Chemical Analysis Report

WQAP-2017-08-18-01

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

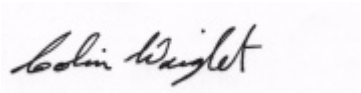
Event Description: **Brandt Lake LVI**
Request ID: **RQ-2017-08-14-44**
Customer: **WQAP**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
13051 N. Telecom Parkway
Tampa, FL 33637
Attn: Judy Ashton

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Colin Wright, Program Administrator

Date Certified: 06-SEP-2017 14:30



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: Brant Lake **Collection Date/Time: 08/17/2017 11:16**

Field ID: G1SW0025 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1922461	EPA 180.1 Rev. 2.0	Turbidity	1.4		NTU	P330523	
	EPA 300.0 Rev. 2.1	Chloride	35		mg Cl/L	P330714	
		Sulfate	5.9		mg SO4/L	P330716	
	SM 2120 B	Color (true)	73	A	PCU	P330528	
	SM 2320 B-97	Total Alkalinity	12		mg CaCO3/L	P330797	
	SM 2540 C-97	TDS	116		mg/L	P330964	
	SM 2540 D-97	TSS	3	I	mg/L	P330982	
	SM 4500 F-C-97	Fluoride	0.095	I	mg F/L	P330799	RPD
1922464	EPA 350.1 Rev. 2.0	Ammonia-N	0.0051		mg N/L	P330755	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.87		mg N/L	P330547	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P330615	
	EPA 365.1 Rev. 2.0	Total-P	0.037		mg P/L	P330614	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P330769	
1922467	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P330506	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 5310 B-00: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Brant Lake dup **Collection Date/Time: 08/17/2017 11:20**

Field ID: G1SW0025 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1922462	EPA 180.1 Rev. 2.0	Turbidity	1.5		NTU	P330523	
	EPA 300.0 Rev. 2.1	Chloride	35		mg Cl/L	P330714	
		Sulfate	5.8		mg SO4/L	P330716	
	SM 2120 B	Color (true)	73		PCU	P330528	
	SM 2320 B-97	Total Alkalinity	12		mg CaCO3/L	P330797	
	SM 2540 C-97	TDS	115		mg/L	P330964	
	SM 2540 D-97	TSS	2	I	mg/L	P330982	
	SM 4500 F-C-97	Fluoride	0.095	I	mg F/L	P330799	RPD
1922465	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P330755	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.83		mg N/L	P330547	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P330615	
	EPA 365.1 Rev. 2.0	Total-P	0.035		mg P/L	P330614	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P330769	
1922468	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P330506	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 5310 B-00: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: BLANK **Collection Date/Time: 08/17/2017 11:30**

Field ID: BLANK Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1922463	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P330523	

Field ID: BLANK Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1922463	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P330714	
		Sulfate	0.20	U	mg SO4/L	P330716	
	SM 2120 B	Color (true)	2.5	U	PCU	P330528	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P330797	
	SM 2540 C-97	TDS	15	U	mg/L	P330964	
	SM 2540 D-97	TSS	2	U	mg/L	P330982	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P330799	RPD
1922466	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P330755	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P330547	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P330615	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P330614	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P330769	
1922469	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P330506	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 5310 B-00: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P330523

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P330714

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P330716

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P330755

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330547

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P330615

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P330614

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P330506

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

Reference Method: SM 2120 B
Batch ID: P330528

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P330797

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

Reference Method: SM 2540 C-97
Batch ID: P330964

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P330982

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P330799

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P330769

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: P330714

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	99.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P330716

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P330755

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330547

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P330615

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	106		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P330614

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	95.7		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P330506

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	96.0		P	90 - 110

Reference Method: SM 2320 B-97
Batch ID: P330797

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P330799

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.2		P	92 - 103

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
Batch ID: P330769

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.3		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P330714

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1922330	Chloride	97.7		P	90 - 110
1922481	Chloride	98.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P330716

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1922330	Sulfate	98.6		P	90 - 110
1922481	Sulfate	98.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P330755

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1922464	Ammonia-N	99.9	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330547

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1922552	Kjeldahl Nitrogen	103	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P330615

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1922464	NO2NO3-N	107	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P330614

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1922545	Total-P	93.9	99.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P330506

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1922485	O-Phosphate-P	97.0	95.0	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P330799

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1922549	Fluoride	94.8	103	P/P	91 - 105

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P330523

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1922480	Turbidity	0.294	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P330714

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1922330	Chloride	1.18	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P330716

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1922330	Sulfate	1.31	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P330755

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1922464	Ammonia-N	1.06	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330547

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1922552	Kjeldahl Nitrogen	1.35	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P330615

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1922464	NO2NO3-N	0.468	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P330614

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1922545	Total-P	5.34	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P330506

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1922485	O-Phosphate-P	2.08	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P330528

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1922461	Color (true)	0.494	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P330797

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1922549	Total Alkalinity	0.167	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P330964

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1922549	TDS	8.81	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P330799

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1922549	Fluoride	7.05	Spike	F	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P330769

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1922193	Organic Carbon	0.0126	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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A78508
Included Lab Sample IDs: 1922467, 1922468, 1922469

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.0	97.7	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A78515
Included Lab Sample IDs: 1922461, 1922462, 1922463

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	101	P/P	95 - 105

Reference Method: SM 2120 B
Run ID: A78516
Included Lab Sample IDs: 1922461, 1922462, 1922463

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	95.7	99.1	P/P	85 - 115

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A78554
Included Lab Sample IDs: 1922464, 1922465, 1922466

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A78569
Included Lab Sample IDs: 1922464, 1922465, 1922466

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	105	P/P	90 - 110
Kjeldahl Nitrogen	105	103	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A78584
Included Lab Sample IDs: 1922461, 1922462, 1922463

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	96.0	93.4	P/P	90 - 110
Chloride	99.9	98.8	P/P	90 - 110
Sulfate	98.5	98.6	P/P	90 - 110
Sulfate	98.7	93.1	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A78593
Included Lab Sample IDs: 1922464, 1922465, 1922466

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.5	99.6	P/P	90 - 110
Ammonia-N	99.8	99.5	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A78595
Included Lab Sample IDs: 1922464, 1922465, 1922466

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	102	100	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A78598
Included Lab Sample IDs: 1922464, 1922465, 1922466

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.2	98.2	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A78604
Included Lab Sample IDs: 1922461, 1922462, 1922463

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.5	103	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A78604
Included Lab Sample IDs: 1922461, 1922462, 1922463

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.1	99.5	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		Precision		
					LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity					0.294	
EPA 300.0 Rev. 2.1	Chloride	99.1	97.7	98.2		1.18	
	Sulfate	98.2	98.6	98.2		1.31	
EPA 350.1 Rev. 2.0	Ammonia-N	99.3	99.9	101			1.06
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	103	101			1.35
EPA 353.2 Rev. 2.0	NO2NO3-N	106	107	106			0.468
EPA 365.1 Rev. 2.0	Total-P	95.7	93.9	99.3			5.34
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	96.0	97.0	95.0			2.08
SM 2120 B	Color (true)					0.494	
SM 2320 B-97	Total Alkalinity	103				0.167	
SM 2540 C-97	TDS					8.81	
SM 4500 F-C-97	Fluoride	96.2	94.8	103			7.05
SM 5310 B-00	Organic Carbon	94.3					0.0126

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1922461, 1922462, 1922463
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1922461, 1922462, 1922463
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1922461, 1922462, 1922463
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1922464, 1922465, 1922466
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1922464, 1922465, 1922466
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1922464, 1922465, 1922466
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1922464, 1922465, 1922466
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1922467, 1922468, 1922469
SM 2120 B / E31780	True Color measured at 450 nm	1922461, 1922462, 1922463
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1922461, 1922462, 1922463
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1922461, 1922462, 1922463
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1922461, 1922462, 1922463
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1922461, 1922462, 1922463
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1922464, 1922465, 1922466

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	08/18/2017			08/18/2017 17:28	Tanya Welborn	1922461, 1922462, 1922463
EPA 300.0 Rev. 2.1	08/18/2017			08/22/2017	Julia Storbeck	1922463
	08/18/2017			08/23/2017	Julia Storbeck	1922461, 1922462
EPA 350.1 Rev. 2.0	08/18/2017			08/23/2017	Sofia Elnemr	1922464, 1922465, 1922466
EPA 351.2 Rev. 2.0	08/18/2017	08/21/2017	Adrian Shelby	08/22/2017	Joseph Suarez	1922464, 1922465, 1922466
EPA 353.2 Rev. 2.0	08/18/2017			08/22/2017	Beverly Y. Sanders	1922464, 1922465, 1922466
EPA 365.1 Rev. 2.0	08/18/2017	08/22/2017	Sima Feizi	08/23/2017	Lipi Saha	1922464, 1922465, 1922466
EPA 365.1 Rev. 2.0 dissolved	08/18/2017			08/18/2017 12:23	Megan Treadwell	1922467
	08/18/2017			08/18/2017 12:24	Megan Treadwell	1922468
	08/18/2017			08/18/2017 12:25	Megan Treadwell	1922469
SM 2120 B	08/18/2017			08/18/2017 11:22	Tanya Welborn	1922461
	08/18/2017			08/18/2017 11:23	Tanya Welborn	1922462
	08/18/2017			08/18/2017 11:24	Tanya Welborn	1922463
SM 2320 B-97	08/18/2017			08/23/2017	Dale L. Simmons	1922461, 1922462, 1922463
SM 2540 C-97	08/18/2017			08/23/2017	Yijie Li	1922461, 1922462, 1922463
SM 2540 D-97	08/18/2017			08/23/2017	Yijie Li	1922461, 1922462, 1922463
SM 4500 F-C-97	08/18/2017			08/23/2017	Dale L. Simmons	1922461, 1922462, 1922463
SM 5310 B-00	08/18/2017			08/23/2017	Ping Hua	1922464, 1922465, 1922466