Chemical Analysis Report

WQAP-2017-05-31-01

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

Event Description: **RUN 1**
Request ID: **RQ-2017-05-29-20**
Customer: **WQAP**
Project ID: **SMP**

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Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator Date Certified: 14-JUN-2017 09:32

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: GOM NORTH **Collection Date/Time: 05/30/2017 10:40**

Field ID: G5SW0120 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1902479	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P326053	
	SM 2320 B-97	Total Alkalinity	163		mg CaCO3/L	P326144	
	SM 2540 D-97	TSS	3	I	mg/L	P326615	
	SM 4500 F-C-97	Fluoride	0.59		mg F/L	P326145	
1902483	EPA 350.1 Rev. 2.0	Ammonia-N	0.030		mg N/L	P326132	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.54		mg N/L	P326060	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.075		mg N/L	P326205	
	EPA 365.1 Rev. 2.0	Total-P	0.014		mg P/L	P326065	
	SM 5310 B-00	Organic Carbon	5.2		mg C/L	P326317	
1902487	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P326039	

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: GOM SE **Collection Date/Time: 05/30/2017 12:35**

Field ID: G5SW0061 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1902480	EPA 180.1 Rev. 2.0	Turbidity	1.5		NTU	P326053	
	SM 2320 B-97	Total Alkalinity	145		mg CaCO3/L	P326144	
	SM 2540 D-97	TSS	3	U	mg/L	P326615	
	SM 4500 F-C-97	Fluoride	1.1		mg F/L	P326145	
1902484	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P326132	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.60		mg N/L	P326060	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P326205	
	EPA 365.1 Rev. 2.0	Total-P	0.016		mg P/L	P326065	
	SM 5310 B-00	Organic Carbon	6.5		mg C/L	P326317	
1902488	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P326039	

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: PITH R **Collection Date/Time: 05/30/2017 12:00**

Field ID: G5SW0029 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1902481	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P326053	
	SM 2320 B-97	Total Alkalinity	146		mg CaCO3/L	P326144	
	SM 2540 D-97	TSS	3	U	mg/L	P326616	
	SM 4500 F-C-97	Fluoride	0.98		mg F/L	P326145	
1902485	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P326132	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.67		mg N/L	P326060	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P326205	
	EPA 365.1 Rev. 2.0	Total-P	0.025		mg P/L	P326065	
	SM 5310 B-00	Organic Carbon	6.4		mg C/L	P326317	
1902489	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P326039	

Field ID: G5SW0029 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.

Sample Location: ANCLOTE R BAYOU **Collection Date/Time: 05/30/2017 14:10**

Field ID: G5SW0078 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1902482	EPA 180.1 Rev. 2.0	Turbidity	2.8		NTU	P326053	
	SM 2320 B-97	Total Alkalinity	128		mg CaCO3/L	P326144	
	SM 2540 D-97	TSS	4	IA	mg/L	P326616	
	SM 4500 F-C-97	Fluoride	1.2		mg F/L	P326145	
1902486	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	I	mg N/L	P326132	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.57		mg N/L	P326060	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P326205	
	EPA 365.1 Rev. 2.0	Total-P	0.041		mg P/L	P326065	
	SM 5310 B-00	Organic Carbon	5.0		mg C/L	P326317	
1902490	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P326041	

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: P326053

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326132

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326060

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326205

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326065

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 dissolved
Batch ID: P326039

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326041

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

Reference Method: SM 2320 B-97
Batch ID: P326144

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

Reference Method: SM 2540 D-97
Batch ID: P326615

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P326616

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P326145

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P326317

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: P326132

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326060

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326060

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	97.8		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326205

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326065

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	96.7		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326039

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.2		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326041

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

Reference Method: SM 2320 B-97
Batch ID: P326144

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

Reference Method: SM 4500 F-C-97
Batch ID: P326145

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	93.2		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P326317

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.3		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326132

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

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326132

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1902273	Ammonia-N	109	110	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326060

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1902483	Kjeldahl Nitrogen	100	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326205

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1902485	NO2NO3-N	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326065

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1902484	Total-P	96.4	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326039

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1902334	O-Phosphate-P	98.1	97.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326041

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1902490	O-Phosphate-P	99.0	96.9	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P326145

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1902447	Fluoride	95.7	91.7	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P326317

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1902483	Organic Carbon	93.0	93.1	P/P	85 - 115

Quality Assurance Report
Precision

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P326053

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902448	Turbidity	2.05	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326132

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902273	Ammonia-N	0.437	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326060

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902483	Kjeldahl Nitrogen	1.64	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326205

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902485	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326065

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902484	Total-P	2.65	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326039

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902334	O-Phosphate-P	1.13	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326041

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902490	O-Phosphate-P	2.14	Spike	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P326144

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902447	Total Alkalinity	0.0426	Sample	P	0 - 4.8

Quality Assurance Report
Precision

Reference Method: SM 4500 F-C-97
Batch ID: P326145

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902447	Fluoride	2.90	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P326317

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1902483	Organic Carbon	0.0942	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: A76783
Included Lab Sample IDs: 1902487, 1902488, 1902489, 1902490

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

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A76787
Included Lab Sample IDs: 1902479, 1902480, 1902481, 1902482

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	101	102	P/P	95 - 105

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A76815
Included Lab Sample IDs: 1902483, 1902484, 1902485, 1902486

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

Reference Method: SM 2320 B-97
Run ID: A76819
Included Lab Sample IDs: 1902479, 1902480, 1902481, 1902482

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	104	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A76819
Included Lab Sample IDs: 1902479, 1902480, 1902481, 1902482

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	95.3	95.7	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: SM 4500 F-C-97
Run ID: A76819
Included Lab Sample IDs: 1902479, 1902480, 1902481, 1902482

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	95.7	95.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A76829
Included Lab Sample IDs: 1902483, 1902484, 1902485, 1902486

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	99.2	P/P	90 - 110
Total-P	99.2	99.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A76855
Included Lab Sample IDs: 1902483, 1902484, 1902485, 1902486

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A76870
Included Lab Sample IDs: 1902483, 1902484, 1902485, 1902486

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.8	99.5	P/P	90 - 110
Kjeldahl Nitrogen	99.2	101	P/P	90 - 110
Kjeldahl Nitrogen	99.5	99.2	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A76902
Included Lab Sample IDs: 1902483, 1902484, 1902485, 1902486

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.8	95.5	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		
					LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity					2.05	
EPA 350.1 Rev. 2.0	Ammonia-N	106	109	110			0.437
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.8	100	102			1.64
EPA 353.2 Rev. 2.0	NO2NO3-N	102	104	104			0.0
EPA 365.1 Rev. 2.0	Total-P	96.7	96.4	99.0			2.65
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.2	98.1	97.0			1.13
	O-Phosphate-P	98.3	99.0	96.9			2.14
SM 2320 B-97	Total Alkalinity	103				0.0426	

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
SM 4500 F-C-97	Fluoride	93.2	95.7	91.7			2.90
SM 5310 B-00	Organic Carbon	95.3	93.0	93.1			0.0942

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1902479, 1902480, 1902481, 1902482
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1902483, 1902484, 1902485, 1902486
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1902483, 1902484, 1902485, 1902486
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1902483, 1902484, 1902485, 1902486
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1902483, 1902484, 1902485, 1902486
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1902487, 1902488, 1902489, 1902490
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1902479, 1902480, 1902481, 1902482
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1902479, 1902480, 1902481, 1902482
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1902479, 1902480, 1902481, 1902482
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1902483, 1902484, 1902485, 1902486

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	05/31/2017			05/31/2017 17:24	Sima Feizi	1902479, 1902480, 1902481, 1902482
EPA 350.1 Rev. 2.0	05/31/2017			06/01/2017	Julie Michelle Frank	1902483, 1902484, 1902485, 1902486
EPA 351.2 Rev. 2.0	05/31/2017	06/01/2017	Adrian Shelby	06/05/2017	Joseph Suarez	1902483, 1902484, 1902485, 1902486
EPA 353.2 Rev. 2.0	05/31/2017			06/05/2017	Beverly Y. Sanders	1902483, 1902484, 1902485, 1902486
EPA 365.1 Rev. 2.0	05/31/2017	06/01/2017	Adrian Shelby	06/02/2017	Lipi Saha	1902483, 1902484, 1902485, 1902486
EPA 365.1 Rev. 2.0 dissolved	05/31/2017			05/31/2017 14:17	Lipi Saha	1902490
	05/31/2017			05/31/2017 14:29	Lipi Saha	1902487
	05/31/2017			05/31/2017 14:30	Lipi Saha	1902488, 1902489
SM 2320 B-97	05/31/2017			06/01/2017	Dale L. Simmons	1902479, 1902480, 1902481, 1902482
SM 2540 D-97	05/31/2017			06/02/2017	Yijie Li	1902479, 1902480, 1902481, 1902482
SM 4500 F-C-97	05/31/2017			06/01/2017	Dale L. Simmons	1902479, 1902480, 1902481, 1902482
SM 5310 B-00	05/31/2017			06/06/2017	Christopher Armour	1902483, 1902484, 1902485, 1902486