

Chemical Analysis Report

SE-DIST-2022-05-18-01

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

Event Description: **Wellington South**
Request ID: **RQ-2022-05-16-51**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
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2199 South Rock Road
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Date Certified: 10-JUN-2022 11:27



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: ACME (SOUTH SECTOR) @ 50TH ST S

Collection Date/Time: 05/17/2022 08:45

Field ID: G3SE0061

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2327817	DEP SOP: NU-094-1	Color (true)**	78		PCU	P414040	
	EPA 180.1 Rev. 2.0	Turbidity	2.8		NTU	P414036	
	EPA 300.0 Rev. 2.1	Chloride	89		mg Cl/L	P414290	
		Sulfate	8.9		mg SO4/L	P414294	
	SM 2320 B-2011	Total Alkalinity	136		mg CaCO3/L	P414260	
	SM 2540 C-2011	TDS	358		mg/L	P414463	
	SM 2540 D-2011	TSS	2	I	mg/L	P414245	
	SM 4500-F- C-2011	Fluoride	0.15		mg F/L	P414266	
2327821	EPA 350.1 Rev. 2.0	Ammonia-N	0.13		mg N/L	P414162	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.6		mg N/L	P414240	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.027		mg N/L	P414279	
	EPA 365.1 Rev. 2.0	Total-P	0.037		mg P/L	P414061	
	SM 5310 B-2011	Organic Carbon	23		mg C/L	P414513	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

Sample Location: ACME (SOUTH SECTOR) @ 40TH ST S

Collection Date/Time: 05/17/2022 09:00

Field ID: G3SE0060

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2327818	DEP SOP: NU-094-1	Color (true)**	73		PCU	P414040	
	EPA 180.1 Rev. 2.0	Turbidity	2.0		NTU	P414036	
	EPA 300.0 Rev. 2.1	Chloride	81		mg Cl/L	P414290	
		Sulfate	8.3		mg SO4/L	P414294	
	SM 2320 B-2011	Total Alkalinity	120		mg CaCO3/L	P414260	
	SM 2540 C-2011	TDS	319		mg/L	P414463	
	SM 2540 D-2011	TSS	3	I	mg/L	P414245	
	SM 4500-F- C-2011	Fluoride	0.15		mg F/L	P414266	
2327822	EPA 350.1 Rev. 2.0	Ammonia-N	0.034		mg N/L	P414162	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P414281	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.022		mg N/L	P414279	
	EPA 365.1 Rev. 2.0	Total-P	0.028		mg P/L	P414061	
	SM 5310 B-2011	Organic Carbon	22		mg C/L	P414513	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

Sample Location: ACME South

Collection Date/Time: 05/17/2022 09:20

Field ID: G3SE0038

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2327819	DEP SOP: NU-094-1	Color (true)**	74		PCU	P414040	
	EPA 180.1 Rev. 2.0	Turbidity	2.9		NTU	P414036	
	EPA 300.0 Rev. 2.1	Chloride	85		mg Cl/L	P414291	
		Sulfate	10		mg SO4/L	P414295	
	SM 2320 B-2011	Total Alkalinity	128		mg CaCO3/L	P414260	
	SM 2540 C-2011	TDS	332		mg/L	P414463	
	SM 2540 D-2011	TSS	2	U	mg/L	P414245	
	SM 4500-F- C-2011	Fluoride	0.15		mg F/L	P414266	
2327823	EPA 350.1 Rev. 2.0	Ammonia-N	0.021		mg N/L	P414162	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P414281	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P414279	
	EPA 365.1 Rev. 2.0	Total-P	0.031		mg P/L	P414232	
	SM 5310 B-2011	Organic Carbon	22		mg C/L	P414513	

Ref. Method and Comment:

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

Sample Location: Acme (South Sector) @ Lake Worth

Collection Date/Time: 05/17/2022 09:40

Field ID: G3SE0016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2327820	DEP SOP: NU-094-1	Color (true)**	46		PCU	P414040	
	EPA 180.1 Rev. 2.0	Turbidity	2.4		NTU	P414036	
	EPA 300.0 Rev. 2.1	Chloride	59		mg Cl/L	P414291	
		Sulfate	16		mg SO4/L	P414295	
	SM 2320 B-2011	Total Alkalinity	165		mg CaCO3/L	P414260	
	SM 2540 C-2011	TDS	326		mg/L	P414463	
	SM 2540 D-2011	TSS	3	I	mg/L	P414245	
	SM 4500-F- C-2011	Fluoride	0.16		mg F/L	P414266	
2327824	EPA 350.1 Rev. 2.0	Ammonia-N	0.019		mg N/L	P414162	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P414281	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P414279	
	EPA 365.1 Rev. 2.0	Total-P	0.053		mg P/L	P414232	
	SM 5310 B-2011	Organic Carbon	16		mg C/L	P414513	

Ref. Method and Comment:

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

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P414040

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P414036

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414290

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414291

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414294

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414295

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P414162

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P414240

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P414281

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P414279

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414061

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414232

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

Reference Method: SM 2320 B-2011
Batch ID: P414260

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

Reference Method: SM 2540 C-2011
Batch ID: P414463

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P414245

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P414266

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P414513

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: P414040

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	100		P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P414036

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	96.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414290

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414291

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414294

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414295

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P414162

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P414240

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	96.9		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P414281

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	108		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P414279

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: P414061

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414232

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

Reference Method: SM 2320 B-2011
Batch ID: P414260

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.4		P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P414266

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.5		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P414513

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414290

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327580	Chloride	94.9		P	90 - 110
2327788	Chloride	97.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414291

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327859	Chloride	97.6		P	90 - 110
2327865	Chloride	96.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414294

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327580	Sulfate	96.3		P	90 - 110
2327788	Sulfate	96.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414295

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327859	Sulfate	96.8		P	90 - 110
2327865	Sulfate	98.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P414162

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327789	Ammonia-N	96.6	98.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P414240

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327117	Kjeldahl Nitrogen	98.6	93.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P414281

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327460	Kjeldahl Nitrogen	99.5	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P414279

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327792	NO2NO3-N	95.0	95.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414061

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414061

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327759	Total-P	105	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414232

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327860	Total-P	106	105	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Batch ID: P414266

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327557	Fluoride	97.0	97.6	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P414513

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327558	Organic Carbon	99.3	93.3	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P414040

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327762	Color (true)	0.109	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P414036

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327580	Turbidity	0.257	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414290

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327580	Chloride	0.0403	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414291

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327859	Chloride	0.153	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414295

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327859	Sulfate	0.00997	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P414162

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327789	Ammonia-N	1.81	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P414240

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327117	Kjeldahl Nitrogen	4.20	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P414281

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327460	Kjeldahl Nitrogen	1.67	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P414279

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327792	NO2NO3-N	0.525	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414061

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327759	Total-P	0.518	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414232

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327860	Total-P	0.741	Spike	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P414260

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327557	Total Alkalinity	0.201	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2011
Batch ID: P414463

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327580	TDS	0.797	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P414266

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327557	Fluoride	0.530	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P414513

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327558	Organic Carbon	5.87	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: A112229

Included Lab Sample IDs: 2327817, 2327818, 2327819, 2327820

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	101	P/P	95 - 105

Reference Method: DEP SOP: NU-094-1

Run ID: A112230

Included Lab Sample IDs: 2327817, 2327818, 2327819, 2327820

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	102	P/P	85 - 115

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A112288

Included Lab Sample IDs: 2327821, 2327822, 2327823, 2327824

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.8	97.9	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A112346

Included Lab Sample IDs: 2327817, 2327818, 2327819, 2327820

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.4	98.6	P/P	90 - 110
Total Alkalinity	99.5	96.4	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A112346

Included Lab Sample IDs: 2327817, 2327818, 2327819, 2327820

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.0	99.5	P/P	90 - 110
Fluoride	99.5	99.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A112355

Included Lab Sample IDs: 2327821, 2327822, 2327823, 2327824

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A112361

Included Lab Sample IDs: 2327817, 2327818, 2327819, 2327820

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.7	100	P/P	90 - 110
Chloride	99.8	99.7	P/P	90 - 110
Sulfate	101	101	P/P	90 - 110
Sulfate	101	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A112364

Included Lab Sample IDs: 2327821, 2327822

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.2	99.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A112404

Included Lab Sample IDs: 2327823, 2327824

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 351.2 Rev. 2.0

Run ID: A112447

Included Lab Sample IDs: 2327821

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.2	94.0	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A112485

Included Lab Sample IDs: 2327821, 2327822, 2327823, 2327824

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.5	99.2	P/P	90 - 110
Organic Carbon	99.2	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A112525

Included Lab Sample IDs: 2327822, 2327823, 2327824

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	101	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)	100			0.109	
EPA 180.1 Rev. 2.0	Turbidity	96.9			0.257	
EPA 300.0 Rev. 2.1	Chloride	100	94.9	97.8	0.0403	
	Chloride	100	97.6	96.5	0.153	
	Sulfate	100	96.3	96.4		
	Sulfate	101	96.8	98.1	0.0099	
	Ammonia-N	99.4	96.6	98.6		1.81
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	96.9	98.6	93.0		4.20
	Kjeldahl Nitrogen	108	99.5	101		1.67
EPA 353.2 Rev. 2.0	NO2NO3-N	96.0	95.0	95.5		0.525
EPA 365.1 Rev. 2.0	Total-P	104	105	104		0.518
	Total-P	102	106	105		0.741
SM 2320 B-2011	Total Alkalinity	98.4			0.201	
SM 2540 C-2011	TDS				0.797	
SM 4500-F- C-2011	Fluoride	96.5	97.0	97.6		0.530
SM 5310 B-2011	Organic Carbon	98.2	99.3	93.3		5.87

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2327817, 2327818, 2327819, 2327820
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2327817, 2327818, 2327819, 2327820
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2327817, 2327818, 2327819, 2327820
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2327817, 2327818, 2327819, 2327820
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2327821, 2327822, 2327823, 2327824
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2327821, 2327822, 2327823, 2327824
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2327821, 2327822, 2327823, 2327824
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2327821, 2327822, 2327823, 2327824
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2327817, 2327818, 2327819, 2327820
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2327817, 2327818, 2327819, 2327820
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2327817, 2327818, 2327819, 2327820
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2327817, 2327818, 2327819, 2327820
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2327821, 2327822, 2327823, 2327824

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	05/18/2022			05/18/2022 15:46	Sarah A Nixon	2327817
	05/18/2022			05/18/2022 15:47	Sarah A Nixon	2327818, 2327819
	05/18/2022			05/18/2022 15:48	Sarah A Nixon	2327820
EPA 180.1 Rev. 2.0	05/18/2022			05/18/2022 14:39	Khloe J Berg	2327817
	05/18/2022			05/18/2022 14:41	Khloe J Berg	2327818
	05/18/2022			05/18/2022 14:42	Khloe J Berg	2327819
EPA 300.0 Rev. 2.1	05/18/2022			05/18/2022 14:43	Khloe J Berg	2327820
	05/18/2022			05/23/2022 23:43	Anna M. Plaviak	2327817
	05/18/2022			05/23/2022 23:55	Anna M. Plaviak	2327818
EPA 350.1 Rev. 2.0	05/18/2022			05/24/2022 01:57	Anna M. Plaviak	2327819
	05/18/2022			05/24/2022 02:09	Anna M. Plaviak	2327820
	05/18/2022			05/20/2022 11:12	Judith K. Clark	2327821
EPA 351.2 Rev. 2.0	05/18/2022			05/20/2022 11:13	Judith K. Clark	2327822
	05/18/2022			05/20/2022 11:15	Judith K. Clark	2327823
	05/18/2022			05/20/2022 11:16	Judith K. Clark	2327824
EPA 353.2 Rev. 2.0	05/18/2022	05/24/2022 15:13	Samantha L Bates	05/26/2022 15:56	Alexandra J Mattheus	2327821
	05/18/2022	05/25/2022 12:34	Samantha L Bates	05/31/2022 15:00	Alexandra J Mattheus	2327822
	05/18/2022	05/25/2022 12:34	Samantha L Bates	05/31/2022 15:02	Alexandra J Mattheus	2327823
EPA 365.1 Rev. 2.0	05/18/2022	05/25/2022 12:34	Samantha L Bates	05/31/2022 15:04	Alexandra J Mattheus	2327824
	05/18/2022			05/24/2022 10:52	Beverly Y. Sanders	2327821
	05/18/2022			05/24/2022 10:53	Beverly Y. Sanders	2327822
SM 2320 B-2011	05/18/2022			05/24/2022 10:54	Beverly Y. Sanders	2327823
	05/18/2022			05/24/2022 10:55	Beverly Y. Sanders	2327824
	05/18/2022	05/20/2022 15:00	Simonne.V. Calhoun	05/24/2022 13:00	James L Waggeberby	2327821
SM 2540 C-2011	05/18/2022	05/20/2022 15:00	Simonne.V. Calhoun	05/24/2022 13:01	James L Waggeberby	2327822
	05/18/2022	05/24/2022 03:30	Adam P Silver	05/25/2022 15:16	James L Waggeberby	2327823
	05/18/2022	05/24/2022 03:30	Adam P Silver	05/25/2022 15:24	James L Waggeberby	2327824
SM 2540 D-2011	05/18/2022			05/21/2022 08:10	Dale L. Simmons	2327817
	05/18/2022			05/21/2022 08:24	Dale L. Simmons	2327818
	05/18/2022			05/21/2022 09:10	Dale L. Simmons	2327819
SM 4500-F- C-2011	05/18/2022			05/21/2022 09:24	Dale L. Simmons	2327820
	05/18/2022			05/20/2022 12:55	Ping Hua	2327817, 2327818, 2327819, 2327820
	05/18/2022			05/20/2022 12:55	Ping Hua	2327817, 2327818, 2327819, 2327820
SM 5310 B-2011	05/18/2022			05/21/2022 08:10	Dale L. Simmons	2327817
	05/18/2022			05/21/2022 08:24	Dale L. Simmons	2327818
	05/18/2022			05/21/2022 09:10	Dale L. Simmons	2327819
	05/18/2022			05/21/2022 09:24	Dale L. Simmons	2327820
	05/18/2022			05/20/2022 19:36	Judith K. Clark	2327821
	05/18/2022			05/20/2022 20:19	Judith K. Clark	2327822
	05/18/2022			05/20/2022 20:34	Judith K. Clark	2327823

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-2011	05/18/2022			05/20/2022 20:48	Judith K. Clark	2327824