Chemical Analysis Report

SO-DIST-2021-05-07-01

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

Event Description: **2021 SMP : Everglades**
Request ID: **RQ-2021-04-26-50**
Customer: **SO-DIST**
Project ID: **SMP**

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FLDEP South District Office
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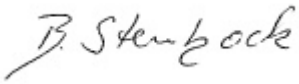
Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator Date Certified: 28-MAY-2021 16:49



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: 8066 @ ENRE5 **Collection Date/Time: 05/06/2021 13:05**

Field ID: G5SD0039 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2246080	EPA 180.1 Rev. 2.0	Turbidity	2.1		NTU	P397845	
	EPA 300.0 Rev. 2.1	Bromide	71		mg Br/L	P398034	
	SM 2320 B-2011	Total Alkalinity	131		mg CaCO3/L	P398481	
	SM 2540 D-2011	TSS	3	I A	mg/L	P398298	
	SM 4500 F-C-2011	Fluoride	1.2		mg F/L	P398907	
2246083	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P397989	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.29	I	mg N/L	P398358	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P397847	
	EPA 365.1 Rev. 2.0	Total-P	0.015		mg P/L	P398211	
	SM 5310 B-2011	Organic Carbon	3.7		mg C/L	P397943	
2246086	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P397829	

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: 8069 - ENRE5 **Collection Date/Time: 05/06/2021 11:30**

Field ID: G5SD0036 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2246081	EPA 180.1 Rev. 2.0	Turbidity	3.3		NTU	P397845	
	EPA 300.0 Rev. 2.1	Bromide	74		mg Br/L	P398034	
	SM 2320 B-2011	Total Alkalinity	127		mg CaCO3/L	P398481	
	SM 2540 D-2011	TSS	3	U	mg/L	P398298	
	SM 4500 F-C-2011	Fluoride	1.3		mg F/L	P398907	
2246084	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P398217	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.27	I	mg N/L	P398358	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P397850	
	EPA 365.1 Rev. 2.0	Total-P	0.013		mg P/L	P398211	
	SM 5310 B-2011	Organic Carbon	2.8		mg C/L	P397943	
2246087	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P397829	

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: 8067 ENRE 9 Near First Bay **Collection Date/Time: 05/06/2021 12:20**

Field ID: G5SD0107 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2246082	EPA 180.1 Rev. 2.0	Turbidity	4.0		NTU	P397845	
	EPA 300.0 Rev. 2.1	Bromide	65		mg Br/L	P398034	
	SM 2320 B-2011	Total Alkalinity	157		mg CaCO3/L	P398481	
	SM 2540 D-2011	TSS	3	U	mg/L	P398298	
	SM 4500 F-C-2011	Fluoride	0.18	U	mg F/L	P398907	
2246085	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P398217	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.37	I	mg N/L	P398358	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.013		mg N/L	P398059	
	EPA 365.1 Rev. 2.0	Total-P	0.014		mg P/L	P398211	
	SM 5310 B-2011	Organic Carbon	5.2		mg C/L	P397943	
2246088	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P397829	

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: P397845

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P398034

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397989

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P398217

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P398358

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P397847

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P397850

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P398059

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P398211

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: P397829

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

Reference Method: SM 2320 B-2011
Batch ID: P398481

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

Reference Method: SM 2540 D-2011
Batch ID: P398298

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P398907

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P397943

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: P398034

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bromide	98.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397989

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P398217

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.6		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P398358

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P397847

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: P397850

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: P398059

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: P398211

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: P397829

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P398481

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.4		P	94 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P398907

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.8		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P397943

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.2		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P398034

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2242702	Bromide	98.9	97.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397989

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2243405	Ammonia-N	107	108	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P398217

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2247629	Ammonia-N	99.4	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P398358

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2246063	Kjeldahl Nitrogen	106	109	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P397847

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2246033	NO2NO3-N	102	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P397850

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2244905	NO2NO3-N	100	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P398059

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2245650	NO2NO3-N	95.5	95.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P398211

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2245824	Total-P	98.6	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P397829

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2246086	O-Phosphate-P	102	102	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P398907

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2249294	Fluoride	96.9	98.3	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P397943

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2245643	Organic Carbon	95.1	95.3	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P397845

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2246132	Turbidity	0.647	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P398034

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2242702	Bromide	0.622	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397989

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2243405	Ammonia-N	0.782	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P398217

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2247629	Ammonia-N	0.955	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P398358

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2246063	Kjeldahl Nitrogen	1.83	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P397847

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2246033	NO2NO3-N	0.990	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P397850

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2244905	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P398059

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2245650	NO2NO3-N	0.0	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P398211

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2245824	Total-P	0.356	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P397829

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2246086	O-Phosphate-P	0.294	Spike	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P398481

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2245647	Total Alkalinity	0.0426	Sample	P	0 - 5.2

Reference Method: SM 4500 F-C-2011
Batch ID: P398907

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2249294	Fluoride	0.960	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P397943

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2245643	Organic Carbon	0.171	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: A105253
Included Lab Sample IDs: 2246086, 2246087, 2246088

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

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A105258
Included Lab Sample IDs: 2246080, 2246081, 2246082

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.0	98.5	P/P	95 - 105

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A105259
Included Lab Sample IDs: 2246083, 2246084

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	100	P/P	90 - 110
NO2NO3-N	100	100	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A105310
Included Lab Sample IDs: 2246083, 2246084, 2246085

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.2	96.8	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A105326
Included Lab Sample IDs: 2246080, 2246081, 2246082

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromide	102	99.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A105340
Included Lab Sample IDs: 2246083

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A105364
Included Lab Sample IDs: 2246085

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A105430
Included Lab Sample IDs: 2246084, 2246085

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits

Quality Assurance Report
Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A105430
Included Lab Sample IDs: 2246084, 2246085

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.0	98.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A105464
Included Lab Sample IDs: 2246083, 2246084, 2246085

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.2	99.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A105542
Included Lab Sample IDs: 2246083, 2246084, 2246085

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	94.8	97.7	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A105548
Included Lab Sample IDs: 2246080, 2246081, 2246082

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.4	98.9	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Run ID: A105721
Included Lab Sample IDs: 2246080, 2246081, 2246082

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	102	102	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					0.647	
EPA 300.0 Rev. 2.1	Bromide	98.4	98.9	97.8			0.622
EPA 350.1 Rev. 2.0	Ammonia-N	99.4	107	108			0.782
	Ammonia-N	96.6	99.4	100			0.955
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.8	106	109			1.83
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0	102	100			0.990
	NO2NO3-N	99.0	100	100			0.0
	NO2NO3-N	99.0	95.5	95.5			0.0
EPA 365.1 Rev. 2.0	Total-P	105	98.6	99.0			0.356
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	103	102	102			0.294
SM 2320 B-2011	Total Alkalinity	98.4				0.0426	
SM 4500 F-C-2011	Fluoride	99.8	96.9	98.3			0.960
SM 5310 B-2011	Organic Carbon	96.2	95.1	95.3			0.171

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2246080, 2246081, 2246082
EPA 300.0 Rev. 2.1	Bromide in aqueous matrices	2246080, 2246081, 2246082
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2246083, 2246084, 2246085
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2246083, 2246084, 2246085
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2246083, 2246084, 2246085
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2246083, 2246084, 2246085
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2246086, 2246087, 2246088
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2246080, 2246081, 2246082
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2246080, 2246081, 2246082
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2246080, 2246081, 2246082
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2246083, 2246084, 2246085

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	05/07/2021			05/07/2021 15:26	Yen Ta	2246080, 2246081, 2246082
EPA 300.0 Rev. 2.1	05/07/2021			05/11/2021 22:54	Lipi Saha	2246080
	05/07/2021			05/11/2021 23:12	Lipi Saha	2246081
	05/07/2021			05/11/2021 23:31	Lipi Saha	2246082
EPA 350.1 Rev. 2.0	05/07/2021			05/11/2021 13:32	Ping Hua	2246083
	05/07/2021			05/14/2021 12:40	Ping Hua	2246084
	05/07/2021			05/14/2021 12:42	Ping Hua	2246085
EPA 351.2 Rev. 2.0	05/07/2021	05/18/2021 13:32	Benjamin T. Nordmann	05/19/2021 15:36	Virginia P. Brown	2246083
	05/07/2021	05/18/2021 13:32	Benjamin T. Nordmann	05/19/2021 15:37	Virginia P. Brown	2246084
	05/07/2021	05/18/2021 13:32	Benjamin T. Nordmann	05/19/2021 15:39	Virginia P. Brown	2246085
EPA 353.2 Rev. 2.0	05/07/2021			05/07/2021 15:54	Touraj Touran	2246083
	05/07/2021			05/07/2021 17:06	Touraj Touran	2246084
	05/07/2021			05/12/2021 10:33	Beverly Y. Sanders	2246085
EPA 365.1 Rev. 2.0	05/07/2021	05/14/2021 13:32	Yen Ta	05/17/2021 14:22	Shengyu Ding	2246083
	05/07/2021	05/14/2021 13:32	Yen Ta	05/17/2021 14:23	Shengyu Ding	2246084
	05/07/2021	05/14/2021 13:32	Yen Ta	05/17/2021 14:24	Shengyu Ding	2246085
EPA 365.1 Rev. 2.0 dissolved	05/07/2021			05/07/2021 12:15	Lipi Saha	2246086
	05/07/2021			05/07/2021 12:24	Lipi Saha	2246087
	05/07/2021			05/07/2021 12:25	Lipi Saha	2246088
SM 2320 B-2011	05/07/2021			05/19/2021 00:31	Dale L. Simmons	2246080
	05/07/2021			05/19/2021 00:43	Dale L. Simmons	2246081
	05/07/2021			05/19/2021 00:55	Dale L. Simmons	2246082
SM 2540 D-2011	05/07/2021			05/11/2021 15:02	Yijie Li	2246080, 2246081, 2246082
SM 4500 F-C-2011	05/07/2021			05/27/2021 02:43	Dale L. Simmons	2246080
	05/07/2021			05/27/2021 02:48	Dale L. Simmons	2246081
	05/07/2021			05/27/2021 02:54	Dale L. Simmons	2246082
SM 5310 B-2011	05/07/2021			05/11/2021 04:33	Madeline Gruver	2246083
	05/07/2021			05/11/2021 04:48	Madeline Gruver	2246084
	05/07/2021			05/11/2021 05:01	Madeline Gruver	2246085