

Chemical Analysis Report

NE-DIST-2024-03-06-01

Florida DEP Laboratory
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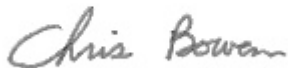
Event Description: **Nassau North Boat 2024**
Request ID: **RQ-2024-03-04-45**
Customer: **NE-DIST**
Project ID: **SMP**

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Certified by: Chris Bowen, Environmental Administrator

Date Certified: 22-MAR-2024 12:57



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 groups are included in this report: Metals and 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: NASSAU RIV US 17

Collection Date/Time: 03/05/2024 10:15

Field ID: 19020002

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2473552	EPA 200.7 Rev. 4.4	Calcium	26.4		mg/L	P442439	
		Iron	1.56E+03		ug/L	P442439	
		Magnesium	62.6		mg/L	P442439	
		Potassium	21.0		mg/L	P442439	
		Sodium	521		mg/L	P442439	
		Strontium	342		ug/L	P442439	
		Tin	3.0	U	ug/L	P442439	
		Titanium	13.8		ug/L	P442439	
		Vanadium	4.0	I	ug/L	P442439	
		Zinc	5.0	U	ug/L	P442439	
	EPA 200.8 Rev. 5.4	Aluminum	1.65E+03		ug/L	P442439	
		Antimony	0.090	I	ug/L	P442439	
		Arsenic	1.76		ug/L	P442439	
		Barium	11.9		ug/L	P442439	
		Beryllium	0.104		ug/L	P442439	
		Boron	251		ug/L	P442439	
		Cadmium	0.020	U	ug/L	P442439	
		Chromium	2.6		ug/L	P442439	
		Cobalt	0.330		ug/L	P442439	
		Copper	0.86		ug/L	P442439	
	SM 2340 B-2011	Lead	1.15		ug/L	P442439	
		Manganese	32.5		ug/L	P442439	
		Molybdenum	0.94		ug/L	P442439	
		Nickel	0.86	I	ug/L	P442439	
		Selenium	0.20	U	ug/L	P442439	
		Silver	0.010	U	ug/L	P442439	
		Thallium	0.10	U	ug/L	P442439	
		Hardness	323		mg/L	P442439	

Ref. Method and Comment:
EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for copper are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: EGAN CREEK AT ATLANTIC

Collection Date/Time: 03/05/2024 10:45

Field ID: G4NE0285

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2473543	DEP SOP: NU-094-1	Color (true)	74		PCU	P442385	
	EPA 180.1 Rev. 2.0	Turbidity	11		NTU	P442376	
	EPA 300.0 Rev. 2.1	Chloride	5.9E+03		mg Cl/L	P442618	
		Sulfate	840		mg SO4/L	P442621	
	SM 2320 B-2011	Total Alkalinity	121		mg CaCO3/L	P442828	
	SM 2540 C-2015	TDS	9.58E+03		mg/L	P442827	
	SM 2540 D-2015	TSS	18		mg/L	P442788	
	SM 4500-F- C-2011	Fluoride	0.60		mg F/L	P443081	
2473544	EPA 350.1 Rev. 2.0	Ammonia-N	0.14		mg N/L	P442804	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.87		mg N/L	P442415	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.050		mg N/L	P442668	
	EPA 365.1 Rev. 2.0	Total-P	0.39		mg P/L	P442504	
	SM 5310 B-2014	Organic Carbon	14		mg C/L	P442522	

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: ST MARYS R AT GA LINE US 17

Collection Date/Time: 03/05/2024 11:05

Field ID: 19010001

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2473541	DEP SOP: NU-094-1	Color (true)	280		PCU	P442385	
	EPA 180.1 Rev. 2.0	Turbidity	6.9		NTU	P442376	
	EPA 300.0 Rev. 2.1	Chloride	19		mg Cl/L	P442618	
		Sulfate	2.9		mg SO4/L	P442621	
	SM 2320 B-2011	Total Alkalinity	3.7		mg CaCO3/L	P442491	RPD
	SM 2540 C-2015	TDS	115		mg/L	P442827	
	SM 2540 D-2015	TSS	9	I	mg/L	P442786	
2473542	SM 4500-F- C-2011	Fluoride	0.040	I	mg F/L	P442494	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.010		mg N/L	P442516	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.72		mg N/L	P442637	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.024		mg N/L	P442555	
	EPA 365.1 Rev. 2.0	Total-P	0.036		mg P/L	P442502	
2473551	SM 5310 B-2014	Organic Carbon	26		mg C/L	P442521	
	EPA 200.7 Rev. 4.4	Calcium	4.39		mg/L	P442439	
		Iron	780		ug/L	P442439	
		Magnesium	2.22		mg/L	P442439	
		Potassium	0.65	I	mg/L	P442439	
		Sodium	11.4		mg/L	P442439	
		Strontium	21.1		ug/L	P442439	
		Tin	3.0	U	ug/L	P442439	
		Titanium	3.4		ug/L	P442439	
		Vanadium	2.0	U	ug/L	P442439	
		Zinc	5.0	U	ug/L	P442439	
	EPA 200.8 Rev. 5.4	Aluminum	772		ug/L	P442439	
		Antimony	0.054	I	ug/L	P442439	
		Arsenic	0.44		ug/L	P442439	
		Barium	14.2		ug/L	P442439	
		Beryllium	0.043		ug/L	P442439	
		Boron	18.6		ug/L	P442439	
		Cadmium	0.020	U	ug/L	P442439	
		Chromium	1.0	I	ug/L	P442439	
		Cobalt	0.227		ug/L	P442439	
		Copper	0.45	I	ug/L	P442439	
		Lead	0.75		ug/L	P442439	
		Manganese	13.8		ug/L	P442439	
		Molybdenum	0.19	I	ug/L	P442439	
		Nickel	0.56	I	ug/L	P442439	
		Selenium	0.20	U	ug/L	P442439	
		Silver	0.010	U	ug/L	P442439	
		Thallium	0.10	U	ug/L	P442439	
	SM 2340 B-2011	Hardness	20.1		mg/L	P442439	

Ref. Method and Comment:

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

EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for copper are unavailable for one of two spiked samples because of high analyte concentration in the QC sample. The lead result was confirmed in the undigested sample on 03/12/2024.

Sample Location: ST MARYS RIVER AT CRANDALL RD

Collection Date/Time: 03/05/2024 11:45

Field ID: G4NE0293

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2473553	EPA 200.7 Rev. 4.4	Calcium	10.7		mg/L	P442439	
		Iron	1.29E+03		ug/L	P442439	
		Magnesium	21.4		mg/L	P442439	
		Potassium	6.4		mg/L	P442439	
		Sodium	161		mg/L	P442439	
		Strontium	122		ug/L	P442439	
		Tin	3.0	U	ug/L	P442439	
		Titanium	10.2		ug/L	P442439	
		Vanadium	2.5	I	ug/L	P442439	
		Zinc	5.0	U	ug/L	P442439	
	EPA 200.8 Rev. 5.4	Aluminum	1.14E+03		ug/L	P442439	
		Antimony	0.067	I	ug/L	P442439	
		Arsenic	0.86		ug/L	P442439	
		Barium	13.0		ug/L	P442439	
		Beryllium	0.064		ug/L	P442439	
		Boron	84.5		ug/L	P442439	
		Cadmium	0.020	U	ug/L	P442439	
		Chromium	1.7		ug/L	P442439	
		Cobalt	0.303		ug/L	P442439	
		Copper	0.90		ug/L	P442439	
		Lead	1.13		ug/L	P442439	
		Manganese	18.5		ug/L	P442439	
		Molybdenum	0.49	I	ug/L	P442439	
		Nickel	0.65	I	ug/L	P442439	
		Selenium	0.20	U	ug/L	P442439	
		Silver	0.010	U	ug/L	P442439	
		Thallium	0.10	U	ug/L	P442439	
	SM 2340 B-2011	Hardness	115		mg/L	P442439	

Ref. Method and Comment:

EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for copper are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Quality Assurance Report

Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P442385

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P442376

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P442439

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P442439

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Barium	0.20	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Manganese	0.10	U	ug/L
Molybdenum	0.15	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P442618

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P442621

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P442516

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P442804

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P442415

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P442637

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P442555

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P442668

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P442502

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P442504

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: P442491

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

Reference Method: SM 2320 B-2011
Batch ID: P442828

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

Reference Method: SM 2540 C-2015
Batch ID: P442827

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P442786

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P442788

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P442494

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 4500-F- C-2011
Batch ID: P443081

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2014
Batch ID: P442521

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

Reference Method: SM 5310 B-2014
Batch ID: P442522

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: P442385

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.0		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P442376

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P442439

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	104		P	85 - 115
Iron	110		P	85 - 115
Magnesium	104		P	85 - 115
Potassium	101		P	85 - 115
Sodium	98.8		P	85 - 115
Strontium	95.4		P	85 - 115
Tin	100		P	85 - 115
Titanium	104		P	85 - 115
Vanadium	101		P	85 - 115
Zinc	97.9		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P442439

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	103		P	85 - 115
Arsenic	101		P	85 - 115
Barium	102		P	85 - 115
Beryllium	99.3		P	85 - 115
Boron	103		P	85 - 115
Cadmium	102		P	85 - 115
Chromium	101		P	85 - 115
Cobalt	97.0		P	85 - 115
Copper	101		P	85 - 115
Lead	98.1		P	85 - 115
Manganese	103		P	85 - 115
Molybdenum	99.0		P	85 - 115
Nickel	99.2		P	85 - 115
Selenium	101		P	85 - 115
Silver	104		P	85 - 115
Thallium	98.2		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P442618

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.6		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P442621

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	98.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P442516

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	92.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P442804

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P442415

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P442637

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: P442555

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: P442668

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P442502

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P442504

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P442491

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	92 - 105

Reference Method: SM 2320 B-2011
Batch ID: P442828

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.1		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P442827

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	91.6		P	85 - 115

Reference Method: SM 2540 D-2015
Batch ID: P442786

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	96.8		P	85 - 115

Reference Method: SM 2540 D-2015
Batch ID: P442788

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	102		P	85 - 115

Reference Method: SM 4500-F- C-2011
Batch ID: P442494

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.6		P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P443081

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

Reference Method: SM 5310 B-2014
Batch ID: P442521

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

Reference Method: SM 5310 B-2014
Batch ID: P442522

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P442439

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2473451	Calcium	100		P	80 - 120
2473451	Iron	106	107	P/P	80 - 120
2473451	Magnesium	99.1		P	80 - 120
2473451	Potassium	99.7	99.8	P/P	80 - 120
2473451	Sodium	97.6		P	80 - 120
2473451	Strontium	92.4	94.1	P/P	80 - 120
2473451	Tin	98.8	99.1	P/P	80 - 120
2473451	Titanium	102	101	P/P	80 - 120
2473451	Vanadium	97.2	97.5	P/P	80 - 120
2473451	Zinc	93.1	91.9	P/P	80 - 120
2473551	Calcium	104		P	80 - 120
2473551	Iron	104		P	80 - 120
2473551	Magnesium	104		P	80 - 120
2473551	Potassium	97.1		P	80 - 120
2473551	Sodium	97.5		P	80 - 120
2473551	Strontium	92.4		P	80 - 120
2473551	Tin	96.4		P	80 - 120
2473551	Titanium	98.5		P	80 - 120
2473551	Vanadium	100		P	80 - 120
2473551	Zinc	97.8		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P442439

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2473451	Aluminum	99.5	100	P/P	80 - 120
2473451	Antimony	104	104	P/P	80 - 120
2473451	Arsenic	99.4	100	P/P	80 - 120
2473451	Barium	104	103	P/P	80 - 120
2473451	Beryllium	102	101	P/P	80 - 120
2473451	Boron	111	112	P/P	80 - 120
2473451	Cadmium	103	106	P/P	80 - 120
2473451	Chromium	101	100	P/P	80 - 120
2473451	Cobalt	94.2	94.5	P/P	80 - 120
2473451	Lead	98.5	98.5	P/P	80 - 120
2473451	Manganese	105	104	P/P	80 - 120
2473451	Molybdenum	100	101	P/P	80 - 120
2473451	Nickel	96.8	96.5	P/P	80 - 120
2473451	Selenium	97.1	97.2	P/P	80 - 120
2473451	Silver	103	104	P/P	80 - 120
2473451	Thallium	101	104	P/P	80 - 120
2473551	Aluminum	90.2		P	80 - 120
2473551	Antimony	99.9		P	80 - 120
2473551	Arsenic	99.9		P	80 - 120
2473551	Barium	101		P	80 - 120
2473551	Beryllium	103		P	80 - 120
2473551	Boron	109		P	80 - 120
2473551	Cadmium	102		P	80 - 120
2473551	Chromium	102		P	80 - 120
2473551	Cobalt	97.7		P	80 - 120
2473551	Copper	97.3		P	80 - 120
2473551	Lead	99.7		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P442439

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2473551	Manganese	99.5		P	80 - 120
2473551	Molybdenum	100		P	80 - 120
2473551	Nickel	98.9		P	80 - 120
2473551	Selenium	96.5		P	80 - 120
2473551	Silver	103		P	80 - 120
2473551	Thallium	104		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P442618

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2473439	Chloride	98.4		P	90 - 110
2473609	Chloride	96.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P442621

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2473439	Sulfate	96.8		P	90 - 110
2473609	Sulfate	95.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P442516

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2473616	Ammonia-N	96.4	97.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P442804

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2473566	Ammonia-N	104	105	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P442415

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2473568	Kjeldahl Nitrogen	98.3	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P442637

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2473617	Kjeldahl Nitrogen	102	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P442555

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2473293	NO2NO3-N	98.4	99.9	P/P	90 - 110

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P442668

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2473236	NO2NO3-N	98.5	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P442502

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2473601	Total-P	106	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P442504

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2473411	Total-P	95.0	97.7	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Batch ID: P442494

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2473074	Fluoride	101	101	P/P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P443081

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2472303	Fluoride	98.7	100	P/P	94 - 106

Reference Method: SM 5310 B-2014
Batch ID: P442521

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2473462	Organic Carbon	99.2	99.8	P/P	85 - 115

Reference Method: SM 5310 B-2014
Batch ID: P442522

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2473544	Organic Carbon	92.1	91.7	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P442385

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2473501	Color (true)	7.40	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P442376

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2473460	Turbidity	2.58	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P442439

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2473451	Calcium	1.83	Spike	P	0 - 20
2473451	Iron	0.702	Spike	P	0 - 20
2473451	Magnesium	0.362	Spike	P	0 - 20
2473451	Potassium	0.0891	Spike	P	0 - 20
2473451	Sodium	1.42	Spike	P	0 - 20
2473451	Strontium	1.83	Spike	P	0 - 20
2473451	Tin	0.310	Spike	P	0 - 20
2473451	Titanium	1.18	Spike	P	0 - 20
2473451	Vanadium	0.329	Spike	P	0 - 20
2473451	Zinc	0.980	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P442439

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2473451	Aluminum	0.784	Spike	P	0 - 20
2473451	Antimony	0.00331	Spike	P	0 - 20
2473451	Arsenic	0.668	Spike	P	0 - 20
2473451	Barium	0.384	Spike	P	0 - 20
2473451	Beryllium	0.983	Spike	P	0 - 20
2473451	Boron	0.326	Spike	P	0 - 20
2473451	Cadmium	2.97	Spike	P	0 - 20
2473451	Chromium	0.731	Spike	P	0 - 20
2473451	Cobalt	0.335	Spike	P	0 - 20
2473451	Copper	7.17	Spike	P	0 - 20
2473451	Lead	0.0290	Spike	P	0 - 20
2473451	Manganese	0.544	Spike	P	0 - 20
2473451	Molybdenum	0.624	Spike	P	0 - 20
2473451	Nickel	0.302	Spike	P	0 - 20
2473451	Selenium	0.0748	Spike	P	0 - 20
2473451	Silver	0.245	Spike	P	0 - 20
2473451	Thallium	2.20	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P442618

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2473439	Chloride	0.416	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P442621

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2473439	Sulfate	3.02	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P442516

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2473616	Ammonia-N	0.653	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P442804

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2473566	Ammonia-N	1.02	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P442415

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2473568	Kjeldahl Nitrogen	2.73	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P442637

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2473617	Kjeldahl Nitrogen	0.284	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P442555

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2473293	NO2NO3-N	1.39	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P442668

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2473236	NO2NO3-N	2.51	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P442502

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2473601	Total-P	2.99	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P442504

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2473411	Total-P	2.78	Spike	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P442491

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2473074	Total Alkalinity	4.45	Sample	F	0 - 3.9

Reference Method: SM 2320 B-2011
Batch ID: P442828

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2474489	Total Alkalinity	2.71	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P442827

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2473498	TDS	2.17	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P442494

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2473074	Fluoride	0.0	Spike	P	0 - 1.9

Reference Method: SM 4500-F- C-2011
Batch ID: P443081

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2472303	Fluoride	0.960	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2014
Batch ID: P442521

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2473462	Organic Carbon	0.404	Spike	P	0 - 15

Quality Assurance Report
Precision

Reference Method: SM 5310 B-2014
Batch ID: P442522

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2473544	Organic Carbon	0.314	Spike	P	0 - 15

* 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: A124568
Included Lab Sample IDs: 2473541, 2473543

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	99.0	P/P	95 - 105

Reference Method: DEP SOP: NU-094-1
Run ID: A124572
Included Lab Sample IDs: 2473541, 2473543

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	99.7	P/P	90 - 110
Color (true)	101	100	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A124581
Included Lab Sample IDs: 2473541, 2473543

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.1	98.8	P/P	90 - 110
Sulfate	97.3	98.2	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A124627
Included Lab Sample IDs: 2473541

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	96.6	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A124627
Included Lab Sample IDs: 2473541

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	104	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A124638
Included Lab Sample IDs: 2473542

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.6	99.0	P/P	90 - 110

Reference Method: SM 5310 B-2014
Run ID: A124640
Included Lab Sample IDs: 2473542, 2473544

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	121	98.4	P/P	70 - 130
Organic Carbon	99.5	121	P/P	85 - 115

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A124644
Included Lab Sample IDs: 2473544

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	98.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A124657
Included Lab Sample IDs: 2473542

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.0	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A124669
Included Lab Sample IDs: 2473544

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.9	99.6	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A124696
Included Lab Sample IDs: 2473551, 2473552, 2473553

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.4	102	P/P	90 - 110
Antimony	99.9	99.1	P/P	90 - 110
Arsenic	99.4	99.3	P/P	90 - 110
Barium	100	99.9	P/P	90 - 110
Beryllium	98.0	98.1	P/P	90 - 110
Boron	105	106	P/P	90 - 110
Cadmium	101	100	P/P	90 - 110
Chromium	98.4	98.8	P/P	90 - 110
Cobalt	96.4	96.7	P/P	90 - 110
Copper	98.4	96.8	P/P	90 - 110
Lead	98.0	99.3	P/P	90 - 110
Manganese	99.2	97.1	P/P	90 - 110
Molybdenum	99.9	99.4	P/P	90 - 110
Nickel	98.6	99.5	P/P	90 - 110
Selenium	102	99.5	P/P	90 - 110
Silver	98.1	98.3	P/P	90 - 110
Thallium	103	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A124703
Included Lab Sample IDs: 2473544

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: A124751
Included Lab Sample IDs: 2473542

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

Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A124751

Included Lab Sample IDs: 2473542

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.2	95.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A124753

Included Lab Sample IDs: 2473544

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.3	99.3	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A124763

Included Lab Sample IDs: 2473543

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.4	97.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A124764

Included Lab Sample IDs: 2473542

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.8	100	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A124767

Included Lab Sample IDs: 2473551, 2473552, 2473553

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	102	99.2	P/P	90 - 110
Calcium	99.2	100	P/P	90 - 110
Calcium	100	99.9	P/P	90 - 110
Iron	102	98.9	P/P	90 - 110
Iron	98.9	99.7	P/P	90 - 110
Iron	99.7	99.9	P/P	90 - 110
Magnesium	101	101	P/P	90 - 110
Magnesium	103	99.8	P/P	90 - 110
Magnesium	99.8	101	P/P	90 - 110
Potassium	100	99.0	P/P	90 - 110
Potassium	99.0	99.5	P/P	90 - 110
Potassium	99.5	99.9	P/P	90 - 110
Sodium	94.4	94.6	P/P	90 - 110
Sodium	94.6	95.4	P/P	90 - 110
Sodium	96.6	94.4	P/P	90 - 110
Strontium	92.1	94.0	P/P	90 - 110
Strontium	93.5	94.1	P/P	90 - 110
Strontium	94.1	92.1	P/P	90 - 110
Tin	102	101	P/P	90 - 110
Tin	102	102	P/P	90 - 110
Tin	102	102	P/P	90 - 110
Titanium	102	103	P/P	90 - 110
Titanium	103	102	P/P	90 - 110

Quality Assurance Report

Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A124767

Included Lab Sample IDs: 2473551, 2473552, 2473553

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Titanium	103	102	P/P	90 - 110
Vanadium	100	99.4	P/P	90 - 110
Vanadium	101	99.9	P/P	90 - 110
Vanadium	99.9	100	P/P	90 - 110
Zinc	99.0	98.8	P/P	90 - 110
Zinc	99.2	99.0	P/P	90 - 110
Zinc	99.7	99.2	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A124874

Included Lab Sample IDs: 2473543

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	100	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 SMP	MS
			LCS				
DEP SOP: NU-094-1	Color (true)	99.0				7.40	
EPA 180.1 Rev. 2.0	Turbidity	104				2.58	
EPA 200.7 Rev. 4.4	Calcium	104	100	104			1.83
	Iron	110	106	107	104		0.702
	Magnesium	104	99.1	104			0.362
	Potassium	101	99.7	99.8	97.1		0.0891
	Sodium	98.8	97.6	97.5			1.42
	Strontium	95.4	92.4	94.1	92.4		1.83
	Tin	100	98.8	99.1	96.4		0.310
	Titanium	104	102	101	98.5		1.18
	Vanadium	101	97.2	97.5	100		0.329
	Zinc	97.9	93.1	91.9	97.8		0.980
EPA 200.8 Rev. 5.4	Aluminum	101	99.5	100	90.2		0.784
	Antimony	103	104	104	99.9		0.0033
	Arsenic	101	99.4	100	99.9		0.668
	Barium	102	104	103	101		0.384
	Beryllium	99.3	102	101	103		0.983
	Boron	103	111	112	109		0.326
	Cadmium	102	103	106	102		2.97
	Chromium	101	101	100	102		0.731
	Cobalt	97.0	94.2	94.5	97.7		0.335
	Copper	101	97.3				7.17
	Lead	98.1	98.5	98.5	99.7		0.0290
	Manganese	103	105	104	99.5		0.544
	Molybdenum	99.0	100	101	100		0.624
	Nickel	99.2	96.8	96.5	98.9		0.302
	Selenium	101	97.1	97.2	96.5		0.0748
	Silver	104	103	104	103		0.245
	Thallium	98.2	101	104	104		2.20
EPA 300.0 Rev. 2.1	Chloride	98.6	98.4	96.5		0.416	
	Sulfate	98.1	96.8	95.1		3.02	
EPA 350.1 Rev. 2.0	Ammonia-N	92.8	96.4	97.2			0.653
	Ammonia-N	98.6	104	105			1.02
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	98.3	101			2.73
	Kjeldahl Nitrogen	103	102	101			0.284
EPA 353.2 Rev. 2.0	NO2NO3-N	97.0	98.4	99.9			1.39
	NO2NO3-N	99.0	98.5	101			2.51
EPA 365.1 Rev. 2.0	Total-P	105	106	102			2.99
	Total-P	100	95.0	97.7			2.78
SM 2320 B-2011	Total Alkalinity	104				4.45	
	Total Alkalinity	99.1				2.71	
SM 2540 C-2015	TDS	91.6				2.17	
SM 2540 D-2015	TSS	96.8					
	TSS	102					
SM 4500-F- C-2011	Fluoride	99.6	101	101			0.0
	Fluoride	97.6	98.7	100			0.960
SM 5310 B-2014	Organic Carbon	101	99.2	99.8			0.404
	Organic Carbon	97.2	92.1	91.7			0.314

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2473541, 2473543

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2473541, 2473543
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2473551, 2473552, 2473553
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2473551, 2473552, 2473553
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2473541, 2473543
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2473541, 2473543
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2473542, 2473544
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2473542, 2473544
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2473542, 2473544
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2473542, 2473544
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2473541, 2473543
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2473551, 2473552, 2473553
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2473541, 2473543
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2473541, 2473543
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2473541, 2473543
SM 5310 B-2014	Nonpurgeable Organic Carbon in aqueous matrices	2473542, 2473544

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	03/06/2024			03/06/2024 14:23	Jessica K Wilks	2473543
	03/06/2024			03/06/2024 14:43	Jessica K Wilks	2473541
EPA 180.1 Rev. 2.0	03/06/2024			03/06/2024 13:03	Chandler E Cox	2473541
	03/06/2024			03/06/2024 13:04	Chandler E Cox	2473543
EPA 200.7 Rev. 4.4	03/06/2024	03/07/2024 12:35	George D Taylor	03/14/2024 19:39	Conrad Hartmann	2473551
	03/06/2024	03/07/2024 12:35	George D Taylor	03/14/2024 20:59	Conrad Hartmann	2473553
	03/06/2024	03/07/2024 12:35	George D Taylor	03/14/2024 22:24	Conrad Hartmann	2473552
	03/06/2024	03/07/2024 12:35	George D Taylor	03/14/2024 22:30	Conrad Hartmann	2473552
EPA 200.8 Rev. 5.4	03/06/2024	03/07/2024 12:35	George D Taylor	03/11/2024 18:37	Emily M Philpot	2473552
	03/06/2024	03/07/2024 12:35	George D Taylor	03/11/2024 18:46	Emily M Philpot	2473553
	03/06/2024	03/07/2024 12:35	George D Taylor	03/11/2024 19:21	Emily M Philpot	2473551
	03/06/2024			03/09/2024 04:47	Samantha L Bates	2473541
EPA 300.0 Rev. 2.1	03/06/2024			03/09/2024 05:02	Samantha L Bates	2473543
	03/06/2024			03/08/2024 13:17	Kenneth H Lee	2473542
EPA 350.1 Rev. 2.0	03/06/2024			03/14/2024 13:46	Ping Hua	2473544
	03/06/2024	03/07/2024 13:18	Simonne.V. Calhoun	03/08/2024 15:08	Robyn Blevins	2473544
EPA 351.2 Rev. 2.0	03/06/2024	03/13/2024 09:50	Ping Hua	03/14/2024 12:06	Robyn Blevins	2473542
	03/06/2024			03/08/2024 14:56	Fadila Guebre	2473542
EPA 353.2 Rev. 2.0	03/06/2024			03/11/2024 14:23	Fadila Guebre	2473544
	03/06/2024	03/08/2024 12:35	Josephine W Gitau	03/11/2024 11:04	Chandler E Cox	2473544
	03/06/2024	03/08/2024 12:35	Josephine W Gitau	03/14/2024 13:09	Chandler E Cox	2473542
EPA 365.1 Rev. 2.0	03/06/2024			03/08/2024 06:59	Dale L. Simmons	2473541
	03/06/2024			03/14/2024 17:37	Adam P Silver	2473543
SM 2320 B-2011	03/06/2024			03/14/2024 19:39	Conrad Hartmann	2473551
	03/06/2024			03/14/2024 20:59	Conrad Hartmann	2473553
SM 2340 B-2011	03/06/2024			03/14/2024 22:24	Conrad Hartmann	2473552
	03/06/2024			03/08/2024 16:19	Yijie Li	2473541, 2473543
	03/06/2024			03/08/2024 16:19	Yijie Li	2473541, 2473543
SM 2540 C-2015	03/06/2024			03/08/2024 06:59	Dale L. Simmons	2473541
SM 2540 D-2015	03/06/2024			03/20/2024 04:37	Dale L. Simmons	2473543
SM 4500-F- C-2011	03/06/2024			03/08/2024 03:12	Khloe J Berg	2473542
	03/06/2024			03/08/2024 05:19	Khloe J Berg	2473544