

Chemical Analysis Report

CEN-DIST-2016-08-10-01

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

Event Description: **Banana River**
Request ID: **RQ-2016-08-08-42**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767
Attn: Mike Linger

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

Certified by: Colin Wright, Environmental Administrator

Date Certified: 07-SEP-2016 10:30

A handwritten signature in black ink, appearing to read "Colin Wright", is written on a light-colored 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 groups are included in this report: Metals and 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: Banana River Equidistant from SR 528 and SR 520 **Collection Date/Time: 08/09/2016 09:47**

Field ID: G5CE0057

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1822845	EPA 180.1 Rev. 2.0	Turbidity	7.3		NTU	P309511	
	SM 2320 B-97	Total Alkalinity	114	A	mg CaCO3/L	P309625	
	SM 2540 D-97	TSS	17	A	mg/L	P310001	
	SM 4500 F-C-97	Fluoride	1.2		mg F/L	P309628	
1822846	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P309583	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.0	J	mg N/L	P309782	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P309919	
	EPA 365.1 Rev. 2.0	Total-P	0.059		mg P/L	P309728	
	SM 5310 B-00	Organic Carbon	16		mg C/L	P310031	
1822847	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P309521	
1822860	EPA 200.7 Rev. 4.4	Iron	90	U	ug/L	P309828	
	EPA 200.8 Rev. 5.4	Arsenic	5.03		ug/L	P309828	
		Cadmium	0.060	U	ug/L	P309828	
		Chromium	0.15	U	ug/L	P309828	
		Copper	0.34	I	ug/L	P309828	
		Lead	0.18	I	ug/L	P309828	
		Nickel	0.34	I	ug/L	P309828	
		Silver	0.015	U	ug/L	P309828	
		Zinc	3.0	U	ug/L	P309828	

Ref. Method and Comment:

EPA 351.2 Rev. 2.0: Refer to the narrative for an explanation of QC Codes.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P309511

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P309828

Component	Result	Code	Units
Iron	30	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P309828

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.050	U	ug/L
Copper	0.10	U	ug/L
Lead	0.050	U	ug/L
Nickel	0.050	U	ug/L
Silver	0.0050	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P309828

Component	Result	Code	Units
Zinc	1.0	U	ug/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P309583

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P309782

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P309919

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P309728

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P309521

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

Reference Method: SM 2320 B-97
Batch ID: P309625

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

Reference Method: SM 2540 D-97
Batch ID: P310001

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P309628

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report Method Blank Results

Reference Method: SM 5310 B-00
Batch ID: P310031

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P309828

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	103		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P309828

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	95.3		P	85 - 115
Cadmium	92.7		P	85 - 115
Chromium	93.2		P	85 - 115
Copper	90.9		P	85 - 115
Lead	93.2		P	85 - 115
Nickel	92.2		P	85 - 115
Silver	94.0		P	85 - 115
Zinc	91.8		P	85 - 115

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P309583

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: P309782

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P309919

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: P309728

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P309521

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

Reference Method: SM 2320 B-97
Batch ID: P309625

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

Reference Method: SM 4500 F-C-97
Batch ID: P309628

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

Reference Method: SM 5310 B-00
Batch ID: P310031

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	105		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P309828

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1823967	Iron	106	106	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P309828

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1823967	Arsenic	99.4	99.9	P/P	70 - 130
1823967	Cadmium	91.0	89.5	P/P	70 - 130
1823967	Chromium	85.4	86.7	P/P	70 - 130
1823967	Copper	88.5	89.9	P/P	70 - 130
1823967	Lead	98.9	98.3	P/P	70 - 130
1823967	Nickel	90.0	90.5	P/P	70 - 130
1823967	Silver	90.0	89.3	P/P	70 - 130
1823967	Zinc	86.6	86.8	P/P	70 - 130

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P309583

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1822846	Ammonia-N	104	105	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P309782

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1822846	Kjeldahl Nitrogen	86.6	102	F/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P309919

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1822846	NO2NO3-N	104	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P309728

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1822890	Total-P	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P309521

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1822879	O-Phosphate-P	99.3	100	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P309628

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1822845	Fluoride	94.7	95.5	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P310031

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1821811	Organic Carbon	91.6	99.8	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P309511

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1822772	Turbidity	1.37	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P309828

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1823967	Iron	0.109	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P309828

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1823967	Arsenic	0.480	Spike	P	0 - 20
1823967	Cadmium	1.63	Spike	P	0 - 20
1823967	Chromium	1.43	Spike	P	0 - 20
1823967	Copper	1.35	Spike	P	0 - 20
1823967	Lead	0.579	Spike	P	0 - 20
1823967	Nickel	0.514	Spike	P	0 - 20
1823967	Silver	0.784	Spike	P	0 - 20
1823967	Zinc	0.206	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P309583

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1822846	Ammonia-N	1.02	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P309782

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1822846	Kjeldahl Nitrogen	8.66	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P309919

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1822846	NO2NO3-N	1.45	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P309728

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1822890	Total-P	0.209	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P309521

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1822879	O-Phosphate-P	0.714	Spike	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P309625

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1822845	Total Alkalinity	0.0704	Sample	P	0 - 4.8

Quality Assurance Report Precision

Reference Method: SM 2540 D-97
Batch ID: P310001

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1822845	TSS	4.76	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P309628

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1822845	Fluoride	0.463	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P310031

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1821811	Organic Carbon	6.60	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: A71054
Included Lab Sample IDs: 1822845

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A71057
Included Lab Sample IDs: 1822847

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	99.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A71080
Included Lab Sample IDs: 1822846

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

Reference Method: SM 2320 B-97
Run ID: A71090
Included Lab Sample IDs: 1822845

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	103	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-97
 Run ID: A71090
 Included Lab Sample IDs: 1822845

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

Reference Method: EPA 365.1 Rev. 2.0
 Run ID: A71187
 Included Lab Sample IDs: 1822846

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

Reference Method: EPA 351.2 Rev. 2.0
 Run ID: A71192
 Included Lab Sample IDs: 1822846

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	99.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Run ID: A71195
 Included Lab Sample IDs: 1822846

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	102	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
 Run ID: A71215
 Included Lab Sample IDs: 1822860

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

Reference Method: SM 5310 B-00
 Run ID: A71232
 Included Lab Sample IDs: 1822846

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

Reference Method: EPA 200.8 Rev. 5.4
 Run ID: A71245
 Included Lab Sample IDs: 1822860

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	95.4	95.5	P/P	90 - 110
Cadmium	94.3	92.8	P/P	90 - 110
Copper	94.8	95.7	P/P	90 - 110
Lead	93.8	93.6	P/P	90 - 110
Nickel	94.1	95.8	P/P	90 - 110
Silver	95.5	94.3	P/P	90 - 110
Zinc	95.1	96.4	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A71266

Included Lab Sample IDs: 1822860

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	93.5	91.4	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				1.37	
EPA 200.7 Rev. 4.4	Iron	103	106 106			0.109
EPA 200.8 Rev. 5.4	Arsenic	95.3	99.4 99.9			0.480
	Cadmium	92.7	91.0 89.5			1.63
	Chromium	93.2	85.4 86.7			1.43
	Copper	90.9	88.5 89.9			1.35
	Lead	93.2	98.9 98.3			0.579
	Nickel	92.2	90.0 90.5			0.514
	Silver	94.0	90.0 89.3			0.784
	Zinc	91.8	86.6 86.8			0.206
EPA 350.1 Rev. 2.0	Ammonia-N	101	104 105			1.02
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105	86.6 102			8.66
EPA 353.2 Rev. 2.0	NO2NO3-N	102	104 102			1.45
EPA 365.1 Rev. 2.0	Total-P	101	104 104			0.209
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	106	99.3 100			0.714
SM 2320 B-97	Total Alkalinity	103			0.0704	
SM 2540 D-97	TSS				4.76	
SM 4500 F-C-97	Fluoride	99.8	94.7 95.5			0.463
SM 5310 B-00	Organic Carbon	105	91.6 99.8			6.60

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1822845
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1822860
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1822860
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1822846
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1822846
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1822846
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1822846
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1822847
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1822845

Reference Method Descriptions

Method / DoH Cert #	Description	<u>Associated Samples</u>
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1822845
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1822845
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1822846

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	08/10/2016			08/10/2016 14:56	Sima Feizi	1822845
EPA 200.7 Rev. 4.4	08/10/2016	08/16/2016	Elliott D. Healy	08/18/2016	Joshua Ayres	1822860
EPA 200.8 Rev. 5.4	08/10/2016	08/16/2016	Elliott D. Healy	08/19/2016	Charles J. Peterson	1822860
	08/10/2016	08/16/2016	Elliott D. Healy	08/22/2016	Charles J. Peterson	1822860
EPA 350.1 Rev. 2.0	08/10/2016			08/11/2016	Julie Michelle Frank	1822846
EPA 351.2 Rev. 2.0	08/10/2016	08/16/2016	Sofia Elnemr	08/17/2016	Christopher Armour	1822846
EPA 353.2 Rev. 2.0	08/10/2016			08/17/2016	Beverly Y. Sanders	1822846
EPA 365.1 Rev. 2.0	08/10/2016	08/15/2016	Vijayalakshmi Reddy	08/17/2016	Lipi Saha	1822846
EPA 365.1 Rev. 2.0 dissolved	08/10/2016			08/10/2016 16:26	Julia Storbeck	1822847
SM 2320 B-97	08/10/2016			08/12/2016	Dale L. Simmons	1822845
SM 2540 D-97	08/10/2016			08/11/2016	Yijie Li	1822845
SM 4500 F-C-97	08/10/2016			08/12/2016	Dale L. Simmons	1822845
SM 5310 B-00	08/10/2016			08/19/2016	Sofia Elnemr	1822846