

Chemical Analysis Report

WTRSHD-MGT-2012-07-12-01

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

Event Description: **Wakulla Storm-Event Sampling**

Request ID: **RQ-2012-07-02-22**

Customer: **WTRSHD-MGT**

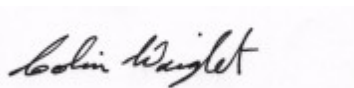
Project ID: **STORM-EVNT**

Send Reports to:
FDEP Ground Water Management Section
2600 Blair Stone Road
Tallahassee, FL 32399-2400
Attn: Gary Maddox

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

Certified by: Colin Wright, Environmental Administrator

Date Certified: 30-JUL-2012 09:39

A handwritten signature in black ink, appearing to read "Colin Wright", is written over a light blue rectangular background.

Abbreviations and data remark codes

CERT # - NELAP (National Environmental Laboratory Accreditation Program) Certification Number of the laboratory that performed the analysis.

LCS - Laboratory Control Sample; in the QC Failures column, this notation indicates a batch recovery failure.

MS - Matrix Spike; in the QC Failures column, this notation indicates a batch recovery failure.

RPD - Relative Percent Difference; in the QC Failures column, this notation indicates a batch failure for precision.

CCV - Continuing Calibration Verification; in the QC Failures column, this notation indicates a failure of the calibration verification check sample.

SUR - Surrogate; in the QC Failures column, this notation indicates a recovery failure for the associated surrogate.

RSD - Relative Standard Deviation expressed as a percentage.

SMP - Sample.

** - The laboratory is not NELAP certified for this analyte/method, or certification is not applicable.

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

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).

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.

Precision is reported as relative percent difference unless otherwise noted.

Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published test performance acceptance criteria.

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.

All sample collection performed by Bureau of Laboratories staff followed the field Standard Operating Procedures adopted by reference in Rule 62-160 FAC unless otherwise noted.

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.

Results for NELAP accredited tests contained in this report meet the requirements specified by the National Environmental Laboratory Accreditation Conference (NELAC). All samples received were in acceptable condition and met NELAC requirements unless otherwise noted. Results generated in this report pertain to the samples collected and submitted for analysis.

Job: TLH-2012-07-12-22

Group: Nutrients

Job: TLH-2012-07-12-23

Group: Metals

Job: TLH-2012-07-12-24

Group: Pesticides

Sample Location: 67**Collection Date/Time: 07/12/2012 09:45 AM****Field ID: WAKULLA SPRING****Matrix: W-OTHER**

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1440842	EPA 180.1 Rev. 2.0	Turbidity	0.45		NTU	P241917	
	EPA 300.0 Rev. 2.1	Chloride	8.2		mg Cl/L	P242264	
		Sulfate	10		mg SO4/L	P242265	
	SM 2120 B	Color (true)	25		PCU	P241891	
	SM 2320 B-97	Alkalinity	140		mg CaCO3/L	P242342	
	SM 2540 C-97	TDS	183		mg/L	P242228	
1440843	EPA 350.1 Rev. 2.0	Ammonia-N	0.010	U	mg N/L	P242027	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.10	I	mg N/L	P242085	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.49		mg N/L	P242099	
	EPA 365.1 Rev. 2.0	Total-P	0.030		mg P/L	P242106	
	SM 5310 B-00	Organic Carbon	2.7	I	mg C/L	P242246	
1440844	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.028		mg P/L	P241946	
1440845	EPA 200.7 Rev. 4.4	Calcium	46.5		mg/L	P242191	
		Magnesium	9.88		mg/L	P242191	
		Potassium	0.45	I	mg/L	P242191	
		Sodium	5.4		mg/L	P242191	
	EPA 200.8 Rev. 5.4	Boron**	16.2		ug/L	P242069	
1440846	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.030	I	ug/L	P241966	

Ref. Method and Comment:

EPA 200.7 Rev. 4.4: One of the magnesium matrix spike recoveries is unavailable due to high analyte concentration in the QC sample.

DEP SOP: LC-001-2 (based on EPA 8321B): Sucralose result confirmed in re-extraction.

Quality Assurance Report

Method Blank Results

Reference Method: DEP SOP: LC-001-2 (based on EPA 8321B)**Batch ID: P241966**

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 180.1 Rev. 2.0**Batch ID: P241917**

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4**Batch ID: P242191**

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P242069

Component	Result	Code	Units
Boron	2.0	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P242264

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P242265

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P242027

Component	Result	Code	Units
Ammonia-N	0.010	U	mg N/L

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P242085

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P242099

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P242106

Component	Result	Code	Units
Total-P	0.004	U	mg P/L

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P241946

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

Reference Method: SM 2120 B

Batch ID: P241891

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report Method Blank Results

Reference Method: SM 2320 B-97

Batch ID: P242342

Component	Result	Code	Units
Alkalinity	0.65	U	mg CaCO3/L

Reference Method: SM 2540 C-97

Batch ID: P242228

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 5310 B-00

Batch ID: P242246

Component	Result	Code	Units
Organic Carbon	1.0	U	mg C/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: DEP SOP: LC-001-2 (based on EPA 8321B)

Batch ID: P241966

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	73.6	75.6	P/P	40 - 130

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P242191

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	101		P	85 - 115
Magnesium	104		P	85 - 115
Potassium	103		P	85 - 115
Sodium	99.3		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P242069

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Boron	103		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P242264

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

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P242265

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	96.9		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P242027

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P242085

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P242099

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	103		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P242106

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P241946

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: P242342

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Alkalinity	98.2		P	85 - 115

Reference Method: SM 5310 B-00

Batch ID: P242246

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.1		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: DEP SOP: LC-001-2 (based on EPA 8321B)

Batch ID: P241966

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1440519	Sucralose	52.0	47.6	P/P	40 - 130

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P242191

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

Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P242191

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1440819	Calcium	102		P	80 - 120
1440819	Potassium	104		P	80 - 120
1440819	Sodium	99.8		P	80 - 120
1440946	Calcium	102		P	80 - 120
1440946	Magnesium	104		P	80 - 120
1440946	Potassium	103		P	80 - 120
1440946	Sodium	98.7		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P242069

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1440946	Boron	94.9		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P242264

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1440915	Chloride	98.4		P	90 - 110
1440933	Chloride	98.5	99.4	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P242265

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1440915	Sulfate	94.7		P	90 - 110
1440933	Sulfate	92.3	94.3	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P242027

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1440803	Ammonia-N	94.6	99.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P242085

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1440837	Kjeldahl Nitrogen	98.1	98.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P242099

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1440877	NO2NO3-N	105		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P242106

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1440836	Total-P	104	106	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P241946

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1440838	O-Phosphate-P	94.8	98.8	P/P	90 - 110

Reference Method: SM 5310 B-00

Batch ID: P242246

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1440803	Organic Carbon	97.8	97.4	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: LC-001-2 (based on EPA 8321B)

Batch ID: P241966

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1440519	Sucralose	8.84	Spike	P	0 - 30
LFB	Sucralose	2.68	LCS	P	0 - 30

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P241917

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1440802	Turbidity	7.59	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P242191

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1440819	Calcium	2.58	Sample	P	0 - 20
1440819	Magnesium	0.525	Sample	P	0 - 20
1440819	Potassium	0.215	Sample	P	0 - 20
1440819	Sodium	1.78	Sample	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P242069

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1440819	Boron	3.52	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P242264

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1440933	Chloride	0.676	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P242265

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1440933	Sulfate	1.04	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P242027

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1440803	Ammonia-N	4.34	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P242085

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1440837	Kjeldahl Nitrogen	0.264	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P242099

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1440877	NO2NO3-N	1.44	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P242106

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1440836	Total-P	1.12	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P241946

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1440838	O-Phosphate-P	2.91	Spike	P	0 - 20

Reference Method: SM 2120 B

Batch ID: P241891

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1440802	Color (true)	1.95	Sample	P	0 - 20

Reference Method: SM 2320 B-97

Batch ID: P242342

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1441104	Alkalinity	0.336	Sample	P	0 - 20
1441171	Alkalinity	0.0779	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2540 C-97

Batch ID: P242228

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1440697	TDS	0.619	Sample	P	0 - 10

Reference Method: SM 5310 B-00

Batch ID: P242246

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1440803	Organic Carbon	0.243	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 Surrogates

Lab Sample ID: 1440846

Field Sample ID: WAKULLA SPRING

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	60.1	P	40 - 150

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A46024

Included Lab Sample IDs: 1440842

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	100	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A46028

Included Lab Sample IDs: 1440842

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

Reference Method: DEP SOP: LC-001-2 (based on EPA 8321B)

Run ID: A46029

Included Lab Sample IDs: 1440846

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	120	99.6	P/P	70 - 140

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A46037

Included Lab Sample IDs: 1440844

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A46037

Included Lab Sample IDs: 1440844

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.1	93.7	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A46064

Included Lab Sample IDs: 1440843

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A46076

Included Lab Sample IDs: 1440845

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Boron	101	97.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A46086

Included Lab Sample IDs: 1440843

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	105	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A46090

Included Lab Sample IDs: 1440843

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A46093

Included Lab Sample IDs: 1440843

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.5	96.6	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A46131

Included Lab Sample IDs: 1440845

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	101	P/P	90 - 110
Magnesium	103	104	P/P	90 - 110
Potassium	100	100	P/P	90 - 110
Sodium	98.5	98.0	P/P	90 - 110

Quality Assurance Report

Calibration Verification

Reference Method: SM 5310 B-00

Run ID: A46154

Included Lab Sample IDs: 1440843

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.2	97.1	P/P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A46164

Included Lab Sample IDs: 1440842

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	101	P/P	90 - 110
Sulfate	99.6	97.6	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A46196

Included Lab Sample IDs: 1440842

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Alkalinity	97.3	99.4	P/P	85 - 115

* 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
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose	73.6	75.6	52.0	47.6	2.68		8.84
EPA 180.1 Rev. 2.0	Turbidity						7.59	
EPA 200.7 Rev. 4.4	Calcium	101		102	102		2.58	
	Magnesium	104		104			0.525	
	Potassium	103		104	103		0.215	
	Sodium	99.3		99.8	98.7		1.78	
EPA 200.8 Rev. 5.4	Boron	103		94.9			3.52	
EPA 300.0 Rev. 2.1	Chloride	99.7		98.5	99.4	98.4		0.676
	Sulfate	96.9		92.3	94.3	94.7		1.04
EPA 350.1 Rev. 2.0	Ammonia-N	97.4		94.6	99.0			4.34
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103		98.1	98.6			0.264
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	103		105				1.44
EPA 365.1 Rev. 2.0	Total-P	104		104	106			1.12
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.1		94.8	98.8			2.91
SM 2120 B	Color (true)						1.95	
SM 2320 B-97	Alkalinity	98.2					0.336	
							0.0779	
SM 2540 C-97	TDS						0.619	
SM 5310 B-00	Organic Carbon	95.1		97.8	97.4			0.243

Reference Method Descriptions

Method / NELAC Cert. # Description

Associated Samples

Reference Method Descriptions

Method / NELAC Cert. #	Description	Associated Samples
DEP SOP: LC-001-2 (based on EPA 8321B) / E31780	Analysis of sucralose in water matrices by HPLC/MS/MS	1440846
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1440842
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1440845
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1440845
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1440842
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1440842
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1440843
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1440843
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1440843
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1440843
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1440844
SM 2120 B / E31780	True Color measured at 450 nm or Apparent Color	1440842
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1440842
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1440842
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1440843

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: LC-001-2 (based on EPA 8321B)	07/12/2012	07/12/2012	Hoor Shaik	07/13/2012	Mohammad Ghaffari	1440846
EPA 180.1 Rev. 2.0	07/12/2012			07/12/2012 17:06	Bryan A. Werth	1440842
EPA 200.7 Rev. 4.4	07/12/2012	07/13/2012	Elliott D. Healy	07/19/2012	Joshua Ayres	1440845
EPA 200.8 Rev. 5.4	07/12/2012	07/13/2012	Elliott D. Healy	07/17/2012	Charles J. Peterson	1440845
EPA 300.0 Rev. 2.1	07/12/2012			07/18/2012	Gary Dearman	1440842
EPA 350.1 Rev. 2.0	07/12/2012			07/16/2012	Peter D. Kaus	1440843
EPA 351.2 Rev. 2.0	07/12/2012	07/16/2012	Christopher Armour	07/17/2012	Bryan A. Werth	1440843
EPA 353.2 Rev. 2.0	07/12/2012			07/17/2012	Sima Feizi	1440843
EPA 365.1 Rev. 2.0	07/12/2012	07/16/2012	Megan E. Faircloth	07/17/2012	Megan E. Faircloth	1440843
EPA 365.1 Rev. 2.0 dissolved	07/12/2012			07/12/2012 15:08	Megan E. Faircloth	1440844
SM 2120 B	07/12/2012			07/12/2012 14:45	Rochelle Y Jackson	1440842
SM 2320 B-97	07/12/2012			07/24/2012	Dale L. Simmons	1440842
SM 2540 C-97	07/12/2012			07/16/2012	Yijie Li	1440842
SM 5310 B-00	07/12/2012			07/20/2012	Peter D. Kaus	1440843