

Chemical Analysis Report

SE-DIST-2023-10-17-02

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

Event Description: **SMP - Jupiter/Jupiter Deploy**
Request ID: **RQ-2023-10-02-69**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
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Certified by: Colin Wright, Program Administrator

Date Certified: 07-NOV-2023 11:58

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light blue rectangular background.

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: SIMS CREEK NEAR SIMS CREEK DR

Collection Date/Time: 10/16/2023 09:40

Field ID: G2SE0073

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2445428	DEP SOP: NU-094-1	Color (true)	61		PCU	P436623	
	EPA 180.1 Rev. 2.0	Turbidity	3.6	A	NTU	P436622	
	EPA 300.0 Rev. 2.1	Chloride	4.2E+03		mg Cl/L	P437371	
		Sulfate	580		mg SO4/L	P437375	
	SM 2320 B-2011	Total Alkalinity	145	A	mg CaCO3/L	P436801	
	SM 2540 C-2015	TDS	7.40E+03		mg/L	P437083	
	SM 2540 D-2015	TSS	3	U	mg/L	P437024	
	SM 4500-F- C-2011	Fluoride	0.36		mg F/L	P436886	
2445430	EPA 350.1 Rev. 2.0	Ammonia-N	0.27		mg N/L	P436760	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.98		mg N/L	P436948	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.036		mg N/L	P436878	
	EPA 365.1 Rev. 2.0	Total-P	0.086		mg P/L	P436722	
	SM 5310 B-2011	Organic Carbon	11		mg C/L	P437226	

Ref. Method and Comment:

SM 2540 C-2015: The reported result is consistent with the conductivity measured in the laboratory, 13690 umhos/cm.

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

Sample Location: JONES CREEK AT SR 706

Collection Date/Time: 10/16/2023 10:00

Field ID: G2SE0074

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2445429	DEP SOP: NU-094-1	Color (true)	50		PCU	P436623	
	EPA 180.1 Rev. 2.0	Turbidity	2.1		NTU	P436622	
	EPA 300.0 Rev. 2.1	Chloride	1.1E+04		mg Cl/L	P437371	
		Sulfate	1.5E+03		mg SO4/L	P437375	
	SM 2320 B-2011	Total Alkalinity	132		mg CaCO3/L	P436801	
	SM 2540 C-2015	TDS	1.86E+04		mg/L	P437083	
	SM 2540 D-2015	TSS	5	IA	mg/L	P437024	
	SM 4500-F- C-2011	Fluoride	0.74		mg F/L	P436805	
2445431	EPA 350.1 Rev. 2.0	Ammonia-N	0.088		mg N/L	P436814	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.66	J	mg N/L	P436727	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.01	I	mg N/L	P436879	
	EPA 365.1 Rev. 2.0	Total-P	0.070		mg P/L	P436722	
	SM 5310 B-2011	Organic Carbon	8.3		mg C/L	P437015	

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: Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P436623

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P436622

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437371

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437375

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P436760

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P436814

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436727

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436948

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436878

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436879

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P436722

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

Reference Method: SM 2320 B-2011
Batch ID: P436801

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

Reference Method: SM 2540 C-2015
Batch ID: P437083

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P437024

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P436805

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 4500-F- C-2011
Batch ID: P436886

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P437015

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

Reference Method: SM 5310 B-2011
Batch ID: P437226

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: P436623

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P436622

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437371

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437375

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P436760

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P436814

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436727

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	109		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436948

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436878

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436879

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P436722

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

Reference Method: SM 2320 B-2011
Batch ID: P436801

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.0		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P437083

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	105		P	85 - 115

Reference Method: SM 2540 D-2015
Batch ID: P437024

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	110		P	85 - 115

Reference Method: SM 4500-F- C-2011
Batch ID: P436805

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

Reference Method: SM 4500-F- C-2011
Batch ID: P436886

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

Reference Method: SM 5310 B-2011
Batch ID: P437015

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.9		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P437226

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437371

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445505	Chloride	100		P	90 - 110
2445607	Chloride	105		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437375

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445505	Sulfate	100		P	90 - 110
2445607	Sulfate	104		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P436760

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2444746	Ammonia-N	97.2	98.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P436814

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445231	Ammonia-N	100	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436727

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445431	Kjeldahl Nitrogen	112	105	F/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436948

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2446650	Kjeldahl Nitrogen	97.3	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436878

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445227	NO2NO3-N	99.2	99.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436879

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445431	NO2NO3-N	97.4	98.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P436722

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445431	Total-P	99.4	99.4	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P436805

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2444293	Fluoride	101	101	P/P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P436886

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445428	Fluoride	100	101	P/P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P437015

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2446051	Organic Carbon	94.6	96.7	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P437226

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445430	Organic Carbon	94.7	95.1	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P436623

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445413	Color (true)	0.275	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P436622

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445428	Turbidity	0.557	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437371

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445505	Chloride	0.435	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437375

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445505	Sulfate	6.33	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P436760

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2444746	Ammonia-N	1.27	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P436814

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445231	Ammonia-N	1.51	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436727

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445431	Kjeldahl Nitrogen	5.60	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436948

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2446650	Kjeldahl Nitrogen	7.61	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436878

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445227	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436879

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445431	NO2NO3-N	0.974	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P436722

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445431	Total-P	0.0470	Spike	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P436801

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445428	Total Alkalinity	0.543	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P437083

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445878	TDS	1.58	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P436805

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2444293	Fluoride	0.0	Spike	P	0 - 1.9

Reference Method: SM 4500-F- C-2011
Batch ID: P436886

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445428	Fluoride	0.524	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P437015

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2446051	Organic Carbon	1.44	Spike	P	0 - 20

Quality Assurance Report

Precision

Reference Method: SM 5310 B-2011
Batch ID: P437226

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445430	Organic Carbon	0.416	Spike	P	0 - 20

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

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A122198

Included Lab Sample IDs: 2445428, 2445429

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

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A122199

Included Lab Sample IDs: 2445428, 2445429

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	99.5	P/P	95 - 105

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A122246

Included Lab Sample IDs: 2445430

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

Reference Method: SM 2320 B-2011

Run ID: A122259

Included Lab Sample IDs: 2445428, 2445429

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.2	98.4	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A122259

Included Lab Sample IDs: 2445429

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A122263

Included Lab Sample IDs: 2445431

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.3	98.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A122287

Included Lab Sample IDs: 2445431

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A122291

Included Lab Sample IDs: 2445430, 2445431

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	104	103	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A122293

Included Lab Sample IDs: 2445430, 2445431

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

Reference Method: SM 4500-F- C-2011

Run ID: A122296

Included Lab Sample IDs: 2445428

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	102	100	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A122369

Included Lab Sample IDs: 2445431

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.4	97.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A122397

Included Lab Sample IDs: 2445430

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	91.6	98.3	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A122479

Included Lab Sample IDs: 2445428, 2445429

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	97.5	99.9	P/P	90 - 110
Sulfate	98.3	99.9	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A122481

Included Lab Sample IDs: 2445430

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.3	98.1	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			0.275	
EPA 180.1 Rev. 2.0	Turbidity	104			0.557	
EPA 300.0 Rev. 2.1	Chloride	99.8	100	105	0.435	
	Sulfate	100	100	104	6.33	
EPA 350.1 Rev. 2.0	Ammonia-N	99.2	97.2	98.8		1.27
	Ammonia-N	101	100	103		1.51
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	109	112	105		5.60
	Kjeldahl Nitrogen	99.0	97.3	106		7.61
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0	99.2	99.2		0.0
	NO2NO3-N	100	97.4	98.4		0.974
EPA 365.1 Rev. 2.0	Total-P	102	99.4	99.4		0.0470
SM 2320 B-2011	Total Alkalinity	98.0			0.543	
SM 2540 C-2015	TDS	105			1.58	
SM 2540 D-2015	TSS	110				
SM 4500-F- C-2011	Fluoride	101	101	101		0.0
	Fluoride	101	100	101		0.524
SM 5310 B-2011	Organic Carbon	96.9	94.6	96.7		1.44
	Organic Carbon	95.5	94.7	95.1		0.416

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2445428, 2445429
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2445428, 2445429
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2445428, 2445429
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2445428, 2445429
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2445430, 2445431
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2445430, 2445431
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2445430, 2445431
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2445430, 2445431
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2445428, 2445429
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2445428, 2445429
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2445428, 2445429
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2445428, 2445429
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2445430, 2445431

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	10/17/2023			10/17/2023 16:03	Anna M. Plaviak	2445428
	10/17/2023			10/17/2023 16:04	Anna M. Plaviak	2445429
EPA 180.1 Rev. 2.0	10/17/2023			10/17/2023 15:12	Khloe J Berg	2445428
	10/17/2023			10/17/2023 15:13	Khloe J Berg	2445429
EPA 300.0 Rev. 2.1	10/17/2023			11/01/2023 17:27	James L Waggeberby	2445428
	10/17/2023			11/01/2023 17:42	James L Waggeberby	2445429
EPA 350.1 Rev. 2.0	10/17/2023			10/19/2023 14:26	Khloe J Berg	2445430
	10/17/2023			10/20/2023 13:18	Ping Hua	2445431
EPA 351.2 Rev. 2.0	10/17/2023	10/19/2023 15:24	Samantha L Bates	10/23/2023 10:27	Samantha L Bates	2445431
	10/17/2023	10/25/2023 10:05	Samantha L Bates	10/26/2023 12:27	Samantha L Bates	2445430
EPA 353.2 Rev. 2.0	10/17/2023			10/23/2023 13:04	Anna M. Plaviak	2445430
	10/17/2023			10/23/2023 13:20	Anna M. Plaviak	2445431
EPA 365.1 Rev. 2.0	10/17/2023	10/19/2023 12:30	Simonne.V. Calhoun	10/23/2023 12:40	Chandler E Cox	2445431
	10/17/2023	10/19/2023 12:30	Simonne.V. Calhoun	10/23/2023 12:41	Chandler E Cox	2445430
SM 2320 B-2011	10/17/2023			10/20/2023 08:41	Dale L. Simmons	2445428
	10/17/2023			10/20/2023 08:55	Dale L. Simmons	2445429
SM 2540 C-2015	10/17/2023			10/20/2023 16:03	Yijie Li	2445428, 2445429
SM 2540 D-2015	10/17/2023			10/20/2023 16:03	Yijie Li	2445428, 2445429
SM 4500-F- C-2011	10/17/2023			10/20/2023 07:05	Dale L. Simmons	2445429
	10/17/2023			10/23/2023 22:56	Adam P Silver	2445428
SM 5310 B-2011	10/17/2023			10/26/2023 03:18	Elise M. Gillis	2445431
	10/17/2023			10/31/2023 22:55	Elise M. Gillis	2445430