Chemical Analysis Report

SO-DIST-2018-06-13-02

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

Event Description: **Myakka Lakes**
Request ID: **RQ-2018-06-18-22**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 364
Fort Myers, FL 33901-3381
Attn: Nicole Reistad

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: 02-JUL-2018 09:43

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: LakeMyakka(Upper)Middle **Collection Date/Time: 06/12/2018 10:30**

Field ID: G3SD0133 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2000330	EPA 180.1 Rev. 2.0	Turbidity	2.6		NTU	P346870	
	EPA 300.0 Rev. 2.1	Chloride	14		mg Cl/L	P347315	
		Sulfate	70		mg SO4/L	P347317	
	SM 2120 B	Color (true)	320		PCU	P346849	
	SM 2320 B-97	Total Alkalinity	34		mg CaCO3/L	P347157	RPD
	SM 2540 C-97	TDS	251		mg/L	P347409	
	SM 2540 D-97	TSS	4	I	mg/L	P347417	
	SM 4500 F-C-97	Fluoride	0.21		mg F/L	P347159	
2000332	EPA 350.1 Rev. 2.0	Ammonia-N	0.17		mg N/L	P347337	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.8		mg N/L	P347593	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	I	mg N/L	P347300	
	EPA 365.1 Rev. 2.0	Total-P	0.87		mg P/L	P347117	
	SM 5310 B-00	Organic Carbon	30		mg C/L	P347185	
2000334	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.83		mg P/L	P346878	

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: LakeMyakka(Lower)Middle **Collection Date/Time: 06/12/2018 11:35**

Field ID: G3SD0107 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2000331	EPA 180.1 Rev. 2.0	Turbidity	4.4		NTU	P346870	
	EPA 300.0 Rev. 2.1	Chloride	14		mg Cl/L	P347315	
		Sulfate	70		mg SO4/L	P347317	
	SM 2120 B	Color (true)	320		PCU	P346849	
	SM 2320 B-97	Total Alkalinity	33		mg CaCO3/L	P347157	RPD
	SM 2540 C-97	TDS	228		mg/L	P347409	
	SM 2540 D-97	TSS	8	I	mg/L	P347417	
	SM 4500 F-C-97	Fluoride	0.20		mg F/L	P347159	
2000333	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P347338	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.0		mg N/L	P347593	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P347300	
	EPA 365.1 Rev. 2.0	Total-P	0.96		mg P/L	P347117	
	SM 5310 B-00	Organic Carbon	30		mg C/L	P347185	
2000335	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.77		mg P/L	P346878	

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: P346870

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P347315

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P347317

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P347337

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P347338

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P347593

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P347300

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P347117

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P346878

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

Quality Assurance Report
Method Blank Results

Reference Method: SM 2120 B
Batch ID: P346849

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P347157

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

Reference Method: SM 2540 C-97
Batch ID: P347409

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P347417

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P347159

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P347185

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: P347315

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	97.0		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P347317

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P347337

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P347338

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: P347593

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P347300

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P347117

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	93.8		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P346878

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.7		P	90 - 110

Reference Method: SM 2320 B-97
Batch ID: P347157

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	98 - 107

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P347159

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.5		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P347185

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.8		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P347315

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1999741	Chloride	97.0		P	90 - 110
1999988	Chloride	99.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P347317

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1999741	Sulfate	92.7		P	90 - 110
1999988	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P347337

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1999599	Ammonia-N	95.7	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P347338

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2000118	Ammonia-N	100	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P347593

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2000392	Kjeldahl Nitrogen	103	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P347300

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2000243	NO2NO3-N	97.4	95.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P347117

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1999690	Total-P	95.3	94.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P346878

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1999990	O-Phosphate-P	97.5	99.7	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P347159

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2000937	Fluoride	94.7	95.8	P/P	91 - 105

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 5310 B-00
Batch ID: P347185

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2000126	Organic Carbon	102	101	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P346870

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2000240	Turbidity	2.47	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P347315

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1999741	Chloride	1.56	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P347317

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1999741	Sulfate	1.68	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P347337

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1999599	Ammonia-N	3.85	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P347338

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2000118	Ammonia-N	0.485	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P347593

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2000392	Kjeldahl Nitrogen	1.60	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P347300

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2000243	NO2NO3-N	1.67	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P347117

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1999690	Total-P	0.692	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P346878

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1999990	O-Phosphate-P	2.23	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P346849

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2000388	Color (true)	1.06	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P347157

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2000937	Total Alkalinity	4.35	Sample	F	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P347409

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2000242	TDS	0.0	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P347159

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2000937	Fluoride	0.943	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P347185

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2000126	Organic Carbon	0.932	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: SM 2120 B
Run ID: A84549
Included Lab Sample IDs: 2000330, 2000331

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	100	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A84568
Included Lab Sample IDs: 2000330, 2000331

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.5	99.0	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A84574
Included Lab Sample IDs: 2000334, 2000335

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.8	96.4	P/P	90 - 110
O-Phosphate-P	98.5	97.8	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A84691
Included Lab Sample IDs: 2000330, 2000331

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	103	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A84691
Included Lab Sample IDs: 2000330, 2000331

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

Reference Method: SM 5310 B-00
Run ID: A84709
Included Lab Sample IDs: 2000332, 2000333

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.8	94.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A84710
Included Lab Sample IDs: 2000332, 2000333

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	99.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A84739
Included Lab Sample IDs: 2000332, 2000333

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.5	100	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A84742
Included Lab Sample IDs: 2000330, 2000331

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	101	P/P	90 - 110
Chloride	102	101	P/P	90 - 110
Sulfate	103	99.8	P/P	90 - 110
Sulfate	99.8	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A84776
Included Lab Sample IDs: 2000332, 2000333

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	99.9	P/P	90 - 110
Ammonia-N	103	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A84930
Included Lab Sample IDs: 2000332, 2000333

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	106	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		Precision		
					LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity					2.47	
EPA 300.0 Rev. 2.1	Chloride	97.0	97.0	99.1		1.56	
	Sulfate	97.8	92.7	101		1.68	
EPA 350.1 Rev. 2.0	Ammonia-N	101	95.7	101			3.85
	Ammonia-N	101	100	101			0.485
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105	103	100			1.60
EPA 353.2 Rev. 2.0	NO2NO3-N	102	97.4	95.4			1.67
EPA 365.1 Rev. 2.0	Total-P	93.8	95.3	94.6			0.692
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.7	97.5	99.7			2.23
SM 2120 B	Color (true)					1.06	
SM 2320 B-97	Total Alkalinity	100				4.35	
SM 2540 C-97	TDS					0.0	
SM 4500 F-C-97	Fluoride	96.5	94.7	95.8			0.943
SM 5310 B-00	Organic Carbon	94.8	102	101			0.932

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2000330, 2000331
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2000330, 2000331
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2000330, 2000331
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2000332, 2000333
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2000332, 2000333
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2000332, 2000333
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2000332, 2000333
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2000334, 2000335
SM 2120 B / E31780	True Color measured at 450 nm	2000330, 2000331
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2000330, 2000331
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2000330, 2000331
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2000330, 2000331
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2000330, 2000331
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2000332, 2000333

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	06/13/2018			06/13/2018 17:12	William L. Brown IV	2000330, 2000331
EPA 300.0 Rev. 2.1	06/13/2018			06/21/2018 18:49	Irina Carbone	2000330
	06/13/2018			06/21/2018 19:25	Irina Carbone	2000331
EPA 350.1 Rev. 2.0	06/13/2018			06/21/2018 09:23	Ping Hua	2000332
	06/13/2018			06/21/2018 09:56	Ping Hua	2000333
EPA 351.2 Rev. 2.0	06/13/2018	06/27/2018 10:45	Adrian Shelby	06/29/2018 12:20	Joseph Suarez	2000332
	06/13/2018	06/27/2018 10:45	Adrian Shelby	06/29/2018 12:22	Joseph Suarez	2000333
EPA 353.2 Rev. 2.0	06/13/2018			06/20/2018 11:11	Beverly Y. Sanders	2000332
	06/13/2018			06/20/2018 11:12	Beverly Y. Sanders	2000333
EPA 365.1 Rev. 2.0	06/13/2018	06/19/2018 11:10	Sima Feizi	06/20/2018 11:46	Lipi Saha	2000332
	06/13/2018	06/19/2018 11:10	Sima Feizi	06/20/2018 11:47	Lipi Saha	2000333
EPA 365.1 Rev. 2.0 dissolved	06/13/2018			06/13/2018 15:49	Megan Treadwell	2000334
	06/13/2018			06/13/2018 16:05	Megan Treadwell	2000335
SM 2120 B	06/13/2018			06/13/2018 17:42	Tanya Welborn	2000330, 2000331
SM 2320 B-97	06/13/2018			06/20/2018 00:04	Lauren Bottorf	2000330
	06/13/2018			06/20/2018 00:15	Lauren Bottorf	2000331
SM 2540 C-97	06/13/2018			06/15/2018 16:52	Yijie Li	2000330, 2000331
SM 2540 D-97	06/13/2018			06/15/2018 16:52	Yijie Li	2000330, 2000331
SM 4500 F-C-97	06/13/2018			06/20/2018 00:04	Lauren Bottorf	2000330
	06/13/2018			06/20/2018 00:15	Lauren Bottorf	2000331
SM 5310 B-00	06/13/2018			06/18/2018 18:42	Megan Treadwell	2000332
	06/13/2018			06/18/2018 19:03	Megan Treadwell	2000333