

Chemical Analysis Report

NE-DIST-2021-05-28-01

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

Event Description: **St.Augustine**
Request ID: **RQ-2021-05-24-09**
Customer: **NE-DIST**
Project ID: **SMP**

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Certified by: Colin Wright, Program Administrator

Date Certified: 21-JUN-2021 14:11

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 groups are included in this report: Metals and 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 by the Florida Department of Health Environmental Laboratory Certification Program 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: Moultrie CR @ US 1

Collection Date/Time: 05/27/2021 13:05

Field ID: 27010055

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2251084	EPA 180.1 Rev. 2.0	Turbidity	12		NTU	P399206	
	SM 2320 B-2011	Total Alkalinity	118		mg CaCO3/L	P399280	
	SM 2540 D-2011	TSS	22		mg/L	P399107	
	SM 4500 F-C-2011	Fluoride	1.2		mg F/L	P399274	
2251085	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P399320	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.53		mg N/L	P399038	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P399089	
	EPA 365.1 Rev. 2.0	Total-P	0.066		mg P/L	P399540	
	SM 5310 B-2011	Organic Carbon	4.2		mg C/L	P399097	
2251086	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.021		mg P/L	P398988	
2251093	EPA 200.7 Rev. 4.4	Calcium	419		mg/L	P398980	
		Chromium	5.6	I	ug/L	P398980	
		Iron	720		ug/L	P398980	
		Magnesium	1.28E+03		mg/L	P398980	
		Manganese	24		ug/L	P398980	
		Zinc	20	U	ug/L	P398980	
	EPA 200.8 Rev. 5.4	Aluminum	918		ug/L	P398980	
		Antimony	0.22	I	ug/L	P398980	
		Arsenic	3.07		ug/L	P398980	
		Beryllium	0.047	I	ug/L	P398980	
		Cadmium	0.080	U	ug/L	P398980	
		Copper	1.6	U	ug/L	P398980	
		Lead	2.6	I	ug/L	P398980	
		Nickel	2.0	U	ug/L	P398980	
		Selenium	0.80	U	ug/L	P398980	
		Silver	0.040	U	ug/L	P398980	
		Thallium	1.0	U	ug/L	P398980	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium and magnesium 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: P399206

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P398980

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Chromium	1.0	U	ug/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Manganese	1.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P398980

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Beryllium	0.010	U	ug/L
Cadmium	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P399320

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P399038

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P399089

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P399540

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P398988

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

Reference Method: SM 2320 B-2011
Batch ID: P399280

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

Reference Method: SM 2540 D-2011
Batch ID: P399107

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P399274

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P399097

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P398980

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	99.9		P	85 - 115
Chromium	97.1		P	85 - 115
Iron	107		P	85 - 115
Magnesium	95.9		P	85 - 115
Manganese	103		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P398980

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	99.0		P	85 - 115
Arsenic	100		P	85 - 115
Beryllium	85.2		P	85 - 115
Cadmium	102		P	85 - 115
Copper	99.6		P	85 - 115
Lead	105		P	85 - 115
Nickel	100		P	85 - 115
Selenium	99.8		P	85 - 115
Silver	106		P	85 - 115
Thallium	106		P	85 - 115

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P399320

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P399038

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	104		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P399089

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	98.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P399540

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: P398988

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P399280

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.9		P	94 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P399274

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.3		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P399097

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.7		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P398980

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250502	Chromium	97.3	97.2	P/P	70 - 130
2250502	Iron	109	107	P/P	70 - 130
2250502	Manganese	105	104	P/P	70 - 130
2250502	Zinc	114	110	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P398980

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250502	Aluminum	112	107	P/P	70 - 130
2250502	Antimony	103	99.6	P/P	70 - 130
2250502	Arsenic	110	106	P/P	70 - 130
2250502	Beryllium	77.9	76.1	P/P	70 - 130
2250502	Cadmium	96.0	92.5	P/P	70 - 130
2250502	Copper	108	105	P/P	70 - 130
2250502	Lead	113	108	P/P	70 - 130
2250502	Nickel	112	107	P/P	70 - 130
2250502	Selenium	103	97.2	P/P	70 - 130
2250502	Silver	95.5	93.5	P/P	70 - 130
2250502	Thallium	114	110	P/P	70 - 130

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P399320

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250818	Ammonia-N	104	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P399038

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250816	Kjeldahl Nitrogen	100	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P399089

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250818	NO2NO3-N	97.5	97.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P399540

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2251595	Total-P	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P398988

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250927	O-Phosphate-P	98.0	98.0	P/P	90 - 110

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P399274

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2251254	Fluoride	95.2	95.9	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P399097

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250817	Organic Carbon	97.4	97.1	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P399206

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250943	Turbidity	13.7	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P398980

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250502	Calcium	2.41	Spike	P	0 - 20
2250502	Chromium	0.0664	Spike	P	0 - 20
2250502	Iron	1.58	Spike	P	0 - 20
2250502	Magnesium	2.23	Spike	P	0 - 20
2250502	Manganese	1.07	Spike	P	0 - 20
2250502	Zinc	2.86	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P398980

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250502	Aluminum	4.36	Spike	P	0 - 20
2250502	Antimony	3.54	Spike	P	0 - 20
2250502	Arsenic	3.44	Spike	P	0 - 20
2250502	Beryllium	2.34	Spike	P	0 - 20
2250502	Cadmium	3.56	Spike	P	0 - 20
2250502	Copper	3.48	Spike	P	0 - 20
2250502	Lead	3.96	Spike	P	0 - 20
2250502	Nickel	2.65	Spike	P	0 - 20
2250502	Selenium	5.61	Spike	P	0 - 20
2250502	Silver	2.11	Spike	P	0 - 20
2250502	Thallium	3.26	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P399320

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250818	Ammonia-N	1.75	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P399038

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250816	Kjeldahl Nitrogen	4.99	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P399089

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250818	NO2NO3-N	0.0	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P399540

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2251595	Total-P	0.611	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P398988

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250927	O-Phosphate-P	0.0	Spike	P	0 - 20

Reference Method: SM 2320 B-2011

Batch ID: P399280

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2251254	Total Alkalinity	0.417	Sample	P	0 - 5.2

Reference Method: SM 4500 F-C-2011

Batch ID: P399274

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2251254	Fluoride	0.502	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011

Batch ID: P399097

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250817	Organic Carbon	0.323	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A105764

Included Lab Sample IDs: 2251086

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.2	97.9	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A105767

Included Lab Sample IDs: 2251084

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.5	99.5	P/P	95 - 105

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A105798

Included Lab Sample IDs: 2251093

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	103	102	P/P	90 - 110
Chromium	100	99.9	P/P	90 - 110
Iron	104	103	P/P	90 - 110
Magnesium	103	102	P/P	90 - 110
Manganese	103	102	P/P	90 - 110
Zinc	103	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A105815

Included Lab Sample IDs: 2251085

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

Reference Method: SM 5310 B-2011

Run ID: A105818

Included Lab Sample IDs: 2251085

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.4	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A105840

Included Lab Sample IDs: 2251085

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.6	105	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A105860

Included Lab Sample IDs: 2251093

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	105	106	P/P	90 - 110
Antimony	99.6	100	P/P	90 - 110
Arsenic	100	102	P/P	90 - 110
Beryllium	94.0	99.4	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A105860

Included Lab Sample IDs: 2251093

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cadmium	102	101	P/P	90 - 110
Copper	100	104	P/P	90 - 110
Lead	107	106	P/P	90 - 110
Nickel	101	106	P/P	90 - 110
Selenium	102	102	P/P	90 - 110
Thallium	99.3	98.3	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A105877

Included Lab Sample IDs: 2251093

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

Reference Method: SM 4500 F-C-2011

Run ID: A105892

Included Lab Sample IDs: 2251084

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

Reference Method: SM 2320 B-2011

Run ID: A105902

Included Lab Sample IDs: 2251084

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.6	99.3	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A105920

Included Lab Sample IDs: 2251085

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.3	97.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A106039

Included Lab Sample IDs: 2251085

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	98.5	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		LCS	Precision	MS
						SMP	
EPA 180.1 Rev. 2.0	Turbidity					13.7	
EPA 200.7 Rev. 4.4	Calcium	99.9					2.41
	Chromium	97.1	97.3	97.2			0.0664
	Iron	107	109	107			1.58
	Magnesium	95.9					2.23
	Manganese	103	105	104			1.07
	Zinc	101	114	110			2.86
EPA 200.8 Rev. 5.4	Aluminum	101	112	107			4.36
	Antimony	99.0	103	99.6			3.54
	Arsenic	100	110	106			3.44
	Beryllium	85.2	77.9	76.1			2.34
	Cadmium	102	96.0	92.5			3.56
	Copper	99.6	108	105			3.48
	Lead	105	113	108			3.96
	Nickel	100	112	107			2.65
	Selenium	99.8	103	97.2			5.61
	Silver	106	95.5	93.5			2.11
	Thallium	106	114	110			3.26
EPA 350.1 Rev. 2.0	Ammonia-N	100	104	102			1.75
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104	100	106			4.99
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	98.5	97.5	97.5			0.0
EPA 365.1 Rev. 2.0	Total-P	103	102	102			0.611
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101	98.0	98.0			0.0
SM 2320 B-2011	Total Alkalinity	99.9				0.417	
SM 4500 F-C-2011	Fluoride	99.3	95.2	95.9			0.502
SM 5310 B-2011	Organic Carbon	97.7	97.4	97.1			0.323

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2251084
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2251093
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2251093
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2251085
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2251085
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2251085
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2251085
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2251086
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2251084
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2251084
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2251084
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2251085

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	05/28/2021			05/28/2021 16:00	Sarah A Nixon	2251084
EPA 200.7 Rev. 4.4	05/28/2021	05/28/2021 12:50	Elliott D. Healy	06/01/2021 20:33	Betina Topolski	2251093
	05/28/2021	05/28/2021 12:50	Elliott D. Healy	06/01/2021 20:57	Betina Topolski	2251093
EPA 200.8 Rev. 5.4	05/28/2021	05/28/2021 12:50	Elliott D. Healy	06/03/2021 16:53	Alexander Thompson	2251093
	05/28/2021	05/28/2021 12:50	Elliott D. Healy	06/03/2021 17:40	Alexander Thompson	2251093
	05/28/2021	05/28/2021 12:50	Elliott D. Healy	06/04/2021 13:12	Alexander Thompson	2251093
EPA 350.1 Rev. 2.0	05/28/2021			06/07/2021 14:20	Ping Hua	2251085
EPA 351.2 Rev. 2.0	05/28/2021	06/01/2021 13:33	Benjamin T. Nordmann	06/02/2021 17:16	Virginia P. Brown	2251085
EPA 353.2 Rev. 2.0	05/28/2021			06/02/2021 12:07	Beverly Y. Sanders	2251085
EPA 365.1 Rev. 2.0	05/28/2021	06/11/2021 14:33	Madeline Gruver	06/14/2021 11:07	Shengyu Ding	2251085
EPA 365.1 Rev. 2.0 dissolved	05/28/2021			05/28/2021 13:29	Lipi Saha	2251086
SM 2320 B-2011	05/28/2021			06/06/2021 18:17	Dale L. Simmons	2251084
SM 2540 D-2011	05/28/2021			06/01/2021 14:02	Yijie Li	2251084
SM 4500 F-C-2011	05/28/2021			06/04/2021 21:09	Dale L. Simmons	2251084
SM 5310 B-2011	05/28/2021			06/02/2021 10:45	Madeline Gruver	2251085