Chemical Analysis Report

TLH-ROC-2019-04-18-04

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

Event Description: **Run 9**
Request ID: **RQ-2019-01-21-12**
Customer: **TLH-ROC**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd
Tallahassee, FL 32399
Attn: Michael Eckles

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Certified by: Colin Wright, Program Administrator

Date Certified: 03-MAY-2019 12:13

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: Bailey Mill Creek @ Wilson Rd. **Collection Date/Time: 04/18/2019 14:10**

Field ID: G1TLHR0081 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2079589	EPA 180.1 Rev. 2.0	Turbidity	11		NTU	P362510	
	EPA 300.0 Rev. 2.1	Chloride	5.2		mg Cl/L	P362822	
		Sulfate	0.22	I	mg SO4/L	P362825	
	SM 2120 B	Color (true)	120		PCU	P362524	
	SM 2320 B-97	Total Alkalinity	56		mg CaCO3/L	P362949	
	SM 2540 C-97	TDS	92		mg/L	P362976	
	SM 2540 D-97	TSS	25		mg/L	P362753	
	SM 4500 F-C-97	Fluoride	0.071	I	mg F/L	P362953	
2079591	EPA 350.1 Rev. 2.0	Ammonia-N	0.072		mg N/L	P362692	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.6		mg N/L	P362926	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.046		mg N/L	P362977	
	EPA 365.1 Rev. 2.0	Total-P	0.18		mg P/L	P362686	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P362918	
2079593	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.032		mg P/L	P362463	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample. The result was confirmed on 04/25/2019.
EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
EPA 365.1 Rev. 2.0: Total-P: The result was confirmed on 04/30/2019.

Sample Location: Bailey Mill Creek @ Wilson Rd. **Collection Date/Time: 04/18/2019 14:13**

Field ID: G1TLHR0081_DUP Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2079590	EPA 180.1 Rev. 2.0	Turbidity	13		NTU	P362510	
	EPA 300.0 Rev. 2.1	Chloride	5.2		mg Cl/L	P362822	
		Sulfate	0.22	I	mg SO4/L	P362825	
	SM 2120 B	Color (true)	110		PCU	P362524	
	SM 2320 B-97	Total Alkalinity	55		mg CaCO3/L	P362949	
	SM 2540 C-97	TDS	100		mg/L	P362976	
	SM 2540 D-97	TSS	36		mg/L	P362753	
	SM 4500 F-C-97	Fluoride	0.071	I	mg F/L	P362953	
2079592	EPA 350.1 Rev. 2.0	Ammonia-N	0.069		mg N/L	P362692	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P362926	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.047		mg N/L	P362977	
	EPA 365.1 Rev. 2.0	Total-P	0.10		mg P/L	P362686	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P362918	
2079594	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.032		mg P/L	P362463	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample. The result was confirmed on 04/25/2019.
EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
EPA 365.1 Rev. 2.0: Total-P: The result was confirmed on 04/30/2019.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P362510

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362822

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362825

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P362692

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P362926

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P362977

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P362686

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P362463

Component	Result	Code	Units
O-Phosphate-P	0.004	U	mg P/L

Reference Method: SM 2120 B
Batch ID: P362524

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report
Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P362949

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

Reference Method: SM 2540 C-97
Batch ID: P362976

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P362753

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P362953

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P362918

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362822

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362825

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	99.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P362692

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P362926

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P362977

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: P362686

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P362463

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

Reference Method: SM 2120 B
Batch ID: P362524

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

Reference Method: SM 2320 B-97
Batch ID: P362949

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 106

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P362953

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.8		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P362918

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.8		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362822

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2079453	Chloride	99.9		P	90 - 110
2079463	Chloride	99.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362825

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2079453	Sulfate	97.5		P	90 - 110
2079463	Sulfate	95.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P362692

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2079697	Ammonia-N	102	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P362977

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2079681	NO2NO3-N	98.0	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P362686

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2079562	Total-P	101	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P362463

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2079563	O-Phosphate-P	99.8	100	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P362953

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2079458	Fluoride	99.9	98.8	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P362918

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2079464	Organic Carbon	93.2	93.6	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P362510

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2079680	Turbidity	2.82	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362822

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2079453	Chloride	1.50	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362825

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2079453	Sulfate	0.125	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P362692

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2079697	Ammonia-N	0.426	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P362926

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2079682	Kjeldahl Nitrogen	0.964	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P362977

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2079681	NO2NO3-N	0.509	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P362686

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2079562	Total-P	0.897	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P362463

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2079563	O-Phosphate-P	0.460	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: SM 2120 B
Batch ID: P362524

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2079694	Color (true)	2.57	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P362949

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2079458	Total Alkalinity	0.876	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P362976

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2079561	TDS	3.16	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P362953

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2079458	Fluoride	0.948	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P362918

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2079464	Organic Carbon	0.535	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A90833
Included Lab Sample IDs: 2079593, 2079594

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	99.8	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A90854
Included Lab Sample IDs: 2079589, 2079590

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

Reference Method: SM 2120 B
Run ID: A90857
Included Lab Sample IDs: 2079589, 2079590

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	103	P/P	90 - 115

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A90940
Included Lab Sample IDs: 2079591, 2079592

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A90961
Included Lab Sample IDs: 2079589, 2079590

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	102	P/P	90 - 110
Chloride	102	102	P/P	90 - 110
Sulfate	102	102	P/P	90 - 110
Sulfate	102	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A91013
Included Lab Sample IDs: 2079591, 2079592

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

Reference Method: SM 5310 B-00
Run ID: A91030
Included Lab Sample IDs: 2079591, 2079592

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	93.2	91.8	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A91039
Included Lab Sample IDs: 2079591, 2079592

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

Reference Method: SM 2320 B-97
Run ID: A91045
Included Lab Sample IDs: 2079589, 2079590

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	105	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A91045
Included Lab Sample IDs: 2079589, 2079590

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.5	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A91064
Included Lab Sample IDs: 2079591, 2079592

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	103	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
EPA 180.1 Rev. 2.0	Turbidity					2.82	
EPA 300.0 Rev. 2.1	Chloride	101	99.9	99.1		1.50	
	Sulfate	99.1	97.5	95.6		0.125	
EPA 350.1 Rev. 2.0	Ammonia-N	102	102	101			0.426
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102					0.964
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0	98.0	98.5			0.509
EPA 365.1 Rev. 2.0	Total-P	100	101	100			0.897
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.4	99.8	100			0.460
SM 2120 B	Color (true)	102				2.57	
SM 2320 B-97	Total Alkalinity	103				0.876	
SM 2540 C-97	TDS					3.16	
SM 4500 F-C-97	Fluoride	99.8	99.9	98.8			0.948
SM 5310 B-00	Organic Carbon	95.8	93.2	93.6			0.535

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2079589, 2079590
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2079589, 2079590
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2079589, 2079590
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2079591, 2079592
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2079591, 2079592
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2079591, 2079592
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2079591, 2079592
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2079593, 2079594
SM 2120 B / E31780	True Color measured at 450 nm	2079589, 2079590
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2079589, 2079590
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2079589, 2079590
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2079589, 2079590
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2079589, 2079590
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2079591, 2079592

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	04/18/2019			04/19/2019 15:55	Adrian Shelby	2079589, 2079590
EPA 300.0 Rev. 2.1	04/18/2019			04/25/2019 01:39	Lipi Saha	2079589
	04/18/2019			04/25/2019 02:15	Lipi Saha	2079590
EPA 350.1 Rev. 2.0	04/18/2019			04/23/2019 14:17	Julia Storbeck	2079591
	04/18/2019			04/23/2019 14:19	Julia Storbeck	2079592
EPA 351.2 Rev. 2.0	04/18/2019	04/26/2019 12:15	Adrian Shelby	04/29/2019 12:35	Joseph Suarez	2079591
	04/18/2019	04/26/2019 12:15	Adrian Shelby	04/29/2019 12:36	Joseph Suarez	2079592
EPA 353.2 Rev. 2.0	04/18/2019			04/26/2019 11:06	Beverly Y. Sanders	2079591
	04/18/2019			04/26/2019 11:07	Beverly Y. Sanders	2079592
EPA 365.1 Rev. 2.0	04/18/2019	04/24/2019 15:26	Sima Feizi	04/25/2019 14:42	Rosalyn Ballman	2079591
	04/18/2019	04/24/2019 15:26	Sima Feizi	04/25/2019 14:43	Rosalyn Ballman	2079592
EPA 365.1 Rev. 2.0 dissolved	04/18/2019			04/18/2019 17:37	Julia Storbeck	2079593
	04/18/2019			04/18/2019 17:38	Julia Storbeck	2079594
SM 2120 B	04/18/2019			04/19/2019 15:32	Mariam Hanna	2079589, 2079590
SM 2320 B-97	04/18/2019			04/26/2019 18:16	Dale L. Simmons	2079589
	04/18/2019			04/26/2019 18:29	Dale L. Simmons	2079590
SM 2540 C-97	04/18/2019			04/22/2019 18:03	Mariam Hanna	2079589, 2079590
SM 2540 D-97	04/18/2019			04/22/2019 18:35	Mariam Hanna	2079589, 2079590
SM 4500 F-C-97	04/18/2019			04/26/2019 18:16	Dale L. Simmons	2079589
	04/18/2019			04/26/2019 18:29	Dale L. Simmons	2079590
SM 5310 B-00	04/18/2019			04/25/2019 01:15	Julia Storbeck	2079591
	04/18/2019			04/25/2019 01:27	Julia Storbeck	2079592