

Chemical Analysis Report

NW-DIST-2011-03-15-02

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-2011-02-28-10**
Customer: **NW-DIST**
Project ID: **DISCRTNARY**

Send Reports to:
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Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator Date Certified: 05-APR-2011 15:41



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.

Sample Location: 1/2 BETWEEN BRIDGE AND PORT

Collection Date/Time: 03/14/2011 11:30 AM

Field ID: 7

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337093	EPA 180.1 Rev. 2.0	Turbidity	4.5			NTU	E31780
	SM 2120 B	Color (apparent)	40			PCU	
	SM 2540 D-97	TSS	19			mg/L	
1337107	EPA 350.1 Rev. 2.0	Ammonia-N	0.010	U		mg N/L	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.35	I		mg N/L	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.034			mg N/L	
	EPA 365.1 Rev. 2.0	Total-P	0.014	I		mg P/L	

Ref. Method and Comment:

SM 2120 B: The pH of the aliquot used to measure the color is between 4 and 9 units. This value does not represent the field pH.

Sample Location: 1/2 BRIDGE AND MUSCOGEE

Collection Date/Time: 03/14/2011 10:45 AM

Field ID: 2

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337088	EPA 180.1 Rev. 2.0	Turbidity	2.5			NTU	E31780
	SM 2120 B	Color (apparent)	30			PCU	
	SM 2540 D-97	TSS	18			mg/L	
1337102	EPA 350.1 Rev. 2.0	Ammonia-N	0.010	U		mg N/L	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.33	I		mg N/L	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.031			mg N/L	
	EPA 365.1 Rev. 2.0	Total-P	0.011	I		mg P/L	

Ref. Method and Comment:

SM 2120 B: The pH of the aliquot used to measure the color is between 4 and 9 units. This value does not represent the field pH.

SM 2540 D-97: The precision data is unavailable due to the small amount of analyte in the QC sample.

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

Collection Date/Time: 03/14/2011 12:30 PM

Field ID: 6

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337092	EPA 180.1 Rev. 2.0	Turbidity	8.1			NTU	E31780
	SM 2120 B	Color (apparent)	80			PCU	
	SM 2540 D-97	TSS	18			mg/L	
1337106	EPA 350.1 Rev. 2.0	Ammonia-N	0.010	U		mg N/L	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.42			mg N/L	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.022			mg N/L	
	EPA 365.1 Rev. 2.0	Total-P	0.018	I		mg P/L	

Ref. Method and Comment:

SM 2120 B: The pH of the aliquot used to measure the color is between 4 and 9 units. This value does not represent the field pH.

Sample Location: 1/4 BETWEEN BRIDGE AND PORT

Collection Date/Time: 03/14/2011 11:40 AM

Field ID: 12

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337099	EPA 180.1 Rev. 2.0	Turbidity	2.0			NTU	E31780
	SM 2120 B	Color (apparent)	20			PCU	
	SM 2540 D-97	TSS	24			mg/L	

Field ID: 12

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337113	EPA 350.1 Rev. 2.0	Ammonia-N	0.019	I		mg N/L	E31780
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.31	I		mg N/L	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.049			mg N/L	
	EPA 365.1 Rev. 2.0	Total-P	0.011	I		mg P/L	

Ref. Method and Comment:

SM 2120 B: The pH of the aliquot used to measure the color is between 4 and 9 units. This value does not represent the field pH.

Sample Location: 100 FT SOUTH OF OUTFALL

Collection Date/Time: 03/14/2011 11:05 AM

Field ID: 4

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337090	EPA 180.1 Rev. 2.0	Turbidity	2.1			NTU	E31780
	SM 2120 B	Color (apparent)	20			PCU	
	SM 2540 D-97	TSS	25			mg/L	
1337104	EPA 350.1 Rev. 2.0	Ammonia-N	0.038			mg N/L	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.37	I		mg N/L	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.062			mg N/L	
	EPA 365.1 Rev. 2.0	Total-P	0.017	I		mg P/L	

Ref. Method and Comment:

SM 2120 B: The pH of the aliquot used to measure the color is between 4 and 9 units. This value does not represent the field pH.

Sample Location: BETWEEN MARINA AND OUTFALL

Collection Date/Time: 03/14/2011 12:00 PM

Field ID: 10

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337096	EPA 180.1 Rev. 2.0	Turbidity	1.9	A		NTU	E31780
	SM 2120 B	Color (apparent)	30	A		PCU	
	SM 2540 D-97	TSS	18			mg/L	
1337110	EPA 350.1 Rev. 2.0	Ammonia-N	0.020			mg N/L	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.41			mg N/L	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.051			mg N/L	
	EPA 365.1 Rev. 2.0	Total-P	0.013	I		mg P/L	

Ref. Method and Comment:

SM 2120 B: The pH of the aliquot used to measure the color is between 4 and 9 units. This value does not represent the field pH.

Sample Location: E OF STORM DRAIN

Collection Date/Time: 03/14/2011 10:55 AM

Field ID: 3

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337089	EPA 180.1 Rev. 2.0	Turbidity	1.8			NTU	E31780
	SM 2120 B	Color (apparent)	20			PCU	
	SM 2540 D-97	TSS	26	A		mg/L	
1337103	EPA 350.1 Rev. 2.0	Ammonia-N	0.010	U		mg N/L	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.30	I		mg N/L	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.031			mg N/L	
	EPA 365.1 Rev. 2.0	Total-P	0.013	I		mg P/L	

Ref. Method and Comment:

SM 2120 B: The pH of the aliquot used to measure the color is between 4 and 9 units. This value does not represent the field pH.

Sample Location: EAST OF STORM DRAIN

Collection Date/Time: 03/14/2011 12:22 PM

Field ID: 14

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337100	EPA 180.1 Rev. 2.0	Turbidity	2.0			NTU	E31780
	SM 2120 B	Color (apparent)	30			PCU	
	SM 2540 D-97	TSS	17	A		mg/L	
1337114	EPA 350.1 Rev. 2.0	Ammonia-N	0.066			mg N/L	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.44			mg N/L	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.067			mg N/L	
	EPA 365.1 Rev. 2.0	Total-P	0.017	I		mg P/L	

Ref. Method and Comment:

SM 2120 B: The pH of the aliquot used to measure the color is between 4 and 9 units. This value does not represent the field pH.

Sample Location: END OF CHASE STREET

Collection Date/Time: 03/14/2011 11:10 AM

Field ID: 5

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337091	EPA 180.1 Rev. 2.0	Turbidity	1.3			NTU	E31780
	SM 2120 B	Color (apparent)	20			PCU	
	SM 2540 D-97	TSS	20			mg/L	
1337105	EPA 350.1 Rev. 2.0	Ammonia-N	0.071			mg N/L	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.38	I		mg N/L	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.068			mg N/L	
	EPA 365.1 Rev. 2.0	Total-P	0.018	I		mg P/L	

Ref. Method and Comment:

SM 2120 B: The pH of the aliquot used to measure the color is between 4 and 9 units. This value does not represent the field pH.

Sample Location: ENTRANCE OF MARINA

Collection Date/Time: 03/14/2011 11:50 AM

Field ID: 11

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337097	EPA 180.1 Rev. 2.0	Turbidity	1.8			NTU	E31780
	SM 2120 B	Color (apparent)	30			PCU	
	SM 2540 D-97	TSS	22			mg/L	
1337111	EPA 350.1 Rev. 2.0	Ammonia-N	0.037			mg N/L	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.34	I		mg N/L	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.14			mg N/L	
	EPA 365.1 Rev. 2.0	Total-P	0.015	I		mg P/L	

Ref. Method and Comment:

SM 2120 B: The pH of the aliquot used to measure the color is between 4 and 9 units. This value does not represent the field pH.

Sample Location: INSIDE HAWKSHAW

Collection Date/Time: 03/14/2011 12:20 PM

Field ID: 13

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337098	EPA 180.1 Rev. 2.0	Turbidity	29			NTU	E31780
	SM 2120 B	Color (apparent)	80			PCU	
	SM 2540 D-97	TSS	122			mg/L	
1337112	EPA 350.1 Rev. 2.0	Ammonia-N	0.013	I		mg N/L	

Field ID: 13

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337112	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2			mg N/L	E31780
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.17			mg N/L	
	EPA 365.1 Rev. 2.0	Total-P	0.059			mg P/L	

Ref. Method and Comment:

SM 2120 B: The pH of the aliquot used to measure the color is between 4 and 9 units. This value does not represent the field pH.

Sample Location: RANGE MARKER E OF TEXAR**Collection Date/Time: 03/14/2011 10:30 AM****Field ID: 1**

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337087	EPA 180.1 Rev. 2.0	Turbidity	7.4			NTU	E31780
	SM 2120 B	Color (apparent)	60	A		PCU	
	SM 2540 D-97	TSS	18			mg/L	
1337101	EPA 350.1 Rev. 2.0	Ammonia-N	0.010	U		mg N/L	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.38	I		mg N/L	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.023			mg N/L	
	EPA 365.1 Rev. 2.0	Total-P	0.019	I		mg P/L	

Ref. Method and Comment:

SM 2120 B: The pH of the aliquot used to measure the color is between 4 and 9 units. This value does not represent the field pH.

SM 2540 D-97: The precision data is unavailable due to the small amount of analyte in the QC sample.

**Sample Location: WEST END OF HAWKSHAW 100FT S OF
OUTFALL****Collection Date/Time: 03/14/2011 12:05 PM****Field ID: 9**

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337095	EPA 180.1 Rev. 2.0	Turbidity	1.4			NTU	E31780
	SM 2120 B	Color (apparent)	20			PCU	
	SM 2540 D-97	TSS	22			mg/L	
1337109	EPA 350.1 Rev. 2.0	Ammonia-N	0.043			mg N/L	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.39	I		mg N/L	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.054			mg N/L	
	EPA 365.1 Rev. 2.0	Total-P	0.014	I		mg P/L	

Ref. Method and Comment:

SM 2120 B: The pH of the aliquot used to measure the color is between 4 and 9 units. This value does not represent the field pH.

Sample Location: WEST OF OUTFALL INSIDE ROCKS**Collection Date/Time: 03/14/2011 11:20 AM****Field ID: 8**

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337094	EPA 180.1 Rev. 2.0	Turbidity	1.4			NTU	E31780
	SM 2120 B	Color (apparent)	30			PCU	
	SM 2540 D-97	TSS	19			mg/L	
1337108	EPA 350.1 Rev. 2.0	Ammonia-N	0.069			mg N/L	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.41			mg N/L	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.074			mg N/L	
	EPA 365.1 Rev. 2.0	Total-P	0.016	I		mg P/L	

Ref. Method and Comment:

SM 2120 B: The pH of the aliquot used to measure the color is between 4 and 9 units. This value does not represent the field pH.

Quality Control Report

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	
						SMP	MS
EPA 180.1 Rev. 2.0	Turbidity					2.56	
	Turbidity					4.65	
EPA 350.1 Rev. 2.0	Ammonia-N	98.7	102	108			5.18
	Ammonia-N	99.1	95.7	103			5.81
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.9	96.9	98.8			1.62
	Kjeldahl Nitrogen	91.6	102	94.8			6.76
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	102	104	104			0.423
	NO ₂ NO ₃ -N	104	105	106			0.816
EPA 365.1 Rev. 2.0	Total-P	104	101	95.9			4.85
	Total-P	102	94.8	94.6			0.198
SM 2120 B	Color (apparent)					0.0	
	Color (apparent)					0.0	
SM 2540 D-97	TSS					4.65	
	TSS					2.41	

Reference Method Descriptions

Method:

EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L
EPA 365.1 Rev. 2.0	Low Level Total Phosphorus in fresh water matrices
SM 2120 B	True Color measured at 450 nm or Apparent Color
SM 2540 D-97	Total Suspended Solids in aqueous matrices

Description

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	03/15/2011			03/15/2011 15:19	Blanca Fach	1337087, 1337088, 1337089, 1337090, 1337091, 1337092, 1337093, 1337094, 1337095, 1337096, 1337097, 1337098, 1337099, 1337100
EPA 350.1 Rev. 2.0	03/15/2011			03/16/2011	Diana M. Dunbar	1337101, 1337102, 1337103, 1337104, 1337105, 1337106, 1337107, 1337108, 1337109, 1337110, 1337111, 1337112, 1337113, 1337114
EPA 351.2 Rev. 2.0	03/15/2011	03/17/2011	Bryan A. Werth	03/18/2011	Bryan A. Werth	1337101, 1337102, 1337103, 1337104, 1337105, 1337106, 1337107, 1337108, 1337109, 1337110, 1337111, 1337112, 1337113, 1337114
EPA 353.2 Rev. 2.0	03/15/2011			03/24/2011	Sima Feizi	1337101, 1337102, 1337103, 1337104, 1337105, 1337106, 1337107, 1337108, 1337109, 1337110, 1337111, 1337112, 1337113, 1337114
EPA 365.1 Rev. 2.0	03/15/2011	03/18/2011	Megan E. Faircloth	03/22/2011	Megan E. Faircloth	1337101, 1337102, 1337103, 1337104, 1337105, 1337106, 1337107, 1337108, 1337109, 1337110, 1337111, 1337112, 1337113, 1337114
SM 2120 B	03/15/2011			03/16/2011 09:50	Rochelle Y Jackson	1337087, 1337088, 1337089, 1337090, 1337091, 1337092, 1337093, 1337094, 1337095, 1337096, 1337097, 1337098, 1337099, 1337100
SM 2540 D-97	03/15/2011			03/18/2011	Yijie Li	1337087, 1337088, 1337089, 1337090, 1337091, 1337092, 1337093, 1337094, 1337095, 1337096, 1337097, 1337098, 1337099, 1337100