

Chemical Analysis Report

SO-DIST-2018-05-25-02

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

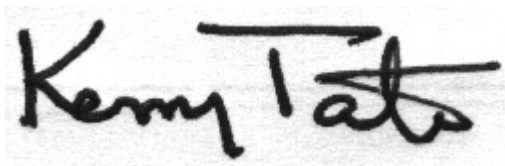
Event Description: **GOM : 8065, 8063, 3278U x 2**
Request ID: **RQ-2018-04-30-77**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
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FLDEP South District Office
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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 22-JUN-2018 12:31

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 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: 8063-ENRE 2 @

Collection Date/Time: 05/24/2018 11:10

Field ID: G1SD0066

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1995673	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P346002	
	SM 2320 B-97	Total Alkalinity	121		mg CaCO3/L	P346240	
	SM 2540 D-97	TSS	4	I	mg/L	P346394	
	SM 4500 F-C-97	Fluoride	1.2		mg F/L	P346243	
1995674	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P346342	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.39	I	mg N/L	P346358	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P346125	
	EPA 365.1 Rev. 2.0	Total-P	0.028		mg P/L	P346167	
	SM 5310 B-00	Organic Carbon	2.4		mg C/L	P346492	
1995675	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.098		mg P/L	P345990	

Ref. Method and Comment:

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

EPA 365.1 Rev. 2.0: Total-P: The result was confirmed on 06/13/2018.

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: The sample was reanalyzed on 06/07/2018. The result was 0.01 mg P/L.

Sample Location: Rookery Bay-Site 1

Collection Date/Time: 05/24/2018 10:40

Field ID: G1SD0067

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1995670	EPA 180.1 Rev. 2.0	Turbidity	4.4		NTU	P346002	
	SM 2320 B-97	Total Alkalinity	115		mg CaCO3/L	P346240	
	SM 2540 D-97	TSS	5	I	mg/L	P346394	
	SM 4500 F-C-97	Fluoride	1.2		mg F/L	P346243	
1995671	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P346342	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.42		mg N/L	P346358	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P346125	
	EPA 365.1 Rev. 2.0	Total-P	0.041		mg P/L	P346167	
	SM 5310 B-00	Organic Carbon	3.1		mg C/L	P346492	
1995672	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.017		mg P/L	P345990	
1995688	EPA 200.7 Rev. 4.4	Iron	120	U	ug/L	P346114	
	EPA 200.8 Rev. 5.4	Arsenic	2.24		ug/L	P346114	
		Cadmium	0.080	U	ug/L	P346114	
		Chromium	1.6	U	ug/L	P346114	
		Copper	0.80	U	ug/L	P346114	
		Lead	0.30	U	ug/L	P346114	
		Nickel	0.80	U	ug/L	P346114	
		Silver	0.040	U	ug/L	P346114	
		Zinc	4.0	U	ug/L	P346114	

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: P346002

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P346114

Component	Result	Code	Units
Iron	30	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P346114

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.20	U	ug/L
Lead	0.050	U	ug/L
Nickel	0.20	U	ug/L
Silver	0.010	U	ug/L
Zinc	1.0	U	ug/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P346342

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P346358

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P346125

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P346167

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P345990

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P346240

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

Reference Method: SM 2540 D-97
Batch ID: P346394

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P346243

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P346492

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: P346114

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P346114

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	105		P	85 - 115
Cadmium	102		P	85 - 115
Chromium	96.3		P	85 - 115
Copper	98.8		P	85 - 115
Lead	95.4		P	85 - 115
Nickel	97.8		P	85 - 115
Silver	101		P	85 - 115
Zinc	104		P	85 - 115

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P346342

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: P346358

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P346125

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	104		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P346167

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: P345990

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.5		P	90 - 110

Reference Method: SM 2320 B-97
Batch ID: P346240

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 107

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P346243

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.3		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P346492

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: P346114

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1995575	Iron	101	103	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P346114

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1995575	Arsenic	109	109	P/P	70 - 130
1995575	Cadmium	94.4	97.5	P/P	70 - 130
1995575	Chromium	95.2	93.7	P/P	70 - 130
1995575	Copper	92.5	92.8	P/P	70 - 130
1995575	Lead	102	103	P/P	70 - 130
1995575	Nickel	91.2	92.5	P/P	70 - 130
1995575	Silver	91.0	92.5	P/P	70 - 130
1995575	Zinc	93.4	93.2	P/P	70 - 130

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P346342

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1995413	Ammonia-N	98.5	99.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P346358

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1995674	Kjeldahl Nitrogen	99.2	97.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P346125

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1995592	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P346167

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1995590	Total-P	97.5	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P345990

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1995672	O-Phosphate-P	95.4	96.5	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P346243

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1995544	Fluoride	92.5	92.5	P/P	91 - 105

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-00
Batch ID: P346492

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1995546	Organic Carbon	98.5	98.7	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P346002

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1995648	Turbidity	8.14	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P346114

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1995575	Iron	2.16	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P346114

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1995575	Arsenic	0.0717	Spike	P	0 - 20
1995575	Cadmium	3.22	Spike	P	0 - 20
1995575	Chromium	1.63	Spike	P	0 - 20
1995575	Copper	0.329	Spike	P	0 - 20
1995575	Lead	1.05	Spike	P	0 - 20
1995575	Nickel	1.36	Spike	P	0 - 20
1995575	Silver	1.59	Spike	P	0 - 20
1995575	Zinc	0.220	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P346342

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1995413	Ammonia-N	0.811	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P346358

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1995674	Kjeldahl Nitrogen	1.53	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P346125

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1995592	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P346167

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1995590	Total-P	4.65	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P345990

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1995672	O-Phosphate-P	0.971	Spike	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P346240

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1995544	Total Alkalinity	0.804	Sample	P	0 - 1.6

Reference Method: SM 4500 F-C-97
Batch ID: P346243

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1995544	Fluoride	0.0	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P346492

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1995546	Organic Carbon	0.213	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: A84169

Included Lab Sample IDs: 1995672, 1995675

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	97.5	P/P	90 - 110
O-Phosphate-P	98.6	98.8	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A84171

Included Lab Sample IDs: 1995670, 1995673

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A84235

Included Lab Sample IDs: 1995671, 1995674

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A84263

Included Lab Sample IDs: 1995688

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	100	101	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A84290

Included Lab Sample IDs: 1995670, 1995673

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

Reference Method: SM 4500 F-C-97

Run ID: A84290

Included Lab Sample IDs: 1995670, 1995673

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A84336

Included Lab Sample IDs: 1995671, 1995674

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A84340

Included Lab Sample IDs: 1995688

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	98.0	98.9	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A84340

Included Lab Sample IDs: 1995688

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cadmium	94.6	94.2	P/P	90 - 110
Copper	98.5	98.2	P/P	90 - 110
Lead	95.4	95.2	P/P	90 - 110
Nickel	93.4	92.8	P/P	90 - 110
Silver	95.9	96.1	P/P	90 - 110
Zinc	96.4	95.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A84365

Included Lab Sample IDs: 1995671, 1995674

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.5	100	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A84389

Included Lab Sample IDs: 1995688

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	96.8	99.0	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A84394

Included Lab Sample IDs: 1995671, 1995674

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.4	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A84422

Included Lab Sample IDs: 1995671, 1995674

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	91.8	99.8	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					8.14	
EPA 200.7 Rev. 4.4	Iron	102	103	101			2.16
EPA 200.8 Rev. 5.4	Arsenic	105	109	109			0.0717
	Cadmium	102	94.4	97.5			3.22
	Chromium	96.3	95.2	93.7			1.63
	Copper	98.8	92.5	92.8			0.329
	Lead	95.4	102	103			1.05
	Nickel	97.8	91.2	92.5			1.36
	Silver	101	91.0	92.5			1.59
	Zinc	104	93.4	93.2			0.220
EPA 350.1 Rev. 2.0	Ammonia-N	102	98.5	99.4			0.811
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	106	99.2	97.4			1.53
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	104	102	102			0.0
EPA 365.1 Rev. 2.0	Total-P	101	97.5	103			4.65
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.5	95.4	96.5			0.971
SM 2320 B-97	Total Alkalinity	103				0.804	
SM 4500 F-C-97	Fluoride	95.3	92.5	92.5			0.0
SM 5310 B-00	Organic Carbon	98.8	98.5	98.7			0.213

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1995670, 1995673
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1995688
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1995688
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1995671, 1995674
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1995671, 1995674
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1995671, 1995674
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1995671, 1995674
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1995672, 1995675
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1995670, 1995673
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	1995670, 1995673
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1995670, 1995673
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1995671, 1995674

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	05/25/2018			05/25/2018 17:29	William L. Brown IV	1995670, 1995673
EPA 200.7 Rev. 4.4	05/25/2018	05/30/2018 12:50	Elliott D. Healy	05/31/2018 12:28	Betina Topolski	1995688
EPA 200.8 Rev. 5.4	05/25/2018	05/30/2018 12:50	Elliott D. Healy	06/04/2018 14:23	Robert K Palmer	1995688
	05/25/2018	05/30/2018 12:50	Elliott D. Healy	06/04/2018 14:42	Robert K Palmer	1995688
	05/25/2018	05/30/2018 12:50	Elliott D. Healy	06/05/2018 14:40	Robert K Palmer	1995688
EPA 350.1 Rev. 2.0	05/25/2018			06/04/2018 15:33	Julia Storbeck	1995671
	05/25/2018			06/04/2018 15:35	Julia Storbeck	1995674
EPA 351.2 Rev. 2.0	05/25/2018	06/05/2018 11:50	Adrian Shelby	06/07/2018 11:30	Joseph Suarez	1995671
	05/25/2018	06/05/2018 11:50	Adrian Shelby	06/07/2018 11:32	Joseph Suarez	1995674
EPA 353.2 Rev. 2.0	05/25/2018			05/30/2018 11:47	Lauren Bottorf	1995671
	05/25/2018			05/30/2018 11:49	Lauren Bottorf	1995674
EPA 365.1 Rev. 2.0	05/25/2018	05/30/2018 13:15	Sima Feizi	06/05/2018 10:58	Beverly Y. Sanders	1995671
	05/25/2018	05/30/2018 13:15	Sima Feizi	06/05/2018 10:59	Beverly Y. Sanders	1995674
EPA 365.1 Rev. 2.0 dissolved	05/25/2018			05/25/2018 14:22	Megan Treadwell	1995672
	05/25/2018			05/25/2018 14:49	Megan Treadwell	1995675
SM 2320 B-97	05/25/2018			06/01/2018 02:05	Dale L. Simmons	1995670
	05/25/2018			06/01/2018 02:15	Dale L. Simmons	1995673
SM 2540 D-97	05/25/2018			05/29/2018 15:33	Yijie Li	1995670, 1995673
SM 4500 F-C-97	05/25/2018			05/31/2018 23:47	Dale L. Simmons	1995670
	05/25/2018			05/31/2018 23:50	Dale L. Simmons	1995673
SM 5310 B-00	05/25/2018			06/05/2018 12:26	Megan Treadwell	1995671
	05/25/2018			06/05/2018 12:51	Megan Treadwell	1995674