Chemical Analysis Report

CEN-DIST-2021-02-23-01

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

Event Description: **Adelaide/Lotus/Asher/Florida**
Request ID: **RQ-2021-02-08-16**
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: Kalina Warren

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: Colin Wright, Program Administrator

Date Certified: 16-MAR-2021 10:19

Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical group are included in this report: Nutrients.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited by the Florida Department of Health Environmental Laboratory Certification Program or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: Lake Florida @ Center of Lake **Collection Date/Time: 02/22/2021 12:17**

Field ID: G2CE0150 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2226417	EPA 180.1 Rev. 2.0	Turbidity	2.6		NTU	P394119	
	EPA 300.0 Rev. 2.1	Chloride	15		mg Cl/L	P394241	
		Sulfate	3.4		mg SO4/L	P394243	
	SM 2120 B-2011	Color (true)	79		PCU	P394122	
	SM 2320 B-2011	Total Alkalinity	42		mg CaCO3/L	P394419	
	SM 2540 C-2011	TDS	102		mg/L	P394602	
	SM 2540 D-2011	TSS	3	I	mg/L	P394529	
	SM 4500 F-C-2011	Fluoride	0.068	I	mg F/L	P394357	
2226418	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P394299	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.85		mg N/L	P394205	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P394136	
	EPA 365.1 Rev. 2.0	Total-P	0.059		mg P/L	P394154	
	SM 5310 B-2011	Organic Carbon	13		mg C/L	P394646	
2226419	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.006	I	mg P/L	P394103	

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: Lake Adelaide @ Center **Collection Date/Time: 02/22/2021 11:22**

Field ID: G2CE0151 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2226414	EPA 180.1 Rev. 2.0	Turbidity	3.0	A	NTU	P394119	
	EPA 300.0 Rev. 2.1	Chloride	21		mg Cl/L	P394241	
		Sulfate	7.9		mg SO4/L	P394243	
	SM 2120 B-2011	Color (true)	49		PCU	P394122	
	SM 2320 B-2011	Total Alkalinity	40		mg CaCO3/L	P394419	
	SM 2540 C-2011	TDS	109	A	mg/L	P394602	
	SM 2540 D-2011	TSS	3	I A	mg/L	P394529	
	SM 4500 F-C-2011	Fluoride	0.059	I	mg F/L	P394357	
2226415	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P394299	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.75		mg N/L	P394205	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P394133	
	EPA 365.1 Rev. 2.0	Total-P	0.053		mg P/L	P394154	
	SM 5310 B-2011	Organic Carbon	9.5		mg C/L	P394646	
2226416	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P394102	

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: P394119

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P394241

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P394243

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P394299

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P394205

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P394133

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P394136

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P394154

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P394102

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P394103

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

Reference Method: SM 2120 B-2011
Batch ID: P394122

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P394419

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

Reference Method: SM 2540 C-2011
Batch ID: P394602

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P394529

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P394357

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P394646

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: P394241

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P394243

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P394299

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P394205

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: P394133

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	98.5		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P394136

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: P394154

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: P394102

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P394103

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2120 B-2011
Batch ID: P394122

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.3		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P394419

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	94.7		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P394357

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.6		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P394646

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

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P394241

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226363	Chloride	102		P	90 - 110
2226434	Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P394243

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226363	Sulfate	100		P	90 - 110
2226434	Sulfate	107		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P394299

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226370	Ammonia-N	98.6	99.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P394205

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226418	Kjeldahl Nitrogen	104	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P394133

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226338	NO2NO3-N	96.5	96.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P394136

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226418	NO2NO3-N	97.5	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P394154

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226415	Total-P	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P394102

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226339	O-Phosphate-P	95.7	96.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P394103

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226419	O-Phosphate-P	94.6	94.4	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P394357

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226434	Fluoride	101	102	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P394646

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2226372	Organic Carbon	95.6	96.4	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P394119

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226414	Turbidity	3.38	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P394241

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226434	Chloride	2.07	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P394243

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226434	Sulfate	2.38	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P394299

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226370	Ammonia-N	0.293	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P394205

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226418	Kjeldahl Nitrogen	1.21	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P394133

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226338	NO2NO3-N	0.277	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P394136

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226418	NO2NO3-N	1.02	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P394154

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226415	Total-P	0.213	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P394102

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226339	O-Phosphate-P	0.663	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P394103

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226419	O-Phosphate-P	0.198	Spike	P	0 - 20

Reference Method: SM 2120 B-2011
Batch ID: P394122

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226364	Color (true)	8.22	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P394419

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226443	Total Alkalinity	2.25	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
Batch ID: P394602

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226414	TDS	0.0	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P394357

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226434	Fluoride	0.953	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P394646

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2226372	Organic Carbon	0.568	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: A103726
Included Lab Sample IDs: 2226416, 2226419

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.0	98.9	P/P	90 - 110

Reference Method: SM 2120 B-2011
Run ID: A103729
Included Lab Sample IDs: 2226414, 2226417

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.7	101	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A103730
Included Lab Sample IDs: 2226414, 2226417

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	102	102	P/P	95 - 105

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A103736
Included Lab Sample IDs: 2226415, 2226418

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A103737
Included Lab Sample IDs: 2226414, 2226417

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.6	101	P/P	90 - 110
Sulfate	98.8	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A103747
Included Lab Sample IDs: 2226415, 2226418

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A103798
Included Lab Sample IDs: 2226415, 2226418

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	93.2	97.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A103809
Included Lab Sample IDs: 2226415, 2226418

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A103809
Included Lab Sample IDs: 2226415, 2226418

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	98.7	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Run ID: A103840
Included Lab Sample IDs: 2226414, 2226417

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

Reference Method: SM 2320 B-2011
Run ID: A103855
Included Lab Sample IDs: 2226414, 2226417

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	90.7	93.3	P/P	90 - 110
Total Alkalinity	93.5	90.7	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A103961
Included Lab Sample IDs: 2226415, 2226418

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.7	95.6	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					3.38	
EPA 300.0 Rev. 2.1	Chloride	102	103	102		2.07	
	Sulfate	101	107	100		2.38	
EPA 350.1 Rev. 2.0	Ammonia-N	101	98.6	99.0			0.293
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	107	104	102			1.21
EPA 353.2 Rev. 2.0	NO2NO3-N	98.5	96.5	96.0			0.277
	NO2NO3-N	99.0	97.5	98.5			1.02
EPA 365.1 Rev. 2.0	Total-P	103	104	104			0.213
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.2	95.7	96.5			0.663
	O-Phosphate-P	101	94.6	94.4			0.198
SM 2120 B-2011	Color (true)	98.3				8.22	
SM 2320 B-2011	Total Alkalinity	94.7				2.25	
SM 2540 C-2011	TDS					0.0	
SM 4500 F-C-2011	Fluoride	98.6	101	102			0.953
SM 5310 B-2011	Organic Carbon	95.3	95.6	96.4			0.568

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2226414, 2226417
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2226414, 2226417
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2226414, 2226417
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2226415, 2226418
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2226415, 2226418
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2226415, 2226418
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2226415, 2226418
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2226416, 2226419
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2226414, 2226417
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2226414, 2226417
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2226414, 2226417
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2226414, 2226417
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2226414, 2226417
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2226415, 2226418

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	02/23/2021			02/23/2021 15:14	Yen Ta	2226414, 2226417
EPA 300.0 Rev. 2.1	02/23/2021			02/24/2021 22:43	Lipi Saha	2226414
	02/23/2021			02/24/2021 22:55	Lipi Saha	2226417
EPA 350.1 Rev. 2.0	02/23/2021			02/27/2021 13:23	Ping Hua	2226415
	02/23/2021			02/27/2021 13:25	Ping Hua	2226418
EPA 351.2 Rev. 2.0	02/23/2021	02/25/2021 12:02	Yen Ta	02/26/2021 14:21	Virginia P. Brown	2226415
	02/23/2021	02/25/2021 12:02	Yen Ta	02/26/2021 14:23	Virginia P. Brown	2226418
EPA 353.2 Rev. 2.0	02/23/2021			02/24/2021 08:44	Beverly Y. Sanders	2226415
	02/23/2021			02/24/2021 08:51	Beverly Y. Sanders	2226418
EPA 365.1 Rev. 2.0	02/23/2021	02/24/2021 11:30	Shengyu Wang	02/24/2021 15:34	Shengyu Wang	2226415
	02/23/2021	02/24/2021 11:30	Shengyu Wang	02/24/2021 15:39	Shengyu Wang	2226418
EPA 365.1 Rev. 2.0 dissolved	02/23/2021			02/23/2021 13:48	Lipi Saha	2226416
	02/23/2021			02/23/2021 13:51	Lipi Saha	2226419
SM 2120 B-2011	02/23/2021			02/23/2021 16:17	Benjamin T. Nordmann	2226414
	02/23/2021			02/23/2021 16:18	Benjamin T. Nordmann	2226417
SM 2320 B-2011	02/23/2021			03/02/2021 12:43	Dale L. Simmons	2226414
	02/23/2021			03/02/2021 16:27	Dale L. Simmons	2226417
SM 2540 C-2011	02/23/2021			02/26/2021 14:36	Yijie Li	2226414, 2226417
SM 2540 D-2011	02/23/2021			02/26/2021 14:36	Yijie Li	2226414, 2226417
SM 4500 F-C-2011	02/23/2021			02/25/2021 02:16	Dale L. Simmons	2226414
	02/23/2021			02/25/2021 02:29	Dale L. Simmons	2226417
SM 5310 B-2011	02/23/2021			03/09/2021 01:48	Madeline Gruver	2226415
	02/23/2021			03/09/2021 02:05	Madeline Gruver	2226418