

Chemical Analysis Report

NW-DIST-2022-12-13-03

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

Event Description: **Western Lake Run**
Request ID: **RQ-2022-11-14-30**
Customer: **NW-DIST**
Project ID: **SMP**

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Date Certified: 06-JAN-2023 13:17



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: CRESCENT LAKE

Collection Date/Time: 12/12/2022 10:50

Field ID: G5NW0159

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2374771	DEP SOP: NU-094-1	Color (true)	12		PCU	P423472	
	EPA 180.1 Rev. 2.0	Turbidity	2.6		NTU	P423468	
	EPA 300.0 Rev. 2.1	Chloride	9.5		mg Cl/L	P423714	
		Sulfate	7.0		mg SO4/L	P423717	
	SM 2320 B-2011	Total Alkalinity	21		mg CaCO3/L	P423927	
	SM 2540 C-2015	TDS	45		mg/L	P423893	
	SM 2540 D-2015	TSS	2	I	mg/L	P423785	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P423931	
2374774	EPA 350.1 Rev. 2.0	Ammonia-N	0.039		mg N/L	P424100	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.27		mg N/L	P423559	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.36		mg N/L	P423525	
	EPA 365.1 Rev. 2.0	Total-P	0.009		mg P/L	P424011	
	SM 5310 B-2011	Organic Carbon	2.5		mg C/L	P423708	

Ref. Method and Comment:

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

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Direct Runoff to Choctawhatchee Bay below Oregon Drive

Collection Date/Time: 12/12/2022 13:55

Field ID: G3NW0001

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2374772	DEP SOP: NU-094-1	Color (true)	57	A	PCU	P423472	
	EPA 180.1 Rev. 2.0	Turbidity	7.1		NTU	P423468	
	EPA 300.0 Rev. 2.1	Chloride	9.7		mg Cl/L	P423714	
		Sulfate	6.8		mg SO4/L	P423717	
	SM 2320 B-2011	Total Alkalinity	43		mg CaCO3/L	P423927	
	SM 2540 C-2015	TDS	70		mg/L	P423893	
	SM 2540 D-2015	TSS	3	I	mg/L	P423785	
	SM 4500-F- C-2011	Fluoride	0.068	I	mg F/L	P423931	
2374775	EPA 350.1 Rev. 2.0	Ammonia-N	0.021		mg N/L	P424100	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.36		mg N/L	P423560	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.080		mg N/L	P423525	
	EPA 365.1 Rev. 2.0	Total-P	0.040		mg P/L	P424011	
	SM 5310 B-2011	Organic Carbon	8.5		mg C/L	P423708	

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: Collins Mill Creek upstream of Conecuh Street Collection Date/Time: 12/12/2022 13:00

Field ID: G4NW0507

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2374773	DEP SOP: NU-094-1	Color (true)	19		PCU	P423472	
	EPA 180.1 Rev. 2.0	Turbidity	1.1		NTU	P423468	
	EPA 300.0 Rev. 2.1	Chloride	6.3		mg Cl/L	P423714	
		Sulfate	1.5		mg SO4/L	P423717	
	SM 2320 B-2011	Total Alkalinity	10		mg CaCO3/L	P423927	
	SM 2540 C-2015	TDS	24	I	mg/L	P423893	
	SM 2540 D-2015	TSS	2	U	mg/L	P423785	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P423931	
2374776	EPA 350.1 Rev. 2.0	Ammonia-N	0.037		mg N/L	P424100	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.20	I	mg N/L	P423560	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.36		mg N/L	P423525	
	EPA 365.1 Rev. 2.0	Total-P	0.009		mg P/L	P424017	
	SM 5310 B-2011	Organic Carbon	1.5		mg C/L	P423708	

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: DEP SOP: NU-094-1
Batch ID: P423472

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P423468

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423714

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423717

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424100

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423559

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423560

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423525

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P424011

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
Batch ID: P424017

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

Reference Method: SM 2320 B-2011
Batch ID: P423927

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

Reference Method: SM 2540 C-2015
Batch ID: P423893

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P423785

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P423931

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P423708

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P423472

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.7		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P423468

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423714

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423717

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424100

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423559

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423560

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423525

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P424011

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P424017

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

Reference Method: SM 2320 B-2011
Batch ID: P423927

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.6		P	94 - 106

Reference Method: SM 2540 C-2015
Batch ID: P423893

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	92.2		P	90 - 110

Reference Method: SM 2540 D-2015
Batch ID: P423785

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	101		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P423931

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P423708

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.4		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423714

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374882	Chloride	95.2		P	90 - 110
2375057	Chloride	98.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423717

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374882	Sulfate	96.6		P	90 - 110
2375057	Sulfate	95.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424100

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374775	Ammonia-N	99.8	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423560

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374776	Kjeldahl Nitrogen	102	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423525

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374650	NO2NO3-N	95.5	97.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P424011

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374631	Total-P	102	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P424017

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2375332	Total-P	102	103	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Batch ID: P423931

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374629	Fluoride	98.1	97.5	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P423708

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374775	Organic Carbon	99.2	99.4	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P423472

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374772	Color (true)	3.46	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P423468

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374814	Turbidity	8.99	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423714

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374882	Chloride	3.46	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423717

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374882	Sulfate	4.46	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424100

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374775	Ammonia-N	0.141	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423559

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374616	Kjeldahl Nitrogen	7.11	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423560

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374776	Kjeldahl Nitrogen	0.319	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423525

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374650	NO2NO3-N	0.902	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P424011

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374631	Total-P	1.30	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P424017

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2375332	Total-P	1.40	Spike	P	0 - 20

Reference Method: SM 2320 B-2011
 Batch ID: P423927

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374629	Total Alkalinity	1.30	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2015
 Batch ID: P423893

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374869	TDS	5.86	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
 Batch ID: P423931

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374629	Fluoride	0.472	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
 Batch ID: P423708

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374775	Organic Carbon	0.176	Spike	P	0 - 20

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A116398

Included Lab Sample IDs: 2374771, 2374772, 2374773

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	104	104	P/P	90 - 110
Sulfate	104	105	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A116410

Included Lab Sample IDs: 2374771, 2374772, 2374773

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

Reference Method: DEP SOP: NU-094-1

Run ID: A116411

Included Lab Sample IDs: 2374771, 2374772, 2374773

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.1	97.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A116429

Included Lab Sample IDs: 2374774, 2374775, 2374776

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A116501

Included Lab Sample IDs: 2374775, 2374776

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.5	97.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A116504

Included Lab Sample IDs: 2374774

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.0	91.9	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A116546

Included Lab Sample IDs: 2374774, 2374775, 2374776

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.4	98.0	P/P	90 - 110
Organic Carbon	100	99.4	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A116645

Included Lab Sample IDs: 2374771, 2374772, 2374773

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011

Run ID: A116645

Included Lab Sample IDs: 2374771, 2374772, 2374773

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	94.6	101	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A116645

Included Lab Sample IDs: 2374771, 2374772, 2374773

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A116709

Included Lab Sample IDs: 2374774, 2374775, 2374776

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A116722

Included Lab Sample IDs: 2374774, 2374775, 2374776

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.7	98.9	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	MS
DEP SOP: NU-094-1	Color (true)	99.7			3.46	
EPA 180.1 Rev. 2.0	Turbidity	101			8.99	
EPA 300.0 Rev. 2.1	Chloride	100	95.2	98.7	3.46	
	Sulfate	101	96.6	95.1	4.46	
EPA 350.1 Rev. 2.0	Ammonia-N	98.0	99.8	100		0.141
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	110				7.11
	Kjeldahl Nitrogen	103	102	103		0.319
EPA 353.2 Rev. 2.0	NO2NO3-N	97.5	95.5	97.0		0.902
EPA 365.1 Rev. 2.0	Total-P	101	102	103		1.30
	Total-P	102	102	103		1.40
SM 2320 B-2011	Total Alkalinity	97.6			1.30	
SM 2540 C-2015	TDS	92.2			5.86	
SM 2540 D-2015	TSS	101				
SM 4500-F- C-2011	Fluoride	101	98.1	97.5		0.472
SM 5310 B-2011	Organic Carbon	95.4	99.2	99.4		0.176

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2374771, 2374772, 2374773
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2374771, 2374772, 2374773
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2374771, 2374772, 2374773
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2374771, 2374772, 2374773
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2374774, 2374775, 2374776
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2374774, 2374775, 2374776
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2374774, 2374775, 2374776
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2374774, 2374775, 2374776
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2374771, 2374772, 2374773
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2374771, 2374772, 2374773
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2374771, 2374772, 2374773
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2374771, 2374772, 2374773
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2374774, 2374775, 2374776

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	12/13/2022			12/13/2022 14:37	Alexis Price	2374771
	12/13/2022			12/13/2022 14:38	Alexis Price	2374772
	12/13/2022			12/13/2022 14:39	Alexis Price	2374773
EPA 180.1 Rev. 2.0	12/13/2022			12/13/2022 15:08	Chandler E Cox	2374771
	12/13/2022			12/13/2022 15:09	Chandler E Cox	2374772
	12/13/2022			12/13/2022 15:11	Chandler E Cox	2374773
EPA 300.0 Rev. 2.1	12/13/2022			12/17/2022 06:16	Anna M. Plaviak	2374771
	12/13/2022			12/17/2022 06:31	Anna M. Plaviak	2374772
	12/13/2022			12/17/2022 06:46	Anna M. Plaviak	2374773
EPA 350.1 Rev. 2.0	12/13/2022			01/04/2023 12:12	Ping Hua	2374774
	12/13/2022			01/04/2023 12:13	Ping Hua	2374775
	12/13/2022			01/04/2023 12:15	Ping Hua	2374776
EPA 351.2 Rev. 2.0	12/13/2022	12/15/2022 15:28	Judith K. Clark	12/16/2022 11:48	Samantha L Bates	2374775
	12/13/2022	12/15/2022 15:28	Judith K. Clark	12/16/2022 11:49	Samantha L Bates	2374776
	12/13/2022	12/15/2022 15:28	Judith K. Clark	12/16/2022 13:01	Samantha L Bates	2374774
EPA 353.2 Rev. 2.0	12/13/2022			12/14/2022 10:33	Beverly Y. Sanders	2374774
	12/13/2022			12/14/2022 10:34	Beverly Y. Sanders	2374775
	12/13/2022			12/14/2022 10:35	Beverly Y. Sanders	2374776
EPA 365.1 Rev. 2.0	12/13/2022	12/29/2022 14:13	Adam P Silver	01/03/2023 12:47	James L Waggeberby	2374774
	12/13/2022	12/29/2022 14:13	Adam P Silver	01/03/2023 12:48	James L Waggeberby	2374775
	12/13/2022	12/29/2022 14:13	Adam P Silver	01/03/2023 13:02	James L Waggeberby	2374776
SM 2320 B-2011	12/13/2022			12/22/2022 10:06	Dale L. Simmons	2374771
	12/13/2022			12/22/2022 10:19	Dale L. Simmons	2374772
	12/13/2022			12/22/2022 10:32	Dale L. Simmons	2374773
SM 2540 C-2015	12/13/2022			12/15/2022 16:01	Yijie Li	2374771, 2374772, 2374773
SM 2540 D-2015	12/13/2022			12/15/2022 16:01	Yijie Li	2374771, 2374772, 2374773
SM 4500-F- C-2011	12/13/2022			12/22/2022 10:06	Dale L. Simmons	2374771
	12/13/2022			12/22/2022 10:19	Dale L. Simmons	2374772
	12/13/2022			12/22/2022 10:32	Dale L. Simmons	2374773
SM 5310 B-2011	12/13/2022			12/16/2022 18:33	Elise M. Gillis	2374775
	12/13/2022			12/16/2022 23:03	Elise M. Gillis	2374774
	12/13/2022			12/16/2022 23:18	Elise M. Gillis	2374776