Chemical Analysis Report

NW-DIST-2023-01-11-01

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

Event Description: **Escambia River Run**
Request ID: **RQ-2023-01-09-25**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
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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: 01/10/2023 11:50**

Field ID: G4NW0404 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2379997	DEP SOP: NU-094-1	Color (true)	47	A	PCU	P424427	
	EPA 180.1 Rev. 2.0	Turbidity	36		NTU	P424429	
	EPA 300.0 Rev. 2.1	Chloride	5.0		mg Cl/L	P424626	
		Sulfate	4.6		mg SO4/L	P424629	
	SM 2320 B-2011	Total Alkalinity	13		mg CaCO3/L	P424904	
	SM 2540 C-2015	TDS	69		mg/L	P424911	
	SM 2540 D-2015	TSS	29		mg/L	P424820	
	SM 4500-F- C-2011	Fluoride	0.030	I	mg F/L	P424763	RPD
2379999	EPA 350.1 Rev. 2.0	Ammonia-N	0.025		mg N/L	P424566	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.55		mg N/L	P424937	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.14	J	mg N/L	P424733	MS
	EPA 365.1 Rev. 2.0	Total-P	0.058		mg P/L	P424592	
	SM 5310 B-2011	Organic Carbon	7.4		mg C/L	P424574	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 353.2 Rev. 2.0: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Escambia River Downstream of Cotton Lake **Collection Date/Time: 01/10/2023 12:55**

Field ID: G4NW0403 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2379998	DEP SOP: NU-094-1	Color (true)	52		PCU	P424427	
	EPA 180.1 Rev. 2.0	Turbidity	26		NTU	P424429	
	EPA 300.0 Rev. 2.1	Chloride	4.9		mg Cl/L	P424626	
		Sulfate	4.6		mg SO4/L	P424629	
	SM 2320 B-2011	Total Alkalinity	12		mg CaCO3/L	P424904	
	SM 2540 C-2015	TDS	66		mg/L	P424911	
	SM 2540 D-2015	TSS	12		mg/L	P424820	
	SM 4500-F- C-2011	Fluoride	0.028	I	mg F/L	P424763	RPD
2380000	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P424566	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.27		mg N/L	P424550	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.13		mg N/L	P424733	MS
	EPA 365.1 Rev. 2.0	Total-P	0.042		mg P/L	P424592	
	SM 5310 B-2011	Organic Carbon	7.0		mg C/L	P424574	

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

Quality Assurance Report
Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P424427

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P424429

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P424626

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P424629

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424566

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P424550

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P424937

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P424733

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P424592

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: P424904

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

Reference Method: SM 2540 C-2015
Batch ID: P424911

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P424820

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P424763

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P424574

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: P424427

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.5		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P424429

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P424626

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P424629

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424566

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: P424550

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: P424937

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: P424733

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	104		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P424592

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P424904

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.5		P	94 - 106

Reference Method: SM 2540 C-2015
Batch ID: P424911

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	96.6		P	90 - 110

Reference Method: SM 2540 D-2015
Batch ID: P424820

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	87.7		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P424763

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	100		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P424574

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

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P424626

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2379955	Chloride	101		P	90 - 110
2380019	Chloride	99.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P424629

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2379955	Sulfate	101		P	90 - 110
2380019	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424566

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2379831	Ammonia-N	97.0	97.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P424550

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2379832	Kjeldahl Nitrogen	106	107	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P424937

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2379831	Kjeldahl Nitrogen	103	113	P/F	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P424733

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2379999	NO2NO3-N	89.5	100	F/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P424592

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2379960	Total-P	106	105	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Batch ID: P424763

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2380019	Fluoride	94.6	97.6	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P424574

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2380040	Organic Carbon	101		P	85 - 115

Quality Assurance Report
Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P424427

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2379997	Color (true)	0.163	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P424429

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2379873	Turbidity	2.39	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P424626

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2379955	Chloride	0.257	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P424629

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2379955	Sulfate	3.69	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424566

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2379831	Ammonia-N	0.492	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P424550

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2379832	Kjeldahl Nitrogen	0.539	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P424937

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2379831	Kjeldahl Nitrogen	7.52	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P424733

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2379999	NO2NO3-N	6.39	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P424592

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2379960	Total-P	0.727	Spike	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P424904

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2380253	Total Alkalinity	0.181	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2015
Batch ID: P424911

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2380039	TDS	6.36	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P424763

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2380019	Fluoride	2.48	Spike	F	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P424574

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2380040	Organic Carbon	0.121	Spike	P	0 - 20

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A116833
Included Lab Sample IDs: 2379997, 2379998

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

Reference Method: DEP SOP: NU-094-1
Run ID: A116847
Included Lab Sample IDs: 2379997, 2379998

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	100	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A116849
Included Lab Sample IDs: 2379997, 2379998

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A116902
Included Lab Sample IDs: 2379999, 2380000

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

Reference Method: SM 5310 B-2011
Run ID: A116906
Included Lab Sample IDs: 2379999, 2380000

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.7	99.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A116939
Included Lab Sample IDs: 2379999

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A116944
Included Lab Sample IDs: 2380000

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	98.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A116953
Included Lab Sample IDs: 2379999, 2380000

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	103	103	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: SM 4500-F- C-2011
Run ID: A117000
Included Lab Sample IDs: 2379997, 2379998

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A117039
Included Lab Sample IDs: 2380000

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	106	105	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A117062
Included Lab Sample IDs: 2379997, 2379998

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	94.5	96.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A117139
Included Lab Sample IDs: 2379999

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	105	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)	98.5				0.163	
EPA 180.1 Rev. 2.0	Turbidity	102				2.39	
EPA 300.0 Rev. 2.1	Chloride	101	101	99.9		0.257	
	Sulfate	101	101	101		3.69	
EPA 350.1 Rev. 2.0	Ammonia-N	98.4	97.0	97.6			0.492
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	106	107			0.539
	Kjeldahl Nitrogen	100	103	113			7.52
EPA 353.2 Rev. 2.0	NO2NO3-N	104	89.5	100			6.39
EPA 365.1 Rev. 2.0	Total-P	105	106	105			0.727
SM 2320 B-2011	Total Alkalinity	97.5				0.181	
SM 2540 C-2015	TDS	96.6				6.36	
SM 2540 D-2015	TSS	87.7					
SM 4500-F- C-2011	Fluoride	100	94.6	97.6			2.48
SM 5310 B-2011	Organic Carbon	96.8	101				0.121

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2379997, 2379998
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2379997, 2379998
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2379997, 2379998
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2379997, 2379998
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2379999, 2380000
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2379999, 2380000
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2379999, 2380000
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2379999, 2380000
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2379997, 2379998
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2379997, 2379998
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2379997, 2379998
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2379997, 2379998
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2379999, 2380000

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	01/11/2023			01/11/2023 14:42	Chandler E Cox	2379997
	01/11/2023			01/11/2023 14:43	Chandler E Cox	2379998
EPA 180.1 Rev. 2.0	01/11/2023			01/11/2023 14:18	Khloe J Berg	2379997
	01/11/2023			01/11/2023 14:20	Khloe J Berg	2379998
EPA 300.0 Rev. 2.1	01/11/2023			01/14/2023 08:28	Anna M. Plaviak	2379997
	01/11/2023			01/14/2023 08:43	Anna M. Plaviak	2379998
EPA 350.1 Rev. 2.0	01/11/2023			01/13/2023 14:17	Ping Hua	2379999
	01/11/2023			01/13/2023 14:18	Ping Hua	2380000
EPA 351.2 Rev. 2.0	01/11/2023	01/17/2023 13:45	Judith K. Clark	01/23/2023 12:00	Samantha L Bates	2380000
	01/11/2023	01/25/2023 14:17	Samantha L Bates	01/27/2023 12:23	Judith K. Clark	2379999
EPA 353.2 Rev. 2.0	01/11/2023			01/18/2023 11:27	Beverly Y. Sanders	2379999
	01/11/2023			01/18/2023 11:39	Beverly Y. Sanders	2380000
EPA 365.1 Rev. 2.0	01/11/2023	01/17/2023 09:53	Adam P Silver	01/18/2023 09:22	James L Waggerby	2379999
	01/11/2023	01/17/2023 09:53	Adam P Silver	01/18/2023 11:20	James L Waggerby	2380000
SM 2320 B-2011	01/11/2023			01/23/2023 17:14	Dale L. Simmons	2379997
	01/11/2023			01/23/2023 17:24	Dale L. Simmons	2379998
SM 2540 C-2015	01/11/2023			01/13/2023 16:42	Yijie Li	2379997, 2379998
SM 2540 D-2015	01/11/2023			01/13/2023 16:42	Yijie Li	2379997, 2379998
SM 4500-F- C-2011	01/11/2023			01/20/2023 01:14	Adam P Silver	2379997
	01/11/2023			01/20/2023 01:27	Adam P Silver	2379998
SM 5310 B-2011	01/11/2023			01/13/2023 20:21	Khloe J Berg	2379999
	01/11/2023			01/13/2023 20:35	Khloe J Berg	2380000