Chemical Analysis Report

NW-DIST-2023-03-02-02

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

Event Description: **Escambia River Run**
Request ID: **RQ-2023-02-27-55**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 W Government Street
Suite 208
Pensacola, FL 32502-5794
Attn: Myranda Butler

For additional information please contact
Colin Wright, Ph.D.
Chris Bowen, B.S.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Colin Wright, Program Administrator

Date Certified: 24-MAR-2023 10:14

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: Escambia River upstream of Mitchell Creek **Collection Date/Time: 03/01/2023 11:35**

Field ID: G4NW0404 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2391163	DEP SOP: NU-094-1	Color (true)	52		PCU	P426620	
	EPA 180.1 Rev. 2.0	Turbidity	13		NTU	P426624	
	EPA 300.0 Rev. 2.1	Chloride	5.2		mg Cl/L	P427000	
		Sulfate	6.9		mg SO4/L	P427003	
	SM 2320 B-2011	Total Alkalinity	30		mg CaCO3/L	P426900	
	SM 2540 C-2015	TDS	62		mg/L	P427176	
	SM 2540 D-2015	TSS	11		mg/L	P426964	
	SM 4500-F- C-2011	Fluoride	0.032	I	mg F/L	P426903	MS
2391165	EPA 350.1 Rev. 2.0	Ammonia-N	0.071		mg N/L	P426736	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.32		mg N/L	P426848	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.28		mg N/L	P426783	
	EPA 365.1 Rev. 2.0	Total-P	0.048		mg P/L	P426996	
	SM 5310 B-2011	Organic Carbon	4.1		mg C/L	P426914	

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

Sample Location: Escambia River downstream of Cotton Lake **Collection Date/Time: 03/01/2023 12:35**

Field ID: G4NW0403 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2391164	DEP SOP: NU-094-1	Color (true)	55		PCU	P426620	
	EPA 180.1 Rev. 2.0	Turbidity	15		NTU	P426624	
	EPA 300.0 Rev. 2.1	Chloride	5.2		mg Cl/L	P427000	
		Sulfate	6.9		mg SO4/L	P427003	
	SM 2320 B-2011	Total Alkalinity	28		mg CaCO3/L	P426900	
	SM 2540 C-2015	TDS	63		mg/L	P427176	
	SM 2540 D-2015	TSS	13		mg/L	P426964	
	SM 4500-F- C-2011	Fluoride	0.032	I	mg F/L	P426903	MS
2391166	EPA 350.1 Rev. 2.0	Ammonia-N	0.060		mg N/L	P426734	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.32		mg N/L	P426848	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.28		mg N/L	P426783	
	EPA 365.1 Rev. 2.0	Total-P	0.050		mg P/L	P426996	
	SM 5310 B-2011	Organic Carbon	4.1		mg C/L	P426914	

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

Quality Assurance Report
Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P426620

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P426624

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427000

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427003

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426734

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426736

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P426848

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P426783

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P426996

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: P426900

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

Reference Method: SM 2540 C-2015
Batch ID: P427176

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P426964

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P426903

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P426914

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: P426620

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: P426624

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427000

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427003

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426734

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426736

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P426848

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P426783

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	102		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P426996

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P426900

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	94.8		P	94 - 106

Reference Method: SM 2540 C-2015
Batch ID: P427176

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	95.1		P	90 - 110

Reference Method: SM 2540 D-2015
Batch ID: P426964

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	99.5		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P426903

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	103		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P426914

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	93.8		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427000

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2391219	Chloride	95.8		P	90 - 110
2391259	Chloride	96.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427003

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2391219	Sulfate	100		P	90 - 110
2391259	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426734

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2391221	Ammonia-N	100	99.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426736

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2391159	Ammonia-N	97.6	99.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P426848

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2391173	Kjeldahl Nitrogen	106	97.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P426783

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2391159	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P426996

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2391159	Total-P	99.8	100	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Batch ID: P426903

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2391088	Fluoride	105	104	F/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P426914

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2391221	Organic Carbon	95.3	95.6	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P426620

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2391130	Color (true)	0.705	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P426624

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2390968	Turbidity	6.32	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427000

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2391219	Chloride	2.19	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426734

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2391221	Ammonia-N	0.907	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426736

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2391159	Ammonia-N	1.54	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P426848

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2391173	Kjeldahl Nitrogen	6.87	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P426783

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2391159	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P426996

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2391159	Total-P	0.418	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: SM 2320 B-2011
Batch ID: P426900

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2391088	Total Alkalinity	0.711	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2015
Batch ID: P427176

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2390616	TDS	3.04	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P426903

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2391088	Fluoride	0.979	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P426914

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2391221	Organic Carbon	0.357	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: A117767
Included Lab Sample IDs: 2391163, 2391164

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.2	100	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A117768
Included Lab Sample IDs: 2391163, 2391164

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A117814
Included Lab Sample IDs: 2391165

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.2	100	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A117821
Included Lab Sample IDs: 2391166

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A117833
Included Lab Sample IDs: 2391163, 2391164

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.6	99.6	P/P	90 - 110
Sulfate	101	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A117840
Included Lab Sample IDs: 2391165, 2391166

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	102	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A117887
Included Lab Sample IDs: 2391163, 2391164

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	95.6	94.8	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A117887
Included Lab Sample IDs: 2391163, 2391164

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	105	103	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: SM 5310 B-2011
Run ID: A117890
Included Lab Sample IDs: 2391165, 2391166

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.0	97.6	P/P	90 - 110
Organic Carbon	97.6	97.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A117965
Included Lab Sample IDs: 2391165, 2391166

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	105	90.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A117983
Included Lab Sample IDs: 2391165, 2391166

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.8	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	SMP	MS
DEP SOP: NU-094-1	Color (true)	100				0.705	
EPA 180.1 Rev. 2.0	Turbidity	99.8				6.32	
EPA 300.0 Rev. 2.1	Chloride	101	95.8	96.2		2.19	
	Sulfate	104	100	101			
EPA 350.1 Rev. 2.0	Ammonia-N	98.6	100	99.0			0.907
	Ammonia-N	98.4	97.6	99.2			1.54
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100	106	97.4			6.87
EPA 353.2 Rev. 2.0	NO2NO3-N	102	102	102			0.0
EPA 365.1 Rev. 2.0	Total-P	101	99.8	100			0.418
SM 2320 B-2011	Total Alkalinity	94.8				0.711	
SM 2540 C-2015	TDS	95.1				3.04	
SM 2540 D-2015	TSS	99.5					
SM 4500-F- C-2011	Fluoride	103	105	104			0.979
SM 5310 B-2011	Organic Carbon	93.8	95.3	95.6			0.357

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2391163, 2391164
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2391163, 2391164
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2391163, 2391164
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2391163, 2391164
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2391165, 2391166
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2391165, 2391166
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2391165, 2391166
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2391165, 2391166
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2391163, 2391164
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2391163, 2391164
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2391163, 2391164
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2391163, 2391164
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2391165, 2391166

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	03/02/2023			03/02/2023 15:19	Alexis Price	2391163
	03/02/2023			03/02/2023 15:20	Alexis Price	2391164
EPA 180.1 Rev. 2.0	03/02/2023			03/02/2023 14:11	Chandler E Cox	2391163
	03/02/2023			03/02/2023 14:12	Chandler E Cox	2391164
EPA 300.0 Rev. 2.1	03/02/2023			03/10/2023 04:07	Judith K. Clark	2391163
	03/02/2023			03/10/2023 04:22	Judith K. Clark	2391164
EPA 350.1 Rev. 2.0	03/02/2023			03/06/2023 13:27	Khloe J Berg	2391166
	03/02/2023			03/06/2023 14:04	Ping Hua	2391165
EPA 351.2 Rev. 2.0	03/02/2023	03/08/2023 17:54	Simonne.V. Calhoun	03/13/2023 16:27	Samantha L Bates	2391165
	03/02/2023	03/08/2023 17:54	Simonne.V. Calhoun	03/13/2023 16:28	Samantha L Bates	2391166
EPA 353.2 Rev. 2.0	03/02/2023			03/07/2023 09:07	Beverly Y. Sanders	2391165
	03/02/2023			03/07/2023 09:09	Beverly Y. Sanders	2391166
EPA 365.1 Rev. 2.0	03/02/2023	03/10/2023 13:50	Adam P Silver	03/14/2023 14:12	James L Waggerby	2391165
	03/02/2023	03/10/2023 13:50	Adam P Silver	03/14/2023 14:13	James L Waggerby	2391166
SM 2320 B-2011	03/02/2023			03/09/2023 01:40	Adam P Silver	2391163
	03/02/2023			03/09/2023 01:52	Adam P Silver	2391164
SM 2540 C-2015	03/02/2023			03/03/2023 15:41	Yijie Li	2391163, 2391164
SM 2540 D-2015	03/02/2023			03/03/2023 15:41	Yijie Li	2391163, 2391164
SM 4500-F- C-2011	03/02/2023			03/09/2023 01:40	Adam P Silver	2391163
	03/02/2023			03/09/2023 01:52	Adam P Silver	2391164
SM 5310 B-2011	03/02/2023			03/08/2023 19:19	Elise M. Gillis	2391165
	03/02/2023			03/08/2023 20:00	Elise M. Gillis	2391166