Chemical Analysis Report

SO-DIST-2019-01-22-01

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

Event Description: **2019 SMP : Canals**
Request ID: **RQ-2019-01-21-46**
Customer: **SO-DIST**
Project ID: **SMP**

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FLDEP South District Office
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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 by the Florida Department of Health Environmental Laboratory Certification Program 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: C-19 @ US 27 **Collection Date/Time: 01/21/2019 10:05**

Field ID: G3SD0087 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2055839	EPA 180.1 Rev. 2.0	Turbidity	5.2		NTU	P357624	
	EPA 300.0 Rev. 2.1	Chloride	51		mg Cl/L	P357832	
		Sulfate	17		mg SO4/L	P357834	
	SM 2120 B	Color (true)	73		PCU	P357630	
	SM 2320 B-97	Total Alkalinity	189		mg CaCO3/L	P357967	
	SM 2540 C-97	TDS	336		mg/L	P357974	
	SM 2540 D-97	TSS	9	I	mg/L	P357981	
	SM 4500 F-C-97	Fluoride	0.16		mg F/L	P357969	
2055842	EPA 350.1 Rev. 2.0	Ammonia-N	0.033		mg N/L	P358013	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P357813	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.034		mg N/L	P357849	
	EPA 365.1 Rev. 2.0	Total-P	0.066		mg P/L	P357721	
	SM 5310 B-00	Organic Carbon	18		mg C/L	P357747	
2055845	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.014		mg P/L	P357631	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 4500 F-C-97: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Lake Hicpochee in Canal **Collection Date/Time: 01/21/2019 10:40**

Field ID: G3SD0102 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2055840	EPA 180.1 Rev. 2.0	Turbidity	10	A	NTU	P357624	
	EPA 300.0 Rev. 2.1	Chloride	47		mg Cl/L	P357832	
		Sulfate	24		mg SO4/L	P357834	
	SM 2120 B	Color (true)	41	A	PCU	P357630	
	SM 2320 B-97	Total Alkalinity	115		mg CaCO3/L	P357967	
	SM 2540 C-97	TDS	266		mg/L	P357974	
	SM 2540 D-97	TSS	16		mg/L	P357981	
	SM 4500 F-C-97	Fluoride	0.16		mg F/L	P357969	
2055843	EPA 350.1 Rev. 2.0	Ammonia-N	0.040		mg N/L	P358013	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P357813	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.030		mg N/L	P357849	
	EPA 365.1 Rev. 2.0	Total-P	0.071		mg P/L	P357721	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P357747	
2055846	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.006	I	mg P/L	P357631	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 4500 F-C-97: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Nine Mile Canal @ SR 80 **Collection Date/Time: 01/21/2019 11:10**

Field ID: G3SD0088 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2055841	EPA 180.1 Rev. 2.0	Turbidity	5.6		NTU	P357624	
	EPA 300.0 Rev. 2.1	Chloride	45		mg Cl/L	P357832	
		Sulfate	24		mg SO4/L	P357834	
	SM 2120 B	Color (true)	43		PCU	P357630	
	SM 2320 B-97	Total Alkalinity	134		mg CaCO3/L	P357967	
	SM 2540 C-97	TDS	284	A	mg/L	P357974	
	SM 2540 D-97	TSS	7	IA	mg/L	P357981	
	SM 4500 F-C-97	Fluoride	0.17		mg F/L	P357969	
2055844	EPA 350.1 Rev. 2.0	Ammonia-N	0.010		mg N/L	P358013	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P357813	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.013		mg N/L	P357849	
	EPA 365.1 Rev. 2.0	Total-P	0.058		mg P/L	P357721	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P357747	
2055847	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.008	I	mg P/L	P357631	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 4500 F-C-97: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P357624

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P357832

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P357834

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P358013

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P357813

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P357849

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P357721

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P357631

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

Reference Method: SM 2120 B
Batch ID: P357630

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report
Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P357967

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

Reference Method: SM 2540 C-97
Batch ID: P357974

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P357981

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P357969

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P357747

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: P357832

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P357834

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	95.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P358013

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P357813

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P357849

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: P357721

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: P357631

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.2		P	90 - 110

Reference Method: SM 2120 B
Batch ID: P357630

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	97.8		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P357967

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	98 - 107

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P357969

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	94.9		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P357747

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.8		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P357832

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2055532	Chloride	98.4		P	90 - 110
2055638	Chloride	98.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P357834

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2055532	Sulfate	94.2		P	90 - 110
2055638	Sulfate	95.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P358013

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2055644	Ammonia-N	95.0	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P357813

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2055874	Kjeldahl Nitrogen	111	109	F/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P357849

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2055842	NO2NO3-N	101	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P357721

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2055874	Total-P	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P357631

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2055846	O-Phosphate-P	93.1	94.9	P/P	90 - 110

Reference Method: SM 5310 B-00
Batch ID: P357747

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2055533	Organic Carbon	98.1	96.6	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P357624

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055840	Turbidity	1.90	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P357832

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055532	Chloride	2.83	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P357834

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055532	Sulfate	1.37	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P358013

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055644	Ammonia-N	4.44	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P357813

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055874	Kjeldahl Nitrogen	1.46	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P357849

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055842	NO2NO3-N	1.71	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P357721

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055874	Total-P	0.695	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P357631

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055846	O-Phosphate-P	1.79	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: SM 2120 B
Batch ID: P357630

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055840	Color (true)	0.952	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P357967

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055530	Total Alkalinity	0.0580	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P357974

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055841	TDS	4.23	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P357969

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055530	Fluoride	0.0	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P357747

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055533	Organic Carbon	1.50	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 300.0 Rev. 2.1
Run ID: A88931
Included Lab Sample IDs: 2055839, 2055840, 2055841

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.9	101	P/P	90 - 110
Sulfate	97.9	98.4	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A88940
Included Lab Sample IDs: 2055839, 2055840, 2055841

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	100	P/P	95 - 105

Reference Method: SM 2120 B
Run ID: A88941
Included Lab Sample IDs: 2055839, 2055840, 2055841

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.2	99.6	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A88942
Included Lab Sample IDs: 2055845, 2055846, 2055847

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.5	99.0	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A88983
Included Lab Sample IDs: 2055842, 2055843, 2055844

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	99.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A89017
Included Lab Sample IDs: 2055842, 2055843, 2055844

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A89022
Included Lab Sample IDs: 2055842, 2055843, 2055844

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A89054
Included Lab Sample IDs: 2055842, 2055843, 2055844

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.1	99.0	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: SM 2320 B-97
Run ID: A89064
Included Lab Sample IDs: 2055839, 2055840, 2055841

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

Reference Method: SM 4500 F-C-97
Run ID: A89064
Included Lab Sample IDs: 2055839, 2055840, 2055841

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.6	99.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A89078
Included Lab Sample IDs: 2055842, 2055843, 2055844

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.4	102	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					1.90	
EPA 300.0 Rev. 2.1	Chloride	98.2	98.4	98.1		2.83	
	Sulfate	95.2	94.2	95.9		1.37	
EPA 350.1 Rev. 2.0	Ammonia-N	100	95.0	101			4.44
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	106	111	109			1.46
EPA 353.2 Rev. 2.0	NO2NO3-N	100	101	99.0			1.71
EPA 365.1 Rev. 2.0	Total-P	103	102	102			0.695
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.2	93.1	94.9			1.79
SM 2120 B	Color (true)	97.8				0.952	
SM 2320 B-97	Total Alkalinity	101				0.0580	
SM 2540 C-97	TDS					4.23	
SM 4500 F-C-97	Fluoride	94.9					0.0
SM 5310 B-00	Organic Carbon	99.8	98.1	96.6			1.50

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2055839, 2055840, 2055841
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2055839, 2055840, 2055841
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2055839, 2055840, 2055841
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2055842, 2055843, 2055844
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2055842, 2055843, 2055844
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2055842, 2055843, 2055844
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2055842, 2055843, 2055844
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2055845, 2055846, 2055847
SM 2120 B / E31780	True Color measured at 450 nm	2055839, 2055840, 2055841
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2055839, 2055840, 2055841
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2055839, 2055840, 2055841
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2055839, 2055840, 2055841
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2055839, 2055840, 2055841
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2055842, 2055843, 2055844

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	01/22/2019			01/22/2019 14:05	Megan Treadwell	2055839, 2055840, 2055841
EPA 300.0 Rev. 2.1	01/22/2019			01/24/2019 18:18	Lipi Saha	2055839
	01/22/2019			01/24/2019 18:30	Lipi Saha	2055840
	01/22/2019			01/24/2019 18:42	Lipi Saha	2055841
EPA 350.1 Rev. 2.0	01/22/2019			01/29/2019 12:24	Ping Hua	2055842
	01/22/2019			01/29/2019 12:26	Ping Hua	2055843
	01/22/2019			01/29/2019 12:27	Ping Hua	2055844
EPA 351.2 Rev. 2.0	01/22/2019	01/24/2019 12:00	Adrian Shelby	01/28/2019 11:09	Joseph Suarez	2055842
	01/22/2019	01/24/2019 12:00	Adrian Shelby	01/28/2019 11:11	Joseph Suarez	2055843
	01/22/2019	01/24/2019 12:00	Adrian Shelby	01/28/2019 11:12	Joseph Suarez	2055844
EPA 353.2 Rev. 2.0	01/22/2019			01/25/2019 11:01	Beverly Y. Sanders	2055842
	01/22/2019			01/25/2019 11:02	Beverly Y. Sanders	2055843
	01/22/2019			01/25/2019 11:03	Beverly Y. Sanders	2055844
EPA 365.1 Rev. 2.0	01/22/2019	01/23/2019 11:50	Sima Feizi	01/24/2019 18:25	Rosalyn Ballman	2055842
	01/22/2019	01/23/2019 11:50	Sima Feizi	01/24/2019 18:26	Rosalyn Ballman	2055843
	01/22/2019	01/23/2019 11:50	Sima Feizi	01/24/2019 18:27	Rosalyn Ballman	2055844
EPA 365.1 Rev. 2.0 dissolved	01/22/2019			01/22/2019 14:32	Jhamieka S. Greenwood	2055846
	01/22/2019			01/22/2019 14:35	Jhamieka S. Greenwood	2055845
	01/22/2019			01/22/2019 14:36	Jhamieka S. Greenwood	2055847
SM 2120 B	01/22/2019			01/22/2019 14:54	Julia Storbeck	2055840
	01/22/2019			01/22/2019 14:55	Julia Storbeck	2055839
	01/22/2019			01/22/2019 14:56	Julia Storbeck	2055841
SM 2320 B-97	01/22/2019			01/24/2019 23:35	Dale L. Simmons	2055839
	01/22/2019			01/24/2019 23:48	Dale L. Simmons	2055840
	01/22/2019			01/25/2019 00:01	Dale L. Simmons	2055841
SM 2540 C-97	01/22/2019			01/23/2019 15:21	Yijie Li	2055839, 2055840, 2055841
SM 2540 D-97	01/22/2019			01/23/2019 15:21	Yijie Li	2055839, 2055840, 2055841
SM 4500 F-C-97	01/22/2019			01/24/2019 23:35	Dale L. Simmons	2055839
	01/22/2019			01/24/2019 23:48	Dale L. Simmons	2055840
	01/22/2019			01/25/2019 00:01	Dale L. Simmons	2055841
SM 5310 B-00	01/22/2019			01/23/2019 16:34	Megan Treadwell	2055842
	01/22/2019			01/23/2019 16:46	Megan Treadwell	2055843
	01/22/2019			01/23/2019 16:59	Megan Treadwell	2055844