

Chemical Analysis Report

TLH-ROC-2019-09-25-01

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

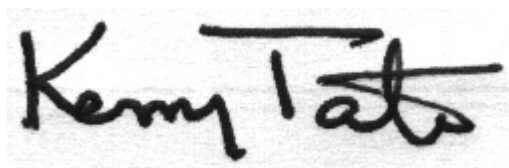
Event Description: **Run 10**
Request ID: **RQ-2019-08-19-23**
Customer: **TLH-ROC**
Project ID: **SMP**

Send Reports to:
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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 11-OCT-2019 10:37

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 "T" and a long horizontal stroke at the end.

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 by the Florida Department of Health Environmental Laboratory Certification Program 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: Sandy Creek upstream Boat Ramp

Collection Date/Time: 09/25/2019 12:25

Field ID: G3TLHR0037

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2122368	EPA 180.1 Rev. 2.0	Turbidity	6.0	A	NTU	P371421	
	EPA 300.0	Bromide	4.0		mg Br/L	P371834	
	SM 2320 B-97	Total Alkalinity	12		mg CaCO3/L	P371879	
	SM 2540 D-97	TSS	3	I	mg/L	P371818	
	SM 4500 F-C-97	Fluoride	0.076	I	mg F/L	P371882	
2122369	EPA 350.1 Rev. 2.0	Ammonia-N	0.019		mg N/L	P371746	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.20		mg N/L	P371541	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.056		mg N/L	P371447	
	EPA 365.1 Rev. 2.0	Total-P	0.008		mg P/L	P371552	
	SM 5310 B-00	Organic Carbon	3.4		mg C/L	P371505	
2122370	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P371334	

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: Sandy Creek @ SR22

Collection Date/Time: 09/25/2019 13:05

Field ID: G1TLHR0001

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2122365	EPA 180.1 Rev. 2.0	Turbidity	7.4	A	NTU	P371418	
	EPA 300.0 Rev. 2.1	Chloride	4.1		mg Cl/L	P371795	
		Sulfate	0.80		mg SO4/L	P371797	
	SM 2120 B	Color (true)	62	A	PCU	P371368	
	SM 2320 B-97	Total Alkalinity	6.3		mg CaCO3/L	P371879	
	SM 2540 C-97	TDS	25		mg/L	P371956	
	SM 2540 D-97	TSS	3	I	mg/L	P371817	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P371882	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.019		mg N/L	P371746	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.15	I	mg N/L	P371541	
2122366	EPA 353.2 Rev. 2.0	NO2NO3-N	0.047		mg N/L	P371447	
	EPA 365.1 Rev. 2.0	Total-P	0.007		mg P/L	P371498	
	SM 5310 B-00	Organic Carbon	2.9		mg C/L	P371505	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.004	U	mg P/L	P371334	
	dissolved						

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: P371418

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P371421

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0
Batch ID: P371834

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371795

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371797

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371746

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371541

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371447

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371498

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371552

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P371334

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

Reference Method: SM 2120 B
Batch ID: P371368

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P371879

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

Reference Method: SM 2540 C-97
Batch ID: P371956

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P371817

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P371818

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P371882

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P371505

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0
Batch ID: P371834

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bromide	97.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371795

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371797

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371746

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.1		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371541

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371447

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO ₂ NO ₃ -N	99.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371498

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371552

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P371334

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2120 B
Batch ID: P371368

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.3		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P371879

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P371882

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.5		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P371505

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0
Batch ID: P371834

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2122192	Bromide	94.9	96.5	P/P	90 - 110
2122205	Bromide	96.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371795

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2122386	Chloride	100		P	90 - 110
2122388	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371797

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2122386	Sulfate	100		P	90 - 110
2122388	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371746

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2122348	Ammonia-N	92.0	92.9	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371541

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2122345	Kjeldahl Nitrogen	101	98.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371447

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2122347	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371498

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2122200	Total-P	95.1	96.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371552

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2122398	Total-P	96.6	98.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P371334

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2122349	O-Phosphate-P	96.1	96.5	P/P	90 - 110

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P371882

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2122391	Fluoride	95.7	95.7	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P371505

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2122369	Organic Carbon	101	99.2	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P371418

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2122365	Turbidity	3.65	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P371421

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2122368	Turbidity	1.66	Sample	P	0 - 20

Reference Method: EPA 300.0
Batch ID: P371834

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2122192	Bromide	1.24	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371795

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2122386	Chloride	3.10	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P371797

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2122386	Sulfate	2.19	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P371746

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2122348	Ammonia-N	0.928	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371541

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2122345	Kjeldahl Nitrogen	2.06	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371447

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2122347	NO2NO3-N	0.0	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371498

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2122200	Total-P	1.04	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371552

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2122398	Total-P	1.31	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P371334

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2122349	O-Phosphate-P	0.333	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P371368

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2122365	Color (true)	0.755	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P371879

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2122391	Total Alkalinity	1.09	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P371956

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2122390	TDS	0.627	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P371882

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2122391	Fluoride	0.0	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P371505

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2122369	Organic Carbon	1.41	Spike	P	0 - 20

Quality Assurance Report Precision

* Sample, spike and/or laboratory control sample precision (LCS) is reported.

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A94499

Included Lab Sample IDs: 2122367, 2122370

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	95.1	94.3	P/P	90 - 110
O-Phosphate-P	98.1	97.1	P/P	90 - 110

Reference Method: SM 2120 B

Run ID: A94515

Included Lab Sample IDs: 2122365

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	102	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A94539

Included Lab Sample IDs: 2122365, 2122368

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A94552

Included Lab Sample IDs: 2122366, 2122369

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.5	99.5	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A94565

Included Lab Sample IDs: 2122366, 2122369

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	100	P/P	90 - 110
Organic Carbon	108	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A94584

Included Lab Sample IDs: 2122366

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A94623

Included Lab Sample IDs: 2122369

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	99.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A94637

Included Lab Sample IDs: 2122366, 2122369

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A94667

Included Lab Sample IDs: 2122366, 2122369

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	96.2	96.3	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A94686

Included Lab Sample IDs: 2122365

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

Reference Method: EPA 300.0

Run ID: A94704

Included Lab Sample IDs: 2122368

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

Reference Method: SM 2320 B-97

Run ID: A94719

Included Lab Sample IDs: 2122365, 2122368

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

Reference Method: SM 4500 F-C-97

Run ID: A94719

Included Lab Sample IDs: 2122365, 2122368

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	99.5	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 SMP	MS
			LCS				
EPA 180.1 Rev. 2.0	Turbidity					3.65	
	Turbidity					1.66	
EPA 300.0	Bromide	97.3	94.9	96.5	96.2		1.24
EPA 300.0 Rev. 2.1	Chloride	100	100	101		3.10	
	Sulfate	101	100	101		2.19	
EPA 350.1 Rev. 2.0	Ammonia-N	96.1	92.0	92.9			0.928
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.8	101	98.2			2.06
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0	102	102			0.0
EPA 365.1 Rev. 2.0	Total-P	101	95.1	96.2			1.04
	Total-P	100	96.6	98.8			1.31
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101	96.1	96.5			0.333
SM 2120 B	Color (true)	99.3				0.755	
SM 2320 B-97	Total Alkalinity	103				1.09	
SM 2540 C-97	TDS					0.627	
SM 4500 F-C-97	Fluoride	95.5	95.7	95.7			0.0
SM 5310 B-00	Organic Carbon	98.6	101	99.2			1.41

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2122365, 2122368
EPA 300.0 / E31780	Bromide in aqueous matrices	2122368
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2122365
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2122365
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2122366, 2122369
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2122366, 2122369
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2122366, 2122369
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2122366, 2122369
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2122367, 2122370
SM 2120 B / E31780	True Color measured at 450 nm	2122365
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2122365, 2122368
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2122365
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2122365, 2122368
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2122365, 2122368
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2122366, 2122369

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	09/25/2019			09/26/2019 16:38	Rosalyn Ballman	2122365, 2122368
EPA 300.0	09/25/2019			10/03/2019 02:49	Julia Storbeck	2122368
EPA 300.0 Rev. 2.1	09/25/2019			10/03/2019 01:49	Julia Storbeck	2122365
EPA 350.1 Rev. 2.0	09/25/2019			10/02/2019 13:46	Ping Hua	2122366
	09/25/2019			10/02/2019 13:47	Ping Hua	2122369
EPA 351.2 Rev. 2.0	09/25/2019	09/30/2019 13:30	Jhamieka S. Greenwood	10/01/2019 14:10	Julia Storbeck	2122366
	09/25/2019	09/30/2019 13:30	Jhamieka S. Greenwood	10/01/2019 14:12	Julia Storbeck	2122369
EPA 353.2 Rev. 2.0	09/25/2019			09/27/2019 09:54	Beverly Y. Sanders	2122366
	09/25/2019			09/27/2019 09:55	Beverly Y. Sanders	2122369
EPA 365.1 Rev. 2.0	09/25/2019	09/27/2019 15:05	Lipi Saha	09/30/2019 12:07	Lipi Saha	2122366
	09/25/2019	09/30/2019 14:39	Vijayalakshmi Reddy	10/01/2019 12:00	Lipi Saha	2122369
EPA 365.1 Rev. 2.0 dissolved	09/25/2019			09/25/2019 18:25	Ping Hua	2122370
	09/25/2019			09/25/2019 18:49	Ping Hua	2122367
SM 2120 B	09/25/2019			09/26/2019 10:58	Madeline Funaro	2122365
SM 2320 B-97	09/25/2019			10/02/2019 07:36	Dale L. Simmons	2122365
	09/25/2019			10/02/2019 10:15	Dale L. Simmons	2122368
SM 2540 C-97	09/25/2019			09/27/2019 14:08	Yijie Li	2122365
SM 2540 D-97	09/25/2019			09/27/2019 14:08	Yijie Li	2122365, 2122368
SM 4500 F-C-97	09/25/2019			10/02/2019 07:36	Dale L. Simmons	2122365
	09/25/2019			10/02/2019 10:15	Dale L. Simmons	2122368
SM 5310 B-00	09/25/2019			09/27/2019 21:50	Madeline Funaro	2122369
	09/25/2019			09/28/2019 01:27	Madeline Funaro	2122366