Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

June 06, 2019

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Su
7 Gl
8 Al
9 Sc

Cardno - Newark, DE

Sample Delivery Group:	L1100960
Samples Received:	05/21/2019
Project Number:	DEER PARK FIRE
Description:	
Site:	002
Report To:	Art Saunders 121 Continental Drive Suite 308 Newark, DE 19713

Entire Report Reviewed By:

Craig Cothron
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

90015984

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Single Component Analysis Identification 406

BLANK(R3414016-1) WG1284740 05/22/19 22:03 SVGC11 406

LCS(R3414016-2) WG1284740 05/22/19 22:17 SVGC11 407

LCSD(R3414016-3) WG1284740 05/22/19 22:31 SVGC11 408

QC Result Summary Organic Analysis Data Sheet 409

BLANK(R3414016-1) WG1284740 05/22/19 22:03 SVGC11 409

LCS(R3414016-2) WG1284740 05/22/19 22:17 SVGC11 410

LCSD(R3414016-3) WG1284740 05/22/19 22:31 SVGC11 411
Calc. Calculated Results 413
Sample Result Inorganic Analysis Data Sheet 413
L1100960-01 05/23/19 16:46 NONE 413
Gl: Glossary of Terms 414
Al: Accreditations & Locations 415
Sc: Sample Chain of Custody 416

WW-20190519-002-DAY 17 L1100960-01 WW

Collected by: R. Nakamura
Collected date/time: 05/19/19 11:30
Received date/time: 05/21/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1285025	1	05/23/19 16:46	05/23/19 16:46	MCG	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG1284548	1	05/22/19 21:01	05/22/19 22:05	AEC	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 D-2011	WG1284885	1	05/23/19 15:57	05/23/19 16:10	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1284891	10	05/22/19 21:06	05/22/19 21:06	ST	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG1285025	1	05/23/19 06:24	05/23/19 06:24	BRJ	Mt. Juliet, TN
Wet Chemistry by Method 351.2	WG1284745	1	05/23/19 08:07	05/23/19 16:46	SDL	Mt. Juliet, TN
Wet Chemistry by Method 365.4	WG1285797	1	05/23/19 08:07	05/23/19 17:32	SDL	Mt. Juliet, TN
Wet Chemistry by Method 410.4	WG1284594	1	05/22/19 07:35	05/22/19 13:08	RDW	Mt. Juliet, TN
Wet Chemistry by Method 4500S2 D-2011	WG1284207	1	05/21/19 18:09	05/21/19 18:09	MJA	Mt. Juliet, TN
Wet Chemistry by Method 5310 B-2011	WG1284971	1	05/22/19 16:33	05/22/19 16:33	EEM	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1284305	1	05/21/19 18:16	05/23/19 13:48	JDG	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1284305	1	05/21/19 18:16	05/24/19 16:24	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 624.1	WG1285605	1	05/23/19 15:13	05/23/19 15:13	ACG	Mt. Juliet, TN
EDB / DBCP by Method 504.1	WG1285476	1	05/23/19 09:01	05/23/19 22:54	HMH	Mt. Juliet, TN
SVOC-GC-GLYCOLS by Method 8015M	WG1284695	1	05/22/19 10:40	05/23/19 14:47	MTJ	Mt. Juliet, TN
Chlorinated Acid Herbicides (GC) by Method 8151	WG1284740	1	05/22/19 06:54	05/22/19 22:58	LEL	Mt. Juliet, TN
OP Pesticides by Method 1657M	WG1284725	1	05/23/19 08:33	05/24/19 23:20	HMH	Mt. Juliet, TN

WW-20190519-002-DAY 17 L1100960-02 WW

Collected by: R. Nakamura
Collected date/time: 05/19/19 11:30
Received date/time: 05/21/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 1664A	WG1285807	1	05/23/19 17:44	05/23/19 20:10	DAD	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Su
7 Gl
8 Al
9 Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Craig Cothron
Project Manager

Laboratory Data Package Cover Page

This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

R1 - Field chain-of-custody documentation;

R2 - Sample identification cross-reference;

R3 - Test reports (analytical data sheets) for each environmental sample that includes:

a. Items consistent with NELAC Chapter 5,

b. dilution factors,

c. preparation methods,

d. cleanup methods, and

e. if required for the project, tentatively identified compounds (TICs).

R4 - Surrogate recovery data including:

a. Calculated recovery (%R), and

b. The laboratory's surrogate QC limits.

R5 - Test reports/summary forms for blank samples;

R6 - Test reports/summary forms for laboratory control samples (LCSs) including:

a. LCS spiking amounts,

b. Calculated %R for each analyte, and

c. The laboratory's LCS QC limits.

R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

a. Samples associated with the MS/MSD clearly identified,

b. MS/MSD spiking amounts,

c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,

d. Calculated %Rs and relative percent differences (RPDs), and

e. The laboratory's MS/MSD QC limits

R8 - Laboratory analytical duplicate (if applicable) recovery and precision:

a. The amount of analyte measured in the duplicate,

b. The calculated RPD, and

c. The laboratory's QC limits for analytical duplicates.

R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.

R10 - Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Craig Cothron
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: Pace Analytical National	LRC Date: 06/06/2019 08:10
Project Name:	Laboratory Job Number: L1100960-01 and 02
Reviewer Name: Craig Cothron	Prep Batch Number(s): WG1284207, WG1284305, WG1284594, WG1284891, WG1285025, WG1284971, WG1284740, WG1284695, WG1285605, WG1284745, WG1285797, WG1285807, WG1285476, WG1284885, WG1284548 and WG1284725

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?		X			1
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?		X			2
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			3
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?		X			4
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Supporting Data

Laboratory Name: Pace Analytical National	LRC Date: 06/06/2019 08:10
Project Name:	Laboratory Job Number: L1100960-01 and 02
Reviewer Name: Craig Cothron	Prep Batch Number(s): WG1284207, WG1284305, WG1284594, WG1284891, WG1285025, WG1284971, WG1284740, WG1284695, WG1285605, WG1284745, WG1285797, WG1285807, WG1285476, WG1284885, WG1284548 and WG1284725

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?	X				
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?	X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Exception Reports

Laboratory Name: Pace Analytical National	LRC Date: 06/06/2019 08:10
Project Name:	Laboratory Job Number: L1100960-01 and 02
Reviewer Name: Craig Cothron	Prep Batch Number(s): WG1284207, WG1284305, WG1284594, WG1284891, WG1285025, WG1284971, WG1284740, WG1284695, WG1285605, WG1284745, WG1285797, WG1285807, WG1285476, WG1284885, WG1284548 and WG1284725

ER #[1]	Description
1	WG1285025 R3413959-6 and 7: The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
2	624.1 WG1285605 Bromochloromethane: Percent Recovery is outside of established control limits.
3	350.1 WG1285025 Ammonia Nitrogen: Percent Recovery is outside of established control limits. 350.1 WG1284207 Sulfide: Percent Recovery is outside of established control limits. 351.2 WG1284594 COD: Percent Recovery is outside of established control limits.
4	351.2 WG1284594 COD: Relative Percent Difference is outside of established control limits. 2540 C-2011 WG1284885 Suspended Solids: Relative Percent Difference is outside of established control limits.

1. Items identified by the letter “R” must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter “S” should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if “NR” or “No” is checked).

1657M OP Pesticides

2A-OR

SURROGATE RECOVERY

Analytical Method: 1657M **SDG:** L1100960
Matrix: WW

Sample ID	Lab Sample ID	Instrument	File ID	DMC-1 % Rec.	TOT Out
WW-20190519-002 -DAY 17	L1100960-01	SVGC12	0524_18	84.8	0

Parm Abbreviation	Parameter	QC LIMITS
DMC-1	Triphenyl Phosphate	42.0 - 129

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

2A-OR

SURROGATE RECOVERY

Analytical Method: 1657M **SDG:** L1100960
Matrix: WW

Sample ID	Lab Sample ID	Instrument	File ID	DMC-1	TOT Out
				% Rec.	
BLANK	R3415275-1	SVGC12	0524_13	73.4	0
LCS	R3415275-2	SVGC12	0524_14	88.8	0
LCSD	R3415275-3	SVGC12	0524_15	93.6	0

Parm Abbreviation	Parameter	QC LIMITS
DMC-1	Triphenyl Phosphate	42.0 - 129

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

3B-OR

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
RECOVERY

L1100960-01

SAMPLE NO.:
R3415275-2
R3415275-3

LCS Sample / File ID:	R3415275-2 / 0524_14	**SDG:**	L1100960
LCSD Sample / File ID:	R3415275-3 / 0524_15	**Analytical Batch:**	WG1284725
Instrument ID:	SVGC12	**Dilution Factor:**	1
Analytical Method:	1657M	**Matrix:**	WW

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limit
	mg/l	*mg/l*	*mg/l*	*%*	*%*	*%*	*%*	*%*
Azinphos-Methyl	0.00500	0.00349	0.00379	69.8	75.8	43.0 - 142	8.24	20
Chlorpyrifos	0.00500	0.00384	0.00392	76.8	78.4	50.0 - 126	2.06	20
Demeton,-O and -S	0.00250	0.00160	0.00194	64.0	77.6	22.0 - 150	19.2	24
Diazinon	0.00500	0.00392	0.00410	78.4	82.0	54.0 - 130	4.49	20
Malathion	0.00500	0.00366	0.00382	73.2	76.4	47.0 - 121	4.28	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

4A-OR

METHOD BLANK

SAMPLE NO.:
R3415275-1

Lab Sample ID:	R3415275-1	**SDG:**	L1100960
Lab File ID:	0524_13	**Preparation Date/Time:**	05/23/19 08:33
Instrument ID:	SVGC12	**Analysis Date/Time:**	05/24/19 20:43
Analytical Batch:	WG1284725	**Dilution Factor:**	1
Analytical Method:	1657M	**Matrix:**	WW

Sample ID	Lab Sample ID	Instrument	File ID	Analysis *date/time*
LCS	R3415275-2	SVGC12	0524_14	05/24/19 21:14
LCSD	R3415275-3	SVGC12	0524_15	05/24/19 21:46
WW-20190519-002-DAY 17	L1100960-01	SVGC12	0524_18	05/24/19 23:20

8A-OR

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1100960	**Analytical Method:**	1657M
Instrument ID:	SVGC12	**Calibration Start Date:**	05/24/19 14:55
Std File:	AVG	**Calibration End Date:**	05/24/19 18:36
		Std Analysis Date:	AVG

Sample ID	File ID	TBP	
		Response	*RT*
STANDARD		1529830000	15.38
UPPER LIMIT		32880210	
LOWER LIMIT		10960070	
BLANK R3415275-1 WG1284725 1x	0524_13	1464265000	15.39
LCS R3415275-2 WG1284725 1x	0524_14	1481003000	15.38
LCSD R3415275-3 WG1284725 1x	0524_15	1510548000	15.37
L1100960-01 WG1284725 1x	0524_18	1550690000	15.37

TBP - TRIBUTYL PHOSPHATE

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
WW-20190519-002-DAY 17

Lab Sample ID:	L1100960-01	**SDG:**	L1100960
Client Sample ID:	WW-20190519-002-DAY 17	**Collected Date/Time:**	05/19/19 11:30
Lab File ID:	0524_18	**Received Date/Time:**	05/21/19 08:00
Instrument ID:	SVGC12	**Preparation Date/Time:**	05/23/19 08:33
Analytical Batch:	WG1284725	**Analysis Date/Time:**	05/24/19 23:20
Dilution Factor:	1	**Prep Method:**	3510C
Analytical Method:	1657M	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	100 mL
Total Solids (%):	_____	**Final Wt/Vol:**	1 mL

Analyte	**CAS**	**RT**	**Result** *mg/l*	**Qualifier**	**SDL** *mg/l*	**Unadj. MQL** *mg/l*	**MQL** *mg/l*
Azinphos-Methyl	86-50-0	0	U		0.000140	0.00100	0.00100
Chlorpyrifos	2921-88-2	0	U		0.000133	0.00100	0.00100
Diazinon	333-41-5	0	U		0.000377	0.00100	0.00100
Demeton,-O and -S	8065-48-3	0	U		0.0000680	0.00200	0.00200
Malathion	121-75-5	0	U		0.000116	0.00100	0.00100

6B-OR

RETENTION TIME
INITIAL CALIBRATION OF
SINGLE COMPONENT ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/24/19 14:55
Instrument ID:	SVGC12 - 1	**Calibration (end) date/time:**	05/24/19 18:36
Analytical Method:	1657M		

Analyte	**CS: 100**	**CS: 200**	**CS: 500**	**CS: 1000**	**CS: 2000**	**CS: 5000**	**CS: 10000**	**CS: 20000**
DIAZINON	16.10	16.09	16.10	16.09	16.10	16.10	16.11	16.12
DEMETON,-O AND -S	17	16.99	16.99	16.98	16.99	17	17	17
CHLORPYRIFOS	20.44	20.44	20.44	20.43	20.44	20.44	20.45	20.45
MALATHION	22.36	22.36	22.36	22.35	22.36	22.36	22.37	22.38
AZINPHOS-METHYL	27.01	27.01	27.01	27	27	27	27.01	27.01
TRIPHENYL PHOSPHATE	26.16	26.16	26.16	26.15	26.15	26.16	26.16	26.16
File ID:	0524_02	0524_03	0524_04	0524_05	0524_06	0524_07	0524_08	0524_09

6B-OR

RETENTION TIME
INITIAL CALIBRATION OF
SINGLE COMPONENT ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/24/19 14:55
Instrument ID:	SVGC12 - 2	**Calibration (end) date/time:**	05/24/19 18:36
Analytical Method:	1657M		

Analyte	**CS: 100**	**CS: 200**	**CS: 500**	**CS: 1000**	**CS: 2000**	**CS: 5000**	**CS: 10000**	**CS: 20000**
DIAZINON	18.41	18.40	18.41	18.40	18.41	18.41	18.42	18.43
DEMETON,-O AND -S	17.09	17.08	17.08	17.07	17.08	17.09	17.09	17.10
CHLORPYRIFOS	22.91	22.90	22.90	22.89	22.90	22.91	22.91	22.93
MALATHION	22.72	22.74	22.75	22.74	22.75	22.75	22.76	22.78
AZINPHOS-METHYL	27.43	27.43	27.43	27.42	27.42	27.42	27.43	27.43
TRIPHENYL PHOSPHATE	26.72	26.72	26.72	26.72	26.72	26.72	26.73	26.73
File ID:	0524_02	0524_03	0524_04	0524_05	0524_06	0524_07	0524_08	0524_09

6C-OR

CALIBRATION FACTOR
INITIAL CALIBRATION OF
SINGLE COMPONENT ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/24/19 14:55
Instrument ID:	SVGC12 - 1	**Calibration (end) date/time:**	05/24/19 18:36
Analytical Method:	1657M		

Analyte	**RRF: 100**	**RRF: 200**	**RRF: 500**	**RRF: 1000**	**RRF: 2000**	**RRF: 5000**	**RRF: 10000**	**RRF: 20000**
DIAZINON	0.9980	0.8270	0.7550	0.8720	0.7930	0.7260	0.6740	0.6250
DEMETON,-O AND -S	1.4870	1.1980	1.2060	1.4310	1.3330	1.2350	1.3120	1.3110
CHLORPYRIFOS	0.9860	0.7760	0.7130	0.8310	0.7360	0.7010	0.6560	0.5840
MALATHION	0.7420	0.5990	0.5480	0.69	0.6650	0.6420	0.64	0.5750
AZINPHOS-METHYL	0.4510	0.4030	0.4340	0.5510	0.5330	0.5130	0.4850	0.4070
TRIPHENYL PHOSPHATE	0.8360	0.6860	0.6130	0.7460	0.6830	0.6490	0.6010	0.5320
File ID:	0524_02	0524_03	0524_04	0524_05	0524_06	0524_07	0524_08	0524_09

6C-OR

CALIBRATION FACTOR
INITIAL CALIBRATION OF
SINGLE COMPONENT ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/24/19 14:55
Instrument ID:	SVGC12 - 1	**Calibration (end) date/time:**	05/24/19 18:36
Analytical Method:	1657M		

Analyte	RRF. Avg	%RSD	COD
DIAZINON	0.783828	15.03	
DEMETON,-O AND -S	1.314122	7.91	
CHLORPYRIFOS	0.747876	16.22	
MALATHION	0.637613	9.87	
AZINPHOS-METHYL	0.472235	12.04	
TRIPHENYL PHOSPHATE	0.668184	13.98	

6C-OR

CALIBRATION FACTOR
INITIAL CALIBRATION OF
SINGLE COMPONENT ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/24/19 14:55
Instrument ID:	SVGC12 - 2	**Calibration (end) date/time:**	05/24/19 18:36
Analytical Method:	1657M		

Analyte	**RRF: 100**	**RRF: 200**	**RRF: 500**	**RRF: 1000**	**RRF: 2000**	**RRF: 5000**	**RRF: 10000**	**RRF: 20000**
DIAZINON	1.18	0.8830	0.8180	0.9840	0.8620	0.7940	0.8460	0.8460
DEMETON,-O AND -S	2.3750	1.5240	1.2020	1.3020	1.2970	1.3430	1.3340	1.3910
CHLORPYRIFOS	1.3490	0.9450	0.7590	0.8720	0.79	0.7720	0.8020	0.8230
MALATHION	0.94	0.6760	0.6120	0.7790	0.6790	0.6690	0.7030	0.7420
AZINPHOS-METHYL	1.2170	0.9020	0.7940	1.0870	1.0270	0.9810	0.9940	1.04
TRIPHENYL PHOSPHATE	1.7320	1.3690	1.2010	1.4690	1.3170	1.29	1.32	1.3740
File ID:	0524_02	0524_03	0524_04	0524_05	0524_06	0524_07	0524_08	0524_09

6C-OR

CALIBRATION FACTOR
INITIAL CALIBRATION OF
SINGLE COMPONENT ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/24/19 14:55
Instrument ID:	SVGC12 - 2	**Calibration (end) date/time:**	05/24/19 18:36
Analytical Method:	1657M		

Analyte	RRF. Avg	%RSD	COD
DIAZINON	0.901582	13.98	
DEMETON,-O AND -S	1.470828	25.6	0.998
CHLORPYRIFOS	0.889119	21.99	0.999
MALATHION	0.725114	13.83	
AZINPHOS-METHYL	1.005289	12.43	
TRIPHENYL PHOSPHATE	1.384118	11.57	

7D-OR

CONTINUING CALIBRATION VERIFICATION
DUAL COLUMN ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/24/19 14:55
Instrument ID:	SVGC12 - 1	**Calibration (end) date/time:**	05/24/19 18:36
Lab File ID:	0524_11-1	**Analysis date/time:**	05/24/19 19:39
Analytical Method:	1657M	**Sample ID:**	SSCV

Analyte	**True Value**	**Result**	**Result**	**Limits**
	mg/l	*mg/l*	*% Rec.*	*%*
AZINPHOS-METHYL	2	2.385	119	70 - 130
CHLORPYRIFOS	2	2.056	103	70 - 130
DEMETON,-O AND -S	1	1.120	112	70 - 130
DIAZINON	2	2.016	101	70 - 130
MALATHION	2	2.144	107	70 - 130

7D-OR

CONTINUING CALIBRATION VERIFICATION
DUAL COLUMN ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/24/19 14:55
Instrument ID:	SVGC12 - 2	**Calibration (end) date/time:**	05/24/19 18:36
Lab File ID:	0524_11-1	**Analysis date/time:**	05/24/19 19:39
Analytical Method:	1657M	**Sample ID:**	SSCV

Analyte	**True Value**	**Result**	**Result**	**Limits**
	mg/l	*mg/l*	*% Rec.*	*%*
AZINPHOS-METHYL	2	1.968	98.40	70 - 130
CHLORPYRIFOS	2	2.106	105	70 - 130
DEMETON,-O AND -S	1	1.089	109	70 - 130
DIAZINON	2	1.952	97.60	70 - 130
MALATHION	2	2.018	101	70 - 130

8B-OR

ANALYTICAL SEQUENCE

SDG:	L1100960	**Analytical Method:**	1657M
Instrument ID:	SVGC12	**Calibration Start Date:**	05/24/19 14:55
		Calibration End Date:	05/24/19 18:36

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
CAL	100	0524_02	05/24/19 14:55	1	
CAL	200	0524_03	05/24/19 15:26	1	
CAL	500	0524_04	05/24/19 15:58	1	
CAL	1000	0524_05	05/24/19 16:30	1	
CAL	2000	0524_06	05/24/19 17:01	1	
CAL	5000	0524_07	05/24/19 17:33	1	
CAL	10000	0524_08	05/24/19 18:04	1	
CAL	20000	0524_09	05/24/19 18:36	1	
SSCV	SVGC120524190524_11-1472713	0524_11-1	05/24/19 19:39	1	
BLANK	R3415275-1	0524_13	05/24/19 20:43	1	WG1284725
LCS	R3415275-2	0524_14	05/24/19 21:14	1	WG1284725
LCSD	R3415275-3	0524_15	05/24/19 21:46	1	WG1284725
WW-20190519-002-DAY 17	L1100960-01	0524_18	05/24/19 23:20	1	WG1284725

10A-OR

SINGLE COMPONENT ANALYSIS IDENTIFICATION

SAMPLE NO.:
R3415275-1

Lab Sample ID:	R3415275-1	**SDG:**	L1100960
Client Sample ID:	BLANK	**Collected Date/Time:**	_____
Lab File ID:	0524_13	**Received Date/Time:**	_____
Instrument ID:	SVGC12	**Preparation Date/Time:**	05/23/19 08:33
Analytical Batch:	WG1284725	**Analysis Date/Time:**	05/24/19 20:43
Dilution Factor:	1	**Prep Method:**	3510C
Analytical Method:	1657M	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	100 mL
Total Solids (%):	_____	**Final Wt/Vol:**	1 mL

Analyte	**Column**	**RT**	**Concentration** *mg/l*	**% Diff.**
Azinphos-Methyl	1	0	U	0
Chlorpyrifos	1	0	U	0
Demeton,-O and -S	1	0	U	0
Diazinon	1	0	U	0
Malathion	1	0	U	0

10A-OR

SINGLE COMPONENT ANALYSIS IDENTIFICATION

SAMPLE NO.:
R3415275-2

Lab Sample ID:	R3415275-2	**SDG:**	L1100960
Client Sample ID:	LCS	**Collected Date/Time:**	_____
Lab File ID:	0524_14	**Received Date/Time:**	_____
Instrument ID:	SVGC12	**Preparation Date/Time:**	05/23/19 08:33
Analytical Batch:	WG1284725	**Analysis Date/Time:**	05/24/19 21:14
Dilution Factor:	1	**Prep Method:**	3510C
Analytical Method:	1657M	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	100 mL
Total Solids (%):	_____	**Final Wt/Vol:**	1 mL

Analyte	**Column**	**RT**	**Concentration** *mg/l*	**% Diff.**
Azinphos-Methyl	1	27.01	0.00349	10.2
Chlorpyrifos	1	20.44	0.00384	4.71
Demeton,-O and -S	1	16.99	0.00160	13.2
Diazinon	1	16.10	0.00392	5.94
Malathion	1	22.36	0.00366	17.4

10A-OR

SINGLE COMPONENT ANALYSIS IDENTIFICATION

SAMPLE NO.:
R3415275-3

Lab Sample ID:	R3415275-3	**SDG:**	L1100960
Client Sample ID:	LCSD	**Collected Date/Time:**	_____
Lab File ID:	0524_15	**Received Date/Time:**	_____
Instrument ID:	SVGC12	**Preparation Date/Time:**	05/23/19 08:33
Analytical Batch:	WG1284725	**Analysis Date/Time:**	05/24/19 21:46
Dilution Factor:	1	**Prep Method:**	3510C
Analytical Method:	1657M	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	100 mL
Total Solids (%):	_____	**Final Wt/Vol:**	1 mL

Analyte	**Column**	**RT**	**Concentration** *mg/l*	**% Diff.**
Azinphos-Methyl	1	27	0.00379	6.2
Chlorpyrifos	1	20.43	0.00392	13.6
Demeton,-O and -S	1	16.98	0.00194	30.7
Diazinon	1	16.09	0.00410	6.86
Malathion	1	22.35	0.00382	4.5

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3415275-1

Lab Sample ID:	R3415275-1	**SDG:**	L1100960
Client Sample ID:	BLANK	**Collected Date/Time:**	_____
Lab File ID:	0524_13	**Received Date/Time:**	_____
Instrument ID:	SVGC12	**Preparation Date/Time:**	05/23/19 08:33
Analytical Batch:	WG1284725	**Analysis Date/Time:**	05/24/19 20:43
Dilution Factor:	1	**Prep Method:**	3510C
Analytical Method:	1657M	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	100 mL
Total Solids (%):	_____	**Final Wt/Vol:**	1 mL

Analyte	**CAS**	**RT**	**Result** *mg/l*	**Qualifier**	**SDL** *mg/l*	**Unadj. MQL** *mg/l*	**MQL** *mg/l*
Azinphos-Methyl	86-50-0	0	U		0.000140	0.0010	0.00100
Chlorpyrifos	2921-88-2	0	U		0.000133	0.0010	0.00100
Demeton,-O and -S	8065-48-3	0	U		0.0000680	0.0020	0.00200
Diazinon	333-41-5	0	U		0.000377	0.0010	0.00100
Malathion	121-75-5	0	U		0.000116	0.0010	0.00100

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3415275-2

Lab Sample ID:	R3415275-2	**SDG:**	L1100960
Client Sample ID:	LCS	**Collected Date/Time:**	_____
Lab File ID:	0524_14	**Received Date/Time:**	_____
Instrument ID:	SVGC12	**Preparation Date/Time:**	05/23/19 08:33
Analytical Batch:	WG1284725	**Analysis Date/Time:**	05/24/19 21:14
Dilution Factor:	1	**Prep Method:**	3510C
Analytical Method:	1657M	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	100 mL
Total Solids (%):	_____	**Final Wt/Vol:**	1 mL

Analyte	**CAS**	**RT**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
			mg/l		*mg/l*	*mg/l*	*mg/l*
Azinphos-Methyl	86-50-0	27.01	0.00349		0.000140	0.0010	0.00100
Chlorpyrifos	2921-88-2	20.44	0.00384		0.000133	0.0010	0.00100
Demeton,-O and -S	8065-48-3	16.99	0.00160		0.0000680	0.0020	0.00200
Diazinon	333-41-5	16.10	0.00392		0.000377	0.0010	0.00100
Malathion	121-75-5	22.36	0.00366		0.000116	0.0010	0.00100

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3415275-3

Lab Sample ID:	R3415275-3	**SDG:**	L1100960
Client Sample ID:	LCSD	**Collected Date/Time:**	_____
Lab File ID:	0524_15	**Received Date/Time:**	_____
Instrument ID:	SVGC12	**Preparation Date/Time:**	05/23/19 08:33
Analytical Batch:	WG1284725	**Analysis Date/Time:**	05/24/19 21:46
Dilution Factor:	1	**Prep Method:**	3510C
Analytical Method:	1657M	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	100 mL
Total Solids (%):	_____	**Final Wt/Vol:**	1 mL

Analyte	**CAS**	**RT**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
			mg/l		*mg/l*	*mg/l*	*mg/l*
Azinphos-Methyl	86-50-0	27	0.00379		0.000140	0.0010	0.00100
Chlorpyrifos	2921-88-2	20.43	0.00392		0.000133	0.0010	0.00100
Demeton,-O and -S	8065-48-3	16.98	0.00194		0.0000680	0.0020	0.00200
Diazinon	333-41-5	16.09	0.00410		0.000377	0.0010	0.00100
Malathion	121-75-5	22.35	0.00382		0.000116	0.0010	0.00100

1664A Wet Chemistry

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
WW-20190519-002-DAY 17

Lab Sample ID:	L1100960-02	**SDG:**	L1100960
Client Sample ID:	WW-20190519-002-DAY 17	**Collected Date/Time:**	05/19/19 11:30
Lab File ID:	23	**Received Date/Time:**	05/21/19 08:00
Instrument ID:	OGBAL1	**Preparation Date/Time:**	05/23/19 17:44
Analytical Batch:	WG1285807	**Analysis Date/Time:**	05/23/19 20:10
Dilution Factor:	1	**Prep Method:**	1664A
Analytical Method:	1664A	**Sample Vol Used:**	
Matrix:	WW	**Initial Wt/Vol:**	950 ml
Total Solids (%):		**Final Wt/Vol:**	

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Oil & Grease (Hexane Extr)		U		1.22	5.26	5.26

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414408-1

Lab Sample ID:	R3414408-1	**SDG:**	L1100960
Client Sample ID:	BLANK	**Collected Date/Time:**	
Lab File ID:	01	**Received Date/Time:**	
Instrument ID:	OGBAL1	**Preparation Date/Time:**	05/23/19 16:44
Analytical Batch:	WG1285807	**Analysis Date/Time:**	05/23/19 20:10
Dilution Factor:	1	**Prep Method:**	1664A
Analytical Method:	1664A	**Sample Vol Used:**	
Matrix:	WW	**Initial Wt/Vol:**	1000 ml
Total Solids (%):		**Final Wt/Vol:**	

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Oil & Grease (Hexane Extr)		U		1.16	5	5.00

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414408-2

Lab Sample ID:	R3414408-2	**SDG:**	L1100960
Client Sample ID:	LCS	**Collected Date/Time:**	
Lab File ID:	04	**Received Date/Time:**	
Instrument ID:	OGBAL1	**Preparation Date/Time:**	05/23/19 16:44
Analytical Batch:	WG1285807	**Analysis Date/Time:**	05/23/19 20:10
Dilution Factor:	1	**Prep Method:**	1664A
Analytical Method:	1664A	**Sample Vol Used:**	
Matrix:	WW	**Initial Wt/Vol:**	1000 ml
Total Solids (%):		**Final Wt/Vol:**	

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Oil & Grease (Hexane Extr)		36.2		1.16	5	5.00

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414408-3

Lab Sample ID:	R3414408-3	**SDG:**	L1100960
Client Sample ID:	LCSD	**Collected Date/Time:**	
Lab File ID:	05	**Received Date/Time:**	
Instrument ID:	OGBAL1	**Preparation Date/Time:**	05/23/19 16:44
Analytical Batch:	WG1285807	**Analysis Date/Time:**	05/23/19 20:10
Dilution Factor:	1	**Prep Method:**	1664A
Analytical Method:	1664A	**Sample Vol Used:**	
Matrix:	WW	**Initial Wt/Vol:**	1000 ml
Total Solids (%):		**Final Wt/Vol:**	

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Oil & Grease (Hexane Extr)		38.2		1.16	5	5.00

3-IN BLANKS

SDG:	L1100960	**Calibration (begin) date/time:**	_____
Instrument ID:	OGBAL1	**Calibration (end) date/time:**	_____
Analytical Method:	1664A	**Analytical Run:**	WG1285807

Sample ID:	**BLANK Result**	**BLANK Qual**
File ID:	01	
Analyte	mg/l	
OIL & GREASE (HEXANE EXTR)	U	

7-IN

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
RECOVERY

L1100960-02

SAMPLE NO.:
R3414408-2
R3414408-3

LCS Sample / File ID:	R3414408-2 / 04	**SDG:**	L1100960
LCSD Sample / File ID:	R3414408-3 / 05	**Analytical Batch:**	WG1285807
Instrument ID:	OGBAL1	**Dilution Factor:**	1
Analytical Method:	1664A	**Matrix:**	WW

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limits
	mg/l	*mg/l*	*mg/l*	*%*	*%*	*%*	*%*	*%*
Oil & Grease (Hexane Extr)	40.0	36.2	38.2	90.5	95.5	78.0 - 114	5.38	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

12-IN

ANALYSIS LOG

SDG:	L1100960	**Analytical Method:**	1664A
Instrument ID:	OGBAL1	**Calibration Start Date:**	_____
Analytical Run:	WG1285807	**Calibration End Date:**	_____

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
BLANK	R3414408-1	01	05/23/19 20:10	1	WG1285807
LCS	R3414408-2	04	05/23/19 20:10	1	WG1285807
LCSD	R3414408-3	05	05/23/19 20:10	1	WG1285807
WW-20190519-002-DAY 17	L1100960-02	23	05/23/19 20:10	1	WG1285807

200.8 Metals (ICPMS)

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
WW-20190519-002-DAY 17

Lab Sample ID:	L1100960-01	**SDG:**	L1100960
Client Sample ID:	WW-20190519-002-DAY 17	**Collected Date/Time:**	05/19/19 11:30
Lab File ID:	20190524162435	**Received Date/Time:**	05/21/19 08:00
Instrument ID:	ICPMS11	**Preparation Date/Time:**	05/21/19 18:16
Analytical Batch:	WG1284305	**Analysis Date/Time:**	05/24/19 16:24
Dilution Factor:	1	**Prep Method:**	200.8
Analytical Method:	200.8	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	25 mL
Total Solids (%):	_____	**Final Wt/Vol:**	25 mL

Analyte	**CAS**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
		mg/l		*mg/l*	*mg/l*	*mg/l*
Antimony	7440-36-0	0.00169	J	0.000754	0.00200	0.00200

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	L1100960-01	**SDG:**	L1100960
Client Sample ID:	WW-20190519-002-DAY 17	**Collected Date/Time:**	05/19/19 11:30
Lab File ID:	20190523134834	**Received Date/Time:**	05/21/19 08:00
Instrument ID:	ICPMS8	**Preparation Date/Time:**	05/21/19 18:16
Analytical Batch:	WG1284305	**Analysis Date/Time:**	05/23/19 13:48
Dilution Factor:	1	**Prep Method:**	200.8
Analytical Method:	200.8	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	25 mL
Total Solids (%):	_____	**Final Wt/Vol:**	25 mL

Analyte	**CAS**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
		mg/l		*mg/l*	*mg/l*	*mg/l*
Arsenic	7440-38-2	0.00151		0.000170	0.00100	0.00100
Cadmium	7440-43-9	U		0.000220	0.00100	0.00100
Chromium	7440-47-3	U		0.000320	0.00100	0.00100
Cobalt	7440-48-4	0.000857	J	0.000270	0.00200	0.00200
Copper	7440-50-8	0.000690	J	0.000270	0.00100	0.00100
Lead	7439-92-1	U		0.000260	0.00100	0.00100
Nickel	7440-02-0	0.00211		0.000320	0.00100	0.00100
Selenium	7782-49-2	0.000648	J	0.000320	0.00200	0.00200
Silver	7440-22-4	U		0.000180	0.00100	0.00100
Thallium	7440-28-0	U		0.000280	0.00100	0.00100
Tin	7440-31-5	U		0.000240	0.00100	0.00100
Zinc	7440-66-6	0.0201	B	0.00191	0.0100	0.0100

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413450-1

Lab Sample ID:	R3413450-1	**SDG:**	L1100960
Client Sample ID:	BLANK	**Collected Date/Time:**	_____
Lab File ID:	20190522000914	**Received Date/Time:**	_____
Instrument ID:	ICPMS9	**Preparation Date/Time:**	05/21/19 13:55
Analytical Batch:	WG1284305	**Analysis Date/Time:**	05/22/19 00:09
Dilution Factor:	1	**Prep Method:**	200.8
Analytical Method:	200.8	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	25 mL
Total Solids (%):	_____	**Final Wt/Vol:**	25 mL

Analyte	**CAS**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
		mg/l		*mg/l*	*mg/l*	*mg/l*
Antimony	7440-36-0	U		0.000754	0.0020	0.00200
Arsenic	7440-38-2	U		0.000170	0.0010	0.00100
Cadmium	7440-43-9	U		0.000220	0.0010	0.00100
Chromium	7440-47-3	U		0.000320	0.0010	0.00100
Cobalt	7440-48-4	U		0.000270	0.0020	0.00200
Copper	7440-50-8	U		0.000270	0.0010	0.00100
Lead	7439-92-1	U		0.000260	0.0010	0.00100
Nickel	7440-02-0	U		0.000320	0.0010	0.00100
Selenium	7782-49-2	U		0.000320	0.0020	0.00200
Silver	7440-22-4	U		0.000180	0.0010	0.00100
Thallium	7440-28-0	U		0.000280	0.0010	0.00100
Tin	7440-31-5	U		0.000240	0.0010	0.00100
Zinc	7440-66-6	0.00276	J	0.00191	0.01	0.0100

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413450-2

Lab Sample ID:	R3413450-2	**SDG:**	L1100960
Client Sample ID:	LCS	**Collected Date/Time:**	_____
Lab File ID:	20190522001349	**Received Date/Time:**	_____
Instrument ID:	ICPMS9	**Preparation Date/Time:**	05/21/19 13:55
Analytical Batch:	WG1284305	**Analysis Date/Time:**	05/22/19 00:13
Dilution Factor:	1	**Prep Method:**	200.8
Analytical Method:	200.8	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	25 mL
Total Solids (%):	_____	**Final Wt/Vol:**	25 mL

Analyte	**CAS**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
		mg/l		*mg/l*	*mg/l*	*mg/l*
Antimony	7440-36-0	0.0486		0.000754	0.0020	0.00200
Arsenic	7440-38-2	0.0491		0.000170	0.0010	0.00100
Cadmium	7440-43-9	0.0509		0.000220	0.0010	0.00100
Chromium	7440-47-3	0.0500		0.000320	0.0010	0.00100
Cobalt	7440-48-4	0.0502		0.000270	0.0020	0.00200
Copper	7440-50-8	0.0531		0.000270	0.0010	0.00100
Lead	7439-92-1	0.0490		0.000260	0.0010	0.00100
Nickel	7440-02-0	0.0504		0.000320	0.0010	0.00100
Selenium	7782-49-2	0.0491		0.000320	0.0020	0.00200
Silver	7440-22-4	0.0493		0.000180	0.0010	0.00100
Thallium	7440-28-0	0.0479		0.000280	0.0010	0.00100
Tin	7440-31-5	0.0478		0.000240	0.0010	0.00100
Zinc	7440-66-6	0.0516		0.00191	0.01	0.0100

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413450-3

Lab Sample ID:	R3413450-3	**SDG:**	L1100960
Client Sample ID:	LCSD	**Collected Date/Time:**	_____
Lab File ID:	20190522001824	**Received Date/Time:**	_____
Instrument ID:	ICPMS9	**Preparation Date/Time:**	05/21/19 13:55
Analytical Batch:	WG1284305	**Analysis Date/Time:**	05/22/19 00:18
Dilution Factor:	1	**Prep Method:**	200.8
Analytical Method:	200.8	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	25 mL
Total Solids (%):	_____	**Final Wt/Vol:**	25 mL

Analyte	**CAS**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
		mg/l		*mg/l*	*mg/l*	*mg/l*
Antimony	7440-36-0	0.0469		0.000754	0.0020	0.00200
Arsenic	7440-38-2	0.0494		0.000170	0.0010	0.00100
Cadmium	7440-43-9	0.0512		0.000220	0.0010	0.00100
Chromium	7440-47-3	0.0497		0.000320	0.0010	0.00100
Cobalt	7440-48-4	0.0501		0.000270	0.0020	0.00200
Copper	7440-50-8	0.0534		0.000270	0.0010	0.00100
Lead	7439-92-1	0.0496		0.000260	0.0010	0.00100
Nickel	7440-02-0	0.0507		0.000320	0.0010	0.00100
Selenium	7782-49-2	0.0490		0.000320	0.0020	0.00200
Silver	7440-22-4	0.0487		0.000180	0.0010	0.00100
Thallium	7440-28-0	0.0488		0.000280	0.0010	0.00100
Tin	7440-31-5	0.0462		0.000240	0.0010	0.00100
Zinc	7440-66-6	0.0515		0.00191	0.01	0.0100

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413450-5

Lab Sample ID:	R3413450-5	**SDG:**	L1100960
Client Sample ID:	MS	**Collected Date/Time:**	05/14/19 11:05
Lab File ID:	20190522003207	**Received Date/Time:**	05/15/19 08:45
Instrument ID:	ICPMS9	**Preparation Date/Time:**	05/21/19 13:57
Analytical Batch:	WG1284305	**Analysis Date/Time:**	05/22/19 00:32
Dilution Factor:	1	**Prep Method:**	200.8
Analytical Method:	200.8	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	25 mL
Total Solids (%):	_____	**Final Wt/Vol:**	25 mL

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Antimony	7440-36-0	0.0504		0.000754	0.0020	0.00200
Arsenic	7440-38-2	0.0505		0.000170	0.0010	0.00100
Cadmium	7440-43-9	0.0504		0.000220	0.0010	0.00100
Chromium	7440-47-3	0.0507		0.000320	0.0010	0.00100
Cobalt	7440-48-4	0.0500		0.000270	0.0020	0.00200
Copper	7440-50-8	0.0616		0.000270	0.0010	0.00100
Lead	7439-92-1	0.0492		0.000260	0.0010	0.00100
Nickel	7440-02-0	0.0523		0.000320	0.0010	0.00100
Selenium	7782-49-2	0.0503		0.000320	0.0020	0.00200
Silver	7440-22-4	0.0491		0.000180	0.0010	0.00100
Thallium	7440-28-0	0.0475		0.000280	0.0010	0.00100
Tin	7440-31-5	0.0489		0.000240	0.0010	0.00100
Zinc	7440-66-6	0.0978		0.00191	0.01	0.0100

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413450-7

Lab Sample ID:	R3413450-7	**SDG:**	L1100960
Client Sample ID:	MS	**Collected Date/Time:**	05/20/19 06:45
Lab File ID:	20190522004550	**Received Date/Time:**	05/21/19 08:30
Instrument ID:	ICPMS9	**Preparation Date/Time:**	05/21/19 13:57
Analytical Batch:	WG1284305	**Analysis Date/Time:**	05/22/19 00:45
Dilution Factor:	1	**Prep Method:**	200.8
Analytical Method:	200.8	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	25 mL
Total Solids (%):	_____	**Final Wt/Vol:**	25 mL

Analyte	**CAS**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
		mg/l		*mg/l*	*mg/l*	*mg/l*
Antimony	7440-36-0	0.0472		0.000754	0.0020	0.00200
Arsenic	7440-38-2	0.0516		0.000170	0.0010	0.00100
Cadmium	7440-43-9	0.0532		0.000220	0.0010	0.00100
Chromium	7440-47-3	0.0517		0.000320	0.0010	0.00100
Cobalt	7440-48-4	0.0521		0.000270	0.0020	0.00200
Copper	7440-50-8	0.0566		0.000270	0.0010	0.00100
Lead	7439-92-1	0.0509		0.000260	0.0010	0.00100
Nickel	7440-02-0	0.0567		0.000320	0.0010	0.00100
Selenium	7782-49-2	0.0511		0.000320	0.0020	0.00200
Silver	7440-22-4	0.0470		0.000180	0.0010	0.00100
Thallium	7440-28-0	0.0497		0.000280	0.0010	0.00100
Tin	7440-31-5	0.0462		0.000240	0.0010	0.00100
Zinc	7440-66-6	0.142		0.00191	0.01	0.0100

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413450-6

Lab Sample ID:	R3413450-6	**SDG:**	L1100960
Client Sample ID:	MSD	**Collected Date/Time:**	05/14/19 11:05
Lab File ID:	20190522003641	**Received Date/Time:**	05/15/19 08:45
Instrument ID:	ICPMS9	**Preparation Date/Time:**	05/21/19 13:57
Analytical Batch:	WG1284305	**Analysis Date/Time:**	05/22/19 00:36
Dilution Factor:	1	**Prep Method:**	200.8
Analytical Method:	200.8	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	25 mL
Total Solids (%):	_____	**Final Wt/Vol:**	25 mL

Analyte	**CAS**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
		mg/l		*mg/l*	*mg/l*	*mg/l*
Antimony	7440-36-0	0.0529		0.000754	0.0020	0.00200
Arsenic	7440-38-2	0.0488		0.000170	0.0010	0.00100
Cadmium	7440-43-9	0.0499		0.000220	0.0010	0.00100
Chromium	7440-47-3	0.0495		0.000320	0.0010	0.00100
Cobalt	7440-48-4	0.0485		0.000270	0.0020	0.00200
Copper	7440-50-8	0.0609		0.000270	0.0010	0.00100
Lead	7439-92-1	0.0489		0.000260	0.0010	0.00100
Nickel	7440-02-0	0.0511		0.000320	0.0010	0.00100
Selenium	7782-49-2	0.0504		0.000320	0.0020	0.00200
Silver	7440-22-4	0.0517		0.000180	0.0010	0.00100
Thallium	7440-28-0	0.0481		0.000280	0.0010	0.00100
Tin	7440-31-5	0.0507		0.000240	0.0010	0.00100
Zinc	7440-66-6	0.0956		0.00191	0.01	0.0100

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413450-8

Lab Sample ID:	R3413450-8	**SDG:**	L1100960
Client Sample ID:	MSD	**Collected Date/Time:**	05/20/19 06:45
Lab File ID:	20190522005025	**Received Date/Time:**	05/21/19 08:30
Instrument ID:	ICPMS9	**Preparation Date/Time:**	05/21/19 13:57
Analytical Batch:	WG1284305	**Analysis Date/Time:**	05/22/19 00:50
Dilution Factor:	1	**Prep Method:**	200.8
Analytical Method:	200.8	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	25 mL
Total Solids (%):	_____	**Final Wt/Vol:**	25 mL

Analyte	**CAS**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
		mg/l		*mg/l*	*mg/l*	*mg/l*
Antimony	7440-36-0	0.0501		0.000754	0.0020	0.00200
Arsenic	7440-38-2	0.0495		0.000170	0.0010	0.00100
Cadmium	7440-43-9	0.0509		0.000220	0.0010	0.00100
Chromium	7440-47-3	0.0498		0.000320	0.0010	0.00100
Cobalt	7440-48-4	0.0499		0.000270	0.0020	0.00200
Copper	7440-50-8	0.0544		0.000270	0.0010	0.00100
Lead	7439-92-1	0.0504		0.000260	0.0010	0.00100
Nickel	7440-02-0	0.0547		0.000320	0.0010	0.00100
Selenium	7782-49-2	0.0501		0.000320	0.0020	0.00200
Silver	7440-22-4	0.0504		0.000180	0.0010	0.00100
Thallium	7440-28-0	0.0490		0.000280	0.0010	0.00100
Tin	7440-31-5	0.0487		0.000240	0.0010	0.00100
Zinc	7440-66-6	0.143		0.00191	0.01	0.0100

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413450-4

Lab Sample ID:	R3413450-4	**SDG:**	L1100960
Client Sample ID:	SD	**Collected Date/Time:**	05/14/19 11:05
Lab File ID:	20190522002733	**Received Date/Time:**	05/15/19 08:45
Instrument ID:	ICPMS9	**Preparation Date/Time:**	05/21/19 13:57
Analytical Batch:	WG1284305	**Analysis Date/Time:**	05/22/19 00:27
Dilution Factor:	5	**Prep Method:**	200.8
Analytical Method:	200.8	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	25 mL
Total Solids (%):	_____	**Final Wt/Vol:**	25 mL

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Antimony	7440-36-0	ND		0.00377	0.0020	0.0100
Arsenic	7440-38-2	0.000894		0.000850	0.0010	0.00500
Cadmium	7440-43-9	ND		0.00110	0.0010	0.00500
Chromium	7440-47-3	ND		0.00160	0.0010	0.00500
Cobalt	7440-48-4	ND		0.00135	0.0020	0.0100
Copper	7440-50-8	0.0111		0.00135	0.0010	0.00500
Lead	7439-92-1	ND		0.00130	0.0010	0.00500
Nickel	7440-02-0	0.00323		0.00160	0.0010	0.00500
Selenium	7782-49-2	ND		0.00160	0.0020	0.0100
Silver	7440-22-4	ND		0.000900	0.0010	0.00500
Thallium	7440-28-0	ND		0.00140	0.0010	0.00500
Tin	7440-31-5	ND		0.00120	0.0010	0.00500
Zinc	7440-66-6	0.0553		0.00955	0.01	0.0500

2-IN

CALIBRATION VERIFICATION

SDG:	L1100960	**Calibration (begin) date/time:**	05/23/19 07:11
Instrument ID:	ICPMS8	**Calibration (end) date/time:**	05/23/19 07:36
Analytical Method:	200.8	**Analytical Run:**	052319ICPMS8
Concentration Units:	mg/l		

		CCV				**CCV**		
Sample ID:		ICPMS80523191320				ICPMS80523191352		
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD
ARSENIC	0.10	0.1021061	102	0.710000	0.10	0.1018737	102	2.250000
CADMIUM	0.10	0.1054351	105	1.300000	0.10	0.106642	107	0.640000
CHROMIUM	0.10	0.102338	102	1.620000	0.10	0.1027864	103	1.550000
COBALT	0.10	0.1018329	102	0.370000	0.10	0.1022596	102	1.760000
COPPER	0.10	0.1010502	101	1.230000	0.10	0.100379	100	1.780000
LEAD	0.10	0.1033533	103	0.990000	0.10	0.1022139	102	0.840000
NICKEL	0.10	0.101737	102	1.230000	0.10	0.1022805	102	1.100000
SELENIUM	0.10	0.107503	108	2.960000	0.10	0.1095043	110	1.270000
SILVER	0.10	0.1011805	101	0.950000	0.10	0.1018269	102	0.700000
THALLIUM	0.10	0.1053523	105	1.730000	0.10	0.102141	102	0.640000
TIN	0.10	0.09793289	97.90	0.700000	0.10	0.0990638	99.10	2.010000
ZINC	0.10	0.1030017	103	1.210000	0.10	0.1018751	102	2.340000

CCV Limits: 90 - 110

2-IN

CALIBRATION VERIFICATION

SDG:	L1100960	**Calibration (begin) date/time:**	05/21/19 19:55
Instrument ID:	ICPMS9	**Calibration (end) date/time:**	05/21/19 20:18
Analytical Method:	200.8	**Analytical Run:**	052119ICPMS9A
Concentration Units:	mg/l		

	ICV				**ICVLL**				**CCV**			
Sample ID:	ICPMS90521192023				ICPMS90521192113				ICPMS90521192320			
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	True	Found	%R	%RSD
ALUMINUM	1	0.999241	99.90	1.520000	0.10	0.09930334	99.30	1.840000	1	0.9747413	97.50	0.880000
ANTIMONY	0.10	0.1011877	101	0.960000	0.0010	0.001255262	126	2.840000	0.10	0.09934666	99.30	0.740000
ARSENIC	0.10	0.09923462	99.20	0.960000	0.0010	0.000945653	94.60	3.620000	0.10	0.09893237	98.90	0.350000
BARIUM	0.10	0.1008183	101	1.760000	0.0020	0.002098675	105	12.900000	0.10	0.101068	101	0.830000
BERYLLIUM	0.10	0.1014589	101	1.060000	0.0010	0.001010526	101	1.770000	0.10	0.1031066	103	2.420000
BORON	0.10	0.1074874	107	1.520000					0.10	0.1127834	113	1.530000
CADMIUM	0.10	0.09807193	98.10	0.600000	0.0010	0.001058464	106	4.120000	0.10	0.09780897	97.80	0.560000
CALCIUM	10	9.834362	98.30	1.020000	1	0.9421961	94.20	2.730000	10	9.838412	98.40	1.580000
CHROMIUM	0.10	0.1008163	101	0.770000	0.0010	0.000936399	93.60	4.840000	0.10	0.09850897	98.50	0.800000
COBALT	0.10	0.101008	101	1.240000	0.0010	0.000983145	98.30	2.040000	0.10	0.09904204	99	0.810000
COPPER	0.10	0.09917795	99.20	1.320000	0.0010	0.001085192	109	3.370000	0.10	0.1004928	100	0.030000
IRON	1	0.9904802	99	2.620000	0.10	0.09379188	93.80	2.600000	1	0.9709622	97.10	1.680000
LEAD	0.10	0.09852594	98.50	1.640000	0.0010	0.000963647	96.40	1.500000	0.10	0.0957824	95.80	3.590000
LITHIUM	0.10	0.1007401	101	0.910000	0.0010	0.000012689	1.27	64.400000	0.10	0.1008951	101	2.380000
MAGNESIUM	10	9.893622	98.90	1.320000	1	0.9373666	93.70	2.310000	10	9.741084	97.40	0.290000
MANGANESE	0.10	0.1006382	101	2.120000	0.0020	0.001944526	97.20	1.380000	0.10	0.0995717	99.60	0.870000
MOLYBDENUM	0.10	0.0997934	99.80	1.390000	0.0020	0.001957966	97.90	1.780000	0.10	0.09974959	99.70	0.200000
NICKEL	0.10	0.100768	101	1.310000	0.0010	0.001039247	104	6.390000	0.10	0.09874546	98.70	1.070000
POTASSIUM	10	9.870199	98.70	0.860000	1	0.9481432	94.80	0.780000	10	9.905561	99.10	1.580000
SELENIUM	0.10	0.09995368	100	2.140000	0.0010	0.000845415	84.50	5.020000	0.10	0.0997878	99.80	1.560000
SILVER	0.10	0.1006851	101	0.860000	0.0010	0.00097547	97.50	1.200000	0.10	0.09985762	99.90	0.640000
SODIUM	10	10.27162	103	2.820000	1	0.9235905	92.40	1.680000	10	9.829992	98.30	1.620000
STRONTIUM	0.10	0.09775517	97.80	2.480000	0.01	0.0095499	95.50	5.070000	0.10	0.09827979	98.30	1.690000
THALLIUM	0.10	0.09855985	98.60	4.150000	0.0010	0.000923913	92.40	1.550000	0.10	0.09620417	96.20	3.020000
THORIUM	0.10	0.09901565	99	1.140000	0.01	0.008868983	88.70	2.120000	0.10	0.09695948	97	4.220000
TIN	0.10	0.09778463	97.80	0.530000	0.0010	0.001002882	100	3.680000	0.10	0.09783007	97.80	0.590000
TITANIUM	0.10	0.1005999	101	2.610000	0.01	0.009119373	91.20	11.700000	0.10	0.1013079	101	1.080000
URANIUM	0.10	0.1002608	100	2.450000	0.0010	0.000930677	93.10	2.680000	0.10	0.09860568	98.60	3.960000
VANADIUM	0.10	0.09956884	99.60	1.020000	0.0020	0.001867274	93.40	2.060000	0.10	0.09798441	98	1.230000
ZINC	0.10	0.1002656	100	1.670000	0.01	0.01010004	101	1.060000	0.10	0.09923767	99.20	1.560000

ICV Limits: 95 - 105 ICVLL Limits: 50 - 150 CCV Limits: 90 - 110 CCVLL Limits: 50 - 150

2-IN

CALIBRATION VERIFICATION

SDG:	L1100960	**Calibration (begin) date/time:**	05/21/19 19:55
Instrument ID:	ICPMS9	**Calibration (end) date/time:**	05/21/19 20:18
Analytical Method:	200.8	**Analytical Run:**	052119ICPMS9A
Concentration Units:	mg/l		

	CCVLL				**CCV**				**CCVLL**			
Sample ID:	ICPMS90521192333				ICPMS90522190055				ICPMS90522190131			
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	True	Found	%R	%RSD
ALUMINUM	0.10	0.09429585	94.30	3.470000	1	1.017031	102	0.630000	0.10	0.09629768	96.30	3.670000
ANTIMONY	0.0010	0.001160447	116	2.920000	0.10	0.09756398	97.60	0.510000	0.0010	0.001261343	126	5.040000
ARSENIC	0.0010	0.000937371	93.70	2.980000	0.10	0.0991388	99.10	1.220000	0.0010	0.000916035	91.60	4.360000
BARIUM	0.0020	0.00188989	94.50	10.100000	0.10	0.1013776	101	0.440000	0.0020	0.002100398	105	4.160000
BERYLLIUM	0.0010	0.001040201	104	1.700000	0.10	0.1028261	103	2.010000	0.0010	0.001045582	105	7.410000
BORON	0.02	0.02687125	134	2.850000	0.10	0.1138185	114	1.730000	0.02	0.1441327	721	2.400000
CADMIUM	0.0010	0.00100479	100	3.460000	0.10	0.1007715	101	0.680000	0.0010	0.00105865	106	3.460000
CALCIUM	1	1.014456	101	1.320000	10	10.0363	100	2.140000	1	0.9552224	95.50	1.880000
CHROMIUM	0.0010	0.000979987	98	3.240000	0.10	0.1006637	101	0.660000	0.0010	0.000980744	98.10	6.040000
COBALT	0.0010	0.000971484	97.10	3.460000	0.10	0.1004925	100	2.030000	0.0010	0.001016625	102	2.430000
COPPER	0.0010	0.001159779	116	1.070000	0.10	0.1048101	105	0.310000	0.0010	0.001160189	116	2.070000
IRON	0.10	0.09344271	93.40	2.320000	1	0.986439	98.60	1.490000	0.10	0.09654405	96.50	1.780000
LEAD	0.0010	0.000963486	96.30	3.620000	0.10	0.0992295	99.20	1.680000	0.0010	0.000980156	98	2.590000
LITHIUM	0.0010	0.000039122	3.91	3.510000	0.10	0.1027892	103	2.190000	0.0010	0.000021274	2.13	26.300000
MAGNESIUM	1	0.9714141	97.10	1.800000	10	10.20617	102	1.570000	1	1.017448	102	1.270000
MANGANESE	0.0020	0.001964466	98.20	10.100000	0.10	0.09976794	99.80	1.450000	0.0020	0.002065685	103	6.940000
MOLYBDENUM	0.0020	0.001991642	99.60	7.310000	0.10	0.1005948	101	0.270000	0.0020	0.001945758	97.30	5.480000
NICKEL	0.0010	0.000967992	96.80	4.430000	0.10	0.1008472	101	1.880000	0.0010	0.000948507	94.90	6.180000
POTASSIUM	1	0.9746704	97.50	1.320000	10	9.998505	100	1.290000	1	0.973498	97.30	1.840000
SELENIUM	0.0010	0.00098586	98.60	8.190000	0.10	0.09960134	99.60	1.720000	0.0010	0.000967841	96.80	4.000000
SILVER	0.0010	0.00099228	99.20	2.490000	0.10	0.1015755	102	1.060000	0.0010	0.00096566	96.60	2.760000
SODIUM	1	1.022212	102	0.670000	10	10.55984	106	5.150000	1	1.125911	113	0.710000
STRONTIUM	0.01	0.009343579	93.40	5.150000	0.10	0.09790826	97.90	1.310000	0.01	0.009474059	94.70	2.260000
THALLIUM	0.0010	0.000937116	93.70	0.950000	0.10	0.09778388	97.80	2.290000	0.0010	0.000937787	93.80	0.800000
THORIUM	0.01	0.008905209	89.10	0.970000	0.10	0.09778261	97.80	1.360000	0.01	0.008976135	89.80	1.580000
TIN	0.0010	0.001018411	102	2.640000	0.10	0.09888193	98.90	0.850000	0.0010	0.00108271	108	11.800000
TITANIUM	0.01	0.009898021	99	3.040000	0.10	0.1016027	102	1.520000	0.01	0.01003302	100	4.010000
URANIUM	0.0010	0.000922131	92.20	1.520000	0.10	0.09825318	98.30	4.010000	0.0010	0.000944395	94.40	1.120000
VANADIUM	0.0020	0.001880737	94	4.990000	0.10	0.09977493	99.80	2.430000	0.0020	0.001909425	95.50	4.710000
ZINC	0.01	0.01060138	106	3.280000	0.10	0.09932361	99.30	1.470000	0.01	0.01133667	113	3.200000

ICV Limits: 95 - 105 ICVLL Limits: 50 - 150 CCV Limits: 90 - 110 CCVLL Limits: 50 - 150

2-IN

CALIBRATION VERIFICATION

SDG:	L1100960	**Calibration (begin) date/time:**	05/24/19 11:45
Instrument ID:	ICPMS11	**Calibration (end) date/time:**	05/24/19 12:10
Analytical Method:	200.8	**Analytical Run:**	052419ICPMS11
Concentration Units:	mg/l		

	ICV				**ICVLL**				**CCV**			
Sample ID:	ICPMS110524191216-2				ICPMS110524191249-2				ICPMS110524191614-2			
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	True	Found	%R	%RSD
ANTIMONY	0.10	0.1049542	105	1.830000	0.0010	0.001133976	113	2.350000	0.10	0.09291617	92.90	2.500000

ICV Limits: 95 - 105 ICVLL Limits: 50 - 150 CCV Limits: 90 - 110

2-IN

CALIBRATION VERIFICATION

SDG:	L1100960	**Calibration (begin) date/time:**	05/24/19 11:45
Instrument ID:	ICPMS11	**Calibration (end) date/time:**	05/24/19 12:10
Analytical Method:	200.8	**Analytical Run:**	052419ICPMS11
Concentration Units:	mg/l		

CCV

Sample ID: ICPMS110524191647

Analyte	True	Found	%R	%RSD
ANTIMONY	0.10	0.09562515	95.60	1.790000

ICV Limits: 95 - 105 ICVLL Limits: 50 - 150 CCV Limits: 90 - 110

3-IN BLANKS

SDG:	L1100960	**Calibration (begin) date/time:**	05/23/19 07:11
Instrument ID:	ICPMS8	**Calibration (end) date/time:**	05/23/19 07:36
Analytical Method:	200.8	**Analytical Run:**	052319ICPMS8

Sample ID:	**CCB Result**	**CCB Qual**	**CCB Result**	**CCB Qual**
File ID:	20190523132533		20190523135647	
Analyte	mg/l		mg/l	
ARSENIC	0.000010089	U	0.000132275	U
CADMIUM	0.000008163	U	0.000106355	U
CHROMIUM	-0.000158821	U	0.000006450	U
COBALT	-0.000006980	U	0.000128815	U
COPPER	-0.000183644	U	-0.000180093	U
LEAD	0.000011743	U	0.00002460	U
NICKEL	-0.000177762	U	-0.000063436	U
SELENIUM	-0.000002118	U	0.000058169	U
SILVER	0.000003774	U	0.000011342	U
THALLIUM	0.000004766	U	0.000012333	U
TIN	0.000046111	U	0.000195498	U
ZINC	-0.000307714	U	-0.000202608	U

3-IN

BLANKS

SDG:	L1100960	**Calibration (begin) date/time:**	05/21/19 19:55
Instrument ID:	ICPMS9	**Calibration (end) date/time:**	05/21/19 20:18
Analytical Method:	200.8	**Analytical Run:**	052119ICPMS9A

Sample ID:	**ICB Result**	**ICB Qual**	**CCB Result**	**CCB Qual**	**BLANK Result**	**BLANK Qual**	**CCB Result**	**CCB Qual**
File ID:	20190521205141		20190521232849		20190522000914		20190522005935	
Analyte	mg/l		mg/l		mg/l		mg/l	
ALUMINUM	-0.000730417	U	0.000370339	U	U		0.000050406	U
ANTIMONY	0.000276348	U	0.000449706	U	U		0.000941703	U
ARSENIC	-0.000009054	U	0.000009694	U	U		0.000012213	U
BARIUM	-0.000014365	U	-0.000010796	U	U		0.000004144	U
BERYLLIUM	0.000017975	U	0.000034201	U	U		0.000081809	U
BISMUTH (NO HE)	5981543		6057217		ND		5909291	
BORON	0.000133649	U	0.007883245	U			0.01001269	
CADMIUM	0.000002896	U	0.000003725	U	U		0.000008782	U
CALCIUM	0.003319732	U	0.01731021	U			0.003820267	U
CHROMIUM	0.000025233	U	0.00009035	U	U		0.00007867	U
COBALT	-0.000000007000	U	0.000004544	U	U		0.000012098	U
COPPER	0.000110683	U	0.000038133	U	U		-0.000030258	U
GERMANIUM	8740.347		9063.817		ND		8616.287	
GERMANIUM (HIGH HE)	11246.31		11968.11		ND		11403.08	
GERMANIUM (NO HE)	92066.89		94338.31		ND		88136.58	
IRON	-0.001171843	U	-0.001423836	U	U		-0.002426734	U
LEAD	0.000004095	U	0.000017199	U	U		0.000031353	U
LITHIUM	0.000017895	U	0.000048326	U			0.000103114	U
MAGNESIUM	0.004063922	U	0.00210903	U	U		0.003401846	U
MANGANESE	-0.000002776	U	0.000005932	U	U		-0.000059663	U
MERCURY	0.005048363		0.003535426				0.004202602	
MOLYBDENUM	-0.000027079	U	-0.000016867	U	U		0.000008085	U
NICKEL	0.000063962	U	0.000032903	U	U		-0.000044238	U
POTASSIUM	0.001233973	U	-0.002247288	U			-0.008855098	U
RHODIUM	272067		281612.8		ND		265107.5	
SCANDIUM	106326		109868.8		ND		105617.5	
SCANDIUM (NO HE)	3322060		3414225		ND		3380322	
SELENIUM	0.000013103	U	0.000003249	U	U		0.000020811	U
SILVER	0.000001329	U	0.000002875	U	U		0.000011882	U
SODIUM	-0.008758241	U	0.07326741	U			0.01241706	U
STRONTIUM	-0.000005161	U	-0.0000001630	U			0.000003826	U
TELLURIUM	37316.19		38264.66		ND		35411.99	
TELLURIUM (HIGH HE)	112391		117632.6		ND		111959.2	
TELLURIUM (NO HE)	376757.1		397407.9		ND		369314.6	
THALLIUM	0.000008723	U	0.000013615	U	U		0.000040532	U
THORIUM	0.000002870	U	0.000016574	U			0.00004149	U
TIN	0.000017462	U	0.000040729	U	U		0.000085233	U
TITANIUM	0.000012482	U	-0.000021707	U	U		0.000108288	U
URANIUM	0.000001203	U	0.000003144	U			0.000007887	U
VANADIUM	0.000004856	U	0.000012113	U			0.000014893	U
ZINC	-0.000049076	U	0.000687993	U	0.00276	J	0.000811272	U

3-IN BLANKS

SDG:	L1100960	**Calibration (begin) date/time:**	05/24/19 11:45
Instrument ID:	ICPMS11	**Calibration (end) date/time:**	05/24/19 12:10
Analytical Method:	200.8	**Analytical Run:**	052419ICPMS11

Sample ID:	**ICB Result**	**ICB Qual**	**CCB Result**	**CCB Qual**	**CCB Result**	**CCB Qual**
File ID:	20190524122312-2		20190524161927-2		20190524165210	
Analyte	mg/l		mg/l		mg/l	
ANTIMONY	0.001493441		0.001681628		0.001484801	

4-IN

INTERFERENCE CHECK SAMPLE

SDG:	L1100960	**Analytical Method:**	200.8
Instrument ID:	ICPMS8	**Date:**	05/23/19 11:50
Instrument Run:	052319ICPMS8		

Analyte	True	Found		True	Found	
	ICSA	*ICSA*	*ICSA*	*ICSAB*	*ICSAB*	*ICSAB*
	mg/l	*mg/l*	*% Rec.*	*mg/l*	*mg/l*	*% Rec.*
ALUMINUM	100	104.4489	104	100	106.2559	106
ANTIMONY	0	0.000658678		0.02	0.03222996	161
ARSENIC	0	0.000050275		0.02	0.01954502	97.70
BARIUM	0	0.000203042		0.02	0.01955601	97.80
BERYLLIUM	0	0.000008080		0.02	0.02049988	102
BISMUTH (NO HE)		1709208	119		1668960	116
BORON	0	0.03619644		0.02	0.04986724	249
CADMIUM	0	0.000360075		0.02	0.02252571	113
CALCIUM	100	97.31545	97.30	100	99.63836	99.60
CHROMIUM	0	0.000115294		0.02	0.02020896	101
COBALT	0	0.000290901		0.02	0.0205916	103
COPPER	0	0.001378061		0.02	0.02089197	104
GERMANIUM		15606.67	112		15680.69	112
GERMANIUM (NO HE)		62498.68	118		61562.42	116
IRON	100	98.44442	98.40	100	100.3628	100
LEAD	0	0.000096474		0.02	0.02070506	104
MAGNESIUM	100	102.1916	102	100	103.8265	104
MANGANESE	0	0.000468947		0.02	0.02018693	101
MERCURY	0	0.01122118		0	0.007323533	
MOLYBDENUM	2	2.139239	107	2	2.180974	109
NICKEL	0	0.000389814		0.02	0.02059872	103
POTASSIUM	100	99.12969	99.10	100	101.8981	102
RHODIUM		341603.4	108		343136	109
SCANDIUM		216611.1	111		217513.5	111
SCANDIUM (NO HE)		2595786	115		2552158	113
SELENIUM	0	0.000133803		0.02	0.02362614	118
SILVER	0	0.000014355		0.02	0.01845908	92.30
SODIUM	100	102.2384	102	100	104.6694	105
STRONTIUM	0	0.002647829		0.02	0.02124656	106
TELLURIUM		68564.88	99.40		68974.17	100
TELLURIUM (HIGH HE)		45779.96	103		45274.9	102
TELLURIUM (NO HE)		245052	109		242127.9	108
THALLIUM	0	0.00002192		0.02	0.02058934	103
THORIUM	0	0.000062622		0.02	0.02014857	101
TIN	0	0.000420611		0.02	0.02028927	101
TITANIUM	2	2.046256	102	2	2.087926	104
URANIUM	0	0.000017579		0.02	0.02098229	105
VANADIUM	0	-0.000056069		0.02	0.02027829	101
ZINC	0	0.000631456		0.02	0.01948823	97.40

ICSA Limits: 80 - 120 ICSAB Limits: 80 - 120

4-IN

INTERFERENCE CHECK SAMPLE

SDG:	L1100960	**Analytical Method:**	200.8
Instrument ID:	ICPMS8	**Date:**	05/23/19 14:00
Instrument Run:	052319ICPMS8		

Analyte	**True**	**Found**		**True**	**Found**	
	ICSA	*ICSA*	*ICSA*	*ICSAB*	*ICSAB*	*ICSAB*
	mg/l	*mg/l*	*% Rec.*	*mg/l*	*mg/l*	*% Rec.*
ALUMINUM	100	106.9156	107	100	106.9771	107
ANTIMONY	0	0.001305751		0.02	0.03332802	167
ARSENIC	0	0.000105255		0.02	0.01967181	98.40
BARIUM	0	0.000305771		0.02	0.02007598	100
BERYLLIUM	0	0.000028383		0.02	0.02078625	104
BISMUTH (NO HE)		1714640	119		1721041	120
BORON	0	0.05909751		0.02	0.06883532	344
CADMIUM	0	0.000416477		0.02	0.02276732	114
CALCIUM	100	99.17156	99.20	100	95.6715	95.70
CHROMIUM	0	0.000157219		0.02	0.02053367	103
COBALT	0	0.000358439		0.02	0.02038879	102
COPPER	0	0.001447854		0.02	0.02096078	105
GERMANIUM		15640.05	112		15604	112
GERMANIUM (NO HE)		60884.89	115		59918.55	113
IRON	100	99.6199	99.60	100	99.9013	99.90
LEAD	0	0.000117062		0.02	0.02045187	102
MAGNESIUM	100	103.9421	104	100	103.5872	104
MANGANESE	0	0.000523085		0.02	0.02029704	101
MERCURY	0	3.707066		0	4.040093	
MOLYBDENUM	2	2.181993	109	2	2.201783	110
NICKEL	0	0.000403648		0.02	0.02049628	102
POTASSIUM	100	101.8464	102	100	102.3017	102
RHODIUM		342968.9	109		338086.9	107
SCANDIUM		218554.3	112		216664.1	111
SCANDIUM (NO HE)		2549783	113		2463945	109
SELENIUM	0	0.000176273		0.02	0.02212346	111
SILVER	0	0.000023819		0.02	0.01872159	93.60
SODIUM	100	103.7949	104	100	104.2792	104
STRONTIUM	0	0.003058031		0.02	0.02182871	109
TELLURIUM		69987.51	101		68955.17	100
TELLURIUM (HIGH HE)		45838.14	103		44986.48	101
TELLURIUM (NO HE)		247635	110		242780.8	108
THALLIUM	0	0.000051416		0.02	0.02044495	102
THORIUM	0	0.000078818		0.02	0.01907269	95.40
TIN	0	0.000553524		0.02	0.0207034	104
TITANIUM	2	2.066638	103	2	2.094187	105
URANIUM	0	0.000036693		0.02	0.0193749	96.90
VANADIUM	0	-0.000035091		0.02	0.02014988	101
ZINC	0	0.000505951		0.02	0.0202622	101

ICSA Limits: 80 - 120 ICSAB Limits: 80 - 120

4-IN

INTERFERENCE CHECK SAMPLE

SDG:	L1100960	**Analytical Method:**	200.8
Instrument ID:	ICPMS9	**Date:**	05/21/19 21:18
Instrument Run:	052119ICPMS9A		

Analyte	True	Found		True	Found	
	ICSA	*ICSA*	*ICSA*	*ICSAB*	*ICSAB*	*ICSAB*
	mg/l	*mg/l*	*% Rec.*	*mg/l*	*mg/l*	*% Rec.*
ALUMINUM	100	102.1721	102	100	99.91416	99.90
ANTIMONY	0	0.000385611		0.02	0.02267478	113
ARSENIC	0	0.000055129		0.02	0.01842125	92.10
BARIUM	0	0.000198041		0.02	0.02087742	104
BERYLLIUM	0	0.000006344		0.02	0.02033165	102
BISMUTH (NO HE)		5602265	96.10		5641609	96.80
BORON	0	0.001890731		0.02	0.02148655	107
CADMIUM	0	0.000356861		0.02	0.02091753	105
CALCIUM	100	97.57314	97.60	100	96.07535	96.10
CHROMIUM	0	0.000277916		0.02	0.01887529	94.40
COBALT	0	0.000263858		0.02	0.0191682	95.80
COPPER	0	0.001669266		0.02	0.02041721	102
GERMANIUM		9158.533	108		9011.803	106
GERMANIUM (HIGH HE)		12333.69	112		12264.97	112
GERMANIUM (NO HE)		95410.11	104		96153.64	105
IRON	100	87.96077	88	100	88.88606	88.90
LEAD	0	0.000099658		0.02	0.01917811	95.90
LITHIUM	0	0.000500303		0	0.000523626	
MAGNESIUM	100	96.02118	96	100	95.8644	95.90
MANGANESE	0	0.000480624		0.02	0.01888331	94.40
MERCURY	0	0.000401423		0	0.006472034	
MOLYBDENUM	2	2.082294	104	2	2.074833	104
NICKEL	0	0.000348847		0.02	0.01907879	95.40
POTASSIUM	100	97.00904	97	100	95.76813	95.80
RHODIUM		251804.2	96		251765.8	96
SCANDIUM		103069.8	100		103315.8	100
SCANDIUM (NO HE)		3305587	98.90		3367423	101
SELENIUM	0	0.000037793		0.02	0.02113088	106
SILVER	0	0.000008340		0.02	0.01971129	98.60
SODIUM	100	97.3118	97.30	100	95.46008	95.50
STRONTIUM	0	0.000807635		0.02	0.02094717	105
TELLURIUM		35304.88	99.70		34791.4	98.20
TELLURIUM (HIGH HE)		108746.4	99.90		109280.6	100
TELLURIUM (NO HE)		360326.1	101		361354.2	101
THALLIUM	0	0.000007339		0.02	0.01891329	94.60
THORIUM	0	0.000021405		0.02	0.01929694	96.50
TIN	0	0.000369642		0.02	0.02081556	104
TITANIUM	2	2.03165	102	2	2.030837	102
URANIUM	0	0.000001179		0.02	0.01978878	98.90
VANADIUM	0	0.000034901		0.02	0.01912811	95.60
ZINC	0	0.000703601		0.02	0.01891262	94.60

ICSA Limits: 80 - 120 ICSAB Limits: 80 - 120

4-IN

INTERFERENCE CHECK SAMPLE

SDG:	L1100960	**Analytical Method:**	200.8
Instrument ID:	ICPMS9	**Date:**	05/21/19 23:38
Instrument Run:	052119ICPMS9A		

Analyte	True	Found		True	Found	
	ICSA	*ICSA*	*ICSA*	*ICSAB*	*ICSAB*	*ICSAB*
	mg/l	*mg/l*	*% Rec.*	*mg/l*	*mg/l*	*% Rec.*
ALUMINUM	100	99.20956	99.20	100	99.99987	100
ANTIMONY	0	0.000308755		0.02	0.02286478	114
ARSENIC	0	0.000044088		0.02	0.01844926	92.20
BARIUM	0	0.000197556		0.02	0.02151124	108
BERYLLIUM	0	0.000003391		0.02	0.02096931	105
BISMUTH (NO HE)		5852046	100		5919237	102
BORON	0	0.006946949		0.02	0.02671758	134
CADMIUM	0	0.000346753		0.02	0.02135938	107
CALCIUM	100	97.30165	97.30	100	96.87706	96.90
CHROMIUM	0	0.000320778		0.02	0.01891278	94.60
COBALT	0	0.000276566		0.02	0.0193718	96.90
COPPER	0	0.001762595		0.02	0.02110073	106
GERMANIUM		10086.99	119		9630.097	113
GERMANIUM (HIGH HE)		13423.15	122		13537.9	123
GERMANIUM (NO HE)		99253.46	109		99368.35	109
IRON	100	88.02645	88	100	88.48312	88.50
LEAD	0	0.000104731		0.02	0.01969102	98.50
LITHIUM	0	0.000536913		0	0.000500812	
MAGNESIUM	100	93.26069	93.30	100	95.58762	95.60
MANGANESE	0	0.000387662		0.02	0.01923711	96.20
MERCURY	0	0.00125423		0	0.005194298	
MOLYBDENUM	2	2.131934	107	2	2.167242	108
NICKEL	0	0.000643026		0.02	0.01926587	96.30
POTASSIUM	100	96.1683	96.20	100	95.32592	95.30
RHODIUM		273979	104		263627.4	101
SCANDIUM		117448.6	114		110988.7	108
SCANDIUM (NO HE)		3523125	105		3586355	107
SELENIUM	0	0.000116958		0.02	0.02121792	106
SILVER	0	0.000020326		0.02	0.0201713	101
SODIUM	100	94.29005	94.30	100	96.72838	96.70
STRONTIUM	0	0.000904852		0.02	0.02137346	107
TELLURIUM		38774.75	109		36400.74	103
TELLURIUM (HIGH HE)		116607.8	107		116727.1	107
TELLURIUM (NO HE)		383295.4	107		384124.8	107
THALLIUM	0	0.000008825		0.02	0.01923905	96.20
THORIUM	0	0.00002742		0.02	0.01928945	96.40
TIN	0	0.000365366		0.02	0.02093161	105
TITANIUM	2	2.014943	101	2	2.033508	102
URANIUM	0	0.000002208		0.02	0.0200566	100
VANADIUM	0	0.000034618		0.02	0.01882417	94.10
ZINC	0	0.001363847		0.02	0.01980632	99

ICSA Limits: 80 - 120 ICSAB Limits: 80 - 120

4-IN

INTERFERENCE CHECK SAMPLE

SDG:	L1100960	**Analytical Method:**	200.8
Instrument ID:	ICPMS9	**Date:**	05/22/19 01:35
Instrument Run:	052119ICPMS9A		

Analyte	True	Found		True	Found	
	ICSA	*ICSA*	*ICSA*	*ICSAB*	*ICSAB*	*ICSAB*
	mg/l	*mg/l*	*% Rec.*	*mg/l*	*mg/l*	*% Rec.*
ALUMINUM	100	99.88246	99.90	100	99.56381	99.60
ANTIMONY	0	0.000364724		0.02	0.02180456	109
ARSENIC	0	0.000028623		0.02	0.01867892	93.40
BARIUM	0	0.0002034		0.02	0.02091573	105
BERYLLIUM	0	0.000028868		0.02	0.02115465	106
BISMUTH (NO HE)		5091705	87.40		5538409	95
BORON	0	0.1193808		0.02	0.11508	575
CADMIUM	0	0.000334858		0.02	0.02167363	108
CALCIUM	100	98.2776	98.30	100	96.74853	96.70
CHROMIUM	0	0.000302242		0.02	0.01962997	98.10
COBALT	0	0.000299424		0.02	0.0199666	99.80
COPPER	0	0.00167789		0.02	0.02078002	104
GERMANIUM		9135.86	107		8867.067	104
GERMANIUM (HIGH HE)		12621.22	115		12637.25	115
GERMANIUM (NO HE)		93324.1	102		95838.98	105
IRON	100	93.52702	93.50	100	92.04164	92
LEAD	0	0.000112529		0.02	0.01986181	99.30
LITHIUM	0	0.000555329		0	0.000503317	
MAGNESIUM	100	93.99933	94	100	97.0218	97
MANGANESE	0	0.000556061		0.02	0.01939502	97
MERCURY	0	0.002515435		0	0.003828494	
MOLYBDENUM	2	2.135696	107	2	2.105725	105
NICKEL	0	0.000345447		0.02	0.01971679	98.60
POTASSIUM	100	98.17875	98.20	100	97.1362	97.10
RHODIUM		255754.1	97.50		250708	95.60
SCANDIUM		107228.5	104		103489.5	101
SCANDIUM (NO HE)		3406185	102		3369755	101
SELENIUM	0	0.00006828		0.02	0.02113597	106
SILVER	0	0.000018726		0.02	0.01999333	100
SODIUM	100	96.11471	96.10	100	97.8202	97.80
STRONTIUM	0	0.000864333		0.02	0.02041494	102
TELLURIUM		34955.35	98.70		33446.39	94.40
TELLURIUM (HIGH HE)		108692.3	99.80		107855.4	99.10
TELLURIUM (NO HE)		343470.3	95.80		361319.6	101
THALLIUM	0	0.000005401		0.02	0.01964334	98.20
THORIUM	0	0.000023735		0.02	0.01981907	99.10
TIN	0	0.000439855		0.02	0.02045284	102
TITANIUM	2	2.063427	103	2	2.042045	102
URANIUM	0	0.000001991		0.02	0.02080032	104
VANADIUM	0	0.000011979		0.02	0.01938972	96.90
ZINC	0	0.001374825		0.02	0.01984977	99.20

ICSA Limits: 80 - 120 ICSAB Limits: 80 - 120

4-IN

INTERFERENCE CHECK SAMPLE

SDG:	L1100960	**Analytical Method:**	200.8
Instrument ID:	ICPMS11	**Date:**	05/24/19 12:54
Instrument Run:	052419ICPMS11		

Analyte	**True**	**Found**		**True**	**Found**	
	ICSA	*ICSA*	*ICSA*	*ICSAB*	*ICSAB*	*ICSAB*
	mg/l	*mg/l*	*% Rec.*	*mg/l*	*mg/l*	*% Rec.*
ALUMINUM	100	96.43402	96.40	100	97.23716	97.20
ANTIMONY	0	0.000484576		0.02	0.02458848	123
ARSENIC	0	0.000055789		0.02	0.0188377	94.20
BARIUM	0	0.000230155		0.02	0.01957586	97.90
BERYLLIUM	0	0.000001663		0.02	0.01911008	95.60
BISMUTH (NO HE)		854196.3	102		851562.8	102
BORON	0	-0.004711533		0.02	0.01515819	75.80
CADMIUM	0	0.000118782		0.02	0.01975024	98.80
CALCIUM	100	96.61117	96.60	100	97.30061	97.30
CHROMIUM	0	0.000265685		0.02	0.01940212	97
COBALT	0	0.000338952		0.02	0.02001049	100
COPPER	0	0.004537486		0.02	0.02343132	117
GERMANIUM		6882.283	102		6911.627	102
GERMANIUM (HIGH HE)		7539.147	106		7357.093	103
GERMANIUM (NO HE)		37728.04	99.60		36945.51	97.50
IRON	100	100.4092	100	100	97.77639	97.80
LEAD	0	0.000026793		0.02	0.01957263	97.90
LITHIUM	0	-0.000065097		0	0.000043425	
MAGNESIUM	100	98.53801	98.50	100	97.47939	97.50
MANGANESE	0	0.000259993		0.02	0.01965922	98.30
MERCURY	0	0.0240775		0	0.007791087	
MOLYBDENUM	2	2.023601	101	2	2.008535	100
NICKEL	0	0.000308991		0.02	0.0199205	99.60
POTASSIUM	100	98.10374	98.10	100	98.67995	98.70
RHODIUM		152784.3	101		150428.9	99.60
SCANDIUM		82390.68	99.50		79477.21	96
SCANDIUM (NO HE)		1580814	104		1493189	98.20
SELENIUM	0	0.000042165		0.02	0.02040546	102
SILVER	0	0.000013007		0.02	0.01941075	97.10
SODIUM	100	100.9103	101	100	100.4367	100
STRONTIUM	0	0.000817636		0.02	0.02023058	101
TELLURIUM		26547.41	95.20		26177.05	93.80
TELLURIUM (HIGH HE)		74563.2	105		72375.61	102
TELLURIUM (NO HE)		144454.1	99.50		144063.6	99.30
THALLIUM	0	0.000001503		0.02	0.01943458	97.20
THORIUM	0	0.000047992		0.02	0.01944511	97.20
TIN	0	0.000327697		0.02	0.01958394	97.90
TITANIUM	2	2.001478	100	2	2.030242	102
URANIUM	0	0.00001697		0.02	0.01986384	99.30
VANADIUM	0	0.000017783		0.02	0.01916945	95.80
ZINC	0	-0.000032699		0.02	0.01918438	95.90

ICSA Limits: 80 - 120 ICSAB Limits: 80 - 120

4-IN

INTERFERENCE CHECK SAMPLE

SDG:	L1100960	**Analytical Method:**	200.8
Instrument ID:	ICPMS11	**Date:**	05/24/19 14:33
Instrument Run:	052419ICPMS11		

Analyte	**True**	**Found**		**True**	**Found**	
	ICSA	*ICSA*	*ICSA*	*ICSAB*	*ICSAB*	*ICSAB*
	mg/l	*mg/l*	*% Rec.*	*mg/l*	*mg/l*	*% Rec.*
ALUMINUM	100	90.87451	90.90	100	91.37923	91.40
ANTIMONY	0	0.000129547		0.02	0.02302641	115
ARSENIC	0	0.00003672		0.02	0.01886071	94.30
BARIUM	0	0.000153301		0.02	0.01807746	90.40
BERYLLIUM	0	0.000010988		0.02	0.01675675	83.80
BORON	0	-0.004116237		0.02	0.01176446	58.80
CADMIUM	0	0.000126594		0.02	0.01897155	94.90
CALCIUM	100	91.35953	91.40	100	92.88673	92.90
CHROMIUM	0	0.000132988		0.02	0.01922635	96.10
COBALT	0	0.000304388		0.02	0.02029341	101
COPPER	0	0.000269862		0.02	0.0182347	91.20
GERMANIUM		6502.183	95.90		6696.233	98.80
GERMANIUM (HIGH HE)		7623.18	107		7851.923	110
GERMANIUM (NO HE)		39183.02	103		38930.36	103
IRON	100	98.74838	98.70	100	97.53488	97.50
LITHIUM	0	-0.000036159		0	-0.000103988	
MAGNESIUM	100	98.37939	98.40	100	97.43875	97.40
MANGANESE	0	0.000391826		0.02	0.01850686	92.50
MOLYBDENUM	2	1.87722	93.90	2	1.902109	95.10
NICKEL	0	0.000273524		0.02	0.02069398	103
POTASSIUM	100	92.05159	92.10	100	95.1033	95.10
RHODIUM		163147	108		164918.2	109
SCANDIUM		75611.8	91.30		76090.56	91.90
SCANDIUM (NO HE)		1566451	103		1596311	105
SELENIUM	0	-0.000084483		0.02	0.01811064	90.60
SILVER	0	0.000013967		0.02	0.01918683	95.90
SODIUM	100	96.60679	96.60	100	96.70725	96.70
STRONTIUM	0	0.001113225		0.02	0.01805308	90.30
TELLURIUM		26979.06	96.70		27273.77	97.80
TELLURIUM (HIGH HE)		79304.47	111		80494.27	113
TELLURIUM (NO HE)		161708.7	111		164171.1	113
TIN	0	0.000376798		0.02	0.01849213	92.50
TITANIUM	2	1.934235	96.70	2	1.962276	98.10
VANADIUM	0	0.00002723		0.02	0.01873949	93.70
ZINC	0	-0.000146506		0.02	0.01969562	98.50
BISMUTH (NO HE)					1043973	125
LEAD				0.02	0.01906462	95.30
MERCURY				0	0.1140942	
THALLIUM				0.02	0.01872628	93.60
THORIUM				0.02	0.0189688	94.80
URANIUM				0.02	0.01950346	97.50

ICSA Limits: 80 - 120 ICSAB Limits: 80 - 120

4-IN

INTERFERENCE CHECK SAMPLE

SDG:	L1100960	**Analytical Method:**	200.8
Instrument ID:	ICPMS11	**Date:**	05/24/19 16:57
Instrument Run:	052419ICPMS11		

Analyte	True	Found		True	Found	
	ICSA	*ICSA*	*ICSA*	*ICSAB*	*ICSAB*	*ICSAB*
	mg/l	*mg/l*	*% Rec.*	*mg/l*	*mg/l*	*% Rec.*
ALUMINUM	100	92.61686	92.60	100	91.60915	91.60
ANTIMONY	0	0.000631252		0.02	0.02341981	117
ARSENIC	0	0.000097388		0.02	0.01902565	95.10
BARIUM	0	0.000113119		0.02	0.01863981	93.20
BERYLLIUM	0	0.000068676		0.02	0.01789373	89.50
BORON	0	-0.005884731		0.02	0.01196437	59.80
CADMIUM	0	0.00017434		0.02	0.01915663	95.80
CALCIUM	100	94.47828	94.50	100	93.4264	93.40
CHROMIUM	0	0.000196595		0.02	0.01965283	98.30
COBALT	0	0.000380103		0.02	0.02076274	104
COPPER	0	-0.00138946		0.02	0.01664333	83.20
GERMANIUM		6728.91	99.30		6830.93	101
GERMANIUM (HIGH HE)		8163.367	114		8216.713	115
GERMANIUM (NO HE)		40785.77	108		40700.9	107
IRON	100	99.38715	99.40	100	99.77194	99.80
LITHIUM	0	-0.000128816		0	-0.00015418	
MAGNESIUM	100	96.90948	96.90	100	97.84034	97.80
MANGANESE	0	0.000427193		0.02	0.01851984	92.60
MOLYBDENUM	2	1.937821	96.90	2	1.896173	94.80
NICKEL	0	0.000406572		0.02	0.02117158	106
POTASSIUM	100	95.9775	96	100	97.08807	97.10
RHODIUM		171051.4	113		173479.6	115
SCANDIUM		77634.96	93.80		77322.69	93.40
SCANDIUM (NO HE)		1638204	108		1599442	105
SELENIUM	0	0.000138606		0.02	0.01866236	93.30
SILVER	0	0.000063789		0.02	0.01911665	95.60
SODIUM	100	99.15205	99.20	100	99.04618	99
STRONTIUM	0	0.001033077		0.02	0.01722635	86.10
TELLURIUM		28450.92	102		28205.42	101
TELLURIUM (HIGH HE)		84536.14	119		84243.72	118
TELLURIUM (NO HE)		172521.1	119		172782.3	119
TIN	0	0.000329202		0.02	0.01898862	94.90
TITANIUM	2	1.997753	99.90	2	1.980248	99
VANADIUM	0	0.00009005		0.02	0.01879017	94
ZINC	0	0.005247135		0.02	0.01967879	98.40

ICSA Limits: 80 - 120 ICSAB Limits: 80 - 120

5A-IN

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1100960-01

SAMPLE NO.:
R3413450-5
R3413450-6

MS Sample / File ID:	R3413450-5 / 20190522003207	**SDG:**	L1100960
MSD Sample / File ID:	R3413450-6 / 20190522003641	**Analytical Batch:**	WG1284305
OS Sample / File ID:	L1098918-01 / 20190522002258	**Matrix:**	WW
Instrument ID:	ICPMS9		
Analytical Method:	200.8		

Analyte	Spike Amount	OS Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limits
	mg/l	*mg/l*	*mg/l*	*mg/l*	*%*	*%*		*%*	*%*	*%*
Antimony	0.0500	ND	0.0504	0.0529	101	106	1	70.0 - 130	4.84	20
Arsenic	0.0500	ND	0.0505	0.0488	99.1	95.8	1	70.0 - 130	3.30	20
Cadmium	0.0500	ND	0.0504	0.0499	101	99.8	1	70.0 - 130	0.985	20
Chromium	0.0500	0.00141	0.0507	0.0495	98.6	96.2	1	70.0 - 130	2.37	20
Cobalt	0.0500	ND	0.0500	0.0485	99.0	96.0	1	70.0 - 130	3.09	20
Copper	0.0500	0.0110	0.0616	0.0609	101	99.7	1	70.0 - 130	1.14	20
Lead	0.0500	ND	0.0492	0.0489	97.5	97.0	1	70.0 - 130	0.504	20
Nickel	0.0500	0.00359	0.0523	0.0511	97.4	95.0	1	70.0 - 130	2.31	20
Selenium	0.0500	ND	0.0503	0.0504	98.8	99.1	1	70.0 - 130	0.321	20
Silver	0.0500	ND	0.0491	0.0517	98.2	103	1	70.0 - 130	5.17	20
Thallium	0.0500	ND	0.0475	0.0481	94.9	96.2	1	70.0 - 130	1.34	20
Tin	0.0500	ND	0.0489	0.0507	96.8	100	1	70.0 - 130	3.64	20
Zinc	0.0500	0.0520	0.0978	0.0956	91.7	87.3	1	70.0 - 130	2.24	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

5A-IN

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1100960-01

SAMPLE NO.:
R3413450-7
R3413450-8

MS Sample / File ID:	R3413450-7 / 20190522004550	**SDG:**	L1100960
MSD Sample / File ID:	R3413450-8 / 20190522005025	**Analytical Batch:**	WG1284305
OS Sample / File ID:	L1100840-02 / 20190522004116	**Matrix:**	WW
Instrument ID:	ICPMS9		
Analytical Method:	200.8		

Analyte	Spike Amount	OS Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limits
	mg/l	*mg/l*	*mg/l*	*mg/l*	*%*	*%*		*%*	*%*	*%*
Antimony	0.0500	ND	0.0472	0.0501	94.4	100	1	70.0 - 130	5.98	20
Arsenic	0.0500	ND	0.0516	0.0495	103	99.0	1	70.0 - 130	4.07	20
Cadmium	0.0500	ND	0.0532	0.0509	106	102	1	70.0 - 130	4.43	20
Chromium	0.0500	ND	0.0517	0.0498	102	98.6	1	70.0 - 130	3.79	20
Cobalt	0.0500	ND	0.0521	0.0499	104	99.8	1	70.0 - 130	4.25	20
Copper	0.0500	0.00250	0.0566	0.0544	108	104	1	70.0 - 130	4.00	20
Lead	0.0500	ND	0.0509	0.0504	101	100	1	70.0 - 130	0.932	20
Nickel	0.0500	0.00561	0.0567	0.0547	102	98.2	1	70.0 - 130	3.51	20
Selenium	0.0500	ND	0.0511	0.0501	102	100	1	70.0 - 130	1.93	20
Silver	0.0500	ND	0.0470	0.0504	94.1	101	1	70.0 - 130	6.84	20
Thallium	0.0500	ND	0.0497	0.0490	99.4	98.0	1	70.0 - 130	1.41	20
Tin	0.0500	ND	0.0462	0.0487	91.4	96.6	1	70.0 - 130	5.44	20
Zinc	0.0500	0.0975	0.142	0.143	88.3	91.2	1	70.0 - 130	1.01	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

7-IN

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
RECOVERY

L1100960-01

SAMPLE NO.:
R3413450-2
R3413450-3

LCS Sample / File ID:	R3413450-2 / 20190522001349	**SDG:**	L1100960
LCSD Sample / File ID:	R3413450-3 / 20190522001824	**Analytical Batch:**	WG1284305
Instrument ID:	ICPMS9	**Dilution Factor:**	1
Analytical Method:	200.8	**Matrix:**	WW

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limits
	mg/l	*mg/l*	*mg/l*	*%*	*%*	*%*	*%*	*%*
Antimony	0.0500	0.0486	0.0469	97.3	93.7	85.0 - 115	3.74	20
Arsenic	0.0500	0.0491	0.0494	98.2	98.8	85.0 - 115	0.593	20
Cadmium	0.0500	0.0509	0.0512	102	102	85.0 - 115	0.678	20
Chromium	0.0500	0.0500	0.0497	100	99.3	85.0 - 115	0.698	20
Cobalt	0.0500	0.0502	0.0501	100	100	85.0 - 115	0.113	20
Copper	0.0500	0.0531	0.0534	106	107	85.0 - 115	0.510	20
Lead	0.0500	0.0490	0.0496	98.0	99.3	85.0 - 115	1.33	20
Nickel	0.0500	0.0504	0.0507	101	101	85.0 - 115	0.548	20
Selenium	0.0500	0.0491	0.0490	98.3	97.9	85.0 - 115	0.349	20
Silver	0.0500	0.0493	0.0487	98.6	97.5	85.0 - 115	1.14	20
Thallium	0.0500	0.0479	0.0488	95.9	97.5	85.0 - 115	1.68	20
Tin	0.0500	0.0478	0.0462	95.6	92.4	85.0 - 115	3.41	20
Zinc	0.0500	0.0516	0.0515	103	103	85.0 - 115	0.302	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

8-IN

ICP AND ICP/MS SERIAL DILUTIONS

L1100960-01

SAMPLE NO.:
R3413450-4

SD Sample / File ID:	R3413450-4 / 20190522002733	**SDG:**	L1100960
OS Sample / File ID:	L1098918-01 / 20190522002258	**Analytical Batch:**	WG1284305
Lab File ID:	20190522002733	**Dilution Factor:**	5
Instrument ID:	ICPMS9	**Matrix:**	WW
Analytical Method:	200.8		

Analyte	OS Result	SD Result	RPD	RPD Limits
	mg/l	*mg/l*	*%*	*%*
Antimony	ND	ND	0.000	10
Arsenic	ND	0.000894	0.000	10
Cadmium	ND	ND	0.000	10
Chromium	0.00141	ND	0.000	10
Cobalt	ND	ND	0.000	10
Copper	0.0110	0.0111	0.583	10
Lead	ND	ND	0.000	10
Nickel	0.00359	0.00323	10.0	10
Selenium	ND	ND	0.000	10
Silver	ND	ND	0.000	10
Thallium	ND	ND	0.000	10
Tin	ND	ND	0.000	10
Zinc	0.0520	0.0553	6.44	10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

10C-IN

LINEAR DYNAMIC RANGE

SDG:	L1100960	**Analytical Method:**	200.8
Instrument ID:	ICPMS8	**Date:**	02/27/19 09:09

Analyte	LDR *ppm*
ALUMINUM	500
ANTIMONY	2
ARSENIC	10
BARIUM	10
BERYLLIUM	10
BORON	1
CADMIUM	10
CALCIUM	1000
CHROMIUM	10
COBALT	10
COPPER	0.20
IRON	500
LEAD	10
MAGNESIUM	500
MANGANESE	10
MOLYBDENUM	10
NICKEL	10
POTASSIUM	500
SELENIUM	10
SILVER	1
SODIUM	500
STRONTIUM	5
THALLIUM	10
THORIUM	10
TIN	2
TITANIUM	10
URANIUM	10
VANADIUM	10
ZINC	5

10C-IN

LINEAR DYNAMIC RANGE

SDG:	L1100960	**Analytical Method:**	200.8
Instrument ID:	ICPMS9	**Date:**	02/25/19 08:18

Analyte	LDR *ppm*
ALUMINUM	500
ANTIMONY	10
ARSENIC	10
BARIUM	10
BERYLLIUM	10
BORON	10
CADMIUM	10
CALCIUM	1000
CHROMIUM	10
COBALT	2
COPPER	0.20
IRON	500
LEAD	10
MAGNESIUM	200
MANGANESE	10
MOLYBDENUM	10
NICKEL	2
POTASSIUM	1000
SELENIUM	10
SILVER	1
SODIUM	1000
STRONTIUM	5
THALLIUM	10
THORIUM	10
TIN	10
TITANIUM	10
URANIUM	10
VANADIUM	10
ZINC	2

10C-IN

LINEAR DYNAMIC RANGE

SDG:	L1100960	**Analytical Method:**	200.8
Instrument ID:	ICPMS11	**Date:**	02/25/19 08:29

Analyte	LDR *ppm*
ALUMINUM	90
ANTIMONY	9
ARSENIC	9
BARIUM	4.50
BERYLLIUM	9
BORON	2
CADMIUM	9
CALCIUM	900
CHROMIUM	9
COBALT	9
COPPER	0.20
IRON	90
LEAD	9
MAGNESIUM	900
MANGANESE	9
MOLYBDENUM	9
NICKEL	9
POTASSIUM	900
SELENIUM	9
SILVER	1
SODIUM	900
STRONTIUM	1.80
THALLIUM	9
THORIUM	9
TIN	9
TITANIUM	9
URANIUM	9
VANADIUM	9
ZINC	9

11-IN

INTERNAL STANDARD ASSOCIATION

SDG:	L1100960	**Analytical Method:**	200.8
Instrument ID:	ICPMS8	**Analysis Date:**	05/23/19 06:43
Instrument Run:	052319ICPMS8		

Analyte	Assoc. Internal Standard 1
CHROMIUM - 52	GERMANIUM - 72
COBALT - 59	GERMANIUM - 72
NICKEL - 60	GERMANIUM - 72
COPPER - 63	GERMANIUM (NO HE) - 72
ZINC - 66	GERMANIUM - 72
ARSENIC - 75	GERMANIUM - 72
SELENIUM - 78	TELLURIUM (HIGH HE) - 125
SILVER - 107	RHODIUM - 103
CADMIUM - 111	TELLURIUM - 125
TIN - 118	RHODIUM - 103
THALLIUM - 205	BISMUTH (NO HE) - 209
LEAD - 208	BISMUTH (NO HE) - 209

11-IN

INTERNAL STANDARD ASSOCIATION

SDG:	L1100960	**Analytical Method:**	200.8
Instrument ID:	ICPMS9	**Analysis Date:**	05/21/19 11:35
Instrument Run:	052119ICPMS9A		

Analyte	Assoc. Internal Standard 1
LITHIUM - 7	SCANDIUM (NO HE) - 45
BERYLLIUM - 9	SCANDIUM (NO HE) - 45
BORON - 11	SCANDIUM (NO HE) - 45
SODIUM - 23	SCANDIUM - 45
MAGNESIUM - 24	SCANDIUM - 45
ALUMINUM - 27	SCANDIUM - 45
POTASSIUM - 39	SCANDIUM - 45
CALCIUM - 43	SCANDIUM - 45
CALCIUM - 44	SCANDIUM - 45
TITANIUM - 47	SCANDIUM - 45
VANADIUM - 51	GERMANIUM - 72
CHROMIUM - 52	GERMANIUM - 72
MANGANESE - 55	GERMANIUM - 72
IRON - 56	GERMANIUM - 72
COBALT - 59	GERMANIUM - 72
NICKEL - 60	GERMANIUM - 72
COPPER - 63	GERMANIUM (NO HE) - 72
ZINC - 66	GERMANIUM - 72
ARSENIC - 75	GERMANIUM - 72
SELENIUM - 78	TELLURIUM (HIGH HE) - 125
STRONTIUM - 88	RHODIUM - 103
MOLYBDENUM - 95	RHODIUM - 103
SILVER - 107	RHODIUM - 103
CADMIUM - 111	TELLURIUM - 125
TIN - 118	RHODIUM - 103
ANTIMONY - 121	RHODIUM - 103
BARIUM - 137	RHODIUM - 103
THALLIUM - 205	BISMUTH (NO HE) - 209
LEAD - 208	BISMUTH (NO HE) - 209
THORIUM - 232	BISMUTH (NO HE) - 209
URANIUM - 238	BISMUTH (NO HE) - 209

12-IN

ANALYSIS LOG

SDG:	L1100960	**Analytical Method:**	200.8
Instrument ID:	ICPMS8	**Calibration Start Date:**	05/23/19 07:11
Analytical Run:	052319ICPMS8	**Calibration End Date:**	05/23/19 07:36

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
TUNE	ICPMS8tn05232019643	20190523064339	05/23/19 06:43	1	
CALBLK	ICPMS80523190707	20190523070737	05/23/19 07:07	1	
CAL	STD1	20190523071129	05/23/19 07:11	1	
CAL	STD2	20190523071543	05/23/19 07:15	1	
CAL	STD3	20190523071951	05/23/19 07:19	1	
CAL	STD4	20190523072405	05/23/19 07:24	1	
CAL	STD5	20190523072813	05/23/19 07:28	1	
CAL	STD6	20190523073226	05/23/19 07:32	1	
CAL	STD7	20190523073634	05/23/19 07:36	1	
ICSA	ICPMS80523191150	20190523115052	05/23/19 11:50	1	
ICSAB	ICPMS80523191154	20190523115436	05/23/19 11:54	1	
CCV	ICPMS80523191320	20190523132012	05/23/19 13:20	1	
CCB	ICPMS80523191325	20190523132533	05/23/19 13:25	1	
WW-20190519-002-DAY 17	L1100960-01	20190523134834	05/23/19 13:48	1	WG1284305
CCV	ICPMS80523191352	20190523135225	05/23/19 13:52	1	
CCB	ICPMS80523191356	20190523135647	05/23/19 13:56	1	
ICSA	ICPMS80523191400-2	20190523140037-2	05/23/19 14:00	1	
ICSAB	ICPMS80523191405-2	20190523140533-2	05/23/19 14:05	1	

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ANALYSIS LOG

SDG:	L1100960	**Analytical Method:**	200.8
Instrument ID:	ICPMS9	**Calibration Start Date:**	05/21/19 19:55
Analytical Run:	052119ICPMS9A	**Calibration End Date:**	05/21/19 20:18

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
TUNE	ICPMS9tn052120191135	20190521113531	05/21/19 11:35	1	
CALBLK	ICPMS90521191951	20190521195117	05/21/19 19:51	1	
CAL	STD1	20190521195551	05/21/19 19:55	1	
CAL	STD2	20190521200026	05/21/19 20:00	1	
CAL	STD3	20190521200502	05/21/19 20:05	1	
CAL	STD4	20190521200938	05/21/19 20:09	1	
CAL	STD5	20190521201413	05/21/19 20:14	1	
CAL	STD6	20190521201848	05/21/19 20:18	1	
ICV	ICPMS90521192023	20190521202323	05/21/19 20:23	1	
ICB	ICPMS90521192051	20190521205141	05/21/19 20:51	1	
ICVLL	ICPMS90521192113	20190521211315	05/21/19 21:13	1	
ICSA	ICPMS90521192118	20190521211833	05/21/19 21:18	1	
ICSAB	ICPMS90521192123	20190521212309	05/21/19 21:23	1	
CCV	ICPMS90521192320	20190521232038	05/21/19 23:20	1	
CCB	ICPMS90521192328	20190521232849	05/21/19 23:28	1	
CCVLL	ICPMS90521192333	20190521233324	05/21/19 23:33	1	
ICSA	ICPMS90521192338	20190521233800	05/21/19 23:38	1	
ICSAB	ICPMS90521192342	20190521234235	05/21/19 23:42	1	
BLANK	R3413450-1	20190522000914	05/22/19 00:09	1	WG1284305
LCS	R3413450-2	20190522001349	05/22/19 00:13	1	WG1284305
LCSD	R3413450-3	20190522001824	05/22/19 00:18	1	WG1284305
OS	L1098918-01	20190522002258	05/22/19 00:22	1	WG1284305
SD	R3413450-4	20190522002733	05/22/19 00:27	5	WG1284305
MS	R3413450-5	20190522003207	05/22/19 00:32	1	WG1284305
MSD	R3413450-6	20190522003641	05/22/19 00:36	1	WG1284305
OS	L1100840-02	20190522004116	05/22/19 00:41	1	WG1284305
MS	R3413450-7	20190522004550	05/22/19 00:45	1	WG1284305
MSD	R3413450-8	20190522005025	05/22/19 00:50	1	WG1284305
CCV	ICPMS90522190055	20190522005500	05/22/19 00:55	1	
CCB	ICPMS90522190059	20190522005935	05/22/19 00:59	1	
CCVLL	ICPMS90522190131	20190522013101	05/22/19 01:31	1	
ICSA	ICPMS90522190135	20190522013537	05/22/19 01:35	1	
ICSAB	ICPMS90522190140	20190522014013	05/22/19 01:40	1	

12-IN

ANALYSIS LOG

SDG:	L1100960	**Analytical Method:**	200.8
Instrument ID:	ICPMS11	**Calibration Start Date:**	05/24/19 11:45
Analytical Run:	052419ICPMS11	**Calibration End Date:**	05/24/19 12:10

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
CALBLK	ICPMS110524191139	20190524113951	05/24/19 11:39	1	
CAL	STD1	20190524114502	05/24/19 11:45	1	
CAL	STD2	20190524115013	05/24/19 11:50	1	
CAL	STD3	20190524115524	05/24/19 11:55	1	
CAL	STD4	20190524120035	05/24/19 12:00	1	
CAL	STD5	20190524120546	05/24/19 12:05	1	
CAL	STD6	20190524121057	05/24/19 12:10	1	
ICV	ICPMS110524191216-2	20190524121609-2	05/24/19 12:16	1	
ICB	ICPMS110524191223-2	20190524122312-2	05/24/19 12:23	1	
ICVLL	ICPMS110524191249-2	20190524124902-2	05/24/19 12:49	1	
ICSA	ICPMS110524191254-2	20190524125459-2	05/24/19 12:54	1	
ICSAB	ICPMS110524191300-2	20190524130011-2	05/24/19 13:00	1	
ICSA	ICPMS110524191433-2	20190524143343-2	05/24/19 14:33	1	
ICSAB	ICPMS110524191438-2	20190524143854-2	05/24/19 14:38	1	
CCV	ICPMS110524191614-2	20190524161417-2	05/24/19 16:14	1	
CCB	ICPMS110524191619-2	20190524161927-2	05/24/19 16:19	1	
WW-20190519-002-DAY 17	L1100960-01	20190524162435	05/24/19 16:24	1	WG1284305
CCV	ICPMS110524191647	20190524164700	05/24/19 16:47	1	
CCB	ICPMS110524191652	20190524165210	05/24/19 16:52	1	
ICSA	ICPMS110524191657-2	20190524165721-2	05/24/19 16:57	1	
ICSAB	ICPMS110524191702-2	20190524170232-2	05/24/19 17:02	1	

13-IN

ICP/MS TUNE

Lab File ID:	20190523064339	**SDG:**	L1100960
Instrument ID:	ICPMS8	**Analysis Date/Time**	05/23/19 06:43
Analytical Method:	200.8		

Element - Mass	Avg. Measured Mass	Avg. Peak Width	Height	RSD
	u	u	%	%
IN - 115	115	0.48491030	5	0.53041050
PB - 206	205.95	0.48917610	5	0.86235340
PB - 207	206.95	0.497629	5	1.627012
PB - 208	207.95	0.51489320	5	1.6358
MG - 24	23.95	0.53566820	5	0.36868950
MG - 25	24.95	0.51154480	5	0.616850
MG - 26	25.95	0.52808460	5	0.78809280
CO - 59	58.95	0.52403960	5	0.21917230
BE - 9	9	0.489141	5	0.99722810

13-IN

ICP/MS TUNE

Lab File ID:	20190521113531	**SDG:**	L1100960
Instrument ID:	ICPMS9	**Analysis Date/Time**	05/21/19 11:35
Analytical Method:	200.8		

Element - Mass	Avg. Measured Mass	Avg. Peak Width	Height	RSD
	u	u	%	%
IN - 115	115.05	0.37238490	5	0.87090090
PB - 206	206	0.52942150	5	1.648770
PB - 207	206.95	0.50610770	5	0.81839480
PB - 208	207.95	0.55264660	5	2.027364
MG - 24	23.95	0.53398080	5	1.087838
MG - 25	24.95	0.49444630	5	1.692459
MG - 26	25.95	0.53002270	5	1.091062
CO - 59	59	0.45910250	5	1.823874
BE - 9	9	0.52978930	5	0.76419560

14-IN

ICP/MS INTERNAL STANDARDS RELATIVE INTENSITY

SDG:	L1100960	**Analytical Method:**	200.8
Instrument ID:	ICPMS8	**Start Date:**	05/23/19 11:50
Instrument Run:	052319ICPMS8	**End Date:**	05/23/19 13:48

Client Sample ID	Lab Sample ID	Analysis Date Time	BISMUTH (NO HE)		GERMANIUM		GERMANIUM (NO HE)	
			% Rec.	Q	% Rec.	Q	% Rec.	Q
ICSA	ICPMS80523191150	05/23/19 11:50	119		112		118	
ICSAB	ICPMS80523191154	05/23/19 11:54	116		112		116	
CCV	ICPMS80523191320	05/23/19 13:20	117		114		111	
CCB	ICPMS80523191325	05/23/19 13:25	114		110		108	
CCV	ICPMS80523191352	05/23/19 13:52	120		112		111	
CCB	ICPMS80523191356	05/23/19 13:56	116		109		107	
ICSA	ICPMS80523191400-2	05/23/19 14:00	119		112		115	
ICSAB	ICPMS80523191405-2	05/23/19 14:05	120		112		113	
WW-20190519-002-DAY 17	L1100960-01	05/23/19 13:48	112		113		110	

14-IN

ICP/MS INTERNAL STANDARDS RELATIVE INTENSITY

SDG:	L1100960	**Analytical Method:**	200.8
Instrument ID:	ICPMS8	**Start Date:**	05/23/19 11:50
Instrument Run:	052319ICPMS8	**End Date:**	05/23/19 13:48

Client Sample ID	Lab Sample ID	Analysis Date Time	RHODIUM		SCANDIUM		SCANDIUM (NO HE)	
			% Rec.	Q	% Rec.	Q	% Rec.	Q
ICSA	ICPMS80523191150	05/23/19 11:50	108		111		115	
ICSAB	ICPMS80523191154	05/23/19 11:54	109		111		113	
CCV	ICPMS80523191320	05/23/19 13:20	113		115		112	
CCB	ICPMS80523191325	05/23/19 13:25	110		111		106	
CCV	ICPMS80523191352	05/23/19 13:52	111		113		111	
CCB	ICPMS80523191356	05/23/19 13:56	108		109		107	
ICSA	ICPMS80523191400-2	05/23/19 14:00	109		112		113	
ICSAB	ICPMS80523191405-2	05/23/19 14:05	107		111		109	
WW-20190519-002-DAY 17	L1100960-01	05/23/19 13:48	107		112		107	

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ICP/MS INTERNAL STANDARDS RELATIVE INTENSITY

SDG:	L1100960	**Analytical Method:**	200.8
Instrument ID:	ICPMS8	**Start Date:**	05/23/19 11:50
Instrument Run:	052319ICPMS8	**End Date:**	05/23/19 13:48

Client Sample ID	Lab Sample ID	Analysis Date Time	TELLURIUM		TELLURIUM (HIGH HE)		TELLURIUM (NO HE)	
			% Rec.	Q	% Rec.	Q	% Rec.	Q
ICSA	ICPMS80523191150	05/23/19 11:50	99.40		103		109	
ICSAB	ICPMS80523191154	05/23/19 11:54	100		102		108	
CCV	ICPMS80523191320	05/23/19 13:20	110		114		118	
CCB	ICPMS80523191325	05/23/19 13:25	106		109		112	
CCV	ICPMS80523191352	05/23/19 13:52	108		112		118	
CCB	ICPMS80523191356	05/23/19 13:56	105		110		112	
ICSA	ICPMS80523191400-2	05/23/19 14:00	101		103		110	
ICSAB	ICPMS80523191405-2	05/23/19 14:05	100		101		108	
WW-20190519-002-DAY 17	L1100960-01	05/23/19 13:48	96.70		100		103	

14-IN

ICP/MS INTERNAL STANDARDS RELATIVE INTENSITY

SDG:	L1100960	**Analytical Method:**	200.8
Instrument ID:	ICPMS9	**Start Date:**	05/21/19 20:23
Instrument Run:	052119ICPMS9A	**End Date:**	05/22/19 00:50

Client Sample ID	Lab Sample ID	Analysis Date Time	BISMUTH (NO HE)		GERMANIUM		GERMANIUM (HIGH HE)	
			% Rec.	Q	% Rec.	Q	% Rec.	Q
ICV	ICPMS90521192023	05/21/19 20:23	97.20		102		104	
ICB	ICPMS90521192051	05/21/19 20:51	103		103		102	
ICVLL	ICPMS90521192113	05/21/19 21:13	101		106		105	
ICSA	ICPMS90521192118	05/21/19 21:18	96.10		108		112	
ICSAB	ICPMS90521192123	05/21/19 21:23	96.80		106		112	
CCV	ICPMS90521192320	05/21/19 23:20	104		108		109	
CCB	ICPMS90521192328	05/21/19 23:28	104		106		109	
CCVLL	ICPMS90521192333	05/21/19 23:33	105		110		112	
ICSA	ICPMS90521192338	05/21/19 23:38	100		119		122	
ICSAB	ICPMS90521192342	05/21/19 23:42	102		113		123	
CCV	ICPMS90522190055	05/22/19 00:55	97.70		103		102	
CCB	ICPMS90522190059	05/22/19 00:59	101		101		104	
CCVLL	ICPMS90522190131	05/22/19 01:31	102		101		103	
ICSA	ICPMS90522190135	05/22/19 01:35	87.40		107		115	
ICSAB	ICPMS90522190140	05/22/19 01:40	95		104		115	
OS	L1098918-01	05/22/19 00:22	97.70		101		106	
OS	L1100840-02	05/22/19 00:41	101		99.90		103	
BLANK	R3413450-1	05/22/19 00:09	102		102		105	
LCS	R3413450-2	05/22/19 00:13	98.60		103		107	
LCSD	R3413450-3	05/22/19 00:18	97.20		104		105	
SD	R3413450-4	05/22/19 00:27	101		103		104	
MS	R3413450-5	05/22/19 00:32	95.90		101		104	
MSD	R3413450-6	05/22/19 00:36	93.10		101		103	
MS	R3413450-7	05/22/19 00:45	97.30		102		107	
MSD	R3413450-8	05/22/19 00:50	96		103		105	

14-IN

ICP/MS INTERNAL STANDARDS RELATIVE INTENSITY

SDG:	L1100960	**Analytical Method:**	200.8
Instrument ID:	ICPMS9	**Start Date:**	05/21/19 20:23
Instrument Run:	052119ICPMS9A	**End Date:**	05/22/19 00:50

Client Sample ID	Lab Sample ID	Analysis Date Time	GERMANIUM (NO HE)		RHODIUM		SCANDIUM	
			% Rec.	Q	% Rec.	Q	% Rec.	Q
ICV	ICPMS90521192023	05/21/19 20:23	102		101		104	
ICB	ICPMS90521192051	05/21/19 20:51	101		104		103	
ICVLL	ICPMS90521192113	05/21/19 21:13	101		104		106	
ICSA	ICPMS90521192118	05/21/19 21:18	104		96		100	
ICSAB	ICPMS90521192123	05/21/19 21:23	105		96		100	
CCV	ICPMS90521192320	05/21/19 23:20	106		106		108	
CCB	ICPMS90521192328	05/21/19 23:28	103		107		107	
CCVLL	ICPMS90521192333	05/21/19 23:33	104		108		108	
ICSA	ICPMS90521192338	05/21/19 23:38	109		104		114	
ICSAB	ICPMS90521192342	05/21/19 23:42	109		101		108	
CCV	ICPMS90522190055	05/22/19 00:55	97.50		99.70		102	
CCB	ICPMS90522190059	05/22/19 00:59	96.50		101		103	
CCVLL	ICPMS90522190131	05/22/19 01:31	97.20		101		102	
ICSA	ICPMS90522190135	05/22/19 01:35	102		97.50		104	
ICSAB	ICPMS90522190140	05/22/19 01:40	105		95.60		101	
OS	L1098918-01	05/22/19 00:22	98		98.70		103	
OS	L1100840-02	05/22/19 00:41	97.90		97.10		101	
BLANK	R3413450-1	05/22/19 00:09	99.60		105		105	
LCS	R3413450-2	05/22/19 00:13	97.20		99.70		103	
LCSD	R3413450-3	05/22/19 00:18	96.80		101		103	
SD	R3413450-4	05/22/19 00:27	100		101		103	
MS	R3413450-5	05/22/19 00:32	97		96.80		102	
MSD	R3413450-6	05/22/19 00:36	97		95.50		100	
MS	R3413450-7	05/22/19 00:45	97.60		99.40		102	
MSD	R3413450-8	05/22/19 00:50	98.60		98.60		101	

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ICP/MS INTERNAL STANDARDS RELATIVE INTENSITY

SDG:	L1100960	**Analytical Method:**	200.8
Instrument ID:	ICPMS9	**Start Date:**	05/21/19 20:23
Instrument Run:	052119ICPMS9A	**End Date:**	05/22/19 00:50

Client Sample ID	Lab Sample ID	Analysis Date Time	SCANDIUM (NO HE)		TELLURIUM		TELLURIUM (HIGH HE)	
			% Rec.	Q	% Rec.	Q	% Rec.	Q
ICV	ICPMS90521192023	05/21/19 20:23	101		105		104	
ICB	ICPMS90521192051	05/21/19 20:51	99.40		105		103	
ICVLL	ICPMS90521192113	05/21/19 21:13	101		107		105	
ICSA	ICPMS90521192118	05/21/19 21:18	98.90		99.70		99.90	
ICSAB	ICPMS90521192123	05/21/19 21:23	101		98.20		100	
CCV	ICPMS90521192320	05/21/19 23:20	107		111		110	
CCB	ICPMS90521192328	05/21/19 23:28	102		108		108	
CCVLL	ICPMS90521192333	05/21/19 23:33	104		110		112	
ICSA	ICPMS90521192338	05/21/19 23:38	105		109		107	
ICSAB	ICPMS90521192342	05/21/19 23:42	107		103		107	
CCV	ICPMS90522190055	05/22/19 00:55	104		103		103	
CCB	ICPMS90522190059	05/22/19 00:59	101		100		103	
CCVLL	ICPMS90522190131	05/22/19 01:31	104		101		104	
ICSA	ICPMS90522190135	05/22/19 01:35	102		98.70		99.80	
ICSAB	ICPMS90522190140	05/22/19 01:40	101		94.40		99.10	
OS	L1098918-01	05/22/19 00:22	102		99.20		104	
OS	L1100840-02	05/22/19 00:41	106		96.80		102	
BLANK	R3413450-1	05/22/19 00:09	104		101		104	
LCS	R3413450-2	05/22/19 00:13	100		101		106	
LCSD	R3413450-3	05/22/19 00:18	98.40		101		105	
SD	R3413450-4	05/22/19 00:27	106		102		104	
MS	R3413450-5	05/22/19 00:32	101		97.50		101	
MSD	R3413450-6	05/22/19 00:36	102		95.80		100	
MS	R3413450-7	05/22/19 00:45	101		98.30		103	
MSD	R3413450-8	05/22/19 00:50	104		99.10		104	

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ICP/MS INTERNAL STANDARDS RELATIVE INTENSITY

SDG:	L1100960	**Analytical Method:**	200.8
Instrument ID:	ICPMS9	**Start Date:**	05/21/19 20:23
Instrument Run:	052119ICPMS9A	**End Date:**	05/22/19 00:50

Client Sample ID	Lab Sample ID	Analysis Date Time	TELLURIUM (NO HE)	
			% Rec.	Q
ICV	ICPMS90521192023	05/21/19 20:23	104	
ICB	ICPMS90521192051	05/21/19 20:51	105	
ICVLL	ICPMS90521192113	05/21/19 21:13	108	
ICSA	ICPMS90521192118	05/21/19 21:18	101	
ICSAB	ICPMS90521192123	05/21/19 21:23	101	
CCV	ICPMS90521192320	05/21/19 23:20	114	
CCB	ICPMS90521192328	05/21/19 23:28	111	
CCVLL	ICPMS90521192333	05/21/19 23:33	113	
ICSA	ICPMS90521192338	05/21/19 23:38	107	
ICSAB	ICPMS90521192342	05/21/19 23:42	107	
CCV	ICPMS90522190055	05/22/19 00:55	105	
CCB	ICPMS90522190059	05/22/19 00:59	103	
CCVLL	ICPMS90522190131	05/22/19 01:31	108	
ICSA	ICPMS90522190135	05/22/19 01:35	95.80	
ICSAB	ICPMS90522190140	05/22/19 01:40	101	
OS	L1098918-01	05/22/19 00:22	103	
OS	L1100840-02	05/22/19 00:41	104	
BLANK	R3413450-1	05/22/19 00:09	108	
LCS	R3413450-2	05/22/19 00:13	106	
LCSD	R3413450-3	05/22/19 00:18	104	
SD	R3413450-4	05/22/19 00:27	107	
MS	R3413450-5	05/22/19 00:32	101	
MSD	R3413450-6	05/22/19 00:36	100	
MS	R3413450-7	05/22/19 00:45	104	
MSD	R3413450-8	05/22/19 00:50	104	

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ICP/MS INTERNAL STANDARDS RELATIVE INTENSITY

SDG:	L1100960	**Analytical Method:**	200.8
Instrument ID:	ICPMS11	**Start Date:**	05/24/19 12:16
Instrument Run:	052419ICPMS11	**End Date:**	05/24/19 16:24

Client Sample ID	Lab Sample ID	Analysis Date Time	BISMUTH (NO HE)		GERMANIUM		GERMANIUM (HIGH HE)	
			% Rec.	Q	% Rec.	Q	% Rec.	Q
ICV	ICPMS110524191216-2	05/24/19 12:16	101		103		102	
ICB	ICPMS110524191223-2	05/24/19 12:23	101		100		103	
ICVLL	ICPMS110524191249-2	05/24/19 12:49	99.40		103		105	
ICSA	ICPMS110524191254-2	05/24/19 12:54	102		102		106	
ICSAB	ICPMS110524191300-2	05/24/19 13:00	102		102		103	
ICSAB	ICPMS110524191438-2	05/24/19 14:38	125		98.80		110	
WW-20190519-002-DAY 17	L1100960-01	05/24/19 16:24	117		101		124	
ICSA	ICPMS110524191433-2	05/24/19 14:33			95.90		107	
CCV	ICPMS110524191614-2	05/24/19 16:14			103		113	
CCB	ICPMS110524191619-2	05/24/19 16:19			98		108	
CCV	ICPMS110524191647	05/24/19 16:47			98.80		111	
CCB	ICPMS110524191652	05/24/19 16:52			96.80		111	
ICSA	ICPMS110524191657-2	05/24/19 16:57			99.30		114	
ICSAB	ICPMS110524191702-2	05/24/19 17:02			101		115	

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ICP/MS INTERNAL STANDARDS RELATIVE INTENSITY

SDG:	L1100960	**Analytical Method:**	200.8
Instrument ID:	ICPMS11	**Start Date:**	05/24/19 12:16
Instrument Run:	052419ICPMS11	**End Date:**	05/24/19 16:24

Client Sample ID	Lab Sample ID	Analysis Date Time	GERMANIUM (NO HE)		RHODIUM		SCANDIUM	
			% Rec.	Q	% Rec.	Q	% Rec.	Q
ICV	ICPMS110524191216-2	05/24/19 12:16	98.40		102		101	
ICB	ICPMS110524191223-2	05/24/19 12:23	97.90		101		100	
ICVLL	ICPMS110524191249-2	05/24/19 12:49	98.10		103		99.90	
ICSA	ICPMS110524191254-2	05/24/19 12:54	99.60		101		99.50	
ICSAB	ICPMS110524191300-2	05/24/19 13:00	97.50		99.60		96	
ICSAB	ICPMS110524191438-2	05/24/19 14:38	103		109		91.90	
WW-20190519-002-DAY 17	L1100960-01	05/24/19 16:24	102		106		91.30	
ICSA	ICPMS110524191433-2	05/24/19 14:33	103		108		91.30	
CCV	ICPMS110524191614-2	05/24/19 16:14	105		115		97.30	
CCB	ICPMS110524191619-2	05/24/19 16:19	100		109		92.50	
CCV	ICPMS110524191647	05/24/19 16:47	103		113		93.50	
CCB	ICPMS110524191652	05/24/19 16:52	103		111		91.80	
ICSA	ICPMS110524191657-2	05/24/19 16:57	108		113		93.80	
ICSAB	ICPMS110524191702-2	05/24/19 17:02	107		115		93.40	

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ICP/MS INTERNAL STANDARDS RELATIVE INTENSITY

SDG:	L1100960	**Analytical Method:**	200.8
Instrument ID:	ICPMS11	**Start Date:**	05/24/19 12:16
Instrument Run:	052419ICPMS11	**End Date:**	05/24/19 16:24

Client Sample ID	Lab Sample ID	Analysis Date Time	SCANDIUM (NO HE)		TELLURIUM		TELLURIUM (HIGH HE)	
			% Rec.	Q	% Rec.	Q	% Rec.	Q
ICV	ICPMS110524191216-2	05/24/19 12:16	100		101		105	
ICB	ICPMS110524191223-2	05/24/19 12:23	101		98.60		104	
ICVLL	ICPMS110524191249-2	05/24/19 12:49	99.30		98.70		106	
ICSA	ICPMS110524191254-2	05/24/19 12:54	104		95.20		105	
ICSAB	ICPMS110524191300-2	05/24/19 13:00	98.20		93.80		102	
ICSAB	ICPMS110524191438-2	05/24/19 14:38	105		97.80		113	
WW-20190519-002-DAY 17	L1100960-01	05/24/19 16:24	97.60		94		120	
ICSA	ICPMS110524191433-2	05/24/19 14:33	103		96.70		111	
CCV	ICPMS110524191614-2	05/24/19 16:14	109		107		119	
CCB	ICPMS110524191619-2	05/24/19 16:19	102		101		113	
CCV	ICPMS110524191647	05/24/19 16:47	105		103		118	
CCB	ICPMS110524191652	05/24/19 16:52	103		99.50		114	
ICSA	ICPMS110524191657-2	05/24/19 16:57	108		102		119	
ICSAB	ICPMS110524191702-2	05/24/19 17:02	105		101		118	

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ICP/MS INTERNAL STANDARDS RELATIVE INTENSITY

SDG:	L1100960	**Analytical Method:**	200.8
Instrument ID:	ICPMS11	**Start Date:**	05/24/19 12:16
Instrument Run:	052419ICPMS11	**End Date:**	05/24/19 16:24

Client Sample ID	Lab Sample ID	Analysis Date Time	TELLURIUM (NO HE)	
			% Rec.	Q
ICV	ICPMS110524191216-2	05/24/19 12:16	103	
ICB	ICPMS110524191223-2	05/24/19 12:23	100	
ICVLL	ICPMS110524191249-2	05/24/19 12:49	102	
ICSA	ICPMS110524191254-2	05/24/19 12:54	99.50	
ICSAB	ICPMS110524191300-2	05/24/19 13:00	99.30	
ICSAB	ICPMS110524191438-2	05/24/19 14:38	113	
WW-20190519-002-DAY 17	L1100960-01	05/24/19 16:24	104	
ICSA	ICPMS110524191433-2	05/24/19 14:33	111	
CCV	ICPMS110524191614-2	05/24/19 16:14	121	
CCB	ICPMS110524191619-2	05/24/19 16:19	114	
CCV	ICPMS110524191647	05/24/19 16:47	118	
CCB	ICPMS110524191652	05/24/19 16:52	116	
ICSA	ICPMS110524191657-2	05/24/19 16:57	119	
ICSAB	ICPMS110524191702-2	05/24/19 17:02	119	

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INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/23/19 07:11
Instrument ID:	ICPMS8	**Calibration (end) date/time:**	05/23/19 07:36
Analytical Method:	200.8	**Analytical Run:**	052319ICPMS8

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
CADMIUM	0.0002	.000203764	102	0.0010	.001013723	101
CHROMIUM				0.0010	.000862278	86.20
COBALT				0.0010	.000984323	98.40
NICKEL				0.0010	.000916277	91.60
COPPER				0.0010	.000732611	73.30
ZINC				0.0010	.000808399	80.80
ARSENIC				0.0010	.000942288	94.20
SILVER				0.0010	.000992474	99.20
TIN				0.0010	.000958052	95.80
ANTIMONY				0.0010	.001042643	104
THALLIUM				0.0010	.000964417	96.40
LEAD				0.0010	.000936743	93.70
File ID:		20190523071129			20190523071543	

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INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/23/19 07:11
Instrument ID:	ICPMS8	**Calibration (end) date/time:**	05/23/19 07:36
Analytical Method:	200.8	**Analytical Run:**	052319ICPMS8

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
CADMIUM	0.0020	.001947272	97.40	0.01	.009740884	97.40
CHROMIUM	0.0020	.00185689	92.80	0.01	.009934928	99.30
COBALT	0.0020	.001968199	98.40	0.01	.01002896	100
NICKEL	0.0020	.001928753	96.40	0.01	.009783766	97.80
COPPER	0.0020	.001824793	91.20	0.01	.00985313	98.50
ZINC	0.0020	.002138343	107	0.01	.009445787	94.50
ARSENIC	0.0020	.001929106	96.50	0.01	.009989557	99.90
SILVER	0.0020	.001965069	98.30	0.01	.009927272	99.30
TIN	0.0020	.001986747	99.30	0.01	.009991931	99.90
ANTIMONY	0.0020	.002245752	112	0.01	.01241931	124
THALLIUM	0.0020	.001967598	98.40	0.01	.009816095	98.20
LEAD	0.0020	.001984491	99.20	0.01	.009972326	99.70
File ID:		20190523071951			20190523072405	

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INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/23/19 07:11
Instrument ID:	ICPMS8	**Calibration (end) date/time:**	05/23/19 07:36
Analytical Method:	200.8	**Analytical Run:**	052319ICPMS8

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
CADMIUM	0.05	.04969395	99.40	0.10	.1005784	101
CHROMIUM	0.05	.05045526	101	0.10	.1016063	102
COBALT	0.05	.05056028	101	0.10	.1021576	102
NICKEL	0.05	.05069739	101	0.10	.1023835	102
COPPER	0.05	.05026706	101	0.10	.1016774	102
ZINC	0.05	.05054219	101	0.10	.1021093	102
ARSENIC	0.05	.05042164	101	0.10	.1013314	101
SILVER	0.05	.05006148	100	0.10	.09992732	99.90
TIN	0.05	.04996256	99.90	0.10	.09930894	99.30
ANTIMONY	0.05	.05208963	104	0.10	.1001828	100
THALLIUM	0.05	.05108542	102	0.10	.1002289	100
LEAD	0.05	.05052815	101	0.10	.1003666	100
File ID:		20190523072813			20190523073226	

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INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/23/19 07:11
Instrument ID:	ICPMS8	**Calibration (end) date/time:**	05/23/19 07:36
Analytical Method:	200.8	**Analytical Run:**	052319ICPMS8

Analyte	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%
CADMIUM	0.20	.2000357	100
CHROMIUM	0.20	.1982831	99.10
COBALT	0.20	.1973877	98.70
NICKEL	0.20	.1973721	98.70
COPPER	0.20	.1986433	99.30
ZINC	0.20	.197983	99
ARSENIC	0.20	.1984209	99.20
SILVER	0.20	.2001273	100
TIN	0.20	.2007946	100
ANTIMONY	0.20	.1959806	98
THALLIUM	0.20	.1989716	99.50
LEAD	0.20	.1992226	99.60
File ID:		20190523073634	

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INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/23/19 07:11
Instrument ID:	ICPMS8	**Calibration (end) date/time:**	05/23/19 07:36
Analytical Method:	200.8	**Analytical Run:**	052319ICPMS8

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
SELENIUM	0.0010	.000716877	71.70	0.0020	.001892031	94.60
File ID:		20190523071543			20190523071951	

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INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/23/19 07:11
Instrument ID:	ICPMS8	**Calibration (end) date/time:**	05/23/19 07:36
Analytical Method:	200.8	**Analytical Run:**	052319ICPMS8

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
SELENIUM	0.01	.01084669	108	0.05	.04965271	99.30
File ID:		20190523072405			20190523072813	

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INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/23/19 07:11
Instrument ID:	ICPMS8	**Calibration (end) date/time:**	05/23/19 07:36
Analytical Method:	200.8	**Analytical Run:**	052319ICPMS8

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
SELENIUM	0.10	.09940463	99.40	0.20	.2006294	100
File ID:		20190523073226			20190523073634	

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INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/21/19 19:55
Instrument ID:	ICPMS9	**Calibration (end) date/time:**	05/21/19 20:18
Analytical Method:	200.8	**Analytical Run:**	052119ICPMS9A

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
CHROMIUM	0.0010	.001009186	101	0.0020	.001982859	99.10
COBALT	0.0010	.001029107	103	0.0020	.002016399	101
NICKEL	0.0010	.00106021	106	0.0020	.002103003	105
COPPER	0.0010	.001188949	119	0.0020	.002463086	123
ZINC	0.0010	.001450959	145	0.0020	.00241738	121
ARSENIC	0.0010	.001029266	103	0.0020	.002067309	103
SILVER	0.0010	.001028055	103	0.0020	.001962587	98.10
CADMIUM	0.0010	.000983676	98.40	0.0020	.002122136	106
TIN	0.0010	.001081486	108	0.0020	.00216464	108
ANTIMONY	0.0010	.00097966	98	0.0020	.002039715	102
THALLIUM	0.0010	.000980453	98	0.0020	.002087941	104
File ID:		20190521195551			20190521200026	

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INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/21/19 19:55
Instrument ID:	ICPMS9	**Calibration (end) date/time:**	05/21/19 20:18
Analytical Method:	200.8	**Analytical Run:**	052119ICPMS9A

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
CHROMIUM	0.01	.009645206	96.50	0.05	.04999094	100
COBALT	0.01	.009848637	98.50	0.05	.0498706	99.70
NICKEL	0.01	.009886598	98.90	0.05	.04976911	99.50
COPPER	0.01	.01017574	102	0.05	.05076712	102
ZINC	0.01	.01032137	103	0.05	.04966333	99.30
ARSENIC	0.01	.009663907	96.60	0.05	.04961598	99.20
SILVER	0.01	.009693694	96.90	0.05	.04809611	96.20
CADMIUM	0.01	.009726261	97.30	0.05	.05001881	100
TIN	0.01	.009675901	96.80	0.05	.04768966	95.40
ANTIMONY	0.01	.009584222	95.80	0.05	.04724395	94.50
THALLIUM	0.01	.009461298	94.60	0.05	.04916164	98.30
File ID:		20190521200502			20190521200938	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/21/19 19:55
Instrument ID:	ICPMS9	**Calibration (end) date/time:**	05/21/19 20:18
Analytical Method:	200.8	**Analytical Run:**	052119ICPMS9A

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
CHROMIUM	0.10	.09840605	98.40	0.20	.2008171	100
COBALT	0.10	.09874029	98.70	0.20	.2006695	100
NICKEL	0.10	.09827157	98.30	0.20	.2009263	100
COPPER	0.10	.0998938	99.90	0.20	.199847	99.90
ZINC	0.10	.09847377	98.50	0.20	.2008248	100
ARSENIC	0.10	.09863237	98.60	0.20	.2007958	100
SILVER	0.10	.1003553	100	0.20	.2003139	100
CADMIUM	0.10	.1005046	101	0.20	.1997555	99.90
TIN	0.10	.09951905	99.50	0.20	.2008322	100
ANTIMONY	0.10	.09975018	99.80	0.20	.2008344	100
THALLIUM	0.10	.09873663	98.70	0.20	.2008674	100
File ID:		20190521201413			20190521201848	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/21/19 19:55
Instrument ID:	ICPMS9	**Calibration (end) date/time:**	05/21/19 20:18
Analytical Method:	200.8	**Analytical Run:**	052119ICPMS9A

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
SELENIUM	0.0010	.00088667	88.70	0.0020	.001978592	98.90
File ID:		20190521195551			20190521200026	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/21/19 19:55
Instrument ID:	ICPMS9	**Calibration (end) date/time:**	05/21/19 20:18
Analytical Method:	200.8	**Analytical Run:**	052119ICPMS9A

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
SELENIUM	0.01	.008920845	89.20	0.05	.04861105	97.20
File ID:		20190521200502			20190521200938	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/21/19 19:55
Instrument ID:	ICPMS9	**Calibration (end) date/time:**	05/21/19 20:18
Analytical Method:	200.8	**Analytical Run:**	052119ICPMS9A

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
SELENIUM	0.10	.09850734	98.50	0.20	.2011483	101
File ID:		20190521201413			20190521201848	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/21/19 19:55
Instrument ID:	ICPMS9	**Calibration (end) date/time:**	05/21/19 20:18
Analytical Method:	200.8	**Analytical Run:**	052119ICPMS9A

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
LEAD	0.0010	.00098962	99	0.0020	.002111496	106
File ID:		20190521195551			20190521200026	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/21/19 19:55
Instrument ID:	ICPMS9	**Calibration (end) date/time:**	05/21/19 20:18
Analytical Method:	200.8	**Analytical Run:**	052119ICPMS9A

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
LEAD	0.01	.009599821	96	0.05	.04902068	98
File ID:		20190521200502			20190521200938	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/21/19 19:55
Instrument ID:	ICPMS9	**Calibration (end) date/time:**	05/21/19 20:18
Analytical Method:	200.8	**Analytical Run:**	052119ICPMS9A

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
LEAD	0.10	.09775637	97.80	0.20	.2013856	101
File ID:		20190521201413			20190521201848	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/24/19 11:45
Instrument ID:	ICPMS11	**Calibration (end) date/time:**	05/24/19 12:10
Analytical Method:	200.8	**Analytical Run:**	052419ICPMS11

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
CHROMIUM	0.0010	.001005402	101	0.0020	.001961759	98.10
COBALT	0.0010	.000964225	96.40	0.0020	.002107257	105
NICKEL	0.0010	.000998066	99.80	0.0020	.00192259	96.10
COPPER	0.0010	.000896251	89.60	0.0020	.001764705	88.20
ZINC	0.0010	.000665759	66.60	0.0020	.001829969	91.50
ARSENIC	0.0010	.000974936	97.50	0.0020	.002039117	102
SILVER	0.0010	.000970533	97.10	0.0020	.002067759	103
CADMIUM	0.0010	.000912211	91.20	0.0020	.002099347	105
TIN	0.0010	.001046613	105	0.0020	.001858713	92.90
ANTIMONY	0.0010	.000602758	60.30	0.0020	.001522257	76.10
THALLIUM	0.0010	.000942484	94.20	0.0020	.002055019	103
LEAD	0.0010	.000996082	99.60	0.0020	.002037081	102
File ID:		20190524114502			20190524115013	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/24/19 11:45
Instrument ID:	ICPMS11	**Calibration (end) date/time:**	05/24/19 12:10
Analytical Method:	200.8	**Analytical Run:**	052419ICPMS11

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
CHROMIUM	0.01	.009468121	94.70	0.05	.05119807	102
COBALT	0.01	.009662019	96.60	0.05	.050786	102
NICKEL	0.01	.009768459	97.70	0.05	.05063033	101
COPPER	0.01	.009201473	92	0.05	.04926193	98.50
ZINC	0.01	.009332897	93.30	0.05	.04994969	99.90
ARSENIC	0.01	.009764953	97.60	0.05	.050869	102
SILVER	0.01	.009377536	93.80	0.05	.05022518	100
CADMIUM	0.01	.009611849	96.10	0.05	.04976353	99.50
TIN	0.01	.009422144	94.20	0.05	.04915202	98.30
ANTIMONY	0.01	.008523952	85.20	0.05	.04828106	96.60
THALLIUM	0.01	.009485515	94.90	0.05	.05055602	101
LEAD	0.01	.009525747	95.30	0.05	.05060287	101
File ID:		20190524115524			20190524120035	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/24/19 11:45
Instrument ID:	ICPMS11	**Calibration (end) date/time:**	05/24/19 12:10
Analytical Method:	200.8	**Analytical Run:**	052419ICPMS11

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
CHROMIUM	0.10	.09982801	99.80	0.20	.1998134	99.90
COBALT	0.10	.09974718	99.70	0.20	.1999459	100
NICKEL	0.10	.09928083	99.30	0.20	.2002144	100
COPPER	0.10	.09783785	97.80	0.20	.2013084	101
ZINC	0.10	.09881954	98.80	0.20	.2006395	100
ARSENIC	0.10	.09838596	98.40	0.20	.2006013	100
SILVER	0.10	.0999486	99.90			
CADMIUM	0.10	.09976526	99.80	0.20	.2001953	100
TIN	0.10	.09987755	99.90	0.20	.2003033	100
ANTIMONY	0.10	.09895886	99	0.20	.2010309	101
THALLIUM	0.10	.09888372	98.90	0.20	.2004446	100
LEAD	0.10	.1002425	100	0.20	.1997514	99.90
File ID:		20190524120546			20190524121057	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/24/19 11:45
Instrument ID:	ICPMS11	**Calibration (end) date/time:**	05/24/19 12:10
Analytical Method:	200.8	**Analytical Run:**	052419ICPMS11

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
SELENIUM	0.0010	.00088362	88.40	0.0020	.001716265	85.80
File ID:		20190524114502			20190524115013	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/24/19 11:45
Instrument ID:	ICPMS11	**Calibration (end) date/time:**	05/24/19 12:10
Analytical Method:	200.8	**Analytical Run:**	052419ICPMS11

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
SELENIUM	0.01	.009129411	91.30	0.05	.05033886	101
File ID:		20190524115524			20190524120035	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/24/19 11:45
Instrument ID:	ICPMS11	**Calibration (end) date/time:**	05/24/19 12:10
Analytical Method:	200.8	**Analytical Run:**	052419ICPMS11

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
SELENIUM	0.10	.1004869	100	0.20	.1997188	99.90
File ID:		20190524120546			20190524121057	

16B-IN

ICP/MS INITIAL CALIBRATION

SDG:	L1100960	**Calibration (begin) date/time:**	05/23/19 07:11
Instrument ID:	ICPMS8	**Calibration (end) date/time:**	05/23/19 07:36
Analytical Method:	200.8	**Analytical Run:**	052319ICPMS8

Analyte	Mass	Cal. Type	Weightage	Corr.	Slope	Incpt
CHROMIUM	52	8	5	0.999926	102.1918	0.044666
COBALT	59	8	5	0.999858	163.0675	0.002788
NICKEL	60	8	5	0.999833	43.31794	0.013599
COPPER	63	8	5	0.999932	48.15925	0.018122
ZINC	66	8	5	0.999877	18.61295	0.019849
ARSENIC	75	8	5	0.999945	12.0518	0.00068
SILVER	107	8	5	1	8.50574	0.000137
CADMIUM	111	8	5	0.999994	5.514065	0.000028
TIN	118	8	5	0.999987	2.953673	0.000412
ANTIMONY	121	8	5	0.99981	2.121877	0.002569
THALLIUM	205	8	5	0.999973	1.736197	0.000006
LEAD	208	8	5	0.999989	1.299311	0.000067

Calibration Type

8 = Linear Regression Forced through Blank

Weightage

5 = None

16B-IN

ICP/MS INITIAL CALIBRATION

SDG:	L1100960	**Calibration (begin) date/time:**	05/23/19 07:11
Instrument ID:	ICPMS8	**Calibration (end) date/time:**	05/23/19 07:36
Analytical Method:	200.8	**Analytical Run:**	052319ICPMS8

Analyte	Mass	Cal. Type	Weightage	Corr.	Slope	Incpt
SELENIUM	78	8	5	0.999976	0.168377	0.000018

Calibration Type

8 = Linear Regression Forced through Blank

Weightage

5 = None

16B-IN

ICP/MS INITIAL CALIBRATION

SDG:	L1100960	**Calibration (begin) date/time:**	05/21/19 19:55
Instrument ID:	ICPMS9	**Calibration (end) date/time:**	05/21/19 20:18
Analytical Method:	200.8	**Analytical Run:**	052119ICPMS9A

Analyte	Mass	Cal. Type	Weightage	Corr.	Slope	Incpt
CHROMIUM	52	8	5	0.999955	135.0404	0.048012
COBALT	59	8	5	0.999972	256.9144	0.005713
NICKEL	60	8	5	0.999945	71.41284	0.019095
COPPER	63	8	5	0.999993	49.09349	0.012012
ZINC	66	8	5	0.999947	27.21531	0.010493
ARSENIC	75	8	5	0.999964	21.38203	0.000764
SILVER	107	8	5	0.99995	10.47905	0.000074
CADMIUM	111	8	5	0.999994	8.54333	0.000038
TIN	118	8	5	0.999919	2.139618	0.000229
ANTIMONY	121	8	5	0.999896	2.97408	0.00031
THALLIUM	205	8	5	0.99996	1.866751	0.000016

Calibration Type

8 = Linear Regression Forced through Blank

Weightage

5 = None

16B-IN

ICP/MS INITIAL CALIBRATION

SDG:	L1100960	**Calibration (begin) date/time:**	05/21/19 19:55
Instrument ID:	ICPMS9	**Calibration (end) date/time:**	05/21/19 20:18
Analytical Method:	200.8	**Analytical Run:**	052119ICPMS9A

Analyte	Mass	Cal. Type	Weightage	Corr.	Slope	Incpt
LEAD	208	8	5	0.999896	1.353133	0.000032

Calibration Type

8 = Linear Regression Forced through Blank

Weightage

5 = None

16B-IN

ICP/MS INITIAL CALIBRATION

SDG:	L1100960	**Calibration (begin) date/time:**	05/21/19 19:55
Instrument ID:	ICPMS9	**Calibration (end) date/time:**	05/21/19 20:18
Analytical Method:	200.8	**Analytical Run:**	052119ICPMS9A

Analyte	Mass	Cal. Type	Weightage	Corr.	Slope	Incpt
SELENIUM	78	8	5	0.999931	0.202159	0.000011

Calibration Type

8 = Linear Regression Forced through Blank

Weightage

5 = None

16B-IN

ICP/MS INITIAL CALIBRATION

SDG:	L1100960	**Calibration (begin) date/time:**	05/24/19 11:45
Instrument ID:	ICPMS11	**Calibration (end) date/time:**	05/24/19 12:10
Analytical Method:	200.8	**Analytical Run:**	052419ICPMS11

Analyte	Mass	Cal. Type	Weightage	Corr.	Slope	Incpt
CHROMIUM	52	8	5	0.999974	110.0432	0.229029
COBALT	59	8	5	0.999988	191.6085	0.003541
NICKEL	60	8	5	0.999985	52.02865	0.012897
COPPER	63	8	5	0.999912	44.09689	0.129004
ZINC	66	8	5	0.999975	22.14509	0.025662
ARSENIC	75	8	5	0.999945	17.1538	0.00096
SILVER	107	8	5	0.999975	9.55764	0.000242
CADMIUM	111	8	5	0.999997	1.208772	0.000029
TIN	118	8	5	0.999989	2.430452	0.000331
ANTIMONY	121	8	5	0.999942	2.826607	0.001023
THALLIUM	205	8	5	0.999971	1.87763	0.000057
LEAD	208	8	5	0.99999	1.436821	0.000187

Calibration Type

8 = Linear Regression Forced through Blank

Weightage

5 = None

16B-IN

ICP/MS INITIAL CALIBRATION

SDG:	L1100960	**Calibration (begin) date/time:**	05/24/19 11:45
Instrument ID:	ICPMS11	**Calibration (end) date/time:**	05/24/19 12:10
Analytical Method:	200.8	**Analytical Run:**	052419ICPMS11

Analyte	Mass	Cal. Type	Weightage	Corr.	Slope	Incpt
SELENIUM	78	8	5	0.999983	0.170479	0.000038

Calibration Type

8 = Linear Regression Forced through Blank

Weightage

5 = None

2540 C-2011 Gravimetric Analysis

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
WW-20190519-002-DAY 17

Lab Sample ID:	L1100960-01	**SDG:**	L1100960
Client Sample ID:	WW-20190519-002-DAY 17	**Collected Date/Time:**	05/19/19 11:30
Lab File ID:	13	**Received Date/Time:**	05/21/19 08:00
Instrument ID:	WETBAL10	**Preparation Date/Time:**	05/22/19 21:01
Analytical Batch:	WG1284548	**Analysis Date/Time:**	05/22/19 22:05
Dilution Factor:	1	**Prep Method:**	SM 2540 C
Analytical Method:	2540 C-2011	**Sample Vol Used:**	20 ml
Matrix:	WW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	_____

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Dissolved Solids	DSOLIDS	1970		14.1	50.0	50.0

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414873-1

Lab Sample ID:	R3414873-1	**SDG:**	L1100960
Client Sample ID:	BLANK	**Collected Date/Time:**	
Lab File ID:	01	**Received Date/Time:**	
Instrument ID:	WETBAL10	**Preparation Date/Time:**	05/21/19 16:31
Analytical Batch:	WG1284548	**Analysis Date/Time:**	05/22/19 22:05
Dilution Factor:	1	**Prep Method:**	SM 2540 C
Analytical Method:	2540 C-2011	**Sample Vol Used:**	100 ml
Matrix:	WW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Dissolved Solids	DSOLIDS	U		2.82	10	10.0

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414873-3

Lab Sample ID:	R3414873-3	**SDG:**	L1100960
Client Sample ID:	DUP	**Collected Date/Time:**	05/19/19 09:15
Lab File ID:	02	**Received Date/Time:**	05/21/19 08:00
Instrument ID:	WETBAL10	**Preparation Date/Time:**	05/22/19 21:01
Analytical Batch:	WG1284548	**Analysis Date/Time:**	05/22/19 22:05
Dilution Factor:	1	**Prep Method:**	SM 2540 C
Analytical Method:	2540 C-2011	**Sample Vol Used:**	50 ml
Matrix:	WW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	_____

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Dissolved Solids	DSOLIDS	1000		5.64	20	20.0

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414873-2

Lab Sample ID:	R3414873-2	**SDG:**	L1100960
Client Sample ID:	LCS	**Collected Date/Time:**	
Lab File ID:	03	**Received Date/Time:**	
Instrument ID:	WETBAL10	**Preparation Date/Time:**	05/21/19 16:31
Analytical Batch:	WG1284548	**Analysis Date/Time:**	05/22/19 22:05
Dilution Factor:	1	**Prep Method:**	SM 2540 C
Analytical Method:	2540 C-2011	**Sample Vol Used:**	10 ml
Matrix:	WW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Dissolved Solids	DSOLIDS	8730		28.2	100	100

3-IN BLANKS

SDG:	L1100960	**Calibration (begin) date/time:**	_____
Instrument ID:	WETBAL10	**Calibration (end) date/time:**	_____
Analytical Method:	2540 C-2011	**Analytical Run:**	WG1284548

Sample ID:	**BLANK Result**	**BLANK Qual**
File ID:	01	
Analyte	mg/l	
DISSOLVED SOLIDS	U	

6-IN

DUPLICATES

L1100960-01

SAMPLE NO.:
R3414873-3

DUP Sample / File ID:	R3414873-3 / 02	**SDG:**	L1100960
OS Sample / File ID:	L1100758-01 / 11	**Analytical Batch:**	WG1284548
Instrument ID:	WETBAL10	**Dilution Factor:**	1
Analytical Method:	2540 C-2011	**Matrix:**	WW

Analyte	**OS Result**	**DUP Result**	**RPD**	**RPD Limits**
	mg/l	*mg/l*	*mg/l*	*mg/l*
Dissolved Solids	1000	1000	0.000	5

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

7-IN

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
RECOVERY

L1100960-01

SAMPLE NO.:
R3414873-2

LCS Sample / File ID:	R3414873-2 / 03	**SDG:**	L1100960
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1284548
Instrument ID:	WETBAL10	**Dilution Factor:**	1
Analytical Method:	2540 C-2011	**Matrix:**	WW

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limits
	mg/l	*mg/l*		*%*	*%*	*%*	*%*	*%*
Dissolved Solids	8800	8730		99.2		85.0 - 115		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

12-IN

ANALYSIS LOG

SDG:	L1100960	**Analytical Method:**	2540 C-2011
Instrument ID:	WETBAL10	**Calibration Start Date:**	_____
Analytical Run:	WG1284548	**Calibration End Date:**	_____

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
BLANK	R3414873-1	01	05/22/19 22:05	1	WG1284548
DUP	R3414873-3	02	05/22/19 22:05	1	WG1284548
LCS	R3414873-2	03	05/22/19 22:05	1	WG1284548
OS	L1100758-01	11	05/22/19 22:05	1	WG1284548
WW-20190519-002-DAY 17	L1100960-01	13	05/22/19 22:05	1	WG1284548

2540 D-2011 Gravimetric Analysis

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
WW-20190519-002-DAY 17

Lab Sample ID:	L1100960-01	**SDG:**	L1100960
Client Sample ID:	WW-20190519-002-DAY 17	**Collected Date/Time:**	05/19/19 11:30
Lab File ID:	24	**Received Date/Time:**	05/21/19 08:00
Instrument ID:	WETBAL10	**Preparation Date/Time:**	05/23/19 15:57
Analytical Batch:	WG1284885	**Analysis Date/Time:**	05/23/19 16:10
Dilution Factor:	1	**Prep Method:**	SM 2540 D
Analytical Method:	2540 D-2011	**Sample Vol Used:**	990 ml
Matrix:	WW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	_____

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Suspended Solids	SSOLIDS	0.400	J	0.354	2.53	2.53

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414847-1

Lab Sample ID:	R3414847-1	**SDG:**	L1100960
Client Sample ID:	BLANK	**Collected Date/Time:**	
Lab File ID:	01	**Received Date/Time:**	
Instrument ID:	WETBAL10	**Preparation Date/Time:**	05/23/19 15:56
Analytical Batch:	WG1284885	**Analysis Date/Time:**	05/23/19 16:10
Dilution Factor:	1	**Prep Method:**	SM 2540 D
Analytical Method:	2540 D-2011	**Sample Vol Used:**	1000 ml
Matrix:	WW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Suspended Solids	SSOLIDS	U		0.350	2.50	2.50

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414847-3

Lab Sample ID:	R3414847-3	**SDG:**	L1100960
Client Sample ID:	DUP	**Collected Date/Time:**	05/16/19 14:40
Lab File ID:	02	**Received Date/Time:**	05/18/19 08:45
Instrument ID:	WETBAL10	**Preparation Date/Time:**	05/23/19 15:57
Analytical Batch:	WG1284885	**Analysis Date/Time:**	05/23/19 16:10
Dilution Factor:	1	**Prep Method:**	SM 2540 D
Analytical Method:	2540 D-2011	**Sample Vol Used:**	100 ml
Matrix:	WW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	_____

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Suspended Solids	SSOLIDS	71.0	P1	3.50	25	25.0

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414847-4

Lab Sample ID:	R3414847-4	**SDG:**	L1100960
Client Sample ID:	DUP	**Collected Date/Time:**	05/16/19 15:50
Lab File ID:	03	**Received Date/Time:**	05/18/19 08:45
Instrument ID:	WETBAL10	**Preparation Date/Time:**	05/23/19 15:57
Analytical Batch:	WG1284885	**Analysis Date/Time:**	05/23/19 16:10
Dilution Factor:	1	**Prep Method:**	SM 2540 D
Analytical Method:	2540 D-2011	**Sample Vol Used:**	485 ml
Matrix:	WW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	_____

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Suspended Solids	SSOLIDS	23.7	P1	0.721	5.15	5.15

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414847-2

Lab Sample ID:	R3414847-2	**SDG:**	L1100960
Client Sample ID:	LCS	**Collected Date/Time:**	
Lab File ID:	04	**Received Date/Time:**	
Instrument ID:	WETBAL10	**Preparation Date/Time:**	05/23/19 15:56
Analytical Batch:	WG1284885	**Analysis Date/Time:**	05/23/19 16:10
Dilution Factor:	1	**Prep Method:**	SM 2540 D
Analytical Method:	2540 D-2011	**Sample Vol Used:**	25 ml
Matrix:	WW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Suspended Solids	SSOLIDS	788		14.0	100	100

3-IN BLANKS

SDG:	L1100960	**Calibration (begin) date/time:**	_____
Instrument ID:	WETBAL10	**Calibration (end) date/time:**	_____
Analytical Method:	2540 D-2011	**Analytical Run:**	WG1284885

Sample ID:	**BLANK Result**	**BLANK Qual**
File ID:	01	
Analyte	mg/l	
SUSPENDED SOLIDS	U	

6-IN

DUPLICATES
L1100960-01

SAMPLE NO.:
R3414847-3

DUP Sample / File ID:	R3414847-3 / 02	**SDG:**	L1100960
OS Sample / File ID:	L1100355-01 / 08	**Analytical Batch:**	WG1284885
Instrument ID:	WETBAL10	**Dilution Factor:**	1
Analytical Method:	2540 D-2011	**Matrix:**	WW

Analyte	OS Result	DUP Result	RPD	RPD Limits
	mg/l	*mg/l*	*mg/l*	*mg/l*
Suspended Solids	65.0	71.0	8.82*	5

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

6-IN

DUPLICATES

L1100960-01

SAMPLE NO.:
R3414847-4

DUP Sample / File ID:	R3414847-4 / 03	**SDG:**	L1100960
OS Sample / File ID:	L1100370-02 / 10	**Analytical Batch:**	WG1284885
Instrument ID:	WETBAL10	**Dilution Factor:**	1
Analytical Method:	2540 D-2011	**Matrix:**	WW

Analyte	OS Result	DUP Result	RPD	RPD Limits
	mg/l	*mg/l*	*mg/l*	*mg/l*
Suspended Solids	25.2	23.7	5.89*	5

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

7-IN

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
RECOVERY

L1100960-01

SAMPLE NO.:
R3414847-2

LCS Sample / File ID:	R3414847-2 / 04	**SDG:**	L1100960
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1284885
Instrument ID:	WETBAL10	**Dilution Factor:**	1
Analytical Method:	2540 D-2011	**Matrix:**	WW

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limits
	mg/l	*mg/l*		*%*	*%*	*%*	*%*	*%*
Suspended Solids	773	788		102		85.0 - 115		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

12-IN

ANALYSIS LOG

SDG:	L1100960	**Analytical Method:**	2540 D-2011
Instrument ID:	WETBAL10	**Calibration Start Date:**	_____
Analytical Run:	WG1284885	**Calibration End Date:**	_____

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
BLANK	R3414847-1	01	05/23/19 16:10	1	WG1284885
DUP	R3414847-3	02	05/23/19 16:10	1	WG1284885
DUP	R3414847-4	03	05/23/19 16:10	1	WG1284885
LCS	R3414847-2	04	05/23/19 16:10	1	WG1284885
OS	L1100355-01	08	05/23/19 16:10	1	WG1284885
OS	L1100370-02	10	05/23/19 16:10	1	WG1284885
WW-20190519-002-DAY 17	L1100960-01	24	05/23/19 16:10	1	WG1284885

300.0 Wet Chemistry

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
WW-20190519-002-DAY 17

Lab Sample ID:	L1100960-01	**SDG:**	L1100960
Client Sample ID:	WW-20190519-002-DAY 17	**Collected Date/Time:**	05/19/19 11:30
Lab File ID:	40.0000.TXT	**Received Date/Time:**	05/21/19 08:00
Instrument ID:	IC-8	**Preparation Date/Time:**	05/22/19 21:06
Analytical Batch:	WG1284891	**Analysis Date/Time:**	05/22/19 21:06
Dilution Factor:	10	**Prep Method:**	300.0
Analytical Method:	300.0	**Sample Vol Used:**	10 mL
Matrix:	WW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	_____

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Chloride	16887-00-6	404		0.519	1.00	10.0

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413918-1

Lab Sample ID:	R3413918-1	**SDG:**	L1100960
Client Sample ID:	BLANK	**Collected Date/Time:**	
Lab File ID:	10.0000.TXT	**Received Date/Time:**	
Instrument ID:	IC-8	**Preparation Date/Time:**	05/22/19 10:13
Analytical Batch:	WG1284891	**Analysis Date/Time:**	05/22/19 10:13
Dilution Factor:	1	**Prep Method:**	300.0
Analytical Method:	300.0	**Sample Vol Used:**	10 mL
Matrix:	WW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Chloride	16887-00-6	U		0.0519	1	1.00

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413918-2

Lab Sample ID:	R3413918-2	**SDG:**	L1100960
Client Sample ID:	LCS	**Collected Date/Time:**	
Lab File ID:	11.0000.TXT	**Received Date/Time:**	
Instrument ID:	IC-8	**Preparation Date/Time:**	05/22/19 10:31
Analytical Batch:	WG1284891	**Analysis Date/Time:**	05/22/19 10:31
Dilution Factor:	1	**Prep Method:**	300.0
Analytical Method:	300.0	**Sample Vol Used:**	10 mL
Matrix:	WW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Chloride	16887-00-6	40.4		0.0519	1	1.00

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413918-3

Lab Sample ID:	R3413918-3	**SDG:**	L1100960
Client Sample ID:	DUP	**Collected Date/Time:**	05/21/19 11:20
Lab File ID:	20.0000.TXT	**Received Date/Time:**	05/22/19 08:00
Instrument ID:	IC-8	**Preparation Date/Time:**	05/22/19 15:08
Analytical Batch:	WG1284891	**Analysis Date/Time:**	05/22/19 15:08
Dilution Factor:	10	**Prep Method:**	300.0
Analytical Method:	300.0	**Sample Vol Used:**	10 mL
Matrix:	WW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	_____

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Chloride	16887-00-6	37.9		0.0519	1	1.00

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413918-6

Lab Sample ID:	R3413918-6	**SDG:**	L1100960
Client Sample ID:	DUP	**Collected Date/Time:**	05/02/19 12:38
Lab File ID:	43.0000.TXT	**Received Date/Time:**	05/15/19 08:45
Instrument ID:	IC-8	**Preparation Date/Time:**	05/22/19 22:00
Analytical Batch:	WG1284891	**Analysis Date/Time:**	05/22/19 22:00
Dilution Factor:	1	**Prep Method:**	300.0
Analytical Method:	300.0	**Sample Vol Used:**	10 mL
Matrix:	WW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	_____

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Chloride	16887-00-6	9.16		0.0519	1	1.00

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413918-4

Lab Sample ID:	R3413918-4	**SDG:**	L1100960
Client Sample ID:	MS	**Collected Date/Time:**	05/21/19 06:00
Lab File ID:	28.0000.TXT	**Received Date/Time:**	05/22/19 08:00
Instrument ID:	IC-8	**Preparation Date/Time:**	05/22/19 17:31
Analytical Batch:	WG1284891	**Analysis Date/Time:**	05/22/19 17:31
Dilution Factor:	1	**Prep Method:**	300.0
Analytical Method:	300.0	**Sample Vol Used:**	10 mL
Matrix:	WW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	_____

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Chloride	16887-00-6	81.1		0.0519	1	1.00

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413918-7

Lab Sample ID:	R3413918-7	**SDG:**	L1100960
Client Sample ID:	MS	**Collected Date/Time:**	05/02/19 12:38
Lab File ID:	44.0000.TXT	**Received Date/Time:**	05/15/19 08:45
Instrument ID:	IC-8	**Preparation Date/Time:**	05/22/19 22:18
Analytical Batch:	WG1284891	**Analysis Date/Time:**	05/22/19 22:18
Dilution Factor:	1	**Prep Method:**	300.0
Analytical Method:	300.0	**Sample Vol Used:**	10 mL
Matrix:	WW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Chloride	16887-00-6	60.1		0.0519	1	1.00

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413918-5

Lab Sample ID:	R3413918-5	**SDG:**	L1100960
Client Sample ID:	MSD	**Collected Date/Time:**	05/21/19 06:00
Lab File ID:	29.0000.TXT	**Received Date/Time:**	05/22/19 08:00
Instrument ID:	IC-8	**Preparation Date/Time:**	05/22/19 17:49
Analytical Batch:	WG1284891	**Analysis Date/Time:**	05/22/19 17:49
Dilution Factor:	1	**Prep Method:**	300.0
Analytical Method:	300.0	**Sample Vol Used:**	10 mL
Matrix:	WW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	_____

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Chloride	16887-00-6	81.4		0.0519	1	1.00

2-IN

CALIBRATION VERIFICATION

SDG:	L1100960	**Calibration (begin) date/time:**	05/08/19 17:16
Instrument ID:	IC-8	**Calibration (end) date/time:**	05/08/19 18:45
Analytical Method:	300.0	**Analytical Run:**	052219
Concentration Units:	mg/l		

	ICV				**CCV**				**CCV**			
Sample ID:	IC-80522190955				IC-80522191526				IC-80522191901			
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	True	Found	%R	%RSD
CHLORIDE	50	49.6223	99.20		50	49.8491	99.70		50	49.7581	99.50	

ICV Limits: 90 - 110 CCV Limits: 90 - 110

2-IN

CALIBRATION VERIFICATION

SDG:	L1100960	**Calibration (begin) date/time:**	05/08/19 17:16
Instrument ID:	IC-8	**Calibration (end) date/time:**	05/08/19 18:45
Analytical Method:	300.0	**Analytical Run:**	052219
Concentration Units:	mg/l		

CCV

Sample ID: IC-80522192236

Analyte	True	Found	%R	%RSD
CHLORIDE	50	49.7422	99.50	

ICV Limits: 90 - 110 CCV Limits: 90 - 110

3-IN BLANKS

SDG:	L1100960	**Calibration (begin) date/time:**	05/08/19 17:16
Instrument ID:	IC-8	**Calibration (end) date/time:**	05/08/19 18:45
Analytical Method:	300.0	**Analytical Run:**	052219

Sample ID:	**BLANK Result**	**BLANK Qual**	**CCB Result**	**CCB Qual**	**CCB Result**	**CCB Qual**	**CCB Result**	**CCB Qual**
File ID:	10.0000.TXT		22.0000.TXT		34.0000.TXT		46.0000.TXT	
Analyte	mg/l		mg/l		mg/l		mg/l	
CHLORIDE	U		0.0000	U	0.0000	U	0.0000	U

5A-IN

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1100960-01

SAMPLE NO.:
R3413918-4
R3413918-5

MS Sample / File ID:	R3413918-4 / 28.0000.TXT	**SDG:**	L1100960
MSD Sample / File ID:	R3413918-5 / 29.0000.TXT	**Analytical Batch:**	WG1284891
OS Sample / File ID:	L1101181-01 / 27.0000.TXT	**Matrix:**	WW
Instrument ID:	IC-8		
Analytical Method:	300.0		

Analyte	Spike Amount	OS Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limits
	mg/l	*mg/l*	*mg/l*	*mg/l*	*%*	*%*		*%*	*%*	*%*
Chloride	50.0	33.2	81.1	81.4	95.8	96.3	1	80.0 - 120	0.344	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

5A-IN

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1100960-01

SAMPLE NO.:
R3413918-7

MS Sample / File ID:	R3413918-7 / 44.0000.TXT	**SDG:**	L1100960
MSD Sample / File ID:	_____	**Analytical Batch:**	WG1284891
OS Sample / File ID:	L1099761-02 / 42.0000.TXT	**Matrix:**	WW
Instrument ID:	IC-8		
Analytical Method:	300.0		

Analyte	Spike Amount	OS Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limits
	mg/l	*mg/l*	*mg/l*		*%*	*%*		*%*	*%*	*%*
Chloride	50.0	9.09	60.1		102		1	80.0 - 120		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

6-IN

DUPLICATES

L1100960-01

SAMPLE NO.:
R3413918-3

DUP Sample / File ID:	R3413918-3 / 20.0000.TXT	**SDG:**	L1100960
OS Sample / File ID:	L1101167-01 / 19.0000.TXT	**Analytical Batch:**	WG1284891
Instrument ID:	IC-8	**Dilution Factor:**	10
Analytical Method:	300.0	**Matrix:**	WW

Analyte	**OS Result**	**DUP Result**	**RPD**	**RPD Limits**
	mg/l	*mg/l*	*mg/l*	*mg/l*
Chloride	38.1	37.9	0.507	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

6-IN

DUPLICATES

L1100960-01

SAMPLE NO.:
R3413918-6

DUP Sample / File ID:	R3413918-6 / 43.0000.TXT	**SDG:**	L1100960
OS Sample / File ID:	L1099761-02 / 42.0000.TXT	**Analytical Batch:**	WG1284891
Instrument ID:	IC-8	**Dilution Factor:**	1
Analytical Method:	300.0	**Matrix:**	WW

Analyte	**OS Result**	**DUP Result**	**RPD**	**RPD Limits**
	mg/l	*mg/l*	*mg/l*	*mg/l*
Chloride	9.09	9.16	0.749	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

7-IN

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
RECOVERY

L1100960-01

SAMPLE NO.:
R3413918-2

LCS Sample / File ID:	R3413918-2 / 11.0000.TXT	**SDG:**	L1100960
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1284891
Instrument ID:	IC-8	**Dilution Factor:**	1
Analytical Method:	300.0	**Matrix:**	WW

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limits
	mg/l	*mg/l*		*%*	*%*	*%*	*%*	*%*
Chloride	40.0	40.4		101		90.0 - 110		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

12-IN

ANALYSIS LOG

SDG:	L1100960	**Analytical Method:**	300.0
Instrument ID:	IC-8	**Calibration Start Date:**	05/08/19 17:16
Analytical Run:	050819_2	**Calibration End Date:**	05/08/19 18:45

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
CAL	STD 1	02.0000.TXT	05/08/19 17:16	1	
CAL	STD 2	03.0000.TXT	05/08/19 17:34	1	
CAL	STD 3	04.0000.TXT	05/08/19 17:52	1	
CAL	STD 4	05.0000.TXT	05/08/19 18:10	1	
CAL	STD 5	06.0000.TXT	05/08/19 18:27	1	
CAL	STD 6	07.0000.TXT	05/08/19 18:45	1	

12-IN

ANALYSIS LOG

SDG:	L1100960	**Analytical Method:**	300.0
Instrument ID:	IC-8	**Calibration Start Date:**	05/08/19 17:16
Analytical Run:	052219	**Calibration End Date:**	05/08/19 18:45

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
ICV	IC-80522190955	09.0000.TXT	05/22/19 09:55	1	
BLANK	R3413918-1	10.0000.TXT	05/22/19 10:13	1	WG1284891
LCS	R3413918-2	11.0000.TXT	05/22/19 10:31	1	WG1284891
RL	IC-80522191049	12.0000.TXT	05/22/19 10:49	1	
OS	L1101167-01	19.0000.TXT	05/22/19 14:50	10	WG1284891
DUP	R3413918-3	20.0000.TXT	05/22/19 15:08	10	WG1284891
CCV	IC-80522191526	21.0000.TXT	05/22/19 15:26	1	
CCB	IC-80522191543	22.0000.TXT	05/22/19 15:43	1	
OS	L1101181-01	27.0000.TXT	05/22/19 17:13	1	WG1284891
MS	R3413918-4	28.0000.TXT	05/22/19 17:31	1	WG1284891
MSD	R3413918-5	29.0000.TXT	05/22/19 17:49	1	WG1284891
CCV	IC-80522191901	33.0000.TXT	05/22/19 19:01	1	
CCB	IC-80522191919	34.0000.TXT	05/22/19 19:19	1	
WW-20190519-002-DAY 17	L1100960-01	40.0000.TXT	05/22/19 21:06	10	WG1284891
OS	L1099761-02	42.0000.TXT	05/22/19 21:42	1	WG1284891
DUP	R3413918-6	43.0000.TXT	05/22/19 22:00	1	WG1284891
MS	R3413918-7	44.0000.TXT	05/22/19 22:18	1	WG1284891
CCV	IC-80522192236	45.0000.TXT	05/22/19 22:36	1	
CCB	IC-80522192254	46.0000.TXT	05/22/19 22:54	1	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/08/19 17:16
Instrument ID:	IC-8	**Calibration (end) date/time:**	05/08/19 18:45
Analytical Method:	300.0	**Analytical Run:**	052219

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
CHLORIDE	1	1.0189	102	5	4.9298	98.60
File ID:		02.0000.TXT			03.0000.TXT	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/08/19 17:16
Instrument ID:	IC-8	**Calibration (end) date/time:**	05/08/19 18:45
Analytical Method:	300.0	**Analytical Run:**	052219

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
CHLORIDE	10	9.9177	99.20	25	25.3326	101
File ID:		04.0000.TXT			05.0000.TXT	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/08/19 17:16
Instrument ID:	IC-8	**Calibration (end) date/time:**	05/08/19 18:45
Analytical Method:	300.0	**Analytical Run:**	052219

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
CHLORIDE	50	49.2021	98.40	100	100.5989	101
File ID:		06.0000.TXT			07.0000.TXT	

16C-IN

GENERAL CHEMISTRY
INITIAL CALIBRATION

SDG:	L1100960	**Calibration (begin) date/time:**	05/08/19 17:16
Instrument ID:	IC-8	**Calibration (end) date/time:**	05/08/19 18:45
Analytical Method:	300.0	**Analytical Run:**	052219

Analyte	Cal. Type	Weightage	Corr.	Coef1	Coef2	Slope	Incpt	% RSD
CHLORIDE	5	1	0.99993			0.075	0.001	3.596

Calibration Type

5 = Weighted Linear Regression

Weightage

1 = Inverse Concentration

350.1 Wet Chemistry

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
WW-20190519-002-DAY 17

Lab Sample ID:	L1100960-01	**SDG:**	L1100960
Client Sample ID:	WW-20190519-002-DAY 17	**Collected Date/Time:**	05/19/19 11:30
Lab File ID:	20190523062400	**Received Date/Time:**	05/21/19 08:00
Instrument ID:	FS3100-01	**Preparation Date/Time:**	05/23/19 06:24
Analytical Batch:	WG1285025	**Analysis Date/Time:**	05/23/19 06:24
Dilution Factor:	1	**Prep Method:**	350.1
Analytical Method:	350.1	**Sample Vol Used:**	10 mL
Matrix:	WW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	_____

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Ammonia Nitrogen	7664-41-7	U		0.0317	0.100	0.100

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413959-1

Lab Sample ID:	R3413959-1	**SDG:**	L1100960
Client Sample ID:	BLANK	**Collected Date/Time:**	
Lab File ID:	20190523055400	**Received Date/Time:**	
Instrument ID:	FS3100-01	**Preparation Date/Time:**	05/23/19 05:54
Analytical Batch:	WG1285025	**Analysis Date/Time:**	05/23/19 05:54
Dilution Factor:	1	**Prep Method:**	350.1
Analytical Method:	350.1	**Sample Vol Used:**	10 mL
Matrix:	WW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Ammonia Nitrogen	7664-41-7	U		0.0317	0.10	0.100

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413959-2

Lab Sample ID:	R3413959-2	**SDG:**	L1100960
Client Sample ID:	LCS	**Collected Date/Time:**	
Lab File ID:	20190523055600	**Received Date/Time:**	
Instrument ID:	FS3100-01	**Preparation Date/Time:**	05/23/19 05:56
Analytical Batch:	WG1285025	**Analysis Date/Time:**	05/23/19 05:56
Dilution Factor:	1	**Prep Method:**	350.1
Analytical Method:	350.1	**Sample Vol Used:**	10 mL
Matrix:	WW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Ammonia Nitrogen	7664-41-7	7.42		0.0317	0.10	0.100

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413959-3

Lab Sample ID:	R3413959-3	**SDG:**	L1100960
Client Sample ID:	DUP	**Collected Date/Time:**	05/15/19 05:44
Lab File ID:	20190523060200	**Received Date/Time:**	05/17/19 08:45
Instrument ID:	FS3100-01	**Preparation Date/Time:**	05/23/19 06:02
Analytical Batch:	WG1285025	**Analysis Date/Time:**	05/23/19 06:02
Dilution Factor:	1	**Prep Method:**	350.1
Analytical Method:	350.1	**Sample Vol Used:**	10 mL
Matrix:	WW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Ammonia Nitrogen	7664-41-7	0.000		0.0317	0.10	0.100

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413959-5

Lab Sample ID:	R3413959-5	**SDG:**	L1100960
Client Sample ID:	DUP	**Collected Date/Time:**	05/21/19 10:00
Lab File ID:	20190523064000	**Received Date/Time:**	05/22/19 08:45
Instrument ID:	FS3100-01	**Preparation Date/Time:**	05/23/19 06:40
Analytical Batch:	WG1285025	**Analysis Date/Time:**	05/23/19 06:40
Dilution Factor:	1	**Prep Method:**	350.1
Analytical Method:	350.1	**Sample Vol Used:**	10 mL
Matrix:	WW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Ammonia Nitrogen	7664-41-7	4.37		0.0317	0.10	0.100

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413959-4

Lab Sample ID:	R3413959-4	**SDG:**	L1100960
Client Sample ID:	MS	**Collected Date/Time:**	05/17/19 09:30
Lab File ID:	20190523060500	**Received Date/Time:**	05/18/19 08:45
Instrument ID:	FS3100-01	**Preparation Date/Time:**	05/23/19 06:05
Analytical Batch:	WG1285025	**Analysis Date/Time:**	05/23/19 06:05
Dilution Factor:	1	**Prep Method:**	350.1
Analytical Method:	350.1	**Sample Vol Used:**	10 mL
Matrix:	WW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Ammonia Nitrogen	7664-41-7	4.99		0.0317	0.10	0.100

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413959-6

Lab Sample ID:	R3413959-6	**SDG:**	L1100960
Client Sample ID:	MS	**Collected Date/Time:**	05/21/19 11:45
Lab File ID:	20190523064300	**Received Date/Time:**	05/22/19 08:45
Instrument ID:	FS3100-01	**Preparation Date/Time:**	05/23/19 06:43
Analytical Batch:	WG1285025	**Analysis Date/Time:**	05/23/19 06:43
Dilution Factor:	1	**Prep Method:**	350.1
Analytical Method:	350.1	**Sample Vol Used:**	10 mL
Matrix:	WW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Ammonia Nitrogen	7664-41-7	32.3	E V	0.0317	0.10	0.100

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413959-7

Lab Sample ID:	R3413959-7	**SDG:**	L1100960
Client Sample ID:	MSD	**Collected Date/Time:**	05/21/19 11:45
Lab File ID:	20190523064500	**Received Date/Time:**	05/22/19 08:45
Instrument ID:	FS3100-01	**Preparation Date/Time:**	05/23/19 06:45
Analytical Batch:	WG1285025	**Analysis Date/Time:**	05/23/19 06:45
Dilution Factor:	1	**Prep Method:**	350.1
Analytical Method:	350.1	**Sample Vol Used:**	10 mL
Matrix:	WW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	_____

Analyte	**CAS**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
		mg/l		*mg/l*	*mg/l*	*mg/l*
Ammonia Nitrogen	7664-41-7	32.3	E V	0.0317	0.10	0.100

2-IN

CALIBRATION VERIFICATION

SDG:	L1100960	**Calibration (begin) date/time:**	05/20/19 14:22
Instrument ID:	FS3100-01	**Calibration (end) date/time:**	05/20/19 14:30
Analytical Method:	350.1	**Analytical Run:**	052319_1
Concentration Units:	mg/l		

	ICV				**CCV**				**CCV**			
Sample ID:	FS3100-010523190552				FS3100-010523190610				FS3100-010523190630			
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	True	Found	%R	%RSD
AMMONIA NITROGEN	5	4.801	96		5	5.031	101		5	5.090	102	

ICV Limits: 90 - 110 CCV Limits: 90 - 110

2-IN

CALIBRATION VERIFICATION

SDG:	L1100960	**Calibration (begin) date/time:**	05/20/19 14:22
Instrument ID:	FS3100-01	**Calibration (end) date/time:**	05/20/19 14:30
Analytical Method:	350.1	**Analytical Run:**	052319_1
Concentration Units:	mg/l		

CCV

Sample ID: FS3100-010523190650

Analyte	True	Found	%R	%RSD
AMMONIA NITROGEN	5	4.904	98.10	

ICV Limits: 90 - 110 CCV Limits: 90 - 110

3-IN BLANKS

SDG:	L1100960	**Calibration (begin) date/time:**	05/20/19 14:22
Instrument ID:	FS3100-01	**Calibration (end) date/time:**	05/20/19 14:30
Analytical Method:	350.1	**Analytical Run:**	052319_1

Sample ID:	**BLANK Result**	**BLANK Qual**	**CCB Result**	**CCB Qual**	**CCB Result**	**CCB Qual**	**CCB Result**	**CCB Qual**
File ID:	20190523055400		20190523061100		20190523063200		20190523065100	
Analyte	mg/l		mg/l		mg/l		mg/l	
AMMONIA NITROGEN	U		-0.03100		-0.007000		-0.02000	

5A-IN

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1100960-01

SAMPLE NO.:
R3413959-4

MS Sample / File ID:	R3413959-4 / 20190523060500	**SDG:**	L1100960
MSD Sample / File ID:	_____	**Analytical Batch:**	WG1285025
OS Sample / File ID:	L1100354-01 / 20190523060400	**Matrix:**	WW
Instrument ID:	FS3100-01		
Analytical Method:	350.1		

Analyte	Spike Amount	OS Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limits
	mg/l	*mg/l*	*mg/l*		*%*	*%*		*%*	*%*	*%*
Ammonia Nitrogen	5.00	ND	4.99		99.1		1	90.0 - 110		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

5A-IN

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1100960-01

SAMPLE NO.:
R3413959-6
R3413959-7

MS Sample / File ID:	R3413959-6 / 20190523064300	**SDG:**	L1100960
MSD Sample / File ID:	R3413959-7 / 20190523064500	**Analytical Batch:**	WG1285025
OS Sample / File ID:	L1101317-07 / 20190523064200	**Matrix:**	WW
Instrument ID:	FS3100-01		
Analytical Method:	350.1		

Analyte	Spike Amount	OS Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limits
	mg/l	*mg/l*	*mg/l*	*mg/l*	*%*	*%*		*%*	*%*	*%*
Ammonia Nitrogen	5.00	32.0	32.3	32.3	7.78*	7.66*	1	90.0 - 110	0.0186	10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

6-IN

DUPLICATES

L1100960-01

SAMPLE NO.:
R3413959-3

DUP Sample / File ID:	R3413959-3 / 20190523060200	**SDG:**	L1100960
OS Sample / File ID:	L1100121-05 / 20190523060000	**Analytical Batch:**	WG1285025
Instrument ID:	FS3100-01	**Dilution Factor:**	1
Analytical Method:	350.1	**Matrix:**	WW

Analyte	**OS Result**	**DUP Result**	**RPD**	**RPD Limits**
	mg/l	*mg/l*	*mg/l*	*mg/l*
Ammonia Nitrogen	ND	0.000	0.000	10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

6-IN

DUPLICATES

L1100960-01

SAMPLE NO.:
R3413959-5

DUP Sample / File ID:	R3413959-5 / 20190523064000	**SDG:**	L1100960
OS Sample / File ID:	L1101317-06 / 20190523063800	**Analytical Batch:**	WG1285025
Instrument ID:	FS3100-01	**Dilution Factor:**	1
Analytical Method:	350.1	**Matrix:**	WW

Analyte	**OS Result**	**DUP Result**	**RPD**	**RPD Limits**
	mg/l	*mg/l*	*mg/l*	*mg/l*
Ammonia Nitrogen	4.45	4.37	1.77	10

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

7-IN

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
RECOVERY

L1100960-01

SAMPLE NO.:
R3413959-2

LCS Sample / File ID:	R3413959-2 / 20190523055600	**SDG:**	L1100960
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1285025
Instrument ID:	FS3100-01	**Dilution Factor:**	1
Analytical Method:	350.1	**Matrix:**	WW

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limits
	mg/l	*mg/l*		*%*	*%*	*%*	*%*	*%*
Ammonia Nitrogen	7.50	7.42		98.9		90.0 - 110		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

12-IN

ANALYSIS LOG

SDG:	L1100960	**Analytical Method:**	350.1
Instrument ID:	FS3100-01	**Calibration Start Date:**	05/20/19 14:22
Analytical Run:	052019_2	**Calibration End Date:**	05/20/19 14:30

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
CAL	10.0	20190520142200	05/20/19 14:22	1	
CAL	5.00	20190520142300	05/20/19 14:23	1	
CAL	2.50	20190520142500	05/20/19 14:25	1	
CAL	1.00	20190520142700	05/20/19 14:27	1	
CAL	0.10	20190520142800	05/20/19 14:28	1	
CAL	0.00	20190520143000	05/20/19 14:30	1	

12-IN

ANALYSIS LOG

SDG:	L1100960	**Analytical Method:**	350.1
Instrument ID:	FS3100-01	**Calibration Start Date:**	05/20/19 14:22
Analytical Run:	052319_1	**Calibration End Date:**	05/20/19 14:30

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
ICV	FS3100-010523190552	20190523055200	05/23/19 05:52	1	
BLANK	R3413959-1	20190523055400	05/23/19 05:54	1	WG1285025
LCS	R3413959-2	20190523055600	05/23/19 05:56	1	WG1285025
OS	L1100121-05	20190523060000	05/23/19 06:00	1	WG1285025
DUP	R3413959-3	20190523060200	05/23/19 06:02	1	WG1285025
OS	L1100354-01	20190523060400	05/23/19 06:04	1	WG1285025
MS	R3413959-4	20190523060500	05/23/19 06:05	1	WG1285025
CCV	FS3100-010523190610	20190523061000	05/23/19 06:10	1	
CCB	FS3100-010523190611	20190523061100	05/23/19 06:11	1	
WW-20190519-002-DAY 17	L1100960-01	20190523062400	05/23/19 06:24	1	WG1285025
CCV	FS3100-010523190630	20190523063000	05/23/19 06:30	1	
CCB	FS3100-010523190632	20190523063200	05/23/19 06:32	1	
OS	L1101317-06	20190523063800	05/23/19 06:38	1	WG1285025
DUP	R3413959-5	20190523064000	05/23/19 06:40	1	WG1285025
OS	L1101317-07	20190523064200	05/23/19 06:42	1	WG1285025
MS	R3413959-6	20190523064300	05/23/19 06:43	1	WG1285025
MSD	R3413959-7	20190523064500	05/23/19 06:45	1	WG1285025
CCV	FS3100-010523190650	20190523065000	05/23/19 06:50	1	
CCB	FS3100-010523190651	20190523065100	05/23/19 06:51	1	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/20/19 14:22
Instrument ID:	FS3100-01	**Calibration (end) date/time:**	05/20/19 14:30
Analytical Method:	350.1	**Analytical Run:**	052319_1

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
AMMONIA NITROGEN	10	9.939	99.40	5	5.106	102
File ID:		20190520142200			20190520142300	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/20/19 14:22
Instrument ID:	FS3100-01	**Calibration (end) date/time:**	05/20/19 14:30
Analytical Method:	350.1	**Analytical Run:**	052319_1

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
AMMONIA NITROGEN	2.50	2.544	102	1	.969	96.90
File ID:		20190520142500			20190520142700	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/20/19 14:22
Instrument ID:	FS3100-01	**Calibration (end) date/time:**	05/20/19 14:30
Analytical Method:	350.1	**Analytical Run:**	052319_1

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
AMMONIA NITROGEN	0.10	.07	70	0	-.029	
File ID:		20190520142800			20190520143000	

16C-IN

GENERAL CHEMISTRY
INITIAL CALIBRATION

SDG:	L1100960	**Calibration (begin) date/time:**	05/20/19 14:22
Instrument ID:	FS3100-01	**Calibration (end) date/time:**	05/20/19 14:30
Analytical Method:	350.1	**Analytical Run:**	052319_1

Analyte	Cal. Type	Weightage	Corr.	Coef1	Coef2	Slope	Incpt	% RSD
AMMONIA NITROGEN	0	5	0.99987			77988	2369.7	

Calibration Type

0 = Linear Regression

Weightage

5 = None

351.2 Wet Chemistry

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
WW-20190519-002-DAY 17

Lab Sample ID:	L1100960-01	**SDG:**	L1100960
Client Sample ID:	WW-20190519-002-DAY 17	**Collected Date/Time:**	05/19/19 11:30
Lab File ID:	20190523164608	**Received Date/Time:**	05/21/19 08:00
Instrument ID:	LACHAT6	**Preparation Date/Time:**	05/23/19 08:07
Analytical Batch:	WG1284745	**Analysis Date/Time:**	05/23/19 16:46
Dilution Factor:	1	**Prep Method:**	351.2/365.4
Analytical Method:	351.2	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	20 mL
Total Solids (%):	_____	**Final Wt/Vol:**	20 mL

Analyte	**CAS**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
		mg/l		*mg/l*	*mg/l*	*mg/l*
Kjeldahl Nitrogen, TKN	7727-37-9	0.456	B	0.0350	0.250	0.250

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414354-1

Lab Sample ID:	R3414354-1	**SDG:**	L1100960
Client Sample ID:	BLANK	**Collected Date/Time:**	_____
Lab File ID:	20190523162217	**Received Date/Time:**	_____
Instrument ID:	LACHAT6	**Preparation Date/Time:**	05/23/19 08:06
Analytical Batch:	WG1284745	**Analysis Date/Time:**	05/23/19 16:22
Dilution Factor:	1	**Prep Method:**	351.2/365.4
Analytical Method:	351.2	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	20 mL
Total Solids (%):	_____	**Final Wt/Vol:**	20 mL

Analyte	**CAS**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
		mg/l		*mg/l*	*mg/l*	*mg/l*
Kjeldahl Nitrogen, TKN	7727-37-9	0.121	J	0.0350	0.25	0.250

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414354-2

Lab Sample ID:	R3414354-2	**SDG:**	L1100960
Client Sample ID:	LCS	**Collected Date/Time:**	_____
Lab File ID:	20190523162329	**Received Date/Time:**	_____
Instrument ID:	LACHAT6	**Preparation Date/Time:**	05/23/19 08:06
Analytical Batch:	WG1284745	**Analysis Date/Time:**	05/23/19 16:23
Dilution Factor:	1	**Prep Method:**	351.2/365.4
Analytical Method:	351.2	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	20 mL
Total Solids (%):	_____	**Final Wt/Vol:**	20 mL

Analyte	**CAS**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
		mg/l		*mg/l*	*mg/l*	*mg/l*
Kjeldahl Nitrogen, TKN	7727-37-9	10.4		0.0350	0.25	0.250

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414354-3

Lab Sample ID:	R3414354-3	**SDG:**	L1100960
Client Sample ID:	DUP	**Collected Date/Time:**	05/15/19 12:50
Lab File ID:	20190523162553	**Received Date/Time:**	05/16/19 08:45
Instrument ID:	LACHAT6	**Preparation Date/Time:**	05/23/19 08:07
Analytical Batch:	WG1284745	**Analysis Date/Time:**	05/23/19 16:25
Dilution Factor:	1	**Prep Method:**	351.2/365.4
Analytical Method:	351.2	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	20 mL
Total Solids (%):	_____	**Final Wt/Vol:**	20 mL

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Kjeldahl Nitrogen, TKN	7727-37-9	8.66		0.0350	0.25	0.250

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414354-6

Lab Sample ID:	R3414354-6	**SDG:**	L1100960
Client Sample ID:	DUP	**Collected Date/Time:**	05/19/19 11:30
Lab File ID:	20190523164720	**Received Date/Time:**	05/21/19 08:00
Instrument ID:	LACHAT6	**Preparation Date/Time:**	05/23/19 08:07
Analytical Batch:	WG1284745	**Analysis Date/Time:**	05/23/19 16:47
Dilution Factor:	1	**Prep Method:**	351.2/365.4
Analytical Method:	351.2	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	20 mL
Total Solids (%):	_____	**Final Wt/Vol:**	20 mL

Analyte	**CAS**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
		mg/l		*mg/l*	*mg/l*	*mg/l*
Kjeldahl Nitrogen, TKN	7727-37-9	0.486		0.0350	0.25	0.250

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414354-4

Lab Sample ID:	R3414354-4	**SDG:**	L1100960
Client Sample ID:	MS	**Collected Date/Time:**	05/15/19 12:50
Lab File ID:	20190523162705	**Received Date/Time:**	05/16/19 08:45
Instrument ID:	LACHAT6	**Preparation Date/Time:**	05/23/19 08:07
Analytical Batch:	WG1284745	**Analysis Date/Time:**	05/23/19 16:27
Dilution Factor:	1	**Prep Method:**	351.2/365.4
Analytical Method:	351.2	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	20 mL
Total Solids (%):	_____	**Final Wt/Vol:**	20 mL

Analyte	**CAS**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
		mg/l		*mg/l*	*mg/l*	*mg/l*
Kjeldahl Nitrogen, TKN	7727-37-9	13.0		0.0350	0.25	0.250

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414354-7

Lab Sample ID:	R3414354-7	**SDG:**	L1100960
Client Sample ID:	MS	**Collected Date/Time:**	05/19/19 11:30
Lab File ID:	20190523165055	**Received Date/Time:**	05/21/19 08:00
Instrument ID:	LACHAT6	**Preparation Date/Time:**	05/23/19 08:07
Analytical Batch:	WG1284745	**Analysis Date/Time:**	05/23/19 16:50
Dilution Factor:	1	**Prep Method:**	351.2/365.4
Analytical Method:	351.2	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	20 mL
Total Solids (%):	_____	**Final Wt/Vol:**	20 mL

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Kjeldahl Nitrogen, TKN	7727-37-9	5.63		0.0350	0.25	0.250

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414354-5

Lab Sample ID:	R3414354-5	**SDG:**	L1100960
Client Sample ID:	MSD	**Collected Date/Time:**	05/15/19 12:50
Lab File ID:	20190523162816	**Received Date/Time:**	05/16/19 08:45
Instrument ID:	LACHAT6	**Preparation Date/Time:**	05/23/19 08:07
Analytical Batch:	WG1284745	**Analysis Date/Time:**	05/23/19 16:28
Dilution Factor:	1	**Prep Method:**	351.2/365.4
Analytical Method:	351.2	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	20 mL
Total Solids (%):	_____	**Final Wt/Vol:**	20 mL

Analyte	**CAS**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
		mg/l		*mg/l*	*mg/l*	*mg/l*
Kjeldahl Nitrogen, TKN	7727-37-9	13.5		0.0350	0.25	0.250

2-IN

CALIBRATION VERIFICATION

SDG:	L1100960	**Calibration (begin) date/time:**	04/08/19 13:21
Instrument ID:	LACHAT6	**Calibration (end) date/time:**	04/08/19 13:30
Analytical Method:	351.2	**Analytical Run:**	R052319_3
Concentration Units:	mg/L		

	ICV				**CCV**				**CCV**			
Sample ID:	LACHAT6052319162106				LACHAT6052319163413				LACHAT6052319164831			
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	True	Found	%R	%RSD
KJELDAHL NITROGEN, TKN	10	10.10	101		10	10.10	101		10	10.10	101	

ICV Limits: 90 - 110 CCV Limits: 90 - 110

2-IN

CALIBRATION VERIFICATION

SDG:	L1100960	**Calibration (begin) date/time:**	04/08/19 13:21
Instrument ID:	LACHAT6	**Calibration (end) date/time:**	04/08/19 13:30
Analytical Method:	351.2	**Analytical Run:**	R052319_3
Concentration Units:	mg/L		

CCV

Sample ID: LACHAT6052319165207

Analyte	True	Found	%R	%RSD
KJELDAHL NITROGEN, TKN	10	10.20	102	

ICV Limits: 90 - 110 CCV Limits: 90 - 110

3-IN BLANKS

SDG:	L1100960	**Calibration (begin) date/time:**	04/08/19 13:21
Instrument ID:	LACHAT6	**Calibration (end) date/time:**	04/08/19 13:30
Analytical Method:	351.2	**Analytical Run:**	R052319_3

Sample ID:	**BLANK Result**	**BLANK Qual**	**CCB Result**	**CCB Qual**	**CCB Result**	**CCB Qual**	**CCB Result**	**CCB Qual**
File ID:	20190523162217		20190523163525		20190523164944		20190523165319	
Analyte	mg/l		mg/L		mg/L		mg/L	
KJELDAHL NITROGEN, TKN	0.121	J	0.08440		0.05620		0.06060	

5A-IN

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1100960-01

SAMPLE NO.:
R3414354-4
R3414354-5

MS Sample / File ID:	R3414354-4 / 20190523162705	**SDG:**	L1100960
MSD Sample / File ID:	R3414354-5 / 20190523162816	**Analytical Batch:**	WG1284745
OS Sample / File ID:	L1099455-01 / 20190523162441	**Matrix:**	WW
Instrument ID:	LACHAT6		
Analytical Method:	351.2		

Analyte	Spike Amount	OS Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limits
	mg/l	*mg/l*	*mg/l*	*mg/l*	*%*	*%*		*%*	*%*	*%*
Kjeldahl Nitrogen, TKN	5.00	8.18	13.0	13.5	96.4	106	1	90.0 - 110	3.77	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

5A-IN

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1100960-01

SAMPLE NO.:
R3414354-7

MS Sample / File ID:	R3414354-7 / 20190523165055	**SDG:**	L1100960
MSD Sample / File ID:	_____	**Analytical Batch:**	WG1284745
OS Sample / File ID:	L1100960-01 / 20190523164608	**Matrix:**	WW
Instrument ID:	LACHAT6		
Analytical Method:	351.2		

Analyte	Spike Amount	OS Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limits
	mg/l	*mg/l*	*mg/l*		*%*	*%*		*%*	*%*	*%*
Kjeldahl Nitrogen, TKN	5.00	0.456	5.63		103		1	90.0 - 110		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

6-IN

DUPLICATES

L1100960-01

SAMPLE NO.:
R3414354-3

DUP Sample / File ID:	R3414354-3 / 20190523162553	**SDG:**	L1100960
OS Sample / File ID:	L1099455-01 / 20190523162441	**Analytical Batch:**	WG1284745
Instrument ID:	LACHAT6	**Dilution Factor:**	1
Analytical Method:	351.2	**Matrix:**	WW

Analyte	**OS Result**	**DUP Result**	**RPD**	**RPD Limits**
	mg/l	*mg/l*	*mg/l*	*mg/l*
Kjeldahl Nitrogen, TKN	8.18	8.66	5.70	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

6-IN

DUPLICATES

L1100960-01

SAMPLE NO.:
R3414354-6

DUP Sample / File ID:	R3414354-6 / 20190523164720	**SDG:**	L1100960
OS Sample / File ID:	L1100960-01 / 20190523164608	**Analytical Batch:**	WG1284745
Instrument ID:	LACHAT6	**Dilution Factor:**	1
Analytical Method:	351.2	**Matrix:**	WW

Analyte	**OS Result**	**DUP Result**	**RPD**	**RPD Limits**
	mg/l	*mg/l*	*mg/l*	*mg/l*
Kjeldahl Nitrogen, TKN	0.456	0.486	6.37	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

7-IN

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
RECOVERY

L1100960-01

SAMPLE NO.:
R3414354-2

LCS Sample / File ID:	R3414354-2 / 20190523162329	**SDG:**	L1100960
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1284745
Instrument ID:	LACHAT6	**Dilution Factor:**	1
Analytical Method:	351.2	**Matrix:**	WW

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limits
	mg/l	*mg/l*		*%*	*%*	*%*	*%*	*%*
Kjeldahl Nitrogen, TKN	10.0	10.4		104		90.0 - 110		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

12-IN

ANALYSIS LOG

SDG:	L1100960	**Analytical Method:**	351.2
Instrument ID:	LACHAT6	**Calibration Start Date:**	04/08/19 13:21
Analytical Run:	CAL040819_1	**Calibration End Date:**	04/08/19 13:30

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
CAL	20.0	20190408132143	04/08/19 13:21	1	
CAL	10.0	20190408132256	04/08/19 13:22	1	
CAL	5.0	20190408132408	04/08/19 13:24	1	
CAL	2.5	20190408132519	04/08/19 13:25	1	
CAL	1.0	20190408132632	04/08/19 13:26	1	
CAL	0.5	20190408132743	04/08/19 13:27	1	
CAL	0.25	20190408132855	04/08/19 13:28	1	
CAL	0.0	20190408133007	04/08/19 13:30	1	

12-IN

ANALYSIS LOG

SDG:	L1100960	**Analytical Method:**	351.2
Instrument ID:	LACHAT6	**Calibration Start Date:**	04/08/19 13:21
Analytical Run:	R052319_3	**Calibration End Date:**	04/08/19 13:30

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
ICV	LACHAT6052319162106	20190523162106	05/23/19 16:21	1	
BLANK	R3414354-1	20190523162217	05/23/19 16:22	1	WG1284745
LCS	R3414354-2	20190523162329	05/23/19 16:23	1	WG1284745
OS	L1099455-01	20190523162441	05/23/19 16:24	1	WG1284745
DUP	R3414354-3	20190523162553	05/23/19 16:25	1	WG1284745
MS	R3414354-4	20190523162705	05/23/19 16:27	1	WG1284745
MSD	R3414354-5	20190523162816	05/23/19 16:28	1	WG1284745
CCV	LACHAT6052319163413	20190523163413	05/23/19 16:34	1	
CCB	LACHAT6052319163525	20190523163525	05/23/19 16:35	1	
WW-20190519-002-DAY 17	L1100960-01	20190523164608	05/23/19 16:46	1	WG1284745
DUP	R3414354-6	20190523164720	05/23/19 16:47	1	WG1284745
CCV	LACHAT6052319164831	20190523164831	05/23/19 16:48	1	
CCB	LACHAT6052319164944	20190523164944	05/23/19 16:49	1	
MS	R3414354-7	20190523165055	05/23/19 16:50	1	WG1284745
CCV	LACHAT6052319165207	20190523165207	05/23/19 16:52	1	
CCB	LACHAT6052319165319	20190523165319	05/23/19 16:53	1	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	04/08/19 13:21
Instrument ID:	LACHAT6	**Calibration (end) date/time:**	04/08/19 13:30
Analytical Method:	351.2	**Analytical Run:**	R052319_3

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/L	mg/L	%	mg/L	mg/L	%
KJELDAHL NITROGEN, TKN	20	19.5988	98	10	10.3378	103
File ID:		20190408132143			20190408132256	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	04/08/19 13:21
Instrument ID:	LACHAT6	**Calibration (end) date/time:**	04/08/19 13:30
Analytical Method:	351.2	**Analytical Run:**	R052319_3

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/L	mg/L	%	mg/L	mg/L	%
KJELDAHL NITROGEN, TKN	5	4.8883	97.80	2.50	2.44075	97.60
File ID:		20190408132408			20190408132519	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	04/08/19 13:21
Instrument ID:	LACHAT6	**Calibration (end) date/time:**	04/08/19 13:30
Analytical Method:	351.2	**Analytical Run:**	R052319_3

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/L	mg/L	%	mg/L	mg/L	%
KJELDAHL NITROGEN, TKN	1	1.17445	117	0.50	.50035	100
File ID:		20190408132632			20190408132743	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	04/08/19 13:21
Instrument ID:	LACHAT6	**Calibration (end) date/time:**	04/08/19 13:30
Analytical Method:	351.2	**Analytical Run:**	R052319_3

Analyte	**Std Conc** mg/L	**Result** mg/L	**Rec.** %	**Std Conc** mg/L	**Result** mg/L	**Rec.** %
KJELDAHL NITROGEN, TKN	0.25	.117625	47.10	0	.095575	
File ID:		20190408132855			20190408133007	

16C-IN

GENERAL CHEMISTRY
INITIAL CALIBRATION

SDG:	L1100960	**Calibration (begin) date/time:**	04/08/19 13:21
Instrument ID:	LACHAT6	**Calibration (end) date/time:**	04/08/19 13:30
Analytical Method:	351.2	**Analytical Run:**	R052319_3

Analyte	Cal. Type	Weightage	Corr.	Coef1	Coef2	Slope	Incpt	% RSD
KJELDAHL NITROGEN, TKN	5	1	0.99969			0.315	0.0373	

Calibration Type

5 = Weighted Linear Regression

Weightage

1 = Inverse Concentration

365.4 Wet Chemistry

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
WW-20190519-002-DAY 17

Lab Sample ID:	L1100960-01	**SDG:**	L1100960
Client Sample ID:	WW-20190519-002-DAY 17	**Collected Date/Time:**	05/19/19 11:30
Lab File ID:	20190523173254	**Received Date/Time:**	05/21/19 08:00
Instrument ID:	LACHAT3	**Preparation Date/Time:**	05/23/19 08:07
Analytical Batch:	WG1285797	**Analysis Date/Time:**	05/23/19 17:32
Dilution Factor:	1	**Prep Method:**	351.2/365.4
Analytical Method:	365.4	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	20 mL
Total Solids (%):	_____	**Final Wt/Vol:**	20 mL

Analyte	**CAS**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
		mg/l		*mg/l*	*mg/l*	*mg/l*
Phosphorus,Total	7723-14-0	0.108		0.0350	0.100	0.100

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414374-1

Lab Sample ID:	R3414374-1	**SDG:**	L1100960
Client Sample ID:	BLANK	**Collected Date/Time:**	_____
Lab File ID:	20190523170719	**Received Date/Time:**	_____
Instrument ID:	LACHAT3	**Preparation Date/Time:**	05/23/19 08:06
Analytical Batch:	WG1285797	**Analysis Date/Time:**	05/23/19 17:07
Dilution Factor:	1	**Prep Method:**	351.2/365.4
Analytical Method:	365.4	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	20 mL
Total Solids (%):	_____	**Final Wt/Vol:**	20 mL

Analyte	**CAS**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
		mg/l		*mg/l*	*mg/l*	*mg/l*
Phosphorus,Total	7723-14-0	U		0.0350	0.10	0.100

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414374-2

Lab Sample ID:	R3414374-2	**SDG:**	L1100960
Client Sample ID:	LCS	**Collected Date/Time:**	_____
Lab File ID:	20190523170836	**Received Date/Time:**	_____
Instrument ID:	LACHAT3	**Preparation Date/Time:**	05/23/19 08:06
Analytical Batch:	WG1285797	**Analysis Date/Time:**	05/23/19 17:08
Dilution Factor:	1	**Prep Method:**	351.2/365.4
Analytical Method:	365.4	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	20 mL
Total Solids (%):	_____	**Final Wt/Vol:**	20 mL

Analyte	**CAS**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
		mg/l		*mg/l*	*mg/l*	*mg/l*
Phosphorus,Total	7723-14-0	1.81		0.0350	0.10	0.100

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414374-3

Lab Sample ID:	R3414374-3	**SDG:**	L1100960
Client Sample ID:	DUP	**Collected Date/Time:**	05/15/19 12:50
Lab File ID:	20190523171459	**Received Date/Time:**	05/16/19 08:45
Instrument ID:	LACHAT3	**Preparation Date/Time:**	05/23/19 08:07
Analytical Batch:	WG1285797	**Analysis Date/Time:**	05/23/19 17:14
Dilution Factor:	1	**Prep Method:**	351.2/365.4
Analytical Method:	365.4	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	20 mL
Total Solids (%):	_____	**Final Wt/Vol:**	20 mL

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Phosphorus,Total	7723-14-0	0.870		0.0350	0.10	0.100

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414374-6

Lab Sample ID:	R3414374-6	**SDG:**	L1100960
Client Sample ID:	DUP	**Collected Date/Time:**	05/19/19 11:30
Lab File ID:	20190523173411	**Received Date/Time:**	05/21/19 08:00
Instrument ID:	LACHAT3	**Preparation Date/Time:**	05/23/19 08:07
Analytical Batch:	WG1285797	**Analysis Date/Time:**	05/23/19 17:34
Dilution Factor:	1	**Prep Method:**	351.2/365.4
Analytical Method:	365.4	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	20 mL
Total Solids (%):	_____	**Final Wt/Vol:**	20 mL

Analyte	**CAS**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
		mg/l		*mg/l*	*mg/l*	*mg/l*
Phosphorus,Total	7723-14-0	0.0999	J	0.0350	0.10	0.100

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414374-4

Lab Sample ID:	R3414374-4	**SDG:**	L1100960
Client Sample ID:	MS	**Collected Date/Time:**	05/15/19 12:50
Lab File ID:	20190523171616	**Received Date/Time:**	05/16/19 08:45
Instrument ID:	LACHAT3	**Preparation Date/Time:**	05/23/19 08:07
Analytical Batch:	WG1285797	**Analysis Date/Time:**	05/23/19 17:16
Dilution Factor:	1	**Prep Method:**	351.2/365.4
Analytical Method:	365.4	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	20 mL
Total Solids (%):	_____	**Final Wt/Vol:**	20 mL

Analyte	**CAS**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
		mg/l		*mg/l*	*mg/l*	*mg/l*
Phosphorus,Total	7723-14-0	3.35		0.0350	0.10	0.100

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414374-7

Lab Sample ID:	R3414374-7	**SDG:**	L1100960
Client Sample ID:	MS	**Collected Date/Time:**	05/19/19 11:30
Lab File ID:	20190523173801	**Received Date/Time:**	05/21/19 08:00
Instrument ID:	LACHAT3	**Preparation Date/Time:**	05/23/19 08:07
Analytical Batch:	WG1285797	**Analysis Date/Time:**	05/23/19 17:38
Dilution Factor:	1	**Prep Method:**	351.2/365.4
Analytical Method:	365.4	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	20 mL
Total Solids (%):	_____	**Final Wt/Vol:**	20 mL

Analyte	**CAS**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
		mg/l		*mg/l*	*mg/l*	*mg/l*
Phosphorus,Total	7723-14-0	2.65		0.0350	0.10	0.100

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414374-5

Lab Sample ID:	R3414374-5	**SDG:**	L1100960
Client Sample ID:	MSD	**Collected Date/Time:**	05/15/19 12:50
Lab File ID:	20190523171732	**Received Date/Time:**	05/16/19 08:45
Instrument ID:	LACHAT3	**Preparation Date/Time:**	05/23/19 08:07
Analytical Batch:	WG1285797	**Analysis Date/Time:**	05/23/19 17:17
Dilution Factor:	1	**Prep Method:**	351.2/365.4
Analytical Method:	365.4	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	20 mL
Total Solids (%):	_____	**Final Wt/Vol:**	20 mL

Analyte	**CAS**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
		mg/l		*mg/l*	*mg/l*	*mg/l*
Phosphorus,Total	7723-14-0	3.39		0.0350	0.10	0.100

2-IN

CALIBRATION VERIFICATION

SDG:	L1100960	**Calibration (begin) date/time:**	05/14/19 15:36
Instrument ID:	LACHAT3	**Calibration (end) date/time:**	05/14/19 15:43
Analytical Method:	365.4	**Analytical Run:**	R052319_3
Concentration Units:	mg/L		

	ICV				**CCV**				**CCV**			
Sample ID:	LACHAT3052319170602				LACHAT3052319172005				LACHAT3052319173527			
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	True	Found	%R	%RSD
PHOSPHORUS,TOTAL	2.50	2.450	98		2.50	2.450	98		2.50	2.440	97.60	

ICV Limits: 90 - 110 CCV Limits: 90 - 110

2-IN

CALIBRATION VERIFICATION

SDG:	L1100960	**Calibration (begin) date/time:**	05/14/19 15:36
Instrument ID:	LACHAT3	**Calibration (end) date/time:**	05/14/19 15:43
Analytical Method:	365.4	**Analytical Run:**	R052319_3
Concentration Units:	mg/L		

CCV

Sample ID: LACHAT3052319174308

Analyte	True	Found	%R	%RSD
PHOSPHORUS,TOTAL	2.50	2.440	97.60	

ICV Limits: 90 - 110 CCV Limits: 90 - 110

3-IN

BLANKS

SDG:	L1100960	**Calibration (begin) date/time:**	05/14/19 15:36
Instrument ID:	LACHAT3	**Calibration (end) date/time:**	05/14/19 15:43
Analytical Method:	365.4	**Analytical Run:**	R052319_3

Sample ID:	**BLANK Result**	**BLANK Qual**	**CCB Result**	**CCB Qual**	**CCB Result**	**CCB Qual**	**CCB Result**	**CCB Qual**
File ID:	20190523170719		20190523172122		20190523173644		20190523174425	
Analyte	mg/l		mg/L		mg/L		mg/L	
PHOSPHORUS,TOTAL	U		-0.04180		-0.1160		0.02220	

5A-IN

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1100960-01

SAMPLE NO.:
R3414374-4
R3414374-5

MS Sample / File ID:	R3414374-4 / 20190523171616	**SDG:**	L1100960
MSD Sample / File ID:	R3414374-5 / 20190523171732	**Analytical Batch:**	WG1285797
OS Sample / File ID:	L1099455-01 / 20190523171342	**Matrix:**	WW
Instrument ID:	LACHAT3		
Analytical Method:	365.4		

Analyte	Spike Amount	OS Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limits
	mg/l	*mg/l*	*mg/l*	*mg/l*	*%*	*%*		*%*	*%*	*%*
Phosphorus,Total	2.50	0.807	3.35	3.39	102	103	1	90.0 - 110	1.19	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

5A-IN

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1100960-01

SAMPLE NO.:
R3414374-7

MS Sample / File ID:	R3414374-7 / 20190523173801	**SDG:**	L1100960
MSD Sample / File ID:	_____	**Analytical Batch:**	WG1285797
OS Sample / File ID:	L1100960-01 / 20190523173254	**Matrix:**	WW
Instrument ID:	LACHAT3		
Analytical Method:	365.4		

Analyte	Spike Amount	OS Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limits
	mg/l	*mg/l*	*mg/l*		*%*	*%*		*%*	*%*	*%*
Phosphorus,Total	2.50	0.108	2.65		102		1	90.0 - 110		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

6-IN

DUPLICATES

L1100960-01

SAMPLE NO.:
R3414374-3

DUP Sample / File ID:	R3414374-3 / 20190523171459	**SDG:**	L1100960
OS Sample / File ID:	L1099455-01 / 20190523171342	**Analytical Batch:**	WG1285797
Instrument ID:	LACHAT3	**Dilution Factor:**	1
Analytical Method:	365.4	**Matrix:**	WW

Analyte	**OS Result**	**DUP Result**	**RPD**	**RPD Limits**
	mg/l	*mg/l*	*mg/l*	*mg/l*
Phosphorus,Total	0.807	0.870	7.51	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

6-IN

DUPLICATES

L1100960-01

SAMPLE NO.:
R3414374-6

DUP Sample / File ID:	R3414374-6 / 20190523173411	**SDG:**	L1100960
OS Sample / File ID:	L1100960-01 / 20190523173254	**Analytical Batch:**	WG1285797
Instrument ID:	LACHAT3	**Dilution Factor:**	1
Analytical Method:	365.4	**Matrix:**	WW

Analyte	**OS Result**	**DUP Result**	**RPD**	**RPD Limits**
	mg/l	*mg/l*	*mg/l*	*mg/l*
Phosphorus,Total	0.108	0.0999	7.79	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

7-IN

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
RECOVERY

L1100960-01

SAMPLE NO.:
R3414374-2

LCS Sample / File ID:	R3414374-2 / 20190523170836	**SDG:**	L1100960
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1285797
Instrument ID:	LACHAT3	**Dilution Factor:**	1
Analytical Method:	365.4	**Matrix:**	WW

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limits
	mg/l	*mg/l*		*%*	*%*	*%*	*%*	*%*
Phosphorus,Total	2.00	1.81		90.5		90.0 - 110		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

12-IN

ANALYSIS LOG

SDG:	L1100960	**Analytical Method:**	365.4
Instrument ID:	LACHAT3	**Calibration Start Date:**	05/14/19 15:36
Analytical Run:	CAL051419_1	**Calibration End Date:**	05/14/19 15:43

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
CAL 5.0		20190514153648	05/14/19 15:36	1	
CAL 2.5		20190514153805	05/14/19 15:38	1	
CAL 1.0		20190514153922	05/14/19 15:39	1	
CAL 0.5		20190514154038	05/14/19 15:40	1	
CAL 0.1		20190514154155	05/14/19 15:41	1	
CAL 0.0		20190514154311	05/14/19 15:43	1	

12-IN

ANALYSIS LOG

SDG:	L1100960	**Analytical Method:**	365.4
Instrument ID:	LACHAT3	**Calibration Start Date:**	05/14/19 15:36
Analytical Run:	R052319_3	**Calibration End Date:**	05/14/19 15:43

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
ICV	LACHAT3052319170602	20190523170602	05/23/19 17:06	1	
BLANK	R3414374-1	20190523170719	05/23/19 17:07	1	WG1285797
LCS	R3414374-2	20190523170836	05/23/19 17:08	1	WG1285797
OS	L1099455-01	20190523171342	05/23/19 17:13	1	WG1285797
DUP	R3414374-3	20190523171459	05/23/19 17:14	1	WG1285797
MS	R3414374-4	20190523171616	05/23/19 17:16	1	WG1285797
MSD	R3414374-5	20190523171732	05/23/19 17:17	1	WG1285797
CCV	LACHAT3052319172005	20190523172005	05/23/19 17:20	1	
CCB	LACHAT3052319172122	20190523172122	05/23/19 17:21	1	
WW-20190519-002-DAY 17	L1100960-01	20190523173254	05/23/19 17:32	1	WG1285797
DUP	R3414374-6	20190523173411	05/23/19 17:34	1	WG1285797
CCV	LACHAT3052319173527	20190523173527	05/23/19 17:35	1	
CCB	LACHAT3052319173644	20190523173644	05/23/19 17:36	1	
MS	R3414374-7	20190523173801	05/23/19 17:38	1	WG1285797
CCV	LACHAT3052319174308	20190523174308	05/23/19 17:43	1	
CCB	LACHAT3052319174425	20190523174425	05/23/19 17:44	1	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/14/19 15:36
Instrument ID:	LACHAT3	**Calibration (end) date/time:**	05/14/19 15:43
Analytical Method:	365.4	**Analytical Run:**	R052319_3

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/L	mg/L	%	mg/L	mg/L	%
PHOSPHORUS,TOTAL	5	4.87679	97.50	2.50	2.50139	100
File ID:		20190514153648			20190514153805	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/14/19 15:36
Instrument ID:	LACHAT3	**Calibration (end) date/time:**	05/14/19 15:43
Analytical Method:	365.4	**Analytical Run:**	R052319_3

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/L	mg/L	%	mg/L	mg/L	%
PHOSPHORUS,TOTAL	1	1.03397	103	0.50	.53003	106
File ID:		20190514153922			20190514154038	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	05/14/19 15:36
Instrument ID:	LACHAT3	**Calibration (end) date/time:**	05/14/19 15:43
Analytical Method:	365.4	**Analytical Run:**	R052319_3

Analyte	**Std Conc** mg/L	**Result** mg/L	**Rec.** %	**Std Conc** mg/L	**Result** mg/L	**Rec.** %
PHOSPHORUS,TOTAL	0.10	.139976	140	0	-.045616	
File ID:		20190514154155			20190514154311	

16C-IN

GENERAL CHEMISTRY
INITIAL CALIBRATION

SDG:	L1100960	**Calibration (begin) date/time:**	05/14/19 15:36
Instrument ID:	LACHAT3	**Calibration (end) date/time:**	05/14/19 15:43
Analytical Method:	365.4	**Analytical Run:**	R052319_3

Analyte	Cal. Type	Weightage	Corr.	Coef1	Coef2	Slope	Incpt	% RSD
PHOSPHORUS,TOTAL	5	1	0.99955			0.222	-0.00721	

Calibration Type

5 = Weighted Linear Regression

Weightage

1 = Inverse Concentration

410.4 Wet Chemistry

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
WW-20190519-002-DAY 17

Lab Sample ID:	L1100960-01	**SDG:**	L1100960
Client Sample ID:	WW-20190519-002-DAY 17	**Collected Date/Time:**	05/19/19 11:30
Lab File ID:	20190522130835	**Received Date/Time:**	05/21/19 08:00
Instrument ID:	DR6000-1	**Preparation Date/Time:**	05/22/19 07:35
Analytical Batch:	WG1284594	**Analysis Date/Time:**	05/22/19 13:08
Dilution Factor:	1	**Prep Method:**	410.1
Analytical Method:	410.4	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	2.0 mL
Total Solids (%):	_____	**Final Wt/Vol:**	2.0 mL

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
COD	E-10117	22.6	P1	3.00	10.0	10.0

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413665-1

Lab Sample ID:	R3413665-1	**SDG:**	L1100960
Client Sample ID:	BLANK	**Collected Date/Time:**	_____
Lab File ID:	20190522130017	**Received Date/Time:**	_____
Instrument ID:	DR6000-1	**Preparation Date/Time:**	05/22/19 07:35
Analytical Batch:	WG1284594	**Analysis Date/Time:**	05/22/19 13:00
Dilution Factor:	1	**Prep Method:**	410.1
Analytical Method:	410.4	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	2.0 mL
Total Solids (%):	_____	**Final Wt/Vol:**	2.0 mL

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
COD	E-10117	U		3.00	10	10.0

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413665-2

Lab Sample ID:	R3413665-2	**SDG:**	L1100960
Client Sample ID:	LCS	**Collected Date/Time:**	_____
Lab File ID:	20190522130037	**Received Date/Time:**	_____
Instrument ID:	DR6000-1	**Preparation Date/Time:**	05/22/19 07:35
Analytical Batch:	WG1284594	**Analysis Date/Time:**	05/22/19 13:00
Dilution Factor:	1	**Prep Method:**	410.1
Analytical Method:	410.4	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	2.0 mL
Total Solids (%):	_____	**Final Wt/Vol:**	2.0 mL

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
COD	E-10117	220		3.00	10	10.0

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413665-5

Lab Sample ID:	R3413665-5	**SDG:**	L1100960
Client Sample ID:	DUP	**Collected Date/Time:**	05/15/19 09:00
Lab File ID:	20190522130209	**Received Date/Time:**	05/15/19 17:37
Instrument ID:	DR6000-1	**Preparation Date/Time:**	05/22/19 07:35
Analytical Batch:	WG1284594	**Analysis Date/Time:**	05/22/19 13:02
Dilution Factor:	1	**Prep Method:**	410.1
Analytical Method:	410.4	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	2.0 mL
Total Solids (%):	1580	**Final Wt/Vol:**	2.0 mL

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
COD	E-10117	354		3.00	10	10.0

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413665-6

Lab Sample ID:	R3413665-6	**SDG:**	L1100960
Client Sample ID:	DUP	**Collected Date/Time:**	05/19/19 11:30
Lab File ID:	20190522130845	**Received Date/Time:**	05/21/19 08:00
Instrument ID:	DR6000-1	**Preparation Date/Time:**	05/22/19 07:35
Analytical Batch:	WG1284594	**Analysis Date/Time:**	05/22/19 13:08
Dilution Factor:	1	**Prep Method:**	410.1
Analytical Method:	410.4	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	2.0 mL
Total Solids (%):	_____	**Final Wt/Vol:**	2.0 mL

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
COD	E-10117	12.0	P1	3.00	10	10.0

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413665-3

Lab Sample ID:	R3413665-3	**SDG:**	L1100960
Client Sample ID:	MS	**Collected Date/Time:**	05/15/19 09:00
Lab File ID:	20190522130133	**Received Date/Time:**	05/15/19 17:37
Instrument ID:	DR6000-1	**Preparation Date/Time:**	05/22/19 07:35
Analytical Batch:	WG1284594	**Analysis Date/Time:**	05/22/19 13:01
Dilution Factor:	1	**Prep Method:**	410.1
Analytical Method:	410.4	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	2.0 mL
Total Solids (%):	97.0	**Final Wt/Vol:**	2.0 mL

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
COD	E-10117	907	J5	3.00	10	10.0

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413665-4

Lab Sample ID:	R3413665-4	**SDG:**	L1100960
Client Sample ID:	MSD	**Collected Date/Time:**	05/15/19 09:00
Lab File ID:	20190522130143	**Received Date/Time:**	05/15/19 17:37
Instrument ID:	DR6000-1	**Preparation Date/Time:**	05/22/19 07:35
Analytical Batch:	WG1284594	**Analysis Date/Time:**	05/22/19 13:01
Dilution Factor:	1	**Prep Method:**	410.1
Analytical Method:	410.4	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	2.0 mL
Total Solids (%):	97.0	**Final Wt/Vol:**	2.0 mL

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
COD	E-10117	941	J5	3.00	10	10.0

2-IN

CALIBRATION VERIFICATION

SDG:	L1100960	**Calibration (begin) date/time:**	02/21/19 11:00
Instrument ID:	DR6000-1	**Calibration (end) date/time:**	02/21/19 11:00
Analytical Method:	410.4	**Analytical Run:**	WG1284594
Concentration Units:	mg/L		

	ICV				**CCV**				**CCV**			
Sample ID:	DR6000-1052219125957				DR6000-1052219130410				DR6000-1052219130716			
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	True	Found	%R	%RSD
COD	400	414.3	104		400	410.68	103		400	412.38	103	

ICV Limits: 95 - 105 CCV Limits: 95 - 105

2-IN

CALIBRATION VERIFICATION

SDG:	L1100960	**Calibration (begin) date/time:**	02/21/19 11:00
Instrument ID:	DR6000-1	**Calibration (end) date/time:**	02/21/19 11:00
Analytical Method:	410.4	**Analytical Run:**	WG1284594
Concentration Units:	mg/L		

CCV

Sample ID: DR6000-1052219130858

Analyte	True	Found	%R	%RSD
COD	400	411.53	103	

ICV Limits: 95 - 105 CCV Limits: 95 - 105

3-IN BLANKS

SDG:	L1100960	**Calibration (begin) date/time:**	02/21/19 11:00
Instrument ID:	DR6000-1	**Calibration (end) date/time:**	02/21/19 11:00
Analytical Method:	410.4	**Analytical Run:**	WG1284594

Sample ID:	**BLANK Result**	**BLANK Qual**	**CCB Result**	**CCB Qual**	**CCB Result**	**CCB Qual**	**CCB Result**	**CCB Qual**
File ID:	20190522130017		20190522130425		20190522130726		20190522130911	
Analyte	mg/l		mg/L		mg/L		mg/L	
COD	U		-8.712		-7.469		-5.496	

5A-IN

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1100960-01

SAMPLE NO.:
R3413665-3
R3413665-4

MS Sample / File ID:	R3413665-3 / 20190522130133	**SDG:**	L1100960
MSD Sample / File ID:	R3413665-4 / 20190522130143	**Analytical Batch:**	WG1284594
OS Sample / File ID:	L1099223-06 / 20190522130121	**Matrix:**	WW
Instrument ID:	DR6000-1		
Analytical Method:	410.4		

Analyte	Spike Amount	OS Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limits
	mg/l	*mg/l*	*mg/l*	*mg/l*	*%*	*%*		*%*	*%*	*%*
COD	400	11.9	907	941	224*	232*	1	80.0 - 120	3.60	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

6-IN

DUPLICATES

L1100960-01

SAMPLE NO.:
R3413665-5

DUP Sample / File ID:	R3413665-5 / 20190522130209	**SDG:**	L1100960
OS Sample / File ID:	L1099223-07 / 20190522130158	**Analytical Batch:**	WG1284594
Instrument ID:	DR6000-1	**Dilution Factor:**	1
Analytical Method:	410.4	**Matrix:**	WW

Analyte	OS Result	DUP Result	RPD	RPD Limits
	mg/l	*mg/l*	*mg/l*	*mg/l*
COD	350	354	1.31	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

6-IN

DUPLICATES

L1100960-01

SAMPLE NO.:
R3413665-6

DUP Sample / File ID:	R3413665-6 / 20190522130845	**SDG:**	L1100960
OS Sample / File ID:	L1100960-01 / 20190522130835	**Analytical Batch:**	WG1284594
Instrument ID:	DR6000-1	**Dilution Factor:**	1
Analytical Method:	410.4	**Matrix:**	WW

Analyte	OS Result	DUP Result	RPD	RPD Limits
	mg/l	*mg/l*	*mg/l*	*mg/l*
COD	22.6	12.0	61.4*	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

7-IN

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
RECOVERY

L1100960-01

SAMPLE NO.:
R3413665-2

LCS Sample / File ID:	R3413665-2 / 20190522130037	**SDG:**	L1100960
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1284594
Instrument ID:	DR6000-1	**Dilution Factor:**	1
Analytical Method:	410.4	**Matrix:**	WW

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limits
	mg/l	*mg/l*		*%*	*%*	*%*	*%*	*%*
COD	222	220		99.1		90.0 - 110		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

12-IN

ANALYSIS LOG

SDG:	L1100960	**Analytical Method:**	410.4
Instrument ID:	DR6000-1	**Calibration Start Date:**	02/21/19 11:00
Analytical Run:	WG1242469	**Calibration End Date:**	02/21/19 11:00

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
CAL	0.000	33	02/21/19 11:00	1	
CAL	10.000	34	02/21/19 11:00	1	
CAL	50.000	35	02/21/19 11:00	1	
CAL	100.000	36	02/21/19 11:00	1	
CAL	400.000	37	02/21/19 11:00	1	
CAL	500.000	38	02/21/19 11:00	1	
CAL	1000.000	39	02/21/19 11:00	1	

12-IN

ANALYSIS LOG

SDG:	L1100960	**Analytical Method:**	410.4
Instrument ID:	DR6000-1	**Calibration Start Date:**	02/21/19 11:00
Analytical Run:	WG1284594	**Calibration End Date:**	02/21/19 11:00

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
ICV	DR6000-1052219125957	20190522125957	05/22/19 12:59	1	
BLANK	R3413665-1	20190522130017	05/22/19 13:00	1	WG1284594
LCS	R3413665-2	20190522130037	05/22/19 13:00	1	WG1284594
OS	L1099223-06	20190522130121	05/22/19 13:01	1	WG1284594
MS	R3413665-3	20190522130133	05/22/19 13:01	1	WG1284594
MSD	R3413665-4	20190522130143	05/22/19 13:01	1	WG1284594
OS	L1099223-07	20190522130158	05/22/19 13:01	1	WG1284594
DUP	R3413665-5	20190522130209	05/22/19 13:02	1	WG1284594
CCV	DR6000-1052219130410	20190522130410	05/22/19 13:04	1	
CCB	DR6000-1052219130425	20190522130425	05/22/19 13:04	1	
CCV	DR6000-1052219130716	20190522130716	05/22/19 13:07	1	
CCB	DR6000-1052219130726	20190522130726	05/22/19 13:07	1	
WW-20190519-002-DAY 17	L1100960-01	20190522130835	05/22/19 13:08	1	WG1284594
DUP	R3413665-6	20190522130845	05/22/19 13:08	1	WG1284594
CCV	DR6000-1052219130858	20190522130858	05/22/19 13:08	1	
CCB	DR6000-1052219130911	20190522130911	05/22/19 13:09	1	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	02/21/19 11:00
Instrument ID:	DR6000-1	**Calibration (end) date/time:**	02/21/19 11:00
Analytical Method:	410.4	**Analytical Run:**	WG1284594

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
COD	10	9.600413	96	50	48.674867	97.30
File ID:		34			35	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	02/21/19 11:00
Instrument ID:	DR6000-1	**Calibration (end) date/time:**	02/21/19 11:00
Analytical Method:	410.4	**Analytical Run:**	WG1284594

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
COD	100	105.115745	105	400	402.515756	101
File ID:		36			37	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	02/21/19 11:00
Instrument ID:	DR6000-1	**Calibration (end) date/time:**	02/21/19 11:00
Analytical Method:	410.4	**Analytical Run:**	WG1284594

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
COD	500	498.031088	99.60	1000	999.486581	99.90
File ID:		38			39	

16C-IN

GENERAL CHEMISTRY
INITIAL CALIBRATION

SDG:	L1100960	**Calibration (begin) date/time:**	02/21/19 11:00
Instrument ID:	DR6000-1	**Calibration (end) date/time:**	02/21/19 11:00
Analytical Method:	410.4	**Analytical Run:**	WG1284594

Analyte	Cal. Type	Weightage	Corr.	Coef1	Coef2	Slope	Incpt	% RSD
COD	0	5	0.999969			2170.803	-3.424405	

Calibration Type

0 = Linear Regression

Weightage

5 = None

4500S2 D-2011 Wet Chemistry

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
WW-20190519-002-DAY 17

Lab Sample ID:	L1100960-01	**SDG:**	L1100960
Client Sample ID:	WW-20190519-002-DAY 17	**Collected Date/Time:**	05/19/19 11:30
Lab File ID:	20190521180929	**Received Date/Time:**	05/21/19 08:00
Instrument ID:	DR6000-1	**Preparation Date/Time:**	05/21/19 18:09
Analytical Batch:	WG1284207	**Analysis Date/Time:**	05/21/19 18:09
Dilution Factor:	1	**Prep Method:**	4500S2 D-2011
Analytical Method:	4500S2 D-2011	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	7.5 mL
Total Solids (%):	_____	**Final Wt/Vol:**	7.5 mL

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Sulfide	18496-25-8	U		0.00650	0.0500	0.0500

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413408-1

Lab Sample ID:	R3413408-1	**SDG:**	L1100960
Client Sample ID:	BLANK	**Collected Date/Time:**	_____
Lab File ID:	20190521180250	**Received Date/Time:**	_____
Instrument ID:	DR6000-1	**Preparation Date/Time:**	05/21/19 18:02
Analytical Batch:	WG1284207	**Analysis Date/Time:**	05/21/19 18:02
Dilution Factor:	1	**Prep Method:**	4500S2 D-2011/9030B/9034
Analytical Method:	4500S2 D-2011	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	7.5 mL
Total Solids (%):	_____	**Final Wt/Vol:**	7.5 mL

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Sulfide	18496-25-8	U		0.00650	0.05	0.0500

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413408-2

Lab Sample ID:	R3413408-2	**SDG:**	L1100960
Client Sample ID:	LCS	**Collected Date/Time:**	_____
Lab File ID:	20190521180305	**Received Date/Time:**	_____
Instrument ID:	DR6000-1	**Preparation Date/Time:**	05/21/19 18:03
Analytical Batch:	WG1284207	**Analysis Date/Time:**	05/21/19 18:03
Dilution Factor:	1	**Prep Method:**	4500S2 D-2011/9030B/9034
Analytical Method:	4500S2 D-2011	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	7.5 mL
Total Solids (%):	_____	**Final Wt/Vol:**	7.5 mL

Analyte	**CAS**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
		mg/l		*mg/l*	*mg/l*	*mg/l*
Sulfide	18496-25-8	0.533		0.00650	0.05	0.0500

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413408-3

Lab Sample ID:	R3413408-3	**SDG:**	L1100960
Client Sample ID:	DUP	**Collected Date/Time:**	05/17/19 09:50
Lab File ID:	20190521180338	**Received Date/Time:**	05/18/19 08:45
Instrument ID:	DR6000-1	**Preparation Date/Time:**	05/21/19 18:03
Analytical Batch:	WG1284207	**Analysis Date/Time:**	05/21/19 18:03
Dilution Factor:	1	**Prep Method:**	4500S2 D-2011
Analytical Method:	4500S2 D-2011	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	7.5 mL
Total Solids (%):	_____	**Final Wt/Vol:**	7.5 mL

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Sulfide	18496-25-8	0.000		0.00650	0.05	0.0500

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413408-6

Lab Sample ID:	R3413408-6	**SDG:**	L1100960
Client Sample ID:	DUP	**Collected Date/Time:**	05/19/19 11:30
Lab File ID:	20190521180933	**Received Date/Time:**	05/21/19 08:00
Instrument ID:	DR6000-1	**Preparation Date/Time:**	05/21/19 18:09
Analytical Batch:	WG1284207	**Analysis Date/Time:**	05/21/19 18:09
Dilution Factor:	1	**Prep Method:**	4500S2 D-2011
Analytical Method:	4500S2 D-2011	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	7.5 mL
Total Solids (%):	_____	**Final Wt/Vol:**	7.5 mL

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Sulfide	18496-25-8	0.000		0.00650	0.05	0.0500

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413408-4

Lab Sample ID:	R3413408-4	**SDG:**	L1100960
Client Sample ID:	MS	**Collected Date/Time:**	05/17/19 08:30
Lab File ID:	20190521180413	**Received Date/Time:**	05/18/19 08:45
Instrument ID:	DR6000-1	**Preparation Date/Time:**	05/21/19 18:04
Analytical Batch:	WG1284207	**Analysis Date/Time:**	05/21/19 18:04
Dilution Factor:	1	**Prep Method:**	4500S2 D-2011
Analytical Method:	4500S2 D-2011	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	7.5 mL
Total Solids (%):	_____	**Final Wt/Vol:**	7.5 mL

Analyte	**CAS**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
		mg/l		*mg/l*	*mg/l*	*mg/l*
Sulfide	18496-25-8	0.646	J6	0.00650	0.05	0.0500

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413408-5

Lab Sample ID:	R3413408-5	**SDG:**	L1100960
Client Sample ID:	MSD	**Collected Date/Time:**	05/17/19 08:30
Lab File ID:	20190521180418	**Received Date/Time:**	05/18/19 08:45
Instrument ID:	DR6000-1	**Preparation Date/Time:**	05/21/19 18:04
Analytical Batch:	WG1284207	**Analysis Date/Time:**	05/21/19 18:04
Dilution Factor:	1	**Prep Method:**	4500S2 D-2011
Analytical Method:	4500S2 D-2011	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	7.5 mL
Total Solids (%):	_____	**Final Wt/Vol:**	7.5 mL

Analyte	**CAS**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
		mg/l		*mg/l*	*mg/l*	*mg/l*
Sulfide	18496-25-8	0.646	J6	0.00650	0.05	0.0500

2-IN

CALIBRATION VERIFICATION

SDG:	L1100960	**Calibration (begin) date/time:**	02/20/19 14:30
Instrument ID:	DR6000-1	**Calibration (end) date/time:**	02/20/19 14:30
Analytical Method:	4500S2 D-2011	**Analytical Run:**	WG1284207
Concentration Units:	mg/L		

	ICV				**CCV**				**CCV**			
Sample ID:	DR6000-1052119180239				DR6000-1052119180531				DR6000-1052119181027			
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	True	Found	%R	%RSD
REACTIVE SULFIDE	1	1.095	110		1	1.095	110		1	1.094	109	
SULFIDE	1	1.095	110		1	1.095	110		1	1.094	109	

ICV Limits: 90 - 110 CCV Limits: 90 - 110

3-IN BLANKS

SDG:	L1100960	**Calibration (begin) date/time:**	02/20/19 14:30
Instrument ID:	DR6000-1	**Calibration (end) date/time:**	02/20/19 14:30
Analytical Method:	4500S2 D-2011	**Analytical Run:**	WG1284207

Sample ID:	**CCB Result**	**CCB Qual**	**CCB Result**	**CCB Qual**	**BLANK Result**	**BLANK Qual**
File ID:	20190521180540		20190521181036		20190521180250	
Analyte	mg/L		mg/L		mg/l	
REACTIVE SULFIDE	-0.02600		-0.03000			
SULFIDE	-0.02600		-0.03000		U	

5A-IN

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1100960-01

SAMPLE NO.:
R3413408-4
R3413408-5

MS Sample / File ID:	R3413408-4 / 20190521180413	**SDG:**	L1100960
MSD Sample / File ID:	R3413408-5 / 20190521180418	**Analytical Batch:**	WG1284207
OS Sample / File ID:	L1100452-03 / 20190521180358	**Matrix:**	WW
Instrument ID:	DR6000-1		
Analytical Method:	4500S2 D-2011		

Analyte	Spike Amount	OS Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limits
	mg/l	*mg/l*	*mg/l*	*mg/l*	*%*	*%*		*%*	*%*	*%*
Sulfide	1.00	ND	0.646	0.646	64.6*	64.6*	1	80.0 - 120	0.000	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

6-IN

DUPLICATES

L1100960-01

SAMPLE NO.:
R3413408-3

DUP Sample / File ID:	R3413408-3 / 20190521180338	**SDG:**	L1100960
OS Sample / File ID:	L1100452-01 / 20190521180333	**Analytical Batch:**	WG1284207
Instrument ID:	DR6000-1	**Dilution Factor:**	1
Analytical Method:	4500S2 D-2011	**Matrix:**	WW

Analyte	OS Result	DUP Result	RPD	RPD Limits
	mg/l	*mg/l*	*mg/l*	*mg/l*
Sulfide	ND	0.000	0.000	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

6-IN

DUPLICATES

L1100960-01

SAMPLE NO.:
R3413408-6

DUP Sample / File ID:	R3413408-6 / 20190521180933	**SDG:**	L1100960
OS Sample / File ID:	L1100960-01 / 20190521180929	**Analytical Batch:**	WG1284207
Instrument ID:	DR6000-1	**Dilution Factor:**	1
Analytical Method:	4500S2 D-2011	**Matrix:**	WW

Analyte	OS Result	DUP Result	RPD	RPD Limits
	mg/l	*mg/l*	*mg/l*	*mg/l*
Sulfide	U	0.000	0.000	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

7-IN

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
RECOVERY

L1100960-01

SAMPLE NO.:
R3413408-2

LCS Sample / File ID:	R3413408-2 / 20190521180305	**SDG:**	L1100960
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1284207
Instrument ID:	DR6000-1	**Dilution Factor:**	1
Analytical Method:	4500S2 D-2011	**Matrix:**	WW

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limits
	mg/l	*mg/l*		*%*	*%*	*%*	*%*	*%*
Sulfide	0.500	0.533		107		85.0 - 115		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

12-IN

ANALYSIS LOG

SDG:	L1100960	**Analytical Method:**	4500S2 D-2011
Instrument ID:	DR6000-1	**Calibration Start Date:**	02/20/19 14:30
Analytical Run:	WG1239349	**Calibration End Date:**	02/20/19 14:30

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
CAL	0.0000	11	02/20/19 14:30	1	
CAL	0.0500	12	02/20/19 14:30	1	
CAL	0.1000	13	02/20/19 14:30	1	
CAL	0.5000	14	02/20/19 14:30	1	
CAL	1.0000	15	02/20/19 14:30	1	
CAL	1.5000	16	02/20/19 14:30	1	
CAL	2.0000	17	02/20/19 14:30	1	

12-IN

ANALYSIS LOG

SDG:	L1100960	**Analytical Method:**	4500S2 D-2011
Instrument ID:	DR6000-1	**Calibration Start Date:**	02/20/19 14:30
Analytical Run:	WG1284207	**Calibration End Date:**	02/20/19 14:30

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
ICV	DR6000-1052119180239	20190521180239	05/21/19 18:02	1	
BLANK	R3413408-1	20190521180250	05/21/19 18:02	1	WG1284207
LCS	R3413408-2	20190521180305	05/21/19 18:03	1	WG1284207
OS	L1100452-01	20190521180333	05/21/19 18:03	1	WG1284207
DUP	R3413408-3	20190521180338	05/21/19 18:03	1	WG1284207
OS	L1100452-03	20190521180358	05/21/19 18:03	1	WG1284207
MS	R3413408-4	20190521180413	05/21/19 18:04	1	WG1284207
MSD	R3413408-5	20190521180418	05/21/19 18:04	1	WG1284207
CCV	DR6000-1052119180531	20190521180531	05/21/19 18:05	1	
CCB	DR6000-1052119180540	20190521180540	05/21/19 18:05	1	
WW-20190519-002-DAY 17	L1100960-01	20190521180929	05/21/19 18:09	1	WG1284207
DUP	R3413408-6	20190521180933	05/21/19 18:09	1	WG1284207
CCV	DR6000-1052119181027	20190521181027	05/21/19 18:10	1	
CCB	DR6000-1052119181036	20190521181036	05/21/19 18:10	1	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	02/20/19 14:30
Instrument ID:	DR6000-1	**Calibration (end) date/time:**	02/20/19 14:30
Analytical Method:	4500S2 D-2011	**Analytical Run:**	WG1284207

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
SULFIDE	0.05	.047732143	95.50	0.10	.106206325	106
File ID:		12			13	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	02/20/19 14:30
Instrument ID:	DR6000-1	**Calibration (end) date/time:**	02/20/19 14:30
Analytical Method:	4500S2 D-2011	**Analytical Run:**	WG1284207

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
SULFIDE	0.50	.482540163	96.50	1	1.007308463	101
File ID:		14			15	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	02/20/19 14:30
Instrument ID:	DR6000-1	**Calibration (end) date/time:**	02/20/19 14:30
Analytical Method:	4500S2 D-2011	**Analytical Run:**	WG1284207

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
SULFIDE	1.50	1.520082059	101	2	1.984876839	99.20
File ID:		16			17	

16C-IN

GENERAL CHEMISTRY
INITIAL CALIBRATION

SDG:	L1100960	**Calibration (begin) date/time:**	02/20/19 14:30
Instrument ID:	DR6000-1	**Calibration (end) date/time:**	02/20/19 14:30
Analytical Method:	4500S2 D-2011	**Analytical Run:**	WG1284207

Analyte	Cal. Type	Weightage	Corr.	Coef1	Coef2	Slope	Incpt	% RSD
SULFIDE	0	5	0.999861			1.499338	0.001253	

Calibration Type

0 = Linear Regression

Weightage

5 = None

504.1 EDB / DBCP

3A-OR

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1100960-01

SAMPLE NO.:
R3414754-2

MS Sample / File ID:	R3414754-2 / 0523_05	**SDG:**	L1100960
MSD Sample / File ID:	_____	**Analytical Batch:**	WG1285476
OS Sample / File ID:	L1101282-02 / 0523_06	**Matrix:**	WW
Instrument ID:	SVGC23		
Analytical Method:	504.1		

Analyte	Spike Amount	OS Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limit
	mg/l	*mg/l*	*mg/l*		*%*	*%*		*%*	*%*	*%*
Ethylene Dibromide	0.000100	ND	0.000116		116		1	70.0 - 130		
1,2-Dibromo-3-Chloropropane	0.000100	ND	0.000107		107		1	70.0 - 130		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

3B-OR

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
RECOVERY

L1100960-01

SAMPLE NO.:
R3414754-4
R3414754-5

LCS Sample / File ID:	R3414754-4 / 0523_18LFB	**SDG:**	L1100960
LCSD Sample / File ID:	R3414754-5 / 0523_23LFBD	**Analytical Batch:**	WG1285476
Instrument ID:	SVGC23	**Dilution Factor:**	1
Analytical Method:	504.1	**Matrix:**	WW

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limit
	mg/l	*mg/l*	*mg/l*	*%*	*%*	*%*	*%*	*%*
Ethylene Dibromide	0.000250	0.000305	0.000309	122	124	70.0 - 130	1.30	20
1,2-Dibromo-3-Chloropropane	0.000250	0.000302	0.000306	121	122	70.0 - 130	1.32	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

3C-OR

LABORATORY DUPLICATE

L1100960-01

SAMPLE NO.:
R3414754-3

DUP Sample / File ID:	R3414754-3 / 0523_07	**SDG:**	L1100960
OS Sample / File ID:	L1101282-01 / 0523_08	**Analytical Batch:**	WG1285476
Lab File ID:	0523_07	**Dilution Factor:**	1
Instrument ID:	SVGC23	**Matrix:**	WW
Analytical Method:	504.1		

Analyte	OS Result	DUP Result	RPD	RPD Limits
	mg/l	*mg/l*	*%*	*%*
Ethylene Dibromide	ND	0.000	0.000	20
1,2-Dibromo-3-Chloropropane	ND	0.000	0.000	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

4A-OR

METHOD BLANK

SAMPLE NO.:
R3414754-1

Lab Sample ID:	R3414754-1	**SDG:**	L1100960
Lab File ID:	0523_04	**Preparation Date/Time:**	05/23/19 09:01
Instrument ID:	SVGC23	**Analysis Date/Time:**	05/23/19 21:07
Analytical Batch:	WG1285476	**Dilution Factor:**	1
Analytical Method:	504.1	**Matrix:**	WW

Sample ID	Lab Sample ID	Instrument	File ID	Analysis *date/time*
MS	R3414754-2	SVGC23	0523_05	05/23/19 21:18
OS	L1101282-02	SVGC23	0523_06	05/23/19 21:29
DUP	R3414754-3	SVGC23	0523_07	05/23/19 21:42
OS	L1101282-01	SVGC23	0523_08	05/23/19 21:54
WW-20190519-002-DAY 17	L1100960-01	SVGC23	0523_13	05/23/19 22:54
LCS	R3414754-4	SVGC23	0523_18LFB	05/23/19 23:54
LCSD	R3414754-5	SVGC23	0523_23LFBD	05/24/19 00:54

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
WW-20190519-002-DAY 17

Lab Sample ID:	L1100960-01	**SDG:**	L1100960
Client Sample ID:	WW-20190519-002-DAY 17	**Collected Date/Time:**	05/19/19 11:30
Lab File ID:	0523_13	**Received Date/Time:**	05/21/19 08:00
Instrument ID:	SVGC23	**Preparation Date/Time:**	05/23/19 09:01
Analytical Batch:	WG1285476	**Analysis Date/Time:**	05/23/19 22:54
Dilution Factor:	1	**Prep Method:**	8011/504.1
Analytical Method:	504.1	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	35 mL
Total Solids (%):	_____	**Final Wt/Vol:**	2 mL

Analyte	**CAS**	**RT**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
			mg/l		*mg/l*	*mg/l*	*mg/l*
Ethylene Dibromide	106-93-4	0	U		0.00000240	0.0000100	0.0000100
1,2-Dibromo-3-Chloropropane	96-12-8	0	U		0.00000430	0.0000200	0.0000200

6B-OR

RETENTION TIME
INITIAL CALIBRATION OF
SINGLE COMPONENT ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/07/19 17:39
Instrument ID:	SVGC23 - 1	**Calibration (end) date/time:**	05/13/19 12:59
Analytical Method:	504.1		

Analyte	**CS: 0.01**	**CS: 0.02**	**CS: 0.05**	**CS: 0.10**	**CS: 0.25**	**CS: 0.50**
ETHYLENE DIBROMIDE	1.40	1.40	1.40	1.40	1.37	1.40
1,2-DIBROMO-3-CHLOROPROPANE	3.13	3.13	3.13	3.13	3.12	3.12
File ID:	0507A_03	0507A_04	0507A_05	0507A_06	0513_03	0507A_08

6B-OR

RETENTION TIME
INITIAL CALIBRATION OF
SINGLE COMPONENT ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/07/19 17:39
Instrument ID:	SVGC23 - 2	**Calibration (end) date/time:**	05/13/19 12:59
Analytical Method:	504.1		

Analyte	**CS: 0.01**	**CS: 0.02**	**CS: 0.05**	**CS: 0.10**	**CS: 0.25**	**CS: 0.50**
ETHYLENE DIBROMIDE	1.50	1.50	1.50	1.50	1.47	1.50
1,2-DIBROMO-3-CHLOROPROPANE	3.18	3.17	3.17	3.17	3.17	3.17
File ID:	0507A_03	0507A_04	0507A_05	0507A_06	0513_03	0507A_08

6C-OR

CALIBRATION FACTOR
INITIAL CALIBRATION OF
SINGLE COMPONENT ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/07/19 17:39
Instrument ID:	SVGC23 - 1	**Calibration (end) date/time:**	05/13/19 12:59
Analytical Method:	504.1		

Analyte	**RRF: 0.01**	**RRF: 0.02**	**RRF: 0.05**	**RRF: 0.10**	**RRF: 0.25**	**RRF: 0.50**
ETHYLENE DIBROMIDE	3424000	3141000	2755000	2895000	2503000	2414000
1,2-DIBROMO-3-CHLOROPROPANE	3567000	3801000	3978000	4817000	4317000	4317000
File ID:	0507A_03	0507A_04	0507A_05	0507A_06	0513_03	0507A_08

6C-OR

CALIBRATION FACTOR
INITIAL CALIBRATION OF
SINGLE COMPONENT ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/07/19 17:39
Instrument ID:	SVGC23 - 1	**Calibration (end) date/time:**	05/13/19 12:59
Analytical Method:	504.1		

Analyte	RRF. Avg	%RSD	COD
ETHYLENE DIBROMIDE	2855476	13.43	0.997
1,2-DIBROMO-3-CHLOROPROPANE	4132641	10.77	0.999

6C-OR

CALIBRATION FACTOR
INITIAL CALIBRATION OF
SINGLE COMPONENT ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/07/19 17:39
Instrument ID:	SVGC23 - 2	**Calibration (end) date/time:**	05/13/19 12:59
Analytical Method:	504.1		

Analyte	**RRF: 0.01**	**RRF: 0.02**	**RRF: 0.05**	**RRF: 0.10**	**RRF: 0.25**	**RRF: 0.50**
ETHYLENE DIBROMIDE	2002000	1282000	1764000	1815000	1527000	1506000
1,2-DIBROMO-3-CHLOROPROPANE	2499000	3027000	3001000	3126000	2827000	2768000
File ID:	0507A_03	0507A_04	0507A_05	0507A_06	0513_03	0507A_08

6C-OR

CALIBRATION FACTOR
INITIAL CALIBRATION OF
SINGLE COMPONENT ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/07/19 17:39
Instrument ID:	SVGC23 - 2	**Calibration (end) date/time:**	05/13/19 12:59
Analytical Method:	504.1		

Analyte	RRF. Avg	%RSD	COD
ETHYLENE DIBROMIDE	1649330	15.7	0.993
1,2-DIBROMO-3-CHLOROPROPANE	2874567	7.89	

7D-OR

CONTINUING CALIBRATION VERIFICATION
DUAL COLUMN ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/07/19 17:39
Instrument ID:	SVGC23 - 1	**Calibration (end) date/time:**	05/13/19 12:59
Lab File ID:	0523_03-1	**Analysis date/time:**	05/23/19 20:56
Analytical Method:	504.1	**Sample ID:**	ICV

Analyte	**True Value**	**Result**	**Result**	**Limits**
	mg/l	*mg/l*	*% Rec.*	*%*
1,2-DIBROMO-3-CHLOROPROPANE	0.000250	0.0002451	98	70 - 130
ETHYLENE DIBROMIDE	0.000250	0.0002700	108	70 - 130

7D-OR

CONTINUING CALIBRATION VERIFICATION
DUAL COLUMN ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/07/19 17:39
Instrument ID:	SVGC23 - 2	**Calibration (end) date/time:**	05/13/19 12:59
Lab File ID:	0523_03-1	**Analysis date/time:**	05/23/19 20:56
Analytical Method:	504.1	**Sample ID:**	ICV

Analyte	**True Value**	**Result**	**Result**	**Limits**
	mg/l	*mg/l*	*% Rec.*	*%*
1,2-DIBROMO-3-CHLOROPROPANE	0.000250	0.0002259	90.40	70 - 130
ETHYLENE DIBROMIDE	0.000250	0.0002464	98.60	70 - 130

7D-OR

CONTINUING CALIBRATION VERIFICATION
DUAL COLUMN ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/07/19 17:39
Instrument ID:	SVGC23 - 1	**Calibration (end) date/time:**	05/13/19 12:59
Lab File ID:	0523_18-1	**Analysis date/time:**	05/23/19 23:54
Analytical Method:	504.1	**Sample ID:**	CCV

Analyte	**True Value**	**Result**	**Result**	**Limits**
	mg/l	*mg/l*	*% Rec.*	*%*
1,2-DIBROMO-3-CHLOROPROPANE	0.000250	0.0003023	121	70 - 130
ETHYLENE DIBROMIDE	0.000250	0.0003055	122	70 - 130

7D-OR

CONTINUING CALIBRATION VERIFICATION
DUAL COLUMN ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/07/19 17:39
Instrument ID:	SVGC23 - 2	**Calibration (end) date/time:**	05/13/19 12:59
Lab File ID:	0523_18-1	**Analysis date/time:**	05/23/19 23:54
Analytical Method:	504.1	**Sample ID:**	CCV

Analyte	**True Value**	**Result**	**Result**	**Limits**
	mg/l	*mg/l*	*% Rec.*	*%*
1,2-DIBROMO-3-CHLOROPROPANE	0.000250	0.0002685	107	70 - 130
ETHYLENE DIBROMIDE	0.000250	0.0002799	112	70 - 130

7D-OR

CONTINUING CALIBRATION VERIFICATION
DUAL COLUMN ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/07/19 17:39
Instrument ID:	SVGC23 - 1	**Calibration (end) date/time:**	05/13/19 12:59
Lab File ID:	0523_23-1	**Analysis date/time:**	05/24/19 00:54
Analytical Method:	504.1	**Sample ID:**	CCV

Analyte	**True Value**	**Result**	**Result**	**Limits**
	mg/l	*mg/l*	*% Rec.*	*%*
1,2-DIBROMO-3-CHLOROPROPANE	0.000250	0.0003064	123	70 - 130
ETHYLENE DIBROMIDE	0.000250	0.0003094	124	70 - 130

7D-OR

CONTINUING CALIBRATION VERIFICATION
DUAL COLUMN ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/07/19 17:39
Instrument ID:	SVGC23 - 2	**Calibration (end) date/time:**	05/13/19 12:59
Lab File ID:	0523_23-1	**Analysis date/time:**	05/24/19 00:54
Analytical Method:	504.1	**Sample ID:**	CCV

Analyte	**True Value**	**Result**	**Result**	**Limits**
	mg/l	*mg/l*	*% Rec.*	*%*
1,2-DIBROMO-3-CHLOROPROPANE	0.000250	0.0002688	108	70 - 130
ETHYLENE DIBROMIDE	0.000250	0.0002873	115	70 - 130

7F-OR

REPORTING LEVEL VERIFICATION
DUAL COLUMN ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/07/19 17:39
Instrument ID:	SVGC23 - 1	**Calibration (end) date/time:**	05/13/19 12:59
Lab File ID:	0523_02-1	**Analysis date/time:**	05/23/19 20:44
Analytical Method:	504.1		

Analyte	**True Value**	**Result**	**Result**	**Limits**
	mg/l	*mg/l*	*% Rec.*	*%*
1,2-DIBROMO-3-CHLOROPROPANE	0.000010	0.000008832	88.30	60 - 140
ETHYLENE DIBROMIDE	0.000010	0.000009066	90.70	60 - 140

7F-OR

REPORTING LEVEL VERIFICATION
DUAL COLUMN ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/07/19 17:39
Instrument ID:	SVGC23 - 2	**Calibration (end) date/time:**	05/13/19 12:59
Lab File ID:	0523_02-1	**Analysis date/time:**	05/23/19 20:44
Analytical Method:	504.1		

Analyte	**True Value**	**Result**	**Result**	**Limits**
	mg/l	*mg/l*	*% Rec.*	*%*
1,2-DIBROMO-3-CHLOROPROPANE	0.000010	0.00001125	113	60 - 140
ETHYLENE DIBROMIDE	0.000010	0.00001036	104	60 - 140

8B-OR

ANALYTICAL SEQUENCE

SDG:	L1100960	**Analytical Method:**	504.1
Instrument ID:	SVGC23	**Calibration Start Date:**	05/07/19 17:39
		Calibration End Date:	05/13/19 12:59

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
CAL	0.01	0507A_03	05/07/19 17:39	1	
CAL	0.02	0507A_04	05/07/19 17:58	1	
CAL	0.05	0507A_05	05/07/19 18:10	1	
CAL	0.10	0507A_06	05/07/19 18:22	1	
CAL	0.50	0507A_08	05/07/19 18:47	1	
CAL	0.25	0513_03	05/13/19 12:59	1	
RL	SVGC230523190523_02-1471812	0523_02-1	05/23/19 20:44	1	
ICV	SVGC230523190523_03-1471812	0523_03-1	05/23/19 20:56	1	
BLANK	R3414754-1	0523_04	05/23/19 21:07	1	WG1285476
MS	R3414754-2	0523_05	05/23/19 21:18	1	WG1285476
OS	L1101282-02	0523_06	05/23/19 21:29	1	WG1285476
DUP	R3414754-3	0523_07	05/23/19 21:42	1	WG1285476
OS	L1101282-01	0523_08	05/23/19 21:54	1	WG1285476
WW-20190519-002-DAY 17	L1100960-01	0523_13	05/23/19 22:54	1	WG1285476
CCV	SVGC230523190523_18-1471812	0523_18-1	05/23/19 23:54	1	
LCS	R3414754-4	0523_18LFB	05/23/19 23:54	1	WG1285476
CCV	SVGC230523190523_23-1471812	0523_23-1	05/24/19 00:54	1	
LCSD	R3414754-5	0523_23LFBD	05/24/19 00:54	1	WG1285476

10A-OR

SINGLE COMPONENT ANALYSIS IDENTIFICATION

SAMPLE NO.:
R3414754-1

Lab Sample ID:	R3414754-1	**SDG:**	L1100960
Client Sample ID:	BLANK	**Collected Date/Time:**	_____
Lab File ID:	0523_04	**Received Date/Time:**	_____
Instrument ID:	SVGC23	**Preparation Date/Time:**	05/23/19 09:01
Analytical Batch:	WG1285476	**Analysis Date/Time:**	05/23/19 21:07
Dilution Factor:	1	**Prep Method:**	8011/504.1
Analytical Method:	504.1	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	35 mL
Total Solids (%):	_____	**Final Wt/Vol:**	2 mL

Analyte	**Column**	**RT**	**Concentration** *mg/l*	**% Diff.**
Ethylene Dibromide	1	0	U	0
1,2-Dibromo-3-Chloropropane	1	0	U	0

10A-OR

SINGLE COMPONENT ANALYSIS IDENTIFICATION

SAMPLE NO.:
R3414754-3

Lab Sample ID:	R3414754-3	**SDG:**	L1100960
Client Sample ID:	DUP	**Collected Date/Time:**	05/21/19 13:10
Lab File ID:	0523_07	**Received Date/Time:**	05/22/19 08:45
Instrument ID:	SVGC23	**Preparation Date/Time:**	05/23/19 09:01
Analytical Batch:	WG1285476	**Analysis Date/Time:**	05/23/19 21:42
Dilution Factor:	1	**Prep Method:**	8011/504.1
Analytical Method:	504.1	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	35 mL
Total Solids (%):	_____	**Final Wt/Vol:**	2 mL

Analyte	**Column**	**RT**	**Concentration** *mg/l*	**% Diff.**
Ethylene Dibromide	1	0	0.000	0
	2	0	0.000	
1,2-Dibromo-3-Chloropropane	1	0	0.000	0
	2	0	0.000	

10A-OR

SINGLE COMPONENT ANALYSIS IDENTIFICATION

SAMPLE NO.:
R3414754-4

Lab Sample ID:	R3414754-4	**SDG:**	L1100960
Client Sample ID:	LCS	**Collected Date/Time:**	_____
Lab File ID:	0523_18LFB	**Received Date/Time:**	_____
Instrument ID:	SVGC23	**Preparation Date/Time:**	05/23/19 09:01
Analytical Batch:	WG1285476	**Analysis Date/Time:**	05/23/19 23:54
Dilution Factor:	1	**Prep Method:**	8011/504.1
Analytical Method:	504.1	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	35 mL
Total Solids (%):	_____	**Final Wt/Vol:**	2 mL

Analyte	**Column**	**RT**	**Concentration** *mg/l*	**% Diff.**
Ethylene Dibromide	1	1.37	0.000305	8.75
1,2-Dibromo-3-Chloropropane	1	3.12	0.000302	11.8

10A-OR

SINGLE COMPONENT ANALYSIS IDENTIFICATION

SAMPLE NO.:
R3414754-5

Lab Sample ID:	R3414754-5	**SDG:**	L1100960
Client Sample ID:	LCSD	**Collected Date/Time:**	_____
Lab File ID:	0523_23LFBD	**Received Date/Time:**	_____
Instrument ID:	SVGC23	**Preparation Date/Time:**	05/23/19 09:01
Analytical Batch:	WG1285476	**Analysis Date/Time:**	05/24/19 00:54
Dilution Factor:	1	**Prep Method:**	8011/504.1
Analytical Method:	504.1	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	35 mL
Total Solids (%):	_____	**Final Wt/Vol:**	2 mL

Analyte	**Column**	**RT**	**Concentration** *mg/l*	**% Diff.**
Ethylene Dibromide	1	1.38	0.000309	7.41
1,2-Dibromo-3-Chloropropane	1	3.12	0.000306	13.1

10A-OR

SINGLE COMPONENT ANALYSIS IDENTIFICATION

SAMPLE NO.:
R3414754-2

Lab Sample ID:	R3414754-2	**SDG:**	L1100960
Client Sample ID:	MS	**Collected Date/Time:**	05/21/19 10:25
Lab File ID:	0523_05	**Received Date/Time:**	05/22/19 08:45
Instrument ID:	SVGC23	**Preparation Date/Time:**	05/23/19 09:01
Analytical Batch:	WG1285476	**Analysis Date/Time:**	05/23/19 21:18
Dilution Factor:	1	**Prep Method:**	8011/504.1
Analytical Method:	504.1	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	35 mL
Total Solids (%):	_____	**Final Wt/Vol:**	2 mL

Analyte	**Column**	**RT**	**Concentration** *mg/l*	**% Diff.**
Ethylene Dibromide	1	1.38	0.000116	7.68
	2	1.48	0.000108	
1,2-Dibromo-3-Chloropropane	1	3.12	0.000107	12
	2	3.17	0.0000953	

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414754-1

Lab Sample ID:	R3414754-1	**SDG:**	L1100960
Client Sample ID:	BLANK	**Collected Date/Time:**	_____
Lab File ID:	0523_04	**Received Date/Time:**	_____
Instrument ID:	SVGC23	**Preparation Date/Time:**	05/23/19 09:01
Analytical Batch:	WG1285476	**Analysis Date/Time:**	05/23/19 21:07
Dilution Factor:	1	**Prep Method:**	8011/504.1
Analytical Method:	504.1	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	35 mL
Total Solids (%):	_____	**Final Wt/Vol:**	2 mL

Analyte	**CAS**	**RT**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
			mg/l		*mg/l*	*mg/l*	*mg/l*
Ethylene Dibromide	106-93-4	0	U		0.00000240	0.000010	0.0000100
1,2-Dibromo-3-Chloropropane	96-12-8	0	U		0.00000430	0.000020	0.0000200

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414754-3

Lab Sample ID:	R3414754-3	**SDG:**	L1100960
Client Sample ID:	DUP	**Collected Date/Time:**	05/21/19 13:10
Lab File ID:	0523_07	**Received Date/Time:**	05/22/19 08:45
Instrument ID:	SVGC23	**Preparation Date/Time:**	05/23/19 09:01
Analytical Batch:	WG1285476	**Analysis Date/Time:**	05/23/19 21:42
Dilution Factor:	1	**Prep Method:**	8011/504.1
Analytical Method:	504.1	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	35 mL
Total Solids (%):	_____	**Final Wt/Vol:**	2 mL

Analyte	CAS	RT	Result	Qualifier	SDL	Unadj. MQL	MQL
			mg/l		*mg/l*	*mg/l*	*mg/l*
Ethylene Dibromide	106-93-4	0	0.000		0.00000240	0.000010	0.0000100
1,2-Dibromo-3-Chloropropane	96-12-8	0	0.000		0.00000430	0.000020	0.0000200

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414754-4

Lab Sample ID:	R3414754-4	**SDG:**	L1100960
Client Sample ID:	LCS	**Collected Date/Time:**	_____
Lab File ID:	0523_18LFB	**Received Date/Time:**	_____
Instrument ID:	SVGC23	**Preparation Date/Time:**	05/23/19 09:01
Analytical Batch:	WG1285476	**Analysis Date/Time:**	05/23/19 23:54
Dilution Factor:	1	**Prep Method:**	8011/504.1
Analytical Method:	504.1	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	35 mL
Total Solids (%):	_____	**Final Wt/Vol:**	2 mL

Analyte	CAS	RT	Result	Qualifier	SDL	Unadj. MQL	MQL
			mg/l		*mg/l*	*mg/l*	*mg/l*
Ethylene Dibromide	106-93-4	1.37	0.000305		0.00000240	0.000010	0.0000100
1,2-Dibromo-3-Chloropropane	96-12-8	3.12	0.000302		0.00000430	0.000020	0.0000200

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414754-5

Lab Sample ID:	R3414754-5	**SDG:**	L1100960
Client Sample ID:	LCSD	**Collected Date/Time:**	_____
Lab File ID:	0523_23LFBD	**Received Date/Time:**	_____
Instrument ID:	SVGC23	**Preparation Date/Time:**	05/23/19 09:01
Analytical Batch:	WG1285476	**Analysis Date/Time:**	05/24/19 00:54
Dilution Factor:	1	**Prep Method:**	8011/504.1
Analytical Method:	504.1	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	35 mL
Total Solids (%):	_____	**Final Wt/Vol:**	2 mL

Analyte	**CAS**	**RT**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
			mg/l		*mg/l*	*mg/l*	*mg/l*
Ethylene Dibromide	106-93-4	1.38	0.000309		0.00000240	0.000010	0.0000100
1,2-Dibromo-3-Chloropropane	96-12-8	3.12	0.000306		0.00000430	0.000020	0.0000200

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414754-2

Lab Sample ID:	R3414754-2	**SDG:**	L1100960
Client Sample ID:	MS	**Collected Date/Time:**	05/21/19 10:25
Lab File ID:	0523_05	**Received Date/Time:**	05/22/19 08:45
Instrument ID:	SVGC23	**Preparation Date/Time:**	05/23/19 09:01
Analytical Batch:	WG1285476	**Analysis Date/Time:**	05/23/19 21:18
Dilution Factor:	1	**Prep Method:**	8011/504.1
Analytical Method:	504.1	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	35 mL
Total Solids (%):	_____	**Final Wt/Vol:**	2 mL

Analyte	**CAS**	**RT**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
			mg/l		*mg/l*	*mg/l*	*mg/l*
Ethylene Dibromide	106-93-4	1.38	0.000116		0.00000240	0.000010	0.0000100
1,2-Dibromo-3-Chloropropane	96-12-8	3.12	0.000107		0.00000430	0.000020	0.0000200

5310 B-2011 Wet Chemistry

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
WW-20190519-002-DAY 17

Lab Sample ID:	L1100960-01	**SDG:**	L1100960
Client Sample ID:	WW-20190519-002-DAY 17	**Collected Date/Time:**	05/19/19 11:30
Lab File ID:	20190522163354	**Received Date/Time:**	05/21/19 08:00
Instrument ID:	TOC3	**Preparation Date/Time:**	05/22/19 16:33
Analytical Batch:	WG1284971	**Analysis Date/Time:**	05/22/19 16:33
Dilution Factor:	1	**Prep Method:**	5310 B-2011
Analytical Method:	5310 B-2011	**Sample Vol Used:**	25 mL
Matrix:	WW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	_____

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
TOC (Total Organic Carbon)		4.15		0.102	1.00	1.00

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413975-1

Lab Sample ID:	R3413975-1	**SDG:**	L1100960
Client Sample ID:	BLANK	**Collected Date/Time:**	
Lab File ID:	20190522152843	**Received Date/Time:**	
Instrument ID:	TOC3	**Preparation Date/Time:**	05/22/19 15:28
Analytical Batch:	WG1284971	**Analysis Date/Time:**	05/22/19 15:28
Dilution Factor:	1	**Prep Method:**	9060A
Analytical Method:	5310 B-2011	**Sample Vol Used:**	25 mL
Matrix:	WW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
TOC (Total Organic Carbon)		0.119	J	0.102	1	1.00

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413975-3

Lab Sample ID:	R3413975-3	**SDG:**	L1100960
Client Sample ID:	DUP	**Collected Date/Time:**	05/20/19 11:00
Lab File ID:	20190522170402	**Received Date/Time:**	05/21/19 08:45
Instrument ID:	TOC3	**Preparation Date/Time:**	05/22/19 17:04
Analytical Batch:	WG1284971	**Analysis Date/Time:**	05/22/19 17:04
Dilution Factor:	1	**Prep Method:**	9060A
Analytical Method:	5310 B-2011	**Sample Vol Used:**	25 mL
Matrix:	WW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	_____

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
TOC		3.15		0.102	1	1.00

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413975-2

Lab Sample ID:	R3413975-2	**SDG:**	L1100960
Client Sample ID:	LCS	**Collected Date/Time:**	
Lab File ID:	20190522160516	**Received Date/Time:**	
Instrument ID:	TOC3	**Preparation Date/Time:**	05/22/19 16:05
Analytical Batch:	WG1284971	**Analysis Date/Time:**	05/22/19 16:05
Dilution Factor:	1	**Prep Method:**	9060A
Analytical Method:	5310 B-2011	**Sample Vol Used:**	25 mL
Matrix:	WW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
TOC		78.7		0.102	1	1.00

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413975-6

Lab Sample ID:	R3413975-6	**SDG:**	L1100960
Client Sample ID:	DUP	**Collected Date/Time:**	05/20/19 12:50
Lab File ID:	20190522234636	**Received Date/Time:**	05/22/19 08:45
Instrument ID:	TOC3	**Preparation Date/Time:**	05/22/19 23:46
Analytical Batch:	WG1284971	**Analysis Date/Time:**	05/22/19 23:46
Dilution Factor:	1	**Prep Method:**	9060A
Analytical Method:	5310 B-2011	**Sample Vol Used:**	25 mL
Matrix:	WW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	_____

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
TOC		5.36		0.102	1	1.00

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413975-4

Lab Sample ID:	R3413975-4	**SDG:**	L1100960
Client Sample ID:	MS	**Collected Date/Time:**	05/20/19 15:00
Lab File ID:	20190522203828	**Received Date/Time:**	05/21/19 08:45
Instrument ID:	TOC3	**Preparation Date/Time:**	05/22/19 20:38
Analytical Batch:	WG1284971	**Analysis Date/Time:**	05/22/19 20:38
Dilution Factor:	1	**Prep Method:**	9060A
Analytical Method:	5310 B-2011	**Sample Vol Used:**	25 mL
Matrix:	WW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	_____

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
TOC		52.3		0.102	1	1.00

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413975-7

Lab Sample ID:	R3413975-7	**SDG:**	L1100960
Client Sample ID:	MS	**Collected Date/Time:**	05/20/19 14:40
Lab File ID:	20190523005742	**Received Date/Time:**	05/22/19 08:45
Instrument ID:	TOC3	**Preparation Date/Time:**	05/23/19 00:57
Analytical Batch:	WG1284971	**Analysis Date/Time:**	05/23/19 00:57
Dilution Factor:	1	**Prep Method:**	9060A
Analytical Method:	5310 B-2011	**Sample Vol Used:**	25 mL
Matrix:	WW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	_____

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
TOC		69.6		0.102	1	1.00

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413975-5

Lab Sample ID:	R3413975-5	**SDG:**	L1100960
Client Sample ID:	MSD	**Collected Date/Time:**	05/20/19 15:00
Lab File ID:	20190522205640	**Received Date/Time:**	05/21/19 08:45
Instrument ID:	TOC3	**Preparation Date/Time:**	05/22/19 20:56
Analytical Batch:	WG1284971	**Analysis Date/Time:**	05/22/19 20:56
Dilution Factor:	1	**Prep Method:**	9060A
Analytical Method:	5310 B-2011	**Sample Vol Used:**	25 mL
Matrix:	WW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	_____

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
TOC		52.8		0.102	1	1.00

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3413975-8

Lab Sample ID:	R3413975-8	**SDG:**	L1100960
Client Sample ID:	MSD	**Collected Date/Time:**	05/20/19 14:40
Lab File ID:	20190523011617	**Received Date/Time:**	05/22/19 08:45
Instrument ID:	TOC3	**Preparation Date/Time:**	05/23/19 01:16
Analytical Batch:	WG1284971	**Analysis Date/Time:**	05/23/19 01:16
Dilution Factor:	1	**Prep Method:**	9060A
Analytical Method:	5310 B-2011	**Sample Vol Used:**	25 mL
Matrix:	WW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	_____

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
TOC		69.8		0.102	1	1.00

2-IN

CALIBRATION VERIFICATION

SDG:	L1100960	**Calibration (begin) date/time:**	01/16/19 13:22
Instrument ID:	TOC3	**Calibration (end) date/time:**	01/16/19 14:50
Analytical Method:	5310 B-2011	**Analytical Run:**	052219
Concentration Units:	mg/L		

	ICV				**SSCCV**				**CCV**			
Sample ID:	TOC30522191513				TOC30522191828				TOC30522191902			
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	True	Found	%R	%RSD
TOC (TOTAL ORGANIC CARBON)	50	51.00	102		75	78.60	105		50	50.64	101	

ICV Limits: 90 - 110 SSCCV Limits: 85 - 115 CCV Limits: 90 - 110

2-IN

CALIBRATION VERIFICATION

SDG:	L1100960	**Calibration (begin) date/time:**	01/16/19 13:22
Instrument ID:	TOC3	**Calibration (end) date/time:**	01/16/19 14:50
Analytical Method:	5310 B-2011	**Analytical Run:**	052219
Concentration Units:	mg/L		

	SSCCV				**CCV**				**SSCCV**			
Sample ID:	TOC30522192205				TOC30522192239				TOC30523190135			
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	True	Found	%R	%RSD
TOC (TOTAL ORGANIC CARBON)	75	79.01	105		50	51.54	103		75	79.05	105	

ICV Limits: 90 - 110 SSCCV Limits: 85 - 115 CCV Limits: 90 - 110

2-IN

CALIBRATION VERIFICATION

SDG:	L1100960	**Calibration (begin) date/time:**	01/16/19 13:22
Instrument ID:	TOC3	**Calibration (end) date/time:**	01/16/19 14:50
Analytical Method:	5310 B-2011	**Analytical Run:**	052219
Concentration Units:	mg/L		

CCV

Sample ID: TOC30523190209

Analyte	True	Found	%R	%RSD
TOC (TOTAL ORGANIC CARBON)	50	51.92	104	

ICV Limits: 90 - 110 SSCCV Limits: 85 - 115 CCV Limits: 90 - 110

3-IN

BLANKS

SDG:	L1100960	**Calibration (begin) date/time:**	01/16/19 13:22
Instrument ID:	TOC3	**Calibration (end) date/time:**	01/16/19 14:50
Analytical Method:	5310 B-2011	**Analytical Run:**	052219

Sample ID:	**BLANK Result**	**BLANK Qual**	**CCB Result**	**CCB Qual**	**CCB Result**	**CCB Qual**	**CCB Result**	**CCB Qual**
File ID:	20190522152843		20190522191750		20190522225446		20190523022409	
Analyte	mg/l		mg/L		mg/L		mg/L	
TOC (TOTAL ORGANIC CARBON)	0.119	J	0.1899	U	0.1816	U	0.1678	U

5A-IN

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1100960-01

SAMPLE NO.:
R3413975-4
R3413975-5

MS Sample / File ID:	R3413975-4 / 20190522203828	**SDG:**	L1100960
MSD Sample / File ID:	R3413975-5 / 20190522205640	**Analytical Batch:**	WG1284971
OS Sample / File ID:	L1100850-08 / 20190522202004	**Matrix:**	WW
Instrument ID:	TOC3		
Analytical Method:	5310 B-2011		

Analyte	Spike Amount	OS Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limits
	mg/l	*mg/l*	*mg/l*	*mg/l*	*%*	*%*		*%*	*%*	*%*
TOC	50.0	0.883	52.3	52.8	103	104	1	80.0 - 120	0.914	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

5A-IN

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1100960-01

SAMPLE NO.:
R3413975-7
R3413975-8

MS Sample / File ID:	R3413975-7 / 20190523005742	**SDG:**	L1100960
MSD Sample / File ID:	R3413975-8 / 20190523011617	**Analytical Batch:**	WG1284971
OS Sample / File ID:	L1101247-02 / 20190523003902	**Matrix:**	WW
Instrument ID:	TOC3		
Analytical Method:	5310 B-2011		

Analyte	Spike Amount	OS Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limits
	mg/l	*mg/l*	*mg/l*	*mg/l*	*%*	*%*		*%*	*%*	*%*
TOC	50.0	15.4	69.6	69.8	108	109	1	80.0 - 120	0.316	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

6-IN

DUPLICATES

L1100960-01

SAMPLE NO.:
R3413975-3

DUP Sample / File ID:	R3413975-3 / 20190522170402	**SDG:**	L1100960
OS Sample / File ID:	L1100841-01 / 20190522164859	**Analytical Batch:**	WG1284971
Instrument ID:	TOC3	**Dilution Factor:**	1
Analytical Method:	5310 B-2011	**Matrix:**	WW

Analyte	OS Result	DUP Result	RPD	RPD Limits
	mg/l	*mg/l*	*mg/l*	*mg/l*
TOC	3.30	3.15	4.53	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

6-IN

DUPLICATES

L1100960-01

SAMPLE NO.:
R3413975-6

DUP Sample / File ID:	R3413975-6 / 20190522234636	**SDG:**	L1100960
OS Sample / File ID:	L1101204-01 / 20190522233033	**Analytical Batch:**	WG1284971
Instrument ID:	TOC3	**Dilution Factor:**	1
Analytical Method:	5310 B-2011	**Matrix:**	WW

Analyte	OS Result	DUP Result	RPD	RPD Limits
	mg/l	*mg/l*	*mg/l*	*mg/l*
TOC	5.44	5.36	1.63	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

7-IN

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
RECOVERY

L1100960-01

SAMPLE NO.:
R3413975-2

LCS Sample / File ID:	R3413975-2 / 20190522160516	**SDG:**	L1100960
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1284971
Instrument ID:	TOC3	**Dilution Factor:**	1
Analytical Method:	5310 B-2011	**Matrix:**	WW

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limits
	mg/l	*mg/l*		*%*	*%*	*%*	*%*	*%*
TOC	75.0	78.7		105		85.0 - 115		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

12-IN

ANALYSIS LOG

SDG:	L1100960	**Analytical Method:**	5310 B-2011
Instrument ID:	TOC3	**Calibration Start Date:**	01/16/19 13:22
Analytical Run:	011619	**Calibration End Date:**	01/16/19 14:50

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
CAL	0	20190116132253	01/16/19 13:22	1	
CAL	1	20190116134038	01/16/19 13:40	1	
CAL	5	20190116135423	01/16/19 13:54	1	
CAL	25	20190116140929	01/16/19 14:09	1	
CAL	50	20190116142907	01/16/19 14:29	1	
CAL	100	20190116145010	01/16/19 14:50	1	

12-IN

ANALYSIS LOG

SDG:	L1100960	**Analytical Method:**	5310 B-2011
Instrument ID:	TOC3	**Calibration Start Date:**	01/16/19 13:22
Analytical Run:	052219	**Calibration End Date:**	01/16/19 14:50

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
ICV	TOC30522191513	20190522151359	05/22/19 15:13	1	
BLANK	R3413975-1	20190522152843	05/22/19 15:28	1	WG1284971
RL	TOC30522191546	20190522154620	05/22/19 15:46	1	
LCS	R3413975-2	20190522160516	05/22/19 16:05	1	WG1284971
WW-20190519-002-DAY 17	L1100960-01	20190522163354	05/22/19 16:33	1	WG1284971
OS	L1100841-01	20190522164859	05/22/19 16:48	1	WG1284971
DUP	R3413975-3	20190522170402	05/22/19 17:04	1	WG1284971
SSCCV	TOC30522191828	20190522182805	05/22/19 18:28	1	
CCV	TOC30522191902	20190522190211	05/22/19 19:02	1	
CCB	TOC30522191917	20190522191750	05/22/19 19:17	1	
OS	L1100850-08	20190522202004	05/22/19 20:20	1	WG1284971
MS	R3413975-4	20190522203828	05/22/19 20:38	1	WG1284971
MSD	R3413975-5	20190522205640	05/22/19 20:56	1	WG1284971
SSCCV	TOC30522192205	20190522220536	05/22/19 22:05	1	
CCV	TOC30522192239	20190522223923	05/22/19 22:39	1	
CCB	TOC30522192254	20190522225446	05/22/19 22:54	1	
OS	L1101204-01	20190522233033	05/22/19 23:30	1	WG1284971
DUP	R3413975-6	20190522234636	05/22/19 23:46	1	WG1284971
OS	L1101247-02	20190523003902	05/23/19 00:39	1	WG1284971
MS	R3413975-7	20190523005742	05/23/19 00:57	1	WG1284971
MSD	R3413975-8	20190523011617	05/23/19 01:16	1	WG1284971
SSCCV	TOC30523190135	20190523013515	05/23/19 01:35	1	
CCV	TOC30523190209	20190523020903	05/23/19 02:09	1	
CCB	TOC30523190224	20190523022409	05/23/19 02:24	1	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	01/16/19 13:22
Instrument ID:	TOC3	**Calibration (end) date/time:**	01/16/19 14:50
Analytical Method:	5310 B-2011	**Analytical Run:**	052219

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
TOC (TOTAL ORGANIC CARBON)	0	.9501209		1	1.94124	194
File ID:		20190116132253			20190116134038	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	01/16/19 13:22
Instrument ID:	TOC3	**Calibration (end) date/time:**	01/16/19 14:50
Analytical Method:	5310 B-2011	**Analytical Run:**	052219

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
TOC (TOTAL ORGANIC CARBON)	5	5.547043	111	25	23.6811	94.70
File ID:		20190116135423			20190116140929	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1100960	**Calibration (begin) date/time:**	01/16/19 13:22
Instrument ID:	TOC3	**Calibration (end) date/time:**	01/16/19 14:50
Analytical Method:	5310 B-2011	**Analytical Run:**	052219

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
TOC (TOTAL ORGANIC CARBON)	50	47.17507	94.40	100	101.7054	102
File ID:		20190116142907			20190116145010	

16C-IN

GENERAL CHEMISTRY
INITIAL CALIBRATION

SDG:	L1100960	**Calibration (begin) date/time:**	01/16/19 13:22
Instrument ID:	TOC3	**Calibration (end) date/time:**	01/16/19 14:50
Analytical Method:	5310 B-2011	**Analytical Run:**	052219

Analyte	Cal. Type	Weightage	Corr.	Coef1	Coef2	Slope	Incpt	% RSD
TOC (TOTAL ORGANIC CARBON)	0	5	0.999045			8.912926	-7.467882	

Calibration Type

0 = Linear Regression

Weightage

5 = None

624.1 Volatile Organic Compounds (GC/MS)

2A-OR

SURROGATE RECOVERY

Analytical Method: 624.1 **SDG:** L1100960
Matrix: WW

Sample ID	Lab Sample ID	Instrument	File ID	DMC-1 % Rec.	DMC-2 % Rec.	DMC-3 % Rec.	TOT Out
WW-20190519-002 -DAY 17	L1100960-01	VOCMS7	0523_13	91.9	99.3	92.9	0

Parm Abbreviation	Parameter	QC LIMITS
DMC-1	Toluene-d8	80.0 - 120
DMC-2	1,2-Dichloroethane-d4	70.0 - 130
DMC-3	4-Bromofluorobenzene	80.0 - 120

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

2A-OR

SURROGATE RECOVERY

Analytical Method: 624.1 **SDG:** L1100960
Matrix: WW

Sample ID	Lab Sample ID	Instrument	File ID	DMC-1 % Rec.	DMC-2 % Rec.	DMC-3 % Rec.	TOT Out
BLANK	R3414288-4	VOCMS7	0523_07	95.4	96.2	101	0
LCS	R3414288-1	VOCMS7	0523_03	91.7	96.1	112	0

Parm Abbreviation	Parameter	QC LIMITS
DMC-1	Toluene-d8	80.0 - 120
DMC-2	4-Bromofluorobenzene	80.0 - 120
DMC-3	1,2-Dichloroethane-d4	70.0 - 130

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

3B-OR

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
RECOVERY

L1100960-01

SAMPLE NO.:
R3414288-1

LCS Sample / File ID:	R3414288-1 / 0523_03	**SDG:**	L1100960
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1285605
Instrument ID:	VOCMS7	**Dilution Factor:**	1
Analytical Method:	624.1	**Matrix:**	WW

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limit
	mg/l	*mg/l*		*%*	*%*	*%*	*%*	*%*
Acetone	0.125	0.145		116		10.0 - 160		
Carbon disulfide	0.0250	0.0296		118		55.0 - 127		
Acrylonitrile	0.125	0.158		126		60.0 - 140		
Benzene	0.0250	0.0270		108		65.0 - 135		
Bromobenzene	0.0250	0.0244		97.5		79.0 - 120		
Bromodichloromethane	0.0250	0.0295		118		70.0 - 135		
Bromochloromethane	0.0250	0.0311		124*		76.0 - 122		
Bromoform	0.0250	0.0305		122		70.0 - 130		
Bromomethane	0.0250	0.0256		102		15.0 - 185		
n-Butylbenzene	0.0250	0.0236		94.4		72.0 - 126		
sec-Butylbenzene	0.0250	0.0229		91.5		74.0 - 121		
tert-Butylbenzene	0.0250	0.0235		94.0		75.0 - 122		
Carbon tetrachloride	0.0250	0.0319		128		70.0 - 130		
Chlorobenzene	0.0250	0.0274		110		65.0 - 135		
Chlorodibromomethane	0.0250	0.0293		117		70.0 - 135		
Chloroethane	0.0250	0.0239		95.5		40.0 - 160		
Chloroform	0.0250	0.0296		118		70.0 - 135		
Chloromethane	0.0250	0.0278		111		0.100 - 205		
2-Chlorotoluene	0.0250	0.0241		96.4		74.0 - 122		
4-Chlorotoluene	0.0250	0.0245		98.1		79.0 - 120		
Dibromomethane	0.0250	0.0287		115		78.0 - 120		
1,2-Dichlorobenzene	0.0250	0.0242		96.8		65.0 - 135		
1,3-Dichlorobenzene	0.0250	0.0249		99.4		70.0 - 130		
1,4-Dichlorobenzene	0.0250	0.0240		95.9		65.0 - 135		
Dichlorodifluoromethane	0.0250	0.0355		142		49.0 - 155		
1,1-Dichloroethane	0.0250	0.0288		115		70.0 - 130		
1,2-Dichloroethane	0.0250	0.0292		117		70.0 - 130		
1,1-Dichloroethene	0.0250	0.0295		118		50.0 - 150		
cis-1,2-Dichloroethene	0.0250	0.0277		111		73.0 - 120		
2-Hexanone	0.125	0.140		112		58.0 - 147		
trans-1,2-Dichloroethene	0.0250	0.0301		120		70.0 - 130		
1,2-Dichloropropane	0.0250	0.0299		120		35.0 - 165		
1,1-Dichloropropene	0.0250	0.0291		116		71.0 - 129		
cis-1,3-Dichloropropene	0.0250	0.0287		115		25.0 - 175		
trans-1,3-Dichloropropene	0.0250	0.0287		115		50.0 - 150		
2,2-Dichloropropane	0.0250	0.0276		110		60.0 - 125		
Ethylbenzene	0.0250	0.0261		104		60.0 - 140		
Isopropylbenzene	0.0250	0.0272		109		75.0 - 120		
p-Isopropyltoluene	0.0250	0.0242		96.8		74.0 - 126		
2-Butanone (MEK)	0.125	0.147		117		37.0 - 158		
Methylene Chloride	0.0250	0.0273		109		60.0 - 140		
4-Methyl-2-pentanone (MIBK)	0.125	0.142		114		59.0 - 143		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

3B-OR

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY

L1100960-01

SAMPLE NO.:
R3414288-1

LCS Sample / File ID:	R3414288-1 / 0523_03	**SDG:**	L1100960
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1285605
Instrument ID:	VOCMS7	**Dilution Factor:**	1
Analytical Method:	624.1	**Matrix:**	WW

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limit
	mg/l	*mg/l*		*%*	*%*	*%*	*%*	*%*
Methyl tert-butyl ether	0.0250	0.0281		112		64.0 - 123		
o-Xylene	0.0250	0.0263		105		78.0 - 120		
m&p-Xylene	0.0500	0.0523		105		77.0 - 120		
n-Propylbenzene	0.0250	0.0260		104		79.0 - 120		
Styrene	0.0250	0.0279		112		78.0 - 124		
1,3-Dichloropropene	0.0500	0.0574		115		25.0 - 175		
1,1,1,2-Tetrachloroethane	0.0250	0.0271		108		75.0 - 122		
1,1,2,2-Tetrachloroethane	0.0250	0.0254		102		60.0 - 140		
Tetrachloroethene	0.0250	0.0287		115		70.0 - 130		
Toluene	0.0250	0.0249		99.8		70.0 - 130		
1,1,2-Trichlorotrifluoroethane	0.0250	0.0315		126		61.0 - 136		
1,2,3-Trichlorobenzene	0.0250	0.0258		103		61.0 - 133		
1,2,4-Trichlorobenzene	0.0250	0.0231		92.4		69.0 - 129		
1,1,1-Trichloroethane	0.0250	0.0300		120		70.0 - 130		
1,1,2-Trichloroethane	0.0250	0.0275		110		70.0 - 130		
Trichloroethene	0.0250	0.0297		119		65.0 - 135		
Trichlorofluoromethane	0.0250	0.0346		138		50.0 - 150		
1,2,3-Trichloropropane	0.0250	0.0246		98.3		72.0 - 124		
1,2,4-Trimethylbenzene	0.0250	0.0236		94.6		75.0 - 120		
1,3,5-Trimethylbenzene	0.0250	0.0239		95.5		75.0 - 120		
Vinyl chloride	0.0250	0.0298		119		5.00 - 195		
Xylenes, Total	0.0750	0.0786		105		77.0 - 120		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

4A-OR

METHOD BLANK

SAMPLE NO.:
R3414288-4

Lab Sample ID:	R3414288-4	**SDG:**	L1100960
Lab File ID:	0523_07	**Preparation Date/Time:**	05/23/19 12:23
Instrument ID:	VOCMS7	**Analysis Date/Time:**	05/23/19 12:23
Analytical Batch:	WG1285605	**Dilution Factor:**	1
Analytical Method:	624.1	**Matrix:**	WW

Sample ID	Lab Sample ID	Instrument	File ID	Analysis *date/time*
LCS	R3414288-1	VOCMS7	0523_03	05/23/19 11:05
WW-20190519-002-DAY 17	L1100960-01	VOCMS7	0523_13	05/23/19 15:13

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID:	0502_01-8	**SDG:**	L1100960
Instrument ID:	VOCMS7	**Analytical Method:**	624.1
Analysis Date/Time:	05/02/19 13:43		

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
95	174	50	200	125
96	95	5	9	7
173	174	0	2	1
174	95	50	200	80
175	174	5	9	8
176	174	95	105	98
177	176	5	10	7

Sample ID	Lab Sample ID	File ID	Analysis date/time
STD-0.04	0.04	0502_06	05/02/19 15:26
STD-0.1	0.1	0502_07	05/02/19 15:46
STD-0.2	0.2	0502_08	05/02/19 16:07
STD-0.5	0.5	0502_09	05/02/19 16:27
STD-1	1	0502_10	05/02/19 16:48
STD-2	2	0502_11	05/02/19 17:08
STD-5.0	5.0	0502_12	05/02/19 17:28
STD-25	25	0502_13	05/02/19 17:49
STD-75	75	0502_14	05/02/19 18:09

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID:	0502_16-8	**SDG:**	L1100960
Instrument ID:	VOCMS7	**Analytical Method:**	624.1
Analysis Date/Time:	05/03/19 09:05		

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
95	174	50	200	126
96	95	5	9	7
173	174	0	2	0
174	95	50	200	79
175	174	5	9	7
176	174	95	105	100
177	176	5	10	7

Sample ID	Lab Sample ID	File ID	Analysis date/time
STD-100	100	0502_18	05/03/19 09:59
STD-200	200	0502_19	05/03/19 10:19
SSCV	VOCMS70502190502_22-8471432	0502_22-8	05/03/19 12:36

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID:	0507_48-8	**SDG:**	L1100960
Instrument ID:	VOCMS7	**Analytical Method:**	624.1
Analysis Date/Time:	05/08/19 03:30		

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
95	174	50	200	110
96	95	5	9	7
173	174	0	2	1
174	95	50	200	91
175	174	5	9	7
176	174	95	105	100
177	176	5	10	7

Sample ID	Lab Sample ID	File ID	Analysis date/time
STD-1A	1A	0507_51	05/08/19 04:31
STD-5A	5A	0507_52	05/08/19 04:51
STD-10A	10A	0507_53	05/08/19 05:12
STD-15A	15A	0507_54	05/08/19 05:32
STD-20A	20A	0507_55	05/08/19 05:52
STD-.5	.5	0507_60	05/08/19 07:34
STD-1	1	0507_61	05/08/19 07:54
STD-2	2	0507_62	05/08/19 08:15
STD-5.0	5.0	0507_63	05/08/19 08:35
STD-10	10	0507_64	05/08/19 08:55
STD-20	20	0507_65	05/08/19 09:15

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID:	0523_01T-3	**SDG:**	L1100960
Instrument ID:	VOCMS7	**Analytical Method:**	624.1
Analysis Date/Time:	05/23/19 10:25		

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
95	174	50	200	109
96	95	5	9	7
173	174	0	2	0
174	95	50	200	92
175	174	5	9	8
176	174	95	105	101
177	176	5	10	6

Sample ID	Lab Sample ID	File ID	Analysis date/time
ICV	VOCMS70523190523_02-3471432	0523_02-3	05/23/19 10:45
LCS	R3414288-1	0523_03	05/23/19 11:05
BLANK	R3414288-4	0523_07	05/23/19 12:23
WW-20190519-002-DAY 17	L1100960-01	0523_13	05/23/19 15:13

8A-OR

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1100960	**Analytical Method:**	624.1
Instrument ID:	VOCMS7	**Calibration Start Date:**	05/02/19 15:26
Std File:	0523_02-3	**Calibration End Date:**	05/08/19 09:15
		Std Analysis Date:	05/23/19 10:45

Sample ID	File ID	1,4-DCB		8260-CB		8260-FB	
		Response	*RT*	*Response*	*RT*	*Response*	*RT*
STANDARD		28710	7.69	63830	6.37	150881	4.44
UPPER LIMIT		57420		127660		301762	
LOWER LIMIT		14355		31915		75441	
LCS R3414288-1 WG1285605 1x	0523_03	30279	7.69	61832	6.37	148613	4.44
BLANK R3414288-4 WG1285605 1x	0523_07	30124	7.69	64308	6.37	164573	4.44
L1100960-01 WG1285605 1x	0523_13	26604	7.69	62859	6.37	154410	4.44

1,4-DCB - 8260-1,4-DICHLOROBENZENE-D4 8260-CB - 8260-CHLOROBENZENE-D5
8260-FB - 8260-FLUOROBENZENE

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
WW-20190519-002-DAY 17

Lab Sample ID:	L1100960-01	**SDG:**	L1100960
Client Sample ID:	WW-20190519-002-DAY 17	**Collected Date/Time:**	05/19/19 11:30
Lab File ID:	0523_13	**Received Date/Time:**	05/21/19 08:00
Instrument ID:	VOCMS7	**Preparation Date/Time:**	05/23/19 15:13
Analytical Batch:	WG1285605	**Analysis Date/Time:**	05/23/19 15:13
Dilution Factor:	1	**Prep Method:**	624.1
Analytical Method:	624.1	**Sample Vol Used:**	5 mL
Matrix:	WW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	SDL	Unadj. MQL	MQL
			mg/l		*mg/l*	*mg/l*	*mg/l*
Acetone	67-64-1	3.04	U		0.0100	0.0500	0.0500
Acrylonitrile	107-13-1	0	U		0.00187	0.0100	0.0100
Benzene	71-43-2	4.23	U		0.000331	0.00100	0.00100
Bromobenzene	108-86-1	0	U		0.000352	0.00100	0.00100
Bromochloromethane	74-97-5	0	U	J4	0.000520	0.00500	0.00500
Bromodichloromethane	75-27-4	0	U		0.000380	0.00100	0.00100
Bromoform	75-25-2	0	U		0.000469	0.00100	0.00100
Bromomethane	74-83-9	0	U		0.000866	0.00500	0.00500
n-Butylbenzene	104-51-8	0	U		0.000361	0.00100	0.00100
sec-Butylbenzene	135-98-8	0	U		0.000365	0.00100	0.00100
tert-Butylbenzene	98-06-6	0	U		0.000399	0.00100	0.00100
Carbon disulfide	75-15-0	0	U		0.000275	0.00100	0.00100
Carbon tetrachloride	56-23-5	0	U		0.000379	0.00100	0.00100
Chlorobenzene	108-90-7	0	U		0.000348	0.00100	0.00100
Chlorodibromomethane	124-48-1	0	U		0.000327	0.00100	0.00100
Chloroethane	75-00-3	0	U		0.000453	0.00500	0.00500
Chloroform	67-66-3	0	U		0.000324	0.00500	0.00500
Chloromethane	74-87-3	0	U		0.000276	0.00250	0.00250
2-Chlorotoluene	95-49-8	0	U		0.000375	0.00100	0.00100
4-Chlorotoluene	106-43-4	0	U		0.000351	0.00100	0.00100
Cyclohexane	110-82-7	0	U		0.000390	0.00100	0.00100
Dibromomethane	74-95-3	0	U		0.000346	0.00100	0.00100
1,2-Dichlorobenzene	95-50-1	0	U		0.000349	0.00100	0.00100
1,3-Dichlorobenzene	541-73-1	0	U		0.000220	0.00100	0.00100
1,4-Dichlorobenzene	106-46-7	0	U		0.000274	0.00100	0.00100
Dichlorodifluoromethane	75-71-8	0	U		0.000551	0.00500	0.00500
1,1-Dichloroethane	75-34-3	0	U		0.000259	0.00100	0.00100
1,2-Dichloroethane	107-06-2	0	U		0.000361	0.00100	0.00100
1,1-Dichloroethene	75-35-4	0	U		0.000398	0.00100	0.00100
cis-1,2-Dichloroethene	156-59-2	0	U		0.000260	0.00100	0.00100
trans-1,2-Dichloroethene	156-60-5	0	U		0.000396	0.00100	0.00100
1,2-Dichloropropane	78-87-5	0	U		0.000306	0.00100	0.00100
2,2-Dichloropropane	594-20-7	0	U		0.000321	0.00100	0.00100
1,1-Dichloropropene	563-58-6	0	U		0.000352	0.00100	0.00100
1,3-Dichloropropene	542-75-6	0	U		0.000320	0.00100	0.00100
cis-1,3-Dichloropropene	10061-01-5	0	U		0.000418	0.00100	0.00100
trans-1,3-Dichloropropene	10061-02-6	0	U		0.000419	0.00100	0.00100
Ethylbenzene	100-41-4	0	U		0.000384	0.00100	0.00100
2-Hexanone	591-78-6	0	U		0.00382	0.0100	0.0100
Isopropylbenzene	98-82-8	0	U		0.000326	0.00100	0.00100
p-Isopropyltoluene	99-87-6	0	U		0.000350	0.00100	0.00100
2-Butanone (MEK)	78-93-3	0	U		0.00393	0.0100	0.0100
Methyl Acetate	79-20-9	0	U		0.00430	0.0200	0.0200

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
WW-20190519-002-DAY 17

Lab Sample ID:	L1100960-01	**SDG:**	L1100960
Client Sample ID:	WW-20190519-002-DAY 17	**Collected Date/Time:**	05/19/19 11:30
Lab File ID:	0523_13	**Received Date/Time:**	05/21/19 08:00
Instrument ID:	VOCMS7	**Preparation Date/Time:**	05/23/19 15:13
Analytical Batch:	WG1285605	**Analysis Date/Time:**	05/23/19 15:13
Dilution Factor:	1	**Prep Method:**	624.1
Analytical Method:	624.1	**Sample Vol Used:**	5 mL
Matrix:	WW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	SDL	Unadj. MQL	MQL
			mg/l		*mg/l*	*mg/l*	*mg/l*
Methyl Cyclohexane	108-87-2	0	U		0.000380	0.00100	0.00100
Methylene Chloride	75-09-2	0	U		0.00100	0.00500	0.00500
4-Methyl-2-pentanone (MIBK)	108-10-1	0	U		0.00214	0.0100	0.0100
Methyl tert-butyl ether	1634-04-4	0	U		0.000367	0.00100	0.00100
n-Propylbenzene	103-65-1	0	U		0.000349	0.00100	0.00100
Styrene	100-42-5	0	U		0.000307	0.00100	0.00100
1,1,1,2-Tetrachloroethane	630-20-6	0	U		0.000385	0.00100	0.00100
1,1,2,2-Tetrachloroethane	79-34-5	0	U		0.000130	0.00100	0.00100
Tetrachloroethene	127-18-4	0	U		0.000372	0.00100	0.00100
Toluene	108-88-3	0	U		0.000412	0.00100	0.00100
1,2,3-Trichlorobenzene	87-61-6	0	U		0.000230	0.00100	0.00100
1,2,4-Trichlorobenzene	120-82-1	0	U		0.000355	0.00100	0.00100
1,2,4-Trimethylbenzene	95-63-6	0	U		0.000373	0.00100	0.00100
1,3,5-Trimethylbenzene	108-67-8	0	U		0.000387	0.00100	0.00100
1,1,1-Trichloroethane	71-55-6	0	U		0.000319	0.00100	0.00100
1,1,2-Trichloroethane	79-00-5	0	U		0.000383	0.00100	0.00100
Trichloroethene	79-01-6	0	U		0.000398	0.00100	0.00100
Trichlorofluoromethane	75-69-4	0	U		0.00120	0.00500	0.00500
1,1,2-Trichlorotrifluoroethane	76-13-1	0	U		0.000303	0.00100	0.00100
1,2,3-Trichloropropane	96-18-4	0	U		0.000807	0.00250	0.00250
Vinyl chloride	75-01-4	0	U		0.000259	0.00100	0.00100
o-Xylene	95-47-6	0	U		0.000341	0.00100	0.00100
m&p-Xylene	1330-20-7	0	U		0.000719	0.00200	0.00200
Xylenes, Total	1330-20-7	0	U		0.00106	0.00300	0.00300

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GC/MS INITIAL CALIBRATION DATA

SDG: L1100960 **Analytical Method:** 624.1

Instrument ID: VOCMS7

Analyte	**RRF: 0.04**	**RRF: 0.1**	**RRF: 0.2**	**RRF: 0.5**	**RRF: 1**	**RRF: 2**	**RRF: 5.0**	**RRF: 25**	**RRF: 75**	**RRF: 100**
Analysis date/time	05/02/19 15:26	05/02/19 15:46	05/02/19 16:07	05/02/19 16:27	05/02/19 16:48	05/02/19 17:08	05/02/19 17:28	05/02/19 17:49	05/02/19 18:09	05/03/19 09:59
BENZENE	1.7750	1.5040	1.5160	1.5160	1.4720	1.5140	1.6120	1.4420	1.5460	1.3790
M&P-XYLENE	1.8850	1.6260	1.6710	1.57	1.5190	1.6420	1.7410	1.5490	1.6860	1.4280
1,2-DICHLOROETHANE-D4	0.3180	0.3250	0.32	0.3240	0.3250	0.3280	0.3370	0.35	0.33	0.32
TOLUENE-D8	2.61	2.5490	2.5140	2.6030	2.5670	2.6060	2.6410	2.5980	2.6360	2.6520
4-BROMOFLUOROBENZENE	0.8280	0.8160	0.8270	0.8250	0.8190	0.8350	0.8690	0.8420	0.8910	0.8620
VINYL CHLORIDE		0.4490	0.4920	0.43	0.4550	0.48	0.5080	0.4990	0.5170	0.4720
TRICHLOROFLUOROMETHANE		0.4550	0.4310	0.4480	0.3950	0.4450	0.4710	0.5130	0.5230	0.52
METHYL TERT-BUTYL ETHER		0.9730	1.1740	1.0080	0.9630	1.0720	1.0730	0.9550	1.0010	0.8970
2-BUTANONE (MEK)		0.4430	0.4140	0.3690	0.3590	0.3470	0.3810	0.3810	0.4010	0.3720
CHLOROFORM		0.6980	0.6330	0.6070	0.6020	0.6480	0.6840	0.62	0.66	0.5750
CYCLOHEXANE		0.3870	0.3840	0.42	0.3650	0.4130	0.4470	0.4570	0.4810	0.4270
CARBON TETRACHLORIDE		0.4220	0.43	0.4480	0.4460	0.4660	0.5170	0.5160	0.5550	0.4770
BROMODICHLOROMETHANE		0.4140	0.3970	0.4660	0.4540	0.4810	0.4950	0.4470	0.4780	0.43
4-METHYL-2-PENTANONE (MIBK)		1.6880	2.0520	1.93	1.7770	1.85	2.0350	1.8560	2.0430	1.8620
TOLUENE		4.5260	4.91	4.0890	3.69	4.3160	4.4470	3.9050	4.2630	3.7550
CHLOROBENZENE		2.0540	2.3060	2.3120	2.32	2.4370	2.5060	2.2680	2.5110	2.1220
ISOPROPYLBENZENE		3.3710	3.2070	3.6510	3.4260	3.84	4.0760	3.7070	4.1110	3.4860
N-PROPYLBENZENE		6.8550	6.9340	6.6980	7.0110	7.7670	7.9010	7.6420	8.3390	6.8580
2-CHLOROTOLUENE		3.9070	4.6190	4.3970	4.5050	4.3010	4.6220	4.2290	4.5620	3.7130
SEC-BUTYLBENZENE		3.6150	4.3570	3.5910	3.9340	4.0140	4.3590	3.8920	4.1150	3.44
DICHLORODIFLUOROMETHANE			0.4120	0.28	0.3140	0.2690	0.3420	0.37	0.3830	0.34
CHLOROMETHANE			0.7060	0.5430	0.6330	0.60	0.6130	0.5510	0.5910	0.5580
CARBON DISULFIDE			1.0380	0.9380	0.8390	0.9480	1.0250	0.9630	1.0050	0.9380
TRANS-1,2-DICHLOROETHENE			0.3390	0.2790	0.2920	0.3450	0.3710	0.32	0.3410	0.3040
1,1-DICHLOROETHANE			0.8180	0.7380	0.6550	0.7710	0.7940	0.71	0.7650	0.6840
2,2-DICHLOROPROPANE			0.7280	0.6090	0.5820	0.5680	0.5580	0.5210	0.5750	0.5430
CIS-1,2-DICHLOROETHENE			0.3940	0.3940	0.3720	0.3710	0.3710	0.3620	0.38	0.3360
BROMOCHLOROMETHANE			0.1980	0.2210	0.2020	0.2040	0.2230	0.20	0.1860	0.1660
1,1,1-TRICHLOROETHANE			0.55	0.4670	0.5790	0.5570	0.5910	0.5560	0.5960	0.5280
1,1-DICHLOROPROPENE			0.4920	0.4390	0.4610	0.4680	0.5270	0.4870	0.51	0.4590
1,2-DICHLOROETHANE			0.4820	0.51	0.5140	0.5430	0.5510	0.4810	0.5150	0.4590
TRICHLOROETHENE			0.3670	0.3360	0.36	0.4010	0.4260	0.3750	0.4040	0.3530
TRANS-1,3-DICHLOROPROPENE			0.95	1.0240	1.0980	1.1320	1.3360	1.2150	1.40	1.2530
1,1,2-TRICHLOROETHANE			0.6820	0.7530	0.7250	0.7590	0.8850	0.7620	0.8540	0.7630
CHLORODIBROMOMETHANE			0.7510	0.7970	0.7810	0.9580	0.9390	0.8530	0.97	0.8570
1,1,1,2-TETRACHLOROETHANE			0.9850	0.7780	0.8970	0.8710	0.8910	0.7960	0.8730	0.7570
O-XYLENE			1.4380	1.5080	1.4610	1.64	1.6550	1.48	1.6350	1.3780
1,1,2,2-TETRACHLOROETHANE			1.77	1.7930	2.0160	2.3750	2.4050	2.1830	2.3590	2.0260
1,4-DICHLOROBENZENE			2.1040	1.9260	2.0380	2.1480	2.1250	1.7370	1.9240	1.5630
1,2-DICHLOROBENZENE			1.8810	1.4620	1.8520	1.8390	1.9760	1.7330	1.86	1.6050
BROMOMETHANE				0.2440	0.2270	0.1480	0.1440	0.1070	0.1520	0.1490
CHLOROETHANE				0.3080	0.2730	0.2870	0.2770	0.2470	0.2380	
1,1-DICHLOROETHENE				0.2430	0.2840	0.2910	0.3190	0.2990	0.3150	0.2850
ACETONE				0.2420	0.2350	0.23	0.2410	0.2320	0.24	0.2210
METHYLENE CHLORIDE				0.3630	0.39	0.3470	0.3610	0.3260	0.3440	0.3010
METHYL CYCLOHEXANE				0.6890	0.5260	0.48	0.4940	0.4830	0.5110	0.4420
1,2-DICHLOROPROPANE				0.2480	0.2670	0.2910	0.3070	0.2730	0.31	0.2750
DIBROMOMETHANE				0.1920	0.2130	0.2160	0.2280	0.2110	0.2360	0.21
CIS-1,3-DICHLOROPROPENE				0.5230	0.5350	0.5650	0.6090	0.5480	0.5960	0.5430
TETRACHLOROETHENE				0.71	0.7460	0.8010	0.85	0.75	0.8230	0.7030

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GC/MS INITIAL CALIBRATION DATA

SDG: L1100960 **Analytical Method:** 624.1

Instrument ID: VOCMS7

Analyte	**RRF: 0.04**	**RRF: 0.1**	**RRF: 0.2**	**RRF: 0.5**	**RRF: 1**	**RRF: 2**	**RRF: 5.0**	**RRF: 25**	**RRF: 75**	**RRF: 100**
Analysis date/time	05/02/19 15:26	05/02/19 15:46	05/02/19 16:07	05/02/19 16:27	05/02/19 16:48	05/02/19 17:08	05/02/19 17:28	05/02/19 17:49	05/02/19 18:09	05/03/19 09:59
ETHYLBENZENE				1.2430	1.3130	1.4130	1.4390	1.2910	1.4170	1.1930
STYRENE				2.0530	2.0090	2.2090	2.5140	2.3240	2.6380	2.2860
BROMOFORM				0.5330	0.6060	0.6530	0.7360	0.6880	0.7790	0.70
BROMOBENZENE				2.6120	3.2550	3.0670	3.0230	2.7420	3.0580	2.5630
1,2,3-TRICHLOROPROPANE				0.5140	0.4820	0.5190	0.5590	0.4980	0.5360	0.4680
4-CHLOROTOLUENE				3.2250	3.2670	3.2560	3.5810	3.3470	3.6990	3.0070
1,3,5-TRIMETHYLBENZENE				4.9330	4.75	4.9070	4.7630	4.3340	4.7090	3.8070
TERT-BUTYLBENZENE				2.5770	2.5810	2.99	3.2210	2.8720	3.0550	2.5460
1,2,4-TRIMETHYLBENZENE				3.2520	3.0570	3.5570	3.7620	3.3190	3.6150	2.9640
P-ISOPROPYLTOLUENE				3.0120	2.8420	3.3540	3.6630	3.3080	3.5420	2.9490
1,2,4-TRICHLOROBENZENE				0.8410	0.7690	1.0780	1.1060	1.1050	1.2990	
1,2,3-TRICHLOROBENZENE				0.8910	0.85	1.0560	1.0350	1.0330	1.1750	0.9980
1,1,2-TRICHLOROTRIFLUOROETHANE					0.2310	0.2690	0.3110	0.3380	0.3640	0.3170
METHYL ACETATE					0.4480	0.4590	0.4920	0.5190	0.5390	0.5090
ACRYLONITRILE					0.21	0.2080	0.2590	0.2550	0.2760	0.2570
1,3-DICHLOROBENZENE					1.3470	1.63	1.8470	1.7070	1.9110	1.5770
N-BUTYLBENZENE					2.0230	2.68	3.0010	2.6460	2.9030	2.5470
2-HEXANONE						0.5860	0.7190	0.7170	0.7920	0.7320
File ID:	0502_06	0502_07	0502_08	0502_09	0502_10	0502_11	0502_12	0502_13	0502_14	0502_18

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GC/MS INITIAL CALIBRATION DATA

SDG: L1100960 **Analytical Method:** 624.1

Instrument ID: VOCMS7

Analyte	RRF: 200	RRF. Avg	%RSD	COD
Analysis date/time	05/03/19 10:19			
BENZENE	1.5690	1.5314	6.66	
M&P-XYLENE	1.6230	1.630859	7.4	
1,2-DICHLOROETHANE-D4	0.3220	0.327073	2.85	
TOLUENE-D8	2.77	2.613241	2.54	
4-BROMOFLUOROBENZENE	0.8850	0.845348	3.17	
VINYL CHLORIDE	0.5010	0.480256	5.88	
TRICHLOROFLUOROMETHANE	0.4940	0.469594	9.03	
METHYL TERT-BUTYL ETHER	1.0540	1.016982	7.73	
2-BUTANONE (MEK)	0.4320	0.389893	8.11	
CHLOROFORM	0.6610	0.638811	6.05	
CYCLOHEXANE	0.4890	0.426886	9.74	
CARBON TETRACHLORIDE	0.5450	0.482218	9.94	
BROMODICHLOROMETHANE	0.4920	0.455374	7.31	
4-METHYL-2-PENTANONE (MIBK)	2.0230	1.911461	6.58	
TOLUENE	4.25	4.215206	8.83	
CHLOROBENZENE	2.4160	2.325244	6.52	
ISOPROPYLBENZENE	3.8980	3.677305	8.3	
N-PROPYLBENZENE	8.2780	7.42835	8.44	
2-CHLOROTOLUENE	4.4380	4.329308	7.06	
SEC-BUTYLBENZENE	4.0850	3.940157	7.96	
DICHLORODIFLUOROMETHANE	0.3350	0.338319	13.72	
CHLOROMETHANE		0.599521	8.92	
CARBON DISULFIDE	1.0150	0.967567	6.37	
TRANS-1,2-DICHLOROETHENE	0.3430	0.326004	9.03	
1,1-DICHLOROETHANE	0.7760	0.745561	7.17	
2,2-DICHLOROPROPANE	0.6080	0.587866	10.16	
CIS-1,2-DICHLOROETHENE	0.3850	0.374101	4.79	
BROMOCHLOROMETHANE	0.1680	0.196537	10.23	
1,1,1-TRICHLOROETHANE	0.5890	0.556757	7.28	
1,1-DICHLOROPROPENE	0.5190	0.484785	6.19	
1,2-DICHLOROETHANE	0.5240	0.508743	5.91	
TRICHLOROETHENE	0.4040	0.380769	7.76	
TRANS-1,3-DICHLOROPROPENE	1.4320	1.204447	13.88	
1,1,2-TRICHLOROETHANE	0.8590	0.782434	8.7	
CHLORODIBROMOMETHANE	0.9870	0.876925	10.16	
1,1,1,2-TETRACHLOROETHANE	0.8670	0.857142	8.21	
O-XYLENE	1.5730	1.529787	6.54	
1,1,2,2-TETRACHLOROETHANE	2.50	2.158436	12.56	
1,4-DICHLOROBENZENE	1.9040	1.941181	9.96	
1,2-DICHLOROBENZENE	1.9580	1.796259	9.37	
BROMOMETHANE	0.1780	0.168674	27.16	0.998
CHLOROETHANE		0.271876	9.53	
1,1-DICHLOROETHENE	0.3190	0.294465	8.6	
ACETONE	0.2450	0.23581	3.28	
METHYLENE CHLORIDE	0.3450	0.347041	7.62	
METHYL CYCLOHEXANE	0.5060	0.516245	14.35	
1,2-DICHLOROPROPANE	0.3170	0.286015	8.38	
DIBROMOMETHANE	0.2380	0.217832	7.04	
CIS-1,3-DICHLOROPROPENE	0.62	0.567313	6.43	
TETRACHLOROETHENE	0.8010	0.772857	6.93	

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GC/MS INITIAL CALIBRATION DATA

SDG: L1100960 **Analytical Method:** 624.1

Instrument ID: VOCMS7

Analyte	**RRF: 200**	**RRF. Avg**	**%RSD**	**COD**
Analysis date/time	05/03/19 10:19			
ETHYLBENZENE	1.3610	1.333752	6.66	
STYRENE	2.5810	2.32684	10.12	
BROMOFORM	0.7860	0.685136	12.61	
BROMOBENZENE	3.0920	2.926324	8.63	
1,2,3-TRICHLOROPROPANE	0.5580	0.516774	6.46	
4-CHLOROTOLUENE	3.60	3.37295	6.93	
1,3,5-TRIMETHYLBENZENE	4.5180	4.590165	8.11	
TERT-BUTYLBENZENE	3.0430	2.860797	9.11	
1,2,4-TRIMETHYLBENZENE	3.5320	3.382219	8.31	
P-ISOPROPYLTOLUENE	3.4810	3.268953	9.21	
1,2,4-TRICHLOROBENZENE		1.032997	18.88	0.995
1,2,3-TRICHLOROBENZENE	1.2770	1.039527	13.36	
1,1,2-TRICHLOROTRIFLUOROETHANE	0.3460	0.310864	14.95	
METHYL ACETATE	0.5460	0.501697	7.49	
ACRYLONITRILE	0.2970	0.251782	13.01	
1,3-DICHLOROBENZENE	1.9790	1.71422	12.76	
N-BUTYLBENZENE	3.0080	2.686829	12.81	
2-HEXANONE	0.8340	0.729848	11.57	
File ID:	0502_19			

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GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1100960	**Calibration (begin) date/time:**	05/02/19 15:26
Instrument ID:	VOCMS7	**Calibration (end) date/time:**	05/08/19 09:15
Lab File ID:	0502_22-8	**Analysis date/time:**	05/03/19 12:36
Analytical Method:	624.1	**Sample ID:**	SSCV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	%	mg/l	mg/l	% Rec.	%
1,1,1,2-TETRACHLOROETHANE	0.857142	0.84664630		1.22	40	0.0250	0.02469388	98.80	75 - 122
1,1,1-TRICHLOROETHANE	0.556757	0.61251310		10	40	0.0250	0.02750362	110	70 - 130
1,1,2,2-TETRACHLOROETHANE	2.158436	2.266681		5.01	30	0.0250	0.02625374	105	60 - 140
1,1,2-TRICHLOROETHANE	0.782434	0.82326840		5.22	40	0.0250	0.02630472	105	78 - 120
1,1,2-TRICHLOROTRIFLUOROETHANE	0.310864	0.36235660		16.60	40	0.0250	0.02914113	117	61 - 136
1,1-DICHLOROETHANE	0.745561	0.79542030		6.69	30	0.0250	0.02667186	107	70 - 130
1,1-DICHLOROETHENE	0.294465	0.34073810		15.70	30	0.0250	0.02892854	116	50 - 150
1,1-DICHLOROPROPENE	0.484785	0.52016060		7.30	40	0.0250	0.02682429	107	71 - 129
1,2,3-TRICHLOROBENZENE	1.039527	1.073601		3.28	40	0.0250	0.02581945	103	61 - 133
1,2,3-TRICHLOROPROPANE	0.516774	0.50938540		1.43	40	0.0250	0.02464258	98.60	72 - 124
1,2,4-TRICHLOROBENZENE	1.032997	1.175882		13.80	40	0.0250	0.02372301	94.90	69 - 129
1,2,4-TRIMETHYLBENZENE	3.382219	3.393827		0.3430	40	0.0250	0.0250858	100	75 - 120
1,2-DICHLOROBENZENE	1.796259	1.800939		0.2610	40	0.0250	0.02506514	100	65 - 135
1,2-DICHLOROETHANE	0.508743	0.51396230		1.03	40	0.0250	0.02525648	101	70 - 130
1,2-DICHLOROPROPANE	0.286015	0.32493750		13.60	30	0.0250	0.02840215	114	35 - 165
1,3,5-TRIMETHYLBENZENE	4.590165	4.447242		3.11	40	0.0250	0.02422158	96.90	75 - 120
1,3-DICHLOROBENZENE	1.714220	1.823746		6.39	40	0.0250	0.02659732	106	70 - 130
1,4-DICHLOROBENZENE	1.941181	1.798318		7.36	40	0.0250	0.0231601	92.60	65 - 135
2,2-DICHLOROPROPANE	0.587866	0.59820070		1.76	40	0.0250	0.02543951	102	60 - 125
2-BUTANONE (MEK)	0.389893	0.427128		9.55	40	0.1250	0.1369375	110	37 - 158
2-CHLOROTOLUENE	4.329308	4.224231		2.43	40	0.0250	0.02439322	97.60	74 - 122
2-HEXANONE	0.729848	0.76907690		5.37	40	0.1250	0.1317186	105	58 - 147
4-CHLOROTOLUENE	3.372950	3.388184		0.4520	40	0.0250	0.02511291	100	79 - 120
4-METHYL-2-PENTANONE (MIBK)	1.911461	2.002036		4.74	40	0.1250	0.1309231	105	59 - 143
ACETONE	0.235810	0.28126950		19.30	40	0.1250	0.1490973	119	10 - 160
ACRYLONITRILE	0.251782	0.29157340		15.80	40	0.1250	0.1447551	116	60 - 140
BENZENE	1.5314	1.546833		1.01	40	0.0250	0.02525194	101	65 - 135
BROMOBENZENE	2.926324	2.742290		6.29	40	0.0250	0.02342777	93.70	79 - 120
BROMOCHLOROMETHANE	0.196537	0.20141470		2.48	40	0.0250	0.02562046	102	76 - 122
BROMODICHLOROMETHANE	0.455374	0.49182860		8.01	40	0.0250	0.02700133	108	65 - 135
BROMOFORM	0.685136	0.73268490		6.94	30	0.0250	0.026735	107	70 - 130
BROMOMETHANE	0.168674	0.26700760		58.30	40	0.0250	0.04937765	198	15 - 185
CARBON DISULFIDE	0.967567	1.078569		11.50	40	0.0250	0.02786805	111	55 - 127
CARBON TETRACHLORIDE	0.482218	0.55414890		14.90	40	0.0250	0.02872916	115	70 - 130
CHLOROBENZENE	2.325244	2.355886		1.32	30	0.0250	0.02532944	101	65 - 135
CHLORODIBROMOMETHANE	0.876925	0.93638580		6.78	40	0.0250	0.02669514	107	70 - 135
CHLOROETHANE	0.271876	0.26608170		2.13	40	0.0250	0.02446718	97.90	40 - 160
CHLOROFORM	0.638811	0.68193070		6.75	30	0.0250	0.02668752	107	70 - 130
CHLOROMETHANE	0.599521	0.72181770		20.40	30	0.0250	0.03009974	120	0.0010 - 205
CIS-1,2-DICHLOROETHENE	0.374101	0.387719		3.64	40	0.0250	0.02591007	104	73 - 120
CIS-1,3-DICHLOROPROPENE	0.567313	0.599938		5.75	40	0.0250	0.0264377	106	25 - 175
CYCLOHEXANE	0.426886	0.53947620		26.40	40	0.0250	0.03159371	126	70 - 130
DIBROMOMETHANE	0.217832	0.22870970		4.99	40	0.0250	0.02624835	105	78 - 120
DICHLORODIFLUOROMETHANE	0.338319	0.58496220		72.90	40	0.0250	0.0432256	173	49 - 155
ETHYLBENZENE	1.333752	1.350944		1.29	30	0.0250	0.02532225	101	60 - 140
ISOPROPYLBENZENE	3.677305	3.966478		7.86	40	0.0250	0.02696593	108	75 - 120
M&P-XYLENE	1.630859	1.614428		1.01	40	0.05	0.04949622	99	77 - 120

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1100960	**Calibration (begin) date/time:**	05/02/19 15:26
Instrument ID:	VOCMS7	**Calibration (end) date/time:**	05/08/19 09:15
Lab File ID:	0502_22-8	**Analysis date/time:**	05/03/19 12:36
Analytical Method:	624.1	**Sample ID:**	SSCV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	%	mg/l	mg/l	% Rec.	%
METHYL ACETATE	0.501697	0.59223260		18	40	0.1250	0.1475573	118	70 - 130
METHYL CYCLOHEXANE	0.516245	0.54092060		4.78	40	0.0250	0.02619495	105	70 - 130
METHYL TERT-BUTYL ETHER	1.016982	1.074582		5.66	40	0.0250	0.02641596	106	64 - 123
METHYLENE CHLORIDE	0.347041	0.35356910		1.88	40	0.0250	0.02547028	102	60 - 140
N-BUTYLBENZENE	2.686829	2.730469		1.62	40	0.0250	0.02540605	102	72 - 126
N-PROPYLBENZENE	7.428350	7.627474		2.68	40	0.0250	0.02567015	103	79 - 120
O-XYLENE	1.529787	1.561009		2.04	40	0.0250	0.02551023	102	78 - 120
P-ISOPROPYLTOLUENE	3.268953	3.246265		0.6940	40	0.0250	0.02482649	99.30	74 - 126
SEC-BUTYLBENZENE	3.940157	3.917972		0.5630	40	0.0250	0.02485923	99.40	74 - 121
STYRENE	2.326840	2.518502		8.24	40	0.0250	0.02705925	108	78 - 124
TERT-BUTYLBENZENE	2.860797	2.939255		2.74	40	0.0250	0.02568563	103	75 - 122
TETRACHLOROETHENE	0.772857	0.79054760		2.29	40	0.0250	0.02557224	102	70 - 130
TOLUENE	4.215206	4.096812		2.81	30	0.0250	0.02429782	97.20	70 - 130
TRANS-1,2-DICHLOROETHENE	0.326004	0.35689890		9.48	40	0.0250	0.02736919	109	70 - 130
TRANS-1,3-DICHLOROPROPENE	1.204447	1.270835		5.51	40	0.0250	0.02637796	106	50 - 150
TRICHLOROETHENE	0.380769	0.38140960		0.1680	40	0.0250	0.02504204	100	65 - 135
TRICHLOROFLUOROMETHANE	0.469594	0.637347		35.70	40	0.0250	0.03393074	136	50 - 150
VINYL CHLORIDE	0.480256	0.55937420		16.50	30	0.0250	0.02911853	116	5 - 195
XYLENES, TOTAL	0	3.158588		0	40	0.0750	0.07500645	100	77 - 120
1,2-DICHLOROETHANE-D4	0.327073	0.30614080		6.40	40	0.0160	0.014976	93.60	70 - 130
4-BROMOFLUOROBENZENE	0.845348	0.81009330		4.17	40	0.0160	0.01533273	95.80	70 - 130
TOLUENE-D8	2.613241	2.417739		7.48	40	0.0160	0.01480301	92.50	70 - 130

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1100960	**Calibration (begin) date/time:**	05/02/19 15:26
Instrument ID:	VOCMS7	**Calibration (end) date/time:**	05/08/19 09:15
Lab File ID:	0523_02-3	**Analysis date/time:**	05/23/19 10:45
Analytical Method:	624.1	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	%	mg/l	mg/l	% Rec.	%
1,1,1,2-TETRACHLOROETHANE	0.857142	0.89123740		3.98		0.0250	0.02599446	104	75 - 122
1,1,1-TRICHLOROETHANE	0.556757	0.66478040		19.40		0.0250	0.02985057	119	70 - 130
1,1,2,2-TETRACHLOROETHANE	2.158436	2.146842		0.5370		0.0250	0.02486572	99.50	60 - 140
1,1,2-TRICHLOROETHANE	0.782434	0.84235750		7.66		0.0250	0.02691465	108	70 - 130
1,1,2-TRICHLOROTRIFLUOROETHANE	0.310864	0.37648530		21.10		0.0250	0.03027738	121	61 - 136
1,1-DICHLOROETHANE	0.745561	0.84450350		13.30		0.0250	0.0283177	113	70 - 130
1,1-DICHLOROETHENE	0.294465	0.34211860		16.20		0.0250	0.02904575	116	50 - 150
1,1-DICHLOROPROPENE	0.484785	0.55344280		14.20		0.0250	0.02854063	114	71 - 129
1,2,3-TRICHLOROBENZENE	1.039527	1.116623		7.42		0.0250	0.0268541	107	61 - 133
1,2,3-TRICHLOROPROPANE	0.516774	0.57343650		11		0.0250	0.02774118	111	72 - 124
1,2,4-TRICHLOROBENZENE	1.032997	1.148255		11.20		0.0250	0.02317226	92.70	69 - 129
1,2,4-TRIMETHYLBENZENE	3.382219	3.424413		1.25		0.0250	0.02531188	101	75 - 120
1,2-DICHLOROBENZENE	1.796259	1.800137		0.2160		0.0250	0.02505397	100	65 - 135
1,2-DICHLOROETHANE	0.508743	0.57435040		12.90		0.0250	0.028224	113	70 - 130
1,2-DICHLOROPROPANE	0.286015	0.32294170		12.90		0.0250	0.0282277	113	35 - 165
1,3,5-TRIMETHYLBENZENE	4.590165	4.584460		0.1240		0.0250	0.02496892	99.90	75 - 120
1,3-DICHLOROBENZENE	1.714220	1.819553		6.14		0.0250	0.02653616	106	70 - 130
1,4-DICHLOROBENZENE	1.941181	1.939639		0.0794		0.0250	0.02498015	99.90	65 - 135
2,2-DICHLOROPROPANE	0.587866	0.65183450		10.90		0.0250	0.02772038	111	60 - 125
2-BUTANONE (MEK)	0.389893	0.43296770		11		0.1250	0.1388097	111	37 - 158
2-CHLOROTOLUENE	4.329308	4.424872		2.21		0.0250	0.02555185	102	74 - 122
2-HEXANONE	0.729848	0.74686990		2.33		0.1250	0.1279152	102	58 - 147
4-CHLOROTOLUENE	3.372950	3.464204		2.71		0.0250	0.02567636	103	79 - 120
4-METHYL-2-PENTANONE (MIBK)	1.911461	2.037187		6.58		0.1250	0.1332218	107	59 - 143
ACETONE	0.235810	0.26318130		11.60		0.1250	0.1395089	112	10 - 160
ACRYLONITRILE	0.251782	0.28875570		14.70		0.1250	0.1433562	115	60 - 140
BENZENE	1.5314	1.635743		6.81		0.0250	0.0267034	107	65 - 135
BROMOBENZENE	2.926324	2.984192		1.98		0.0250	0.02549437	102	79 - 120
BROMOCHLOROMETHANE	0.196537	0.248554		26.50		0.0250	0.0316167	126	76 - 122
BROMODICHLOROMETHANE	0.455374	0.52535810		15.40		0.0250	0.0288421	115	65 - 135
BROMOFORM	0.685136	0.815767		19.10		0.0250	0.02976658	119	70 - 130
BROMOMETHANE	0.168674	0.158824		5.84		0.0250	0.03044437	122	15 - 185
CARBON DISULFIDE	0.967567	1.123081		16.10		0.0250	0.02901815	116	55 - 127
CARBON TETRACHLORIDE	0.482218	0.61655590		27.90		0.0250	0.03196458	128	70 - 130
CHLOROBENZENE	2.325244	2.448925		5.32		0.0250	0.02632976	105	65 - 135
CHLORODIBROMOMETHANE	0.876925	1.013853		15.60		0.0250	0.02890363	116	70 - 135
CHLOROETHANE	0.271876	0.26199190		3.64		0.0250	0.02409111	96.40	40 - 160
CHLOROFORM	0.638811	0.72629430		13.70		0.0250	0.02842369	114	70 - 130
CHLOROMETHANE	0.599521	0.62556540		4.34		0.0250	0.02608602	104	0.0010 - 205
CIS-1,2-DICHLOROETHENE	0.374101	0.41350740		10.50		0.0250	0.02763342	111	73 - 120
CIS-1,3-DICHLOROPROPENE	0.567313	0.62583260		10.30		0.0250	0.02757881	110	25 - 175
CYCLOHEXANE	0.426886	0.48278370		13.10		0.0250	0.02827359	113	70 - 130
DIBROMOMETHANE	0.217832	0.25421260		16.70		0.0250	0.02917524	117	78 - 120
DICHLORODIFLUOROMETHANE	0.338319	0.475051		40.40		0.0250	0.03510375	140	49 - 155
ETHYLBENZENE	1.333752	1.341895		0.6110		0.0250	0.02515261	101	60 - 140
ISOPROPYLBENZENE	3.677305	3.896811		5.97		0.0250	0.0264923	106	75 - 120
M&P-XYLENE	1.630859	1.627914		0.1810		0.05	0.0499097	99.80	77 - 120

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1100960	**Calibration (begin) date/time:**	05/02/19 15:26
Instrument ID:	VOCMS7	**Calibration (end) date/time:**	05/08/19 09:15
Lab File ID:	0523_02-3	**Analysis date/time:**	05/23/19 10:45
Analytical Method:	624.1	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	%	mg/l	mg/l	% Rec.	%
METHYL ACETATE	0.501697	0.62415620		24.40		0.1250	0.1555112	124	70 - 130
METHYL CYCLOHEXANE	0.516245	0.49556830		4.01		0.0250	0.02399869	96	70 - 130
METHYL TERT-BUTYL ETHER	1.016982	1.152090		13.30		0.0250	0.02832129	113	64 - 123
METHYLENE CHLORIDE	0.347041	0.37441530		7.89		0.0250	0.02697199	108	60 - 140
N-BUTYLBENZENE	2.686829	2.542546		5.37		0.0250	0.02365749	94.60	72 - 126
N-PROPYLBENZENE	7.428350	8.078937		8.76		0.0250	0.02718954	109	79 - 120
O-XYLENE	1.529787	1.591638		4.04		0.0250	0.02601078	104	78 - 120
P-ISOPROPYLTOLUENE	3.268953	3.171623		2.98		0.0250	0.02425564	97	74 - 126
SEC-BUTYLBENZENE	3.940157	3.708545		5.88		0.0250	0.02353044	94.10	74 - 121
STYRENE	2.326840	2.527785		8.64		0.0250	0.02715898	109	78 - 124
TERT-BUTYLBENZENE	2.860797	2.824538		1.27		0.0250	0.02468314	98.70	75 - 122
TETRACHLOROETHENE	0.772857	0.85421910		10.50		0.0250	0.02763185	111	70 - 130
TOLUENE	4.215206	4.076789		3.28		0.0250	0.02417906	96.70	70 - 130
TRANS-1,2-DICHLOROETHENE	0.326004	0.37402940		14.70		0.0250	0.02868285	115	70 - 130
TRANS-1,3-DICHLOROPROPENE	1.204447	1.334926		10.80		0.0250	0.02770827	111	50 - 150
TRICHLOROETHENE	0.380769	0.453189		19		0.0250	0.02975482	119	65 - 135
TRICHLOROFLUOROMETHANE	0.469594	0.628594		33.90		0.0250	0.03346475	134	50 - 150
VINYL CHLORIDE	0.480256	0.56649050		18		0.0250	0.02948896	118	5 - 195
XYLENES, TOTAL	0	3.592404		0		0.0750	0.07592048	101	77 - 120
1,2-DICHLOROETHANE-D4	0.327073	0.36750150		12.40		0.0160	0.01797769	112	70 - 130
4-BROMOFLUOROBENZENE	0.845348	0.811092		4.05		0.0160	0.01535163	95.90	70 - 130
TOLUENE-D8	2.613241	2.306502		11.70		0.0160	0.01412194	88.30	70 - 130

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414288-4

Lab Sample ID:	R3414288-4	**SDG:**	L1100960
Client Sample ID:	BLANK	**Collected Date/Time:**	_____
Lab File ID:	0523_07	**Received Date/Time:**	_____
Instrument ID:	VOCMS7	**Preparation Date/Time:**	05/23/19 12:23
Analytical Batch:	WG1285605	**Analysis Date/Time:**	05/23/19 12:23
Dilution Factor:	1	**Prep Method:**	624.1/8260B
Analytical Method:	624.1	**Sample Vol Used:**	5 mL
Matrix:	WW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	SDL	Unadj. MQL	MQL
			mg/l		*mg/l*	*mg/l*	*mg/l*
Acetone	67-64-1	0	U		0.0100	0.05	0.0500
Acrylonitrile	107-13-1	0	U		0.00187	0.01	0.0100
Benzene	71-43-2	0	U		0.000331	0.0010	0.00100
Bromobenzene	108-86-1	0	U		0.000352	0.0010	0.00100
Bromodichloromethane	75-27-4	0	U		0.000380	0.0010	0.00100
Bromochloromethane	74-97-5	0	U		0.000520	0.0050	0.00500
Bromoform	75-25-2	0	U		0.000469	0.0010	0.00100
Bromomethane	74-83-9	0	U		0.000866	0.0050	0.00500
n-Butylbenzene	104-51-8	0	U		0.000361	0.0010	0.00100
Carbon disulfide	75-15-0	0	U		0.000275	0.0010	0.00100
sec-Butylbenzene	135-98-8	0	U		0.000365	0.0010	0.00100
tert-Butylbenzene	98-06-6	0	U		0.000399	0.0010	0.00100
Carbon tetrachloride	56-23-5	0	U		0.000379	0.0010	0.00100
Chlorobenzene	108-90-7	0	U		0.000348	0.0010	0.00100
Chlorodibromomethane	124-48-1	0	U		0.000327	0.0010	0.00100
Chloroethane	75-00-3	0	U		0.000453	0.0050	0.00500
Cyclohexane	110-82-7	0	U		0.000390	0.0010	0.00100
Chloroform	67-66-3	0	U		0.000324	0.0050	0.00500
Chloromethane	74-87-3	0	U		0.000276	0.0025	0.00250
2-Chlorotoluene	95-49-8	0	U		0.000375	0.0010	0.00100
4-Chlorotoluene	106-43-4	0	U		0.000351	0.0010	0.00100
Dibromomethane	74-95-3	0	U		0.000346	0.0010	0.00100
1,2-Dichlorobenzene	95-50-1	0	U		0.000349	0.0010	0.00100
1,3-Dichlorobenzene	541-73-1	0	U		0.000220	0.0010	0.00100
1,4-Dichlorobenzene	106-46-7	0	U		0.000274	0.0010	0.00100
Dichlorodifluoromethane	75-71-8	0	U		0.000551	0.0050	0.00500
1,1-Dichloroethane	75-34-3	0	U		0.000259	0.0010	0.00100
1,2-Dichloroethane	107-06-2	0	U		0.000361	0.0010	0.00100
1,1-Dichloroethene	75-35-4	0	U		0.000398	0.0010	0.00100
cis-1,2-Dichloroethene	156-59-2	0	U		0.000260	0.0010	0.00100
trans-1,2-Dichloroethene	156-60-5	0	U		0.000396	0.0010	0.00100
1,2-Dichloropropane	78-87-5	0	U		0.000306	0.0010	0.00100
1,1-Dichloropropene	563-58-6	0	U		0.000352	0.0010	0.00100
cis-1,3-Dichloropropene	10061-01-5	0	U		0.000418	0.0010	0.00100
trans-1,3-Dichloropropene	10061-02-6	0	U		0.000419	0.0010	0.00100
2,2-Dichloropropane	594-20-7	0	U		0.000321	0.0010	0.00100
Ethylbenzene	100-41-4	0	U		0.000384	0.0010	0.00100
2-Hexanone	591-78-6	0	U		0.00382	0.01	0.0100
Methyl Acetate	79-20-9	0	U		0.00430	0.02	0.0200
Isopropylbenzene	98-82-8	0	U		0.000326	0.0010	0.00100
Methyl Cyclohexane	108-87-2	0	U		0.000380	0.0010	0.00100
p-Isopropyltoluene	99-87-6	0	U		0.000350	0.0010	0.00100
2-Butanone (MEK)	78-93-3	0	U		0.00393	0.01	0.0100

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414288-4

Lab Sample ID:	R3414288-4	**SDG:**	L1100960
Client Sample ID:	BLANK	**Collected Date/Time:**	_____
Lab File ID:	0523_07	**Received Date/Time:**	_____
Instrument ID:	VOCMS7	**Preparation Date/Time:**	05/23/19 12:23
Analytical Batch:	WG1285605	**Analysis Date/Time:**	05/23/19 12:23
Dilution Factor:	1	**Prep Method:**	624.1/8260B
Analytical Method:	624.1	**Sample Vol Used:**	5 mL
Matrix:	WW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	SDL	Unadj. MQL	MQL
			mg/l		*mg/l*	*mg/l*	*mg/l*
Methylene Chloride	75-09-2	0	U		0.00100	0.0050	0.00500
4-Methyl-2-pentanone (MIBK)	108-10-1	0	U		0.00214	0.01	0.0100
Methyl tert-butyl ether	1634-04-4	0	U		0.000367	0.0010	0.00100
n-Propylbenzene	103-65-1	0	U		0.000349	0.0010	0.00100
Styrene	100-42-5	0	U		0.000307	0.0010	0.00100
1,1,1,2-Tetrachloroethane	630-20-6	0	U		0.000385	0.0010	0.00100
1,1,2,2-Tetrachloroethane	79-34-5	0	U		0.000130	0.0010	0.00100
Tetrachloroethene	127-18-4	0	U		0.000372	0.0010	0.00100
Toluene	108-88-3	0	U		0.000412	0.0010	0.00100
1,1,2-Trichlorotrifluoroethane	76-13-1	0	U		0.000303	0.0010	0.00100
1,2,3-Trichlorobenzene	87-61-6	0	U		0.000230	0.0010	0.00100
1,2,4-Trichlorobenzene	120-82-1	0	U		0.000355	0.0010	0.00100
1,1,1-Trichloroethane	71-55-6	0	U		0.000319	0.0010	0.00100
1,1,2-Trichloroethane	79-00-5	0	U		0.000383	0.0010	0.00100
Trichloroethene	79-01-6	0	U		0.000398	0.0010	0.00100
Trichlorofluoromethane	75-69-4	0	U		0.00120	0.0050	0.00500
1,2,3-Trichloropropane	96-18-4	0	U		0.000807	0.0025	0.00250
1,2,4-Trimethylbenzene	95-63-6	0	U		0.000373	0.0010	0.00100
o-Xylene	95-47-6	0	U		0.000341	0.0010	0.00100
1,3,5-Trimethylbenzene	108-67-8	0	U		0.000387	0.0010	0.00100
m&p-Xylene	1330-20-7	0	U		0.000719	0.0020	0.00200
Vinyl chloride	75-01-4	0	U		0.000259	0.0010	0.00100
Xylenes, Total	1330-20-7	0	U		0.00106	0.0030	0.00300
1,3-Dichloropropene	542-75-6	0	U		0.000320	0.0010	0.00100

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414288-1

Lab Sample ID:	R3414288-1	**SDG:**	L1100960
Client Sample ID:	LCS	**Collected Date/Time:**	_____
Lab File ID:	0523_03	**Received Date/Time:**	_____
Instrument ID:	VOCMS7	**Preparation Date/Time:**	05/23/19 11:05
Analytical Batch:	WG1285605	**Analysis Date/Time:**	05/23/19 11:05
Dilution Factor:	1	**Prep Method:**	624.1/8260B
Analytical Method:	624.1	**Sample Vol Used:**	5 mL
Matrix:	WW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	SDL	Unadj. MQL	MQL
			mg/l		*mg/l*	*mg/l*	*mg/l*
Acetone	67-64-1	3.03	0.145		0.0100	0.05	0.0500
Carbon disulfide	75-15-0	2.70	0.0296		0.000275	0.0010	0.00100
Acrylonitrile	107-13-1	3.48	0.158		0.00187	0.01	0.0100
Benzene	71-43-2	4.22	0.0270		0.000331	0.0010	0.00100
Bromobenzene	108-86-1	7.27	0.0244		0.000352	0.0010	0.00100
Bromodichloromethane	75-27-4	4.87	0.0295		0.000380	0.0010	0.00100
Bromochloromethane	74-97-5	3.86	0.0311	J4	0.000520	0.0010	0.00100
Bromoform	75-25-2	6.85	0.0305		0.000469	0.0010	0.00100
Bromomethane	74-83-9	2.14	0.0256		0.000866	0.0050	0.00500
n-Butylbenzene	104-51-8	7.77	0.0236		0.000361	0.0010	0.00100
sec-Butylbenzene	135-98-8	7.56	0.0229		0.000365	0.0010	0.00100
tert-Butylbenzene	98-06-6	7.49	0.0235		0.000399	0.0010	0.00100
Carbon tetrachloride	56-23-5	3.98	0.0319		0.000379	0.0010	0.00100
Chlorobenzene	108-90-7	6.38	0.0274		0.000348	0.0010	0.00100
Chlorodibromomethane	124-48-1	5.87	0.0293		0.000327	0.0010	0.00100
Chloroethane	75-00-3	2.23	0.0239		0.000453	0.0050	0.00500
Chloroform	67-66-3	3.88	0.0296		0.000324	0.0050	0.00500
Chloromethane	74-87-3	1.83	0.0278		0.000276	0.0025	0.00250
2-Chlorotoluene	95-49-8	7.36	0.0241		0.000375	0.0010	0.00100
4-Chlorotoluene	106-43-4	7.43	0.0245		0.000351	0.0010	0.00100
Dibromomethane	74-95-3	4.80	0.0287		0.000346	0.0010	0.00100
1,2-Dichlorobenzene	95-50-1	7.85	0.0242		0.000349	0.0010	0.00100
1,3-Dichlorobenzene	541-73-1	7.66	0.0249		0.000220	0.0010	0.00100
1,4-Dichlorobenzene	106-46-7	7.69	0.0240		0.000274	0.0010	0.00100
Dichlorodifluoromethane	75-71-8	1.66	0.0355		0.000551	0.0050	0.00500
1,1-Dichloroethane	75-34-3	3.45	0.0288		0.000259	0.0010	0.00100
1,2-Dichloroethane	107-06-2	4.33	0.0292		0.000361	0.0010	0.00100
1,1-Dichloroethene	75-35-4	2.66	0.0295		0.000398	0.0010	0.00100
cis-1,2-Dichloroethene	156-59-2	3.75	0.0277		0.000260	0.0010	0.00100
2-Hexanone	591-78-6	6.14	0.140		0.00382	0.01	0.0100
trans-1,2-Dichloroethene	156-60-5	3.11	0.0301		0.000396	0.0010	0.00100
1,2-Dichloropropane	78-87-5	4.85	0.0299		0.000306	0.0010	0.00100
1,1-Dichloropropene	563-58-6	4.08	0.0291		0.000352	0.0010	0.00100
cis-1,3-Dichloropropene	10061-01-5	5.24	0.0287		0.000418	0.0010	0.00100
trans-1,3-Dichloropropene	10061-02-6	5.64	0.0287		0.000419	0.0010	0.00100
2,2-Dichloropropane	594-20-7	3.81	0.0276		0.000321	0.0010	0.00100
Ethylbenzene	100-41-4	6.37	0.0261		0.000384	0.0010	0.00100
Isopropylbenzene	98-82-8	6.99	0.0272		0.000326	0.0010	0.00100
p-Isopropyltoluene	99-87-6	7.61	0.0242		0.000350	0.0010	0.00100
2-Butanone (MEK)	78-93-3	4.05	0.147		0.00393	0.01	0.0100
Methylene Chloride	75-09-2	3.01	0.0273		0.00100	0.0050	0.00500
4-Methyl-2-pentanone (MIBK)	108-10-1	5.60	0.142		0.00214	0.01	0.0100
Methyl tert-butyl ether	1634-04-4	3.15	0.0281		0.000367	0.0010	0.00100

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414288-1

Lab Sample ID:	R3414288-1	**SDG:**	L1100960
Client Sample ID:	LCS	**Collected Date/Time:**	_____
Lab File ID:	0523_03	**Received Date/Time:**	_____
Instrument ID:	VOCMS7	**Preparation Date/Time:**	05/23/19 11:05
Analytical Batch:	WG1285605	**Analysis Date/Time:**	05/23/19 11:05
Dilution Factor:	1	**Prep Method:**	624.1/8260B
Analytical Method:	624.1	**Sample Vol Used:**	5 mL
Matrix:	WW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	SDL	Unadj. MQL	MQL
			mg/l		*mg/l*	*mg/l*	*mg/l*
o-Xylene	95-47-6	6.77	0.0263		0.000341	0.0010	0.00100
m&p-Xylene	1330-20-7	6.47	0.0523		0.000719	0.0020	0.00200
n-Propylbenzene	103-65-1	7.26	0.0260		0.000349	0.0010	0.00100
Styrene	100-42-5	6.81	0.0279		0.000307	0.0010	0.00100
1,3-Dichloropropene	542-75-6	5.64	0.0574		0.000837	0.0020	0.00200
1,1,1,2-Tetrachloroethane	630-20-6	6.42	0.0271		0.000385	0.0010	0.00100
1,1,2,2-Tetrachloroethane	79-34-5	7.30	0.0254		0.000130	0.0010	0.00100
Tetrachloroethene	127-18-4	5.64	0.0287		0.000372	0.0010	0.00100
Toluene	108-88-3	5.39	0.0249		0.000412	0.0010	0.00100
1,1,2-Trichlorotrifluoroethane	76-13-1	2.67	0.0315		0.000303	0.0010	0.00100
1,2,3-Trichlorobenzene	87-61-6	8.57	0.0258		0.000230	0.0010	0.00100
1,2,4-Trichlorobenzene	120-82-1	8.39	0.0231		0.000355	0.0010	0.00100
1,1,1-Trichloroethane	71-55-6	4.02	0.0300		0.000319	0.0010	0.00100
1,1,2-Trichloroethane	79-00-5	5.75	0.0275		0.000383	0.0010	0.00100
Trichloroethene	79-01-6	4.54	0.0297		0.000398	0.0010	0.00100
Trichlorofluoromethane	75-69-4	2.33	0.0346		0.00120	0.0050	0.00500
1,2,3-Trichloropropane	96-18-4	7.38	0.0246		0.000807	0.0010	0.00100
1,2,4-Trimethylbenzene	95-63-6	7.52	0.0236		0.000373	0.0010	0.00100
1,3,5-Trimethylbenzene	108-67-8	7.36	0.0239		0.000387	0.0010	0.00100
Vinyl chloride	75-01-4	1.89	0.0298		0.000259	0.0010	0.00100
Xylenes, Total	1330-20-7	6.77	0.0786		0.00106	0.0030	0.00300

8015M SVOC-GC-GLYCOLS

2A-OR

SURROGATE RECOVERY

Analytical Method: 8015M **SDG:** L1100960
Matrix: WW

Sample ID	Lab Sample ID	Instrument	File ID	DMC-1 % Rec.	TOT Out
MS	R3414238-1	SVGC10	0523_18	77.1	0
MSD	R3414238-2	SVGC10	0523_19	72.6	0
BLANK	R3414043-1	SVGC10	0522_19	65.3	0
LCS	R3414043-2	SVGC10	0522_20	71.2	0
LCSD	R3414043-3	SVGC10	0522_21	70.7	0

Parm Abbreviation	Parameter	QC LIMITS
DMC-1	1,3-Propanediol	28.0 - 145

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

2A-OR

SURROGATE RECOVERY

Analytical Method: 8015M **SDG:** L1100960
Matrix: WW

Sample ID	Lab Sample ID	Instrument	File ID	DMC-1 % Rec.	TOT Out
WW-20190519-002 -DAY 17	L1100960-01	SVGC10	0523_16	61.1	0

Parm Abbreviation	Parameter	QC LIMITS
DMC-1	1,3-Propanediol	28.0 - 145

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

3A-OR

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1100960-01

SAMPLE NO.:
R3414238-1
R3414238-2

MS Sample / File ID:	R3414238-1 / 0523_18	**SDG:**	L1100960
MSD Sample / File ID:	R3414238-2 / 0523_19	**Analytical Batch:**	WG1284695
OS Sample / File ID:	L1101112-01 / 0523_17	**Matrix:**	WW
Instrument ID:	SVGC10		
Analytical Method:	8015M		

Analyte	Spike Amount	OS Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limit
	mg/l	*mg/l*	*mg/l*	*mg/l*	*%*	*%*		*%*	*%*	*%*
Ethylene glycol	90.0	23.3	109	106	95.2	91.9	1	62.0 - 136	2.79	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

3B-OR

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
RECOVERY

L1100960-01

SAMPLE NO.:
R3414043-2
R3414043-3

LCS Sample / File ID:	R3414043-2 / 0522_20	**SDG:**	L1100960
LCSD Sample / File ID:	R3414043-3 / 0522_21	**Analytical Batch:**	WG1284695
Instrument ID:	SVGC10	**Dilution Factor:**	1
Analytical Method:	8015M	**Matrix:**	WW

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limit
	mg/l	*mg/l*	*mg/l*	*%*	*%*	*%*	*%*	*%*
Ethylene glycol	90.0	96.2	97.9	107	109	80.0 - 120	1.75	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

4A-OR

METHOD BLANK

SAMPLE NO.:
R3414043-1

Lab Sample ID:	R3414043-1	**SDG:**	L1100960
Lab File ID:	0522_19	**Preparation Date/Time:**	05/22/19 10:39
Instrument ID:	SVGC10	**Analysis Date/Time:**	05/22/19 15:53
Analytical Batch:	WG1284695	**Dilution Factor:**	1
Analytical Method:	8015M	**Matrix:**	WW

Sample ID	Lab Sample ID	Instrument	File ID	Analysis *date/time*
LCS	R3414043-2	SVGC10	0522_20	05/22/19 16:11
LCSD	R3414043-3	SVGC10	0522_21	05/22/19 16:29
WW-20190519-002-DAY 17	L1100960-01	SVGC10	0523_16	05/23/19 14:47
OS	L1101112-01	SVGC10	0523_17	05/23/19 15:04
MS	R3414238-1	SVGC10	0523_18	05/23/19 15:22
MSD	R3414238-2	SVGC10	0523_19	05/23/19 15:40

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
WW-20190519-002-DAY 17

Lab Sample ID:	L1100960-01	**SDG:**	L1100960
Client Sample ID:	WW-20190519-002-DAY 17	**Collected Date/Time:**	05/19/19 11:30
Lab File ID:	0523_16	**Received Date/Time:**	05/21/19 08:00
Instrument ID:	SVGC10	**Preparation Date/Time:**	05/22/19 10:40
Analytical Batch:	WG1284695	**Analysis Date/Time:**	05/23/19 14:47
Dilution Factor:	1	**Prep Method:**	8015
Analytical Method:	8015M	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	5 mL
Total Solids (%):	_____	**Final Wt/Vol:**	15 mL

Analyte	**CAS**	**RT**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
			mg/l		*mg/l*	*mg/l*	*mg/l*
Ethylene glycol	107-21-1	0	U		0.492	5.00	5.00

6B-OR

RETENTION TIME
INITIAL CALIBRATION OF
SINGLE COMPONENT ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	01/15/19 00:04
Instrument ID:	SVGC10 - 1	**Calibration (end) date/time:**	01/15/19 01:16
Analytical Method:	8015M		

Analyte	**CS: 1.5**	**CS: 15**	**CS: 30**	**CS: 45**	**CS: 60**
ETHYLENE GLYCOL	5.86	5.81	5.76	5.79	5.79
1,3-PROPANEDIOL	7.86	7.82	7.76	7.81	7.81
File ID:	0114_04	0114_05	0114_06	0114_07	0114_08

6C-OR

CALIBRATION FACTOR
INITIAL CALIBRATION OF
SINGLE COMPONENT ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	01/15/19 00:04
Instrument ID:	SVGC10 - 1	**Calibration (end) date/time:**	01/15/19 01:16
Analytical Method:	8015M		

Analyte	**RRF: 1.5**	**RRF: 15**	**RRF: 30**	**RRF: 45**	**RRF: 60**	**RRF. Avg**	**%RSD**	**COD**
ETHYLENE GLYCOL	128700	144600	142400	141900	142500	140041.5	4.59	
1,3-PROPANEDIOL	180500	193100	187700	189100	190100	188099.5	2.49	
File ID:	0114_04	0114_05	0114_06	0114_07	0114_08			

7C-OR

CONTINUING CALIBRATION VERIFICATION
SINGLE COMPONENT ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	01/15/19 00:04
Instrument ID:	SVGC10	**Calibration (end) date/time:**	01/15/19 01:16
Lab File ID:	0114_09	**Analysis date/time:**	01/15/19 01:34
Analytical Method:	8015M	**Sample ID:**	SSCV

Analyte	**True Value**	**Result**	**Result**	**Limits**
	mg/l	*mg/l*	*% Rec.*	*%*
ETHYLENE GLYCOL	30	30.91	103	80 - 120

7C-OR

CONTINUING CALIBRATION VERIFICATION
SINGLE COMPONENT ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	01/15/19 00:04
Instrument ID:	SVGC10	**Calibration (end) date/time:**	01/15/19 01:16
Lab File ID:	0522_17	**Analysis date/time:**	05/22/19 15:18
Analytical Method:	8015M	**Sample ID:**	CCV

Analyte	**True Value**	**Result**	**Result**	**Limits**
	mg/l	*mg/l*	*% Rec.*	*%*
ETHYLENE GLYCOL	30	29.97	99.90	80 - 120
1,3-PROPANEDIOL	30	28.08	93.60	50 - 150

7C-OR

CONTINUING CALIBRATION VERIFICATION
SINGLE COMPONENT ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	01/15/19 00:04
Instrument ID:	SVGC10	**Calibration (end) date/time:**	01/15/19 01:16
Lab File ID:	0522_23	**Analysis date/time:**	05/22/19 17:05
Analytical Method:	8015M	**Sample ID:**	CCV

Analyte	**True Value**	**Result**	**Result**	**Limits**
	mg/l	*mg/l*	*% Rec.*	*%*
ETHYLENE GLYCOL	30	29.69	99	80 - 120
1,3-PROPANEDIOL	30	27.58	91.90	50 - 150

7C-OR

CONTINUING CALIBRATION VERIFICATION
SINGLE COMPONENT ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	01/15/19 00:04
Instrument ID:	SVGC10	**Calibration (end) date/time:**	01/15/19 01:16
Lab File ID:	0522_40	**Analysis date/time:**	05/22/19 22:08
Analytical Method:	8015M	**Sample ID:**	CCV

Analyte	**True Value**	**Result**	**Result**	**Limits**
	mg/l	*mg/l*	*% Rec.*	*%*
ETHYLENE GLYCOL	30	6.688	22.30	80 - 120
1,3-PROPANEDIOL	30	4.339	14.50	50 - 150

7C-OR

CONTINUING CALIBRATION VERIFICATION
SINGLE COMPONENT ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	01/15/19 00:04
Instrument ID:	SVGC10	**Calibration (end) date/time:**	01/15/19 01:16
Lab File ID:	0523_14	**Analysis date/time:**	05/23/19 14:11
Analytical Method:	8015M	**Sample ID:**	CCV

Analyte	**True Value**	**Result**	**Result**	**Limits**
	mg/l	*mg/l*	*% Rec.*	*%*
ETHYLENE GLYCOL	30	29.55	98.50	80 - 120
1,3-PROPANEDIOL	30	26.28	87.60	50 - 150

7C-OR

CONTINUING CALIBRATION VERIFICATION
SINGLE COMPONENT ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	01/15/19 00:04
Instrument ID:	SVGC10	**Calibration (end) date/time:**	01/15/19 01:16
Lab File ID:	0523_21	**Analysis date/time:**	05/23/19 16:16
Analytical Method:	8015M	**Sample ID:**	CCV

Analyte	**True Value**	**Result**	**Result**	**Limits**
	mg/l	*mg/l*	*% Rec.*	*%*
ETHYLENE GLYCOL	30	26.39	88	80 - 120
1,3-PROPANEDIOL	30	24.02	80.10	50 - 150

8B-OR

ANALYTICAL SEQUENCE

SDG:	L1100960	**Analytical Method:**	8015M
Instrument ID:	SVGC10	**Calibration Start Date:**	01/15/19 00:04
		Calibration End Date:	01/15/19 01:16

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
CAL	1.5	0114_04	01/15/19 00:04	1	
CAL	15	0114_05	01/15/19 00:22	1	
CAL	30	0114_06	01/15/19 00:40	1	
CAL	45	0114_07	01/15/19 00:58	1	
CAL	60	0114_08	01/15/19 01:16	1	
SSCV	SVGC100114190114_09465874	0114_09	01/15/19 01:34	1	
CCV	SVGC100522190522_17465874	0522_17	05/22/19 15:18	1	
BLANK	R3414043-1	0522_19	05/22/19 15:53	1	WG1284695
LCS	R3414043-2	0522_20	05/22/19 16:11	1	WG1284695
LCSD	R3414043-3	0522_21	05/22/19 16:29	1	WG1284695
CCV	SVGC100522190522_23465874	0522_23	05/22/19 17:05	1	
CCV	SVGC100522190522_40465874	0522_40	05/22/19 22:08	1	
CCV	SVGC100523190523_14465874	0523_14	05/23/19 14:11	1	
WW-20190519-002-DAY 17	L1100960-01	0523_16	05/23/19 14:47	1	WG1284695
OS	L1101112-01	0523_17	05/23/19 15:04	1	WG1284695
MS	R3414238-1	0523_18	05/23/19 15:22	1	WG1284695
MSD	R3414238-2	0523_19	05/23/19 15:40	1	WG1284695
CCV	SVGC100523190523_21465874	0523_21	05/23/19 16:16	1	

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414043-1

Lab Sample ID:	R3414043-1	**SDG:**	L1100960
Client Sample ID:	BLANK	**Collected Date/Time:**	_____
Lab File ID:	0522_19	**Received Date/Time:**	_____
Instrument ID:	SVGC10	**Preparation Date/Time:**	05/22/19 10:39
Analytical Batch:	WG1284695	**Analysis Date/Time:**	05/22/19 15:53
Dilution Factor:	1	**Prep Method:**	8015
Analytical Method:	8015M	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	5 mL
Total Solids (%):	_____	**Final Wt/Vol:**	15 mL

Analyte	**CAS**	**RT**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
			mg/l		*mg/l*	*mg/l*	*mg/l*
Ethylene glycol	107-21-1	0	U		0.492	5	5.00

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414043-2

Lab Sample ID:	R3414043-2	**SDG:**	L1100960
Client Sample ID:	LCS	**Collected Date/Time:**	_____
Lab File ID:	0522_20	**Received Date/Time:**	_____
Instrument ID:	SVGC10	**Preparation Date/Time:**	05/22/19 10:39
Analytical Batch:	WG1284695	**Analysis Date/Time:**	05/22/19 16:11
Dilution Factor:	1	**Prep Method:**	8015
Analytical Method:	8015M	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	5 mL
Total Solids (%):	_____	**Final Wt/Vol:**	15 mL

Analyte	**CAS**	**RT**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
			mg/l		*mg/l*	*mg/l*	*mg/l*
Ethylene glycol	107-21-1	5.70	96.2		0.492	5	5.00

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414043-3

Lab Sample ID:	R3414043-3	**SDG:**	L1100960
Client Sample ID:	LCSD	**Collected Date/Time:**	_____
Lab File ID:	0522_21	**Received Date/Time:**	_____
Instrument ID:	SVGC10	**Preparation Date/Time:**	05/22/19 10:39
Analytical Batch:	WG1284695	**Analysis Date/Time:**	05/22/19 16:29
Dilution Factor:	1	**Prep Method:**	8015
Analytical Method:	8015M	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	5 mL
Total Solids (%):	_____	**Final Wt/Vol:**	15 mL

Analyte	**CAS**	**RT**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
			mg/l		*mg/l*	*mg/l*	*mg/l*
Ethylene glycol	107-21-1	5.70	97.9		0.492	5	5.00

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414238-1

Lab Sample ID:	R3414238-1	**SDG:**	L1100960
Client Sample ID:	MS	**Collected Date/Time:**	05/17/19 10:45
Lab File ID:	0523_18	**Received Date/Time:**	05/21/19 08:45
Instrument ID:	SVGC10	**Preparation Date/Time:**	05/22/19 10:40
Analytical Batch:	WG1284695	**Analysis Date/Time:**	05/23/19 15:22
Dilution Factor:	1	**Prep Method:**	8015
Analytical Method:	8015M	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	5 mL
Total Solids (%):	_____	**Final Wt/Vol:**	15 mL

Analyte	**CAS**	**RT**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
			mg/l		*mg/l*	*mg/l*	*mg/l*
Ethylene glycol	107-21-1	5.69	109		0.492	5	5.00

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414238-2

Lab Sample ID:	R3414238-2	**SDG:**	L1100960
Client Sample ID:	MSD	**Collected Date/Time:**	05/17/19 10:45
Lab File ID:	0523_19	**Received Date/Time:**	05/21/19 08:45
Instrument ID:	SVGC10	**Preparation Date/Time:**	05/22/19 10:40
Analytical Batch:	WG1284695	**Analysis Date/Time:**	05/23/19 15:40
Dilution Factor:	1	**Prep Method:**	8015
Analytical Method:	8015M	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	5 mL
Total Solids (%):	_____	**Final Wt/Vol:**	15 mL

Analyte	**CAS**	**RT**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
			mg/l		*mg/l*	*mg/l*	*mg/l*
Ethylene glycol	107-21-1	5.72	106		0.492	5	5.00

8151 Chlorinated Acid Herbicides (GC)

2A-OR

SURROGATE RECOVERY

Analytical Method: 8151 **SDG:** L1100960
Matrix: WW

Sample ID	Lab Sample ID	Instrument	File ID	DMC-1 % Rec.	TOT Out
WW-20190519-002 -DAY 17	L1100960-01	SVGC11	0522_63	74.2	0
BLANK	R3414016-1	SVGC11	0522_59	77.4	0
LCS	R3414016-2	SVGC11	0522_60	71.4	0
LCSD	R3414016-3	SVGC11	0522_61	76.2	0

Parm Abbreviation	Parameter	QC LIMITS
DMC-1	2,4-Dichlorophenyl Acetic Acid	14.0 - 158

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

3B-OR

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
RECOVERY

L1100960-01

SAMPLE NO.:
R3414016-2
R3414016-3

LCS Sample / File ID:	R3414016-2 / 0522_60	**SDG:**	L1100960
LCSD Sample / File ID:	R3414016-3 / 0522_61	**Analytical Batch:**	WG1284740
Instrument ID:	SVGC11	**Dilution Factor:**	1
Analytical Method:	8151	**Matrix:**	WW

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limit
	mg/l	*mg/l*	*mg/l*	*%*	*%*	*%*	*%*	*%*
2,4,5-TP (Silvex)	0.00500	0.00394	0.00434	78.8	86.8	50.0 - 125	9.66	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

4A-OR

METHOD BLANK

SAMPLE NO.:
R3414016-1

Lab Sample ID:	R3414016-1	**SDG:**	L1100960
Lab File ID:	0522_59	**Preparation Date/Time:**	05/22/19 06:54
Instrument ID:	SVGC11	**Analysis Date/Time:**	05/22/19 22:03
Analytical Batch:	WG1284740	**Dilution Factor:**	1
Analytical Method:	8151	**Matrix:**	WW

Sample ID	Lab Sample ID	Instrument	File ID	Analysis *date/time*
LCS	R3414016-2	SVGC11	0522_60	05/22/19 22:17
LCSD	R3414016-3	SVGC11	0522_61	05/22/19 22:31
WW-20190519-002-DAY 17	L1100960-01	SVGC11	0522_63	05/22/19 22:58

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
WW-20190519-002-DAY 17

Lab Sample ID:	L1100960-01	**SDG:**	L1100960
Client Sample ID:	WW-20190519-002-DAY 17	**Collected Date/Time:**	05/19/19 11:30
Lab File ID:	0522_63	**Received Date/Time:**	05/21/19 08:00
Instrument ID:	SVGC11	**Preparation Date/Time:**	05/22/19 06:54
Analytical Batch:	WG1284740	**Analysis Date/Time:**	05/22/19 22:58
Dilution Factor:	1	**Prep Method:**	8151A
Analytical Method:	8151	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	1000 mL
Total Solids (%):	_____	**Final Wt/Vol:**	10 mL

Analyte	**CAS**	**RT**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
			mg/l		*mg/l*	*mg/l*	*mg/l*
2,4,5-TP (Silvex)	93-72-1	0	U		0.000845	0.00200	0.00200

6B-OR

RETENTION TIME
INITIAL CALIBRATION OF
SINGLE COMPONENT ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/22/19 08:50
Instrument ID:	SVGC11 - 1	**Calibration (end) date/time:**	05/22/19 10:00
Analytical Method:	8151		

Analyte	**CS: 20**	**CS: 50**	**CS: 100**	**CS: 200**	**CS: 500**	**CS: 1000**
2,4-DICHLOROPHENYL ACETIC ACID	5.20	5.20	5.20	5.20	5.20	5.20
2,4,5-TP (SILVEX)	6.16	6.16	6.16	6.16	6.16	6.16
File ID:	0522_04	0522_05	0522_06	0522_03	0522_07	0522_08

6B-OR

RETENTION TIME
INITIAL CALIBRATION OF
SINGLE COMPONENT ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/22/19 08:50
Instrument ID:	SVGC11 - 2	**Calibration (end) date/time:**	05/22/19 10:00
Analytical Method:	8151		

Analyte	**CS: 20**	**CS: 50**	**CS: 100**	**CS: 200**	**CS: 500**	**CS: 1000**
2,4-DICHLOROPHENYL ACETIC ACID	5.37	5.37	5.37	5.37	5.37	5.37
2,4,5-TP (SILVEX)	6.35	6.35	6.35	6.35	6.35	6.35
File ID:	0522_04	0522_05	0522_06	0522_03	0522_07	0522_08

6C-OR

CALIBRATION FACTOR
INITIAL CALIBRATION OF
SINGLE COMPONENT ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/22/19 08:50
Instrument ID:	SVGC11 - 1	**Calibration (end) date/time:**	05/22/19 10:00
Analytical Method:	8151		

Analyte	**RRF: 20**	**RRF: 50**	**RRF: 100**	**RRF: 200**	**RRF: 500**	**RRF: 1000**
2,4-DICHLOROPHENYL ACETIC ACID	2358000	1942000	1899000	1812000	1690000	1685000
2,4,5-TP (SILVEX)	14850000	13110000	13530000	13460000	13040000	11280000
File ID:	0522_04	0522_05	0522_06	0522_03	0522_07	0522_08

6C-OR

CALIBRATION FACTOR
INITIAL CALIBRATION OF
SINGLE COMPONENT ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/22/19 08:50
Instrument ID:	SVGC11 - 1	**Calibration (end) date/time:**	05/22/19 10:00
Analytical Method:	8151		

Analyte	RRF. Avg	%RSD	COD
2,4-DICHLOROPHENYL ACETIC ACID	1897786	13.11	
2,4,5-TP (SILVEX)	13211930	8.71	

6C-OR

CALIBRATION FACTOR
INITIAL CALIBRATION OF
SINGLE COMPONENT ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/22/19 08:50
Instrument ID:	SVGC11 - 2	**Calibration (end) date/time:**	05/22/19 10:00
Analytical Method:	8151		

Analyte	**RRF: 20**	**RRF: 50**	**RRF: 100**	**RRF: 200**	**RRF: 500**	**RRF: 1000**
2,4-DICHLOROPHENYL ACETIC ACID	2021000	1891000	1922000	1994000	1944000	1919000
2,4,5-TP (SILVEX)	13210000	12120000	13440000	13940000	14120000	12760000
File ID:	0522_04	0522_05	0522_06	0522_03	0522_07	0522_08

6C-OR

CALIBRATION FACTOR
INITIAL CALIBRATION OF
SINGLE COMPONENT ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/22/19 08:50
Instrument ID:	SVGC11 - 2	**Calibration (end) date/time:**	05/22/19 10:00
Analytical Method:	8151		

Analyte	RRF. Avg	%RSD	COD
2,4-DICHLOROPHENYL ACETIC ACID	1948334	2.54	
2,4,5-TP (SILVEX)	13264750	5.64	

7D-OR

CONTINUING CALIBRATION VERIFICATION
DUAL COLUMN ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/22/19 08:50
Instrument ID:	SVGC11 - 1	**Calibration (end) date/time:**	05/22/19 10:00
Lab File ID:	0522_09	**Analysis date/time:**	05/22/19 10:14
Analytical Method:	8151	**Sample ID:**	SSCV

Analyte	**True Value**	**Result**	**Result**	**Limits**
	mg/l	*mg/l*	*% Rec.*	*%*
2,4,5-TP (SILVEX)	0.20	0.1942	97.10	80 - 120

7D-OR

CONTINUING CALIBRATION VERIFICATION
DUAL COLUMN ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/22/19 08:50
Instrument ID:	SVGC11 - 2	**Calibration (end) date/time:**	05/22/19 10:00
Lab File ID:	0522_09	**Analysis date/time:**	05/22/19 10:14
Analytical Method:	8151	**Sample ID:**	SSCV

Analyte	**True Value**	**Result**	**Result**	**Limits**
	mg/l	*mg/l*	*% Rec.*	*%*
2,4,5-TP (SILVEX)	0.20	0.1948	97.40	80 - 120

7D-OR

CONTINUING CALIBRATION VERIFICATION
DUAL COLUMN ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/22/19 08:50
Instrument ID:	SVGC11 - 1	**Calibration (end) date/time:**	05/22/19 10:00
Lab File ID:	0522_58	**Analysis date/time:**	05/22/19 21:50
Analytical Method:	8151	**Sample ID:**	CCV

Analyte	**True Value**	**Result**	**Result**	**Limits**
	mg/l	*mg/l*	*% Rec.*	*%*
2,4,5-TP (SILVEX)	0.20	0.2249	112	85 - 115
2,4-DICHLOROPHENYL ACETIC ACID	0.20	0.2072	104	70 - 130

7D-OR

CONTINUING CALIBRATION VERIFICATION
DUAL COLUMN ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/22/19 08:50
Instrument ID:	SVGC11 - 2	**Calibration (end) date/time:**	05/22/19 10:00
Lab File ID:	0522_58	**Analysis date/time:**	05/22/19 21:50
Analytical Method:	8151	**Sample ID:**	CCV

Analyte	**True Value**	**Result**	**Result**	**Limits**
	mg/l	*mg/l*	*% Rec.*	*%*
2,4,5-TP (SILVEX)	0.20	0.2039	102	85 - 115
2,4-DICHLOROPHENYL ACETIC ACID	0.20	0.2039	102	70 - 130

7D-OR

CONTINUING CALIBRATION VERIFICATION
DUAL COLUMN ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/22/19 08:50
Instrument ID:	SVGC11 - 1	**Calibration (end) date/time:**	05/22/19 10:00
Lab File ID:	0522_65	**Analysis date/time:**	05/22/19 23:25
Analytical Method:	8151	**Sample ID:**	CCV

Analyte	**True Value**	**Result**	**Result**	**Limits**
	mg/l	*mg/l*	*% Rec.*	*%*
2,4,5-TP (SILVEX)	0.20	0.2018	101	85 - 115
2,4-DICHLOROPHENYL ACETIC ACID	0.20	0.1864	93.20	70 - 130

7D-OR

CONTINUING CALIBRATION VERIFICATION
DUAL COLUMN ANALYTES

SDG:	L1100960	**Calibration (begin) date/time:**	05/22/19 08:50
Instrument ID:	SVGC11 - 2	**Calibration (end) date/time:**	05/22/19 10:00
Lab File ID:	0522_65	**Analysis date/time:**	05/22/19 23:25
Analytical Method:	8151	**Sample ID:**	CCV

Analyte	**True Value**	**Result**	**Result**	**Limits**
	mg/l	*mg/l*	*% Rec.*	*%*
2,4,5-TP (SILVEX)	0.20	0.2052	103	85 - 115
2,4-DICHLOROPHENYL ACETIC ACID	0.20	0.2070	104	70 - 130

8B-OR

ANALYTICAL SEQUENCE

SDG:	L1100960	**Analytical Method:**	8151
Instrument ID:	SVGC11	**Calibration Start Date:**	05/22/19 08:50
		Calibration End Date:	05/22/19 10:00

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
CAL	200	0522_03	05/22/19 08:50	1	
CAL	20	0522_04	05/22/19 09:04	1	
CAL	50	0522_05	05/22/19 09:18	1	
CAL	100	0522_06	05/22/19 09:32	1	
CAL	500	0522_07	05/22/19 09:46	1	
CAL	1000	0522_08	05/22/19 10:00	1	
SSCV	SVGC110522190522_09472385	0522_09	05/22/19 10:14	1	
CCV	SVGC110522190522_58472385	0522_58	05/22/19 21:50	1	
BLANK	R3414016-1	0522_59	05/22/19 22:03	1	WG1284740
LCS	R3414016-2	0522_60	05/22/19 22:17	1	WG1284740
LCSD	R3414016-3	0522_61	05/22/19 22:31	1	WG1284740
WW-20190519-002-DAY 17	L1100960-01	0522_63	05/22/19 22:58	1	WG1284740
CCV	SVGC110522190522_65472385	0522_65	05/22/19 23:25	1	

10A-OR

SINGLE COMPONENT ANALYSIS IDENTIFICATION

SAMPLE NO.:
R3414016-1

Lab Sample ID:	R3414016-1	**SDG:**	L1100960
Client Sample ID:	BLANK	**Collected Date/Time:**	_____
Lab File ID:	0522_59	**Received Date/Time:**	_____
Instrument ID:	SVGC11	**Preparation Date/Time:**	05/22/19 06:54
Analytical Batch:	WG1284740	**Analysis Date/Time:**	05/22/19 22:03
Dilution Factor:	1	**Prep Method:**	8151A
Analytical Method:	8151	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	1000 mL
Total Solids (%):	_____	**Final Wt/Vol:**	10 mL

Analyte	**Column**	**RT**	**Concentration** *mg/l*	**% Diff.**
2,4,5-TP (Silvex)	1	0	U	0

10A-OR

SINGLE COMPONENT ANALYSIS IDENTIFICATION

SAMPLE NO.:
R3414016-2

Lab Sample ID:	R3414016-2	**SDG:**	L1100960
Client Sample ID:	LCS	**Collected Date/Time:**	_____
Lab File ID:	0522_60	**Received Date/Time:**	_____
Instrument ID:	SVGC11	**Preparation Date/Time:**	05/22/19 06:54
Analytical Batch:	WG1284740	**Analysis Date/Time:**	05/22/19 22:17
Dilution Factor:	1	**Prep Method:**	8151A
Analytical Method:	8151	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	1000 mL
Total Solids (%):	_____	**Final Wt/Vol:**	10 mL

Analyte	**Column**	**RT**	**Concentration** *mg/l*	**% Diff.**
2,4,5-TP (Silvex)	1	6.16	0.00394	1.35

10A-OR

SINGLE COMPONENT ANALYSIS IDENTIFICATION

SAMPLE NO.:
R3414016-3

Lab Sample ID:	R3414016-3	**SDG:**	L1100960
Client Sample ID:	LCSD	**Collected Date/Time:**	_____
Lab File ID:	0522_61	**Received Date/Time:**	_____
Instrument ID:	SVGC11	**Preparation Date/Time:**	05/22/19 06:54
Analytical Batch:	WG1284740	**Analysis Date/Time:**	05/22/19 22:31
Dilution Factor:	1	**Prep Method:**	8151A
Analytical Method:	8151	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	1000 mL
Total Solids (%):	_____	**Final Wt/Vol:**	10 mL

Analyte	**Column**	**RT**	**Concentration** *mg/l*	**% Diff.**
2,4,5-TP (Silvex)	1	6.16	0.00434	9.82

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414016-1

Lab Sample ID:	R3414016-1	**SDG:**	L1100960
Client Sample ID:	BLANK	**Collected Date/Time:**	_____
Lab File ID:	0522_59	**Received Date/Time:**	_____
Instrument ID:	SVGC11	**Preparation Date/Time:**	05/22/19 06:54
Analytical Batch:	WG1284740	**Analysis Date/Time:**	05/22/19 22:03
Dilution Factor:	1	**Prep Method:**	8151A
Analytical Method:	8151	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	1000 mL
Total Solids (%):	_____	**Final Wt/Vol:**	10 mL

Analyte	**CAS**	**RT**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
			mg/l		*mg/l*	*mg/l*	*mg/l*
2,4,5-TP (Silvex)	93-72-1	0	U		0.000845	0.0020	0.00200

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414016-2

Lab Sample ID:	R3414016-2	**SDG:**	L1100960
Client Sample ID:	LCS	**Collected Date/Time:**	_____
Lab File ID:	0522_60	**Received Date/Time:**	_____
Instrument ID:	SVGC11	**Preparation Date/Time:**	05/22/19 06:54
Analytical Batch:	WG1284740	**Analysis Date/Time:**	05/22/19 22:17
Dilution Factor:	1	**Prep Method:**	8151A
Analytical Method:	8151	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	1000 mL
Total Solids (%):	_____	**Final Wt/Vol:**	10 mL

Analyte	**CAS**	**RT**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
			mg/l		*mg/l*	*mg/l*	*mg/l*
2,4,5-TP (Silvex)	93-72-1	6.16	0.00394		0.000845	0.0020	0.00200

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3414016-3

Lab Sample ID:	R3414016-3	**SDG:**	L1100960
Client Sample ID:	LCSD	**Collected Date/Time:**	_____
Lab File ID:	0522_61	**Received Date/Time:**	_____
Instrument ID:	SVGC11	**Preparation Date/Time:**	05/22/19 06:54
Analytical Batch:	WG1284740	**Analysis Date/Time:**	05/22/19 22:31
Dilution Factor:	1	**Prep Method:**	8151A
Analytical Method:	8151	**Sample Vol Used:**	_____
Matrix:	WW	**Initial Wt/Vol:**	1000 mL
Total Solids (%):	_____	**Final Wt/Vol:**	10 mL

Analyte	**CAS**	**RT**	**Result**	**Qualifier**	**SDL**	**Unadj. MQL**	**MQL**
			mg/l		*mg/l*	*mg/l*	*mg/l*
2,4,5-TP (Silvex)	93-72-1	6.16	0.00434		0.000845	0.0020	0.00200

Calc. Calculated Results

1-IN

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
WW-20190519-002-DAY 17

Lab Sample ID:	L1100960-01	**SDG:**	L1100960
Client Sample ID:	WW-20190519-002-DAY 17	**Collected Date/Time:**	05/19/19 11:30
Lab File ID:	NONE	**Received Date/Time:**	05/21/19 08:00
Instrument ID:	NONE	**Preparation Date/Time:**	05/23/19 16:46
Analytical Batch:	WG1285025	**Analysis Date/Time:**	05/23/19 16:46
Dilution Factor:	1	**Prep Method:**	Calc.
Analytical Method:	Calc.	**Sample Vol Used:**	10 mL
Matrix:	WW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	_____

Analyte	CAS	Result	Qualifier	SDL	Unadj. MQL	MQL
		mg/l		*mg/l*	*mg/l*	*mg/l*
Organic Nitrogen	7727-37-9	0.456		0.0317	0.100	0.100

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Su
7 Gl
8 Al
9 Sc

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MQL	Method Quantitation Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

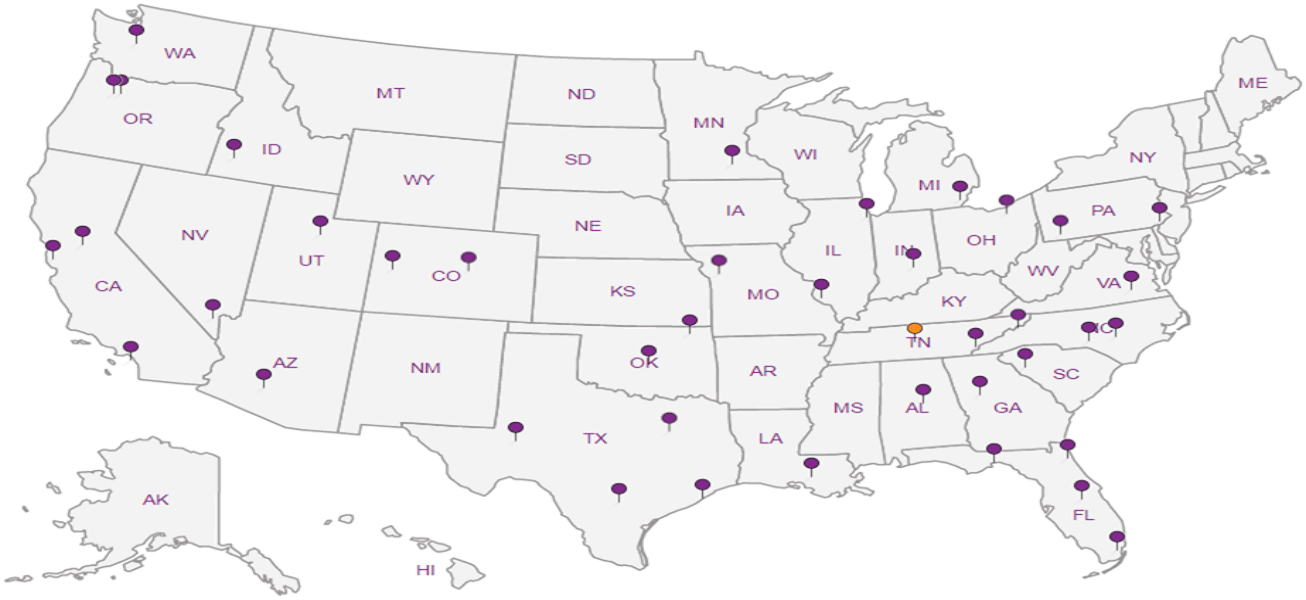
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Cardno - Newark, DE

121 Continental Drive Suite 308
Newark, DE 19713

Billing Information:
Accounts Payable
121 Continental Drive Suite 308
Newark, DE 19713

Report to: Art Saunders
Email To: Art.Saunders@cardno.com

Project Description:
City/State Collected:

Phone: 610-220-3957
Fax:
Client Project #
Lab Project # CARDNONDE-ITC

Collected by (print): R. Nottoma
Site/Facility ID # DVT-FA11-002
P.O. #

Collected by (signature):
Immediately Packed on Ice N ___ Y X
Rush? (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day
Quote #
Date Results Needed

Chain of Custody Page ___ of ___

Pace Analytical® National Center for Testing & Innovation
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1160960
J013
Acctnum: CARDNONDE
Template: T150425
Prelogin: P709319
TSR: 034 - Craig Cothron
PB:
Shipped Via: FedEX Ground

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	1613/DIOXIN/FURANS 1L-Amb-NoPres	608.3 100ml-Amb-NoPres	624.1AP9 100ml-Amb-NoPres	CHLORIDE 250mlHDPE-NoPres	COD,NH3,PT,TKN,NORG 250mlHDPE-H2SO4	ETHGLY 40mlAmb-NoPres-WT	HG 245.7 Other	Metals 250mlHDPE-HNO3	OGHEX 1L-Clr-Add HCl	PFOS 250mlHDPE-NoPres	Remarks	Sample # (lab only)
						Pres Chk					<2			<2				
		DW				27		X	X	X	X	X		X				
		WW				2									X			
		GW				4	X									X		
		GW				1							X					
WW-20190519-002-DAY17	Comp	WW	—	5/20/19	1130	2	X			X	X	X	X	X		X		-01
WW-20190519-002-DAY17	Grab	WW	—	5/20/19	1130	2									X			02

RAD SCREEN: <0.5 mR/hr

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: *NOTE - composite 4 vials for V624.1AP9, SV504EDB/DBCP, and ETHGLY before running* *other* container for HG 245.7 is 500ml glass w/HCL

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS __ FedEx Courier SMA
Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: Y __N
Bottles arrive intact: Y __N
Correct bottles used: Y __N
Sufficient volume sent: Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by: (Signature)	Date: 5/20/19	Time: 1530	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Relinquished by: (Signature)	Date: 5/20/19	Time: 19:30	Received by: (Signature)	Temp: 1.9+0.1-2.0°C Bottles Received: 28
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 5/21/19 Time: 0845

If preservation required by Login: Date/Time
Hold:
Condition: NCF / OK

Cardno - Newark, DE

121 Continental Drive Suite 308
Newark, DE 19713

Billing Information:
Accounts Payable
121 Continental Drive Suite 308
Newark, DE 19713

Report to: Art Saunders

Email To: Art.Saunders@cardno.com

Project Description:

City/State Collected:

Phone: 610-220-3957
Fax:

Client Project #

Lab Project # CARDNONDE-ITC

Collected by (print): R. Nakamura

Site/Facility ID # out-FALL-002

P.O. #

Collected by (signature):

Quote #

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Pres Chk: x2, <2

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1100966

Table #

Acctnum: CARDNONDE
Template: T150425
Prelogin: P709319
TSR: 034 - Craig Cothron
PB:
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	SULFIDE 125mlAmb-S-NaOH+ZnAc	SV1657 1L-Amb-No Pres	SV504 40mlAmb-NoPres-WT	SV8151 1L-Amb-No Pres	TDS 250mlHDPE-NoPres	TOC 250mlAmb-HCl	TSS 1L-HDPE-NoPres	[redacted]	V624.1AP9 40mlAmb-HCl		Remarks	Sample # (lab only)
		DW				27	X	X	X	X	X	X	X		X			
		WW				2												
		GW				4												
		GW				1												
WW-20190519-002-DAY17	Comp	WW	—	5/20/19	1130	27+7	X	X	X	X	X	X	X		X			-01
						5/21/19												02

RAD SCREEN: <0.5 mR/hr

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: *NOTE - composite 4 vials for V624.1AP9, SV504EDB/DBCP, and ETHGLY before running* *other* container for HG 245.7 is 500ml glass w/HCL

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier SWA

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeOH TBR
	5/20/19	1530		∅
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
	5/20/19	19:30		1-9+0.1-2.0 28
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:
				5/21/19 0800

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Andy Vann

From: Craig Cothron
Sent: Friday, May 24, 2019 9:38 AM
To: Login; Benita Miller
Subject: L1100960 / L1100967 CARDNONDE

Importance: High

Per client request please make the below corrections. Please scan this email with both SDGs.

L1100960 change collect date to 5/19

L1100967 change collect date to 5/19 ***NOTE – this is a sub out analysis and the sub lab will also need to be notified***

Craig Cothron
Technical Service Representative
Pace Analytical National Center for Testing & Innovation
12065 Lebanon Road | Mt. Juliet, TN 37122
615.773.9664 | Cell 615.406.9719

ccothron@pacenational.com | pacenational.com

Jeremy W. Watkins

Pace Analytical®
National Center for Testing & Innovation

Login #: L1100960	Client: CARDNONDE	Date: 5/21/19	Evaluated by: Jeremy

Non-Conformance (check applicable items)

	Sample Integrity		Chain of Custody Clarification		
	Parameter(s) past holding time	x	Login Clarification Needed		**If Broken Container:**
	Temperature not in range		Chain of custody is incomplete		Insufficient packing material around container
	Improper container type		Please specify Metals requested.		Insufficient packing material inside cooler
	pH not in range.		Please specify TCLP requested.		Improper handling by carrier (FedEx / UPS / Courie
	Insufficient sample volume.		Received additional samples not listed on coc.		Sample was frozen
	Sample is biphasic.		Sample ids on containers do not match ids on coc		Container lid not intact
	Vials received with headspace.		Trip Blank not received.		**If no Chain of Custody:**
	Broken container		Client did not "X" analysis.		Received by:
	Broken container:		Chain of Custody is missing		Date/Time:
	Sufficient sample remains				Temp./Cont. Rec./pH:
					Carrier:
					Tracking#

Login Comments: 1- 40mlAmb-HCl for V624.1AP9 and 1-40mlAmb-NoPres for SV504 received empty.

Client informed by:		Call		Email	x	Voice Mail		Date:5/22/19	Time:919
TSR Initials: cc	Client Contact:Art Saunders								

Login Instructions:

Client notified. Composite from vials received.

Notice: This communication and any attached files may contain privileged or other confidential information. If you have received this in error, please contact the sender immediately via reply email and immediately delete the message and any attachments without copying or disclosing the contents. Thank you.