Chemical Analysis Report

CEN-DIST-2023-03-15-01

Florida DEP Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **BMAP - Sweetwater and Salt**
Request ID: **RQ-2023-03-13-09**
Customer: **CEN-DIST**
Project ID: **BMAP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767
Attn: Matthew Bearden

For additional information please contact
Colin Wright, Ph.D.
Chris Bowen, B.S.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator Date Certified: 06-APR-2023 11:52

B. Steinbock

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: Sweetwater Creek at Florida Avenue **Collection Date/Time: 03/14/2023 09:46**

Field ID: G2CE0123 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2394027	DEP SOP: NU-094-1	Color (true)	52	A	PCU	P427217	
	EPA 180.1 Rev. 2.0	Turbidity	6.9		NTU	P427201	
	EPA 300.0 Rev. 2.1	Chloride	180		mg Cl/L	P427727	
		Sulfate	26		mg SO4/L	P427730	
	SM 2320 B-2011	Total Alkalinity	133		mg CaCO3/L	P427349	RPD
	SM 2540 C-2015	TDS	467		mg/L	P427644	
	SM 2540 D-2015	TSS	18		mg/L	P427537	
	SM 4500-F- C-2011	Fluoride	0.28		mg F/L	P427356	
2394029	EPA 350.1 Rev. 2.0	Ammonia-N	0.046		mg N/L	P427417	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.81		mg N/L	P427434	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.63		mg N/L	P427398	
	EPA 365.1 Rev. 2.0	Total-P	0.48		mg P/L	P427333	
	SM 5310 B-2011	Organic Carbon	8.1		mg C/L	P427625	
2394031	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.42		mg P/L	P427191	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 4500-F- C-2011: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Salt Creek @ Packard Ave **Collection Date/Time: 03/14/2023 10:12**

Field ID: G2CE0088 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2394028	DEP SOP: NU-094-1	Color (true)	83		PCU	P427217	
	EPA 180.1 Rev. 2.0	Turbidity	3.0		NTU	P427201	
	EPA 300.0 Rev. 2.1	Chloride	1.2E+03		mg Cl/L	P427727	
		Sulfate	170		mg SO4/L	P427730	
	SM 2320 B-2011	Total Alkalinity	126		mg CaCO3/L	P427349	RPD
	SM 2540 C-2015	TDS	2.08E+03		mg/L	P427644	
	SM 2540 D-2015	TSS	2	I	mg/L	P427537	
	SM 4500-F- C-2011	Fluoride	0.14		mg F/L	P427356	
2394030	EPA 350.1 Rev. 2.0	Ammonia-N	0.070		mg N/L	P427417	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.71		mg N/L	P427788	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.16		mg N/L	P427398	
	EPA 365.1 Rev. 2.0	Total-P	0.25		mg P/L	P427333	
	SM 5310 B-2011	Organic Carbon	10		mg C/L	P427625	
2394032	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.21		mg P/L	P427191	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 4500-F- C-2011: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report
Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P427217

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P427201

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427727

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427730

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P427417

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427434

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427788

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427398

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P427333

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: P427191

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

Reference Method: SM 2320 B-2011
Batch ID: P427349

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

Reference Method: SM 2540 C-2015
Batch ID: P427644

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P427537

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P427356

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P427625

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: P427217

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	100		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P427201

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427727

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427730

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	98.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P427417

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427434

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427788

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	107		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427398

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: P427333

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P427191

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

Reference Method: SM 2320 B-2011
Batch ID: P427349

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	95.8		P	94 - 106

Reference Method: SM 2540 C-2015
Batch ID: P427644

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

Reference Method: SM 2540 D-2015
Batch ID: P427537

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	99.0		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P427356

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	103		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P427625

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: P427727

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2394077	Chloride	97.0		P	90 - 110
2394243	Chloride	97.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427730

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2394077	Sulfate	95.4		P	90 - 110
2394243	Sulfate	96.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P427417

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2393943	Ammonia-N	105	99.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427434

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2394011	Kjeldahl Nitrogen	97.4	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427788

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2394030	Kjeldahl Nitrogen	98.4	95.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427398

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2393849	NO2NO3-N	99.0	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P427333

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2394042	Total-P	103	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P427191

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2393945	O-Phosphate-P	99.8	100	P/P	90 - 110

Reference Method: SM 5310 B-2011
Batch ID: P427625

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2393846	Organic Carbon	94.0	94.3	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P427217

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394027	Color (true)	0.571	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P427201

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2393841	Turbidity	15.8	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427727

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394077	Chloride	1.78	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P427417

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2393943	Ammonia-N	5.53	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427434

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394011	Kjeldahl Nitrogen	3.06	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427788

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394030	Kjeldahl Nitrogen	2.10	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427398

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2393849	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P427333

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394042	Total-P	1.36	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P427191

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2393945	O-Phosphate-P	0.599	Spike	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P427349

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394010	Total Alkalinity	3.92	Sample	F	0 - 3.8

Reference Method: SM 2540 C-2015
Batch ID: P427644

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2393812	TDS	5.30	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P427356

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394010	Fluoride	0.989	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P427625

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2393846	Organic Carbon	0.266	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: A118012
Included Lab Sample IDs: 2394031, 2394032

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.9	98.7	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A118016
Included Lab Sample IDs: 2394027, 2394028

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	101	P/P	95 - 105
Turbidity	101	100	P/P	95 - 105

Reference Method: DEP SOP: NU-094-1
Run ID: A118035
Included Lab Sample IDs: 2394027, 2394028

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	103	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A118077
Included Lab Sample IDs: 2394027, 2394028

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.1	94.7	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A118077
Included Lab Sample IDs: 2394027, 2394028

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	104	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A118094
Included Lab Sample IDs: 2394029, 2394030

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A118103
Included Lab Sample IDs: 2394029, 2394030

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A118109
Included Lab Sample IDs: 2394029, 2394030

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	96.4	96.5	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A118124
Included Lab Sample IDs: 2394027, 2394028

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	96.4	97.1	P/P	90 - 110
Chloride	97.1	96.3	P/P	90 - 110
Sulfate	96.8	97.5	P/P	90 - 110
Sulfate	97.5	96.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A118158
Included Lab Sample IDs: 2394029

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.8	98.8	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A118179
Included Lab Sample IDs: 2394029, 2394030

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.6	98.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A118343
Included Lab Sample IDs: 2394030

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	101	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
DEP SOP: NU-094-1	Color (true)	100				0.571	
EPA 180.1 Rev. 2.0	Turbidity	100				15.8	
EPA 300.0 Rev. 2.1	Chloride	98.7	97.0	97.3		1.78	
	Sulfate	98.7	95.4	96.4			
EPA 350.1 Rev. 2.0	Ammonia-N	97.8	105	99.0			5.53
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	97.4	101			3.06
	Kjeldahl Nitrogen	107	98.4	95.5			2.10
EPA 353.2 Rev. 2.0	NO2NO3-N	102	99.0	99.0			0.0
EPA 365.1 Rev. 2.0	Total-P	101	103	104			1.36
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101	99.8	100			0.599
SM 2320 B-2011	Total Alkalinity	95.8				3.92	
SM 2540 C-2015	TDS	105				5.30	
SM 2540 D-2015	TSS	99.0					
SM 4500-F- C-2011	Fluoride	103					0.989
SM 5310 B-2011	Organic Carbon	94.8	94.0	94.3			0.266

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2394027, 2394028
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2394027, 2394028
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2394027, 2394028
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2394027, 2394028
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2394029, 2394030
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2394029, 2394030
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2394029, 2394030
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2394029, 2394030
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2394031, 2394032
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2394027, 2394028
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2394027, 2394028
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2394027, 2394028
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2394027, 2394028
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2394029, 2394030

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	03/15/2023			03/15/2023 17:41	Alexis Price	2394027
	03/15/2023			03/15/2023 17:42	Alexis Price	2394028
EPA 180.1 Rev. 2.0	03/15/2023			03/15/2023 16:02	Anna M. Plaviak	2394027
	03/15/2023			03/15/2023 16:03	Anna M. Plaviak	2394028
EPA 300.0 Rev. 2.1	03/15/2023			03/23/2023 14:44	Judith K. Clark	2394027
	03/15/2023			03/23/2023 15:29	Judith K. Clark	2394028
EPA 350.1 Rev. 2.0	03/15/2023			03/21/2023 13:02	Judith K. Clark	2394029
	03/15/2023			03/21/2023 13:04	Judith K. Clark	2394030
EPA 351.2 Rev. 2.0	03/15/2023	03/22/2023 10:42	Simonne.V. Calhoun	03/23/2023 11:55	Judith K. Clark	2394029
	03/15/2023	03/29/2023 15:39	Simonne.V. Calhoun	04/03/2023 12:18	Samantha L Bates	2394030
EPA 353.2 Rev. 2.0	03/15/2023			03/21/2023 10:12	Beverly Y. Sanders	2394029
	03/15/2023			03/21/2023 10:13	Beverly Y. Sanders	2394030
EPA 365.1 Rev. 2.0	03/15/2023	03/20/2023 14:58	Adam P Silver	03/21/2023 09:52	James L Waggerby	2394029
	03/15/2023	03/20/2023 14:58	Adam P Silver	03/21/2023 09:54	James L Waggerby	2394030
EPA 365.1 Rev. 2.0 dissolved	03/15/2023			03/15/2023 15:06	Elise M. Gillis	2394032
	03/15/2023			03/15/2023 15:07	Elise M. Gillis	2394031
SM 2320 B-2011	03/15/2023			03/18/2023 12:07	Dale L. Simmons	2394027
	03/15/2023			03/18/2023 12:32	Dale L. Simmons	2394028
SM 2540 C-2015	03/15/2023			03/17/2023 15:51	Yijie Li	2394027, 2394028
SM 2540 D-2015	03/15/2023			03/17/2023 15:51	Yijie Li	2394027, 2394028
SM 4500-F- C-2011	03/15/2023			03/18/2023 12:07	Dale L. Simmons	2394027
	03/15/2023			03/18/2023 12:32	Dale L. Simmons	2394028
SM 5310 B-2011	03/15/2023			03/23/2023 21:42	Elise M. Gillis	2394029
	03/15/2023			03/23/2023 21:57	Elise M. Gillis	2394030