Chemical Analysis Report

NE-DIST-2022-06-15-01

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

Event Description: **Palm Valley Boat 2022**
Request ID: **RQ-2022-04-11-24**
Customer: **NE-DIST**
Project ID: **SMP**

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Certified by: Thekkekalathil Chandrasekhar, Environmental Consultant Date Certified: 06-JUL-2022 11:09

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: Marshall Creek 0.5 miles above mouth **Collection Date/Time: 06/14/2022 11:05**

Field ID: G5NE0595 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2334803	EPA 180.1 Rev. 2.0	Turbidity	13	A	NTU	P415259	
	SM 2320 B-2011	Total Alkalinity	131		mg CaCO3/L	P415758	
	SM 2540 D-2011	TSS	37		mg/L	P415655	
	SM 4500-F- C-2011	Fluoride	1.3		mg F/L	P415761	
2334807	EPA 350.1 Rev. 2.0	Ammonia-N	0.022		mg N/L	P415674	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.78		mg N/L	P415609	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P415833	
	EPA 365.1 Rev. 2.0	Total-P	0.084		mg P/L	P415613	
	SM 5310 B-2011	Organic Carbon	6.3		mg C/L	P415408	

Sample Location: CAPO CREEK 300M ABOVE MOUTH **Collection Date/Time: 06/14/2022 11:30**

Field ID: 27010019 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2334804	EPA 180.1 Rev. 2.0	Turbidity	15		NTU	P415259	
	SM 2320 B-2011	Total Alkalinity	128		mg CaCO3/L	P415758	
	SM 2540 D-2011	TSS	30		mg/L	P415655	
	SM 4500-F- C-2011	Fluoride	1.3		mg F/L	P415761	
2334808	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P415674	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.75		mg N/L	P415609	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P415834	
	EPA 365.1 Rev. 2.0	Total-P	0.090		mg P/L	P415613	
	SM 5310 B-2011	Organic Carbon	5.3		mg C/L	P415408	

Sample Location: DEEP CREEK 270M ABOVE ICW **Collection Date/Time: 06/14/2022 12:00**

Field ID: 27010165 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2334805	EPA 180.1 Rev. 2.0	Turbidity	16		NTU	P415259	
	SM 2320 B-2011	Total Alkalinity	130		mg CaCO3/L	P415758	
	SM 2540 D-2011	TSS	34		mg/L	P415655	
	SM 4500-F- C-2011	Fluoride	1.3		mg F/L	P415761	
2334809	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P415674	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.80		mg N/L	P415617	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P415834	
	EPA 365.1 Rev. 2.0	Total-P	0.099		mg P/L	P415573	
	SM 5310 B-2011	Organic Carbon	6.8		mg C/L	P415408	

Sample Location: DEEP CREEK 1ST NE BEND FROM MOUTH **Collection Date/Time: 06/14/2022 12:10**

Field ID: 27010069 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2334806	EPA 180.1 Rev. 2.0	Turbidity	18		NTU	P415259	
	SM 2320 B-2011	Total Alkalinity	130		mg CaCO3/L	P415758	
	SM 2540 D-2011	TSS	45	A	mg/L	P415655	
	SM 4500-F- C-2011	Fluoride	1.3		mg F/L	P415761	
2334810	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P415588	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.94		mg N/L	P415617	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P415834	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P415573	
	SM 5310 B-2011	Organic Carbon	6.9		mg C/L	P415462	

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P415259

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415588

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415674

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415609

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415617

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P415833

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P415834

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P415573

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P415613

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: P415758

Component	Result	Code	Units
Total Alkalinity	1.0	U	mg CaCO3/L

Reference Method: SM 2540 D-2011
Batch ID: P415655

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P415761

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P415408

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

Reference Method: SM 5310 B-2011
Batch ID: P415462

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: P415259

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	96.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415588

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415674

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.6		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415609

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415617

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P415833

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P415834

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P415573

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P415613

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P415758

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.0		P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P415761

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.5		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P415408

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.0		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P415462

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.8		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415588

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2334810	Ammonia-N	104	105	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415674

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2334807	Ammonia-N	107	106	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415609

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2334347	Kjeldahl Nitrogen	104	97.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415617

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2334686	Kjeldahl Nitrogen	104	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P415833

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2333550	NO2NO3-N	95.1	97.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P415834

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2334808	NO2NO3-N	96.5	97.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P415573

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2334747	Total-P	92.9	94.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P415613

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2334807	Total-P	96.0	95.2	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Batch ID: P415761

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2334143	Fluoride	96.0	97.5	P/P	94 - 104

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P415408

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2333622	Organic Carbon	92.0	92.4	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P415462

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2335323	Organic Carbon	95.8	95.5	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P415259

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2334803	Turbidity	2.33	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415588

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2334810	Ammonia-N	1.01	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415674

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2334807	Ammonia-N	0.533	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415609

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2334347	Kjeldahl Nitrogen	3.83	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415617

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2334686	Kjeldahl Nitrogen	1.76	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P415833

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2333550	NO2NO3-N	2.59	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P415834

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2334808	NO2NO3-N	0.517	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P415573

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2334747	Total-P	1.72	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P415613

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2334807	Total-P	0.685	Spike	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P415758

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2334143	Total Alkalinity	0.430	Sample	P	0 - 3.8

Reference Method: SM 2540 D-2011
Batch ID: P415655

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2334806	TSS	6.17	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P415761

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2334143	Fluoride	0.999	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P415408

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2333622	Organic Carbon	0.416	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P415462

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2335323	Organic Carbon	0.206	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: A112850
Included Lab Sample IDs: 2334803, 2334804, 2334805, 2334806

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

Reference Method: SM 5310 B-2011
Run ID: A112926
Included Lab Sample IDs: 2334807, 2334808, 2334809

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.7	98.4	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A112944
Included Lab Sample IDs: 2334810

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.6	99.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A112990
Included Lab Sample IDs: 2334810

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.0	98.1	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A113018
Included Lab Sample IDs: 2334807, 2334808, 2334809

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.6	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A113043
Included Lab Sample IDs: 2334810

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.6	99.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A113053
Included Lab Sample IDs: 2334809

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.5	98.5	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A113065
Included Lab Sample IDs: 2334803, 2334804, 2334805, 2334806

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	97.5	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: SM 4500-F- C-2011
Run ID: A113065
Included Lab Sample IDs: 2334803, 2334804, 2334805, 2334806

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A113113
Included Lab Sample IDs: 2334807, 2334808

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	96.2	99.2	P/P	90 - 110
Total-P	99.8	96.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A113114
Included Lab Sample IDs: 2334807, 2334808, 2334809, 2334810

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	96.5	96.0	P/P	90 - 110
NO2NO3-N	98.0	96.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A113121
Included Lab Sample IDs: 2334807, 2334808, 2334809, 2334810

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	107	103	P/P	90 - 110
Kjeldahl Nitrogen	107	106	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	96.8				2.33	
EPA 350.1 Rev. 2.0	Ammonia-N	100	104	105			1.01
	Ammonia-N	97.6	107	106			0.533
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100	104	97.6			3.83
	Kjeldahl Nitrogen	106	104	102			1.76
EPA 353.2 Rev. 2.0	NO2NO3-N	97.0	95.1	97.6			2.59
	NO2NO3-N	96.0	96.5	97.0			0.517
EPA 365.1 Rev. 2.0	Total-P	103	92.9	94.7			1.72
	Total-P	103	96.0	95.2			0.685
SM 2320 B-2011	Total Alkalinity	99.0				0.430	
SM 2540 D-2011	TSS					6.17	
SM 4500-F- C-2011	Fluoride	99.5	96.0	97.5			0.999
SM 5310 B-2011	Organic Carbon	96.0	92.0	92.4			0.416
	Organic Carbon	98.8	95.8	95.5			0.206

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2334803, 2334804, 2334805, 2334806
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2334807, 2334808, 2334809, 2334810
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2334807, 2334808, 2334809, 2334810
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2334807, 2334808, 2334809, 2334810
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2334807, 2334808, 2334809, 2334810
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2334803, 2334804, 2334805, 2334806
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2334803, 2334804, 2334805, 2334806
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2334803, 2334804, 2334805, 2334806
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2334807, 2334808, 2334809, 2334810

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	06/15/2022			06/15/2022 15:35	Khloe J Berg	2334803
	06/15/2022			06/15/2022 15:46	Khloe J Berg	2334804
	06/15/2022			06/15/2022 15:47	Khloe J Berg	2334805
	06/15/2022			06/15/2022 15:51	Khloe J Berg	2334806
EPA 350.1 Rev. 2.0	06/15/2022			06/22/2022 16:13	Judith K. Clark	2334810
	06/15/2022			06/23/2022 11:39	Judith K. Clark	2334807
	06/15/2022			06/23/2022 11:43	Judith K. Clark	2334808
	06/15/2022			06/23/2022 11:44	Judith K. Clark	2334809
EPA 351.2 Rev. 2.0	06/15/2022	06/24/2022 10:24	Samantha L Bates	06/27/2022 12:33	Alexandra J Mattheus	2334807
	06/15/2022	06/24/2022 10:24	Samantha L Bates	06/27/2022 12:35	Alexandra J Mattheus	2334808
	06/15/2022	06/24/2022 10:30	Samantha L Bates	06/27/2022 13:33	Alexandra J Mattheus	2334809
	06/15/2022	06/24/2022 10:30	Samantha L Bates	06/27/2022 13:34	Alexandra J Mattheus	2334810
EPA 353.2 Rev. 2.0	06/15/2022			06/27/2022 14:54	Touraj Touran	2334807
	06/15/2022			06/27/2022 15:01	Touraj Touran	2334808
	06/15/2022			06/27/2022 15:07	Touraj Touran	2334809
	06/15/2022			06/27/2022 15:08	Touraj Touran	2334810
EPA 365.1 Rev. 2.0	06/15/2022	06/23/2022 14:45	Simonne.V. Calhoun	06/24/2022 11:25	James L Waggerby	2334810
	06/15/2022	06/23/2022 14:45	Simonne.V. Calhoun	06/24/2022 14:54	James L Waggerby	2334809
	06/15/2022	06/24/2022 14:50	Simonne.V. Calhoun	06/27/2022 15:48	James L Waggerby	2334807
	06/15/2022	06/24/2022 14:50	Simonne.V. Calhoun	06/27/2022 15:56	James L Waggerby	2334808
SM 2320 B-2011	06/15/2022			06/24/2022 11:13	Dale L. Simmons	2334803
	06/15/2022			06/24/2022 11:27	Dale L. Simmons	2334804
	06/15/2022			06/24/2022 11:40	Dale L. Simmons	2334805
	06/15/2022			06/24/2022 11:53	Dale L. Simmons	2334806
SM 2540 D-2011	06/15/2022			06/17/2022 14:36	Yijie Li	2334803, 2334804, 2334805, 2334806
SM 4500-F- C-2011	06/15/2022			06/24/2022 08:44	Dale L. Simmons	2334803
	06/15/2022			06/24/2022 08:49	Dale L. Simmons	2334804
	06/15/2022			06/24/2022 08:54	Dale L. Simmons	2334805
	06/15/2022			06/24/2022 08:59	Dale L. Simmons	2334806
SM 5310 B-2011	06/15/2022			06/18/2022 09:07	Khloe J Berg	2334807
	06/15/2022			06/18/2022 09:26	Khloe J Berg	2334808
	06/15/2022			06/18/2022 09:42	Khloe J Berg	2334809
	06/15/2022			06/21/2022 05:55	Khloe J Berg	2334810