Chemical Analysis Report

TLH-ROC-2017-10-18-01

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

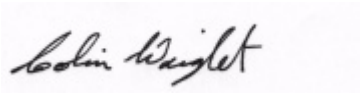
Event Description: **SMP 2017 Freshwater Kit A**
Request ID: **RQ-2017-09-25-37**
Customer: **TLH-ROC**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd
Tallahassee, FL 32399
Attn: Michael Eckles

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Colin Wright, Program Administrator

Date Certified: 06-NOV-2017 13:45



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: LITTLE RIVER @ WACISSA **Collection Date/Time: 10/18/2017 09:50**

Field ID: G1TLHR0008-2017-05 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1938118	EPA 180.1 Rev. 2.0	Turbidity	0.85		NTU	P333631	
	EPA 300.0 Rev. 2.1	Chloride	5.7		mg Cl/L	P333836	
	SM 2120 B	Color (true)	3.2	I	PCU	P333639	
	SM 2320 B-97	Total Alkalinity	155		mg CaCO3/L	P333854	
	SM 2540 C-97	TDS	169		mg/L	P334035	
	SM 2540 D-97	TSS	2	I	mg/L	P334331	
	SM 4500 F-C-97	Fluoride	0.14		mg F/L	P333859	
1938121	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P334084	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.12	I	mg N/L	P333978	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.23		mg N/L	P334005	
	EPA 365.1 Rev. 2.0	Total-P	0.038		mg P/L	P333946	
	SM 5310 B-00	Organic Carbon	0.72	I	mg C/L	P334245	
1938124	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.033		mg P/L	P333752	

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: SANDHILL CREEK @ SW HWY 358 **Collection Date/Time: 10/18/2017 11:50**

Field ID: G1TLHR0060-2017-05 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1938119	EPA 180.1 Rev. 2.0	Turbidity	4.5		NTU	P333631	
	EPA 300.0 Rev. 2.1	Chloride	9.5		mg Cl/L	P333836	
	SM 2120 B	Color (true)	100	A	PCU	P333639	
	SM 2320 B-97	Total Alkalinity	273		mg CaCO3/L	P333854	
	SM 2540 C-97	TDS	321		mg/L	P334035	
	SM 2540 D-97	TSS	2	I	mg/L	P334331	
	SM 4500 F-C-97	Fluoride	0.066	I	mg F/L	P333859	
1938122	EPA 350.1 Rev. 2.0	Ammonia-N	0.13		mg N/L	P334084	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.84		mg N/L	P333978	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.10		mg N/L	P334005	
	EPA 365.1 Rev. 2.0	Total-P	0.032		mg P/L	P333946	
	SM 5310 B-00	Organic Carbon	18		mg C/L	P334245	
1938125	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.006	I	mg P/L	P333752	

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: RUNNING SPRING @ SUWANNEE RIVER **Collection Date/Time: 10/18/2017 13:15**

Field ID: G1TLHR0026-2017-05 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1938120	EPA 180.1 Rev. 2.0	Turbidity	0.30	A	NTU	P333632	
	EPA 300.0 Rev. 2.1	Chloride	6.0		mg Cl/L	P333836	
	SM 2120 B	Color (true)	2.5	U	PCU	P333639	
	SM 2320 B-97	Total Alkalinity	183	A	mg CaCO3/L	P333854	
	SM 2540 C-97	TDS	231		mg/L	P334035	

Field ID: G1TLHR0026-2017-05 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1938120	SM 2540 D-97	TSS	2	I	mg/L	P334331	
	SM 4500 F-C-97	Fluoride	0.16		mg F/L	P333859	
1938123	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P334084	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P333978	
	EPA 353.2 Rev. 2.0	NO2NO3-N	3.0		mg N/L	P334005	
	EPA 365.1 Rev. 2.0	Total-P	0.033		mg P/L	P333946	
	SM 5310 B-00	Organic Carbon	0.62	I	mg C/L	P334245	
1938126	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.031		mg P/L	P333752	

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: P333631

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P333632

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P333836

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P334084

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P333978

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P334005

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P333946

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P333752

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

Reference Method: SM 2120 B
Batch ID: P333639

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P333854

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

Reference Method: SM 2540 C-97
Batch ID: P334035

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P334331

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P333859

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P334245

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: P333836

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P333836

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P334084

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.5		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P333978

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: P334005

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: P333946

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	94.2		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P333752

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.0		P	90 - 110

Reference Method: SM 2320 B-97
Batch ID: P333854

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P333859

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.9		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P334245

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.8		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P333836

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938063	Chloride	100		P	90 - 110
1938064	Chloride	99.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P334084

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1937588	Ammonia-N	96.3	95.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P333978

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938069	Kjeldahl Nitrogen	98.7	95.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P334005

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938070	NO2NO3-N	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P333946

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938072	Total-P	96.5	99.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P333752

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938078	O-Phosphate-P	97.8	103	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P333859

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938120	Fluoride	95.8	97.2	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P334245

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1938069	Organic Carbon	100	101	P/P	85 - 115

Quality Assurance Report
Precision

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P333631

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938059	Turbidity	0.916	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P333632

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938120	Turbidity	18.4	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P333836

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938064	Chloride	1.39	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P334084

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1937588	Ammonia-N	0.307	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P333978

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938069	Kjeldahl Nitrogen	1.45	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P334005

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938070	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P333946

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938072	Total-P	1.60	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P333752

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938078	O-Phosphate-P	4.12	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: SM 2120 B
Batch ID: P333639

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938119	Color (true)	0.598	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P333854

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938120	Total Alkalinity	0.0255	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P334035

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938112	TDS	5.28	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P333859

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938120	Fluoride	0.979	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P334245

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1938069	Organic Carbon	0.692	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 180.1 Rev. 2.0
Run ID: A79644
Included Lab Sample IDs: 1938118, 1938119, 1938120

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

Reference Method: SM 2120 B
Run ID: A79646
Included Lab Sample IDs: 1938118, 1938119, 1938120

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.6	100	P/P	85 - 115

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A79682
Included Lab Sample IDs: 1938124, 1938125, 1938126

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	102	97.3	P/P	90 - 110
O-Phosphate-P	102	102	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A79726
Included Lab Sample IDs: 1938118, 1938119, 1938120

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

Reference Method: SM 2320 B-97
Run ID: A79730
Included Lab Sample IDs: 1938118, 1938119, 1938120

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	99.9	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A79730
Included Lab Sample IDs: 1938118, 1938119, 1938120

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A79783
Included Lab Sample IDs: 1938121, 1938122, 1938123

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	101	P/P	90 - 110
NO2NO3-N	101	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A79802
Included Lab Sample IDs: 1938121, 1938122, 1938123

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	99.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A79814
Included Lab Sample IDs: 1938121, 1938122, 1938123

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.3	99.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A79856
Included Lab Sample IDs: 1938121, 1938122, 1938123

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A79856
Included Lab Sample IDs: 1938121, 1938122, 1938123

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	107	104	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A79871
Included Lab Sample IDs: 1938121, 1938122, 1938123

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.2	97.4	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		Precision		
					LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity					0.916	
	Turbidity					18.4	
EPA 300.0 Rev. 2.1	Chloride	101	99.2	100		1.39	
EPA 350.1 Rev. 2.0	Ammonia-N	94.5	96.3	95.8			0.307
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	98.7	95.6			1.45
EPA 353.2 Rev. 2.0	NO2NO3-N	104	104	104			0.0
EPA 365.1 Rev. 2.0	Total-P	94.2	96.5	99.6			1.60
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.0	97.8	103			4.12
SM 2120 B	Color (true)					0.598	
SM 2320 B-97	Total Alkalinity	101				0.0255	
SM 2540 C-97	TDS					5.28	
SM 4500 F-C-97	Fluoride	95.9	95.8	97.2			0.979
SM 5310 B-00	Organic Carbon	96.8	100	101			0.692

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1938118, 1938119, 1938120
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1938118, 1938119, 1938120
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1938121, 1938122, 1938123
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1938121, 1938122, 1938123
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1938121, 1938122, 1938123
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1938121, 1938122, 1938123
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1938124, 1938125, 1938126
SM 2120 B / E31780	True Color measured at 450 nm	1938118, 1938119, 1938120
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1938118, 1938119, 1938120

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1938118, 1938119, 1938120
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1938118, 1938119, 1938120
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1938118, 1938119, 1938120
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1938121, 1938122, 1938123

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	10/18/2017			10/18/2017 16:16	DeAsia Armster	1938118, 1938119, 1938120
EPA 300.0 Rev. 2.1	10/18/2017			10/20/2017	Julia Storbeck	1938118, 1938119, 1938120
EPA 350.1 Rev. 2.0	10/18/2017			10/25/2017	Sofia Elnemr	1938121, 1938122, 1938123
EPA 351.2 Rev. 2.0	10/18/2017	10/25/2017	Adrian Shelby	10/26/2017	Joseph Suarez	1938121, 1938122, 1938123
EPA 353.2 Rev. 2.0	10/18/2017			10/25/2017	Beverly Y. Sanders	1938121, 1938122, 1938123
EPA 365.1 Rev. 2.0	10/18/2017	10/24/2017	Sima Feizi	10/25/2017	Lipi Saha	1938121, 1938122, 1938123
EPA 365.1 Rev. 2.0 dissolved	10/18/2017			10/19/2017 14:33	Megan Treadwell	1938124
	10/18/2017			10/19/2017 14:45	Megan Treadwell	1938125, 1938126
SM 2120 B	10/18/2017			10/18/2017 17:05	Tanya Welborn	1938118
	10/18/2017			10/18/2017 17:07	Tanya Welborn	1938119
	10/18/2017			10/18/2017 17:08	Tanya Welborn	1938120
SM 2320 B-97	10/18/2017			10/21/2017	Dale L. Simmons	1938118, 1938119, 1938120
SM 2540 C-97	10/18/2017			10/20/2017	Yijie Li	1938118, 1938119, 1938120
SM 2540 D-97	10/18/2017			10/20/2017	Yijie Li	1938118, 1938119, 1938120
SM 4500 F-C-97	10/18/2017			10/21/2017	Dale L. Simmons	1938118, 1938119, 1938120
SM 5310 B-00	10/18/2017			10/27/2017	Ping Hua	1938121, 1938122, 1938123