Chemical Analysis Report

NW-DIST-2018-05-24-01

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

Event Description: **BIOASSESSMENT**
Request ID: **RQ-2018-05-21-45**
Customer: **NW-DIST**
Project ID: **SMP**

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Date Certified: 12-JUN-2018 11:59

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: HUCKLEBERRY CREEK **Collection Date/Time: 05/23/2018 12:00**

Field ID: G3NW0135 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1995131	EPA 180.1 Rev. 2.0	Turbidity	4.2	A	NTU	P345908	
	EPA 300.0 Rev. 2.1	Chloride	4.2		mg Cl/L	P346221	
		Sulfate	0.77		mg SO4/L	P346225	
	SM 2120 B	Color (true)	100	A	PCU	P345888	
	SM 2320 B-97	Total Alkalinity	4.1		mg CaCO3/L	P346084	
	SM 2540 C-97	TDS	41		mg/L	P346204	
	SM 2540 D-97	TSS	4	I	mg/L	P346206	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P346088	
1995133	EPA 350.1 Rev. 2.0	Ammonia-N	0.016		mg N/L	P346261	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.54		mg N/L	P346036	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.015		mg N/L	P345991	
	EPA 365.1 Rev. 2.0	Total-P	0.022		mg P/L	P345953	
	SM 5310 B-00	Organic Carbon	9.1		mg C/L	P346313	
1995135	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.005	I	mg P/L	P345936	

Ref. Method and Comment:
EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: WEST SANDY CREEK **Collection Date/Time: 05/23/2018 13:20**

Field ID: G3NW0053 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1995132	EPA 180.1 Rev. 2.0	Turbidity	3.2		NTU	P345908	
	EPA 300.0 Rev. 2.1	Chloride	3.3		mg Cl/L	P346221	
		Sulfate	1.2		mg SO4/L	P346225	
	SM 2120 B	Color (true)	110		PCU	P345887	
	SM 2320 B-97	Total Alkalinity	6.3		mg CaCO3/L	P346084	
	SM 2540 C-97	TDS	38		mg/L	P346204	
	SM 2540 D-97	TSS	4	I	mg/L	P346206	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P346088	
1995134	EPA 350.1 Rev. 2.0	Ammonia-N	0.025		mg N/L	P346262	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.52		mg N/L	P346036	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.26		mg N/L	P345991	
	EPA 365.1 Rev. 2.0	Total-P	0.015		mg P/L	P345953	
	SM 5310 B-00	Organic Carbon	7.1		mg C/L	P346313	
1995136	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P345936	

Ref. Method and Comment:
EPA 365.1 Rev. 2.0: Total-P: 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: P345908

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: P346221

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346225

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P346261

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P346262

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P346036

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P345991

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P345953

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P345936

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

Reference Method: SM 2120 B
Batch ID: P345887

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report
Method Blank Results

Reference Method: SM 2120 B
Batch ID: P345888

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P346084

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

Reference Method: SM 2540 C-97
Batch ID: P346204

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P346206

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P346088

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P346313

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: P346221

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346225

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P346261

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P346261

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P346262

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P346036

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: P345991

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	101		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P345953

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P345936

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

Reference Method: SM 2320 B-97
Batch ID: P346084

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P346088

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.0		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P346313

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.7		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346221

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1994926	Chloride	97.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346225

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1994926	Sulfate	99.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P346261

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1994894	Ammonia-N	101	100	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P346262

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1995134	Ammonia-N	97.2	99.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P346036

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1995103	Kjeldahl Nitrogen	106	113	P/F	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P345991

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1995133	NO2NO3-N	101	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P345936

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1995135	O-Phosphate-P	93.5	93.7	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P346088

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1995098	Fluoride	96.2	96.2	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P346313

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1994884	Organic Carbon	95.1	95.5	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P345908

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1995131	Turbidity	9.16	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346221

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1994926	Chloride	1.51	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346225

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1994926	Sulfate	2.69	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P346261

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1994894	Ammonia-N	0.819	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P346262

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1995134	Ammonia-N	1.65	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P346036

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1995103	Kjeldahl Nitrogen	4.56	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P345991

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1995133	NO2NO3-N	0.458	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P345953

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1995246	Total-P	2.34	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P345936

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1995135	O-Phosphate-P	0.203	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P345887

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1995100	Color (true)	8.40	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P345888

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1995131	Color (true)	1.89	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P346084

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1995098	Total Alkalinity	0.448	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P346204

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1995450	TDS	2.01	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P346206

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1995450	TSS	2.53	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P346088

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1995098	Fluoride	0.0	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P346313

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1994884	Organic Carbon	0.350	Spike	P	0 - 20

Quality Assurance Report
Precision

* 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: A84140
Included Lab Sample IDs: 1995131, 1995132

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	103	P/P	90 - 115
Color (true)	100	100	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A84145
Included Lab Sample IDs: 1995131, 1995132

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	100	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A84154
Included Lab Sample IDs: 1995135, 1995136

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.7	99.4	P/P	90 - 110
O-Phosphate-P	99.8	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A84164
Included Lab Sample IDs: 1995133, 1995134

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

Reference Method: SM 2320 B-97
Run ID: A84181
Included Lab Sample IDs: 1995131, 1995132

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.6	103	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A84181
Included Lab Sample IDs: 1995131, 1995132

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A84230
Included Lab Sample IDs: 1995131, 1995132

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits

Quality Assurance Report
Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A84230
Included Lab Sample IDs: 1995131, 1995132

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	103	102	P/P	90 - 110
Sulfate	101	99.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A84234
Included Lab Sample IDs: 1995133, 1995134

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A84277
Included Lab Sample IDs: 1995133, 1995134

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	91.8	95.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A84301
Included Lab Sample IDs: 1995133, 1995134

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	99.1	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A84324
Included Lab Sample IDs: 1995133, 1995134

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.6	97.4	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					9.16	
EPA 300.0 Rev. 2.1	Chloride	102	97.9			1.51	
	Sulfate	100	99.2			2.69	
EPA 350.1 Rev. 2.0	Ammonia-N	102	101	100			0.819
	Ammonia-N	102	97.2	99.6			1.65
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	106	113			4.56
EPA 353.2 Rev. 2.0	NO2NO3-N	101	101	102			0.458
EPA 365.1 Rev. 2.0	Total-P	103					2.34
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.4	93.5	93.7			0.203
SM 2120 B	Color (true)					8.40	

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
SM 2120 B	Color (true)					1.89	
SM 2320 B-97	Total Alkalinity	103				0.448	
SM 2540 C-97	TDS					2.01	
SM 2540 D-97	TSS					2.53	
SM 4500 F-C-97	Fluoride	95.0	96.2	96.2			0.0
SM 5310 B-00	Organic Carbon	95.7	95.1	95.5			0.350

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1995131, 1995132
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1995131, 1995132
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1995131, 1995132
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1995133, 1995134
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1995133, 1995134
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1995133, 1995134
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1995133, 1995134
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1995135, 1995136
SM 2120 B / E31780	True Color measured at 450 nm	1995131, 1995132
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1995131, 1995132
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1995131, 1995132
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	1995131, 1995132
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1995131, 1995132
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1995133, 1995134

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	05/24/2018			05/24/2018 16:55	William L. Brown IV	1995131, 1995132
EPA 300.0 Rev. 2.1	05/24/2018			06/01/2018 03:38	Lipi Saha	1995131
	05/24/2018			06/01/2018 03:50	Lipi Saha	1995132
EPA 350.1 Rev. 2.0	05/24/2018			06/01/2018 12:54	Ping Hua	1995133
	05/24/2018			06/01/2018 13:00	Ping Hua	1995134
EPA 351.2 Rev. 2.0	05/24/2018	05/29/2018 16:00	Adrian Shelby	05/31/2018 15:54	Joseph Suarez	1995133
	05/24/2018	05/29/2018 16:00	Adrian Shelby	05/31/2018 15:56	Joseph Suarez	1995134
EPA 353.2 Rev. 2.0	05/24/2018			05/25/2018 11:42	Lauren Bottorf	1995133
	05/24/2018			05/25/2018 11:51	Lauren Bottorf	1995134
EPA 365.1 Rev. 2.0	05/24/2018	05/25/2018 11:55	Sima Feizi	05/30/2018 13:09	Beverly Y. Sanders	1995133
	05/24/2018	05/25/2018 11:55	Sima Feizi	05/30/2018 13:10	Beverly Y. Sanders	1995134
EPA 365.1 Rev. 2.0 dissolved	05/24/2018			05/24/2018 16:26	Megan Treadwell	1995135
	05/24/2018			05/24/2018 17:03	Megan Treadwell	1995136
SM 2120 B	05/24/2018			05/24/2018 14:22	Tanya Welborn	1995132
	05/24/2018			05/24/2018 14:45	Tanya Welborn	1995131
SM 2320 B-97	05/24/2018			05/26/2018 00:06	Dale L. Simmons	1995131
	05/24/2018			05/26/2018 00:18	Dale L. Simmons	1995132
SM 2540 C-97	05/24/2018			05/25/2018 13:00	William L. Brown IV	1995131, 1995132
SM 2540 D-97	05/24/2018			05/25/2018 13:00	William L. Brown IV	1995131, 1995132
SM 4500 F-C-97	05/24/2018			05/26/2018 00:06	Dale L. Simmons	1995131
	05/24/2018			05/26/2018 00:18	Dale L. Simmons	1995132
SM 5310 B-00	05/24/2018			06/02/2018 07:56	Megan Treadwell	1995133
	05/24/2018			06/02/2018 08:11	Megan Treadwell	1995134