Chemical Analysis Report

WQAP-2017-04-19-04

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

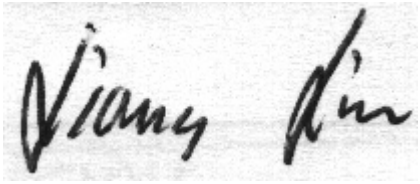
Event Description: **RUN 1**
Request ID: **RQ-2017-04-17-28**
Customer: **WQAP**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
13051 N. Telecom Parkway
Tampa, FL 33637
Attn: Judy Ashton

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Thekkekalathil Chandrasekhar, PhD, QA Officer
Phone (850) 245-8085

Certified by: Liang Lin, Environmental Administrator

Date Certified: 16-MAY-2017 10:26



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: 04/18/2017 10:45**

Field ID: G5SW0120 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1890133	EPA 180.1 Rev. 2.0	Turbidity	0.90		NTU	P323703	
	SM 2320 B-97	Total Alkalinity	166		mg CaCO3/L	P324295	
	SM 2540 D-97	TSS	4	I	mg/L	P324272	
	SM 4500 F-C-97	Fluoride	0.66		mg F/L	P325240	RPD
1890137	EPA 350.1 Rev. 2.0	Ammonia-N	0.037		mg N/L	P323772	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.52		mg N/L	P323954	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.063		mg N/L	P323813	
	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P323737	MS
	SM 5310 B-00	Organic Carbon	4.7		mg C/L	P323791	
1890141	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P323664	

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 **Collection Date/Time: 04/18/2017 12:00**

Field ID: G5SW0029 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1890134	EPA 180.1 Rev. 2.0	Turbidity	1.6	A	NTU	P323703	
	SM 2320 B-97	Total Alkalinity	167		mg CaCO3/L	P324295	
	SM 2540 D-97	TSS	3	U	mg/L	P324272	
	SM 4500 F-C-97	Fluoride	0.83		mg F/L	P325240	RPD
1890138	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P323772	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.65		mg N/L	P323954	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P323813	
	EPA 365.1 Rev. 2.0	Total-P	0.021		mg P/L	P323737	MS
	SM 5310 B-00	Organic Carbon	5.8		mg C/L	P323791	
1890142	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.007	I	mg P/L	P323664	

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: 04/18/2017 12:20**

Field ID: G5SW0061 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1890135	EPA 180.1 Rev. 2.0	Turbidity	0.60		NTU	P323703	
	SM 2320 B-97	Total Alkalinity	164		mg CaCO3/L	P324295	
	SM 2540 D-97	TSS	3	U	mg/L	P324272	
	SM 4500 F-C-97	Fluoride	0.91		mg F/L	P325240	RPD
1890139	EPA 350.1 Rev. 2.0	Ammonia-N	0.010		mg N/L	P323772	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.69		mg N/L	P323954	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P323813	
	EPA 365.1 Rev. 2.0	Total-P	0.094		mg P/L	P323837	
	SM 5310 B-00	Organic Carbon	5.9		mg C/L	P323791	
1890143	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P323664	

Field ID: G5SW0061 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 Complex **Collection Date/Time: 04/18/2017 13:40**

Field ID: G5SW0078 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1890136	EPA 180.1 Rev. 2.0	Turbidity	2.0		NTU	P323703	
	SM 2320 B-97	Total Alkalinity	137		mg CaCO3/L	P324295	
	SM 2540 D-97	TSS	4	IA	mg/L	P324272	
	SM 4500 F-C-97	Fluoride	1.1		mg F/L	P325242	
1890140	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P323772	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.61		mg N/L	P323954	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P323813	
	EPA 365.1 Rev. 2.0	Total-P	0.045		mg P/L	P323837	
	SM 5310 B-00	Organic Carbon	5.1		mg C/L	P323791	
1890144	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.005	I	mg P/L	P323664	

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: P323703

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P323772

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323954

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P323813

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323737

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: P323837

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323664

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

Reference Method: SM 2320 B-97
Batch ID: P324295

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

Reference Method: SM 2540 D-97
Batch ID: P324272

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P325240

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P325242

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P323791

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: P323772

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323954

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: P323954

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P323813

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323737

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	105		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323837

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	109		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323664

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.4		P	90 - 110

Reference Method: SM 2320 B-97
Batch ID: P324295

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P325240

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.7		P	92 - 103

Reference Method: SM 4500 F-C-97
Batch ID: P325242

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.8		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P323791

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: P323772

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890137	Ammonia-N	99.3	98.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323954

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890106	Kjeldahl Nitrogen	95.0	95.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P323813

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890106	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323737

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890105	Total-P	89.6	89.0	F/F	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323837

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890573	Total-P	106	109	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323664

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890141	O-Phosphate-P	98.7	99.3	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P325240

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1895713	Fluoride	92.5	98.8	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P325242

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890749	Fluoride	93.5	92.7	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P323791

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1890105	Organic Carbon	98.8	92.0	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P323703

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890134	Turbidity	18.0	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P323772

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890137	Ammonia-N	0.289	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323954

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890106	Kjeldahl Nitrogen	0.402	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P323813

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890106	NO2NO3-N	0.491	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323737

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890105	Total-P	0.671	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323837

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890573	Total-P	2.82	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323664

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890141	O-Phosphate-P	0.606	Spike	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P324295

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890749	Total Alkalinity	0.247	Sample	P	0 - 4.8

Quality Assurance Report
Precision

Reference Method: SM 4500 F-C-97
Batch ID: P325240

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1895713	Fluoride	3.84	Spike	F	0 - 3.0

Reference Method: SM 4500 F-C-97
Batch ID: P325242

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890749	Fluoride	0.470	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P323791

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1890105	Organic Carbon	6.36	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: A75883
Included Lab Sample IDs: 1890141, 1890142, 1890143, 1890144

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.9	98.1	P/P	90 - 110
O-Phosphate-P	98.9	97.8	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A75900
Included Lab Sample IDs: 1890133, 1890134, 1890135, 1890136

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	100	P/P	95 - 105

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A75919
Included Lab Sample IDs: 1890137, 1890138, 1890139, 1890140

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

Reference Method: SM 5310 B-00
Run ID: A75924
Included Lab Sample IDs: 1890137, 1890138, 1890139, 1890140

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

Quality Assurance Report
Calibration Verification

Reference Method: SM 5310 B-00
Run ID: A75924
Included Lab Sample IDs: 1890137, 1890138, 1890139, 1890140

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.6	94.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A75926
Included Lab Sample IDs: 1890137, 1890138, 1890139, 1890140

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A75932
Included Lab Sample IDs: 1890137, 1890138

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A75967
Included Lab Sample IDs: 1890139, 1890140

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A75996
Included Lab Sample IDs: 1890137, 1890138, 1890139, 1890140

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

Reference Method: SM 2320 B-97
Run ID: A76086
Included Lab Sample IDs: 1890133, 1890134, 1890135, 1890136

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	104	P/P	90 - 110
Total Alkalinity	103	102	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A76396
Included Lab Sample IDs: 1890133, 1890134, 1890135, 1890136

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	101	P/P	90 - 110
Fluoride	96.4	100	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					18.0	
EPA 350.1 Rev. 2.0	Ammonia-N	100	99.3	98.8			0.289
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	95.0	95.4			0.402
EPA 353.2 Rev. 2.0	NO2NO3-N	100	102	102			0.491
EPA 365.1 Rev. 2.0	Total-P	105	89.6	89.0			0.671
	Total-P	109	106	109			2.82
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.4	98.7	99.3			0.606
SM 2320 B-97	Total Alkalinity	104				0.247	
SM 4500 F-C-97	Fluoride	95.7	92.5	98.8			3.84
	Fluoride	99.8	93.5	92.7			0.470
SM 5310 B-00	Organic Carbon	101	98.8	92.0			6.36

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1890133, 1890134, 1890135, 1890136
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1890137, 1890138, 1890139, 1890140
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1890137, 1890138, 1890139, 1890140
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1890137, 1890138, 1890139, 1890140
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1890137, 1890138, 1890139, 1890140
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1890141, 1890142, 1890143, 1890144
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1890133, 1890134, 1890135, 1890136
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1890133, 1890134, 1890135, 1890136
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1890133, 1890134, 1890135, 1890136
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1890137, 1890138, 1890139, 1890140

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	04/19/2017			04/19/2017 16:06	Sima Feizi	1890133, 1890134, 1890135, 1890136
EPA 350.1 Rev. 2.0	04/19/2017			04/20/2017	Julie Michelle Frank	1890137, 1890138, 1890139, 1890140
EPA 351.2 Rev. 2.0	04/19/2017	04/25/2017	Adrian Shelby	04/26/2017	Joseph Suarez	1890137, 1890138, 1890139, 1890140
EPA 353.2 Rev. 2.0	04/19/2017			04/21/2017	Beverly Y. Sanders	1890137, 1890138, 1890139, 1890140
EPA 365.1 Rev. 2.0	04/19/2017	04/20/2017	Adrian Shelby	04/21/2017	Lipi Saha	1890137, 1890138
	04/19/2017	04/21/2017	Vijayalakshmi Reddy	04/24/2017	Lipi Saha	1890139, 1890140
EPA 365.1 Rev. 2.0 dissolved	04/19/2017			04/19/2017 14:10	Anthony C. Onicha	1890141
	04/19/2017			04/19/2017 14:40	Anthony C. Onicha	1890142
	04/19/2017			04/19/2017 14:41	Anthony C. Onicha	1890143, 1890144
SM 2320 B-97	04/19/2017			04/29/2017	Dale L. Simmons	1890133, 1890134, 1890135, 1890136
SM 2540 D-97	04/19/2017			04/21/2017	Yijie Li	1890133, 1890134, 1890135, 1890136
SM 4500 F-C-97	04/19/2017			05/13/2017	Dale L. Simmons	1890133, 1890134, 1890135, 1890136
SM 5310 B-00	04/19/2017			04/20/2017	Julie Michelle Frank	1890137, 1890138, 1890139, 1890140