Chemical Analysis Report

SO-DIST-2018-07-24-01

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

Event Description: **Myakka Streams**
Request ID: **RQ-2018-07-09-29**
Customer: **SO-DIST**
Project ID: **SMP**

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FLDEP South District Office
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Date Certified: 13-AUG-2018 17:35

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 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: MyakkaRiver(Tidal)@US41 **Collection Date/Time: 07/23/2018 10:15**

Field ID: G3SD0068 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2010193	EPA 8321B	2,4-D	0.0020	U	ug/L	P349015	
		Sucralose**	0.010	U	ug/L	P349013	
		Bentazon	0.0034		ug/L	P349015	
		MCPP	0.0020	U	ug/L	P349015	
		Triclopyr**	0.0040	U	ug/L	P349015	
		Imidacloprid	0.014		ug/L	P349015	
		Diuron	0.0022	I	ug/L	P349015	
		Pyraclostrobin**	0.0020	U	ug/L	P349015	
		Primidone**	0.0040	U	ug/L	P349015	
		Linuron	0.0040	U	ug/L	P349015	
		Acetaminophen**	0.0080	U	ug/L	P349015	
		Fenuron	0.016	U	ug/L	P349015	
		Imazapyr**	0.025		ug/L	P349015	
		Carbamazepine**	8.0E-04	U	ug/L	P349015	
		Fluridone**	0.0015	I	ug/L	P349015	
		Hydrocodone**	8.0E-04	U	ug/L	P349015	

Ref. Method and Comment:
EPA 8321B: Insufficient sample to perform matrix spikes.

Sample Location: Rock Creek@EisenhowerDr **Collection Date/Time: 07/23/2018 11:05**

Field ID: G3SD0070 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2010173	EPA 180.1 Rev. 2.0	Turbidity	3.7		NTU	P349083	
	SM 2320 B-97	Total Alkalinity	61		mg CaCO3/L	P349244	
	SM 2540 D-97	TSS	4	I	mg/L	P349342	
	SM 4500 F-C-97	Fluoride	0.21		mg F/L	P349246	
2010175	EPA 350.1 Rev. 2.0	Ammonia-N	0.064		mg N/L	P349321	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P349291	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.14		mg N/L	P349330	
	EPA 365.1 Rev. 2.0	Total-P	0.32		mg P/L	P349208	
	SM 5310 B-00	Organic Carbon	23		mg C/L	P349223	
2010177	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.27		mg P/L	P349058	
2010194	EPA 200.7 Rev. 4.4	Iron	810		ug/L	P349205	
		Zinc	5.0	U	ug/L	P349205	
	EPA 200.8 Rev. 5.4	Arsenic	1.59		ug/L	P349205	
		Cadmium	0.020	U	ug/L	P349205	
		Chromium	0.64	I	ug/L	P349205	
		Copper	0.81		ug/L	P349205	
		Lead	0.20		ug/L	P349205	
		Nickel	0.51	I	ug/L	P349205	
		Silver	0.010	U	ug/L	P349205	

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: Apollo Waterway @ Bend **Collection Date/Time: 07/23/2018 11:35**

Field ID: G3SD0069 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2010179	EPA 180.1 Rev. 2.0	Turbidity	3.0		NTU	P349084	
	SM 2320 B-97	Total Alkalinity	76		mg CaCO3/L	P349244	
	SM 2540 D-97	TSS	3	IA	mg/L	P349342	
	SM 4500 F-C-97	Fluoride	0.22		mg F/L	P349246	
2010180	EPA 350.1 Rev. 2.0	Ammonia-N	0.045		mg N/L	P349321	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P349291	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.12		mg N/L	P349330	
	EPA 365.1 Rev. 2.0	Total-P	0.32		mg P/L	P349209	
	SM 5310 B-00	Organic Carbon	22		mg C/L	P349223	
2010181	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.27		mg P/L	P349058	

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: Apollo Waterwat @ Bend **Collection Date/Time: 07/23/2018 11:40**

Field ID: BLANK_07232018 Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2010182	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P349084	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P349244	
	SM 2540 D-97	TSS	2	U	mg/L	P349342	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P349246	
2010183	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P349321	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P349291	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P349330	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P349209	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P349223	
2010184	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P349058	

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: Little Alligator@Midway **Collection Date/Time: 07/23/2018 12:20**

Field ID: G3SD0071 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2010174	EPA 180.1 Rev. 2.0	Turbidity	2.5	A	NTU	P349084	
	SM 2320 B-97	Total Alkalinity	93		mg CaCO3/L	P349244	
	SM 2540 D-97	TSS	4	I	mg/L	P349342	
	SM 4500 F-C-97	Fluoride	0.41		mg F/L	P349246	
2010176	EPA 350.1 Rev. 2.0	Ammonia-N	0.15		mg N/L	P349319	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P349290	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.13		mg N/L	P349200	
	EPA 365.1 Rev. 2.0	Total-P	0.40		mg P/L	P349211	
	SM 5310 B-00	Organic Carbon	18		mg C/L	P349223	
2010178	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.32		mg P/L	P349059	
2010195	EPA 200.7 Rev. 4.4	Iron	470		ug/L	P349205	
		Zinc	5.0	U	ug/L	P349205	
	EPA 200.8 Rev. 5.4	Arsenic	2.14		ug/L	P349205	
		Cadmium	0.020	U	ug/L	P349205	
		Chromium	0.49	I	ug/L	P349205	
		Copper	0.86		ug/L	P349205	
		Lead	0.15	I	ug/L	P349205	
		Nickel	0.55	I	ug/L	P349205	
		Silver	0.010	U	ug/L	P349205	

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: P349083

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P349084

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P349205

Component	Result	Code	Units
Iron	30	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P349205

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.20	U	ug/L
Lead	0.050	U	ug/L
Nickel	0.20	U	ug/L
Silver	0.010	U	ug/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P349319

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P349321

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P349290

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P349291

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P349200

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P349330

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P349208

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P349209

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P349211

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P349058

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P349059

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

Reference Method: EPA 8321B
Batch ID: P349013

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P349015

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P349015

Component	Result	Code	Units
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	4.0E-04	U	ug/L
Hydrocodone	8.0E-04	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-97
Batch ID: P349244

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

Reference Method: SM 2540 D-97
Batch ID: P349342

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P349246

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P349223

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: P349205

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	104		P	85 - 115
Zinc	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P349205

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	99.3		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	95.7		P	85 - 115
Copper	98.0		P	85 - 115
Lead	94.5		P	85 - 115
Nickel	100		P	85 - 115
Silver	97.3		P	85 - 115

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P349319

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P349321

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P349290

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	93.7		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P349291

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P349200

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	101		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P349330

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P349208

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	96.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P349209

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	96.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P349211

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	99.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P349058

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.9		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P349059

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

Reference Method: EPA 8321B
Batch ID: P349013

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	101		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P349015

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	94.1	86.6	P/P	40 - 150
Acetaminophen	80.1	86.6	P/P	30 - 150
Bentazon	60.6	53.9	P/P	30 - 150
Carbamazepine	63.5	73.1	P/P	40 - 150
Diuron	62.1	61.0	P/P	40 - 150
Fenuron	87.5	94.7	P/P	40 - 150
Fluridone	83.5	79.2	P/P	40 - 150
Hydrocodone	78.1	87.5	P/P	40 - 150
Imazapyr	95.1	109	P/P	40 - 150
Imidacloprid	83.0	82.5	P/P	40 - 160
Linuron	68.9	70.8	P/P	40 - 150
MCPP	91.6	89.0	P/P	40 - 150
Primidone	90.1	103	P/P	40 - 150
Pyraclostrobin	72.1	74.5	P/P	40 - 150
Triclopyr	86.1	89.3	P/P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-97
Batch ID: P349244

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P349246

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.2		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P349223

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.4		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P349205

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010488	Iron	101		P	80 - 120
2010488	Zinc	104		P	80 - 120
2010664	Iron	99.7	101	P/P	80 - 120
2010664	Zinc	99.0	98.3	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P349205

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010488	Arsenic	104		P	80 - 120
2010488	Cadmium	102		P	80 - 120
2010488	Chromium	95.3		P	80 - 120
2010488	Copper	99.6		P	80 - 120
2010488	Lead	97.8		P	80 - 120
2010488	Nickel	101		P	80 - 120
2010488	Silver	98.0		P	80 - 120
2010664	Arsenic	102	102	P/P	80 - 120
2010664	Cadmium	99.6	102	P/P	80 - 120
2010664	Chromium	96.1	96.0	P/P	80 - 120
2010664	Copper	95.0	95.8	P/P	80 - 120
2010664	Lead	95.4	95.2	P/P	80 - 120
2010664	Nickel	96.7	98.1	P/P	80 - 120
2010664	Silver	96.4	96.1	P/P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P349319

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010100	Ammonia-N	104	104	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P349321

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010129	Ammonia-N	99.6	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P349290

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010103	Kjeldahl Nitrogen	91.6	93.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P349291

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010180	Kjeldahl Nitrogen	102	108	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P349200

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P349200

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010104	NO2NO3-N	102	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P349330

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010175	NO2NO3-N	100	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P349208

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010203	Total-P	99.8	96.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P349209

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010204	Total-P	99.0	97.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P349211

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010094	Total-P	101	93.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P349058

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010006	O-Phosphate-P	98.1	99.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P349059

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010178	O-Phosphate-P	98.2	97.5	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P349013

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2009531	Sucralose	101	110	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P349246

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010003	Fluoride	95.4	95.4	P/P	91 - 105

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 5310 B-00
Batch ID: P349223

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010175	Organic Carbon	101		P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P349083

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2009944	Turbidity	3.25	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P349084

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010174	Turbidity	5.21	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P349205

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010664	Iron	0.980	Spike	P	0 - 20
2010664	Zinc	0.688	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P349205

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010664	Arsenic	0.0953	Spike	P	0 - 20
2010664	Cadmium	2.66	Spike	P	0 - 20
2010664	Chromium	0.193	Spike	P	0 - 20
2010664	Copper	0.799	Spike	P	0 - 20
2010664	Lead	0.195	Spike	P	0 - 20
2010664	Nickel	1.41	Spike	P	0 - 20
2010664	Silver	0.379	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P349319

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010100	Ammonia-N	0.472	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P349321

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010129	Ammonia-N	1.35	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P349290

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010103	Kjeldahl Nitrogen	1.55	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P349291

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010180	Kjeldahl Nitrogen	3.06	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P349200

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010104	NO2NO3-N	0.471	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P349330

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010175	NO2NO3-N	0.589	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P349208

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010203	Total-P	2.99	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P349209

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010204	Total-P	1.55	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P349211

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010094	Total-P	7.39	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P349058

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010006	O-Phosphate-P	1.22	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P349059

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010178	O-Phosphate-P	0.538	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P349013

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2009531	Sucralose	7.85	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P349015

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	2,4-D	8.35	LCS	P	0 - 30
LFB	Acetaminophen	7.91	LCS	P	0 - 30
LFB	Bentazon	11.7	LCS	P	0 - 30
LFB	Carbamazepine	14.0	LCS	P	0 - 30
LFB	Diuron	1.82	LCS	P	0 - 30
LFB	Fenuron	7.87	LCS	P	0 - 30
LFB	Fluridone	5.24	LCS	P	0 - 30
LFB	Hydrocodone	11.3	LCS	P	0 - 30
LFB	Imazapyr	13.7	LCS	P	0 - 30
LFB	Imidacloprid	0.618	LCS	P	0 - 30
LFB	Linuron	2.82	LCS	P	0 - 30
LFB	MCPP	2.90	LCS	P	0 - 30
LFB	Primidone	13.0	LCS	P	0 - 30
LFB	Pyraclostrobin	3.29	LCS	P	0 - 30
LFB	Triclopyr	3.60	LCS	P	0 - 30

Reference Method: SM 2320 B-97
Batch ID: P349244

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010003	Total Alkalinity	0.639	Sample	P	0 - 1.6

Reference Method: SM 4500 F-C-97
Batch ID: P349246

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010003	Fluoride	0.0	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P349223

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010175	Organic Carbon	0.0234	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: 2010193
Field Sample ID: G3SD0068

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	88.0	P	30 - 160
EPA 8321B	Acetaminophen-d4	83.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	68.9	P	30 - 160
EPA 8321B	Diuron-d6	60.4	P	30 - 160
EPA 8321B	Primidone-d5	74.8	P	30 - 160
EPA 8321B	Sucralose-d6	138	P	40 - 160

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A85441
Included Lab Sample IDs: 2010177, 2010178, 2010181, 2010184

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.6	97.0	P/P	90 - 110
O-Phosphate-P	98.3	98.1	P/P	90 - 110
O-Phosphate-P	98.9	98.3	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A85446
Included Lab Sample IDs: 2010173, 2010174, 2010179, 2010182

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.5	98.5	P/P	95 - 105
Turbidity	99.0	98.5	P/P	95 - 105

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A85494
Included Lab Sample IDs: 2010176

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

Reference Method: SM 5310 B-00
Run ID: A85504
Included Lab Sample IDs: 2010175, 2010176, 2010180, 2010183

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.2	97.0	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A85509
Included Lab Sample IDs: 2010173, 2010174, 2010179, 2010182

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	102	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A85509
Included Lab Sample IDs: 2010173, 2010174, 2010179, 2010182

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A85518
Included Lab Sample IDs: 2010175, 2010176, 2010180

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	96.6	98.3	P/P	90 - 110
Total-P	98.2	97.8	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A85536
Included Lab Sample IDs: 2010175, 2010176, 2010180, 2010183

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	104	103	P/P	90 - 110
Ammonia-N	99.8	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A85538
Included Lab Sample IDs: 2010175, 2010180, 2010183

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

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A85544
Included Lab Sample IDs: 2010194, 2010195

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	101	100	P/P	95 - 105
Zinc	103	101	P/P	95 - 105

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A85551
Included Lab Sample IDs: 2010176

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	94.7	99.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A85553
Included Lab Sample IDs: 2010183

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A85561
Included Lab Sample IDs: 2010175, 2010180, 2010183

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	93.2	93.0	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A85602
Included Lab Sample IDs: 2010193

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	92.3	149	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A85629
Included Lab Sample IDs: 2010193

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A85629
Included Lab Sample IDs: 2010193

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	63.6	84.2	P/P	50 - 150
Bentazon	65.1	65.9	P/P	50 - 150
MCPP	62.3	75.4	P/P	50 - 150
Triclopyr	64.7	72.8	P/P	50 - 160

Reference Method: EPA 8321B
Run ID: A85635
Included Lab Sample IDs: 2010193

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	99.1	99.9	P/P	60 - 150
Carbamazepine	98.8	101	P/P	60 - 150
Diuron	95.6	87.3	P/P	60 - 150
Fenuron	92.4	90.5	P/P	60 - 150
Fluridone	93.8	96.9	P/P	60 - 160
Hydrocodone	98.6	97.2	P/P	60 - 150
Imazapyr	109	102	P/P	50 - 150
Imidacloprid	83.8	93.7	P/P	60 - 150
Linuron	90.1	84.0	P/P	60 - 150
Primidone	108	110	P/P	60 - 150
Pyraclostrobin	88.3	93.0	P/P	60 - 150

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A85664
Included Lab Sample IDs: 2010194, 2010195

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	101	100	P/P	90 - 110
Cadmium	99.5	98.5	P/P	90 - 110
Chromium	98.3	95.6	P/P	90 - 110
Copper	101	100	P/P	90 - 110
Lead	97.7	96.9	P/P	90 - 110
Nickel	100	101	P/P	90 - 110
Silver	95.3	95.0	P/P	90 - 110

* 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			Precision		
							LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity							3.25	
	Turbidity							5.21	
EPA 200.7 Rev. 4.4	Iron	104		101	99.7	101			0.980
	Zinc	102		104	99.0	98.3			0.688
EPA 200.8 Rev. 5.4	Arsenic	99.3		104	102	102			0.0953
	Cadmium	101		102	99.6	102			2.66
	Chromium	95.7		95.3	96.1	96.0			0.193
	Copper	98.0		99.6	95.0	95.8			0.799
	Lead	94.5		97.8	95.4	95.2			0.195
	Nickel	100		101	96.7	98.1			1.41
	Silver	97.3		98.0	96.4	96.1			0.379
EPA 350.1 Rev. 2.0	Ammonia-N	104		104	104				0.472
	Ammonia-N	101		99.6	101				1.35
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	93.7		91.6	93.6				1.55
	Kjeldahl Nitrogen	103		102	108				3.06
EPA 353.2 Rev. 2.0	NO2NO3-N	101		102	103				0.471
	NO2NO3-N	102		100	99.5				0.589
EPA 365.1 Rev. 2.0	Total-P	96.5		99.8	96.7				2.99
	Total-P	96.5		99.0	97.4				1.55
	Total-P	99.0		101	93.5				7.39
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.9		98.1	99.3				1.22
	O-Phosphate-P	103		98.2	97.5				0.538
EPA 8321B	2,4-D	86.6	94.1				8.35		
	Acetaminophen	80.1	86.6				7.91		
	Bentazon	53.9	60.6				11.7		
	Carbamazepine	63.5	73.1				14.0		
	Diuron	62.1	61.0				1.82		
	Fenuron	87.5	94.7				7.87		
	Fluridone	83.5	79.2				5.24		
	Hydrocodone	78.1	87.5				11.3		
	Imazapyr	95.1	109				13.7		
	Imidacloprid	83.0	82.5				0.618		
	Linuron	68.9	70.8				2.82		
	MCPP	91.6	89.0				2.90		
	Primidone	90.1	103				13.0		
	Pyraclostrobin	72.1	74.5				3.29		
	Sucralose	101		101	110				7.85
	Triclopyr	86.1	89.3				3.60		
SM 2320 B-97	Total Alkalinity	102						0.639	
SM 4500 F-C-97	Fluoride	98.2		95.4	95.4				0.0
SM 5310 B-00	Organic Carbon	94.4		101					0.0234

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2010173, 2010174, 2010179, 2010182
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2010194, 2010195
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2010194, 2010195
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2010175, 2010176, 2010180, 2010183

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2010175, 2010176, 2010180, 2010183
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2010175, 2010176, 2010180, 2010183
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2010175, 2010176, 2010180, 2010183
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2010177, 2010178, 2010181, 2010184
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2010193
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2010193
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2010173, 2010174, 2010179, 2010182
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2010173, 2010174, 2010179, 2010182
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2010173, 2010174, 2010179, 2010182
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2010175, 2010176, 2010180, 2010183

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	07/24/2018			07/24/2018 15:17	Blanca Fach	2010173, 2010174, 2010179, 2010182
EPA 200.7 Rev. 4.4	07/24/2018	07/26/2018 14:30	Elliott D. Healy	07/27/2018 13:07	Betina Topolski	2010194
	07/24/2018	07/26/2018 14:30	Elliott D. Healy	07/27/2018 13:15	Betina Topolski	2010195
EPA 200.8 Rev. 5.4	07/24/2018	07/26/2018 14:30	Elliott D. Healy	08/02/2018 19:38	Allison Taylor	2010194
	07/24/2018	07/26/2018 14:30	Elliott D. Healy	08/02/2018 19:47	Allison Taylor	2010195
EPA 350.1 Rev. 2.0	07/24/2018			07/27/2018 12:16	Ping Hua	2010176
	07/24/2018			07/27/2018 13:13	Ping Hua	2010175
	07/24/2018			07/27/2018 13:16	Ping Hua	2010180
	07/24/2018			07/27/2018 13:19	Ping Hua	2010183
EPA 351.2 Rev. 2.0	07/24/2018	07/27/2018 12:00	Adrian Shelby	07/30/2018 11:58	Joseph Suarez	2010176
	07/24/2018	07/27/2018 12:00	Adrian Shelby	07/30/2018 14:09	Joseph Suarez	2010175
	07/24/2018	07/27/2018 12:00	Adrian Shelby	07/30/2018 14:10	Joseph Suarez	2010180
	07/24/2018	07/27/2018 12:00	Adrian Shelby	07/30/2018 14:15	Joseph Suarez	2010183
EPA 353.2 Rev. 2.0	07/24/2018			07/26/2018 12:35	Lauren Bottorf	2010176
	07/24/2018			07/27/2018 12:21	Lauren Bottorf	2010175
	07/24/2018			07/27/2018 12:27	Lauren Bottorf	2010183
	07/24/2018			07/27/2018 12:29	Lauren Bottorf	2010180
EPA 365.1 Rev. 2.0	07/24/2018	07/26/2018 12:35	Sima Feizi	07/27/2018 09:21	Beverly Y. Sanders	2010175
	07/24/2018	07/26/2018 12:35	Sima Feizi	07/27/2018 09:28	Beverly Y. Sanders	2010180
	07/24/2018	07/26/2018 12:35	Sima Feizi	07/27/2018 10:16	Beverly Y. Sanders	2010176
	07/24/2018	07/26/2018 12:35	Sima Feizi	07/30/2018 11:02	Beverly Y. Sanders	2010183
EPA 365.1 Rev. 2.0 dissolved	07/24/2018			07/24/2018 16:32	Julia Storbeck	2010184
	07/24/2018			07/24/2018 16:45	Julia Storbeck	2010177
	07/24/2018			07/24/2018 16:46	Julia Storbeck	2010181
	07/24/2018			07/24/2018 17:08	Julia Storbeck	2010178
EPA 8321B	07/24/2018	07/26/2018 09:10	Hoor Shaik	07/28/2018 10:19	Juyoung Kim	2010193
	07/24/2018	07/26/2018 09:10	Hoor Shaik	08/03/2018 05:21	Juyoung Kim	2010193
	07/24/2018	07/27/2018 17:30	Hoor Shaik	07/31/2018 20:48	Mohammad Ghaffari	2010193
SM 2320 B-97	07/24/2018			07/26/2018 04:33	Dale L. Simmons	2010182
	07/24/2018			07/26/2018 04:43	Dale L. Simmons	2010173
	07/24/2018			07/26/2018 04:53	Dale L. Simmons	2010179
	07/24/2018			07/26/2018 05:04	Dale L. Simmons	2010174
SM 2540 D-97	07/24/2018			07/26/2018 15:35	Yijie Li	2010173, 2010174, 2010179, 2010182
SM 4500 F-C-97	07/24/2018			07/26/2018 04:33	Dale L. Simmons	2010182
	07/24/2018			07/26/2018 04:43	Dale L. Simmons	2010173
	07/24/2018			07/26/2018 04:53	Dale L. Simmons	2010179
	07/24/2018			07/26/2018 05:04	Dale L. Simmons	2010174
SM 5310 B-00	07/24/2018			07/26/2018 06:37	Megan Treadwell	2010175
	07/24/2018			07/26/2018 07:39	Megan Treadwell	2010176
	07/24/2018			07/26/2018 07:52	Megan Treadwell	2010180

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-00	07/24/2018			07/26/2018 08:06	Megan Treadwell	2010183