

Chemical Analysis Report

CEN-DIST-2017-12-01-03

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

Event Description: **Tiger Crk / Kiss River**

Request ID: **RQ-2017-11-27-70**

Customer: **CEN-DIST**

Project ID: **SMP**

Send Reports to:

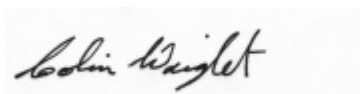
FL Dept. of Environmental Protection
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Attn: Mike Linger

For additional information please contact

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Certified by: Colin Wright, Program Administrator

Date Certified: 20-DEC-2017 12:23

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light gray rectangular 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 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 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: Tiger Creek 1.45km DS of Lake Kissimmee

Collection Date/Time: 11/30/2017 12:05

Field ID: G4CE0070

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1950053	EPA 180.1 Rev. 2.0	Turbidity	10		NTU	P336259	
	EPA 300.0 Rev. 2.1	Chloride	14		mg Cl/L	P336482	
		Sulfate	10		mg SO4/L	P336485	
	SM 2120 B	Color (true)	110		PCU	P336171	
	SM 2320 B-97	Total Alkalinity	14		mg CaCO3/L	P336618	
	SM 2540 C-97	TDS	93		mg/L	P336674	
	SM 2540 D-97	TSS	24		mg/L	P336783	
	SM 4500 F-C-97	Fluoride	0.087	I	mg F/L	P336621	RPD
1950055	EPA 350.1 Rev. 2.0	Ammonia-N	0.036		mg N/L	P336808	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.99		mg N/L	P336643	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.019		mg N/L	P336387	
	EPA 365.1 Rev. 2.0	Total-P	0.15		mg P/L	P336571	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P336546	
1950057	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.078		mg P/L	P336217	

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: G4CE0141

Collection Date/Time: 11/30/2017 12:27

Field ID: G4CE0141

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1950054	EPA 180.1 Rev. 2.0	Turbidity	2.3		NTU	P336259	
	EPA 300.0 Rev. 2.1	Chloride	18		mg Cl/L	P336482	
		Sulfate	4.9		mg SO4/L	P336485	
	SM 2120 B	Color (true)	290		PCU	P336226	
	SM 2320 B-97	Total Alkalinity	30		mg CaCO3/L	P336618	
	SM 2540 C-97	TDS	121		mg/L	P336674	
	SM 2540 D-97	TSS	3	I	mg/L	P336783	
	SM 4500 F-C-97	Fluoride	0.084	I	mg F/L	P336621	RPD
1950056	EPA 350.1 Rev. 2.0	Ammonia-N	0.080		mg N/L	P336808	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P336643	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.17		mg N/L	P336387	
	EPA 365.1 Rev. 2.0	Total-P	0.058		mg P/L	P336571	
	SM 5310 B-00	Organic Carbon	25		mg C/L	P336546	
1950058	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.032		mg P/L	P336218	

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: P336259

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Quality Assurance Report

Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P336482

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P336485

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P336808

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P336643

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P336387

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P336571

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P336217

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P336218

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

Reference Method: SM 2120 B
Batch ID: P336171

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report Method Blank Results

Reference Method: SM 2120 B
Batch ID: P336226

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P336618

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

Reference Method: SM 2540 C-97
Batch ID: P336674

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P336783

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P336621

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P336546

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: P336482

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P336485

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P336808

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P336808

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: P336643

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P336387

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: P336571

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P336217

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P336218

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.7		P	90 - 110

Reference Method: SM 2320 B-97
Batch ID: P336618

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

Reference Method: SM 4500 F-C-97
Batch ID: P336621

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.7		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P336546

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 300.0 Rev. 2.1
Batch ID: P336482

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1950021	Chloride	97.8		P	90 - 110
1950053	Chloride	96.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P336485

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1950021	Sulfate	98.8		P	90 - 110
1950053	Sulfate	98.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P336808

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1949962	Ammonia-N	105	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P336643

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1950005	Kjeldahl Nitrogen	109	108	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P336387

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1950022	NO2NO3-N	101	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P336571

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1950088	Total-P	100	97.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P336217

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1949964	O-Phosphate-P	98.8	98.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P336218

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1950092	O-Phosphate-P	98.2	98.2	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P336621

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1950090	Fluoride	105	100	P/P	91 - 105

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-00
 Batch ID: P336546

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1949962	Organic Carbon	102	103	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P336259

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1950021	Turbidity	6.45	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P336482

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1950021	Chloride	0.782	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P336485

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1950021	Sulfate	0.734	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P336808

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1949962	Ammonia-N	0.788	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P336643

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1950005	Kjeldahl Nitrogen	1.26	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P336387

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1950022	NO2NO3-N	0.0	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P336571

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1950088	Total-P	2.24	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P336217

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1949964	O-Phosphate-P	0.0881	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P336218

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1950092	O-Phosphate-P	0.0	Spike	P	0 - 20

Reference Method: SM 2120 B

Batch ID: P336171

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1950021	Color (true)	0.411	Sample	P	0 - 20

Reference Method: SM 2120 B

Batch ID: P336226

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1950087	Color (true)	5.94	Sample	P	0 - 20

Reference Method: SM 2320 B-97

Batch ID: P336618

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1950090	Total Alkalinity	1.29	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97

Batch ID: P336674

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1950021	TDS	5.76	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97

Batch ID: P336621

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1950090	Fluoride	3.37	Spike	F	0 - 3.0

Quality Assurance Report Precision

Reference Method: SM 5310 B-00
Batch ID: P336546

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1949962	Organic Carbon	1.03	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: A80628
Included Lab Sample IDs: 1950053

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	105	97.8	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A80641
Included Lab Sample IDs: 1950057, 1950058

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

Reference Method: SM 2120 B
Run ID: A80644
Included Lab Sample IDs: 1950054

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	103	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A80658
Included Lab Sample IDs: 1950053, 1950054

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: A80702
Included Lab Sample IDs: 1950055, 1950056

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A80735
Included Lab Sample IDs: 1950053, 1950054

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A80735

Included Lab Sample IDs: 1950053, 1950054

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sulfate	100	102	P/P	90 - 110
Sulfate	101	100	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A80752

Included Lab Sample IDs: 1950055, 1950056

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

Reference Method: SM 2320 B-97

Run ID: A80770

Included Lab Sample IDs: 1950053, 1950054

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

Reference Method: SM 4500 F-C-97

Run ID: A80770

Included Lab Sample IDs: 1950053, 1950054

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A80790

Included Lab Sample IDs: 1950055, 1950056

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	102	101	P/P	90 - 110
Total-P	103	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A80842

Included Lab Sample IDs: 1950055, 1950056

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	105	105	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A80917

Included Lab Sample IDs: 1950055, 1950056

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.6	99.4	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					6.45	
EPA 300.0 Rev. 2.1	Chloride	98.5	97.8	96.9		0.782	
	Sulfate	99.8	98.8	98.7		0.734	
EPA 350.1 Rev. 2.0	Ammonia-N	106	105	104			0.788
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	109	108			1.26
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	103	101	101			0.0
EPA 365.1 Rev. 2.0	Total-P	102	100	97.8			2.24
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.4	98.8	98.9			0.0881
	O-Phosphate-P	99.7	98.2	98.2			0.0
SM 2120 B	Color (true)					0.411	
	Color (true)					5.94	
SM 2320 B-97	Total Alkalinity	103				1.29	
SM 2540 C-97	TDS					5.76	
SM 4500 F-C-97	Fluoride	99.7	105	100			3.37
SM 5310 B-00	Organic Carbon	98.8	102	103			1.03

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1950053, 1950054
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1950053, 1950054
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1950053, 1950054
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1950055, 1950056
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1950055, 1950056
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1950055, 1950056
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1950055, 1950056
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1950057, 1950058
SM 2120 B / E31780	True Color measured at 450 nm	1950053, 1950054
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1950053, 1950054
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1950053, 1950054
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1950053, 1950054
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1950053, 1950054
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1950055, 1950056

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	12/01/2017			12/01/2017 15:40	Tanya Welborn	1950053, 1950054
EPA 300.0 Rev. 2.1	12/01/2017			12/05/2017	Julia Storbeck	1950053
	12/01/2017			12/06/2017	Julia Storbeck	1950054
EPA 350.1 Rev. 2.0	12/01/2017			12/11/2017	Sofia Elnemr	1950055, 1950056
EPA 351.2 Rev. 2.0	12/01/2017	12/08/2017	Adrian Shelby	12/11/2017	Joseph Suarez	1950055, 1950056
EPA 353.2 Rev. 2.0	12/01/2017			12/05/2017	Lauren Bottorf	1950055, 1950056
EPA 365.1 Rev. 2.0	12/01/2017	12/07/2017	Sima Feizi	12/08/2017	Lipi Saha	1950055, 1950056
EPA 365.1 Rev. 2.0 dissolved	12/01/2017			12/01/2017 14:58	Megan Treadwell	1950057
	12/01/2017			12/01/2017 14:59	Megan Treadwell	1950058
SM 2120 B	12/01/2017			12/01/2017 12:22	Tanya Welborn	1950053
	12/01/2017			12/01/2017 16:43	Tanya Welborn	1950054
SM 2320 B-97	12/01/2017			12/07/2017	Dale L. Simmons	1950053, 1950054
SM 2540 C-97	12/01/2017			12/06/2017	Yijie Li	1950053, 1950054
SM 2540 D-97	12/01/2017			12/06/2017	Yijie Li	1950053, 1950054
SM 4500 F-C-97	12/01/2017			12/07/2017	Dale L. Simmons	1950053, 1950054
SM 5310 B-00	12/01/2017			12/06/2017	Ping Hua	1950055, 1950056