

Chemical Analysis Report

NE-DIST-2019-03-26-01

Florida Department of Environmental Protection
Central Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

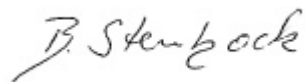
Event Description: **LSJR Southside**
Request ID: **RQ-2019-03-25-07**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Suite 100
Jacksonville, FL 32256
Attn: Jeremy Parrish

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 16-APR-2019 17:46



Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: Metals, Nutrients and Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited by the Florida Department of Health Environmental Laboratory Certification Program or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: MILLER CREEK @ SCHUMACHER

Collection Date/Time: 03/25/2019 09:40

Field ID: 20030794

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2072455	EPA 180.1 Rev. 2.0	Turbidity	7.8		NTU	P361084	
	EPA 300.0 Rev. 2.1	Chloride	29		mg Cl/L	P361400	
		Sulfate	56		mg SO4/L	P361402	
	SM 2120 B	Color (true)	39		PCU	P361079	
	SM 2320 B-97	Total Alkalinity	62		mg CaCO3/L	P361651	
	SM 2540 C-97	TDS	216	A	mg/L	P361414	
	SM 2540 D-97	TSS	3	IA	mg/L	P361418	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P361655	
2072456	EPA 350.1 Rev. 2.0	Ammonia-N	0.14		mg N/L	P361390	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.38		mg N/L	P361276	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.21		mg N/L	P361133	
	EPA 365.1 Rev. 2.0	Total-P	0.049		mg P/L	P361267	
	SM 5310 B-00	Organic Carbon	4.7		mg C/L	P361174	
2072457	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.024		mg P/L	P361089	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: MIRAMAR AT SAN JOSE

Collection Date/Time: 03/25/2019 09:10

Field ID: G2NE1164

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2072443	EPA 180.1 Rev. 2.0	Turbidity	3.5		NTU	P361084	
	EPA 300.0 Rev. 2.1	Chloride	32		mg Cl/L	P361400	
		Sulfate	75		mg SO4/L	P361402	
		Color (true)	15		PCU	P361079	
	SM 2320 B-97	Total Alkalinity	78		mg CaCO3/L	P361651	
	SM 2540 C-97	TDS	245		mg/L	P361413	
	SM 2540 D-97	TSS	2	I	mg/L	P361417	
	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P361655	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.098		mg N/L	P361376	
2072447	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.54		mg N/L	P361211	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.0		mg N/L	P361288	
	EPA 365.1 Rev. 2.0	Total-P	0.038		mg P/L	P361267	
	SM 5310 B-00	Organic Carbon	4.2		mg C/L	P361173	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.016		mg P/L	P361089	
2072479	EPA 200.7 Rev. 4.4	Barium	53.6		ug/L	P361160	
		Calcium	39.3		mg/L	P361160	
		Iron	550		ug/L	P361160	
		Magnesium	12.4		mg/L	P361160	
		Potassium	2.6		mg/L	P361160	
		Sodium	21.2		mg/L	P361160	
		Zinc	5.0	U	ug/L	P361160	
	EPA 200.8 Rev. 5.4	Aluminum	13	I	ug/L	P361160	
		Antimony	0.061	I	ug/L	P361160	
		Arsenic	0.37		ug/L	P361160	
		Boron**	56.1		ug/L	P361160	
		Cadmium	0.020	U	ug/L	P361160	
		Chromium	0.40	U	ug/L	P361160	
		Copper	1.09		ug/L	P361160	
		Lead	0.25	I	ug/L	P361160	
		Nickel	0.84	I	ug/L	P361160	
		Selenium	0.20	U	ug/L	P361160	
		Silver	0.010	U	ug/L	P361160	
		Thallium	0.10	U	ug/L	P361160	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: BIG POTTSBURG CR BOWDEN RD

Collection Date/Time: 03/25/2019 10:10

Field ID: 20030068

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2072440	EPA 180.1 Rev. 2.0	Turbidity	3.5		NTU	P361084	
	EPA 300.0 Rev. 2.1	Chloride	28		mg Cl/L	P361400	
		Sulfate	32		mg SO4/L	P361402	
	SM 2120 B	Color (true)	53	A	PCU	P361079	
	SM 2320 B-97	Total Alkalinity	90		mg CaCO3/L	P361651	
	SM 2540 C-97	TDS	206		mg/L	P361413	
	SM 2540 D-97	TSS	3	I	mg/L	P361417	
	SM 4500 F-C-97	Fluoride	0.12		mg F/L	P361655	
2072441	EPA 350.1 Rev. 2.0	Ammonia-N	0.041		mg N/L	P361376	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.52		mg N/L	P361211	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.11		mg N/L	P361288	
	EPA 365.1 Rev. 2.0	Total-P	0.065		mg P/L	P361267	
	SM 5310 B-00	Organic Carbon	10		mg C/L	P361173	
2072442	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.038		mg P/L	P361089	
2072477	EPA 8321B	2,4-D	0.0085		ug/L	P361100	
		Acesulfame K**	0.10	U	ug/L	P361130	
		AMPA**	0.32	I	ug/L	P361130	
		Sucralose**	0.29		ug/L	P361130	
		Acetaminophen**	0.0080	U	ug/L	P361100	
		Endothall**	0.25	U	ug/L	P361130	
		Glufosinate**	0.10	U	ug/L	P361130	
		Bentazon	0.047		ug/L	P361100	
		Glyphosate**	0.24	I	ug/L	P361130	
		Carbamazepine**	8.0E-04	U	ug/L	P361100	
		Diuron	0.010		ug/L	P361100	
		Fenuron	0.016	U	ug/L	P361100	
		Fluridone**	0.043		ug/L	P361100	
		Imazapyr**	0.29		ug/L	P361100	
		Hydrocodone**	0.0020	U	ug/L	P361100	
		Ibuprofen**	0.020	U	ug/L	P361100	
		Imidacloprid	0.016		ug/L	P361100	
		Linuron	0.0040	U	ug/L	P361100	
		MCPP	0.0025	I	ug/L	P361100	
		Naproxen**	0.0080	U	ug/L	P361100	
		Primidone**	0.0040	U	ug/L	P361100	
		Pyraclostrobin**	0.0020	U	ug/L	P361100	
		Triclopyr**	0.0040	U	ug/L	P361100	MS, RPD
2072478	EPA 200.7 Rev. 4.4	Barium	27.3		ug/L	P361160	
		Calcium	37.4		mg/L	P361160	
		Iron	510		ug/L	P361160	
		Magnesium	7.29		mg/L	P361160	
		Potassium	1.4		mg/L	P361160	
		Sodium	14.8		mg/L	P361160	

Field ID: 20030068

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2072478	EPA 200.7 Rev. 4.4	Zinc	5.0	U	ug/L	P361160	
	EPA 200.8 Rev. 5.4	Aluminum	53		ug/L	P361160	
		Antimony	0.12	I	ug/L	P361160	
		Arsenic	0.57		ug/L	P361160	
		Boron**	26.5		ug/L	P361160	
		Cadmium	0.020	U	ug/L	P361160	
		Chromium	0.40	U	ug/L	P361160	
		Copper	1.25		ug/L	P361160	
		Lead	0.20	U	ug/L	P361160	
		Nickel	0.91	I	ug/L	P361160	
		Selenium	0.20	U	ug/L	P361160	
		Silver	0.010	U	ug/L	P361160	
		Thallium	0.10	U	ug/L	P361160	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: DEEP BOTTOM CREEK AT SCOTT MILL RD

Collection Date/Time: 03/25/2019 10:50

Field ID: 20030595

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2072444	EPA 180.1 Rev. 2.0	Turbidity	9.6	A	NTU	P361084	
	EPA 300.0 Rev. 2.1	Chloride	49		mg Cl/L	P361400	
		Sulfate	22		mg SO4/L	P361402	
		Color (true)	67		PCU	P361079	
	SM 2120 B	Total Alkalinity	104		mg CaCO3/L	P361651	
	SM 2540 C-97	TDS	227		mg/L	P361413	
	SM 2540 D-97	TSS	3	I	mg/L	P361417	
	SM 4500 F-C-97	Fluoride	0.095	I	mg F/L	P361655	
2072448	EPA 350.1 Rev. 2.0	Ammonia-N	0.16		mg N/L	P361376	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.63		mg N/L	P361211	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.12		mg N/L	P361288	
	EPA 365.1 Rev. 2.0	Total-P	0.052		mg P/L	P361267	
	SM 5310 B-00	Organic Carbon	9.7		mg C/L	P361174	
2072452	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.011		mg P/L	P361089	
2072480	EPA 200.7 Rev. 4.4	Barium	42.9		ug/L	P361160	
		Calcium	42.3		mg/L	P361160	
		Iron	1.87E+03		ug/L	P361160	
		Magnesium	6.92		mg/L	P361160	
		Potassium	2.0		mg/L	P361160	
		Sodium	26.4		mg/L	P361160	
		Zinc	5.0	U	ug/L	P361160	
	EPA 200.8 Rev. 5.4	Aluminum	45		ug/L	P361160	
		Antimony	0.083	I	ug/L	P361160	
		Arsenic	1.15		ug/L	P361160	
		Boron**	35.6		ug/L	P361160	
		Cadmium	0.020	U	ug/L	P361160	
		Chromium	0.41	I	ug/L	P361160	
		Copper	0.63	I	ug/L	P361160	
		Lead	0.20	U	ug/L	P361160	
		Nickel	0.72	I	ug/L	P361160	
		Selenium	0.20	U	ug/L	P361160	
		Silver	0.010	U	ug/L	P361160	
		Thallium	0.10	U	ug/L	P361160	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: CORMORANT BRANCH @ MARBON RD

Collection Date/Time: 03/25/2019 11:15

Field ID: 20030852

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2072445	EPA 180.1 Rev. 2.0	Turbidity	5.8		NTU	P361084	
	EPA 300.0 Rev. 2.1	Chloride	25		mg Cl/L	P361400	
		Sulfate	24		mg SO4/L	P361402	
		Color (true)	48		PCU	P361079	
	SM 2320 B-97	Total Alkalinity	82		mg CaCO3/L	P361651	
	SM 2540 C-97	TDS	171		mg/L	P361413	
	SM 2540 D-97	TSS	2	I	mg/L	P361417	
	SM 4500 F-C-97	Fluoride	0.10		mg F/L	P361655	
2072449	EPA 350.1 Rev. 2.0	Ammonia-N	0.041		mg N/L	P361390	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.36		mg N/L	P361211	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.29		mg N/L	P361133	
	EPA 365.1 Rev. 2.0	Total-P	0.056		mg P/L	P361267	
	SM 5310 B-00	Organic Carbon	6.4		mg C/L	P361174	
2072453	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.032		mg P/L	P361089	
2072481	EPA 200.7 Rev. 4.4	Barium	39.3		ug/L	P361160	
		Calcium	32.5		mg/L	P361160	
		Iron	1.13E+03		ug/L	P361160	
		Magnesium	6.41		mg/L	P361160	
		Potassium	1.8		mg/L	P361160	
		Sodium	14.9		mg/L	P361160	
		Zinc	5.0	U	ug/L	P361160	
	EPA 200.8 Rev. 5.4	Aluminum	23		ug/L	P361160	
		Antimony	0.058	I	ug/L	P361160	
		Arsenic	0.91		ug/L	P361160	
		Boron**	25.4		ug/L	P361160	
		Cadmium	0.020	U	ug/L	P361160	
		Chromium	0.40	U	ug/L	P361160	
		Copper	0.97		ug/L	P361160	
		Lead	0.20	U	ug/L	P361160	
		Nickel	0.50	U	ug/L	P361160	
		Selenium	0.20	U	ug/L	P361160	
		Silver	0.010	U	ug/L	P361160	
		Thallium	0.10	U	ug/L	P361160	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: OLDFIELD CR @ JULINGTON CREEK ROAD

Collection Date/Time: 03/25/2019 11:35

Field ID: 20030684

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2072446	EPA 180.1 Rev. 2.0	Turbidity	4.4		NTU	P361084	
	EPA 300.0 Rev. 2.1	Chloride	36		mg Cl/L	P361400	
		Sulfate	42		mg SO4/L	P361402	
		Color (true)	32		PCU	P361079	
	SM 2120 B	Total Alkalinity	79	A	mg CaCO3/L	P361651	
	SM 2540 C-97	TDS	219		mg/L	P361413	
	SM 2540 D-97	TSS	2	I	mg/L	P361417	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P361655	
2072450	EPA 350.1 Rev. 2.0	Ammonia-N	0.049		mg N/L	P361390	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.36		mg N/L	P361211	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.34		mg N/L	P361133	
	EPA 365.1 Rev. 2.0	Total-P	0.058		mg P/L	P361267	
	SM 5310 B-00	Organic Carbon	5.5		mg C/L	P361174	
2072454	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.034		mg P/L	P361089	
2072482	EPA 200.7 Rev. 4.4	Barium	45.0		ug/L	P361160	
		Calcium	35.2		mg/L	P361160	
		Iron	680		ug/L	P361160	
		Magnesium	8.93		mg/L	P361160	
		Potassium	2.2		mg/L	P361160	
		Sodium	20.4		mg/L	P361160	
		Zinc	5.0	U	ug/L	P361160	
	EPA 200.8 Rev. 5.4	Aluminum	33		ug/L	P361160	
		Antimony	0.050	U	ug/L	P361160	
		Arsenic	0.58		ug/L	P361160	
		Boron**	30.4		ug/L	P361160	
		Cadmium	0.020	U	ug/L	P361160	
		Chromium	0.40	U	ug/L	P361160	
		Copper	0.87		ug/L	P361160	
		Lead	0.20	U	ug/L	P361160	
		Nickel	0.50	U	ug/L	P361160	
		Selenium	0.20	U	ug/L	P361160	
		Silver	0.010	U	ug/L	P361160	
		Thallium	0.10	U	ug/L	P361160	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P361084

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P361160

Component	Result	Code	Units
Barium	1.0	U	ug/L
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P361160

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361400

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361402

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361376

Component	Result	Code	Units
Ammonia-N	0.002	U	mg N/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361390

Component	Result	Code	Units
Ammonia-N	0.002	U	mg N/L

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P361211

Component	Result	Code	Units
Kjeldahl Nitrogen	0.080	U	mg N/L

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P361276

Component	Result	Code	Units
Kjeldahl Nitrogen	0.080	U	mg N/L

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P361133

Component	Result	Code	Units
NO2NO3-N	0.004	U	mg N/L

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P361288

Component	Result	Code	Units
NO2NO3-N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P361267

Component	Result	Code	Units
Total-P	0.002	U	mg P/L

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P361089

Component	Result	Code	Units
O-Phosphate-P	0.004	U	mg P/L

Reference Method: EPA 8321B
Batch ID: P361100

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P361100

Component	Result	Code	Units
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P361130

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P361079

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P361651

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO3/L

Reference Method: SM 2540 C-97
Batch ID: P361413

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P361414

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P361417

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-97
Batch ID: P361418

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P361655

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P361173

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Reference Method: SM 5310 B-00
Batch ID: P361174

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P361160

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	95.1		P	85 - 115
Calcium	96.5		P	85 - 115
Iron	99.1		P	85 - 115
Magnesium	97.1		P	85 - 115
Potassium	100		P	85 - 115
Sodium	95.4		P	85 - 115
Zinc	95.0		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P361160

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	98.8		P	85 - 115
Antimony	97.7		P	85 - 115
Arsenic	100		P	85 - 115
Boron	106		P	85 - 115
Cadmium	103		P	85 - 115
Chromium	97.5		P	85 - 115
Copper	99.9		P	85 - 115
Lead	100		P	85 - 115
Nickel	102		P	85 - 115
Selenium	98.1		P	85 - 115
Silver	102		P	85 - 115
Thallium	102		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361400

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361402

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	103		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361376

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	100		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361390

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.2		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P361211

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	109		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P361276

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	104		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P361133

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	102		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P361288

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	98.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P361267

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	103		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P361089

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.7		P	90 - 110

Reference Method: EPA 8321B
Batch ID: P361100

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	64.8		P	40 - 150
Acetaminophen	81.0		P	30 - 150
Bentazon	104		P	30 - 150
Carbamazepine	80.8		P	40 - 150
Diuron	71.2		P	40 - 150
Fenuron	104		P	40 - 150
Fluridone	124		P	40 - 150
Hydrocodone	86.0		P	40 - 150
Ibuprofen	63.4		P	40 - 150
Imazapyr	79.3		P	40 - 150
Imidacloprid	80.8		P	40 - 150
Linuron	68.1		P	40 - 150
MCPP	69.0		P	40 - 150
Naproxen	64.0		P	40 - 150
Primidone	82.0		P	40 - 150
Pyraclostrobin	64.9		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P361100

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Triclopyr	50.4		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P361130

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	126		P	40 - 150
AMPA	99.1		P	40 - 150
Endothall	114		P	40 - 150
Glufosinate	109		P	40 - 150
Glyphosate	110		P	40 - 140
Sucralose	88.9		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P361079

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P361651

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.1		P	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P361655

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.3		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P361173

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.8		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P361174

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.4		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P361160

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2072482	Barium	92.1		P	80 - 120
2072482	Calcium	96.5		P	80 - 120
2072482	Iron	100		P	80 - 120
2072482	Magnesium	96.0		P	80 - 120
2072482	Potassium	94.2		P	80 - 120
2072482	Sodium	95.8		P	80 - 120
2072482	Zinc	94.4		P	80 - 120
2072801	Barium	94.3	93.8	P/P	80 - 120
2072801	Calcium	96.2		P	80 - 120
2072801	Iron	99.4	98.4	P/P	80 - 120
2072801	Magnesium	95.9		P	80 - 120
2072801	Potassium	97.3	96.8	P/P	80 - 120
2072801	Sodium	97.1		P	80 - 120
2072801	Zinc	94.0	94.0	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P361160

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2072482	Aluminum	95.9		P	80 - 120
2072482	Antimony	97.9		P	80 - 120
2072482	Arsenic	100		P	80 - 120
2072482	Boron	103		P	80 - 120
2072482	Cadmium	103		P	80 - 120
2072482	Chromium	95.0		P	80 - 120
2072482	Copper	97.6		P	80 - 120
2072482	Lead	100		P	80 - 120
2072482	Nickel	98.9		P	80 - 120
2072482	Selenium	96.9		P	80 - 120
2072482	Silver	101		P	80 - 120
2072482	Thallium	102		P	80 - 120
2072801	Aluminum	96.3	96.9	P/P	80 - 120
2072801	Antimony	97.8	97.3	P/P	80 - 120
2072801	Arsenic	101	99.8	P/P	80 - 120
2072801	Boron	106	105	P/P	80 - 120
2072801	Cadmium	103	104	P/P	80 - 120
2072801	Chromium	96.8	96.3	P/P	80 - 120
2072801	Copper	98.2	97.2	P/P	80 - 120
2072801	Lead	98.7	99.8	P/P	80 - 120
2072801	Nickel	100	99.0	P/P	80 - 120
2072801	Selenium	97.8	97.3	P/P	80 - 120
2072801	Silver	101	102	P/P	80 - 120
2072801	Thallium	101	102	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361400

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2072330	Chloride	101		P	90 - 110
2072401	Chloride	96.7		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361402

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2072330	Sulfate	104		P	90 - 110
2072401	Sulfate	99.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361376

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2072402	Ammonia-N	96.9	103	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361390

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2072492	Ammonia-N	97.5	98.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P361211

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2072441	Kjeldahl Nitrogen	98.1	106	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P361276

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2072456	Kjeldahl Nitrogen	97.8	95.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P361133

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2072449	NO2NO3-N	100		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P361288

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2072433	NO2NO3-N	98.5	97.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P361267

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2072449	Total-P	98.8	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P361089

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2072403	O-Phosphate-P	96.2	97.8	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P361100

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2073228	2,4-D	63.7	71.8	P/P	40 - 150
2073228	Acetaminophen	73.5	84.4	P/P	30 - 150
2073228	Bentazon	87.4	91.5	P/P	30 - 150
2073228	Carbamazepine	81.3	84.0	P/P	40 - 150
2073228	Diuron	64.1	68.4	P/P	40 - 150
2073228	Fenuron	108	117	P/P	40 - 150
2073228	Fluridone	144	148	P/P	40 - 150
2073228	Hydrocodone	83.6	87.2	P/P	40 - 150
2073228	Ibuprofen	84.6	83.3	P/P	40 - 150
2073228	Imazapyr	81.8	90.0	P/P	40 - 150
2073228	Imidacloprid	148	139	P/P	40 - 150
2073228	Linuron	71.7	63.6	P/P	40 - 150
2073228	MCP	87.7	99.0	P/P	40 - 150
2073228	Naproxen	61.2	67.4	P/P	40 - 150
2073228	Primidone	62.5	78.4	P/P	40 - 150
2073228	Pyraclostrobin	75.2	74.1	P/P	40 - 150
2073228	Triclopyr	36.3	54.6	F/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P361130

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2072421	Acesulfame K	105	113	P/P	40 - 150
2072421	AMPA	103	96.2	P/P	40 - 150
2072421	Endothall	82.8	78.6	P/P	40 - 150
2072421	Glufosinate	99.9	100	P/P	40 - 150
2072421	Glyphosate	93.8	103	P/P	40 - 140
2072421	Sucralose	57.2	73.2	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P361655

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2072446	Fluoride	99.5	99.5	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P361173

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2072332	Organic Carbon	97.7	98.4	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P361174

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2072448	Organic Carbon	96.7	97.1	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P361084

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2072444	Turbidity	2.40	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P361160

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2072801	Barium	0.562	Spike	P	0 - 20
2072801	Calcium	1.10	Spike	P	0 - 20
2072801	Iron	1.04	Spike	P	0 - 20
2072801	Magnesium	0.190	Spike	P	0 - 20
2072801	Potassium	0.491	Spike	P	0 - 20
2072801	Sodium	0.142	Spike	P	0 - 20
2072801	Zinc	0.0344	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P361160

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2072801	Aluminum	0.667	Spike	P	0 - 20
2072801	Antimony	0.469	Spike	P	0 - 20
2072801	Arsenic	1.47	Spike	P	0 - 20
2072801	Boron	0.786	Spike	P	0 - 20
2072801	Cadmium	0.285	Spike	P	0 - 20
2072801	Chromium	0.514	Spike	P	0 - 20
2072801	Copper	0.963	Spike	P	0 - 20
2072801	Lead	1.04	Spike	P	0 - 20
2072801	Nickel	0.959	Spike	P	0 - 20
2072801	Selenium	0.404	Spike	P	0 - 20
2072801	Silver	1.09	Spike	P	0 - 20
2072801	Thallium	1.06	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361400

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2072401	Chloride	0.945	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361402

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2072401	Sulfate	1.06	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361376

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2072402	Ammonia-N	3.81	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361390

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2072492	Ammonia-N	0.923	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P361211

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2072441	Kjeldahl Nitrogen	5.76	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P361276

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2072456	Kjeldahl Nitrogen	1.76	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P361133

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2072449	NO2NO3-N	0.203	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P361288

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2072433	NO2NO3-N	1.53	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P361267

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2072449	Total-P	1.32	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P361089

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2072403	O-Phosphate-P	1.25	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P361100

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073228	2,4-D	11.9	Spike	P	0 - 30
2073228	Acetaminophen	13.8	Spike	P	0 - 30
2073228	Bentazon	4.54	Spike	P	0 - 30
2073228	Carbamazepine	3.26	Spike	P	0 - 30
2073228	Diuron	6.50	Spike	P	0 - 30
2073228	Fenuron	7.29	Spike	P	0 - 30
2073228	Fluridone	2.43	Spike	P	0 - 30
2073228	Hydrocodone	4.22	Spike	P	0 - 30
2073228	Ibuprofen	1.47	Spike	P	0 - 30
2073228	Imazapyr	9.54	Spike	P	0 - 30
2073228	Imidacloprid	6.33	Spike	P	0 - 30
2073228	Linuron	12.1	Spike	P	0 - 30
2073228	MCP	12.0	Spike	P	0 - 30
2073228	Naproxen	9.59	Spike	P	0 - 30
2073228	Primidone	22.5	Spike	P	0 - 30
2073228	Pyraclostrobin	1.43	Spike	P	0 - 30
2073228	Triclopyr	40.3	Spike	F	0 - 30

Reference Method: EPA 8321B
Batch ID: P361130

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2072421	Acesulfame K	6.91	Spike	P	0 - 30
2072421	AMPA	6.83	Spike	P	0 - 30
2072421	Endothall	5.17	Spike	P	0 - 30
2072421	Glufosinate	0.383	Spike	P	0 - 30
2072421	Glyphosate	7.87	Spike	P	0 - 30
2072421	Sucralose	19.9	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P361079

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2072440	Color (true)	1.67	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P361651

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2072446	Total Alkalinity	0.791	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P361413

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2072351	TDS	4.98	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 2540 C-97
Batch ID: P361414

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2072455	TDS	6.00	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P361655

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2072446	Fluoride	0.0	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P361173

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2072332	Organic Carbon	0.587	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P361174

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2072448	Organic Carbon	0.275	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report Surrogates

Lab Sample ID: 2072477
Field Sample ID: 20030068

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	79.5	P	30 - 160
EPA 8321B	Acetaminophen-d4	75.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	74.2	P	30 - 160
EPA 8321B	Diuron-d6	81.9	P	30 - 160
EPA 8321B	Endothall-d6	52.1	P	30 - 160
EPA 8321B	Endothall-d6	52.1	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	97.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	97.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	41.0	P	30 - 160
EPA 8321B	Primidone-d5	82.3	P	30 - 160
EPA 8321B	Sucralose-d6	94.3	P	30 - 160
EPA 8321B	Sucralose-d6	94.3	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A90241

Included Lab Sample IDs: 2072440, 2072443, 2072444, 2072445, 2072446, 2072455

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	101	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A90242

Included Lab Sample IDs: 2072440, 2072443, 2072444, 2072445, 2072446, 2072455

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	100	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A90243

Included Lab Sample IDs: 2072442, 2072451, 2072452, 2072453, 2072454, 2072457

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.1	98.4	P/P	90 - 110
O-Phosphate-P	99.2	99.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A90262

Included Lab Sample IDs: 2072449, 2072450, 2072456

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	102	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A90286

Included Lab Sample IDs: 2072441, 2072447, 2072448, 2072449, 2072450, 2072456

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.4	99.0	P/P	90 - 110
Organic Carbon	99.0	98.8	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A90307

Included Lab Sample IDs: 2072478, 2072479, 2072480, 2072481, 2072482

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	96.0	97.2	P/P	90 - 110
Barium	97.0	96.0	P/P	90 - 110
Calcium	98.1	97.9	P/P	90 - 110
Calcium	98.1	98.1	P/P	90 - 110
Iron	97.5	97.1	P/P	90 - 110
Iron	98.0	97.5	P/P	90 - 110
Magnesium	98.5	97.9	P/P	90 - 110
Magnesium	98.7	98.5	P/P	90 - 110
Potassium	96.2	96.1	P/P	90 - 110
Potassium	96.5	96.2	P/P	90 - 110
Sodium	97.3	97.8	P/P	90 - 110
Sodium	97.8	99.4	P/P	90 - 110
Zinc	96.8	98.2	P/P	90 - 110
Zinc	97.8	96.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A90325

Included Lab Sample IDs: 2072441, 2072447, 2072448, 2072449, 2072450

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	99.8	P/P	90 - 110
Kjeldahl Nitrogen	99.8	94.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A90326

Included Lab Sample IDs: 2072441, 2072447, 2072448

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	97.0	96.5	P/P	90 - 110
NO2NO3-N	98.5	97.5	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A90333

Included Lab Sample IDs: 2072478, 2072479, 2072480, 2072481, 2072482

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	98.1	98.4	P/P	90 - 110
Aluminum	99.5	98.1	P/P	90 - 110
Antimony	95.5	96.8	P/P	90 - 110
Antimony	96.8	95.7	P/P	90 - 110
Arsenic	97.1	98.5	P/P	90 - 110
Arsenic	97.8	97.1	P/P	90 - 110
Boron	101	102	P/P	90 - 110
Boron	104	101	P/P	90 - 110
Cadmium	100	101	P/P	90 - 110
Cadmium	101	100	P/P	90 - 110
Chromium	100	103	P/P	90 - 110
Chromium	101	100	P/P	90 - 110
Copper	98.2	102	P/P	90 - 110
Copper	99.0	98.2	P/P	90 - 110
Lead	100	101	P/P	90 - 110
Lead	98.5	100	P/P	90 - 110
Nickel	98.4	102	P/P	90 - 110
Nickel	99.4	98.4	P/P	90 - 110
Selenium	97.4	98.7	P/P	90 - 110
Selenium	98.5	97.4	P/P	90 - 110
Silver	101	101	P/P	90 - 110
Silver	101	101	P/P	90 - 110
Thallium	93.3	93.7	P/P	90 - 110
Thallium	93.7	95.1	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A90347

Included Lab Sample IDs: 2072441, 2072448, 2072449, 2072450

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	103	P/P	90 - 110
Total-P	101	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A90350

Included Lab Sample IDs: 2072447, 2072456

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A90355

Included Lab Sample IDs: 2072441, 2072447, 2072448

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	102	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A90356

Included Lab Sample IDs: 2072456

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.6	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A90367

Included Lab Sample IDs: 2072449, 2072450, 2072456

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	99.8	P/P	90 - 110
Ammonia-N	99.8	100	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A90372

Included Lab Sample IDs: 2072477

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	100	116	P/P	60 - 160
Glufosinate	116	117	P/P	60 - 160
Glyphosate	114	124	P/P	60 - 160

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A90374

Included Lab Sample IDs: 2072440, 2072443, 2072444, 2072445, 2072446, 2072455

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	102	P/P	90 - 110
Chloride	102	102	P/P	90 - 110
Sulfate	103	104	P/P	90 - 110
Sulfate	104	103	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A90375

Included Lab Sample IDs: 2072477

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	78.6	67.2	P/P	60 - 160
Endothall	103	109	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A90422

Included Lab Sample IDs: 2072478, 2072479, 2072481

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	97.4	97.3	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A90431

Included Lab Sample IDs: 2072477

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	85.0	85.0	P/P	60 - 160

Reference Method: SM 2320 B-97

Run ID: A90475

Included Lab Sample IDs: 2072440, 2072443, 2072444, 2072445, 2072446, 2072455

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.8	100	P/P	90 - 110
Total Alkalinity	100	98.7	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A90475

Included Lab Sample IDs: 2072440, 2072443, 2072444, 2072445, 2072446, 2072455

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	100	P/P	90 - 110
Fluoride	99.1	100	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A90623

Included Lab Sample IDs: 2072477

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	94.8	99.7	P/P	50 - 150
Acetaminophen	106	121	P/P	60 - 160
Bentazon	107	107	P/P	50 - 160
Carbamazepine	114	115	P/P	60 - 150
Diuron	115	119	P/P	60 - 150
Fenuron	109	113	P/P	60 - 150
Fluridone	135	65.9	P/P	60 - 160
Hydrocodone	104	109	P/P	60 - 150
Ibuprofen	116	85.8	P/P	50 - 160
Imazapyr	106	134	P/P	50 - 150
Imidacloprid	102	105	P/P	60 - 150
Linuron	144	109	P/P	60 - 150
MCPP	106	98.0	P/P	50 - 150
Naproxen	124	118	P/P	50 - 160
Primidone	100	132	P/P	60 - 150
Pyraclostrobin	109	106	P/P	60 - 150
Triclopyr	96.4	108	P/P	50 - 150

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						2.40	
EPA 200.7 Rev. 4.4	Barium	95.1	92.1	94.3	93.8			0.562
	Calcium	96.5	96.5	96.2				1.10
	Iron	99.1	100	99.4	98.4			1.04
	Magnesium	97.1	96.0	95.9				0.190
	Potassium	100	94.2	97.3	96.8			0.491
	Sodium	95.4	95.8	97.1				0.142
	Zinc	95.0	94.4	94.0	94.0			0.0344
EPA 200.8 Rev. 5.4	Aluminum	98.8	95.9	96.3	96.9			0.667
	Antimony	97.7	97.9	97.8	97.3			0.469
	Arsenic	100	100	101	99.8			1.47
	Boron	106	103	106	105			0.786
	Cadmium	103	103	103	104			0.285
	Chromium	97.5	95.0	96.8	96.3			0.514
	Copper	99.9	97.6	98.2	97.2			0.963
	Lead	100	100	98.7	99.8			1.04
	Nickel	102	98.9	100	99.0			0.959
	Selenium	98.1	96.9	97.8	97.3			0.404
	Silver	102	101	101	102			1.09
	Thallium	102	102	101	102			1.06
EPA 300.0 Rev. 2.1	Chloride	102	96.7	101			0.945	
	Sulfate	103	99.2	104			1.06	
EPA 350.1 Rev. 2.0	Ammonia-N	100	96.9	103				3.81
	Ammonia-N	99.2	97.5	98.6				0.923
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	109	98.1	106				5.76
	Kjeldahl Nitrogen	104	97.8	95.6				1.76
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	102	100					0.203
	NO ₂ NO ₃ -N	98.0	98.5	97.0				1.53
EPA 365.1 Rev. 2.0	Total-P	103	98.8	100				1.32
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.7	96.2	97.8				1.25
EPA 8321B	2,4-D	64.8	63.7	71.8				11.9
	Acesulfame K	126	105	113				6.91
	Acetaminophen	81.0	73.5	84.4				13.8
	AMPA	99.1	103	96.2				6.83
	Bentazon	104	87.4	91.5				4.54
	Carbamazepine	80.8	81.3	84.0				3.26
	Diuron	71.2	64.1	68.4				6.50
	Endothall	114	82.8	78.6				5.17
	Fenuron	104	108	117				7.29
	Fluridone	124	144	148				2.43
	Glufosinate	109	99.9	100				0.383
	Glyphosate	110	93.8	103				7.87
	Hydrocodone	86.0	83.6	87.2				4.22
	Ibuprofen	63.4	84.6	83.3				1.47
	Imazapyr	79.3	81.8	90.0				9.54
	Imidacloprid	80.8	148	139				6.33
	Linuron	68.1	71.7	63.6				12.1
	MCPP	69.0	87.7	99.0				12.0
	Naproxen	64.0	61.2	67.4				9.59
	Primidone	82.0	62.5	78.4				22.5
	Pyraclostrobin	64.9	75.2	74.1				1.43
	Sucralose	88.9	57.2	73.2				19.9
	Triclopyr	50.4	36.3	54.6				40.3
SM 2120 B	Color (true)	101					1.67	

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
SM 2320 B-97	Total Alkalinity	99.1			0.791	
SM 2540 C-97	TDS				4.98	
	TDS				6.00	
SM 4500 F-C-97	Fluoride	99.3	99.5	99.5		0.0
SM 5310 B-00	Organic Carbon	98.8	97.7	98.4		0.587
	Organic Carbon	99.4	96.7	97.1		0.275

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2072440, 2072443, 2072444, 2072445, 2072446, 2072455
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2072478, 2072479, 2072480, 2072481, 2072482
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2072478, 2072479, 2072480, 2072481, 2072482
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2072440, 2072443, 2072444, 2072445, 2072446, 2072455
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2072440, 2072443, 2072444, 2072445, 2072446, 2072455
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2072441, 2072447, 2072448, 2072449, 2072450, 2072456
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2072441, 2072447, 2072448, 2072449, 2072450, 2072456
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2072441, 2072447, 2072448, 2072449, 2072450, 2072456
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2072441, 2072447, 2072448, 2072449, 2072450, 2072456
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2072442, 2072451, 2072452, 2072453, 2072454, 2072457
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2072477
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2072477
SM 2120 B / E31780	True Color measured at 450 nm	2072440, 2072443, 2072444, 2072445, 2072446, 2072455
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2072440, 2072443, 2072444, 2072445, 2072446, 2072455
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2072440, 2072443, 2072444, 2072445, 2072446, 2072455
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2072440, 2072443, 2072444, 2072445, 2072446, 2072455
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2072440, 2072443, 2072444, 2072445, 2072446, 2072455
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2072441, 2072447, 2072448, 2072449, 2072450, 2072456

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	03/26/2019			03/26/2019 16:32	Adrian Shelby	2072440, 2072443, 2072444, 2072445, 2072446, 2072455
EPA 200.7 Rev. 4.4	03/26/2019	03/27/2019 16:20	Elliott D. Healy	03/28/2019 14:34	Betina Topolski	2072478
	03/26/2019	03/27/2019 16:20	Elliott D. Healy	03/28/2019 14:38	Betina Topolski	2072479
	03/26/2019	03/27/2019 16:20	Elliott D. Healy	03/28/2019 14:43	Betina Topolski	2072480
	03/26/2019	03/27/2019 16:20	Elliott D. Healy	03/28/2019 15:05	Betina Topolski	2072481
	03/26/2019	03/27/2019 16:20	Elliott D. Healy	03/28/2019 15:10	Betina Topolski	2072482
EPA 200.8 Rev. 5.4	03/26/2019	03/27/2019 16:20	Elliott D. Healy	03/29/2019 23:30	Robert K Palmer	2072478
	03/26/2019	03/27/2019 16:20	Elliott D. Healy	03/29/2019 23:39	Robert K Palmer	2072479
	03/26/2019	03/27/2019 16:20	Elliott D. Healy	03/29/2019 23:49	Robert K Palmer	2072480
	03/26/2019	03/27/2019 16:20	Elliott D. Healy	03/29/2019 23:59	Robert K Palmer	2072481
	03/26/2019	03/27/2019 16:20	Elliott D. Healy	03/30/2019 00:28	Robert K Palmer	2072482
	03/26/2019	03/27/2019 16:20	Elliott D. Healy	04/03/2019 16:02	Robert K Palmer	2072478
	03/26/2019	03/27/2019 16:20	Elliott D. Healy	04/03/2019 16:08	Robert K Palmer	2072479
	03/26/2019	03/27/2019 16:20	Elliott D. Healy	04/03/2019 16:15	Robert K Palmer	2072481
EPA 300.0 Rev. 2.1	03/26/2019			03/29/2019 07:23	Lipi Saha	2072440
	03/26/2019			03/29/2019 07:35	Lipi Saha	2072443
	03/26/2019			03/29/2019 07:47	Lipi Saha	2072444
	03/26/2019			03/29/2019 08:23	Lipi Saha	2072445
	03/26/2019			03/29/2019 08:35	Lipi Saha	2072446
	03/26/2019			03/29/2019 08:47	Lipi Saha	2072455
EPA 350.1 Rev. 2.0	03/26/2019			03/29/2019 11:26	Ping Hua	2072441
	03/26/2019			03/29/2019 11:27	Ping Hua	2072447
	03/26/2019			03/29/2019 11:29	Ping Hua	2072448
	03/26/2019			04/01/2019 11:20	Ping Hua	2072449
	03/26/2019			04/01/2019 11:21	Ping Hua	2072450
	03/26/2019			04/01/2019 11:29	Ping Hua	2072456
EPA 351.2 Rev. 2.0	03/26/2019	03/27/2019 13:30	Jhamieka S. Greenwood	03/29/2019 13:15	Joseph Suarez	2072441
	03/26/2019	03/27/2019 13:30	Jhamieka S. Greenwood	03/29/2019 13:23	Joseph Suarez	2072447
	03/26/2019	03/27/2019 13:30	Jhamieka S. Greenwood	03/29/2019 13:25	Joseph Suarez	2072448
	03/26/2019	03/27/2019 13:30	Jhamieka S. Greenwood	03/29/2019 13:26	Joseph Suarez	2072449
	03/26/2019	03/27/2019 13:30	Jhamieka S. Greenwood	03/29/2019 13:28	Joseph Suarez	2072450
	03/26/2019	03/29/2019 13:30	Jhamieka S. Greenwood	04/01/2019 11:34	Joseph Suarez	2072456
EPA 353.2 Rev. 2.0	03/26/2019			03/27/2019 09:09	Beverly Y. Sanders	2072449
	03/26/2019			03/27/2019 09:15	Beverly Y. Sanders	2072450
	03/26/2019			03/27/2019 09:16	Beverly Y. Sanders	2072456
	03/26/2019			03/29/2019 11:21	Virginia P. Brown	2072441
	03/26/2019			03/29/2019 13:33	Virginia P. Brown	2072447
	03/26/2019			03/29/2019 13:34	Virginia P. Brown	2072448
EPA 365.1 Rev. 2.0	03/26/2019	03/29/2019 12:25	Adrian Shelby	04/01/2019 12:24	Rosalyn Ballman	2072449

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 365.1 Rev. 2.0	03/26/2019	03/29/2019 12:25	Adrian Shelby	04/01/2019 12:33	Rosalyn Ballman	2072441
	03/26/2019	03/29/2019 12:25	Adrian Shelby	04/01/2019 12:35	Rosalyn Ballman	2072448
	03/26/2019	03/29/2019 12:25	Adrian Shelby	04/01/2019 12:36	Rosalyn Ballman	2072450
	03/26/2019	03/29/2019 12:25	Adrian Shelby	04/01/2019 16:34	Rosalyn Ballman	2072447
	03/26/2019	03/29/2019 12:25	Adrian Shelby	04/01/2019 16:35	Rosalyn Ballman	2072456
EPA 365.1 Rev. 2.0 dissolved	03/26/2019			03/26/2019 16:09	Jhamieka S. Greenwood	2072442
	03/26/2019			03/26/2019 16:10	Jhamieka S. Greenwood	2072451
	03/26/2019			03/26/2019 16:15	Jhamieka S. Greenwood	2072452, 2072453
	03/26/2019			03/26/2019 16:16	Jhamieka S. Greenwood	2072454
	03/26/2019			03/26/2019 16:17	Jhamieka S. Greenwood	2072457
EPA 8321B	03/26/2019	03/28/2019 09:45	Rebecca Ware	03/28/2019 16:17	Rebecca Ware	2072477
	03/26/2019	03/28/2019 09:45	Rebecca Ware	03/29/2019 14:47	Rebecca Ware	2072477
	03/26/2019	03/28/2019 09:45	Rebecca Ware	04/01/2019 20:57	Rebecca Ware	2072477
SM 2120 B	03/26/2019	03/29/2019 10:00	Hoor Shaik	04/10/2019 06:16	Juyoung Kim	2072477
	03/26/2019			03/26/2019 16:14	Mariam Hanna	2072440, 2072443
	03/26/2019			03/26/2019 16:15	Mariam Hanna	2072444
	03/26/2019			03/26/2019 16:16	Mariam Hanna	2072445
	03/26/2019			03/26/2019 16:17	Mariam Hanna	2072446
SM 2320 B-97	03/26/2019			03/26/2019 16:18	Mariam Hanna	2072455
	03/26/2019			04/04/2019 07:22	Dale L. Simmons	2072446
	03/26/2019			04/04/2019 08:33	Dale L. Simmons	2072440
	03/26/2019			04/04/2019 08:46	Dale L. Simmons	2072443
	03/26/2019			04/04/2019 09:25	Dale L. Simmons	2072445
SM 2540 C-97	03/26/2019			04/04/2019 09:37	Dale L. Simmons	2072455
	03/26/2019			04/04/2019 11:54	Dale L. Simmons	2072444
	03/26/2019			03/27/2019 14:03	Yijie Li	2072440, 2072443, 2072444, 2072445, 2072446, 2072455
SM 2540 D-97	03/26/2019			03/27/2019 14:03	Yijie Li	2072440, 2072443, 2072444, 2072445, 2072446, 2072455
SM 4500 F-C-97	03/26/2019			04/04/2019 07:12	Dale L. Simmons	2072446
	03/26/2019			04/04/2019 08:33	Dale L. Simmons	2072440
	03/26/2019			04/04/2019 08:46	Dale L. Simmons	2072443
	03/26/2019			04/04/2019 09:25	Dale L. Simmons	2072445
	03/26/2019			04/04/2019 09:37	Dale L. Simmons	2072455
SM 5310 B-00	03/26/2019			04/04/2019 11:54	Dale L. Simmons	2072444
	03/26/2019			03/27/2019 20:50	Julia Storbeck	2072441
	03/26/2019			03/27/2019 21:02	Julia Storbeck	2072447
	03/26/2019			03/27/2019 21:39	Julia Storbeck	2072448
	03/26/2019			03/27/2019 22:52	Julia Storbeck	2072449
	03/26/2019			03/27/2019 23:04	Julia Storbeck	2072450

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-00	03/26/2019			03/27/2019 23:16	Julia Storbeck	2072456