

Chemical Analysis Report

CEN-DIST-2019-04-23-01

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

Event Description: **Belle / Gordon / Van + D&B**
Request ID: **RQ-2019-04-22-39**
Customer: **CEN-DIST**
Project ID: **SMP**

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Date Certified: 08-MAY-2019 14:28



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 VAN @ SW CORNER OF W LOBE

Collection Date/Time: 04/22/2019 11:26

Field ID: G4CE0099

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2080052	EPA 180.1 Rev. 2.0	Turbidity	4.7		NTU	P362738	
	EPA 300.0 Rev. 2.1	Chloride	28	A	mg Cl/L	P362962	
		Sulfate	27	A	mg SO4/L	P362966	
	SM 2120 B	Color (true)	94		PCU	P362701	
	SM 2320 B-97	Total Alkalinity	15	A	mg CaCO3/L	P363244	
	SM 2540 C-97	TDS	133		mg/L	P363103	
	SM 2540 D-97	TSS	4	I	mg/L	P363052	
	SM 4500 F-C-97	Fluoride	0.30		mg F/L	P363250	
2080054	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	I	mg N/L	P363031	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.91		mg N/L	P362990	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P362981	
	EPA 365.1 Rev. 2.0	Total-P	0.071		mg P/L	P362793	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P362921	
2080056	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.028		mg P/L	P362735	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: LAKE GORDON @ CENTER

Collection Date/Time: 04/22/2019 12:17

Field ID: G3CE0020

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2080053	EPA 180.1 Rev. 2.0	Turbidity	0.35		NTU	P362739	
	EPA 300.0 Rev. 2.1	Chloride	11		mg Cl/L	P362962	
		Sulfate	6.0		mg SO4/L	P362966	
	SM 2120 B	Color (true)	13		PCU	P362701	
	SM 2320 B-97	Total Alkalinity	45		mg CaCO3/L	P363244	
	SM 2540 C-97	TDS	83		mg/L	P363103	
	SM 2540 D-97	TSS	2	U	mg/L	P363052	
	SM 4500 F-C-97	Fluoride	0.086	I	mg F/L	P363250	
2080055	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P363031	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.37		mg N/L	P362990	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P362981	
	EPA 365.1 Rev. 2.0	Total-P	0.010		mg P/L	P362793	
	SM 5310 B-00	Organic Carbon	3.8		mg C/L	P362921	
2080057	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P362735	

Ref. Method and Comment:

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: P362738

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P362739

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362962

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362966

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P363031

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P362990

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P362981

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P362793

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P362735

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: P362701

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P363244

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

Reference Method: SM 2540 C-97
Batch ID: P363103

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P363052

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P363250

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P362921

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: P362962

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362966

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P363031

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P362990

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: P362981

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P362793

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P362735

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.4		P	90 - 110

Reference Method: SM 2120 B
Batch ID: P362701

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	103		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P363244

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	98 - 106

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P363250

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.2		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P362921

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	101		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362962

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2079904	Chloride	100		P	90 - 110
2080052	Chloride	98.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362966

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2079904	Sulfate	103		P	90 - 110
2080052	Sulfate	98.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P363031

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2080055	Ammonia-N	99.7	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P362990

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2080128	Kjeldahl Nitrogen	105	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P362981

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2080038	NO2NO3-N	96.0	97.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P362793

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2080055	Total-P	95.8	99.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P362735

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2080057	O-Phosphate-P	97.2	98.3	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P363250

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2080052	Fluoride	98.9	98.9	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P362921

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2080055	Organic Carbon	102	103	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P362738

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2080029	Turbidity	2.21	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P362739

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2080090	Turbidity	1.29	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362962

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2080052	Chloride	0.0676	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362966

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2080052	Sulfate	0.544	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P363031

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2080055	Ammonia-N	0.379	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P362990

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2080128	Kjeldahl Nitrogen	0.902	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P362981

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2080038	NO2NO3-N	1.04	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P362793

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2080055	Total-P	3.80	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P362735

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2080057	O-Phosphate-P	1.13	Spike	P	0 - 20

Reference Method: SM 2120 B
 Batch ID: P362701

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2080031	Color (true)	2.75	Sample	P	0 - 20

Reference Method: SM 2320 B-97
 Batch ID: P363244

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2080052	Total Alkalinity	0.476	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
 Batch ID: P363103

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2080035	TDS	3.43	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
 Batch ID: P363250

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2080052	Fluoride	0.0	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
 Batch ID: P362921

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2080055	Organic Carbon	0.164	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: A90941

Included Lab Sample IDs: 2080052, 2080053

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	104	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A90950

Included Lab Sample IDs: 2080056, 2080057

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.3	98.7	P/P	90 - 110
O-Phosphate-P	98.7	98.5	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A90951

Included Lab Sample IDs: 2080052, 2080053

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A91034

Included Lab Sample IDs: 2080054

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

Reference Method: SM 5310 B-00

Run ID: A91035

Included Lab Sample IDs: 2080054, 2080055

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	105	102	P/P	90 - 110
Organic Carbon	99.7	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A91039

Included Lab Sample IDs: 2080054, 2080055

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.5	98.5	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A91050

Included Lab Sample IDs: 2080052, 2080053

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	102	P/P	90 - 110
Chloride	102	103	P/P	90 - 110
Sulfate	103	104	P/P	90 - 110
Sulfate	104	104	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A91062

Included Lab Sample IDs: 2080055

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A91070

Included Lab Sample IDs: 2080054, 2080055

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A91098

Included Lab Sample IDs: 2080054, 2080055

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

Reference Method: SM 2320 B-97

Run ID: A91158

Included Lab Sample IDs: 2080052, 2080053

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.5	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A91158

Included Lab Sample IDs: 2080052, 2080053

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	100	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					2.21	
	Turbidity					1.29	
EPA 300.0 Rev. 2.1	Chloride	100	98.6	100		0.0676	
	Sulfate	103	98.2	103		0.544	
EPA 350.1 Rev. 2.0	Ammonia-N	102	99.7	100			0.379
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	108	105	104			0.902
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	98.0	96.0	97.0			1.04
EPA 365.1 Rev. 2.0	Total-P	104	95.8	99.6			3.80
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.4	97.2	98.3			1.13
SM 2120 B	Color (true)	103				2.75	
SM 2320 B-97	Total Alkalinity	101				0.476	
SM 2540 C-97	TDS					3.43	
SM 4500 F-C-97	Fluoride	97.2	98.9	98.9			0.0
SM 5310 B-00	Organic Carbon	101	103	102			0.164

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2080052, 2080053
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2080052, 2080053
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2080052, 2080053
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2080054, 2080055
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2080054, 2080055
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2080054, 2080055
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2080054, 2080055
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2080056, 2080057
SM 2120 B / E31780	True Color measured at 450 nm	2080052, 2080053
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2080052, 2080053
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2080052, 2080053
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2080052, 2080053
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2080052, 2080053
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2080054, 2080055

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	04/23/2019			04/23/2019 17:05	Adrian Shelby	2080052, 2080053
EPA 300.0 Rev. 2.1	04/23/2019			04/26/2019 18:56	Lipi Saha	2080052
	04/23/2019			04/26/2019 22:23	Lipi Saha	2080053
EPA 350.1 Rev. 2.0	04/23/2019			04/26/2019 12:10	Ping Hua	2080055
	04/23/2019			04/26/2019 12:15	Ping Hua	2080054
EPA 351.2 Rev. 2.0	04/23/2019	04/29/2019 13:15	Adrian Shelby	04/30/2019 11:22	Joseph Suarez	2080054
	04/23/2019	04/29/2019 13:15	Adrian Shelby	04/30/2019 11:24	Joseph Suarez	2080055
EPA 353.2 Rev. 2.0	04/23/2019			04/26/2019 12:34	Beverly Y. Sanders	2080054
	04/23/2019			04/26/2019 12:36	Beverly Y. Sanders	2080055
EPA 365.1 Rev. 2.0	04/23/2019	04/24/2019 13:50	Sima Feizi	04/26/2019 13:06	Rosalyn Ballman	2080054
	04/23/2019	04/24/2019 13:50	Sima Feizi	04/29/2019 12:23	Rosalyn Ballman	2080055
EPA 365.1 Rev. 2.0 dissolved	04/23/2019			04/23/2019 16:03	Jhamieka S. Greenwood	2080057
	04/23/2019			04/23/2019 16:22	Jhamieka S. Greenwood	2080056
SM 2120 B	04/23/2019			04/23/2019 16:11	Mariam Hanna	2080052
	04/23/2019			04/23/2019 16:12	Mariam Hanna	2080053
SM 2320 B-97	04/23/2019			05/01/2019 23:12	Dale L. Simmons	2080052
	04/23/2019			05/01/2019 23:44	Dale L. Simmons	2080053
SM 2540 C-97	04/23/2019			04/24/2019 15:30	Yijie Li	2080052, 2080053
SM 2540 D-97	04/23/2019			04/24/2019 15:30	Yijie Li	2080052, 2080053
SM 4500 F-C-97	04/23/2019			05/01/2019 23:03	Dale L. Simmons	2080052
	04/23/2019			05/01/2019 23:44	Dale L. Simmons	2080053
SM 5310 B-00	04/23/2019			04/25/2019 21:45	Julia Storbeck	2080055
	04/23/2019			04/26/2019 00:49	Julia Storbeck	2080054