Chemical Analysis Report

TLH-ROC-2017-11-27-02

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

Event Description: **SMP Freshwater Kit A**
Request ID: **RQ-2017-10-30-54**
Customer: **TLH-ROC**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd
Tallahassee, FL 32399
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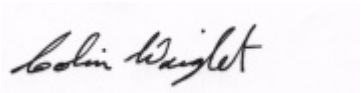
Certified by: Colin Wright, Program Administrator

Date Certified: 19-DEC-2017 14:18



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: MARSHALL CREEK @ SR 2 **Collection Date/Time: 11/27/2017 10:55**

Field ID: G2TLHR007-2017-04 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1948449	EPA 180.1 Rev. 2.0	Turbidity	3.1		NTU	P335983	
	EPA 300.0 Rev. 2.1	Chloride	5.1		mg Cl/L	P336265	
	SM 2120 B	Color (true)	18		PCU	P335989	
	SM 2320 B-97	Total Alkalinity	90		mg CaCO3/L	P336463	
	SM 2540 C-97	TDS	121		mg/L	P336389	
	SM 2540 D-97	TSS	2	I	mg/L	P336362	
	SM 4500 F-C-97	Fluoride	0.049	I	mg F/L	P336467	
1948452	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P336343	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.18	I	mg N/L	P336564	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.1		mg N/L	P336061	
	EPA 365.1 Rev. 2.0	Total-P	0.041		mg P/L	P336204	
	SM 5310 B-00	Organic Carbon	1.8		mg C/L	P336196	
1948455	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.030		mg P/L	P336023	

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: BLUE HOLE SPRING VENT **Collection Date/Time: 11/27/2017 11:45**

Field ID: G2TLHR009-2017-04 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1948450	EPA 180.1 Rev. 2.0	Turbidity	1.7		NTU	P335983	
	EPA 300.0 Rev. 2.1	Chloride	3.0		mg Cl/L	P336265	
	SM 2120 B	Color (true)	2.5	U	PCU	P335989	
	SM 2320 B-97	Total Alkalinity	164		mg CaCO3/L	P336463	
	SM 2540 C-97	TDS	174		mg/L	P336389	
	SM 2540 D-97	TSS	2	I	mg/L	P336362	
	SM 4500 F-C-97	Fluoride	0.093	I	mg F/L	P336467	
1948453	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P336343	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.11	I	mg N/L	P336564	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.39		mg N/L	P336061	
	EPA 365.1 Rev. 2.0	Total-P	0.021		mg P/L	P336204	
	SM 5310 B-00	Organic Carbon	0.52	I	mg C/L	P336196	
1948456	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.015		mg P/L	P336023	

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: CHIPOLA RIVER @ NEW LAMB EDDY RD **Collection Date/Time: 11/27/2017 13:15**

Field ID: G2TLHR0011-2017-04 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1948451	EPA 180.1 Rev. 2.0	Turbidity	0.85		NTU	P335983	
	EPA 300.0 Rev. 2.1	Chloride	4.8		mg Cl/L	P336265	
	SM 2120 B	Color (true)	4.0	I	PCU	P335989	
	SM 2320 B-97	Total Alkalinity	122		mg CaCO3/L	P336463	
	SM 2540 C-97	TDS	153	A	mg/L	P336389	

Field ID: G2TLHR0011-2017-04 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1948451	SM 2540 D-97	TSS	2	IA	mg/L	P336362	
	SM 4500 F-C-97	Fluoride	0.063	I	mg F/L	P336467	
1948454	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P336343	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.14	IJ	mg N/L	P336758	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.5		mg N/L	P336061	
	EPA 365.1 Rev. 2.0	Total-P	0.012		mg P/L	P336204	
	SM 5310 B-00	Organic Carbon	0.92	I	mg C/L	P336196	
1948457	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.006	I	mg P/L	P336023	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: The sample appears to be heterogeneous with respect to Total Kjeldahl Nitrogen analysis.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P335983

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P336265

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P336343

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P336564

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P336758

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P336061

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: P336204

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P336023

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

Reference Method: SM 2120 B
Batch ID: P335989

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P336463

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

Reference Method: SM 2540 C-97
Batch ID: P336389

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P336362

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P336467

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P336196

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: P336265

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: P336265

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	95.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P336343

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	93.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P336564

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P336758

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: P336061

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: P336204

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P336023

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.1		P	90 - 110

Reference Method: SM 2320 B-97
Batch ID: P336463

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P336467

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.4		P	92 - 103

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
Batch ID: P336196

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.8		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P336265

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1948312	Chloride	93.7		P	90 - 110
1948318	Chloride	94.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P336343

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1947745	Ammonia-N	97.1	98.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P336564

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1948445	Kjeldahl Nitrogen	99.2	99.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P336758

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1950974	Kjeldahl Nitrogen	90.2	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P336061

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1948343	NO2NO3-N	101	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P336204

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1948452	Total-P	101	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P336023

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1948446	O-Phosphate-P	100	100	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P336467

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1948507	Fluoride	96.6	97.6	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P336196

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1948250	Organic Carbon	99.8	99.8	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P335983

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1948444	Turbidity	6.87	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P336265

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1948318	Chloride	0.844	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P336343

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1947745	Ammonia-N	0.993	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P336564

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1948445	Kjeldahl Nitrogen	0.166	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P336758

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1950974	Kjeldahl Nitrogen	4.91	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P336061

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits

Quality Assurance Report
Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P336061

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1948343	NO2NO3-N	1.54	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P336204

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1948452	Total-P	0.569	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P336023

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1948446	O-Phosphate-P	0.0	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P335989

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1948487	Color (true)	1.75	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P336463

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1948507	Total Alkalinity	0.353	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P336389

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1948451	TDS	2.61	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P336467

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1948507	Fluoride	0.948	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P336196

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1948250	Organic Carbon	0.0467	Spike	P	0 - 20

Quality Assurance Report
Precision

* 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: A80557
Included Lab Sample IDs: 1948449, 1948450, 1948451

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	100	P/P	95 - 105

Reference Method: SM 2120 B
Run ID: A80558
Included Lab Sample IDs: 1948449, 1948450, 1948451

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.0	101	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A80571
Included Lab Sample IDs: 1948455, 1948456, 1948457

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.3	99.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A80582
Included Lab Sample IDs: 1948452, 1948453, 1948454

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	100	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A80632
Included Lab Sample IDs: 1948449, 1948450, 1948451

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	99.9	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A80633
Included Lab Sample IDs: 1948452, 1948453, 1948454

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A80677
Included Lab Sample IDs: 1948452, 1948453, 1948454

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	101	P/P	90 - 110
Total-P	101	99.8	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A80695
Included Lab Sample IDs: 1948452, 1948453, 1948454

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.7	99.2	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A80732
Included Lab Sample IDs: 1948449, 1948450, 1948451

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	99.7	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A80732
Included Lab Sample IDs: 1948449, 1948450, 1948451

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.5	98.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A80798
Included Lab Sample IDs: 1948452, 1948453

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.7	96.2	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					6.87	
EPA 300.0 Rev. 2.1	Chloride	95.0	94.8	93.7		0.844	
EPA 350.1 Rev. 2.0	Ammonia-N	93.4	97.1	98.2			0.993
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	99.2	99.0			0.166
	Kjeldahl Nitrogen	102	90.2	100			4.91
EPA 353.2 Rev. 2.0	NO2NO3-N	104	101	104			1.54
EPA 365.1 Rev. 2.0	Total-P	99.5	101	100			0.569
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.1	100	100			0.0
SM 2120 B	Color (true)					1.75	
SM 2320 B-97	Total Alkalinity	102				0.353	
SM 2540 C-97	TDS					2.61	
SM 4500 F-C-97	Fluoride	95.4	96.6	97.6			0.948
SM 5310 B-00	Organic Carbon	99.8	99.8	99.8			0.0467

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1948449, 1948450, 1948451
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1948449, 1948450, 1948451
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1948452, 1948453, 1948454
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1948452, 1948453, 1948454
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1948452, 1948453, 1948454
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1948452, 1948453, 1948454
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1948455, 1948456, 1948457
SM 2120 B / E31780	True Color measured at 450 nm	1948449, 1948450, 1948451
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1948449, 1948450, 1948451
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1948449, 1948450, 1948451
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1948449, 1948450, 1948451
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1948449, 1948450, 1948451
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1948452, 1948453, 1948454

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	11/27/2017			11/28/2017 15:59	DeAsia Armster	1948449, 1948450, 1948451
EPA 300.0 Rev. 2.1	11/27/2017			12/02/2017	Julia Storbeck	1948449, 1948450, 1948451
EPA 350.1 Rev. 2.0	11/27/2017			12/04/2017	Sofia Elnemr	1948452, 1948453, 1948454
EPA 351.2 Rev. 2.0	11/27/2017	12/07/2017	Adrian Shelby	12/08/2017	Joseph Suarez	1948452, 1948453
	11/27/2017	12/12/2017	Adrian Shelby	12/18/2017	Joseph Suarez	1948454
EPA 353.2 Rev. 2.0	11/27/2017			11/29/2017	Lauren Bottorf	1948452, 1948453, 1948454
EPA 365.1 Rev. 2.0	11/27/2017	12/01/2017	Sima Feizi	12/04/2017	Lipi Saha	1948452, 1948453, 1948454
EPA 365.1 Rev. 2.0 dissolved	11/27/2017			11/28/2017 15:23	Megan Treadwell	1948455
	11/27/2017			11/28/2017 15:24	Megan Treadwell	1948456
	11/27/2017			11/28/2017 15:25	Megan Treadwell	1948457
SM 2120 B	11/27/2017			11/28/2017 15:24	Tanya Welborn	1948449
	11/27/2017			11/28/2017 15:25	Tanya Welborn	1948450, 1948451
SM 2320 B-97	11/27/2017			12/05/2017	Dale L. Simmons	1948449, 1948450, 1948451
SM 2540 C-97	11/27/2017			12/01/2017	Yijie Li	1948449, 1948450, 1948451
SM 2540 D-97	11/27/2017			12/01/2017	Yijie Li	1948449, 1948450, 1948451
SM 4500 F-C-97	11/27/2017			12/05/2017	Dale L. Simmons	1948449, 1948450, 1948451
SM 5310 B-00	11/27/2017			11/30/2017	Ping Hua	1948452, 1948453, 1948454