

Chemical Analysis Report

CEN-DIST-2017-03-03-02

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

Event Description: **Withlacoochee River/ Reedy Creek (lower)**

Request ID: **RQ-2017-02-27-54**

Customer: **CEN-DIST**

Project ID: **SMP**

Send Reports to:

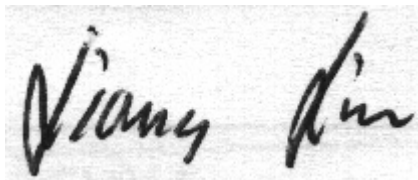
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767
Attn: Mike Linger

For additional information please contact

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Phone (850) 245-8085

Certified by: Liang Lin, Environmental Administrator

Date Certified: 30-MAR-2017 12:46

A handwritten signature in black ink, appearing to read "Liang Lin", is shown on a light-colored background.

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 @ 15m Upstream of I-4 Bridge

Collection Date/Time: 03/02/2017 10:05

Field ID: G4CE0137

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1877489	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P320936	
	EPA 300.0 Rev. 2.1	Chloride	54		mg Cl/L	P321677	
		Sulfate	12		mg SO4/L	P321680	
	SM 2120 B	Color (true)	280		PCU	P320935	
	SM 2320 B-97	Total Alkalinity	38		mg CaCO3/L	P321423	
	SM 2540 C-97	TDS	229		mg/L	P321392	
	SM 2540 D-97	TSS	4	I	mg/L	P321405	
	SM 4500 F-C-97	Fluoride	0.060	I	mg F/L	P321427	
1877491	EPA 350.1 Rev. 2.0	Ammonia-N	0.012		mg N/L	P321055	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P321033	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.076		mg N/L	P321354	
	EPA 365.1 Rev. 2.0	Total-P	0.043		mg P/L	P321070	
	SM 5310 B-00	Organic Carbon	27		mg C/L	P320954	
1877493	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.022		mg P/L	P320944	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low 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.

Sample Location: Withlacoochee River @ Upstream of SR 33

Collection Date/Time: 03/02/2017 11:04

Field ID: G4CE0138

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1877490	EPA 180.1 Rev. 2.0	Turbidity	1.4		NTU	P320936	
	EPA 300.0 Rev. 2.1	Chloride	17	A	mg Cl/L	P321677	
		Sulfate	0.30	I	mg SO4/L	P321680	
	SM 2120 B	Color (true)	430		PCU	P320935	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P321423	
	SM 2540 C-97	TDS	125		mg/L	P321393	
	SM 2540 D-97	TSS	3	I	mg/L	P321406	
	SM 4500 F-C-97	Fluoride	0.070	I	mg F/L	P321427	
1877492	EPA 350.1 Rev. 2.0	Ammonia-N	0.071		mg N/L	P321055	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.6		mg N/L	P321033	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P321354	
	EPA 365.1 Rev. 2.0	Total-P	0.067		mg P/L	P321070	
	SM 5310 B-00	Organic Carbon	47		mg C/L	P320954	
1877494	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.044		mg P/L	P320944	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low 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.

Quality Assurance Report

Method Blank Results

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P320936

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321677

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321680

Component	Result	Code	Units
Sulfate	0.20	U	mg SO ₄ /L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P321055

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P321033

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P321354

Component	Result	Code	Units
NO ₂ NO ₃ -N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P321070

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P320944

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

Reference Method: SM 2120 B
Batch ID: P320935

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P321423

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

Reference Method: SM 2540 C-97
Batch ID: P321392

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P321393

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P321405

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P321406

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P321427

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P320954

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: P321677

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321680

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: P321680

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

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P321055

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

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P321033

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	105		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P321354

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	108		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P321070

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P320944

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

Reference Method: SM 2320 B-97
 Batch ID: P321423

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

Reference Method: SM 4500 F-C-97
 Batch ID: P321427

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.0		P	92 - 103

Reference Method: SM 5310 B-00
 Batch ID: P320954

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: P321677

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1877352	Chloride	104		P	90 - 110
1877490	Chloride	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321680

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1877352	Sulfate	101		P	90 - 110
1877490	Sulfate	92.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P321055

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1877458	Ammonia-N	101	99.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P321033

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1877510	Kjeldahl Nitrogen	94.2	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P321354

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1877491	NO2NO3-N	103	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P321070

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1877635	Total-P	98.6	96.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P320944

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1877631	O-Phosphate-P	95.9	96.7	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P321427

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1877670	Fluoride	100	100	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P320954

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1877390	Organic Carbon	99.4	99.0	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P320936

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877455	Turbidity	11.0	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321677

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877490	Chloride	1.24	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P321055

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877458	Ammonia-N	0.519	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P321033

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877510	Kjeldahl Nitrogen	7.05	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P321354

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877491	NO2NO3-N	0.355	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P321070

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877635	Total-P	2.21	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P320944

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877631	O-Phosphate-P	0.737	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P320935

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877456	Color (true)	6.04	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2320 B-97
Batch ID: P321423

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877670	Total Alkalinity	0.0681	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P321392

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877456	TDS	8.34	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P321393

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877509	TDS	6.11	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P321427

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877670	Fluoride	0.0	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P320954

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877390	Organic Carbon	0.388	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: A74881
Included Lab Sample IDs: 1877489, 1877490

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.6	96.5	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A74882
Included Lab Sample IDs: 1877489, 1877490

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A74887

Included Lab Sample IDs: 1877493, 1877494

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.4	97.0	P/P	90 - 110
O-Phosphate-P	99.9	99.4	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A74891

Included Lab Sample IDs: 1877491, 1877492

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A74921

Included Lab Sample IDs: 1877491, 1877492

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.3	96.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A74956

Included Lab Sample IDs: 1877491, 1877492

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A74987

Included Lab Sample IDs: 1877491

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A74996

Included Lab Sample IDs: 1877492

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.4	96.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A75018

Included Lab Sample IDs: 1877491, 1877492

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

Reference Method: SM 2320 B-97

Run ID: A75050

Included Lab Sample IDs: 1877489, 1877490

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	104	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-97

Run ID: A75050

Included Lab Sample IDs: 1877489, 1877490

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	103	100	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A75123

Included Lab Sample IDs: 1877489, 1877490

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	104	103	P/P	90 - 110
Chloride	104	105	P/P	90 - 110
Sulfate	102	100	P/P	90 - 110
Sulfate	102	101	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				11.0	
EPA 300.0 Rev. 2.1	Chloride	104	100	104	1.24	
	Sulfate	102	92.9	101		
EPA 350.1 Rev. 2.0	Ammonia-N	101	101	99.8		0.519
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105	94.2	103		7.05
EPA 353.2 Rev. 2.0	NO2NO3-N	108	103	102		0.355
EPA 365.1 Rev. 2.0	Total-P	98.8	98.6	96.2		2.21
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100	95.9	96.7		0.737
SM 2120 B	Color (true)				6.04	
SM 2320 B-97	Total Alkalinity	104			0.0681	
SM 2540 C-97	TDS				8.34	
	TDS				6.11	
SM 4500 F-C-97	Fluoride	99.0	100	100		0.0
SM 5310 B-00	Organic Carbon	100	99.4	99.0		0.388

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1877489, 1877490
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1877489, 1877490
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1877489, 1877490
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1877491, 1877492
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1877491, 1877492
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1877491, 1877492

Reference Method Descriptions

Method / DoH Cert #	Description	<u>Associated Samples</u>
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1877491, 1877492
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1877493, 1877494
SM 2120 B / E31780	True Color measured at 450 nm	1877489, 1877490
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1877489, 1877490
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1877489, 1877490
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1877489, 1877490
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1877489, 1877490
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1877491, 1877492

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	03/03/2017			03/03/2017 14:15	Sima Feizi	1877489, 1877490
EPA 300.0 Rev. 2.1	03/03/2017			03/16/2017	Elisa J Lutz	1877489, 1877490
EPA 350.1 Rev. 2.0	03/03/2017			03/06/2017	Sofia Elnemr	1877491, 1877492
EPA 351.2 Rev. 2.0	03/03/2017	03/07/2017	Adrian Shelby	03/08/2017	Joseph Suarez	1877491, 1877492
EPA 353.2 Rev. 2.0	03/03/2017			03/10/2017	Beverly Y. Sanders	1877491, 1877492
EPA 365.1 Rev. 2.0	03/03/2017	03/07/2017	Adrian Shelby	03/08/2017	Lipi Saha	1877492
	03/03/2017	03/07/2017	Adrian Shelby	03/09/2017	Lipi Saha	1877491
EPA 365.1 Rev. 2.0 dissolved	03/03/2017			03/03/2017 15:27	Julia Storbeck	1877493
	03/03/2017			03/03/2017 15:33	Julia Storbeck	1877494
SM 2120 B	03/03/2017			03/03/2017 14:05	Julie Michelle Frank	1877489
	03/03/2017			03/03/2017 14:06	Julie Michelle Frank	1877490
SM 2320 B-97	03/03/2017			03/11/2017	Dale L. Simmons	1877489, 1877490
SM 2540 C-97	03/03/2017			03/08/2017	Yijie Li	1877489, 1877490
SM 2540 D-97	03/03/2017			03/08/2017	Yijie Li	1877489, 1877490
SM 4500 F-C-97	03/03/2017			03/11/2017	Dale L. Simmons	1877489, 1877490
SM 5310 B-00	03/03/2017			03/04/2017	Julie Michelle Frank	1877491, 1877492