

Biological Analysis Report

NW-DIST-2015-08-25-01

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

Overflow Analyses Performed By:
University of West Florida
11000 University Parkway
Pensacola, FL 32514
DOH Accreditation E71969

Event Description: **Project Greenshores**
Request ID: **RQ-2015-08-24-18**
Customer: **NW-DIST**
Project ID: **DISTRICT**

Send Reports to:
FL Dept. of Environmental Protection
160 Government Center
Suite 308
Pensacola, FL 32502-5794
Attn: Cheryl Bunch

For additional information please contact
Loretta Wolfe - Administrator
J. Marshall Faircloth - Aquatic Toxicology
Elizabeth Miller - Bench Biology
Jacqueline Savage - Microbiology
Daisys Matthews - Molecular Biology
Cheryl Swanson - Taxonomy (Invertebrate & Algal)
Thekkekalathil Chandrasekhar, PhD, QA Officer
Phone (850) 245-8177

Certified by: Cheryl A. Swanson, Environmental Manager

Date Certified: 18-SEP-2015 16:44



NON-CONFORMANCE REPORT INCLUDED

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 and/or the analysis did not meet established quality control criteria

K - Actual value is known to be less than value given

L - Actual value is known to be greater than value given

N - Presumptive evidence of presence of material.

O - Sampled, but analysis lost or not performed.

Q - Sample held beyond normal holding time.

T - Value reported is less than the criterion of detection.

U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.

V - Analyte was detected in both sample and method blank.

X - Too few individuals to calculate SCI value.

Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate

Z - Colonies were too numerous to count (TNTC).

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.

All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Job: TLH-2015-08-25-18

Job: TLH-2015-08-25-19

Job: TLH-2015-08-25-20

Group: Chlorophyll/Grain Size/BOD

Group: Chlorophyll/Grain Size/BOD

Group: Overflow

Sample Location: RANGE MARKER E. OF TEXAR

Collection Date/Time: 08/24/2015 11:05

Field ID: 1

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1729920	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.2	IY	mg/L	P290449	
1729936	SM 10200 H (mod.)	Chlorophyll-a, Corrected	4.3	Y	ug/L	P290548	
		Phaeophytin-a	0.40	UY	ug/L	P290548	
		Chlorophyll/Phaeophytin Ratio	1.7	Y		P290548	
		Chlorophyll-a, Uncorrected	4.5	Y	ug/L	P290548	
1729952	EPA 1600 (MF)	Enterococci-Membrane Filter	2	U	cfu/100 mL		
	SM 9222 D	Fecal Coliforms-Membrane Filter	1	U	cfu/100 mL		

Ref. Method and Comment:

SM 5210 B: Precision data is unavailable due to the small amount of analyte in the QC sample. Dilution water blank is within laboratory historical limit of 0.50 mg/L. See nonconformance report #5516.

SM 10200 H (mod.): See nonconformance report #5516.

Sample Location: 1/2 BRIDGE AND MUSCOGEE

Collection Date/Time: 08/24/2015 11:14

Field ID: 2

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1729921	SM 5210 B	Biochemical Oxygen Demand-5 Day	2.0	Y	mg/L	P290449	
1729937	SM 10200 H (mod.)	Chlorophyll-a, Corrected	5.7	Y	ug/L	P290548	
		Phaeophytin-a	0.40	UY	ug/L	P290548	
		Chlorophyll/Phaeophytin Ratio	1.7	Y		P290548	
		Chlorophyll-a, Uncorrected	5.9	Y	ug/L	P290548	
1729953	EPA 1600 (MF)	Enterococci-Membrane Filter	4	B	cfu/100 mL		
	SM 9222 D	Fecal Coliforms-Membrane Filter	5	B	cfu/100 mL		

Ref. Method and Comment:

SM 5210 B: Precision data is unavailable due to the small amount of analyte in the QC sample. Dilution water blank is within laboratory historical limit of 0.50 mg/L. See nonconformance report #5516.

SM 10200 H (mod.): See nonconformance report #5516.

Sample Location: EAST OF PRIMARY STORM DRAIN PGS1

Collection Date/Time: 08/24/2015 11:22

Field ID: 3

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1729922	SM 5210 B	Biochemical Oxygen Demand-5 Day	2.2	Y	mg/L	P290449	
1729938	SM 10200 H (mod.)	Chlorophyll-a, Corrected	3.7	Y	ug/L	P290548	
		Phaeophytin-a	0.40	UY	ug/L	P290548	
		Chlorophyll/Phaeophytin Ratio	1.7	Y		P290548	
		Chlorophyll-a, Uncorrected	3.9	Y	ug/L	P290548	
1729954	EPA 1600 (MF)	Enterococci-Membrane Filter	10	B	cfu/100 mL		
	SM 9222 D	Fecal Coliforms-Membrane Filter	1	B	cfu/100 mL		

Ref. Method and Comment:

SM 5210 B: Precision data is unavailable due to the small amount of analyte in the QC sample. Dilution water blank is within laboratory historical limit of 0.50 mg/L. See nonconformance report #5516.

SM 10200 H (mod.): See nonconformance report #5516.

Sample Location: 100 FT S. OF STORMDRAIN

Collection Date/Time: 08/24/2015 11:30

Field ID: 4

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
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Field ID: 4

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1729923	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.8	IY	mg/L	P290449	
1729939	SM 10200 H (mod.)	Chlorophyll-a, Corrected	4.0	Y	ug/L	P290548	
		Phaeophytin-a	0.40	UY	ug/L	P290548	
		Chlorophyll/Phaeophytin Ratio	1.7	Y		P290548	
		Chlorophyll-a, Uncorrected	4.3	Y	ug/L	P290548	
1729955	EPA 1600 (MF)	Enterococci-Membrane Filter	12	B	cfu/100 mL		
	SM 9222 D	Fecal Coliforms-Membrane Filter	27	B	cfu/100 mL		

Ref. Method and Comment:

SM 5210 B: Precision data is unavailable due to the small amount of analyte in the QC sample. Dilution water blank is within laboratory historical limit of 0.50 mg/L. See nonconformance report #5516.

SM 10200 H (mod.): See nonconformance report #5516.

Sample Location: END OF CHASE ST

Collection Date/Time: 08/24/2015 11:40

Field ID: 5

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1729924	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.5	IY	mg/L	P290449	
1729940	SM 10200 H (mod.)	Chlorophyll-a, Corrected	5.5	Y	ug/L	P290548	
		Phaeophytin-a	0.40	UY	ug/L	P290548	
		Chlorophyll/Phaeophytin Ratio	1.7	Y		P290548	
		Chlorophyll-a, Uncorrected	5.8	Y	ug/L	P290548	
1729956	EPA 1600 (MF)	Enterococci-Membrane Filter	6	B	cfu/100 mL		
	SM 9222 D	Fecal Coliforms-Membrane Filter	7	B	cfu/100 mL		

Ref. Method and Comment:

SM 5210 B: Precision data is unavailable due to the small amount of analyte in the QC sample. Dilution water blank is within laboratory historical limit of 0.50 mg/L. See nonconformance report #5516.

SM 10200 H (mod.): See nonconformance report #5516.

Sample Location: 1/2 MUSCOGEE AND HAWKSHORE 400 FT FROM SHORE

Collection Date/Time: 08/24/2015 11:45

Field ID: 6

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1729925	SM 5210 B	Biochemical Oxygen Demand-5 Day	2.0	IY	mg/L	P290449	
1729941	SM 10200 H (mod.)	Chlorophyll-a, Corrected	6.2	Y	ug/L	P290653	
		Phaeophytin-a	0.40	UY	ug/L	P290653	
		Chlorophyll/Phaeophytin Ratio	1.7	Y		P290653	
		Chlorophyll-a, Uncorrected	6.5	Y	ug/L	P290653	
1729957	EPA 1600 (MF)	Enterococci-Membrane Filter	2	U	cfu/100 mL		
	SM 9222 D	Fecal Coliforms-Membrane Filter	2	B	cfu/100 mL		

Ref. Method and Comment:

SM 5210 B: Precision data is unavailable due to the small amount of analyte in the QC sample. Dilution water blank is within laboratory historical limit of 0.50 mg/L. See nonconformance report #5516.

SM 10200 H (mod.): See nonconformance report #5516.

Sample Location: 1/2 BRIDGE AND PORT

Collection Date/Time: 08/24/2015 11:50

Field ID: 7

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1729926	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.6	IY	mg/L	P290449	

Field ID: 7

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1729942	SM 10200 H (mod.)	Chlorophyll-a, Corrected	5.2	Y	ug/L	P290653	
		Phaeophytin-a	0.40	UY	ug/L	P290653	
		Chlorophyll/Phaeophytin Ratio	1.7	Y		P290653	
		Chlorophyll-a, Uncorrected	5.4	Y	ug/L	P290653	
1729958	EPA 1600 (MF)	Enterococci-Membrane Filter	2	U	cfu/100 mL		
	SM 9222 D	Fecal Coliforms-Membrane Filter	8	B	cfu/100 mL		

Ref. Method and Comment:

SM 5210 B: Precision data is unavailable due to the small amount of analyte in the QC sample. Dilution water blank is within laboratory historical limit of 0.50 mg/L. See nonconformance report #5516.

SM 10200 H (mod.): See nonconformance report #5516.

Sample Location: WEST OF STORMDRAIN INSIDE ROCKS

Collection Date/Time: 08/24/2015 11:35

Field ID: 8

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1729927	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.8	IY	mg/L	P290449	
1729943	SM 10200 H (mod.)	Chlorophyll-a, Corrected	5.3		ug/L	P290653	
		Phaeophytin-a	0.40	U	ug/L	P290653	
		Chlorophyll/Phaeophytin Ratio	1.7			P290653	
		Chlorophyll-a, Uncorrected	5.6		ug/L	P290653	
		Enterococci-Membrane Filter	20	B	cfu/100 mL		
1729959	EPA 1600 (MF)	Enterococci-Membrane Filter	20	B	cfu/100 mL		
	SM 9222 D	Fecal Coliforms-Membrane Filter	24	B	cfu/100 mL		

Ref. Method and Comment:

SM 5210 B: Precision data is unavailable due to the small amount of analyte in the QC sample. Dilution water blank is within laboratory historical limit of 0.50 mg/L. See nonconformance report #5516.

Sample Location: WEST END OF HAWKSHORE 100 FT SOUTH OF OUTFALL

Collection Date/Time: 08/24/2015 12:20

Field ID: 9

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1729928	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.9	IY	mg/L	P290450	
1729944	SM 10200 H (mod.)	Chlorophyll-a, Corrected	3.8		ug/L	P290653	
		Phaeophytin-a	0.40	U	ug/L	P290653	
		Chlorophyll/Phaeophytin Ratio	1.7			P290653	
		Chlorophyll-a, Uncorrected	4.0		ug/L	P290653	
		Enterococci-Membrane Filter	2	U	cfu/100 mL		
1729960	EPA 1600 (MF)	Enterococci-Membrane Filter	2	U	cfu/100 mL		
	SM 9222 D	Fecal Coliforms-Membrane Filter	12	B	cfu/100 mL		

Ref. Method and Comment:

SM 5210 B: Laboratory duplicate result is 1.9 I mg/L. Precision data is unavailable due to the small amount of analyte in the QC sample. See nonconformance report #5516.

Sample Location: BETWEEN MARINA AND OUTFALL

Collection Date/Time: 08/24/2015 12:12

Field ID: 10

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1729929	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.1	IY	mg/L	P290450	
1729945	SM 10200 H (mod.)	Chlorophyll-a, Corrected	4.5		ug/L	P290653	
		Phaeophytin-a	0.40	U	ug/L	P290653	

Field ID: 10

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1729945	SM 10200 H (mod.)	Chlorophyll/Phaeophytin Ratio	1.7			P290653	
		Chlorophyll-a, Uncorrected	4.6		ug/L	P290653	
1729961	EPA 1600 (MF)	Enterococci-Membrane Filter	2	U	cfu/100 mL		
	SM 9222 D	Fecal Coliforms-Membrane Filter	64		cfu/100 mL		

Ref. Method and Comment:

SM 5210 B: Precision data is unavailable due to the small amount of analyte in the QC sample. See nonconformance report #5516.

Sample Location: BETWEEN MARINA AND OUTFALL

Collection Date/Time: 08/24/2015 12:15

Field ID: 10 DUPLICATE

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1729930	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.8	IY	mg/L	P290450	
1729946	SM 10200 H (mod.)	Chlorophyll-a, Corrected	4.5		ug/L	P290653	
		Phaeophytin-a	0.40	U	ug/L	P290653	
		Chlorophyll/Phaeophytin Ratio	1.7			P290653	
		Chlorophyll-a, Uncorrected	4.7		ug/L	P290653	

Ref. Method and Comment:

SM 5210 B: Precision data is unavailable due to the small amount of analyte in the QC sample. See nonconformance report #5516.

Sample Location: ENTRANCE OF MARINA

Collection Date/Time: 08/24/2015 12:07

Field ID: 11

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1729931	SM 5210 B	Biochemical Oxygen Demand-5 Day	2.2	Y	mg/L	P290450	
1729947	SM 10200 H (mod.)	Chlorophyll-a, Corrected	5.1	Y	ug/L	P290653	
		Phaeophytin-a	0.40	UY	ug/L	P290653	
		Chlorophyll/Phaeophytin Ratio	1.7	Y		P290653	
		Chlorophyll-a, Uncorrected	5.5	Y	ug/L	P290653	
1729963	EPA 1600 (MF)	Enterococci-Membrane Filter	2	B	cfu/100 mL		
	SM 9222 D	Fecal Coliforms-Membrane Filter	1040	B	cfu/100 mL		

Ref. Method and Comment:

SM 5210 B: Precision data is unavailable due to the small amount of analyte in the QC sample. See nonconformance report #5516.

SM 10200 H (mod.): See nonconformance report #5516.

Sample Location: 1/4 BETWEEN BRIDGE AND PORT 400 FT FROM SHORE

Collection Date/Time: 08/24/2015 12:01

Field ID: 12

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1729932	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.8	IY	mg/L	P290450	
1729948	SM 10200 H (mod.)	Chlorophyll-a, Corrected	4.7	Y	ug/L	P290653	
		Phaeophytin-a	0.40	UY	ug/L	P290653	
		Chlorophyll/Phaeophytin Ratio	1.7	Y		P290653	
		Chlorophyll-a, Uncorrected	4.8	Y	ug/L	P290653	
1729964	EPA 1600 (MF)	Enterococci-Membrane Filter	4	B	cfu/100 mL		
	SM 9222 D	Fecal Coliforms-Membrane Filter	6	B	cfu/100 mL		

Ref. Method and Comment:

SM 5210 B: Precision data is unavailable due to the small amount of analyte in the QC sample. See nonconformance report #5516.

SM 10200 H (mod.): See nonconformance report #5516.

Sample Location: INSIDE HAWKSHORE LAGOON

Collection Date/Time: 08/24/2015 12:30

Field ID: 13

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1729933	SM 5210 B	Biochemical Oxygen Demand-5 Day	2.4	Y	mg/L	P290450	
1729949	SM 10200 H (mod.)	Chlorophyll-a, Corrected	13	Y	ug/L	P290653	
		Phaeophytin-a	0.82	IY	ug/L	P290653	
		Chlorophyll/Phaeophytin Ratio	1.7	Y		P290653	
		Chlorophyll-a, Uncorrected	14	Y	ug/L	P290653	
1729965	EPA 1600 (MF)	Enterococci-Membrane Filter	6	B	cfu/100 mL		
	SM 9222 D	Fecal Coliforms-Membrane Filter	340		cfu/100 mL		

Ref. Method and Comment:

SM 5210 B: Precision data is unavailable due to the small amount of analyte in the QC sample. See nonconformance report #5516.

SM 10200 H (mod.): See nonconformance report #5516.

Sample Location: EAST OF STORMDRAIN INSIDE PGS SITE 2

Collection Date/Time: 08/24/2015 12:26

Field ID: 14

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1729934	SM 5210 B	Biochemical Oxygen Demand-5 Day	2.1	Y	mg/L	P290450	
1729950	SM 10200 H (mod.)	Chlorophyll-a, Corrected	5.0	Y	ug/L	P290653	
		Phaeophytin-a	0.40	UY	ug/L	P290653	
		Chlorophyll/Phaeophytin Ratio	1.7	Y		P290653	
		Chlorophyll-a, Uncorrected	5.3	Y	ug/L	P290653	
1729966	EPA 1600 (MF)	Enterococci-Membrane Filter	4	B	cfu/100 mL		
	SM 9222 D	Fecal Coliforms-Membrane Filter	148		cfu/100 mL		

Ref. Method and Comment:

SM 5210 B: Precision data is unavailable due to the small amount of analyte in the QC sample. See nonconformance report #5516.

SM 10200 H (mod.): See nonconformance report #5516.

Sample Location: FB 1/2 BRIDGE AND PORT

Collection Date/Time: 08/24/2015 11:52

Field ID: FIELD BLANK

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1729935	SM 5210 B	Biochemical Oxygen Demand-5 Day	0.20	UY	mg/L	P290450	
1729951	SM 10200 H (mod.)	Chlorophyll-a, Corrected	0.55	UY	ug/L	P290653	
		Phaeophytin-a	0.40	UY	ug/L	P290653	
		Chlorophyll/Phaeophytin Ratio	0.47	Y		P290653	
		Chlorophyll-a, Uncorrected	0.40	UY	ug/L	P290653	

Ref. Method and Comment:

SM 5210 B: Precision data is unavailable due to the small amount of analyte in the QC sample. See nonconformance report #5516.

SM 10200 H (mod.): See nonconformance report #5516.

Non-Conformance Report

NCR ID: 5516

Event(s)

NW-DIST-2015-08-25-01

Job(s)

Sample(s)

Test(s)

Non-Conformance Report

NCR ID: 5516

<u>Event(s)</u>	<u>Job(s)</u>	<u>Sample(s)</u>	<u>Test(s)</u>
NCR Type:	SHIPPING/RECEIVING	NCR Category:	Preservation Not Intact
Observation:	Upon arrival at the lab, all ice had melted in three of the coolers. The temperature of samples in the coolers was above 6.0 degC, (10.3, 6.6, and 9.8 degC) which is out of acceptable temperature range. Affected Field IDs are:		
	1		
	2		
	3		
	4		
	5		
	6		
	7		
	FB		
	11		
	12		
	13		
	14		
Resolution:	Customer, Zach Schang, was notified that all of the affected sample results will be qualified. NCR does not apply to overflow microbiology samples/results.		

Authorised by/Date: Kathryn Holland 9/9/2015

The Non-Conformance Report details exceptions or problems encountered with the events/jobs/samples/test.
Please address questions to:

Chemistry	Tim Fitzpatrick	(850) 245-8085
Biology	David D. Whiting	(850) 245-8177

Quality Assurance Report Method Blank Results

Reference Method: SM 10200 H (mod.)
Batch ID: P290548

Component	Result	Code	Units
Chlorophyll-a, Corrected	0.55	U	ug/L
Chlorophyll-a, Uncorrected	0.40	U	ug/L
Phaeophytin-a	0.40	U	ug/L

Reference Method: SM 10200 H (mod.)
Batch ID: P290653

Component	Result	Code	Units
Chlorophyll-a, Corrected	0.55	U	ug/L
Chlorophyll-a, Uncorrected	0.40	U	ug/L
Phaeophytin-a	0.40	U	ug/L

Reference Method: SM 5210 B
Batch ID: P290449

Component	Result	Code	Units
Biochemical Oxygen Demand-5 Day	0.27	I	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 5210 B
Batch ID: P290450

Component	Result	Code	Units
Biochemical Oxygen Demand-5 Day	0.20	U	mg/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 10200 H (mod.)
Batch ID: P290548

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorophyll-a, Corrected	106		P	85 - 115

Reference Method: SM 10200 H (mod.)
Batch ID: P290653

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorophyll-a, Corrected	97.5		P	85 - 115

Reference Method: SM 5210 B
Batch ID: P290449

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Biochemical Oxygen Demand-5 Day	114		P	84 - 116

Reference Method: SM 5210 B
Batch ID: P290450

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Biochemical Oxygen Demand-5 Day	88.4		P	84 - 116

Quality Assurance Report Precision

Reference Method: SM 10200 H (mod.)
Batch ID: P290548

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1729712	Chlorophyll/Phaeophytin Ratio	0.0	Sample	P	0 - 25
1729712	Chlorophyll-a, Corrected	6.68	Sample	P	0 - 25
1729712	Chlorophyll-a, Uncorrected	6.31	Sample	P	0 - 25
1729712	Phaeophytin-a	0.347	Sample	P	0 - 25

Reference Method: SM 10200 H (mod.)
Batch ID: P290653

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1730032	Chlorophyll/Phaeophytin Ratio	0.0	Sample	P	0 - 25
1730032	Chlorophyll-a, Corrected	9.24	Sample	P	0 - 25
1730032	Chlorophyll-a, Uncorrected	8.23	Sample	P	0 - 25
1730032	Phaeophytin-a	2.33	Sample	P	0 - 25

Quality Assurance Report Precision

* 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 Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	LCS	Precision SMP	MS
SM 10200 H (mod.)	Chlorophyll/Phaeophytin Ratio				0.0	
	Chlorophyll/Phaeophytin Ratio				0.0	
	Chlorophyll-a, Corrected	106			6.68	
	Chlorophyll-a, Corrected	97.5			9.24	
	Chlorophyll-a, Uncorrected				6.31	
	Chlorophyll-a, Uncorrected				8.23	
	Phaeophytin-a				0.347	
	Phaeophytin-a				2.33	
SM 5210 B	Biochemical Oxygen Demand-5 Day	114				
	Biochemical Oxygen Demand-5 Day	88.4				

Reference Method Descriptions

Method / NELAC Cert. #	Description	Associated Samples
EPA 1600 (MF) / E71969	Enterococci by membrane filter method by UWF Overflow Laboratory for NWD	1729952, 1729953, 1729954, 1729955, 1729956, 1729957, 1729958, 1729959, 1729960, 1729961, 1729963, 1729964, 1729965, 1729966
SM 10200 H (mod.) / E31780	Phytoplankton chlorophyll-a corrected, uncorrected, phaeophytin and ratio by spectrophotometry	1729936, 1729937, 1729938, 1729939, 1729940, 1729941, 1729942, 1729943, 1729944, 1729945, 1729946, 1729947, 1729948, 1729949, 1729950, 1729951
SM 5210 B / E31780	BOD, NOT nitrogen-inhibited	1729920, 1729921, 1729922, 1729923, 1729924, 1729925, 1729926, 1729927, 1729928, 1729929, 1729930, 1729931, 1729932, 1729933, 1729934, 1729935
SM 9222 D / E71969	Fecal coliforms by membrane filter method by UWF Overflow Laboratory for NWD	1729952, 1729953, 1729954, 1729955, 1729956, 1729957, 1729958, 1729959, 1729960, 1729961, 1729963, 1729964, 1729965, 1729966

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 1600 (MF)	08/24/2015			08/24/2015 15:32	UWF Lab	1729952
	08/24/2015			08/24/2015 15:35	UWF Lab	1729953
	08/24/2015			08/24/2015 15:38	UWF Lab	1729954
	08/24/2015			08/24/2015 15:41	UWF Lab	1729955
	08/24/2015			08/24/2015 15:44	UWF Lab	1729956
	08/24/2015			08/24/2015 15:50	UWF Lab	1729957
	08/24/2015			08/24/2015 15:53	UWF Lab	1729958
	08/24/2015			08/24/2015 15:58	UWF Lab	1729959
	08/24/2015			08/24/2015 16:01	UWF Lab	1729960
	08/24/2015			08/24/2015 16:04	UWF Lab	1729961
	08/24/2015			08/24/2015 16:07	UWF Lab	1729963
	08/24/2015			08/24/2015 16:13	UWF Lab	1729964
	08/24/2015			08/24/2015 16:16	UWF Lab	1729965
	08/24/2015			08/24/2015 16:19	UWF Lab	1729966
SM 10200 H (mod.)	08/25/2015	08/25/2015 13:45	Jonathan M. Woods	09/01/2015	Jonathan M. Woods	1729936, 1729937, 1729938, 1729939, 1729940
	08/25/2015	08/25/2015 13:45	Jonathan M. Woods	09/02/2015	Kim M. Spencer	1729941, 1729942, 1729943, 1729944, 1729945, 1729946, 1729947, 1729948, 1729949, 1729950, 1729951
SM 5210 B	08/25/2015			08/26/2015 08:15	Jonathan M. Woods	1729920, 1729921, 1729922, 1729923, 1729924, 1729925, 1729926, 1729927, 1729928, 1729929, 1729930, 1729931, 1729932, 1729933, 1729934, 1729935
SM 9222 D	08/24/2015			08/24/2015 15:15	UWF Lab	1729952
	08/24/2015			08/24/2015 15:18	UWF Lab	1729953
	08/24/2015			08/24/2015 15:21	UWF Lab	1729954
	08/24/2015			08/24/2015 15:25	UWF Lab	1729955
	08/24/2015			08/24/2015 15:28	UWF Lab	1729956
	08/24/2015			08/24/2015 15:31	UWF Lab	1729957
	08/24/2015			08/24/2015 15:37	UWF Lab	1729958
	08/24/2015			08/24/2015 15:40	UWF Lab	1729959
	08/24/2015			08/24/2015 15:46	UWF Lab	1729960
	08/24/2015			08/24/2015 15:50	UWF Lab	1729961
	08/24/2015			08/24/2015 15:53	UWF Lab	1729963
	08/24/2015			08/24/2015 16:00	UWF Lab	1729964
	08/24/2015			08/24/2015 16:03	UWF Lab	1729965
	08/24/2015			08/24/2015 16:06	UWF Lab	1729966