

Chemical Analysis Report

SE-DIST-2016-02-16-01

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

Event Description: **SMP_2016 Purple_2/15**

Request ID: **RQ-2016-02-15-63**

Customer: **SE-DIST**

Project ID: **SMP**

Send Reports to:

FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
Attn: Jordan Skaggs

For additional information please contact

Timothy W. Fitzpatrick
Liang-Tsair Lin, Ph.D.
Colin Wright, Ph.D.
Thekkekalathil Chandrasekhar, PhD, QA Officer
Phone (850) 245-8085

Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator

Date Certified: 09-MAR-2016 14:16



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 and Nutrients.

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: C-9 NW 57TH AVE 3283

Collection Date/Time: 02/15/2016 10:40

Field ID: G4SE0075_02_15_2016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1771273	EPA 180.1 Rev. 2.0	Turbidity	0.65		NTU	P298693	
	EPA 300.0 Rev. 2.1	Chloride	69		mg Cl/L	P298858	
		Sulfate	2.4		mg SO4/L	P298857	
	SM 2120 B	Color (true)	43		PCU	P298683	
	SM 2320 B-97	Total Alkalinity	226		mg CaCO3/L	P299109	
	SM 2540 C-97	TDS	345		mg/L	P299080	
	SM 2540 D-97	TSS	2	U	mg/L	P299018	
	SM 4500 F-C-97	Fluoride	0.26		mg F/L	P299043	
1771278	EPA 350.1 Rev. 2.0	Ammonia-N	0.53		mg N/L	P299251	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P298886	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.052		mg N/L	P298977	
	EPA 365.1 Rev. 2.0	Total-P	0.007		mg P/L	P298893	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P299136	
1771283	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P298675	
1771387	EPA 200.7 Rev. 4.4	Calcium	70.3		mg/L	P298849	
		Iron	260		ug/L	P298849	
		Magnesium	11.7		mg/L	P298849	
		Potassium	3.3		mg/L	P298849	
		Sodium	48.9		mg/L	P298849	
		Zinc	5.0	U	ug/L	P298849	
	EPA 200.8 Rev. 5.4	Arsenic	0.97	I	ug/L	P298849	
		Cadmium	0.050	U	ug/L	P298849	
		Chromium	0.30	U	ug/L	P298849	
		Copper	0.50	U	ug/L	P298849	
		Lead	0.20	U	ug/L	P298849	
		Nickel	0.25	U	ug/L	P298849	
		Silver	0.025	U	ug/L	P298849	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

EPA 350.1 Rev. 2.0: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Sample Location: TAMIAMI CAN. @ KROME AV. 3286B

Collection Date/Time: 02/15/2016 11:50

Field ID: 42009019_02_15_2016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1771274	EPA 180.1 Rev. 2.0	Turbidity	8.2		NTU	P298693	
	EPA 300.0 Rev. 2.1	Chloride	46		mg Cl/L	P298858	
		Sulfate	0.32	I	mg SO4/L	P298857	
	SM 2120 B	Color (true)	59		PCU	P298683	
	SM 2320 B-97	Total Alkalinity	262		mg CaCO3/L	P299344	
	SM 2540 C-97	TDS	352		mg/L	P299080	
	SM 2540 D-97	TSS	3	I	mg/L	P299018	
	SM 4500 F-C-97	Fluoride	0.15		mg F/L	P299044	
1771279	EPA 350.1 Rev. 2.0	Ammonia-N	0.91		mg N/L	P299251	

Field ID: 42009019_02_15_2016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1771279	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.9		mg N/L	P298886	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P298979	
	EPA 365.1 Rev. 2.0	Total-P	0.013		mg P/L	P298893	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P299136	
1771284	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P298675	
1771388	EPA 200.7 Rev. 4.4	Calcium	89.3		mg/L	P298849	
		Iron	1.12E+03		ug/L	P298849	
		Magnesium	8.06		mg/L	P298849	
		Potassium	1.8		mg/L	P298849	
		Sodium	32.6		mg/L	P298849	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P298849	
		Arsenic	0.77	I	ug/L	P298849	
		Cadmium	0.050	U	ug/L	P298849	
		Chromium	0.30	U	ug/L	P298849	
		Copper	0.50	U	ug/L	P298849	
		Lead	0.20	U	ug/L	P298849	
		Nickel	0.25	U	ug/L	P298849	
		Silver	0.025	U	ug/L	P298849	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

EPA 350.1 Rev. 2.0: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Sample Location: C-7 LITTLE RIVER (LR-10 MIAMI-DADE) 3287 Collection Date/Time: 02/15/2016 12:30

Field ID: G4SELR10_02152016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1771275	EPA 180.1 Rev. 2.0	Turbidity	0.50		NTU	P298693	
	EPA 300.0 Rev. 2.1	Chloride	59		mg Cl/L	P298858	
		Sulfate	2.9		mg SO4/L	P298857	
		Color (true)	41		PCU	P298683	
	SM 2320 B-97	Total Alkalinity	218		mg CaCO3/L	P299344	
	SM 2540 C-97	TDS	326		mg/L	P299080	
	SM 2540 D-97	TSS	2	I	mg/L	P299018	
1771280	SM 4500 F-C-97	Fluoride	0.25		mg F/L	P299044	
	EPA 350.1 Rev. 2.0	Ammonia-N	3.3		mg N/L	P299251	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	4.2		mg N/L	P298886	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.010		mg N/L	P298979	
	EPA 365.1 Rev. 2.0	Total-P	0.014		mg P/L	P298893	
1771285	SM 5310 B-00	Organic Carbon	13		mg C/L	P299136	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P298675	
1771389	EPA 200.7 Rev. 4.4	Calcium	65.6		mg/L	P298849	
		Iron	53	I	ug/L	P298849	
		Magnesium	8.49		mg/L	P298849	
		Potassium	5.2		mg/L	P298849	
		Sodium	43.5		mg/L	P298849	

Field ID: G4SELR10_02152016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1771389	EPA 200.7 Rev. 4.4	Zinc	5.0	U	ug/L	P298849	
	EPA 200.8 Rev. 5.4	Arsenic	0.49	I	ug/L	P298849	
		Cadmium	0.050	U	ug/L	P298849	
		Chromium	0.37	I	ug/L	P298849	
		Copper	0.50	U	ug/L	P298849	
		Lead	0.20	U	ug/L	P298849	
		Nickel	0.46	I	ug/L	P298849	
		Silver	0.025	U	ug/L	P298849	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

EPA 350.1 Rev. 2.0: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Sample Location: SNAKE CREEK CANAL (WEST) SF CANAL
STUDY C9-1 3284

Collection Date/Time: 02/15/2016 13:15

Field ID: G4SE0019_02_15_2016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1771276	EPA 180.1 Rev. 2.0	Turbidity	0.75		NTU	P298693	
	EPA 300.0 Rev. 2.1	Chloride	71		mg Cl/L	P298858	
		Sulfate	1.6		mg SO4/L	P298857	
	SM 2120 B	Color (true)	45		PCU	P298683	
	SM 2320 B-97	Total Alkalinity	221		mg CaCO3/L	P299344	
	SM 2540 C-97	TDS	346		mg/L	P299080	
	SM 2540 D-97	TSS	2	I	mg/L	P299018	
	SM 4500 F-C-97	Fluoride	0.25		mg F/L	P299044	
1771281	EPA 350.1 Rev. 2.0	Ammonia-N	0.11		mg N/L	P299251	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P298886	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.017		mg N/L	P298979	
	EPA 365.1 Rev. 2.0	Total-P	0.006		mg P/L	P298893	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P299136	
1771286	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P298675	
1771390	EPA 200.7 Rev. 4.4	Calcium	66.9		mg/L	P298849	
		Iron	120		ug/L	P298849	
		Magnesium	13.1		mg/L	P298849	
		Potassium	3.4		mg/L	P298849	
		Sodium	50.1		mg/L	P298849	
		Zinc	5.0	U	ug/L	P298849	
	EPA 200.8 Rev. 5.4	Arsenic	0.66	I	ug/L	P298849	
		Cadmium	0.050	U	ug/L	P298849	
		Chromium	0.30	U	ug/L	P298849	
		Copper	0.50	U	ug/L	P298849	
		Lead	0.20	U	ug/L	P298849	
		Nickel	0.25	U	ug/L	P298849	
		Silver	0.025	U	ug/L	P298849	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

EPA 350.1 Rev. 2.0: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Sample Location: N FORK NEW RIVER @ STRUCTURE 3276

Collection Date/Time: 02/15/2016 14:00

Field ID: 42009011_02_15_2016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1771277	EPA 180.1 Rev. 2.0	Turbidity	0.65		NTU	P298693	
	EPA 300.0 Rev. 2.1	Chloride	30		mg Cl/L	P298858	
		Sulfate	7.8		mg SO4/L	P298857	
	SM 2120 B	Color (true)	21		PCU	P298683	
	SM 2320 B-97	Total Alkalinity	100		mg CaCO3/L	P299344	
	SM 2540 C-97	TDS	163		mg/L	P299081	
	SM 2540 D-97	TSS	2	U	mg/L	P299019	
	SM 4500 F-C-97	Fluoride	0.14		mg F/L	P299044	
1771282	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P299251	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.44		mg N/L	P298886	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P298979	
	EPA 365.1 Rev. 2.0	Total-P	0.012		mg P/L	P298893	
	SM 5310 B-00	Organic Carbon	6.6		mg C/L	P299136	
1771287	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P298676	
1771391	EPA 200.7 Rev. 4.4	Calcium	38.6		mg/L	P298849	
		Iron	30	U	ug/L	P298849	
		Magnesium	3.02		mg/L	P298849	
		Potassium	1.0	I	mg/L	P298849	
		Sodium	20.3		mg/L	P298849	
		Zinc	5.0	U	ug/L	P298849	
	EPA 200.8 Rev. 5.4	Arsenic	0.67	I	ug/L	P298849	
		Cadmium	0.050	U	ug/L	P298849	
		Chromium	0.30	U	ug/L	P298849	
		Copper	2.76		ug/L	P298849	
		Lead	0.20	U	ug/L	P298849	
		Nickel	0.33	I	ug/L	P298849	
		Silver	0.025	U	ug/L	P298849	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

EPA 350.1 Rev. 2.0: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P298693

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P298849

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P298849

Component	Result	Code	Units
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: P298849

Component	Result	Code	Units
Arsenic	0.25	U	ug/L
Cadmium	0.050	U	ug/L
Chromium	0.30	U	ug/L
Copper	0.50	U	ug/L
Lead	0.20	U	ug/L
Nickel	0.25	U	ug/L
Silver	0.025	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P298857

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P298858

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P299251

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P298886

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P298977

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P298979

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P298893

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P298675

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P298676

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

Reference Method: SM 2120 B
Batch ID: P298683

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P299109

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

Reference Method: SM 2320 B-97
Batch ID: P299344

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

Reference Method: SM 2540 C-97
Batch ID: P299080

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P299081

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P299018

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2540 D-97
Batch ID: P299019

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P299043

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P299044

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P299136

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: P298849

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	107		P	85 - 115
Iron	108		P	85 - 115
Magnesium	108		P	85 - 115
Potassium	107		P	85 - 115
Sodium	110		P	85 - 115
Zinc	97.7		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P298849

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	101		P	85 - 115
Cadmium	95.3		P	85 - 115
Chromium	92.7		P	85 - 115
Copper	98.9		P	85 - 115
Lead	90.6		P	85 - 115
Nickel	89.5		P	85 - 115
Silver	91.4		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P298857

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	99.3		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P298858

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

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P299251

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.5		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P298886

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.7		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P298977

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P298979

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	91.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P298893

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: P298675

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P298676

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

Reference Method: SM 2320 B-97
 Batch ID: P299109

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	95 - 105

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-97
Batch ID: P299344

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	95 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P299043

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.6		P	94 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P299044

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.0		P	94 - 108

Reference Method: SM 5310 B-00
Batch ID: P299136

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	92.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P298849

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1771231	Calcium	103		P	80 - 120
1771231	Iron	108	107	P/P	80 - 120
1771231	Magnesium	100	104	P/P	80 - 120
1771231	Potassium	107	113	P/P	80 - 120
1771231	Sodium	110		P	80 - 120
1771231	Zinc	98.4	98.5	P/P	80 - 120
1771389	Calcium	99.0		P	80 - 120
1771389	Iron	105		P	80 - 120
1771389	Magnesium	105		P	80 - 120
1771389	Potassium	111		P	80 - 120
1771389	Sodium	111		P	80 - 120
1771389	Zinc	98.0		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P298849

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1771231	Arsenic	94.5	92.2	P/P	80 - 120
1771231	Cadmium	94.3	92.4	P/P	80 - 120
1771231	Chromium	90.0	88.5	P/P	80 - 120
1771231	Copper	92.6	90.0	P/P	80 - 120
1771231	Lead	91.3	88.4	P/P	80 - 120
1771231	Nickel	86.7	83.2	P/P	80 - 120
1771231	Silver	91.5	85.5	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P298849

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1771389	Arsenic	90.9		P	80 - 120
1771389	Cadmium	92.0		P	80 - 120
1771389	Chromium	87.7		P	80 - 120
1771389	Copper	87.8		P	80 - 120
1771389	Lead	91.7		P	80 - 120
1771389	Nickel	90.6		P	80 - 120
1771389	Silver	88.9		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P298857

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1771192	Sulfate	100		P	90 - 110
1771193	Sulfate	99.0		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P298858

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1771192	Chloride	103		P	90 - 110
1771193	Chloride	103		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P298886

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1771245	Kjeldahl Nitrogen	104	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P298977

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1771196	NO2NO3-N	98.0	98.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P298979

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1771279	NO2NO3-N	98.5	98.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P298893

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1771224	Total-P	102	99.1	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P298675

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1771200	O-Phosphate-P	101	102	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P298676

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1771287	O-Phosphate-P	102	102	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P299043

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770959	Fluoride	97.6	98.8	P/P	94 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P299044

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1771613	Fluoride	98.8	98.3	P/P	94 - 107

Reference Method: SM 5310 B-00
Batch ID: P299136

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1771278	Organic Carbon	95.4	91.7	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P298693

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1771250	Turbidity	0.249	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P298849

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1771231	Calcium	1.79	Spike	P	0 - 20
1771231	Iron	0.925	Spike	P	0 - 20
1771231	Magnesium	1.94	Spike	P	0 - 20
1771231	Potassium	4.28	Spike	P	0 - 20
1771231	Sodium	0.953	Spike	P	0 - 20
1771231	Zinc	0.0374	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P298849

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1771231	Arsenic	2.38	Spike	P	0 - 20
1771231	Cadmium	2.04	Spike	P	0 - 20
1771231	Chromium	1.59	Spike	P	0 - 20
1771231	Copper	2.83	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P298849

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1771231	Lead	3.29	Spike	P	0 - 20
1771231	Nickel	4.16	Spike	P	0 - 20
1771231	Silver	6.75	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P298857

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1771192	Sulfate	0.142	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P298858

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1771192	Chloride	0.699	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P299251

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1771350	Ammonia-N	0.726	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P298886

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1771245	Kjeldahl Nitrogen	0.122	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P298977

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1771196	NO2NO3-N	0.302	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P298979

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1771279	NO2NO3-N	0.509	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P298893

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P298893

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1771224	Total-P	2.12	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P298675

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1771200	O-Phosphate-P	0.984	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P298676

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1771287	O-Phosphate-P	0.295	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P298683

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1771288	Color (true)	0.401	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P299109

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770959	Total Alkalinity	0.847	Sample	P	0 - 4.8

Reference Method: SM 2320 B-97
Batch ID: P299344

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1771613	Total Alkalinity	4.67	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P299080

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1771220	TDS	1.70	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P299081

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1771349	TDS	1.97	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-97
Batch ID: P299043

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770959	Fluoride	1.01	Spike	P	0 - 3.7

Reference Method: SM 4500 F-C-97
Batch ID: P299044

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1771613	Fluoride	0.487	Spike	P	0 - 3.7

Reference Method: SM 5310 B-00
Batch ID: P299136

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1771278	Organic Carbon	2.25	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 Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A67625
Included Lab Sample IDs: 1771283, 1771284, 1771285, 1771286, 1771287

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.0	97.2	P/P	90 - 110
O-Phosphate-P	99.2	98.9	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A67630
Included Lab Sample IDs: 1771273, 1771274, 1771275, 1771276, 1771277

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	103	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A67632
Included Lab Sample IDs: 1771273, 1771274, 1771275, 1771276, 1771277

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	99.5	P/P	95 - 105

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A67638
Included Lab Sample IDs: 1771273, 1771274, 1771275, 1771276, 1771277

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	102	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A67638

Included Lab Sample IDs: 1771273, 1771274, 1771275, 1771276, 1771277

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sulfate	94.5	98.9	P/P	90 - 110
Sulfate	97.6	99.0	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A67711

Included Lab Sample IDs: 1771389

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Magnesium	98.5	101	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A67719

Included Lab Sample IDs: 1771387, 1771388, 1771389, 1771390, 1771391

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cadmium	97.8	100	P/P	90 - 110
Chromium	91.9	93.3	P/P	90 - 110
Lead	96.2	96.8	P/P	90 - 110
Silver	91.7	92.9	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A67721

Included Lab Sample IDs: 1771278, 1771279, 1771280, 1771281, 1771282

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	99.5	P/P	90 - 110
NO2NO3-N	99.5	100	P/P	90 - 110
NO2NO3-N	99.5	99.5	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A67729

Included Lab Sample IDs: 1771387, 1771388, 1771389, 1771390, 1771391

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	98.7	99.2	P/P	90 - 110
Calcium	100	98.7	P/P	90 - 110
Iron	100	99.6	P/P	90 - 110
Iron	99.6	99.5	P/P	90 - 110
Potassium	103	103	P/P	90 - 110
Potassium	103	102	P/P	90 - 110
Sodium	105	106	P/P	90 - 110
Sodium	105	105	P/P	90 - 110
Zinc	96.2	99.0	P/P	90 - 110
Zinc	99.5	96.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A67735

Included Lab Sample IDs: 1771278, 1771279, 1771280, 1771281, 1771282

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A67735

Included Lab Sample IDs: 1771278, 1771279, 1771280, 1771281, 1771282

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.1	97.6	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A67738

Included Lab Sample IDs: 1771387, 1771388, 1771389, 1771390, 1771391

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	97.4	99.4	P/P	90 - 110
Copper	97.1	98.6	P/P	90 - 110
Nickel	97.3	99.7	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A67743

Included Lab Sample IDs: 1771273, 1771274, 1771275, 1771276, 1771277

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: A67744

Included Lab Sample IDs: 1771278, 1771279, 1771280, 1771281, 1771282

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	99.5	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A67766

Included Lab Sample IDs: 1771273

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

Reference Method: SM 5310 B-00

Run ID: A67778

Included Lab Sample IDs: 1771278, 1771279, 1771280, 1771281, 1771282

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	92.8	93.4	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A67816

Included Lab Sample IDs: 1771387, 1771388, 1771390, 1771391

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Magnesium	101	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A67833

Included Lab Sample IDs: 1771278, 1771279, 1771280, 1771281, 1771282

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A67833

Included Lab Sample IDs: 1771278, 1771279, 1771280, 1771281, 1771282

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.7	98.1	P/P	90 - 110
Ammonia-N	98.1	98.7	P/P	90 - 110
Ammonia-N	99.8	98.7	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A67858

Included Lab Sample IDs: 1771274, 1771275, 1771276, 1771277

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	103	103	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			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						0.249	
EPA 200.7 Rev. 4.4	Calcium	107	103	99.0				1.79
	Iron	108	108	107	105			0.925
	Magnesium	108	100	104	105			1.94
	Potassium	107	107	113	111			4.28
	Sodium	110	110	111				0.953
	Zinc	97.7	98.4	98.5	98.0			0.0374
EPA 200.8 Rev. 5.4	Arsenic	101	94.5	92.2	90.9			2.38
	Cadmium	95.3	94.3	92.4	92.0			2.04
	Chromium	92.7	90.0	88.5	87.7			1.59
	Copper	98.9	92.6	90.0	87.8			2.83
	Lead	90.6	91.3	88.4	91.7			3.29
	Nickel	89.5	86.7	83.2	90.6			4.16
	Silver	91.4	91.5	85.5	88.9			6.75
EPA 300.0 Rev. 2.1	Chloride	104	103	103			0.699	
	Sulfate	99.3	100	99.0			0.142	
EPA 350.1 Rev. 2.0	Ammonia-N	95.5						0.726
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.7	104	104				0.122
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	98.0	98.0	98.5				0.302
	NO ₂ NO ₃ -N	91.5	98.5	98.0				0.509
EPA 365.1 Rev. 2.0	Total-P	103	102	99.1				2.12
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101	101	102				0.984
	O-Phosphate-P	102	102	102				0.295
SM 2120 B	Color (true)						0.401	
SM 2320 B-97	Total Alkalinity	101					0.847	
	Total Alkalinity	104					4.67	
SM 2540 C-97	TDS						1.70	
	TDS						1.97	
SM 4500 F-C-97	Fluoride	97.6	97.6	98.8				1.01
	Fluoride	98.0	98.8	98.3				0.487

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	LCS	Precision SMP	MS
SM 5310 B-00	Organic Carbon	92.8	95.4 91.7			2.25

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1771273, 1771274, 1771275, 1771276, 1771277
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1771387, 1771388, 1771389, 1771390, 1771391
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1771387, 1771388, 1771389, 1771390, 1771391
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1771273, 1771274, 1771275, 1771276, 1771277
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1771273, 1771274, 1771275, 1771276, 1771277
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1771278, 1771279, 1771280, 1771281, 1771282
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1771278, 1771279, 1771280, 1771281, 1771282
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1771278, 1771279, 1771280, 1771281, 1771282
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1771278, 1771279, 1771280, 1771281, 1771282
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1771283, 1771284, 1771285, 1771286, 1771287
SM 2120 B / E31780	True Color measured at 450 nm	1771273, 1771274, 1771275, 1771276, 1771277
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1771273, 1771274, 1771275, 1771276, 1771277
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1771273, 1771274, 1771275, 1771276, 1771277
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1771273, 1771274, 1771275, 1771276, 1771277
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1771273, 1771274, 1771275, 1771276, 1771277
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1771278, 1771279, 1771280, 1771281, 1771282

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	02/16/2016			02/16/2016 15:33	Sima Feizi	1771273, 1771274, 1771275, 1771276, 1771277
EPA 200.7 Rev. 4.4	02/16/2016	02/18/2016	Elliott D. Healy	02/19/2016	Joshua Ayres	1771387, 1771388, 1771389, 1771390, 1771391
EPA 200.8 Rev. 5.4	02/16/2016	02/18/2016	Elliott D. Healy	02/23/2016	Joshua Ayres	1771387, 1771388, 1771390, 1771391
	02/16/2016	02/18/2016	Elliott D. Healy	02/19/2016	Robert K Palmer	1771387, 1771388, 1771389, 1771390, 1771391
	02/16/2016	02/18/2016	Elliott D. Healy	02/22/2016	Robert K Palmer	1771387, 1771388, 1771389, 1771390, 1771391
EPA 300.0 Rev. 2.1	02/16/2016			02/18/2016	Julia Storbeck	1771273, 1771274, 1771275, 1771276, 1771277
EPA 350.1 Rev. 2.0	02/16/2016			02/18/2016	Ping Hua	1771274
	02/16/2016			02/24/2016	Diana M. Turner	1771278, 1771279, 1771280, 1771281, 1771282
EPA 351.2 Rev. 2.0	02/16/2016	02/19/2016	Christopher Armour	02/22/2016	Bryan A. Werth	1771278, 1771279, 1771280, 1771281, 1771282
EPA 353.2 Rev. 2.0	02/16/2016			02/19/2016	Virginia P. Brown	1771278, 1771279, 1771280, 1771281, 1771282
EPA 365.1 Rev. 2.0	02/16/2016	02/19/2016	Christopher Armour	02/22/2016	Lipi Saha	1771278, 1771279, 1771280, 1771281, 1771282
EPA 365.1 Rev. 2.0 dissolved	02/16/2016			02/16/2016 14:06	Bryan A. Werth	1771287
	02/16/2016			02/16/2016 14:26	Bryan A. Werth	1771283
	02/16/2016			02/16/2016 14:27	Bryan A. Werth	1771284
	02/16/2016			02/16/2016 14:28	Bryan A. Werth	1771285, 1771286
SM 2120 B	02/16/2016			02/16/2016 14:52	Blanca Fach	1771273, 1771274
	02/16/2016			02/16/2016 14:53	Blanca Fach	1771275
	02/16/2016			02/16/2016 14:54	Blanca Fach	1771276
	02/16/2016			02/16/2016 14:55	Blanca Fach	1771277
SM 2320 B-97	02/16/2016			02/23/2016	Dale L. Simmons	1771273
	02/16/2016			02/24/2016	Dale L. Simmons	1771274
	02/16/2016			02/25/2016	Dale L. Simmons	1771275, 1771276, 1771277
SM 2540 C-97	02/16/2016			02/17/2016	Yijie Li	1771273, 1771274, 1771275, 1771276, 1771277
SM 2540 D-97	02/16/2016			02/17/2016	Yijie Li	1771273, 1771274, 1771275, 1771276, 1771277
SM 4500 F-C-97	02/16/2016			02/22/2016	Dale L. Simmons	1771273, 1771274, 1771275, 1771276, 1771277
SM 5310 B-00	02/16/2016			02/22/2016	Sofia Elnemr	1771278, 1771279, 1771280, 1771281, 1771282