

Chemical Analysis Report

WTRSHD-MGT-2012-07-02-01

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**

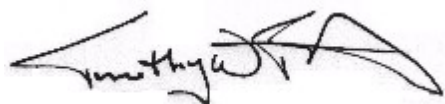
Project ID: **STORM-EVNT**

Send Reports to:
FDEP Ground Water Management Section
2600 Blair Stone Road
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Attn: Gary Maddox

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Certified by: Timothy Fitzpatrick, Program Administrator

Date Certified: 13-JUL-2012 11:09

A handwritten signature in black ink, appearing to read "Timothy Fitzpatrick", with a stylized flourish at the end.

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-2012-07-02-03

Group: Nutrients

Job: TLH-2012-07-02-04

Group: Metals

Job: TLH-2012-07-02-05

Group: Pesticides

Sample Location: 67**Collection Date/Time: 07/02/2012 10:38 AM****Field ID: WAKULLA COMPOSITE****Matrix: W-SURF-FRH**

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1439177	EPA 180.1 Rev. 2.0	Turbidity	0.85		NTU	P241662	
	EPA 300.0 Rev. 2.1	Chloride	67		mg Cl/L	P241741	
		Sulfate	20		mg SO4/L	P241743	
	SM 2120 B	Color (true)	36	A	PCU	P241650	
	SM 2320 B-97	Alkalinity	128		mg CaCO3/L	P241754	
	SM 2540 C-97	TDS	278		mg/L	P241783	
1439178	EPA 350.1 Rev. 2.0	Ammonia-N	0.011	I	mg N/L	P241709	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.094	I	mg N/L	P241784	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.36		mg N/L	P241786	
	EPA 365.1 Rev. 2.0	Total-P	0.035		mg P/L	P241725	
	SM 5310 B-00	Organic Carbon	3.7	I	mg C/L	P241804	
1439179	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.026		mg P/L	P241674	
1439180	EPA 200.7 Rev. 4.4	Calcium	46.4		mg/L	P241765	
		Magnesium	12.4		mg/L	P241765	
		Potassium	1.6		mg/L	P241765	
		Sodium	37.3		mg/L	P241765	
	EPA 200.8 Rev. 5.4	Boron**	27.0		ug/L	P241781	
1439181	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.010	U	ug/L	P241673	

Quality Assurance Report

Method Blank Results

Reference Method: DEP SOP: LC-001-2 (based on EPA 8321B)**Batch ID: P241673**

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 180.1 Rev. 2.0**Batch ID: P241662**

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4**Batch ID: P241765**

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

Reference Method: EPA 200.8 Rev. 5.4**Batch ID: P241781**

Component	Result	Code	Units
Boron	2.0	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P241741

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P241743

Component	Result	Code	Units
Sulfate	0.20	U	mg SO ₄ /L

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P241709

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

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P241784

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P241786

Component	Result	Code	Units
NO ₂ NO ₃ -N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P241725

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P241674

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

Reference Method: SM 2120 B

Batch ID: P241650

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97

Batch ID: P241754

Component	Result	Code	Units
Alkalinity	0.65	U	mg CaCO ₃ /L

Quality Assurance Report Method Blank Results

Reference Method: SM 2540 C-97

Batch ID: P241783

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 5310 B-00

Batch ID: P241804

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: P241673

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	54.4	55.2	P/P	40 - 130

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P241765

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	105		P	85 - 115
Magnesium	103		P	85 - 115
Potassium	103		P	85 - 115
Sodium	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P241781

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Boron	98.0		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P241741

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

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P241743

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P241709

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.3		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P241784

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P241786

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P241725

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P241674

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.5		P	90 - 110

Reference Method: SM 2320 B-97

Batch ID: P241754

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Alkalinity	97.5		P	85 - 115

Reference Method: SM 5310 B-00

Batch ID: P241804

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

Quality Assurance Report Matrix Spike Accuracy

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

Batch ID: P241673

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1439072	Sucralose	54.4	56.0	P/P	40 - 130

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P241765

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1439383	Calcium	108		P	80 - 120
1439383	Magnesium	105		P	80 - 120
1439383	Potassium	111	111	P/P	80 - 120
1439383	Sodium	105		P	80 - 120
1439466	Calcium	106		P	80 - 120
1439466	Magnesium	103		P	80 - 120

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P241765

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1439466	Potassium	103		P	80 - 120
1439466	Sodium	104		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P241781

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1439383	Boron	100	101	P/P	80 - 120
1439466	Boron	96.0		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P241741

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1439109	Chloride	99.2	100	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P241743

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1439109	Sulfate	95.7	97.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P241709

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1439294	Ammonia-N	98.1	98.1	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P241784

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1439196	Kjeldahl Nitrogen	91.0	91.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P241786

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1439178	NO2NO3-N	95.8		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P241725

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1439295	Total-P	105	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P241674

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1439179	O-Phosphate-P	95.1	101	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-00

Batch ID: P241804

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1439294	Organic Carbon	97.8	97.8	P/P	85 - 115

Quality Assurance Report Precision

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

Batch ID: P241673

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1439072	Sucralose	2.16	Spike	P	0 - 30
LFB	Sucralose	1.46	LCS	P	0 - 30

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P241662

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1439183	Turbidity	5.94	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P241765

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1439383	Calcium	1.54	Sample	P	0 - 20
1439383	Magnesium	1.83	Sample	P	0 - 20
1439383	Potassium	0.677	Sample	P	0 - 20
1439383	Sodium	1.67	Sample	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P241781

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1439383	Boron	3.15	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P241741

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1439109	Chloride	0.595	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P241743

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1439109	Sulfate	0.836	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P241709

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1439294	Ammonia-N	0.0	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P241784

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1439196	Kjeldahl Nitrogen	0.310	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P241786

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1439178	NO2NO3-N	2.40	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P241725

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1439295	Total-P	2.91	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P241674

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1439179	O-Phosphate-P	4.46	Spike	P	0 - 20

Reference Method: SM 2120 B

Batch ID: P241650

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1439177	Color (true)	1.85	Sample	P	0 - 20

Reference Method: SM 2320 B-97

Batch ID: P241754

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1439326	Alkalinity	1.74	Sample	P	0 - 20
1439463	Alkalinity	0.255	Sample	P	0 - 20

Reference Method: SM 2540 C-97

Batch ID: P241783

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1439329	TDS	4.43	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 5310 B-00

Batch ID: P241804

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1439294	Organic Carbon	0.0511	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: 1439181

Field Sample ID: WAKULLA COMPOSITE

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	73.6	P	40 - 150

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A45918

Included Lab Sample IDs: 1439177

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	104	105	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A45919

Included Lab Sample IDs: 1439177

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	101	P/P	95 - 105

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A45922

Included Lab Sample IDs: 1439177

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	103	104	P/P	90 - 110
Sulfate	101	100	P/P	90 - 110

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

Run ID: A45924

Included Lab Sample IDs: 1439181

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	108	125	P/P	70 - 140

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A45925

Included Lab Sample IDs: 1439179

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A45944

Included Lab Sample IDs: 1439178

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A45952

Included Lab Sample IDs: 1439178

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	99.5	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A45964

Included Lab Sample IDs: 1439177

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Alkalinity	100	97.1	P/P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A45974

Included Lab Sample IDs: 1439180

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	104	102	P/P	90 - 110
Magnesium	101	101	P/P	90 - 110
Potassium	100	102	P/P	90 - 110
Sodium	102	99.1	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A45981

Included Lab Sample IDs: 1439180

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Boron	97.5	95.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A45983

Included Lab Sample IDs: 1439178

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A45984

Included Lab Sample IDs: 1439178

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	95.5	102	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A45992

Included Lab Sample IDs: 1439178

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.5	95.6	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	MS
							SMP	
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose	54.4	55.2	54.4	56.0	1.46		2.16
EPA 180.1 Rev. 2.0	Turbidity						5.94	
EPA 200.7 Rev. 4.4	Calcium	105		108	106		1.54	
	Magnesium	103		105	103		1.83	
	Potassium	103		111	111	103	0.677	
	Sodium	102		105	104		1.67	
EPA 200.8 Rev. 5.4	Boron	98.0		100	101	96.0	3.15	
EPA 300.0 Rev. 2.1	Chloride	100		99.2	100			0.595
	Sulfate	97.6		95.7	97.0			0.836
EPA 350.1 Rev. 2.0	Ammonia-N	97.3		98.1	98.1			0.0
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.6		91.0	91.4			0.310
EPA 353.2 Rev. 2.0	NO2NO3-N	95.5		95.8				2.40
EPA 365.1 Rev. 2.0	Total-P	105		105	108			2.91
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.5		95.1	101			4.46
SM 2120 B	Color (true)						1.85	
SM 2320 B-97	Alkalinity	97.5					1.74	
							0.255	
SM 2540 C-97	TDS						4.43	
SM 5310 B-00	Organic Carbon	95.9		97.8	97.8			0.0511

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	1439181
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1439177
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1439180
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1439180

Reference Method Descriptions

Method / NELAC Cert. #	Description	<u>Associated Samples</u>
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1439177
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1439177
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1439178
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1439178
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1439178
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1439178
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1439179
SM 2120 B / E31780	True Color measured at 450 nm or Apparent Color	1439177
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1439177
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1439177
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1439178

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)	07/02/2012	07/03/2012	Fe-Val Siddell	07/03/2012	S. M. Reddy	1439181
EPA 180.1 Rev. 2.0	07/02/2012			07/03/2012 17:58	Bryan A. Werth	1439177
EPA 200.7 Rev. 4.4	07/02/2012	07/05/2012	Elliott D. Healy	07/09/2012	Joshua Ayres	1439180
EPA 200.8 Rev. 5.4	07/02/2012	07/05/2012	Elliott D. Healy	07/09/2012	Charles J. Peterson	1439180
EPA 300.0 Rev. 2.1	07/02/2012			07/06/2012	Gary Dearman	1439177
EPA 350.1 Rev. 2.0	07/02/2012			07/05/2012	Peter D. Kaus	1439178
EPA 351.2 Rev. 2.0	07/02/2012	07/09/2012	Bryan A. Werth	07/10/2012	Christopher Armour	1439178
EPA 353.2 Rev. 2.0	07/02/2012			07/10/2012	Sima Feizi	1439178
EPA 365.1 Rev. 2.0	07/02/2012	07/05/2012	Megan E. Faircloth	07/06/2012	Megan E. Faircloth	1439178
EPA 365.1 Rev. 2.0 dissolved	07/02/2012			07/03/2012 15:53	Pallavi R. Gadwal	1439179
SM 2120 B	07/02/2012			07/03/2012 15:29	Rochelle Y Jackson	1439177
SM 2320 B-97	07/02/2012			07/06/2012	Dale L. Simmons	1439177
SM 2540 C-97	07/02/2012			07/06/2012	Yijie Li	1439177
SM 5310 B-00	07/02/2012			07/09/2012	Rochelle Y Jackson	1439178