

Biological Analysis Report

NW-DIST-2015-11-17-01

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-2015-11-09-11**
Customer: **NW-DIST**
Project ID: **DISTRICT**

Send Reports to:
FL Dept. of Environmental Protection
160 Government Center
Suite 308
Pensacola, FL 32502-5794
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Certified by: Daisys Matthews,

Date Certified: 11-DEC-2015 08:36

A handwritten signature in black ink that reads "D Matthews". The signature is stylized, with a large, looped initial "D" and the name "Matthews" written in a cursive script.

Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: Chlorophyll/Grain Size/BOD and Overflow.

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.

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.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

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).

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.

Sample Location: Range Marker E. of Texar

Collection Date/Time: 11/16/2015 10:50

Field ID: 1

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1750696	SM 5210 B	Biochemical Oxygen Demand-5 Day	2.0	I	mg/L	P295077	
1750721	SM 10200 H (mod.)	Chlorophyll-a, Corrected	1.8		ug/L	P295350	
		Phaeophytin-a	2.8		ug/L	P295350	RPD
		Chlorophyll/Phaeophytin Ratio	1.3			P295350	
		Chlorophyll-a, Uncorrected	3.5		ug/L	P295350	RPD
1750740	EPA 1600 (MF)	Enterococci-Membrane Filter	2	B	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.

Sample Location: 1/2 Bridge and Muscogee

Collection Date/Time: 11/16/2015 11:06

Field ID: 2

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1750697	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.7	I	mg/L	P295077	
1750722	SM 10200 H (mod.)	Chlorophyll-a, Corrected	3.5		ug/L	P295350	
		Phaeophytin-a	1.9		ug/L	P295350	RPD
		Chlorophyll/Phaeophytin Ratio	1.5			P295350	
		Chlorophyll-a, Uncorrected	4.7		ug/L	P295350	RPD
1750741	EPA 1600 (MF)	Enterococci-Membrane Filter	2	B	cfu/100 mL		
	SM 9222 D	Fecal Coliforms-Membrane Filter	9	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.

Sample Location: E.of Primary Stormdrain PGS 1

Collection Date/Time: 11/16/2015 11:15

Field ID: 3

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1750698	SM 5210 B	Biochemical Oxygen Demand-5 Day	2.1		mg/L	P295077	
1750723	SM 10200 H (mod.)	Chlorophyll-a, Corrected	3.0		ug/L	P295350	
		Phaeophytin-a	1.2		ug/L	P295350	RPD
		Chlorophyll/Phaeophytin Ratio	1.5			P295350	
		Chlorophyll-a, Uncorrected	3.9		ug/L	P295350	RPD
1750742	EPA 1600 (MF)	Enterococci-Membrane Filter	12	B	cfu/100 mL		
	SM 9222 D	Fecal Coliforms-Membrane Filter	42		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.

Sample Location: 100 ft S of Stormdrain

Collection Date/Time: 11/16/2015 11:25

Field ID: 4

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1750699	SM 5210 B	Biochemical Oxygen Demand-5 Day	2.3		mg/L	P295077	
1750724	SM 10200 H (mod.)	Chlorophyll-a, Corrected	3.4		ug/L	P295350	
		Phaeophytin-a	1.4		ug/L	P295350	RPD
		Chlorophyll/Phaeophytin Ratio	1.5			P295350	

Field ID: 4

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1750724	SM 10200 H (mod.)	Chlorophyll-a, Uncorrected	4.4		ug/L	P295350	RPD
1750743	EPA 1600 (MF)	Enterococci-Membrane Filter	12	B	cfu/100 mL		
	SM 9222 D	Fecal Coliforms-Membrane Filter	44		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.

Sample Location: End of Chase St**Collection Date/Time: 11/16/2015 11:43****Field ID: 5**

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1750700	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.9	I	mg/L	P295077	
1750725	SM 10200 H (mod.)	Chlorophyll-a, Corrected	1.3	I	ug/L	P295350	
		Phaeophytin-a	1.6		ug/L	P295350	RPD
		Chlorophyll/Phaeophytin Ratio	1.3			P295350	
		Chlorophyll-a, Uncorrected	2.2		ug/L	P295350	RPD
1750744	EPA 1600 (MF)	Enterococci-Membrane Filter	38	B	cfu/100 mL		
	SM 9222 D	Fecal Coliforms-Membrane Filter	29	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.

Sample Location: 1/2 Muscogee and Hawkshaw 400 ft from Shore**Collection Date/Time: 11/16/2015 11:50****Field ID: 6**

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1750701	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.6	I	mg/L	P295077	
1750726	SM 10200 H (mod.)	Chlorophyll-a, Corrected	3.5		ug/L	P295350	
		Phaeophytin-a	0.96	I	ug/L	P295350	RPD
		Chlorophyll/Phaeophytin Ratio	1.5			P295350	
		Chlorophyll-a, Uncorrected	4.2		ug/L	P295350	RPD
1750745	EPA 1600 (MF)	Enterococci-Membrane Filter	16	B	cfu/100 mL		
	SM 9222 D	Fecal Coliforms-Membrane Filter	19	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.

Sample Location: 1/2 Bridge and Port**Collection Date/Time: 11/16/2015 12:00****Field ID: 7**

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1750702	SM 5210 B	Biochemical Oxygen Demand-5 Day	2.1		mg/L	P295077	
1750727	SM 10200 H (mod.)	Chlorophyll-a, Corrected	4.2		ug/L	P295350	
		Phaeophytin-a	3.8		ug/L	P295350	RPD
		Chlorophyll/Phaeophytin Ratio	1.4			P295350	
		Chlorophyll-a, Uncorrected	6.6		ug/L	P295350	RPD
1750746	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.

Sample Location: Field Blank @ 1/2 Bridge and Port

Collection Date/Time: 11/16/2015 12:05

Field ID: FB

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1750703	SM 5210 B	Biochemical Oxygen Demand-5 Day	0.22	I	mg/L	P295077	
1750728	SM 10200 H (mod.)	Chlorophyll-a, Corrected	0.55	U	ug/L	P295035	
		Phaeophytin-a	0.40	U	ug/L	P295035	
		Chlorophyll/Phaeophytin Ratio	1.1			P295035	
		Chlorophyll-a, Uncorrected	0.40	U	ug/L	P295035	

Ref. Method and Comment:

SM 5210 B: Precision data is unavailable due to the small amount of analyte in the QC sample.

SM 10200 H (mod.): Precision data is not available for at least one component due to the small amount of analyte in the QC sample. Refer to QA report for available precision data.

Sample Location: West of Stormdrain Inside Rocks

Collection Date/Time: 11/16/2015 11:33

Field ID: 8

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1750704	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.7	I	mg/L	P295077	
1750729	SM 10200 H (mod.)	Chlorophyll-a, Corrected	0.92	I	ug/L	P295035	
		Phaeophytin-a	0.40	U	ug/L	P295035	
		Chlorophyll/Phaeophytin Ratio	1.5			P295035	
		Chlorophyll-a, Uncorrected	1.2	I	ug/L	P295035	
1750748	EPA 1600 (MF)	Enterococci-Membrane Filter	66		cfu/100 mL		
	SM 9222 D	Fecal Coliforms-Membrane Filter	160		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.

SM 10200 H (mod.): Precision data is not available for at least one component due to the small amount of analyte in the QC sample. Refer to QA report for available precision data.

EPA 1600 (MF): Verified

SM 9222 D: Verified

Sample Location: West end of Hawkshaw 100 ft S.of Outfall

Collection Date/Time: 11/16/2015 12:30

Field ID: 9

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1750705	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.4	I	mg/L	P295077	
1750730	SM 10200 H (mod.)	Chlorophyll-a, Corrected	1.1	I	ug/L	P295035	
		Phaeophytin-a	1.2	I	ug/L	P295035	
		Chlorophyll/Phaeophytin Ratio	1.3			P295035	
		Chlorophyll-a, Uncorrected	1.8		ug/L	P295035	
1750749	EPA 1600 (MF)	Enterococci-Membrane Filter	8	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.

SM 10200 H (mod.): Precision data is not available for at least one component due to the small amount of analyte in the QC sample. Refer to QA report for available precision data.

Sample Location: Between Marina and Outfall

Collection Date/Time: 11/16/2015 12:24

Field ID: 10

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1750706	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.7	I	mg/L	P295077	

Field ID: 10

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1750731	SM 10200 H (mod.)	Chlorophyll-a, Corrected	1.5	I	ug/L	P295035	
		Phaeophytin-a	0.64	I	ug/L	P295035	
		Chlorophyll/Phaeophytin Ratio	1.5			P295035	
		Chlorophyll-a, Uncorrected	2.0		ug/L	P295035	
1750750	EPA 1600 (MF)	Enterococci-Membrane Filter	2	B	cfu/100 mL		
	SM 9222 D	Fecal Coliforms-Membrane Filter	4	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.

SM 10200 H (mod.): Precision data is not available for at least one component due to the small amount of analyte in the QC sample. Refer to QA report for available precision data.

Sample Location: Entrance of Marina

Collection Date/Time: 11/16/2015 12:16

Field ID: 11

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1750707	SM 5210 B	Biochemical Oxygen Demand-5 Day	2.0	I	mg/L	P295077	
1750732	SM 10200 H (mod.)	Chlorophyll-a, Corrected	1.6	I	ug/L	P295035	
		Phaeophytin-a	0.46	I	ug/L	P295035	
		Chlorophyll/Phaeophytin Ratio	1.5			P295035	
		Chlorophyll-a, Uncorrected	1.9		ug/L	P295035	
1750751	EPA 1600 (MF)	Enterococci-Membrane Filter	38	B	cfu/100 mL		
	SM 9222 D	Fecal Coliforms-Membrane Filter	54		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.

SM 10200 H (mod.): Precision data is not available for at least one component due to the small amount of analyte in the QC sample. Refer to QA report for available precision data.

Sample Location: 1/4 Between Bridge and Port 400 ft from Shore

Collection Date/Time: 11/16/2015 12:08

Field ID: 12

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1750708	SM 5210 B	Biochemical Oxygen Demand-5 Day	2.0	I	mg/L	P295077	
1750733	SM 10200 H (mod.)	Chlorophyll-a, Corrected	3.0		ug/L	P295035	
		Phaeophytin-a	2.0		ug/L	P295035	
		Chlorophyll/Phaeophytin Ratio	1.4			P295035	
		Chlorophyll-a, Uncorrected	4.3		ug/L	P295035	
1750752	EPA 1600 (MF)	Enterococci-Membrane Filter	4	B	cfu/100 mL		
	SM 9222 D	Fecal Coliforms-Membrane Filter	11	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.

SM 10200 H (mod.): Precision data is not available for at least one component due to the small amount of analyte in the QC sample. Refer to QA report for available precision data.

Sample Location: Inside Hawkshaw Lagoon

Collection Date/Time: 11/16/2015 12:43

Field ID: 13

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1750709	SM 5210 B	Biochemical Oxygen Demand-5 Day	2.0	I	mg/L	P295077	
1750734	SM 10200 H (mod.)	Chlorophyll-a, Corrected	5.3		ug/L	P295035	
		Phaeophytin-a	4.3		ug/L	P295035	

Field ID: 13

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1750734	SM 10200 H (mod.)	Chlorophyll/Phaeophytin Ratio	1.4			P295035	
		Chlorophyll-a, Uncorrected	8.1		ug/L	P295035	
1750753	EPA 1600 (MF)	Enterococci-Membrane Filter	770	B	cfu/100 mL		
	SM 9222 D	Fecal Coliforms-Membrane Filter	156		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.

SM 10200 H (mod.): Precision data is not available for at least one component due to the small amount of analyte in the QC sample. Refer to QA report for available precision data.

Sample Location: East of Stormdrain inside PGS 2

Collection Date/Time: 11/16/2015 12:55

Field ID: 14

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1750710	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.5	I	mg/L	P295077	
1750735	SM 10200 H (mod.)	Chlorophyll-a, Corrected	0.55	U	ug/L	P295035	
		Phaeophytin-a	0.40	U	ug/L	P295035	
		Chlorophyll/Phaeophytin Ratio	1.4			P295035	
		Chlorophyll-a, Uncorrected	0.51	I	ug/L	P295035	
		Enterococci-Membrane Filter	2	U	cfu/100 mL		
1750754	EPA 1600 (MF)	Enterococci-Membrane Filter	2	U	cfu/100 mL		
	SM 9222 D	Fecal Coliforms-Membrane Filter	4	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.

SM 10200 H (mod.): Precision data is not available for at least one component due to the small amount of analyte in the QC sample. Refer to QA report for available precision data.

Sample Location: East of Stormdrain inside PGS 2

Collection Date/Time: 11/16/2015 12:57

Field ID: 14 DUPLICATE

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1750711	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.7	I	mg/L	P295077	
1750736	SM 10200 H (mod.)	Chlorophyll-a, Corrected	0.59	I	ug/L	P295035	
		Phaeophytin-a	0.40	U	ug/L	P295035	
		Chlorophyll/Phaeophytin Ratio	1.5			P295035	
		Chlorophyll-a, Uncorrected	0.75	I	ug/L	P295035	
		Enterococci-Membrane Filter					

Ref. Method and Comment:

SM 5210 B: Precision data is unavailable due to the small amount of analyte in the QC sample.

SM 10200 H (mod.): Precision data is not available for at least one component due to the small amount of analyte in the QC sample. Refer to QA report for available precision data.

Quality Assurance Report

Method Blank Results

Reference Method: SM 10200 H (mod.)

Batch ID: P295035

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

Quality Assurance Report Method Blank Results

Reference Method: SM 10200 H (mod.)
Batch ID: P295350

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: P295077

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: P295035

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorophyll-a, Corrected	88.2		P	85 - 115

Reference Method: SM 10200 H (mod.)
Batch ID: P295350

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorophyll-a, Corrected	88.3		P	85 - 115

Reference Method: SM 5210 B
Batch ID: P295077

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Biochemical Oxygen Demand-5 Day	112		P	84 - 116

Quality Assurance Report Precision

Reference Method: SM 10200 H (mod.)
Batch ID: P295035

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1750739	Chlorophyll/Phaeophytin Ratio	6.45	Sample	P	0 - 25
1750739	Chlorophyll-a, Corrected	18.1	Sample	P	0 - 25
1750739	Chlorophyll-a, Uncorrected	7.82	Sample	P	0 - 25

Reference Method: SM 10200 H (mod.)
Batch ID: P295350

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1750666	Chlorophyll/Phaeophytin Ratio	8.00	Sample	P	0 - 25
1750666	Chlorophyll-a, Corrected	7.80	Sample	P	0 - 25
1750666	Chlorophyll-a, Uncorrected	31.7	Sample	F	0 - 25

Quality Assurance Report Precision

Reference Method: SM 10200 H (mod.)
Batch ID: P295350

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1750666	Phaeophytin-a	50.3	Sample	F	0 - 25

* 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	Precision		
				LCS	SMP	MS
SM 10200 H (mod.)	Chlorophyll/Phaeophytin Ratio				6.45	
	Chlorophyll/Phaeophytin Ratio				8.00	
	Chlorophyll-a, Corrected	88.2			18.1	
	Chlorophyll-a, Corrected	88.3			7.80	
	Chlorophyll-a, Uncorrected				7.82	
	Chlorophyll-a, Uncorrected				31.7	
	Phaeophytin-a				50.3	
SM 5210 B	Biochemical Oxygen Demand-5 Day	112				

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 1600 (MF) / E71969	Enterococci by membrane filter method by UWF Overflow Laboratory for NWD	1750740, 1750741, 1750742, 1750743, 1750744, 1750745, 1750746, 1750748, 1750749, 1750750, 1750751, 1750752, 1750753, 1750754
SM 10200 H (mod.) / E31780	Phytoplankton chlorophyll-a corrected, uncorrected, phaeophytin and ratio by spectrophotometry	1750721, 1750722, 1750723, 1750724, 1750725, 1750726, 1750727, 1750728, 1750729, 1750730, 1750731, 1750732, 1750733, 1750734, 1750735, 1750736
SM 5210 B / E31780	BOD, NOT nitrogen-inhibited	1750696, 1750697, 1750698, 1750699, 1750700, 1750701, 1750702, 1750703, 1750704, 1750705, 1750706, 1750707, 1750708, 1750709, 1750710, 1750711
SM 9222 D / E71969	Fecal coliforms by membrane filter method by UWF Overflow Laboratory for NWD	1750740, 1750741, 1750742, 1750743, 1750744, 1750745, 1750746, 1750748, 1750749, 1750750, 1750751, 1750752, 1750753, 1750754

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 1600 (MF)	11/16/2015			11/16/2015 16:09	UWF Lab	1750754
	11/16/2015			11/16/2015 16:12	UWF Lab	1750753
	11/16/2015			11/16/2015 16:15	UWF Lab	1750752
	11/16/2015			11/16/2015 16:18	UWF Lab	1750751
	11/16/2015			11/16/2015 16:21	UWF Lab	1750750
	11/16/2015			11/16/2015 16:24	UWF Lab	1750749
	11/16/2015			11/16/2015 16:27	UWF Lab	1750748
	11/16/2015			11/16/2015 16:32	UWF Lab	1750746
	11/16/2015			11/16/2015 16:38	UWF Lab	1750745
	11/16/2015			11/16/2015 16:41	UWF Lab	1750744
	11/16/2015			11/16/2015 16:44	UWF Lab	1750743
	11/16/2015			11/16/2015 16:47	UWF Lab	1750742
	11/16/2015			11/16/2015 16:53	UWF Lab	1750741
	11/16/2015			11/16/2015 16:56	UWF Lab	1750740
SM 10200 H (mod.)	11/17/2015	11/17/2015 13:15	Jennifer Mihalic	11/24/2015	Amelia G. Rankin	1750721, 1750722, 1750723, 1750724, 1750725, 1750726, 1750727, 1750728, 1750729, 1750730, 1750731, 1750732, 1750733, 1750734, 1750735, 1750736
SM 5210 B	11/17/2015			11/18/2015 08:10	Jennifer Mihalic	1750696, 1750697, 1750698, 1750699, 1750700, 1750701, 1750702, 1750703, 1750704, 1750705, 1750706, 1750707, 1750708, 1750709, 1750710, 1750711
SM 9222 D	11/16/2015			11/16/2015 16:03	UWF Lab	1750740
	11/16/2015			11/16/2015 16:06	UWF Lab	1750741
	11/16/2015			11/16/2015 16:09	UWF Lab	1750742
	11/16/2015			11/16/2015 16:16	UWF Lab	1750743
	11/16/2015			11/16/2015 16:19	UWF Lab	1750744
	11/16/2015			11/16/2015 16:22	UWF Lab	1750745
	11/16/2015			11/16/2015 16:25	UWF Lab	1750746
	11/16/2015			11/16/2015 16:34	UWF Lab	1750748
	11/16/2015			11/16/2015 16:38	UWF Lab	1750749
	11/16/2015			11/16/2015 16:42	UWF Lab	1750750
	11/16/2015			11/16/2015 16:45	UWF Lab	1750751
	11/16/2015			11/16/2015 16:48	UWF Lab	1750752
	11/16/2015			11/16/2015 16:52	UWF Lab	1750753
	11/16/2015			11/16/2015 16:55	UWF Lab	1750754