

Chemical Analysis Report

TLH-ROC-2017-08-10-01

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

Event Description: **SMP 2017 Marine Kit B**

Request ID: **RQ-2017-07-17-37**

Customer: **TLH-ROC**

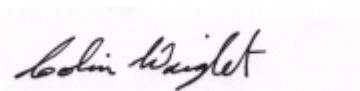
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
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Attn: Michael Eckles

For additional information please contact
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Certified by: Colin Wright, Program Administrator

Date Certified: 01-SEP-2017 09:29

A handwritten signature in black ink, appearing to read "Colin Wright", is positioned 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: GULF OF MEXICO MIDDLE OF WBID
 (STEINHATCHEE RIVER)**

Collection Date/Time: 08/10/2017 11:00

Field ID: G1TLHR0061-2017-03

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1920816	EPA 180.1 Rev. 2.0	Turbidity	1.3	A	NTU	P330070	
	SM 2320 B-97	Total Alkalinity	119		mg CaCO3/L	P330297	
	SM 2540 D-97	TSS	3	U	mg/L	P330306	
	SM 4500 F-C-97	Fluoride	1.0		mg F/L	P330299	
1920819	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P330369	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.56		mg N/L	P330186	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P330378	
	EPA 365.1 Rev. 2.0	Total-P	0.019		mg P/L	P330220	MS
	SM 5310 B-00	Organic Carbon	6.5		mg C/L	P330332	
1920822	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P330058	

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: MIDDLE OF WBID

Collection Date/Time: 08/10/2017 11:20

Field ID: G1TLHR0072-2017-03

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1920817	EPA 180.1 Rev. 2.0	Turbidity	1.7		NTU	P330070	
	SM 2320 B-97	Total Alkalinity	118		mg CaCO3/L	P330297	
	SM 2540 D-97	TSS	3	U	mg/L	P330306	
	SM 4500 F-C-97	Fluoride	1.1		mg F/L	P330299	
1920820	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P330369	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.49		mg N/L	P330186	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P330379	
	EPA 365.1 Rev. 2.0	Total-P	0.017		mg P/L	P330220	MS
	SM 5310 B-00	Organic Carbon	4.2		mg C/L	P330332	
1920823	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P330058	

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: MIDDLE NORTH OF WBID

Collection Date/Time: 08/10/2017 11:50

Field ID: G1TLHR0073-2017-02

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1920818	EPA 180.1 Rev. 2.0	Turbidity	3.2		NTU	P330070	
	SM 2320 B-97	Total Alkalinity	124		mg CaCO3/L	P330297	
	SM 2540 D-97	TSS	4	I	mg/L	P330637	
	SM 4500 F-C-97	Fluoride	1.0		mg F/L	P330299	
1920821	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P330369	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P330320	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P330379	
	EPA 365.1 Rev. 2.0	Total-P	0.037		mg P/L	P330220	MS
	SM 5310 B-00	Organic Carbon	7.9		mg C/L	P330332	
1920824	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	I	mg P/L	P330058	

Field ID: G1TLHR0073-2017-02

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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: P330070

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P330369

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330186

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330320

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P330378

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P330379

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P330220

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P330058

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

Quality Assurance Report Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P330297

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

Reference Method: SM 2540 D-97
Batch ID: P330306

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P330637

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P330299

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P330332

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P330369

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330186

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330320

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: P330378

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P330378

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P330379

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: P330220

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: P330058

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

Reference Method: SM 2320 B-97
Batch ID: P330297

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

Reference Method: SM 4500 F-C-97
Batch ID: P330299

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.6		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P330332

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P330369

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1920731	Ammonia-N	106	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330186

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330186

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1920649	Kjeldahl Nitrogen	99.7	98.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330320

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1921267	Kjeldahl Nitrogen	100	99.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P330378

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1920639	NO2NO3-N	108	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P330379

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1920820	NO2NO3-N	108	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P330220

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1920732	Total-P	87.9	90.0	F/F	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P330058

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1920823	O-Phosphate-P	93.2	96.9	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P330299

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1920154	Fluoride	98.5	96.2	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P330332

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1920161	Organic Carbon	98.5	101	P/P	85 - 115

Quality Assurance Report Precision

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P330070

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1920816	Turbidity	7.63	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P330369

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1920731	Ammonia-N	4.41	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330186

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1920649	Kjeldahl Nitrogen	1.12	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330320

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1921267	Kjeldahl Nitrogen	0.766	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P330378

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1920639	NO2NO3-N	0.602	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P330379

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1920820	NO2NO3-N	0.926	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P330220

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1920732	Total-P	2.36	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P330058

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1920823	O-Phosphate-P	3.89	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2320 B-97
Batch ID: P330297

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1920154	Total Alkalinity	0.121	Sample	P	0 - 4.8

Reference Method: SM 4500 F-C-97
Batch ID: P330299

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1920154	Fluoride	1.48	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P330332

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1920161	Organic Carbon	1.79	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 365.1 Rev. 2.0 dissolved
Run ID: A78337
Included Lab Sample IDs: 1920822, 1920823, 1920824

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.3	98.2	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A78339
Included Lab Sample IDs: 1920816, 1920817, 1920818

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

Reference Method: SM 2320 B-97
Run ID: A78427
Included Lab Sample IDs: 1920816, 1920817, 1920818

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

Reference Method: SM 4500 F-C-97
Run ID: A78427
Included Lab Sample IDs: 1920816, 1920817, 1920818

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	98.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00

Run ID: A78438

Included Lab Sample IDs: 1920819, 1920820, 1920821

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.3	99.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A78446

Included Lab Sample IDs: 1920819, 1920820

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.6	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A78450

Included Lab Sample IDs: 1920819, 1920820, 1920821

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A78451

Included Lab Sample IDs: 1920819, 1920820, 1920821

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	102	99.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A78455

Included Lab Sample IDs: 1920819, 1920820, 1920821

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	100	P/P	90 - 110
NO2NO3-N	99.5	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A78462

Included Lab Sample IDs: 1920821

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	102	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				7.63	
EPA 350.1 Rev. 2.0	Ammonia-N	99.1	106	102		4.41
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102	99.7	98.2		1.12

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104	100	99.1			0.766
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	106	108	106			0.602
	NO ₂ NO ₃ -N	106	108	108			0.926
EPA 365.1 Rev. 2.0	Total-P	96.9	87.9	90.0			2.36
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.7	93.2	96.9			3.89
SM 2320 B-97	Total Alkalinity	103				0.121	
SM 4500 F-C-97	Fluoride	95.6	98.5	96.2			1.48
SM 5310 B-00	Organic Carbon	101	98.5	101			1.79

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1920816, 1920817, 1920818
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1920819, 1920820, 1920821
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1920819, 1920820, 1920821
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1920819, 1920820, 1920821
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1920819, 1920820, 1920821
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1920822, 1920823, 1920824
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1920816, 1920817, 1920818
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1920816, 1920817, 1920818
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1920816, 1920817, 1920818
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1920819, 1920820, 1920821

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	08/10/2017			08/10/2017 16:33	DeAsia Armster	1920816, 1920817, 1920818
EPA 350.1 Rev. 2.0	08/10/2017			08/16/2017	Sofia Elnemr	1920819, 1920820, 1920821
EPA 351.2 Rev. 2.0	08/10/2017	08/15/2017	Adrian Shelby	08/16/2017	Joseph Suarez	1920819, 1920820
	08/10/2017	08/16/2017	Adrian Shelby	08/17/2017	Joseph Suarez	1920821
EPA 353.2 Rev. 2.0	08/10/2017			08/17/2017	Beverly Y. Sanders	1920819, 1920820, 1920821
EPA 365.1 Rev. 2.0	08/10/2017	08/15/2017	Sima Feizi	08/16/2017	Lipi Saha	1920819, 1920820, 1920821
EPA 365.1 Rev. 2.0 dissolved	08/10/2017			08/10/2017 15:49	Anthony C. Onicha	1920823
	08/10/2017			08/10/2017 15:51	Anthony C. Onicha	1920822
	08/10/2017			08/10/2017 15:52	Anthony C. Onicha	1920824
SM 2320 B-97	08/10/2017			08/16/2017	Dale L. Simmons	1920816, 1920817, 1920818
SM 2540 D-97	08/10/2017			08/11/2017	DeAsia Armster	1920816, 1920817
	08/10/2017			08/16/2017	Yijie Li	1920818
SM 4500 F-C-97	08/10/2017			08/15/2017	Dale L. Simmons	1920816, 1920817, 1920818
SM 5310 B-00	08/10/2017			08/16/2017	Sofia Elnemr	1920819, 1920820, 1920821