Chemical Analysis Report

CEN-DIST-2017-05-26-01

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

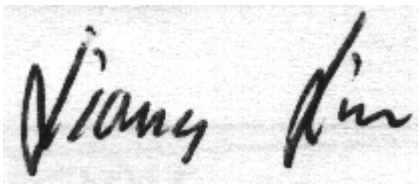
Event Description: **Groover Branch / Mizner's Branch**
Request ID: **RQ-2017-05-22-68**
Customer: **CEN-DIST**
Project ID: **SMP**

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
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Liang Lin, Environmental Administrator

Date Certified: 21-JUN-2017 11:00



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: MIZNER'S BRANCH @ 50M US OF MAIN TRAIL ROAD **Collection Date/Time: 05/25/2017 11:05**

Field ID: G5CE0093 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1901786	EPA 180.1 Rev. 2.0	Turbidity	0.80		NTU	P325914	
	EPA 300.0 Rev. 2.1	Chloride	73		mg Cl/L	P326765	
		Sulfate	8.7		mg SO4/L	P326768	
	SM 2120 B	Color (true)	38		PCU	P325909	
	SM 2320 B-97	Total Alkalinity	192		mg CaCO3/L	P326075	
	SM 2540 C-97	TDS	382	A	mg/L	P326219	
	SM 2540 D-97	TSS	2	UA	mg/L	P326200	
	SM 4500 F-C-97	Fluoride	0.070	I	mg F/L	P326077	
1901787	EPA 350.1 Rev. 2.0	Ammonia-N	0.031		mg N/L	P326123	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.45		mg N/L	P325941	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.14		mg N/L	P325965	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P325945	
	SM 5310 B-00	Organic Carbon	8.9		mg C/L	P326079	
1901788	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.11		mg P/L	P325913	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: GROOVER BRANCH @ AIRPORT ROAD BRIDGE **Collection Date/Time: 05/25/2017 11:40**

Field ID: G5CE0041 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1901789	EPA 180.1 Rev. 2.0	Turbidity	3.0	A	NTU	P325914	
	EPA 300.0 Rev. 2.1	Chloride	55		mg Cl/L	P326765	
		Sulfate	6.9		mg SO4/L	P326768	
	SM 2120 B	Color (true)	43	A	PCU	P325909	
	SM 2320 B-97	Total Alkalinity	247		mg CaCO3/L	P326075	
	SM 2540 C-97	TDS	370		mg/L	P326219	
	SM 2540 D-97	TSS	2	I	mg/L	P326200	
	SM 4500 F-C-97	Fluoride	0.16		mg F/L	P326077	
1901790	EPA 350.1 Rev. 2.0	Ammonia-N	0.027		mg N/L	P326123	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.59		mg N/L	P325941	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.033		mg N/L	P325965	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P325945	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P326079	
1901791	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.068		mg P/L	P325913	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low 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: P325914

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326765

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326768

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326123

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P325941

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P325965

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P325945

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P325913

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

Reference Method: SM 2120 B
Batch ID: P325909

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report
Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P326075

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

Reference Method: SM 2540 C-97
Batch ID: P326219

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P326200

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P326077

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P326079

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: P326765

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326768

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326123

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.9		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P325941

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: P325941

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.3		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P325965

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P325945

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	94.3		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P325913

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.0		P	90 - 110

Reference Method: SM 2320 B-97
Batch ID: P326075

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

Reference Method: SM 4500 F-C-97
Batch ID: P326077

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.1		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P326079

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.7		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326765

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901900	Chloride	101		P	90 - 110
1902025	Chloride	106		P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326768

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901900	Sulfate	95.2		P	90 - 110
1902025	Sulfate	100		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326123

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901787	Ammonia-N	102	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P325941

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901787	Kjeldahl Nitrogen	102	91.9	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P325965

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901704	NO2NO3-N	95.7	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P325945

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901790	Total-P	99.4	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P325913

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901791	O-Phosphate-P	95.3	94.6	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P326077

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901803	Fluoride	101	105	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P326079

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901538	Organic Carbon	90.0	94.0	P/P	85 - 115

Quality Assurance Report
Precision

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P325914

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901789	Turbidity	2.64	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326765

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901900	Chloride	0.814	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326768

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901900	Sulfate	1.08	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326123

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901787	Ammonia-N	0.431	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P325941

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901787	Kjeldahl Nitrogen	7.39	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P325965

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901704	NO2NO3-N	4.42	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P325945

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901790	Total-P	1.01	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P325913

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901791	O-Phosphate-P	0.430	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: SM 2120 B
Batch ID: P325909

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901789	Color (true)	1.55	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P326075

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901803	Total Alkalinity	0.218	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P326219

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901786	TDS	3.14	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P326077

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901803	Fluoride	2.42	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P326079

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901538	Organic Carbon	2.71	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: SM 2120 B
Run ID: A76713
Included Lab Sample IDs: 1901786, 1901789

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.7	99.7	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A76716
Included Lab Sample IDs: 1901788, 1901791

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	101	P/P	90 - 110
O-Phosphate-P	99.2	101	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A76717
Included Lab Sample IDs: 1901786, 1901789

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A76743
Included Lab Sample IDs: 1901787, 1901790

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	97.5	97.0	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A76790
Included Lab Sample IDs: 1901786, 1901789

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	105	102	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A76790
Included Lab Sample IDs: 1901786, 1901789

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	97.6	97.6	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A76794
Included Lab Sample IDs: 1901787, 1901790

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.8	98.2	P/P	90 - 110
Organic Carbon	97.3	96.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A76799
Included Lab Sample IDs: 1901787, 1901790

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	103	104	P/P	90 - 110
Total-P	104	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A76803
Included Lab Sample IDs: 1901787, 1901790

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	98.5	P/P	90 - 110
Kjeldahl Nitrogen	101	100	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A76815
Included Lab Sample IDs: 1901787, 1901790

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A77072
Included Lab Sample IDs: 1901786, 1901789

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	94.9	95.8	P/P	90 - 110
Sulfate	101	94.6	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					2.64	
EPA 300.0 Rev. 2.1	Chloride	102	101	106		0.814	
	Sulfate	97.6	95.2	100		1.08	
EPA 350.1 Rev. 2.0	Ammonia-N	98.9	102	101			0.431
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.3	102	91.9			7.39
EPA 353.2 Rev. 2.0	NO2NO3-N	101	95.7	100			4.42
EPA 365.1 Rev. 2.0	Total-P	94.3	99.4	101			1.01
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.0	95.3	94.6			0.430
SM 2120 B	Color (true)					1.55	
SM 2320 B-97	Total Alkalinity	104				0.218	
SM 2540 C-97	TDS					3.14	
SM 4500 F-C-97	Fluoride	97.1	101	105			2.42
SM 5310 B-00	Organic Carbon	94.7	90.0	94.0			2.71

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1901786, 1901789
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1901786, 1901789
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1901786, 1901789
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1901787, 1901790
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1901787, 1901790
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1901787, 1901790
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1901787, 1901790

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1901788, 1901791
SM 2120 B / E31780	True Color measured at 450 nm	1901786, 1901789
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1901786, 1901789
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1901786, 1901789
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1901786, 1901789
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1901786, 1901789
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1901787, 1901790

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	05/26/2017			05/26/2017 15:03	Sima Feizi	1901786, 1901789
EPA 300.0 Rev. 2.1	05/26/2017			06/13/2017	Julia Storbeck	1901786, 1901789
EPA 350.1 Rev. 2.0	05/26/2017			06/01/2017	Julie Michelle Frank	1901787, 1901790
EPA 351.2 Rev. 2.0	05/26/2017	05/30/2017	Adrian Shelby	06/01/2017	Joseph Suarez	1901787, 1901790
EPA 353.2 Rev. 2.0	05/26/2017			05/30/2017	Beverly Y. Sanders	1901787, 1901790
EPA 365.1 Rev. 2.0	05/26/2017	05/30/2017	Adrian Shelby	06/01/2017	Lipi Saha	1901787, 1901790
EPA 365.1 Rev. 2.0 dissolved	05/26/2017			05/26/2017 14:50	Anthony C. Onicha	1901788
	05/26/2017			05/26/2017 15:16	Anthony C. Onicha	1901791
SM 2120 B	05/26/2017			05/26/2017 14:49	Tanya Welborn	1901786
	05/26/2017			05/26/2017 14:50	Tanya Welborn	1901789
SM 2320 B-97	05/26/2017			05/31/2017	Dale L. Simmons	1901786, 1901789
SM 2540 C-97	05/26/2017			05/31/2017	Yijie Li	1901786, 1901789
SM 2540 D-97	05/26/2017			05/31/2017	Yijie Li	1901786, 1901789
SM 4500 F-C-97	05/26/2017			05/31/2017	Dale L. Simmons	1901786, 1901789
SM 5310 B-00	05/26/2017			05/31/2017	Julie Michelle Frank	1901787, 1901790