Chemical Analysis Report

CEN-DIST-2021-09-02-01

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

Event Description: **Little Sawgrass Lake Drain + Blank**
Request ID: **RQ-2021-08-30-45**
Customer: **CEN-DIST**
Project ID: **SMP**

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.
Liang-Tsair Lin, Ph.D.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Thekkekalathil Chandrasekhar, Environmental Consultant Date Certified: 27-SEP-2021 10:41

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: SJR at Inlet to Little Lake Sawgrass **Collection Date/Time: 09/01/2021 13:00**

Field ID: G3CE0017 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2273264	EPA 180.1 Rev. 2.0	Turbidity	1.6		NTU	P403332	
	EPA 300.0 Rev. 2.1	Chloride	110		mg Cl/L	P403499	
		Sulfate	22		mg SO4/L	P403500	
	SM 2120 B-2011	Color (true)	200		PCU	P403334	
	SM 2320 B-2011	Total Alkalinity	99		mg CaCO3/L	P403437	
	SM 2540 C-2011	TDS	395	A	mg/L	P403573	
	SM 2540 D-2011	TSS	2	I A	mg/L	P403569	
	SM 4500 F-C-2011	Fluoride	0.24		mg F/L	P403438	
2273266	EPA 350.1 Rev. 2.0	Ammonia-N	0.032		mg N/L	P403363	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.6		mg N/L	P403509	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P403349	
	EPA 365.1 Rev. 2.0	Total-P	0.10		mg P/L	P403425	
	SM 5310 B-2011	Organic Carbon	27		mg C/L	P403549	
2273268	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.062		mg P/L	P403337	

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-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: FB **Collection Date/Time: 09/01/2021 13:22**

Field ID: FB_09012021 Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2273265	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P403332	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P403499	
		Sulfate	0.20	U	mg SO4/L	P403500	
	SM 2120 B-2011	Color (true)	2.5	U	PCU	P403335	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P403437	
	SM 2540 C-2011	TDS	15	U	mg/L	P403572	
	SM 2540 D-2011	TSS	2	U	mg/L	P403568	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P403438	
2273267	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P403363	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P403509	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P403349	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P403427	
	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P403549	
2273269	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P403337	

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-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries and relative percent difference are unavailable because of analytical difficulties.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P403332

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P403499

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P403500

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P403363

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P403509

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P403349

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P403425

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P403427

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P403337

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

Quality Assurance Report
Method Blank Results

Reference Method: SM 2120 B-2011
Batch ID: P403334

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B-2011
Batch ID: P403335

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P403437

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

Reference Method: SM 2540 C-2011
Batch ID: P403572

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2011
Batch ID: P403573

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P403568

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P403569

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P403438

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P403549

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: P403499

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P403500

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P403363

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: P403509

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P403349

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P403425

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	108		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P403427

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P403337

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.6		P	90 - 110

Reference Method: SM 2120 B-2011
Batch ID: P403334

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.8		P	85 - 115

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2120 B-2011
Batch ID: P403335

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.1		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P403437

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	94 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P403438

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.5		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P403549

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: P403499

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2273152	Chloride	99.6		P	90 - 110
2273276	Chloride	99.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P403500

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2273152	Sulfate	100		P	90 - 110
2273276	Sulfate	99.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P403363

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2273230	Ammonia-N	98.2	97.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P403349

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2273335	NO2NO3-N	100	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P403425

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2273225	Total-P	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P403337

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2273268	O-Phosphate-P	100	99.2	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Batch ID: P403438

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2273302	Fluoride	97.6	100	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P403549

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2273256	Organic Carbon	95.6	95.4	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P403332

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2273152	Turbidity	10.5	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P403499

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2273152	Chloride	0.969	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P403363

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2273230	Ammonia-N	0.540	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P403509

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2273208	Kjeldahl Nitrogen	2.92	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P403349

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2273335	NO2NO3-N	0.496	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P403425

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2273225	Total-P	0.397	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P403337

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2273268	O-Phosphate-P	0.495	Spike	P	0 - 20

Reference Method: SM 2120 B-2011
Batch ID: P403334

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2273207	Color (true)	0.546	Sample	P	0 - 20

Quality Assurance Report
Precision

Reference Method: SM 2120 B-2011
Batch ID: P403335

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2273302	Color (true)	0.772	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P403437

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2273302	Total Alkalinity	1.28	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P403572

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2273023	TDS	5.53	Sample	P	0 - 10

Reference Method: SM 2540 C-2011
Batch ID: P403573

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2273264	TDS	1.01	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P403438

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2273302	Fluoride	1.90	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P403549

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2273256	Organic Carbon	0.137	Spike	P	0 - 20

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A107623
Included Lab Sample IDs: 2273264, 2273265

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

Reference Method: SM 2120 B-2011
Run ID: A107624
Included Lab Sample IDs: 2273264, 2273265

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	101	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A107625
Included Lab Sample IDs: 2273268, 2273269

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.4	97.4	P/P	90 - 110
O-Phosphate-P	98.4	97.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A107639
Included Lab Sample IDs: 2273266, 2273267

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A107641
Included Lab Sample IDs: 2273266, 2273267

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.9	98.3	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A107669
Included Lab Sample IDs: 2273264, 2273265

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	104	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Run ID: A107669
Included Lab Sample IDs: 2273264, 2273265

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A107673
Included Lab Sample IDs: 2273266

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.6	96.6	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A107678
Included Lab Sample IDs: 2273267

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A107690
Included Lab Sample IDs: 2273264, 2273265

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	101	P/P	90 - 110
Sulfate	99.6	99.7	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A107704
Included Lab Sample IDs: 2273266, 2273267

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.2	98.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A107739
Included Lab Sample IDs: 2273266, 2273267

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	105	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					10.5	
EPA 300.0 Rev. 2.1	Chloride	100	99.6	99.5		0.969	
	Sulfate	100	100	99.9			
EPA 350.1 Rev. 2.0	Ammonia-N	100	98.2	97.4			0.540
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105					2.92
EPA 353.2 Rev. 2.0	NO2NO3-N	103	100	101			0.496
EPA 365.1 Rev. 2.0	Total-P	108	102	102			0.397
	Total-P	105					
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.6	100	99.2			0.495
SM 2120 B-2011	Color (true)	99.8				0.546	
	Color (true)	99.1				0.772	
SM 2320 B-2011	Total Alkalinity	103				1.28	
SM 2540 C-2011	TDS					5.53	
	TDS					1.01	
SM 4500 F-C-2011	Fluoride	99.5	97.6	100			1.90
SM 5310 B-2011	Organic Carbon	94.8	95.6	95.4			0.137

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2273264, 2273265
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2273264, 2273265
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2273264, 2273265
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2273266, 2273267
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2273266, 2273267
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2273266, 2273267
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2273266, 2273267
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2273268, 2273269
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2273264, 2273265
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2273264, 2273265
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2273264, 2273265
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2273264, 2273265
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2273264, 2273265
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2273266, 2273267

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	09/02/2021			09/02/2021 13:29	Sarah A Nixon	2273264, 2273265
EPA 300.0 Rev. 2.1	09/02/2021			09/08/2021 17:08	Roberta Tatti	2273264
	09/02/2021			09/08/2021 17:20	Roberta Tatti	2273265
EPA 350.1 Rev. 2.0	09/02/2021			09/03/2021 13:26	Ping Hua	2273266
	09/02/2021			09/03/2021 13:27	Ping Hua	2273267
EPA 351.2 Rev. 2.0	09/02/2021	09/09/2021 12:30	Benjamin T. Nordmann	09/10/2021 11:31	Virginia P. Brown	2273266
	09/02/2021	09/09/2021 12:30	Benjamin T. Nordmann	09/10/2021 11:33	Virginia P. Brown	2273267
EPA 353.2 Rev. 2.0	09/02/2021			09/03/2021 10:05	Beverly Y. Sanders	2273266
	09/02/2021			09/03/2021 10:06	Beverly Y. Sanders	2273267
EPA 365.1 Rev. 2.0	09/02/2021	09/07/2021 15:50	Simonne.V. Calhoun	09/08/2021 10:32	Shengyu Ding	2273266
	09/02/2021	09/07/2021 15:50	Simonne.V. Calhoun	09/08/2021 14:56	Lipi Saha	2273267
EPA 365.1 Rev. 2.0 dissolved	09/02/2021			09/02/2021 16:43	James L Waggerby	2273268
	09/02/2021			09/02/2021 16:50	James L Waggerby	2273269
SM 2120 B-2011	09/02/2021			09/02/2021 15:14	Sarah A Nixon	2273265
	09/02/2021			09/02/2021 15:18	Sarah A Nixon	2273264
SM 2320 B-2011	09/02/2021			09/07/2021 20:22	Sarah A Nixon	2273264
	09/02/2021			09/07/2021 20:39	Sarah A Nixon	2273265
SM 2540 C-2011	09/02/2021			09/03/2021 14:31	Yijie Li	2273264, 2273265
SM 2540 D-2011	09/02/2021			09/03/2021 14:31	Yijie Li	2273264, 2273265
SM 4500 F-C-2011	09/02/2021			09/07/2021 20:22	Sarah A Nixon	2273264
	09/02/2021			09/07/2021 20:39	Sarah A Nixon	2273265
SM 5310 B-2011	09/02/2021			09/09/2021 03:14	Madeline Gruver	2273266
	09/02/2021			09/09/2021 03:27	Madeline Gruver	2273267