ED BARBER & ASSOCIATES

ENVIRONMENTAL CONSULTING

ENVIRONMENTAL MANAGEMENT SERVICES

Wildewood Professional Park
3639 Cortez Road West, Suite 102
Bradenton, Florida 34210
Tel: 941-739-3903 Fax: 941-739-3829

August 17, 2001

Ms. Rose Poynor, Habitat Restoration Section
Florida Department of Environmental Protection, Southwest District
3804 Coconut Palm Drive
Tampa , FL 33619

Re: File No. 58-01274663-001, Shakett Creek Navigational Dredging

Dear Ms. Poynor:

The enclosed material summarizes the diel water-quality survey performed by personnel from M. R. Friday & Associates, Inc. on July 27-28, 2001 pursuant to Specific Condition No. 39 of the referenced permit. More specifically, the sites are located as follows:

- Site No. 1 is located on Cow Pen Slough about one-half mile upstream from Laurel Road and 250-feet upstream from the mouth of Fox Creek where it enters Cow Pen Slough,
- Site No. 2 is located about 200 feet west northwest of the oyster mitigation area where dredge material from the trestle and cove areas was placed, and
- Site No. 3 is located about 200 feet east northeast from the dredge channel at the railroad trestle.

The following information is transmitted herewith:

- List of field measurements made during diel survey, reflecting high seasonal freshwater inputs
- Analytical report for analyses of total suspended solids performed by Benchmark EnviroAnalytical, Inc., as prescribed in the permit
- Chain-of-custody record

This diel survey serves to fulfill the water quality monitoring conditions for the referenced permit. Please call me if there is a need to further discuss the enclosed data.

Sincerely,

Sam A. Johnston, Jr.

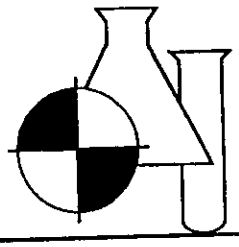
Sam Johnston, Jr.
Associate

Enclosures

cc: Chuck Listowski / WCIND
Larry Olsen, Ph.D.
Bob Stetler / FDEP

5

BENCHMARK
EnviroAnalytical, Inc.



FDOH Certification #E84167 and #84455
FDEP Quality Assurance #870594G

Submission Number 1070536

M.R. Friday & Associates, Inc.
1748 Independence Blvd., Suite E-7
Sarasota FL 34234

Project Name: SHACKETT CREEK/ WCIND
Date Received: 07/28/2001
Time Received: 1231

Submission Number 1070536

Sample Number: 1
Sample Date: 07/27/2001
Sample Time: 0900
Sample Description: Shackett Creek Station 1
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	6.17	MG/L	0.5	160.2	07/31/2001		TDT

U = Analyte not detected at the value indicated

Submission Number 1070536

Sample Number: 2
Sample Date: 07/27/2001
Sample Time: 0900
Sample Description: Shackett Creek Station 1
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	5.83	MG/L	0.5	160.2	07/31/2001		TDT

U = Analyte not detected at the value indicated

Submission Number 1070536

Sample Number: 3
Sample Date: 07/27/2001
Sample Time: 0900
Sample Description: Shackett Creek Station 1
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst

653 Tenth Street East*Palmetto, FL 34221*Phone (941)723-9986*FAX (941)723-6061

PROJECT NAME: SHACKETT CREEK/WCIND **DATE:** July 27 & 28, 2001

Station/Time(hrs) Depth (total)		DO (ppm)			TEMP (c)			SALINITY (0/00)			CONDUCT (mmho)			pH		
Run 1		-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'
1	0900 6.2'	4.85	4.80	4.75	28.1	28.1	28.1	0	0	0	0.5	0.4	0.5	6.58	6.62	6.68
2	0926 2.9'	4.6	----	4.2	28.7	----	28.8	0.1	----	0.1	0.5	----	0.5	6.77	----	6.84
3	0942 4.6'	4.7	4.7	4.5	28.7	28.7	28.7	0	0	0	0.5	0.5	0.5	6.81	6.81	6.82
Run 2																
1	1300 5.9'	5.9	5.6	5.5	28.0	28.0	28.0	0	0	0	0.5	0.5	0.5	6.70	6.72	6.73
2	1321 2.5'	----	3.9	----	----	29.7	----	----	0.3	----	----	0.9	----	----	6.89	----
3	1331 4.2'	4.8	4.6	4.6	28.9	28.9	28.9	0	0	0	0.5	0.5	0.5	4.87	4.86	4.86
Run 3																
1	1700 5.7'	5.9	5.8	5.8	28.9	28.9	28.9	0	0	0	0.5	0.5	0.5	6.65	6.68	6.73
2	1719 2.4'	----	4.2	----	----	29.9	----	----	0.2	----	----	0.7	----	----	6.81	----
3	1733 4.3'	5.0	4.7	4.6	29.2	29.2	29.1	0	0	0	0.5	0.5	0.6	6.83	6.85	6.86
Run 4																
1	2100 5.7'	5.7	5.7	5.8	28.7	28.9	28.9	0	0	0	0.5	0.5	0.5	6.70	6.75	6.71
2	2118 2.5'	----	4.5	----	----	29.0	----	----	0	0	----	----	0.5	----	----	6.80	----
3	2130 4.3'	4.7	4.8	4.7	29.2	29.2	29.0	0	0	0	0.5	0.5	0.5	6.84	6.85	6.85
Run 5																
1	0100 5.5'	5.9	5.8	5.8	28.7	28.8	28.8	0.5	0.5	0.7	0.6	0.6	0.8	6.75	6.78	6.8
2	0118 2.3'	----	4.2	----	----	28.8	----	----	1.3	----	----	0.9	----	----	6.87	----
3	0128 4.1'	4.7	4.7	4.7	28.9	28.8	28.8	0.8	0.8	0.7	0.6	0.6	0.6	6.87	6.87	6.8

TOTAL SUSPENDED SOLIDS	6.83	MG/L	0.5	160.2	07/31/2001	TDT

U = Analyte not detected at the value indicated

Submission Number 1070536

Sample Number: 4 **Sample Description:** Shackett Creek Station 2
Sample Date: 07/27/2001 **Sample Method:** Grab
Sample Time: 0926

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	6.00	MG/L	0.5	160.2	07/31/2001		TDT

U = Analyte not detected at the value indicated

Submission Number 1070536

Sample Number: 5 **Sample Description:** Shackett Creek Station 2
Sample Date: 07/27/2001 **Sample Method:** Grab
Sample Time: 0926

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	8.67	MG/L	0.5	160.2	07/31/2001		TDT

U = Analyte not detected at the value indicated

Submission Number 1070536

Sample Number: 6 **Sample Description:** Shackett Creek Station 3
Sample Date: 07/27/2001 **Sample Method:** Grab
Sample Time: 0942

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	5.83	MG/L	0.5	160.2	07/31/2001		TDT

U = Analyte not detected at the value indicated

653 Tenth Street East*Palmetto, FL 34221*Phone (941)723-9986*FAX (941)723-6061

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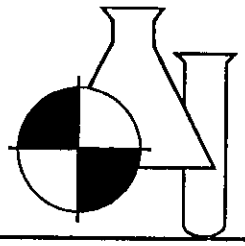
EnviroAnalytical, Inc.



FDOH Certification #E84167 and #84455
FDEP Quality Assurance #870594G

Submission Number 1070536

Sample Number: 7
Sample Date: 07/27/2001
Sample Time: 0942
Sample Description: Shackett Creek Station 3
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	6.33	MG/L	0.5	160.2	07/31/2001		TDT

U = Analyte not detected at the value indicated

Submission Number 1070536

Sample Number: 8
Sample Date: 07/27/2001
Sample Time: 0942
Sample Description: Shackett Creek Station 3
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	7.50	MG/L	0.5	160.2	07/31/2001		TDT

U = Analyte not detected at the value indicated

Dale D. Dixon / Laboratory Director — 08/04/2001 Date

653 Tenth Street East*Palmetto, FL 34221*Phone (941)723-9986*FAX (941)723-6061

Benchmark EnviroAnalytical, Inc.
653 Tenth Street East
Palmetto, FL 34221
(941) 723-9986
(941) 723-6061 fax
BenchmarkEA@earthlink.net

Client: **M.R. Friday & Associates, Inc.**
1748 Independence Blvd., Suite E-7
Sarasota, FL. 34234
(941) 351-1881
(941) 351-8359 fax

Chain of Custody Form: Shackett Creek/WCIND
Method of discharge: Surface Water

Laboratory Submission #: 01070536

Station ID	Sample Type	TSS		Field Parameters					Laboratory Sample #
		Plain		~~Temp (°C)~~ Sample #	~~pH~~ Depth	D.O. (mg/L)	Salinity (g/kg)	Conductivity (µmhos/cm)	
		1 x 1 Quart Plastic							
1	Grab	(Date) 7/27/01	(Time:) 0900	1	1'				1 TB
1	Grab	(Date) 7/27/01	(Time:) 0900	2	3'				2
1	Grab	(Date) 7/27/01	(Time:) 0900	3	5'				3
2	Grab	(Date) 7/27/01	(Time:) 0926	4	1'				4
2	Grab	(Date) —	(Time:) —	—	—				5
2	Grab	(Date) 7/27/01	(Time:) 0926	5	2'				
3	Grab	(Date) 7/27/01	(Time:) 0942	6	1'				6
3	Grab	(Date) 7/27/01	(Time:) 0942	7	2.5'				7
3	Grab	(Date) 7/27/01	(Time:) 0942	8	4'				8

1	Collector: (Print) Michael R. Friday	Date: 7/27/01	2	Received By: (Print)	Date:	
	Signature: Michael R. Friday	Time: 1700		Signature:	Time:	
3	Relinquished By: (Print) Michael R Friday	Date: 7/28/01	4	Received For Lab By: (Print) Scott Gibson	Date: 07/28/2001	
	Signature: Michael R. Friday	Time: 12:31		Signature: Scott Gibson	Time: 12:31	

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Wildewood Professional Park
3639 Cortez Road West, Suite 102
Bradenton, Florida 34210
Tel: 941-739-3903 Fax: 941-739-3829

July 24, 2001

Ms. Rose Poynor, Habitat Restoration Section
Florida Department of Environmental Protection, Southwest District
3804 Coconut Palm Drive
Tampa , FL 33619

Re: File No. 58-01274663-001, Shakett Creek Navigational Dredging

Dear Ms. Poynor:

The enclosed material summarizes the diel water-quality survey performed by personnel from M. R. Friday & Associates, Inc. on June 29-30, 2001 pursuant to Specific Condition No. 39 of the referenced permit. Monitoring locations associated with this activity are generally illustrated in figures 1 and 2 submitted with the water-quality monitoring report submitted to the District on November 9, 1999. More specifically, the sites are located as follows:

- Site No. 1 is located on Cow Pen Slough about one-half mile upstream from Laurel Road and 250-feet upstream from the mouth of Fox Creek where it enters Cow Pen Slough,
- Site No. 2 is located about 200 feet west northwest of the oyster mitigation area where dredge material from the trestle and cove areas was placed, and
- Site No. 3 is located about 200 feet east northeast from the dredge channel at the railroad trestle.

The following information is transmitted herewith:

- List of field measurements made during diel survey
- Analytical report for analyses of total suspended solids and additional laboratory parameters as prescribed in the permit
- Chain-of-custody record

The upcoming July diel survey takes place two years after this project's initiation in 1999, and is to be submitted in August, serving to fulfill the water quality monitoring conditions for the referenced permit. Please call Dean Mades or me if there is a need to further discuss these data.

Sincerely,

Sam Johnston, Jr.
Associate

Enclosures

cc: Chuck Listowski / WCIND
Larry Olsen, Ph.D.
Bob Stetler / FDEP
Dean Mades, PE / EBA

PROJECT NAME: SHACKETT CREEK/WCIND **DATE:** June 29 & 30, 2001

Station/Time(hrs) Depth (total)		DO (ppm)			TEMP (c)			SALINITY (0/00)			CONDUCT (mmho)			pH		
Run 1		-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'
1	0900 5.7'	3.7	3.0	2.9	29.3	29.7	30.0	11.4	12.5	15.8	19.1	20.1	28.0	7.36	7.44	7.48
2	0940 3.0'	4.2	----	3.5	28.1	----	28.1	13.7	----	13.2	23.6	----	23.1	7.62	----	7.61
3	1000 4.3'	4.2	4.0	4.3	28.4	28.5	28.8	10.9	12.5	13.3	18.3	21.1	22.2	7.62	7.64	7.71
Run 2																
1	1300 5.2'	4.0	4.2	3.4	31.0	29.8	29.6	9.8	10.6	11.0	16.9	17.9	18.7	7.45	7.51	7.51
2	1311 2.4'	----	5.8	----	----	30.7	----	----	11.8	----	----	20.8	----	----	7.72	----
3	1318 3.9'	6.2	4.5	3.8	30.2	29.3	29.1	11.1	14.9	13.8	20.1	24.5	23.0	7.72	7.47	7.53
Run 3																
1	1700 4.9'	6.3	5.3	3.9	30.9	30.0	29.9	6.4	6.1	11.4	11.2	10.9	19.1	7.58	7.42	7.38
2	1718 2.2'	----	6.3	----	----	31.0	----	----	15.5	----	----	25.6	----	----	7.77	----
3	1723 3.9'	7.1	6.7	6.7	30.9	30.8	30.9	13.9	17.4	19.9	21.9	24.3	28.2	7.91	7.93	7.98
Run 4																
1	2100 5.4'	3.9	4.6	3.4	28.2	29.7	29.8	7.1	8.7	10.2	12.3	14.9	17.8	7.42	7.51	7.56
2	2115 2.7'	----	5.5	----	----	30.1	----	----	16.1	----	----	26.5	----	----	7.90	----
3	2125 4.2'	8.8	7.6	6.4	30.3	30.2	30.2	15.4	16.5	13.5	25.1	27.2	22.7	8.13	8.13	7.94
Run 5																
1	0100 5.0'	3.5	3.4	3.3	28.1	28.5	29.5	6.5	8.1	15.5	11.3	13.9	25.7	7.52	7.49	7.52
2	0120 2.4'	----	5.6	----	----	28.9	----	----	11.8	----	----	19.9	----	----	7.81	----
3	0129 3.9'	6.0	5.9	4.3	29.4	29.8	30.2	13.9	15.8	16.3	22.9	26.8	27.0	7.88	7.87	7.77
Run 6																
1	0500 5.2'	3.8	3.0	3.2	27.6	28.8	30.1	5.4	6.2	8.0	9.8	10.9	14.4	7.45	7.43	7.44
2	0517 2.5'	----	4.2	----	----	29.1	----	----	15.5	----	----	25.8	----	----	7.68	----
3	0528 4.4'	4.4	4.3	3.9	29.3	29.6	29.6	18.5	18.9	19.1	30.9	30.4	31.1	7.78	7.72	7.69
Run 7																
1	0900 5.9'	4.4	3.7	2.9	28.2	28.9	30.1	5.8	8.4	13.0	10.5	14.5	22.0	7.35	7.42	7.52
2	0915 3.2'	4.4	----	4.2	28.5	----	28.8	14.9	----	15.3	24.9	----	25.3	7.70	----	7.62
3	0920 4.6'	5.0	4.8	3.6	29.1	29.2	29.2	17.1	16.9	21.1	28.2	27.9	34.9	7.75	7.70	7.69

			Monthly TSS Samples			Quarterly Nutrient Samples		
Station/Time		SECCHI	-1'	Mid	+1'	-1'	Mid	+1'
1	0900 @ 5.7'	3.0'	A @ 1'	B @ 3'	C @ 5'	AA @ 1'	BB @ 3'	CC @ 5'
2	0940 @ 3.0'	3.0'	D @ 1'	----	E @ 2'	DD @ 1'	----	EE @ 2'
3	1000 @ 4.3'	3.2'	F @ 1'	G @ 2'	H @ 3'	I @ 1'	J @ 2'	K @ 3'

WEATHER CONDITIONS: Sunny in AM w/ clouds and rain in PM

NOTES: Monitoring follows several days of intense rain

-1' data collected one foot below the surface of the water
mid data collected from the middle of the water column
+1' data collected one foot above the bottom
---- indicates that the water depths were too shallow for data collection in accordance with the parameters set forth pursuant to Condition No. 39(b) & (c) of the subject permit

BENCHMARK
EnviroAnalytical, Inc.

FDOH Certification #E84167 and #84455
FDEP Quality Assurance #870594G

Submission Number 1060484

M.R. Friday & Associates, Inc.
1748 Independence Blvd., Suite E-7
Sarasota FL 34234

Project Name: SHACKETT CREEK/ WCIND
Date Received: 06/30/2001
Time Received: 1240

Submission Number 1060484

Sample Number: 1
Sample Date: 06/30/2001
Sample Time: 0900
Sample Description: Shackett Creek 1 A - Aa
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	7.76	MG/L	0.5	160.2	07/02/2001		TDT
AMMONIA NITROGEN	0.26	MG/L	0.01	350.2	07/03/2001		BMS
ORGANIC NITROGEN	1.01	MG/L	0.04	351-350	07/03/2001		BMS
TOTAL KJELDAHL NITROGEN	1.27	MG/L	0.04	351.2	07/03/2001		BMS
TOTAL NITROGEN	1.29	MG/L	0.04	353+351	07/06/2001		BMS/DTD
NITRATE+NITRITE	0.02	MG/L	0.01	353.2	07/06/2001		TDT
TOTAL PHOSPHORUS	0.79	MG/L	0.01	365.3	07/06/2001		BMS

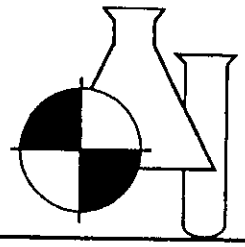
U = Analyte not detected at the value indicated

Submission Number 1060484

Sample Number: 2
Sample Date: 06/30/2001
Sample Time: 0900
Sample Description: Shackett Creek 1 B - Bb
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	15.8	MG/L	0.5	160.2	07/02/2001		TDT
AMMONIA NITROGEN	0.12	MG/L	0.01	350.2	07/03/2001		BMS
ORGANIC NITROGEN	1.02	MG/L	0.04	351-350	07/03/2001		BMS
TOTAL KJELDAHL NITROGEN	1.14	MG/L	0.04	351.2	07/03/2001		BMS
TOTAL NITROGEN	1.15	MG/L	0.04	353+351	07/06/2001		BMS/DTD

653 Tenth Street East*Palmetto, FL 34221*Phone (941)723-9986*FAX (941)723-6061



NITRATE+NITRITE	0.01	MG/L	0.01	353.2	07/06/2001	TDT
TOTAL PHOSPHORUS	0.62	MG/L	0.01	365.3	07/06/2001	BMS

U = Analyte not detected at the value indicated

Submission Number 1060484

Sample Number: 3
Sample Date: 06/30/2001
Sample Time: 0900
Sample Description: Shackett Creek 1 C - Cc
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	21.1	MG/L	0.5	160.2	07/02/2001		TDT
AMMONIA NITROGEN	0.16	MG/L	0.01	350.2	07/03/2001		BMS
ORGANIC NITROGEN	0.67	MG/L	0.04	351-350	07/03/2001		BMS
TOTAL KJELDAHL NITROGEN	0.83	MG/L	0.04	351.2	07/03/2001		BMS
TOTAL NITROGEN	0.85	MG/L	0.04	353+351	07/06/2001		BMS/DTD
NITRATE+NITRITE	0.02	MG/L	0.01	353.2	07/06/2001		TDT
TOTAL PHOSPHORUS	0.26	MG/L	0.01	365.3	07/06/2001		BMS

U = Analyte not detected at the value indicated

Submission Number 1060484

Sample Number: 4
Sample Date: 06/30/2001
Sample Time: 0940
Sample Description: Shackett Creek 2 D - Dd
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	20.0	MG/L	0.5	160.2	07/02/2001		TDT
AMMONIA NITROGEN	0.21	MG/L	0.01	350.2	07/03/2001		BMS
ORGANIC NITROGEN	0.44	MG/L	0.04	351-350	07/03/2001		BMS
TOTAL KJELDAHL NITROGEN	0.65	MG/L	0.04	351.2	07/03/2001		BMS
TOTAL NITROGEN	0.66	MG/L	0.04	353+351	07/06/2001		BMS/DTD
NITRATE+NITRITE	0.01	MG/L	0.01	353.2	07/06/2001		TDT
TOTAL PHOSPHORUS	0.39	MG/L	0.01	365.3	07/06/2001		BMS

U = Analyte not detected at the value indicated

653 Tenth Street East*Palmetto, FL 34221*Phone (941)723-9986*FAX (941)723-6061

BENCHMARK
EnviroAnalytical, Inc.

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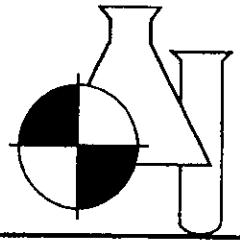

Submission Number 1060484

Sample Number: 5
Sample Date: 06/30/2001
Sample Time: 1000
Sample Description: Shackett Creek 2 E - Ee
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	19.9	MG/L	0.5	160.2	07/02/2001		TDT
AMMONIA NITROGEN	0.16	MG/L	0.01	350.2	07/03/2001		BMS
ORGANIC NITROGEN	0.59	MG/L	0.04	351-350	07/03/2001		BMS
TOTAL KJELDAHL NITROGEN	0.75	MG/L	0.04	351.2	07/03/2001		BMS
TOTAL NITROGEN	0.77	MG/L	0.04	353+351	07/06/2001		BMS/DTD
NITRATE+NITRITE	0.02	MG/L	0.01	353.2	07/06/2001		TDT
TOTAL PHOSPHORUS	0.38	MG/L	0.01	365.3	07/06/2001		BMS

U = Analyte not detected at the value indicated

Submission Number 1060484

Sample Number: 6
Sample Date: 06/30/2001
Sample Time: 1000
Sample Description: Shackett Creek 3 F - I
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	18.1	MG/L	0.5	160.2	07/02/2001		TDT
AMMONIA NITROGEN	0.16	MG/L	0.01	350.2	07/03/2001		BMS
ORGANIC NITROGEN	0.49	MG/L	0.04	351-350	07/03/2001		BMS
TOTAL KJELDAHL NITROGEN	0.65	MG/L	0.04	351.2	07/03/2001		BMS
TOTAL NITROGEN	0.67	MG/L	0.04	353+351	07/06/2001		BMS/DTD
NITRATE+NITRITE	0.02	MG/L	0.01	353.2	07/06/2001		TDT
TOTAL PHOSPHORUS	0.38	MG/L	0.01	365.3	07/06/2001		BMS

U = Analyte not detected at the value indicated

653 Tenth Street East*Palmetto, FL 34221*Phone (941)723-9986*FAX (941)723-6061

BENCHMARK
EnviroAnalytical, Inc.

FDOH Certification #E84167 and #84455
FDEP Quality Assurance #870594G

Submission Number 1060484

Sample Number: 7
Sample Date: 06/30/2001
Sample Time: 1000
Sample Description: Shackett Creek 3 G - J
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	21.0	MG/L	0.5	160.2	07/02/2001		TDT
AMMONIA NITROGEN	0.09	MG/L	0.01	350.2	07/03/2001		BMS
ORGANIC NITROGEN	0.51	MG/L	0.04	351-350	07/03/2001		BMS
TOTAL KJELDAHL NITROGEN	0.60	MG/L	0.04	351.2	07/03/2001		BMS
TOTAL NITROGEN	0.62	MG/L	0.04	353+351	07/06/2001		BMS/DTD
NITRATE+NITRITE	0.02	MG/L	0.01	353.2	07/06/2001		TDT
TOTAL PHOSPHORUS	0.35	MG/L	0.01	365.3	07/06/2001		BMS

U = Analyte not detected at the value indicated

Submission Number 1060484

Sample Number: 8
Sample Date: 06/30/2001
Sample Time: 1000
Sample Description: Shackett Creek 3 H - K
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	20.9	MG/L	0.5	160.2	07/02/2001		TDT
AMMONIA NITROGEN	0.09	MG/L	0.01	350.2	07/03/2001		BMS
ORGANIC NITROGEN	0.48	MG/L	0.04	351-350	07/03/2001		BMS
TOTAL KJELDAHL NITROGEN	0.57	MG/L	0.04	351.2	07/03/2001		BMS
TOTAL NITROGEN	0.59	MG/L	0.04	353+351	07/06/2001		BMS/DTD
NITRATE+NITRITE	0.02	MG/L	0.01	353.2	07/06/2001		TDT
TOTAL PHOSPHORUS	0.33	MG/L	0.01	365.3	07/06/2001		BMS

U = Analyte not detected at the value indicated

Dale D. Dixon / Laboratory Director — 07/13/2001 Date

653 Tenth Street East*Palmetto, FL 34221*Phone (941)723-9986*FAX (941)723-6061

Benchma. . EnviroAnalytical, Inc.
653 Tenth Street East
Palmetto, FL 34221
(941) 723-9986
(941) 723-6061 fax
BenchmarkEA@earthlink.net

Client: **M.R. Friday & Associates, Inc.**
1748 Independence Blvd., Suite E-7
Sarasota, FL. 34234
(941) 351-1881
(941) 351-8359 fax

Chain of Custody Form: Shackett Creek/WCIND
Method of discharge: Surface Water
Sample Type: Grab

Laboratory Submission #: 1060484

Station ID	TSS	TKN, NO_3-NO_2, T-N NH_3, O-N, T-P	Field Parameters					Laboratory Sample #
			Temp (°C)	pH	D.O. (mg/L)	Salinity (g/kg)	Conductivity (µmhos/cm)	
	Plain	1:1 H_2SO_4						
	1 x 1 Quart Plastic	1 x 1 Quart Plastic						
1	(Time:) 0900 @ 1' (A)	(Time:) 0900 @ 1' (AA)						1 A+B
1	(Time:) 0900 @ 3' (B)	(Time:) 0900 @ 3' (BB)						2 A+B
1	(Time:) 0900 @ 5' (C)	(Time:) 0900 @ 5' (CC)						3 A+B
2	(Time:) 0940 @ 1' (D)	(Time:) 0940 @ 1' (DD)						4 A+B
2	(Time:) —	(Time:) —						
2	(Time:) 0940 @ 2' (E)	(Time:) 0940 @ 2' (EE)						5 A+B
3	(Time:) 1000 @ 1' (F)	(Time:) 1000 @ 1' (I)						6 A+B
3	(Time:) 1000 @ 2' (G)	(Time:) 1000 @ 2' (J)						7 A+B
3	(Time:) 1000 @ 3' (H)	(Time:) 1000 @ 3' (K)						8 A+B

1 Sample must be refrigerated or stored in wet ice after collection. The maximum temperature during storage should be 4°C (39.2°F).

Instructions:
1. Each bottle has a label identifying sample ID, premeasured preservative contained in the bottle, sample type, client ID, and parameters for analysis. The following information should be added to each bottle label after collection with permanent black ink: date and time of collection, sampler's name or initials, and any field number or ID.
2. The effluent sample bottles for nitrogen contain premeasured 1:1 sulfuric acid (H_2SO_4). Do not rinse these bottles with sample prior to sampling.
3. All bottles not containing preservative may be rinsed with appropriate sample prior to collection.
4. The client is responsible for documentation of the sampling event. Please note special sampling events on the sample custody form.

1	Collector: (Print) Michael R. Friday	Date: 6-29-01	2	Received By: (Print)	Date:
	Signature: Michael R. Friday	Time: 0900 hrs		Signature:	Time:
3	Relinquished By: (Print) Michael R Friday	Date: 06/30/01	4	Received For Lab By: (Print) KATHARINE A. DIXON	Date: 06/30/01
	Signature: Michael R. Friday	Time: 1240		Signature: Katharine A. Dixon	Time: 1240

M.R. FRIDAY & ASSOCIATES, INC.
Environmental Consultants

July 20, 2001

Mr. Sam Johnston
Ed Barber & Associates, Inc.
3639 Cortez Road West, Suite 102
Bradenton, FL 34210

Re: June Data Collection @ Shackett Creek in accordance with FDEP Permit No. 58-01274663-001, Condition No. 39 (b) & (c), Report No. 8

Dear Sam,

Enclosed please find the June water analysis data and the total assay data. Also enclosed is the invoice for the June event. The next monitoring event is scheduled for July 27th and 28th, 2001. Please contact me should you have any questions regarding this report or invoice. Thanks.

Respectfully submitted,

Michael R. Friday
President

enclosures

1748 Independence Boulevard, Suite E-7, Sarasota, Florida 34234 • Phone (941) 351-1881 Fax (941) 351-8359

ED BARBER & ASSOCIATES

ENVIRONMENTAL CONSULTING

ENVIRONMENTAL MANAGEMENT SERVICES

Wildewood Professional Park
3639 Cortez Road West, Suite 102
Bradenton, Florida 34210
Tel: 941-739-3903 Fax: 941-739-3829

June 27, 2001

Ms. Rose Poynor, Habitat Restoration Section
Florida Department of Environmental Protection, Southwest District
3804 Coconut Palm Drive
Tampa , FL 33619

Re: File No. 58-01274663-001, Shakett Creek Navigational Dredging

Dear Ms. Poynor:

The enclosed material summarizes the diel water-quality survey performed by personnel from M. R. Friday & Associates, Inc. on June 1-2, 2001 pursuant to Specific Condition No. 39 of the referenced permit. This effort reflects data for the end of May. Monitoring locations associated with this activity are generally illustrated in figures 1 and 2 submitted with the water-quality monitoring report submitted to the District on November 9, 1999. More specifically, the sites are located as follows:

- Site No. 1 is located on Cow Pen Slough about one-half mile upstream from Laurel Road and 250-feet upstream from the mouth of Fox Creek where it enters Cow Pen Slough,
- Site No. 2 is located about 200 feet west northwest of the oyster mitigation area where dredge material from the trestle and cove areas was placed, and
- Site No. 3 is located about 200 feet east northeast from the dredge channel at the railroad trestle.

The following information is transmitted herewith:

- List of field measurements made during diel survey
- Analytical report for analyses of total suspended solids
- Chain-of-custody record

Please call Dean Mades or me if there is a need to further discuss these data.

Sincerely,

Sam Johnston, Jr.
Associate

Enclosures

cc: Chuck Listowski / WCIND
Larry Olsen, Ph.D.
Bob Stetler / FDEP
Dean Mades, PE / EBA

file

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PROJECT NAME: SHACKETT CREEK/WCIND **DATE:** June 1 & 2, 2001

Station/Time(hrs) Depth (total)		DO (ppm)			TEMP (c)			SALINITY (0/00)			CONDUCT (mmho)			pH		
Run 1		-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'
1	0900 5.9'	4.5	3.8	2.9	31.0	31.3	31.8	31.9	32.2	32.1	54.0	54.2	55.0	7.73	7.72	7.69
2	0928 3.2'	5.1	----	5.15	30.5	----	30.7	33.0	----	33.0	54.5	----	54.6	7.74	----	7.74
3	0946 4.0'	3.7	3.6	3.5	30.6	30.6	30.7	33.0	33.1	33.1	55.2	55.3	55.4	7.87	7.88	7.89
Run 2																
1	1300 5.5'	5.3	5.4	4.7	31.2	31.1	31.2	31.2	31.3	31.8	52.3	52.3	52.8	7.82	7.81	7.82
2	1321 2.6'	----	4.2	----	----	31.2	----	----	32.3	----	----	54.1	----	----	7.83	----
3	1335 3.6'	4.1	----	4.1	31.0	----	31.0	32.9	----	32.9	54.4	----	54.4	7.80	----	7.80
Run 3																
1	1700 4.7'	5.9	5.8	5.6	31.8	31.5	31.5	30.2	31.0	31.0	52.6	52.5	52.5	7.84	7.85	7.81
2	1713 2.0'	----	5.7	----	----	31.2	----	----	32.3	----	----	54.1	----	----	7.89	----
3	1721 3.1'	5.0	----	4.8	31.1	----	31.0	32.5	----	32.9	54.2	----	54.5	7.84	----	7.83
Run 4																
1	2142 5.2'	5.1	4.5	4.4	30.6	31.0	31.0	31.9	31.7	31.9	54.1	54.2	54.3	7.82	7.82	7.80
2	2202 2.5'	----	4.0	----	----	30.1	----	----	33.2	----	----	55.0	----	----	7.79	----
3	2210 3.6'	4.1	----	4.2	30.2	----	30.2	33.3	----	33.4	55.1	----	55.2	7.83	----	7.82
Run 5																
1	0100 5.3'	4.9	4.7	3.7	30.1	30.6	31.0	32.1	32.0	32.0	54.1	54.3	54.4	7.79	7.78	7.75
2	0120 2.6'	----	3.7	----	----	29.9	----	----	33.1	----	----	55.2	----	----	7.79	----
3	0127 3.6'	3.9	----	3.8	29.9	----	30.1	33.2	----	33.3	55.4	----	55.5	7.80	----	7.80
Run 6																
1	0500 4.7'	3.8	3.6	3.4	29.9	30.0	30.0	31.7	31.9	31.9	53.0	53.2	53.2	7.68	7.67	7.68
2	0521 2.1'	----	3.1	----	----	29.2	----	----	33.8	----	----	55.8	----	----	7.72	----
3	0530 3.3'	3.3	----	3.3	29.3	----	29.3	34.0	----	34.0	56.1	----	56.1	7.74	----	7.74
Run 7																
1	0900 6.0'	4.0	3.7	3.7	29.7	29.5	29.4	32.8	32.9	32.9	55.0	55.1	55.0	7.68	7.70	7.70
2	0927 3.5'	3.5	----	3.4	29.0	----	28.9	33.3	----	33.5	55.2	----	55.3	7.72	----	7.71
3	0937 4.6'	4.2	4.0	3.9	29.1	29.0	29.0	33.3	33.3	33.3	55.1	55.0	55.0	7.90	7.93	7.93

Monthly TSS Samples **Quarterly Nutrient Samples**

Station/Time		SECCHI	-1'	Mid	+1'	-1'	Mid	+1'
1	0900 5.9'	3.3'	#1 @ 1'	#2 @ 3'	#3 @ 5'	----	----	----
2	0928 3.2'	Too shallow	#4 @ 1'	----	#5 @ 2'	----	----	----
3	0946 4.0'	4.0'	#6 @ 1'	#7 @ 2'	#8 @ 3'	----	----	----

WEATHER CONDITIONS: **Day 1- sunny & calm in am w/ clouds & wind in pm. Day 2- sunny & breezy in am**

NOTES:

-1' data collected one foot below the surface of the water
mid data collected from the middle of the water column
+1' data collected one foot above the bottom
---- indicates that the water depths were too shallow for data collection in accordance with the parameters set forth pursuant to Condition No. 39(b) & (c) of the subject permit

BENCHMARK
EnviroAnalytical, Inc.

FDOH Certification #E84167 and #84455
FDEP Quality Assurance #870594G

Submission Number 1060026

M.R. Friday & Associates, Inc.
1748 Independence Blvd., Suite E-7
Sarasota FL 34234

Project Name: SHACKETT CREEK/ WCIND
Date Received: 06/02/2001
Time Received: 1253

Submission Number 1060026

Sample Number: 1
Sample Date: 06/02/2001
Sample Time: 0900
Sample Description: Shackett Creek 1-1
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	11.2	MG/L	0.5	160.2	06/04/2001		TDT

U = Analyte not detected at the value indicated

Submission Number 1060026

Sample Number: 2
Sample Date: 06/02/2001
Sample Time: 0900
Sample Description: Shackett Creek 1-2
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	14.2	MG/L	0.5	160.2	06/04/2001		TDT

U = Analyte not detected at the value indicated

Submission Number 1060026

Sample Number: 3
Sample Date: 06/02/2001
Sample Time: 0900
Sample Description: Shackett Creek 1-3
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst

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FDOH Certification #E84167 and #84455
FDEP Quality Assurance #870594G

TOTAL SUSPENDED SOLIDS	14.9	MG/L	0.5	160.2	06/04/2001	TDT

U = Analyte not detected at the value indicated

Submission Number 1060026

Sample Number: 4 **Sample Description:** Shackett Creek 2-4
Sample Date: 06/02/2001 **Sample Method:** Grab
Sample Time: 0928

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	15.5	MG/L	0.5	160.2	06/04/2001		TDT

U = Analyte not detected at the value indicated

Submission Number 1060026

Sample Number: 5 **Sample Description:** Shackett Creek 2-5
Sample Date: 06/02/2001 **Sample Method:** Grab
Sample Time: 0928

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	16.8	MG/L	0.5	160.2	06/04/2001		TDT

U = Analyte not detected at the value indicated

Submission Number 1060026

Sample Number: 6 **Sample Description:** Shackett Creek 3-6
Sample Date: 06/02/2001 **Sample Method:** Grab
Sample Time: 0946

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	18.6	MG/L	0.5	160.2	06/04/2001		TDT

U = Analyte not detected at the value indicated

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FDOH Certification #E84167 and #84455
FDEP Quality Assurance #870594G

Submission Number 1060026

Sample Number: 7
Sample Date: 06/02/2001
Sample Time: 0946
Sample Description: Shackett Creek 3-7
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	19.3	MG/L	0.5	160.2	06/04/2001		TDT

U = Analyte not detected at the value indicated

Submission Number 1060026

Sample Number: 8
Sample Date: 06/02/2001
Sample Time: 0946
Sample Description: Shackett Creek 3-8
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	17.2	MG/L	0.5	160.2	06/04/2001		TDT

U = Analyte not detected at the value indicated

Dale D. Dixon / Laboratory Director — 06/13/2001 Date

653 Tenth Street East*Palmetto, FL 34221*Phone (941)723-9986*FAX (941)723-6061

Benchmark EnviroAnalytical, Inc.
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Palmetto, FL 34221
(941) 723-9986
(941) 723-6061 fax
BenchmarkEA@earthlink.net

Client: **M.R. Friday & Associates, Inc.**
1748 Independence Blvd., Suite E-7
Sarasota, FL. 34234
(941) 351-1881
(941) 351-8359 fax

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Chain of Custody Form: Shackett Creek/WCIND
Method of discharge: Surface Water
Sample Type: Grab

Laboratory Submission #: 1060026

Station ID	Bottle #	TSS	TKN, NO_3-NO_2, T-N NH_3, O-N, T-P	Field Parameters					Laboratory Sample #
				Temp (°C)	pH	D.O. (mg/L)	Salinity (g/kg)	Conductivity (µmhos/cm)	
		Plain	1:1 H_2SO_4						
		1 x 1 Quart Plastic	1 x 1 Quart Plastic						
#1	1	(Time:) 0900 @ 1'	(Time:)						1-1
#2	2	(Time:) 0900 @ 3'	(Time:)						1-3
#3	3	(Time:) 0900 @ 5'	(Time:)						1-5
#4	4	(Time:) 0928 @ 1'	(Time:)						2-1
	5	(Time:) —	(Time:)						~~2-2~~
#5	6	(Time:) 0928 @ 2'	(Time:)						2-2
#6	7	(Time:) 0946 @ 1'	(Time:)						3-1
#7	8	(Time:) 0946 @ 2'	(Time:)						3-2
#8	9	(Time:) 0946 @ 3'	(Time:)						3-3

1 Sample must be refrigerated or stored in wet ice after collection. The maximum temperature during storage should be 4°C (39.2°F).

Instructions:
1. Each bottle has a label identifying sample ID, premeasured preservative contained in the bottle, sample type, client ID, and parameters for analysis. The following information should be added to each bottle label after collection with permanent black ink: date and time of collection, sampler's name or initials, and any field number or ID.
2. The effluent sample bottles for nitrogen contain premeasured 1:1 sulfuric acid (H_2SO_4). Do not rinse these bottles with sample prior to sampling.
3. All bottles not containing preservative may be rinsed with appropriate sample prior to collection.
4. The client is responsible for documentation of the sampling event. Please note special sampling events on the sample custody form.

1	Collector: (Print) Michael R. Friday	Date: 6/1/01	2	Received By: (Print)	Date:
	Signature: Michael R Friday	Time:		Signature:	Time:
3	Relinquished By: (Print) Michael R Friday	Date: 6/2/01	4	Received For Lab By: (Print) KATHARINE A. DIXON	Date: 06/02/01
	Signature: Michael R Friday	Time: 1253		Signature: Katharine A. Dixon	Time: 1253

ED BARBER & ASSOCIATES

ENVIRONMENTAL CONSULTING
ENVIRONMENTAL MANAGEMENT SERVICES

Wildewood Professional Park
3639 Cortez Road West, Suite 102
Bradenton, Florida 34210
Tel: 941-739-3903 Fax: 941-739-3829

May 24, 2001

Ms. Rose Poynor, Habitat Restoration Section
Florida Department of Environmental Protection, Southwest District
3804 Coconut Palm Drive
Tampa , FL 33619

Re: File No. 58-01274663-001, Shakett Creek Navigational Dredging

Dear Ms. Poynor:

The enclosed material summarizes the diel water-quality survey performed by personnel from M. R. Friday & Associates, Inc. on April 27-28, 2001 pursuant to Specific Condition No. 39 of the referenced permit. Monitoring locations associated with this activity are generally illustrated in figures 1 and 2 submitted with the water-quality monitoring report submitted to the District on November 9, 1999. More specifically, the sites are located as follows:

- Site No. 1 is located on Cow Pen Slough about one-half mile upstream from Laurel Road and 250-feet upstream from the mouth of Fox Creek where it enters Cow Pen Slough,
- Site No. 2 is located about 200 feet west northwest of the oyster mitigation area where dredge material from the trestle and cove areas was placed, and
- Site No. 3 is located about 200 feet east northeast from the dredge channel at the railroad trestle.

The following information is transmitted herewith:

- List of field measurements made during diel survey
- Analytical report for analyses of total suspended solids
- Chain-of-custody record

Please call Dean Mades or me if there is a need to further discuss these data.

Sincerely,

Sam Johnston, Jr.
Associate

Enclosures

cc: Chuck Listowski / WCIND
Larry Olsen, Ph.D.
Bob Stetler / FDEP
Dean Mades, PE / EBA

for

PROJECT NAME: SHACKETT CREEK/WCIND DATE: April 27 & 28, 2001

Station/Time(hrs) Depth (total)		DO (ppm)			TEMP (c)			SALINITY (0/00)			CONDUCT (mmho)			pH		
Run 1		-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'
1	0900 4.4'	4.9	4.7	3.9	23.7	24.3	25.3	-1	25.0	25.0	37.1	37.7	37.9	7.73	7.75	7.75
2	0930 1.9'	----	5.4	----	----	21.9	----	----	26.5	----	----	39.1	----	----	7.85	----
3	0945 3.1'	5.4	----	5.6	21.5	----	21.8	26.8	----	26.5	38.3	----	38.7	7.86	----	7.87
Run 2																
1	1300 5.3'	7.3	5.8	5.7	24.8	23.8	23.8	24.9	26.1	26.8	39.9	39.9	40.8	7.89	7.89	7.84
2	1322 2.9'	----	6.6	----	----	24.2	----	----	28.5	----	----	43.9	----	----	7.96	----
3	1333 4.0'	7.1	7.0	7.3	23.8	23.8	23.7	29.7	29.8	29.7	44.8	44.9	44.8	8.09	8.10	8.11
Run 3																
1	1700 5.4'	8.6	7.7	7.1	27.1	25.2	24.1	25.6	26.2	27.3	41.6	41.7	41.9	7.99	7.99	7.99
2	1720 2.7'	----	7.2	----	----	26.3	----	----	28.0	----	----	44.9	----	----	8.03	----
3	1730 4.0'	7.6	7.2	6.9	25.7	25.0	24.8	27.9	28.9	29.0	44.5	44.8	44.8	8.03	8.06	8.06
Run 4																
1	2100 4.4'	6.5	6.8	6.4	26.0	26.1	25.3	25.3	25.6	25.8	41.2	41.6	41.4	7.83	7.83	7.86
2	2118 1.6'	----	7.4	----	----	25.1	----	----	26.3	----	----	42.7	----	----	7.99	----
3	2125 2.9'	7.6	----	7.6	25.1	----	25.2	26.7	----	27.0	42.8	----	42.9	8.01	----	8.00
Run 5																
1	0100 3.7'	4.9	5.3	5.3	24.5	25.0	24.8	24.3	25.8	26.8	38.8	40.9	41.9	7.78	7.81	7.86
2	0130 2.0'	----	5.4	----	----	23.2	----	----	26.9	----	----	40.5	----	----	7.92	----
3	0146 2.5'	----	5.4	----	----	23.1	----	----	27.1	----	----	41.1	----	----	7.91	----
Run 6																
1	0500 4.5'	5.4	5.6	5.8	23.9	24.3	24.8	25.1	25.1	26.3	38.6	39.2	40.8	7.83	7.83	7.86
2	0522 2.0'	----	5.1	----	----	22.5	----	----	27.5	----	----	41.0	----	----	7.87	----
3	0535 3.0'	5.5	----	5.4	22.9	----	22.9	28.0	----	28.8	42.4	----	42.2	7.94	----	7.92
Run 7																
1	0900 4.9'	5.0	5.4	5.0	23.2	23.9	24.2	25.2	27.3	27.3	38.9	41.9	42.4	7.83	7.87	7.86
2	0918 2.5'	----	5.3	----	----	22.3	----	----	28.3	----	----	41.9	----	----	7.93	----
3	0928 3.6	5.3	----	5.5	22.6	----	22.7	29.2	----	29.4	43.2	----	43.2	8.02	----	8.01

			Monthly TSS Samples			Quarterly Nutrient Samples		
Station/Time		SECCHI	-1'	Mid	+1'	-1'	Mid	+1'
1	0900 4.4'	0900 3.7'	#1 @ 1'	#2 @ 2'	#3 @ 3'	----	----	----
2	0930 1.9'	Too Shallow	----	#4 @ 1'	----	----	----	----
3	0950 3.1'	Too Shallow	#5 @ 1'	----	#6 @ 2'	----	----	----

WEATHER CONDITIONS: Sunny and calm both days, mid to high 80's

NOTES:

-1' data collected one foot below the surface of the water
mid data collected from the middle of the water column
+1' data collected one foot above the bottom
---- indicates that the water depths were too shallow for data collection in accordance with the parameters set forth pursuant to Condition No. 39(b) & (c) of the subject permit

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EnviroAnalytical, Inc.

FDOH Certification #E84167 and #84455
FDEP Quality Assurance #870594G

Submission Number 1040518

M.R. Friday & Associates, Inc.
1748 Independence Blvd., Suite E-7
Sarasota FL 34234

Project Name: SHACKETT CREEK WCIND
Date Received: 04/28/2001
Time Received: 1330

Submission Number 1040518

Sample Number: 1
Sample Date: 04/27/2001
Sample Time: 0911

Sample Description: Shackett Creek 1-1
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	15.3	MG/L	0.5	160.2	04/30/2001		TDT

U = Analyte not detected at the value indicated

Submission Number 1040518

Sample Number: 2
Sample Date: 04/27/2001
Sample Time: 0915

Sample Description: Shackett Creek 1-2
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	21.4	MG/L	0.5	160.2	04/30/2001		TDT

U = Analyte not detected at the value indicated

Submission Number 1040518

Sample Number: 3
Sample Date: 04/27/2001
Sample Time: 0917

Sample Description: Shackett Creek 1-3
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst

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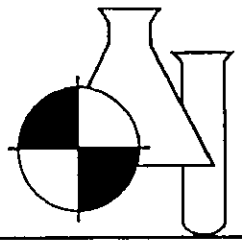
FDEP Quality Assurance #870594G



TOTAL SUSPENDED SOLIDS	16.7	MG/L	0.5	160.2	04/30/2001	TDT

U = Analyte not detected at the value indicated

Submission Number 1040518

Sample Number: 4 **Sample Description:** Shackett Creek 2-4
Sample Date: 04/27/2001 **Sample Method:** Grab
Sample Time: 0937

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	20.9	MG/L	0.5	160.2	04/30/2001		TDT

U = Analyte not detected at the value indicated

Submission Number 1040518

Sample Number: 5 **Sample Description:** Shackett Creek 3-5
Sample Date: 04/27/2001 **Sample Method:** Grab
Sample Time: 0949

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	17.9	MG/L	0.5	160.2	04/30/2001		TDT

U = Analyte not detected at the value indicated

Submission Number 1040518

Sample Number: 6 **Sample Description:** Shackett Creek 3-6
Sample Date: 04/27/2001 **Sample Method:** Grab
Sample Time: 0951

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	17.3	MG/L	0.5	160.2	04/30/2001		TDT

U = Analyte not detected at the value indicated

Dale D. Dixon / Laboratory Director — 05/10/2001 Date

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Client: **M.R. Friday & Associates, Inc.**
1748 Independence Blvd., Suite E-7
Sarasota, FL. 34234
(941) 351-1881
(941) 351-8359 fax

Chain of Custody Form: Shackett Creek/WCIND
Method of discharge: Surface Water

Laboratory Submission #: 1040518

Station ID	Sample Type	TSS Plain 1 x 1 Quart Plastic		Field Parameters: Temp (°C)	pH	D.O. (mg/L)	Salinity (g/kg)	Conductivity (µmhos/cm)	Laboratory Sample #
#1 1	Grab	(Date) 4/27/01	(Time:) 0911						
#2 1	Grab	(Date) 4/27/01	(Time:) 0915						
#3 1	Grab	(Date) 4/27/01	(Time:) 0917						
2	Grab	(Date)	(Time:)						
#4 2	Grab	(Date) 4/27/01	(Time:) 0937						
2	Grab	(Date)	(Time:)						
#5 3	Grab	(Date) 4/27/01	(Time:) 0949						
3	Grab	(Date)	(Time:)						
#6 3	Grab	(Date) 4/27/01	(Time:) 0951						

1	Collector: (Print) Michael R. Friday	Date: 4/27/01	2	Received By: (Print)	Date:
	Signature: Michael R Friday	Time:		Signature: Scott S.K.G.	Time:
3	Relinquished By: (Print) Michael R Friday	Date: 4/28/01 13:30	4	Received For Lab By: (Print) Scott Gibson / Scott Dibson	Date: 4/28/01 13:30

ED BARBER & ASSOCIATES

ENVIRONMENTAL CONSULTING

ENVIRONMENTAL MANAGEMENT SERVICES

Wildewood Professional Park
3639 Cortez Road West, Suite 102
Bradenton, Florida 34210
Tel: 941-739-3903 Fax: 941-739-3829

April 30, 2001

Ms. Rose Poynor, Habitat Restoration Section
Florida Department of Environmental Protection, Southwest District
3804 Coconut Palm Drive
Tampa , FL 33619

Re: File No. 58-01274663-001, Shakett Creek Navigational Dredging

Dear Ms. Poynor:

The enclosed material summarizes the diel water-quality survey performed by personnel from M. R. Friday & Associates, Inc. on April 1-2, 2001 pursuant to Specific Condition No. 39 of the referenced permit. Monitoring locations associated with this activity are generally illustrated in figures 1 and 2 submitted with the water-quality monitoring report submitted to the District on November 9, 1999. More specifically, the sites are located as follows:

- Site No. 1 is located on Cow Pen Slough about one-half mile upstream from Laurel Road and 250-feet upstream from the mouth of Fox Creek where it enters Cow Pen Slough,
- Site No. 2 is located about 200 feet west northwest of the oyster mitigation area where dredge material from the trestle and cove areas was placed, and
- Site No. 3 is located about 200 feet east northeast from the dredge channel at the railroad trestle.

A review of this monitoring program indicates that the last sample event will take place in September of this year. By copy of this correspondence I am requesting that Dr. Olsen provide us with his recommendation whether to continue with this effort up to this time. He has been provided all of the water quality data reports and is very familiar with their relevance, or lack thereof, to the ongoing oyster monitoring effort.

The following information is transmitted herewith:

- List of field measurements made during diel survey
- Analytical report for analyses of total suspended solids
- Chain-of-custody record

Please call Dean Mades or me if there is a need to further discuss these data.

Sincerely,

Sam Johnston, Jr.
Associate

Enclosures

cc: Chuck Listowski / WCIND
Larry Olsen, Ph.D.
Roger Rasbury / Sarasota County Storm Water
Bob Stetler / FDEP
Dean Mades, PE / EBA
Charles Kovach/FDEP

PROJECT NAME: SHACKETT CREEK/WCIND **DATE:** April 1 & 2, 2001

Station/Time(hrs) Depth (total)		DO (ppm)			TEMP (c)			SALINITY (0/00)			CONDUCT (mmho)			pH		
Run 1		-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'
1	0900 4.9'	6.6	6.1	4.7	22.3	22.8	23.4	7.2	7.5	9.2	11.0	12.1	14.0	7.69	7.66	7.61
2	0945 2.3'	----	4.9	----	----	22.2	----	----	14.7	----	----	21.5	----	----	7.75	----
3	1000 4.0'	5.5	5.3	4.9	22.0	22.0	21.9	11.7	12.2	13.8	17.8	18.8	21.3	7.71	7.68	7.61
Run 2																
1	1300 5.2'	7.0	6.8	5.5	23.9	23.3	23.5	6.2	9.5	12.3	10.2	11.1	19.4	7.68	7.70	7.66
2	1320 2.6'	----	5.2	----	----	24.1	----	----	15.7	----	----	25.7	----	----	7.66	----
3	1330 4.9'	5.2	5.1	5.3	24.1	23.8	23.5	15.9	17.0	18.0	25.3	26.0	27.9	7.69	7.68	7.70
Run 3																
1	1700 5.3'	7.7	7.1	6.7	25.5	24.7	23.8	6.5	7.0	8.7	11.5	12.0	15.1	7.74	7.71	7.70
2	1721 3.0'	6.2	----	5.6	25.1	----	25.2	16.7	----	17.6	27.3	----	28.2	7.79	----	7.74
3	1734 5.0'	6.4	5.6	4.8	25.1	24.9	24.2	15.2	17.0	21.8	25.5	29.1	34.2	7.78	7.75	7.74
Run 4																
1	2100 5.0'	7.1	6.4	5.8	23.0	23.1	23.9	6.0	6.0	8.3	10.0	10.1	13.9	7.66	7.67	7.68
2	2115 2.5'	----	6.8	----	----	24.3	----	----	10.7	----	----	17.3	----	----	7.79	----
3	2123 4.8'	6.7	5.8	5.3	24.2	25.0	25.1	11.8	15.0	17.1	19.5	24.8	27.9	7.80	7.72	7.71
Run 5																
1	0100 4.4'	6.2	6.2	5.4	22.3	23.0	23.4	5.1	5.5	5.7	8.3	9.1	9.5	7.63	7.62	7.63
2	0124 1.7'	----	5.8	----	----	23.2	----	----	10.5	----	----	17.2	----	----	7.67	----
3	0136 3.6'	6.4	----	5.6	23.3	----	23.9	10.8	----	12.1	17.5	----	20.0	7.68	----	7.68
Run 6																
1	0500 4.0'	6.4	4.6	4.2	21.8	22.5	22.9	3.3	4.0	5.1	5.4	6.3	8.5	7.54	7.57	7.55
2	0523 1.3'	----	4.5	----	----	22.7	----	----	10.0	----	----	17.4	----	----	7.59	----
3	0538 3.1'	5.2	----	5.0	22.1	----	22.5	9.7	----	12.2	11.5	----	13.8	7.65	----	7.64
Run 7																
1	0900 4.5'	6.4	5.5	5.1	21.5	22.2	22.5	3.0	3.7	5.8	4.9	6.2	9.7	7.48	7.49	7.50
2	0920 2.1'	----	4.9	----	----	21.6	----	----	12.3	----	----	18.9	----	----	7.58	----
3	0930 4.0'	5.0	4.7	4.5	22.0	22.2	22.3	14.5	17.6	18.0	23.0	26.9	27.3	7.67	7.68	7.69

			Monthly TSS Samples			Quarterly Nutrient Samples		
Station/Time		SECCHI	-1'	Mid	+1'	-1'	Mid	+1'
1	0900 4.9'	4.5'	#1 @ 1.0'	#2 @ 2.5'	#3 @ 4.0'	#4 @ 1.0'	#5 @ 2.5'	#6 @ 4.0'
2	0945 2.3'	Too Shallow	----	#7 @ 1.0'	----	----	#8 @ 1.0'	----
3	1000 4.0'	Too Shallow	#9 @ 1.0'	#10 @ 2.0'	#11 @ 3.0'	#12 @ 1.0'	#13 @ 2.0'	#14 @ 3.0'

WEATHER CONDITIONS: Bright and sunny both days with a cool NNE breeze following two days of very heavy rainfall.

NOTES: Station # 2 was devoid (scoured?) of the green algae that was previously abundant in the area.

-1' data collected one foot below the surface of the water
mid data collected from the middle of the water column
+1' data collected one foot above the bottom
---- indicates that the water depths were too shallow for data collection in accordance with the parameters set forth pursuant to Condition No. 39(b) & (c) of the subject permit

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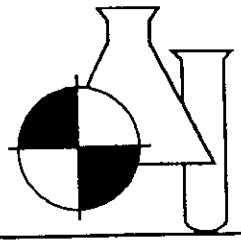

FDOH Certification #E84167 and #84455
FDEP Quality Assurance #870594G

Submission Number 1040026

M.R. Friday & Associates, Inc.
1748 Independence Blvd., Suite E-7
Sarasota FL 34234

Project Name: SHACKET CREEK WCIND
Date Received: 04/02/2001
Time Received: 1310

Submission Number 1040026

Sample Number: 1A
Sample Date: 04/02/2001
Sample Time: 0900
Sample Description: Shacket Creek Sta. 1 @ 1'
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	3.88	MG/L	0.5	160.2	04/03/2001		MP
AMMONIA NITROGEN	0.05	MG/L	0.01	350.2	04/10/2001		BMS
ORGANIC NITROGEN	0.82	MG/L	0.04	351-350	04/10/2001		BMS
TOTAL KJELDAHL NITROGEN	0.87	MG/L	0.04	351.2	04/03/2001		BMS
TOTAL NITROGEN	0.89	MG/L	0.04	353+351	04/06/2001		BMS/TDT
NITRATE+NITRITE	0.02	MG/L	0.01	353.2	04/06/2006		TDT
TOTAL PHOSPHORUS	0.18	MG/L	0.01	365.3	04/06/2001		BMS

U = Analyte not detected at the value indicated

Submission Number 1040026

Sample Number: 1B
Sample Date: 04/02/2001
Sample Time: 0900
Sample Description: Shacket Creek Sta. 1 @ 2.5'
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	6.24	MG/L	0.5	160.2	04/03/2001		MP
AMMONIA NITROGEN	0.06	MG/L	0.01	350.2	04/10/2001		BMS
ORGANIC NITROGEN	0.79	MG/L	0.04	351-350	04/10/2001		BMS
TOTAL KJELDAHL NITROGEN	0.85	MG/L	0.04	351.2	04/03/2001		BMS
TOTAL NITROGEN	0.88	MG/L	0.04	353+351	04/06/2001		BMS/TDT

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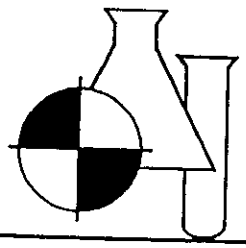

NITRATE+NITRITE	0.03	MG/L	0.01	353.2	04/06/2006	TDT
TOTAL PHOSPHORUS	0.17	MG/L	0.01	365.3	04/06/2001	BMS

U = Analyte not detected at the value indicated

Submission Number 1040026

Sample Number: 1C
Sample Date: 04/02/2001
Sample Time: 0900
Sample Description: Shacket Creek Sta. 1 @ 4'
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	5.71	MG/L	0.5	160.2	04/03/2001		MP
AMMONIA NITROGEN	0.01U	MG/L	0.01	350.2	04/10/2001		BMS
ORGANIC NITROGEN	0.87	MG/L	0.04	351-350	04/10/2001		BMS
TOTAL KJELDAHL NITROGEN	0.87	MG/L	0.04	351.2	04/03/2001		BMS
TOTAL NITROGEN	0.92	MG/L	0.04	353+351	04/06/2001		BMS/TDT
NITRATE+NITRITE	0.05	MG/L	0.01	353.2	04/06/2006		TDT
TOTAL PHOSPHORUS	0.16	MG/L	0.01	365.3	04/06/2001		BMS

U = Analyte not detected at the value indicated

Submission Number 1040026

Sample Number: 2
Sample Date: 04/02/2001
Sample Time: 0945
Sample Description: Shacket Creek Sta. 2 @ 1'
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	11.6	MG/L	0.5	160.2	04/03/2001		MP
AMMONIA NITROGEN	0.15	MG/L	0.01	350.2	04/10/2001		BMS
ORGANIC NITROGEN	0.64	MG/L	0.04	351-350	04/10/2001		BMS
TOTAL KJELDAHL NITROGEN	0.79	MG/L	0.04	351.2	04/03/2001		BMS
TOTAL NITROGEN	0.87	MG/L	0.04	353+351	04/06/2001		BMS/TDT
NITRATE+NITRITE	0.08	MG/L	0.01	353.2	04/06/2006		TDT
TOTAL PHOSPHORUS	0.11	MG/L	0.01	365.3	04/06/2001		BMS

U = Analyte not detected at the value indicated

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Submission Number 1040026

Sample Number: 3A
Sample Date: 04/02/2001
Sample Time: 1000
Sample Description: Shacket Creek Sta. 3 @ 1'
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	4.94	MG/L	0.5	160.2	04/03/2001		MP
AMMONIA NITROGEN	0.01U	MG/L	0.01	350.2	04/10/2001		BMS
ORGANIC NITROGEN	0.85	MG/L	0.04	351-350	04/10/2001		BMS
TOTAL KJELDAHL NITROGEN	0.85	MG/L	0.04	351.2	04/03/2001		BMS
TOTAL NITROGEN	0.93	MG/L	0.04	353+351	04/06/2001		BMS/TDT
NITRATE+NITRITE	0.08	MG/L	0.01	353.2	04/06/2006		TDT
TOTAL PHOSPHORUS	0.12	MG/L	0.01	365.3	04/06/2001		BMS

U = Analyte not detected at the value indicated

Submission Number 1040026

Sample Number: 3B
Sample Date: 04/02/2001
Sample Time: 1000
Sample Description: Shacket Creek Sta. 3 @ 2'
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	6.02	MG/L	0.5	160.2	04/03/2001		MP
AMMONIA NITROGEN	0.20	MG/L	0.01	350.2	04/10/2001		BMS
ORGANIC NITROGEN	0.61	MG/L	0.04	351-350	04/10/2001		BMS
TOTAL KJELDAHL NITROGEN	0.81	MG/L	0.04	351.2	04/03/2001		BMS
TOTAL NITROGEN	0.88	MG/L	0.04	353+351	04/06/2001		BMS/TDT
NITRATE+NITRITE	0.07	MG/L	0.01	353.2	04/06/2006		TDT
TOTAL PHOSPHORUS	0.12	MG/L	0.01	365.3	04/06/2001		BMS

U = Analyte not detected at the value indicated

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FDEP Quality Assurance #870594G

Submission Number 1040026

Sample Number: 3C
Sample Date: 04/02/2001
Sample Time: 1000
Sample Description: Shacket Creek Sta. 3 @ 3'
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	9.87	MG/L	0.5	160.2	04/03/2001		MP
AMMONIA NITROGEN	0.17	MG/L	0.01	350.2	04/10/2001		BMS
ORGANIC NITROGEN	0.73	MG/L	0.04	351-350	04/10/2001		BMS
TOTAL KJELDAHL NITROGEN	0.90	MG/L	0.04	351.2	04/03/2001		BMS
TOTAL NITROGEN	0.98	MG/L	0.04	353+351	04/06/2001		BMS/TDT
NITRATE+NITRITE	0.08	MG/L	0.01	353.2	04/06/2006		TDT
TOTAL PHOSPHORUS	0.12	MG/L	0.01	365.3	04/06/2001		BMS

U = Analyte not detected at the value indicated

Dale D. Dixon / Laboratory Director — 04/17/2001 Date

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Client: **M.R. Friday & Associates, Inc.**
1748 Independence Blvd., Suite E-7
Sarasota, FL. 34234
(941) 351-1881
(941) 351-8359 fax

Chain of Custody Form: Shackett Creek/WCIND
Method of discharge: Surface Water
Sample Type: Grab

Laboratory Submission #: 0104-0026 ~~0103-DA0~~

Station ID / Sample # (Plain) / Sample # (1:1 H_2SO_4)	TSS — 1	TKN, NO_3-NO_2, T-N NH_3, O-N, T-P — 2	Field Parameters: Temp (°C)	pH	D.O. (mg/L)	Salinity (g/kg)	Conductivity (µmhos/cm)	Laboratory Sample #
	Plain	1:1 H_2SO_4						
	1 x 1 Quart Plastic	1 x 1 Quart Plastic						
#1 1 #4	(Time:) 0900 @ 1'	(Time:) 0900 @ 1'						1A
#2 1 #5	(Time:) 0900 @ 2.5'	(Time:) 0900 @ 2.5'						1B
#3 1 #6	(Time:) 0900 @ 4'	(Time:) 0900 @ 4'						1C
— 2 —	(Time:) —	(Time:) —						—
#7 2 #8	(Time:) 0945 @ 1'	(Time:) 0945 @ 1'						2A
— 2 —	(Time:) —	(Time:) —						—
#9 3 #12	(Time:) 1000 @ 1'	(Time:) 1000 @ 1'						3A
#10 3 #13	(Time:) 1000 @ 2'	(Time:) 1000 @ 2'						3B
#11 3 #14	(Time:) 1000 @ 3'	(Time:) 1000 @ 3'						3C

Sample must be refrigerated or stored in wet ice after collection. The maximum temperature during storage should be 4°C (39.2°F).

Instructions:
1. Each bottle has a label identifying sample ID, premeasured preservative contained in the bottle, sample type, client ID, and parameters for analysis. The following information should be added to each bottle label collection with permanent black ink: date and time of collection, sampler's name or initials, and any field number or ID.
2. The effluent sample bottles for nitrogen contain premeasured 1:1 sulfuric acid (H_2SO_4). Do not rinse these bottles with sample prior to sampling.
3. All bottles not containing preservative may be rinsed with appropriate sample prior to collection.
4. The client is responsible for documentation of the sampling event. Please note special sampling events on the sample custody form.

1	Collector: (Print) Michael R. Friday	Date: 4-2-01	2	Received By: (Print)	Date:
	Signature: Michael R Friday	Time: 1240		Signature:	Time:
3	Relinquished By: (Print) Michael R Friday	Date: 4-2-01	4	Received For Lab By: (Print) Dawn Olma	Date: 04/02/
	Signature: Michael R Friday	Time: 1310 WS		Signature: Dawn Olma	Time: 1310

FILE

ED BARBER & ASSOCIATES

ENVIRONMENTAL CONSULTING

ENVIRONMENTAL MANAGEMENT SERVICES

Wildewood Professional Park
3639 Cortez Road West, Suite 211
Bradenton, Florida 34210
Tel: 941-739-3903 Fax: 941-739-3829

March 23, 2001

Ms. Rose Poynor, Habitat Restoration Section
Florida Department of Environmental Protection, Southwest District
3804 Coconut Palm Drive
Tampa , FL 33619

Re: File No. 58-01274663-001, Shakett Creek Navigational Dredging

Dear Ms. Poynor:

The enclosed material summarizes the diel water-quality survey performed by personnel from M. R. Friday & Associates, Inc. on February 23-24, 2001 pursuant to Specific Condition No. 39 of the referenced permit and their currently approved Quality Assurance Plan No. 870264. Monitoring locations associated with this activity are generally illustrated in figures 1 and 2 submitted with the water-quality monitoring report submitted to the District on November 9, 1999. More specifically, the sites are located as follows:

- Site No. 1 is located on Cow Pen Slough about one-half mile upstream from Laurel Road and 250-feet upstream from the mouth of Fox Creek where it enters Cow Pen Slough,
- Site No. 2 is located about 200 feet west northwest of the oyster mitigation area where dredge material from the trestle and cove areas was placed, and
- Site No. 3 is located about 200 feet east northeast from the dredge channel at the railroad trestle.

We understand that Sarasota County's monitoring network may soon incorporate the Cowpen Slough control structure in an attempt to focus upon water quality and loads entering the Dona Bay estuary. As you are aware, we are in full support of this effort. Assessment of long-term trends within this water body would be greatly enhanced by establishing this station. Our current monitoring efforts in Shakett Creek are proving to be very expensive and would greatly benefit from such integrated features. To replace this program with a focused, long-term sampling regime would be of great benefit to Sarasota County, the Florida Department of Environmental Protection and others.

To avoid duplication of effort while focusing upon a comprehensive long-term monitoring program is of mutual and multi-agency benefit. With this in mind, a meeting with the FDEP, a representative of Sarasota County and the Manasota 88 would be helpful to revisit the West Coast Inland Navigation District's water quality monitoring program. We could either meet at the WCIND, Sarasota County or your offices. Since the current monitoring program does not allow an ability to merge such physical and chemical parameters efforts to close this current data gap for nutrient load inputs from the Cowpen Slough watershed would promote needed watershed management objectives. Please contact us regarding the Department's capabilities to facilitate this meeting to discuss assessment of long-term estuarine trends and health in a cost-effective manner, as mentioned by Bob Stetler earlier this year.

The following information is transmitted herewith:

- List of field measurements made during diel survey
- Analytical report for analyses of total suspended solids
- Chain-of-custody record

Please call Dean Mades or me if there is a need to further discuss these data.

Sincerely,

Sam Johnston, Jr.
Associate

Enclosures

cc: Chuck Listowski / WCIND
Bob Stetler / FDEP
Charles Kovach/FDEP
Larry Olsen, Ph.D.
Dean Mades, PE / EBA
Theresa Connor / Sarasota County Storm Water

PROJECT NAME: SHACKETT CREEK/WCIND DATE: February 23 & 24, 2001

Station/Time(hrs) Depth (total)		DO (ppm)			TEMP (c)			SALINITY (0/00)			CONDUCT (mmho)			pH		
Run 1		-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'
1	0900 4.2'	4.3	4.35	4.1	23.0	23.5	24.2	32.5	32.6	33.9	43.4	44.7	47.1	7.57	7.59	7.62
2	0930 1.7'	----	6.1	----	----	23.3	----	----	34.0	----	----	46.5	----	----	7.86	----
3	0945 4.3'	4.7	4.7	4.5	23.0	22.9	23.0	34.5	37.7	36.2	47.1	47.7	46.8	7.75	7.75	7.75
Run 2																
1	1300 5.2'	5.7	5.5	5.14	25.2	24.3	24.0	31.5	32.9	33.5	45.2	45.7	46.3	7.69	7.70	7.73
2	1320 2.5'	----	7.55	----	----	25.2	----	----	36.9	----	----	49.2	----	----	7.99	----
3	1330 5.1'	5.65	5.25	5.0	24.4	24.2	24.5	34.8	35.0	35.1	48.8	49.0	48.9	7.82	7.83	7.83
Run 3																
1	1700 4.8'	6.1	6.6	5.3	26.0	25.3	24.7	32.6	33.4	34.4	47.1	48.3	48.4	7.78	7.80	7.80
2	1720 1.9'	----	5.4	----	----	25.0	----	----	34.7	----	----	49.0	----	----	7.82	----
3	1730 4.3'	5.8	5.6	5.4	25.1	25.1	25.0	34.7	34.6	34.8	49.1	49.1	48.9	7.83	7.82	7.82
Run 4																
1	2100 5.0	5.8	5.0	4.4	25.6	24.8	24.3	32.5	34.0	34.2	47.0	47.8	47.8	7.75	7.74	7.71
2	2120 2.5'	----	4.2	----	----	24.6	----	----	35.2	----	----	49.8	----	----	7.73	----
3	2143 4.7'	5.4	5.25	5.1	24.3	24.3	24.2	34.9	35.4	36.0	49.4	49.5	49.3	7.84	7.84	7.84
Run 5																
1	0100 5.8'	5.9	5.0	4.3	24.3	24.5	24.5	32.8	34.4	34.6	47.0	48.1	48.3	7.74	7.74	7.70
2	0128 3.0'	4.6	----	4.5	23.8	----	23.9	35.2	----	35.5	49.1	----	49.2	7.79	----	7.79
3	0144 5.5'	5.3	4.9	4.6	23.9	23.9	24.0	35.5	35.4	35.1	48.9	49.0	49.0	7.82	7.82	7.81
Run 6																
1	0500 4.9'	4.8	4.5	3.4	23.9	23.9	24.3	32.9	34.7	34.7	46.5	46.7	47.0	7.64	7.65	7.65
2	0530 2.0'	----	4.35	----	----	23.3	----	----	34.7	----	----	47.7	----	----	7.71	----
3	0545 4.2'	4.6	4.5	4.4	23.5	23.4	23.4	34.7	34.4	34.6	47.8	47.8	47.9	7.73	7.73	7.73
Run 7																
1	0900 4.1'	3.85	3.6	3.3	23.7	24.1	24.4	31.5	32.6	34.0	45.0	46.8	48.0	7.54	7.58	7.60
2	0918 1.6'	----	5.8	----	----	23.2	----	----	34.2	----	----	47.3	----	----	7.82	----
3	0932 4.0'	4.8	4.6	4.55	23.1	23.0	23.0	34.2	34.6	35.5	47.1	47.3	47.9	7.73	7.72	7.73

		Monthly TSS Samples			Quarterly Nutrient Samples		
Station/Time		SECCHI	-1'	Mid	+1'	-1'	Mid	+1'
1	0900 4.2'	Too shallow	#1	#2	#3	-----	-----	-----
2	0929 1.7'	Too shallow	-----	#4	-----	-----	-----	-----
3	0958 4.3'	2.7'	#5	#6	#7	-----	-----	-----

WEATHER CONDITIONS: Sunny, warm both mornings, partly cloudy 1st afternoon

NOTES:

-1' data collected one foot below the surface of the water
mid data collected from the middle of the water column
+1' data collected one foot above the bottom
---- indicates that the water depths were too shallow for data collection in accordance with the parameters set forth pursuant to Condition No. 39(b) & (c) of the subject permit

BENCHMARK
EnviroAnalytical, Inc.

FDOH Certification #E84167 and #84455
FDEP Quality Assurance #870594G

Submission Number 1020433

M.R. Friday & Associates, Inc.
1748 Independence Blvd., Suite E-7
Sarasota FL 34234

Project Name: SHACKETT CREEK /WCIND
Date Received: 02/24/2001
Time Received: 1300

Submission Number 1020433

Sample Number: 1
Sample Date: 02/23/2001
Sample Time: 0900
Sample Description: Shackett Creek 1 / #1
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	12.9	MG/L	0.5	160.2	02/26/2001		MP

U = Analyte not detected at the value indicated

Submission Number 1020433

Sample Number: 2
Sample Date: 02/23/2001
Sample Time: 0900
Sample Description: Shackett Creek 1 / #2
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	11.2	MG/L	0.5	160.2	02/26/2001		MP

U = Analyte not detected at the value indicated

Submission Number 1020433

Sample Number: 3
Sample Date: 02/23/2001
Sample Time: 0900
Sample Description: Shackett Creek 1 / #3
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst

653 Tenth Street East*Palmetto, FL 34221*Phone (941)723-9986*FAX (941)723-6061

TOTAL SUSPENDED SOLIDS	15.7	MG/L	0.5	160.2	02/26/2001	MP

U = Analyte not detected at the value indicated

Submission Number 1020433

Sample Number: 4 **Sample Description:** Shackett Creek 2 / #4
Sample Date: 02/23/2001 **Sample Method:** Grab
Sample Time: 0929

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	13.3	MG/L	0.5	160.2	02/26/2001		MP

U = Analyte not detected at the value indicated

Submission Number 1020433

Sample Number: 5 **Sample Description:** Shackett Creek 3 / #5
Sample Date: 02/23/2001 **Sample Method:** Grab
Sample Time: 0958

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	17.5	MG/L	0.5	160.2	02/26/2001		MP

U = Analyte not detected at the value indicated

Submission Number 1020433

Sample Number: 6 **Sample Description:** Shackett Creek 3 / #6
Sample Date: 02/23/2001 **Sample Method:** Grab
Sample Time: 0958

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	32.8	MG/L	0.5	160.2	02/26/2001		MP

U = Analyte not detected at the value indicated

653 Tenth Street East*Palmetto, FL 34221*Phone (941)723-9986*FAX (941)723-6061

BENCHMARK
EnviroAnalytical, Inc.

FDOH Certification #E84167 and #84455
FDEP Quality Assurance #870594G

Submission Number 1020433

Sample Number: 7
Sample Date: 02/23/2001
Sample Time: 0958
Sample Description: Shackett Creek 3 / #7
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	29.7	MG/L	0.5	160.2	02/26/2001		MP

U = Analyte not detected at the value indicated

Dale D. Dixon / Laboratory Director — 03/07/2001 Date

653 Tenth Street East*Palmetto, FL 34221*Phone (941)723-9986*FAX (941)723-6061

Benchmark EnviroAnalytical, Inc.
653 Tenth Street East
Palmetto, FL 34221
(941) 723-9986
(941) 723-6061 fax
BenchmarkEA@earthlink.net

Client: **M.R. Friday & Associates, Inc.**
1748 Independence Blvd., Suite E-7
Sarasota, FL. 34234
(941) 351-1881
(941) 351-8359 fax

Chain of Custody Form: Shackett Creek/WCIND
Method of discharge: Surface Water

Laboratory Submission #: 1020433

Station ID	Sample Type	TSS Plain 1 x 1 Quart Plastic (Date)	TSS Plain 1 x 1 Quart Plastic (Time)	Field Parameters: Temp (°C)	pH	D.O. (mg/L)	Salinity (g/kg)	Conductivity (µmhos/cm)	Laboratory Sample #
#1 1	Grab	2-23-01	0900 @ 1'						
#2 1	Grab	2-23-01	0900 @ 2'						
#3 1	Grab	2-23-01	0900 @ 3'						
2	Grab								
#4 2	Grab	2-23-01	0929 @ .8'						
2	Grab								
#5 3	Grab	2-23-01	0958 @ 1'						
#6 3	Grab	2-23-01	0958 @ 2'						
#7 3	Grab	2-23-01	0958 @ 3'						

1	Collector: (Print) Michael R. Friday	Date: 2-23-01		2	Received By: (Print)	Date:	
	Signature: Michael R. Friday	Time: 1000			Signature:	Time:	
3	Relinquished By: (Print) Michael R. Friday	Date: 2-24-01		4	Received For Lab By: (Print) KATHARINE A. DIXON	Date: 02/24/01	
	Signature: Michael R. Friday	Time: 1300			Signature: Katharine A. Dixon	Time: 1300	

M.R. FRIDAY & ASSOCIATES, INC.
Environmental Consultants

March 19, 2001

Mr. Sam Johnston
Ed Barber & Associates, Inc.
3639 Cortez Road West, Suite 211
Bradenton, FL 34210

Re: February Data Collection @ Shackett Creek in accordance with FDEP Permit No. 58-01274663-001, Condition No. 39 (b) & (c), Report No. 4

Dear Sam,

Enclosed please find the February report to include the total suspended solids data. Also enclosed is the invoice for the February event. The next monitoring event is scheduled for March 30 and 31, 2001. Please contact me should you have any questions regarding this report or invoice. Thanks.

Respectfully submitted,

Michael R. Friday
President

enclosures

1748 Independence Boulevard, Suite E-7, Sarasota, Florida 34234 • Phone (941) 351-1881 Fax (941) 351-8359

ED BARBER & ASSOCIATES

ENVIRONMENTAL CONSULTING

ENVIRONMENTAL MANAGEMENT SERVICES

Wildewood Professional Park
3639 Cortez Road West, Suite 211
Bradenton, Florida 34210
Tel: 941-739-3903 Fax: 941-739-3829

February 19, 2001

Ms. Rose Poynor, Habitat Restoration Section
Florida Department of Environmental Protection, Southwest District
3804 Coconut Palm Drive
Tampa , FL 33619

Re: File No. 58-01274663-001, Shakett Creek Navigational Dredging

Dear Ms. Poynor:

The enclosed material summarizes the diel water-quality survey performed by personnel from M. R. Friday & Associates, Inc. on January 26-27, 2001 pursuant to Specific Condition No. 39 of the referenced permit and their currently approved Quality Assurance Plan No. 870264. Monitoring locations associated with this activity are generally illustrated in figures 1 and 2 submitted with the water-quality monitoring report submitted to the District on November 9, 1999. More specifically, the sites are located as follows:

- Site No. 1 is located on Cow Pen Slough about one-half mile upstream from Laurel Road and 250-feet upstream from the mouth of Fox Creek where it enters Cow Pen Slough,
- Site No. 2 is located about 200 feet west northwest of the oyster mitigation area where dredge material from the trestle and cove areas was placed, and
- Site No. 3 is located about 200 feet east northeast from the dredge channel at the railroad trestle.

We again request the Department's consideration of a monitoring program that incorporates flows at the Cowpen Slough structure. This was discussed with Bob Stetler during a recent meeting with the WCIND and Charles Kovach of your office is also copied on this correspondence to solicit the Department's thoughts to obtain meaningful data on loadings to the Dona Bay estuary. By copy of this correspondence to Sarasota County we are requesting that their staff examine this issue as well, since their programs may also incorporate a need to evaluate nutrient and other loads to these receiving waters.

The following information is transmitted herewith:

- List of field measurements made during diel survey
- Analytical report for analyses of total suspended solids
- Chain-of-custody record

Please call Dean Mades or me if there is a need to further discuss these data.

Sincerely,

Sam A. Johnston, Jr.

Sam Johnston, Jr.
Associate

Enclosures

cc: Chuck Listowski / WCIND
Larry Olsen, Ph.D.
Theresa Connor / Sarasota County Storm Water
Bob Stetler / FDEP
Dean Mades, PE / EBA
Charles Kovach/FDEP

Station/Time(hrs) Depth (total)		DO (ppm)			TEMP (c)			SALINITY (0/00)			CONDUCT (mmho)			pH		
Run 1		-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'
3	0900 1.6'	----	7.70	----	----	13.9	----	----	29.8	----	----	37.0	----	----	8.13	----
2	0930 ----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
1	0946 3.5'	6.55	6.35	----	16.0	16.8	----	28.3	29.0	----	37.0	38.3	----	8.09	7.91	----
Run 2																
3	1305 3.1'	9.2	9.1	----	14.9	14.9	----	30.5	30.7	----	38.2	38.3	----	8.01	7.95	----
2	1328 1.5'	----	9.85	----	----	16.0	----	----	30.5	----	----	39.1	----	----	7.87	----
1	1350 4.4'	7.1	7.0	7.25	16.5	16.6	17.0	26.8	29.0	29.9	35.2	37.7	39.3	7.66	7.65	7.71
Run 3																
3	1700 3.5'	8.61	9.1	----	15.3	15.5	----	30.9	31.0	----	39.2	39.8	----	8.16	8.20	----
2	1710 1.7'	----	9.48	----	----	15.8	----	----	31.2	----	----	39.5	----	----	8.33	----
1	1730 4.3'	8.10	7.65	7.30	16.5	16.8	17.1	28.2	28.5	29.3	37.1	38.4	39.2	8.21	8.16	8.16
Run 4																
3	2100 3.5'	9.15	9.0	----	14.9	15.0	----	31.9	32.1	----	39.7	40.0	----	8.27	8.40	----
2	2120 2.0'	----	8.4	----	----	14.6	----	----	31.2	----	----	40.5	----	----	8.44	----
1	2145 4.6'	7.85	7.49	7.20	15.4	16.9	16.9	28.1	29.2	29.7	37.6	39.3	39.4	8.30	8.30	8.30
Run 5																
3	0100 4.0'	9.2	8.4	8.15	13.8	14.0	14.0	32.8	33.0	32.5	39.8	40.2	40.0	8.39	8.42	8.45
2	0121 2.6'	7.90	7.55	----	13.3	13.9	----	31.7	31.9	----	38.8	39.3	----	8.42	8.44	----
1	0142 5.3'	7.65	7.20	6.90	14.9	15.8	16.0	29.2	29.9	30.0	36.8	38.9	39.0	8.32	8.36	8.38
Run 6																
3	0500 3.8'	8.1	8.0	7.85	13.7	14.0	14.1	31.3	31.4	31.9	38.6	39.0	39.9	8.38	8.44	8.47
2	0515 1.9'	----	7.9	----	----	13.3	----	----	31.2	----	----	38.0	----	----	8.47	----
1	0535 4.4'	6.45	6.40	6.52	15.1	15.9	17.0	29.1	29.2	29.5	37.9	37.9	38.5	8.26	8.26	8.28
Run 7																
3	0903 2.9'	8.85	8.55	----	14.8	14.9	----	29.6	30.2	----	39.3	39.9	----	8.25	8.31	----
2	0920 1.1'	----	8.0	----	----	13.8	----	----	29.5	----	----	37.4	----	----	8.21	----
1	0944 3.7'	6.49	6.45	----	15.8	16.7	----	27.8	28.9	----	36.2	39.0	----	7.76	7.76	----

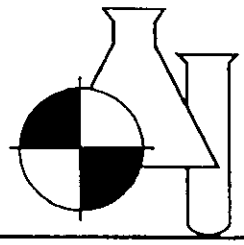
		Monthly/TSS Samples			Quarterly Nutrient Samples			
Station/Time		SECCHI	-1'	Mid	+1'	-1'	Mid	+1'
3	0900 1.6'	TOO SHALLOW	----	#1 @ 0.8'	----	----	----	----
2	1330 1.6'	TOO SHALLOW	----	#4 @ 0.8'	----	----	----	----
1	1000 3.5'	TOO SHALLOW	#2 @ 1.0'	#3 @ 2.0'	----	----	----	----

WEATHER CONDITIONS: Clear and cool w/ ENE winds day 1, partly cloudy w/ slight ESE winds day 2

NOTE: Due to an extreme low tide combined with a ENE wind, Station #2 during Run 1 was not accessible due to shallow water

-1' data collected one foot below the surface of the water
mid data collected from the middle of the water column
+1' data collected one foot above the bottom
---- indicates that the water depths were too shallow for data collection in accordance with the parameters set forth pursuant to Condition No. 39(b) & (c) of the subject permit

BENCHMARK
EnviroAnalytical, Inc.



FDOH Certification #E84167 and #84455
FDEP Quality Assurance #870594G

Submission Number 1010496

M.R. Friday & Associates, Inc.
1748 Independence Blvd., Suite E-7
Sarasota FL 34234

Project Name: SHACKETT CREEK/WCIND
Date Received: 01/27/2001
Time Received: 1235

Submission Number 1010496

Sample Number: 1
Sample Date: 01/26/2001
Sample Time: 0910
Sample Description: Shackett Creek / W C I N D 3 - 1
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	10.9	MG/L	0.5	160.2	01/30/2001		MP

U = Analyte not detected at the value indicated

Submission Number 1010496

Sample Number: 2
Sample Date: 01/26/2001
Sample Time: 1330
Sample Description: Shackett Creek / W C I N D 2 - 4
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	9.33	MG/L	0.5	160.2	01/30/2001		MP

U = Analyte not detected at the value indicated

Submission Number 1010496

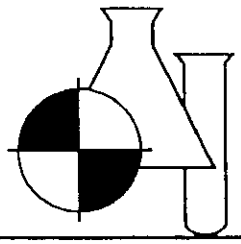
Sample Number: 3
Sample Date: 01/26/2001
Sample Time: 0946
Sample Description: Shackett Creek / W C I N D 1 - 2
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst

653 Tenth Street East*Palmetto, FL 34221*Phone (941)723-9986*FAX (941)723-6061

BENCHMARK
EnviroAnalytical, Inc.

FDOH Certification #E84167 and #84455
FDEP Quality Assurance #870594G



TOTAL SUSPENDED SOLIDS	9.53	MG/L	0.5	160.2	01/30/2001	MP

U = Analyte not detected at the value indicated

Submission Number 1010496

Sample Number: 4
Sample Date: 01/26/2001
Sample Time: 0954
Sample Description: Shackett Creek / W C I N D 1 - 3
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	14.4	MG/L	0.5	160.2	01/30/2001		MP

U = Analyte not detected at the value indicated

Dale D. Dixon / Laboratory Director — 02/07/2001 Date

653 Tenth Street East*Palmetto, FL 34221*Phone (941)723-9986*FAX (941)723-6061

Benchmark EnviroAnalytical, Inc.
653 Tenth Street East
Palmetto, FL 34221
(941) 723-9986
(941) 723-6061 fax
BenchmarkEA@earthlink.net

Client: **M.R. Friday & Associates, Inc.**
1748 Independence Blvd., Suite E-7
Sarasota, FL. 34234
(941) 351-1881
(941) 351-8359 fax

Chain of Custody Form: Shackett Creek/WCIND
Method of discharge: Surface Water

Laboratory Submission #: 1010496

Station ID	Sample Type	TSS Plain 1 x 1 Quart Plastic		Field Parameters: Temp (°C)	pH	D.O. (mg/L)	Salinity (g/kg)	Conductivity (µmhos/cm)	Laboratory Sample #
3 1	Grab	(Date) —	(Time:) —						
3 2 #1	Grab	(Date) 1-26-01	(Time:) 0910						
3 3	Grab	(Date) —	(Time:) —						
2 4	Grab	(Date) —	(Time:) —						
2 5 #4	Grab	(Date) 1-26-01	(Time:) 1330						
2 6	Grab	(Date) —	(Time:) —						
1 7 #2	Grab	(Date) 1-26-01	(Time:) 0946						
1 8 #3	Grab	(Date) 1-26-01	(Time:) 0954						
1 9	Grab	(Date) —	(Time:) —						

Sample must be refrigerated or stored in wet ice after collection. The maximum temperature during storage should be 4°C (39.2°F).

structions:

Each bottle has a label identifying sample ID, premeasured preservative contained in the bottle, sample type, client ID, and parameters for analysis. The following information should be added to each bottle label after collection with permanent black ink: date and time of collection, sampler's name or initials, and any field number or ID.
The effluent sample bottles for nitrogen contain premeasured 1:1 sulfuric acid (H_2SO_4). Do not rinse these bottles with sample prior to sampling.
All bottles not containing preservative may be rinsed with appropriate sample prior to collection.
The client is responsible for documentation of the sampling event. Please note special sampling events on the sample custody form.

1	Collector: (Print) Michael R. Friday	Date: 1-26-01	2	Received For Lab By: (Print) KATHARINE A. DIXON	Date: 01/27/01
	Signature: Michael R. Friday	Time: 1700 hrs.		Signature: Katharine A. Dixon	Time: 1235

ED BARBER & ASSOCIATES
ENVIRONMENTAL CONSULTING
ENVIRONMENTAL MANAGEMENT SERVICES

Wildewood Professional Park
3639 Cortez Road West, Suite 211
Bradenton, Florida 34210
Tel: 941-739-3903 Fax: 941-739-3829

February 9, 2001

Ms. Rose Poynor, Habitat Restoration Section
Florida Department of Environmental Protection, Southwest District
3804 Coconut Palm Drive
Tampa , FL 33619

Re: File No. 58-01274663-001, Shakett Creek Navigational Dredging

Dear Ms. Poynor:

The enclosed material summarizes the diel water-quality survey performed by personnel from M. R. Friday & Associates, Inc. on December 29-30, 2000 pursuant to Specific Condition No. 39 of the referenced permit and their currently approved Quality Assurance Plan No. 870264. Monitoring locations associated with this activity are generally illustrated in figures 1 and 2 submitted with the water-quality monitoring report submitted to the District on November 9, 1999. More specifically, the sites are located as follows:

- Site No. 1 is located on Cow Pen Slough about one-half mile upstream from Laurel Road and 250-feet upstream from the mouth of Fox Creek where it enters Cow Pen Slough,
- Site No. 2 is located about 200 feet west northwest of the oyster mitigation area where dredge material from the trestle and cove areas was placed, and
- Site No. 3 is located about 200 feet east northeast from the dredge channel at the railroad trestle.

Please note that the monitoring data reported for Station Nos. 1 and 3 for November 28-28, 2000 should be exchanged to accurately reflect these site locations. Station No. 2's data remain indicative of the referenced location. Also, refinement of this monitoring program to incorporate flows has been discussed with Bob Stetler during a recent meeting with the WCIND and Bob was to meet with Charles Kovach of your office to investigate this matter further. By copy of this correspondence we are again requesting that this issue be examined.

The following information is transmitted herewith:

- List of field measurements made during diel survey
- Analytical report for analyses of total suspended solids and additional quarterly analytes
- Chain-of-custody record

Please call Dean Mades or me if there is a need to further discuss these data.

Sincerely,

Sam Johnston, Jr.
Associate

Enclosures

cc: Chuck Listowski / WCIND
Larry Olsen, Ph.D.
Theresa Connor / Sarasota County Storm Water
Bob Stetler / FDEP
Dean Mades, PE / EBA
Charles Kovach/FDEP

PROJECT NAME: Shackett Creek - WCIND DATE: December 29 and 30, 2000

Station/Time(hrs) Depth (total)		DO (ppm)			TEMP (c)			SALINITY (0/00)			CONDUCT (mmho)			pH		
Run 1		-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'
3	0900 3.0'	6.9	6.9	----	18.1	18.1	----	29.5	30.2	----	40.1	41.6	----	7.73	8.04	----
2	0935 1.2'	----	6.35	----	----	18.1	----	----	30.0	----	----	44.2	----	----	8.08	----
1	1013 3.9'	5.4	5.7	5.9	18.5	18.2	19.1	25.8	30.0	30.1	41.6	41.9	42.1	7.95	8.00	8.04
Run 2																
3	1302 3.5'	7.15	7.1	----	17.2	17.2	----	31.2	31.2	----	42.1	42.8	----	7.97	8.05	----
2	1321 1.7'	----	7.9	----	----	17.8	----	----	30.4	----	----	42.0	----	----	8.18	----
1	1347 4.2'	5.6	5.9	5.9	18.3	19.1	19.1	29.0	29.9	30.1	40.2	41.5	42.5	8.02	8.07	8.08
Run 3																
3	1700 3.2'	8.2	8.0	----	17.4	17.7	----	29.9	31.0	----	41.2	41.6	----	8.08	8.20	----
2	1710 2.0'	----	7.35	----	----	17.9	----	----	30.8	----	----	41.5	----	----	8.19	----
1	1733 4.5'	6.75	6.0	5.9	18.1	18.8	19.0	28.4	29.6	30.0	39.0	40.5	41.9	8.10	8.11	8.11
Run 4																
3	2100 3.6'	7.3	7.22	----	16.9	17.0	----	31.7	31.4	----	41.5	41.5	----	8.13	8.17	----
2	2115 2.4'	----	6.45	----	----	16.9	----	----	31.1	----	----	41.1	----	----	8.20	----
1	2141 5.0'	6.65	6.25	5.95	17.5	18.2	18.5	28.8	30.1	31.0	39.1	42.0	42.8	8.16	8.16	8.17
Run 5																
3	0100 4.4'	6.65	6.5	6.45	16.0	16.2	16.2	31.9	32.0	32.0	41.1	42.2	41.6	8.09	8.13	8.15
2	0121 3.0'	----	6.69	----	----	16.0	----	----	31.5	----	----	40.8	----	----	8.20	----
1	0143 5.5'	6.45	6.0	5.95	16.8	18.2	18.2	29.4	30.4	31.0	39.9	40.9	41.4	8.16	8.17	8.17
Run 6																
3	0500 3.5'	6.60	6.55	----	15.6	15.9	----	31.2	31.8	----	40.8	41.0	----	8.03	8.11	----
2	0515 2.4'	----	6.65	----	----	15.3	----	----	31.6	----	----	40.5	----	----	8.17	----
1	0533 4.7'	6.1	5.7	5.8	16.4	18.1	18.5	29.0	30.9	30.2	38.8	41.3	41.2	8.11	8.12	8.13
Run 7																
3	0900 3.0'	----	6.5	----	----	15.5	----	----	30.9	----	----	39.7	----	----	7.98	----
2	0910 1.4'	----	6.6	----	----	15.1	----	----	30.6	----	----	39.2	----	----	8.14	----
1	0940 3.9'	5.2	5.3	5.25	16.0	18.1	18.5	29.1	29.8	29.9	37.8	40.8	41.5	7.98	8.02	8.05

		Monthly TSS Samples			Quarterly Nutrient Samples		
Station/Time		SECCHI	-1'	Mid	+1'	-1'	Mid	+1'
3	0900 hrs.	Too shallow	#1 @ 1.0'	#4 @ 1.5'	----	#3 @ 1.0'	#2 @ 1.5'	----
2	0935 hrs.	Too shallow	----	#6 @ 0.6'	----	----	#5 @ 0.6'	----
1	1013 hrs.	Too shallow	#12 @ 1.0'	#8 @ 2.0'	#10 @ 3.0'	#7 @ 1.0'	#9 @ 2.0'	#11 @ 3.0'

WEATHER CONDITIONS: Cool and cloudy day 1 with NE winds, cool and partly cloudy day 2 with NNE winds.

-1' data collected one foot below the surface of the water
mid data collected from the middle of the water column
+1' data collected one foot above the bottom
---- indicates that the water depths were too shallow for data collection in accordance with the parameters set forth pursuant to Condition No. 39(b) & (c) of the subject permit

BENCHMARK
EnviroAnalytical, Inc.

FDOH Certification #E84167 and #84455
FDEP Quality Assurance #870594G

Submission Number 120509

M.R. Friday & Associates, Inc.
1748 Independence Blvd., Suite E-7
Sarasota FL 34234

Project Name: SHACKETT CREEK/WCIND
Date Received: 12/30/2000
Time Received: 1400

Submission Number 120509

Sample Number: 1A1
Sample Date: 12/28/2000
Sample Time: 0905
Sample Description: Shackett Creek - Sta. 3 @ 1' Depth
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	29.0	MG/L	0.5	160.2	01/02/2001		MP

U = Analyte not detected at the value indicated

Submission Number 120509

Sample Number: 1A2
Sample Date: 12/28/2000
Sample Time: 0910
Sample Description: Shackett Creek - Sta. 3 @ 1' Depth
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
AMMONIA NITROGEN	0.14	MG/L	0.01	350.2	01/02/2001		BMS
ORGANIC NITROGEN	0.02	MG/L	0.01	351-350	01/05/2001		BMS/SG
TOTAL KJELDAHL NITROGEN	0.16	MG/L	0.04	351.2	01/05/2001		SG
TOTAL NITROGEN	0.18	MG/L	0.04	353+351	01/05/2001		SG/BMS
NITRATE+NITRITE	0.02	MG/L	0.01	353.2	01/05/2001		BMS
TOTAL PHOSPHORUS	0.06	MG/L	0.01	365.3	01/02/2001		BMS

U = Analyte not detected at the value indicated

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BENCHMARK
EnviroAnalytical, Inc.

FDOH Certification #E84167 and #84455
FDEP Quality Assurance #870594G

Submission Number 120509

Sample Number: 1B1
Sample Date: 12/28/2000
Sample Time: 0912
Sample Description: Shackett Creek - Sta. 3 @ 1.5' Depth
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	13.2	MG/L	0.5	160.2	01/02/2001		MP

U = Analyte not detected at the value indicated

Submission Number 120509

Sample Number: 1B2
Sample Date: 12/28/2000
Sample Time: 0909
Sample Description: Shackett Creek - Sta. 3 @ 1.5' Depth
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
AMMONIA NITROGEN	0.07	MG/L	0.01	350.2	01/02/2001		BMS
ORGANIC NITROGEN	0.12	MG/L	0.01	351-350	01/05/2001		BMS/SG
TOTAL KJELDAHL NITROGEN	0.19	MG/L	0.04	351.2	01/05/2001		SG
TOTAL NITROGEN	0.20	MG/L	0.04	353+351	01/05/2001		SG/BMS
NITRATE+NITRITE	0.01	MG/L	0.01	353.2	01/05/2001		BMS
TOTAL PHOSPHORUS	0.06	MG/L	0.01	365.3	01/02/2001		BMS

U = Analyte not detected at the value indicated

Submission Number 120509

Sample Number: 2A1
Sample Date: 12/28/2000
Sample Time: 0936
Sample Description: Shackett Creek - Sta. 2 @ 0.6' Depth
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	16.1	MG/L	0.5	160.2	01/02/2001		MP

U = Analyte not detected at the value indicated

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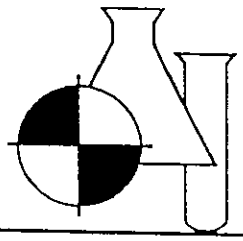
FDOH Certification #E84167 and #84455
FDEP Quality Assurance #870594G



Submission Number 120509

Sample Number: 2A2
Sample Date: 12/28/2000
Sample Time: 0935
Sample Description: Shackett Creek - Sta. 2 @ 0.6' Depth
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
AMMONIA NITROGEN	0.09	MG/L	0.01	350.2	01/02/2001		BMS
ORGANIC NITROGEN	0.10	MG/L	0.01	351-350	01/05/2001		BMS/SG
TOTAL KJELDAHL NITROGEN	0.19	MG/L	0.04	351.2	01/05/2001		SG
TOTAL NITROGEN	0.20	MG/L	0.04	353+351	01/05/2001		SG/BMS
NITRATE+NITRITE	0.01	MG/L	0.01	353.2	01/05/2001		BMS
TOTAL PHOSPHORUS	0.06	MG/L	0.01	365.3	01/02/2001		BMS

U = Analyte not detected at the value indicated

Submission Number 120509

Sample Number: 3A1
Sample Date: 12/28/2000
Sample Time: 1035
Sample Description: Shackett Creek - Sta. 1 @ 1' Depth
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	8.72	MG/L	0.5	160.2	01/02/2001		MP

U = Analyte not detected at the value indicated

Submission Number 120509

Sample Number: 3A2
Sample Date: 12/28/2000
Sample Time: 1019
Sample Description: Shackett Creek - Sta. 1 @ 1' Depth
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
AMMONIA NITROGEN	0.08	MG/L	0.01	350.2	01/02/2001		BMS
ORGANIC NITROGEN	0.21	MG/L	0.01	351-350	01/05/2001		BMS/SG
TOTAL KJELDAHL NITROGEN	0.29	MG/L	0.04	351.2	01/05/2001		SG
TOTAL NITROGEN	0.31	MG/L	0.04	353+351	01/05/2001		SG/BMS
NITRATE+NITRITE	0.02	MG/L	0.01	353.2	01/05/2001		BMS
TOTAL PHOSPHORUS	0.11	MG/L	0.01	365.3	01/02/2001		BMS

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U = Analyte not detected at the value indicated

Submission Number 120509

Sample Number: 3B1
Sample Date: 12/28/2000
Sample Time: 1024
Sample Description: Shackett Creek - Sta. 1 @ 2' Depth
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	9.44	MG/L	0.5	160.2	01/02/2001		MP

U = Analyte not detected at the value indicated

Submission Number 120509

Sample Number: 3B2
Sample Date: 12/28/2000
Sample Time: 1026
Sample Description: Shackett Creek - Sta. 1 @ 2' Depth
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
AMMONIA NITROGEN	0.06	MG/L	0.01	350.2	01/02/2001		BMS
ORGANIC NITROGEN	0.21	MG/L	0.01	351-350	01/05/2001		BMS/SG
TOTAL KJELDAHL NITROGEN	0.27	MG/L	0.04	351.2	01/05/2001		SG
TOTAL NITROGEN	0.29	MG/L	0.04	353+351	01/05/2001		SG/BMS
NITRATE+NITRITE	0.02	MG/L	0.01	353.2	01/05/2001		BMS
TOTAL PHOSPHORUS	0.09	MG/L	0.01	365.3	01/02/2001		BMS

U = Analyte not detected at the value indicated

Submission Number 120509

Sample Number: 3C1
Sample Date: 12/28/2000
Sample Time: 1032
Sample Description: Shackett Creek - Sta. 1 @ 3' Depth
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	28.1	MG/L	0.5	160.2	01/02/2001		MP

U = Analyte not detected at the value indicated

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FDOH Certification #E84167 and #84455
FDEP Quality Assurance #870594G

Submission Number 120509

Sample Number: 3C2
Sample Date: 12/28/2000
Sample Time: 1033

Sample Description: Shackett Creek - Sta. 1 @ 3' Depth
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
AMMONIA NITROGEN	0.10	MG/L	0.01	350.2	01/02/2001		BMS
ORGANIC NITROGEN	0.14	MG/L	0.01	351-350	01/05/2001		BMS/SG
TOTAL KJELDAHL NITROGEN	0.24	MG/L	0.04	351.2	01/05/2001		SG
TOTAL NITROGEN	0.26	MG/L	0.04	353+351	01/05/2001		SG/BMS
NITRATE+NITRITE	0.02	MG/L	0.01	353.2	01/05/2001		BMS
TOTAL PHOSPHORUS	0.09	MG/L	0.01	365.3	01/02/2001		BMS

U = Analyte not detected at the value indicated

Dale D. Dixon / Laboratory Director — 01/20/2001 Date

653 Tenth Street East*Palmetto, FL 34221*Phone (941)723-9986*FAX (941)723-6061

PROJECT NAME: SHACKETT CREEK - WCIND DATE: November 27 & 28, 2000

Station/Time (hrs.) Depth (total)		DO (ppm)			TEMP (c)			SALINITY (0/00)			CONDUCT (mmho)			pH		
Run 1		-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'
3	1314 3.0'	7.3	7.2	----	22.0	21.0	----	23.9	27.0	----	36.5	40.0	----	7.84	7.82	----
2	1345 1.6'	7.0	----	----	22.2	----	----	23.3	----	----	37.5	----	----	7.70	----	----
1	1424 4.7'	6.5	6.2	5.6	21.9	21.2	21.0	21.9	24.2	29.2	38.9	39.9	36.2	7.5	7.51	7.52
Run 2																
3	1655 3.6'	7.4	7.2	----	22.0	22.0	----	24.0	24.9	----	38.0	38.2	----	7.7	7.77	----
2	1705 1.9'	7.3	----	----	22.2	----	----	24.9	----	----	38.0	----	----	7.81	----	----
1	1736 4.9'	7.1	6.1	5.4	21.9	21.2	21.1	22.8	24.2	26.1	35.1	36.1	38.0	7.69	7.77	7.81
Run 3																
3	2102 4.2'	8.0	8.1	8.0	21.0	21.0	21.1	26.0	25.9	26.0	37.5	39.1	39.8	8.02	8.0	7.95
2	2132 2.8'	6.9	6.7	----	21.1	21.1	----	26.2	26.1	----	37.5	41.5	----	7.97	7.97	----
1	2200 5.7'	6.6	6.2	6.2	21.9	21.9	21.9	23.9	27.0	24.5	40.0	38.5	41.5	7.83	7.79	7.82
Run 4																
3	0053 4.4'	7.6	7.3	7.2	20.9	21.3	21.3	24.9	25.1	25.8	36.9	39.8	38.1	7.98	8.03	8.05
2	0115 2.9'	6.5	6.0	----	21.2	20.2	----	25.2	25.2	----	39.9	39.9	----	8.0	8.01	----
1	0148 5.3'	5.2	5.2	5.1	19.0	21.5	21.5	25.1	25.0	25.0	36.1	40.5	41.0	7.06	7.82	7.82
Run 5																
3	0506 3.1'	6.9	6.8	----	20.1	20.7	----	25.0	25.8	----	42.5	41.2	----	7.0	7.92	----
2	0525 1.6'	5.7	----	----	19.9	----	----	28.3	----	----	38.1	----	----	7.89	----	----
1	0554 4.4'	5.4	5.3	5.3	19.5	20.0	20.0	24.5	25.5	24.5	37.0	44.2	35.2	7.76	7.77	7.79
Run 6																
3	0900 2.3'	6.3	----	----	20.9	----	----	24.5	----	----	36.8	----	----	7.74	----	----
2	0916 0.8'	----	6.2	----	----	20.1	----	----	25.0	----	----	38.1	----	----	7.77	----
1	0955 3.5'	5.3	5.4	----	19.3	20.8	----	24.9	25.0	----	29.9	36.5	----	7.55	7.63	----
Run 7																
3	1300 3.0'	7.9	7.85	----	21.0	21.1	----	25.8	26.0	----	38.0	39.9	----	7.66	7.72	----
2	1314 1.6'	7.1	----	----	21.8	----	----	28.0	----	----	41.9	----	----	7.73	----	----
1	1342 4.5'	7.0	7.1	6.3	21.4	21.4	21.9	23.1	23.1	25.0	36.0	35.8	38.9	7.55	7.55	7.59

		Monthly TSS Samples			Quarterly Nutrient Samples		
Station/ Time	SECCHI	-1'	Mid	+1'	-1'	Mid	+1'
3 1314 hrs.	too shallow	#1 @ 1'	#2 @ 1.5'	----	N/A	N/A	N/A
2 1354 hrs.	too shallow	#3 @ 1'	----	----	N/A	N/A	N/A
1 1430 hrs.	4.0'	#4 @ 1'	#5 @ 2.5'	#6 @ 3.5'	N/A	N/A	N/A

WEATHER CONDITIONS: Cold front passes through earlier in weekend, cool during day, very cold at night, partly cloudy day 1, sunny day 2

WIND: NNE **TEMP:** Unknown

-1' data collected one foot below the surface of the water
mid data collected from the middle of the water column
+1' data collected one foot above the bottom
---- A dashed line indicates that the water depths were too shallow for data analysis in accordance with the parameters set forth pursuant to Condition No. 39(b) & (c) of the subject permit
X.X data in bold type was found to be inconsistent when collected yet re-verified

Benchmark EnviroAnalytical, Inc.
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Palmetto, FL 34221
941) 723-9986
941) 723-6061 fax
BenchmarkEA@earthlink.net

Client: **M.R. Friday & Associates, Inc.**
1748 Independence Blvd., Suite E-7
Sarasota, FL. 34234
(941) 351-1881
(941) 351-8359 fax

Chain of Custody Form: Shackett Creek/WCIND
Method of discharge: Surface Water
Sample Type: Grab

Laboratory Submission #: 120509

Station ID	TSS	TKN, NO_3-NO_2, T-N NH_3, O-N, T-P	Field Parameters					Laboratory Sample #
			Temp (°C)	pH	D.O. (mg/L)	Salinity (g/kg)	Conductivity (µmhos/cm)	
	Plain	1:1 H_2SO_4						
	1 x 1 Quart Plastic	1 x 1 Quart Plastic						
1	(Time:) 0905 @ 1', #1	(Time:) 0910 @ 1', #3						
2	(Time:) 0912 @ 1.5', #4	(Time:) 0909 @ 1.5', #2						
3	(Time:) 0936 @ .6', #6	(Time:) 0935 @ .6', #5						
4	(Time:) 1035 @ 1', #12	(Time:) 1019 @ 1' #7						
6	(Time:) 1024 @ 2', #8	(Time:) 1026 @ 2', #9						
8	(Time:) 1032 @ 3', #10	(Time:) 1033 @ 3', #11						
7	(Time:)	(Time:)						
8	(Time:)	(Time:)						
9	(Time:)	(Time:)						

Sample must be refrigerated or stored in wet ice after collection. The maximum temperature during storage should be 4°C (39.2°F).

ructions:

Each bottle has a label identifying sample ID, premeasured preservative contained in the bottle, sample type, client ID, and parameters for analysis. The following information should be added to each bottle label after collection with permanent black ink: date and time of collection, sampler's name or initials, and any field number or ID.
The effluent sample bottles for nitrogen contain premeasured 1:1 sulfuric acid (H_2SO_4). Do not rinse these bottles with sample prior to sampling.
All bottles not containing preservative may be rinsed with appropriate sample prior to collection.
The client is responsible for documentation of the sampling event. Please note special sampling events on the sample custody form.

1	Collector: (Print) Michael R. Friday	Date: 12-28-00	2	Received By: (Print)	Date:
	Signature: Michael R Friday	Time: 1200 hrs.		Signature:	Time:
3	Relinquished By: (Print) Michael R Friday	Date: 12-30-00	4	Received For Lab By: (Print) KATHARINE A. DIXON	Date: 12/30/00
	Signature: Michael R Friday	Time: 1400 hrs.		Signature: Katharine A. Dixon	Time: 1400

M.R. FRIDAY & ASSOCIATES, INC.
Environmental Consultants

February 7, 2001

Mr. Sam Johnston
Ed Barber & Associates, Inc.
3639 Cortez Road West, Suite 211
Bradenton, FL 34210

Re: Revised data reflecting station ID changes

Dear Sam,

Enclosed please find the revised November and December "in situ" data reports. Also enclosed is a revised December "full assay" water analysis from Benchmark. As discussed, the reports now reflect the station ID numbers as described in your narrative. I apologize for the mistake on my part and am thankful that the error in the previous reports (by others) was found. Naturally, future reports will reflect the correct station ID numbers. The January report has been revised and will be submitted shortly. I am awaiting the lab results. Thanks.

Respectfully submitted,

Michael R. Friday
President

enclosures

1748 Independence Boulevard, Suite E-7, Sarasota, Florida 34234 • Phone (941) 351-1881 Fax (941) 351-8359

ED BARBER & ASSOCIATES

ENVIRONMENTAL CONSULTING
ENVIRONMENTAL MANAGEMENT SERVICES

Wildewood Professional Park
3639 Cortez Road West, Suite 211
Bradenton, Florida 34210
Tel: 941-739-3903 Fax: 941-739-3829

December 21, 2000

Ms. Rose Poynor, Habitat Restoration Section
Florida Department of Environmental Protection, Southwest District
3804 Coconut Palm Drive
Tampa , FL 33619

Re: File No. 58-01274663-001, Shakett Creek Navigational Dredging

Dear Ms. Poynor:

The enclosed material summarizes the diel water-quality survey performed by personnel from M. R. Friday & Associates, Inc. on November 27-28, 2000 pursuant to Specific Condition No. 39 of the referenced permit and their currently approved Quality Assurance Plan No. 870264. Monitoring locations associated with this activity are generally illustrated in figures 1 and 2 submitted with the water-quality monitoring report submitted to the District on November 9, 1999. More specifically, the sites are located as follows:

- Site No. 1 is located on Cow Pen Slough about one-half mile upstream from Laurel Road and 250-feet upstream from the mouth of Fox Creek where it enters Cow Pen Slough,
- Site No. 2 is located about 200 feet west northwest of the oyster mitigation area where dredge material from the trestle and cove areas was placed, and
- Site No. 3 is located about 200 feet east northeast from the dredge channel at the railroad trestle.

The following information is transmitted herewith:

- List of field measurements made during diel survey
- Analytical report for analyses of total suspended solids
- Chain-of-custody record

Please call Dean Mades or me if there is a need to further discuss these data.

Sincerely,

Sam Johnston, Jr.
Associate

Enclosures

cc: Chuck Listowski / WCIND
Larry Olsen, Ph.D.
Theresa Connor / Sarasota County Storm Water
Bob Stetler / FDEP
Dean Mades, PE / EBA

PROJECT NAME: SHACKETT CREEK - WCIND DATE: November 27 & 28, 2000

Station/Time (hrs.) Depth (total)		DO (ppm)			TEMP (c)			SALINITY (0/00)			CONDUCT (mmho)			pH		
Run 1		-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'
1	1314 3.0'	7.3	7.2	----	22.0	21.0	----	23.9	27.0	----	36.5	40.0	----	7.84	7.82	----
2	1345 1.6'	7.0	----	----	22.2	----	----	23.3	----	----	37.5	----	----	7.70	----	----
3	1424 4.7'	6.5	6.2	5.6	21.9	21.2	21.0	21.9	24.2	29.2	38.9	39.9	36.2	7.5	7.51	7.52
Run 2																
1	1655 3.6'	7.4	7.2	----	22.0	22.0	----	24.0	24.9	----	38.0	38.2	----	7.7	7.77	----
2	1705 1.9'	7.3	----	----	22.2	----	----	24.9	----	----	38.0	----	----	7.81	----	----
3	1736 4.9'	7.1	6.1	5.4	21.9	21.2	21.1	22.8	24.2	26.1	35.1	36.1	38.0	7.69	7.77	7.81
Run 3																
1	2102 4.2'	8.0	8.1	8.0	21.0	21.0	21.1	26.0	25.9	26.0	37.5	39.1	39.8	8.02	8.0	7.95
2	2132 2.8'	6.9	6.7	----	21.1	21.1	----	26.2	26.1	----	37.5	41.5	----	7.97	7.97	----
3	2200 5.7'	6.6	6.2	6.2	21.9	21.9	21.9	23.9	27.0	24.5	40.0	38.5	41.5	7.83	7.79	7.82
Run 4																
1	0053 4.4'	7.6	7.3	7.2	20.9	21.3	21.3	24.9	25.1	25.8	36.9	39.8	38.1	7.98	8.03	8.05
2	0115 2.9'	6.5	6.0	----	21.2	20.2	----	25.2	25.2	----	39.9	39.9	----	8.0	8.01	----
3	0148 5.3'	5.2	5.2	5.1	19.0	21.5	21.5	25.1	25.0	25.0	36.1	40.5	41.0	7.06	7.82	7.82
Run 5																
1	0506 3.1'	6.9	6.8	----	20.1	20.7	----	25.0	25.8	----	42.5	41.2	----	7.0	7.92	----
2	0525 1.6'	5.7	----	----	19.9	----	----	28.3	----	----	38.1	----	----	7.89	----	----
3	0554 4.4'	5.4	5.3	5.3	19.5	20.0	20.0	24.5	25.5	24.5	37.0	44.2	35.2	7.76	7.77	7.79
Run 6																
1	0900 2.3'	6.3	----	----	20.9	----	----	24.5	----	----	36.8	----	----	7.74	----	----
2	0916 0.8'	----	6.2	----	----	20.1	----	----	25.0	----	----	38.1	----	----	7.77	----
3	0955 3.5'	5.3	5.4	----	19.3	20.8	----	24.9	25.0	----	29.9	36.5	----	7.55	7.63	----
Run 7																
1	1300 3.0'	7.9	7.85	----	21.0	21.1	----	25.8	26.0	----	38.0	39.9	----	7.66	7.72	----
2	1314 1.6'	7.1	----	----	21.8	----	----	28.0	----	----	41.9	----	----	7.73	----	----
3	1342 4.5'	7.0	7.1	6.3	21.4	21.4	21.9	23.1	23.1	25.0	36.0	35.8	38.9	7.55	7.55	7.59

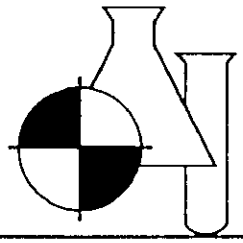
			Monthly TSS Samples			Quarterly Nutrient Samples		
Station/ Time		SECCHI	-1'	Mid	+1'	-1'	Mid	+1'
1	1314 hrs.	too shallow	#1 @ 1'	#2 @ 1.5'	----	N/A	N/A	N/A
2	1354 hrs.	too shallow	#3 @ 1'	----	----	N/A	N/A	N/A
3	1430 hrs.	4.0'	#4 @ 1'	#5 @ 2.5'	#6 @ 3.5'	N/A	N/A	N/A

WEATHER CONDITIONS: Cold front passes through earlier in weekend, cool during day, very cold at night, partly cloudy day 1, sunny day 2

WIND: NNE **TEMP:** Unknown

-1' data collected one foot below the surface of the water
mid data collected from the middle of the water column
+1' data collected one foot above the bottom
---- A dashed line indicates that the water depths were too shallow for data analysis in accordance with the parameters set forth pursuant to Condition No. 39(b) & (c) of the subject permit
X.X data in bold type was found to be inconsistent when collected yet re-verified in situ

BENCHMARK
EnviroAnalytical, Inc.



FDOH Certification #E84167 and #84455
FDEP Quality Assurance #870594G

Submission Number 110504

M.R. Friday & Associates, Inc.
1748 Independence Blvd., Suite E-7
Sarasota FL 34234

Project Name: WCIND REPORT
Date Received: 11/28/2000
Time Received: 1600

Submission Number 110504

Sample Number: 1
Sample Date: 11/27/2000
Sample Time: 1314
Sample Description: Shackett Creek - #1
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	15.1	MG/L	0.5	160.2	11/29/2000		MP

U = Analyte not detected at the value indicated

Submission Number 110504

Sample Number: 2
Sample Date: 11/27/2000
Sample Time: 1314
Sample Description: Shackett Creek - #2
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	17.8	MG/L	0.5	160.2	11/29/2000		MP

U = Analyte not detected at the value indicated

Submission Number 110504

Sample Number: 3
Sample Date: 11/27/2000
Sample Time: 1354
Sample Description: Shackett Creek - #3
Sample Method: Grab

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst

653 Tenth Street East*Palmetto, FL 34221*Phone (941)723-9986*FAX (941)723-6061

TOTAL SUSPENDED SOLIDS	15.4	MG/L	0.5	160.2	11/29/2000	MP

U = Analyte not detected at the value indicated

Submission Number 110504

Sample Number: 4 **Sample Description:** Shackett Creek - #4
Sample Date: 11/27/2000 **Sample Method:** Grab
Sample Time: 1430

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	12.9	MG/L	0.5	160.2	11/29/2000		MP

U = Analyte not detected at the value indicated

Submission Number 110504

Sample Number: 5 **Sample Description:** Shackett Creek - #5
Sample Date: 11/27/2000 **Sample Method:** Grab
Sample Time: 1430

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	12.9	MG/L	0.5	160.2	11/29/2000		MP

U = Analyte not detected at the value indicated

Submission Number 110504

Sample Number: 6 **Sample Description:** Shackett Creek - #6
Sample Date: 11/27/2000 **Sample Method:** Grab
Sample Time: 1430

Parameter	Result	Units	Detection Limit	Procedure	Analysis Date	Analysis Time	Analyst
TOTAL SUSPENDED SOLIDS	16.3	MG/L	0.5	160.2	11/29/2000		MP

U = Analyte not detected at the value indicated

Dale D. Dixon / Laboratory Director — 12/06/2000 Date

653 Tenth Street East*Palmetto, FL 34221*Phone (941)723-9986*FAX (941)723-6061

Benchmark EnviroAnalytical, Inc.

653 Tenth Street East

Palmetto, FL. 34221

(941) 723-9986

(941) 723-6061 fax

Benchmark@worldnet.att.net

Client Name: MR Friday & Assoc.

Address:

City, State, Zip:

Phone:

Fax:

Email Address:

Project Name: Hucketts Creek - WCIND Report

Laboratory Submission #: 110504

Sample I.D.	Sample Type[1]	Sample Matrix[2]	Collection		Container			Preservative[3]	Parameters for Analysis	Laboratory Sample #
			Date	Time	Qty	Capacity	Type			
1	GRAB	SW	11-27-00	1314 hrs	1	1Gt.	P	PLAIN	TSS	1
2	"	"	"	1314 hrs						2
3	"	"	"	1354 hrs						3
4	"	"	"	1450 hrs						4
5	"	"	"	1450 hrs						5
6	"	"	↓	1450 hrs						6
										N/A
										N/A
	↓	↓			↓	↓	↓	↓	↓	N/A

"Sample Type" is used to indicate whether the sample was a grab or whether it was composite sampled.

"Sample Matrix" is used to indicate whether the sample is being discharged to drinking water (DW), groundwater (GW), surface water (SW), soil, or sludge.

Sample must be refrigerated or stored in wet ice after collection. The maximum temperature during storage should be 4°C (39.2°F). Under "Preservative," list any preservatives that were added to the sample container.

Instructions:

Each bottle has a label identifying sample ID, premeasured preservative contained in the bottle, sample type, client ID, and parameters for analysis. The following information should be added to each bottle label after collection with permanent black ink: date and time of collection, sampler's name or initials, and any field number or ID.

The effluent sample bottles for nitrogen contain premeasured 1:1 sulfuric acid (H_2SO_4). Do not rinse these bottles with sample prior to sampling.

All bottles not containing preservative may be rinsed with appropriate sample prior to collection.

The client is responsible for documentation of the sampling event. Please note special sampling events on the sample custody form.

1	Collector: (print) Michael R Friday	Date: 11-28-00	2	~~Received By: (print)~~	Date:
	Signature	Time: 1600 hrs.		Signature	Time:
3	~~Relinquished~~ to Lab By: (print)	Date:	4	Received For Lab By: (print) Dawn Olma	Date: 11/28/00
	Signature	Time:		Signature	Time: 16:00

M.R. FRIDAY & ASSOCIATES, INC.
Environmental Consultants

December 19, 2000

Mr. Sam Johnston
Ed Barber & Associates, Inc.
3639 Cortez Road West, Suite 211
Bradenton, FL 34210

Re: Revised November Data Collection @ Shackett Creek in accordance with FDEP Permit No. 58-01274663-001, Condition No. 39 (b) & (c)

Dear Sam,

Enclosed please find the revised November report to include the seventh run and additional definitions. I have enclosed one copy of original size for your file and one reduced for the FDEP. Please contact me should you have any questions regarding this report. Thanks.

Respectfully submitted,

Michael R. Friday
President

enclosures

1748 Independence Boulevard, Suite E-7, Sarasota, Florida 34234 • Phone (941) 351-1881 Fax (941) 351-8359

M.R. FRIDAY & ASSOCIATES, INC.
Environmental Consultants

December 13, 2000

Mr. Sam Johnston
Ed Barber & Associates, Inc.
3639 Cortez Road West, Suite 211
Bradenton, FL 34210

Re: November Data Collection @ Shackett Creek in accordance with FDEP Permit No. 58-01274663-001, Condition No. 39 (b) & (c)

Dear Sam,

Enclosed please find the November report to include the monthly total suspended solids. Also enclosed is the invoice for November. The next monitoring event is scheduled for December 29, 2000. Please contact me should you have any questions regarding the report or invoice. Thanks.

Respectfully submitted,

Michael R. Friday
President

enclosures

1748 Independence Boulevard, Suite E-7, Sarasota, Florida 34234 • Phone (941) 351-1881 Fax (941) 351-8359

PROJECT NAME: SHACKETT CREEK - WCIND **DATE:** November 27 & 28, 2000

Station/Time (hrs.) Depth (total)		DO (ppm)			TEMP (c)			SALINITY (0/00)			CONDUCT (mmho)			pH		
Run 1		-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'	-1'	Mid	+1'
1	1314 3.0'	7.3	7.2	----	22.0	21.0	----	23.9	27.0	----	36.5	40.0	----	7.84	7.82	----
2	1345 1.6'	7.0	----	----	22.2	----	----	23.3	----	----	37.5	----	----	7.70	----	----
3	1424 4.7'	6.5	6.2	5.6	21.9	21.2	21.0	21.9	24.2	29.2	38.9	39.9	36.2	7.5	7.51	7.52
Run 2																
1	1655 3.6'	7.4	7.2	----	22.0	22.0	----	24.0	24.9	----	38.0	38.2	----	7.7	7.77	----
2	1705 1.9'	7.3	----	----	22.2	----	----	24.9	----	----	38.0	----	----	7.81	----	----
3	1736 4.9'	7.1	6.1	5.4	21.9	21.2	21.1	22.8	24.2	26.1	35.1	36.1	38.0	7.69	7.77	7.81
Run 3																
1	2102 4.2'	8.0	8.1	8.0	21.0	21.0	21.1	26.0	25.9	26.0	37.5	39.1	39.8	8.02	8.0	7.95
2	2132 2.8'	6.9	6.7	----	21.1	21.1	----	26.2	26.1	----	37.5	41.5	----	7.97	7.97	----
3	2200 5.7'	6.6	6.2	6.2	21.9	21.9	21.9	23.9	27.0	24.5	40.0	38.5	41.5	7.83	7.79	7.82
Run 4																
1	0053 4.4'	7.6	7.3	7.2	20.9	21.3	21.3	24.9	25.1	25.8	36.9	39.8	38.1	7.98	8.03	8.05
2	0115 2.9'	6.5	6.0	----	21.2	20.2	----	25.2	25.2	----	39.9	39.9	----	8.0	8.01	----
3	0148 5.3'	5.2	5.2	5.1	19.0	21.5	21.5	25.1	25.0	25.0	36.1	40.5	41.0	7.06	7.82	7.82
Run 5																
1	0506 3.1'	6.9	6.8	----	20.1	20.7	----	25.0	25.8	----	42.5	41.2	----	7.0	7.92	----
2	0525 1.6'	5.7	----	----	19.9	----	----	28.3	----	----	38.1	----	----	7.89	----	----
3	0554 4.4'	5.4	5.3	5.3	19.5	20.0	20.0	24.5	25.5	24.5	37.0	44.2	35.2	7.76	7.77	7.79
Run 6																
1	0900 2.3'	6.3	----	----	20.9	----	----	24.5	----	----	36.8	----	----	7.74	----	----

EBA file

ED BARBER & ASSOCIATES

ENVIRONMENTAL CONSULTING

ENVIRONMENTAL MANAGEMENT SERVICES

Wildewood Professional Park
3639 Cortez Road West, Suite 211
Bradenton, Florida 34210
Tel: 941-739-3903 Fax: 941-739-3829

December 5, 2000

Ms. Rose Poynor, Habitat Restoration Section
Florida Department of Environmental Protection, Southwest District
3804 Coconut Palm Drive
Tampa , FL 33619

Re: File No. 58-01274663-001, Shakett Creek Navigational Dredging

Dear Ms. Poynor:

The enclosed material summarizes the diel water-quality survey performed by personnel from Ascl Environmental Quality Laboratory on October 30-31, 2000 pursuant to Specific Condition No. 39 of the referenced permit and their currently approved Quality Assurance Plan No. 870264. Monitoring locations associated with this activity are generally illustrated in figures 1 and 2 submitted with the water-quality monitoring report submitted to the District on November 9, 1999. More specifically, the sites are located as follows:

- Site No. 1 is located on Cow Pen Slough about one-half mile upstream from Laurel Road and 250-feet upstream from the mouth of Fox Creek where it enters Cow Pen Slough,
- Site No. 2 is located about 200 feet west northwest of the oyster mitigation area where dredge material from the trestle and cove areas was placed, and
- Site No. 3 is located about 200 feet east northeast from the dredge channel at the railroad trestle.

The following information is transmitted herewith:

- List of field measurements made during diel survey
- Analytical report for analyses of total suspended solids
- Chain-of-custody record

Please note that our review of data collected for this event has resulted in the laboratory reanalysis of total suspended solids for the mid-depth sample site at Station No. 2. The measurement was validated in the lab with possible explanations of either sampler or natural sediment perturbations in these shallow waters.

Please call Dean Mades or me if there is a need to further discuss these data.

Sincerely,

Sam Johnston, Jr.
Associate

Enclosures

cc: Chuck Listowski / WCIND
Larry Olsen, Ph.D.
Theresa Connor / Sarasota County Storm Water
Bob Stetler / FDEP
Dean Mades, PE / EBA

ASCI Corporation
Environmental Quality Laboratory

CHEMISTRY SAMPLE ANALYSIS

Page: 1
Report Date: 11/30/2000

Customer: ED BARBER & ASSOCIATES
3639 CORTEZ ROAD

EQL ID: 1457 / 4597

Customer Proj: SHAKETT CREEK DIEL

Sample Date/Time: 10/31/00 11:32 **Sample#:** 18588
Station/Location: STA 1-MID

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	11.6	mg/L	EPA 160.2	0.6	11/02/00	SR	

Sample Date/Time: 10/31/00 11:37 **Sample#:** 18589
Station/Location: STA 2-MID

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	106.	mg/L	EPA 160.2	0.6	11/02/00	SR	

Sample Date/Time: 10/31/00 11:57 **Sample#:** 18590
Station/Location: STA 3-TOP

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	5.4	mg/L	EPA 160.2	0.6	11/02/00	SR	

Sample Date/Time: 10/31/00 11:58 **Sample#:** 18591
Station/Location: STA 3-MID

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	6.2	mg/L	EPA 160.2	0.6	11/02/00	SR	

Sample Date/Time: 10/31/00 11:59 **Sample#:** 18592
Station/Location: STA 3-BOTTOM

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	7.3	mg/L	EPA 160.2	0.6	11/02/00	SR	

NOTE: Reported results not valid without accompanying signature page.

SHAKETT CREEK

		DEPTH (ft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
Date: 10/30/2000							
Run/Station	Time						
1 1	11:30						
		1.	25.04	6.04	7.51	43.59	28.10
		3.	25.11	6.53	7.52	42.62	27.40
		6.	25.13	* 10.16	7.57	44.11	28.47
Date: 10/30/2000							
Run/Station	Time						
1 2	11:35						
		1.	24.18	7.19	7.53	43.67	28.16
Date: 10/30/2000							
Run/Station	Time						
1 3	12:00						
		1.	25.07	6.83	7.4	37.26	23.56
		2.2	24.11	6.58	7.39	39.45	25.12
		5.4	25.47	6.39	7.39	44.57	28.81
Date: 10/30/2000							
Run/Station	Time						
2 1	15:30						
		1.	25.72	6.69	7.65	44.82	28.99
		2.3	25.85	6.83	7.66	45.43	29.43
		3.3	25.93	6.95	7.66	46.43	30.16
Date: 10/30/2000							
Run/Station	Time						
2 2	15:35						
		1.	25.41	7.21	7.69	45.3	29.34
Date: 10/30/2000							
Run/Station	Time						
2 3	15:55						
		1.	25.78	6.78	7.67	37.78	23.93
		2.4	25.52	6.09	7.63	46.03	29.87
		4.8	25.57	5.77	7.64	43.72	28.19
Date: 10/30/2000							
Run/Station	Time						
3 1	19:15						
		1.	25.99	6.84	7.69	44.21	28.55
		2.4	25.91	6.73	7.73	44.23	28.56
		5.8	26.	7.29	7.84	47.25	30.76
Date: 10/30/2000							
Run/Station	Time						
3 2	19:25						
		1.	25.43	7.13	7.67	45.7	29.63

* Note: Equipment Error

SHAKETT CREEK

			DEPTH (ft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
Date:	10/30/2000							
Run/Station		Time						
3	3	19:50						
			1.	25.81	6.69	7.69	35.68	22.44
			2.4	25.53	5.8	7.66	40.93	26.18
			4.9	25.45	5.79	7.67	43.58	28.09
Date:	10/30/2000							
Run/Station		Time						
4	1	23:35						
			1.	25.23	6.27	7.58	46.12	29.94
			2.2	25.46	6.42	7.6	45.43	29.43
			3.6	25.13	6.23	7.56	45.12	29.21
Date:	10/30/2000							
Run/Station		Time						
4	2	23:41						
			1.	25.36	6.69	7.62	45.12	29.21
Date:	10/30/2000							
Run/Station		Time						
4	3	23:58						
			1.	25.36	6.22	7.65	45.22	29.28
			2.3	25.46	6.42	7.62	45.16	29.24
			4.5	25.93	6.23	7.66	44.32	28.63

		DEPTH (m)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
Date: 10/31/2000							
Run/Station	Time						
5 1	3:30						
		1.	25.33	6.1	7.56	45.23	27.18
		2.	25.42	6.04	7.62	45.12	28.46
		4.	25.12	5.12	7.6	44.6	28.12
Date: 10/31/2000							
Run/Station	Time						
5 2	3:36						
		1.	25.18	5.98	7.61	45.16	28.16
Date: 10/31/2000							
Run/Station	Time						
5 3	3:50						
		1.	26.03	5.86	7.63	45.22	28.12
		2.1	25.96	6.03	7.62	44.89	27.18
		4.2	26.18	5.92	7.66	45.18	28.19
Date: 10/31/2000							
Run/Station	Time						
6 1	7:30						
		1.	24.65	5.89	7.73	38.75	24.61
		2.2	24.78	5.88	7.75	39.05	24.76
		3.1	24.85	5.96	7.79	40.6	25.88
Date: 10/31/2000							
Run/Station	Time						
6 2	7:35						
		1.	22.9	7.17	7.85	37.47	23.74
Date: 10/31/2000							
Run/Station	Time						
6 3	7:51						
		1.	25.59	4.71	7.76	31.63	19.66
		2.2	25.69	5.13	7.8	35.46	22.96
		4.2	25.43	5.71	7.85	40.	25.49
Date: 10/31/2000							
Run/Station	Time						
7 1	11:30						
		1.	25.44	6.79	7.58	39.11	24.86
		2.5	25.35	6.86	7.65	39.42	25.07
		5.	25.42	7.17	7.82	39.42	25.27

* Note: Equipment Error

SHAKETT CREEK

		DEPTH (m)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
Date: 10/31/2000							
Run/Station	Time						
7 2	11:36						
		1.	26.14	7.46	7.66	37.24	23.50
Date: 10/31/2000							
Run/Station	Time						
7 3	11:56						
		1.	25.48	6.39	7.61	29.53	18.23
		2.3	25.84	5.63	7.62	35.31	21.11
		4.5	25.75	5.78	7.65	41.07	26.25

Environmental Quality Laboratory
1009 Tamiami Trail Port Charlotte, FL 33953

Toll Free (877) 452-2712
Phone (941) 625-3137
Fax (941) 629-7467

Sample Information

Analysis Request

page ___ of ___

Client: Ed Barber & Associates □ new	Phone:
Project: Shakett Creek Diel	FAX:
Labid: 00|1457|4597	HRS Form? □Yes ☒No
Address:	

EQL Sample No.	Sample Description	Collection Date	Collection Time	Preserved	Minerals	Nutrients	NO2/O.P.	Metals	Bacteria	cBOD/TSS								# of Containers
18588	Station 1 - Mid	10/31/00	11:32							X								1
18589	Station 2 - Mid	↓	11:37							X								1
18590	Station 3 - Top	↓	11:57							X								1
18591	" - mid	↓	11:58							X								1
18592	" = Bottom	↓	11:59							X								1
~~18593~~																		

Comments:

Chain of Custody

Total # of Containers = 5

Transfer	Released by:	Date	Time	Received by:
1st	Tracy L Tuckett (Sample collector)	10/31/00	13:30	Amber K 10-31-00
2nd				
3rd				
4th				
5th				

ED BARBER & ASSOCIATES

ENVIRONMENTAL CONSULTING

ENVIRONMENTAL MANAGEMENT SERVICES

Wildewood Professional Park
3639 Cortez Road West, Suite 211
Bradenton, Florida 34210
Tel: 941-739-3903 Fax: 941-739-3829

November 17, 2000

Ms. Rose Poynor, Habitat Restoration Section
Florida Department of Environmental Protection, Southwest District
3804 Coconut Palm Drive
Tampa , FL 33619

Re: File No. 58-01274663-001, Shakett Creek Navigational Dredging

Dear Ms. Poynor:

The enclosed material summarizes the diel water-quality survey performed by personnel from Ascl Environmental Quality Laboratory on September 26-27, 2000 pursuant to Specific Condition No. 39 of the referenced permit and their currently approved Quality Assurance Plan No. 870264. Monitoring locations associated with this activity are generally illustrated in figures 1 and 2 submitted with the water-quality monitoring report submitted to the District on November 9, 1999. More specifically, the sites are located as follows:

- Site No. 1 is located on Cow Pen Slough about one-half mile upstream from Laurel Road and 250-feet upstream from the mouth of Fox Creek where it enters Cow Pen Slough,
- Site No. 2 is located about 200 feet west northwest of the oyster mitigation area where dredge material from the trestle and cove areas was placed, and
- Site No. 3 is located about 200 feet east northeast from the dredge channel at the railroad trestle.

The following information is transmitted herewith:

- List of field measurements made during diel survey
- Analytical report for analyses of total suspended solids, nitrate + nitrite nitrogen, ammonium nitrogen, Kjeldahl nitrogen and total phosphorus.
- Chain-of-custody record

Please note that our review of *in situ* data collected for this event have resulted in a laboratory audit. Their findings indicate that certain dissolved oxygen data couldn't be validated due to lack of membrane saturation requirements. Without calibration backup additional *in situ* data could also be questioned. Unfortunately, by the time EBA noticed these disparities and the lab was able to identify the cause for these data excursions a significant amount of time that had elapsed. The lab has since performed its scheduled October event. We are awaiting results from AScI for this most recent monitoring episode. Upon receipt of these monitoring data they will be reviewed and sent to your attention pursuant to reporting requirements. Our next quarterly sampling event is currently scheduled to take place during December, which will include the laboratory as well as *in situ* analytes.

We have placed a high priority upon data developed as part of this permit monitoring requirement to meet necessary quality assurance/quality control criteria both in the field and laboratory. Without development of such standards our monitoring efforts are greatly diminished. With influences such as Cowpen Slough and other sources of runoff within the watershed it is important that all data be collected and utilized to accurately assess water quality conditions.

After careful consideration of data collected during the September event we have chosen to engage M.R. Friday & Associates, Inc. to resume these monitoring efforts, beginning this month. Benchmark Laboratories, Inc. is working with them to provide analytic services.

Please call Dean Mades or me if there is a need to discuss this matter.

Sincerely,

Sam Johnston, Jr.
Associate

Enclosures

cc: Chuck Listowski / WCIND
Larry Olsen, Ph.D.
Theresa Connor / Sarasota County Storm Water
Bob Stetler / FDEP
Dean Mades, PE / EBA

ASCI Corporation

Environmental Quality Laboratory

CHEMISTRY SAMPLE ANALYSIS

Page: 1

Report Date: 10/17/2000

Customer: ED BARBER & ASSOCIATES
3639 CORTEZ ROAD

LABID: 1457 / 2900

Customer Proj: SHAKETT CREEK QUARTERLY

Sample Date/Time: 09/27/00 9:12 **Sample#: 12724**
Station/Location: 1 MID

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. NITRATE+NITRITE	0.126	mg/L	EPA 353.2	0.002	10/03/00	HAN	
AMMONIA/AMMONIUM-NITROGEN	0.242	mg/L	EPA 350.1	0.01	10/04/00	HAN	
TOT.KJEL.N	1.85	mg/L	EPA 351.2	0.1	10/06/00	HAN	
ORGANIC NITROGEN (CALC)	1.61	mg/L	EPA 350.1, 351.2	0.1	10/06/00	HAN	
TOTAL PHOSPHORUS	0.501	mg/L	EPA 365.4	0.01	10/06/00	HAN	
TOT. SUSPENDED SOLIDS	6.5	mg/L	EPA 160.2	0.6	10/02/00	TF	

Sample Date/Time: 09/27/00 9:17 **Sample#: 12725**
Station/Location: 2 MID

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. NITRATE+NITRITE	0.122	mg/L	EPA 353.2	0.002	10/03/00	HAN	
AMMONIA/AMMONIUM-NITROGEN	0.22	mg/L	EPA 350.1	0.01	10/04/00	HAN	
TOT.KJEL.N	2.21	mg/L	EPA 351.2	0.1	10/06/00	HAN	
ORGANIC NITROGEN (CALC)	1.99	mg/L	EPA 350.1, 351.2	0.1	10/06/00	HAN	
TOTAL PHOSPHORUS	0.571	mg/L	EPA 365.4	0.01	10/06/00	HAN	
TOT. SUSPENDED SOLIDS	16.4	mg/L	EPA 160.2	0.6	10/02/00	TF	

Sample Date/Time: 09/27/00 9:43 **Sample#: 12726**
Station/Location: 3 TOP

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. NITRATE+NITRITE	0.139	mg/L	EPA 353.2	0.002	10/03/00	HAN	
AMMONIA/AMMONIUM-NITROGEN	0.114	mg/L	EPA 350.1	0.01	10/04/00	HAN	
TOT.KJEL.N	1.67	mg/L	EPA 351.2	0.1	10/06/00	HAN	
ORGANIC NITROGEN (CALC)	1.556	mg/L	EPA 350.1, 351.2	0.1	10/03/00	HAN	
TOTAL PHOSPHORUS	0.457	mg/L	EPA 365.4	0.01	10/06/00	HAN	
TOT. SUSPENDED SOLIDS	3.6	mg/L	EPA 160.2	0.6	10/02/00	TF	

NOTE: Reported results not valid without accompanying signature page.

ASCI Corporation
Environmental Quality Laboratory

CHEMISTRY SAMPLE ANALYSIS

Report Date: 10/17/2000

Customer: ED BARBER & ASSOCIATES
3639 CORTEZ ROAD

LABID: 1457 / 2900

Customer Proj: SHAKETT CREEK QUARTERLY

Sample Date/Time: **09/27/00 9:44** **Sample#:** **12727**
Station/Location: **3 MID**

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. NITRATE+NITRITE	0.14	mg/L	EPA 353.2	0.002	10/03/00	HAN	
AMMONIA/AMMONIUM-NITROGEN	0.118	mg/L	EPA 350.1	0.01	10/04/00	HAN	
TOT.KJEL.N	1.69	mg/L	EPA 351.2	0.1	10/06/00	HAN	
ORGANIC NITROGEN (CALC)	1.57	mg/L	EPA 350.1, 351.2	0.1	10/06/00	HAN	
TOTAL PHOSPHORUS	0.475	mg/L	EPA 365.4	0.01	10/06/00	HAN	
TOT. SUSPENDED SOLIDS	2.9	mg/L	EPA 160.2	0.6	10/02/00	TF	

Sample Date/Time: **09/27/00 9:45** **Sample#:** **12728**
Station/Location: **3 BOTTOM**

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. NITRATE+NITRITE	0.139	mg/L	EPA 353.2	0.002	10/03/00	HAN	
AMMONIA/AMMONIUM-NITROGEN	0.123	mg/L	EPA 350.1	0.01	10/04/00	HAN	
TOT.KJEL.N	1.72	mg/L	EPA 351.2	0.1	10/06/00	HAN	
ORGANIC NITROGEN (CALC)	1.6	mg/L	EPA 350.1, 351.2	0.1	10/06/00	HAN	
TOTAL PHOSPHORUS	0.475	mg/L	EPA 365.4	0.01	10/06/00	HAN	
TOT. SUSPENDED SOLIDS	2.7	mg/L	EPA 160.2	0.6	10/02/00	TF	

NOTE: Reported results not valid without accompanying signature page.

SHAKETT CREEK

		DEPTH (ft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
Date: 09/26/2000							
Run/Station	Time						
1 1	9:00						
		1.	29.61	8.06	7.31	10.65	5.82
		2.5	29.64	9.11	7.34	12.63	7.04
		3.7	29.7	11.63	7.3	16.28	9.34
Date: 09/26/2000							
Run/Station	Time						
2 1	13:05						
		1.	31.15	7.61	7.08	9.6	5.18
		2.2	30.11	8.45	7.1	12.84	7.17
Date: 09/26/2000							
Run/Station	Time						
2 2	13:11						
		1.	30.19	5.49	7.03	11.35	6.25
Date: 09/26/2000							
Run/Station	Time						
2 3	13:36						
		1.	30.01	8.14	6.98	0.368	< 0.01
		3.1	29.09	7.55	6.97	0.364	< 0.01
		6.2	28.47	5.05	7.02	0.627	0.06
Date: 09/26/2000							
Run/Station	Time						
3 1	17:01						
		1.	31.38	15.14	7.66	4.85	2.39
Date: 09/26/2000							
Run/Station	Time						
3 2	17:06						
		1.	31.49	6.88	7.41	3.78	1.79
Date: 09/26/2000							
Run/Station	Time						
3 3	17:31						
		1.	29.92	9.18	7.33	0.435	< 0.01
		2.3	29.66	7.48	7.39	0.554	0.02
		4.6	29.49	10.53	7.63	0.567	0.02
Date: 09/26/2000							
Run/Station	Time						
4 1	21:02						
		1.	30.19	10.25	7.44	12.02	6.66
		2.2	30.16	10.03	7.51	11.23	6.17
		3.4	30.46	11.26	7.6	10.12	5.50

		DEPTH (ft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)		SALINITY (o/oo)
Date: 09/26/2000								
Run/Station	Time							
4 2	21:11							
		1.	30.18	6.92	7.42	11.34		6.24
Date: 09/26/2000								
Run/Station	Time							
4 3	21:36							
		1.	29.35	9.78	7.36	0.393	<	0.01
		2.2	29.62	8.23	7.35	0.892		0.20
		4.3	29.42	9.56	7.34	0.653		0.07
Date: 09/26/2000								
Run/Station	Time							
2	9:09							
		1.	29.32	9.11	7.43	5.525		2.78
Date: 09/26/2000								
Run/Station	Time							
3	9:26							
		1.	28.49	6.91	7.13	0.386	<	0.01
		2.3	28.37	6.23	7.19	0.397	<	0.01
		5.2	28.33	5.23	7.45	0.52	<	0.01

			DEPTH (ft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
Date:	09/27/2000							
Run/Station		Time						
5	1	1:03						
			1.	30.16	10.56	7.56	10.13	5.50
			2.	30.54	10.14	7.5	9.56	5.16
			3.3	29.16	11.12	7.54	10.12	5.50
Date:	09/27/2000							
Run/Station		Time						
5	3	1:36						
			1.	29.17	7.6	7.89	0.714	0.10
			2.2	29.62	7.54	7.47	0.567	0.02
			3.5	29.45	8.89	7.45	0.675	0.08
Date:	09/27/2000							
Run/Station		Time						
6	1	5:04						
			1.	29.45	10.55	7.44	13.12	7.34
			2.2	29.3	10.12	7.45	16.15	9.25
			3.4	30.15	11.26	7.1	17.04	9.82
Date:	09/27/2000							
Run/Station		Time						
6	2	5:12						
			1.	29.06	5.48	7.5	6.25	3.20
			1.	29.06	5.48	7.5	6.25	3.20
Date:	09/27/2000							
Run/Station		Time						
6	3	5:40						
			1.	29.6	5.93	7.52	0.892	0.20
			3.3	29.54	6.15	7.56	0.876	0.19
			4.2	29.16	5.06	7.62	0.624	0.05
Date:	09/27/2000							
Run/Station		Time						
7	1	9:10						
			1.	29.41	17.04	7.38	7.63	4.01
			2.1	29 5	24.68	7.41	9.063	4.86
			3.2	29.47	26.18	7.55	10.46	5.70
Date:	09/27/2000							
Run/Station		Time						
7	2	9:16						
			1.	29.07	12.32	7.48	5.836	2.96
Date:	09/27/2000							
Run/Station		Time						
7	3	9:42						
			1.	28.35	9.06	7.36	0.538	0.01
			2.3	28.51	11.93	7.43	0.633	0.01

SHAKETT CREEK

	DEPTH (ft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
Date: 09/27/2000						
Run/Station Time						
2 1:11						
	1.	30.14	5.98	7.57	9.45	5.09

Environmental Quality Laboratory
1009 Tamiami Trail Port Charlotte, FL 33953
Phone (941) 625-3137
Fax (941) 629-7467

ASCI®

Sample Information

Analysis Request

page 1 of 1

Client: Ed Barber & Associates	☐ new	Phone:	
Project: Shakett Creek Quarterly		FAX:	
Labid. 00/1457/ 29CO		HRS Form? ☐Yes ☒No	
Address:			

EQL Sample No.	Sample Description	Collection Date	Collection Time	Preserved in lab	Minerals - TSS	Nutrients	NO2/O.P.	Metals	Bacteria	cBOD/TSS								# of Containers
12724	1-Mid	9/27/00	9:12	✓	Qt	½pt												2
12725	2-Mid	↓	9:17	✓	↓	↓												2
12726	3-Top	↓	9:43	✓	↓	↓												2
12727	3-Mid	↓	9:44	✓	↓	↓												2
12728	3-Bottom	↓	9:45	✓	↓	↓												2

Comments: [redacted]

Chain of Custody

Total # of Containers = 10

Transfer	Released by:	Date	Time	Received by:
1st	[signature] (Sample collector)	9/27/00	9:50	[signature]
2nd	[signature]	9/27/00	1200	
3rd				
4th				[signature] 9.27.00
5th				

Form 00-01

Sanders Laboratories
Environmental Testing Services

FAX COVER SHEET

DATE: 11/09/00 TIME: 11:30 FAX #: (941) 739-3829

TO: Sam Johnston

COMPANY: Ed Barraco & Assoc.

FROM: Craig Tolar

MESSAGE:

COPY TO FOLLOW BY MAIL: YES: _____ NO: X

TOTAL NUMBER OF PAGES INCLUDING COVER PAGE: 2

1050 Endeavor Ct. ◦ Nokomis, Fl. 34275 ◦ Phone: (941) 488-8103 ◦ (800) 255-3108 ◦ Fax: (941) 484-6774

November 9, 2000

Sam Johnston, Jr.
Ed Barber & Associates
3639 Cortez Rd.
Suite 222
Bradenton, FL 34210

Dear Sam:

Sanders Laboratories is pleased to provide the following price quote to your company for the Shakett Creek Surface Water Monitoring Project:

PARAMETER	COST/ EVENT	COST/ YEAR
Surface Water Monitoring		
Field Sampling & Analysis - *3 sites sampled quarterly; 4/yr.*		
Diel Study	$1,700.00	$ 6,800.00
D.O.		
Conductivity		
Salinity		
Temperature		
pH		
Secchi Disc		
Tot. Suspended Solids		
Field Blank QC		
Field Duplicate QC		
* price includes boat usage if necessary		
Quarterly Analysis – *3 sites sampled semi-annually; 2/yr.*		
Nitrate-N	$48.00	$96.00
Nitrite-N	$42.00	$84.00
Ammonia	$45.00	$90.00
Tot. Kjeldahl Nitrogen	$60.00	$120.00
Organic Nitrogen (calc.)	$0.00	$0.00
Tot. Phosphorus	$54.00	$108.00
Duplicate QC Sample	$83.00	$166.00
	Total per year	$ 7,464.00

Thank you for considering Sanders Laboratories, Inc.

Sincerely,

Craig R. Toler
Laboratory Director

=== COVER PAGE ===

SNAKETT CREEK

TO: _____

FAX: 19417393829

FROM: SANDERS LABS

FAX: 19414846774

TEL: 19414888103

COMMENT: CONFIDENTIAL

Sanders Laboratories
Environmental Testing Services

FAX COVER SHEET

DATE: 11/2 TIME: 1545 FAX #(941)738-3829

TO: Sam Drew

COMPANY: EBA

FROM: Will

MESSAGE: Revised Statement and Feb. quote for DEC Study + Water Quality.

COPY TO FOLLOW BY MAIL: YES ✓ NO _____

TOTAL NUMBER OF PAGES INCLUDING COVER SHEET: 3

1050 Endeavor Ct. • Nokomis, FL 34275 • Phone: (941) 488-8103 • (800) 255-3108 • Fax: (941) 484-6774

Sanders Laboratories
Environmental Testing Services

Ed Barber & Associates
3639 Cortez Road West
Suite 212
Bradenton. Florida 34210

November 2, 1999

Reference: Shakett Creek Turbidity Monitoring Statement

Dates of monitoring;

9/30/99 through 10/30/99

Scope of work;

To provide turbidity monitoring for Dredge operations, field technician and use of boat to facilitate monitoring. Monitoring to be accomplished every two hours at selected sites during dredge operations.

22 Days @ $480.00 per day.

Total Cost--$10560.00

We appreciate the opportunity to serve Ed Barber & Associates and West Coast Inland Navigation District.

Net due 10 days from receipt

1050 Endeavor Ct. • Nokomis, FL 34275 • Phone: (941) 486-8103 • (800) 255-3108 • Fax: (941) 484-6774

ED BARBER & ASSOCIATES

ENVIRONMENTAL CONSULTING

ENVIRONMENTAL MANAGEMENT SERVICES

Wildewood Professional Park
3639 Cortez Road West, Suite 211
Bradenton, Florida 34210
Tel: 941-739-3903 Fax: 941-739-3829

November 8, 2000

Mr. Ken Kondel, Laboratory Manager
ASci Laboratories, Inc.
1009 Tamiami Trail
Pt. Charlotte, FL 33953

RE: Shakett Creek Diel Monitoring Report; Invoice No. 1457/2900

Dear Mr. Kondel:

We have discussed with Ray Dennis concerns relayed in October 25th correspondence relating to the referenced report. With an understanding of events which led to data and reporting concerns, we feel as though it is in the best interest of project continuity and all parties involved that reassignment of ongoing monitoring tasks take place.

By notice of this correspondence please note that these services of ASci Laboratories, Inc. shall no longer be necessary. We request that ASci submit and invoice any work and data reports performed to date as soon as possible. Although it is with regret that we must now identify a new contractor to perform these tasks I hope you will appreciate this requirement to maintain active lines of communication and strict quality assurance/quality control on projects such as these, especially where data reporting efforts result from specific permit conditions.

As discussed, the laboratory analyses provided as part of the referenced report appear acceptable. However, we cannot recommend payment for the additional data at this time. While Mr. Dennis has requested an invoice adjustment of $50.00 we feel as though a discount of $150.00 is more than reasonable when considering the expenditures of time and effort evaluating the efficacy of this report. In discussions with Mr. Dennis it would appear that certain dissolved oxygen data couldn't be validated due to lack of membrane saturation requirements. Without calibration backup additional *in situ* data could also be questioned. For example, anticipated salinity concentration gradients as established with numbered stations were not evident in these readings, as discussed in the October correspondence.

The participation of ASci Laboratories, Inc. with its monitoring and analytical efforts to date has been appreciated. Please contact me should you wish to discuss this topic further.

Sincerely,

Samuel A. Johnston, Jr.
Senior Scientist

cc: Chuck Listowski/WCIND
Dean Mades, PE/EBA

ASci Corporation

Environmental Quality Laboratory

INVOICE

* INVOICE#: 1457 / 2900

INVOICE DATE: 10/12/00
10/13/00

RECEIVED OCT 2 3 2000

TO: ED BARBER & ASSOCIATES
3639 CORTEZ ROAD
SUITE 106
BRADENTON FL 34210

NET DUE 30 DAYS
Customer PO#:
941-739-3903

Sample Date: 09/27/00
Sample No. 12724 thru 12728

Customer Project: SHAKETT CREEK QUARTERLY

Analyses	Quantity	Price/Sample	Amount
Project Contract Price	5	$11.60	$762.64
			$762.64
			$762.64

Please make check payable to ASci Corporation and mail to:
First Virginia Bank
For the credit of ASci Corporation
P.O. Box 985, Falls Church, VA 22040-0985

*Please reference the Invoice# with your payment of this Account.
NOTE: Late charges of 1.5% per month may be added to the above amount.

Laboratory Testing & Environmental Services

DOH CERTIFICATION #E85086

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FX 941-629-7467 • EMAIL: eqlab@ascicorp.com • WEBSITE: www.ascicorp.com

10/12/2000

ED BARBER & ASSOCIATES
3639 CORTEZ ROAD
SUITE 106
BRADENTON FL 34210

Cust. Proj: SHAKETT CREEK QUARTERLY

Attached are the results from 5 sample(s) received by the Environmental Quality Laboratory for analysis. The EQ Lab identification number is **1457 / 2900** . Please refer to this number when requesting information regarding these data. Also, this letter should be attached to any data submitted by you to regulatory agencies.

The Laboratory has an approved FDEP Comprehensive Quality Assurance Plan (#870264) which specifies the procedures used in the analyses of the above referenced samples. In addition, the Laboratory is certified by FDOH for the analyses of environmental and drinking water samples (#E85086). This certification number should be referenced when attesting to regulatory agencies regarding the protocols of the analytical procedures used.

The Environmental Quality Laboratory is pleased to have served you and hopes to meet any future laboratory needs you may have.

Sincerely,

Ken Kondel
Laboratory Operations Manager

ASCI Corporation

Environmental Quality Laboratory

CHEMISTRY SAMPLE ANALYSIS

Report Date: 10/17/2000

Customer: ED BARBER & ASSOCIATES
3639 CORTEZ ROAD

LABID: 1457 / 2900

Customer Proj: SHAKETT CREEK QUARTERLY

Sample Date/Time: 09/27/00 9:12 **Sample#: 12724**
Station/Location: 1 MID

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. NITRATE+NITRITE	0.126	mg/L	EPA 353.2	0.002	10/03/00	HAN	
AMMONIA/AMMONIUM-NITROGEN	0.242	mg/L	EPA 350.1	0.01	10/04/00	HAN	
TOT.KJEL.N	1.85	mg/L	EPA 351.2	0.1	10/06/00	HAN	
ORGANIC NITROGEN (CALC)	1.61	mg/L	EPA 350.1, 351.2	0.1	10/06/00	HAN	
TOTAL PHOSPHORUS	0.501	mg/L	EPA 365.4	0.01	10/06/00	HAN	
TOT. SUSPENDED SOLIDS	6.5	mg/L	EPA 160.2	0.6	10/02/00	TF	

Sample Date/Time: 09/27/00 9:17 **Sample#: 12725**
Station/Location: 2 MID

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. NITRATE+NITRITE	0.122	mg/L	EPA 353.2	0.002	10/03/00	HAN	
AMMONIA/AMMONIUM-NITROGEN	0.22	mg/L	EPA 350.1	0.01	10/04/00	HAN	
TOT.KJEL.N	2.21	mg/L	EPA 351.2	0.1	10/06/00	HAN	
ORGANIC NITROGEN (CALC)	1.99	mg/L	EPA 350.1, 351.2	0.1	10/06/00	HAN	
TOTAL PHOSPHORUS	0.571	mg/L	EPA 365.4	0.01	10/06/00	HAN	
TOT. SUSPENDED SOLIDS	16.4	mg/L	EPA 160.2	0.6	10/02/00	TF	

Sample Date/Time: 09/27/00 9:43 **Sample#: 12726**
Station/Location: 3 TOP

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. NITRATE+NITRITE	0.139	mg/L	EPA 353.2	0.002	10/03/00	HAN	
AMMONIA/AMMONIUM-NITROGEN	0.114	mg/L	EPA 350.1	0.01	10/04/00	HAN	
TOT.KJEL.N	1.67	mg/L	EPA 351.2	0.1	10/06/00	HAN	
ORGANIC NITROGEN (CALC)	1.556	mg/L	EPA 350.1, 351.2	0.1	10/03/00	HAN	
TOTAL PHOSPHORUS	0.457	mg/L	EPA 365.4	0.01	10/06/00	HAN	
TOT. SUSPENDED SOLIDS	3.6	mg/L	EPA 160.2	0.6	10/02/00	TF	

NOTE: Reported results not valid without accompanying signature page.

CHEMISTRY SAMPLE ANALYSIS

Report Date: 10/17/2000

Customer: ED BARBER & ASSOCIATES
3639 CORTEZ ROAD

LABID: 1457 / 2900

Customer Proj: SHAKETT CREEK QUARTERLY

Sample Date/Time: 09/27/00 9:44 **Sample#: 12727**
Station/Location: 3 MID

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. NITRATE+NITRITE	0.14	mg/L	EPA 353.2	0.002	10/03/00	HAN	
AMMONIA/AMMONIUM-NITROGEN	0.118	mg/L	EPA 350.1	0.01	10/04/00	HAN	
TOT.KJEL.N	1.69	mg/L	EPA 351.2	0.1	10/06/00	HAN	
ORGANIC NITROGEN (CALC)	1.57	mg/L	EPA 350.1, 351.2	0.1	10/06/00	HAN	
TOTAL PHOSPHORUS	0.475	mg/L	EPA 365.4	0.01	10/06/00	HAN	
TOT. SUSPENDED SOLIDS	2.9	mg/L	EPA 160.2	0.6	10/02/00	TF	

Sample Date/Time: 09/27/00 9:45 **Sample#: 12728**
Station/Location: 3 BOTTOM

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. NITRATE+NITRITE	0.139	mg/L	EPA 353.2	0.002	10/03/00	HAN	
AMMONIA/AMMONIUM-NITROGEN	0.123	mg/L	EPA 350.1	0.01	10/04/00	HAN	
TOT.KJEL.N	1.72	mg/L	EPA 351.2	0.1	10/06/00	HAN	
ORGANIC NITROGEN (CALC)	1.6	mg/L	EPA 350.1, 351.2	0.1	10/06/00	HAN	
TOTAL PHOSPHORUS	0.475	mg/L	EPA 365.4	0.01	10/06/00	HAN	
TOT. SUSPENDED SOLIDS	2.7	mg/L	EPA 160.2	0.6	10/02/00	TF	

NOTE: Reported results not valid without accompanying signature page.

SHAKETT CREEK

			DEPTH (ft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)		SALINITY (o/oo)
Date: 09/26/2000									
Run/Station		Time							
1	1	9:00							
			1.	29.61	8.06	7.31	10.65		5.82
			2.5	29.64	9.11	7.34	12.63		7.04
			3.7	29.7	11.63	7.3	16.28		9.34
Date: 09/26/2000									
Run/Station		Time							
2	1	13:05							
			1.	31.15	7.61	7.08	9.6		5.18
			2.2	30.11	8.45	7.1	12.84		7.17
Date: 09/26/2000									
Run/Station		Time							
2	2	13:11							
			1.	30.19	5.49	7.03	11.35		6.25
Date: 09/26/2000									
Run/Station		Time							
2	3	13:36							
			1.	30.01	8.14	6.98	0.368	<	0.01
			3.1	29.09	7.55	6.97	0.364	<	0.01
			6.2	28.47	5.05	7.02	0.627		0.06
Date: 09/26/2000									
Run/Station		Time							
3	1	17:01							
			1.	31.38	15.14	7.66	4.85		2.39
Date: 09/26/2000									
Run/Station		Time							
3	2	17:06							
			1.	31.49	6.88	7.41	3.78		1.79
Date: 09/26/2000									
Run/Station		Time							
3	3	17:31							
			1.	29.92	9.18	7.33	0.435	<	0.01
			2.3	29.66	7.48	7.39	0.554		0.02
			4.6	29.49	10.53	7.63	0.567		0.02
Date: 09/26/2000									
Run/Station		Time							
4	1	21:02							
			1.	30.19	10.25	7.44	12.02		6.66
			2.2	30.16	10.03	7.51	11.23		6.17
			3.4	30.46	11.26	7.6	10.12		5.50

			DEPTH (ft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)		SALINITY (o/oo)
Date: 09/26/2000									
Run/Station		Time							
4	2	21:11							
			1.	30.18	6.92	7.42	11.34		6.24
Date: 09/26/2000									
Run/Station		Time							
4	3	21:36							
			1.	29.35	9.78	7.36	0.393	<	0.01
			2.2	29.62	8.23	7.35	0.892		0.20
			4.3	29.42	9.56	7.34	0.653		0.07
Date: 09/26/2000									
Run/Station		Time							
	2	9:09							
			1.	29.32	9.11	7.43	5.525		2.78
Date: 09/26/2000									
Run/Station		Time							
	3	9:26							
			1.	28.49	6.91	7.13	0.386	<	0.01
			2.3	28.37	6.23	7.19	0.397	<	0.01
			5.2	28.33	5.23	7.45	0.52	<	0.01

Date	Run	Station	Time	DEPTH (ft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
09/27/2000	5	1	1:03	1.	30.16	10.56	7.56	10.13	5.50
				2.	30.54	10.14	7.5	9.56	5.16
				3.3	29.16	11.12	7.54	10.12	5.50
09/27/2000	5	3	1:36	1.	29.17	7.6	7.89	0.714	0.10
				2.2	29.62	7.54	7.47	0.567	0.02
				3.5	29.45	8.89	7.45	0.675	0.08
09/27/2000	6	1	5:04	1.	29.45	10.55	7.44	13.12	7.34
				2.2	29.3	10.12	7.45	16.15	9.25
				3.4	30.15	11.26	7.1	17.04	9.82
09/27/2000	6	2	5:12	1.	29.06	5.48	7.5	6.25	3.20
				1.	29.06	5.48	7.5	6.25	3.20
09/27/2000	6	3	5:40	1.	29.6	5.93	7.52	0.892	0.20
				3.3	29.54	6.15	7.56	0.876	0.19
				4.2	29.16	5.06	7.62	0.624	0.05
09/27/2000	7	1	9:10	1.	29.41	17.04	7.38	7.63	4.01
				2.1	29 5	24.68	7.41	9.063	4.86
				3.2	29.47	26.18	7.55	10.46	5.70
09/27/2000	7	2	9:16	1.	29.07	12.32	7.48	5.836	2.96
09/27/2000	7	3	9:42	1.	28.35	9.06	7.36	0.538	0.01
				2.3	28.31	[illegible]	7.43	[illegible]	[illegible]
				4.5	28.22	[illegible]	7.38	[illegible]	[illegible]

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SHAKETT CREEK

Date: 09/27/2000 Run/Station	Time	DEPTH (ft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
2	1:11	1.	30.14	5.98	7.57	9.45	5.09

Environmental Quality Laboratory
1009 Tamiami Trail Port Charlotte, FL 33953

ASCI®

Toll Free (877) 472-2712
Phone (941) 625-3137
Fax (941) 629-7467

Sample Information

Client: Ed Barber & Associates ☐ new
Project: Shakett Creek Quarterly
Labid: 00|1457| 29CO
Address:

Phone:
FAX:
HRS Form? ☐Yes ☒No

Analysis Request

page 1 of 1

EQL Sample No.	Sample Description	Collection Date	Collection Time	Preserved in lab	Minerals - TSS	Nutrients	NO2/O.P.	Metals	Bacteria	cBOD/TSS								# of Containers
12724	1-Mid	9/27/00	9:12	✓	Qt	½pt												2
12725	2-Mid	↓	9:17	✓	↓	↓												2
12726	3-Top	↓	9:43	✓	↓	↓												2
12727	3-Mid	↓	9:44	✓	↓	↓												2
12728	3-Bottom	↓	9:45	✓	✓	✓												2

Comments: $762.64 special invoice

Chain of Custody

Total # of Containers = 10

Transfer	Released by:	Date	Time	Received by:
1st	Tracy L. Trucent (Sample collector)	9/27/00	9:50	Noah Olmsted
2nd	Noah Olmsted	9/27/00	1200	
3rd				
4th				A. Kingsley 9.27.00
5th				

Form 00-01

ED BARBER & ASSOCIATES
ENVIRONMENTAL CONSULTING
ENVIRONMENTAL MANAGEMENT SERVICES
Wildewood Professional Park
3639 Cortez Road West, Suite 211
Bradenton, Florida 34210
Tel: 941-739-3903 Fax: 941-739-3829

October 25, 2000

Mr. Ken Kondel, Laboratory Manager
ASci Laboratories, Inc.
1009 Tamiami Trail
Pt. Charlotte, FL 33953

RE: Shakett Creek Diel Monitoring Report; Invoice No. 1457/2900

Dear Mr. Kondel:

As discussed with Tracy earlier this week, the referenced monitoring data taken September 26th indicate some rather high dissolved oxygen readings taken throughout the water column at 21:36 when one might expect them to be lower with either increasing depth, relatively high water temperatures or due to the onset of respiration at this time of day. Even the dissolved oxygen measurement of 15.14 mg/L taken at Station No. 1 at 17:01 seems suspect due to the high water temperatures of 31.38 ° C, where saturation values in pure water, unencumbered by salinity, have reported saturation values approximately half of this value. The values reported at Stations 1 and 2, which range between 12.23 – 26.18 mg/L are most likely typos since such measurements would not even be indicative of supersaturated conditions. Also, the *in situ* salinity and conductivity readings reported for the most downstream Station No. 3 are consistently lower than the most upstream Station No. 1. Perhaps the numbering has been reversed and we request that these data be revisited for consistency with station assignments. As most field and laboratory SOP's include backup instrumentation and periodic quality control measurements we request that these data be reviewed to confirm field readings in the submitted data report.

In addition to these concerns for interpretation of *in situ* measurements are needs for several report revisions. The initial sampling run appears at the beginning of page 1 and continues at the end of page 2. These sampling data should be reported chronologically to be consistent with other diel measurements. Also, the data reported for Station 3 at 9:42 are illegible due to their placement at the bottom of page 3. Copies of these sections are provided to assist with your review of these sections.

While laboratory analyses provided as part of this report appear acceptable, we cannot recommend payment for the additional data at this time. Review of the field measurements and quality assurance protocol in addition to reformatting of data, should they be found acceptable, will serve to expedite approvals for payment.

Please contact me if you have any questions or require additional information concerning these questions. As you are aware, water quality monitoring efforts for Shakett Creek appear as specific conditions for a permit issued by the Department of Environmental Protection. As such, they are reviewed by many parties

and may eventually appear in such databases as STORET or other repositories used by environmental agencies and others. It is therefore imperative that their integrity remains unchallenged when submitted as part of the permit monitoring requirements.

Should you have any questions relating to these observations please do not hesitate to contact me. We wish to resolve these concerns as soon as possible to meet requisite reporting deadlines.

Sincerely,

Samuel A. Johnston, Jr.
Senior Scientist

Enclosures

cc: Chuck Listowski/WCIND (w/enclosures)
Dean Mades, PE/EBA

			DEPTH (ft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)		SALINITY (o/oo)
Date: 09/26/2000									
Run/Station		Time							
1	1	9:00							
			1.	29.61	8.06	7.31	10.65		5.82
			2.5	29.64	9.11	7.34	12.63		7.04
			3.7	29.7	11.63	7.3	16.28		9.34
Date: 09/26/2000									
Run/Station		Time							
2	1	13:05							
			1.	31.15	7.61	7.08	9.6		5.18
			2.2	30.11	8.45	7.1	12.84		7.17
Date: 09/26/2000									
Run/Station		Time							
2	2	13:11							
			1.	30.19	5.49	7.03	11.35		6.25
Date: 09/26/2000									
Run/Station		Time							
2	3	13:36							
			1.	30.01	8.14	6.98	0.368	<	0.01
			3.1	29.09	7.55	6.97	0.364	<	0.01
			6.2	28.47	5.05	7.02	0.627		0.06
Date: 09/26/2000									
Run/Station		Time							
3	1	17.01							
			1.	31.38	15.14	7.66	4.85		2.39
Date: 09/26/2000									
Run/Station		Time							
3	2	17:06							
			1.	31.49	6.88	7.41	3.78		1.79
Date: 09/26/2000									
Run/Station		Time							
3	3	17:31							
			1.	29.92	9.18	7.33	0.435	<	0.01
			2.3	29.66	7.48	7.39	0.554		0.02
			4.6	29.49	10.53	7.63	0.567		0.02
Date: 09/26/2000									
Run/Station		Time							
4	1	21:02							
			1.	30.18	10.25	7.44	12.02		6.66
			2.2	30.16	10.03	7.51	11.23		6.17
			3.4	30.46	11.26	7.6	10.12		5.50

CONTINUED ON PAGE 2

Salinities downstream (i.e. sta. 3) consistently lower than upstream (i.e. sta. 1).

SATURATION 7.4 AT 31°C

SHAKETT CREEK

		DEPTH (ft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
Date: 09/26/2000 Run/Station 4 2	Time 21:11	1.	30.18	6.92	7.42	11.34	6.24
Date: 09/26/2000 Run/Station 4 3	Time 21:36	1.	29.35	9.78	7.36	0.393	< 0.01
		2.2	29.62	8.23	7.35	0.892	0.20
		4.3	29.42	9.56	7.34	0.653	0.07
Date: 09/26/2000 Run/Station (1) 2	Time 9:09	1.	29.32	9.11	7.43	5.525	2.78
Date: 09/26/2000 Run/Station (1) 3	Time 9:25	1.	28.49	6.91	7.13	0.386	< 0.01
		2.3	28.37	6.23	7.19	0.397	< 0.01
		5.2	28.33	5.23	7.45	0.52	< 0.01

D.O.'s High for this time of day - SATURATION APPROX 7.6 mg/L at 29°C

(2) REPORT SAMPLE RUN No. 1 TOGEATHER

			DEPTH (ft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
Date:	09/27/2000							
Run/Station		Time						
5	1	1:03						
			1.	30.16	10.56	7.56	10.13	5.50
			2.	30.54	10.14	7.5	9.56	5.16
			3.3	29.16	11.12	7.54	10.12	5.50
Date:	09/27/2000							
Run/Station		Time						
5	3	1:36						
			1.	29.17	7.6	7.89	0.714	0.10
			2.2	29.62	7.54	7.47	0.567	0.02
			3.5	29.45	8.89	7.45	0.675	0.08
Date:	09/27/2000							
Run/Station		Time						
6	1	5:04						
			1.	29.45	10.55	7.44	13.12	7.34
			2.2	29.3	10.12	7.45	16.15	9.25
			3.4	30.15	11.26	7.1	17.04	9.82
Date:	09/27/2000							
Run/Station		Time						
6	2	5:12						
			1.	29.06	5.48	7.5	6.25	3.20
			1.	29.06	5.48	7.5	6.25	3.20
Date:	09/27/2000							
Run/Station		Time						
6	3	5:40						
			1.	29.6	5.93	7.52	0.892	0.20
			3.3	29.54	6.15	7.56	0.876	0.19
			4.2	29.16	5.06	7.62	0.624	0.05
Date:	09/27/2000							
Run/Station		Time						
7	1	9:10						
			1.	29.41	17.04	7.38	7.63	4.01
			2.1	29 5	24.68	7.41	9.063	4.86
			3.2	29.47	26.18	7.55	10.46	5.70
Date:	09/27/2000							
Run/Station		Time						
7	2	9:16						
			1.	29.07	12.32	7.48	5.836	2.96
Date:	09/27/2000							
Run/Station		Time						
7	3	9:42						
			1.	28.35	9.06	7.36	0.538	0.01
			2.3	28.81	7.43	7.45	0.633	0.01
			4.5	29.22	6.48	7.58	0.666	0.01

TYPOS?

ED BARBER & ASSOCIATES
ENVIRONMENTAL CONSULTING
ENVIRONMENTAL MANAGEMENT SERVICES

3639 Cortez Road West, Suite 211
Bradenton, Florida 34210
Tel: 941-739-3903 Fax: 941-739-3829

August 10, 2000

Ms. Rose Poynor, Habitat Restoration Section
Florida Department of Environmental Protection, Southwest District
3804 Coconut Palm Drive
Tampa , FL 33619

Re: File No. 58-01274663-001, Shakett Creek Navigational Dredging

Dear Ms. Poynor:

The enclosed material summarizes the diel water-quality survey performed by personnel from AScI / Environmental Quality Laboratory on July 26 and 27, 2000 pursuant to Specific Condition No. 39 of the referenced permit and their currently approved Quality Assurance Plan No. 870264. The survey was performed subsequent to the completion of all dredging on March 3, 2000.

Monitoring locations associated with the diel survey are generally illustrated in figures 1 and 2 submitted with the water-quality monitoring report submitted to the District on November 9, 1999. More specifically, the sites are located as follows:

- Site No. 1 is located on Cow Pen Slough about one-half mile upstream from Laurel Road and 250-feet upstream from the mouth of Fox Creek where it enters Cow Pen Slough,
- Site No. 2 is located about 200 feet west northwest of the oyster mitigation area where dredge material from the trestle and cove areas was placed, and
- Site No. 3 is located about 200 feet east northeast from the dredge channel at the railroad trestle.

The following information is transmitted herewith:

- List of monthly diel in-situ field measurements
- Analytical report for total suspended solids samples

Please call me or Sam Johnston if there is a need to discuss this matter.

Sincerely,

Dean M. Mades, P.E.
Associate

cc: Bob Stetler / FDEP
Chuck Listowski / WCIND
Theresa Connor / Sarasota County Storm Water
Bob Brady / AScI (letter only)
Larry Olsen / EBA
Sam Johnston / EBA

ASCI Corporation

Environmental Quality Laboratory

RECEIVED AUG 1 0 2000

08/07/2000

ED BARBER & ASSOCIATES
3639 CORTEZ ROAD
SUITE 106
BRADENTON FL 34210

Cust. Proj: SHAKETT CREEK WATER QUALITY

Attached are the results from 5 sample(s) received by the Environmental Quality Laboratory for analysis. The EQ Lab identification number is 1457 / 2572 . Please refer to this number when requesting information regarding these data. Also, this letter should be attached to any data submitted by you to regulatory agencies.

The Laboratory has an approved FDEP Comprehensive Quality Assurance Plan (#870264) which specifies the procedures used in the analyses of the above referenced samples. In addition, the Laboratory is certified by FDOH for the analyses of environmental and drinking water samples (#E85086). This certification number should be referenced when attesting to regulatory agencies regarding the protocols of the analytical procedures used.

The Environmental Quality Laboratory is pleased to have served you and hopes to meet any future laboratory needs you may have.

Sincerely,

Ken Kondel
Laboratory Operations Manager

ASCI Corporation

Environmental Quality Laboratory

CHEMISTRY SAMPLE ANALYSIS

RECEIVED AUG 1 0 2000

Page: 1

Report Date: 08/07/2000

Customer: ED BARBER & ASSOCIATES
3639 CORTEZ ROAD

LABID: 1457 / 2572

Customer Proj: SHAKETT CREEK WATER QUALITY

Sample Date/Time: 07/27/00 11:05 **Sample#:** 11438
Station/Location: STA-1 MID

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	16.9	mg/L	EPA 160.2	0.6	08/01/00	TF	

Sample Date/Time: 07/27/00 11:15 **Sample#:** 11439
Station/Location: STA-2-MID

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	16.1	mg/L	EPA 160.2	0.6	08/01/00	TF	

Sample Date/Time: 07/27/00 11:31 **Sample#:** 11440
Station/Location: STA-3-TOP

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	10.7	mg/L	EPA 160.2	0.6	08/01/00	TF	

Sample Date/Time: 07/27/00 11:33 **Sample#:** 11441
Station/Location: STA-3-MID

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	9.4	mg/L	EPA 160.2	0.6	08/01/00	TF	

Sample Date/Time: 07/27/00 11:36 **Sample#:** 11442
Station/Location: STA-3-BOTTOM

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	11.3	mg/L	EPA 160.2	0.6	08/01/00	TF	

NOTE: Reported results not valid without accompanying signature page.

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SHAKETT CREEK

Date	Run	Station	Time	DEPTH (ft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
07/26/2000	1	1	11:00	1.	30.45	3.72	7.57	28.57	17.50
				2.	30.55	3.6	7.53	34.31	21.48
				3.	30.53	3.53	7.5	37.83	23.96
07/26/2000	1	2	11:10	1.	29.91	4.02	7.5	29.7	18.27
07/26/2000	1	3	11:42	1.	31.27	3.93	7.39	25.99	15.74
				2.5	31.18	3.95	7.41	27.6	16.83
				5.5	30.97	4.17	7.37	33.95	21.23
07/26/2000	2	1	15:00	1.	33.31	3.53	7.47	33.68	21.04
07/26/2000	2	2	15:11	1.	33.59	3.78	7.61	27.59	16.83
07/26/2000	2	3	15:35	1.	32.56	4.07	7.43	19.25	11.25
				2.1	31.83	4.07	7.46	19.81	11.62
				3.1	31.74	3.98	7.37	24.45	14.70
07/26/2000	3	1	19:05	1.	32.92	5.02	7.62	33.5	20.91
07/26/2000	3	2	19:12	1.	31.23	4.84	7.64	31.85	19.76
07/26/2000	3	3	19:31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
				2.1	31.99	4.63	7.66	24.84	14.96
				[illegible]	31.41	4.17	7.65	32.74	20.56

Laboratory Testing & Environmental Services
1009 TAMIAMI TRAIL, PORT CHARLOTTE, FLORIDA 33953 • PH 941-625-3137 • TOLL FREE 1-877-452-2712
FX 941-629-7467 • EMAIL: eqlab@ascicorp.com • WEBSITE: www.ascicorp.com

			DEPTH (ft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
Date:	07/26/2000							
Run/Station		Time						
4	1	23:05						
			1.	32.6	4.64	7.6	34.22	21.42
			2.	32.15	4.82	7.6	30.1	18.55
			3.	32.56	4.27	7.62	35.6	22.39
Date:	07/26/2000							
Run/Station		Time						
4	2	23:10						
			1.	33.52		7.6	32.84	20.45
Date:	07/26/2000							
Run/Station		Time						
4	3	23:38						
			1.	32.45		7.4	35.1	22.03
			2.	33.22		7.35	35.08	22.02
			4.	32.41		7.41	33.45	20.88

			DEPTH (ft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
Date:	07/27/2000							
Run/Station		Time						
5	1	3:01						
			1.	33.4	3.98	7.56	34.89	21.89
			2.1	32.46	4.5	7.42	35.8	22.53
Date:	07/27/2000							
Run/Station		Time						
5	2	3:11						
			1.	33.53	4.05	7.5	35.1	22.03
Date:	07/27/2000							
Run/Station		Time						
5	3	3:35						
			1.	33.03	3.98	7.41	35.12	22.05
			2.5	33.67	4.02	7.4	33.47	20.89
			4.5	32.45	4.82	7.37	32.1	19.93
Date	07/27/2000							
Run/Station		Time						
6	1	7:05						
			1.	32.48	4.05	7.55	31.94	19.82
			2.1	32.59	4.67	7.48	29.48	18.12
			3.5	31.56	3.24	7.56	29.5	18.13
Date:	07/27/2000							
Run/Station		Time						
6	2	7:12						
			1.	32.95	4.1	7.52	34.24	21.43
Date:	07/27/2000							
Run/Station		Time						
6	3	7:41						
			1.	33.54	4.68	7.35	33.44	20.87
			2.5	32.58	4.1	7.41	34.53	21.63
			4.2	33.46	4.06	7.32	34.12	21.34
Date:	07/27/2000							
Run/Station		Time						
7	1	11:03						
			1.	33.45	4.05	7.45	35.2	22.10
			2.	32.47	3.9	7.43	34.72	21.77
Date:	07/27/2000							
Run/Station		Time						
7	2	11:15						
			1.	33.24	4.35	7.56	34.2	21.40
Date:	07/27/2000							
Run/Station		Time						
7	3	11:40						
			1.	32.48	4.18	7.3	32.45	20.18

DEPTH (ft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
2.5	33.67	4.21	7.39	31.86	19.77
4.1	33.45	4.19	7.58	32.4	20.14

Environmental Quality Laboratory
1009 Tamiami Trail Port Charlotte, FL 33953

Toll Free (877) 472-2712
Phone (941) 625-3137
Fax (941) 629-7467

Sample Information

Analysis Request

page ___ of ___

Client: Ed Barber + Associates ☐ new
Project: Shakett Creek Water Quality
Labid:
Address:

Phone:
FAX:
HRS Form? ☐Yes ☒No

EQL Sample No.	Sample Description	Collection Date	Collection Time	Preserved	Minerals	Nutrients	NO2/O.P.	Metals	Bacteria	cBOD/TSS								# of Containers
11438	STA 1 - Mid	7/27/00	11:05							X								1
11439	STA 2 - Mid	7/27/00	11:15							X								1
11440	STA 3 - Top	7/27/00	11:31							X								1
11441	STA 3 - Mid	7/27/00	11:33							X								1
11442	STA 3 - Bottom	7/27/01	11:36							X								1

Comments:

Chain of Custody

Total # of Containers = 5

Transfer	Released by:	Date	Time	Received by:
1st	Tracy L Strickert (Sample collector)	7/27/00	13:00	Karen
2nd				
3rd				
4th				
5th				

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Form 00-01

file

ED BARBER & ASSOCIATES

ENVIRONMENTAL CONSULTING

ENVIRONMENTAL MANAGEMENT SERVICES

Wildewood Professional Park
3639 Cortez Road West, Suite 211
Bradenton, Florida 34210
Tel: 941-739-3903 Fax: 941-739-3829

August 3, 2000

Ms. Rose Poynor, Habitat Restoration Section
Florida Department of Environmental Protection, Southwest District
3804 Coconut Palm Drive
Tampa , FL 33619

Re: File No. 58-01274663-001, Shakett Creek Navigational Dredging

Dear Ms. Poynor:

The enclosed material summarizes the diel water-quality survey performed by personnel from AscI Environmental Quality Laboratory on June 27 and 28, 2000 pursuant to Specific Condition No. 39 of the referenced permit and their currently approved Quality Assurance Plan No. 870264. Monitoring locations associated with this activity are generally illustrated in figures 1 and 2 submitted with the water-quality monitoring report submitted to the District on November 9, 1999. More specifically, the sites are located as follows:

- Site No. 1 is located on Cow Pen Slough about one-half mile upstream from Laurel Road and 250-feet upstream from the mouth of Fox Creek where it enters Cow Pen Slough,
- Site No. 2 is located about 200 feet west northwest of the oyster mitigation area where dredge material from the trestle and cove areas was placed, and
- Site No. 3 is located about 200 feet east northeast from the dredge channel at the railroad trestle.

The following information is transmitted herewith:

- List of field measurements made during diel survey
- Analytical report for analyses of total suspended solids, nitrate + nitrite nitrogen, ammonium nitrogen, Kjeldahl nitrogen and total phosphorus.
- Chain-of-custody record

Please call me or Sam Johnston if there is a need to discuss this matter.

Sincerely,

Dean M. Mades, P.E.
Associate

cc: Chuck Listowski / WCIND
Bob Brady / EQL (letter only)
Bob Stetler / FDEP
Sam Johnston / EBA
Larry Olsen, Ph.D.
Theresa Connor - later after mail out

		DEPTH (ft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
Date: 06/27/2000							
Run/Station	Time						
1 1	11:00						
		1.	28.31	3.89	7.48	44.27	28.59
		3.5	28.05	4.25	7.5	46.37	30.12
		4.503	28.24	3.84	7.5	46.04	29.88
Date: 06/27/2000							
Run/Station	Time						
1 2	11:10						
		1.	28.21	4.41	7.46	43.05	27.71
Date: 06/27/2000							
Run/Station	Time						
1 3	11:33						
		1.	29.83	3.84	7.39	41.99	26.94
		2.5	29.62	3.97	7.4	41.93	26.90
		5.	29.09	4.64	7.45	42.49	27.30
Date: 06/27/2000							
Run/Station	Time						
2 1	15:05						
		1.	28.89	4.14	7.48	42.41	27.24
		2.5	28.57	4.2	7.51	42.81	27.53
		4.8	28.55	4.66	7.52	45.99	29.84
Date: 06/27/2000							
Run/Station	Time						
2 2	15:11						
		1.	28.09	4.57	7.44	38.74	24.61
Date: 06/27/2000							
Run/Station	Time						
2 3	15:38						
		1.	30.58	3.91	7.41	38.31	24.31
		2.2	30.23	4.06	7.41	41.39	26.51
		4.5	29.03	4.8	7.47	42.6	27.38
Date: 06/27/2000							
Run/Station	Time						
3 1	19:30						
		1.	25.58	4.15	7.45	43.47	28.01
		2.5	25.59	4.28	7.47	43.47	28.01
		5.5	28.58	4.7	7.51	43.52	28.05
Date: 06/27/2000							
Run/Station	Time						
3 2	19:35						
		1	27.39	4.56	7.48	41.27	26.42

			DEPTH (ft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
Date: 06/27/2000								
Run/Station		Time						
3	3	19:51						
			1.	29.53	4.06	7.43	38.21	24.23
			2.6	29.4	4.09	7.42	40.77	26.06
			5.3	28.7	4.77	7.45	42.81	27.53
Date: 06/27/2000								
Run/Station		Time						
4	1	23:11						
			1.	28.59	4.88	7.49	45.98	29.83
			2.2	28.52	4.93	7.48	45.56	29.53
Date: 06/27/2000								
Run/Station		Time						
4	2	23:24						
			1.	28.46	4.62	7.45	44.22	28.55
Date: 06/27/2000								
Run/Station		Time						
	3	23:42						
			1.	28.25	4.24	7.5	44.12	28.48
			2.2	28.43	4.78	7.42	43.52	28.05
			4.3	28.7	4.56	7.43	43.81	28.26

Date	Run	Station	Time	DEPTH (ft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
06/28/2000	5	1	3:31	1.	28.46	4.54	7.5	44.25	28.58
				2.4	28.53	4.53	7.49	44.12	28.48
				3.5	28.22	4.22	7.5	43.23	27.84
06/28/2000	5	2	3:42	1.	27.43	4.09	7.47	43.25	27.85
06/28/2000	5	3	3:56	1.	27.34	4.63	7.41	43.55	28.07
				2.3	27.46	4.24	7.42	43.13	27.76
				4.5	27.24	4.34	7.38	44.22	28.55
06/28/2000	6	1	7:30	1.	27.61	4.02	7.5	46.58	30.27
				2.1	27.63	4.14	7.52	46.53	30.23
				3.2	27.59	4.49	7.56	46.76	30.40
06/28/2000	6	2	7:37	1.	26.7	4.39	7.45	44.47	28.74
06/28/2000	6	3	7:53	1.	28.08	3.82	7.39	38.23	24 25
				2.6	28.01	3.97	7.38	41.71	26.74
				5.4	27.96	4.62	7.42	42.65	27.42
06/28/2000	7	1	11:00	1.	27.63	3.94	7.35	44.49	28.75
				2.1	27.75	4.04	7.39	43.86	28.29
06/28/2000	7	2	11:05	1.	27.3	4.32	7.37	48.34	31.56

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		DEPTH (ft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
Date: 06/28/2000							
Run/Station	Time						
7 3	11:25						
		1.	27.74	3.97	7.3	40.65	25.98
		2.3	27.71	4.22	7.33	42.72	27.47
		5.6	27.67	4.76	7.39	43.02	27.68

ASC! Corporation

Environmental Quality Laboratory

07/14/2000

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ED BARBER & ASSOCIATES
3639 CORTEZ ROAD
SUITE 106
BRADENTON FL 34210

Cust. Proj: ED BARBER & ASSOCIATES

Attached are the results from sample(s) received by the Environmental Quality Laboratory for analysis. The EQ Lab identification number is **1457 / 1814**. Please refer to this number when requesting information regarding these data. Also, this letter should be attached to any data submitted by you to regulatory agencies.

The Laboratory has an approved FDEP Comprehensive Quality Assurance Plan (#870264) which specifies the procedures used in the analyses of the above referenced samples. In addition, the Laboratory is certified by FDOH for the analyses of environmental and drinking water samples (#E85086). This certification number should be referenced when attesting to regulatory agencies regarding the protocols of the analytical procedures used.

The Environmental Quality Laboratory is pleased to have served you and hopes to meet any future laboratory needs you may have.

Sincerely,

Ken Kondel
Laboratory Operations Manager

ASCI Corporation

Environmental Quality Laboratory

CHEMISTRY SAMPLE ANALYSIS

Report Date: 07/14/2000

Customer: ED BARBER & ASSOCIATES
3639 CORTEZ ROAD

LABID: 1457 / 1814

Customer Proj: SHAKETT CREEK

Sample Date/Time: 06/28/00 11:01 Sample#: 8550
Station/Location: 1-MID

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. NITRATE+NITRITE	0.014	mg/L	EPA 353.2	0.002	07/06/00	HAN	
AMMONIA/AMMONIUM-NITROGEN	0.122	mg/L	EPA 350.1	0.01	07/06/00	HAN	
TOT.KJEL.N	0.687	mg/L	EPA 351.2	0.1	07/07/00	HAN	
ORGANIC NITROGEN (CALC)	0.565	mg/L	EPA 350.1, 351.2	0.1	07/07/00	HB	
TOTAL PHOSPHORUS	0.188	mg/L	EPA 365.4	0.01	07/07/00	HAN	
TOT. SUSPENDED SOLIDS	17.9	mg/L	EPA 160.2	0.6	07/01/00	TF	

Sample Date/Time: 06/28/00 11:06 Sample#: 8551
Station/Location: 2-MID

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. NITRATE+NITRITE	0.015	mg/L	EPA 353.2	0.002	07/06/00	HAN	
AMMONIA/AMMONIUM-NITROGEN	0.121	mg/L	EPA 350.1	0.01	07/06/00	HAN	
TOT.KJEL.N	0.768	mg/L	EPA 351.2	0.1	07/07/00	HAN	
ORGANIC NITROGEN (CALC)	0.647	mg/L	EPA 350.1, 351.2	0.1	07/07/00	HB	
TOTAL PHOSPHORUS	0.2	mg/L	EPA 365.4	0.01	07/07/00	HAN	
TOT. SUSPENDED SOLIDS	18.8	mg/L	EPA 160.2	0.6	07/01/00	TF	

Sample Date/Time: 06/28/00 11:26 Sample#: 8552
Station/Location: 3-TOP

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. NITRATE+NITRITE	0.007	mg/L	EPA 353.2	0.002	07/06/00	HAN	
AMMONIA/AMMONIUM-NITROGEN	0.125	mg/L	EPA 350.1	0.01	07/06/00	HAN	
TOT.KJEL.N	0.359	mg/L	EPA 351.2	0.1	07/07/00	HAN	
ORGANIC NITROGEN (CALC)	0.734	mg/L	EPA 350.1, 351.2	0.1	07/07/00	HB	
TOTAL PHOSPHORUS	0.307	mg/L	EPA 365.4	0.01	07/07/00	HAN	
TOT. SUSPENDED SOLIDS	18.9	mg/L	EPA 160.2	0.6	07/01/00	TF	

NOTE: Reported results not valid without accompanying signature page.

ASC Corporation

Environmental Quality Laboratory

CHEMISTRY SAMPLE ANALYSIS

RECEIVED JUL 2 1 2000

Report Date: 07/14/2000

Customer: ED BARBER & ASSOCIATES
3639 CORTEZ ROAD

LABID: 1457 / 1814

Customer Proj: SHAKETT CREEK

Sample Date/Time: 06/28/00 11:28 Sample#: 8553
Station/Location: 3-MID

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. NITRATE+NITRITE	0.009	mg/L	EPA 353.2	0.002	07/06/00	HAN	
AMMONIA/AMMONIUM-NITROGEN	0.102	mg/L	EPA 350.1	0.01	07/06/00	HAN	
TOT.KJEL.N	0.841	mg/L	EPA 351.2	0.1	07/07/00	HAN	
ORGANIC NITROGEN (CALC)	0.739	mg/L	EPA 350.1, 351.2	0.1	07/07/00	HB	
TOTAL PHOSPHORUS	0.311	mg/L	EPA 365.4	0.01	07/07/00	HAN	
TOT. SUSPENDED SOLIDS	19.9	mg/L	EPA 160.2	0.6	07/01/00	TF	

Sample Date/Time: 06/28/00 11:30 Sample#: 8554
Station/Location: 3-BOTTOM

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. NITRATE+NITRITE	0.01	mg/L	EPA 353.2	0.002	07/06/00	HAN	
AMMONIA/AMMONIUM-NITROGEN	0.113	mg/L	EPA 350.1	0.01	07/06/00	HAN	
TOT.KJEL.N	0.765	mg/L	EPA 351.2	0.1	07/07/00	HAN	
ORGANIC NITROGEN (CALC)	0.652	mg/L	EPA 350.1, 351.2	0.1	07/07/00	HB	
TOTAL PHOSPHORUS	0.247	mg/L	EPA 365.4	0.01	07/07/00	HAN	
TOT. SUSPENDED SOLIDS	16.4	mg/L	EPA 160.2	0.6	07/01/00	TF	

NOTE: Reported results not valid without accompanying signature page.

Environmental Quality Laboratory
1009 Tamiami Trail Port Charlotte, FL 33953

Toll Free (877) 472-2712
Phone (941) 625-3137
Fax (941) 629-7467

Sample Information — Analysis Request

Client: Ed Baker & Associates ☐ new
Project: Shakett Creek Quarterly
Labid: 00/1457/1814
Address:
Phone:
FAX:
HRS Form? ☐Yes ☒No

EQL Sample No	Sample Description	Collection Date	Collection Time	Preserved in lab	Minerals - TSS	Nutrients	NO2/O.P.	Metals	Bacteria	cBOD/TSS	# of Container
8550	1-Mid	6/28	11:01	✓	Qtly	Qtly					2
8551	2-Mid	6/28	11:06	✓	↓	↓					2
8552	3-Top	6/28	11:26	✓							2
8553	3-Mid	6/28	1128	✓							2
8554	3-Bottom	6/28	1130	✓	↓	↓					2

Comments: $762.66 special invoice

Chain of Custody

Total # of Containers = 10

Transfer	Released by:	Date	Time	Received by:
1st	Tracy L Tuckett (Sample collector)	6-29		Kevin
2nd				
3rd				
4th				
5th				

ED BARBER & ASSOCIATES

ENVIRONMENTAL CONSULTING

ENVIRONMENTAL MANAGEMENT SERVICES

Wildewood Professional Park
3639 Cortez Road West, Suite 211
Bradenton, Florida 34210
Tel: 941-739-3903 Fax: 941-739-3829

June 5, 2000

Ms. Rose Poynor, Habitat Restoration Section
Florida Department of Environmental Protection, Southwest District
3804 Coconut Palm Drive
Tampa , FL 33619

Re: File No. 58-01274663-001, Shakett Creek Navigational Dredging

Dear Ms. Poynor:

The enclosed material summarizes the diel water-quality survey performed by personnel from ASci / Environmental Quality Laboratory on May 22 and 23, 2000 pursuant to Specific Condition No. 39 of the referenced permit and their currently approved Quality Assurance Plan No. 870264. The survey was performed subsequent to the completion of all dredging on March 3, 2000.

Monitoring locations associated with the diel survey are generally illustrated in figures 1 and 2 submitted with the water-quality monitoring report submitted to the District on November 9, 1999. More specifically, the sites are located as follows:

- Site No. 1 is located on Cow Pen Slough about one-half mile upstream from Laurel Road and 250-feet upstream from the mouth of Fox Creek where it enters Cow Pen Slough,
- Site No. 2 is located about 200 feet west northwest of the oyster mitigation area where dredge material from the trestle and cove areas was placed, and
- Site No. 3 is located about 200 feet east northeast from the dredge channel at the railroad trestle.

The following information is transmitted herewith:

- List of monthly diel in-situ field measurements
- Analytical report for total suspended solids samples

Please call me or Sam Johnston if there is a need to discuss this matter.

Sincerely,

Dean M. Mades, P.E.
Associate

cc: Bob Stetler / FDEP
Chuck Listowski / WCIND
Theresa Connor / Sarasota County Storm Water
Bob Brady / ASci (letter only)
Larry Olsen / EBA
Sam Johnston / EBA

ASC Corporation
Environmental Quality Laboratory

05/31/2000

ED BARBER & ASSOCIATES
3639 CORTEZ ROAD
SUITE 106
BRADENTON FL 34210

Cust. Proj: ED BARBER & ASSOCIATES

Attached are the results from 5 sample(s) received by the Environmental Quality Laboratory for analysis. The EQ Lab identification number is **1457 / 1570**. Please refer to this number when requesting information regarding these data. Also, this letter should be attached to any data submitted by you to regulatory agencies.

The Laboratory has an approved FDEP Comprehensive Quality Assurance Plan (#87264) which specifies the procedures used in the analyses of the above referenced samples. In addition, the Laboratory is certified by FDOH for the analyses of environmental and drinking water samples (#E85086 & 85116) respectively. These certification numbers should be referenced when attesting to regulatory agencies regarding the protocols of the analytical procedures used.

The Environmental Quality Laboratory is plesed to have served you and hopes to meet any future laboratory needs you may have.

Sincerely,

Ken Kondel
Laboratory Operations Manager

ASCI Corporation
Environmental Quality Laboratory

RECEIVED JUN 0 5 2000

CHEMISTRY SAMPLE ANALYSIS

Report Date: 05/31/2000

Customer: ED BARBER & ASSOCIATES
3639 CORTEZ ROAD

LABID: 1457 / 1570

Customer Proj:

Sample Date/Time: 05/23/00 12:08 Sample#: 7262
Station/Location: 1-M

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	11.6	mg/L	EPA 160.2	0.6	05/26/00	AB	

Sample Date/Time: 05/23/00 12:12 Sample#: 7263
Station/Location: 2-M

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	13.6	mg/L	EPA 160.2	0.6	05/26/00	AB	

Sample Date/Time: 05/23/00 12:27 Sample#: 7264
Station/Location: 3-T

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	12.7	mg/L	EPA 160.2	0.6	05/26/00	AB	

Sample Date/Time: 05/23/00 12:28 Sample#: 7265
Station/Location: 3-M

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	13.3	mg/L	EPA 160.2	0.6	05/26/00	AB	

Sample Date/Time: 05/23/00 12:29 Sample#: 7266
Station/Location: 3-B

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	14.8	mg/L	EPA 160.2	0.6	05/26/00	AB	

NOTE: * See attached Data Qualifier Codes
Reported results not valid without accompanying signature page.

SHAKETT CREEK

		DEPTH (m) ft	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
Date: 05/22/2000							
Run/Station	Time						
1 1	12:00						
		1.	28.37	6.41	7.36	48.98	31.91
		2.1	28.38	6.65	7.35	49.04	31.80
		3.2	28.68	7.32	7.34	48.82	31.84
Date: 05/22/2000							
Run/Station	Time						
1 2	12:10						
		1.	28.52	6.04	7.38	48.61	32.22
Date: 05/22/2000							
Run/Station	Time						
1 3	12:40						
		1.	28.43	5.81	7.74	47.83	31.04
		2.5	28.36	5.92	7.77	47.9	31.10
		5.5	28.27	6.56	7.34	48.04	31.35
Date: 05/22/2000							
Run/Station	Time						
2 1	16:05						
		1.	29.44	6.78	7.28	49.19	32.12
		2.2	29.44	6.47	7.27	48.58	31.65
Date: 05/22/2000							
Run/Station	Time						
2 2	16:12						
		1.	29.1	6.33	7.3	49.04	31.81
Date: 05/22/2000							
Run/Station	Time						
2 3	16:38						
		1.	29.77	6.35	7.28	48.05	31.17
		2.5	29.66	6.54	7.28	48.22	31.30
		5.2	29.49	6.82	7.31	48.18	31.19
Date: 05/22/2000							
Run/Station	Time						
3 1	20:05						
		1.	29.5	6.32	7.39	48.91	31.80
		2.5	29.49	6.48	7.38	49.05	31.91
		5.5	29.51	6.78	7.37	49.2	32.00
Date: 05/22/2000							
Run/Station	Time						
3 2	20:14						
		1.	27.33	5.89	7.38	50.47	32.51
Date: 05/22/2000							
Run/Station	Time						
3 3	20:32						
		1.	30.38	6.34	7.37	46.92	30.33
		2.2	30.33	6.45	7.37	47.07	30.45

SHAKETT CREEK

DEPTH (m)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
4.2	29.46	7.11	7.38	47.51	30.73

SHAKETT CREEK

		DEPTH (mm ft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
Date: 05/23/2000							
Run/Station	Time						
4 1	0:02						
		1.	29.14	6.44	7.43	48.59	31.59
Date: 05/23/2000							
Run/Station	Time						
4 2	0:11						
		1.	28.03	5.54	7.4	49.21	32.05
Date: 05/23/2000							
Run/Station	Time						
4 3	0:33						
		1.	30.2	6.17	7.35	45.88	29.50
		2.	30.09	6.38	7.36	46.81	30.23
		3.	30.04	7.17	7.38	47.25	30.64
Date: 05/23/2000							
Run/Station	Time						
5 1	4:02						
		1.	27.44	6.42	7.42	49.33	31.45
		2.1	27.32	6.72	7.44	49.3	31.44
		3.2	27.89	6.38	7.43	48.16	31.56
Date: 05/23/2000							
Run/Station	Time						
5 2	4:10						
		1.	26.56	6.68	7.46	49.46	31.55
Date: 05/23/2000							
Run/Station	Time						
5 3	4:34						
		1.	28.23	6.91	7.38	47.49	31.52
		2.2	28.2	6.94	7.39	47.75	31.28
		4.2	28.15	6.93	7.38	47.56	31.72
Date: 05/23/2000							
Run/Station	Time						
6 1	8:06						
		1.	27.85	5.27	7.17	49.02	31.95
		2.4	27.84	5.41	7.17	49.16	32.04
		5.4	27.78	5.9	7.18	49.16	32.05
Date: 05/23/2000							
Run/Station	Time						
6 2	8:13						
		1.	26.31	5.73	7.12	49.52	32.21
Date: 05/23/2000							
Run/Station	Time						
6 3	8:33						
		1.	28.76	5.4	7.13	45.49	29.37
		2.5	28.86	5.68	7.16	48.14	31.26
		5.3	28.25	6.93	7.18	48.84	31.71

SHAKETT CREEK

		DEPTH (m) ft	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
Date: 05/23/2000							
Run/Station	Time						
7 1	12:07						
		1.	28.81	4.7	7.27	49.08	31.97
		2.5	28.84	4.93	7.25	49.28	32.11
		5.6	28.93	5.51	7.24	49.45	32.19
Date: 05/23/2000							
Run/Station	Time						
7 2	12:11						
		1.	28.56	4.67	7.25	49.51	31.82
Date: 05/23/2000							
Run/Station	Time						
7 3	12:26						
		1.	29.13	4.28	7.21	48.21	31.22
		2.5	28.83	4.3	7.2	48.81	31.69
		5.6	28.72	4.6	7.19	48.81	31.80

ED BARBER & ASSOCIATES

ENVIRONMENTAL CONSULTING
ENVIRONMENTAL MANAGEMENT SERVICES

Wildewood Professional Park
3639 Cortez Road West, Suite 211
Bradenton, Florida 34210
Tel: 941-739-3903 Fax: 941-739-3829

May 12, 2000

Ms. Rose Poynor, Habitat Restoration Section
Florida Department of Environmental Protection, Southwest District
3804 Coconut Palm Drive
Tampa , FL 33619

Re: File No. 58-01274663-001, Shakett Creek Navigational Dredging

Dear Ms. Poynor:

The enclosed material summarizes the diel water-quality survey performed by personnel from AScI / Environmental Quality Laboratory on April 27 and 28, 2000 pursuant to Specific Condition No. 39 of the referenced permit and their currently approved Quality Assurance Plan No. 870264. The survey was performed subsequent to the completion of all dredging on March 3, 2000.

Monitoring locations associated with the diel survey are generally illustrated in figures 1 and 2 submitted with the water-quality monitoring report submitted to the District on November 9, 1999. More specifically, the sites are located as follows:

- Site No. 1 is located on Cow Pen Slough about one-half mile upstream from Laurel Road and 250-feet upstream from the mouth of Fox Creek where it enters Cow Pen Slough,
- Site No. 2 is located about 200 feet west northwest of the oyster mitigation area where dredge material from the trestle and cove areas was placed, and
- Site No. 3 is located about 200 feet east northeast from the dredge channel at the railroad trestle.

The following information is transmitted herewith:

- List of monthly diel field measurements made on April 27th and 28th
- Analytical report for total suspended solids samples
- Chain-of-custody record

Please call me or Sam Johnston if there is a need to discuss this matter.

Sincerely,

Dean M. Mades, P.E.
Associate

cc: Bob Stetler / FDEP
Chuck Listowski / WCIND
Theresa Connor / Sarasota County Storm Water
Bob Brady / AScI (letter only)
Larry Olsen / EBA
Sam Johnston / EBA

ASCI Corporation
Environmental Quality Laboratory

05/04/2000

ED BARBER & ASSOCIATES
3639 CORTEZ ROAD
SUITE 106
BRADENTON FL 34210

Cust. Proj: ED BARBER & ASSOCIATES

Attached are the results from 5 sample(s) received by the Environmental Quality Laboratory for analysis. The EQ Lab identification number is 1457 / 1306. Please refer to this number when requesting information regarding these data. Also, this letter should be attached to any data submitted by you to regulatory agencies.

The Laboratory has an approved FDEP Comprehensive Quality Assurance Plan (#87264) which specifies the procedures used in the analyses of the above referenced samples. In addition, the Laboratory is certified by FDOH for the analyses of environmental and drinking water samples (#E85086 & 85116) respectively. These certification numbers should be referenced when attesting to regulatory agencies regarding the protocols of the analytical procedures used.

The Environmental Quality Laboratory is plesed to have served you and hopes to meet any future laboratory needs you may have.

Sincerely,

Ken Kondel
Laboratory Operations Manager

		DEPTH (ft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
Date: 04/27/2000							
Run/Station	Time						
1 1	11:10						
		1.	24.37	4.83	6.	45.17	29.24
		2.7	24.3	4.48	5.81	45.69	29.62
		3.7	24.15	5.42	5.49	46.23	30.02
Date: 04/27/2000							
Run/Station	Time						
1 2	11:15						
		1.	24.32	4.66	6.53	44.79	28.97
Date: 04/27/2000							
Run/Station	Time						
1 3	11:25						
		1.	25.18	4.69	6.99	41.78	26.79
		2.2	24.64	4.19	6.92	43.76	28.22
		4.6	24.79	5.99	6.9	44.14	28.50
Date: 04/27/2000							
Run/Station	Time						
2 1	3:10 pm						
		1.	26.25	5.33	7.22	46.35	30.10
		1.5	26.12	5.57	7.16	30.14	18.58
Date: 04/27/2000							
Run/Station	Time						
2 2	3:15 pm						
		1.	26.35	7.79	7.59	45.58	29.76
Date: 04/27/2000							
Run/Station	Time						
2 3	3:35 pm						
		1.	27.66	3.32	7.52	43.14	27.77
		2.	27.19	3.13	7.47	44.41	26.69
		3.8	26.77	3.07	7.46	41.6	28.83
Date: 04/27/2000							
Run/Station	Time						
3 1	19:05						
		1	26.37	5.36	7.65	47.09	30.64
		2.3	23.62	5.15	7.72	47.19	30.71
		4.6	26.38	6.46	7.53	47.34	30.83
Date: 04/27/2000							
Run/Station	Time						
3 2	19:10						
		1.	26.37	5.01	7.47	46.62	30.30

			DEPTH (ft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
Date:	04/27/2000							
Run/Station		Time						
3	3	19:20						
			1.	26.6	5.78	7.33	43.76	28.22
			2.3	26.42	5.74	7.33	44.	28.39
			4.6	25.02	5.42	7.33	44.86	29.02
Date:	04/27/2000							
Run/Station		Time						
4	1	23:00						
			1.	25.51	5.03	7.49	45.87	29.75
			2.1	25.69	5.08	7.55	46.13	29.94
			3.5	25.83	5.1	7.62	46.66	30.33
Date:	04/27/2000							
Run/Station		Time						
4	2	23:05						
			1.	23.57	4.68	7.33	46.5	30.21
Date:	04/27/2000							
Run/Station		Time						
4	3	23:26						
			1.	27.22	6.05	7.4	43.3	27.89
			2.	26.69	5.58	7.39	43.92	28.34
			4.1	26.05	6.71	7.38	44.78	28.96

			DEPTH (ft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
Date:	04/28/2000							
Run/Station		Time						
5	1	3:02						
			1.	24.23	6.24	7.55	46.23	30.02
			2.	24.45	6.21	7.52	46.52	30.23
			4.1	24.56	6.36	7.6	46.67	30.34
Date:	04/28/2000							
Run/Station		Time						
5	2	3:11						
			1.	23.22	5.23	7.44	46.52	30.23
Date:	04/28/2000							
Run/Station		Time						
5	3	3:20						
			1.	25.34	6.19	7.2	43.1	27.74
			2.	25.42	5.98	7.19	43.24	27.84
			4.1	25.23	6.24	7.2	44.62	28.84
Date:	04/28/2000							
Run/Station		Time						
6	1	7:15						
			1.	23.97	5.76	7.23	46.28	30.05
			2.3	24.01	6.12	7.26	46.49	30.21
			4.6	24.05	7.21	7.32	46.59	30.28
Date:	04/28/2000							
Run/Station		Time						
6	2	7:20						
			1.	21.92	5.72	7.15	45.69	29.62
Date:	04/28/2000							
Run/Station		Time						
6	3	7:35						
			1	25.49	5.39	7.15	42.82	27.54
			2.2	25.63	5.3	7.16	44.38	28.67
			4.2	25.57	5.78	7.19	44.93	29.07
Date:	04/28/2000							
Run/Station		Time						
7	1	11:06						
			1.	24.39	5.61	7.35	47.05	30.61
			2.	24.32	5.65	7.36	47.1	30.65
			2.8	24.04	6.16	7.39	47.18	30.71
Date:	04/28/2000							
Run/Station		Time						
7	2	11:14						
			1.	24.35	7.1	7.41	46.34	30.10

	DEPTH (ft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
Date: 04/28/2000						
Run/Station Time						
7 3 11:30						
	1.	25.39	4.79	7.28	44.34	28.64
	2.3	25.45	4.7	7.29	44.64	28.86
	4.7	25.41	5.28	7.34	44.84	29.00

ASCI Corporation

Environmental Quality Laboratory

CHEMISTRY SAMPLE ANALYSIS

Page: 1

Report Date: 05/04/2000

Customer: ED BARBER & ASSOCIATES
3639 CORTEZ ROAD

LABID: 1457 / 1306

Customer Proj: SHAKETT CREEK DIEL/STUDY SAMPLING

Sample Date/Time: 04/28/00 11:06 Sample#: 6356
Station/Location: 1-MIDDLE

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	14.7	mg/L	EPA 160.2	0.6	05/01/00	TF	

Sample Date/Time: 04/28/00 11:15 Sample#: 6357
Station/Location: 2-MIDDLE

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	16.8	mg/L	EPA 160.2	0.6	05/01/00	TF	

Sample Date/Time: 04/28/00 11:30 Sample#: 6358
Station/Location: 3-TOP

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	22.8	mg/L	EPA 160.2	0.6	05/01/00	TF	

Sample Date/Time: 04/28/00 11:32 Sample#: 6359
Station/Location: 3-MIDDLE

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	29.	mg/L	EPA 160.2	0.6	05/01/00	TF	

Sample Date/Time: 04/28/00 11:35 Sample#: 6360
Station/Location: 3-BOTTOM

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	20.6	mg/L	EPA 160.2	0.6	05/01/00	TF	

NOTE: * See attached Data Qualifier Codes
Reported results not valid without accompanying signature page.

Environmental Quality Laboratory
1009 Tamiami Trail Port Charlotte, FL 33953

Toll Free (877) 472-2712
Phone (941) 625-3137
Fax (941) 629-7467

Sample Information

Analysis Request

page___ of___

Client: SHACKET CREEK ☐ new

Project:

Labid:

Address: 1306 N 5

Phone:

FAX:

HRS Form? ☐Yes ☐ No

EQL Sample No.	Sample Description	Collection Date	Collection Time	Preserved	Minerals	Nutrients	NO2/O.P.	Metals	Bacteria	cBOD/TSS								# of Containers
6356		4-28	11:06							1								1
6357			11:14							1								1
6358			11:30							1								1
6359			11:32							1								1
6360			11:35							1								1

Comments:

Chain of Custody

Total # of Containers = 5

Transfer	Released by:	Date	Time	Received by:
1st	Tracy & Jim Shacket (Sample collector)	4-28	3:00	
2nd				
3rd				
4th				
5th				

Form 00-01

ED BARBER & ASSOCIATES

ENVIRONMENTAL CONSULTING

ENVIRONMENTAL MANAGEMENT SERVICES

Wildewood Professional Park
3639 Cortez Road West, Suite 211
Bradenton, Florida 34210
Tel: 941-739-3903 Fax: 941-739-3829

April 28, 2000

Ms. Rose Poynor, Habitat Restoration Section
Florida Department of Environmental Protection, Southwest District
3804 Coconut Palm Drive
Tampa , FL 33619

Re: File No. 58-01274663-001, Shakett Creek Navigational Dredging

Dear Ms. Poynor:

The enclosed material summarizes the diel water-quality survey performed by personnel from Environmental Quality Laboratory on March 27 and 28, 2000 pursuant to Specific Condition No. 39 of the referenced permit and their currently approved Quality Assurance Plan No. 870264. Monitoring locations associated with this activity are generally illustrated in figures 1 and 2 submitted with the water-quality monitoring report submitted to the District on November 9, 1999. More specifically, the sites are located as follows:

- Site No. 1 is located on Cow Pen Slough about one-half mile upstream from Laurel Road and 250-feet upstream from the mouth of Fox Creek where it enters Cow Pen Slough,
- Site No. 2 is located about 200 feet west northwest of the oyster mitigation area where dredge material from the trestle and cove areas was placed, and
- Site No. 3 is located about 200 feet east northeast from the dredge channel at the railroad trestle.

Monitoring was temporarily suspended between 7:00 p.m. on the 27th and 3:00 a.m. on the 28th due to heavy rain and lightning. Prior to the survey the weather was unseasonably warm and very dry.

The following information is transmitted herewith:

- List of field measurements made during diel survey
- Analytical report for analyses of total suspended solids, nitrate + nitrite nitrogen, ammonium nitrogen, Kjeldahl nitrogen and total phosphorus.
- Chain-of-custody record

Please call me or Sam Johnston if there is a need to discuss this matter.

Sincerely,

Dean M. Mades, P.E.
Associate

cc: Chuck Listowski / WCIND
Bob Brady / EQL (letter only)
Bob Stetler / FDEP
Sam Johnston / EBA
Larry Olsen, Ph.D.

SHAKETT CREEK

			DEPTH (m) ft	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
Date:	03/27/2000							
Run/Station		Time						
1	1	12:10						
			1.	23.87	6.96	7.61	47.63	31.97
			3.1	23.93	7.16	7.6	47.02	31.33
			6.3	23.9	7.58	7.6	48.09	31.38
Date:	03/27/2000							
Run/Station		Time						
1	2	12:15						
			1.	24.34	6.26	7.62	47.47	30.87
Date:	03/27/2000							
Run/Station		Time						
1	3	12:00						
			1.	24.59	6.07	7.4	45.43	29.37
			2.7	24.47	6.08	7.34	45.58	29.50
			5.9	24.4	6.26	7.24	45.68	29.60
Date:	03/27/2000							
Run/Station		Time						
2	1	15:00						
			1.	24.53	6.86	7.73	47.69	31.03
			3.	24.58	7.03	7.7	48.28	31.49
			6.	24.53	6.88	7.6	48.3	31.52
Date:	03/27/2000							
Run/Station		Time						
2	2	15:05						
			1.	24.85	5.96	7.74	47.65	30.99
Date:	03/27/2000							
Run/Station		Time						
2	3	15:20						
			1.	24.83	6.4	7.67	45.71	29.60
			2.7	24.8	6.42	7.68	45.92	29.76
			5.4	24.66	6.45	7.72	45.95	29.80
Date:	03/27/2000							
Run/Station		Time						
3	1	19:00						
			1.	24.37	7.91	7.57	47.42	30.84
			2.5	24.39	7.99	7.53	47.62	31.03
			5.8	24.42	8.	7.46	47.74	31.11
Date:	03/27/2000							
Run/Station		Time						
3	2	19:05						
			1.	24.44	6.67	7.57	47.33	30.76

SHAKETT CREEK

	DEPTH (m)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
Date: 03/28/2000 Run/Station 5 1 Time 3:00						
	1.	24.38	7.1	7.5	44.23	28.56
	2.1	24.67	6.71	7.22	44.61	29.01
	3.2	24.4	6.88	7.23	44.07	29.05
Date: 03/28/2000 Run/Station 5 2 Time 3:12						
	1.	25.6	6.92	7.22	45.21	30.02
Date: 03/28/2000 Run/Station 5 3 Time 3:35						
	1.	23.89	6.71	7.33	46.12	29.53
	2.	23.98	6.23	7.57	45.22	29.37
	4.	23.9	6.55	7.55	45.51	30.10
Date: 03/28/2000 Run/Station 6 1 Time 7:00						
	1.	24.2	7.2	7.27	44.2	29.89
	2.2	25.1	7.14	7.28	44.12	30.10
	3.5	24.56	6.77	7.22	43.07	29.12
Date: 03/28/2000 Run/Station 6 2 Time 7:11						
	1.	24.63	6.55	7.52	45.48	29.40
Date: 03/28/2000 Run/Station 6 3 Time 7:41						
	1.	23.87	7.34	6.61	44.91	29.67
	2.2	23.98	7.51	6.55	44.93	29.12
	3.5	24.51	7.2	6.24	45.24	30.20
Date: 03/28/2000 Run/Station 7 1 Time 11:42						
	1.	23.84	7.49	7.32	46.23	30.05
	2.	23.47	7.35	7.29	43.38	30.09
	4.	23.41	7.19	7.28	46.47	30.22
Date: 03/28/2000 Run/Station 7 2 Time 11:51						
	1.	24.2	5.65	7.33	46.18	29.86
Date: 03/28/2000 Run/Station 7 3 Time 11:30						
	1.	24.69	7.22	6.81	43.07	27.29

SHAKETT CREEK

DEPTH (m)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
2.	24.59	6.72	6.59	43.7	28.10
3.	24.66	5.92	6.34	45.32	29.34

ASCI Corporation
Environmental Quality Laboratory

04/12/2000

RECEIVED APR 17 2000

ED BARBER & ASSOCIATES
3639 CORTEZ ROAD
SUITE 106
BRADENTON FL 34210

Cust. Proj: ED BARBER & ASSOCIATES

Attached are the results from 5 sample(s) received by the Environmental Quality Laboratory for analysis. The EQ Lab identification number is **1457 / 939**. Please refer to this number when requesting information regarding these data. Also, this letter should be attached to any data submitted by you to regulatory agencies.

The Laboratory has an approved FDEP Comprehensive Quality Assurance Plan (#87264) which specifies the procedures used in the analyses of the above referenced samples. In addition, the Laboratory is certified by FDOH for the analyses of environmental and drinking water samples (#E85086 & 85116) respectively. These certification numbers should be referenced when attesting to regulatory agencies regarding the protocols of the analytical procedures used.

The Environmental Quality Laboratory is plesed to have served you and hopes to meet any future laboratory needs you may have.

Sincerely,

Ken Kondel
Laboratory Operations Manager

ASCI Corporation
Environmental Quality Laboratory

RECEIVED APR 17 2000

CHEMISTRY SAMPLE ANALYSIS

Customer: ED BARBER & ASSOCIATES
3639 CORTEZ ROAD

Page: 1
Report Date: 04/12/2000

Customer Project: SHAKETT CREEK DIEL STUDY/SAMPLING

Labid: 1457 / 939
Sample#: 4338

Station#/Location: 1-MIDDLE

Sample Date/Time: 03/26/00 11:46

Analysis	Result	Units	Analysis Date	Analyst	MDL	Method	*DQ Code
TOT. SUSPENDED SOLIDS	17.	mg/L	03/31/00	AS	0.6	EPA 160.2	
TOT. NITRATE+NITRITE	0.005	mg/L	03/31/00	HB	0.002	EPA 353.2	
AMMONIA/AMMONIUM-NITROGEN	0.039	mg/L	03/31/00	HB	0.01	EPA 350.1	
TOT.KJEL.N	0.557	mg/L	03/31/00	HAN	0.1	EPA 351.2	
TOTAL PHOSPHORUS	0.089	mg/L	03/31/00	HAN	0.01	EPA 365.4	

NOTE: * See Attached Sheet for Data Qualifier Codes
Reported results not valid without accompanying signature page.

ASCI Corporation
Environmental Quality Laboratory

RECEIVED APR 17 2000

CHEMISTRY SAMPLE ANALYSIS

Customer: ED BARBER & ASSOCIATES
3639 CORTEZ ROAD

Page: 2
Report Date: 04/12/2000

Customer Project: SHAKETT CREEK DIEL STUDY/SAMPLING

Labid: 1457 / 939
Sample#: 4339

Station#/Location: 2-MIDDLE

Sample Date/Time: 03/28/00 11:51

Analysis	Result	Units	Analysis Date	Analyst	MDL	Method	*DQ Code
TOT. SUSPENDED SOLIDS	25.1	mg/L	03/31/00	AS	0.6	EPA 160.2	
TOT. NITRATE+NITRITE	0.008	mg/L	03/31/00	HB	0.002	EPA 353.2	
AMMONIA/AMMONIUM-NITROGEN	0.05	mg/L	03/31/00	HB	0.01	EPA 350.1	
TOT.KJEL.N	0.663	mg/L	03/31/00	HAN	0.1	EPA 351.2	
TOTAL PHOSPHORUS	0.137	mg/L	03/31/00	HAN	0.01	EPA 365.4	

NOTE: * See Attached Sheet for Data Qualifier Codes
Reported results not valid without accompanying signature page.

ASCI Corporation
Environmental Quality Laboratory

RECEIVED APR 17 2000

CHEMISTRY SAMPLE ANALYSIS

Customer: ED BARBER & ASSOCIATES
3639 CORTEZ ROAD

Page: 3
Report Date: 04/12/2000

Customer Project: SHAKETT CREEK DIEL STUDY/SAMPLING

Labid: 1457 / 939
Sample#: 4340

Station#/Location: 3-TOP

Sample Date/Time: 03/28/00 11:35

Analysis	Result	Units	Analysis Date	Analyst	MDL	Method	*DQ Code
TOT. SUSPENDED SOLIDS	12.6	mg/L	03/31/00	AS	0.6	EPA 160.2	
TOT. NITRATE+NITRITE	0.005	mg/L	03/31/00	HB	0.002	EPA 353.2	
AMMONIA/AMMONIUM-NITROGEN	0.041	mg/L	03/31/00	HB	0.01	EPA 350.1	
TOT.KJEL.N	0.903	mg/L	03/31/00	HAN	0.1	EPA 351.2	
TOTAL PHOSPHORUS	0.173	mg/L	03/31/00	HAN	0.01	EPA 365.4	

NOTE: * See Attached Sheet for Data Qualifier Codes .
Reported results not valid without accompanying signature page.

ASCI Corporation
Environmental Quality Laboratory

RECEIVED APR 17 2000

CHEMISTRY SAMPLE ANALYSIS

Customer: ED BARBER & ASSOCIATES
3639 CORTEZ ROAD

Customer Project: SHAKETT CREEK DIEL STUDY/SAMPLING

Station#/Location: 3-BOTTOM

Sample Date/Time: 03/28/00 11:37

Page: 5
Report Date: 04/12/2000

Labid: 1457 / 939
Sample#: 4342

Analysis	Result	Units	Analysis Date	Analyst	MDL	Method	*DQ Code
TOT. SUSPENDED SOLIDS	21.7	mg/L	03/31/00	AS	0.6	EPA 160.2	
TOT. NITRATE+NITRITE	0.006	mg/L	03/31/00	HB	0.002	EPA 353.2	
AMMONIA/AMMONIUM-NITROGEN	0.044	mg/L	03/31/00	HB	0.01	EPA 350.1	
TOT.KJEL.N	0.882	mg/L	03/31/00	HAN	0.1	EPA 351.2	
TOTAL PHOSPHORUS	0.172	mg/L	03/31/00	HAN	0.01	EPA 365.4	

NOTE: * See Attached Sheet for Data Qualifier Codes
Reported results not valid without accompanying signature page.

ASCI Corporation
Environmental Quality Laboratory

RECEIVED APR 17 2000

CHEMISTRY SAMPLE ANALYSIS

Customer: ED BARBER & ASSOCIATES
3639 CORTEZ ROAD

Page: 4
Report Date: 04/12/2000

Customer Project: SHAKETT CREEK DIEL STUDY/SAMPLING

Labid: 1457 / 939
Sample#: 4341

Station#/Location: 3-MIDDLE

Sample Date/Time: 03/28/00 11:36

Analysis	Result	Units	Analysis Date	Analyst	MDL	Method	*DQ Code
TOT. SUSPENDED SOLIDS	28.6	mg/L	03/31/00	AS	0.6	EPA 160.2	
TOT. NITRATE+NITRITE	0.017	mg/L	03/31/00	HB	0.002	EPA 353.2	
AMMONIA/AMMONIUM-NITROGEN	0.068	mg/L	03/31/00	HB	0.01	EPA 350.1	
TOT.KJEL.N	1.05	mg/L	03/31/00	HAN	0.1	EPA 351.2	
TOTAL PHOSPHORUS	0.193	mg/L	03/31/00	HAN	0.01	EPA 365.4	

NOTE: * See Attached Sheet for Data Qualifier Codes
Reported results not valid without accompanying signature page.

MARCH, JUNE, SEPT, DEC

Environmental Quality Laboratory
1009 Tamiami Trail Port Charlotte, FL 33953

Toll Free (877) 472-2712
Phone (941) 625-3137
Fax (941) 629-7467

Sample Information

Analysis Request

Client: Ed Barker & Associates ☐ new
Project: Shakett Creek Quaterly
Labid: 00/1457/939
Address:
Phone:
FAX:
HRS Form? ☐Yes ☒No

EQL Sample No.	Sample Description	Collection Date	Collection Time	Preserved in lab	Minerals TSS	Nutrients	NO2/O.P.	Metals	Bacteria	cBOD/TSS								# of Containers
4338	1-Mid	3/28/00	11:46	✓	Qt	½ pt												2
4339	2-Mid	3/28/00	11:51	✓														2
4340	3-Top	3/28/00	11:35	✓														2
4341	3-Mid	3/28/00	11:36	✓														2
4342	3-Bottom	3/28/00	11:37	✓	↓	↓												2

Comments: $762.64 special invoice

Chain of Custody

Total # of Containers = 10

Transfer	Released by:	Date	Time	Received by:
1st	Tracy L Finchum (Sample collector)	3/28/00	12:06	Maureen Sundeck
2nd				
3rd				
4th				
5th				

SJ → file

ED BARBER & ASSOCIATES

ENVIRONMENTAL CONSULTING

ENVIRONMENTAL MANAGEMENT SERVICES

Wildewood Professional Park
3639 Cortez Road West, Suite 211
Bradenton, Florida 34210
Tel: 941-739-3903 Fax: 941-739-3829

March 21, 2000

Ms. Rose Poynor, Habitat Restoration Section
Florida Department of Environmental Protection, Southwest District
3804 Coconut Palm Drive
Tampa , FL 33619

Re: File No. 58-01274663-001, Shakett Creek Navigational Dredging

Dear Ms. Poynor:

The enclosed material summarizes the diel water-quality survey performed by personnel from Environmental Quality Laboratory on February 28 and 29, 2000 pursuant to Specific Condition No. 39 of the referenced permit and their currently approved Quality Assurance Plan No. 870264. Monitoring locations associated with this activity are generally illustrated in figures 1 and 2 submitted with the water-quality monitoring report submitted to the District on November 9th. More specifically, the sites are located as follows:

- Site No. 1 is located on Cow Pen Slough about one-half mile upstream from Laurel Road and 250-feet upstream from the mouth of Fox Creek where it enters Cow Pen Slough,
- Site No. 2 is located about 200 feet west northwest of the oyster mitigation area where dredge material from the trestle and cove areas was placed, and
- Site No. 3 is located about 200 feet east northeast from the dredge channel at the railroad trestle.

Notes on previously submitted turbidity monitoring reports describe climatic conditions during the 28th and 29th as sunny with moderate winds generally out of the north.

The following information is transmitted herewith:

- List of monthly diel field measurements made on February 28th and 29th
- Analytical report for total suspended solids samples
- Chain-of-custody record

Please call me or Sam Johnston if there is a need to discuss this matter.

Sincerely,

Dean M. Mades, P.E.
Associate

cc: Chuck Listowski / WCIND
Bob Brady / EQL (letter only)
Bob Stetler / FDEP
Sam Johnston / EBA
Larry Olsen, Ph.D.

ASC Corporation
Environmental Quality Laboratory

March 7, 2000

RECEIVED MAR 1 3 2000

Mr. Dean Mades
Ed Barber & Associates
3639 Cortez Road
Suite 106
Bradenton, FL 34210

Re: Shakett Creek Diel Study

Dear Dean:

As we discussed by phone, March 8, 2000, the TSS water quality samples were neglected to be collected at the same time as the diel study. These samples were collected on March 2, 2000, two days after the ending of the diel study. We are sorry for any inconvenience this may have caused.

Sincerely,

Tracy L. Frickert

Tracy L. Frickert
Biologist

* Note -- There was no rain or unusual climate conditions during the interim period 3/1-2/00.

Dean M Mades
3/21/00

ASCI Corporation
Environmental Quality Laboratory

RECEIVED MAR 1 3 2000

Date	Run	Station	Time	DEPTH (m) ft	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
02/28/2000	1	1	11:00	1.	23.02	5.78	8.94	38.96	24.82
				2.5	23.01	5.71	8.92	39.17	25.00
				5.3	22.94	4.58	8.81	40.15	25.67
02/28/2000	1	2	11:10	1.	22.93	6.35	8.47	39.46	25.11
02/28/2000	1	3	12:00	1.	23.97	6.28	8.98	35.11	22.05
				2.2	23.48	5.76	8.92	36.74	23.27
				4.2	23.12	5.52	8.88	37.16	23.55
02/28/2000	2	1	3:00	1.	23.56	3.81	7.76	27.2	16.70
				2.1	23.48	2.23	7.78	27.18	16.65
				3.4	24.51	3.19	7.81	30.29	18.68
02/28/2000	2	2	3:15	1.	24.52	6.68	7.72	43.41	27.91
02/28/2000	2	3	3:45	1.	24.79	6.77	7.75	39.76	25.23
				2.1	23.55	5.95	7.71	41.1	26.33
				4.3	23.14	5.21	7.64	41.23	26.46
02/28/2000	3	1	19:00	1.	24.07	6.95	8.48	43.23	27.87
				2.5	24.37	6.69	8.53	43.88	28.31
				5.	24.33	6.77	8.63	44.19	28.51
02/28/2000	3	2	19:05	1.	23.74	6.65	8.34	43.68	28.09
02/28/2000	3	3	19:35	1.	25.5	7.84	8.18	38.33	24.37

Laboratory Testing & Environmental Services
1009 TAMIAMI TRAIL, PORT CHARLOTTE, FLORIDA 33953 • PH 941-625-3137 • TOLL FREE 1-877-452-2712
FX 941-[illegible] • EMAIL: [illegible]@ascicorp.com • WEBSITE: www.ascicorp.com

ASCI Corporation

Environmental Quality Laboratory

RECEIVED MAR 1 3 2000

			DEPTH (m)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
			2.1	24.87	7.3	8.17	39.35	25.07
			4.5	23.39	6.23	8.17	40.98	26.23
Date:		02/28/2000						
Run/Station		Time						
4	1	23:00						
			1.	23.72	6.84	7.76	41.18	26.38
Date:		02/28/2000						
Run/Station		Time						
4	2	23:05						
			1.	21.19	6.99	7.38	41.46	26.51
Date:		02/28/2000						
Run/Station		Time						
4	3	23:35						
			1.	24.89	6.59	6.95	37.95	24.05
			2.2	22.48	6.28	6.94	38.84	24.57
			3.7	23.74	6.12	6.98	40.44	25.85

ASCI Corporation

Environmental Quality Laboratory

			DEPTH (m)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
Date:	02/29/2000							
Run/Station		Time						
5	1	3:00						
			1.	23.14	6.77	8.62	41.05	25.32
			2.2	23.62	6.71	8.77	41.17	25.52
			4.4	23.34	6.99	8.63	40.2	24.07
Date:	02/29/2000							
Run/Station		Time						
5	2	3:10						
			1.	23.16	6.89	8.53	42.44	24.42
Date:	02/29/2000							
Run/Station		Time						
5	3	3:40						
			1.	23.22	6.88	8.32	41.61	25.10
			2.2	23.1	6.75	8.24	40.2	24.92
			4.4	23.12	6.68	8.22	40.12	25.01
Date:	02/29/2000							
Run/Station		Time						
6	1	7:00						
			1.	23.22	6.51	8.67	41.05	25.10
			2.1	23.15	6.67	8.66	41.15	25.17
			3.8	23.01	6.7	8.67	41.24	25.60
Date:	02/29/2000							
Run/Station		Time						
6	2	7:10						
			1.	23.6	6.67	8.47	42.24	24.89
Date:	02/29/2000							
Run/Station		Time						
6	3	7:40						
			1.	24.05	6.88	8.06	41.89	25.04
			2.2	23.89	7.04	8.05	40.56	24.89
			4.4	24.1	7.11	7.89	41.98	24.91
Date:	02/29/2000							
Run/Station		Time						
7	1	11:00						
			1.	21.95	5.89	7.21	43.96	28.40
			2.2	21.88	5.75	7.42	44.08	28.50
			3.7	21.86	5.45	7.67	44.12	28.51
Date:	02/29/2000							
Run/Station		Time						
7	2	11:05						
			1.	21.79	7.37	6.4	41.32	26.45
Date:	02/29/2000							
Run/Station		Time						
7	3	11:30						
			1.	23.16	5.34	6.51	37.01	23.54

ASCI Corporation

Environmental Quality Laboratory

RECEIVED MAR 1 3 2009

DEPTH (ft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
2.2	22.85	5.09	6.51	39.49	25.20
4.2	22.6	5.14	6.48	39.88	25.49

ASC Corporation

Environmental Quality Laboratory

03/06/2000

ED BARBER & ASSOCIATES
3639 CORTEZ ROAD
SUITE 106
BRADENTON FL 34210

RECEIVED MAR 1 3 2000

Cust. Proj: ED BARBER & ASSOCIATES

Attached are the results from 5 sample(s) received by the Environmental Quality Laboratory for analysis. The EQ Lab identification number is **1457 / 692**. Please refer to this number when requesting information regarding these data. Also, this letter should be attached to any data submitted by you to regulatory agencies.

The Laboratory has an approved FDEP Comprehensive Quality Assurance Plan (#87264) which specifies the procedures used in the analyses of the above referenced samples. In addition, the Laboratory is certified by FDOH for the analyses of environmental and drinking water samples (#E85086 & 85116) respectively. These certification numbers should be referenced when attesting to regulatory agencies regarding the protocols of the analytical procedures used.

The Environmental Quality Laboratory is plesed to have served you and hopes to meet any future laboratory needs you may have.

Sincerely,

Ken Kondel
Laboratory Operations Manager

ASCI Corporation

Environmental Quality Laboratory

RECEIVED MAR 1 3 2000

CHEMISTRY SAMPLE ANALYSIS

Page: 1

Report Date: 03/06/2000

Customer: ED BARBER & ASSOCIATES
3639 CORTEZ ROAD

LABID: 1457 / 692

Customer Proj: SHAKETT CREEK DIEL STUDY/SAMPLING

Sample Date/Time: 03/02/00 13:45 Sample#: 3414
Station/Location: 1-MID

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	24.	mg/L	EPA 160.2	0.6	03/04/00	AS	

Sample Date/Time: 03/02/00 13:50 Sample#: 3415
Station/Location: 2-MID

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	23.4	mg/L	EPA 160.2	0.6	03/04/00	AS	

Sample Date/Time: 03/02/00 13:55 Sample#: 3416
Station/Location: 3-TOP

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	23.	mg/L	EPA 160.2	0.6	03/04/00	AS	

Sample Date/Time: 03/02/00 14:00 Sample#: 3417
Station/Location: 3-MID

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	29.	mg/L	EPA 160.2	0.6	03/04/00	AS	

Sample Date/Time: 03/02/00 14:05 Sample#: 3418
Station/Location: 3-BOTTOM

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	21.4	mg/L	EPA 160.2	0.6	03/04/00	AS	

NOTE: * See attached Data Qualifier Codes
Reported results not valid without accompanying signature page.

Environmental Quality Laboratory, Inc.
1009 Tamiami Trail Port Charlotte, FL 33953
Phone (941) 625-3137
Fax (941) 629-7467

EQL

Sample Information

Analysis Request

page 1 of 1

Client: #1457 Ed Barber & Assoc. - ☐ new
Project: Shakett Creek Diel Sampling
Labid: 60/14571
Address:
Phone:
FAX:
HRS Form? ☐ Yes ☐ No

EQL Sample No.	Sample Description	Collection Date	Collection Time	Preserved	Minerals	Nutrients	NO2/O.P.	Metals	Bacteria	cBOD/TSS	# of Containers
3414	1-Mid	3/2/00	13:45		X						1
3415	2-Mid	↓	13:50		↓						1
3416	3-Top		13:55								1
3417	3-Mid		14:00								1
3418	3-Bottom	↓	14:05		↓						1

Comments:

Chain of Custody

Total # of Containers = 5

Transfer	Released by:	Date	Time	Received by:
1st	Tracy L. Thickett (Sample collector)	3/2/00	3:15	Patricia Sunderlin
2nd				
3rd				
4th				
5th				

RECEIVED MAR 13 2000

SJ → file

ED BARBER & ASSOCIATES

ENVIRONMENTAL CONSULTING

ENVIRONMENTAL MANAGEMENT SERVICES

Wildewood Professional Park
3639 Cortez Road West, Suite 211
Bradenton, Florida 34210
Tel: 941-739-3903 Fax: 941-739-3829

February 18, 2000

Ms. Rose Poynor, Habitat Restoration Section
Florida Department of Environmental Protection, Southwest District
3804 Coconut Palm Drive
Tampa , FL 33619

Re: File No. 58-01274663-001, Shakett Creek Navigational Dredging

Dear Ms. Poynor:

The enclosed material summarizes the diel water-quality survey performed by personnel from Environmental Quality Laboratory on January 25 and 26, 2000 pursuant to Specific Condition No. 39 of the referenced permit and their currently approved Quality Assurance Plan No. 870264. Monitoring locations associated with this activity are generally illustrated in figures 1 and 2 submitted with the water-quality monitoring report submitted to the District on November 9th. More specifically, the sites are located as follows:

- Site No. 1 is located on Cow Pen Slough about one-half mile upstream from Laurel Road and 250-feet upstream from the mouth of Fox Creek where it enters Cow Pen Slough,
- Site No. 2 is located about 200 feet west northwest of the mitigation area where dredge material is being placed, and
- Site No. 3 is located about 200 feet east northeast from the dredge channel at the railroad trestle.

Notes on previously submitted turbidity monitoring reports describe climatic conditions during the 25th and 26th as partly cloudy with moderate winds out of northeast.

The following information is transmitted herewith:

- List of monthly diel field measurements made on January 25th and 26th
- Analytical report for total suspended solids samples
- Chain-of-custody record

Please call me or Sam Johnston if there is a need to discuss this matter.

Sincerely,

Dean M. Mades, P.E.
Associate

cc: Chuck Listowski / WCIND
Bob Brady / EQL (letter only)
Bob Stetler / FDEP
Sam Johnston / EBA
Larry Olsen, Ph.D.

ASCI Corporation
Environmental Quality Laboratory

02/14/2000

ED BARBER & ASSOCIATES
3639 CORTEZ ROAD
SUITE 106
BRADENTON FL 34210

Cust. Proj: ED BARBER & ASSOCIATES

Attached are the results from 5 sample(s) received by the Environmental Quality Laboratory for analysis. The EQ Lab identification number is 1457 / 348. Please refer to this number when requesting information regarding these data. Also, this letter should be attached to any data submitted by you to regulatory agencies.

The Laboratory has an approved FDEP Comprehensive Quality Assurance Plan (#87264) which specifies the procedures used in the analyses of the above referenced samples. In addition, the Laboratory is certified by FDOH for the analyses of environmental and drinking water samples (#E85086 & 85116) respectively. These certification numbers should be referenced when attesting to regulatory agencies regarding the protocols of the analytical procedures used.

The Environmental Quality Laboratory is plesed to have served you and hopes to meet any future laboratory needs you may have.

Sincerely,

Ken Kondel
Laboratory Operations Manager

			DEPTH (ft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	Page SALINITY (o/oo)
Date:		01/25/2000						
Run/Station		Time						
1	3	12:00						
			1.	19.24	4.88	7.77	33.41	21.05
			1.3	19.28	4.52	7.78	35.73	22.63
			2.7	19.43	4.09	8.	37.82	24.07
Date:		01/25/2000						
Run/Station		Time						
1	1	12:35						
			1.	16.46	7.34	7.72	36.62	23.2
			2.5	16.5	7.34	7.73	36.84	23.42
			5.	16.57	7.52	7.77	37.03	23.5
Date:		01/25/2000						
Run/Station		Time						
1	2	12:40						
			1.	16.56	8.19	7.75	37.12	23.56
Date:		01/25/2000						
Run/Station		Time						
2	1	16:00						
			1.	16.95	8.06	7.49	39.04	24.64
			2.5	16.94	7.96	7.47	39.9	25.6
			5.	16.84	8.06	7.45	40.56	25.98
Date:		01/25/2000						
Run/Station		Time						
2	2	16:10						
			1.	17.12	7.85	7.55	38.62	24.57

			DEPTH (mft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	Page SALINITY (o/oo)
Date:		01/25/2000						
Run/Station		Time						
2	3	16:40						
			1.	18.4	6.21	7.57	36.54	23.1
			2.	18.06	7.03	7.58	35.56	23.14
			4.	18.26	6.89	7.61	36.41	23.06
Date:		01/25/2000						
Run/Station		Time						
3	1	20:00						
			1.	16.87	8.02	8.02	33.96	21.37
			2.	16.92	7.7	7.62	35.06	22.05
			3.	16.94	6.57	7.73	35.45	22.37
Date:		01/25/2000						
Run/Station		Time						
3	2	20:05						
			1.	16.01	8.23	7.66	38.12	24.25
Date:		01/25/2000						
Run/Station		Time						
3	3	20:25						
			1.	18.69	6.06	7.65	34.74	21.94
			2.	18.82	5.18	7.63	35.73	22.55
			4.	18.8	6.07	7.67	36.09	22.85

ASCI Corporation
Environmental Quality Laboratory

		DEPTH (m) FX	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	Page SALINITY (o/oo)
Date: 01/26/2000 Run/Station 4 1	Time 0:11						
		1.	16.36	7.87	7.85	39.14	24.99
Date: 01/26/2000 Run/Station 4 2	Time 0:15						
		1.	15.23	8.15	7.72	38.95	24.7
Date: 01/26/2000 Run/Station 4 3	Time 0:45						
		1.	18.15	6.07	7.63	36.08	22.82
		2.3	17.92	6.59	7.66	36.81	23.33
		3.5	17.6	7.54	7.74	37.11	23.57
Date: 01/26/2000 Run/Station 5 1	Time 4:05						
		1.	16.85	7.55	7.55	33.97	22.63
		2.	16.88	7.08	7.08	33.82	24.12
		4.	16.8	7.12	7.77	34.7	23.03
Date: 01/26/2000 Run/Station 5 2	Time 4:11						
		1.	16.22	7.82	7.63	36.01	22.37
Date: 01/26/2000 Run/Station 5 3	Time 4:36						
		1.	17.11	6.89	7.71	36.77	24.54

Laboratory Testing & Environmental Services
1009 TAMIAMI TRAIL, PORT CHARLOTTE, FLORIDA 33953 • PH 941-625-3137 • TOLL FREE 1-877-472-2712
FX 941-629-7467 • EMAIL: eqlab@ascicorp.com • WEBSITE: www.ascicorp.com

			DEPTH (m)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	Page SALINITY (o/oo)
			1.9	17.02	7.11	7.77	36.21	23.2
			3.8	16.51	6.91	7.68	35.71	23.32
Date:		01/26/2000						
Run/Station		Time						
6	1	8:00						
			1.	16.43	7.02	7.65	35.6	22.67
			2.1	16.56	7.11	7.63	34.89	23.12
			3.5	16.45	6.78	7.67	35.2	22.81
Date:		01/26/2000						
Run/Station		Time						
6	2	8:05						
			1.	16.04	6.81	7.66	35.78	23.34
Date:		01/26/2000						
Run/Station		Time						
6	3	8:32						
			1.	17.77	6.82	7.71	34.73	23.36
			2.	17.69	6.06	7.58	35.71	22.87
			4.	17.81	6.69	7.72	35.42	23.42
Date:		01/26/2000						
Run/Station		Time						
7	1	12:15						
			1.	15.66	1.48	7.36	25.78	15.92
			2.	15.66	1.49	7.42	26.19	16.09
			2.5	15.68	4.47	7.47	26.14	16.04
Date:		01/26/2000						
Run/Station		Time						
7	2	12:30						
			1.	15.11	8.46	7.67	36.22	22.94

ASCI Corporation

Environmental Quality Laboratory

			DEPTH (m)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	Page SALINITY (o/oo)
Date:		01/26/2000						
Run/Station		Time						
7	3	12:55						
			1.	18.34	4.36	7.41	35.55	22.51
			2.	18.35	4.3	7.42	35.86	22.67
			3.	18.38	4.46	7.44	35.75	22.6

Laboratory Testing & Environmental Services

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FX 941-629-7467 • EMAIL: eqlab@ascicorp.com • WEBSITE: www.ascicorp.com

CHEMISTRY SAMPLE ANALYSIS

Report Date: 02/14/2000

Customer: ED BARBER & ASSOCIATES
3639 CORTEZ ROAD

LABID: 1457 / 348

Customer Proj: SHAKETT CREEK DIEL STUDY/SAMPLING

Sample Date/Time: 01/26/00 12:15 Sample#: 1622
Station/Location: 1-MID

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	8.	mg/L	EPA 160.2	0.6	02/02/00	AB	

Sample Date/Time: 01/26/00 12:30 Sample#: 1623
Station/Location: 2-MID

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	3.7	mg/L	EPA 160.2	0.6	02/02/00	AB	

Sample Date/Time: 01/26/00 12:55 Sample#: 1624
Station/Location: 3-TOP

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	8.9	mg/L	EPA 160.2	0.6	02/02/00	AB	

Sample Date/Time: 01/26/00 13:00 Sample#: 1625
Station/Location: 3-MID

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	14.4	mg/L	EPA 160.2	0.6	02/02/00	AB	

Sample Date/Time: 01/26/00 13:05 Sample#: 1626
Station/Location: 3-BOTTOM

Analysis	Result	Units	Method	MDL	Analysis Date	Analyst	*DQ
TOT. SUSPENDED SOLIDS	27.2	mg/L	EPA 160.2	0.6	02/02/00	AB	

NOTE: * See attached Data Qualifier Codes
Reported results not valid without accompanying signature page.

Environmental Quality Laboratory, Inc.
1009 Tamiami Trail Port Charlotte, FL 33953
Phone (941) 625-3137
Fax (941) 629-7467

EQL

Sample Information

Analysis Request

page 1 of 1

Client: Ed Bartes & Assoc. ☐ new
Project: Shakett Creek Diel Study // Sampling
Labid: 001457348
Address:
Phone:
FAX:
HRS Form? ☐Yes ☒No

EQL Sample No.	Sample Description	Collection Date	Collection Time	Preserved	Minerals	Nutrients	NO2/O.P.	Metals	Bacteria	cBOD/TSS								# of Containers
					TSS													
1622	1-MID	11/26/00	12:15		X													1
1623	2-MID	"	12:30		"													1
1624	3-TOP	"	12:55		"													1
1625	3-MID	"	13:00		"													1
1626	3-Bottom	"	13:05		"													1

Comments: $562.64 invoice price

Chain of Custody

Total # of Containers = 5

Transfer	Released by:	Date	Time	Received by:
1st	[illegible] (Sample collector)	11/26/00	15:50	[illegible]
2nd				
3rd				
4th				
5th				

Data Qualifier Codes (Page 2)

Symbol	Meaning
Q	Sample held beyond the accepted holding time. This code shall be used if the value is derived from a sample that was prepared or analyzed after the approved holding time restrictions for sample preparation or analysis.
T	Value reported is less that the laboratory method detection limit. The value is reported for informational purposes, only and shall not be used in statistical analysis.
U	Indicates that the compound was analyzed for but not detected. This shall be used to indicate that the specified component was not detected. The value associated with the qualifier shall be the laboratory method detection limit. Unless requested by the client, less than the method detection limit values shall not be reported (see "T" above).
V	Indicates that analyte was detected in both the sample and the associated method blank. Note: the value in the blank shall not be subtracted from associated samples.
Y	The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
Z	Too many colonies were present (TNTC), the numeric value represents the filtration volume.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
?	Data is rejected and should not be used. Some of all of the quality control data for the analyte were outside criteria, and the presence or absence of the analyte cannot be determined from the data.
*	Not analyzed due to interference. Note: if reporting data to the U.S. Environmental Protection Agency Water Quality Storage and Retrieval (STORET) date base, a numerical value must be entered. Such values are not meaningful and shall not be used.

If more than one code applies, and the data is to be entered in STORET, only one code shall be reported. The code shall be selected based on the following hierarchy:

?
*, O
Y
V
H
B, K, L, M, I, T, Z, U, N, Q
A, F
J

The following codes deal with certain aspects of field activities. The codes shall be used if the laboratory has knowledge of the specific sampling event. The codes shall be added by the organization collecting samples if they apply:

D	Measurement was made in the field (i.e. in situ). This applies to any value (ex. pH, specific conductance, etc.) that was obtained under field conditions using approved analytical methods. Note: When data is to be entered into STORET, and parameter code specifies a field measurement (e.g. "Field pH"), this code is not required.
E	Indicates that extra samples were taken at composite stations.
R	Significant rain in the past 48 hours. This code shall be used where the rainfall might contribute to a lower than normal value.
!	Data deviates from historically established concentration ranges.

Environmental Quality Laboratory, Inc.

Data Qualifier Codes (Page 1)

Symbol	Meaning
A	Value reported is the mean (average) of two or more determinations. This code shall be used if the results of two or more discrete and separate samples are averaged. These samples shall have been processed and analyzed (e.g. laboratory replicate samples, field duplicates, etc.) independently. Do not use this code if the data are the result of replicate analysis on the same sample aliquot, extract or digestate. Under most conditions, replicate values shall be reported as individual analyses.
B	Results based upon colony counts outside the acceptable range. This code applies to microbiological tests and specifically to membrane filter colony counts. The code is to be used if the colony count is generated from a plate in which the total number of coliform colonies exceeds the method indicated ideal ranges which are: Total Coliforms: 20-80 colonies Fecal Coliforms: 20-60 colonies
F	When reporting species: F indicates the female sex
H	Value based on field kit determination; results may not be accurate. This code shall be used if a field screening test (i.e. field gas chromatograph data, immunoassay, vendor-supplied field kit, etc.) was used to generate the value and the field kit or method has not been recognized by the Department as equivalent to laboratory methods.
J	Estimated value; value not accurate. This code shall be used in the following instances: 1. surrogate recovery limits have been exceeded; 2. no known quality control criteria exists for the component; 3. the reported value failed to meet the established quality control criteria for either precision or accuracy; 4. the sample matrix interfered with the ability to make any accurate determination; or 5. if the data is questionable because of improper laboratory or field protocols (e.g. composite sample was collected instead of a grab sample). Note a "J" value shall be accompanied by justification for its use. A "J" value shall not be used if another code applies (e.g., K, L, M, T, V, Y, I)
K	Off-scale low. Actual value is known to be less that the value given. This code shall be used if: 1. The value is less than the lowest calibration standard and the calibration curve is known to be non-linear; or 2. The value is known to be less than the reported value based on sample size, dilution or some other variable. This code shall not be used to report values that are less than the laboratory practical quantitation limit or laboratory method detection limit.
L	Off-scale high. Actual value is known to be greater than value given. To be used when the concentration of the analyte is above the acceptable level for quantitation (exceeds the linear range or highest calibration standard) and the calibration curve is known to exhibit a negative deflection.
M	When reporting chemical analyses: presence of material is verified but not quantified; the actual value is less than the value given. The reported value shall be the laboratory practical quantitation limit. This code shall be used if the level is too low to permit accurate quantification, but the estimated concentration is greater than the method detection limit. If the value is less than the method detection limit use "T" below. When reporting Oxygen Reduction Potential or Temperature: indicates a negative value When reporting Species: indicates male sex.
N	Presumptive evidence of presence of material. This qualifier shall be used if: 1. the component has been tentatively identified based on mass spectral library search; 2. there is an indication that the analyte is present, but quality control requirements for confirmation were not met (i.e. presence of analyte was not confirmed by alternate procedures).
O	Sampled, but analysis lost or not performed. Note: if reporting data to the U.S. Environmental Protection Agency Water Quality Storage and Retrieval (STORET) data base, a numerical value must be entered. Such values are not meaningful and shall not be used.

ED BARBER & ASSOCIATES

ENVIRONMENTAL CONSULTING

ENVIRONMENTAL MANAGEMENT SERVICES

Wildewood Professional Park
3639 Cortez Road West, Suite 211
Bradenton, Florida 34210
Tel: 941-739-3903 Fax: 941-739-3829

December 30, 1999

Ms. Rose Poynor, Habitat Restoration Section
Florida Department of Environmental Protection, Southwest District
3804 Coconut Palm Drive
Tampa , FL 33619

Re: File No. 58-01274663-001, Shakett Creek Navigational Dredging

Dear Ms. Poynor:

The enclosed material summarizes the diel water-quality survey performed by personnel from Environmental Quality Laboratory on December 14 and 15, 1999 pursuant to Specific Condition No. 39 of the referenced permit and their currently approved Quality Assurance Plan No. 870264. Monitoring locations associated with this activity are generally illustrated in figures 1 and 2 submitted with the water-quality monitoring report submitted to the District on November 9th. More specifically, the sites are located as follows:

- Site No. 1 is located on Cow Pen Slough about one-half mile upstream from Laurel Road and 250-feet upstream from the mouth of Fox Creek where it enters Cow Pen Slough,
- Site No. 2 is located about 200 feet west northwest of the mitigation area where dredge material is being placed, and
- Site No. 3 is located about 200 feet east northeast from the dredge channel at the railroad trestle.

Notes on previously submitted turbidity monitoring reports describe climatic conditions during the 14th and 15th as clear to partly cloudy, with light winds out of the east and northeast.

The following information is transmitted herewith:

- List of monthly diel field measurements made on December 14th and 15th
- Analytical report for total suspended solids samples
- Chain-of-custody record

Please call me or Sam Johnston if there is a need to discuss this matter.

Sincerely,

Dean M. Mades, P.E.
Associate

cc: Chuck Listowski / WCIND
Bob Brady / EQL (letter only)
Bob Stetler / FDEP
Sam Johnston / EBA
Larry Olsen, Ph.D.

ED BARBER & ASSOCIATES
3639 CORTEZ RD
BRADENTON FL 34210

	DEPTH (m)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
Date: 12/14/1999 Run/Station 1 1 Time 11:05						
	1.	23.58	6.63	7.87	44.31	28.68
Date: 12/14/1999 Run/Station 1 2 Time 11:11						
	1.	23.89	7.03	7.77	38.91	25.03
Date: 12/14/1999 Run/Station 1 3 Time 11:35						
	1.	23.7	7.17	7.65	27.96	17.5
	1.6	23.91	6.7	7.65	31.06	19.48
	2.7	24.04	6.36	7.64	41.55	26.72
Date: 12/14/1999 Run/Station 2 1 Time 15:37						
	1.	24.44	7.21	7.98	44.68	28.91
Date: 12/14/1999 Run/Station 2 2 Time 15:39						
	1.	24.85	7.82	7.97	43.06	27.71
Date: 12/14/1999 Run/Station 2 3 Time 15:13						
	1.	24.32	7.62	7.76	39.7	25.02
	2.1	24.1	6.97	7.64	42.46	27.32
	4.1	23.71	6.32	7.39	44.3	28.63
Date: 12/14/1999 Run/Station 3 1 Time 19:05						
	1.	23.89	6.63	7.99	43.8	28.3
Date: 12/14/1999 Run/Station 3 2 Time 19:10						
	1.	24.06	6.59	7.7	43.97	28.36
Date: 12/14/1999 Run/Station 3 3 Time 19:40						
	1.	24.4	7.22	7.76	32.47	22.14
	2.1	24.24	6.07	7.76	39.73	25.3
	4.3	23.71	5.83	7.72	44.05	28.44
Date: 12/14/1999 Run/Station 4 1 Time 22:55						

RECEIVED DEC 2 7 1999

3639 CORTEZ RD
BRADENTON FL 34210

DEPTH (m)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
1.	23.69	6.53	7.86	45.07	29.24

Date: 12/14/1999 Time
Run/Station
4 2 22:59

1.	23.42	7.16	7.78	43.36	27.75

Date: 12/14/1999 Time
Run/Station
4 3 23:15

1.	24.19	6.14	7.78	38.19	23.14
2.4	24.15	5.77	7.75	43.71	28.21
4.8	23.8	5.32	7.73	44.34	28.64

Date: 12/15/1999 Time
Run/Station
5 1 3:05

1.	23.22	6.49	7.97	44.9	29.21

Date: 12/15/1999 Time
Run/Station
5 2 3:07

1.	22.16	7.13	7.78	42.02	28.15

Date: 12/15/1999 Time
Run/Station
5 3 3:25

1.	23.88	5.81	7.7	33.85	21.44
2.1	24.17	5.31	7.69	43.26	27.84
4.2	24.06	5.52	7.72	44.04	28.4

Date: 12/15/1999 Time
Run/Station
6 1 7:05

1.	23.08	6.01	7.84	39.77	25.4

Date: 12/15/1999 Time
Run/Station
6 2 7:09

1.	22.59	5.08	7.62	42.5	27.82

Date: 12/15/1999 Time
Run/Station
6 3 7:25

1.	24.05	5.44	7.71	36.41	22.75
2.2	24.03	4.95	7.69	41.14	26.79
4.4	23.71	4.66	7.66	44.24	28.56

Date: 12/14/1999 Time
Run/Station
7 1 11:20

1.	23.01	6.69	7.73	40.04	25.53

ED BARBER & ASSOCIATES
3639 CORTEZ RD
BRADENTON FL 34210

		DEPTH (m) ~~(m)~~ ft	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
Date: 12/15/1999 Time							
Run/Station							
7	2	11:35					
		1.	21.78	7.71	7.74	38.07	26.71
Date: 12/15/1999 Time							
Run/Station							
7	3	12:00					
		1.	24.03	6.12	7.19	35.56	23.26
		2.	24.13	5.29	7.13	41.27	26.75
		4.1	24.1	5.45	7.1	43.91	28.33

RECEIVED DEC 2 7 1999

CHEMISTRY SAMPLE ANALYSIS

Customer: ED BARBER & ASSOCIATES
3639 CORTEZ ROAD

Report Date: 12/20/1999
Page: 1

Customer Proj: SHAKETT CREEK DIEL STUDY/SAMPLING

LABID: 1457 / 23765

Sample Date/Time: 12/15/1999 11:20 Sample#: 16872
Station/Location: 1-MID

Analysis	Result	Units	Method	MDL	Analysis Date	*DQ
TOT. SUSPENDED SOLIDS	14.8	mg/L	EPA 160.2	0.6	12/16/99	

Sample Date/Time: 12/15/1999 11:35 Sample#: 16875
Station/Location: 2-MID

Analysis	Result	Units	Method	MDL	Analysis Date	*DQ
TOT. SUSPENDED SOLIDS	13.8	mg/L	EPA 160.2	0.6	12/16/99	

Sample Date/Time: 12/15/1999 12:00 Sample#: 16877
Station/Location: 3-TOP

Analysis	Result	Units	Method	MDL	Analysis Date	*DQ
TOT. SUSPENDED SOLIDS	15.3	mg/L	EPA 160.2	0.6	12/16/99	

NOTE: * See attached Data Qualifier Codes
Reported results not valid without accompanying signature page.

RECEIVED DEC 27 1999

CHEMISTRY SAMPLE ANALYSIS

Customer: ED BARBER & ASSOCIATES
3639 CORTEZ ROAD

Report Date: 12/20/1999
Page: 2

Customer Proj: SHAKETT CREEK DIEL STUDY/SAMPLING

LABID: 1457 /23765

Sample Date/Time: 12/15/1999 12:00 Sample#: 16878
Station/Location: 3-MID

Analysis	Result	Units	Method	MDL	Analysis Date	*DQ
TOT. SUSPENDED SOLIDS	12.	mg/L	EPA 160.2	0.6	12/16/99	

Sample Date/Time: 12/15/1999 12:00 Sample#: 16879
Station/Location: 3-BOTTOM

Analysis	Result	Units	Method	MDL	Analysis Date	*DQ
TOT. SUSPENDED SOLIDS	17.	mg/L	EPA 160.2	0.6	12/16/99	

NOTE: * See attached Data Qualifier Codes
Reported results not valid without accompanying signature page.

Environmental Quality Laboratory, Inc. **EQL Environmental Services, Inc.**
1009 TAMIAMI TRAIL, PORT CHARLOTTE, FLORIDA 33953 • PH 941-625-3137 • FX 941 629-7467

RECEIVED DEC 2 7 1999

Environmental Quality Laboratory, Inc.
1009 Tamiami Trail Port Charlotte, FL 33953
Phone (941) 625-3137
Fax (941) 629-7467

EQL

Sample Information

Analysis Request

Client: Ed Fuller & Assoc. ☐ new
Project: Shuketh Creek
Labid: 99/1457/23765
Address:
Phone:
FAX:
HRS Form? ☐Yes ☒ No

EQL Sample No.	Sample Description	Collection Date	Collection Time	Preserved	Minerals TSS	Nutrients	NO2/O.P.	Metals	Bacteria	cBOD/TSS								# of Containers
16871	1T				DT													
16872	1M																	
16873	1B																	
16874	2T																	
16875	2M																	
16876	2B																	
16877	3T																	
16878	3M																	
16879	3B				V													

Comments:

Chain of Custody

Total # of Containers = _____

Transfer	Released by:	Date	Time	Received by:
1st	(Sample collector)			Melanie Sandale
2nd				
3rd				
4th				
5th				

Environmental Quality Laboratory, Inc.

Data Qualifier Codes (Page 1)

Symbol	Meaning
A	Value reported is the mean (average) of two or more determinations. This code shall be used if the results of two or more discrete and separate samples are averaged. These samples shall have been processed and analyzed (e.g. laboratory replicate samples, field duplicates, etc.) independently. Do not use this code if the data are the result of replicate analysis on the same sample aliquot, extract or digestate. Under most conditions, replicate values shall be reported as individual analyses.
B	Results based upon colony counts outside the acceptable range. This code applies to microbiological tests and specifically to membrane filter colony counts. The code is to be used if the colony count is generated from a plate in which the total number of coliform colonies exceeds the method indicated ideal ranges which are: Total Coliforms: 20-80 colonies Fecal Coliforms: 20-60 colonies
F	When reporting species: F indicates the female sex
H	Value based on field kit determination; results may not be accurate. This code shall be used if a field screening test (i.e. field gas chromatograph data, immunoassay, vendor-supplied field kit, etc.) was used to generate the value and the field kit or method has not been recognized by the Department as equivalent to laboratory methods.
J	Estimated value; value not accurate. This code shall be used in the following instances: 1. surrogate recovery limits have been exceeded; 2. no known quality control criteria exists for the component; 3. the reported value failed to meet the established quality control criteria for either precision or accuracy; 4. the sample matrix interfered with the ability to make any accurate determination; or 5. if the data is questionable because of improper laboratory or field protocols (e.g. composite sample was collected instead of a grab sample). Note a "J" value shall be accompanied by justification for its use. A "J" value shall not be used if another code applies (e.g., K, L, M, T, V, Y, I)
K	Off-scale low. Actual value is known to be less that the value given. This code shall be used if: 1. The value is less than the lowest calibration standard and the calibration curve is known to be non-linear; or 2. The value is known to be less than the reported value based on sample size, dilution or some other variable. This code shall not be used to report values that are less than the laboratory practical quantitation limit or laboratory method detection limit.
L	Off-scale high. Actual value is known to be greater than value given. To be used when the concentration of the analyte is above the acceptable level for quantitation (exceeds the linear range or highest calibration standard) and the calibration curve is known to exhibit a negative deflection.
M	When reporting chemical analyses: presence of material is verified but not quantified; the actual value is less than the value given. The reported value shall be the laboratory practical quantitation limit. This code shall be used if the level is too low to permit accurate quantification, but the estimated concentration is greater than the method detection limit. If the value is less than the method detection limit use "T" below. When reporting Oxygen Reduction Potential or Temperature: indicates a negative value When reporting Species: indicates male sex.
N	Presumptive evidence of presence of material. This qualifier shall be used if: 1. the component has been tentatively identified based on mass spectral library search; 2. there is an indication that the analyte is present, but quality control requirements for confirmation were not met (i.e. presence of analyte was not confirmed by alternate procedures).
O	Sampled, but analysis lost or not performed. Note: if reporting data to the U.S. Environmental Protection Agency Water Quality Storage and Retrieval (STORET) data base, a numerical value must be entered. Such values are not meaningful and shall not be used.

Data Qualifier Codes (Page 2)

Symbol	Meaning
Q	Sample held beyond the accepted holding time. This code shall be used if the value is derived from a sample that was prepared or analyzed after the approved holding time restrictions for sample preparation or analysis.
T	Value reported is less that the laboratory method detection limit. The value is reported for informational purposes, only and shall not be used in statistical analysis.
U	Indicates that the compound was analyzed for but not detected. This shall be used to indicate that the specified component was not detected. The value associated with the qualifier shall be the laboratory method detection limit. Unless requested by the client, less than the method detection limit values shall not be reported (see "T" above).
V	Indicates that analyte was detected in both the sample and the associated method blank. Note: the value in the blank shall not be subtracted from associated samples.
Y	The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
Z	Too many colonies were present (TNTC), the numeric value represents the filtration volume.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
?	Data is rejected and should not be used. Some of all of the quality control data for the analyte were outside criteria, and the presence or absence of the analyte cannot be determined from the data.
*	Not analyzed due to interference. Note: if reporting data to the U.S. Environmental Protection Agency Water Quality Storage and Retrieval (STORET) date base, a numerical value must be entered. Such values are not meaningful and shall not be used.

If more than one code applies, and the data is to be entered in STORET, only one code shall be reported. The code shall be selected based on the following hierarchy:

?
*, O
Y
V
H
B, K, L, M, I, T, Z, U, N, Q
A, F
J

The following codes deal with certain aspects of field activities. The codes shall be used if the laboratory has knowledge of the specific sampling event. The codes shall be added by the organization collecting samples if they apply:

D	Measurement was made in the field (i.e. in situ). This applies to any value (ex. pH, specific conductance, etc.) that was obtained under field conditions using approved analytical methods. Note: When data is to be entered into STORET, and parameter code specifies a field measurement (e.g. "Field pH"), this code is not required.
E	Indicates that extra samples were taken at composite stations.
R	Significant rain in the past 48 hours. This code shall be used where the rainfall might contribute to a lower than normal value.
!	Data deviates from historically established concentration ranges.

ED BARBER & ASSOCIATES

ENVIRONMENTAL CONSULTING

ENVIRONMENTAL MANAGEMENT SERVICES

Wildewood Professional Park
3639 Cortez Road West, Suite 211
Bradenton, Florida 34210
Tel: 941-739-3903 Fax: 941-739-3829

November 22, 1999

Ms. Rose Poynor, Habitat Restoration Section
Florida Department of Environmental Protection, Southwest District
3804 Coconut Palm Drive
Tampa , FL 33619

Re: File No. 58-01274663-001, Shakett Creek Navigational Dredging

Dear Ms. Poynor:

The enclosed material summarizes the diel water-quality survey performed by personnel from Environmental Quality Laboratory on November 8 and 9, 1999 pursuant to Specific Condition No. 39 of the referenced permit and their currently approved Quality Assurance Plan No. 870264. Monitoring locations associated with this activity are generally illustrated in figures 1 and 2 submitted with the water-quality monitoring report submitted to the District on November 9th. More specifically, the sites are located as follows:

- Site No. 1 is located on Cow Pen Slough about one-half mile upstream from Laurel Road and 250-feet upstream from the mouth of Fox Creek where it enters Cow Pen Slough,
- Site No. 2 is located about 200 feet west northwest of the mitigation area where dredge material is being placed, and
- Site No. 3 is located about 200 feet east northeast from the dredge channel at the railroad trestle.

#2 relocated

Note that the location of Site No. 2 referenced in this report is about 700 feet downstream from the location sampled during the preceding diel survey. Both locations are shallow, quiescent embayments. Site No. 2 was relocated because the current location is closer to the mitigation area and the previous location was too shallow to access throughout an entire tidal cycle without re-suspending bottom sediment.

Notes on previously submitted turbidity monitoring reports describe climatic conditions between November 5th and 9th as clear and sunny, with light winds out of the east and northeast.

The following information is transmitted herewith:

- List of monthly diel field measurements made on November 8th and 9th
- Analytical report for total suspended solids samples
- Chain-of-custody record

Please call me or Sam Johnston if there is a need to discuss this matter.

Sincerely,

Dean M. Mades, P.E.
Associate

cc: Chuck Listowski / WCIND
Bob Brady / EQL (letter only)
Bob Stetler / FDEP
Sam Johnston / EBA
Larry Olsen, Ph.D.

November 17, 1999

ED BARBER & ASSOCIATES
3639 CORTEZ ROAD
SUITE 106
BRADENTON FL 34210

Cust. Proj:SHAKETT CREEK DIEL STUDY/SAMPLIN

Attached are the results from 10 sample(s) received by the Environmental Quality Laboratory for analysis. The EQ Lab identification number is 99/1457/23470; please refer to this number when requesting information regarding these data. Also, this letter should be attached to any data submitted by you to regulatory agencies.

The Laboratory has an approved FDEP Comprehensive Quality Assurance Plan (#870264) which specifies the procedures used in the analyses of the above referenced samples. In addition, the Laboratory is certified by FDOH for the analysis of environmental and drinking water samples (#E85086 & 85116) respectively. These certification numbers should be referenced when attesting to regulatory agencies regarding the protocols of the analytical procedures used.

The Environmental Quality Laboratory is pleased to have served you and hopes to meet any future laboratory needs you may have.

Sincerely,

Ken Kondel
Laboratory Operations Manager

	DEPTH (m) ft	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
Date: 11/08/1999 Run/Station 1 3 Time 11:30						
	1.0	21.88	4.87	7.93	41.770	27.19
	1.5	21.64	4.52	7.88	44.360	28.44
	2.5	21.69	4.74	7.86	44.080	28.43
Date: 11/08/1999 Run/Station 1 1 Time 12:06						
	1.0	22.91	6.65	7.70	24.420	14.64
	2.4	22.38	5.86	7.76	27.640	16.13
	4.8	22.35	4.93	7.67	35.110	22.16
Date: 11/08/1999 Run/Station 1 2 Time 12:59						
	1.0	22.77	6.18	7.97	38.800	24.85
Date: 11/08/1999 Run/Station 2 1 Time 15:45						
	1.0	23.63	7.50	7.94	24.360	14.65
	2.3	22.80	6.37	7.90	27.590	16.89
	4.5	21.99	5.24	7.89	36.230	22.89
Date: 11/08/1999 Run/Station 2 3 Time 15:55						
	1.0	23.43	7.33	8.00	34.260	21.90
	1.8	23.32	6.96	8.00	34.400	21.62
	2.5	23.16	6.63	8.03	36.150	22.92
Date: 11/08/1999 Run/Station 2 2 Time 16:12						
	1.0	23.74	7.09	7.99	32.400	20.07
Date: 11/08/1999 Run/Station 3 3 Time 19:40						
	1.0	21.86	6.90	7.74	26.190	15.85
	2.4	22.49	6.52	7.95	28.370	17.56

	DEPTH (ft)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
	4.8	22.16	5.85	7.91	36.610	23.10
Date: 11/08/1999 Run/Station Time 3 1 20:15						
	1.0	22.58	6.26	7.97	42.310	26.94
	3.0	22.58	6.28	7.96	42.310	27.40
	6.0	22.59	6.05	7.93	44.560	28.87
Date: 11/08/1999 Run/Station Time 3 2 20:20						
	1.0	22.68	6.46	7.88	40.620	24.60
	1.0	21.93	6.06	7.75	40.550	25.17
Date: 11/08/1999 Run/Station Time 4 1 23:15						
	1.0	22.12	6.24	7.89	40.850	26.18
	1.5	22.14	6.28	7.86	40.890	26.21
	3.0	22.16	5.87	7.80	46.240	30.41
Date: 11/08/1999 Run/Station Time 4 3 23:45						
	1.0	22.18	6.25	7.88	28.030	17.20
	2.8	22.68	6.59	7.89	31.100	19.52
	5.6	22.52	6.21	7.87	37.600	23.88

	DEPTH (m)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
Date: 11/09/1999 Run/Station 5 2 Time 3:15	1.0	21.61	6.45	7.77	32.680	20.43
Date: 11/09/1999 Run/Station 5 1 Time 3:20	1.0	21.90	6.37	7.89	37.020	23.55
	2.5	22.32	3.41	7.88	41.800	27.11
	5.0	22.28	6.16	7.80	45.190	28.93
Date: 11/09/1999 Run/Station 5 3 Time 4:00	1.0	21.22	6.24	7.82	27.650	16.96
	2.5	22.32	6.21	7.85	28.710	17.69
	5.0	22.55	6.07	7.83	37.540	23.84
Date: 11/09/1999 Run/Station 6 2 Time 7:10	1.0	20.40	5.91	7.77	31.650	19.77
Date: 11/09/1999 Run/Station 6 1 Time 7:50	1.0	21.84	6.82	7.92	40.050	25.52
Date: 11/09/1999 Run/Station 6 3 Time 8:20	1.0	22.17	6.57	7.89	25.590	15.63
	2.1	22.28	6.14	7.87	27.460	16.91
	4.3	22.62	5.92	7.82	37.980	24.18
Date: 11/09/1999 Run/Station 7 2 Time 11:11	1.0	23.03	4.46	7.72	35.490	22.25

	DEPTH (m)	TEMP (c)	D.O. (ppm)	pH	COND (mmho)	SALINITY (o/oo)
Date: 11/09/1999 Run/Station 7 1 Time 11:16						
	1.0	22.09	6.06	7.78	37.470	24.44
	3.3	22.04	6.15	7.83	40.260	25.61
	6.7	21.92	5.65	7.82	40.390	25.75
Date: 11/09/1999 Run/Station 7 3 Time 11:45						
	1.0	22.90	7.04	7.99	26.110	15.71
	2.3	22.55	6.17	7.97	30.160	19.23
	4.6	22.54	5.38	7.91	37.400	23.80

EQL

CHEMISTRY SAMPLE ANALYSIS

Customer: ED BARBER & ASSOCIATES
3639 CORTEZ ROAD

Report Date: 11/17/1999
Page: 1

Customer Proj: SHAKETT CREEK DIEL STUDY/SAMPLING

LABID: 99/ 1457/23470

Sample Date/Time: 11/15/1999 11:00 Sample#: 15518
Station/Location: 1-TOP

Analysis	Result	Units	Method	MDL	Analysis Date	*DQ
TOT. SUSPENDED SOLIDS	7.6	mg/L	EPA 160.2	0.6	11/16/99	

Sample Date/Time: 11/15/1999 11:05 Sample#: 15519
Station/Location: 1-MID

Analysis	Result	Units	Method	MDL	Analysis Date	*DQ
TOT. SUSPENDED SOLIDS	21.	mg/L	EPA 160.2	0.6	11/16/99	

Sample Date/Time: 11/15/1999 11:10 Sample#: 15520
Station/Location: 1-BOTTOM

Analysis	Result	Units	Method	MDL	Analysis Date	*DQ
TOT. SUSPENDED SOLIDS	10.8	mg/L	EPA 160.2	0.6	11/16/99	

Sample Date/Time: 11/15/1999 12:00 Sample#: 15521
Station/Location: 2-MID

Analysis	Result	Units	Method	MDL	Analysis Date	*DQ
TOT. SUSPENDED SOLIDS	9.8	mg/L	EPA 160.2	0.6	11/16/99	

NOTE: * See attached Data Qualifier Codes
Reported results not valid without accompanying signature page.

EQL

CHEMISTRY SAMPLE ANALYSIS

Customer: ED BARBER & ASSOCIATES
3639 CORTEZ ROAD

Report Date: 11/17/1999
Page: 2

Customer Proj: SHAKETT CREEK DIEL STUDY/SAMPLING LABID: 99/ 1457/23470

Sample Date/Time: 11/15/1999 12:20 Sample#: 15522
Station/Location: 3-TOP

Analysis	Result	Units	Method	MDL	Analysis Date	*DQ
TOT. SUSPENDED SOLIDS	9.8	mg/L	EPA 160.2	0.6	11/16/99	

Sample Date/Time: 11/15/1999 12:25 Sample#: 15523
Station/Location: 3-MID

Analysis	Result	Units	Method	MDL	Analysis Date	*DQ
TOT. SUSPENDED SOLIDS	10.4	mg/L	EPA 160.2	0.6	11/16/99	

Sample Date/Time: 11/15/1999 12:30 Sample#: 15524
Station/Location: 3-BOTTOM

Analysis	Result	Units	Method	MDL	Analysis Date	*DQ
TOT. SUSPENDED SOLIDS	16.8	mg/L	EPA 160.2	0.6	11/16/99	

Sample Date/Time: Sample#: 15587
Station/Location: 1 STATION #1

Analysis	Result	Units	Method	MDL	Analysis Date	*DQ
SECCHI (Field)	0.7	ft.		0.	11/08/99	D

NOTE: * See attached Data Qualifier Codes
Reported results not valid without accompanying signature page.

Environmental Quality Laboratory, Inc. **EQL Environmental Services, Inc.**
1009 TAMIAMI TRAIL, PORT CHARLOTTE, FLORIDA 33953 • PH 941-625-3137 • FX 941 [illegible]-7467

EQL

CHEMISTRY SAMPLE ANALYSIS

Customer: ED BARBER & ASSOCIATES
3639 CORTEZ ROAD

Report Date: 11/17/1999
Page: 3

Customer Proj: SHAKETT CREEK DIEL STUDY/SAMPLING LAB ID: 99/ 1457/23470

Sample Date/Time: Sample#: 15588
Station/Location: 2 STATION #2

Analysis	Result	Units	Method	MDL	Analysis Date	*DQ
SECCHI (Field)	2.	ft.		0.	11/08/99	D

Sample Date/Time: Sample#: 15589
Station/Location: 3 STATION #3

Analysis	Result	Units	Method	MDL	Analysis Date	*DQ
SECCHI (Field)	2.	ft.		0.	11/08/99	D

NOTE: * See attached Data Qualifier Codes
Reported results not valid without accompanying signature page.

Environmental Quality Laboratory, Inc.
1009 Tamiami Trail Port Charlotte, FL 33953
Phone (941) 625-3137
Fax (941) 629-7467

EQL

Sample Information

Analysis Request

page 1 of 1

Client: Ed Bacher & Associates ☐ new
Project: Shakett Creek Dredge Dred
Labid: 99/1457/23478
Address:
Phone:
FAX:
HRS Form? ☐Yes ☒No

EQL Sample No.	Sample Description	Collection Date	Collection Time	Preserved	Minerals - TSS	Nutrients	NO2/O-P	Metals	Bacteria	eBOD/TSS	# of Containers
15518	1- Surface	11.15.99	11:00		QH						1
15519	1- Mid		11:05								1
15520	1- Bottom		11:10								1
15521	2- Mid		2:00								1
15522	3- Surface		12:20								1
15523	3- Mid		12:25								1
15524	3- Bottom	↓	12:30		↓						1

Comments: Invoice total $592.64 ($30.00 Equip Fee + $562.64)

Chain of Custody

Total # of Containers = 7

Transfer	Released by:	Date	Time	Received by:
1st	Robert Brady (Sample collector)	11/16/99	0900 AM	Marianne Sandeck
2nd	11/15/99 @ 14:00			
3rd				
4th				
5th				

SJ- File

ED BARBER & ASSOCIATES

ENVIRONMENTAL CONSULTING

ENVIRONMENTAL MANAGEMENT SERVICES

Wildewood Professional Park
3639 Cortez Road West, Suite 211
Bradenton, Florida 34210
Tel: 941-739-3903 Fax: 941-739-3829

November 4, 1999

Ms. Rose Poynor, Habitat Restoration Section
Florida Department of Environmental Protection, Southwest District
3804 Coconut Palm Drive
Tampa , FL 33619

Re: File No. 58-01274663-001, Shakett Creek Navigational Dredging

Dear Ms. Poynor:

The enclosed material summarizes the water-quality sampling performed by personnel from Sanders Laboratories on October 7 and 8, 1999 pursuant to Specific Condition No. 39 of the referenced permit and their currently approved Quality Assurance Plan No. 930013. Monitoring locations associated with this activity are illustrated in the attached figures 1 and 2.

Notes on previously submitted turbidity monitoring reports describe climatic conditions on the 7th and 8th as partly cloudy with winds between 5 and 15 knots out of the south and southwest. It was also reported that approximately 8 inches of rainfall occurred in the vicinity between October 3rd and 5th.

The following information is transmitted herewith:

- List of monthly diel field measurements made on October 7th and 8th
- Analytical report for quarterly water-quality samples collected on October 7th
- Chain-of-custody record

Please call me or Sam Johnston if there is a need to discuss this matter.

Sincerely,

Dean M. Mades, P.E.
Associate

Enclosures:

cc: Chuck Listowski / WCIND
Bob Stetler / FDEP
Larry Olsen, Ph.D.
Will Dromgoole / SL (letter only)
Sam Johnston / EBA

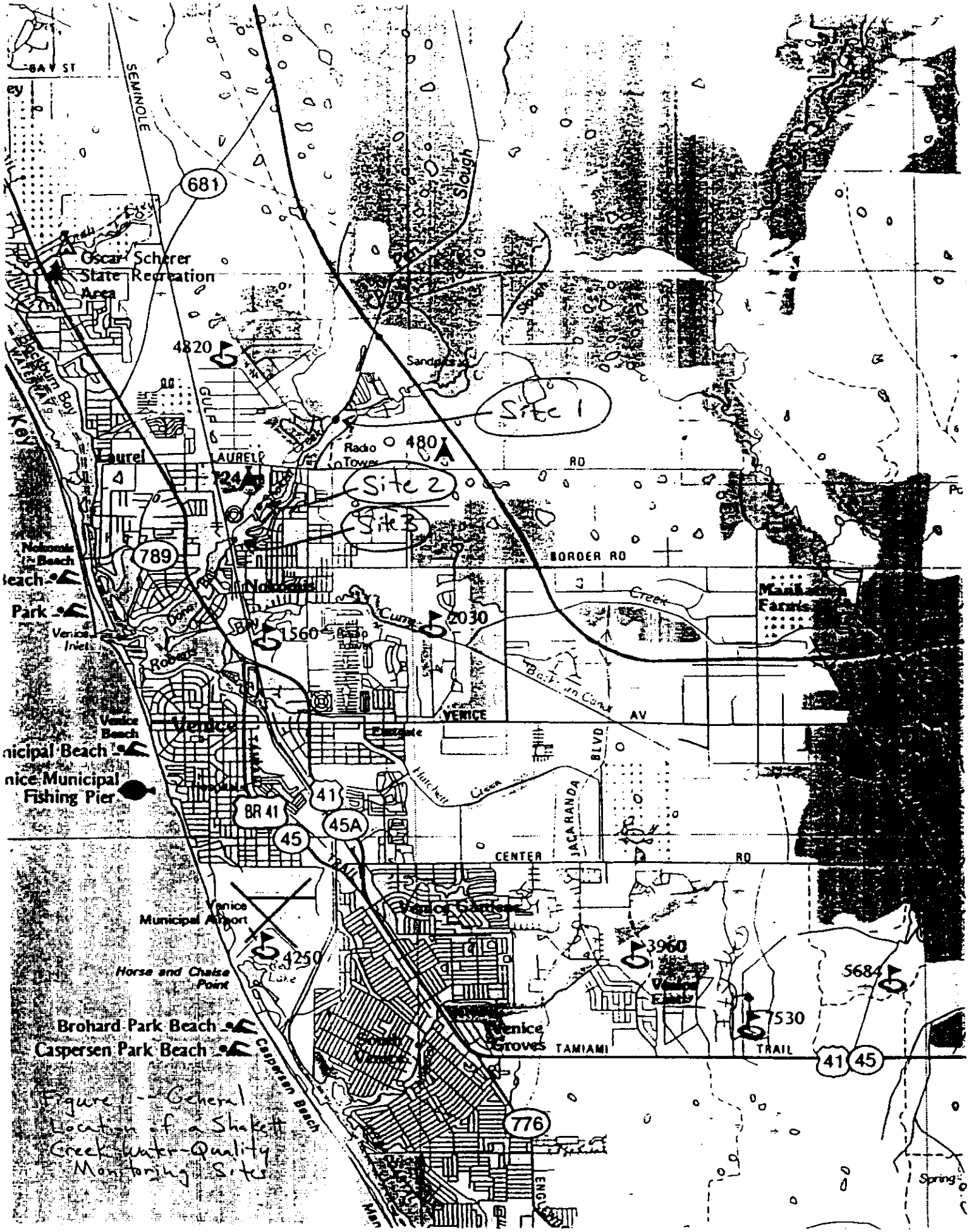


Figure 1 - General Location of Shakett Creek Water-Quality Monitoring Sites

RECEIVED NOV 0 4 1999

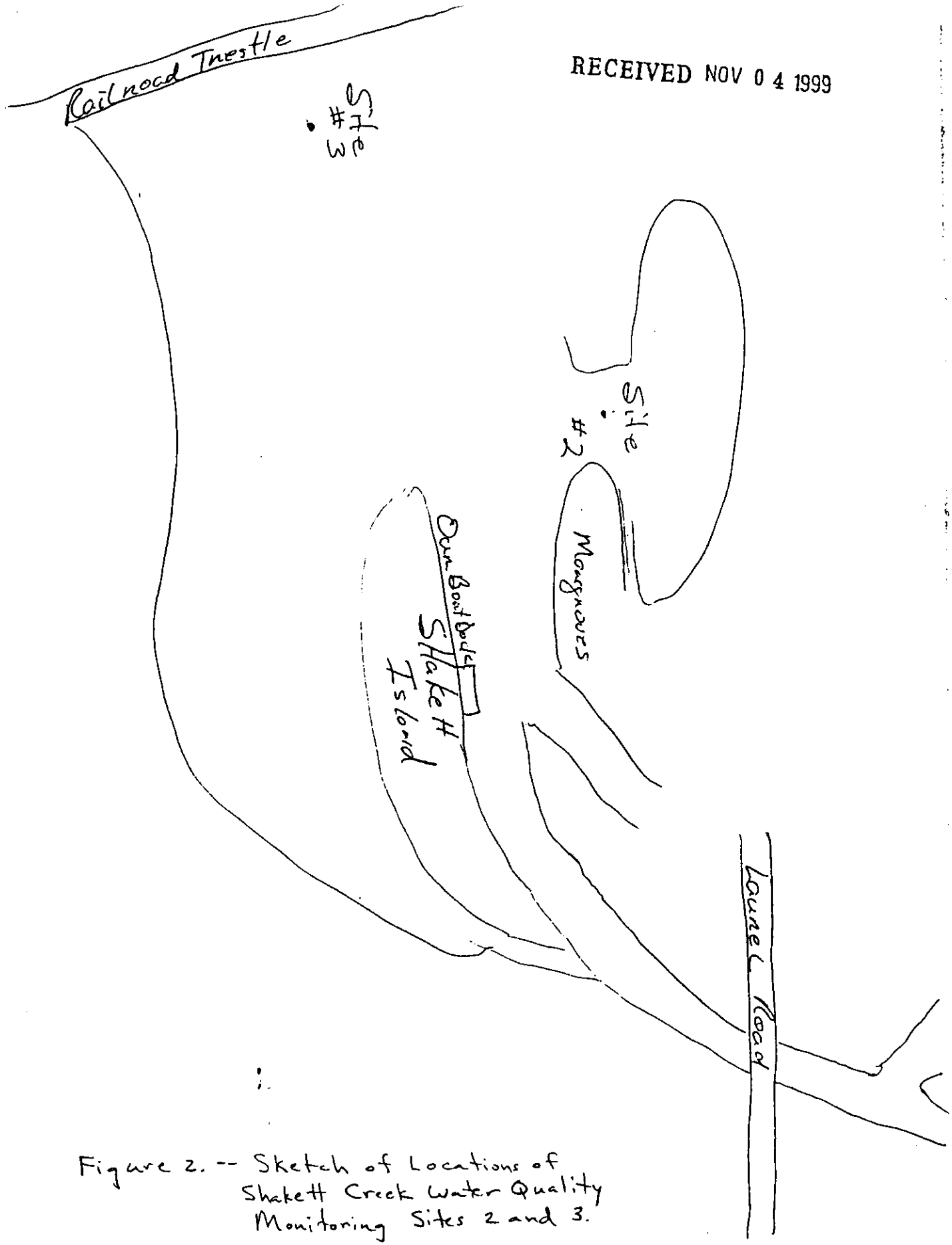


Figure 2. -- Sketch of Locations of Shakett Creek Water Quality Monitoring Sites 2 and 3.

CHAIN-OF-CUSTODY RECORD

anders Laboratories — Environmental Testing Services

PROJECT #: [illegible]

Page ____ of ____

Client: Ed Barber + Associates

Address: ____

Report To: ____

Bill To: ____

P.O. #: ____

Project Name: 1/4ly + Monthly Monitoring

Project Location: Shitett Creek

Sample Supply: SW

Customer Type: ____

Field Report #: ____

Kit #: ____

REQUESTED DUE DATE: [illegible]

Sampled By (PRINT): Will Augmoote

Sampler Signature: [signature]

Bottle #	SAMPLE DESCRIPTION	Sample DATE	Sample TIME	Sample TYPE	4°C	UNPRESERVED	H_2SO_4	HNO_3	HCL	TSS Nutrients	TKN Nitr	T. Coli	Field		pH Cond Temp	D.O. Sal Secchi	[illegible]	Sample ID #
1	Site 1A' 1' Below Surface	10/7/99	1200	G	X	X	X			X	X	X			X	X	X	-01A
2	" 2B Middepth	10/7/99	1210	G	X	X	X			X	X	X			X	X	X	-02A
3	" 2C 1' Above Bottom	10/7/99	1220	G	X	X	X			X	X	X			X	X	X	-03A
4	Site 2B Middepth	10/7/99	1310	G	X	X	X			X	X	X			X	X	X	-04A
5	Site 3A 1' Below Surface	10/7/99	1230	G	X	X	X			X	X	X			X	X	X	-05A
6	" 3B Middepth	10/7/99	1240	G	X	X	X			X	X	X			X	X	X	-06A
7	" 3C 1' Above Bottom	10/7/99	1250	G	X	X	X			X	X	X			X	X	X	-07A

Bottle Lot #	SHIPMENT METHOD OUT / DATE	RETURNED DATE	VIA	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
				[signature]	10/7/99	1645	[illegible] / [illegible]	10/7/99	1645

COMMENTS:

COOLER #

COOLER SEAL INTACT Yes No

Surface water field monitoring report

Date	Time	Site #	Tide stage	Dir/FPS	T. Depth	S. Depth	Weather Conditions	D.O.	Ph	Temp	Sal. %	Cond.	Secchi Depth
7-Oct	1200	1A	Outgoing	SSW	7.0'	1.0'	Partly Cloudy	9.2	6.93	27.7	0.10%	193.9	1.3'
	1210	1B	"	.75FPS		3.5'	Air Temp. 27.4	8.64	6.83	27.8	0.10%	181.8	"
	1220	1C	"	"	"	6.0'	" "" "	9.13	6.98	27.6	0.10%	190.4	"
7-Oct	1300	2B	"	0.01FPS WSW	2.0'	1.0'	" " " "	4.76	6.97	27.5	0.70%	1410	-1.2'
7-Oct.	1230	3A	"	.50FPS	4.3'	1.0'	" " " "	8.7	6.7	26.9	0.40%	826	1.4'
	1240	3B	"	WSW		2.15'	" " " "	6.91	6.96	26.4	0.30%	693	"
	1250	3C	"	"		3.3'	" " " "	7.2	6.9	26.3	0.40%	766	"
7-Oct	1605	1A	Outgoing	SSW	7.0'	1.0'	Partly Cloudy	7.89	6.96	27.5	0.10%	198	1.2'
	1615	1B	"	.75FPS		3.5'	Air Temp. 27.6	7.93	6.86	27.5	0.10%	189.1	"
	1625	1C	"	"		6.0'	" " " "	8.04	6.91	27.4	0.10%	196	"
	1640	2B	"	WSW 0.01FPS	2.0'	1.0'	" " " "	3.95	7.02	27.3	0.65%	1385	1.0'
	1655	3A	"	WSW	4.3'	1.0'	" " " "	7.35	7.01	27.1	0.39%	815	1.6'
	1705	3B	"	0.65FPS		2.15'	" " " "	7.55	6.93	27.2	0.30%	732	"
	1715	3C	"	"		3.3'	" " " "	7.28	6.96	27.3	0.35%	772	"
7-Oct.	2000	1A	Incoming	SSW	7.0'	1.0'	Partly Cloudy	8.65	7.02	27.6	0.15%	202	
	2010	1B	"	0.85FPS		3.5'	Air Temp. 25.9	8.72	6.89	27.5	0.10%	183.2	
	2020	1C	"	"		6.0"	" " " "	8.99	7.14	27.5	0.14%	198.5	
	2035	2B	Incoming	None	2.0'	1.0'	" " " "	3.54	7.02	27.3	0.69%	1415	
	2045	3A	Incoming	ENE	5.0'	1.0'	" " " "	7.65	7.14	27.2	2.50%	3600	
	2056	3B	"	.15FPS		2.5'	" " " "	8.02	7.98	27.3	3.05%	4105	
	2110	3C	"	"		4.0'	" " " "	7.05	7.78	27.1	4.65%	6465	
8-Oct.	1205am	1A	Incoming	SSW	7.0'	1.0'	Clear Skies	7.04	7.54	26.4	0.10%	186.2	
	1215am	1B	"	.85FPS		3.5'	Air Temp 23.9	7.16	7.65	27.1	0.10%	184.5	
	1225am	1C	"	"		6.0'	" " " "	7.89	7.25	26.9	0.10%	192.3	
	1240am	2B	Incoming	None	2.0'	1.0'	" " " "	2.69	7.14	27.2	2.22%	3445	

Surface water field monitoring report

	1255am	3A	Slack	Mixing	5.5'	1.0'	"	"	"	"	8.25	7.17	24.8	0.41%	826
	110am	3B	"	zone		2.75'		"	"	"	7.98	7.46	24.6	1.05%	1465
	120am	3C	"			4.5'	"	"	"	"	8.21	7.52	24.5	1.15%	1515
8-Oct	400am	1A	Outgoing	SSW	7.0'	1.0'	Clear Skies				6.99	7.48	24.5	0.10%	195
	410am	1B	"	1.0FPS		3.5'	Air Temp 23.6				7.25	7.37	25.6	0.10%	186
	420am	1C	"	"		6.0'	"	"	"	"	7.84	6.96	25.8	0.10%	172
	435am	2B	Outgoing	WSW 0.1FPS	2.1'	1.0'	"	"	"	"	3.42	7.36	24.2	2.15%	3105
	450am	3A	Outgoing	WSW	5.0'	1.0'	"	"	"	"	7.99	7.26	23.9	0.41%	827
	500am	3B	"	.50FPS		2.5'	"	"	"	"	9.02	7.48	24.5	0.32%	685
	510am	3C	"	"		4.0'	"	"	"	"	8.25	7.37	25.1	0.31%	679
8-Oct	800AM	1A	Outgoing	SSW	7.0'	1.0'	Clear Skies				7.22	7.36	24.3	0.10%	202
	810am	1B	"	1.0FPS		3.5'	Air Temp. 25.9				6.85	7.25	24.2	0.10%	175
	820am	1C	"	"		6.0'	"	"	"	"	8.04	7.58	24.2	0.23%	548
	835am	2B	Outgoing	WSW 0.1FPS	2.0'	1.0'	"	"	"	"	2.96	7.14	24.9	1.06%	1472
	845am	3A	Outgoing	WSW	5.0'	1.0'	"	"	"	"	7.64	6.99	24.8	0.32%	691
	855am	3B	"	1.1fps		2.5'	"	"	"	"	8.45	7.35	25.1	0.31%	681
	905am	3C	"	"		4.0'	"	"	"	"	7.99	7.27	24.9	0.31%	684

RECEIVED NOV 0 4 1999

INTAKE #: 9910072

Sanders Laboratories
Environmental Testing Services

Project Name:	Monthly & Quarterly Monitoring
Project Location:	Shakett Creek
Job ID:	0
Sample Supply:	Surface Water
Collector:	Will Dromgoole
Sample Received Date/Time:	10/7/99 16:45

Date: *29-Oct-99*

Ed Barber & Associates
Sam Johnston/WCIND
3639 Cortez Rd. Suite 222
Bradenton, FL 34210-

Lab ID	Sample ID	Type	Sample Date/Time

Analysis	Method	Result	D. L.	Unit	Analysis Date/Time	LabID:
10072-01A 1A 1' BS GRB 10/7/99 12:00						
Total Suspended Solids	EPA 160.2	9.0	0.7	mg/L	10/8/99	E84380
Nitrite-N	EPA 354.1	<0.01	0.01	mg/L	10/8/99	E84380
Nitrate-N	EPA 353.2	<0.01	0.01	mg/L	10/12/99	E84380
Ammonia-N	EPA 350.3	0.13	0.05	mg/L	10/18/99	E84380
Nitrogen, Total Kjeldahl	EPA 351.2	1.89	0.1	mg/L	10/12/99	E84380
Phosphorus, Total	EPA 365.2	0.266	0.003	mg/L	10/12/99	E84380
Organic Nitrogen	Calc.	1.76	0.01	mg/L	10/18/99	E84380
pH, Field	EPA 150.1	6.93	n/a	std unit	10/7/99	E84380
Conductivity	EPA 120.1	194	1.0	umhos/cm	10/7/99	E84380
Water Temperature	EPA 170.1	27.7	0.1	°C	10/7/99	E84380
Secchi Depth		1.3		ft.	10/7/99	E84380
Flow		0.75		fps	10/7/99	E84380
Weather, Condition		pt cloudy			10/7/99	E84380
Dissolved Oxygen, Field	EPA 360.1	9.20	0.10	mg/L	10/7/99	E84380
Salinity	SM2520B	0.1		%	10/7/99	E84380
Sample Depth		1		ft.	10/7/99	E84380
10072-02A 1B Mid GRB 10/7/99 12:10						
Total Suspended Solids	EPA 160.2	10.3	0.7	mg/L	10/8/99	E84380
Nitrite-N	EPA 354.1	<0.01	0.01	mg/L	10/8/99	E84380
Nitrate-N	EPA 353.2	<0.01	0.01	mg/L	10/12/99	E84380
Nitrogen, Total Kjeldahl	EPA 351.2	1.19	0.1	mg/L	10/18/99	E84380

HRS Certification#'s 84352 and E84380(Nokomis) 85449 and E85457(Ft. Myers)

1050 Endeavor Ct. • Nokomis, FL 34275 • Phone: (941) 488-8103 • (800) 255-3108 • Fax: (941) 484-6774

Lab ID	Sample ID	Type	Sample Date/Time	Analysis	Method	Result	D. L.	Unit	Analysis Date/Time	LabID:
				Ammonia-N	EPA 350.3	0.09	0.05	mg/L	10/12/99	E84380
				Phosphorus, Total	EPA 365.2	0.284	0.003	mg/L	10/12/99	E84380
				Organic Nitrogen	Calc.	1.10	0.01	mg/L	10/18/99	E84380
				pH, Field	EPA 150.1	6.83	n/a	std unit	10/7/99	E84380
				Conductivity	EPA 120.1	182	1.0	umhos/cm	10/7/99	E84380
				Water Temperature	EPA 170.1	27.8	0.1	°C	10/7/99	E84380
				Secchi Depth		1.3		ft.	10/7/99	E84380
				Flow		0.75		fps	10/7/99	E84380
				Weather, Condition		pt cloudy			10/7/99	E84380
				Dissolved Oxygen, Field	EPA 360.1	8.64	0.10	mg/L	10/7/99	E84380
				Salinity	SM2520B	0.1		%	10/7/99	E84380
				Sample Depth		3.5		ft.	10/7/99	E84380
10072-03A	**1C 1'AB**	**GRB**	**10/7/99 12:20**							
				Total Suspended Solids	EPA 160.2	11	0.7	mg/L	10/8/99	E84380
				Nitrite-N	EPA 354.1	<0.01	0.01	mg/L	10/8/99	E84380
				Nitrate-N	EPA 353.2	<0.01	0.01	mg/L	10/12/99	E84380
				Nitrogen, Total Kjeldahl	EPA 351.2	1.22	0.1	mg/L	10/18/99	E84380
				Ammonia-N	EPA 350.3	0.20	0.05	mg/L	10/12/99	E84380
				Phosphorus, Total	EPA 365.2	0.275	0.003	mg/L	10/12/99	E84380
				Organic Nitrogen	Calc.	1.02	0.01	mg/L	10/18/99	E84380
				pH, Field	EPA 150.1	6.98	n/a	std unit	10/7/99	E84380
				Conductivity	EPA 120.1	190	1.0	umhos/cm	10/7/99	E84380
				Water Temperature	EPA 170.1	27.6	0.1	°C	10/7/99	E84380
				Secchi Depth		1.3		ft.	10/7/99	E84380
				Flow		0.75		fps	10/7/99	E84380
				Weather, Condition		pt cloudy			10/7/99	E84380
				Dissolved Oxygen, Field	EPA 360.1	9.13	0.10	mg/L	10/7/99	E84380
				Salinity	SM2520B	0.1		%	10/7/99	E84380
				Sample Depth		6.0		ft.	10/7/99	E84380
10072-04A	**2B Mid**	**GRB**	**10/7/99 13:10**							
				Total Suspended Solids	EPA 160.2	15	0.7	mg/L	10/8/99	E84380
				Nitrite-N	EPA 354.1	<0.01	0.01	mg/L	10/8/99	E84380
				Nitrate-N	EPA 353.2	<0.01	0.01	mg/L	10/12/99	E84380
				Nitrogen, Total Kjeldahl	EPA 351.2	2.43	0.1	mg/L	10/18/99	E84380

HRS Certification#'s 84352 and E84380(Nokomis) 85449 and E85457(Ft. Myers)

Lab ID	Sample ID	Type	Sample Date/Time

Analysis	Method	Result	D. L.	Unit	Analysis Date/Time	LabID:
Ammonia-N	EPA 350.3	<0.05	0.05	mg/L	10/12/99	E84380
Phosphorus, Total	EPA 365.2	0.222	0.003	mg/L	10/12/99	E84380
Organic Nitrogen	Calc.	2.43	0.01	mg/L	10/18/99	E84380
pH, Field	EPA 150.1	6.97	n/a	std unit	10/7/99	E84380
Conductivity	EPA 120.1	1,410	1.0	umhos/cm	10/7/99	E84380
Water Temperature	EPA 170.1	27.5	0.1	°C	10/7/99	E84380
Secchi Depth		1.4		ft.	10/7/99	E84380
Flow		0.01		fps	10/7/99	E84380
Weather, Condition		pt cloudy			10/7/99	E84380
Dissolved Oxygen, Field	EPA 360.1	4.76	0.10	mg/L	10/7/99	E84380
Salinity	SM2520B	0.7		%	10/7/99	E84380
Sample Depth		1.0		ft.	10/7/99	E84380
10072-05A 3A 1' BS GRB 10/7/99 12:30						
Total Suspended Solids	EPA 160.2	7.2	0.7	mg/L	10/8/99	E84380
Nitrite-N	EPA 354.1	<0.01	0.01	mg/L	10/8/99	E84380
Nitrate-N	EPA 353.2	<0.01	0.01	mg/L	10/12/99	E84380
Nitrogen, Total Kjeldahl	EPA 351.2	2.81	0.1	mg/L	10/18/99	E84380
Ammonia-N	EPA 350.3	0.08	0.05	mg/L	10/12/99	E84380
Phosphorus, Total	EPA 365.2	0.231	0.003	mg/L	10/12/99	E84380
Organic Nitrogen	Calc.	2.73	0.01	mg/L	10/18/99	E84380
pH, Field	EPA 150.1	6.70	n/a	std unit	10/7/99	E84380
Conductivity	EPA 120.1	826	1.0	umhos/cm	10/7/99	E84380
Water Temperature	EPA 170.1	26.9	0.1	°C	10/7/99	E84380
Secchi Depth		1.4		ft.	10/7/99	E84380
Flow		0.50		fps	10/7/99	E84380
Weather, Condition		pt cloudy			10/7/99	E84380
Dissolved Oxygen, Field	EPA 360.1	8.70	0.10	mg/L	10/7/99	E84380
Salinity	SM2520B	0.4		%	10/7/99	E84380
Sample Depth		1.0		ft.	10/7/99	E84380
10072-06A 3B Mid GRB 10/7/99 12:40						
Total Suspended Solids	EPA 160.2	7.6	0.7	mg/L	10/8/99	E84380
Nitrite-N	EPA 354.1	<0.01	0.01	mg/L	10/8/99	E84380
Nitrate-N	EPA 353.2	<0.01	0.01	mg/L	10/12/99	E84380
Nitrogen, Total Kjeldahl	EPA 351.2	2.26	0.1	mg/L	10/18/99	E84380

HRS Certification#'s 84352 and E84380(Nokomis) 85449 and E85457(Ft. Myers)

Analysis	Method	Result	D. L.	Unit	Analysis Date/Time	LabID:
Phosphorus, Total	EPA 365.2	0.258	0.003	mg/L	10/12/99	E84380
Organic Nitrogen	Calc.	2.18	0.01	mg/L	10/18/99	E84380
pH, Field	EPA 150.1	6.91	n/a	std unit	10/18/99	E84380
Conductivity	EPA 120.1	693	1.0	umhos/cm	10/7/99	E84380
Water Temperature	EPA 170.1	26.4	0.1	°C	10/7/99	E84380
Secchi Depth		1.4		ft.	10/7/99	E84380
Flow		0.50		fps	10/7/99	E84380
Weather, Condition		pt cloudy			10/7/99	E84380
Dissolved Oxygen, Field	EPA 360.1	6.91	0.10	mg/L	10/7/99	E84380
Salinity	SM2520B	0.3		%	10/7/99	E84380
Sample Depth		2.15		ft.	10/7/99	E84380
Ammonia-N	EPA 350.3	0.08	0.05	mg/L	10/18/99	E84380
10072-07A 3C 1' AB GRB 10/7/99 12:50						
Total Suspended Solids	EPA 160.2	12	0.7	mg/L	10/8/99	E84380
Nitrite-N	EPA 354.1	<0.01	0.01	mg/L	10/8/99	E84380
Nitrate-N	EPA 353.2	<0.01	0.01	mg/L	10/12/99	E84380
Nitrogen, Total Kjeldahl	EPA 351.2	2.14	0.1	mg/L	10/18/99	E84380
Ammonia-N	EPA 350.3	<0.05	0.05	mg/L	10/12/99	E84380
Phosphorus, Total	EPA 365.2	0.231	0.003	mg/L	10/12/99	E84380
Organic Nitrogen	Calc.	2.14	0.01	mg/L	10/18/99	E84380
pH, Field	EPA 150.1	6.90	n/a	std unit	10/7/99	E84380
Conductivity	EPA 120.1	766	1.0	umhos/cm	10/7/99	E84380
Water Temperature	EPA 170.1	26.3	0.1	°C	10/7/99	E84380
Secchi Depth		1.4		ft.	10/7/99	E84380
Flow		0.50		fps	10/7/99	E84380
Weather, Condition		pt cloudy			10/7/99	E84380
Dissolved Oxygen, Field	EPA 360.1	6.84	0.10	mg/L	10/7/99	E84380
Salinity	SM2520B	0.4		%	10/7/99	E84380
Sample Depth		3.3		ft.	10/7/99	E84380

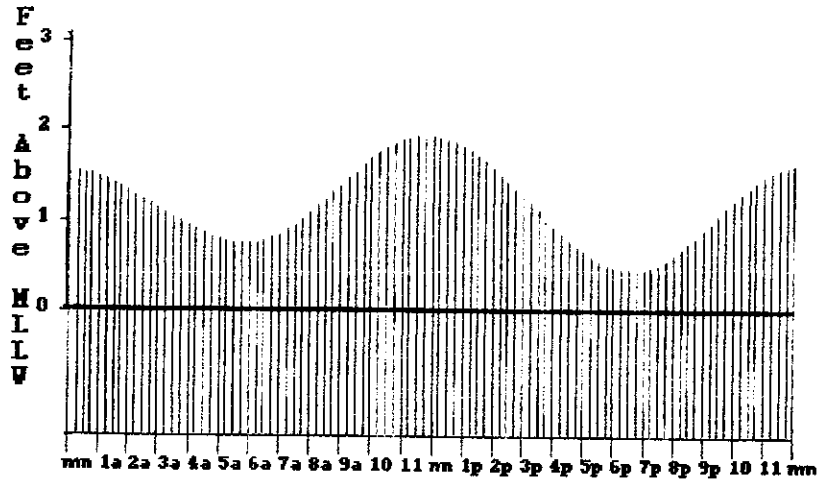
Lab ID	Sample ID	Type	Sample Date/Time

Analysis	Method	Result	D. L.	Unit	Analysis Date/Time	LabID:

Comments:

Approved by:

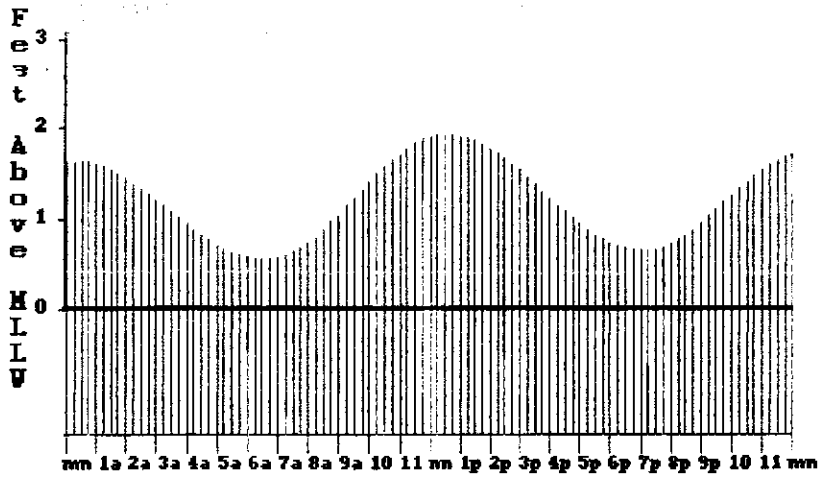
Debra Sanders
Laboratory Director



Venice Inlet (inside) Thu Oct 7, 1999 EDT

TideMaster - (C) Zephyr Services, Pittsburgh PA

12:00M	1.6 ft	5:00a	0.8 ft	10:00a	1.8 ft	3:00p	1.3 ft	8:00p	0.7 ft
1:00a	1.5 ft	6:00a	0.8 ft	11:00a	2.0 ft	4:00p	1.0 ft	9:00p	0.9 ft
2:00a	1.4 ft	7:00a	0.9 ft	12:00N	2.0 ft	5:00p	0.7 ft	10:00p	1.3 ft
3:00a	1.2 ft	8:00a	1.1 ft	1:00p	1.9 ft	6:00p	0.5 ft	11:00p	1.6 ft
4:00a	1.0 ft	9:00a	1.5 ft	2:00p	1.6 ft	7:00p	0.5 ft	12:00M	1.7 ft



Venice Inlet (inside) Fri Oct 8, 1999 EDT

TideMaster - (C) Zephyr Services, Pittsburgh PA

12:00M	1.7 ft	5:00a	0.8 ft	10:00a	1.5 ft	3:00p	1.6 ft	8:00p	0.8 ft
1:00a	1.7 ft	6:00a	0.6 ft	11:00a	1.8 ft	4:00p	1.3 ft	9:00p	1.0 ft
2:00a	1.5 ft	7:00a	0.6 ft	12:00N	2.0 ft	5:00p	1.0 ft	10:00p	1.3 ft
3:00a	1.3 ft	8:00a	0.8 ft	1:00p	2.0 ft	6:00p	0.8 ft	11:00p	1.6 ft
4:00a	1.0 ft	9:00a	1.1 ft	2:00p	1.8 ft	7:00p	0.7 ft	12:00M	1.8 ft