Chemical Analysis Report

NW-DIST-2022-10-26-01

Florida DEP Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **Escambia Bay Whaler Run**
Request ID: **RQ-2022-10-24-12**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
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Certified by: Thekkekalathil Chandrasekhar, Environmental Consultant Date Certified: 17-NOV-2022 11:06

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: Trout Bayou **Collection Date/Time: 10/24/2022 10:25**

Field ID: G4NW0443 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2364926	EPA 180.1 Rev. 2.0	Turbidity	4.2		NTU	P421470	
	SM 2320 B-2011	Total Alkalinity	84		mg CaCO3/L	P421661	
	SM 2540 D-2015	TSS	5	I A	mg/L	P421785	
	SM 4500-F- C-2011	Fluoride	0.78		mg F/L	P421665	
2364927	EPA 350.1 Rev. 2.0	Ammonia-N	0.011		mg N/L	P421683	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.40	I	mg N/L	P421637	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.008	I	mg N/L	P421718	
	EPA 365.1 Rev. 2.0	Total-P	0.015		mg P/L	P421568	
	SM 5310 B-2011	Organic Carbon	3.6	I	mg C/L	P422187	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: FB **Collection Date/Time: 10/24/2022 10:30**

Field ID: FB_10242022 Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2364928	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P421470	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P421652	
	SM 2540 D-2015	TSS	2	U	mg/L	P421783	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P421662	
2364929	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P421956	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P421638	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P421677	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P421599	
	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P421647	

Ref. Method and Comment:
SM 2540 D-2015: 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: P421470

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421683

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421956

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P421637

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P421638

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P421677

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P421718

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P421568

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P421599

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

Quality Assurance Report
Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P421652

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

Reference Method: SM 2320 B-2011
Batch ID: P421661

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

Reference Method: SM 2540 D-2015
Batch ID: P421783

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P421785

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P421662

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500-F- C-2011
Batch ID: P421665

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P421647

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

Reference Method: SM 5310 B-2011
Batch ID: P422187

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P421470

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421683

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421956

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P421637

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	96.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P421638

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P421677

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P421718

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P421568

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P421599

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P421652

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	94 - 106

Reference Method: SM 2320 B-2011
Batch ID: P421661

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	94 - 106

Reference Method: SM 2540 D-2015
Batch ID: P421783

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	94.8		P	85 - 106

Reference Method: SM 2540 D-2015
Batch ID: P421785

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	98.1		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P421662

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.3		P	96 - 104

Reference Method: SM 4500-F- C-2011
Batch ID: P421665

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.8		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P421647

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.2		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P422187

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.3		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421683

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364673	Ammonia-N	99.6	100	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421956

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364859	Ammonia-N	101	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P421637

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364841	Kjeldahl Nitrogen	97.0	96.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P421638

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364726	Kjeldahl Nitrogen	99.3	107	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P421677

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364878	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P421718

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364840	NO2NO3-N	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P421568

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364841	Total-P	99.5	99.1	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P421599

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364865	Total-P	108	108	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Batch ID: P421662

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364864	Fluoride	97.7	97.2	P/P	94 - 104

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P421665

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2365150	Fluoride	97.5	98.2	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P421647

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364879	Organic Carbon	101	98.3	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P422187

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2366264	Organic Carbon	90.0	91.7	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P421470

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364876	Turbidity	12.6	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421683

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364673	Ammonia-N	0.572	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421956

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364859	Ammonia-N	0.995	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P421637

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364841	Kjeldahl Nitrogen	0.939	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P421638

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364726	Kjeldahl Nitrogen	3.75	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P421677

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364878	NO2NO3-N	0.491	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P421718

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364840	NO2NO3-N	0.962	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P421568

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364841	Total-P	0.403	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P421599

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364865	Total-P	0.0663	Spike	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P421652

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364864	Total Alkalinity	0.233	Sample	P	0 - 3.8

Reference Method: SM 2320 B-2011
Batch ID: P421661

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2365150	Total Alkalinity	0.794	Sample	P	0 - 3.8

Reference Method: SM 4500-F- C-2011
Batch ID: P421662

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364864	Fluoride	0.482	Spike	P	0 - 1.6

Reference Method: SM 4500-F- C-2011
Batch ID: P421665

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2365150	Fluoride	0.483	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P421647

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364879	Organic Carbon	1.66	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P422187

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2366264	Organic Carbon	1.38	Spike	P	0 - 20

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A115543
Included Lab Sample IDs: 2364926, 2364928

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

Reference Method: SM 5310 B-2011
Run ID: A115623
Included Lab Sample IDs: 2364929

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.2	99.0	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A115624
Included Lab Sample IDs: 2364926, 2364928

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.5	104	P/P	90 - 110
Total Alkalinity	99.0	98.8	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A115624
Included Lab Sample IDs: 2364926, 2364928

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	102	103	P/P	90 - 110
Fluoride	103	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A115630
Included Lab Sample IDs: 2364929

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A115636
Included Lab Sample IDs: 2364927, 2364929

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	100	P/P	90 - 110
Total-P	99.8	100	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A115637
Included Lab Sample IDs: 2364927

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.6	99.7	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A115654
Included Lab Sample IDs: 2364927

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A115698
Included Lab Sample IDs: 2364929

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	107	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A115748
Included Lab Sample IDs: 2364929

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.2	98.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A115750
Included Lab Sample IDs: 2364927

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.6	99.1	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A115847
Included Lab Sample IDs: 2364927

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.6	93.4	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		Precision		
					LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity	102				12.6	
EPA 350.1 Rev. 2.0	Ammonia-N	98.8	99.6	100			0.572
	Ammonia-N	95.4	101	100			0.995
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	96.4	97.0	96.0			0.939
	Kjeldahl Nitrogen	101	99.3	107			3.75
EPA 353.2 Rev. 2.0	NO2NO3-N	100	102	102			0.491
	NO2NO3-N	100	104	104			0.962
EPA 365.1 Rev. 2.0	Total-P	106	99.5	99.1			0.403
	Total-P	104	108	108			0.0663
SM 2320 B-2011	Total Alkalinity	102				0.233	
	Total Alkalinity	102				0.794	
SM 2540 D-2015	TSS	94.8					
	TSS	98.1					
SM 4500-F- C-2011	Fluoride	98.3	97.7	97.2			0.482
	Fluoride	99.8	97.5	98.2			0.483
SM 5310 B-2011	Organic Carbon	97.2	101	98.3			1.66
	Organic Carbon	98.3	90.0	91.7			1.38

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2364926, 2364928
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2364927, 2364929
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2364927, 2364929
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2364927, 2364929
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2364927, 2364929
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2364926, 2364928
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2364926, 2364928
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2364926, 2364928
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2364927, 2364929

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	10/26/2022			10/26/2022 10:21	Anna M. Plaviak	2364926
	10/26/2022			10/26/2022 10:22	Anna M. Plaviak	2364928
EPA 350.1 Rev. 2.0	10/26/2022			10/31/2022 13:09	Ping Hua	2364927
	10/26/2022			11/04/2022 14:37	Ping Hua	2364929
EPA 351.2 Rev. 2.0	10/26/2022	10/31/2022 14:05	Samantha L Bates	11/02/2022 20:12	Samantha L Bates	2364929
	10/26/2022	10/31/2022 14:05	Samantha L Bates	11/04/2022 11:50	Alexandra J Mattheus	2364927
EPA 353.2 Rev. 2.0	10/26/2022			10/31/2022 10:17	Beverly Y. Sanders	2364929
	10/26/2022			11/01/2022 10:41	Beverly Y. Sanders	2364927
EPA 365.1 Rev. 2.0	10/26/2022	10/28/2022 12:34	Adam P Silver	10/31/2022 12:20	Simonne.V. Calhoun	2364927
	10/26/2022	10/28/2022 12:34	Adam P Silver	10/31/2022 12:40	Simonne.V. Calhoun	2364929
SM 2320 B-2011	10/26/2022			10/27/2022 21:38	Dale L. Simmons	2364928
	10/26/2022			10/28/2022 03:35	Dale L. Simmons	2364926
SM 2540 D-2015	10/26/2022			10/28/2022 15:58	Yijie Li	2364926, 2364928
SM 4500-F- C-2011	10/26/2022			10/27/2022 21:38	Dale L. Simmons	2364928
	10/26/2022			10/27/2022 23:52	Dale L. Simmons	2364926
SM 5310 B-2011	10/26/2022			10/28/2022 21:33	Khloe J Berg	2364929
	10/26/2022			11/10/2022 00:27	Khloe J Berg	2364927