

Chemical Analysis Report

SE-DIST-2019-05-03-01

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

Event Description: **SMP-Drum**
Request ID: **RQ-2019-04-29-67**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
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FL Dept. of Environmental Protection
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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 24-MAY-2019 10:19

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line above the first name.

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-25 CANAL WEST @ GODWIN

Collection Date/Time: 05/02/2019 10:20

Field ID: G2SE0001

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2083133	EPA 180.1 Rev. 2.0	Turbidity	7.6		NTU	P363372	
	EPA 300.0 Rev. 2.1	Chloride	390		mg Cl/L	P363744	
		Sulfate	120		mg SO4/L	P363748	
		Color (true)	40		PCU	P363338	
	SM 2320 B-97	Total Alkalinity	213		mg CaCO3/L	P363807	
	SM 2540 C-97	TDS	928		mg/L	P363914	
	SM 2540 D-97	TSS	19		mg/L	P363891	
	SM 4500 F-C-97	Fluoride	0.40		mg F/L	P363811	
2083134	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P363634	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P363708	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P363480	
	EPA 365.1 Rev. 2.0	Total-P	0.17		mg P/L	P363523	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P363435	
2083135	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.036		mg P/L	P363334	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: 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.

Sample Location: SWEETWATER BRANCH @ 441

Collection Date/Time: 05/02/2019 11:35

Field ID: G3SE0025

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2083136	EPA 180.1 Rev. 2.0	Turbidity	5.6		NTU	P363372	
	EPA 300.0 Rev. 2.1	Chloride	38		mg Cl/L	P363744	
		Sulfate	7.6		mg SO4/L	P363748	
	SM 2120 B	Color (true)	43		PCU	P363338	
	SM 2320 B-97	Total Alkalinity	50	A	mg CaCO3/L	P363807	
	SM 2540 C-97	TDS	161		mg/L	P363914	
	SM 2540 D-97	TSS	29		mg/L	P363891	
	SM 4500 F-C-97	Fluoride	0.14		mg F/L	P363811	
2083137	EPA 350.1 Rev. 2.0	Ammonia-N	0.10		mg N/L	P363634	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.8		mg N/L	P363708	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.18		mg N/L	P363480	
	EPA 365.1 Rev. 2.0	Total-P	1.1		mg P/L	P363874	
	SM 5310 B-00	Organic Carbon	9.7		mg C/L	P363435	
2083138	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.21		mg P/L	P363334	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: 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.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P363372

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P363744

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P363748

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P363634

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P363708

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P363480

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P363523

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P363874

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P363334

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2120 B
Batch ID: P363338

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P363807

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

Reference Method: SM 2540 C-97
Batch ID: P363914

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P363891

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P363811

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P363435

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: P363744

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P363748

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P363634

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: P363708

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	107		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P363480

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: P363523

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P363874

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	107		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P363334

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	96.9		P	90 - 110

Reference Method: SM 2120 B
Batch ID: P363338

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.1		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-97
Batch ID: P363807

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P363811

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.6		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P363435

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	92.3		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P363744

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2083109	Chloride	102		P	90 - 110
2083143	Chloride	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P363748

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2083109	Sulfate	102		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P363634

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2083112	Ammonia-N	101	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P363708

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2082899	Kjeldahl Nitrogen	99.7	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P363480

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2083112	NO2NO3-N	100	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P363523

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2083112	Total-P	98.5	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P363874

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2084162	Total-P	108	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P363334

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2083135	O-Phosphate-P	95.0	95.3	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P363811

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2083136	Fluoride	98.2	97.6	P/P	89 - 106

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-00
Batch ID: P363435

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2082904	Organic Carbon	94.3	95.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P363372

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082894	Turbidity	2.54	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P363744

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2083109	Chloride	4.46	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P363748

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2083109	Sulfate	6.36	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P363634

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2083112	Ammonia-N	0.872	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P363708

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082899	Kjeldahl Nitrogen	4.23	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P363480

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2083112	NO2NO3-N	0.414	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P363523

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2083112	Total-P	2.23	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P363874

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2084162	Total-P	4.28	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P363334

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2083135	O-Phosphate-P	0.228	Spike	P	0 - 20

Reference Method: SM 2120 B
 Batch ID: P363338

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082894	Color (true)	1.79	Sample	P	0 - 20

Reference Method: SM 2320 B-97
 Batch ID: P363807

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2083136	Total Alkalinity	0.0676	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
 Batch ID: P363914

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082936	TDS	1.47	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
 Batch ID: P363811

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2083136	Fluoride	0.470	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
 Batch ID: P363435

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082904	Organic Carbon	1.16	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 365.1 Rev. 2.0 dissolved

Run ID: A91195

Included Lab Sample IDs: 2083135, 2083138

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	95.8	95.0	P/P	90 - 110
O-Phosphate-P	98.0	95.8	P/P	90 - 110

Reference Method: SM 2120 B

Run ID: A91199

Included Lab Sample IDs: 2083133, 2083136

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.4	100	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A91209

Included Lab Sample IDs: 2083133, 2083136

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

Reference Method: SM 5310 B-00

Run ID: A91225

Included Lab Sample IDs: 2083134, 2083137

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	93.4	93.8	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A91228

Included Lab Sample IDs: 2083133, 2083136

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A91242

Included Lab Sample IDs: 2083134, 2083137

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A91302

Included Lab Sample IDs: 2083134, 2083137

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A91332

Included Lab Sample IDs: 2083134

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A91365

Included Lab Sample IDs: 2083134, 2083137

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

Reference Method: SM 2320 B-97

Run ID: A91372

Included Lab Sample IDs: 2083133, 2083136

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

Reference Method: SM 4500 F-C-97

Run ID: A91372

Included Lab Sample IDs: 2083133, 2083136

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A91454

Included Lab Sample IDs: 2083137

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.9	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		LCS	Precision	MS
						SMP	
EPA 180.1 Rev. 2.0	Turbidity					2.54	
EPA 300.0 Rev. 2.1	Chloride	99.5	102	100		4.46	
	Sulfate	100	102			6.36	
EPA 350.1 Rev. 2.0	Ammonia-N	100	101	103			0.872
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	107	99.7	105			4.23
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	101	100	99.5			0.414
EPA 365.1 Rev. 2.0	Total-P	103	98.5	102			2.23
	Total-P	107	108	103			4.28
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	96.9	95.0	95.3			0.228
SM 2120 B	Color (true)	98.1				1.79	
SM 2320 B-97	Total Alkalinity	102				0.0676	
SM 2540 C-97	TDS					1.47	
SM 4500 F-C-97	Fluoride	98.6	98.2	97.6			0.470
SM 5310 B-00	Organic Carbon	92.3	94.3	95.6			1.16

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2083133, 2083136
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2083133, 2083136
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2083133, 2083136
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2083134, 2083137
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2083134, 2083137
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2083134, 2083137
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2083134, 2083137
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2083135, 2083138
SM 2120 B / E31780	True Color measured at 450 nm	2083133, 2083136
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2083133, 2083136
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2083133, 2083136
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2083133, 2083136
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2083133, 2083136
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2083134, 2083137

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	05/03/2019			05/03/2019 16:06	Sima Feizi	2083133, 2083136
EPA 300.0 Rev. 2.1	05/03/2019			05/09/2019 23:33	Lipi Saha	2083133
	05/03/2019			05/09/2019 23:45	Lipi Saha	2083136
EPA 350.1 Rev. 2.0	05/03/2019			05/08/2019 13:13	Ping Hua	2083134
	05/03/2019			05/08/2019 13:22	Ping Hua	2083137
EPA 351.2 Rev. 2.0	05/03/2019	05/09/2019 13:00	Adrian Shelby	05/10/2019 14:08	Joseph Suarez	2083134
	05/03/2019	05/09/2019 13:00	Adrian Shelby	05/10/2019 14:10	Joseph Suarez	2083137
EPA 353.2 Rev. 2.0	05/03/2019			05/07/2019 10:03	Beverly Y. Sanders	2083134
	05/03/2019			05/07/2019 10:04	Beverly Y. Sanders	2083137
EPA 365.1 Rev. 2.0	05/03/2019	05/07/2019 14:35	Sima Feizi	05/09/2019 14:23	Rosalyn Ballman	2083134
	05/03/2019	05/14/2019 10:06	Joseph Suarez	05/15/2019 17:18	Rosalyn Ballman	2083137
EPA 365.1 Rev. 2.0 dissolved	05/03/2019			05/03/2019 14:25	Lipi Saha	2083135
	05/03/2019			05/03/2019 14:52	Lipi Saha	2083138
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	05/03/2019			05/03/2019 14:33	Blanca Fach	2083136
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	05/03/2019			05/11/2019 15:14	Dale L. Simmons	2083133
SM 2540 C-97	05/03/2019			05/08/2019 14:21	Yijie Li	2083133, 2083136
SM 2540 D-97	05/03/2019			05/08/2019 14:21	Yijie Li	2083133, 2083136
SM 4500 F-C-97	05/03/2019			05/11/2019 13:07	Dale L. Simmons	2083136
	05/03/2019			05/11/2019 15:14	Dale L. Simmons	2083133
SM 5310 B-00	05/03/2019			05/07/2019 01:08	Lauren Lees	2083134
	05/03/2019			05/07/2019 01:20	Lauren Lees	2083137