

Chemical Analysis Report

CEN-DIST-2022-04-06-01

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

Event Description: **Run 15**
Request ID: **RQ-2022-04-04-22**
Customer: **CEN-DIST**
Project ID: **SMP**

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Date Certified: 25-APR-2022 17:18



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 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: Lake Alma NW of Center

Collection Date/Time: 04/05/2022 11:48

Field ID: G2CE0237

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2317016	DEP SOP: NU-094-1	Color (true)**	160		PCU	P412034	
	EPA 180.1 Rev. 2.0	Turbidity	0.65	I	NTU	P412039	
	EPA 300.0 Rev. 2.1	Chloride	16		mg Cl/L	P412280	
		Sulfate	0.39	I	mg SO4/L	P412283	
	SM 2320 B-2011	Total Alkalinity	21		mg CaCO3/L	P412457	
	SM 2540 C-2011	TDS	104		mg/L	P412257	
	SM 2540 D-2011	TSS	2	U	mg/L	P412128	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P412461	
2317017	EPA 350.1 Rev. 2.0	Ammonia-N	0.048		mg N/L	P412084	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P412215	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.016		mg N/L	P412070	
	EPA 365.1 Rev. 2.0	Total-P	0.12		mg P/L	P412310	
	SM 5310 B-2011	Organic Carbon	22		mg C/L	P412181	

Ref. Method and Comment:

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

EPA 351.2 Rev. 2.0: Batch relative percent difference is unavailable because of analytical difficulties.

Sample Location: Lake Asher @ Center of Lake

Collection Date/Time: 04/05/2022 14:06

Field ID: G2CE0130

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2317014	DEP SOP: NU-094-1	Color (true)**	45	A	PCU	P412034	
	EPA 180.1 Rev. 2.0	Turbidity	4.2		NTU	P412039	
	EPA 300.0 Rev. 2.1	Chloride	22		mg Cl/L	P412280	
		Sulfate	7.7		mg SO4/L	P412283	
	SM 2320 B-2011	Total Alkalinity	27		mg CaCO3/L	P412137	
	SM 2540 C-2011	TDS	93		mg/L	P412257	
	SM 2540 D-2011	TSS	7	I	mg/L	P412128	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P412140	
2317015	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P412084	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.93		mg N/L	P412215	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P412070	
	EPA 365.1 Rev. 2.0	Total-P	0.052		mg P/L	P412310	
	SM 5310 B-2011	Organic Carbon	9.7		mg C/L	P412181	

Ref. Method and Comment:

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

EPA 351.2 Rev. 2.0: Batch relative percent difference is unavailable because of analytical difficulties.

Sample Location: Lake Florida @ Center of Lake

Collection Date/Time: 04/05/2022 12:55

Field ID: G2CE0150

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2317012	DEP SOP: NU-094-1	Color (true)**	74		PCU	P412034	
	EPA 180.1 Rev. 2.0	Turbidity	3.7		NTU	P412039	
	EPA 300.0 Rev. 2.1	Chloride	12	A	mg Cl/L	P412280	
		Sulfate	4.6	A	mg SO4/L	P412283	
	SM 2320 B-2011	Total Alkalinity	41		mg CaCO3/L	P412137	
	SM 2540 C-2011	TDS	63		mg/L	P412257	
	SM 2540 D-2011	TSS	5	I	mg/L	P412128	
	SM 4500-F- C-2011	Fluoride	0.058	I	mg F/L	P412140	
2317013	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P412084	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P412215	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P412070	
	EPA 365.1 Rev. 2.0	Total-P	0.076		mg P/L	P412310	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P412181	

Ref. Method and Comment:

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

EPA 351.2 Rev. 2.0: Batch relative percent difference is unavailable because of analytical difficulties.

Quality Assurance Report

Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P412034

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P412039

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412280

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412283

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P412084

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412215

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P412070

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P412310

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

Reference Method: SM 2320 B-2011
Batch ID: P412137

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P412457

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

Reference Method: SM 2540 C-2011
Batch ID: P412257

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P412128

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P412140

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500-F- C-2011
Batch ID: P412461

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P412181

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P412034

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P412039

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	96.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412280

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412283

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P412084

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412215

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P412070

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: P412310

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

Reference Method: SM 2320 B-2011
Batch ID: P412137

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.5		P	94 - 106

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P412457

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.2		P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P412140

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.3		P	93 - 104

Reference Method: SM 4500-F- C-2011
Batch ID: P412461

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.1		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P412181

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.7		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412280

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2317012	Chloride	98.5		P	90 - 110
2317055	Chloride	98.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412283

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2317012	Sulfate	99.7		P	90 - 110
2317055	Sulfate	99.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P412084

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2317015	Ammonia-N	94.4	94.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412215

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2316916	Kjeldahl Nitrogen	90.2		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P412070

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2316957	NO2NO3-N	102	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P412310

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2317027	Total-P	102	103	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Batch ID: P412140

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2316174	Fluoride	98.3	97.7	P/P	92 - 107

Reference Method: SM 4500-F- C-2011
Batch ID: P412461

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2317901	Fluoride	95.7	95.2	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P412181

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2317028	Organic Carbon	97.3	99.1	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P412034

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317014	Color (true)	0.105	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P412039

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317025	Turbidity	0.463	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412280

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317012	Chloride	0.762	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412283

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317012	Sulfate	0.804	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P412084

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317015	Ammonia-N	0.386	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P412070

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2316957	NO2NO3-N	0.971	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P412310

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317027	Total-P	1.31	Spike	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P412137

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2316174	Total Alkalinity	1.42	Sample	P	0 - 5.2

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
Batch ID: P412457

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317901	Total Alkalinity	0.776	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P412257

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2316698	TDS	1.04	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P412140

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2316174	Fluoride	0.492	Spike	P	0 - 2.1

Reference Method: SM 4500-F- C-2011
Batch ID: P412461

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317901	Fluoride	0.469	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P412181

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317028	Organic Carbon	0.939	Spike	P	0 - 20

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

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A111348

Included Lab Sample IDs: 2317012, 2317014, 2317016

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	102	P/P	85 - 115
Color (true)	102	103	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A111350

Included Lab Sample IDs: 2317012, 2317014, 2317016

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A111361

Included Lab Sample IDs: 2317013, 2317015, 2317017

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	104	P/P	90 - 110
NO2NO3-N	102	103	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A111365

Included Lab Sample IDs: 2317013, 2317015, 2317017

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	96.1	98.5	P/P	90 - 110
Ammonia-N	96.5	96.1	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A111388

Included Lab Sample IDs: 2317012, 2317014

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.9	97.3	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A111388

Included Lab Sample IDs: 2317012, 2317014

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

Reference Method: SM 5310 B-2011

Run ID: A111406

Included Lab Sample IDs: 2317013, 2317015, 2317017

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.4	98.7	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A111443

Included Lab Sample IDs: 2317012, 2317014, 2317016

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.9	99.1	P/P	90 - 110
Sulfate	100	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A111481

Included Lab Sample IDs: 2317013, 2317017

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.8	99.9	P/P	90 - 110
Total-P	99.9	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A111497

Included Lab Sample IDs: 2317015

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	100	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A111512

Included Lab Sample IDs: 2317016

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.2	96.5	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A111512

Included Lab Sample IDs: 2317016

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	103	97.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A111553

Included Lab Sample IDs: 2317013, 2317015, 2317017

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	94.9	P/P	90 - 110
Kjeldahl Nitrogen	96.9	104	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	MS
DEP SOP: NU-094-1	Color (true)	101			0.105	
EPA 180.1 Rev. 2.0	Turbidity	96.3			0.463	
EPA 300.0 Rev. 2.1	Chloride	100	98.5	98.6	0.762	
	Sulfate	101	99.7	99.8	0.804	
EPA 350.1 Rev. 2.0	Ammonia-N	96.0	94.4	94.8		0.386
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	106	90.2			
EPA 353.2 Rev. 2.0	NO2NO3-N	102	102	104		0.971
EPA 365.1 Rev. 2.0	Total-P	101	102	103		1.31
SM 2320 B-2011	Total Alkalinity	98.5			1.42	
	Total Alkalinity	98.2			0.776	
SM 2540 C-2011	TDS				1.04	
SM 4500-F- C-2011	Fluoride	98.3	98.3	97.7		0.492
	Fluoride	97.1	95.7	95.2		0.469
SM 5310 B-2011	Organic Carbon	98.7	97.3	99.1		0.939

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2317012, 2317014, 2317016
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2317012, 2317014, 2317016
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2317012, 2317014, 2317016
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2317012, 2317014, 2317016
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2317013, 2317015, 2317017
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2317013, 2317015, 2317017
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2317013, 2317015, 2317017
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2317013, 2317015, 2317017
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2317012, 2317014, 2317016
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2317012, 2317014, 2317016
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2317012, 2317014, 2317016
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2317012, 2317014, 2317016
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2317013, 2317015, 2317017

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	04/06/2022			04/06/2022 15:31	Anna M. Plaviak	2317012
	04/06/2022			04/06/2022 15:32	Anna M. Plaviak	2317014
	04/06/2022			04/06/2022 16:00	Anna M. Plaviak	2317016
EPA 180.1 Rev. 2.0	04/06/2022			04/06/2022 14:15	Khloe J Berg	2317012
	04/06/2022			04/06/2022 14:16	Khloe J Berg	2317014
	04/06/2022			04/06/2022 14:18	Khloe J Berg	2317016
EPA 300.0 Rev. 2.1	04/06/2022			04/11/2022 21:06	James L Waggeberby	2317012
	04/06/2022			04/11/2022 22:43	James L Waggeberby	2317014
	04/06/2022			04/11/2022 22:55	James L Waggeberby	2317016
EPA 350.1 Rev. 2.0	04/06/2022			04/07/2022 12:20	Ping Hua	2317015
	04/06/2022			04/07/2022 12:27	Ping Hua	2317013
	04/06/2022			04/07/2022 12:48	Ping Hua	2317017
EPA 351.2 Rev. 2.0	04/06/2022	04/14/2022 16:34	Samantha L Bates	04/19/2022 13:52	Alexandra J Mattheus	2317017
	04/06/2022	04/14/2022 16:34	Samantha L Bates	04/19/2022 14:00	Alexandra J Mattheus	2317013
	04/06/2022	04/14/2022 16:34	Samantha L Bates	04/19/2022 14:05	Alexandra J Mattheus	2317015
EPA 353.2 Rev. 2.0	04/06/2022			04/07/2022 11:03	Beverly Y. Sanders	2317015
	04/06/2022			04/07/2022 11:04	Beverly Y. Sanders	2317017
	04/06/2022			04/07/2022 11:49	Beverly Y. Sanders	2317013
EPA 365.1 Rev. 2.0	04/06/2022	04/13/2022 14:10	Simonne.V. Calhoun	04/14/2022 16:18	Sarah A Nixon	2317013
	04/06/2022	04/13/2022 14:10	Simonne.V. Calhoun	04/14/2022 16:22	Sarah A Nixon	2317017
	04/06/2022	04/13/2022 14:10	Simonne.V. Calhoun	04/15/2022 11:47	James L Waggeberby	2317015
SM 2320 B-2011	04/06/2022			04/08/2022 08:29	Dale L. Simmons	2317012
	04/06/2022			04/08/2022 08:42	Dale L. Simmons	2317014
	04/06/2022			04/15/2022 12:08	Dale L. Simmons	2317016
SM 2540 C-2011	04/06/2022			04/07/2022 13:30	Simonne.V. Calhoun	2317012, 2317014, 2317016
SM 2540 D-2011	04/06/2022			04/07/2022 13:30	Simonne.V. Calhoun	2317012, 2317014, 2317016
SM 4500-F- C-2011	04/06/2022			04/08/2022 08:29	Dale L. Simmons	2317012
	04/06/2022			04/08/2022 08:42	Dale L. Simmons	2317014
	04/06/2022			04/15/2022 12:08	Dale L. Simmons	2317016
SM 5310 B-2011	04/06/2022			04/08/2022 19:34	Khloe J Berg	2317013
	04/06/2022			04/08/2022 19:47	Khloe J Berg	2317015
	04/06/2022			04/08/2022 20:00	Khloe J Berg	2317017