

Chemical Analysis Report

CEN-DIST-2020-09-01-01

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

Event Description: **Puzzle Lake Drain**
Request ID: **RQ-2020-08-31-43**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
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3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767
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Certified by: Colin Wright, Program Administrator

Date Certified: 23-SEP-2020 13:25

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light gray rectangular 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 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: Lake Ingram East

Collection Date/Time: 08/31/2020 10:52

Field ID: G4CE0155

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2193266	EPA 180.1 Rev. 2.0	Turbidity	1.5		NTU	P386820	
	EPA 300.0 Rev. 2.1	Chloride	7.3	A	mg Cl/L	P387062	
		Sulfate	1.7	A	mg SO4/L	P387067	
	SM 2120 B-2011	Color (true)	23	A	PCU	P386832	
	SM 2320 B-2011	Total Alkalinity	9.4		mg CaCO3/L	P386894	
	SM 2540 C-2011	TDS	48		mg/L	P387204	
	SM 2540 D-2011	TSS	2	I	mg/L	P387184	
	SM 4500 F-C-2011	Fluoride	0.044	I	mg F/L	P386898	
2193268	EPA 350.1 Rev. 2.0	Ammonia-N	0.010		mg N/L	P387032	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.74		mg N/L	P386882	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P386841	
	EPA 365.1 Rev. 2.0	Total-P	0.009		mg P/L	P386855	
	SM 5310 B-2011	Organic Carbon	9.7		mg C/L	P387199	
2193270	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P386824	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Lake Giles @ Center

Collection Date/Time: 08/31/2020 12:16

Field ID: G4CE0193

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2193267	EPA 180.1 Rev. 2.0	Turbidity	2.0		NTU	P386820	
	EPA 300.0 Rev. 2.1	Chloride	21		mg Cl/L	P387062	
		Sulfate	14		mg SO4/L	P387067	
	SM 2120 B-2011	Color (true)	12		PCU	P386832	
	SM 2320 B-2011	Total Alkalinity	12		mg CaCO3/L	P386894	
	SM 2540 C-2011	TDS	74		mg/L	P387204	
	SM 2540 D-2011	TSS	2	I	mg/L	P387184	
	SM 4500 F-C-2011	Fluoride	0.052	I	mg F/L	P386898	
2193269	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P387032	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.55		mg N/L	P386882	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P386841	
	EPA 365.1 Rev. 2.0	Total-P	0.028		mg P/L	P386855	
	SM 5310 B-2011	Organic Carbon	4.8		mg C/L	P387199	
2193271	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P386824	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P386820

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387062

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387067

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387032

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P386882

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P386841

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P386855

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P386824

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

Reference Method: SM 2120 B-2011
Batch ID: P386832

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P386894

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

Reference Method: SM 2540 C-2011
Batch ID: P387204

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P387184

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P386898

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P387199

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: P387062

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387067

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387032

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: P386882

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P386841

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: P386855

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P386824

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

Reference Method: SM 2120 B-2011
Batch ID: P386832

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	95.9		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P386894

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	93 - 104

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P386898

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.2		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P387199

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387062

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2193266	Chloride	102		P	90 - 110
2193466	Chloride	99.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387067

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2193266	Sulfate	100		P	90 - 110
2193466	Sulfate	97.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387032

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2193268	Ammonia-N	100	99.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P386882

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2193269	Kjeldahl Nitrogen	106	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P386841

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2193227	NO2NO3-N	98.0	98.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P386855

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2193268	Total-P	108	110	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P386824

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2193228	O-Phosphate-P	98.6	98.9	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Batch ID: P386898

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2193332	Fluoride	100	99.8	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P387199

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2193341	Organic Carbon	96.6		P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P386820

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193187	Turbidity	1.73	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387062

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193266	Chloride	1.74	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387067

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193266	Sulfate	1.16	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387032

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193268	Ammonia-N	1.10	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P386882

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193269	Kjeldahl Nitrogen	0.568	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P386841

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193227	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P386855

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193268	Total-P	1.80	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P386824

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193228	O-Phosphate-P	0.206	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2120 B-2011
 Batch ID: P386832

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193266	Color (true)	2.23	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
 Batch ID: P386894

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193332	Total Alkalinity	0.147	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
 Batch ID: P387204

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193613	TDS	3.79	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
 Batch ID: P386898

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193332	Fluoride	0.461	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
 Batch ID: P387199

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193341	Organic Carbon	0.353	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A100755

Included Lab Sample IDs: 2193266, 2193267

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	101	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A100756

Included Lab Sample IDs: 2193270, 2193271

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.1	97.6	P/P	90 - 110

Reference Method: SM 2120 B-2011

Run ID: A100760

Included Lab Sample IDs: 2193266, 2193267

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	97.2	99.0	P/P	90 - 115

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A100774

Included Lab Sample IDs: 2193268, 2193269

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

Reference Method: SM 2320 B-2011

Run ID: A100801

Included Lab Sample IDs: 2193266, 2193267

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

Reference Method: SM 4500 F-C-2011

Run ID: A100801

Included Lab Sample IDs: 2193266, 2193267

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	102	99.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A100823

Included Lab Sample IDs: 2193268, 2193269

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	100	P/P	90 - 110
Kjeldahl Nitrogen	96.8	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A100834

Included Lab Sample IDs: 2193268, 2193269

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A100834

Included Lab Sample IDs: 2193268, 2193269

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	91.2	101	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A100843

Included Lab Sample IDs: 2193266, 2193267

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

Reference Method: SM 5310 B-2011

Run ID: A100906

Included Lab Sample IDs: 2193268, 2193269

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	94.1	94.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A100968

Included Lab Sample IDs: 2193268, 2193269

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	96.8	96.2	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	MS
EPA 180.1 Rev. 2.0	Turbidity				1.73	
EPA 300.0 Rev. 2.1	Chloride	101	102	99.7	1.74	
	Sulfate	99.0	100	97.9	1.16	
EPA 350.1 Rev. 2.0	Ammonia-N	103	100	99.0		1.10
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	108	106	105		0.568
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	101	98.0	98.0		0.0
EPA 365.1 Rev. 2.0	Total-P	106	108	110		1.80
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.2	98.6	98.9		0.206
SM 2120 B-2011	Color (true)	95.9			2.23	
SM 2320 B-2011	Total Alkalinity	100			0.147	
SM 2540 C-2011	TDS				3.79	
SM 4500 F-C-2011	Fluoride	99.2	100	99.8		0.461
SM 5310 B-2011	Organic Carbon	98.6	96.6			0.353

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2193266, 2193267
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2193266, 2193267
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2193266, 2193267
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2193268, 2193269
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2193268, 2193269
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2193268, 2193269
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2193268, 2193269
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2193270, 2193271
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2193266, 2193267
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2193266, 2193267
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2193266, 2193267
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2193266, 2193267
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2193266, 2193267
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2193268, 2193269

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	09/01/2020			09/01/2020 14:24	Yen Ta	2193266, 2193267
EPA 300.0 Rev. 2.1	09/01/2020			09/05/2020 11:07	Julia Storbeck	2193266
	09/01/2020			09/05/2020 12:44	Julia Storbeck	2193267
EPA 350.1 Rev. 2.0	09/01/2020			09/06/2020 11:08	Ping Hua	2193269
	09/01/2020			09/06/2020 14:08	Ping Hua	2193268
EPA 351.2 Rev. 2.0	09/01/2020	09/03/2020 09:45	Sima Feizi	09/04/2020 11:50	Elliott Rodriguez	2193269
	09/01/2020	09/03/2020 09:45	Sima Feizi	09/04/2020 12:08	Elliott Rodriguez	2193268
EPA 353.2 Rev. 2.0	09/01/2020			09/02/2020 09:18	Beverly Y. Sanders	2193268
	09/01/2020			09/02/2020 09:19	Beverly Y. Sanders	2193269
EPA 365.1 Rev. 2.0	09/01/2020	09/02/2020 13:46	Yen Ta	09/08/2020 13:19	Lipi Saha	2193268
	09/01/2020	09/02/2020 13:46	Yen Ta	09/08/2020 13:20	Lipi Saha	2193269
EPA 365.1 Rev. 2.0 dissolved	09/01/2020			09/01/2020 15:26	Samantha Davila	2193270
	09/01/2020			09/01/2020 15:27	Samantha Davila	2193271
SM 2120 B-2011	09/01/2020			09/01/2020 15:26	Benjamin T. Nordmann	2193266, 2193267
SM 2320 B-2011	09/01/2020			09/02/2020 17:04	Dale L. Simmons	2193266
	09/01/2020			09/02/2020 17:17	Dale L. Simmons	2193267
SM 2540 C-2011	09/01/2020			09/03/2020 15:01	Yijie Li	2193266, 2193267
SM 2540 D-2011	09/01/2020			09/03/2020 15:01	Yijie Li	2193266, 2193267
SM 4500 F-C-2011	09/01/2020			09/02/2020 17:04	Dale L. Simmons	2193266
	09/01/2020			09/02/2020 17:17	Dale L. Simmons	2193267
SM 5310 B-2011	09/01/2020			09/09/2020 20:34	David Boose	2193268
	09/01/2020			09/09/2020 20:46	David Boose	2193269