

Chemical Analysis Report

NE-DIST-2017-08-22-01

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

Event Description: **NASSAU WEST**
Request ID: **RQ-2017-08-21-19**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
NE ROC
8800 Baymeadows Way W
Suite 100
Jacksonville, FL 32256-7577
Attn: Nicole Frederick

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Certified by: Colin Wright, Program Administrator

Date Certified: 13-SEP-2017 12:43

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: Calkins Crk Trib @ Hamp Register / C. Crews Rd. **Collection Date/Time: 08/21/2017 09:30**

Field ID: G4NE0050 08212017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1922817	EPA 180.1 Rev. 2.0	Turbidity	2.9		NTU	P330654	
	EPA 300.0 Rev. 2.1	Chloride	4.2		mg Cl/L	P330747	
		Sulfate	0.28	I	mg SO4/L	P330750	
	SM 2120 B	Color (true)	910		PCU	P330664	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P330798	
	SM 2540 C-97	TDS	96		mg/L	P330966	
	SM 2540 D-97	TSS	3	I	mg/L	P330984	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P330800	
1922819	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P330757	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P330830	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P330761	
	EPA 365.1 Rev. 2.0	Total-P	0.053		mg P/L	P330699	
	SM 5310 B-00	Organic Carbon	64		mg C/L	P330863	
1922821	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.037		mg P/L	P330641	

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: Unnamed Branch @ CR 125

Collection Date/Time: 08/21/2017 10:00

Field ID: G4NE0131 08212017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1922818	EPA 180.1 Rev. 2.0	Turbidity	4.5		NTU	P330654	
	EPA 300.0 Rev. 2.1	Chloride	6.3		mg Cl/L	P330747	
		Sulfate	0.63		mg SO4/L	P330750	
	SM 2120 B	Color (true)	440		PCU	P330664	
	SM 2320 B-97	Total Alkalinity	5.9		mg CaCO3/L	P330798	
	SM 2540 C-97	TDS	92		mg/L	P330966	
	SM 2540 D-97	TSS	6	I	mg/L	P330984	
	SM 4500 F-C-97	Fluoride	0.039	I	mg F/L	P330800	
1922820	EPA 350.1 Rev. 2.0	Ammonia-N	0.031		mg N/L	P330757	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P330648	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.014		mg N/L	P330761	
	EPA 365.1 Rev. 2.0	Total-P	0.10		mg P/L	P330699	
	SM 5310 B-00	Organic Carbon	35		mg C/L	P330863	
1922822	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.066		mg P/L	P330641	

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: P330654

Component	Result	Code	Units
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Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P330654

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P330747

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P330750

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P330757

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330648

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330830

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P330761

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P330699

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P330641

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

Quality Assurance Report Method Blank Results

Reference Method: SM 2120 B
Batch ID: P330664

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P330798

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

Reference Method: SM 2540 C-97
Batch ID: P330966

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P330984

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P330800

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P330863

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: P330747

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	96.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P330750

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P330757

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: P330757

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330648

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330830

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P330761

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	106		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P330699

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	96.9		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P330641

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	96.4		P	90 - 110

Reference Method: SM 2320 B-97
Batch ID: P330798

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

Reference Method: SM 4500 F-C-97
Batch ID: P330800

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.2		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P330863

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P330747

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1922835	Chloride	98.7		P	90 - 110
1922877	Chloride	92.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P330750

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1922835	Sulfate	98.4		P	90 - 110
1922877	Sulfate	93.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P330757

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1922708	Ammonia-N	100	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330648

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1922828	Kjeldahl Nitrogen	101	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330830

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1922926	Kjeldahl Nitrogen	104	108	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P330761

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1922800	NO2NO3-N	107	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P330699

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1922838	Total-P	96.8	92.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P330641

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1922841	O-Phosphate-P	90.3	92.4	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P330800

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1922707	Fluoride	97.5	98.2	P/P	91 - 105

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-00
 Batch ID: P330863

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1922820	Organic Carbon	102		P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P330654

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1922799	Turbidity	1.11	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P330747

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1922835	Chloride	1.87	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P330750

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1922835	Sulfate	1.64	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P330757

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1922708	Ammonia-N	0.0475	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P330648

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1922828	Kjeldahl Nitrogen	0.250	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P330830

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1922926	Kjeldahl Nitrogen	2.92	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P330761

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1922800	NO2NO3-N	0.299	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P330699

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1922838	Total-P	4.02	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P330641

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1922841	O-Phosphate-P	2.30	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P330664

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1922799	Color (true)	1.31	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P330798

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1922707	Total Alkalinity	0.206	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P330966

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1922714	TDS	3.46	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P330800

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1922707	Fluoride	0.473	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P330863

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1922820	Organic Carbon	0.977	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 365.1 Rev. 2.0 dissolved

Run ID: A78568

Included Lab Sample IDs: 1922821, 1922822

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.9	98.3	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A78571

Included Lab Sample IDs: 1922817, 1922818

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

Reference Method: SM 2120 B

Run ID: A78573

Included Lab Sample IDs: 1922817, 1922818

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	99.8	P/P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A78584

Included Lab Sample IDs: 1922817, 1922818

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	93.4	99.3	P/P	90 - 110
Sulfate	93.1	100	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A78593

Included Lab Sample IDs: 1922819, 1922820

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.9	99.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A78594

Included Lab Sample IDs: 1922819, 1922820

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	103	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A78597

Included Lab Sample IDs: 1922819, 1922820

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A78599

Included Lab Sample IDs: 1922820

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.4	101	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A78604

Included Lab Sample IDs: 1922817, 1922818

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

Reference Method: SM 4500 F-C-97

Run ID: A78604

Included Lab Sample IDs: 1922817, 1922818

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.1	97.0	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A78619

Included Lab Sample IDs: 1922819, 1922820

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.4	98.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A78648

Included Lab Sample IDs: 1922819

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.9	105	P/P	90 - 110

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity				1.11	
EPA 300.0 Rev. 2.1	Chloride	96.9	98.7 92.9		1.87	
	Sulfate	97.5	98.4 93.3		1.64	
EPA 350.1 Rev. 2.0	Ammonia-N	101	100 100			0.0475
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100	101 101			0.250
	Kjeldahl Nitrogen	104	104 108			2.92
EPA 353.2 Rev. 2.0	NO2NO3-N	106	107 106			0.299
EPA 365.1 Rev. 2.0	Total-P	96.9	96.8 92.8			4.02
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	96.4	90.3 92.4			2.30
SM 2120 B	Color (true)				1.31	
SM 2320 B-97	Total Alkalinity	103			0.206	

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
					LCS	
SM 2540 C-97	TDS				3.46	
SM 4500 F-C-97	Fluoride	96.2	97.5	98.2		0.473
SM 5310 B-00	Organic Carbon	101	102			0.977

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1922817, 1922818
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1922817, 1922818
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1922817, 1922818
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1922819, 1922820
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1922819, 1922820
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1922819, 1922820
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1922819, 1922820
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1922821, 1922822
SM 2120 B / E31780	True Color measured at 450 nm	1922817, 1922818
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1922817, 1922818
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1922817, 1922818
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1922817, 1922818
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1922817, 1922818
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1922819, 1922820

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	08/22/2017			08/22/2017 17:11	Tanya Welborn	1922817, 1922818
EPA 300.0 Rev. 2.1	08/22/2017			08/23/2017	Julia Storbeck	1922817, 1922818
EPA 350.1 Rev. 2.0	08/22/2017			08/23/2017	Sofia Elnemr	1922819, 1922820
EPA 351.2 Rev. 2.0	08/22/2017	08/23/2017	Adrian Shelby	08/24/2017	Joseph Suarez	1922820
	08/22/2017	08/25/2017	Adrian Shelby	08/28/2017	Joseph Suarez	1922819
EPA 353.2 Rev. 2.0	08/22/2017			08/24/2017	Beverly Y. Sanders	1922819, 1922820
EPA 365.1 Rev. 2.0	08/22/2017	08/23/2017	Sima Feizi	08/24/2017	Lipi Saha	1922819, 1922820
EPA 365.1 Rev. 2.0 dissolved	08/22/2017			08/22/2017 15:37	Megan Treadwell	1922821
	08/22/2017			08/22/2017 15:38	Megan Treadwell	1922822
SM 2120 B	08/22/2017			08/22/2017 15:54	Tanya Welborn	1922817
	08/22/2017			08/22/2017 15:55	Tanya Welborn	1922818
SM 2320 B-97	08/22/2017			08/24/2017	Dale L. Simmons	1922817, 1922818
SM 2540 C-97	08/22/2017			08/23/2017	Yijie Li	1922817, 1922818
SM 2540 D-97	08/22/2017			08/23/2017	Yijie Li	1922817, 1922818
SM 4500 F-C-97	08/22/2017			08/24/2017	Dale L. Simmons	1922817, 1922818
SM 5310 B-00	08/22/2017			08/24/2017	Ping Hua	1922819, 1922820