

Chemical Analysis Report

SW-DIST-2018-03-21-01

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

Event Description: **Kit A North Lakes**
Request ID: **RQ-2018-03-19-04**
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: Judy Ashton

For additional information please contact
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Certified by: Colin Wright, Program Administrator

Date Certified: 05-APR-2018 14:24

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light gray rectangular 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: LAKE MAGDALENE

Collection Date/Time: 03/20/2018 08:55

Field ID: G1SW0059

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1976113	EPA 180.1 Rev. 2.0	Turbidity	1.0		NTU	P341951	
	EPA 300.0 Rev. 2.1	Chloride	38		mg Cl/L	P342136	
		Sulfate	15		mg SO4/L	P342140	
	SM 2120 B	Color (true)	37	A	PCU	P341941	
	SM 2320 B-97	Total Alkalinity	41		mg CaCO3/L	P342404	
	SM 2540 C-97	TDS	150		mg/L	P342545	
	SM 2540 D-97	TSS	2	I	mg/L	P342560	
	SM 4500 F-C-97	Fluoride	0.082	I	mg F/L	P342405	MS, RPD
1976115	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	I	mg N/L	P342304	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.70		mg N/L	P341986	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P341997	
	EPA 365.1 Rev. 2.0	Total-P	0.034		mg P/L	P342036	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P342440	
1976117	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P341968	

Ref. Method and Comment:

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

Sample Location: LAKE ARMISTEAD CENTER

Collection Date/Time: 03/20/2018 10:00

Field ID: G1SW0030

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1976114	EPA 180.1 Rev. 2.0	Turbidity	1.7	A	NTU	P341951	
	EPA 300.0 Rev. 2.1	Chloride	32		mg Cl/L	P342136	
		Sulfate	6.7		mg SO4/L	P342140	
	SM 2120 B	Color (true)	120		PCU	P341941	
	SM 2320 B-97	Total Alkalinity	30		mg CaCO3/L	P342404	
	SM 2540 C-97	TDS	134	A	mg/L	P342545	
	SM 2540 D-97	TSS	3	IA	mg/L	P342560	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P342405	MS, RPD
1976116	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P342302	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.76		mg N/L	P341986	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P341997	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P342036	
	SM 5310 B-00	Organic Carbon	16		mg C/L	P342552	
1976118	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P341968	

Ref. Method and Comment:

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P341951

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: P342136

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P342140

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P342302

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P342304

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341986

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341997

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P342036

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P341968

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

Reference Method: SM 2120 B
Batch ID: P341941

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P342404

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO ₃ /L

Reference Method: SM 2540 C-97
Batch ID: P342545

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P342560

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P342405

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P342440

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

Reference Method: SM 5310 B-00
Batch ID: P342552

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: P342136

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P342140

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P342302

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

Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P342302

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P342304

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.2		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341986

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	97.3		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341997

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P342036

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: P341968

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

Reference Method: SM 2320 B-97
Batch ID: P342404

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.9		P	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P342405

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.3		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P342440

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
Batch ID: P342552

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	100		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P342136

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1976045	Chloride	97.1		P	90 - 110
1976144	Chloride	104		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P342140

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1976045	Sulfate	99.5		P	90 - 110
1976144	Sulfate	105		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P342302

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1975809	Ammonia-N	97.3	98.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P342304

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1976049	Ammonia-N	98.2	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341986

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1976115	Kjeldahl Nitrogen	100	99.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341997

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1976054	NO2NO3-N	98.0	96.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P342036

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1976115	Total-P	99.4	98.8	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P341968

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1976117	O-Phosphate-P	95.0	96.1	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P342405

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1976044	Fluoride	133	95.9	F/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P342440

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1975979	Organic Carbon	97.3	98.6	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P342552

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1974186	Organic Carbon	106	96.3	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P341951

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1976114	Turbidity	2.87	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P342136

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1976045	Chloride	0.705	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P342140

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1976045	Sulfate	1.61	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P342302

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1975809	Ammonia-N	0.513	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P342304

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1976049	Ammonia-N	2.84	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341986

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1976115	Kjeldahl Nitrogen	0.864	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341997

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1976054	NO2NO3-N	1.18	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P342036

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1976115	Total-P	0.584	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P341968

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1976117	O-Phosphate-P	1.15	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P341941

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1976113	Color (true)	4.80	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P342404

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1976044	Total Alkalinity	0.0545	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P342545

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1976114	TDS	2.99	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-97
Batch ID: P342405

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1976044	Fluoride	25.7	Spike	F	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P342440

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1975979	Organic Carbon	0.792	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P342552

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1974186	Organic Carbon	5.62	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: A82750
Included Lab Sample IDs: 1976113, 1976114

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	94.5	95.2	P/P	90 - 110
Chloride	96.6	94.5	P/P	90 - 110
Sulfate	94.9	97.2	P/P	90 - 110
Sulfate	99.5	94.9	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A82761
Included Lab Sample IDs: 1976113, 1976114

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.6	102	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A82763
Included Lab Sample IDs: 1976113, 1976114

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	99.0	P/P	95 - 105

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A82774

Included Lab Sample IDs: 1976117, 1976118

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.3	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A82782

Included Lab Sample IDs: 1976115, 1976116

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A82848

Included Lab Sample IDs: 1976115, 1976116

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.8	95.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A82879

Included Lab Sample IDs: 1976115, 1976116

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.8	98.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A82889

Included Lab Sample IDs: 1976115, 1976116

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	99.3	P/P	90 - 110
Ammonia-N	101	100	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A82926

Included Lab Sample IDs: 1976113, 1976114

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.0	99.1	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A82926

Included Lab Sample IDs: 1976113, 1976114

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.6	97.1	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A82941

Included Lab Sample IDs: 1976115

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.8	99.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00
Run ID: A82980
Included Lab Sample IDs: 1976116

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	105	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				2.87	
EPA 300.0 Rev. 2.1	Chloride	100	97.1 104		0.705	
	Sulfate	103	99.5 105		1.61	
EPA 350.1 Rev. 2.0	Ammonia-N	97.4	97.3 98.0			0.513
	Ammonia-N	97.2	98.2 102			2.84
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.3	100 99.1			0.864
EPA 353.2 Rev. 2.0	NO2NO3-N	103	98.0 96.5			1.18
EPA 365.1 Rev. 2.0	Total-P	102	99.4 98.8			0.584
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.0	95.0 96.1			1.15
SM 2120 B	Color (true)				4.80	
SM 2320 B-97	Total Alkalinity	98.9			0.0545	
SM 2540 C-97	TDS				2.99	
SM 4500 F-C-97	Fluoride	95.3	133 95.9			25.7
SM 5310 B-00	Organic Carbon	98.2	97.3 98.6			0.792
	Organic Carbon	100	106 96.3			5.62

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1976113, 1976114
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1976113, 1976114
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1976113, 1976114
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1976115, 1976116
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1976115, 1976116
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1976115, 1976116
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1976115, 1976116
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1976117, 1976118
SM 2120 B / E31780	True Color measured at 450 nm	1976113, 1976114
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1976113, 1976114
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1976113, 1976114
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1976113, 1976114
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1976113, 1976114

Reference Method Descriptions

Method / DoH Cert #	Description	<u>Associated Samples</u>
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1976115, 1976116

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	03/21/2018			03/21/2018 16:20	DeAsia Armster	1976113, 1976114
EPA 300.0 Rev. 2.1	03/21/2018			03/22/2018	Julia Storbeck	1976113
	03/21/2018			03/23/2018	Julia Storbeck	1976114
EPA 350.1 Rev. 2.0	03/21/2018			03/27/2018	Ping Hua	1976115, 1976116
EPA 351.2 Rev. 2.0	03/21/2018	03/22/2018	Adrian Shelby	03/23/2018	Joseph Suarez	1976115, 1976116
EPA 353.2 Rev. 2.0	03/21/2018			03/22/2018	Beverly Y. Sanders	1976115, 1976116
EPA 365.1 Rev. 2.0	03/21/2018	03/22/2018	Sima Feizi	03/23/2018	Lipi Saha	1976115, 1976116
EPA 365.1 Rev. 2.0 dissolved	03/21/2018			03/21/2018 16:04	Megan Treadwell	1976117
	03/21/2018			03/21/2018 16:06	Megan Treadwell	1976118
SM 2120 B	03/21/2018			03/21/2018 16:00	Tanya Welborn	1976113, 1976114
SM 2320 B-97	03/21/2018			03/28/2018	Dale L. Simmons	1976113, 1976114
SM 2540 C-97	03/21/2018			03/24/2018	Yijie Li	1976113, 1976114
SM 2540 D-97	03/21/2018			03/24/2018	Yijie Li	1976113, 1976114
SM 4500 F-C-97	03/21/2018			03/28/2018	Dale L. Simmons	1976113, 1976114
SM 5310 B-00	03/21/2018			03/27/2018	Megan Treadwell	1976115
	03/21/2018			03/31/2018	Megan Treadwell	1976116