

Biological Analysis Report

NW-DIST-2010-08-31-07

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

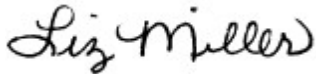
Event Description: **Project Greenshores**
Request ID: **RQ-2010-08-23-27**
Customer: **NW-DIST**
Project ID: **DISCRTNARY**

Send Reports to:
FL Dept. of Environmental Protection
160 Government Center
Suite 308
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Certified by: Elizabeth Miller, Environmental Manager

Date Certified: 17-SEP-2010 13:55



Report Comments:
Accidentally unauthorised.

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.

* - Item was outside the QC Limits.

** - 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-2010-08-31-46
Job: TLH-2010-08-31-47

Group: Chlorophyll/Grain Size/BOD
Group: Chlorophyll/Grain Size/BOD

Sample Location: 1/2 BETWEEN BRIDGE AND PORT

Collection Date/Time: 08/30/2010 10:40 AM

Field ID: 7

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1295527	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.1	IJ		mg/L	E31780
1295541	SM 10200 H (mod.)	Chlorophyll-a, Corrected	10			ug/L	
		Phaeophytin-a	1.7			ug/L	
		Chlorophyll/Phaeophytin Ratio	1.6				
		Chlorophyll-a, Uncorrected	12			ug/L	

Ref. Method and Comment:

SM 5210 B: GGA Control Sample result was 139 ppm. The control sample acceptance limits are 198 +/- 30.5 ppm.

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

Collection Date/Time: 08/30/2010 11:35 AM

Field ID: 6

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1295526	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.2	IJ		mg/L	E31780
1295540	SM 10200 H (mod.)	Chlorophyll-a, Corrected	9.4			ug/L	
		Phaeophytin-a	1.3			ug/L	
		Chlorophyll/Phaeophytin Ratio	1.6				
		Chlorophyll-a, Uncorrected	11			ug/L	

Ref. Method and Comment:

SM 5210 B: GGA Control Sample result was 139 ppm. The control sample acceptance limits are 198 +/- 30.5 ppm.

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

Collection Date/Time: 08/30/2010 10:50 AM

Field ID: 12

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1295532	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.1	IJ		mg/L	E31780
1295546	SM 10200 H (mod.)	Chlorophyll-a, Corrected	3.3			ug/L	
		Phaeophytin-a	0.66	I		ug/L	
		Chlorophyll/Phaeophytin Ratio	1.6				
		Chlorophyll-a, Uncorrected	3.8			ug/L	

Ref. Method and Comment:

SM 5210 B: GGA Control Sample result was 139 ppm. The control sample acceptance limits are 198 +/- 30.5 ppm.

Sample Location: 100FT SOUTH OF STORMDRAIN

Collection Date/Time: 08/30/2010 10:15 AM

Field ID: 4

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1295524	SM 5210 B	Biochemical Oxygen Demand-5 Day	0.89	IJ		mg/L	E31780
1295538	SM 10200 H (mod.)	Chlorophyll-a, Corrected	6.6			ug/L	
		Phaeophytin-a	1.2	I		ug/L	
		Chlorophyll/Phaeophytin Ratio	1.6				
		Chlorophyll-a, Uncorrected	7.5			ug/L	

Ref. Method and Comment:

SM 5210 B: GGA Control Sample result was 139 ppm. The control sample acceptance limits are 198 +/- 30.5 ppm.

Sample Location: BETWEEN MARINA AND OUTFALL

Collection Date/Time: 08/30/2010 11:00 AM

Field ID: 10

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1295530	SM 5210 B	Biochemical Oxygen Demand-5 Day	0.98	IJ		mg/L	E31780
1295544	SM 10200 H (mod.)	Chlorophyll-a, Corrected	5.9			ug/L	
		Phaeophytin-a	1.6			ug/L	
		Chlorophyll/Phaeophytin Ratio	1.6				
		Chlorophyll-a, Uncorrected	7.1			ug/L	

Ref. Method and Comment:

SM 5210 B: GGA Control Sample result was 139 ppm. The control sample acceptance limits are 198 +/- 30.5 ppm.

Sample Location: EAST OF PRIMARY STORM DRAIN**Collection Date/Time: 08/30/2010 10:05 AM****Field ID: 3**

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1295523	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.0	IJ		mg/L	E31780
1295537	SM 10200 H (mod.)	Chlorophyll-a, Corrected	5.8			ug/L	
		Phaeophytin-a	1.0	I		ug/L	
		Chlorophyll/Phaeophytin Ratio	1.6				
		Chlorophyll-a, Uncorrected	6.6			ug/L	

Ref. Method and Comment:

SM 5210 B: GGA Control Sample result was 139 ppm. The control sample acceptance limits are 198 +/- 30.5 ppm.

Sample Location: EAST OR STORMDRAIN INSIDE**Collection Date/Time: 08/30/2010 11:30 AM****Field ID: 14**

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1295534	SM 5210 B	Biochemical Oxygen Demand-5 Day	0.97	IJ		mg/L	E31780
1295548	SM 10200 H (mod.)	Chlorophyll-a, Corrected	5.6	A		ug/L	
		Phaeophytin-a	3.2	A		ug/L	
		Chlorophyll/Phaeophytin Ratio	1.4	A			
		Chlorophyll-a, Uncorrected	7.8	A		ug/L	

Ref. Method and Comment:

SM 5210 B: GGA Control Sample result was 139 ppm. The control sample acceptance limits are 198 +/- 30.5 ppm.

Sample Location: END OF CHASE STREET**Collection Date/Time: 08/30/2010 10:25 AM****Field ID: 8**

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1295528	SM 5210 B	Biochemical Oxygen Demand-5 Day	0.74	IJ		mg/L	E31780
1295542	SM 10200 H (mod.)	Chlorophyll-a, Corrected	2.8			ug/L	
		Phaeophytin-a	0.93	I		ug/L	
		Chlorophyll/Phaeophytin Ratio	1.5				
		Chlorophyll-a, Uncorrected	3.4			ug/L	

Ref. Method and Comment:

SM 5210 B: GGA Control Sample result was 139 ppm. The control sample acceptance limits are 198 +/- 30.5 ppm.

Sample Location: ENTRANCE OF MARINA**Collection Date/Time: 08/30/2010 10:55 AM****Field ID: 11**

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1295531	SM 5210 B	Biochemical Oxygen Demand-5 Day	0.66	IJ		mg/L	E31780

Field ID: 11

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1295545	SM 10200 H (mod.)	Chlorophyll-a, Corrected	3.4			ug/L	E31780
		Phaeophytin-a	1.1	I		ug/L	
		Chlorophyll/Phaeophytin Ratio	1.5				
		Chlorophyll-a, Uncorrected	4.2			ug/L	

Ref. Method and Comment:

SM 5210 B: GGA Control Sample result was 139 ppm. The control sample acceptance limits are 198 +/- 30.5 ppm.

Sample Location: INSIDE HAWKSHAW LAGOON

Collection Date/Time: 08/30/2010 11:20 AM

Field ID: 13

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1295533	SM 5210 B	Biochemical Oxygen Demand-5 Day	2.3	J		mg/L	E31780
1295547	SM 10200 H (mod.)	Chlorophyll-a, Corrected	35			ug/L	
		Phaeophytin-a	3.4			ug/L	
		Chlorophyll/Phaeophytin Ratio	1.6				
		Chlorophyll-a, Uncorrected	39			ug/L	

Ref. Method and Comment:

SM 5210 B: GGA Control Sample result was 139 ppm. The control sample acceptance limits are 198 +/- 30.5 ppm.

Sample Location: MIDPOINT BETWEEN BAY BRIDGE AND MUSCOGEE

Collection Date/Time: 08/30/2010 09:57 AM

Field ID: 2

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1295522	SM 5210 B	Biochemical Oxygen Demand-5 Day	0.97	IJ		mg/L	E31780
1295536	SM 10200 H (mod.)	Chlorophyll-a, Corrected	9.4			ug/L	
		Phaeophytin-a	1.5			ug/L	
		Chlorophyll/Phaeophytin Ratio	1.6				
		Chlorophyll-a, Uncorrected	11			ug/L	

Ref. Method and Comment:

SM 5210 B: GGA Control Sample result was 139 ppm. The control sample acceptance limits are 198 +/- 30.5 ppm.

Sample Location: RANGE MARKER EAST OF TEXAR

Collection Date/Time: 08/30/2010 09:45 AM

Field ID: 1

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1295521	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.0	IJ		mg/L	E31780
1295535	SM 10200 H (mod.)	Chlorophyll-a, Corrected	8.2			ug/L	
		Phaeophytin-a	3.1			ug/L	
		Chlorophyll/Phaeophytin Ratio	1.5				
		Chlorophyll-a, Uncorrected	10			ug/L	

Ref. Method and Comment:

SM 5210 B: GGA Control Sample result was 139 ppm. The control sample acceptance limits are 198 +/- 30.5 ppm.

Sample Location: WEST END OF HAWKSHAW 100 FT S OF OUTFALL

Collection Date/Time: 08/30/2010 11:10 AM

Field ID: 9

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
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Field ID: 9

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1295529	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.1	IJ		mg/L	E31780
1295543	SM 10200 H (mod.)	Chlorophyll-a, Corrected	6.5			ug/L	
		Phaeophytin-a	2.9			ug/L	
		Chlorophyll/Phaeophytin Ratio	1.5				
		Chlorophyll-a, Uncorrected	8.6			ug/L	

Ref. Method and Comment:

SM 5210 B: GGA Control Sample result was 139 ppm. The control sample acceptance limits are 198 +/- 30.5 ppm.

Sample Location: WEST OF STORMDRAIN INSIDE ROCKS

Collection Date/Time: 08/30/2010 10:30 AM

Field ID: 5

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1295525	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.3	IJ		mg/L	E31780
1295539	SM 10200 H (mod.)	Chlorophyll-a, Corrected	7.8			ug/L	
		Phaeophytin-a	1.8			ug/L	
		Chlorophyll/Phaeophytin Ratio	1.6				
		Chlorophyll-a, Uncorrected	9.2			ug/L	

Ref. Method and Comment:

SM 5210 B: GGA Control Sample result was 139 ppm. The control sample acceptance limits are 198 +/- 30.5 ppm.

Quality Control Report

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	LCS	Precision SMP	MS
SM 10200 H (mod.)	Chlorophyll/Phaeophytin Ratio				6.90	
	Chlorophyll-a, Corrected				9.42	
	Chlorophyll-a, Uncorrected				10.8	
	Phaeophytin-a				15.1	
SM 5210 B	Biochemical Oxygen Demand-5 Day				3.39	

Reference Method Descriptions

Method:

SM 10200 H (mod.)
SM 5210 B

Description

Phytoplankton chlorophyll-a and phaeophytin and ratio by spectrophotometry
BOD, NOT nitrogen-inhibited

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 10200 H (mod.)	08/31/2010	08/31/2010 15:05	Kim M. Spencer	09/07/2010	Jacqueline Shim	1295535, 1295536, 1295537, 1295538, 1295539, 1295540, 1295541, 1295542, 1295543, 1295544, 1295545, 1295546, 1295547, 1295548
SM 5210 B	08/31/2010			09/01/2010 08:15	Jonathan M. Woods	1295521, 1295522, 1295523, 1295524, 1295525, 1295526, 1295527, 1295528, 1295529, 1295530, 1295531, 1295532, 1295533, 1295534