

Chemical Analysis Report

CEN-DIST-2017-06-29-02

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

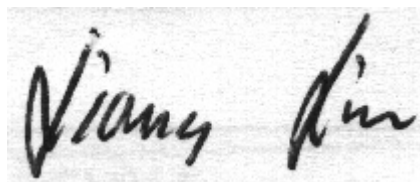
Event Description: **Strickland Bay**
Request ID: **RQ-2017-06-26-64**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767
Attn: Mike Linger

For additional information please contact
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 24-JUL-2017 16:54

A handwritten signature in black ink, appearing to read "Liang Lin", on a light-colored 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 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 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: Strickland Bay @ 875m East Downstream of RR Crossing

Collection Date/Time: 06/28/2017 12:11

Field ID: G5CE0074

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1910235	EPA 180.1 Rev. 2.0	Turbidity	6.3		NTU	P327751	
	SM 2320 B-97	Total Alkalinity	118		mg CaCO3/L	P328070	
	SM 2540 D-97	TSS	12	AJ	mg/L	P328178	RPD
	SM 4500 F-C-97	Fluoride	0.97		mg F/L	P328069	
1910236	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P327894	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.63		mg N/L	P327885	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	I	mg N/L	P327778	
	EPA 365.1 Rev. 2.0	Total-P	0.089		mg P/L	P327963	MS
	SM 5310 B-00	Organic Carbon	6.1		mg C/L	P328192	
1910237	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.049		mg P/L	P327732	
1910239	EPA 200.7 Rev. 4.4	Iron	340	I	ug/L	P327850	
	EPA 200.8 Rev. 5.4	Arsenic	2.4	I	ug/L	P327850	
		Cadmium	0.15	U	ug/L	P327850	
		Chromium	1.2	U	ug/L	P327850	
		Copper	1.5	U	ug/L	P327850	
		Lead	0.80	U	ug/L	P327850	
		Nickel	1.0	U	ug/L	P327850	
		Silver	0.10	U	ug/L	P327850	
		Zinc	20	U	ug/L	P327850	

Ref. Method and Comment:

SM 2540 D-97: Refer to the narrative for an explanation of QC Codes.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P327751

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P327850

Component	Result	Code	Units
Iron	30	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P327850

Component	Result	Code	Units
Arsenic	0.25	U	ug/L
Cadmium	0.050	U	ug/L
Chromium	0.30	U	ug/L
Copper	0.50	U	ug/L
Lead	0.20	U	ug/L
Nickel	0.25	U	ug/L
Silver	0.025	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P327850

Component	Result	Code	Units
Zinc	5.0	U	ug/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P327894

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P327885

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P327778

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P327963

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P327732

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

Reference Method: SM 2320 B-97
Batch ID: P328070

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

Reference Method: SM 2540 D-97
Batch ID: P328178

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P328069

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report Method Blank Results

Reference Method: SM 5310 B-00
Batch ID: P328192

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: P327850

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P327850

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	99.3		P	85 - 115
Cadmium	98.0		P	85 - 115
Chromium	102		P	85 - 115
Copper	102		P	85 - 115
Lead	102		P	85 - 115
Nickel	105		P	85 - 115
Silver	101		P	85 - 115
Zinc	97.6		P	85 - 115

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P327894

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P327885

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	96.6		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P327778

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	103		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P327963

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P327732

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

Reference Method: SM 2320 B-97
Batch ID: P328070

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P328069

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.1		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P328192

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	91.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P327850

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1910120	Iron	101	101	P/P	70 - 130
1910250	Iron	107		P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P327850

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1910120	Arsenic	99.3	95.8	P/P	70 - 130
1910120	Cadmium	93.5	92.9	P/P	70 - 130
1910120	Chromium	106	105	P/P	70 - 130
1910120	Copper	91.4	91.0	P/P	70 - 130
1910120	Lead	108	106	P/P	70 - 130
1910120	Nickel	95.6	94.5	P/P	70 - 130
1910120	Silver	97.4	93.7	P/P	70 - 130
1910120	Zinc	80.0	86.7	P/P	70 - 130
1910250	Arsenic	101		P	70 - 130
1910250	Cadmium	105		P	70 - 130
1910250	Chromium	103		P	70 - 130
1910250	Copper	102		P	70 - 130
1910250	Lead	107		P	70 - 130
1910250	Nickel	92.5		P	70 - 130
1910250	Silver	96.3		P	70 - 130
1910250	Zinc	89.6		P	70 - 130

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P327894

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1910086	Ammonia-N	103	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P327885

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1910091	Kjeldahl Nitrogen	89.5	85.3	F/F	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P327778

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1910236	NO2NO3-N	102	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P327963

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1910091	Total-P	89.8	85.9	F/F	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P327732

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1909937	O-Phosphate-P	94.9	97.4	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P328069

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1910241	Fluoride	95.1	99.5	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P328192

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1909935	Organic Carbon	93.2	92.4	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P327751

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1910183	Turbidity	8.53	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P327850

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1910120	Iron	0.290	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P327850

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1910120	Arsenic	3.40	Spike	P	0 - 20
1910120	Cadmium	0.593	Spike	P	0 - 20
1910120	Chromium	0.642	Spike	P	0 - 20
1910120	Copper	0.439	Spike	P	0 - 20
1910120	Lead	2.25	Spike	P	0 - 20
1910120	Nickel	1.10	Spike	P	0 - 20
1910120	Silver	3.80	Spike	P	0 - 20
1910120	Zinc	7.97	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P327894

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1910086	Ammonia-N	0.259	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P327885

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1910091	Kjeldahl Nitrogen	4.29	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P327778

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1910236	NO2NO3-N	0.957	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P327963

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1910091	Total-P	4.44	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P327732

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1909937	O-Phosphate-P	2.60	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2320 B-97
Batch ID: P328070

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1910241	Total Alkalinity	0.166	Sample	P	0 - 4.8

Reference Method: SM 2540 D-97
Batch ID: P328178

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1910235	TSS	12.9	Sample	F	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P328069

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1910241	Fluoride	2.92	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P328192

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1909935	Organic Carbon	0.573	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: A77426
Included Lab Sample IDs: 1910237

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	99.1	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A77435
Included Lab Sample IDs: 1910235

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A77451
Included Lab Sample IDs: 1910236

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A77506

Included Lab Sample IDs: 1910236

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.8	99.8	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A77550

Included Lab Sample IDs: 1910239

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

Reference Method: SM 2320 B-97

Run ID: A77557

Included Lab Sample IDs: 1910235

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

Reference Method: SM 4500 F-C-97

Run ID: A77557

Included Lab Sample IDs: 1910235

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	97.6	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A77573

Included Lab Sample IDs: 1910236

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A77594

Included Lab Sample IDs: 1910236

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	93.2	94.9	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A77612

Included Lab Sample IDs: 1910236

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	90.8	91.8	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A77711

Included Lab Sample IDs: 1910239

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	95.9	95.8	P/P	90 - 110
Cadmium	94.6	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A77711

Included Lab Sample IDs: 1910239

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	98.0	102	P/P	90 - 110
Copper	94.6	100	P/P	90 - 110
Lead	102	103	P/P	90 - 110
Nickel	98.5	98.5	P/P	90 - 110
Silver	98.5	99.3	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A77732

Included Lab Sample IDs: 1910239

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Zinc	91.8	98.6	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 SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						8.53	
EPA 200.7 Rev. 4.4	Iron	102	101	101	107			0.290
EPA 200.8 Rev. 5.4	Arsenic	99.3	101	99.3	95.8			3.40
	Cadmium	98.0	105	93.5	92.9			0.593
	Chromium	102	103	106	105			0.642
	Copper	102	102	91.4	91.0			0.439
	Lead	102	107	108	106			2.25
	Nickel	105	92.5	95.6	94.5			1.10
	Silver	101	96.3	97.4	93.7			3.80
	Zinc	97.6	89.6	80.0	86.7			7.97
EPA 350.1 Rev. 2.0	Ammonia-N	106	103	103				0.259
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	96.6	89.5	85.3				4.29
EPA 353.2 Rev. 2.0	NO2NO3-N	103	102	103				0.957
EPA 365.1 Rev. 2.0	Total-P	98.2	89.8	85.9				4.44
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.3	94.9	97.4				2.60
SM 2320 B-97	Total Alkalinity	103					0.166	
SM 2540 D-97	TSS						12.9	
SM 4500 F-C-97	Fluoride	96.1	95.1	99.5				2.92
SM 5310 B-00	Organic Carbon	91.2	93.2	92.4				0.573

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1910235
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1910239

Reference Method Descriptions

Method / DoH Cert #	Description	<u>Associated Samples</u>
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1910239
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1910236
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1910236
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1910236
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1910236
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1910237
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1910235
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1910235
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1910235
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1910236

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	06/29/2017			06/29/2017 16:54	DeAsia Armster	1910235
EPA 200.7 Rev. 4.4	06/29/2017	07/03/2017	Elliott D. Healy	07/06/2017	Betina Topolski	1910239
EPA 200.8 Rev. 5.4	06/29/2017	07/03/2017	Elliott D. Healy	07/13/2017	Robert K Palmer	1910239
	06/29/2017	07/03/2017	Elliott D. Healy	07/14/2017	Robert K Palmer	1910239
EPA 350.1 Rev. 2.0	06/29/2017			07/03/2017	Sofia Elnemr	1910236
EPA 351.2 Rev. 2.0	06/29/2017	07/05/2017	Adrian Shelby	07/07/2017	Joseph Suarez	1910236
EPA 353.2 Rev. 2.0	06/29/2017			06/30/2017	Beverly Y. Sanders	1910236
EPA 365.1 Rev. 2.0	06/29/2017	07/06/2017	Adrian Shelby	07/07/2017	Lipi Saha	1910236
EPA 365.1 Rev. 2.0 dissolved	06/29/2017			06/29/2017 12:24	Ping Hua	1910237
SM 2320 B-97	06/29/2017			07/07/2017	Dale L. Simmons	1910235
SM 2540 D-97	06/29/2017			07/03/2017	Sima Feizi	1910235
SM 4500 F-C-97	06/29/2017			07/07/2017	Dale L. Simmons	1910235
SM 5310 B-00	06/29/2017			07/08/2017	Ping Hua	1910236