

Bioassays of

Florida Rock Industries- Gulf Hammock Quarry

Levy County

NPDES #FL0044300

Sampled October 24, 2005

February 2006

Biology Section
Bureau of Laboratories
Division of Resource Assessment and Management

Quality Manual No. 870346G
NELAC Certification No. E31780

Florida Rock Industries- Gulf Hammock Quarry, 6351 S.E. U.S. Highway 19, Levy County, Florida, NPDES #FL0044300. Effluent samples for this facility were collected on October 24, 2005.

Introduction

Florida Rock Industries-Gulf Hammock Quarry is a limestone mine. The facility does not have a design flow. The monthly average flow from October 2004 through September 2005 was 1.80 million gallons per day (MGD). Excavated limestone is processed by crushing, screening, and washing. Process wastewater generated from the washing of limestone and on-site stormwater are discharged to settling ponds. The settling ponds provide for evaporation, percolation, and recycling of the wastewater for processing limestone. Discharge of wastewater from the settling ponds through Outfall D-001 (located at approximately latitude 29º14'15"N, longitude 82º42'45"W) to an unnamed tributary of the Class III freshwaters of the Wekiva River is intermittent and rainfall dependent.

There are no Administrative Orders or Consent Orders for this facility. The facility has no toxicity testing requirements or mixing zones (facility information provided by James Lucas of FDEP Northeast District).

Methods

Samples were collected from the EFF-1 NPDES sampling point for Outfall D-001 by Tom Kallemeyn (FDEP Northeast District) following DEP-SOP-001/01 FS 2400 Wastewater Sampling. All DEP SOP's are available on the web at: http://www.floridadep.org/labs/qa/sops.htm.

The 48-hour acute screening toxicity tests and algal growth potential test were performed following internal DEP SOP's TA07_01, TA07_02, and TA08_01 through TA08_09. All internal DEP SOP's are available on the web at: http://www.floridadep.org/labs/cgi-bin/sop/biosop.asp. The Department uses the 48-hour acute screening toxicity test to provide reasonable assurance that the facility does not adversely affect waters of the state.

Toxicity Test Results

Tests were performed October 25-27, 2005.

Ceriodaphnia dubia 48-hour acute screening bioassay – LC_{50} > 100%, 5% mortality* in 100% sample at 48 hours

Cyprinella leedsi 48-hour acute screening bioassay – LC_{50} > 100%, 0% mortality* in 100% sample at 48 hours

The bioassay sample was not acutely toxic to the test organisms.

See Appendix 1 for bioassay bench sheets.

*NOTE: In a 48-hour acute screening test of 100% effluent, mortality of <20% provides reasonable assurance that the effluent meets the acute toxicity criterion of Florida's Surface Water Quality Standards (Rule 62-302.500 (1) (a) 4, F.A.C.). Mortality between 20-50% mortality indicates low to moderate levels of toxicity, and further action may be required. Mortality of >50% provides reasonable assurance that the effluent fails to meet the minimum requirement to discharge to waters of the state (Rule 62-4.244(3) (a), F.A.C.).

Algal Growth Potential

The effluent Algal Growth Potential (AGP) was less than the laboratory method detection limit (MDL) of 0.300 mg dry wt/L of the unicellular green alga, *Pseudokirchneriella subcapitata*, formerly known as *Selenastrum capricornutum*. Raschke and Shultz (1987) found that AGP values above 5.0 mg dry weight/L represent a “problem” threshold for fresh receiving waters, implying nutrient enrichment. The analytical chemistry suggests that the effluent is phosphorus-limited. The predicted AGP based on inorganic nitrogen concentrations was 1.33 (±20%) mg dry wt/L (Table 1; Miller et al. 1978). Ortho-phosphate was not detected in the sample.

See Table 1 for AGP results.

Chemistry Results

Total residual chlorine and total ammonia were not detected in the bioassay sample in the laboratory. The total ammonia concentration in the sample collected and preserved for chemical analysis was 0.035 mg/L. Based on the pH, salinity, and temperature of the effluent as collected, the calculated unionized ammonia concentration was < 0.02 mg/L.

Iron was detected in the effluent at levels that comply with Class III fresh water quality criteria. Aluminium and nickel were detected between the laboratory method detection limits (MDL) and practical quantitation limits (PQL).

See Table 2 for results of analytes detected in the effluent, and corresponding limits.

See Appendix 2 for a complete list of chemical analyses performed.

Conclusion

The effluent sample collected from Outfall D-001 for this facility on October 24, 2005, was not acutely toxic to either test species during the acute screen 48-hour bioassays. The effluent AGP result was less than the "problem” threshold for fresh receiving. Effluent water quality samples did not exceed any applicable water quality standards or violate any permit conditions.

Literature Cited

Miller, W. E., T. E. Maloney, and J. C. Greene. 1978. The *Selenastrum capricornutum* Printz algal assay bottle test. EPA-600/9-78-018. U. S. EPA, Cincinnati, Ohio. 126 p.

Raschke, R. L. and D. A. Schultz. 1987. The use of the algal growth potential test for data assessment. J. Wat. Poll. Cont. Fed. 59(4): 222-227.

Table 1. Measured and predicted algal growth potential (AGP; mg dry wt/L) of Pseudokirchneriella subcapitata *for total soluble inorganic nitrogen (TSIN), total nitrogen (TN), ortho phosphate (OP) and total phosphorus (TP) limitation and ratios of nitrogen to phosphorus for samples collected from Florida Rock Industries- Gulf Hammock Quarry on October 24, 2005.*

Location	AGP (measured)	Predicted AGP (TSIN) ± 20%	Predicted AGP (TN) ± 20%	Predicted AGP (OP) ± 20%	Predicted AGP (TP) ± 20%	Inorganic N:P ratio	Total N:P ratio
Effluent Samples	0.300 U	1.33 ± 0.266	15.96 ± 3.192	Not Applicable*	5.59 ± 1.118	Not Applicable*	32.31

* - Ortho-phosphate was not detected in the analytical chemistry sample, so predictions could not be made and an inorganic N:P ratio could not be calculated.

U - Material analyzed for but not detected; value reported is the minimum detection limit

Table 2. Effluent limits, Class III Freshwater Criteria, and chemical and microbiological data for samples collected from Florida Rock Industries Gulf Hammock Quarry on October 24, 2005.

Florida Rock Industries Gulf Hammock Quarry NPDES# FL0044300	Class III Freshwater Stds	Effluent Limits	Effluent Samples
Metals (µg/L unless otherwise noted)			
Aluminum	-	-	7.3 I
Arsenic	≤ 50	-	4 U
Cadmium	≤ 3.4 b	-	0.05 U
Calcium (mg/L)	-	-	124
Chromium-III	≤ 268.2 b	-	2 U
Copper	≤ 30.5 b	-	1 U
Iron	≤ 1,000	-	71
Lead	≤ 18.6 b	-	0.075 U
Magnesium (mg/L)	-	-	40.1
Nickel	≤ 168.5 b	-	4 I
Selenium	≤ 5	-	10 U
Silver	≤ 0.07	-	0.025 U
Zinc	≤ 387.8 b	-	3 U
Nutrients (mg/L)			
Ortho-phosphate	-	-	0.004 U
Total Phosphorus	-	-	0.013
Ammonia	-	-	0.035
Unionized Ammonia	≤ 0.02	-	< 0.02 c
Nitrate+Nitrite	-	-	0.004 U
Total Kjeldahl Nitrogen	-	-	0.42
Organic Nitrogen	-	-	0.38 c
Total Nitrogen	-	-	0.42 c
General Physical and Chemical Parameters			
Dissolved Oxygen (mg/L)	≥ 5	-	6.9
pH (S.U.)	6.0-8.5 s	6.0-8.5 s	7.6
Conductivity (umhos/cm)	≤ 1,275	≤ 1,275	806
Temperature (C)	-	-	25.4
Turbidity (NTU)	≤ 29 t	≤ 29 t	1.7
Flow (MGD)	-	Report	1.80 a
Hardness (mg/L)	-	-	474.8 c
Microbiology (# counts/100ml)			
Fecal Coliforms-Membrane Filter	≤ 800	-	13 ABQ
Total Coliforms-Membrane Filter	≤ 2,400	-	82 AQ

Value exceeds the Class III Fresh Water Quality Criteria (62-302, F.A.C.) and/or Effluent Limits

a - Annual average
b - Value is calculated based on hardness
c - Calculated value
s - Single sample
t - Shall not exceed 29 NTUs above background
A - Value reported is the mean of two or more determinations
B - Results based on colony counts outside the acceptable range
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
Q - Sample held beyond normal holding time
U - Material analyzed for but not detected; value reported is the minimum detection limit

FDEP Biology Section - Acute Screen Bioassay Bench Sheets

Facility: Florida Rock Industries - Gulf Hammock Quarry
Address: 6351 S.E. U.S. Hwy 19
City: Gulf Hammock County: Levy
Contact/District: Tom Kallemeyn / Northeast District
NPDES Permit #: FL 0044300
LIMS Job #: TLH-2005-10-25-02 LIMS Sample #: 873409

Sample Collection: Date: 10-24-05 Time: 1215
Hold Time Start: Date: 10-24-05 Time: 1215

Comments:

Lims Data Entry: MF 10-28-05 Data Entry Verification: 10-28-05 SP

Instructions (for below): Circle appropriate wording. If yes is circled complete blanks.

Test Type: (Screen)
(Static) / Static Renewal / Flow-through
Test Duration: (48) 96 Hours.
Light Intensity : 50 - 100 ft. candles.
Photoperiod : 16 hours light 8 hours dark.

Test 1 validation: Test 1: SOP TA 07-01
Control survival ≥90%: (Yes) No
Temperature Range ≤3°C: (Yes) No

Test 2 validation: Test 2: SOP TA 07-02
Control survival ≥90%: (Yes) No
Temperature Range ≤3°C: (Yes) No

Initial sample handling:
PH adjustment : yes (no) Initial pH: ____ NaOH N HCl N ____ Drops mL Final pH: ____
Aeration : yes (no) Initial DO: ____mg/L Final DO: ____mg/L Duration: ____minutes Rate: ~ ____bubbles/min
Salinity adjusted (Test 1): yes (no) Initial Salinity: ____ Final Salinity: ____ Salts Hypersaline brine
Salinity adjusted (Test 2): yes (no) Initial Salinity: ____ Final Salinity: ____ Salts Hypersaline brine
Dechlorination: yes (no) ____mL of 0.025N Sodium Thiosulfate per liter of sample Final TRC: ____

Temperature Range °C
Incubator # 3 Range 24.7-25.5
Room B246: 24.4-25.7
Waterbath: N/A

Sample Validation:
Temperature: Shipped ≤6°C (Yes) No Hand Delivered: Cooling (received °C < collected °C) Yes No
Holding Time: ≤36 Hours (Yes) No (Composite-end of collection; grab-when collected; 4 in 24 - time last sample collected)

Investigators' Signatures
Sarah Pickrod
Marshall Faircloth
Jessica Davis
Nicole Wellhoff
REVIEWER

Water Quality Parameters	20% DMW 32-05	Moderately Hard Water/ (Well Water)	Salt Water ASW NSW Test 1	Salt Water ASW NSW Test 2	Other:	Original Sample	Method	Measured by	Verified by
Field Total Residual Cl2 (mg/L):	N/A	N/A	N/A	N/A		not measured	—	SP	
Lab Total Residual Cl2 (mg/L):	<0.03	<0.03				<0.03	HACH	SP/SD	EwO
Alkalinity (mg/L as $CaCO_3$):	91	144				141	HACH	EwO	SP
Hardness (mg/L as $CaCO_3$):	101	137				454	HACH	EwO	SP
Total Ammonia (mg/L as N):	<0.017	<0.017				<0.017	DENVER	MF	SP
Salinity (ppth):	<1	<1				<1	YSI / Mettler	SP	MF

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Appendix 1. Bench Sheets (continued)



FDEP Biology Section - - Bioassay Bench Sheet

Survival

LIMS Sample #: 873409 Test #: 1 Test Started: Date 10-25-05 Time: 1300

Organism: C. dubia Test Ended: Date 10-29-05 Time: 1230

Organism Batch: 40-05 Diluent/ Batch: DMW / 32-05

Organism Age: <24hrs Food: YCT *P. subcapitata* *Artemia* SOP: TA_ 07-01

Chamber Size: 30 mL Batch: 04-05 05-05 —

Test Volume: 20 mL Feeding: (Prior to test) - Prior to renewal - Daily

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
CTRL	A	A	5	5	5			
	B	B	5	5	5			
	C	C	5	5	5			
	D	D	5	5	5			
100%	A	A	5	5	4 (m A)			
	B	B	5	5	5			
	C	C	5	5	5			
	D	D	5	5	5			

Organisms loaded by: SC Checked by: [redacted] SP MF

Loading Verified by: MF

m = missing d = dead BR = before renewal AR = after renewal

Comments: (A) missing - presumed dead. MF 12-27-05 decaped body AT found MF 12-27-05

Test Results:

% mortality in 100% sample 5

LC_{50}: >100 If Calculated: 95% CI _____ Method: _____

Screening Tests: Report LC50 as >100%, =100%, or <100%.

Substitue highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

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Appendix 1. Bench Sheets (continued)

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FDEP Biology Section - - Bioassay Bench Sheet

Survival

LIMS Sample #: 8734109 Test #: 2 Test Started: Date 10-25-05 Time: 1245

Organism: C. leedsi Test Ended: Date 10-27-05 Time: 1245

Organism Batch: 31-05 Diluent/ Batch: Well H_2O / 10-25-05

Organism Age: 6 days Food: YCT *P. subcapitata* *Artemia* SOP: TA_ 07.02

Chamber Size: 1000 mL Batch: — — 35138425 GR

Test Volume: 500 mL Feeding: (Prior to test) Prior to renewal - Daily

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
CTRL	A	F1	5	5	5			
	B	F2	5	5	5			
	C	F3	5	5	5			
	D	F4	5	5	5			
100%	A	F5	5	5	5			
	B	F6	5	5	5			
	C	F7	5	5	5			
	D	F8	5	5	5			
Organisms loaded by: JD Loading Verified by: MF		Checked by:	[redacted]	SP	SP			

m = missing d = dead BR = before renewal AR = after renewal

Comments:

Test Results:

% mortality in 100% sample 0

LC_{50}: >100 If Calculated: 95% CI______ Method:______

Screening Tests: Report LC50 as >100%, =100%, or <100%.

Substitue highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

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Appendix 1. Bench Sheets (continued)

Bioassay Parameters

LIMS Sample #: 873402 Test #: 1 of 2

TEST SOP: TA07_01 Test Species: *Ceriodaphnia dubia* *Cyprinella leedsi* *Pimephales promelas*

Americamysis bahia *Menidia beryllina* Other:

Concentration CTRL	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A		B			
pH (S.U.)	7.6		8.0			
Temperature °C	25.5		24.8			
Dissolved Oxygen mg/L	6.7		7.5			
Conductivity ~~µmhos~~ mmhos	168		205			
(initials) Measured by:	CB		MF			
(initials) Recorded by:	CB		MF			

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A		B			
pH (S.U.)	7.7		8.3			
Temperature °C	24.7		24.6			
Dissolved Oxygen mg/L	7.6		7.4			
Conductivity ~~µmhos~~ mmhos	825		932			
(initials) Measured by:	CB		MF			
(initials) Recorded by:	CB		MF			

Comments:

Concentration	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	~~72 Hr.~~	96 Hr.
Replicate						
pH (S.U.)						
Temperature °C						
Dissolved Oxygen mg/L						
Conductivity ~~µmhos~~ mmhos						
(initials) Measured by:						
(initials) Recorded by:						

Comments:

Concentration	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	~~72 Hr.~~	96 Hr.
Replicate						
pH (S.U.)						
Temperature °C						
Dissolved Oxygen mg/L						
Conductivity ~~µmhos~~ mmhos						
(initials) Measured by:						
(initials) Recorded by:						

Comments:

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Bioassay Parameters

LIMS Sample # : 8713469 **Test # :** 2 of 2

TEST SOP: TA07_ 02 **Test Species:** *Ceriodaphnia dubia* (*Cyprinella leedsi*) *Pimephales promelas* *Americamysis bahia* *Menidia beryllina* Other:_____

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Concentration CTRL	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C			
pH (S.U.)	7.9	8.2	8.2			
Temperature °C	25.0	24.3	24.1			
Dissolved Oxygen mg/L	7.7	7.6	7.0			
Conductivity (µmhos) mmhos	280	308	290			
(initials) Measured by:	[illegible]	[illegible]	SP/MF			
(initials) Recorded by:	[illegible]	[illegible]	SP			

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C			
pH (S.U.)	7.8	8.2	8.4			
Temperature °C	25.1	24.0	24.0			
Dissolved Oxygen mg/L	7.0	7.8	7.6			
Conductivity (µmhos) mmhos	826	859	879			
(initials) Measured by:	[illegible]	[illegible]	SP/MF			
(initials) Recorded by:	[illegible]	[illegible]	SP			

Comments:

Concentration	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate						
pH (S.U.)						
Temperature °C						
Dissolved Oxygen mg/L						
Conductivity µmhos mmhos						
(initials) Measured by:						
(initials) Recorded by:						

Comments:

Concentration	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate						
pH (S.U.)						
Temperature °C						
Dissolved Oxygen mg/L						
Conductivity µmhos mmhos						
(initials) Measured by:						
(initials) Recorded by:						

Comments:

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Appendix 2. Chemical Analyses performed on the effluent from the Flordia Rock Industries- Gulf Hammock Quarry Outfall D-001, sampled on October 24, 2005.

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
10/24/05 12:15	D-001	Bio-AGP/LimNut	Algal Growth Potential	0.3	mg DryWt/L	U	0.3	0.9
10/24/05 12:15	D-001	Bio-Chl-a	Chlorophyll-A, Monochromatic, Water	12	ug/L		0.85	2.6
10/24/05 12:15	D-001	Bio-Chl-a	Phaeophytin-A, Monochromatic, Water	0	ug/L		0.85	2.6
10/24/05 12:15	D-001	Bio-Microbiology	Fecal Coliforms-Membrane Filter	13	#/100 mL	ABQ		
10/24/05 12:15	D-001	Bio-Microbiology	Total Coliforms-Membrane Filter	82	#/100 mL	AQ		
10/24/05 12:15	D-001	Bio-Toxicology	Bioassay-Acute-Screen-FW-C.dubia, LC50	100	LC50	L		
10/24/05 12:15	D-001	Bio-Toxicology	Bioassay-Acute-Screen-FW-Fish, LC50	100	LC50	L		
10/24/05 12:33	BLANK	BNA-Water	1,2,4-Trichlorobenzene	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	1,2-Dichlorobenzene	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	1,3-Dichlorobenzene	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	1,4-Dichlorobenzene	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	2,4,6-Trichlorophenol	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	2,4-Dichlorophenol	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	2,4-Dimethylphenol	49	ug/L	U	49	200
10/24/05 12:33	BLANK	BNA-Water	2,4-Dinitrophenol	15	ug/L	U	15	59
10/24/05 12:33	BLANK	BNA-Water	2,4-Dinitrotoluene	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	2,6-Dinitrotoluene	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	2-Chloronaphthalene	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	2-Chlorophenol	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	12
10/24/05 12:33	BLANK	BNA-Water	2-Nitrophenol	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	3,3'-Dichlorobenzidine	39	ug/L	U	39	160
10/24/05 12:33	BLANK	BNA-Water	4,4'-DDD	1.5	ug/L	U	1.5	5.9
10/24/05 12:33	BLANK	BNA-Water	4,4'-DDE	1.5	ug/L	U	1.5	5.9
10/24/05 12:33	BLANK	BNA-Water	4,4'-DDT	1.5	ug/L	U	1.5	5.9
10/24/05 12:33	BLANK	BNA-Water	4-Bromophenyl phenyl ether	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	4-Chloro-3-methylphenol	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	4-Chlorophenyl phenyl ether	2	ug/L	U	2	7.8
10/24/05 12:33	BLANK	BNA-Water	4-Nitrophenol	15	ug/L	U	15	59
10/24/05 12:33	BLANK	BNA-Water	Acenaphthene	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	Acenaphthylene	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	Aldrin	1.5	ug/L	U	1.5	5.9
10/24/05 12:33	BLANK	BNA-Water	alpha-BHC	1.5	ug/L	U	1.5	5.9
10/24/05 12:33	BLANK	BNA-Water	Anthracene	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	Benzidine	98	ug/L	UJ	98	390

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
10/24/05 12:33	BLANK	BNA-Water	Benzo(a)anthracene	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	Benzo(a)pyrene	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	Benzo(b)fluoranthene	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	Benzo(g,h,i)perylene	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	Benzo(k)fluoranthene	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	beta-BHC	1.5	ug/L	U	1.5	5.9
10/24/05 12:33	BLANK	BNA-Water	Bis(2-chloroethoxy)methane	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	Bis(2-chloroethyl)ether	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	12
10/24/05 12:33	BLANK	BNA-Water	Bis(2-ethylhexyl)phthalate	15	ug/L	U	15	59
10/24/05 12:33	BLANK	BNA-Water	Butyl benzyl phthalate	4.9	ug/L	U	4.9	20
10/24/05 12:33	BLANK	BNA-Water	Chrysene	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	delta-BHC	1.5	ug/L	U	1.5	5.9
10/24/05 12:33	BLANK	BNA-Water	Dibenzo(a,h)anthracene	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	Dieldrin	1.5	ug/L	U	1.5	5.9
10/24/05 12:33	BLANK	BNA-Water	Diethyl phthalate	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	Dimethyl phthalate	49	ug/L	U	49	200
10/24/05 12:33	BLANK	BNA-Water	Di-n-butyl phthalate	4.9	ug/L	U	4.9	20
10/24/05 12:33	BLANK	BNA-Water	Di-n-octyl phthalate	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	Endosulfan I	3.9	ug/L	U	3.9	16
10/24/05 12:33	BLANK	BNA-Water	Endosulfan II	3.9	ug/L	U	3.9	16
10/24/05 12:33	BLANK	BNA-Water	Endosulfan sulfate	1.5	ug/L	U	1.5	5.9
10/24/05 12:33	BLANK	BNA-Water	Endrin	1.5	ug/L	UJ	1.5	5.9
10/24/05 12:33	BLANK	BNA-Water	Endrin aldehyde	3.9	ug/L	U	3.9	16
10/24/05 12:33	BLANK	BNA-Water	Fluoranthene	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	Fluorene	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	gamma-BHC	1.5	ug/L	U	1.5	5.9
10/24/05 12:33	BLANK	BNA-Water	Heptachlor	1.5	ug/L	U	1.5	5.9
10/24/05 12:33	BLANK	BNA-Water	Heptachlor epoxide	1.5	ug/L	U	1.5	5.9
10/24/05 12:33	BLANK	BNA-Water	Hexachlorobenzene	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	Hexachlorobutadiene	2.9	ug/L	UJ	2.9	12
10/24/05 12:33	BLANK	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	12
10/24/05 12:33	BLANK	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	12
10/24/05 12:33	BLANK	BNA-Water	Indeno(1,2,3-cd)pyrene	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	Isophorone	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	Naphthalene	0.98	ug/L	U	0.98	3.9

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
10/24/05 12:33	BLANK	BNA-Water	Nitrobenzene	2	ug/L	U	2	7.8
10/24/05 12:33	BLANK	BNA-Water	N-Nitrosodimethylamine	2	ug/L	U	2	7.8
10/24/05 12:33	BLANK	BNA-Water	N-Nitrosodi-n-propylamine	2	ug/L	U	2	7.8
10/24/05 12:33	BLANK	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	12
10/24/05 12:33	BLANK	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	12
10/24/05 12:33	BLANK	BNA-Water	Phenanthrene	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	Phenol	0.98	ug/L	U	0.98	3.9
10/24/05 12:33	BLANK	BNA-Water	Pyrene	0.98	ug/L	U	0.98	3.9
10/24/05 12:15	D-001	BNA-Water	1,2,4-Trichlorobenzene	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	1,2-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	1,3-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	1,4-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	2,4,6-Trichlorophenol	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	2,4-Dichlorophenol	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
10/24/05 12:15	D-001	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	58
10/24/05 12:15	D-001	BNA-Water	2,4-Dinitrotoluene	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	2,6-Dinitrotoluene	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	2-Chloronaphthalene	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	2-Chlorophenol	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	12
10/24/05 12:15	D-001	BNA-Water	2-Nitrophenol	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
10/24/05 12:15	D-001	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.8
10/24/05 12:15	D-001	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.8
10/24/05 12:15	D-001	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.8
10/24/05 12:15	D-001	BNA-Water	4-Bromophenyl phenyl ether	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	4-Chloro-3-methylphenol	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.7
10/24/05 12:15	D-001	BNA-Water	4-Nitrophenol	14	ug/L	U	14	58
10/24/05 12:15	D-001	BNA-Water	Acenaphthene	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	Acenaphthylene	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.8
10/24/05 12:15	D-001	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.8
10/24/05 12:15	D-001	BNA-Water	Anthracene	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	Benzidine	96	ug/L	UJ	96	380

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
10/24/05 12:15	D-001	BNA-Water	Benzo(a)anthracene	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	Benzo(a)pyrene	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	Benzo(b)fluoranthene	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	Benzo(g,h,i)perylene	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	Benzo(k)fluoranthene	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.8
10/24/05 12:15	D-001	BNA-Water	Bis(2-chloroethoxy)methane	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	Bis(2-chloroethyl)ether	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	12
10/24/05 12:15	D-001	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	58
10/24/05 12:15	D-001	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
10/24/05 12:15	D-001	BNA-Water	Chrysene	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.8
10/24/05 12:15	D-001	BNA-Water	Dibenzo(a,h)anthracene	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.8
10/24/05 12:15	D-001	BNA-Water	Diethyl phthalate	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
10/24/05 12:15	D-001	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
10/24/05 12:15	D-001	BNA-Water	Di-n-octyl phthalate	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
10/24/05 12:15	D-001	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
10/24/05 12:15	D-001	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.8
10/24/05 12:15	D-001	BNA-Water	Endrin	1.4	ug/L	UJ	1.4	5.8
10/24/05 12:15	D-001	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
10/24/05 12:15	D-001	BNA-Water	Fluoranthene	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	Fluorene	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.8
10/24/05 12:15	D-001	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.8
10/24/05 12:15	D-001	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.8
10/24/05 12:15	D-001	BNA-Water	Hexachlorobenzene	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	Hexachlorobutadiene	2.9	ug/L	UJ	2.9	12
10/24/05 12:15	D-001	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	12
10/24/05 12:15	D-001	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	12
10/24/05 12:15	D-001	BNA-Water	Indeno(1,2,3-cd)pyrene	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	Isophorone	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	Naphthalene	0.96	ug/L	U	0.96	3.8

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
10/24/05 12:15	D-001	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.7
10/24/05 12:15	D-001	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.7
10/24/05 12:15	D-001	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.7
10/24/05 12:15	D-001	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	12
10/24/05 12:15	D-001	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	12
10/24/05 12:15	D-001	BNA-Water	Phenanthrene	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	Phenol	0.96	ug/L	U	0.96	3.8
10/24/05 12:15	D-001	BNA-Water	Pyrene	0.96	ug/L	U	0.96	3.8
10/24/05 12:33	BLANK	GC-Water	Alachlor	0.57	ug/L	U	0.57	2.3
10/24/05 12:33	BLANK	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.19
10/24/05 12:33	BLANK	GC-Water	Atrazine	0.048	ug/L	U	0.048	0.19
10/24/05 12:33	BLANK	GC-Water	Azinphos Methyl	0.19	ug/L	UJ	0.19	0.76
10/24/05 12:33	BLANK	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
10/24/05 12:33	BLANK	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
10/24/05 12:33	BLANK	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.19
10/24/05 12:33	BLANK	GC-Water	Chlorpyrifos Methyl	0.095	ug/L	U	0.095	0.38
10/24/05 12:33	BLANK	GC-Water	Diazinon	0.048	ug/L	UJ	0.048	0.19
10/24/05 12:33	BLANK	GC-Water	Ethion	0.048	ug/L	U	0.048	0.19
10/24/05 12:33	BLANK	GC-Water	Ethoprop	0.095	ug/L	U	0.095	0.38
10/24/05 12:33	BLANK	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
10/24/05 12:33	BLANK	GC-Water	Fonofos	0.095	ug/L	U	0.095	0.38
10/24/05 12:33	BLANK	GC-Water	Hexazinone	0.095	ug/L	U	0.095	0.38
10/24/05 12:33	BLANK	GC-Water	Malathion	0.14	ug/L	UJ	0.14	0.56
10/24/05 12:33	BLANK	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
10/24/05 12:33	BLANK	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.9
10/24/05 12:33	BLANK	GC-Water	Metribuzin	0.095	ug/L	U	0.095	0.38
10/24/05 12:33	BLANK	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
10/24/05 12:33	BLANK	GC-Water	Naled	0.76	ug/L	U	0.76	3
10/24/05 12:33	BLANK	GC-Water	Norflurazon	0.14	ug/L	U	0.14	0.56
10/24/05 12:33	BLANK	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
10/24/05 12:33	BLANK	GC-Water	Parathion Methyl	0.095	ug/L	U	0.095	0.38
10/24/05 12:33	BLANK	GC-Water	Phorate	0.048	ug/L	U	0.048	0.19
10/24/05 12:33	BLANK	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
10/24/05 12:33	BLANK	GC-Water	Simazine	0.048	ug/L	U	0.048	0.19
10/24/05 12:15	D-001	GC-Water	Alachlor	0.6	ug/L	U	0.6	2.4
10/24/05 12:15	D-001	GC-Water	Ametryn	0.05	ug/L	U	0.05	0.2

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
10/24/05 12:15	D-001	GC-Water	Atrazine	0.05	ug/L	U	0.05	0.2
10/24/05 12:15	D-001	GC-Water	Azinphos Methyl	0.2	ug/L	UJ	0.2	0.8
10/24/05 12:15	D-001	GC-Water	Bromacil	0.2	ug/L	U	0.2	0.8
10/24/05 12:15	D-001	GC-Water	Butylate	0.2	ug/L	U	0.2	0.8
10/24/05 12:15	D-001	GC-Water	Chlorpyrifos Ethyl	0.05	ug/L	U	0.05	0.2
10/24/05 12:15	D-001	GC-Water	Chlorpyrifos Methyl	0.1	ug/L	U	0.1	0.4
10/24/05 12:15	D-001	GC-Water	Diazinon	0.05	ug/L	UJ	0.05	0.2
10/24/05 12:15	D-001	GC-Water	Ethion	0.05	ug/L	U	0.05	0.2
10/24/05 12:15	D-001	GC-Water	Ethoprop	0.1	ug/L	U	0.1	0.4
10/24/05 12:15	D-001	GC-Water	Fenamiphos	0.2	ug/L	U	0.2	0.8
10/24/05 12:15	D-001	GC-Water	Fonofos	0.1	ug/L	U	0.1	0.4
10/24/05 12:15	D-001	GC-Water	Hexazinone	0.1	ug/L	U	0.1	0.4
10/24/05 12:15	D-001	GC-Water	Malathion	0.15	ug/L	UJ	0.15	0.6
10/24/05 12:15	D-001	GC-Water	Metalaxyl	0.25	ug/L	U	0.25	1
10/24/05 12:15	D-001	GC-Water	Metolachlor	0.5	ug/L	U	0.5	2
10/24/05 12:15	D-001	GC-Water	Metribuzin	0.1	ug/L	U	0.1	0.4
10/24/05 12:15	D-001	GC-Water	Mevinphos	0.2	ug/L	U	0.2	0.8
10/24/05 12:15	D-001	GC-Water	Naled	0.8	ug/L	U	0.8	3.2
10/24/05 12:15	D-001	GC-Water	Norflurazon	0.15	ug/L	U	0.15	0.6
10/24/05 12:15	D-001	GC-Water	Parathion Ethyl	0.15	ug/L	U	0.15	0.6
10/24/05 12:15	D-001	GC-Water	Parathion Methyl	0.1	ug/L	U	0.1	0.4
10/24/05 12:15	D-001	GC-Water	Phorate	0.05	ug/L	U	0.05	0.2
10/24/05 12:15	D-001	GC-Water	Prometryn	0.15	ug/L	U	0.15	0.6
10/24/05 12:15	D-001	GC-Water	Simazine	0.05	ug/L	U	0.05	0.2
10/24/05 12:33	BLANK	Metals-Water	Aluminum	5	ug/L	U	5	20
10/24/05 12:33	BLANK	Metals-Water	Arsenic	4	ug/L	U	4	16
10/24/05 12:33	BLANK	Metals-Water	Cadmium	0.05	ug/L	U	0.05	0.2
10/24/05 12:33	BLANK	Metals-Water	Calcium	0.05	mg/L	U	0.05	0.2
10/24/05 12:33	BLANK	Metals-Water	Chromium	2	ug/L	U	2	8
10/24/05 12:33	BLANK	Metals-Water	Copper	0.5	ug/L	U	0.5	2
10/24/05 12:33	BLANK	Metals-Water	Iron	10	ug/L	U	10	40
10/24/05 12:33	BLANK	Metals-Water	Lead	0.075	ug/L	U	0.075	0.3
10/24/05 12:33	BLANK	Metals-Water	Magnesium	0.01	mg/L	U	0.01	0.04
10/24/05 12:33	BLANK	Metals-Water	Nickel	2	ug/L	U	2	8
10/24/05 12:33	BLANK	Metals-Water	Selenium	0.5	ug/L	U	0.5	2
10/24/05 12:33	BLANK	Metals-Water	Silver	0.025	ug/L	U	0.025	0.1

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
10/24/05 12:33	BLANK	Metals-Water	Zinc	3	ug/L	U	3	12
10/24/05 12:15	D-001	Metals-Water	Aluminum	7.3	ug/L	I	5	20
10/24/05 12:15	D-001	Metals-Water	Arsenic	4	ug/L	U	4	16
10/24/05 12:15	D-001	Metals-Water	Cadmium	0.05	ug/L	U	0.05	0.2
10/24/05 12:15	D-001	Metals-Water	Calcium	124	mg/L		0.05	0.2
10/24/05 12:15	D-001	Metals-Water	Chromium	2	ug/L	U	2	8
10/24/05 12:15	D-001	Metals-Water	Copper	1	ug/L	U	1	4
10/24/05 12:15	D-001	Metals-Water	Iron	71	ug/L		10	40
10/24/05 12:15	D-001	Metals-Water	Lead	0.075	ug/L	U	0.075	0.3
10/24/05 12:15	D-001	Metals-Water	Magnesium	40.1	mg/L		0.01	0.04
10/24/05 12:15	D-001	Metals-Water	Nickel	4	ug/L	I	2	8
10/24/05 12:15	D-001	Metals-Water	Selenium	10	ug/L	U	10	40
10/24/05 12:15	D-001	Metals-Water	Silver	0.025	ug/L	U	0.025	0.1
10/24/05 12:15	D-001	Metals-Water	Zinc	3	ug/L	U	3	12
10/24/05 12:33	BLANK	Nutrients-Liquid	Ammonia-N	0.01	mg N/L	U	0.01	0.02
10/24/05 12:33	BLANK	Nutrients-Liquid	Kjeldahl Nitrogen	0.08	mg N/L	U	0.08	0.2
10/24/05 12:33	BLANK	Nutrients-Liquid	NO2NO3-N	0.004	mg N/L	U	0.004	0.01
10/24/05 12:33	BLANK	Nutrients-Liquid	O-Phosphate-P	0.004	mg P/L	U	0.004	0.01
10/24/05 12:33	BLANK	Nutrients-Liquid	Total-P	0.004	mg P/L	U	0.004	0.01
10/24/05 12:15	D-001	Nutrients-Liquid	Ammonia-N	0.035	mg N/L		0.01	0.02
10/24/05 12:15	D-001	Nutrients-Liquid	Kjeldahl Nitrogen	0.42	mg N/L		0.08	0.2
10/24/05 12:15	D-001	Nutrients-Liquid	NO2NO3-N	0.004	mg N/L	U	0.004	0.01
10/24/05 12:15	D-001	Nutrients-Liquid	O-Phosphate-P	0.004	mg P/L	U	0.004	0.01
10/24/05 12:15	D-001	Nutrients-Liquid	Total-P	0.013	mg P/L		0.004	0.01
10/24/05 12:15	D-001	Nutrients-Liquid	Turbidity	1.7	NTU		0.05	0.05

The Bioassay of Florida Rock Industries- Gulf Hammock Quarry effluent sampled on October 24, 2005. NPDES #FL0044300.

Fill Out This Section For All Surface Water Discharger Inspections(CEI, CSI, CBI, PAI, XSI-RI Optional)

Transaction Code	NPDES NUMBER	YR/MO/DA	Insp Type	Inspector	Fac Type
1 N 2 5	3 F L 0 0 4 4 3 0 0 11	12 0 5 1 0 2 4	18 **B**	19 **S**	20 2

Remarks

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The Priority Pollutants Analysis of Florida Rock Industries- Gulf Hammock Quarry effluent sampled on October 24, 2005. NPDES #FL0044300.

Fill Out This Section For All Surface Water Discharger Inspections(CEI, CSI, CBI, PAI, XSI-RI Optional)

Transaction Code	NPDES NUMBER	YR/MO/DA	Insp Type	Inspector	Fac Type
1 N 2 5	3 F L 0 0 4 4 3 0 0 11	12 0 5 1 0 2 4	18 **X**	19 **S**	20 2

Remarks

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Biological Analyses of Florida Rock Industries- Gulf Hammock Quarry effluent sampled on October 24, 2005. NPDES #FL0044300.

Fill Out This Section For All Surface Water Discharger Inspections(CEI, CSI, CBI, PAI, XSI-RI Optional)

Transaction Code	NPDES NUMBER	YR/MO/DA	Insp Type	Inspector	Fac Type
1 N 2 5	3 F L 0 0 4 4 3 0 0 11	12 0 5 1 0 2 4	18 **S**	19 **S**	20 2

Remarks

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