

Chemical Analysis Report

CEN-DIST-2021-11-19-01

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

Event Description: **Little Sawgrass + Blank**
Request ID: **RQ-2021-11-15-56**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767
Attn: Matt 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: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 13-DEC-2021 11:29

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line above the first name.

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: Little Sawgrass Lake - Center

Collection Date/Time: 11/18/2021 11:17

Field ID: G3CE0051

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2290772	EPA 180.1 Rev. 2.0	Turbidity	1.5		NTU	P406604	
	EPA 300.0 Rev. 2.1	Chloride	73		mg Cl/L	P407153	
		Sulfate	12		mg SO4/L	P407156	
	SM 2120 B-2011	Color (true)	220		PCU	P406601	
	SM 2320 B-2011	Total Alkalinity	66		mg CaCO3/L	P406782	
	SM 2540 C-2011	TDS	265		mg/L	P406957	
	SM 2540 D-2011	TSS	2	U	mg/L	P406928	
	SM 4500 F-C-2011	Fluoride	0.13		mg F/L	P406785	
2290773	EPA 350.1 Rev. 2.0	Ammonia-N	0.053		mg N/L	P406852	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P406866	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.035		mg N/L	P406644	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P406640	
	SM 5310 B-2011	Organic Carbon	32		mg C/L	P407059	
2290774	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.085		mg P/L	P406586	

Ref. Method and Comment:

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

Sample Location: FB

Collection Date/Time: 11/18/2021 11:53

Field ID: FB_11182021

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2290775	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P406604	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P407153	
		Sulfate	0.20	U	mg SO4/L	P407156	
	SM 2120 B-2011	Color (true)	2.5	U	PCU	P406601	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P406782	
	SM 2540 C-2011	TDS	15	U	mg/L	P406957	
	SM 2540 D-2011	TSS	2	U	mg/L	P406928	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P406785	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P406852	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P406866	
2290776	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P406645	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P406640	
	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P407059	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.004	U	mg P/L	P406586	
	dissolved						

Ref. Method and Comment:

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P406604

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P407153

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P407156

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P406852

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P406866

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P406644

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P406645

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P406640

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P406586

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: P406601

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P406782

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

Reference Method: SM 2540 C-2011
Batch ID: P406957

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P406928

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P406785

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P407059

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: P407153

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P407156

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P406852

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: P406866

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	97.7		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P406644

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P406645

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P406640

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: P406586

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

Reference Method: SM 2120 B-2011
Batch ID: P406601

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P406782

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	94 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P406785

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	100		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P407059

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	100		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P407153

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2290422	Chloride	98.9		P	90 - 110
2290693	Chloride	97.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P407156

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2290422	Sulfate	94.8		P	90 - 110
2290693	Sulfate	96.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P406852

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2290730	Ammonia-N	92.4	94.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P406866

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2290699	Kjeldahl Nitrogen	98.0	94.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P406644

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2290694	NO2NO3-N	97.5	97.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P406645

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2290781	NO2NO3-N	94.9	95.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P406640

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2290767	Total-P	104	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P406586

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2290768	O-Phosphate-P	95.8	97.0	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Batch ID: P406785

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2291000	Fluoride	98.1	98.6	P/P	92 - 107

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P407059

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2289981	Organic Carbon	98.7		P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P406604

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2290802	Turbidity	1.15	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P407153

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2290422	Chloride	1.04	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P407156

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2290422	Sulfate	0.908	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P406852

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2290730	Ammonia-N	2.14	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P406866

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2290699	Kjeldahl Nitrogen	3.25	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P406644

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2290694	NO2NO3-N	0.514	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P406645

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2290781	NO2NO3-N	0.512	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P406640

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2290767	Total-P	4.12	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P406586

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2290768	O-Phosphate-P	1.16	Spike	P	0 - 20

Reference Method: SM 2120 B-2011
Batch ID: P406601

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2290802	Color (true)	1.26	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P406782

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2291000	Total Alkalinity	0.637	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P406957

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2290374	TDS	5.50	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P406785

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2291000	Fluoride	0.487	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P407059

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2289981	Organic Carbon	1.09	Sample	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: A109002

Included Lab Sample IDs: 2290774, 2290777

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.1	99.7	P/P	90 - 110

Reference Method: SM 2120 B-2011

Run ID: A109007

Included Lab Sample IDs: 2290772, 2290775

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

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A109009

Included Lab Sample IDs: 2290772, 2290775

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A109030

Included Lab Sample IDs: 2290773, 2290776

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	97.5	98.0	P/P	90 - 110
NO2NO3-N	98.0	97.5	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A109109

Included Lab Sample IDs: 2290772, 2290775

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.0	99.9	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A109109

Included Lab Sample IDs: 2290772, 2290775

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A109121

Included Lab Sample IDs: 2290773

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A109129

Included Lab Sample IDs: 2290773, 2290776

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.9	98.3	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A109136

Included Lab Sample IDs: 2290776

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A109193

Included Lab Sample IDs: 2290773, 2290776

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.3	98.2	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A109215

Included Lab Sample IDs: 2290773, 2290776

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.8	98.6	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A109256

Included Lab Sample IDs: 2290772, 2290775

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	101	P/P	90 - 110
Sulfate	99.3	100	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
EPA 180.1 Rev. 2.0	Turbidity				1.15	
EPA 300.0 Rev. 2.1	Chloride	101	98.9	97.9	1.04	
	Sulfate	99.6	94.8	96.4	0.908	
EPA 350.1 Rev. 2.0	Ammonia-N	97.8	92.4	94.8		2.14
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.7	98.0	94.4		3.25
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	99.0	97.5	97.0		0.514
	NO ₂ NO ₃ -N	99.0	94.9	95.4		0.512
EPA 365.1 Rev. 2.0	Total-P	103	104	108		4.12
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.0	95.8	97.0		1.16
SM 2120 B-2011	Color (true)	101			1.26	
SM 2320 B-2011	Total Alkalinity	101			0.637	
SM 2540 C-2011	TDS				5.50	
SM 4500 F-C-2011	Fluoride	100	98.1	98.6		0.487
SM 5310 B-2011	Organic Carbon	100	98.7		1.09	

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2290772, 2290775
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2290772, 2290775
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2290772, 2290775
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2290773, 2290776
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2290773, 2290776
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2290773, 2290776
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2290773, 2290776
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2290774, 2290777
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2290772, 2290775
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2290772, 2290775
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2290772, 2290775
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2290772, 2290775
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2290772, 2290775
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2290773, 2290776

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	11/19/2021			11/19/2021 17:11	Khloe J Berg	2290772, 2290775
EPA 300.0 Rev. 2.1	11/19/2021			12/06/2021 22:18	James L Waggeberby	2290772
	11/19/2021			12/06/2021 22:30	James L Waggeberby	2290775
EPA 350.1 Rev. 2.0	11/19/2021			11/30/2021 14:24	Ping Hua	2290773
	11/19/2021			11/30/2021 14:28	Ping Hua	2290776
EPA 351.2 Rev. 2.0	11/19/2021	12/01/2021 12:54	Benjamin T. Nordmann	12/03/2021 10:02	Alexandra J Mattheus	2290773
	11/19/2021	12/01/2021 12:54	Benjamin T. Nordmann	12/03/2021 10:04	Alexandra J Mattheus	2290776
EPA 353.2 Rev. 2.0	11/19/2021			11/22/2021 09:38	Beverly Y. Sanders	2290773
	11/19/2021			11/22/2021 09:51	Beverly Y. Sanders	2290776
EPA 365.1 Rev. 2.0	11/19/2021	11/23/2021 12:38	Simonne.V. Calhoun	11/24/2021 12:29	Sarah A Nixon	2290773
	11/19/2021	11/23/2021 12:38	Simonne.V. Calhoun	11/29/2021 19:55	Sarah A Nixon	2290776
EPA 365.1 Rev. 2.0 dissolved	11/19/2021			11/19/2021 14:02	James L Waggeberby	2290774
	11/19/2021			11/19/2021 14:03	James L Waggeberby	2290777
SM 2120 B-2011	11/19/2021			11/19/2021 16:36	Benjamin T. Nordmann	2290775
	11/19/2021			11/19/2021 16:40	Benjamin T. Nordmann	2290772
SM 2320 B-2011	11/19/2021			11/24/2021 20:18	Dale L. Simmons	2290772
	11/19/2021			11/24/2021 20:26	Dale L. Simmons	2290775
SM 2540 C-2011	11/19/2021			11/23/2021 15:02	Yijie Li	2290772, 2290775
SM 2540 D-2011	11/19/2021			11/23/2021 15:02	Yijie Li	2290772, 2290775
SM 4500 F-C-2011	11/19/2021			11/24/2021 20:18	Dale L. Simmons	2290772
	11/19/2021			11/24/2021 20:26	Dale L. Simmons	2290775
SM 5310 B-2011	11/19/2021			12/04/2021 05:11	Touraj Touran	2290773
	11/19/2021			12/04/2021 05:25	Touraj Touran	2290776