Chemical Analysis Report

SO-DIST-2019-04-17-01

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

Event Description: **2019 Continuous Monitoring**
Request ID: **RQ-2019-04-08-05**
Customer: **SO-DIST**
Project ID: **SMP**

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FLDEP South District Office
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Date Certified: 06-MAY-2019 13:42

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 groups are included in this report: Metals and 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: Coral Creek (East) **Collection Date/Time: 04/16/2019 11:50**

Field ID: G2SD0039 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2078665	EPA 180.1 Rev. 2.0	Turbidity	1.9		NTU	P362372	
	SM 2320 B-97	Total Alkalinity	148		mg CaCO3/L	P362720	
	SM 2540 D-97	TSS	5	IA	mg/L	P362917	
	SM 4500 F-C-97	Fluoride	1.1		mg F/L	P362722	
2078666	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P362715	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.78		mg N/L	P362841	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P362648	
	EPA 365.1 Rev. 2.0	Total-P	0.023		mg P/L	P362605	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P362487	
2078667	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.014		mg P/L	P362367	
2078671	EPA 200.7 Rev. 4.4	Iron	120	U	ug/L	P362362	
		Manganese	6.4	I	ug/L	P362362	
		Zinc	20	U	ug/L	P362362	
	EPA 200.8 Rev. 5.4	Aluminum	76	I	ug/L	P362362	
		Antimony	0.20	U	ug/L	P362362	
		Arsenic	2.87		ug/L	P362362	
		Cadmium	0.080	U	ug/L	P362362	
		Chromium	4.0	U	ug/L	P362362	
		Copper	1.6	U	ug/L	P362362	
		Lead	0.80	U	ug/L	P362362	
		Nickel	2.0	U	ug/L	P362362	
		Selenium	0.80	U	ug/L	P362362	
		Silver	0.040	U	ug/L	P362362	
		Thallium	0.40	U	ug/L	P362362	

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: P362372

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P362362

Component	Result	Code	Units
Iron	30	U	ug/L
Manganese	1.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P362362

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P362715

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P362841

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P362648

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P362605

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P362367

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

Reference Method: SM 2320 B-97
Batch ID: P362720

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

Reference Method: SM 2540 D-97
Batch ID: P362917

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P362722

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P362487

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P362362

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	106		P	85 - 115
Manganese	102		P	85 - 115
Zinc	100		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P362362

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	96.4		P	85 - 115
Antimony	99.0		P	85 - 115
Arsenic	102		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	92.3		P	85 - 115
Copper	98.9		P	85 - 115
Lead	92.5		P	85 - 115
Nickel	100		P	85 - 115
Selenium	100		P	85 - 115
Silver	96.8		P	85 - 115
Thallium	103		P	85 - 115

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P362715

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P362841

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P362648

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: P362605

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P362367

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-97
Batch ID: P362720

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P362722

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

Reference Method: SM 5310 B-00
Batch ID: P362487

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.8		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P362362

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2077433	Iron	100	101	P/P	70 - 130
2077433	Manganese	97.9	97.6	P/P	70 - 130
2077433	Zinc	101	100	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P362362

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2077433	Aluminum	97.0	95.4	P/P	70 - 130
2077433	Antimony	101	97.6	P/P	70 - 130
2077433	Arsenic	109	105	P/P	70 - 130
2077433	Cadmium	97.6	92.9	P/P	70 - 130
2077433	Chromium	89.3	87.7	P/P	70 - 130
2077433	Copper	95.3	93.5	P/P	70 - 130
2077433	Lead	96.6	93.5	P/P	70 - 130
2077433	Nickel	99.4	96.4	P/P	70 - 130
2077433	Selenium	99.3	99.0	P/P	70 - 130
2077433	Silver	89.7	89.5	P/P	70 - 130
2077433	Thallium	106	103	P/P	70 - 130

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P362715

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2078380	Ammonia-N	107	107	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P362841

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2079178	Kjeldahl Nitrogen	101	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P362648

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2078626	NO2NO3-N	98.7	98.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P362605

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2078600	Total-P	90.9	93.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P362367

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2078781	O-Phosphate-P	97.6	99.2	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P362722

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2074740	Fluoride	97.8	97.8	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P362487

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2078600	Organic Carbon	96.7	97.2	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P362372

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2078542	Turbidity	0.0	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P362362

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2077433	Iron	0.563	Spike	P	0 - 20
2077433	Manganese	0.209	Spike	P	0 - 20
2077433	Zinc	0.343	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P362362

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2077433	Aluminum	1.59	Spike	P	0 - 20
2077433	Antimony	3.22	Spike	P	0 - 20
2077433	Arsenic	3.49	Spike	P	0 - 20
2077433	Cadmium	4.90	Spike	P	0 - 20
2077433	Chromium	1.84	Spike	P	0 - 20
2077433	Copper	1.74	Spike	P	0 - 20
2077433	Lead	3.35	Spike	P	0 - 20
2077433	Nickel	3.09	Spike	P	0 - 20
2077433	Selenium	0.248	Spike	P	0 - 20
2077433	Silver	0.268	Spike	P	0 - 20
2077433	Thallium	2.91	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P362715

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2078380	Ammonia-N	0.0398	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P362841

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2079178	Kjeldahl Nitrogen	1.19	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P362648

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2078626	NO2NO3-N	0.471	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P362605

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2078600	Total-P	2.56	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P362367

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2078781	O-Phosphate-P	1.11	Spike	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P362720

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2078625	Total Alkalinity	0.551	Sample	P	0 - 2.8

Reference Method: SM 4500 F-C-97
Batch ID: P362722

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2074740	Fluoride	0.0	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P362487

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2078600	Organic Carbon	0.438	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: A90794
Included Lab Sample IDs: 2078667

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.2	99.9	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A90795
Included Lab Sample IDs: 2078665

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

Reference Method: SM 5310 B-00
Run ID: A90843
Included Lab Sample IDs: 2078666

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.2	100	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A90906
Included Lab Sample IDs: 2078671

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	99.6	101	P/P	90 - 110
Manganese	102	102	P/P	90 - 110
Zinc	99.3	98.9	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A90918
Included Lab Sample IDs: 2078666

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.5	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A90939
Included Lab Sample IDs: 2078666

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.5	98.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A90946
Included Lab Sample IDs: 2078666

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

Reference Method: SM 2320 B-97
Run ID: A90948
Included Lab Sample IDs: 2078665

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits

Quality Assurance Report
Calibration Verification

Reference Method: SM 2320 B-97
Run ID: A90948
Included Lab Sample IDs: 2078665

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.7	98.6	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A90948
Included Lab Sample IDs: 2078665

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.6	99.0	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A91019
Included Lab Sample IDs: 2078671

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	95.4	94.7	P/P	90 - 110
Antimony	99.2	98.6	P/P	90 - 110
Arsenic	100	100	P/P	90 - 110
Cadmium	97.1	96.7	P/P	90 - 110
Copper	99.0	100	P/P	90 - 110
Lead	91.5	91.6	P/P	90 - 110
Nickel	99.3	99.5	P/P	90 - 110
Selenium	100	98.8	P/P	90 - 110
Silver	95.9	95.7	P/P	90 - 110
Thallium	97.7	98.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A91020
Included Lab Sample IDs: 2078666

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	98.4	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A91145
Included Lab Sample IDs: 2078671

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	95.1	93.2	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	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity					0.0	
EPA 200.7 Rev. 4.4	Iron	106	100	101			0.563
	Manganese	102	97.9	97.6			0.209
	Zinc	100	101	100			0.343
EPA 200.8 Rev. 5.4	Aluminum	96.4	97.0	95.4			1.59
	Antimony	99.0	101	97.6			3.22
	Arsenic	102	109	105			3.49
	Cadmium	101	97.6	92.9			4.90
	Chromium	92.3	89.3	87.7			1.84
	Copper	98.9	95.3	93.5			1.74
	Lead	92.5	96.6	93.5			3.35
	Nickel	100	99.4	96.4			3.09
	Selenium	100	99.3	99.0			0.248
	Silver	96.8	89.7	89.5			0.268
	Thallium	103	106	103			2.91
EPA 350.1 Rev. 2.0	Ammonia-N	107	107	107			0.0398
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102	101	102			1.19
EPA 353.2 Rev. 2.0	NO2NO3-N	100	98.7	98.2			0.471
EPA 365.1 Rev. 2.0	Total-P	101	90.9	93.4			2.56
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102	97.6	99.2			1.11
SM 2320 B-97	Total Alkalinity	100				0.551	
SM 4500 F-C-97	Fluoride	97.2	97.8	97.8			0.0
SM 5310 B-00	Organic Carbon	98.8	96.7	97.2			0.438

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2078665
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2078671
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2078671
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2078666
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2078666
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2078666
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2078666
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2078667
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2078665
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2078665
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2078665
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2078666

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	04/17/2019			04/17/2019 17:22	Adrian Shelby	2078665
EPA 200.7 Rev. 4.4	04/17/2019	04/17/2019 16:40	Elliott D. Healy	04/22/2019 20:06	Betina Topolski	2078671
EPA 200.8 Rev. 5.4	04/17/2019	04/17/2019 16:40	Elliott D. Healy	04/25/2019 22:09	Martin Acosta	2078671
	04/17/2019	04/17/2019 16:40	Elliott D. Healy	05/01/2019 16:41	Martin Acosta	2078671
EPA 350.1 Rev. 2.0	04/17/2019			04/22/2019 13:03	Ping Hua	2078666
EPA 351.2 Rev. 2.0	04/17/2019	04/25/2019 12:20	Adrian Shelby	04/26/2019 09:41	Joseph Suarez	2078666
EPA 353.2 Rev. 2.0	04/17/2019			04/23/2019 11:00	Beverly Y. Sanders	2078666
EPA 365.1 Rev. 2.0	04/17/2019	04/22/2019 15:10	Sima Feizi	04/23/2019 16:52	Rosalyn Ballman	2078666
EPA 365.1 Rev. 2.0 dissolved	04/17/2019			04/17/2019 16:26	Jhamieka S. Greenwood	2078667
SM 2320 B-97	04/17/2019			04/24/2019 01:16	Dale L. Simmons	2078665
SM 2540 D-97	04/17/2019			04/22/2019 15:58	Yijie Li	2078665
SM 4500 F-C-97	04/17/2019			04/23/2019 23:15	Dale L. Simmons	2078665
SM 5310 B-00	04/17/2019			04/19/2019 05:46	Julia Storbeck	2078666