

Chemical Analysis Report

WQAP-2017-05-23-05

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

Event Description: **SMP 2016 Freshwater Kit A**
Request ID: **RQ-2017-05-08-45**
Customer: **WQAP**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd
MS #3560
Tallahassee, FL 32399-2400
Attn: Michael Eckles

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Certified by: Colin Wright, Program Administrator

Date Certified: 16-JUN-2017 13:03

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed 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: Eightmile Creek @ Jones Rd

Collection Date/Time: 05/23/2017 13:00

Field ID: G1TLHR0012-2017-02

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1900970	EPA 180.1 Rev. 2.0	Turbidity	12	A	NTU	P325791	
	EPA 300.0 Rev. 2.1	Chloride	13		mg Cl/L	P326773	MS
	SM 2120 B	Color (true)	100		PCU	P325781	
	SM 2320 B-97	Total Alkalinity	327		mg CaCO3/L	P325952	
	SM 2540 C-97	TDS	396		mg/L	P326091	
	SM 2540 D-97	TSS	6	I	mg/L	P326267	
	SM 4500 F-C-97	Fluoride	0.16		mg F/L	P325955	RPD
1900972	EPA 350.1 Rev. 2.0	Ammonia-N	0.15		mg N/L	P325916	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.79		mg N/L	P325798	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.005	I	mg N/L	P325885	
	EPA 365.1 Rev. 2.0	Total-P	0.084		mg P/L	P325802	
	SM 5310 B-00	Organic Carbon	20		mg C/L	P326023	
1900974	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.019		mg P/L	P325775	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Chloride: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Steinhatchee Spring @ SE Wolf Rd

Collection Date/Time: 05/23/2017 13:40

Field ID: G1TLHR0066-2017-02

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1900971	EPA 180.1 Rev. 2.0	Turbidity	4.6		NTU	P325791	
	EPA 300.0 Rev. 2.1	Chloride	9.4		mg Cl/L	P326709	
	SM 2120 B	Color (true)	120		PCU	P325781	
	SM 2320 B-97	Total Alkalinity	253		mg CaCO3/L	P325952	
	SM 2540 C-97	TDS	403		mg/L	P326091	
	SM 2540 D-97	TSS	3	I	mg/L	P326267	
	SM 4500 F-C-97	Fluoride	0.26		mg F/L	P325955	RPD
1900973	EPA 350.1 Rev. 2.0	Ammonia-N	0.099		mg N/L	P325916	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.82		mg N/L	P325798	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.11		mg N/L	P325885	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P325802	
	SM 5310 B-00	Organic Carbon	19		mg C/L	P326023	
1900975	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.089		mg P/L	P325775	

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: P325791

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326709

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326773

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P325916

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P325798

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P325885

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P325802

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P325775

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

Reference Method: SM 2120 B
Batch ID: P325781

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P325952

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

Quality Assurance Report Method Blank Results

Reference Method: SM 2540 C-97
Batch ID: P326091

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P326267

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P325955

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P326023

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326709

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	93.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326773

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	107		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P325916

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.8		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P325798

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	97.0		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P325885

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: P325885

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	101		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P325802

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	108		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P325775

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.2		P	90 - 110

Reference Method: SM 2320 B-97
Batch ID: P325952

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

Reference Method: SM 4500 F-C-97
Batch ID: P325955

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	92.5		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P326023

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	90.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326709

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1899321	Chloride	95.6		P	90 - 110
1901124	Chloride	94.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326773

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901061	Chloride	110		F	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P325916

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1900981	Ammonia-N	96.8	96.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P325798

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1900919	Kjeldahl Nitrogen	93.5	94.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P325885

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1900973	NO2NO3-N	99.0	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P325802

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1900921	Total-P	104	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P325775

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901066	O-Phosphate-P	97.2	97.9	P/P	90 - 110

Reference Method: SM 4500 F-C-97
 Batch ID: P325955

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901062	Fluoride	94.4	98.9	P/P	91 - 105

Reference Method: SM 5310 B-00
 Batch ID: P326023

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1899373	Organic Carbon	89.4	95.9	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P325791

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1900970	Turbidity	1.65	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326709

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1899321	Chloride	2.12	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326773

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901061	Chloride	0.161	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P325916

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1900981	Ammonia-N	0.253	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P325798

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1900919	Kjeldahl Nitrogen	0.651	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P325885

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1900973	NO2NO3-N	0.654	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P325802

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1900921	Total-P	3.40	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P325775

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901066	O-Phosphate-P	0.671	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P325781

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901062	Color (true)	1.27	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2320 B-97
Batch ID: P325952

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901062	Total Alkalinity	0.393	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P326091

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1900958	TDS	4.72	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P325955

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901062	Fluoride	3.89	Spike	F	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P326023

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1899373	Organic Carbon	5.81	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: A76655
Included Lab Sample IDs: 1900974, 1900975

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	99.1	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A76656
Included Lab Sample IDs: 1900970, 1900971

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	95.5	101	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A76659
Included Lab Sample IDs: 1900970, 1900971

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A76697

Included Lab Sample IDs: 1900972, 1900973

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	95.5	94.0	P/P	90 - 110
NO2NO3-N	98.5	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A76700

Included Lab Sample IDs: 1900972, 1900973

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	105	106	P/P	90 - 110
Total-P	106	105	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A76718

Included Lab Sample IDs: 1900972, 1900973

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.8	99.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A76727

Included Lab Sample IDs: 1900972, 1900973

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	105	103	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A76730

Included Lab Sample IDs: 1900970, 1900971

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

Reference Method: SM 4500 F-C-97

Run ID: A76730

Included Lab Sample IDs: 1900970, 1900971

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	93.9	101	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A76775

Included Lab Sample IDs: 1900972, 1900973

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	90.8	95.2	P/P	90 - 110
Organic Carbon	95.2	91.4	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A77052

Included Lab Sample IDs: 1900971

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	97.2	91.6	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A77076

Included Lab Sample IDs: 1900970

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.4	98.6	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	LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity				1.65	
EPA 300.0 Rev. 2.1	Chloride	93.1	95.6 94.3		2.12	
	Chloride	107	110		0.161	
EPA 350.1 Rev. 2.0	Ammonia-N	96.8	96.8 96.5			0.253
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.0	93.5 94.3			0.651
EPA 353.2 Rev. 2.0	NO2NO3-N	101	99.0 100			0.654
EPA 365.1 Rev. 2.0	Total-P	108	104 100			3.40
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.2	97.2 97.9			0.671
SM 2120 B	Color (true)				1.27	
SM 2320 B-97	Total Alkalinity	103			0.393	
SM 2540 C-97	TDS				4.72	
SM 4500 F-C-97	Fluoride	92.5	94.4 98.9			3.89
SM 5310 B-00	Organic Carbon	90.6	89.4 95.9			5.81

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1900970, 1900971
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1900970, 1900971
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1900972, 1900973
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1900972, 1900973
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1900972, 1900973
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1900972, 1900973
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1900974, 1900975
SM 2120 B / E31780	True Color measured at 450 nm	1900970, 1900971
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1900970, 1900971

Reference Method Descriptions

Method / DoH Cert #	Description	<u>Associated Samples</u>
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1900970, 1900971
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1900970, 1900971
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1900970, 1900971
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1900972, 1900973

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	05/23/2017			05/24/2017 16:45	Sima Feizi	1900970, 1900971
EPA 300.0 Rev. 2.1	05/23/2017			06/09/2017	Julia Storbeck	1900971
	05/23/2017			06/13/2017	Julia Storbeck	1900970
EPA 350.1 Rev. 2.0	05/23/2017			05/26/2017	Julia Storbeck	1900972, 1900973
EPA 351.2 Rev. 2.0	05/23/2017	05/25/2017	Adrian Shelby	05/26/2017	Joseph Suarez	1900972, 1900973
EPA 353.2 Rev. 2.0	05/23/2017			05/26/2017	Beverly Y. Sanders	1900972, 1900973
EPA 365.1 Rev. 2.0	05/23/2017	05/25/2017	Adrian Shelby	05/26/2017	Lipi Saha	1900972, 1900973
EPA 365.1 Rev. 2.0 dissolved	05/23/2017			05/24/2017 15:08	Julia Storbeck	1900974
	05/23/2017			05/24/2017 15:09	Julia Storbeck	1900975
SM 2120 B	05/23/2017			05/24/2017 15:02	Tanya Welborn	1900970, 1900971
SM 2320 B-97	05/23/2017			05/26/2017	Dale L. Simmons	1900970, 1900971
SM 2540 C-97	05/23/2017			05/26/2017	Yijie Li	1900970, 1900971
SM 2540 D-97	05/23/2017			05/26/2017	Yijie Li	1900970, 1900971
SM 4500 F-C-97	05/23/2017			05/26/2017	Dale L. Simmons	1900970, 1900971
SM 5310 B-00	05/23/2017			05/31/2017	Julie Michelle Frank	1900972, 1900973