Chemical Analysis Report

CEN-DIST-2016-06-21-01

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

Event Description: **Lk Jackson/Jacskon Canal+HA**
Request ID: **RQ-2016-06-20-34**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767
Attn: Mike Linger

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

Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator Date Certified: 12-JUL-2016 14:06

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: Lake Jackson @ 0.66 miles NW of Boat Ramp **Collection Date/Time: 06/20/2016 13:14**

Field ID: G4CE0061 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1809608	EPA 180.1 Rev. 2.0	Turbidity	4.5		NTU	P306571	
	EPA 300.0 Rev. 2.1	Chloride	15		mg Cl/L	P307114	
		Sulfate	2.0		mg SO4/L	P307112	
	SM 2120 B	Color (true)	160		PCU	P306574	
	SM 2320 B-97	Total Alkalinity	21		mg CaCO3/L	P306823	
	SM 2540 C-97	TDS	79		mg/L	P307013	
	SM 2540 D-97	TSS	9	I	mg/L	P306991	
	SM 4500 F-C-97	Fluoride	0.084	I	mg F/L	P307268	
1809610	EPA 350.1 Rev. 2.0	Ammonia-N	0.068		mg N/L	P307085	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.6		mg N/L	P306604	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.032		mg N/L	P306832	
	EPA 365.1 Rev. 2.0	Total-P	0.094		mg P/L	P306692	
	SM 5310 B-00	Organic Carbon	21		mg C/L	P307066	
1809612	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.024		mg P/L	P306560	

Ref. Method and Comment:
SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.
EPA 350.1 Rev. 2.0: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Sample Location: Jackson Canal @ 1000 Meter Downstream of Control Structure **Collection Date/Time: 06/20/2016 12:27**

Field ID: G4CE0060 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1809609	EPA 180.1 Rev. 2.0	Turbidity	4.9		NTU	P306571	
	EPA 300.0 Rev. 2.1	Chloride	15		mg Cl/L	P307114	
		Sulfate	1.6		mg SO4/L	P307112	
	SM 2120 B	Color (true)	150		PCU	P306574	
	SM 2320 B-97	Total Alkalinity	22		mg CaCO3/L	P306823	
	SM 2540 C-97	TDS	84		mg/L	P307013	
	SM 2540 D-97	TSS	8	I	mg/L	P306991	
	SM 4500 F-C-97	Fluoride	0.083	I	mg F/L	P307268	
1809611	EPA 350.1 Rev. 2.0	Ammonia-N	0.011		mg N/L	P307085	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P306604	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P306832	
	EPA 365.1 Rev. 2.0	Total-P	0.060		mg P/L	P306692	
	SM 5310 B-00	Organic Carbon	20		mg C/L	P307066	
1809613	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P306560	

Ref. Method and Comment:
SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.
EPA 350.1 Rev. 2.0: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Quality Assurance Report
Method Blank Results

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P306571

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P307112

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P307114

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P307085

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P306604

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P306832

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P306692

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P306560

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

Reference Method: SM 2120 B
Batch ID: P306574

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report
Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P306823

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

Reference Method: SM 2540 C-97
Batch ID: P307013

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P306991

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P307268

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P307066

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: P307112

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P307114

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P307085

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	92.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P306604

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P306604

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P306832

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: P306692

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	96.4		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P306560

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

Reference Method: SM 2320 B-97
Batch ID: P306823

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P307268

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

Reference Method: SM 5310 B-00
Batch ID: P307066

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

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P307112

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1809380	Sulfate	101		P	90 - 110
1809401	Sulfate	101		P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P307114

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1809380	Chloride	102		P	90 - 110
1809401	Chloride	102		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P306832

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1809579	NO2NO3-N	99.0	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P306692

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1809610	Total-P	100	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P306560

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1809533	O-Phosphate-P	102	102	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P307268

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1810894	Fluoride	97.8	99.6	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P307066

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1809649	Organic Carbon	96.4	101	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P306571

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1809576	Turbidity	0.866	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P307112

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1809380	Sulfate	1.33	Sample	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P307114

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1809380	Chloride	0.0617	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P307085

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1809579	Ammonia-N	0.865	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P306604

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1809500	Kjeldahl Nitrogen	3.26	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P306832

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1809579	NO2NO3-N	0.667	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P306692

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1809610	Total-P	2.97	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P306560

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1809533	O-Phosphate-P	0.0	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P306574

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1809530	Color (true)	0.982	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P306823

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1809379	Total Alkalinity	0.217	Sample	P	0 - 4.8

Quality Assurance Report
Precision

Reference Method: SM 2540 C-97
Batch ID: P307013

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1809626	TDS	2.66	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P307268

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1810894	Fluoride	1.45	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P307066

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1809649	Organic Carbon	2.95	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: A70146
Included Lab Sample IDs: 1809612, 1809613

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.1	99.4	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A70148
Included Lab Sample IDs: 1809608, 1809609

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	101	101	P/P	95 - 105

Reference Method: SM 2120 B
Run ID: A70149
Included Lab Sample IDs: 1809608, 1809609

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	97.6	96.4	P/P	90 - 115
Color (true)	98.2	97.4	P/P	90 - 115

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A70202
Included Lab Sample IDs: 1809610, 1809611

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	108	100	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A70208
Included Lab Sample IDs: 1809610, 1809611

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.8	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A70213
Included Lab Sample IDs: 1809610, 1809611

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	101	P/P	90 - 110
NO2NO3-N	100	100	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A70215
Included Lab Sample IDs: 1809608, 1809609

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	106	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A70300
Included Lab Sample IDs: 1809610, 1809611

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	103	107	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A70306
Included Lab Sample IDs: 1809610, 1809611

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	96.1	94.8	P/P	90 - 110
Ammonia-N	97.0	96.1	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A70313
Included Lab Sample IDs: 1809608, 1809609

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	101	P/P	90 - 110
Sulfate	96.3	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A70370
Included Lab Sample IDs: 1809608, 1809609

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.0	99.5	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					0.866	
EPA 300.0 Rev. 2.1	Chloride	103	102	102		0.0617	
	Sulfate	102	101	101		1.33	
EPA 350.1 Rev. 2.0	Ammonia-N	92.4					0.865
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103					3.26
EPA 353.2 Rev. 2.0	NO2NO3-N	100	99.0	100			0.667
EPA 365.1 Rev. 2.0	Total-P	96.4	100	104			2.97
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100	102	102			0.0
SM 2120 B	Color (true)					0.982	
SM 2320 B-97	Total Alkalinity	103				0.217	
SM 2540 C-97	TDS					2.66	
SM 4500 F-C-97	Fluoride	96.3	97.8	99.6			1.45
SM 5310 B-00	Organic Carbon	101	96.4	101			2.95

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1809608, 1809609
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1809608, 1809609
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1809608, 1809609
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1809610, 1809611
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1809610, 1809611
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1809610, 1809611
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1809610, 1809611
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1809612, 1809613
SM 2120 B / E31780	True Color measured at 450 nm	1809608, 1809609
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1809608, 1809609
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1809608, 1809609
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1809608, 1809609
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1809608, 1809609
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1809610, 1809611

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	06/21/2016			06/21/2016 15:30	Sima Feizi	1809608, 1809609
EPA 300.0 Rev. 2.1	06/21/2016			06/29/2016	Ping Hua	1809608, 1809609
EPA 350.1 Rev. 2.0	06/21/2016			06/29/2016	Diana M. Turner	1809610, 1809611
EPA 351.2 Rev. 2.0	06/21/2016	06/22/2016	Sofia Elnemr	06/23/2016	Christopher Armour	1809610, 1809611
EPA 353.2 Rev. 2.0	06/21/2016			06/24/2016	Virginia P. Brown	1809610, 1809611
EPA 365.1 Rev. 2.0	06/21/2016	06/23/2016	Vijayalakshmi Reddy	06/24/2016	Lipi Saha	1809610, 1809611
EPA 365.1 Rev. 2.0 dissolved	06/21/2016			06/21/2016 14:48	Julia Storbeck	1809612
	06/21/2016			06/21/2016 14:49	Julia Storbeck	1809613
SM 2120 B	06/21/2016			06/21/2016 15:47	Chrisoulla Rakowski	1809609
	06/21/2016			06/21/2016 16:21	Chrisoulla Rakowski	1809608
SM 2320 B-97	06/21/2016			06/23/2016	Rochelle Y Jackson	1809608, 1809609
SM 2540 C-97	06/21/2016			06/22/2016	Yijie Li	1809608, 1809609
SM 2540 D-97	06/21/2016			06/22/2016	Yijie Li	1809608, 1809609
SM 4500 F-C-97	06/21/2016			07/01/2016	Dale L. Simmons	1809608, 1809609
SM 5310 B-00	06/21/2016			06/28/2016	Diana M. Turner	1809610, 1809611