

Bioassays of

Sailfish Point Utility Corporation
Reverse Osmosis Concentrate Disposal Facility

Martin County

NPDES #FL0037001

Sampled September 12, 2005

November 2005

Biology Section
Bureau of Laboratories
Division of Resource Assessment and Management

Quality Manual No. 870346G
NELAC Certification No. E31780

Sailfish Point Utility Corporation, Reverse Osmosis Concentrate Disposal Facility, 6929 SE Marina Way, Stuart, Martin County, Florida, NPDES #FL0037001. Effluent samples for this facility were collected on September 12, 2005.

Introduction

The Sailfish Point Utility Corporation's Sailfish Point Reverse Osmosis (RO) Concentrate Disposal Facility is a RO water treatment facility that provides drinking water to 665 homes of a housing development. The facility has a production capacity of 0.350 million gallons per day (MGD) of potable water. The facility has a design flow of 0.115 MGD, and the mean flow from August 1, 2004, through July 31, 2005, was 0.077 MGD. Discharge from the facility is intermittent. Raw water is withdrawn from the Floridan Aquifer via two supply wells drilled to depths below 304.8 m (1,000 feet). RO concentrate and other side-streams of liquid waste, such as degasifier off-gas scrubber solution, are treated with the addition of sodium hydroxide for pH adjustment and then aeration through a gravel bed trench to remove excess hydrogen sulfide. The treated concentrate is discharged through internal Outfall I-002 into the first lake in a series of five storm water detention lakes (having an approximate total storage capacity of 26 million gallons) in the housing development's golf course. Concentrate is diluted by natural mixing within the lakes before discharging through Outfall D-001 into a marsh area and thence a harbor (Class II Marine) connected to the Indian River Lagoon.

There are no Administrative or Consent Orders for this facility. The facility has no mixing zones and no toxicity test requirements. Bioassays conducted on samples collected from the discharge point of the lake system into State waters on August 1, 2000, were toxic to *Americamysis bahia* but were not toxic to *Menidia beryllina*. Toxicity was attributed to ion imbalance (ion makeup of sample not being in proportion with the ion make up of natural seawater). Over the past three review periods for the facility, there has been a general increase in flow from 0.067 to 0.077 MGD, and an increase in total dissolved solids (TDS) from 7,825 to 9,175 mg/L (facility information provided by Terry Davis of FDEP Southeast District).

Methods

Samples were collected from the EFF-01 NPDES sampling point for Internal Outfall I-002 by Terry Davis (FDEP Southeast 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_03, TA07_04, 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.

The control water for these tests was prepared by diluting 20 parts per thousand (ppth) artificial seawater with well water to the approximate test salinity of 8.8 ppth.

Toxicity Test Results

Tests were performed September 13 - 15, 2005.

Americamysis bahia 48-hr acute screening bioassay –	LC_{50} > 100%, 80% mortality* in 100% sample at 48 hours
Menidia beryllina 48-hr acute screening bioassay –	LC_{50} > 100%, 0% mortality* in 100% sample at 48 hours

The bioassay sample was acutely toxic to the mysid, *Americamysis bahia*. The bioassay sample was not acutely toxic to the fish, *Menidia beryllina*.

*NOTE: In a 48-hr 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.).

The chemistry results confirmed that the ion makeup of the sample was not in seawater proportions and that the apparent 8.8 ppth salinity of the sample was due to elevated levels of groundwater ions. The observed mortality in the *A. bahia* test is due, at least in part, to the seawater-ion imbalance of the sample. Previous research conducted by the FDEP Biology Section demonstrated that *A. bahia* is much more sensitive to seawater-ion imbalances than is *M. beryllina* (DEP, 1995). Effluent calcium concentration was 395 mg/L at 8.8 ppth salinity (salinity based on conductivity and temperature), which is 275% greater than the normal concentration for calcium in seawater of this salinity. Effluent magnesium concentration was measured at 394 mg/L at 8.8 ppth salinity, which is 22% greater than the normal concentration for magnesium in seawater of this salinity. The elevated calcium and magnesium concentrations are two sources of toxicity in this sample, but other unidentified sources of toxicity cannot be ruled out without performing the major seawater-ion imbalance toxicity testing protocols cited above.

See Appendix 1 for bioassay bench sheets.

Algal Growth Potential

The effluent Algal Growth Potential (AGP) was 1.15 mg dry wt/L of the saltwater species *Dunaliella tertiolecta.* Raschke and Shultz found that AGP values above 10.0 mg dry weight/L represent a "problem" threshold for marine receiving waters, implying nutrient enrichment (personal communication with Ron Raschke USEPA Region 4 1987). The analytical chemistry suggests that the effluent is phosphorus-limited.

See Table 1 for AGP results.

Chemistry Results

Total residual chlorine was not detected in the bioassay sample in the laboratory. Total ammonia was detected at a concentration of 2.94 mg/L in the bioassay sample in the laboratory. The total ammonia concentration in the sample collected and preserved for chemical analysis was 2.5 mg/L. Based on the pH, salinity, and temperature of the effluent as collected, the calculated unionized ammonia concentration was 0.05 mg/L.

Iron was detected in the effluent at levels that comply with Class III marine water quality criteria.

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 I-002 for this facility on September 12, 2005, was acutely toxic to the *Americamysis bahia* test organisms, but was not toxic to the *Menidia beryllina* test organisms during the acute screen 48-hour bioassays. The observed toxicity was attributed, at least in part, to the seawater-ion imbalance noted in the sample. The effluent AGP result was less

than the "problem" threshold for marine receiving waters. Effluent water quality samples did not exceed any applicable water quality standards or violate any permit conditions.

Literature Cited

FDEP. 1995. Protocols for determining Major-Seawater-Ion Toxicity in Membrane-Technology Water-Treatment Concentrate. Biology and Chemistry Section, FDEP Bureau of Laboratories, Tallahassee, Florida. 99 pp.

Table 1. Algal growth potential (AGP; mg dry wt/L) of Dunaliella tertiolecta *and ratios of nitrogen to phosphorus for samples collected from Sailfish Point Utility Corporation on September 12, 2005.*

Location	AGP (measured)	Inorganic N:P ratio	Total N:P ratio
Effluent Samples	1.15 AV	58.89	96.05

A - Value reported is the mean of two or more determinations
V - Analyte was detected in both sample and method blank

Table 2. Effluent limits, Class II Marine Criteria, and chemical data for samples collected from Sailfish Point Utility Corporation on September 12, 2005.

Sailfish Point Utility Corporation NPDES# FL0037001	Class II Marine Criteria	Effluent Limits	Effluent Samples
Metals (µg/L unless otherwise noted)			
Aluminum	≤ 1,500	-	5 U
Arsenic	≤ 50	-	4 U
Cadmium	≤ 9.3	-	0.25 U
Calcium (mg/L)	-	-	395
Chromium-III	-	-	2 U
Copper	≤ 3.7	-	2.5 U
Iron	≤ 300	-	69
Lead	≤ 8.5	-	0.38 U
Magnesium (mg/L)	-	-	394
Nickel	≤ 8.3	-	2 U
Selenium	≤ 71	-	2.5 U
Silver	≤ 2.3	-	0.12 U
Zinc	≤ 86	-	6.4 U
Nutrients (mg/L)			
Ortho-phosphate	-	-	0.045
Total Phosphorus	-	Report	0.038 I
Ammonia	-	-	2.5
Unionized Ammonia	-	-	0.05 c
Nitrate+Nitrite	-	-	0.15
Total Kjeldahl Nitrogen	-	-	3.5
Organic Nitrogen	-	-	1 c
Total Nitrogen	-	Report	3.65 c
General Physical and Chemical Parameters			
Alpha, Gross (pCi/L)	≤ 15	-	30.5 U
Alpha-Counting Error (pCi/L)	-	-	18.6
Chloride (mg/L)	-	Report	-
Fluoride (mg/L)	≤ 10	Report	2.8
Hydrogen sulfide (mg/L)	-	Report	-
Total dissolved solids (mg/L)	-	Report	-
Dissolved Oxygen (mg/L)	≥ 4.0	-	6.8
pH (S.U.)	6.5-8.5	Report	7.4
Conductivity (umhos/cm)	-	-	15,630
Temperature (C)	-	-	26.8
Flow (MGD)	-	0.115 m	0.077 a
Hardness (mg/L)	-	-	2,608.8 c

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

a - Annual average

c - Calculated value

m - Monthly average

I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

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

FDEP Biology Section - Acute Bioassay Bench Sheets

Facility: Sailfish Point RO Concentrate Disposal

Address: 6929 SE Marina Way

City: Stuart County: Martin

Contact/District: Terry Davis / Southeast District

NPDES Permit #: FL 0037001

LIMS Job # TLH-2005-09-13-67 LIMS Sample #: 8603421

Lims Data Entry: MF 9/23/05 Data Entry Verification: 9/23/05 SP

Sample Collection: Date: 9-12-05 Time: 1050

Hold time Start: Date: 9-12-05 Time: 1050

Comments: Sample salinity not adjusted. Control water prepared by diluting 20ppth ASW to with well water to a salinity of ~ 8.8 parts per thousand. MF 9-13-05

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

Test Type: (Screening) Definitive

(Static) Static Renewal / Flow-through

Test Duration: (48) 96 Hours

Light Intensity : 50 - 100 ft. candles

Photoperiod : 16 hours light 8 hours dark

Initial sample handling:

Test 1 validation: Test 1: SOP TA07_ 03

Control survival ≥90%: (Yes) No

Temperature Range ≤3°C: (Yes) No

Test 2 validation: Test 2: SOP TA07_ 04

Control survival ≥90%: (Yes) No

Temperature Range ≤3°C: (Yes) No

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

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)

Temperature Range °C

Incubator # 3 Range 241-244

Room 8246: 236 237

Waterbath: N/A

Investigators' Signatures

Sarah Fairchild
Manuel Fairchild

Eric Cassi
James David

Nicole Millard

REVIEWER

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Water Quality Parameters	20% DMW	Well Water	Salt Water (ASW) NSW Test 1	Salt Water (ASW) NSW Test 2	Moderately Hard Water	Original Sample	Method	Measured by	Verified by
Field Total Residual Cl2 (mg/L):	N/A	N/A	N/A	N/A	N/A	not measured	-	-	SP
Lab Total Residual Cl2 (mg/L):			<0.03	<0.03		<.03	HACH	EW	SP
Alkalinity (mg/L as $CaCO_3$)			198	198		204	HACH	EW	SP
Hardness (mg/L as $CaCO_3$):			-	-		-	HACH	-	SP
Total Ammonia (mg/L as N)			<0.034	<0.034		2.94	DENVER	MF	SP
Salinity (ppth)			8.8	8.8		8.8	YSI Mettler	JD	MF

Appendix 1. Bench Sheets (continued)

FDEP Biology Section - - Bioassay Bench Sheet

Survival

LIMS Sample #: 803421 Test #: 1 Test Started: Date 9-13-05 Time: 13:00

Organism: A.bahia Test Ended: Date 9-15-05 Time: 1315

Organism Batch: 20-05 Diluent/ Batch: ASW / 12-05

Organism Age: 4 days Food: YCT *P. subcapitata* *Artemia*

Chamber Size 1000 mL Batch: - - 35138425GR

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	C39	5	5	5			
	B	C10	5	5	5			
	C	C11	5	5	5			
	D	C12	5	5	5			
~~Salt CTRL~~	~~A~~	~~C13~~						
	~~B~~	~~C14~~						
	~~C~~	~~C15~~						
	~~D~~	~~C16~~						
100%	A	F9	5	14D	1			
	B	F10	5	14D	0 1D			
	C	F11	5	4 1D	2 2D			
	D	F12	5	2 3D	1 1D			
Organisms loaded by: JD / Loading verified at 0 hours by: MF		Checked by: (initials)	[redacted]	JD	JD			

Comments: Salt control not needed mf 9-13-05

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

Test Results:

% mortality in 100% sample 80

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)

FDEP Biology Section - - Bioassay Bench Sheet

Survival

LIMS Sample #: 863421 Test #: 2 Test Started: Date 9-13-05 Time: 13:00

Organism: M. beryllina Test Ended: Date 9-15-05 Time: 1315

Organism Batch: 22-05 Diluent/ Batch: ASW / 12-05

Organism Age: 10 days Food: YCT *P. subcapitata* *Artemia*

Chamber Size 1000 mL Batch: - - 35138425GR

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	C17	5	5	5			
	B	C18	5	5	5			
	C	C19	5	5	5			
	D	C20	5	5	5			
~~Salt CTRL~~	~~A~~	~~C21~~						
	~~B~~	~~C22~~						
	~~C~~	~~C23~~						
	~~D~~	~~C24~~						
100%	A	F13	5	5	5			
	B	F14	5	5	5			
	C	F15	5	5	5			
	D	F16	5	5	5			
Organisms loaded by: JD		Checked by: (initials)	[redacted]	JD	JD			

Loading verified at 0 hours by: MF

Comments: Salt control not needed MF 9-13-05

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

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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Bioassay Parameters

LIMS Sample # : 863421 Test # : 1 of 2

TEST SOP: TA07_03 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.)	8.2	8.0	8.2			
Temperature °C	25.1	25.4	25.8			
Dissolved Oxygen mg/L	6.8	5.3	4.8			
Conductivity µmhos (mmhos)	15.2	15.2	16.2			
(initials) Measured by:	JD	SP	SP			
(initials) Recorded by:	JD	SP	SP			

Comments:

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

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.)	7.6	8.0	8.3			
Temperature °C	25.3	25.6	25.1			
Dissolved Oxygen mg/L	5.6	4.9	4.2			
Conductivity µmhos (mmhos)	15.5	15.6	16.0			
(initials) Measured by:	JD	SP	SP			
(initials) Recorded by:	JD	SP	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:

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Biossay Parameters

LIMS Sample # : 863421 **Test # :** 2 **of** 2

TEST SOP: TA07_ 04 **Test Species:** *Ceriodaphnia dubia Cyprinella leedsi Pimephales promelas Americamysis bahia* (*Menidia beryllina*) Other:_____

V.1 2/24/04

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.)	8.2	8.2	8.0			
Temperature °C	25.1	25.2	24.7			
Dissolved Oxygen mg/L	6.8	6.5	6.5			
Conductivity µmhos (mmhos)	15.1	15.1	16.0			
(initials) Measured by:	JD	BP	[illegible]			
(initials) Recorded by:	JD	BP	[illegible]			

Comments:

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

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.)	~~7.6~~ 8.1	8.1	8.1			
Temperature °C	25.3	25.0	24.4			
Dissolved Oxygen mg/L	5.4	6.5	5.6			
Conductivity µmhos (mmhos)	15.5	15.7	16.2			
(initials) Measured by:	JD	BP	[illegible]			
(initials) Recorded by:	JD	BP	[illegible]			

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:

V.1 2/24/04

Appendix 2. Chemical Analyses performed on the effluent from the Sailfish Point Utility Corporation Outfall I-002, sampled on September 12, 2005.

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
9/12/2005 10:50	Effluent	Bio-AGP/LimNut	Algal Growth Potential	1.15	mg DryWt/L	AV	0.3	0.9
9/12/2005 10:50	Effluent	Bio-Chl-a	Chlorophyll-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
9/12/2005 10:50	Effluent	Bio-Chl-a	Phaeophytin-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
9/12/2005 10:50	Effluent	Bio-Toxicology	Bioassay-Acute-Screen-SW-Fish, LC50	100	LC50	L		
9/12/2005 10:50	Effluent	Bio-Toxicology	Bioassay-Acute-Screen-SW-Mysid, LC50	100	LC50	L		
9/12/2005 10:50	Effluent	BNA-Water	1,2,4-Trichlorobenzene	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	1,2-Dichlorobenzene	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	1,3-Dichlorobenzene	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	1,4-Dichlorobenzene	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	2,4,6-Trichlorophenol	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	2,4-Dichlorophenol	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	2,4-Dimethylphenol	47	ug/L	U	47	190
9/12/2005 10:50	Effluent	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	57
9/12/2005 10:50	Effluent	BNA-Water	2,4-Dinitrotoluene	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	2,6-Dinitrotoluene	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	2-Chloronaphthalene	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	2-Chlorophenol	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	2-Methyl-4,6-dinitrophenol	2.8	ug/L	U	2.8	11
9/12/2005 10:50	Effluent	BNA-Water	2-Nitrophenol	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
9/12/2005 10:50	Effluent	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
9/12/2005 10:50	Effluent	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7
9/12/2005 10:50	Effluent	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.7
9/12/2005 10:50	Effluent	BNA-Water	4-Bromophenyl phenyl ether	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	4-Chloro-3-methylphenol	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.5
9/12/2005 10:50	Effluent	BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
9/12/2005 10:50	Effluent	BNA-Water	Acenaphthene	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	Acenaphthylene	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
9/12/2005 10:50	Effluent	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
9/12/2005 10:50	Effluent	BNA-Water	Anthracene	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	Benzidine	94	ug/L	U	94	380
9/12/2005 10:50	Effluent	BNA-Water	Benzo(a)anthracene	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	Benzo(a)pyrene	0.94	ug/L	U	0.94	3.8

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
9/12/2005 10:50	Effluent	BNA-Water	Benzo(b)fluoranthene	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	Benzo(g,h,i)perylene	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	Benzo(k)fluoranthene	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
9/12/2005 10:50	Effluent	BNA-Water	Bis(2-chloroethoxy)methane	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	Bis(2-chloroethyl)ether	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	Bis(2-chloroisopropyl)ether	2.8	ug/L	U	2.8	11
9/12/2005 10:50	Effluent	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
9/12/2005 10:50	Effluent	BNA-Water	Butyl benzyl phthalate	4.7	ug/L	U	4.7	19
9/12/2005 10:50	Effluent	BNA-Water	Chrysene	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
9/12/2005 10:50	Effluent	BNA-Water	Dibenzo(a,h)anthracene	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
9/12/2005 10:50	Effluent	BNA-Water	Diethyl phthalate	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	Dimethyl phthalate	47	ug/L	U	47	190
9/12/2005 10:50	Effluent	BNA-Water	Di-n-butyl phthalate	4.7	ug/L	U	4.7	19
9/12/2005 10:50	Effluent	BNA-Water	Di-n-octyl phthalate	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
9/12/2005 10:50	Effluent	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
9/12/2005 10:50	Effluent	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
9/12/2005 10:50	Effluent	BNA-Water	Endrin	1.4	ug/L	UJ	1.4	5.7
9/12/2005 10:50	Effluent	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
9/12/2005 10:50	Effluent	BNA-Water	Fluoranthene	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	Fluorene	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
9/12/2005 10:50	Effluent	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
9/12/2005 10:50	Effluent	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
9/12/2005 10:50	Effluent	BNA-Water	Hexachlorobenzene	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	Hexachlorobutadiene	2.8	ug/L	U	2.8	11
9/12/2005 10:50	Effluent	BNA-Water	Hexachlorocyclopentadiene	2.8	ug/L	U	2.8	11
9/12/2005 10:50	Effluent	BNA-Water	Hexachloroethane	2.8	ug/L	U	2.8	11
9/12/2005 10:50	Effluent	BNA-Water	Indeno(1,2,3-cd)pyrene	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	Isophorone	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	Naphthalene	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.5
9/12/2005 10:50	Effluent	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.5

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
9/12/2005 10:50	Effluent	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.5
9/12/2005 10:50	Effluent	BNA-Water	N-Nitrosodiphenylamine	2.8	ug/L	U	2.8	11
9/12/2005 10:50	Effluent	BNA-Water	Pentachlorophenol	2.8	ug/L	U	2.8	11
9/12/2005 10:50	Effluent	BNA-Water	Phenanthrene	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	Phenol	0.94	ug/L	U	0.94	3.8
9/12/2005 10:50	Effluent	BNA-Water	Pyrene	0.94	ug/L	U	0.94	3.8
9/12/2005 11:20	Field Blank	BNA-Water	1,2,4-Trichlorobenzene	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	1,2-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	1,3-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	1,4-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	2,4,6-Trichlorophenol	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	2,4-Dichlorophenol	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
9/12/2005 11:20	Field Blank	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	57
9/12/2005 11:20	Field Blank	BNA-Water	2,4-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	2,6-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	2-Chloronaphthalene	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	2-Chlorophenol	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	11
9/12/2005 11:20	Field Blank	BNA-Water	2-Nitrophenol	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
9/12/2005 11:20	Field Blank	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
9/12/2005 11:20	Field Blank	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7
9/12/2005 11:20	Field Blank	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.7
9/12/2005 11:20	Field Blank	BNA-Water	4-Bromophenyl phenyl ether	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	4-Chloro-3-methylphenol	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.6
9/12/2005 11:20	Field Blank	BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
9/12/2005 11:20	Field Blank	BNA-Water	Acenaphthene	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	Acenaphthylene	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
9/12/2005 11:20	Field Blank	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
9/12/2005 11:20	Field Blank	BNA-Water	Anthracene	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	Benzidine	95	ug/L	U	95	380
9/12/2005 11:20	Field Blank	BNA-Water	Benzo(a)anthracene	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	Benzo(a)pyrene	0.95	ug/L	U	0.95	3.8

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
9/12/2005 11:20	Field Blank	BNA-Water	Benzo(b)fluoranthene	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	Benzo(g,h,i)perylene	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	Benzo(k)fluoranthene	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
9/12/2005 11:20	Field Blank	BNA-Water	Bis(2-chloroethoxy)methane	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	Bis(2-chloroethyl)ether	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	11
9/12/2005 11:20	Field Blank	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
9/12/2005 11:20	Field Blank	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
9/12/2005 11:20	Field Blank	BNA-Water	Chrysene	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
9/12/2005 11:20	Field Blank	BNA-Water	Dibenzo(a,h)anthracene	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
9/12/2005 11:20	Field Blank	BNA-Water	Diethyl phthalate	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
9/12/2005 11:20	Field Blank	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
9/12/2005 11:20	Field Blank	BNA-Water	Di-n-octyl phthalate	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
9/12/2005 11:20	Field Blank	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
9/12/2005 11:20	Field Blank	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
9/12/2005 11:20	Field Blank	BNA-Water	Endrin	1.4	ug/L	UJ	1.4	5.7
9/12/2005 11:20	Field Blank	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
9/12/2005 11:20	Field Blank	BNA-Water	Fluoranthene	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	Fluorene	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
9/12/2005 11:20	Field Blank	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
9/12/2005 11:20	Field Blank	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
9/12/2005 11:20	Field Blank	BNA-Water	Hexachlorobenzene	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	11
9/12/2005 11:20	Field Blank	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	U	2.9	11
9/12/2005 11:20	Field Blank	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	11
9/12/2005 11:20	Field Blank	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	Isophorone	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	Naphthalene	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.6
9/12/2005 11:20	Field Blank	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.6

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
9/12/2005 11:20	Field Blank	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.6
9/12/2005 11:20	Field Blank	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	11
9/12/2005 11:20	Field Blank	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	11
9/12/2005 11:20	Field Blank	BNA-Water	Phenanthrene	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	Phenol	0.95	ug/L	U	0.95	3.8
9/12/2005 11:20	Field Blank	BNA-Water	Pyrene	0.95	ug/L	U	0.95	3.8
9/12/2005 10:50	Effluent	GC-Water	Alachlor	0.58	ug/L	U	0.58	2.3
9/12/2005 10:50	Effluent	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.19
9/12/2005 10:50	Effluent	GC-Water	Atrazine	0.048	ug/L	U	0.048	0.19
9/12/2005 10:50	Effluent	GC-Water	Azinphos Methyl	0.19	ug/L	U	0.19	0.76
9/12/2005 10:50	Effluent	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
9/12/2005 10:50	Effluent	GC-Water	Butylate	0.19	ug/L	UJ	0.19	0.76
9/12/2005 10:50	Effluent	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.19
9/12/2005 10:50	Effluent	GC-Water	Chlorpyrifos Methyl	0.096	ug/L	U	0.096	0.38
9/12/2005 10:50	Effluent	GC-Water	Diazinon	0.048	ug/L	U	0.048	0.19
9/12/2005 10:50	Effluent	GC-Water	Ethion	0.048	ug/L	U	0.048	0.19
9/12/2005 10:50	Effluent	GC-Water	Ethoprop	0.096	ug/L	UJ	0.096	0.38
9/12/2005 10:50	Effluent	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
9/12/2005 10:50	Effluent	GC-Water	Fonofos	0.096	ug/L	U	0.096	0.38
9/12/2005 10:50	Effluent	GC-Water	Hexazinone	0.096	ug/L	U	0.096	0.38
9/12/2005 10:50	Effluent	GC-Water	Malathion	0.14	ug/L	UJ	0.14	0.56
9/12/2005 10:50	Effluent	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
9/12/2005 10:50	Effluent	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.9
9/12/2005 10:50	Effluent	GC-Water	Metribuzin	0.096	ug/L	U	0.096	0.38
9/12/2005 10:50	Effluent	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
9/12/2005 10:50	Effluent	GC-Water	Naled	0.77	ug/L	UJ	0.77	3.1
9/12/2005 10:50	Effluent	GC-Water	Norflurazon	0.14	ug/L	UJ	0.14	0.56
9/12/2005 10:50	Effluent	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
9/12/2005 10:50	Effluent	GC-Water	Parathion Methyl	0.096	ug/L	U	0.096	0.38
9/12/2005 10:50	Effluent	GC-Water	Phorate	0.048	ug/L	U	0.048	0.19
9/12/2005 10:50	Effluent	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
9/12/2005 10:50	Effluent	GC-Water	Simazine	0.048	ug/L	U	0.048	0.19
9/12/2005 11:20	Field Blank	GC-Water	Alachlor	0.58	ug/L	U	0.58	2.3
9/12/2005 11:20	Field Blank	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.19
9/12/2005 11:20	Field Blank	GC-Water	Atrazine	0.048	ug/L	U	0.048	0.19
9/12/2005 11:20	Field Blank	GC-Water	Azinphos Methyl	0.19	ug/L	U	0.19	0.76

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
9/12/2005 11:20	Field Blank	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
9/12/2005 11:20	Field Blank	GC-Water	Butylate	0.19	ug/L	UJ	0.19	0.76
9/12/2005 11:20	Field Blank	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.19
9/12/2005 11:20	Field Blank	GC-Water	Chlorpyrifos Methyl	0.096	ug/L	U	0.096	0.38
9/12/2005 11:20	Field Blank	GC-Water	Diazinon	0.048	ug/L	U	0.048	0.19
9/12/2005 11:20	Field Blank	GC-Water	Ethion	0.048	ug/L	U	0.048	0.19
9/12/2005 11:20	Field Blank	GC-Water	Ethoprop	0.096	ug/L	UJ	0.096	0.38
9/12/2005 11:20	Field Blank	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
9/12/2005 11:20	Field Blank	GC-Water	Fonofos	0.096	ug/L	U	0.096	0.38
9/12/2005 11:20	Field Blank	GC-Water	Hexazinone	0.096	ug/L	U	0.096	0.38
9/12/2005 11:20	Field Blank	GC-Water	Malathion	0.14	ug/L	UJ	0.14	0.56
9/12/2005 11:20	Field Blank	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
9/12/2005 11:20	Field Blank	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.9
9/12/2005 11:20	Field Blank	GC-Water	Metribuzin	0.096	ug/L	U	0.096	0.38
9/12/2005 11:20	Field Blank	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
9/12/2005 11:20	Field Blank	GC-Water	Naled	0.77	ug/L	UJ	0.77	3.1
9/12/2005 11:20	Field Blank	GC-Water	Norflurazon	0.14	ug/L	UJ	0.14	0.56
9/12/2005 11:20	Field Blank	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
9/12/2005 11:20	Field Blank	GC-Water	Parathion Methyl	0.096	ug/L	U	0.096	0.38
9/12/2005 11:20	Field Blank	GC-Water	Phorate	0.048	ug/L	U	0.048	0.19
9/12/2005 11:20	Field Blank	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
9/12/2005 11:20	Field Blank	GC-Water	Simazine	0.048	ug/L	U	0.048	0.19
9/12/2005 10:50	Effluent	Metals-Water	Aluminum	5	ug/L	U	5	20
9/12/2005 10:50	Effluent	Metals-Water	Arsenic	4	ug/L	U	4	16
9/12/2005 10:50	Effluent	Metals-Water	Cadmium	0.25	ug/L	U	0.25	1
9/12/2005 10:50	Effluent	Metals-Water	Calcium	395	mg/L		0.5	2
9/12/2005 10:50	Effluent	Metals-Water	Chromium	2	ug/L	U	2	8
9/12/2005 10:50	Effluent	Metals-Water	Copper	2.5	ug/L	U	2.5	10
9/12/2005 10:50	Effluent	Metals-Water	Iron	69	ug/L		10	40
9/12/2005 10:50	Effluent	Metals-Water	Lead	0.38	ug/L	U	0.38	1.5
9/12/2005 10:50	Effluent	Metals-Water	Magnesium	394	mg/L		0.1	0.4
9/12/2005 10:50	Effluent	Metals-Water	Nickel	2	ug/L	U	2	8
9/12/2005 10:50	Effluent	Metals-Water	Selenium	2.5	ug/L	U	2.5	10
9/12/2005 10:50	Effluent	Metals-Water	Silver	0.12	ug/L	U	0.12	0.5
9/12/2005 10:50	Effluent	Metals-Water	Zinc	6.4	ug/L	U	6.4	26
9/12/2005 11:20	Field Blank	Metals-Water	Aluminum	5	ug/L	U	5	20

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
9/12/2005 11:20	Field Blank	Metals-Water	Arsenic	4	ug/L	U	4	16
9/12/2005 11:20	Field Blank	Metals-Water	Cadmium	0.05	ug/L	U	0.05	0.2
9/12/2005 11:20	Field Blank	Metals-Water	Calcium	0.05	mg/L	U	0.05	0.2
9/12/2005 11:20	Field Blank	Metals-Water	Chromium	2	ug/L	U	2	8
9/12/2005 11:20	Field Blank	Metals-Water	Copper	0.5	ug/L	U	0.5	2
9/12/2005 11:20	Field Blank	Metals-Water	Iron	10	ug/L	U	10	40
9/12/2005 11:20	Field Blank	Metals-Water	Lead	0.075	ug/L	U	0.075	0.3
9/12/2005 11:20	Field Blank	Metals-Water	Magnesium	0.01	mg/L	U	0.01	0.04
9/12/2005 11:20	Field Blank	Metals-Water	Nickel	2	ug/L	U	2	8
9/12/2005 11:20	Field Blank	Metals-Water	Selenium	0.5	ug/L	U	0.5	2
9/12/2005 11:20	Field Blank	Metals-Water	Silver	0.025	ug/L	U	0.025	0.1
9/12/2005 11:20	Field Blank	Metals-Water	Zinc	3	ug/L	U	3	12
9/12/2005 10:50	Effluent	Nutrients-Liquid	Ammonia-N	2.5	mg N/L		0.2	0.4
9/12/2005 10:50	Effluent	Nutrients-Liquid	Fluoride	2.8	mg F/L		0.05	0.1
9/12/2005 10:50	Effluent	Nutrients-Liquid	Kjeldahl Nitrogen	3.5	mg N/L		0.12	0.4
9/12/2005 10:50	Effluent	Nutrients-Liquid	NO2NO3-N	0.15	mg N/L		0.004	0.01
9/12/2005 10:50	Effluent	Nutrients-Liquid	O-Phosphate-P	0.045	mg P/L		0.004	0.01
9/12/2005 10:50	Effluent	Nutrients-Liquid	Total-P	0.038	mg P/L	I	0.02	0.06
9/12/2005 11:20	Field Blank	Nutrients-Liquid	Ammonia-N	0.01	mg N/L	U	0.01	0.02
9/12/2005 11:20	Field Blank	Nutrients-Liquid	Fluoride	0.05	mg F/L	U	0.05	0.1
9/12/2005 11:20	Field Blank	Nutrients-Liquid	Kjeldahl Nitrogen	0.06	mg N/L	U	0.06	0.2
9/12/2005 11:20	Field Blank	Nutrients-Liquid	NO2NO3-N	0.004	mg N/L	U	0.004	0.01
9/12/2005 11:20	Field Blank	Nutrients-Liquid	O-Phosphate-P	0.004	mg P/L	U	0.004	0.01
9/12/2005 11:20	Field Blank	Nutrients-Liquid	Total-P	0.02	mg P/L	U	0.02	0.06
9/12/2005 10:50	Effluent	Overflow	Alpha, Total	30.5	pCi/L	U		
9/12/2005 10:50	Effluent	Overflow	Alpha-Counting Error	18.6	pCi/L			
9/12/2005 11:20	Field Blank	Overflow	Alpha, Total	0.6	pCi/L	U		
9/12/2005 11:20	Field Blank	Overflow	Alpha-Counting Error	0.4	pCi/L			

The Bioassay of Sailfish Point Utility Corporation effluent sampled on September 12, 2005. NPDES #FL0037001.

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 3 7 0 0 1 11	12 0 5 0 9 1 2	18 **B**	19 **S**	20 2

Remarks

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The Priority Pollutants Analysis of Sailfish Point Utility Corporation effluent sampled on September 12, 2005. NPDES #FL0037001.

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 3 7 0 0 1 11	12 0 5 0 9 1 2	18 **X**	19 **S**	20 2

Remarks

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Biological Analyses of Sailfish Point Utility Corporation effluent sampled on September 12, 2005. NPDES #FL0037001.

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 3 7 0 0 1 11	12 0 5 0 9 1 2	18 **S**	19 **S**	20 2

Remarks

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