Chemical Analysis Report

CEN-DIST-2016-02-12-01

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

Event Description: **Reedy Creek Above/Below Lk Russell+HA**
Request ID: **RQ-2016-02-08-33**
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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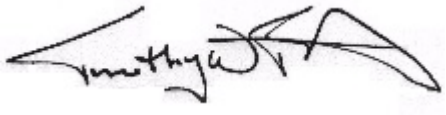
Date Certified: 02-MAR-2016 12:06



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: Reedy Creek @ 375m DS of Lake Russell **Collection Date/Time: 02/11/2016 11:02**

Field ID: G4CE0050 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1770982	EPA 180.1 Rev. 2.0	Turbidity	2.2		NTU	P298540	
	EPA 300.0 Rev. 2.1	Chloride	23	A	mg Cl/L	P298859	
		Sulfate	1.4	A	mg SO4/L	P298856	
	SM 2120 B	Color (true)	430		PCU	P298530	
	SM 2320 B-97	Total Alkalinity	29		mg CaCO3/L	P299109	
	SM 2540 C-97	TDS	150		mg/L	P299079	
	SM 2540 D-97	TSS	4	I	mg/L	P299017	
	SM 4500 F-C-97	Fluoride	0.076	I	mg F/L	P299043	
1770984	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P299122	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P298884	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.049		mg N/L	P298976	
	EPA 365.1 Rev. 2.0	Total-P	0.049		mg P/L	P298788	
	SM 5310 B-00	Organic Carbon	38		mg C/L	P298948	
1770986	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.024		mg P/L	P298534	

Ref. Method and Comment:
SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

Sample Location: Reedy Creek 0.35 Miles US of Lake Russell **Collection Date/Time: 02/11/2016 11:29**

Field ID: G3CE0093 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1770983	EPA 180.1 Rev. 2.0	Turbidity	0.50		NTU	P298540	
	EPA 300.0 Rev. 2.1	Chloride	23		mg Cl/L	P298859	
		Sulfate	1.1		mg SO4/L	P298856	
	SM 2120 B	Color (true)	410		PCU	P298531	
	SM 2320 B-97	Total Alkalinity	27		mg CaCO3/L	P299109	
	SM 2540 C-97	TDS	158		mg/L	P299079	
	SM 2540 D-97	TSS	2	I	mg/L	P299017	
	SM 4500 F-C-97	Fluoride	0.074	I	mg F/L	P299043	
1770985	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P299122	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P298884	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P298976	
	EPA 365.1 Rev. 2.0	Total-P	0.022		mg P/L	P298788	
	SM 5310 B-00	Organic Carbon	40		mg C/L	P298948	
1770987	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.006	I	mg P/L	P298534	

Ref. Method and Comment:
SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P298540

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: P298856

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P298859

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P299122

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P298884

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P298976

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P298788

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P298534

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

Reference Method: SM 2120 B
Batch ID: P298530

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P298531

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report
Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P299109

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

Reference Method: SM 2540 C-97
Batch ID: P299079

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P299017

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P299043

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P298948

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: P298856

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	99.0		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P298859

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P299122

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P298884

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: P298884

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.6		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P298976

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P298788

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: P298534

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

Reference Method: SM 2320 B-97
Batch ID: P299109

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

Reference Method: SM 4500 F-C-97
Batch ID: P299043

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.6		P	94 - 108

Reference Method: SM 5310 B-00
Batch ID: P298948

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.1		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P298856

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770982	Sulfate	100		P	90 - 110
1770983	Sulfate	101		P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P298859

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770982	Chloride	103		P	90 - 110
1770983	Chloride	102		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P299122

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1771022	Ammonia-N	98.0	96.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P298884

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770968	Kjeldahl Nitrogen	99.7	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P298976

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770984	NO2NO3-N	93.9	92.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P298788

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770984	Total-P	99.0	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P298534

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770943	O-Phosphate-P	98.9	100	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P299043

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770959	Fluoride	97.6	98.8	P/P	94 - 107

Reference Method: SM 5310 B-00
Batch ID: P298948

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770971	Organic Carbon	92.4	92.8	P/P	85 - 115

Quality Assurance Report
Precision

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P298540

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770964	Turbidity	0.387	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P298856

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770982	Sulfate	1.01	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P298859

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770982	Chloride	0.0844	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P299122

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1771022	Ammonia-N	0.798	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P298884

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770968	Kjeldahl Nitrogen	0.875	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P298976

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770984	NO2NO3-N	1.27	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P298788

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770984	Total-P	1.41	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P298534

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770943	O-Phosphate-P	1.15	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: SM 2120 B
Batch ID: P298530

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770961	Color (true)	6.44	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P298531

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1771052	Color (true)	2.30	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P299109

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770959	Total Alkalinity	0.847	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P299079

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1771021	TDS	5.31	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P299043

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770959	Fluoride	1.01	Spike	P	0 - 3.7

Reference Method: SM 5310 B-00
Batch ID: P298948

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770971	Organic Carbon	0.307	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: A67591
Included Lab Sample IDs: 1770982, 1770983

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	101	P/P	90 - 115

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A67592
Included Lab Sample IDs: 1770986, 1770987

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.8	99.2	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A67593
Included Lab Sample IDs: 1770982, 1770983

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	99.0	P/P	95 - 105

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A67638
Included Lab Sample IDs: 1770982, 1770983

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.8	99.4	P/P	90 - 110
Sulfate	96.7	98.6	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A67710
Included Lab Sample IDs: 1770984, 1770985

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	93.8	93.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A67721
Included Lab Sample IDs: 1770984, 1770985

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A67724
Included Lab Sample IDs: 1770984, 1770985

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A67728
Included Lab Sample IDs: 1770984, 1770985

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

Reference Method: SM 4500 F-C-97
Run ID: A67743
Included Lab Sample IDs: 1770982, 1770983

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

Quality Assurance Report
Calibration Verification

Reference Method: SM 4500 F-C-97
Run ID: A67743
Included Lab Sample IDs: 1770982, 1770983

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

Reference Method: SM 2320 B-97
Run ID: A67766
Included Lab Sample IDs: 1770982, 1770983

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A67770
Included Lab Sample IDs: 1770984, 1770985

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.0	98.9	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					0.387	
EPA 300.0 Rev. 2.1	Chloride	103	103	102		0.0844	
	Sulfate	99.0	100	101		1.01	
EPA 350.1 Rev. 2.0	Ammonia-N	97.1	98.0	96.8			0.798
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.6	99.7	101			0.875
EPA 353.2 Rev. 2.0	NO2NO3-N	97.0	93.9	92.4			1.27
EPA 365.1 Rev. 2.0	Total-P	100	99.0	101			1.41
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	103	98.9	100			1.15
SM 2120 B	Color (true)					6.44	
	Color (true)					2.30	
SM 2320 B-97	Total Alkalinity	101				0.847	
SM 2540 C-97	TDS					5.31	
SM 4500 F-C-97	Fluoride	97.6	97.6	98.8			1.01
SM 5310 B-00	Organic Carbon	95.1	92.4	92.8			0.307

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1770982, 1770983
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1770982, 1770983
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1770982, 1770983

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1770984, 1770985
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1770984, 1770985
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1770984, 1770985
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1770984, 1770985
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1770986, 1770987
SM 2120 B / E31780	True Color measured at 450 nm	1770982, 1770983
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1770982, 1770983
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1770982, 1770983
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1770982, 1770983
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1770982, 1770983
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1770984, 1770985

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	02/12/2016			02/12/2016 14:25	Sima Feizi	1770982, 1770983
EPA 300.0 Rev. 2.1	02/12/2016			02/17/2016	Julia Storbeck	1770982, 1770983
EPA 350.1 Rev. 2.0	02/12/2016			02/23/2016	Diana M. Turner	1770984, 1770985
EPA 351.2 Rev. 2.0	02/12/2016	02/19/2016	Christopher Armour	02/22/2016	Bryan A. Werth	1770984, 1770985
EPA 353.2 Rev. 2.0	02/12/2016			02/19/2016	Virginia P. Brown	1770984, 1770985
EPA 365.1 Rev. 2.0	02/12/2016	02/18/2016	Christopher Armour	02/19/2016	Lipi Saha	1770984, 1770985
EPA 365.1 Rev. 2.0 dissolved	02/12/2016			02/12/2016 13:58	Julia Storbeck	1770986
	02/12/2016			02/12/2016 13:59	Julia Storbeck	1770987
SM 2120 B	02/12/2016			02/12/2016 14:15	Rochelle Y Jackson	1770982
	02/12/2016			02/12/2016 14:16	Rochelle Y Jackson	1770983
SM 2320 B-97	02/12/2016			02/23/2016	Dale L. Simmons	1770982, 1770983
SM 2540 C-97	02/12/2016			02/17/2016	Yijie Li	1770982, 1770983
SM 2540 D-97	02/12/2016			02/17/2016	Yijie Li	1770982, 1770983
SM 4500 F-C-97	02/12/2016			02/22/2016	Dale L. Simmons	1770982, 1770983
SM 5310 B-00	02/12/2016			02/20/2016	Diana M. Turner	1770984, 1770985