Chemical Analysis Report

WQ-ASSESS-2017-04-19-01

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

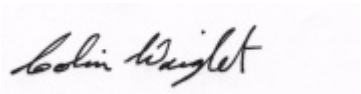
Event Description: **Black Creek, Soapstone**
Request ID: **RQ-2017-04-17-20**
Customer: **WQ-ASSESS**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
Division Of Water Facilities, FL DEP
2600 Blair Stone Rd.
Tallahassee, FL 32399-2400
Attn: curtis musson

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Thekkekalathil Chandrasekhar, PhD, QA Officer
Phone (850) 245-8085

Certified by: Colin Wright, Program Administrator

Date Certified: 17-MAY-2017 14:45



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 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: BLACK CREEK UPSTREAM OF BLOXHAM CUT OFF **Collection Date/Time: 04/19/2017 09:45**

Field ID: G1WA0023_04192017 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1890326	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P323704	
	EPA 300.0 Rev. 2.1	Chloride	3.6		mg Cl/L	P324182	
		Sulfate	0.20	U	mg SO4/L	P324180	
	SM 2120 B	Color (true)	530		PCU	P323671	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P324164	
	SM 2540 C-97	TDS	91		mg/L	P324031	
	SM 2540 D-97	TSS	5	I	mg/L	P324270	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P325403	
1890329	EPA 350.1 Rev. 2.0	Ammonia-N	0.011		mg N/L	P323684	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.84		mg N/L	P323795	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P323965	
	EPA 365.1 Rev. 2.0	Total-P	0.025		mg P/L	P323818	
	SM 5310 B-00	Organic Carbon	43		mg C/L	P323790	
1890332	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.009	I	mg P/L	P323665	

Sample Location: BIG BRANCH 50 METERS UPSTREAM OF CR 67 **Collection Date/Time: 04/19/2017 11:40**

Field ID: G1WA0001_04192017 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1890327	EPA 180.1 Rev. 2.0	Turbidity	3.0		NTU	P323704	
	EPA 300.0 Rev. 2.1	Chloride	2.9		mg Cl/L	P324182	
		Sulfate	0.63		mg SO4/L	P324180	
	SM 2120 B	Color (true)	170		PCU	P323671	
	SM 2320 B-97	Total Alkalinity	13		mg CaCO3/L	P324164	
	SM 2540 C-97	TDS	55		mg/L	P324031	
	SM 2540 D-97	TSS	9	I	mg/L	P324270	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P325403	
1890330	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P323684	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.35		mg N/L	P323795	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P323965	
	EPA 365.1 Rev. 2.0	Total-P	0.008		mg P/L	P323818	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P323790	
1890333	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P323665	

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P323704

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Quality Assurance Report
Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324180

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324182

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P323684

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323795

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P323965

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323818

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323665

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

Reference Method: SM 2120 B
Batch ID: P323671

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P324164

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

Quality Assurance Report
Method Blank Results

Reference Method: SM 2540 C-97
Batch ID: P324031

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P324270

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P325403

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P323790

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: P324180

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324182

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P323684

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	106		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323795

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: P323965

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P323965

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: P323818

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323665

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

Reference Method: SM 2320 B-97
Batch ID: P324164

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P325403

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.3		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P323790

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	100		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324180

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890210	Sulfate	99.7		P	90 - 110
1890234	Sulfate	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324182

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890210	Chloride	100		P	90 - 110
1890234	Chloride	98.7		P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P323684

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890412	Ammonia-N	107	106	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323795

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890213	Kjeldahl Nitrogen	101	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P323965

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890266	NO2NO3-N	106	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323818

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1889689	Total-P	108	110	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323665

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890176	O-Phosphate-P	99.5	99.9	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P325403

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890410	Fluoride	100	100	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P323790

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890211	Organic Carbon	99.2	101	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P323704

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890210	Turbidity	0.766	Sample	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324180

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890210	Sulfate	1.81	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324182

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890210	Chloride	0.0837	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P323684

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890412	Ammonia-N	0.578	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323795

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890213	Kjeldahl Nitrogen	1.03	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P323965

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890266	NO2NO3-N	0.473	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323818

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1889689	Total-P	1.76	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323665

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890176	O-Phosphate-P	0.401	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P323671

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890210	Color (true)	5.12	Sample	P	0 - 20

Quality Assurance Report
Precision

Reference Method: SM 2320 B-97
Batch ID: P324164

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890087	Total Alkalinity	0.565	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P324031

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890343	TDS	7.08	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P324270

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890343	TSS	7.63	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P325403

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890410	Fluoride	0.0	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P323790

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890211	Organic Carbon	1.78	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: A75883
Included Lab Sample IDs: 1890332, 1890333

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.6	96.8	P/P	90 - 110
O-Phosphate-P	98.1	97.6	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A75886
Included Lab Sample IDs: 1890326, 1890327

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	100	P/P	85 - 115

Quality Assurance Report
Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A75889
Included Lab Sample IDs: 1890329, 1890330

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

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A75900
Included Lab Sample IDs: 1890326, 1890327

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

Reference Method: SM 5310 B-00
Run ID: A75924
Included Lab Sample IDs: 1890329, 1890330

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.0	98.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A75957
Included Lab Sample IDs: 1890329, 1890330

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A75967
Included Lab Sample IDs: 1890329, 1890330

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A75983
Included Lab Sample IDs: 1890329, 1890330

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	102	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A75999
Included Lab Sample IDs: 1890326, 1890327

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.7	100	P/P	90 - 110
Sulfate	99.1	94.5	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A76045
Included Lab Sample IDs: 1890326, 1890327

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

Quality Assurance Report
Calibration Verification

Reference Method: SM 4500 F-C-97
Run ID: A76469
Included Lab Sample IDs: 1890326, 1890327

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	96.7	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		
					LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity					0.766	
EPA 300.0 Rev. 2.1	Chloride	101	100	98.7		0.0837	
	Sulfate	103	99.7	103		1.81	
EPA 350.1 Rev. 2.0	Ammonia-N	106	107	106			0.578
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102	101	102			1.03
EPA 353.2 Rev. 2.0	NO2NO3-N	102	106	106			0.473
EPA 365.1 Rev. 2.0	Total-P	109	108	110			1.76
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100	99.5	99.9			0.401
SM 2120 B	Color (true)					5.12	
SM 2320 B-97	Total Alkalinity	104				0.565	
SM 2540 C-97	TDS					7.08	
SM 2540 D-97	TSS					7.63	
SM 4500 F-C-97	Fluoride	96.3	100	100			0.0
SM 5310 B-00	Organic Carbon	100	99.2	101			1.78

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1890326, 1890327
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1890326, 1890327
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1890326, 1890327
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1890329, 1890330
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1890329, 1890330
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1890329, 1890330
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1890329, 1890330
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1890332, 1890333
SM 2120 B / E31780	True Color measured at 450 nm	1890326, 1890327
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1890326, 1890327
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1890326, 1890327
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1890326, 1890327
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1890326, 1890327
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1890329, 1890330

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	04/19/2017			04/19/2017 16:06	Sima Feizi	1890326, 1890327
EPA 300.0 Rev. 2.1	04/19/2017			04/27/2017	Ping Hua	1890326, 1890327
EPA 350.1 Rev. 2.0	04/19/2017			04/19/2017	Julie Michelle Frank	1890329, 1890330
EPA 351.2 Rev. 2.0	04/19/2017	04/21/2017	Adrian Shelby	04/24/2017	Joseph Suarez	1890329, 1890330
EPA 353.2 Rev. 2.0	04/19/2017			04/25/2017	Beverly Y. Sanders	1890329, 1890330
EPA 365.1 Rev. 2.0	04/19/2017	04/21/2017	Vijayalakshmi Reddy	04/24/2017	Lipi Saha	1890329, 1890330
EPA 365.1 Rev. 2.0 dissolved	04/19/2017			04/19/2017 14:50	Anthony C. Onicha	1890332
	04/19/2017			04/19/2017 14:59	Anthony C. Onicha	1890333
SM 2120 B	04/19/2017			04/19/2017 16:34	Julia Storbeck	1890326
	04/19/2017			04/19/2017 16:35	Julia Storbeck	1890327
SM 2320 B-97	04/19/2017			04/27/2017	Dale L. Simmons	1890326, 1890327
SM 2540 C-97	04/19/2017			04/21/2017	Yijie Li	1890326, 1890327
SM 2540 D-97	04/19/2017			04/21/2017	Yijie Li	1890326, 1890327
SM 4500 F-C-97	04/19/2017			05/16/2017	Dale L. Simmons	1890326, 1890327
SM 5310 B-00	04/19/2017			04/20/2017	Julie Michelle Frank	1890329, 1890330