

Chemical Analysis Report

WTRSHD-MGT-2012-03-01-01

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

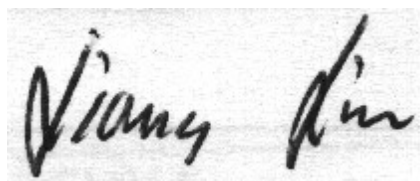
Event Description: **SPRG1201**
Request ID: **RQ-2012-02-27-26**
Customer: **WTRSHD-MGT**
Project ID: **SPG_QTR_WQ**

Send Reports to:
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 23-MAR-2012 14:33

A handwritten signature in black ink, appearing to read "Liang Lin", is shown on a light-colored 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.

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).

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-2012-03-01-11

Job: TLH-2012-03-01-12

Job: TLH-2012-03-01-13

Group: Nutrients

Group: Metals

Group: Pesticides

Sample Location: 9670**Collection Date/Time: 02/29/2012 12:38 PM****Field ID: SILVER GLEN SPRINGS****Matrix: W-OTHER**

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1411496	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P236721	
	EPA 300.0 Rev. 2.1	Chloride	460		mg Cl/L	P236896	
		Sulfate	170		mg SO4/L	P236910	
	SM 2120 B	Color (true)	2.5	U	PCU	P236731	
	SM 2320 B-97	Alkalinity	68		mg CaCO3/L	P237038	
	SM 2540 C-97	TDS	1.01E+03	A	mg/L	P237148	
1411498	EPA 350.1 Rev. 2.0	Ammonia-N	0.010	I	mg N/L	P236816	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P237083	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.055		mg N/L	P236826	
	EPA 365.1 Rev. 2.0	Total-P	0.026		mg P/L	P236863	
	SM 5310 B-00	Organic Carbon	1.0	U	mg C/L	P237094	
1411500	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.025		mg P/L	P236711	
1411502	EPA 200.7 Rev. 4.4	Boron	104		ug/L	P237165	
		Calcium	77.6		mg/L	P237165	
		Magnesium	38.0		mg/L	P237165	
		Potassium	8.8		mg/L	P237165	
		Sodium	252		mg/L	P237165	
1411504	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.0096	U	ug/L	P237190	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Chloride: One of the matrix spike recoveries is unavailable due to high analyte concentration in the QC sample.

EPA 300.0 Rev. 2.1: Sulfate: One of the matrix spike recoveries is unavailable due to high analyte concentration in the QC sample.

SM 2120 B: The precision data is unavailable due to the low analyte concentration in the QC sample.

SM 2540 C-97: The reported result is consistent with the laboratory conductivity, 1930 umhos/cm.

EPA 351.2 Rev. 2.0: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

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

Sample Location: 9687**Collection Date/Time: 02/29/2012 02:24 PM****Field ID: ALEXANDER SPRINGS****Matrix: W-OTHER**

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1411495	EPA 180.1 Rev. 2.0	Turbidity	0.35		NTU	P236721	
	EPA 300.0 Rev. 2.1	Chloride	280		mg Cl/L	P236896	
		Sulfate	67		mg SO4/L	P236910	
	SM 2120 B	Color (true)	2.5	U	PCU	P236731	
	SM 2320 B-97	Alkalinity	90		mg CaCO3/L	P236825	
	SM 2540 C-97	TDS	545		mg/L	P237147	
1411497	EPA 350.1 Rev. 2.0	Ammonia-N	0.012	I	mg N/L	P236816	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P237083	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.047		mg N/L	P236826	
	EPA 365.1 Rev. 2.0	Total-P	0.44		mg P/L	P236863	
	SM 5310 B-00	Organic Carbon	1.0	U	mg C/L	P237094	
1411499	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.047		mg P/L	P236711	
1411501	EPA 200.7 Rev. 4.4	Boron	53	I	ug/L	P237165	
		Calcium	49.9	A	mg/L	P237165	
		Magnesium	22.5	A	mg/L	P237165	

Field ID: ALEXANDER SPRINGS

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1411501	EPA 200.7 Rev. 4.4	Potassium	4.2	A	mg/L	P237165	
		Sodium	143	A	mg/L	P237165	
1411503	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.0099	U	ug/L	P237190	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Chloride: One of the matrix spike recoveries is unavailable due to high analyte concentration in the QC sample.

EPA 300.0 Rev. 2.1: Sulfate: One of the matrix spike recoveries is unavailable due to high analyte concentration in the QC sample.

SM 2120 B: The precision data is unavailable due to the low analyte concentration in the QC sample.

SM 2540 C-97: The reported result is consistent with the laboratory conductivity, 1211 umhos/cm.

EPA 351.2 Rev. 2.0: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

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

Quality Assurance Report

Method Blank Results

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

Batch ID: P237190

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P236721

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P237165

Component	Result	Code	Units
Boron	15	U	ug/L
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 300.0 Rev. 2.1

Batch ID: P236896

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P236910

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P236816

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P237083

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P236826

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P236863

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P236711

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

Reference Method: SM 2120 B

Batch ID: P236731

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97

Batch ID: P236825

Component	Result	Code	Units
Alkalinity	0.65	U	mg CaCO3/L

Reference Method: SM 2320 B-97

Batch ID: P237038

Component	Result	Code	Units
Alkalinity	0.65	U	mg CaCO3/L

Reference Method: SM 2540 C-97

Batch ID: P237147

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97

Batch ID: P237148

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 5310 B-00

Batch ID: P237094

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: P237190

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	73.5	76.2	P/P	40 - 130

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P237165

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Boron	99.4		P	85 - 115
Calcium	105		P	85 - 115
Magnesium	103		P	85 - 115
Potassium	104		P	85 - 115
Sodium	102		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P236896

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

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P236910

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	95.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P236816

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

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P237083

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P236826

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P236863

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: P236711

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

Reference Method: SM 2320 B-97

Batch ID: P236825

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

Reference Method: SM 2320 B-97

Batch ID: P237038

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Alkalinity	97.9		P	85 - 115

Reference Method: SM 5310 B-00

Batch ID: P237094

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	106		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

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

Batch ID: P237190

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1411906	Sucralose	56.2	58.2	P/P	40 - 130

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P237165

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1411501	Boron	99.0	103	P/P	80 - 120
1411501	Calcium	106		P	80 - 120
1411501	Magnesium	97.2		P	80 - 120
1411501	Potassium	104		P	80 - 120
1412410	Boron	106		P	80 - 120
1412410	Calcium	105		P	80 - 120
1412410	Magnesium	105		P	80 - 120
1412410	Potassium	103		P	80 - 120
1412410	Sodium	102		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P236896

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1411436	Chloride	98.7	99.1	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P236910

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1411436	Sulfate	95.6	95.7	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P236816

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1411479	Ammonia-N	107	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P236826

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1411497	NO2NO3-N	106	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P236863

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1411478	Total-P	102	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P236711

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1411452	O-Phosphate-P	94.5	96.5	P/P	90 - 110

Reference Method: SM 5310 B-00

Batch ID: P237094

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1411604	Organic Carbon	110	114	P/P	85 - 115

Quality Assurance Report Precision

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

Batch ID: P237190

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1411906	Sucralose	1.98	Spike	P	0 - 40
LFB	Sucralose	3.61	LCS	P	0 - 40

Quality Assurance Report

Precision

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P236721

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1411509	Turbidity	4.08	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P237165

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1411501	Boron	3.52	Spike	P	0 - 20
1411501	Calcium	0.524	Sample	P	0 - 20
1411501	Magnesium	0.480	Sample	P	0 - 20
1411501	Potassium	0.525	Sample	P	0 - 20
1411501	Sodium	0.678	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P236896

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1411436	Chloride	0.276	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P236910

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1411436	Sulfate	0.0503	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P236816

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1411479	Ammonia-N	1.92	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P237083

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1411479	Kjeldahl Nitrogen	2.56	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P236826

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1411497	NO2NO3-N	0.775	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P236863

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1411478	Total-P	2.73	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P236711

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1411452	O-Phosphate-P	1.14	Spike	P	0 - 20

Reference Method: SM 2320 B-97

Batch ID: P236825

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1411320	Alkalinity	1.31	Sample	P	0 - 20
1411321	Alkalinity	0.644	Sample	P	0 - 20

Reference Method: SM 2320 B-97

Batch ID: P237038

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1413074	Alkalinity	3.65	Sample	P	0 - 20
1413424	Alkalinity	0.360	Sample	P	0 - 20

Reference Method: SM 2540 C-97

Batch ID: P237147

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1412337	TDS	3.45	Sample	P	0 - 10

Reference Method: SM 2540 C-97

Batch ID: P237148

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1411496	TDS	1.58	Sample	P	0 - 10

Reference Method: SM 5310 B-00

Batch ID: P237094

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1411604	Organic Carbon	2.16	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: 1411503

Field Sample ID: ALEXANDER SPRINGS

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	59.0	P	40 - 150

Lab Sample ID: 1411504

Field Sample ID: SILVER GLEN SPRINGS

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	54.9	P	40 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A43820

Included Lab Sample IDs: 1411499, 1411500

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.2	100	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A43824

Included Lab Sample IDs: 1411495, 1411496

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	102	101	P/P	95 - 105

Reference Method: SM 2120 B

Run ID: A43829

Included Lab Sample IDs: 1411495, 1411496

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	97.6	97.3	P/P	85 - 115

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A43868

Included Lab Sample IDs: 1411497, 1411498

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

Reference Method: SM 2320 B-97

Run ID: A43871

Included Lab Sample IDs: 1411495

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Alkalinity	102	97.0	P/P	85 - 115

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A43872

Included Lab Sample IDs: 1411497, 1411498

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A43872

Included Lab Sample IDs: 1411497, 1411498

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	105	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A43891

Included Lab Sample IDs: 1411497, 1411498

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	98.9	P/P	90 - 110
Total-P	99.0	98.8	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A43901

Included Lab Sample IDs: 1411496

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	102	P/P	90 - 110
Sulfate	95.8	94.7	P/P	90 - 110

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

Run ID: A43946

Included Lab Sample IDs: 1411503, 1411504

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	92.2	92.8	P/P	70 - 140

Reference Method: SM 2320 B-97

Run ID: A43961

Included Lab Sample IDs: 1411496

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Alkalinity	98.3	96.6	P/P	85 - 115

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A43978

Included Lab Sample IDs: 1411497, 1411498

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	97.6	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A43980

Included Lab Sample IDs: 1411497, 1411498

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	109	113	P/P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A44004

Included Lab Sample IDs: 1411501, 1411502

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

Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A44004

Included Lab Sample IDs: 1411501, 1411502

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Boron	98.1	98.6	P/P	90 - 110
Calcium	105	104	P/P	90 - 110
Magnesium	102	102	P/P	90 - 110
Potassium	103	102	P/P	90 - 110
Sodium	101	102	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A44024

Included Lab Sample IDs: 1411502

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sodium	98.5	98.9	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A44061

Included Lab Sample IDs: 1411495

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	102	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
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose	73.5	76.2	56.2	58.2		3.61		1.98
EPA 180.1 Rev. 2.0	Turbidity							4.08	
EPA 200.7 Rev. 4.4	Boron	99.4		99.0	103	106			3.52
	Calcium	105		106	105			0.524	
	Magnesium	103		97.2	105			0.480	
	Potassium	104		104	103			0.525	
	Sodium	102		102				0.678	
EPA 300.0 Rev. 2.1	Chloride	99.4		98.7	99.1				0.276
	Sulfate	95.2		95.6	95.7				0.0503
EPA 350.1 Rev. 2.0	Ammonia-N	102		107	103				1.92
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.4							2.56
EPA 353.2 Rev. 2.0	NO2NO3-N	105		106	105				0.775
EPA 365.1 Rev. 2.0	Total-P	104		102	108				2.73
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101		94.5	96.5				1.14
SM 2320 B-97	Alkalinity	97.5						1.31 0.644	
	Alkalinity	97.9						0.360	3.65
SM 2540 C-97	TDS							3.45	
	TDS							1.58	
SM 5310 B-00	Organic Carbon	106		110	114				2.16

Reference Method Descriptions

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

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)	03/01/2012	03/02/2012	Hoor Shaik	03/09/2012	S. M. Reddy	1411503, 1411504
EPA 180.1 Rev. 2.0	03/01/2012			03/01/2012 17:38	Bryan A. Werth	1411495, 1411496
EPA 200.7 Rev. 4.4	03/01/2012	03/09/2012	Vijayalakshmi Reddy	03/12/2012	Joshua Ayres	1411501, 1411502
	03/01/2012	03/09/2012	Vijayalakshmi Reddy	03/13/2012	Joshua Ayres	1411502
EPA 300.0 Rev. 2.1	03/01/2012			03/02/2012	Gary Dearman	1411495, 1411496
	03/01/2012			03/14/2012	Gary Dearman	1411495
EPA 350.1 Rev. 2.0	03/01/2012			03/05/2012	Diana M. Dunbar	1411497, 1411498
EPA 351.2 Rev. 2.0	03/01/2012	03/08/2012	Megan E. Faircloth	03/09/2012	Christopher Armour	1411497, 1411498
EPA 353.2 Rev. 2.0	03/01/2012			03/05/2012	Sima Feizi	1411497, 1411498
EPA 365.1 Rev. 2.0	03/01/2012	03/05/2012	Pallavi R. Gadwal	03/06/2012	Megan E. Faircloth	1411497, 1411498
EPA 365.1 Rev. 2.0 dissolved	03/01/2012			03/01/2012 15:09	Pallavi R. Gadwal	1411499
	03/01/2012			03/01/2012 15:10	Pallavi R. Gadwal	1411500
SM 2120 B	03/01/2012			03/01/2012 15:30	Rochelle Y Jackson	1411495
	03/01/2012			03/01/2012 15:31	Rochelle Y Jackson	1411496
SM 2320 B-97	03/01/2012			03/05/2012	Dale L. Simmons	1411495
	03/01/2012			03/08/2012	Dale L. Simmons	1411496
SM 2540 C-97	03/01/2012			03/07/2012	Yijie Li	1411495, 1411496
SM 5310 B-00	03/01/2012			03/09/2012	Diana M. Dunbar	1411497, 1411498