

Chemical Analysis Report

CEN-DIST-2016-01-15-01

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

Event Description: **Blue Cove / Sumter Blue Spring**

Request ID: **RQ-2016-01-11-34**

Customer: **CEN-DIST**

Project ID: **SMP**

Send Reports to:

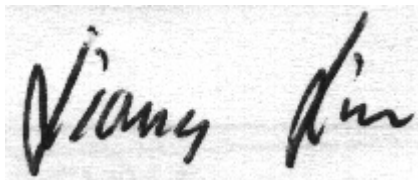
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767
Attn: Mike Linger

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: 03-FEB-2016 11:06

A handwritten signature in black ink, appearing to read "Liang Lin", 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: Shady Brooks @ 500m Upstream of CR35

Collection Date/Time: 01/14/2016 11:25

Field ID: G1CE0015-01142016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1763382	EPA 180.1 Rev. 2.0	Turbidity	1.0		NTU	P297204	
	EPA 300.0 Rev. 2.1	Chloride	21		mg Cl/L	P297434	
		Sulfate	4.6		mg SO4/L	P297439	
	SM 2120 B	Color (true)	98		PCU	P297184	
	SM 2320 B-97	Total Alkalinity	144		mg CaCO3/L	P297250	
	SM 2540 C-97	TDS	221	A	mg/L	P297557	
	SM 2540 D-97	TSS	3	I	mg/L	P297523	
	SM 4500 F-C-97	Fluoride	0.12		mg F/L	P297245	
1763384	EPA 350.1 Rev. 2.0	Ammonia-N	0.021		mg N/L	P297610	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.89		mg N/L	P297321	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.14		mg N/L	P297375	
	EPA 365.1 Rev. 2.0	Total-P	0.048		mg P/L	P297347	
	SM 5310 B-00	Organic Carbon	18		mg C/L	P297427	
1763386	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.031		mg P/L	P297147	

Ref. Method and Comment:

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

Sample Location: Lake Blue Cove @ 150m SW OF CENTER

Collection Date/Time: 01/14/2016 10:12

Field ID: G4CE0022-01142016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1763383	EPA 180.1 Rev. 2.0	Turbidity	3.2		NTU	P297204	
	EPA 300.0 Rev. 2.1	Chloride	2.8		mg Cl/L	P297434	
		Sulfate	0.56		mg SO4/L	P297439	
	SM 2120 B	Color (true)	8.8		PCU	P297184	
	SM 2320 B-97	Total Alkalinity	40		mg CaCO3/L	P297250	
	SM 2540 C-97	TDS	49		mg/L	P297557	
	SM 2540 D-97	TSS	2	I	mg/L	P297523	
	SM 4500 F-C-97	Fluoride	0.29		mg F/L	P297245	
1763385	EPA 350.1 Rev. 2.0	Ammonia-N	0.49		mg N/L	P297610	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P297321	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.27		mg N/L	P297375	
	EPA 365.1 Rev. 2.0	Total-P	0.23		mg P/L	P297347	
	SM 5310 B-00	Organic Carbon	6.5		mg C/L	P297427	
1763387	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.16		mg P/L	P297147	

Ref. Method and Comment:

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P297204

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: P297434

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P297439

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P297610

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P297321

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P297375

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P297347

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P297147

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

Reference Method: SM 2120 B
Batch ID: P297184

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P297250

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: P297557

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P297523

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P297245

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P297427

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: P297434

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P297439

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	99.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P297610

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P297321

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P297375

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: P297375

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P297347

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P297147

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

Reference Method: SM 2320 B-97
Batch ID: P297250

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

Reference Method: SM 4500 F-C-97
Batch ID: P297245

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.2		P	94 - 108

Reference Method: SM 5310 B-00
Batch ID: P297427

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P297434

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1763021	Chloride	106		P	90 - 110
1763063	Chloride	104		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P297439

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1763021	Sulfate	99.7		P	90 - 110
1763063	Sulfate	97.9		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P297610

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1763384	Ammonia-N	101	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P297321

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1763355	Kjeldahl Nitrogen	99.2	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P297375

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1763204	NO2NO3-N	95.2		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P297347

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1763355	Total-P	98.9	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P297147

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1763386	O-Phosphate-P	95.6	98.8	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P297245

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1763439	Fluoride	102	102	P/P	94 - 107

Reference Method: SM 5310 B-00
Batch ID: P297427

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1763022	Organic Carbon	92.6	92.1	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P297204

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1763354	Turbidity	3.41	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P297434

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1763021	Chloride	0.257	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P297439

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1763021	Sulfate	0.0141	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P297610

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1763384	Ammonia-N	1.63	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P297321

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1763355	Kjeldahl Nitrogen	1.81	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P297375

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1763204	NO2NO3-N	0.488	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P297347

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1763355	Total-P	1.11	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P297147

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1763386	O-Phosphate-P	2.49	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P297184

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1763438	Color (true)	1.66	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2320 B-97
Batch ID: P297250

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1763439	Total Alkalinity	1.20	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P297557

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1763382	TDS	1.81	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P297245

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1763439	Fluoride	0.495	Spike	P	0 - 3.7

Reference Method: SM 5310 B-00
Batch ID: P297427

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1763022	Organic Carbon	0.579	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: A67115
Included Lab Sample IDs: 1763386, 1763387

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.5	98.5	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A67122
Included Lab Sample IDs: 1763382, 1763383

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	102	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A67135
Included Lab Sample IDs: 1763382, 1763383

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

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-97

Run ID: A67164

Included Lab Sample IDs: 1763382, 1763383

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

Reference Method: SM 2320 B-97

Run ID: A67165

Included Lab Sample IDs: 1763382, 1763383

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A67197

Included Lab Sample IDs: 1763384, 1763385

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	96.0	96.0	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A67212

Included Lab Sample IDs: 1763384, 1763385

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.7	97.7	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A67217

Included Lab Sample IDs: 1763382, 1763383

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	104	103	P/P	90 - 110
Sulfate	101	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A67220

Included Lab Sample IDs: 1763385

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A67222

Included Lab Sample IDs: 1763384, 1763385

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.7	96.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A67240

Included Lab Sample IDs: 1763384

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A67289
Included Lab Sample IDs: 1763384, 1763385

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	105	106	P/P	90 - 110
Ammonia-N	105	105	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				3.41	
EPA 300.0 Rev. 2.1	Chloride	103	106 104		0.257	
	Sulfate	99.6	99.7 97.9		0.0141	
EPA 350.1 Rev. 2.0	Ammonia-N	102	101 103			1.63
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.2	99.2 102			1.81
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0	95.2			0.488
EPA 365.1 Rev. 2.0	Total-P	101	98.9 100			1.11
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.2	95.6 98.8			2.49
SM 2120 B	Color (true)				1.66	
SM 2320 B-97	Total Alkalinity	100			1.20	
SM 2540 C-97	TDS				1.81	
SM 4500 F-C-97	Fluoride	96.2	102 102			0.495
SM 5310 B-00	Organic Carbon	96.6	92.6 92.1			0.579

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1763382, 1763383
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1763382, 1763383
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1763382, 1763383
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1763384, 1763385
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1763384, 1763385
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1763384, 1763385
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1763384, 1763385
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1763386, 1763387
SM 2120 B / E31780	True Color measured at 450 nm	1763382, 1763383
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1763382, 1763383
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1763382, 1763383
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1763382, 1763383
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1763382, 1763383
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1763384, 1763385

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	01/15/2016			01/15/2016 14:53	Blanca Fach	1763382, 1763383
EPA 300.0 Rev. 2.1	01/15/2016			01/22/2016	Ping Hua	1763382, 1763383
EPA 350.1 Rev. 2.0	01/15/2016			01/26/2016	Diana M. Turner	1763384, 1763385
EPA 351.2 Rev. 2.0	01/15/2016	01/21/2016	Sofia Elnemr	01/22/2016	Bryan A. Werth	1763384, 1763385
EPA 353.2 Rev. 2.0	01/15/2016			01/21/2016	Peter D. Kaus	1763384, 1763385
EPA 365.1 Rev. 2.0	01/15/2016	01/21/2016	Christopher Armour	01/22/2016	Lipi Saha	1763384, 1763385
EPA 365.1 Rev. 2.0 dissolved	01/15/2016			01/15/2016 12:42	Julia Storbeck	1763386
	01/15/2016			01/15/2016 12:45	Julia Storbeck	1763387
SM 2120 B	01/15/2016			01/15/2016 14:26	Blanca Fach	1763382
	01/15/2016			01/15/2016 14:27	Blanca Fach	1763383
SM 2320 B-97	01/15/2016			01/19/2016	Dale L. Simmons	1763382, 1763383
SM 2540 C-97	01/15/2016			01/20/2016	Yijie Li	1763382, 1763383
SM 2540 D-97	01/15/2016			01/20/2016	Yijie Li	1763382, 1763383
SM 4500 F-C-97	01/15/2016			01/19/2016	Dale L. Simmons	1763382, 1763383
SM 5310 B-00	01/15/2016			01/21/2016	Sofia Elnemr	1763384, 1763385