25395.219	0.032
Mn	55	**2535.999**	**ug/L**	1.638	3323258.607	4.416
Fe	57	**143906.770**	**ug/L**	1.454	6192843.224	8.228
Co	59	**60.057**	**ug/L**	1.186	184576.776	0.245
Ni	60	**144.976**	**ug/L**	1.526	118985.499	0.158
Cu	63		**ug/L**		317119.960	0.421
Cu	65	**142.738**	**ug/L**	1.881	155970.887	0.207
Zn	66	**274.755**	**ug/L**	0.113	84619.217	0.368
Zn	67		**ug/L**		14281.803	0.062
Zn	68		**ug/L**		65404.737	0.285
>Ge	74		**ug/L**		229065.257	229065.257
As	75	**36.087**	**ug/L**	1.116	7242.947	0.031
Se	77		**ug/L**		218.002	0.001
Se	78	**3.946**	**ug/L**	4.129	182.143	0.000
Se	82		**ug/L**		122.001	0.000
Kr	83		**ug/L**		47.867	0.000
Sr	88	**509.912**	**ug/L**	0.987	958904.897	4.942
Zr	90	**19.216**	**ug/L**	0.970	45543.156	0.234
Mo	98	**5.766**	**ug/L**	0.577	8809.757	0.045
Ag	107	**0.202**	**ug/L**	3.007	645.348	0.003
Cd	111	**0.412**	**ug/L**	13.182	209.335	0.001
Cd	114		**ug/L**		492.945	0.002
>In	115		**ug/L**		194043.007	194043.007
Sn	120	**1.910**	**ug/L**	2.806	3366.176	0.017
Sb	121	**0.369**	**ug/L**	12.450	588.679	0.002
Sb	123		**ug/L**		462.492	0.002
Ba	135		**ug/L**		176852.627	0.460
Ba	137	**545.444**	**ug/L**	1.921	311689.100	0.811
>Lu	175		**ug/L**		384145.363	384145.363
Tl	205	**0.629**	**ug/L**	0.668	4219.957	0.011
Pb	208	**62.895**	**ug/L**	1.043	588841.687	1.532
Th	232	**22.081**	**ug/L**	1.748	178821.636	0.462
U	238	**2.733**	**ug/L**	1.582	20923.312	0.054

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	44					
>	Sc	45		99.87			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		89.89			
	As	75					
	Se	77					
	Se	78					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.11			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		102.81			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EE	Al	27	Sample is out of limits (over linear range)
Ca 44 Upper, S, EE	Ca	44	Sample is out of limits (over linear range)
Ti 47 Upper, S, EE	Ti	47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS #14 - Summary Report

Sample ID: 454944005
Sample Date/Time: Monday, July 23, 2018 20:26:13
Sample Type: Sample
Sample Description: URSC 6020
Number of Replicates: 3
Batch ID: 1783991|2|skj
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\454944005.244

Concentration Results

Summary

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**139.185**	**ug/L**	1.178	83323.628	0.109
	Be	9	**3.290**	**ug/L**	3.680	554.011	0.001
	B	11	**39.789**	**ug/L**	3.860	2806.942	0.003
	Na	23	**688.165**	**ug/L**	1.910	554147.960	0.719
	Mg	24	**46409.531**	**ug/L**	0.658	17648318.108	23.168
	Al	27	**65225.806**	**ug/L**	1.822	10334752.972	13.568
	P	31	**1854.719**	**ug/L**	2.292	20452.636	0.027
	K	39	**13577.018**	**ug/L**	1.547	5331114.577	6.919
	Ca	44	**79982.647**	**ug/L**	0.946	1235483.899	1.622
>	Sc	45		**ug/L**		761761.425	761761.425
	Ti	47	**443.134**	**ug/L**	0.803	34158.796	0.045
	V	51	**113.478**	**ug/L**	0.784	207551.581	0.267
	Cr	52	**96.477**	**ug/L**	2.295	194389.838	0.255
	Cr	53		**ug/L**		24710.023	0.030
	Mn	55	**2440.613**	**ug/L**	1.791	3236760.965	4.250
	Fe	57	**138935.553**	**ug/L**	1.455	6051113.861	7.944
	Co	59	**57.113**	**ug/L**	0.049	177659.974	0.233
	Ni	60	**142.157**	**ug/L**	0.856	118081.347	0.155
	Cu	63		**ug/L**		319997.242	0.420
	Cu	65	**143.522**	**ug/L**	2.151	158712.840	0.208
	Zn	66	**270.133**	**ug/L**	0.881	84523.310	0.362
	Zn	67		**ug/L**		14325.179	0.061
	Zn	68		**ug/L**		64380.104	0.276
>	Ge	74		**ug/L**		232723.046	232723.046
	As	75	**34.945**	**ug/L**	3.188	7133.559	0.030
	Se	77		**ug/L**		207.335	0.000
	Se	78	**3.851**	**ug/L**	8.455	182.729	0.000
	Se	82		**ug/L**		109.334	0.000
	Kr	83		**ug/L**		50.533	0.000
	Sr	88	**407.769**	**ug/L**	2.386	780864.755	3.952
	Zr	90	**10.640**	**ug/L**	1.625	25727.814	0.130
	Mo	98	**4.764**	**ug/L**	2.794	7417.414	0.037
	Ag	107	**0.199**	**ug/L**	10.292	647.348	0.003
	Cd	111	**0.400**	**ug/L**	6.932	207.335	0.001
	Cd	114		**ug/L**		496.629	0.002
>	In	115		**ug/L**		197616.013	197616.013
	Sn	120	**1.837**	**ug/L**	2.386	3302.280	0.016
	Sb	121	**0.374**	**ug/L**	10.599	606.680	0.002
	Sb	123		**ug/L**		426.333	0.002
	Ba	135		**ug/L**		163971.024	0.423
	Ba	137	**503.281**	**ug/L**	1.298	289987.820	0.749
>	Lu	175		**ug/L**		387306.080	387306.080
	Tl	205	**0.574**	**ug/L**	4.126	3883.862	0.010
	Pb	208	**58.241**	**ug/L**	0.932	549807.949	1.419
	Th	232	**20.910**	**ug/L**	0.937	170823.264	0.438
	U	238	**2.458**	**ug/L**	2.372	18981.271	0.049

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	44					
>	Sc	45		101.08			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		91.32			
	As	75					
	Se	77					
	Se	78					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		94.82			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		103.66			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EE	Al	27	Sample is out of limits (over linear range)
Ca 44 Upper, S, EE	Ca	44	Sample is out of limits (over linear range)
Ti 47 Upper, S, EE	Ti	47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS #14 - Summary Report

Sample ID: 454944006
Sample Date/Time: Monday, July 23, 2018 20:29:29
Sample Type: Sample
Sample Description: URSC 6020
Number of Replicates: 3
Batch ID: 1783991|2|skj
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\454944006.245

Concentration Results

Summary

Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**134.861**	**ug/L**	3.736	79164.855	0.106
Be	9	**3.290**	**ug/L**	8.395	542.677	0.001
B	11	**46.642**	**ug/L**	6.786	3097.670	0.003
Na	23	**639.923**	**ug/L**	3.171	505694.927	0.669
Mg	24	**46019.982**	**ug/L**	3.208	17157651.102	22.974
Al	27	**66126.070**	**ug/L**	2.670	10274520.990	13.755
P	31	**1718.084**	**ug/L**	3.768	18578.075	0.025
K	39	**15877.153**	**ug/L**	3.602	6102564.947	8.091
Ca	44	**93692.084**	**ug/L**	1.637	1419163.120	1.900
>Sc	45		**ug/L**		747126.385	747126.385
Ti	47	**479.629**	**ug/L**	2.991	36248.605	0.049
V	51	**123.037**	**ug/L**	2.239	220316.552	0.290
Cr	52	**96.956**	**ug/L**	3.879	191529.695	0.256
Cr	53		**ug/L**		24309.344	0.030
Mn	55	**2561.755**	**ug/L**	2.621	3331507.656	4.461
Fe	57	**136305.184**	**ug/L**	2.041	5821486.410	7.794
Co	59	**60.119**	**ug/L**	2.402	183359.915	0.245
Ni	60	**148.809**	**ug/L**	1.561	121218.826	0.162
Cu	63		**ug/L**		298230.233	0.399
Cu	65	**136.727**	**ug/L**	2.775	148270.232	0.198
Zn	66	**279.284**	**ug/L**	1.967	86165.812	0.375
Zn	67		**ug/L**		14256.449	0.062
Zn	68		**ug/L**		65586.226	0.285
>Ge	74		**ug/L**		229499.742	229499.742
As	75	**36.653**	**ug/L**	3.362	7364.120	0.031
Se	77		**ug/L**		198.001	0.000
Se	78	**4.093**	**ug/L**	9.556	186.106	0.000
Se	82		**ug/L**		100.000	0.000
Kr	83		**ug/L**		53.467	0.000
Sr	88	**410.235**	**ug/L**	2.214	777564.885	3.976
Zr	90	**14.798**	**ug/L**	2.819	35371.077	0.180
Mo	98	**6.163**	**ug/L**	3.579	9487.526	0.048
Ag	107	**0.208**	**ug/L**	3.504	670.682	0.003
Cd	111	**0.463**	**ug/L**	7.314	236.002	0.001
Cd	114		**ug/L**		614.766	0.003
>In	115		**ug/L**		195602.740	195602.740
Sn	120	**1.764**	**ug/L**	4.428	3144.860	0.015
Sb	121	**0.339**	**ug/L**	7.375	555.344	0.002
Sb	123		**ug/L**		428.496	0.002
Ba	135		**ug/L**		144066.868	0.375
Ba	137	**443.557**	**ug/L**	1.410	253806.495	0.660
>Lu	175		**ug/L**		384611.670	384611.670
Tl	205	**0.769**	**ug/L**	1.828	5154.263	0.013
Pb	208	**65.482**	**ug/L**	1.723	613782.001	1.595
Th	232	**20.758**	**ug/L**	3.272	168379.540	0.434
U	238	**3.386**	**ug/L**	2.310	25934.193	0.067

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	44					
>	Sc	45		99.13			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.06			
	As	75					
	Se	77					
	Se	78					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.85			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		102.94			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EE	Al	27	Sample is out of limits (over linear range)
Ca 44 Upper, S, EE	Ca	44	Sample is out of limits (over linear range)
Ti 47 Upper, S, EE	Ti	47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS #14 - Summary Report

Sample ID: 454944007
Sample Date/Time: Monday, July 23, 2018 20:32:44
Sample Type: Sample
Sample Description: URSC 6020
Number of Replicates: 3
Batch ID: 1783991|2|skj
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\454944007.246

Concentration Results

Summary

Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**135.302**	**ug/L**	1.004	79864.664	0.106
Be	9	**3.342**	**ug/L**	1.074	554.677	0.001
B	11	**52.790**	**ug/L**	3.110	3425.744	0.004
Na	23	**671.813**	**ug/L**	1.245	533513.829	0.702
Mg	24	**46598.009**	**ug/L**	2.147	17467831.018	23.262
Al	27	**68294.253**	**ug/L**	1.180	10667954.331	14.206
P	31	**1802.068**	**ug/L**	2.788	19592.766	0.026
K	39	**17199.996**	**ug/L**	1.364	6642469.487	8.765
Ca	44	**102445.016**	**ug/L**	0.602	1560084.626	2.077
>Sc	45		**ug/L**		750995.397	750995.397
Ti	47	**489.996**	**ug/L**	0.474	37236.134	0.050
V	51	**128.802**	**ug/L**	2.083	231690.700	0.303
Cr	52	**99.819**	**ug/L**	0.500	198302.967	0.264
Cr	53		**ug/L**		25348.478	0.032
Mn	55	**2693.612**	**ug/L**	0.696	3522125.660	4.690
Fe	57	**139016.280**	**ug/L**	1.091	5969193.291	7.949
Co	59	**61.438**	**ug/L**	2.566	188380.806	0.251
Ni	60	**140.574**	**ug/L**	0.784	115120.681	0.153
Cu	63		**ug/L**		306324.780	0.408
Cu	65	**139.201**	**ug/L**	1.161	151776.041	0.202
Zn	66	**349.062**	**ug/L**	1.797	105994.485	0.468
Zn	67		**ug/L**		17447.985	0.077
Zn	68		**ug/L**		79855.245	0.353
>Ge	74		**ug/L**		225985.463	225985.463
As	75	**35.909**	**ug/L**	1.258	7111.325	0.030
Se	77		**ug/L**		172.668	0.000
Se	78	**3.934**	**ug/L**	8.439	179.464	0.000
Se	82		**ug/L**		109.334	0.000
Kr	83		**ug/L**		48.267	0.000
Sr	88	**491.986**	**ug/L**	1.336	926852.193	4.768
Zr	90	**14.712**	**ug/L**	0.366	34956.049	0.179
Mo	98	**5.854**	**ug/L**	1.425	8958.964	0.046
Ag	107	**0.210**	**ug/L**	2.766	671.349	0.003
Cd	111	**0.546**	**ug/L**	2.094	275.336	0.001
Cd	114		**ug/L**		684.486	0.003
>In	115		**ug/L**		194383.264	194383.264
Sn	120	**1.813**	**ug/L**	0.882	3208.849	0.016
Sb	121	**0.336**	**ug/L**	3.651	548.677	0.002
Sb	123		**ug/L**		448.911	0.002
Ba	135		**ug/L**		170761.240	0.450
Ba	137	**536.191**	**ug/L**	1.072	302973.722	0.798
>Lu	175		**ug/L**		379832.448	379832.448
Tl	205	**0.728**	**ug/L**	1.501	4824.148	0.013
Pb	208	**62.113**	**ug/L**	1.028	574985.208	1.513
Th	232	**21.333**	**ug/L**	1.030	170875.922	0.446
U	238	**2.771**	**ug/L**	1.183	20974.387	0.055

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	44					
>	Sc	45		99.65			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		88.68			
	As	75					
	Se	77					
	Se	78					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.27			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		101.66			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EE	Al	27	Sample is out of limits (over linear range)
Ca 44 Upper, S, EE	Ca	44	Sample is out of limits (over linear range)
Ti 47 Upper, S, EE	Ti	47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS #14 - Summary Report

Sample ID: 454944008
Sample Date/Time: Monday, July 23, 2018 20:36:00
Sample Type: Sample
Sample Description: URSC 6020
Number of Replicates: 3
Batch ID: 1783991|2|skj
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\454944008.247

Concentration Results

Summary

Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**159.557**	**ug/L**	1.537	94917.015	0.125
Be	9	**3.791**	**ug/L**	3.175	633.681	0.001
B	11	**54.725**	**ug/L**	1.644	3551.775	0.004
Na	23	**705.632**	**ug/L**	1.152	564481.951	0.738
Mg	24	**50762.860**	**ug/L**	0.729	19180844.307	25.342
Al	27	**80485.002**	**ug/L**	1.606	12671353.032	16.742
P	31	**1859.821**	**ug/L**	2.641	20375.857	0.027
K	39	**18244.983**	**ug/L**	1.349	7097874.472	9.298
Ca	44	**93172.190**	**ug/L**	0.643	1430065.876	1.889
>Sc	45		**ug/L**		756910.290	756910.290
Ti	47	**511.547**	**ug/L**	1.194	39181.669	0.052
V	51	**142.335**	**ug/L**	1.185	257652.561	0.335
Cr	52	**116.504**	**ug/L**	1.213	233240.101	0.308
Cr	53		**ug/L**		29358.137	0.037
Mn	55	**2677.972**	**ug/L**	1.700	3529135.441	4.663
Fe	57	**158510.156**	**ug/L**	1.767	6860263.654	9.063
Co	59	**62.775**	**ug/L**	0.296	194027.449	0.256
Ni	60	**156.781**	**ug/L**	1.820	129402.217	0.171
Cu	63		**ug/L**		317046.667	0.419
Cu	65	**143.099**	**ug/L**	2.011	157257.007	0.208
Zn	66	**303.391**	**ug/L**	2.129	93569.492	0.407
Zn	67		**ug/L**		15736.664	0.068
Zn	68		**ug/L**		72159.129	0.314
>Ge	74		**ug/L**		229459.525	229459.525
As	75	**36.116**	**ug/L**	1.582	7260.511	0.031
Se	77		**ug/L**		228.669	0.001
Se	78	**3.920**	**ug/L**	8.523	181.840	0.000
Se	82		**ug/L**		115.334	0.000
Kr	83		**ug/L**		49.067	0.000
Sr	88	**395.521**	**ug/L**	1.897	758591.677	3.833
Zr	90	**13.583**	**ug/L**	1.946	32863.097	0.166
Mo	98	**6.534**	**ug/L**	1.992	10175.706	0.051
Ag	107	**0.214**	**ug/L**	4.350	698.684	0.003
Cd	111	**0.362**	**ug/L**	11.453	188.668	0.001
Cd	114		**ug/L**		471.289	0.002
>In	115		**ug/L**		197902.178	197902.178
Sn	120	**1.830**	**ug/L**	2.389	3296.228	0.016
Sb	121	**0.327**	**ug/L**	4.094	546.677	0.002
Sb	123		**ug/L**		393.162	0.002
Ba	135		**ug/L**		206912.869	0.545
Ba	137	**647.146**	**ug/L**	0.506	365313.711	0.963
>Lu	175		**ug/L**		379438.870	379438.870
Tl	205	**0.639**	**ug/L**	2.453	4233.961	0.011
Pb	208	**66.576**	**ug/L**	1.365	615617.835	1.622
Th	232	**23.981**	**ug/L**	0.733	191721.981	0.502
U	238	**2.913**	**ug/L**	0.238	22025.634	0.058

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	44					
>	Sc	45		100.43			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.04			
	As	75					
	Se	77					
	Se	78					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		94.96			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		101.55			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mg 24 Upper, S, EE	Mg	24	Sample is out of limits (over linear range)
Al 27 Upper, S, EE	Al	27	Sample is out of limits (over linear range)
Ca 44 Upper, S, EE	Ca	44	Sample is out of limits (over linear range)
Ti 47 Upper, S, EE	Ti	47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS #14 - Summary Report

Sample ID: 454944009
Sample Date/Time: Monday, July 23, 2018 20:39:16
Sample Type: Sample
Sample Description: URSC 6020
Number of Replicates: 3
Batch ID: 1783991|2|skj
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\454944009.248

Concentration Results

Summary

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**136.850**	**ug/L**	1.004	81836.424	0.108
	Be	9	**3.245**	**ug/L**	2.830	545.677	0.001
	B	11	**39.843**	**ug/L**	5.940	2806.943	0.003
	Na	23	**623.960**	**ug/L**	0.579	502494.205	0.652
	Mg	24	**46047.867**	**ug/L**	0.952	17490260.500	22.988
	Al	27	**63375.551**	**ug/L**	1.719	10030349.687	13.183
	P	31	**1843.150**	**ug/L**	0.400	20301.749	0.027
	K	39	**13271.805**	**ug/L**	0.422	5206971.561	6.764
	Ca	44	**83969.942**	**ug/L**	1.101	1295526.675	1.702
>	Sc	45		**ug/L**		760846.950	760846.950
	Ti	47	**442.448**	**ug/L**	1.847	34064.909	0.045
	V	51	**114.432**	**ug/L**	1.957	209021.804	0.269
	Cr	52	**97.303**	**ug/L**	1.545	195841.427	0.257
	Cr	53		**ug/L**		24941.088	0.031
	Mn	55	**2434.522**	**ug/L**	0.214	3225263.614	4.239
	Fe	57	**141162.224**	**ug/L**	1.444	6141426.484	8.072
	Co	59	**58.885**	**ug/L**	1.250	182957.625	0.240
	Ni	60	**144.156**	**ug/L**	1.918	119606.074	0.157
	Cu	63		**ug/L**		306519.853	0.403
	Cu	65	**138.465**	**ug/L**	0.693	152963.949	0.201
	Zn	66	**279.187**	**ug/L**	0.690	86635.909	0.374
	Zn	67		**ug/L**		14090.947	0.061
	Zn	68		**ug/L**		65016.288	0.281
>	Ge	74		**ug/L**		230817.790	230817.790
	As	75	**35.457**	**ug/L**	1.421	7175.135	0.030
	Se	77		**ug/L**		201.335	0.000
	Se	78	**3.543**	**ug/L**	6.651	173.812	0.000
	Se	82		**ug/L**		100.000	0.000
	Kr	83		**ug/L**		45.600	0.000
	Sr	88	**369.702**	**ug/L**	1.898	706046.182	3.583
	Zr	90	**12.832**	**ug/L**	1.324	30919.425	0.156
	Mo	98	**5.250**	**ug/L**	2.177	8149.000	0.041
	Ag	107	**0.214**	**ug/L**	9.308	694.017	0.003
	Cd	111	**0.634**	**ug/L**	4.787	323.337	0.002
	Cd	114		**ug/L**		772.770	0.004
>	In	115		**ug/L**		197049.834	197049.834
	Sn	120	**2.056**	**ug/L**	2.060	3668.934	0.018
	Sb	121	**0.322**	**ug/L**	10.565	538.677	0.002
	Sb	123		**ug/L**		410.658	0.002
	Ba	135		**ug/L**		147864.658	0.389
	Ba	137	**459.947**	**ug/L**	1.134	260112.874	0.684
>	Lu	175		**ug/L**		380119.450	380119.450
	Tl	205	**0.604**	**ug/L**	2.822	4007.896	0.010
	Pb	208	**76.788**	**ug/L**	0.481	711340.084	1.870
	Th	232	**21.568**	**ug/L**	0.562	172883.831	0.451
	U	238	**3.123**	**ug/L**	0.721	23644.218	0.062

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	44					
>	Sc	45		100.95			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.58			
	As	75					
	Se	77					
	Se	78					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		94.55			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		101.73			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EE	Al	27	Sample is out of limits (over linear range)
Ca 44 Upper, S, EE	Ca	44	Sample is out of limits (over linear range)
Ti 47 Upper, S, EE	Ti	47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS #14 - Summary Report

Sample ID: 454944010
Sample Date/Time: Monday, July 23, 2018 20:42:31
Sample Type: Sample
Sample Description: URSC 6020
Number of Replicates: 3
Batch ID: 1783991|2|skj
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\454944010.249

Concentration Results

Summary

Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**130.270**	**ug/L**	1.440	72965.869	0.102
Be	9	**3.264**	**ug/L**	4.291	514.009	0.001
B	11	**32.644**	**ug/L**	8.916	2282.183	0.002
Na	23	**625.792**	**ug/L**	1.348	472041.151	0.654
Mg	24	**47928.101**	**ug/L**	2.577	17050662.195	23.926
Al	27	**59735.271**	**ug/L**	3.273	8854488.967	12.426
P	31	**1808.177**	**ug/L**	1.889	18657.513	0.026
K	39	**11644.505**	**ug/L**	0.600	4286681.847	5.934
Ca	44	**98967.987**	**ug/L**	2.763	1430009.903	2.006
>Sc	45		**ug/L**		712711.692	712711.692
Ti	47	**385.982**	**ug/L**	3.176	27831.760	0.039
V	51	**109.035**	**ug/L**	2.415	186715.791	0.257
Cr	52	**92.111**	**ug/L**	3.704	173628.610	0.243
Cr	53		**ug/L**		21715.160	0.028
Mn	55	**2475.667**	**ug/L**	0.186	3072233.105	4.311
Fe	57	**138795.072**	**ug/L**	3.015	5655449.219	7.936
Co	59	**58.609**	**ug/L**	1.711	170556.136	0.239
Ni	60	**140.189**	**ug/L**	3.059	108935.227	0.153
Cu	63		**ug/L**		298119.200	0.418
Cu	65	**142.698**	**ug/L**	1.756	147647.096	0.207
Zn	66	**286.156**	**ug/L**	3.108	84540.097	0.384
Zn	67		**ug/L**		13996.188	0.064
Zn	68		**ug/L**		64620.499	0.293
>Ge	74		**ug/L**		219858.879	219858.879
As	75	**34.147**	**ug/L**	3.050	6588.186	0.029
Se	77		**ug/L**		152.001	0.000
Se	78	**3.614**	**ug/L**	5.229	167.126	0.000
Se	82		**ug/L**		98.000	0.000
Kr	83		**ug/L**		41.867	0.000
Sr	88	**447.767**	**ug/L**	3.342	819658.194	4.340
Zr	90	**14.677**	**ug/L**	2.244	33888.818	0.179
Mo	98	**5.859**	**ug/L**	2.416	8712.885	0.046
Ag	107	**0.193**	**ug/L**	8.888	601.346	0.003
Cd	111	**0.424**	**ug/L**	10.079	209.335	0.001
Cd	114		**ug/L**		502.285	0.003
>In	115		**ug/L**		188936.521	188936.521
Sn	120	**1.162**	**ug/L**	4.656	2050.079	0.010
Sb	121	**0.222**	**ug/L**	3.056	396.005	0.001
Sb	123		**ug/L**		308.665	0.001
Ba	135		**ug/L**		147111.721	0.394
Ba	137	**465.938**	**ug/L**	1.780	258977.693	0.693
>Lu	175		**ug/L**		373664.623	373664.623
Tl	205	**0.521**	**ug/L**	7.729	3406.407	0.009
Pb	208	**60.104**	**ug/L**	2.818	547247.165	1.464
Th	232	**20.544**	**ug/L**	3.121	161897.016	0.430
U	238	**2.380**	**ug/L**	3.709	17733.003	0.047

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	44					
>	Sc	45		94.57			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		86.28			
	As	75					
	Se	77					
	Se	78					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		90.66			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		100.01			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EE	Al	27	Sample is out of limits (over linear range)
Ca 44 Upper, S, EE	Ca	44	Sample is out of limits (over linear range)
Ti 47 Upper, S, EE	Ti	47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS #14 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, July 23, 2018 20:45:48
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\QC Std 6.250

Concentration Results

Summary

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**50.063**	**ug/L**	1.290	27636.040	0.039
Be	9	**51.341**	**ug/L**	2.114	7930.535	0.011
B	11	**91.339**	**ug/L**	2.457	5028.218	0.006
Na	23	**4899.591**	**ug/L**	1.528	3600853.859	5.121
Mg	24	**4585.736**	**ug/L**	0.392	1607400.718	2.289
Al	27	**4865.511**	**ug/L**	1.020	710665.878	1.012
P	31	**4806.489**	**ug/L**	0.869	48759.076	0.069
K	39	**4539.676**	**ug/L**	0.545	1680493.486	2.313
Ca	44	**4860.181**	**ug/L**	1.250	69411.595	0.099
>Sc	45		**ug/L**		702053.196	702053.196
Ti	47	**47.468**	**ug/L**	2.928	3375.399	0.005
V	51	**50.255**	**ug/L**	1.667	86831.112	0.118
Cr	52	**51.048**	**ug/L**	0.423	94872.005	0.135
Cr	53		**ug/L**		12745.017	0.016
Mn	55	**49.470**	**ug/L**	0.964	60508.550	0.086
Fe	57	**4902.878**	**ug/L**	0.499	196869.955	0.280
Co	59	**50.047**	**ug/L**	1.806	143467.531	0.204
Ni	60	**50.738**	**ug/L**	0.117	38850.089	0.055
Cu	63		**ug/L**		105524.332	0.150
Cu	65	**50.809**	**ug/L**	1.337	51809.124	0.074
Zn	66	**51.671**	**ug/L**	1.483	16209.858	0.069
Zn	67		**ug/L**		2644.912	0.011
Zn	68		**ug/L**		12082.441	0.052
>Ge	74		**ug/L**		230814.753	230814.753
As	75	**50.936**	**ug/L**	1.144	10195.415	0.043
Se	77		**ug/L**		466.674	0.002
Se	78	**49.976**	**ug/L**	3.709	1298.114	0.005
Se	82		**ug/L**		594.679	0.003
Kr	83		**ug/L**		6.933	0.000
Sr	88	**48.452**	**ug/L**	1.386	91647.078	0.470
Zr	90	**48.415**	**ug/L**	2.487	115176.529	0.590
Mo	98	**49.098**	**ug/L**	1.821	75098.603	0.385
Ag	107	**48.968**	**ug/L**	1.645	153709.220	0.788
Cd	111	**49.914**	**ug/L**	1.238	24601.165	0.126
Cd	114		**ug/L**		59417.842	0.305
>In	115		**ug/L**		195064.589	195064.589
Sn	120	**49.588**	**ug/L**	0.862	84126.303	0.431
Sb	121	**48.561**	**ug/L**	0.467	60665.212	0.310
Sb	123		**ug/L**		47439.081	0.243
Ba	135		**ug/L**		14696.890	0.041
Ba	137	**48.599**	**ug/L**	1.533	26086.464	0.072
>Lu	175		**ug/L**		360596.027	360596.027
Tl	205	**49.716**	**ug/L**	2.041	309666.675	0.859
Pb	208	**51.764**	**ug/L**	0.750	454989.916	1.261
Th	232	**52.512**	**ug/L**	1.737	397423.267	1.099
U	238	**49.671**	**ug/L**	2.184	355409.367	0.986

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7	100.125				
	Be	9	102.683				
	B	11	91.339				
	Na	23	97.992				
	Mg	24	91.715				
	Al	27	96.347				
	P	31	96.130				
	K	39	90.794				
	Ca	44	97.204				
>	Sc	45		93.15			
	Ti	47	94.936				
	V	51	100.510				
	Cr	52	102.095				
	Cr	53					
	Mn	55	98.940				
	Fe	57	98.058				
	Co	59	100.093				
	Ni	60	101.477				
	Cu	63					
	Cu	65	101.618				
	Zn	66	103.342				
	Zn	67					
	Zn	68					
>	Ge	74		90.58			
	As	75	101.871				
	Se	77					
	Se	78	99.952				
	Se	82					
	Kr	83					
	Sr	88	96.904				
	Zr	90	96.831				
	Mo	98	98.195				
	Ag	107	97.937				
	Cd	111	99.827				
	Cd	114					
>	In	115		93.60			
	Sn	120	99.175				
	Sb	121	97.121				
	Sb	123					
	Ba	135					
	Ba	137	97.199				
>	Lu	175		96.51			
	Tl	205	99.433				
	Pb	208	103.528				
	Th	232	105.024				
	U	238	99.342				

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #14 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, July 23, 2018 20:49:04
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\6020 2.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\180723\QC Std 7.251

Concentration Results

Summary

Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	**0.037**	**ug/L**	77.641	42.000	0.000
Be	9	**-0.007**	**ug/L**	133.828	1.333	-0.000
B	11	**-6.634**	**ug/L**	11.684	386.005	-0.000
Na	23	**-2.911**	**ug/L**	3.693	3649.133	-0.003
Mg	24	**0.856**	**ug/L**	15.446	520.676	0.000
Al	27	**1.363**	**ug/L**	19.044	316.670	0.000
P	31	**-0.736**	**ug/L**	148.362	49.333	-0.000
K	39	**-11.434**	**ug/L**	25.844	51809.138	-0.006
Ca	44	**-2.122**	**ug/L**	126.699	198.668	-0.000
>Sc	45		**ug/L**		697110.521	697110.521
Ti	47	**0.047**	**ug/L**	80.534	7.000	0.000
V	51	**0.716**	**ug/L**	5.063	4952.859	0.002
Cr	52	**0.039**	**ug/L**	8.727	209.335	0.000
Cr	53		**ug/L**		1858.121	0.001
Mn	55	**0.046**	**ug/L**	25.191	92.000	0.000
Fe	57	**2.353**	**ug/L**	36.243	148.667	0.000
Co	59	**0.002**	**ug/L**	38.708	21.333	0.000
Ni	60	**0.011**	**ug/L**	63.144	17.333	0.000
Cu	63		**ug/L**		77.334	0.000
Cu	65	**0.022**	**ug/L**	16.381	50.000	0.000
Zn	66	**-0.036**	**ug/L**	140.143	208.002	-0.000
Zn	67		**ug/L**		44.667	0.000
Zn	68		**ug/L**		160.668	0.000
>Ge	74		**ug/L**		231473.235	231473.235
As	75	**0.078**	**ug/L**	43.224	270.447	0.000
Se	77		**ug/L**		97.334	-0.000
Se	78	**-0.193**	**ug/L**	69.972	83.514	-0.000
Se	82		**ug/L**		8.667	-0.000
Kr	83		**ug/L**		7.200	0.000
Sr	88	**-0.005**	**ug/L**	119.087	39.333	-0.000
Zr	90	**0.002**	**ug/L**	336.413	112.000	0.000
Mo	98	**0.038**	**ug/L**	16.340	97.343	0.000
Ag	107	**0.002**	**ug/L**	79.612	20.667	0.000
Cd	111	**0.002**	**ug/L**	88.094	8.667	0.000
Cd	114		**ug/L**		12.585	-0.000
>In	115		**ug/L**		193931.121	193931.121
Sn	120	**0.010**	**ug/L**	102.230	165.959	0.000
Sb	121	**0.181**	**ug/L**	32.563	355.338	0.001
Sb	123		**ug/L**		260.916	0.001
Ba	135		**ug/L**		14.667	0.000
Ba	137	**0.015**	**ug/L**	104.174	25.333	0.000
>Lu	175		**ug/L**		351323.075	351323.075
Tl	205	**0.025**	**ug/L**	17.926	194.001	0.000
Pb	208	**0.005**	**ug/L**	91.135	394.669	0.000
Th	232	**0.034**	**ug/L**	32.296	1502.746	0.001
U	238	**0.004**	**ug/L**	3.202	116.000	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	44	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9998
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	44					
>	Sc	45		92.50			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.83			
	As	75					
	Se	77					
	Se	78					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.05			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		94.03			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

==========

Analysis Begun

Logged In Analyst: lab **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\lab\Sample Information\072318.sif
Batch ID:
Results Data Set: 072318WS1
Results Library: C:\data-AA\lab\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL **Method Last Saved: 3/2/2018 12:10:27**
Method Description: 7471A, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 7/23/2018 13:46:10**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0006	0.0022	0.0006	13:47:01	Yes
2		[0.00]	0.0006	0.0023	0.0006	13:47:31	Yes
Mean:		[0.00]	0.0006				
SD:		0.00	0.0000				
%RSD:		0.00	1.85				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 7/23/2018 13:47:49**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0028	0.0143	0.0035	13:48:40	Yes
2		[0.2]	0.0029	0.0141	0.0035	13:49:10	Yes
Mean:		[0.2]	0.0029				
SD:		0.0	0.0001				
%RSD:		0.0	1.95				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01439 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 7/23/2018 13:49:29**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0071	0.0313	0.0077	13:50:20	Yes
2		[0.5]	0.0073	0.0321	0.0079	13:50:50	Yes
Mean:		[0.5]	0.0072				
SD:		0.0	0.0001				
%RSD:		0.0	1.60				

Standard number 2 applied. [0.5]
Correlation Coef.: 1.000000 Slope: 0.01436 Intercept: 0.00000

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 7/23/2018 13:51:10**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0284	0.1174	0.0290	13:52:01	Yes
2		[2.0]	0.0286	0.1172	0.0292	13:52:31	Yes
Mean:		[2.0]	0.0285				
SD:		0.0	0.0001				
%RSD:		0.0	0.36				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999998 Slope: 0.01423 Intercept: 0.00003

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 7/23/2018 13:52:51**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0692	0.2837	0.0698	13:53:43	Yes
2		[5.0]	0.0694	0.2840	0.0700	13:54:13	Yes
Mean:		[5.0]	0.0693				
SD:		0.0	0.0001				
%RSD:		0.0	0.18				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999940 Slope: 0.01386 Intercept: 0.00023

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 7/23/2018 13:54:34**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1377	0.5631	0.1383	13:55:24	Yes
2		[10.0]	0.1378	0.5630	0.1384	13:55:54	Yes
Mean:		[10.0]	0.1377				
SD:		0.0	0.0001				
%RSD:		0.0	0.06				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999978 Slope: 0.01376 Intercept: 0.00034

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.025	0.00	1.8
S0.2	0.0029	0.2	0.184	0.00	1.9
S0.5	0.0072	0.5	0.497	0.00	1.6
S2.0	0.0285	2.0	2.045	0.00	0.4

S5.0	0.0693	5.0	5.013	0.00	0.2
S10.0	0.1377	10.0	9.985	0.00	0.1

Correlation Coef.: 0.999978 Slope: 0.01376 Intercept: 0.00034

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 7/23/2018 13:56:13**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.975	4.975	0.0688	0.2808	0.0694	13:57:04	Yes
2	4.998	4.998	0.0691	0.2801	0.0697	13:57:34	Yes
Mean:	4.986	4.986	0.0689				
SD:	0.016	0.016	0.0002				
%RSD:	0.331	0.331	0.33				

QC value within limits for Hg 253.7 Recovery = 99.72%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 7/23/2018 13:57:54**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.016	-0.016	0.0001	0.0030	0.0007	13:58:45	Yes
2	-0.020	-0.020	0.0001	0.0023	0.0007	13:59:15	Yes
Mean:	-0.018	-0.018	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	17.71	17.71	46.88				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 7/23/2018 13:59:35**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.186	0.186	0.0029	0.0142	0.0035	14:00:27	Yes
2	0.191	0.191	0.0030	0.0148	0.0036	14:00:57	Yes
Mean:	0.188	0.188	0.0029				
SD:	0.003	0.003	0.0000				
%RSD:	1.844	1.844	1.63				

QC value within limits for Hg 253.7 Recovery = 94.04%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 7/23/2018 14:01:17**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.975	4.975	0.0688	0.2816	0.0694	14:02:08	Yes
2	5.009	5.009	0.0693	0.2828	0.0699	14:02:38	Yes
Mean:	4.992	4.992	0.0690				
SD:	0.024	0.024	0.0003				
%RSD:	0.478	0.478	0.48				

QC value within limits for Hg 253.7 Recovery = 99.85%
All analyte(s) passed QC.

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 7/23/2018 14:02:57**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.021	-0.021	0.0001	0.0025	0.0007	14:03:48	Yes
2	-0.017	-0.017	0.0001	0.0033	0.0007	14:04:18	Yes
Mean:	-0.019	-0.019	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	16.94	16.94	53.93				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.
User canceled analysis.

==========

Analysis Begun

Logged In Analyst: lab **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\lab\Sample Information\072318WS1.SIF
Batch ID:
Results Data Set: 072318WS1
Results Library: C:\data-AA\lab\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL **Method Last Saved: 3/2/2018 12:10:27**
Method Description: 7471A, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 38**
Sample ID: 1204073460|1784164|1 **Date Collected: 7/23/2018 14:04:48**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 1204073460|1784164|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.028	-0.028	-0.0000	0.0022	0.0006	14:05:39	Yes
2	-0.026	-0.026	-0.0000	0.0026	0.0006	14:06:09	Yes
Mean:	-0.027	-0.027	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	6.154	6.154	73.92				

==========

Sequence No.: 2 **Autosampler Location: 39**
Sample ID: 1204073461|1784164|1 **Date Collected: 7/23/2018 14:06:29**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 1204073461|1784164|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.031	2.031	0.0283	0.1165	0.0289	14:07:20	Yes
2	2.037	2.037	0.0284	0.1160	0.0290	14:07:50	Yes
Mean:	2.034	2.034	0.0283				
SD:	0.004	0.004	0.0001				
%RSD:	0.204	0.204	0.20				

==========

Sequence No.: 3 **Autosampler Location: 40**
Sample ID: 454658001|1784164|1 **Date Collected: 7/23/2018 14:08:09**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 454658001|1784164|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.206	0.206	0.0032	0.0156	0.0038	14:09:01	Yes
2	0.209	0.209	0.0032	0.0154	0.0038	14:09:31	Yes
Mean:	0.208	0.208	0.0032				
SD:	0.002	0.002	0.0000				
%RSD:	0.749	0.749	0.67				

==========

Sequence No.: 4 **Autosampler Location: 41**
Sample ID: 454658002|1784164|1 **Date Collected: 7/23/2018 14:09:50**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 454658002|1784164|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	0.372	0.372	0.0055	0.0243	0.0061	14:10:41	Yes
2	0.373	0.373	0.0055	0.0244	0.0061	14:11:11	Yes
Mean:	0.372	0.372	0.0055				
SD:	0.001	0.001	0.0000				
%RSD:	0.159	0.159	0.15				

==========

Sequence No.: 5 **Autosampler Location: 42**
Sample ID: 454658003|1784164|1 **Date Collected: 7/23/2018 14:11:31**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 454658003|1784164|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.132	1.132	0.0159	0.0663	0.0165	14:12:22	Yes
2	1.135	1.135	0.0160	0.0663	0.0166	14:12:52	Yes
Mean:	1.133	1.133	0.0159				
SD:	0.002	0.002	0.0000				
%RSD:	0.163	0.163	0.16				

==========

Sequence No.: 6 **Autosampler Location: 43**
Sample ID: 454658004|1784164|1 **Date Collected: 7/23/2018 14:13:11**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 454658004|1784164|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.492	0.492	0.0071	0.0308	0.0077	14:14:02	Yes
2	0.500	0.500	0.0072	0.0312	0.0078	14:14:32	Yes
Mean:	0.496	0.496	0.0072				
SD:	0.006	0.006	0.0001				
%RSD:	1.139	1.139	1.08				

==========

Sequence No.: 7 **Autosampler Location: 44**
Sample ID: 454914002|1784164|1 **Date Collected: 7/23/2018 14:14:52**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 454914002|1784164|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.407	0.407	0.0059	0.0274	0.0066	14:15:43	Yes
2	0.415	0.415	0.0060	0.0283	0.0067	14:16:13	Yes
Mean:	0.411	0.411	0.0060				
SD:	0.005	0.005	0.0001				
%RSD:	1.331	1.331	1.26				

==========

Sequence No.: 8 **Autosampler Location: 45**
Sample ID: 454925001|1784164|1 **Date Collected: 7/23/2018 14:16:33**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 454925001|1784164|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.016	-0.016	0.0001	0.0026	0.0007	14:17:24	Yes
2	-0.019	-0.019	0.0001	0.0024	0.0007	14:17:54	Yes
Mean:	-0.017	-0.017	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	11.77	11.77	26.02				

==========

Sequence No.: 9 **Autosampler Location: 46**
Sample ID: 1204073462|1784164|1 **Date Collected: 7/23/2018 14:18:13**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 1204073462|1784164|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.014	-0.014	0.0001	0.0029	0.0008	14:19:04	Yes
2	-0.007	-0.007	0.0002	0.0031	0.0009	14:19:35	Yes
Mean:	-0.010	-0.010	0.0002				
SD:	0.005	0.005	0.0001				
%RSD:	48.95	48.95	35.83				

Sequence No.: 10 **Autosampler Location: 47**
Sample ID: 1204073463|1784164|1 **Date Collected: 7/23/2018 14:19:55**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 1204073463|1784164|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.998	1.998	0.0278	0.1143	0.0285	14:20:46	Yes
2	2.017	2.017	0.0281	0.1146	0.0287	14:21:16	Yes
Mean:	2.008	2.008	0.0280				
SD:	0.013	0.013	0.0002				
%RSD:	0.671	0.671	0.66				

Sequence No.: 11 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 7/23/2018 14:21:36**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.978	4.978	0.0688	0.2794	0.0694	14:22:27	Yes
2	4.995	4.995	0.0691	0.2794	0.0697	14:22:57	Yes
Mean:	4.986	4.986	0.0689				
SD:	0.012	0.012	0.0002				
%RSD:	0.240	0.240	0.24				

QC value within limits for Hg 253.7 Recovery = 99.72%
All analyte(s) passed QC.

Sequence No.: 12 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 7/23/2018 14:23:16**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.028	-0.028	-0.0000	0.0020	0.0006	14:24:06	Yes
2	-0.028	-0.028	-0.0000	0.0018	0.0006	14:24:36	Yes
Mean:	-0.028	-0.028	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	0.108	0.108	0.88				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 13 **Autosampler Location: 48**
Sample ID: 1204073464|1784164|1 **Date Collected: 7/23/2018 14:24:56**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 1204073464|1784164|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.022	2.022	0.0282	0.1164	0.0288	14:25:47	Yes
2	2.034	2.034	0.0283	0.1161	0.0289	14:26:17	Yes
Mean:	2.028	2.028	0.0282				

SD:	0.009	0.009	0.0001
%RSD:	0.433	0.433	0.43

==========

Sequence No.: 14 **Autosampler Location: 49**
Sample ID: 1204073466|1784164|5 **Date Collected: 7/23/2018 14:26:38**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 1204073466|1784164|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.029	-0.029	-0.0001	0.0018	0.0006	14:27:30	Yes
2	-0.031	-0.031	-0.0001	0.0013	0.0005	14:28:00	Yes
Mean:	-0.030	-0.030	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	3.965	3.965	24.22				

==========

Sequence No.: 15 **Autosampler Location: 50**
Sample ID: 1204073562|1784164|1 **Date Collected: 7/23/2018 14:28:20**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 1204073562|1784164|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.989	1.989	0.0277	0.1146	0.0283	14:29:11	Yes
2	2.002	2.002	0.0279	0.1142	0.0285	14:29:41	Yes
Mean:	1.995	1.995	0.0278				
SD:	0.009	0.009	0.0001				
%RSD:	0.449	0.449	0.44				

==========

Sequence No.: 16 **Autosampler Location: 51**
Sample ID: 454925002|1784164|1 **Date Collected: 7/23/2018 14:30:01**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 454925002|1784164|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.033	-0.033	-0.0001	0.0023	0.0005	14:30:52	Yes
2	-0.023	-0.023	0.0000	0.0037	0.0007	14:31:22	Yes
Mean:	-0.028	-0.028	-0.0000				
SD:	0.007	0.007	0.0001				
%RSD:	26.30	26.30	247.54				

==========

Sequence No.: 17 **Autosampler Location: 52**
Sample ID: 454925003|1784164|1 **Date Collected: 7/23/2018 14:31:42**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 454925003|1784164|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.039	-0.039	-0.0002	0.0020	0.0004	14:32:33	Yes
2	-0.038	-0.038	-0.0002	0.0018	0.0004	14:33:03	Yes
Mean:	-0.038	-0.038	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	2.260	2.260	6.38				

==========

Sequence No.: 18 **Autosampler Location: 53**
Sample ID: 454925004|1784164|1 **Date Collected: 7/23/2018 14:33:23**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 454925004|1784164|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.027	-0.027	-0.0000	0.0019	0.0006	14:34:14	Yes
2	-0.021	-0.021	0.0001	0.0030	0.0007	14:34:44	Yes
Mean:	-0.024	-0.024	0.0000				
SD:	0.004	0.004	0.0001				
%RSD:	16.80	16.80	445.08				

==========

Sequence No.: 19 **Autosampler Location: 54**
Sample ID: 454925005|1784164|1 **Date Collected: 7/23/2018 14:35:04**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 454925005|1784164|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.026	-0.026	-0.0000	0.0025	0.0006	14:35:55	Yes
2	-0.024	-0.024	0.0000	0.0024	0.0006	14:36:25	Yes
Mean:	-0.025	-0.025	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	4.434	4.434	244.14				

==========

Sequence No.: 20 **Autosampler Location: 55**
Sample ID: 454944002|1784164|1 **Date Collected: 7/23/2018 14:36:45**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 454944002|1784164|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.515	0.515	0.0074	0.0319	0.0080	14:37:36	Yes
2	0.523	0.523	0.0075	0.0326	0.0082	14:38:06	Yes
Mean:	0.519	0.519	0.0075				
SD:	0.006	0.006	0.0001				
%RSD:	1.187	1.187	1.13				

==========

Sequence No.: 21 **Autosampler Location: 56**
Sample ID: 454944003|1784164|1 **Date Collected: 7/23/2018 14:38:26**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 454944003|1784164|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.474	0.474	0.0069	0.0299	0.0075	14:39:17	Yes
2	0.478	0.478	0.0069	0.0298	0.0075	14:39:47	Yes
Mean:	0.476	0.476	0.0069				
SD:	0.003	0.003	0.0000				
%RSD:	0.573	0.573	0.54				

==========

Sequence No.: 22 **Autosampler Location: 57**
Sample ID: 454944004|1784164|1 **Date Collected: 7/23/2018 14:40:06**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 454944004|1784164|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.454	0.454	0.0066	0.0293	0.0072	14:40:58	Yes
2	0.457	0.457	0.0066	0.0291	0.0073	14:41:28	Yes
Mean:	0.456	0.456	0.0066				
SD:	0.002	0.002	0.0000				
%RSD:	0.413	0.413	0.39				

==========

Sequence No.: 23 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 7/23/2018 14:41:47**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.922	4.922	0.0681	0.2772	0.0687	14:42:38	Yes
2	4.947	4.947	0.0684	0.2779	0.0690	14:43:08	Yes
Mean:	4.934	4.934	0.0682				
SD:	0.017	0.017	0.0002				
%RSD:	0.350	0.350	0.35				

QC value within limits for Hg 253.7 Recovery = 98.69%
All analyte(s) passed QC.

Sequence No.: 24 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 7/23/2018 14:43:27**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.020	-0.020	0.0001	0.0024	0.0007	14:44:18	Yes
2	-0.032	-0.032	-0.0001	0.0013	0.0005	14:44:47	Yes
Mean:	-0.026	-0.026	-0.0000				
SD:	0.008	0.008	0.0001				
%RSD:	31.83	31.83	744.83				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 25 **Autosampler Location: 58**
Sample ID: 454944005|1784164|1 **Date Collected: 7/23/2018 14:45:07**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 454944005|1784164|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.433	0.433	0.0063	0.0276	0.0069	14:45:58	Yes
2	0.438	0.438	0.0064	0.0283	0.0070	14:46:28	Yes
Mean:	0.436	0.436	0.0063				
SD:	0.003	0.003	0.0000				
%RSD:	0.799	0.799	0.76				

Sequence No.: 26 **Autosampler Location: 59**
Sample ID: 454944006|1784164|1 **Date Collected: 7/23/2018 14:46:48**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 454944006|1784164|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.458	0.458	0.0066	0.0295	0.0073	14:47:39	Yes
2	0.458	0.458	0.0066	0.0293	0.0073	14:48:10	Yes
Mean:	0.458	0.458	0.0066				
SD:	0.000	0.000	0.0000				
%RSD:	0.021	0.021	0.02				

Sequence No.: 27 **Autosampler Location: 60**
Sample ID: 454944007|1784164|1 **Date Collected: 7/23/2018 14:48:30**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 454944007|1784164|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.522	0.522	0.0075	0.0328	0.0081	14:49:21	Yes
2	0.527	0.527	0.0076	0.0329	0.0082	14:49:51	Yes

Mean:	0.524	0.524	0.0076
SD:	0.003	0.003	0.0000
%RSD:	0.653	0.653	0.62

==========

Sequence No.: 28 **Autosampler Location: 61**
Sample ID: 454944008|1784164|1 **Date Collected: 7/23/2018 14:50:12**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 454944008|1784164|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.506	0.506	0.0073	0.0319	0.0079	14:51:03	Yes
2	0.509	0.509	0.0073	0.0316	0.0080	14:51:33	Yes
Mean:	0.507	0.507	0.0073				
SD:	0.002	0.002	0.0000				
%RSD:	0.398	0.398	0.38				

==========

Sequence No.: 29 **Autosampler Location: 62**
Sample ID: 454944009|1784164|1 **Date Collected: 7/23/2018 14:51:54**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 454944009|1784164|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.487	0.487	0.0070	0.0307	0.0077	14:52:45	Yes
2	0.491	0.491	0.0071	0.0312	0.0077	14:53:15	Yes
Mean:	0.489	0.489	0.0071				
SD:	0.003	0.003	0.0000				
%RSD:	0.528	0.528	0.50				

==========

Sequence No.: 30 **Autosampler Location: 63**
Sample ID: 454944010|1784164|1 **Date Collected: 7/23/2018 14:53:35**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 454944010|1784164|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.405	0.405	0.0059	0.0272	0.0065	14:54:26	Yes
2	0.404	0.404	0.0059	0.0262	0.0065	14:54:56	Yes
Mean:	0.405	0.405	0.0059				
SD:	0.001	0.001	0.0000				
%RSD:	0.177	0.177	0.17				

==========

Sequence No.: 31 **Autosampler Location: 64**
Sample ID: 1204073467|1784168|1 **Date Collected: 7/23/2018 14:55:16**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 1204073467|1784168|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.035	-0.035	-0.0001	0.0018	0.0005	14:56:08	Yes
2	-0.036	-0.036	-0.0002	0.0017	0.0005	14:56:38	Yes
Mean:	-0.036	-0.036	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	2.327	2.327	7.60				

==========

Sequence No.: 32 **Autosampler Location: 65**
Sample ID: 1204073468|1784168|1 **Date Collected: 7/23/2018 14:56:58**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 1204073468|1784168|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.003	2.003	0.0279	0.1145	0.0285	14:57:49	Yes
2	2.009	2.009	0.0280	0.1153	0.0286	14:58:19	Yes
Mean:	2.006	2.006	0.0279				
SD:	0.004	0.004	0.0001				
%RSD:	0.198	0.198	0.20				

==========

Sequence No.: 33 **Autosampler Location: 66**
Sample ID: 454701001|1784168|1 **Date Collected: 7/23/2018 14:58:39**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 454701001|1784168|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.726	4.726	0.0654	0.2717	0.0660	14:59:31	Yes
2	4.822	4.822	0.0667	0.2880	0.0673	15:00:01	Yes
Mean:	4.774	4.774	0.0660				
SD:	0.067	0.067	0.0009				
%RSD:	1.412	1.412	1.41				

==========

Sequence No.: 34 **Autosampler Location: 67**
Sample ID: 454701003|1784168|1 **Date Collected: 7/23/2018 15:00:20**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 454701003|1784168|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.232	4.232	0.0586	0.3141	0.0592	15:01:12	Yes
2	1.533	1.533	0.0214	-0.4225	0.0221	15:01:41	Yes
Mean:	2.883	2.883	0.0400				
SD:	1.909	1.909	0.0263				
%RSD:	66.23	66.23	65.66				

==========

Sequence No.: 35 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 7/23/2018 15:02:01**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.760	4.760	0.0658	0.2591	0.0665	15:02:52	Yes
2	4.795	4.795	0.0663	0.2656	0.0669	15:03:22	Yes
Mean:	4.778	4.778	0.0661				
SD:	0.025	0.025	0.0003				
%RSD:	0.518	0.518	0.51				

QC value within limits for Hg 253.7 Recovery = 95.56%
All analyte(s) passed QC.

==========

Sequence No.: 36 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 7/23/2018 15:03:41**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.055	-0.055	-0.0004	-0.0021	0.0002	15:04:31	Yes
2	-0.039	-0.039	-0.0002	0.0006	0.0004	15:05:01	Yes
Mean:	-0.047	-0.047	-0.0003				
SD:	0.011	0.011	0.0002				
%RSD:	24.29	24.29	51.23				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Miscellaneous

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: **1783992**
Analyst: Prep: Jonathan Eskew-Martin Shanta Mack
Method: SW846 3050B
Lab SOP: GL-MA-E-009 REV# 28
Instrument: BAL-893

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1204073118	Metals Spike Mix I	UI180710-01	.25	mL
LCS	1204073118	Metals Spike Mix II	UI180710-02	.25	mL
MS	1204073119	Metals Spike Mix I	UI180515-01	.25	mL
MS	1204073119	Metals Spike Mix II	UI180710-02	.25	mL
MSD	1204073120	Metals Spike Mix I	UI180515-01	.25	mL
MSD	1204073120	Metals Spike Mix II	UI180710-02	.25	mL

Sample ID	Initial Prep Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)
1204073117 MB	19-JUL-2018 19:21:41	Soil	0.549	50	91.07468
1204073118 LCS	19-JUL-2018 19:21:41	Soil	0.514	50	97.27626
454944002	19-JUL-2018 19:21:41	Soil	0.501	50	99.8004
1204073121 SDILT (454944002)	19-JUL-2018 19:21:41	Soil	0.501	50	99.8004
1204073119 MS (454944002)	19-JUL-2018 19:21:41	Soil	0.504	50	99.20635
1204073120 MSD (454944002)	19-JUL-2018 19:21:41	Soil	0.516	50	96.89922
454944003	19-JUL-2018 19:21:41	Soil	0.523	50	95.60229
454944004	19-JUL-2018 19:21:41	Soil	0.545	50	91.74312
454944005	19-JUL-2018 19:21:41	Soil	0.516	50	96.89922
454944006	19-JUL-2018 19:21:41	Soil	0.505	50	99.0099
454944007	19-JUL-2018 19:21:41	Soil	0.51	50	98.03922
454944008	19-JUL-2018 19:21:41	Soil	0.518	50	96.5251
454944009	19-JUL-2018 19:21:41	Soil	0.508	50	98.4252
454944010	19-JUL-2018 19:21:41	Soil	0.517	50	96.7118

Reagent/Solvent Lot ID	Description	Amount
180719	HYDROCHLORIC ACID	10 mL
2771227	Concentrated Nitric Acid	1.25 mL
I-BC180313	Teflon chips for MB/LCS metals Solids	.5 g

Comments:
Block Temperature (90-100C): 95 C
Temperature within limits (Y/N)?: Y
Thermometer ID: 2127998
Hot Block ID: 16
Prep Date: 20-JUL-2018 10:37 METALMAN Shanta Mack
Digestion tube lot #: 1804377

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: **1783990**
Analyst: Prep: Jonathan Eskew-Martin Shanta Mack
Method: SW846 3050B
Lab SOP: GL-MA-E-009 REV# 28
Instrument: BAL-893

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1204073113	ICP-MS spiking soluiton A	UI180710-A	.25	mL
LCS	1204073113	ICP-MS spiking solution B	UI180710-B	.25	mL
MS	1204073115	ICP-MS spiking soluiton A	UI180710-A	.25	mL
MS	1204073115	ICP-MS spiking solution B	UI180710-B	.25	mL

Sample ID	Initial Prep Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)
1204073112 MB	19-JUL-2018 19:21:41	Soil	0.498	50	100.40161
1204073113 LCS	19-JUL-2018 19:21:41	Soil	0.544	50	91.91176
454944002	19-JUL-2018 19:21:41	Soil	0.523	50	95.60229
1204073116 SDILT (454944002)	19-JUL-2018 19:21:41	Soil	0.523	50	95.60229
1204073114 DUP (454944002)	19-JUL-2018 19:21:41	Soil	0.51	50	98.03922
1204073115 MS (454944002)	19-JUL-2018 19:21:41	Soil	0.5	50	100
454944003	19-JUL-2018 19:21:41	Soil	0.547	50	91.40768
454944004	19-JUL-2018 19:21:41	Soil	0.546	50	91.57509
454944005	19-JUL-2018 19:21:41	Soil	0.543	50	92.08103
454944006	19-JUL-2018 19:21:41	Soil	0.525	50	95.2381
454944007	19-JUL-2018 19:21:41	Soil	0.528	50	94.69697
454944008	19-JUL-2018 19:21:41	Soil	0.502	50	99.60159
454944009	19-JUL-2018 19:21:41	Soil	0.502	50	99.60159
454944010	19-JUL-2018 19:21:41	Soil	0.522	50	95.78544

Reagent/Solvent Lot ID	Description	Amount
2771227	Concentrated Nitric Acid	5 mL
2801172	Hydrogen Peroxide 30%, from Bioassay (LIMS ID BIO279284)	1.5 mL
I-BC180313	Teflon chips for MB/LCS metals Solids	.5 g

Comments:
Block Temperature (90-100C): 94 C
Temperature within limits (Y/N)?: Y
Thermometer ID: 118631
Hot Block ID: 2
Prep Date: 20-JUL-2018 10:45 METALMAN Shanta Mack
Digestion tube lot #: 1804377

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **1784162**
Analyst: Alan Stanley
Method: SW846 7471B Prep SW846 7471A Prep
Lab SOP: GL-MA-E-010 REV# 36
Instrument: Ohaus Balance AX432/E

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1204073461	MHGSOILMSSPIKE	WHG180720-14	.3	mL
MS	1204073463	MHGSOILMSSPIKE	WHG180720-14	.3	mL
MSD	1204073562	MHGSOILMSSPIKE	WHG180720-14	.3	mL

Sample ID	Prep Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)
1204073460 MB	20-JUL-2018 13:17:28	Solid	0.589	30	50.93379
1204073461 LCS	20-JUL-2018 13:17:28	Solid	0.511	30	58.70841
454658001	20-JUL-2018 13:17:28	Solid	0.508	30	59.05512
454658002	20-JUL-2018 13:17:28	Solid	0.547	30	54.84461
454658003	20-JUL-2018 13:17:28	Solid	0.519	30	57.80347
454658004	20-JUL-2018 13:17:28	Solid	0.509	30	58.9391
454914002	20-JUL-2018 13:17:28	Sludge	0.574	30	52.26481
454925001	20-JUL-2018 13:17:28	Solid	0.501	30	59.88024
1204073464 SDILT (454925001)	20-JUL-2018 13:17:28	Solid	0.501	30	59.88024
1204073462 DUP (454925001)	20-JUL-2018 13:17:28	Solid	0.519	30	57.80347
1204073463 MS (454925001)	20-JUL-2018 13:17:28	Solid	0.528	30	56.81818
1204073562 MSD (454925001)	20-JUL-2018 13:17:28	Solid	0.513	30	58.47953
454925002	20-JUL-2018 13:17:28	Solid	0.509	30	58.9391
454925003	20-JUL-2018 13:17:28	Solid	0.56	30	53.57143
454925004	20-JUL-2018 13:17:28	Solid	0.554	30	54.15162
454925005	20-JUL-2018 13:17:28	Solid	0.517	30	58.02708
454944002	20-JUL-2018 13:17:28	Soil	0.576	30	52.08333
454944003	20-JUL-2018 13:17:28	Soil	0.511	30	58.70841
454944004	20-JUL-2018 13:17:28	Soil	0.568	30	52.8169
454944005	20-JUL-2018 13:17:28	Soil	0.52	30	57.69231
454944006	20-JUL-2018 13:17:28	Soil	0.528	30	56.81818
454944007	20-JUL-2018 13:17:28	Soil	0.565	30	53.09735
454944008	20-JUL-2018 13:17:28	Soil	0.564	30	53.19149
454944009	20-JUL-2018 13:17:28	Soil	0.547	30	54.84461
454944010	20-JUL-2018 13:17:28	Soil	0.541	30	55.45287

Reagent/Solvent Lot ID	Description	Amount
2768581-C	5% KMnO4 solution	7.5 mL
2813937-C	50% Aqua Regia	3 mL
2814096-C	Hg reducing agent	3 mL
I-BC180313	Teflon chips for MB/LCS metals Solids	.5 g
IHG180720-01	Mercury Intermediate 1st Source 200 ug/L	250 mL
IHG180720-02	Mercury Intermediate 2nd Source 200 ug/L	250 mL
UHG2769148-01	Mercury Source Standard #1 1,000 mg/L	50 uL
UHG2769150-02	Mercury Source Standard #2 1,000 mg/L	50 uL
WHG180720-07	Mercury Working Standard 1st Source CAL S 0.2/CRA	30 uL

Comments:
Digestion Start Date: 20-JUL-2018 13:17
Digestion End Date: 20-JUL-2018 13:47
Block Temperature (92-98C): 94 C
Temperature within limits (Y/N)?: Y
Thermometer ID: 119374
Hot Block ID: 6

Prep Logbook

Sample ID	Prep Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)

Reagent/Solvent Lot ID	Description	Amount
WHG180720-08	Mercury Working Standard 1st Source CAL S 0.5	75 uL
WHG180720-09	Mercury Working 1st Source CAL S 2.0	300 uL
WHG180720-10	Mercury Working 1st Source CAL S 5.0/CCV	750 uL
WHG180720-11	Mercury Working 1st Source CAL S 10.0	1.5 mL
WHG180720-12	Mercury Working 2nd Source S 5.0/ICV	750 uL

Comments:

Standard Logbook

Serial ID:	UHG2769148-01	**Open/Reference Date:**	21-MAY-18	**Amount :**	100 mL
Name:	MHGSTOCK1	**Received:**	21-MAY-18	**Catalog Number :**	G34-060080-02-01
Type:	Source Material	**Expires:**	21-MAY-19	**Lot Number :**	175191-16
Employee:	Alan Stanley			**Solvent :**	10% HNO3
Supplier:	O2SI				
Description:	Mercury Source Standard #1 1,000 mg/L				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID:	UHG2769150-02	**Open/Reference Date:**	21-MAY-18	**Amount :**	100 mL
Name:	MHGSTOCK2	**Received:**	21-MAY-18	**Catalog Number :**	02SI-060080-02-01
Type:	Source Material	**Expires:**	21-MAY-19	**Lot Number :**	143369-148
Employee:	Alan Stanley			**Solvent :**	2% HNO3
Supplier:	02Si				
Description:	Mercury Source Standard #2 1,000 mg/L				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID:	UI171014-60	**Open/Reference Date:**	14-OCT-17	**Amount :**	100 mL
Name:	ICPMS High Range Standar	**Received:**	14-OCT-17	**Catalog Number :**	160212-02-01
Type:	Source Material	**Expires:**	14-OCT-18	**Lot Number :**	10066129-1
Employee:	Paul Boyd			**Solvent :**	2%HNO3
Supplier:	O2SI				
Description:	Linear Range Standard A				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Standard Logbook

Serial ID:	UI171014-61	**Open/Reference Date:**	14-OCT-17	**Amount :**	100 mL
Name:	ICPMS High Range Standar	**Received:**	14-OCT-17	**Catalog Number :**	160212-02-01
Type:	Source Material	**Expires:**	14-OCT-18	**Lot Number :**	10066129-4
Employee:	Paul Boyd			**Solvent :**	2% in 2%HNO3 + Tr HF
Supplier:	O2SI				
Description:	Linear Range Standard B				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID:	UI171101-40	**Open/Reference Date:**	26-FEB-18	**Amount :**	500 mL
Name:	TRACE ICP ICSA SOLN. A	**Received:**	31-OCT-17	**Catalog Number :**	160005-08-03
Type:	Source Material	**Expires:**	20-APR-19	**Lot Number :**	10069142-1
Employee:	Helen Camello			**Solvent :**	5% HNO3 mg/l
Supplier:	O2SI				
Description:	Trace ICP Interference Check Standard Solution A				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	20000 mg/L	Calcium	20000 mg/L
Iron	8000 mg/L	Magnesium	20000 mg/L

Serial ID:	UI171206-40	**Open/Reference Date:**	07-FEB-18	**Amount :**	500 mL
Name:	TRACE CALSTD#1A SOUR	**Received:**	04-DEC-17	**Catalog Number :**	HP2270-1-500
Type:	Source Material	**Expires:**	30-NOV-18	**Lot Number :**	1732532
Employee:	Helen Camello	**Verified:**	08-FEB-18	**Solvent :**	HNO3
Supplier:	Environmental Express				
Description:	Trace Calibration Std #1A				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Uranium-235	1.44 mg/L	Uranium-238	198.56 mg/L

Analyte	Concentration	Analyte	Concentration
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI171206-41 **Open/Reference Date:** 07-FEB-18 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUR **Received:** 04-DEC-17 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 30-NOV-18 **Lot Number :** 1732533
Employee: Helen Camello **Verified:** 08-FEB-18 **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI171206-42 **Open/Reference Date:** 12-DEC-17 **Amount :** 250 mL
Name: SILICON **Received:** 04-DEC-17 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 12-DEC-18 **Lot Number :** 1631236
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRONMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI171215-40 **Open/Reference Date:** 28-DEC-17 **Amount :** 1000 mL
Name: ICP HIGH RANGE STD-A **Received:** 08-DEC-17 **Catalog Number :** HP6991-1L
Type: Source Material **Expires:** 28-DEC-18 **Lot Number :** 1733804
Employee: Helen Camello **Verified:** 28-DEC-17 **Solvent :** +/-0.5%in2%HNO3
Supplier: Environmental Express
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Arsenic	100 mg/L
Barium	150 mg/L	Beryllium	30 mg/L
Boron	50 mg/L	Cadmium	100 mg/L
Calcium	500000 ug/L	Chromium	250 mg/L
Cobalt	100 mg/L	Copper	200 mg/L
Iron	500000 ug/L	Lead	250 mg/L
Magnesium	500000 ug/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	150 mg/L
Potassium	300000 ug/L	Selenium	100 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Sodium	500000 ug/L	Strontium	100 mg/L
Thallium	100 mg/L	Uranium	15000 ug/L
Vanadium	100 mg/L	Zinc	150 mg/L

Serial ID: UI171215-41 **Open/Reference Date:** 28-DEC-17 **Amount :** 1000 mL
Name: ICP HIGH RANGE STD B **Received:** 05-DEC-17 **Catalog Number :** HP6991-1L
Type: Source Material **Expires:** 28-DEC-18 **Lot Number :** 1733805
Employee: Helen Camello **Verified:** 28-DEC-17 **Solvent :** +/-0.5%in2%HNO3
Supplier: Environmental Express
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Molybdenum	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Sulfur	500 mg/L	Tin	10000 ug/L
Titanium	10000 ug/L		

Serial ID: UI180125-40 **Open/Reference Date:** 05-FEB-18 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 24-JAN-18 **Catalog Number :** 160211-06-03-A
Type: Source Material **Expires:** 05-FEB-19 **Lot Number :** 10065978-4
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Arsenic	100 mg/L
Barium	150 mg/L	Beryllium	30 mg/L
Boron	50 mg/L	Cadmium	100 mg/L
Chromium	250 mg/L	Cobalt	100 mg/L
Copper	200 mg/L	Lead	250 mg/L
Manganese	100 mg/L	Molybdenum	100 mg/L
Nickel	100 mg/L	Phosphorous	150 mg/L
Selenium	100 mg/L	Silica	1070 mg/L
Silicon	500 mg/L	Silver	100 mg/L
Strontium	100 mg/L	Thallium	100 mg/L
Tin	100 mg/L	Titanium	100 mg/L
Vanadium	100 mg/L	Zinc	150 mg/L

Standard Logbook

Serial ID:	UI180205-09	**Open/Reference Date:**	05-FEB-18	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #1	**Received:**	05-FEB-18	**Catalog Number :**	160044-13-02
Type:	Source Material	**Expires:**	05-FEB-19	**Lot Number :**	10074107-1
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				
Description:	ICPMS CRDL Master Soln #1				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	50 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	30 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	100 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	30 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	2 mg/L
Thorium	2 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID:	UI180205-10	**Open/Reference Date:**	05-FEB-18	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #2	**Received:**	05-FEB-18	**Catalog Number :**	160044-11-02
Type:	Source Material	**Expires:**	05-FEB-19	**Lot Number :**	10074107-3
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				
Description:	ICPMS CRDL Soln #2				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	3 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	5 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID:	UI180205-41	**Open/Reference Date:**	06-FEB-18	**Amount :**	500 mL
Name:	TRACE ICP ICSA SOLN A	**Received:**	05-FEB-18	**Catalog Number :**	160005-01-03
Type:	Source Material	**Expires:**	06-FEB-19	**Lot Number :**	156655-7
Employee:	Helen Camello			**Solvent :**	5%HNO3
Supplier:	o2si				
Description:	TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3				
Comments:	None				

Analyte	Concentration	Analyte	Concentration

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI180205-42 **Open/Reference Date:** 08-FEB-18 **Amount :** 500 mL
Name: SILICON 1000mg/L **Received:** 05-FEB-18 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 08-FEB-19 **Lot Number :** 142610-108
Employee: Helen Camello **Solvent :** in H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI180220-01 **Open/Reference Date:** 26-FEB-18 **Catalog Number :** HP7029-500
Name: Trace ICP ICSAB Source A **Received:** 16-FEB-18 **Lot Number :** 1804507
Type: Source Material **Expires:** 28-FEB-19
Employee: Helen Camello
Supplier: High Purity Standards
Description: Trace ICP ICSAB Source A
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	10 mg/L	Cadmium	20 mg/L
Chromium	20 mg/L	Cobalt	20 mg/L
Copper	20 mg/L	Lead	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Phosphorous	100 mg/L	Potassium	200 mg/L
Selenium	100 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Uranium	20 mg/L
Vanadium	20 mg/L	Zinc	20 mg/L

Serial ID: UI180220-02 **Open/Reference Date:** 26-FEB-18 **Catalog Number :** HP7029-500
Name: Trace ICP ICSAB Source B **Received:** 22-FEB-18 **Lot Number :** 1804508
Type: Source Material **Expires:** 28-FEB-19
Employee: Helen Camello
Supplier: High Purity Standards
Description: Trace ICP ICSAB Source B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Boron	20 ug/mL
Molybdenum	20 mg/L	Silica	42.78 mg/L

Analyte	Concentration	Analyte	Concentration
Silicon	20 mg/L	Silver	10 mg/L
Sulfur	100 mg/L	Tin	20 mg/L
Titanium	20 ug/mL		

Serial ID: UI180228-40 **Open/Reference Date:** 19-APR-18 **Amount :** 500 mL
Name: TRACE ICP Stock PQL Sta **Received:** 27-FEB-18 **Catalog Number :** 160543-02-03
Type: Source Material **Expires:** 19-APR-19 **Lot Number :** 10064382-3
Employee: Shane Tola **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silica	106.95 mg/L	Silicon	50 mg/L
Silver	2.5 mg/L	Sodium	150 mg/L
Strontium	2.5 mg/L	Sulfur	50 mg/L
Thallium	10 mg/L	Tin	5 mg/L
Titanium	2.5 mg/L	Uranium	25 mg/L
Vanadium	2.5 mg/L	Zinc	5 mg/L

Serial ID: UI180301-40 **Open/Reference Date:** 12-MAR-18 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 01-MAR-18 **Catalog Number :** 160358-01-03
Type: Source Material **Expires:** 12-MAR-19 **Lot Number :** 10075543-2
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: 02si
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L

Analyte	Concentration	Analyte	Concentration
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI180301-41 **Open/Reference Date:** 12-MAR-18 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 01-MAR-18 **Catalog Number :** 160358-01-03
Type: Source Material **Expires:** 12-MAR-19 **Lot Number :** 10075543-4
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: 02si
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI180515-01 **Open/Reference Date:** 15-MAY-18 **Catalog Number :** GEL-25
Name: METALSPIKE-1 **Received:** 15-MAY-18 **Lot Number :** N2-MEB667968
Type: Source Material **Expires:** 15-MAY-19
Employee: Edmund Frampton
Supplier: Inorganic Ventures
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Lithium	10 ug/mL	Magnesium	1000 ug/mL
Phosphorous	100 ug/mL	Potassium	1000 ug/mL
Silver	20 ug/mL	Sodium	1000 ug/mL
Strontium	100 ug/mL		

Serial ID: UI180518-43 **Open/Reference Date:** 26-JUN-18 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 18-MAY-18 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 26-JUN-19 **Lot Number :** 158237-52
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI

Standard Logbook

Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI180603-03 **Open/Reference Date:** 03-JUN-18 **Catalog Number :** 060074-05-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 03-JUN-18 **Lot Number :** 10070573-2
Type: Source Material **Expires:** 03-JUN-19 **Solvent :** 2% HNO3 + Tr HF
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI180603-12 **Open/Reference Date:** 03-JUN-18 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 03-JUN-18 **Catalog Number :** 160033-02-02
Type: Source Material **Expires:** 03-JUN-19 **Lot Number :** 10069799-2
Employee: Paul Boyd **Solvent :** +/- 2.0% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI180603-13 **Open/Reference Date:** 03-JUN-18 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 03-JUN-18 **Catalog Number :** 160033-03-02
Type: Source Material **Expires:** 03-JUN-19 **Lot Number :** 10069799-4
Employee: Paul Boyd **Solvent :** +/- 2.0% in 2% HNO3 + tr HF
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI180614-07 **Open/Reference Date:** 14-JUN-18 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 14-JUN-18 **Catalog Number :** 160054-02-03
Type: Source Material **Expires:** 14-JUN-19 **Lot Number :** 10066767-5
Employee: Paul Boyd **Solvent :** 2% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 20ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI180614-08 **Open/Reference Date:** 14-JUN-18 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 14-JUN-18 **Catalog Number :** 160054-03-03
Type: Source Material **Expires:** 14-JUN-19 **Lot Number :** 10066767-4
Employee: Paul Boyd **Solvent :** 2% HNO3/1% HF 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 20ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI180614-09 **Open/Reference Date:** 14-JUN-18 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 14-JUN-18 **Catalog Number :** 160055-01-03
Type: Source Material **Expires:** 14-JUN-19 **Lot Number :** 10066767-6
Employee: Paul Boyd **Solvent :** 2% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 2000ppm

Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI180710-01 **Open/Reference Date:** 10-JUL-18 **Catalog Number :** GEL-25
Name: METALSPIKE-1 **Received:** 10-JUL-18 **Lot Number :** N2-MEB669365
Type: Source Material **Expires:** 10-JUL-19
Employee: Edmund Frampton
Supplier: Inorganic Ventures
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Lithium	10 ug/mL	Magnesium	1000 ug/mL
Phosphorous	100 ug/mL	Potassium	1000 ug/mL
Silver	20 ug/mL	Sodium	1000 ug/mL
Strontium	100 ug/mL		

Serial ID: UI180710-02 **Open/Reference Date:** 10-JUL-18 **Catalog Number :** GEL-26
Name: METALSPIKE-2 **Received:** 10-JUL-18 **Lot Number :** N2-MEB669364
Type: Source Material **Expires:** 10-JUL-19
Employee: Edmund Frampton
Supplier: Inorganic Ventures
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2139 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Standard Logbook

Serial ID:	UI180710-A	**Open/Reference Date:**	10-JUL-18	**Catalog Number :**	GEL-12A
Name:	ICP-MS SPIKE A	**Received:**	10-JUL-18	**Lot Number :**	N2-MEB665439
Type:	Source Material	**Expires:**	10-JUL-19		
Employee:	Shanta Mack				
Supplier:	Inorganic Ventures				
Description:	ICP-MS spiking soluiton A				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Hafnium	10 mg/L
Molybdenum	10 mg/L	Tantalum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Tungsten	10 mg/L	Zirconium	10 mg/L

Serial ID:	UI180710-B	**Open/Reference Date:**	10-JUL-18	**Catalog Number :**	GEL-12B
Name:	ICP-MS SPIKE B	**Received:**	10-JUL-18	**Lot Number :**	N2-MEB665438
Type:	Source Material	**Expires:**	10-JUL-19		
Employee:	Shanta Mack				
Supplier:	O2Si				
Description:	ICP-MS spiking solution B				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	400 mg/L	Arsenic	10 mg/L
Barium	10 mg/L	Beryllium	10 mg/L
Bismuth	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Calcium	400 mg/L
Cesium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Iron	400 mg/L	Lead	10 mg/L
Lithium	10 mg/L	Magnesium	400 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Phosphorous	400 mg/L	Potassium	400 mg/L
Rhenium	10 mg/L	Rhodium	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Sodium	400 mg/L	Strontium	10 mg/L
Thallium	10 mg/L	Thorium	10 mg/L
Uranium	10 mg/L	Uranium-235	.072 mg/L
Uranium-238	9.928 mg/L	Vanadium	10 mg/L
Zinc	10 mg/L		

Serial ID:	UI180717-11	**Open/Reference Date:**	17-JUL-18	**Amount :**	1000 mL
Name:	ICP-MS ICSA Master A Nex	**Received:**	17-JUL-18	**Catalog Number :**	60013-01-01LNexion
Type:	Source Material	**Expires:**	17-JUL-19	**Lot Number :**	10065549-5
Employee:	Paul Boyd			**Solvent :**	5% HNO3 + Tr HF
Supplier:	02SI				

Standard Logbook

Description: ICP-MS ICSA Master A NEXION
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UMS180603-01 **Open/Reference Date:** 03-JUN-18 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-JUN-18 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 30-MAY-19 **Lot Number :** 48-043CR
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS180603-02 **Open/Reference Date:** 03-JUN-18 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-JUN-18 **Lot Number :** 48-045CR
Type: Source Material **Expires:** 30-MAY-19
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Standard Logbook

Serial ID: UMS180603-03 **Open/Reference Date:** 03-JUN-18 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-JUN-18 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 30-MAY-19 **Lot Number :** 48-044CR
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG180720-01 **Open/Reference Date:** 20-JUL-18 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 20-JUL-18 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 27-JUL-18 **Solvent :** 1mL HNO3 + TypeI H2O
Employee: Alan Stanley
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG2769148-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG180720-02 **Open/Reference Date:** 20-JUL-18 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 20-JUL-18 **Solvent :** 2% HNO3-1734294
Type: Intermediate **Expires:** 27-JUL-18
Employee: Alan Stanley
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG2769150-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG180720-07 **Open/Reference Date:** 20-JUL-18 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 20-JUL-18 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 24-JUL-18
Employee: Alan Stanley
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG180720-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Standard Logbook

Serial ID: WHG180720-08 **Open/Reference Date:** 20-JUL-18 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 20-JUL-18 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 24-JUL-18
Employee: Alan Stanley
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG180720-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG180720-09 **Open/Reference Date:** 20-JUL-18 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 20-JUL-18 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 24-JUL-18
Employee: Alan Stanley
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG180720-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG180720-10 **Open/Reference Date:** 20-JUL-18 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 20-JUL-18 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 24-JUL-18
Employee: Alan Stanley
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG180720-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG180720-11 **Open/Reference Date:** 20-JUL-18 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 20-JUL-18 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 24-JUL-18
Employee: Alan Stanley
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG180720-01	Mercury	200 ug/L	1500 uL	30 mL	10 ug/L

Standard Logbook

Serial ID: WHG180720-12 **Open/Reference Date:** 20-JUL-18 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 20-JUL-18 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 24-JUL-18
Employee: Alan Stanley
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG180720-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG180720-14 **Open/Reference Date:** 20-JUL-18 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 20-JUL-18 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 24-JUL-18
Employee: Alan Stanley
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG2769148-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI180717-40 **Open/Reference Date:** 17-JUL-18 **Balance Id :** 216
Name: ICP HIGH RANGE STANDA **Received:** 25-JAN-18 **Lot Number :** 10065978-1
Type: Working **Expires:** 17-AUG-18 **Pipet Id :** K13302G
Employee: Helen Camello **Solvent :** 3%HCL and1%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STANDARD A
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI180125-40	Antimony	100 mg/L	50 mL	500 mL	10000 ug/L
UI180125-40	Arsenic	100 mg/L	50 mL	500 mL	10000 ug/L
UI180125-40	Barium	150 mg/L	50 mL	500 mL	15000 ug/L
UI180125-40	Beryllium	30 mg/L	50 mL	500 mL	3000 ug/L
UI180125-40	Boron	50 mg/L	50 mL	500 mL	5000 ug/L
UI180125-40	Cadmium	100 mg/L	50 mL	500 mL	10000 ug/L
UI180125-40	Chromium	250 mg/L	50 mL	500 mL	25000 ug/L
UI180125-40	Cobalt	100 mg/L	50 mL	500 mL	10000 ug/L
UI180125-40	Copper	200 mg/L	50 mL	500 mL	20000 ug/L
UI180125-40	Lead	250 mg/L	50 mL	500 mL	25000 ug/L
UI180125-40	Manganese	100 mg/L	50 mL	500 mL	10000 ug/L
UI180125-40	Molybdenum	100 mg/L	50 mL	500 mL	10000 ug/L
UI180125-40	Nickel	100 mg/L	50 mL	500 mL	10000 ug/L
UI180125-40	Phosphorous	150 mg/L	50 mL	500 mL	15000 ug/L
UI180125-40	Selenium	100 mg/L	50 mL	500 mL	10000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI180125-40	Silica	1070 mg/L	50 mL	500 mL	107000 ug/L
UI180125-40	Silicon	500 mg/L	50 mL	500 mL	50000 ug/L
UI180125-40	Silver	100 mg/L	50 mL	500 mL	1000 ug/L
UI180125-40	Strontium	100 mg/L	50 mL	500 mL	10000 ug/L
UI180125-40	Thallium	100 mg/L	50 mL	500 mL	10000 ug/L
UI180125-40	Tin	100 mg/L	50 mL	500 mL	10000 ug/L
UI180125-40	Titanium	100 mg/L	50 mL	500 mL	10000 ug/L
UI180125-40	Vanadium	100 mg/L	50 mL	500 mL	10000 ug/L
UI180125-40	Zinc	150 mg/L	50 mL	500 mL	15000 ug/L

Serial ID: WI180717-41 **Open/Reference Date:** 17-JUL-18 **Balance Id :** 216
Name: ICP HIGH RANGE STD B **Received:** 15-DEC-17 **Lot Number :** 1733804/1733805
Type: Working **Expires:** 17-AUG-18 **Pipet Id :** K13302G
Employee: Helen Camello **Solvent :** 3%HCLand 1%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A and SOLUTION B
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI171215-40	Aluminum	500000 ug/L	50 mL	500 mL	500000 ug/L
UI171215-40	Arsenic	100 mg/L	50 mL	500 mL	10000 ug/L
UI171215-40	Barium	150 mg/L	50 mL	500 mL	15000 ug/L
UI171215-40	Beryllium	30 mg/L	50 mL	500 mL	3000 ug/L
UI171215-40	Boron	50 mg/L	50 mL	500 mL	5000 ug/L
UI171215-40	Cadmium	100 mg/L	50 mL	500 mL	10000 ug/L
UI171215-40	Calcium	500000 ug/L	50 mL	500 mL	500000 ug/L
UI171215-40	Chromium	250 mg/L	50 mL	500 mL	25000 ug/L
UI171215-40	Cobalt	100 mg/L	50 mL	500 mL	10000 ug/L
UI171215-40	Copper	200 mg/L	50 mL	500 mL	20000 ug/L
UI171215-40	Iron	500000 ug/L	50 mL	500 mL	500000 ug/L
UI171215-40	Lead	250 mg/L	50 mL	500 mL	25000 ug/L
UI171215-40	Magnesium	500000 ug/L	50 mL	500 mL	500000 ug/L
UI171215-40	Manganese	100 mg/L	50 mL	500 mL	10000 ug/L
UI171215-40	Nickel	100 mg/L	50 mL	500 mL	10000 ug/L
UI171215-40	Phosphorous	150 mg/L	50 mL	500 mL	15000 ug/L
UI171215-40	Potassium	300000 ug/L	50 mL	500 mL	300000 ug/L
UI171215-40	Selenium	100 mg/L	50 mL	500 mL	10000 ug/L
UI171215-40	Sodium	500000 ug/L	50 mL	500 mL	500000 ug/L
UI171215-40	Strontium	100 mg/L	50 mL	500 mL	10000 ug/L
UI171215-40	Thallium	100 mg/L	50 mL	500 mL	10000 ug/L
UI171215-40	Uranium	15000 ug/L	50 mL	500 mL	15000 ug/L
UI171215-40	Vanadium	100 mg/L	50 mL	500 mL	10000 ug/L
UI171215-40	Zinc	150 mg/L	50 mL	500 mL	15000 ug/L
UI171215-41	Antimony	10000 ug/L	50 mL	500 mL	10000 ug/L
UI171215-41	Molybdenum	10000 ug/L	50 mL	500 mL	10000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI171215-41	Silica	107000 ug/L	50 mL	500 mL	107000 ug/L
UI171215-41	Silicon	50000 ug/L	50 mL	500 mL	50000 ug/L
UI171215-41	Sulfur	500 mg/L	50 mL	500 mL	50000 ug/L
UI171215-41	Tin	10000 ug/L	50 mL	500 mL	10000 ug/L
UI171215-41	Titanium	10000 ug/L	50 mL	500 mL	10000 ug/L

Serial ID: WI180717-48 **Open/Reference Date:** 17-JUL-18 **Amount :** 25 mL
Name: Trace ICP ICSA **Received:** 01-NOV-17 **Catalog Number :** 160005-08-03
Type: Working **Expires:** 17-OCT-18 **Lot Number :** 1109048
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI171101-40	Aluminum	20000 mg/L	25 mL	1000 mL	500000 UG/L
UI171101-40	Calcium	20000 mg/L	25 mL	1000 mL	500000 UG/L
UI171101-40	Iron	8000 mg/L	25 mL	1000 mL	200000 UG/L
UI171101-40	Magnesium	20000 mg/L	25 mL	1000 mL	500000 UG/L

Serial ID: WI180717-49 **Open/Reference Date:** 17-JUL-18 **Balance Id :** 216
Name: Trace ICP ICSAB **Received:** 01-NOV-17 **Pipet Id :** K13302G
Type: Working **Expires:** 17-AUG-18 **Solvent :** 3%HCL AND 1%HNO3%
Employee: Helen Camello
Supplier: Environmental Express
Description: Trace ICP Interferent Check Standard AB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI171101-40	Aluminum	20000 mg/L	12.5 mL	500 mL	500000 ug/L
UI171101-40	Calcium	20000 mg/L	12.5 mL	500 mL	500000 ug/L
UI171101-40	Iron	8000 mg/L	12.5 mL	500 mL	500000 ug/L
UI171101-40	Magnesium	20000 mg/L	12.5 mL	500 mL	500000 ug/L
UI180220-01	Arsenic	20 mg/L	12.5 mL	500 mL	500 ug/L
UI180220-01	Barium	20 mg/L	12.5 mL	500 mL	500 ug/L
UI180220-01	Beryllium	10 mg/L	12.5 mL	500 mL	250 ug/L
UI180220-01	Cadmium	20 mg/L	12.5 mL	500 mL	500 ug/L
UI180220-01	Chromium	20 mg/L	12.5 mL	500 mL	500 ug/L
UI180220-01	Cobalt	20 mg/L	12.5 mL	500 mL	500 ug/L
UI180220-01	Copper	20 mg/L	12.5 mL	500 mL	500 ug/L
UI180220-01	Lead	20 mg/L	12.5 mL	500 mL	500 ug/L
UI180220-01	Manganese	20 mg/L	12.5 mL	500 mL	500 ug/L
UI180220-01	Nickel	20 mg/L	12.5 mL	500 mL	500 ug/L
UI180220-01	Phosphorous	100 mg/L	12.5 mL	500 mL	2500 ug/L
UI180220-01	Potassium	200 mg/L	12.5 mL	500 mL	5000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI180220-01	Selenium	100 mg/L	12.5 mL	500 mL	2500 ug/L
UI180220-01	Strontium	20 mg/L	12.5 mL	500 mL	500 ug/L
UI180220-01	Thallium	20 mg/L	12.5 mL	500 mL	500 ug/L
UI180220-01	Uranium	20 mg/L	12.5 mL	500 mL	500 ug/L
UI180220-01	Vanadium	20 mg/L	12.5 mL	500 mL	500 ug/L
UI180220-01	Zinc	20 mg/L	12.5 mL	500 mL	500 ug/L
UI180220-02	Antimony	20 mg/L	12.5 mL	500 mL	500 ug/L
UI180220-02	Boron	20 ug/mL	12.5 mL	500 mL	500 ug/L
UI180220-02	Molybdenum	20 mg/L	12.5 mL	500 mL	500 ug/L
UI180220-02	Silica	42.78 mg/L	12.5 mL	500 mL	10700 ug/L
UI180220-02	Silicon	20 mg/L	12.5 mL	500 mL	5000 ug/L
UI180220-02	Silver	10 mg/L	12.5 mL	500 mL	250 ug/L
UI180220-02	Sulfur	100 mg/L	12.5 mL	500 mL	2500 ug/L
UI180220-02	Tin	20 mg/L	12.5 mL	500 mL	500 ug/L
UI180220-02	Titanium	20 ug/mL	12.5 mL	500 mL	500 ug/L
UI180518-43	Sodium	1000 ug/mL	2.5 mL	500 mL	5000 ug/L

Serial ID: WI180723-42 **Open/Reference Date:** 23-JUL-18 **Balance Id :** 216

Name: TRACE ICP 0.1 PPM STD. **Received:** 06-DEC-17 **Pipet Id :** K13302G

Type: Working **Expires:** 24-JUL-18 **Solvent :** 3%HCL and 1%HNO3 -2814595

Employee: Helen Camello

Supplier: GEL

Description: TRACE ICP 0.1 PPM CALIBRATION STD.

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI180723-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI180723-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI180723-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI180723-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI180723-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI180723-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI180723-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI180723-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI180723-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI180723-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI180723-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI180723-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI180723-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI180723-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI180723-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI180723-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI180723-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI180723-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI180723-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI180723-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI180723-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI180723-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI180723-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI180723-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI180723-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI180723-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI180723-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI180723-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI180723-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI180723-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI180723-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI180723-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI180723-43 **Open/Reference Date:** 23-JUL-18 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 06-DEC-17 **Pipet Id :** K13302G
Type: Working **Expires:** 24-JUL-18 **Solvent :** 3%HCL AND 1%HNO3-2814595
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI171206-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI171206-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI171206-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI171206-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI171206-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI171206-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI171206-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI171206-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI171206-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI171206-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI180205-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI180205-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI180518-43	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L

Serial ID: WI180723-44 **Open/Reference Date:** 23-JUL-18 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 06-DEC-17 **Pipet Id :** K13302G
Type: Working **Expires:** 24-JUL-18 **Solvent :** 3%HCL&1%HNO3-2814595
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI171206-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI171206-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI171206-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI171206-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI171206-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI171206-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI171206-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI171206-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI171206-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI171206-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI180205-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI180205-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI180723-45 **Open/Reference Date:** 23-JUL-18 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 05-FEB-18 **Pipet Id :** K13002G
Type: Working **Expires:** 24-JUL-18 **Solvent :** 3%HCL AND 1%HNO3%-2814595
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI180205-41	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI180205-41	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI180205-41	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI180205-41	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI180518-43	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI180723-46 **Open/Reference Date:** 23-JUL-18 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 01-MAR-18 **Pipet Id :** K13302G
Type: Working **Expires:** 24-JUL-18 **Solvent :** 3%HCL AND 1%HNO-2814595
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI171206-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI171206-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI180301-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI180301-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI180301-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI180301-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI180301-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI180301-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI180301-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI180301-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI180301-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI180301-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI180301-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI180301-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L

Serial ID: WI180723-47 **Open/Reference Date:** 23-JUL-18 **Balance Id :** 216
Name: PQL Working Standard **Received:** 28-FEB-18 **Pipet Id :** K13302G
Type: Working **Expires:** 24-JUL-18 **Solvent :** 3%HCL&1%HNO3-2814595
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI180228-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI180228-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI180228-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI180228-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI180228-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI180228-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI180228-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI180228-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI180228-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI180228-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI180228-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI180228-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI180228-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI180228-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI180228-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI180228-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI180228-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI180228-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI180228-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI180228-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI180228-40	Silica	106.95 mg/L	2 mL	1000 mL	1069.5 ug/L
UI180228-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI180228-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI180228-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI180228-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI180228-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI180228-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI180228-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI180228-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI180228-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI180228-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI180228-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI180724-42 **Open/Reference Date:** 24-JUL-18 **Balance Id :** 216

Name: TRACE ICP 0.1 PPM STD. **Received:** 06-DEC-17 **Pipet Id :** K13302G

Type: Working **Expires:** 25-JUL-18 **Solvent :** 3%HCL and 1%HNO3 -2814595

Employee: Helen Camello

Supplier: GEL

Description: TRACE ICP 0.1 PPM CALIBRATION STD.

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI180724-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI180724-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI180724-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI180724-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI180724-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI180724-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI180724-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI180724-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI180724-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI180724-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI180724-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI180724-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI180724-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI180724-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI180724-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI180724-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI180724-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI180724-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI180724-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI180724-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI180724-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI180724-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI180724-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI180724-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI180724-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI180724-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI180724-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI180724-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI180724-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI180724-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI180724-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI180724-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI180724-43 **Open/Reference Date:** 24-JUL-18 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 06-DEC-17 **Pipet Id :** K13302G
Type: Working **Expires:** 25-JUL-18 **Solvent :** 3%HCL AND 1%HNO3-2814595
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI171206-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI171206-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI171206-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI171206-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI171206-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI171206-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI171206-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI171206-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI171206-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI171206-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI171206-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI180205-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI180205-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI180518-43	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L

Serial ID: WI180724-44 **Open/Reference Date:** 24-JUL-18 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 06-DEC-17 **Pipet Id :** K13302G
Type: Working **Expires:** 25-JUL-18 **Solvent :** 3%HCL&1%HNO3-2814595
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI171206-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI171206-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI171206-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI171206-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI171206-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI171206-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI171206-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI171206-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI171206-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI171206-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI171206-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI180205-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI180205-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI180724-45 **Open/Reference Date:** 24-JUL-18 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 05-FEB-18 **Pipet Id :** K13002G
Type: Working **Expires:** 25-JUL-18 **Solvent :** 3%HCL AND 1%HNO3%-2814595
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI180205-41	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI180205-41	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI180205-41	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI180205-41	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI180518-43	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI180724-46 **Open/Reference Date:** 24-JUL-18 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 01-MAR-18 **Pipet Id :** K13302G
Type: Working **Expires:** 25-JUL-18 **Solvent :** 3%HCL AND 1%HNO-2814595
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI171206-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI171206-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI180301-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI180301-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI180301-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI180301-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI180301-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI180301-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI180301-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI180301-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI180301-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI180301-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI180301-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI180301-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI180301-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI180301-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L

Serial ID: WI180724-47 **Open/Reference Date:** 24-JUL-18 **Balance Id :** 216
Name: PQL Working Standard **Received:** 28-FEB-18 **Pipet Id :** K13302G
Type: Working **Expires:** 25-JUL-18 **Solvent :** 3%HCL&1%HNO3-2814595
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI180228-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI180228-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI180228-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI180228-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI180228-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI180228-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI180228-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI180228-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI180228-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI180228-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI180228-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI180228-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI180228-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI180228-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI180228-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI180228-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI180228-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI180228-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI180228-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI180228-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI180228-40	Silica	106.95 mg/L	2 mL	1000 mL	1069.5 ug/L
UI180228-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI180228-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI180228-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI180228-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI180228-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI180228-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI180228-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI180228-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI180228-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI180228-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI180228-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS180723-04 **Open/Reference Date:** 23-JUL-18 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 23-JUL-18 **Balance Id :** 4025216
Type: Working **Expires:** 24-JUL-18 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl -2814697
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI180603-03	Tungsten	10 mg/L	5 mL	500 mL	100 ug/l
UMS180603-01	Arsenic	10 mg/L	5 mL	500 mL	100 ug/l
UMS180603-01	Barium	10 mg/L	5 mL	500 mL	100 ug/l
UMS180603-01	Beryllium	10 mg/L	5 mL	500 mL	100 ug/l
UMS180603-01	Boron	20 mg/L	5 mL	500 mL	200 ug/l
UMS180603-01	Cadmium	10 mg/L	5 mL	500 mL	100 ug/l
UMS180603-01	Chromium	10 mg/L	5 mL	500 mL	100 ug/l
UMS180603-01	Cobalt	10 mg/L	5 mL	500 mL	100 ug/l
UMS180603-01	Copper	10 mg/L	5 mL	500 mL	100 ug/l
UMS180603-01	Lead	10 mg/L	5 mL	500 mL	100 ug/l
UMS180603-01	Lithium	10 mg/L	5 mL	500 mL	100 ug/l
UMS180603-01	Manganese	10 mg/L	5 mL	500 mL	100 ug/l
UMS180603-01	Nickel	10 mg/L	5 mL	500 mL	100 ug/l
UMS180603-01	Selenium	10 mg/L	5 mL	500 mL	100 ug/l
UMS180603-01	Silver	10 mg/L	5 mL	500 mL	100 ug/l
UMS180603-01	Strontium	10 mg/L	5 mL	500 mL	100 ug/l
UMS180603-01	Thallium	10 mg/L	5 mL	500 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS180603-01	Thorium	10 mg/L	5 mL	500 mL	100 ug/l
UMS180603-01	Uranium	10 mg/L	5 mL	500 mL	100 ug/l
UMS180603-01	Vanadium	10 mg/L	5 mL	500 mL	100 ug/l
UMS180603-01	Zinc	10 mg/L	5 mL	500 mL	100 ug/l
UMS180603-02	Aluminum	1000 mg/L	5 mL	500 mL	10000 ug/l
UMS180603-02	Calcium	1000 mg/L	5 mL	500 mL	10000 ug/l
UMS180603-02	Iron	1000 mg/L	5 mL	500 mL	10000 ug/l
UMS180603-02	Magnesium	1000 mg/L	5 mL	500 mL	10000 ug/l
UMS180603-02	Phosphorous	1000 mg/L	5 mL	500 mL	10000 ug/l
UMS180603-02	Potassium	1000 mg/L	5 mL	500 mL	10000 ug/l
UMS180603-02	Sodium	1000 mg/L	5 mL	500 mL	10000 ug/l
UMS180603-03	Antimony	10 mg/L	5 mL	500 mL	100 ug/l
UMS180603-03	Molybdenum	10 mg/L	5 mL	500 mL	100 ug/l
UMS180603-03	Tin	10 mg/L	5 mL	500 mL	100 ug/l
UMS180603-03	Titanium	10 mg/L	5 mL	500 mL	100 ug/l
UMS180603-03	Zirconium	10 mg/L	5 mL	500 mL	100 ug/l

Serial ID: WMS180723-04A **Open/Reference Date:** 23-JUL-18 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 23-JUL-18 **Pipet Id :** 3541598
Type: Working **Expires:** 24-JUL-18 **Solvent :** 2%HNO3/1%HCl -2814697
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS180723-04	Aluminum	10000 ug/l	50 mL	500 mL	1000 ug/l
WMS180723-04	Antimony	100 ug/l	50 mL	500 mL	10 ug/l
WMS180723-04	Arsenic	100 ug/l	50 mL	500 mL	10 ug/l
WMS180723-04	Barium	100 ug/l	50 mL	500 mL	10 ug/l
WMS180723-04	Beryllium	100 ug/l	50 mL	500 mL	10 ug/l
WMS180723-04	Boron	200 ug/l	50 mL	500 mL	20 ug/l
WMS180723-04	Cadmium	100 ug/l	50 mL	500 mL	10 ug/l
WMS180723-04	Calcium	10000 ug/l	50 mL	500 mL	1000 ug/l
WMS180723-04	Chromium	100 ug/l	50 mL	500 mL	10 ug/l
WMS180723-04	Cobalt	100 ug/l	50 mL	500 mL	10 ug/l
WMS180723-04	Copper	100 ug/l	50 mL	500 mL	10 ug/l
WMS180723-04	Iron	10000 ug/l	50 mL	500 mL	1000 ug/l
WMS180723-04	Lead	100 ug/l	50 mL	500 mL	10 ug/l
WMS180723-04	Lithium	100 ug/l	50 mL	500 mL	10 ug/l
WMS180723-04	Magnesium	10000 ug/l	50 mL	500 mL	1000 ug/l
WMS180723-04	Manganese	100 ug/l	50 mL	500 mL	10 ug/l
WMS180723-04	Molybdenum	100 ug/l	50 mL	500 mL	10 ug/l
WMS180723-04	Nickel	100 ug/l	50 mL	500 mL	10 ug/l
WMS180723-04	Phosphorous	10000 ug/l	50 mL	500 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS180723-04	Potassium	10000 ug/l	50 mL	500 mL	1000 ug/l
WMS180723-04	Selenium	100 ug/l	50 mL	500 mL	10 ug/l
WMS180723-04	Silver	100 ug/l	50 mL	500 mL	10 ug/l
WMS180723-04	Sodium	10000 ug/l	50 mL	500 mL	1000 ug/l
WMS180723-04	Strontium	100 ug/l	50 mL	500 mL	10 ug/l
WMS180723-04	Thallium	100 ug/l	50 mL	500 mL	10 ug/l
WMS180723-04	Thorium	100 ug/l	50 mL	500 mL	10 ug/l
WMS180723-04	Tin	100 ug/l	50 mL	500 mL	10 ug/l
WMS180723-04	Titanium	100 ug/l	50 mL	500 mL	10 ug/l
WMS180723-04	Tungsten	100 ug/l	50 mL	500 mL	10 ug/l
WMS180723-04	Uranium	100 ug/l	50 mL	500 mL	10 ug/l
WMS180723-04	Vanadium	100 ug/l	50 mL	500 mL	10 ug/l
WMS180723-04	Zinc	100 ug/l	50 mL	500 mL	10 ug/l
WMS180723-04	Zirconium	100 ug/l	50 mL	500 mL	10 ug/l

Serial ID: WMS180723-05 **Open/Reference Date:** 23-JUL-18 **Balance Id :** BAL216
Name: ICPMS ICV **Received:** 23-JUL-18 **Pipet Id :** 3541598
Type: Working **Expires:** 24-JUL-18 **Solvent :** 2%HNO3/1%HCl -2814697
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI180614-07	Arsenic	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI180614-07	Barium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI180614-07	Beryllium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI180614-07	Boron	40 mg/L	2.5 mL	1000 mL	100 ug/L
UI180614-07	Cadmium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI180614-07	Chromium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI180614-07	Cobalt	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI180614-07	Copper	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI180614-07	Lead	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI180614-07	Lithium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI180614-07	Manganese	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI180614-07	Nickel	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI180614-07	Selenium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI180614-07	Strontium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI180614-07	Thallium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI180614-07	Thorium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI180614-07	Uranium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI180614-07	Vanadium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI180614-07	Zinc	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI180614-08	Antimony	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI180614-08	Molybdenum	20 mg/L	2.5 mL	1000 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI180614-08	Silver	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI180614-08	Tin	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI180614-08	Titanium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI180614-08	Tungsten	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI180614-08	Zirconium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI180614-09	Aluminum	2020 mg/L	2.5 mL	1000 mL	5050 ug/L
UI180614-09	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 ug/L
UI180614-09	Iron	2000 mg/L	2.5 mL	1000 mL	5000 ug/L
UI180614-09	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 ug/L
UI180614-09	Phosphorous	2000 mg/L	2.5 mL	1000 mL	5000 ug/L
UI180614-09	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 ug/L
UI180614-09	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 ug/L

Serial ID: WMS180723-06 **Open/Reference Date:** 23-JUL-18 **Balance Id :** BAL216
Name: ICPMS CRDL **Received:** 23-JUL-18 **Pipet Id :** 3820544
Type: Working **Expires:** 24-JUL-18 **Solvent :** 2%HNO3/1%HCl -2814697
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI180205-09	Aluminum	50 mg/L	.5 mL	500 mL	30 ug/L
UI180205-09	Arsenic	5 mg/L	.5 mL	500 mL	5 ug/L
UI180205-09	Barium	2 mg/L	.5 mL	500 mL	2 ug/L
UI180205-09	Beryllium	.5 mg/L	.5 mL	500 mL	.5 ug/L
UI180205-09	Boron	15 mg/L	.5 mL	500 mL	15 ug/L
UI180205-09	Cadmium	1 mg/L	.5 mL	500 mL	1 ug/L
UI180205-09	Calcium	200 mg/L	.5 mL	500 mL	200 ug/L
UI180205-09	Chromium	30 mg/L	.5 mL	500 mL	10 ug/L
UI180205-09	Cobalt	1 mg/L	.5 mL	500 mL	1 ug/L
UI180205-09	Copper	1 mg/L	.5 mL	500 mL	1 ug/L
UI180205-09	Iron	100 mg/L	.5 mL	500 mL	100 ug/L
UI180205-09	Lead	2 mg/L	.5 mL	500 mL	2 ug/L
UI180205-09	Lithium	10 mg/L	.5 mL	500 mL	10 ug/L
UI180205-09	Magnesium	30 mg/L	.5 mL	500 mL	15 ug/L
UI180205-09	Manganese	5 mg/L	.5 mL	500 mL	5 ug/L
UI180205-09	Nickel	2 mg/L	.5 mL	500 mL	2 ug/L
UI180205-09	Phosphorous	50 mg/L	.5 mL	500 mL	50 ug/L
UI180205-09	Potassium	300 mg/L	.5 mL	500 mL	300 ug/L
UI180205-09	Selenium	5 mg/L	.5 mL	500 mL	5 ug/L
UI180205-09	Sodium	250 mg/L	.5 mL	500 mL	250 ug/L
UI180205-09	Strontium	10 mg/L	.5 mL	500 mL	10 ug/L
UI180205-09	Thallium	2 mg/L	.5 mL	500 mL	1 ug/L
UI180205-09	Thorium	2 mg/L	.5 mL	500 mL	1 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI180205-09	Uranium	.2 mg/L	.5 mL	500 mL	.2 ug/L
UI180205-09	Vanadium	10 mg/L	.5 mL	500 mL	10 ug/L
UI180205-09	Zinc	10 mg/L	.5 mL	500 mL	10 ug/L
UI180205-10	Antimony	3 mg/L	.5 mL	500 mL	3 ug/L
UI180205-10	Molybdenum	.5 mg/L	.5 mL	500 mL	.5 ug/L
UI180205-10	Silver	1 mg/L	.5 mL	500 mL	1 ug/L
UI180205-10	Tin	5 mg/L	.5 mL	500 mL	5 ug/L
UI180205-10	Titanium	10 mg/L	.5 mL	500 mL	10 ug/L
UI180205-10	Tungsten	5 mg/L	.5 mL	500 mL	5 ug/L
UI180205-10	Zirconium	2 mg/L	.5 mL	500 mL	2 ug/L

Serial ID: WMS180723-20 **Open/Reference Date:** 23-JUL-18 **Balance Id :** BAL216
Name: ICPMS ICSA **Received:** 23-JUL-18 **Lot Number :** 1064482
Type: Working **Expires:** 24-JUL-18 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl -2814697
Supplier: GEL
Description: ICPMS ICSA NexION
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI180717-11	Aluminum	1000 mg/L	25 mL	250 mL	100000 ug/L
UI180717-11	Calcium	1000 mg/L	25 mL	250 mL	100000 ug/L
UI180717-11	Carbon	2000 mg/L	25 mL	250 mL	200000 ug/L
UI180717-11	Chloride	10000 mg/L	25 mL	250 mL	1000000 ug/L
UI180717-11	Iron	1000 mg/L	25 mL	250 mL	100000 ug/L
UI180717-11	Magnesium	1000 mg/L	25 mL	250 mL	100000 ug/L
UI180717-11	Molybdenum	20 mg/L	25 mL	250 mL	2000 ug/L
UI180717-11	Phosphorous	1000 mg/L	25 mL	250 mL	100000 ug/L
UI180717-11	Potassium	1000 mg/L	25 mL	250 mL	100000 ug/L
UI180717-11	Sodium	1000 mg/L	25 mL	250 mL	100000 ug/L
UI180717-11	Sulfur	1000 mg/L	25 mL	250 mL	100000 ug/L
UI180717-11	Titanium	20 mg/L	25 mL	250 mL	2000 ug/L

Serial ID: WMS180723-21 **Open/Reference Date:** 23-JUL-18 **Balance Id :** BAL216
Name: ICPMS ICSAB **Received:** 23-JUL-18 **Pipet Id :** 1758088
Type: Working **Expires:** 24-JUL-18 **Solvent :** 2%HNO3/1%HCl -2814697
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB NexION
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI180603-12	Arsenic	2 mg/L	2.5 mL	250 mL	20 ug/L
UI180603-12	Barium	2 mg/L	2.5 mL	250 mL	20 ug/L
UI180603-12	Beryllium	2 mg/L	2.5 mL	250 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI180603-12	Boron	2 mg/L	2.5 mL	250 mL	20 ug/L
UI180603-12	Cadmium	2 mg/L	2.5 mL	250 mL	20.2 ug/L
UI180603-12	Chromium	2 mg/L	2.5 mL	250 mL	22.2 ug/L
UI180603-12	Cobalt	2 mg/L	2.5 mL	250 mL	20.4 ug/L
UI180603-12	Copper	2 mg/L	2.5 mL	250 mL	23.4 ug/L
UI180603-12	Lead	2 mg/L	2.5 mL	250 mL	20 ug/L
UI180603-12	Lithium	2 mg/L	2.5 mL	250 mL	20 ug/L
UI180603-12	Manganese	2 mg/L	2.5 mL	250 mL	22.7 ug/L
UI180603-12	Nickel	2 mg/L	2.5 mL	250 mL	22.4 ug/L
UI180603-12	Selenium	2 mg/L	2.5 mL	250 mL	20 ug/L
UI180603-12	Strontium	2 mg/L	2.5 mL	250 mL	20 ug/L
UI180603-12	Thallium	2 mg/L	2.5 mL	250 mL	20 ug/L
UI180603-12	Thorium	2 mg/L	2.5 mL	250 mL	20 ug/L
UI180603-12	Uranium	2 mg/L	2.5 mL	250 mL	20 ug/L
UI180603-12	Vanadium	2 mg/L	2.5 mL	250 mL	20 ug/L
UI180603-12	Zinc	2 mg/L	2.5 mL	250 mL	27 ug/L
UI180603-13	Antimony	2 mg/L	2.5 mL	250 mL	20.5 ug/L
UI180603-13	Silver	2 mg/L	2.5 mL	250 mL	20 ug/L
UI180603-13	Tin	2 mg/L	2.5 mL	250 mL	20 ug/L
UI180603-13	Tungsten	2 mg/L	2.5 mL	250 mL	20 ug/L
UI180603-13	Zirconium	2 mg/L	2.5 mL	250 mL	20 ug/L
UI180717-11	Aluminum	1000 mg/L	25 mL	250 mL	100000 ug/L
UI180717-11	Calcium	1000 mg/L	25 mL	250 mL	100000 ug/L
UI180717-11	Carbon	2000 mg/L	25 mL	250 mL	200000 ug/L
UI180717-11	Chloride	10000 mg/L	25 mL	250 mL	1000000 ug/L
UI180717-11	Iron	1000 mg/L	25 mL	250 mL	100000 ug/L
UI180717-11	Magnesium	1000 mg/L	25 mL	250 mL	100000 ug/L
UI180717-11	Molybdenum	20 mg/L	25 mL	250 mL	2000 ug/L
UI180717-11	Phosphorous	1000 mg/L	25 mL	250 mL	100000 ug/L
UI180717-11	Potassium	1000 mg/L	25 mL	250 mL	100000 ug/L
UI180717-11	Sodium	1000 mg/L	25 mL	250 mL	100000 ug/L
UI180717-11	Sulfur	1000 mg/L	25 mL	250 mL	100000 ug/L
UI180717-11	Titanium	20 mg/L	25 mL	250 mL	2000 ug/L

Serial ID: WMS180723-70 **Open/Reference Date:** 23-JUL-18 **Balance Id :** BAL216
Name: ICPMS LINEAR RANGE ST **Received:** 23-JUL-18 **Pipet Id :** 1758088
Type: Working **Expires:** 24-JUL-18 **Solvent :** 2%HNO3/1%HCl -2814697
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI171014-60	Aluminum	5000 mg/L	2.5 mL	250 mL	50000 ug/L
UI171014-60	Arsenic	100 mg/L	2.5 mL	250 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI171014-60	Barium	250 mg/L	2.5 mL	250 mL	2500 ug/L
UI171014-60	Beryllium	100 mg/L	2.5 mL	250 mL	1000 ug/L
UI171014-60	Cadmium	100 mg/L	2.5 mL	250 mL	1000 ug/L
UI171014-60	Calcium	5000 mg/L	2.5 mL	250 mL	50000 ug/L
UI171014-60	Chromium	100 mg/L	2.5 mL	250 mL	1000 ug/L
UI171014-60	Cobalt	100 mg/L	2.5 mL	250 mL	1000 ug/L
UI171014-60	Copper	100 mg/L	2.5 mL	250 mL	1000 ug/L
UI171014-60	Iron	5000 mg/L	2.5 mL	250 mL	50000 ug/L
UI171014-60	Lead	500 mg/L	2.5 mL	250 mL	5000 ug/L
UI171014-60	Lithium	100 mg/L	2.5 mL	250 mL	1000 ug/L
UI171014-60	Magnesium	5000 mg/L	2.5 mL	250 mL	50000 ug/L
UI171014-60	Manganese	100 mg/L	2.5 mL	250 mL	1000 ug/L
UI171014-60	Nickel	100 mg/L	2.5 mL	250 mL	1000 ug/L
UI171014-60	Phosphorous	2500 mg/L	2.5 mL	250 mL	25000 ug/L
UI171014-60	Potassium	5000 mg/L	2.5 mL	250 mL	50000 ug/L
UI171014-60	Selenium	50 mg/L	2.5 mL	250 mL	500 ug/L
UI171014-60	Sodium	5000 mg/L	2.5 mL	250 mL	50000 ug/L
UI171014-60	Strontium	100 mg/L	2.5 mL	250 mL	1000 ug/L
UI171014-60	Thallium	50 mg/L	2.5 mL	250 mL	500 ug/L
UI171014-60	Thorium	250 mg/L	2.5 mL	250 mL	2500 ug/L
UI171014-60	Uranium	500 mg/L	2.5 mL	250 mL	5000 ug/L
UI171014-60	Vanadium	100 mg/L	2.5 mL	250 mL	1000 ug/L
UI171014-60	Zinc	250 mg/L	2.5 mL	250 mL	2500 ug/L
UI171014-61	Antimony	25 mg/L	2.5 mL	250 mL	250 ug/L
UI171014-61	Molybdenum	100 mg/L	2.5 mL	250 mL	1000 ug/L
UI171014-61	Silver	25 mg/L	2.5 mL	250 mL	250 ug/L
UI171014-61	Tin	100 mg/L	2.5 mL	250 mL	1000 ug/L
UI171014-61	Tungsten	100 mg/L	2.5 mL	250 mL	1000 ug/L
UI171014-61	Zirconium	50 mg/L	2.5 mL	250 mL	500 ug/L

Serial ID: 180719 **Open/Reference Date:** 19-JUL-18 **Lot Number :** 0000194906
Name: I-HCL **Received:** 19-JUL-18
Type: Reagent/Solvent **Expires:** 19-JUL-20
Employee: Edmund Frampton
Supplier: MACRON
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 2580899-A **Open/Reference Date:** 04-AUG-17 **Lot Number :** A0379423
Name: B-NH2OH.HCl-MER **Received:** 04-AUG-17
Type: Reagent/Solvent **Expires:** 04-AUG-19
Employee: Monifa Basdeo
Supplier: BDH
Description: Hydroxlyamine Hydrochloride

Comments: None

Serial ID: 2651775-A
Name: B-NaCl-MER
Type: Reagent/Solvent
Employee: Monifa Basdeo
Supplier: Fisher Scientific
Description: Sodium Chloride
Comments: None

Open/Reference Date: 13-FEB-18
Received: 13-FEB-18
Expires: 13-FEB-19

Lot Number : 173169

Serial ID: 2681361-A
Name: B-KMnO4(VWR)-MER
Type: Reagent/Solvent
Employee: Alan Stanley
Supplier: EMD
Description: Potassium Permanganate
Comments: None

Open/Reference Date: 02-MAY-18
Received: 02-MAY-18
Expires: 02-MAY-20

Lot Number : 16L055201

Serial ID: 2768581-C
Name: B-KMnO4-MER
Type: Reagent/Solvent
Employee: Alan Stanley
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Open/Reference Date: 18-MAY-18
Received: 18-MAY-18
Expires: 02-MAY-20

Balance Id : BAL-423

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
2681361-A	B-KMnO4(VWR)-MER	Crystals	175 g	3500 mL	5%

Serial ID: 2771227
Name: I-HNO3
Type: Reagent/Solvent
Employee: Shanta Mack
Supplier: VWR - BDH Chemicals
Description: Concentrated Nitric Acid
Comments: None

Open/Reference Date: 25-MAY-18
Received: 25-MAY-18
Expires: 25-MAY-20

Lot Number : 2018041604

Serial ID: 2799336-1
Name: B-HNO3-MER
Type: Reagent/Solvent
Employee: Alan Stanley
Supplier: MACRON

Open/Reference Date: 13-JUN-18
Received: 13-JUN-18
Expires: 13-JUN-20

Instrument Id : MERCURY
Lot Number : 2018032956

Standard Logbook

Description: NITRIC ACID
Comments: None

Serial ID: 2800962-A **Open/Reference Date:** 18-JUN-18 **Lot Number :** 0000194906
Name: B-HCl-MER **Received:** 18-JUN-18
Type: Reagent/Solvent **Expires:** 18-JUN-19
Employee: Monifa Basdeo
Supplier: MACRON
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 2801172 **Open/Reference Date:** 18-JUN-18 **Lot Number :** 0000187634 mL
Name: B-H2O2 **Received:** 18-JUN-18
Type: Reagent/Solvent **Expires:** 18-JUN-19
Employee: Shanta Mack
Supplier: J.T. BAKER
Description: Hydrogen Peroxide 30%, from Bioassay (LIMS ID BIO279284)
Comments: None

Serial ID: 2813937-C **Open/Reference Date:** 20-JUL-18 **Instrument Id :** METALMAN
Name: B-Aqua Regia-MER **Received:** 20-JUL-18 **Solvent :** DI H2O
Type: Reagent/Solvent **Expires:** 21-JUL-18
Employee: Alan Stanley
Supplier: GEL
Description: 50% Aqua Regia
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
2799336-1	B-HNO3-MER	68.0-70.0%	25 mL	200 mL	100 ml
2800962-A	B-HCl-MER	36.5-38%	75 mL	200 mL	100 ml

Serial ID: 2814096-C **Open/Reference Date:** 20-JUL-18 **Balance Id :** BAL-423
Name: B-NaCl.NH2OH.HCl-MER **Received:** 20-JUL-18
Type: Reagent/Solvent **Expires:** 13-FEB-19
Employee: Monifa Basdeo
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
2580899-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	12%
2651775-A	B-NaCl-MER	NA	120 g	1000 mL	12%

Standard Logbook

Serial ID: 2814595 **Open/Reference Date:** 23-JUL-18 **Solvent :** 3%HCL+1%HNO3
Name: B-ICP-RINSE SOLN **Received:** 23-JUL-18
Type: Reagent/Solvent **Expires:** 28-JUL-18
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
180719	I-HCL	36.5-38.0	240 mL	10000 mL	N/A
2771227	I-HNO3	68.0-70.0%	80 mL	10000 mL	N/A

Serial ID: 2814697 **Open/Reference Date:** 23-JUL-18 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 23-JUL-18
Type: Reagent/Solvent **Expires:** 06-AUG-18
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
180719	I-HCL	36.5-38.0	80 mL	8 l	N/A
2771227	I-HNO3	68.0-70.0%	160 mL	8 l	N/A

Serial ID: I-BC180313 **Open/Reference Date:** 13-MAR-18 **Lot Number :** 22569094
Name: I-Boiling chips **Received:** 13-MAR-18
Type: Reagent/Solvent **Expires:** 13-MAR-20
Employee: Shanta Mack
Supplier: Chemware
Description: Teflon chips for MB/LCS metals Solids
Comments: None