

Chemical Analysis Report

WTRSHD-MGT-2012-03-02-01

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

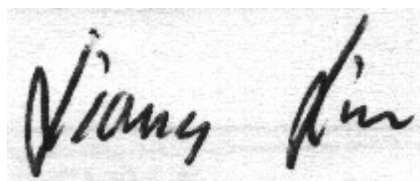
Event Description: **SPRG1201**
Request ID: **RQ-2012-02-27-26**
Customer: **WTRSHD-MGT**
Project ID: **SPG_QTR_WQ**

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Certified by: Liang Lin, Environmental Administrator

Date Certified: 20-MAR-2012 16:57

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-2012-03-02-39

Job: TLH-2012-03-02-40

Job: TLH-2012-03-02-41

Group: Nutrients

Group: Metals

Group: Pesticides

Sample Location: 11463**Collection Date/Time: 03/01/2012 12:34 PM****Field ID: JUNIPER SPRING****Matrix: W-SURF-FRH**

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1412404	EPA 180.1 Rev. 2.0	Turbidity	0.50		NTU	P236765	
	EPA 300.0 Rev. 2.1	Chloride	4.4		mg Cl/L	P237118	
		Sulfate	5.7		mg SO4/L	P237122	
	SM 2120 B	Color (true)	2.5	U	PCU	P236775	
	SM 2320 B-97	Alkalinity	45	Q	mg CaCO3/L	P237393	
	SM 2540 C-97	TDS	56		mg/L	P237147	
1412406	EPA 350.1 Rev. 2.0	Ammonia-N	0.010	U	mg N/L	P236852	MS
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P237061	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.10		mg N/L	P236968	
	EPA 365.1 Rev. 2.0	Total-P	0.048		mg P/L	P236953	
	SM 5310 B-00	Organic Carbon	1.0	U	mg C/L	P237099	
1412408	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.025		mg P/L	P236790	
1412410	EPA 200.7 Rev. 4.4	Boron	15	U	ug/L	P237165	
		Calcium	14.1		mg/L	P237165	
		Magnesium	4.85		mg/L	P237165	
		Potassium	0.36	I	mg/L	P237165	
		Sodium	3.1		mg/L	P237165	
1412412	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.010	U	ug/L	P237190	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Chloride: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

SM 2320 B-97: Sample expired prior to analysis due to analytical difficulties.

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: 11479**Collection Date/Time: 03/01/2012 01:50 PM****Field ID: MARION SALT SPRING****Matrix: W-SURF-FRH**

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1412405	EPA 180.1 Rev. 2.0	Turbidity	0.55		NTU	P236766	
	EPA 300.0 Rev. 2.1	Chloride	1.3E+03		mg Cl/L	P237118	
		Sulfate	350		mg SO4/L	P237122	
	SM 2120 B	Color (true)	2.5	U	PCU	P236775	
	SM 2320 B-97	Alkalinity	64		mg CaCO3/L	P236926	
	SM 2540 C-97	TDS	2.38E+03		mg/L	P237148	
1412407	EPA 350.1 Rev. 2.0	Ammonia-N	0.013	I	mg N/L	P236852	MS
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P237061	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.11		mg N/L	P237071	
	EPA 365.1 Rev. 2.0	Total-P	0.014		mg P/L	P236953	
	SM 5310 B-00	Organic Carbon	1.0	U	mg C/L	P237242	
1412409	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.015		mg P/L	P236791	
1412411	EPA 200.7 Rev. 4.4	Boron	226		ug/L	P237165	
		Calcium	136		mg/L	P237165	
		Magnesium	80.0		mg/L	P237165	
		Potassium	21.2		mg/L	P237165	
		Sodium	709		mg/L	P237165	

Field ID: MARION SALT SPRING

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1412413	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: 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: P236765

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P236766

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: P237118

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P237122

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P236852

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: P237061

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P236968

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P237071

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P236953

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P236790

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P236791

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

Reference Method: SM 2120 B

Batch ID: P236775

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97

Batch ID: P236926

Component	Result	Code	Units
Alkalinity	0.65	U	mg CaCO3/L

Reference Method: SM 2320 B-97

Batch ID: P237393

Component	Result	Code	Units
Alkalinity	0.65	U	mg CaCO3/L

Quality Assurance Report

Method Blank Results

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

Reference Method: SM 5310 B-00

Batch ID: P237099

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

Reference Method: SM 5310 B-00

Batch ID: P237242

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: P237118

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

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P237122

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P236852

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

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P237061

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P236968

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P237071

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: P236953

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P236790

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.2		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P236791

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

Reference Method: SM 2320 B-97

Batch ID: P236926

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Alkalinity	96.1		P	85 - 115

Reference Method: SM 2320 B-97

Batch ID: P237393

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00

Batch ID: P237099

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	100		P	85 - 115

Reference Method: SM 5310 B-00

Batch ID: P237242

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	100		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

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P237122

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1411892	Sulfate	99.5	102	P/P	90 - 110
1412422	Sulfate	103		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P236852

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1412391	Ammonia-N	109	113	P/F	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P237061

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1412406	Kjeldahl Nitrogen	101	101	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P236968

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1412088	NO2NO3-N	93.6	95.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P237071

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1412424	NO2NO3-N	99.0	97.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P236953

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1412088	Total-P	100	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P236790

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1412342	O-Phosphate-P	96.9	98.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P236791

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1412409	O-Phosphate-P	95.9	95.9	P/P	90 - 110

Reference Method: SM 5310 B-00

Batch ID: P237099

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1412391	Organic Carbon	101	101	P/P	85 - 115

Reference Method: SM 5310 B-00

Batch ID: P237242

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1412424	Organic Carbon	102	103	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: P236765

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1411893	Turbidity	4.44	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P236766

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1412422	Turbidity	8.91	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: P237118

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1411892	Chloride	0.589	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P237122

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1411892	Sulfate	1.26	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P236852

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1412391	Ammonia-N	2.93	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P237061

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1412406	Kjeldahl Nitrogen	0.471	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P236968

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1412088	NO2NO3-N	1.41	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P237071

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1412424	NO2NO3-N	1.39	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P236953

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1412088	Total-P	0.486	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P236790

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1412342	O-Phosphate-P	1.27	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P236791

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1412409	O-Phosphate-P	0.0	Spike	P	0 - 20

Reference Method: SM 2120 B

Batch ID: P236775

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1412423	Color (true)	1.27	Sample	P	0 - 20

Reference Method: SM 2320 B-97

Batch ID: P236926

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1412434	Alkalinity	0.271	Sample	P	0 - 20
1412435	Alkalinity	0.319	Sample	P	0 - 20

Reference Method: SM 2320 B-97

Batch ID: P237393

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1413603	Alkalinity	0.555	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2320 B-97

Batch ID: P237393

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1413648	Alkalinity	0.335	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: P237099

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1412391	Organic Carbon	0.148	Spike	P	0 - 20

Reference Method: SM 5310 B-00

Batch ID: P237242

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1412424	Organic Carbon	0.683	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: 1412412

Field Sample ID: JUNIPER SPRING

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	67.1	P	40 - 150

Lab Sample ID: 1412413

Field Sample ID: MARION SALT SPRING

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	58.7	P	40 - 150

Quality Assurance Report Calibration Verification

Quality Assurance Report

Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A43844

Included Lab Sample IDs: 1412404, 1412405

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	101	P/P	95 - 105
Turbidity	99.5	99.5	P/P	95 - 105

Reference Method: SM 2120 B

Run ID: A43849

Included Lab Sample IDs: 1412404, 1412405

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.1	98.9	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A43856

Included Lab Sample IDs: 1412408, 1412409

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.7	95.5	P/P	90 - 110
O-Phosphate-P	99.1	99.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A43882

Included Lab Sample IDs: 1412406, 1412407

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

Reference Method: SM 2320 B-97

Run ID: A43911

Included Lab Sample IDs: 1412405

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Alkalinity	97.9	95.8	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A43921

Included Lab Sample IDs: 1412406, 1412407

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.9	97.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A43970

Included Lab Sample IDs: 1412406, 1412407

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	98.9	P/P	90 - 110
Kjeldahl Nitrogen	96.9	99.3	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A43974

Included Lab Sample IDs: 1412407

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	97.5	97.8	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A43982

Included Lab Sample IDs: 1412406

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	102	101	P/P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A43992

Included Lab Sample IDs: 1412404, 1412405

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	101	P/P	90 - 110
Sulfate	99.9	99.0	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A44004

Included Lab Sample IDs: 1412410, 1412411

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Boron	98.1	98.6	P/P	90 - 110
Boron	98.6	99.0	P/P	90 - 110
Calcium	104	103	P/P	90 - 110
Calcium	105	104	P/P	90 - 110
Magnesium	102	102	P/P	90 - 110
Magnesium	102	102	P/P	90 - 110
Potassium	102	101	P/P	90 - 110
Potassium	103	102	P/P	90 - 110
Sodium	101	102	P/P	90 - 110
Sodium	102	99.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A44014

Included Lab Sample IDs: 1412406

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.5	103	P/P	90 - 110

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

Run ID: A44016

Included Lab Sample IDs: 1412412, 1412413

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	106	106	P/P	70 - 140

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00

Run ID: A44049

Included Lab Sample IDs: 1412407

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	102	101	P/P	85 - 115

Reference Method: SM 2320 B-97

Run ID: A44115

Included Lab Sample IDs: 1412404

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Alkalinity	95.7	100	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			Precision SMP	MS
						LCS		
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						4.44	
	Turbidity						8.91	
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	104						0.589
	Sulfate	101		99.5	102	103		1.26
EPA 350.1 Rev. 2.0	Ammonia-N	98.6		109	113			2.93
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100		101	101			0.471
EPA 353.2 Rev. 2.0	NO2NO3-N	103		93.6	95.1			1.41
	NO2NO3-N	102		99.0	97.6			1.39
EPA 365.1 Rev. 2.0	Total-P	99.4		100	101			0.486
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.2		96.9	98.4			1.27
	O-Phosphate-P	104		95.9	95.9			0.0
SM 2120 B	Color (true)						1.27	
SM 2320 B-97	Alkalinity	96.1					0.319	
							0.271	
	Alkalinity	97.9					0.555	
							0.335	
SM 2540 C-97	TDS						3.45	
	TDS						1.58	
SM 5310 B-00	Organic Carbon	100		101	101			0.148
	Organic Carbon	100		102	103			0.683

Reference Method Descriptions

Method / NELAC Cert. #

Description

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)	03/02/2012	03/02/2012	Hoor Shaik	03/13/2012	S. M. Reddy	1412412, 1412413
EPA 180.1 Rev. 2.0	03/02/2012			03/02/2012 16:05	Bryan A. Werth	1412404, 1412405
EPA 200.7 Rev. 4.4	03/02/2012	03/09/2012	Vijayalakshmi Reddy	03/12/2012	Joshua Ayres	1412410, 1412411
EPA 300.0 Rev. 2.1	03/02/2012			03/09/2012	Ping Hua	1412404, 1412405
EPA 350.1 Rev. 2.0	03/02/2012			03/06/2012	Diana M. Dunbar	1412406, 1412407
EPA 351.2 Rev. 2.0	03/02/2012	03/07/2012	Megan E. Faircloth	03/08/2012	Christopher Armour	1412406, 1412407
EPA 353.2 Rev. 2.0	03/02/2012			03/09/2012	Peter D. Kaus	1412407
	03/02/2012			03/13/2012	Sima Feizi	1412406
EPA 365.1 Rev. 2.0	03/02/2012	03/06/2012	Pallavi R. Gadwal	03/07/2012	Megan E. Faircloth	1412406, 1412407
EPA 365.1 Rev. 2.0 dissolved	03/02/2012			03/02/2012 15:19	Pallavi R. Gadwal	1412409
	03/02/2012			03/02/2012 15:38	Pallavi R. Gadwal	1412408
SM 2120 B	03/02/2012			03/02/2012 15:34	Rochelle Y Jackson	1412404
	03/02/2012			03/02/2012 15:35	Rochelle Y Jackson	1412405
SM 2320 B-97	03/02/2012			03/06/2012	Dale L. Simmons	1412405
	03/02/2012			03/16/2012	Rochelle Y Jackson	1412404
SM 2540 C-97	03/02/2012			03/07/2012	Yijie Li	1412404, 1412405
SM 5310 B-00	03/02/2012			03/10/2012	Rochelle Y Jackson	1412406
	03/02/2012			03/13/2012	Rochelle Y Jackson	1412407