

Chemical Analysis Report

CEN-DIST-2017-05-02-01

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

Event Description: **Deep Creel / Spring Garden Lake**

Request ID: **RQ-2017-03-27-46**

Customer: **CEN-DIST**

Project ID: **SMP**

Send Reports to:

FL Dept. of Environmental Protection
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3319 Maguire Blvd., Suite 232
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Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator

Date Certified: 26-MAY-2017 13:32



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: Hatchineha Canal @ 1.1 km US of LK Kissimmee

Collection Date/Time: 05/01/2017 13:35

Field ID: G4CE0143

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1895149	EPA 180.1 Rev. 2.0	Turbidity	6.3	A	NTU	P324453	
	EPA 300.0 Rev. 2.1	Chloride	27		mg Cl/L	P324789	
		Sulfate	6.8		mg SO4/L	P324792	
	SM 2120 B	Color (true)	53	A	PCU	P324412	
	SM 2320 B-97	Total Alkalinity	45		mg CaCO3/L	P325144	
	SM 2540 C-97	TDS	151		mg/L	P324877	
	SM 2540 D-97	TSS	23	I	mg/L	P324926	
	SM 4500 F-C-97	Fluoride	0.10		mg F/L	P325148	
1895151	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P324524	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P324533	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P324606	
	EPA 365.1 Rev. 2.0	Total-P	0.072		mg P/L	P324539	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P324517	
1895153	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P324409	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Chloride: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample. The PQL was elevated due to sample matrix interference.

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Kissimmee River @ 500 m US of LK Kissimmee Collection Date/Time: 05/01/2017 14:11

Field ID: G4CE0141

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1895150	EPA 180.1 Rev. 2.0	Turbidity	7.5		NTU	P324453	
	EPA 300.0 Rev. 2.1	Chloride	22	A	mg Cl/L	P324789	
		Sulfate	9.1	A	mg SO4/L	P324792	
	SM 2120 B	Color (true)	74		PCU	P324412	
	SM 2320 B-97	Total Alkalinity	35		mg CaCO3/L	P325144	
	SM 2540 C-97	TDS	116	A	mg/L	P324878	
	SM 2540 D-97	TSS	10	A	mg/L	P324927	
	SM 4500 F-C-97	Fluoride	0.097	I	mg F/L	P325148	
1895152	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P324524	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P324533	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P324606	
	EPA 365.1 Rev. 2.0	Total-P	0.063		mg P/L	P324539	
	SM 5310 B-00	Organic Carbon	16		mg C/L	P324517	
1895154	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P324409	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Chloride: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of 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: P324453

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324789

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324792

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P324524

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324533

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P324606

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P324539

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P324409

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

Reference Method: SM 2120 B
Batch ID: P324412

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P325144

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO ₃ /L

Reference Method: SM 2540 C-97
Batch ID: P324877

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P324878

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P324926

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P324927

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P325148

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P324517

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: P324789

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324792

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324792

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P324524

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324533

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	97.1		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P324606

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P324539

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P324409

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

Reference Method: SM 2320 B-97
Batch ID: P325144

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

Reference Method: SM 4500 F-C-97
Batch ID: P325148

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.7		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P324517

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324789

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1895150	Chloride	99.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324792

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1895150	Sulfate	104		P	90 - 110
1895231	Sulfate	97.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P324524

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1895151	Ammonia-N	103	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P324606

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1895151	NO2NO3-N	104	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P324539

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1895152	Total-P	105	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P324409

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1895234	O-Phosphate-P	96.4	94.5	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P325148

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1894180	Fluoride	99.4	98.8	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P324517

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1894856	Organic Carbon	98.2	98.5	P/P	85 - 115

Quality Assurance Report Precision

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P324453

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1895149	Turbidity	0.631	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324789

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1895150	Chloride	0.0813	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324792

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1895150	Sulfate	0.590	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P324524

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1895151	Ammonia-N	1.83	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324533

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1895165	Kjeldahl Nitrogen	1.77	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P324606

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1895151	NO2NO3-N	1.91	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P324539

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1895152	Total-P	0.913	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P324409

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1895234	O-Phosphate-P	1.99	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2120 B
Batch ID: P324412

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1895149	Color (true)	0.853	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P325144

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1894180	Total Alkalinity	0.132	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P324877

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1894612	TDS	1.96	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P324878

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1895150	TDS	7.73	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P324927

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1895150	TSS	7.69	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P325148

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1894180	Fluoride	0.483	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P324517

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1894856	Organic Carbon	0.144	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

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A76127

Included Lab Sample IDs: 1895153, 1895154

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	99.1	P/P	90 - 110

Reference Method: SM 2120 B

Run ID: A76130

Included Lab Sample IDs: 1895149, 1895150

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	97.1	101	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A76139

Included Lab Sample IDs: 1895149, 1895150

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	101	100	P/P	95 - 105

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A76148

Included Lab Sample IDs: 1895149, 1895150

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	107	105	P/P	90 - 110
Chloride	107	104	P/P	90 - 110
Sulfate	100	103	P/P	90 - 110
Sulfate	101	104	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A76159

Included Lab Sample IDs: 1895151, 1895152

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.2	99.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A76160

Included Lab Sample IDs: 1895151, 1895152

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A76178

Included Lab Sample IDs: 1895151, 1895152

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0
 Run ID: A76208
 Included Lab Sample IDs: 1895151, 1895152

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	103	105	P/P	90 - 110
Total-P	105	104	P/P	90 - 110

Reference Method: SM 2320 B-97
 Run ID: A76363
 Included Lab Sample IDs: 1895149, 1895150

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

Reference Method: SM 4500 F-C-97
 Run ID: A76363
 Included Lab Sample IDs: 1895149, 1895150

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

Reference Method: EPA 351.2 Rev. 2.0
 Run ID: A76388
 Included Lab Sample IDs: 1895151, 1895152

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	93.8	95.6	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	LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity				0.631	
EPA 300.0 Rev. 2.1	Chloride	104	99.5		0.0813	
	Sulfate	103	104	97.7	0.590	
EPA 350.1 Rev. 2.0	Ammonia-N	103	103	105		1.83
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.1				1.77
EPA 353.2 Rev. 2.0	NO2NO3-N	106	104	106		1.91
EPA 365.1 Rev. 2.0	Total-P	103	105	104		0.913
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102	96.4	94.5		1.99
SM 2120 B	Color (true)				0.853	
SM 2320 B-97	Total Alkalinity	104			0.132	
SM 2540 C-97	TDS				1.96	
	TDS				7.73	
SM 2540 D-97	TSS				7.69	
SM 4500 F-C-97	Fluoride	98.7	99.4	98.8		0.483
SM 5310 B-00	Organic Carbon	97.2	98.2	98.5		0.144

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1895149, 1895150
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1895149, 1895150
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1895149, 1895150
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1895151, 1895152
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1895151, 1895152
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1895151, 1895152
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1895151, 1895152
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1895153, 1895154
SM 2120 B / E31780	True Color measured at 450 nm	1895149, 1895150
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1895149, 1895150
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1895149, 1895150
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1895149, 1895150
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1895149, 1895150
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1895151, 1895152

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	05/02/2017			05/02/2017 17:37	Blanca Fach	1895149, 1895150
EPA 300.0 Rev. 2.1	05/02/2017			05/05/2017	Ping Hua	1895149, 1895150
EPA 350.1 Rev. 2.0	05/02/2017			05/03/2017	Julie Michelle Frank	1895151, 1895152
EPA 351.2 Rev. 2.0	05/02/2017	05/04/2017	Adrian Shelby	05/09/2017	Joseph Suarez	1895151, 1895152
EPA 353.2 Rev. 2.0	05/02/2017			05/04/2017	Beverly Y. Sanders	1895151, 1895152
EPA 365.1 Rev. 2.0	05/02/2017	05/04/2017	Adrian Shelby	05/05/2017	Christopher Armour	1895151, 1895152
EPA 365.1 Rev. 2.0 dissolved	05/02/2017			05/02/2017 14:47	Lipi Saha	1895153
	05/02/2017			05/02/2017 14:48	Lipi Saha	1895154
SM 2120 B	05/02/2017			05/02/2017 15:59	Julia Storbeck	1895149
	05/02/2017			05/02/2017 16:02	Julia Storbeck	1895150
SM 2320 B-97	05/02/2017			05/10/2017	Dale L. Simmons	1895149, 1895150
SM 2540 C-97	05/02/2017			05/03/2017	Yijie Li	1895149, 1895150
SM 2540 D-97	05/02/2017			05/03/2017	Yijie Li	1895149, 1895150
SM 4500 F-C-97	05/02/2017			05/10/2017	Dale L. Simmons	1895149, 1895150
SM 5310 B-00	05/02/2017			05/03/2017	Julie Michelle Frank	1895151, 1895152