

Chemical Analysis Report

SW-DIST-2016-03-17-01

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

Event Description: **1329W, 1329L, 1361A**

Request ID: **RQ-2016-03-14-44**

Customer: **SW-DIST**

Project ID: **SMP**

Send Reports to:

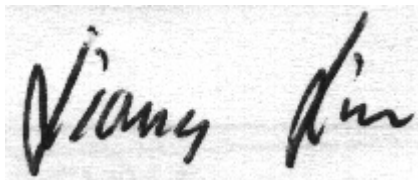
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
Attn: Stephen Clingerman

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: Liang Lin, Environmental Administrator

Date Certified: 07-APR-2016 16:35

A handwritten signature in black ink, appearing to read "Liang Lin", is shown on a light-colored background.

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 group are included in this report: 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: G4SW0020

Collection Date/Time: 03/16/2016 10:40

Field ID: G4SW0020

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1781154	EPA 180.1 Rev. 2.0	Turbidity	12	A	NTU	P300581	
	EPA 300.0 Rev. 2.1	Chloride	8.4		mg Cl/L	P300753	
		Sulfate	2.7		mg SO4/L	P300755	
	SM 2120 B	Color (true)	18		PCU	P300562	
	SM 2320 B-97	Total Alkalinity	114		mg CaCO3/L	P300765	
	SM 2540 C-97	TDS	164	A	mg/L	P301169	
	SM 2540 D-97	TSS	26		mg/L	P300953	
	SM 4500 F-C-97	Fluoride	0.14		mg F/L	P300767	
1781156	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P301195	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P301146	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P300807	
	EPA 365.1 Rev. 2.0	Total-P	0.21		mg P/L	P301132	
	SM 5310 B-00	Organic Carbon	10		mg C/L	P300981	
1781158	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.048		mg P/L	P300549	

Sample Location: G4SW0032

Collection Date/Time: 03/16/2016 11:35

Field ID: G4SW0032

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1781155	EPA 180.1 Rev. 2.0	Turbidity	0.40		NTU	P300581	
	EPA 300.0 Rev. 2.1	Chloride	3.1		mg Cl/L	P300753	
		Sulfate	0.20	U	mg SO4/L	P300755	
	SM 2120 B	Color (true)	52	A	PCU	P300562	
	SM 2320 B-97	Total Alkalinity	13		mg CaCO3/L	P300765	
	SM 2540 C-97	TDS	42		mg/L	P301169	
	SM 2540 D-97	TSS	2	I	mg/L	P300953	
	SM 4500 F-C-97	Fluoride	0.049	I	mg F/L	P300767	
1781157	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P301195	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.51		mg N/L	P301146	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P300807	
	EPA 365.1 Rev. 2.0	Total-P	0.014		mg P/L	P301132	
	SM 5310 B-00	Organic Carbon	8.7		mg C/L	P300981	
1781159	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P300549	

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P300581

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300753

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300755

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P301195

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P301146

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300807

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P301132

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P300549

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

Reference Method: SM 2120 B
Batch ID: P300562

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P300765

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

Quality Assurance Report Method Blank Results

Reference Method: SM 2540 C-97
Batch ID: P301169

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P300953

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P300767

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P300981

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300753

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300755

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P301195

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.5		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P301146

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300807

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P300807

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	104		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P301132

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P300549

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.4		P	90 - 110

Reference Method: SM 2320 B-97
 Batch ID: P300765

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	95 - 105

Reference Method: SM 4500 F-C-97
 Batch ID: P300767

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.9		P	94 - 108

Reference Method: SM 5310 B-00
 Batch ID: P300981

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P300753

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1780694	Chloride	100		P	90 - 110
1781235	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P300755

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1780694	Sulfate	100		P	90 - 110
1781235	Sulfate	100		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P301195

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1780830	Ammonia-N	100	99.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P301146

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1781202	Kjeldahl Nitrogen	99.5	88.7	P/F	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300807

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1781157	NO2NO3-N	102	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P301132

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1780833	Total-P	107	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P300549

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1781159	O-Phosphate-P	99.2	99.8	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P300767

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1781236	Fluoride	99.2	98.6	P/P	94 - 107

Reference Method: SM 5310 B-00
Batch ID: P300981

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1780764	Organic Carbon	97.3	98.2	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P300581

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1781154	Turbidity	0.0	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300753

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780694	Chloride	0.0612	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300755

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780694	Sulfate	0.359	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P301195

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780830	Ammonia-N	0.411	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P301146

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1781202	Kjeldahl Nitrogen	6.50	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300807

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1781157	NO2NO3-N	0.971	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P301132

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780833	Total-P	1.43	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P300549

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1781159	O-Phosphate-P	0.603	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P300562

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1781155	Color (true)	2.75	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2320 B-97
Batch ID: P300765

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1781236	Total Alkalinity	0.348	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P301169

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1781154	TDS	4.26	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P300953

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780718	TSS	5.41	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P300767

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1781236	Fluoride	0.500	Spike	P	0 - 3.7

Reference Method: SM 5310 B-00
Batch ID: P300981

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780764	Organic Carbon	0.662	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 300.0 Rev. 2.1
Run ID: A68261
Included Lab Sample IDs: 1781154, 1781155

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	102	P/P	90 - 110
Chloride	102	102	P/P	90 - 110
Sulfate	101	98.3	P/P	90 - 110
Sulfate	98.3	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A68283

Included Lab Sample IDs: 1781158, 1781159

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.3	99.2	P/P	90 - 110
O-Phosphate-P	98.4	98.3	P/P	90 - 110

Reference Method: SM 2120 B

Run ID: A68287

Included Lab Sample IDs: 1781154, 1781155

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	96.4	96.0	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A68294

Included Lab Sample IDs: 1781154, 1781155

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

Reference Method: SM 2320 B-97

Run ID: A68354

Included Lab Sample IDs: 1781154, 1781155

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	103	99.8	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A68354

Included Lab Sample IDs: 1781154, 1781155

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A68374

Included Lab Sample IDs: 1781156, 1781157

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: A68423

Included Lab Sample IDs: 1781156, 1781157

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.4	97.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A68500

Included Lab Sample IDs: 1781156, 1781157

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A68521

Included Lab Sample IDs: 1781156

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A68532

Included Lab Sample IDs: 1781157

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.5	98.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A68572

Included Lab Sample IDs: 1781156, 1781157

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	104	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				0.0	
EPA 300.0 Rev. 2.1	Chloride	100	100	101	0.0612	
	Sulfate	101	100	100	0.359	
EPA 350.1 Rev. 2.0	Ammonia-N	99.5	100	99.4		0.411
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102	99.5	88.7		6.50
EPA 353.2 Rev. 2.0	NO2NO3-N	104	102	104		0.971
EPA 365.1 Rev. 2.0	Total-P	104	107	105		1.43
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.4	99.2	99.8		0.603
SM 2120 B	Color (true)				2.75	
SM 2320 B-97	Total Alkalinity	103			0.348	
SM 2540 C-97	TDS				4.26	
SM 2540 D-97	TSS				5.41	
SM 4500 F-C-97	Fluoride	98.9	99.2	98.6		0.500
SM 5310 B-00	Organic Carbon	98.0	97.3	98.2		0.662

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1781154, 1781155
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1781154, 1781155
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1781154, 1781155

Reference Method Descriptions

Method / DoH Cert #	Description	<u>Associated Samples</u>
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1781156, 1781157
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1781156, 1781157
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1781156, 1781157
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1781156, 1781157
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1781158, 1781159
SM 2120 B / E31780	True Color measured at 450 nm	1781154, 1781155
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1781154, 1781155
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1781154, 1781155
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1781154, 1781155
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1781154, 1781155
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1781156, 1781157

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	03/17/2016			03/17/2016 16:13	Sima Feizi	1781154, 1781155
EPA 300.0 Rev. 2.1	03/17/2016			03/19/2016	Ping Hua	1781154, 1781155
EPA 350.1 Rev. 2.0	03/17/2016			03/28/2016	Diana M. Turner	1781156, 1781157
EPA 351.2 Rev. 2.0	03/17/2016	03/28/2016	Sofia Elnemr	03/31/2016	Rochelle Y Jackson	1781156, 1781157
EPA 353.2 Rev. 2.0	03/17/2016			03/22/2016	Peter D. Kaus	1781156, 1781157
EPA 365.1 Rev. 2.0	03/17/2016	03/28/2016	Christopher Armour	03/29/2016	Lipi Saha	1781156
	03/17/2016	03/28/2016	Christopher Armour	03/30/2016	Lipi Saha	1781157
EPA 365.1 Rev. 2.0 dissolved	03/17/2016			03/17/2016 11:56	Julia Storbeck	1781159
	03/17/2016			03/17/2016 12:13	Julia Storbeck	1781158
SM 2120 B	03/17/2016			03/17/2016 13:39	Blanca Fach	1781155
	03/17/2016			03/17/2016 13:40	Blanca Fach	1781154
SM 2320 B-97	03/17/2016			03/22/2016	Dale L. Simmons	1781154, 1781155
SM 2540 C-97	03/17/2016			03/21/2016	Yijie Li	1781154, 1781155
SM 2540 D-97	03/17/2016			03/21/2016	Yijie Li	1781154, 1781155
SM 4500 F-C-97	03/17/2016			03/22/2016	Dale L. Simmons	1781154, 1781155
SM 5310 B-00	03/17/2016			03/23/2016	Diana M. Turner	1781156
	03/17/2016			03/24/2016	Diana M. Turner	1781157