

Chemical Analysis Report

CEN-DIST-2021-04-15-03

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

Event Description: **Faulk/Fox**
Request ID: **RQ-2021-04-12-75**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 07-MAY-2021 10:31

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: Faulk Canal @ 50m upstream of Fiske Blvd

Collection Date/Time: 04/14/2021 11:08

Field ID: G3CE0016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2240097	EPA 180.1 Rev. 2.0	Turbidity	4.4		NTU	P396644	
	EPA 300.0 Rev. 2.1	Chloride	88		mg Cl/L	P397039	
		Sulfate	51		mg SO4/L	P397041	
	SM 2120 B-2011	Color (true)	71		PCU	P396634	
	SM 2320 B-2011	Total Alkalinity	102		mg CaCO3/L	P396837	
	SM 2540 C-2011	TDS	342		mg/L	P397227	
	SM 2540 D-2011	TSS	2	I	mg/L	P397224	
	SM 4500 F-C-2011	Fluoride	0.049	I	mg F/L	P396838	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.060		mg N/L	P397361	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P397067	
2240098	EPA 353.2 Rev. 2.0	NO2NO3-N	0.069		mg N/L	P396959	
	EPA 365.1 Rev. 2.0	Total-P	0.032		mg P/L	P396702	
	SM 5310 B-2011	Organic Carbon	20		mg C/L	P397238	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.004	I	mg P/L	P396624	
	dissolved						

Ref. Method and Comment:

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

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Fox Lake near Center

Collection Date/Time: 04/14/2021 13:36

Field ID: G3CE0041

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2240100	EPA 180.1 Rev. 2.0	Turbidity	2.9		NTU	P396644	
	EPA 300.0 Rev. 2.1	Chloride	220		mg Cl/L	P397039	
		Sulfate	34		mg SO4/L	P397041	
	SM 2120 B-2011	Color (true)	190		PCU	P396634	
	SM 2320 B-2011	Total Alkalinity	38		mg CaCO3/L	P396837	
	SM 2540 C-2011	TDS	469		mg/L	P397227	
	SM 2540 D-2011	TSS	3	I	mg/L	P397224	
	SM 4500 F-C-2011	Fluoride	0.046	I	mg F/L	P396838	
2240101	EPA 350.1 Rev. 2.0	Ammonia-N	0.019		mg N/L	P397361	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P397067	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.041		mg N/L	P396899	
	EPA 365.1 Rev. 2.0	Total-P	0.061		mg P/L	P396856	
	SM 5310 B-2011	Organic Carbon	24		mg C/L	P396955	
2240102	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.011		mg P/L	P396624	

Ref. Method and Comment:

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

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P396644

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P397039

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P397041

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397361

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397067

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P396899

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P396959

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P396702

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P396856

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: P396624

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

Reference Method: SM 2120 B-2011
Batch ID: P396634

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P396837

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

Reference Method: SM 2540 C-2011
Batch ID: P397227

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P397224

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P396838

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P396955

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Reference Method: SM 5310 B-2011
Batch ID: P397238

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: P397039

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P397041

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	96.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397361

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: P397067

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: P396899

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: P396959

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P396702

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P396856

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	106		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P396624

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.3		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2120 B-2011
Batch ID: P396634

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

Reference Method: SM 2320 B-2011
Batch ID: P396837

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.3		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P396838

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.4		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P396955

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.6		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P397238

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.3		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P397039

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2240080	Chloride	97.3		P	90 - 110
2240210	Chloride	97.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P397041

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2240080	Sulfate	93.9		P	90 - 110
2240210	Sulfate	94.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397361

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2240067	Ammonia-N	94.8	94.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397067

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2240068	Kjeldahl Nitrogen	109	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P396899

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2240101	NO2NO3-N	95.1	94.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P396959

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2240084	NO2NO3-N	98.5	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P396702

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239969	Total-P	105	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P396856

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2240036	Total-P	105	104	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Batch ID: P396838

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239838	Fluoride	100	101	P/P	94 - 107

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P396955

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2240101	Organic Carbon	102		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P397238

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2240082	Organic Carbon	99.4	99.1	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P396644

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2240035	Turbidity	7.55	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P397039

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2240080	Chloride	0.0408	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P397041

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2240080	Sulfate	0.310	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397361

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2240067	Ammonia-N	0.462	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397067

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2240068	Kjeldahl Nitrogen	2.27	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P396899

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2240101	NO2NO3-N	0.434	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P396959

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2240084	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P396702

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239969	Total-P	0.785	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P396856

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2240036	Total-P	0.699	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P396624

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239970	O-Phosphate-P	0.236	Spike	P	0 - 20

Reference Method: SM 2120 B-2011

Batch ID: P396634

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2240065	Color (true)	0.315	Sample	P	0 - 20

Reference Method: SM 2320 B-2011

Batch ID: P396837

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239838	Total Alkalinity	0.903	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011

Batch ID: P397227

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2240035	TDS	4.05	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011

Batch ID: P396838

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239838	Fluoride	0.508	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011

Batch ID: P396955

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2240101	Organic Carbon	0.0909	Spike	P	0 - 20

Reference Method: SM 5310 B-2011

Batch ID: P397238

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2240082	Organic Carbon	0.197	Spike	P	0 - 20

Quality Assurance Report Precision

* 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: A104762

Included Lab Sample IDs: 2240099, 2240102

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.8	99.7	P/P	90 - 110

Reference Method: SM 2120 B-2011

Run ID: A104764

Included Lab Sample IDs: 2240097, 2240100

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	102	P/P	90 - 115
Color (true)	102	102	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A104768

Included Lab Sample IDs: 2240097, 2240100

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A104820

Included Lab Sample IDs: 2240098

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.0	99.2	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A104842

Included Lab Sample IDs: 2240097, 2240100

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	96.3	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A104842

Included Lab Sample IDs: 2240097, 2240100

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A104851

Included Lab Sample IDs: 2240101

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A104869

Included Lab Sample IDs: 2240097, 2240100

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.8	99.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A104869

Included Lab Sample IDs: 2240097, 2240100

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sulfate	97.9	98.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A104877

Included Lab Sample IDs: 2240101

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	105	105	P/P	85 - 115

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A104879

Included Lab Sample IDs: 2240098

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.0	100	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A104901

Included Lab Sample IDs: 2240101

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.2	96.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A104990

Included Lab Sample IDs: 2240098, 2240101

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.4	101	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A105018

Included Lab Sample IDs: 2240098

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.2	96.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A105064

Included Lab Sample IDs: 2240098, 2240101

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.7	97.4	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		LCS	Precision	MS
						SMP	
EPA 180.1 Rev. 2.0	Turbidity					7.55	
EPA 300.0 Rev. 2.1	Chloride	98.3	97.3	97.3		0.0408	
	Sulfate	96.3	93.9	94.4		0.310	
EPA 350.1 Rev. 2.0	Ammonia-N	97.8	94.8	94.2			0.462
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105	109	106			2.27
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	99.0	95.1	94.6			0.434
	NO ₂ NO ₃ -N	99.5	98.5	98.5			0.0
EPA 365.1 Rev. 2.0	Total-P	102	105	104			0.785
	Total-P	106	105	104			0.699
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.3					0.236
SM 2120 B-2011	Color (true)	101				0.315	
SM 2320 B-2011	Total Alkalinity	97.3				0.903	
SM 2540 C-2011	TDS					4.05	
SM 4500 F-C-2011	Fluoride	99.4	100	101			0.508
SM 5310 B-2011	Organic Carbon	97.6	102				0.0909
	Organic Carbon	96.3	99.4	99.1			0.197

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2240097, 2240100
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2240097, 2240100
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2240097, 2240100
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2240098, 2240101
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2240098, 2240101
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2240098, 2240101
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2240098, 2240101
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2240099, 2240102
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2240097, 2240100
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2240097, 2240100
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2240097, 2240100
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2240097, 2240100
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2240097, 2240100
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2240098, 2240101

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	04/15/2021			04/15/2021 16:12	Yen Ta	2240097, 2240100
EPA 300.0 Rev. 2.1	04/15/2021			04/22/2021 18:57	Lipi Saha	2240097
	04/15/2021			04/22/2021 19:10	Lipi Saha	2240100
EPA 350.1 Rev. 2.0	04/15/2021			04/28/2021 17:09	Ping Hua	2240098
	04/15/2021			04/28/2021 17:10	Ping Hua	2240101
EPA 351.2 Rev. 2.0	04/15/2021	04/23/2021 13:54	Benjamin T. Nordmann	04/26/2021 14:40	Virginia P. Brown	2240098
	04/15/2021	04/23/2021 13:54	Benjamin T. Nordmann	04/26/2021 14:41	Virginia P. Brown	2240101
EPA 353.2 Rev. 2.0	04/15/2021			04/20/2021 12:08	Beverly Y. Sanders	2240101
	04/15/2021			04/21/2021 11:29	Beverly Y. Sanders	2240098
EPA 365.1 Rev. 2.0	04/15/2021	04/16/2021 13:47	Yen Ta	04/19/2021 12:22	Shengyu Ding	2240098
	04/15/2021	04/20/2021 14:25	Yen Ta	04/21/2021 11:31	Shengyu Ding	2240101
EPA 365.1 Rev. 2.0 dissolved	04/15/2021			04/15/2021 14:00	Lipi Saha	2240099
	04/15/2021			04/15/2021 14:01	Lipi Saha	2240102
SM 2120 B-2011	04/15/2021			04/15/2021 15:34	Blanca Fach	2240097
	04/15/2021			04/15/2021 15:45	Blanca Fach	2240100
SM 2320 B-2011	04/15/2021			04/19/2021 21:49	Samantha Davila	2240097
	04/15/2021			04/19/2021 22:03	Samantha Davila	2240100
SM 2540 C-2011	04/15/2021			04/20/2021 15:21	Yijie Li	2240097, 2240100
SM 2540 D-2011	04/15/2021			04/20/2021 15:21	Yijie Li	2240097, 2240100
SM 4500 F-C-2011	04/15/2021			04/19/2021 21:49	Samantha Davila	2240097
	04/15/2021			04/19/2021 22:03	Samantha Davila	2240100
SM 5310 B-2011	04/15/2021			04/22/2021 02:30	Lauren Lees	2240101
	04/15/2021			04/23/2021 17:14	Lauren Lees	2240098