

Chemical Analysis Report

SW-DIST-2018-05-10-01

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

Event Description: **Scott Lake**
Request ID: **RQ-2018-05-07-11**
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: Ben Paswater

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

Certified by: Colin Wright, Program Administrator

Date Certified: 30-MAY-2018 12:43



NON-CONFORMANCE REPORT INCLUDED

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: SCOTT LAKE @ SOUTH CENTRAL

Collection Date/Time: 05/09/2018 09:35

Field ID: G2SW0060

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1991761	EPA 180.1 Rev. 2.0	Turbidity	9.8		NTU	P345061	
	EPA 300.0 Rev. 2.1	Chloride	26		mg Cl/L	P345276	
		Sulfate	7.3		mg SO4/L	P345278	
	SM 2120 B	Color (true)	16		PCU	P345036	
	SM 2320 B-97	Total Alkalinity	52		mg CaCO3/L	P345481	
	SM 2540 C-97	TDS	137		mg/L	P345473	
	SM 2540 D-97	TSS	19		mg/L	P345284	
	SM 4500 F-C-97	Fluoride	0.35		mg F/L	P345484	
1991763	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	Y	mg N/L	P345267	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5	Y	mg N/L	P345822	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	UY	mg N/L	P345243	
	EPA 365.1 Rev. 2.0	Total-P	0.084	Y	mg P/L	P345144	
	SM 5310 B-00	Organic Carbon	8.6	Y	mg C/L	P345357	
1991765	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P345053	

Ref. Method and Comment:

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

EPA 350.1 Rev. 2.0: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

EPA 351.2 Rev. 2.0: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

EPA 353.2 Rev. 2.0: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

EPA 365.1 Rev. 2.0: Total-P: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

SM 5310 B-00: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

Sample Location: LAKE HUNTER @ CENTER

Collection Date/Time: 05/09/2018 12:30

Field ID: G2SW0070

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1991762	EPA 180.1 Rev. 2.0	Turbidity	25		NTU	P345061	
	EPA 300.0 Rev. 2.1	Chloride	13		mg Cl/L	P345276	
		Sulfate	0.85		mg SO4/L	P345278	
	SM 2120 B	Color (true)	17		PCU	P345040	
	SM 2320 B-97	Total Alkalinity	60		mg CaCO3/L	P345481	
	SM 2540 C-97	TDS	104		mg/L	P345473	
	SM 2540 D-97	TSS	44		mg/L	P345284	
	SM 4500 F-C-97	Fluoride	0.23		mg F/L	P345484	
1991764	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P345267	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.88		mg N/L	P345822	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P345243	
	EPA 365.1 Rev. 2.0	Total-P	0.20		mg P/L	P345144	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P345357	
1991766	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.006	I	mg P/L	P345053	

Ref. Method and Comment:

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

Non-Conformance Report

Non-Conformance Report

NCR ID: 7023

Event(s)

SW-DIST-2018-05-10-01

Job(s)

TLH-2018-05-10-22

Sample(s)

1991763

Test(s)

NCR Type: SHIPPING/RECEIVING

NCR Category: Preservation Not Intact

Observation: Sample not preserved to pH < 2.

Resolution: Sample preserved in the laboratory with sulfuric acid on 5/10/18 at 10:54
Sulfuric Acid: LOT: SA 8085170 | EXP:03-26-19

Authorized by/Date: Joshua Ayres 5/11/2018

The Non-Conformance Report details exceptions or problems encountered with the events/jobs/samples/test.
Please address questions to:

Chemistry Colin Wright (850) 245-8085
Biology Cheryl Swanson (850) 245-8177

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P345061

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P345276

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P345278

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P345267

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P345822

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P345243

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: P345144

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P345053

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

Reference Method: SM 2120 B
Batch ID: P345036

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P345040

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P345481

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

Reference Method: SM 2540 C-97
Batch ID: P345473

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P345284

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P345484

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P345357

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: P345276

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	96.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P345278

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	95.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P345267

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: P345822

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	96.3		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P345243

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P345144

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P345053

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	96.8		P	90 - 110

Reference Method: SM 2320 B-97
Batch ID: P345481

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P345484

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	94.6		P	91 - 105

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
Batch ID: P345357

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.1		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P345276

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1991701	Chloride	94.7		P	90 - 110
1991778	Chloride	95.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P345278

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1991701	Sulfate	94.0		P	90 - 110
1991778	Sulfate	93.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P345267

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1991734	Ammonia-N	91.6	94.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P345822

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1991781	Kjeldahl Nitrogen	95.7	98.7	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P345243

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1991735	NO2NO3-N	100	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P345144

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1991750	Total-P	101	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P345053

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1991765	O-Phosphate-P	96.9	98.3	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P345484

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1991780	Fluoride	95.2	96.6	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P345357

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1991704	Organic Carbon	96.4	95.0	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P345061

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1991800	Turbidity	11.9	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P345276

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1991701	Chloride	0.702	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P345278

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1991701	Sulfate	0.645	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P345267

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1991734	Ammonia-N	2.02	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P345822

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1991781	Kjeldahl Nitrogen	1.92	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P345243

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P345243

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1991735	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P345144

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1991750	Total-P	0.324	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P345053

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1991765	O-Phosphate-P	1.43	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P345036

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1991701	Color (true)	1.23	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P345040

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1991840	Color (true)	3.07	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P345481

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1991780	Total Alkalinity	1.11	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P345473

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1991721	TDS	3.15	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P345484

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1991780	Fluoride	0.986	Spike	P	0 - 3.5

Quality Assurance Report Precision

Reference Method: SM 5310 B-00
Batch ID: P345357

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1991704	Organic Carbon	1.26	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: A83732
Included Lab Sample IDs: 1991761, 1991762

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.1	98.5	P/P	90 - 110
Sulfate	97.3	98.7	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A83803
Included Lab Sample IDs: 1991761, 1991762

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	104	P/P	90 - 115
Color (true)	99.2	102	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A83807
Included Lab Sample IDs: 1991765, 1991766

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.6	101	P/P	90 - 110
O-Phosphate-P	99.1	98.5	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A83809
Included Lab Sample IDs: 1991761, 1991762

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A83865
Included Lab Sample IDs: 1991763, 1991764

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0
 Run ID: A83877
 Included Lab Sample IDs: 1991763, 1991764

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.2	100	P/P	90 - 110

Reference Method: SM 5310 B-00
 Run ID: A83906
 Included Lab Sample IDs: 1991763, 1991764

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	93.8	94.2	P/P	90 - 110

Reference Method: SM 2320 B-97
 Run ID: A83969
 Included Lab Sample IDs: 1991761, 1991762

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.4	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97
 Run ID: A83969
 Included Lab Sample IDs: 1991761, 1991762

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

Reference Method: EPA 365.1 Rev. 2.0
 Run ID: A83997
 Included Lab Sample IDs: 1991763, 1991764

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

Reference Method: EPA 351.2 Rev. 2.0
 Run ID: A84147
 Included Lab Sample IDs: 1991763, 1991764

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.0	97.2	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				11.9	
EPA 300.0 Rev. 2.1	Chloride	96.2	94.7	95.5	0.702	
	Sulfate	95.6	94.0	93.8	0.645	
EPA 350.1 Rev. 2.0	Ammonia-N	101	91.6	94.4		2.02

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	96.3	95.7	98.7		1.92
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	100	100	100		0.0
EPA 365.1 Rev. 2.0	Total-P	102	101	101		0.324
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	96.8	96.9	98.3		1.43
SM 2120 B	Color (true)				1.23	
	Color (true)				3.07	
SM 2320 B-97	Total Alkalinity	101			1.11	
SM 2540 C-97	TDS				3.15	
SM 4500 F-C-97	Fluoride	94.6	95.2	96.6		0.986
SM 5310 B-00	Organic Carbon	94.1	96.4	95.0		1.26

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1991761, 1991762
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1991761, 1991762
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1991761, 1991762
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1991763, 1991764
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1991763, 1991764
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1991763, 1991764
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1991763, 1991764
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1991765, 1991766
SM 2120 B / E31780	True Color measured at 450 nm	1991761, 1991762
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1991761, 1991762
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1991761, 1991762
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	1991761, 1991762
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1991761, 1991762
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1991763, 1991764

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	05/10/2018			05/10/2018 16:14	William L. Brown IV	1991761, 1991762
EPA 300.0 Rev. 2.1	05/10/2018			05/11/2018 20:28	Lipi Saha	1991761
	05/10/2018			05/11/2018 20:40	Lipi Saha	1991762
EPA 350.1 Rev. 2.0	05/10/2018			05/14/2018 12:45	Adrian Shelby	1991763
	05/10/2018			05/14/2018 12:46	Adrian Shelby	1991764
EPA 351.2 Rev. 2.0	05/10/2018	05/23/2018 16:00	Adrian Shelby	05/24/2018 13:18	Joseph Suarez	1991763
	05/10/2018	05/23/2018 16:00	Adrian Shelby	05/24/2018 13:19	Joseph Suarez	1991764
EPA 353.2 Rev. 2.0	05/10/2018			05/14/2018 13:37	Lauren Bottorf	1991763
	05/10/2018			05/14/2018 13:39	Lauren Bottorf	1991764
EPA 365.1 Rev. 2.0	05/10/2018	05/11/2018 13:15	Sima Feizi	05/17/2018 14:32	Beverly Y. Sanders	1991763
	05/10/2018	05/11/2018 13:15	Sima Feizi	05/17/2018 14:33	Beverly Y. Sanders	1991764
EPA 365.1 Rev. 2.0 dissolved	05/10/2018			05/10/2018 15:26	Julia Storbeck	1991765
	05/10/2018			05/10/2018 16:06	Julia Storbeck	1991766
SM 2120 B	05/10/2018			05/10/2018 14:09	Tanya Welborn	1991761
	05/10/2018			05/10/2018 14:38	Tanya Welborn	1991762
SM 2320 B-97	05/10/2018			05/15/2018 20:03	Dale L. Simmons	1991761
	05/10/2018			05/15/2018 20:14	Dale L. Simmons	1991762
SM 2540 C-97	05/10/2018			05/11/2018 17:30	William L. Brown IV	1991761, 1991762
SM 2540 D-97	05/10/2018			05/11/2018 17:30	William L. Brown IV	1991761, 1991762
SM 4500 F-C-97	05/10/2018			05/15/2018 20:03	Dale L. Simmons	1991761
	05/10/2018			05/15/2018 20:14	Dale L. Simmons	1991762
SM 5310 B-00	05/10/2018			05/14/2018 19:58	Megan Treadwell	1991763
	05/10/2018			05/14/2018 20:12	Megan Treadwell	1991764