Chemical Analysis Report

SE-DIST-2017-10-18-01

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

Event Description: **SMP-Biscayne bay Run**
Request ID: **RQ-2017-09-18-18**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
Attn: Matthew Sewell

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Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator Date Certified: 07-NOV-2017 15:03

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: ATLANTIC OCEAN-CAESAR CREEK **Collection Date/Time: 10/17/2017 11:40**

Field ID: G4SE0104 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1937854	EPA 180.1 Rev. 2.0	Turbidity	0.85		NTU	P333629	
	SM 2320 B-97	Total Alkalinity	129		mg CaCO3/L	P334019	
	SM 2540 D-97	TSS	3	U	mg/L	P334334	
	SM 4500 F-C-97	Fluoride	1.2		mg F/L	P334022	
1937858	EPA 350.1 Rev. 2.0	Ammonia-N	0.018		mg N/L	P333965	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.31	I	mg N/L	P333974	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.025		mg N/L	P333771	
	EPA 365.1 Rev. 2.0	Total-P	0.010		mg P/L	P333882	
	SM 5310 B-00	Organic Carbon	2.7		mg C/L	P334350	
1937862	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P333659	

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: Batch relative percent difference is unavailable because of analytical difficulties.

Sample Location: ATLANTIC OCEAN-RED 4 **Collection Date/Time: 10/17/2017 12:00**

Field ID: G4SE0105 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1937855	EPA 180.1 Rev. 2.0	Turbidity	2.3		NTU	P333629	
	SM 2320 B-97	Total Alkalinity	135	A	mg CaCO3/L	P334019	
	SM 2540 D-97	TSS	3	I	mg/L	P334334	
	SM 4500 F-C-97	Fluoride	1.2		mg F/L	P334022	
1937859	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P333965	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.24	I	mg N/L	P333974	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P333771	
	EPA 365.1 Rev. 2.0	Total-P	0.007	I	mg P/L	P333882	
	SM 5310 B-00	Organic Carbon	2.0	I	mg C/L	P334350	
1937863	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P333659	

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: Batch relative percent difference is unavailable because of analytical difficulties.

Sample Location: ATLANTIC OCEAN-RED 2 **Collection Date/Time: 10/17/2017 12:20**

Field ID: G4SE0102 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1937856	EPA 180.1 Rev. 2.0	Turbidity	0.50		NTU	P333629	
	SM 2320 B-97	Total Alkalinity	126		mg CaCO3/L	P334019	
	SM 2540 D-97	TSS	3	I	mg/L	P334334	
	SM 4500 F-C-97	Fluoride	1.3		mg F/L	P334022	
1937860	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P333965	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.48		mg N/L	P334064	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P333771	
	EPA 365.1 Rev. 2.0	Total-P	0.006	I	mg P/L	P333882	
	SM 5310 B-00	Organic Carbon	1.7	I	mg C/L	P334350	

Field ID: G4SE0102 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1937864	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P333659	

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: ATLANTIC OCEAN-ANGELFISH/BROAD CREEK Collection Date/Time: 10/17/2017 12:50

Field ID: G4SE0103 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1937857	EPA 180.1 Rev. 2.0	Turbidity	1.0		NTU	P333629	
	SM 2320 B-97	Total Alkalinity	134		mg CaCO3/L	P334019	
	SM 2540 D-97	TSS	3	UA	mg/L	P334334	
	SM 4500 F-C-97	Fluoride	1.2		mg F/L	P334022	
1937861	EPA 350.1 Rev. 2.0	Ammonia-N	0.011		mg N/L	P333965	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.37	I	mg N/L	P334064	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.018		mg N/L	P333771	
	EPA 365.1 Rev. 2.0	Total-P	0.007	I	mg P/L	P333882	
	SM 5310 B-00	Organic Carbon	2.4		mg C/L	P334350	
1937865	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P333659	

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: P333629

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P333965

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P333974

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P334064

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P333771

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P333882

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P333659

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

Reference Method: SM 2320 B-97
Batch ID: P334019

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

Reference Method: SM 2540 D-97
Batch ID: P334334

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P334022

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P334350

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: P333965

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P333974

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: P333974

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: P334064

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P333771

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: P333882

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P333659

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

Reference Method: SM 2320 B-97
Batch ID: P334019

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

Reference Method: SM 4500 F-C-97
Batch ID: P334022

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.0		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P334350

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.6		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P333965

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: P333965

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1937858	Ammonia-N	103	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P333974

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1937115	Kjeldahl Nitrogen	98.5		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P334064

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1937972	Kjeldahl Nitrogen	92.9	96.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P333771

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1937858	NO2NO3-N	105	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P333882

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1937861	Total-P	96.6	95.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P333659

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1937862	O-Phosphate-P	94.2	98.9	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P334022

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1936842	Fluoride	96.7	98.1	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P334350

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1937858	Organic Carbon	94.6	95.4	P/P	85 - 115

Quality Assurance Report
Precision

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P333629

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1937786	Turbidity	3.92	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P333965

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1937858	Ammonia-N	1.06	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P334064

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1937972	Kjeldahl Nitrogen	2.89	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P333771

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1937858	NO2NO3-N	0.425	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P333882

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1937861	Total-P	1.75	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P333659

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1937862	O-Phosphate-P	4.87	Spike	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P334019

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1937855	Total Alkalinity	0.267	Sample	P	0 - 4.8

Reference Method: SM 4500 F-C-97
Batch ID: P334022

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1936842	Fluoride	0.986	Spike	P	0 - 3.0

Quality Assurance Report
Precision

Reference Method: SM 5310 B-00
Batch ID: P334350

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1937858	Organic Carbon	0.737	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 180.1 Rev. 2.0
Run ID: A79644
Included Lab Sample IDs: 1937854, 1937855, 1937856, 1937857

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A79656
Included Lab Sample IDs: 1937862, 1937863, 1937864, 1937865

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	96.9	P/P	90 - 110
O-Phosphate-P	96.9	99.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A79690
Included Lab Sample IDs: 1937858, 1937859, 1937860, 1937861

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A79772
Included Lab Sample IDs: 1937858, 1937859, 1937860, 1937861

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A79778
Included Lab Sample IDs: 1937858, 1937859, 1937860, 1937861

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	103	P/P	90 - 110
Total-P	103	102	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: SM 2320 B-97
Run ID: A79792
Included Lab Sample IDs: 1937854, 1937855, 1937856, 1937857

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

Reference Method: SM 4500 F-C-97
Run ID: A79792
Included Lab Sample IDs: 1937854, 1937855, 1937856, 1937857

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.1	98.6	P/P	90 - 110
Fluoride	98.6	98.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A79846
Included Lab Sample IDs: 1937858, 1937859

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.5	97.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A79896
Included Lab Sample IDs: 1937860, 1937861

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.1	95.9	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A79911
Included Lab Sample IDs: 1937858, 1937859, 1937860, 1937861

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.2	93.6	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					3.92	
EPA 350.1 Rev. 2.0	Ammonia-N	98.3	103	102			1.06
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100	98.5				
	Kjeldahl Nitrogen	106	92.9	96.0			2.89
EPA 353.2 Rev. 2.0	NO2NO3-N	104	105	105			0.425
EPA 365.1 Rev. 2.0	Total-P	97.8	96.6	95.0			1.75
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.1	94.2	98.9			4.87
SM 2320 B-97	Total Alkalinity	102				0.267	
SM 4500 F-C-97	Fluoride	96.0	96.7	98.1			0.986

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
SM 5310 B-00	Organic Carbon	97.6	94.6	95.4			0.737

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1937854, 1937855, 1937856, 1937857
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1937858, 1937859, 1937860, 1937861
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1937858, 1937859, 1937860, 1937861
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1937858, 1937859, 1937860, 1937861
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1937858, 1937859, 1937860, 1937861
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1937862, 1937863, 1937864, 1937865
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1937854, 1937855, 1937856, 1937857
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1937854, 1937855, 1937856, 1937857
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1937854, 1937855, 1937856, 1937857
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1937858, 1937859, 1937860, 1937861

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	10/18/2017			10/18/2017 16:16	DeAsia Armster	1937854, 1937855, 1937856, 1937857
EPA 350.1 Rev. 2.0	10/18/2017			10/24/2017	Sofia Elnemr	1937858, 1937859, 1937860, 1937861
EPA 351.2 Rev. 2.0	10/18/2017	10/25/2017	Adrian Shelby	10/26/2017	Tanya Welborn	1937858, 1937859
	10/18/2017	10/26/2017	Adrian Shelby	10/27/2017	Joseph Suarez	1937860, 1937861
EPA 353.2 Rev. 2.0	10/18/2017			10/20/2017	Beverly Y. Sanders	1937858, 1937859, 1937860, 1937861
EPA 365.1 Rev. 2.0	10/18/2017	10/23/2017	Sima Feizi	10/24/2017	Lipi Saha	1937858, 1937859, 1937860, 1937861
EPA 365.1 Rev. 2.0 dissolved	10/18/2017			10/18/2017 15:58	Megan Treadwell	1937862
	10/18/2017			10/18/2017 16:15	Megan Treadwell	1937863
	10/18/2017			10/18/2017 16:16	Megan Treadwell	1937864
	10/18/2017			10/18/2017 16:17	Megan Treadwell	1937865
SM 2320 B-97	10/18/2017			10/25/2017	Dale L. Simmons	1937854, 1937855, 1937856, 1937857
SM 2540 D-97	10/18/2017			10/20/2017	Yijie Li	1937854, 1937855, 1937856, 1937857
SM 4500 F-C-97	10/18/2017			10/24/2017	Dale L. Simmons	1937854, 1937855, 1937856
	10/18/2017			10/25/2017	Dale L. Simmons	1937857
SM 5310 B-00	10/18/2017			10/31/2017	Ping Hua	1937858, 1937859, 1937860, 1937861