

Bioassays of

Busch Entertainment Corporation

Busch Gardens

Hillsborough County

NPDES #FL0185833

Sampled August 29, 2005

November 2005

Biology Section
Bureau of Laboratories
Division of Resource Assessment and Management

Quality Manual No. 870346G
NELAC Certification No. E31780

Busch Entertainment Corporation- Busch Gardens, 3605 E. Bougainvillea Avenue, Tampa, Hillsborough County, Florida, NPDES #FL0185833. Effluent samples for this facility were collected on August 29, 2005.

Introduction

The Busch Entertainment Corporation's Busch Gardens facility is a theme park providing zoological displays, rides, and shows for entertainment. The facility does not have a design flow. Flow is intermittent and rainfall dependent. Flow during the sampling event was 0.025 million gallons per day (MGD). From September 1, 2004, through August 31, 2005, annual average daily flows from Outfalls D-001 and D-002 were 0.023 and 0.242 MGD, respectively. Industrial wastewater generated on-site from maintenance activities (e.g., pool filter backwash, washdown of park sidewalks and structures, pool splash-out, etc.) associated with the operation of the park is routed to various unlined retention ponds. These retention ponds also receive stormwater runoff from the park. Wastewater is used to provide irrigation for the entire park. During high rainfall events, effluent from the retention pond is discharged off-site through Outfalls D-001, D-002, and D-003 to the stormwater ditch system (Class III Freshwater), which flows to the Hillsborough River. Outfall D-001 discharges to the stormwater ditch system along 40th Street, and Outfalls D-002 and D-003 discharge to the ditch system along 30th Street. Outfall D-002 has the most frequent discharges and was the only outfall discharging during the sampling event. Effluent is treated by ultraviolet radiation for disinfection prior to discharge.

The facility has no Administrative Orders, Consent Orders, or mixing zones. Analyses of samples collected from outfall D-002 were used to determine that the facility was out of compliance on July 21, 2004, due to exceedances in total and fecal coliforms in June and August of 2003. In June 2004, unionized ammonia, and fecal and total coliforms showed exceedances. In July 2004, the permitted daily limit for fecal coliforms was exceeded. In August 2004, the daily maximum for fecal coliforms was exceeded. In September 2004 (during hurricanes), there were fecal and total coliforms exceedances (facility information provided by Lori Pillsbury of FDEP Southwest District).

Methods

Samples were collected from the EFF-2 NPDES sampling point for Outfall D-002 and SWB-2, the background station for Outfall D-002, by Lori Pillsbury (FDEP Southwest 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. While the 48-hour acute screening toxicity test does not reflect the permit required conditions, the Department uses it to provide reasonable assurance that the facility does not adversely affect waters of the state.

Toxicity Test Results

Tests were performed August 30 – September 1, 2005.

Ceriodaphnia dubia 48-hr acute screening bioassay –	LC_{50} > 100%, 0% mortality* in 100% sample at 48 hours
Cyprinella leedsi 48-hr acute screening bioassay –	No Result

The bioassay samples were not acutely toxic to the water flea, *C. dubia*. The fish (*C. leedsi*) test was invalidated due to control failure.

See Appendix 1 for bioassay bench sheets.

*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.).

Algal Growth Potential

The effluent Algal Growth Potential (AGP) was 0.735 mg dry wt/L of the unicellular green alga, *Pseudokirchneriella subcapitata*, formerly known as *Selenastrum capricornutum*. This value is between the laboratory method detection limit (MDL) and practical quantitation limit (PQL) of 0.300 and 0.900 mg dry wt/L, respectively. 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 nitrogen-limited. The predicted AGP based on inorganic nitrogen concentrations was 2.2 (±20%) mg dry wt/L (Table 1; Miller et al. 1978).

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 0.021 mg/L. Based on the pH, salinity, and temperature of the effluent as collected, the calculated unionized ammonia concentration was < 0.02 mg/L.

Aluminum, copper, iron, lead, zinc, and oil and grease 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-002 for this facility on August 29, 2005, was not acutely toxic to the water flea, *C. dubia*, during the acute screen 48-hour bioassay. Results for the bioassay test with the fish, *C. leedsi*, were not reported due to control failure. The effluent AGP result was less than the "problem" threshold for fresh receiving waters. 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 Psuedokirchneriella subcapitata *for total soluble nitrogen (TSIN) and total nitrogen (TN) limitation, and ratios of nitrogen to phosphorus for samples collected from Busch Entertainment Corporation- Busch Gardens on August 29, 2005.*

Location	AGP (measured)	Predicted AGP (TSIN) ± 20%	Predicted AGP (TN) ± 20%	Inorganic N:P ratio	Total N:P ratio
Effluent Samples	0.735 AI	2.2 ± 0.44	17.37 ± 3.474	2.07	7.75

A - Value reported is the mean of two or more determinations
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

Table 2. Effluent limits, Class III Freshwater Criteria, and chemical and microbiological data for samples collected from Busch Entertainment Corporation- Busch Gardens on August 29, 2005.

Busch Gardens NPDES# FL0185833	Class III Freshwater Stds	Effluent Limits	Effluent Samples	Background Site
Metals (µg/L unless otherwise noted)				
Aluminum	-	-	15 l	-
Arsenic	≤ 50	-	4 U	-
Cadmium	≤ 2.2 b	-	0.05 U	-
Calcium (mg/L)	-	-	76.7 A	-
Chromium-III	≤ 175.8 b	-	2 U	-
Copper	≤ 19.6 b	-	1.7 l	-
Iron	≤ 1,000	-	15 l	-
Lead	≤ 9.6 b	-	0.12 l	-
Magnesium (mg/L)	-	-	11.5 A	-
Mercury	≤ 0.012	-	0.12 U	-
Nickel	≤ 109 b	-	2 U	-
Selenium	≤ 5	-	0.5 U	-
Silver	≤ 0.07	-	0.025 U	-
Thallium	≤ 6.3	-	7 U	-
Zinc	≤ 250.6 b	-	4.4 l	-
Nutrients (mg/L)				
Ortho-phosphate	-	-	0.028	-
Total Phosphorus	-	Report	0.059 lY	-
Ammonia	-	Report	0.021 Y	-
Unionized Ammonia	≤ 0.02	≤ 0.02	≤ 0.02 c	-
Nitrate+Nitrite	-	-	0.037 fY	-
Total Kjeldahl Nitrogen	-	-	0.42 Y	-
Organic Nitrogen	-	-	0.4 c	-
Total Nitrogen	-	Report	0.46 c	-
General Physical and Chemical Parameters				
Dissolved Oxygen (mg/L)	≥ 5	≥ 5	7.6	5.7
pH (S.U.)	6.0-8.5 s	6.0-8.5 s	7.1	7.4
Conductivity (umhos/cm) at EFF-2	≤ 1,275	≤ 1,275	986	-
Conductivity (umhos/cm) at SWB-2	≤ 1,275	Report	-	247
Temperature (C)	-	Report	29.2	29.1
CBOD (mg/L)	-	-	0.78 l	-
Turbidity	≤ 29 t	≤ 31.3 t	1	2.3 A
TSS (mg/L)	-	-	4 U	-
Total residual chlorine at EFF-2	≤ 0.01	≤ 0.01	-	-
Total residual chlorine at SWB-2		Report	-	-
Oil and Grease (mg/L)	≤ 5	-	2.1 l	-
Flow (MGD) Outfall D-002	-	Report	0.242 a	-
Flow (MGD) Outfall D-001	-	Report	0.023 a	-
Hardness (mg/L)	-	-	238.9 c	-
Microbiology (# counts/100ml)				
Fecal Coliforms-Membrane Filter	≤ 800 s	≤ 800 s	1 K*	-
Total Coliforms	≤ 2,400 s	≤ 2,400 s	10 BK*	-

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

f - Nitrate+Nitrite was detected in the field blank at a concentration of 0.12 mg/L

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.

K - Actual value is known to be less than value given

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

Y - The analysis was from an unpreserved or imporperly preserved sample. The data may not be accurate.

* - Data provided by FL DEP SW District chemistry lab

FDEP Biology Section - Acute Bioassay Bench Sheets

Facility: Busch Entertainment Corp. - Busch Gardens

Address: 3605 Bougainvillea Avenue

~~County~~ City: Hillsborough ~~City~~ County: Tampa

Contact/District: Lori Pillsbury / Southwest District

NPDES Permit #: FL 0185833

LIMS Job #: TLH-2005-08-30-00

LIMS Sample #: 860000

Lims Data Entry: 9/8/05 MF

Data Entry Verification: 9/8/05 SB

Sample Collection: Date: 8-29-05 Time: 0915

Hold time Start: Date: 8-29-05 Time: 0915

Comments: C. leedsi test invalidated due to control failure - 20% dead - (4 of 5 Rep D). Cause of failure not determined. Client notified - Client will not repeat test. MF 9-6-05 NCR 1714 created.

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_01

Control survival ≥90%: (Yes) No

Temperature Range ≤3°C: (Yes) No

Test 2 validation: Test 2: SOP TA07_02

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 # 2 Range 24.1-25.7

Room 1246: 21.8-24.8

Waterbath: N/A

Investigators' Signatures

Deanna Nichols

Sarah Friedland

Marshall Faircloth

Nicki Wellendorf

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	–		
Lab Total Residual Cl2 (mg/L):	<0.03	<0.03				<0.03	HACH	DN	SF
Alkalinity (mg/L as $CaCO_3$):	89	137				106	HACH	CW	SF
Hardness (mg/L as $CaCO_3$):	104	143				291	HACH	CW	SP
Total Ammonia (mg/L as N):	<0.017	<0.017				<0.017	DENVER	SP	CW
Salinity (ppth):	<1	<1				<1	YSI Mettler	JD/DN/SF	SF

Appendix 1. Bench Sheets (continued)

FDEP Biology Section - - Bioassay Bench Sheet
Survival

LIMS Sample #: 860666 Test #: 1 Test Started: Date 8-30-05 Time: 1353

Organism: C. dubia Test Ended: Date 9-1-05 Time: 1300

Organism Batch: 31-05 Diluent/ Batch: DMW / 27-05

Organism Age: < 24 hrs Food: YCT *P. subcapitata* *Artemia*

Chamber Size 36 mL Batch: 4-05 4-05 -

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	5			
	B	B	5	5	5			
	C	C	5	5	5			
	D	D	5	5	5			
Organisms loaded by: DN Loading verified at 0 hours by: SP		Checked by: (initials)	[redacted]	DN	DN			

Comments:

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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Appendix 1. Bench Sheets (continued)

FDEP Biology Section - - Bioassay Bench Sheet

Survival

LIMS Sample #: 860666 Test #: 2 Test Started: Date 8-30-05 Time: 1415

Organism: C.leedsi Test Ended: Date 9-1-05 Time: 1300

Organism Batch: 25-05 Diluent/ Batch: Well / NA

Organism Age: 5 days Food: YCT *P. subcapitata* *Artemia*

Chamber Size 1000 mL Batch: - - 3513F425GR

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

Concentration	Chamber # ~~Replicate #~~	Replicate ~~Chamber #~~	Test Hour: 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
CTRL	C1	A	5	5	5			
	C2	B	5	5	5			
	C3	C	5	5	5			
	C4	D	5	1 4D	1			
100%	C5	A	5	5	(A) 5			
	C6	B	5	5	5			
	C7	C	5	5	5			
	C8	D	5	5	5			

Organisms loaded by: SB Checked by: (initials) [redacted] DN

Loading verified at 0 hours by: BP

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

Comments: (A) One test organism very close to dead. in 100% Rep. A - DN 9/1/05.
(B) Result is reported as no result due to Control Failure. Cause of failure not determined, MF

Test Results:

% mortality in 100% sample 0

LC_{50}: >100 (B) 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 #: 860666 Test #: 1 of 2

TEST SOP: TA07_01 Test Species: (Ceriodaphnia dubia) Cyprinella lecitsi 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			
pH (S.U.)	8.1		8.1			
Temperature °C	24.0		24.2			
Dissolved Oxygen mg/L	8.3		7.7			
Conductivity (µmhos mmhos	190		195			
(initials) Measured by:	DN		DN			
(initials) Recorded by:	DN		DN			

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.)	7.8		8.2			
Temperature °C	24.0		24.3			
Dissolved Oxygen mg/L	7.1		7.8			
Conductivity (µmhos mmhos	1060		1020			
(initials) Measured by:	DN		DN			
(initials) Recorded by:	DN		DN			

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 1. Bench Sheets (continued)

Bioassay Parameters

LIMS Sample #: 860666 Test #: 2 of 2

TEST SOP: TA07_02 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.)	7.9	8.3	8.3			
Temperature °C	24.0	24.3	24.8			
Dissolved Oxygen mg/L	7.8	7.7	7.7			
Conductivity ~~µmhos~~ mmhos	295	283	300			
(initials) Measured by:	JD	DWG	DW			
(initials) Recorded by:	JD	DWG	DW			

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	8.2			
Temperature °C	24.1	24.5	24.6			
Dissolved Oxygen mg/L	7.2	7.9	7.8			
Conductivity ~~µmhos~~ mmhos	1160	1620	1605			
(initials) Measured by:	JD	DWG	DW			
(initials) Recorded by:	JD	DWG	DW			

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 Busch Entertainment Corporation Busch Garden Plant Outfall D-002, sampled on August 29, 2005.

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
8/29/2005 09:15	Outfall D-002	Bio-AGP/LimNut	Algal Growth Potential	0.735	mg DryWt/L	AI	0.3	0.9
8/29/2005 09:15	Outfall D-002	Bio-BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	0.78	mg/L	I		
8/29/2005 09:15	Outfall D-002	Bio-Chl-a	Chlorophyll-A, Monochromatic, Water	22	ug/L	A	0.85	2.6
8/29/2005 09:15	Outfall D-002	Bio-Chl-a	Phaeophytin-A, Monochromatic, Water	1.5	ug/L	A	0.85	2.6
8/29/2005 09:15	Outfall D-002	Bio-Toxicology	Bioassay-Acute-Screen-FW-C.dubia, LC50	100	LC50	L		
8/29/2005 09:15	Outfall D-002	Bio-Toxicology	Bioassay-Acute-Screen-FW-Fish, LC50	No Result	LC50			
8/29/2005 09:15	Outfall D-002	BNA-Water	1,2,4-Trichlorobenzene	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	1,2-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	1,3-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	1,4-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	2,4,6-Trichlorophenol	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	2,4-Dichlorophenol	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
8/29/2005 09:15	Outfall D-002	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	57
8/29/2005 09:15	Outfall D-002	BNA-Water	2,4-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	2,6-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	2-Chloronaphthalene	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	2-Chlorophenol	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	11
8/29/2005 09:15	Outfall D-002	BNA-Water	2-Nitrophenol	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
8/29/2005 09:15	Outfall D-002	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
8/29/2005 09:15	Outfall D-002	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7
8/29/2005 09:15	Outfall D-002	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.7
8/29/2005 09:15	Outfall D-002	BNA-Water	4-Bromophenyl phenyl ether	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	4-Chloro-3-methylphenol	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.6
8/29/2005 09:15	Outfall D-002	BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
8/29/2005 09:15	Outfall D-002	BNA-Water	Acenaphthene	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	Acenaphthylene	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
8/29/2005 09:15	Outfall D-002	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
8/29/2005 09:15	Outfall D-002	BNA-Water	Anthracene	0.95	ug/L	U	0.95	3.8

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
8/29/2005 09:15	Outfall D-002	BNA-Water	Benzidine	95	ug/L	U	95	380
8/29/2005 09:15	Outfall D-002	BNA-Water	Benzo(a)anthracene	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	Benzo(a)pyrene	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	Benzo(b)fluoranthene	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	Benzo(g,h,i)perylene	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	Benzo(k)fluoranthene	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
8/29/2005 09:15	Outfall D-002	BNA-Water	Bis(2-chloroethoxy)methane	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	Bis(2-chloroethyl)ether	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	11
8/29/2005 09:15	Outfall D-002	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
8/29/2005 09:15	Outfall D-002	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
8/29/2005 09:15	Outfall D-002	BNA-Water	Chrysene	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
8/29/2005 09:15	Outfall D-002	BNA-Water	Dibenzo(a,h)anthracene	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
8/29/2005 09:15	Outfall D-002	BNA-Water	Diethyl phthalate	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
8/29/2005 09:15	Outfall D-002	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
8/29/2005 09:15	Outfall D-002	BNA-Water	Di-n-octyl phthalate	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
8/29/2005 09:15	Outfall D-002	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
8/29/2005 09:15	Outfall D-002	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
8/29/2005 09:15	Outfall D-002	BNA-Water	Endrin	1.4	ug/L	U	1.4	5.7
8/29/2005 09:15	Outfall D-002	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
8/29/2005 09:15	Outfall D-002	BNA-Water	Fluoranthene	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	Fluorene	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
8/29/2005 09:15	Outfall D-002	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
8/29/2005 09:15	Outfall D-002	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
8/29/2005 09:15	Outfall D-002	BNA-Water	Hexachlorobenzene	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	11
8/29/2005 09:15	Outfall D-002	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	11
8/29/2005 09:15	Outfall D-002	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	11

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
8/29/2005 09:15	Outfall D-002	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	Isophorone	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	Naphthalene	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.6
8/29/2005 09:15	Outfall D-002	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.6
8/29/2005 09:15	Outfall D-002	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.6
8/29/2005 09:15	Outfall D-002	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	11
8/29/2005 09:15	Outfall D-002	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	11
8/29/2005 09:15	Outfall D-002	BNA-Water	Phenanthrene	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	Phenol	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	BNA-Water	Pyrene	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	1,2,4-Trichlorobenzene	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	1,2-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	1,3-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	1,4-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	2,4,6-Trichlorophenol	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	2,4-Dichlorophenol	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
8/29/2005 11:35	Field Blank	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	57
8/29/2005 11:35	Field Blank	BNA-Water	2,4-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	2,6-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	2-Chloronaphthalene	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	2-Chlorophenol	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	11
8/29/2005 11:35	Field Blank	BNA-Water	2-Nitrophenol	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
8/29/2005 11:35	Field Blank	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
8/29/2005 11:35	Field Blank	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7
8/29/2005 11:35	Field Blank	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.7
8/29/2005 11:35	Field Blank	BNA-Water	4-Bromophenyl phenyl ether	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	4-Chloro-3-methylphenol	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.6
8/29/2005 11:35	Field Blank	BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
8/29/2005 11:35	Field Blank	BNA-Water	Acenaphthene	0.95	ug/L	U	0.95	3.8

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
8/29/2005 11:35	Field Blank	BNA-Water	Acenaphthylene	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
8/29/2005 11:35	Field Blank	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
8/29/2005 11:35	Field Blank	BNA-Water	Anthracene	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	Benzidine	95	ug/L	U	95	380
8/29/2005 11:35	Field Blank	BNA-Water	Benzo(a)anthracene	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	Benzo(a)pyrene	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	Benzo(b)fluoranthene	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	Benzo(g,h,i)perylene	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	Benzo(k)fluoranthene	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
8/29/2005 11:35	Field Blank	BNA-Water	Bis(2-chloroethoxy)methane	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	Bis(2-chloroethyl)ether	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	11
8/29/2005 11:35	Field Blank	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
8/29/2005 11:35	Field Blank	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
8/29/2005 11:35	Field Blank	BNA-Water	Chrysene	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
8/29/2005 11:35	Field Blank	BNA-Water	Dibenzo(a,h)anthracene	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
8/29/2005 11:35	Field Blank	BNA-Water	Diethyl phthalate	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
8/29/2005 11:35	Field Blank	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
8/29/2005 11:35	Field Blank	BNA-Water	Di-n-octyl phthalate	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
8/29/2005 11:35	Field Blank	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
8/29/2005 11:35	Field Blank	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
8/29/2005 11:35	Field Blank	BNA-Water	Endrin	1.4	ug/L	U	1.4	5.7
8/29/2005 11:35	Field Blank	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
8/29/2005 11:35	Field Blank	BNA-Water	Fluoranthene	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	Fluorene	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
8/29/2005 11:35	Field Blank	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
8/29/2005 11:35	Field Blank	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
8/29/2005 11:35	Field Blank	BNA-Water	Hexachlorobenzene	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	11
8/29/2005 11:35	Field Blank	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	11
8/29/2005 11:35	Field Blank	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	11
8/29/2005 11:35	Field Blank	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	Isophorone	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	Naphthalene	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.6
8/29/2005 11:35	Field Blank	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.6
8/29/2005 11:35	Field Blank	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.6
8/29/2005 11:35	Field Blank	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	11
8/29/2005 11:35	Field Blank	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	11
8/29/2005 11:35	Field Blank	BNA-Water	Phenanthrene	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	Phenol	0.95	ug/L	U	0.95	3.8
8/29/2005 11:35	Field Blank	BNA-Water	Pyrene	0.95	ug/L	U	0.95	3.8
8/29/2005 09:15	Outfall D-002	GC-Water	Alachlor	0.6	ug/L	U	0.6	2.4
8/29/2005 09:15	Outfall D-002	GC-Water	Ametryn	0.05	ug/L	U	0.05	0.2
8/29/2005 09:15	Outfall D-002	GC-Water	Atrazine	0.05	ug/L	U	0.05	0.2
8/29/2005 09:15	Outfall D-002	GC-Water	Azinphos Methyl	0.2	ug/L	U	0.2	0.8
8/29/2005 09:15	Outfall D-002	GC-Water	Bromacil	0.2	ug/L	U	0.2	0.8
8/29/2005 09:15	Outfall D-002	GC-Water	Butylate	0.2	ug/L	U	0.2	0.8
8/29/2005 09:15	Outfall D-002	GC-Water	Chlorpyrifos Ethyl	0.05	ug/L	U	0.05	0.2
8/29/2005 09:15	Outfall D-002	GC-Water	Chlorpyrifos Methyl	0.1	ug/L	U	0.1	0.4
8/29/2005 09:15	Outfall D-002	GC-Water	Diazinon	0.05	ug/L	U	0.05	0.2
8/29/2005 09:15	Outfall D-002	GC-Water	Ethion	0.05	ug/L	U	0.05	0.2
8/29/2005 09:15	Outfall D-002	GC-Water	Ethoprop	0.1	ug/L	U	0.1	0.4
8/29/2005 09:15	Outfall D-002	GC-Water	Fenamiphos	0.2	ug/L	U	0.2	0.8
8/29/2005 09:15	Outfall D-002	GC-Water	Fonofos	0.1	ug/L	U	0.1	0.4
8/29/2005 09:15	Outfall D-002	GC-Water	Hexazinone	0.1	ug/L	U	0.1	0.4
8/29/2005 09:15	Outfall D-002	GC-Water	Malathion	0.15	ug/L	UJ	0.15	0.6
8/29/2005 09:15	Outfall D-002	GC-Water	Metalaxyl	0.25	ug/L	U	0.25	1
8/29/2005 09:15	Outfall D-002	GC-Water	Metolachlor	0.5	ug/L	U	0.5	2
8/29/2005 09:15	Outfall D-002	GC-Water	Metribuzin	0.1	ug/L	U	0.1	0.4
8/29/2005 09:15	Outfall D-002	GC-Water	Mevinphos	0.2	ug/L	U	0.2	0.8

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
8/29/2005 09:15	Outfall D-002	GC-Water	Naled	0.8	ug/L	UJ	0.8	3.2
8/29/2005 09:15	Outfall D-002	GC-Water	Norflurazon	0.15	ug/L	U	0.15	0.6
8/29/2005 09:15	Outfall D-002	GC-Water	Parathion Ethyl	0.15	ug/L	U	0.15	0.6
8/29/2005 09:15	Outfall D-002	GC-Water	Parathion Methyl	0.1	ug/L	U	0.1	0.4
8/29/2005 09:15	Outfall D-002	GC-Water	Phorate	0.05	ug/L	U	0.05	0.2
8/29/2005 09:15	Outfall D-002	GC-Water	Prometryn	0.15	ug/L	U	0.15	0.6
8/29/2005 09:15	Outfall D-002	GC-Water	Simazine	0.05	ug/L	U	0.05	0.2
8/29/2005 11:35	Field Blank	GC-Water	Alachlor	0.6	ug/L	U	0.6	2.4
8/29/2005 11:35	Field Blank	GC-Water	Ametryn	0.05	ug/L	U	0.05	0.2
8/29/2005 11:35	Field Blank	GC-Water	Atrazine	0.05	ug/L	U	0.05	0.2
8/29/2005 11:35	Field Blank	GC-Water	Azinphos Methyl	0.2	ug/L	U	0.2	0.8
8/29/2005 11:35	Field Blank	GC-Water	Bromacil	0.2	ug/L	U	0.2	0.8
8/29/2005 11:35	Field Blank	GC-Water	Butylate	0.2	ug/L	U	0.2	0.8
8/29/2005 11:35	Field Blank	GC-Water	Chlorpyrifos Ethyl	0.05	ug/L	U	0.05	0.2
8/29/2005 11:35	Field Blank	GC-Water	Chlorpyrifos Methyl	0.1	ug/L	U	0.1	0.4
8/29/2005 11:35	Field Blank	GC-Water	Diazinon	0.05	ug/L	U	0.05	0.2
8/29/2005 11:35	Field Blank	GC-Water	Ethion	0.05	ug/L	U	0.05	0.2
8/29/2005 11:35	Field Blank	GC-Water	Ethoprop	0.1	ug/L	U	0.1	0.4
8/29/2005 11:35	Field Blank	GC-Water	Fenamiphos	0.2	ug/L	U	0.2	0.8
8/29/2005 11:35	Field Blank	GC-Water	Fonofos	0.1	ug/L	U	0.1	0.4
8/29/2005 11:35	Field Blank	GC-Water	Hexazinone	0.1	ug/L	U	0.1	0.4
8/29/2005 11:35	Field Blank	GC-Water	Malathion	0.15	ug/L	UJ	0.15	0.6
8/29/2005 11:35	Field Blank	GC-Water	Metalaxyl	0.25	ug/L	U	0.25	1
8/29/2005 11:35	Field Blank	GC-Water	Metolachlor	0.5	ug/L	U	0.5	2
8/29/2005 11:35	Field Blank	GC-Water	Metribuzin	0.1	ug/L	U	0.1	0.4
8/29/2005 11:35	Field Blank	GC-Water	Mevinphos	0.2	ug/L	U	0.2	0.8
8/29/2005 11:35	Field Blank	GC-Water	Naled	0.8	ug/L	UJ	0.8	3.2
8/29/2005 11:35	Field Blank	GC-Water	Norflurazon	0.15	ug/L	U	0.15	0.6
8/29/2005 11:35	Field Blank	GC-Water	Parathion Ethyl	0.15	ug/L	U	0.15	0.6
8/29/2005 11:35	Field Blank	GC-Water	Parathion Methyl	0.1	ug/L	U	0.1	0.4
8/29/2005 11:35	Field Blank	GC-Water	Phorate	0.05	ug/L	U	0.05	0.2
8/29/2005 11:35	Field Blank	GC-Water	Prometryn	0.15	ug/L	U	0.15	0.6
8/29/2005 11:35	Field Blank	GC-Water	Simazine	0.05	ug/L	U	0.05	0.2
8/29/2005 09:15	Outfall D-002	Mercury-Water	Mercury	0.12	ug/L	U	0.12	0.5

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
8/29/2005 11:35	Field Blank	Mercury-Water	Mercury	0.12	ug/L	U	0.12	0.5
8/29/2005 09:15	Outfall D-002	Metals-Water	Aluminum	15	ug/L	I	5	20
8/29/2005 09:15	Outfall D-002	Metals-Water	Arsenic	4	ug/L	U	4	16
8/29/2005 09:15	Outfall D-002	Metals-Water	Cadmium	0.05	ug/L	U	0.05	0.2
8/29/2005 09:15	Outfall D-002	Metals-Water	Calcium	76.7	mg/L	A	0.05	0.2
8/29/2005 09:15	Outfall D-002	Metals-Water	Chromium	2	ug/L	U	2	8
8/29/2005 09:15	Outfall D-002	Metals-Water	Copper	1.7	ug/L	I	0.5	2
8/29/2005 09:15	Outfall D-002	Metals-Water	Iron	15	ug/L	I	10	40
8/29/2005 09:15	Outfall D-002	Metals-Water	Lead	0.12	ug/L	I	0.075	0.3
8/29/2005 09:15	Outfall D-002	Metals-Water	Magnesium	11.5	mg/L	A	0.01	0.04
8/29/2005 09:15	Outfall D-002	Metals-Water	Nickel	2	ug/L	U	2	8
8/29/2005 09:15	Outfall D-002	Metals-Water	Selenium	0.5	ug/L	U	0.5	2
8/29/2005 09:15	Outfall D-002	Metals-Water	Silver	0.025	ug/L	U	0.025	0.1
8/29/2005 09:15	Outfall D-002	Metals-Water	Thallium	7	ug/L	U	7	28
8/29/2005 09:15	Outfall D-002	Metals-Water	Zinc	4.4	ug/L	I	3	12
8/29/2005 11:35	Field Blank	Metals-Water	Aluminum	5	ug/L	U	5	20
8/29/2005 11:35	Field Blank	Metals-Water	Arsenic	4	ug/L	U	4	16
8/29/2005 11:35	Field Blank	Metals-Water	Cadmium	0.05	ug/L	U	0.05	0.2
8/29/2005 11:35	Field Blank	Metals-Water	Calcium	0.05	mg/L	U	0.05	0.2
8/29/2005 11:35	Field Blank	Metals-Water	Chromium	2	ug/L	U	2	8
8/29/2005 11:35	Field Blank	Metals-Water	Copper	0.5	ug/L	U	0.5	2
8/29/2005 11:35	Field Blank	Metals-Water	Iron	10	ug/L	U	10	40
8/29/2005 11:35	Field Blank	Metals-Water	Lead	0.075	ug/L	U	0.075	0.3
8/29/2005 11:35	Field Blank	Metals-Water	Magnesium	0.01	mg/L	U	0.01	0.04
8/29/2005 11:35	Field Blank	Metals-Water	Nickel	2	ug/L	U	2	8
8/29/2005 11:35	Field Blank	Metals-Water	Selenium	0.5	ug/L	U	0.5	2
8/29/2005 11:35	Field Blank	Metals-Water	Silver	0.025	ug/L	U	0.025	0.1
8/29/2005 11:35	Field Blank	Metals-Water	Thallium	7	ug/L	U	7	28
8/29/2005 11:35	Field Blank	Metals-Water	Zinc	3	ug/L	U	3	12
8/29/2005 09:15	Outfall D-002	Nutrients-Liquid	Ammonia-N	0.021	mg N/L	Y	0.01	0.02
8/29/2005 09:15	Outfall D-002	Nutrients-Liquid	Kjeldahl Nitrogen	0.42	mg N/L	Y	0.12	0.4
8/29/2005 09:15	Outfall D-002	Nutrients-Liquid	NO2NO3-N	0.037	mg N/L	Y	0.004	0.01
8/29/2005 09:15	Outfall D-002	Nutrients-Liquid	O-Phosphate-P	0.028	mg P/L		0.004	0.01
8/29/2005 09:15	Outfall D-002	Nutrients-Liquid	Total-P	0.059	mg P/L	IY	0.02	0.06

Appendix 2. Chemical Analyses (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
8/29/2005 09:15	Outfall D-002	Nutrients-Liquid	TSS	4	mg/L	U	4	16
8/29/2005 09:15	Outfall D-002	Nutrients-Liquid	Turbidity	1	NTU		0.05	0.05
8/29/2005 10:35	Background Site	Nutrients-Liquid	Turbidity	2.3	NTU	A	0.05	0.05
8/29/2005 11:35	Field Blank	Nutrients-Liquid	Ammonia-N	0.01	mg N/L	U	0.01	0.02
8/29/2005 11:35	Field Blank	Nutrients-Liquid	Kjeldahl Nitrogen	0.06	mg N/L	U	0.06	0.2
8/29/2005 11:35	Field Blank	Nutrients-Liquid	NO2NO3-N	0.12	mg N/L		0.004	0.01
8/29/2005 11:35	Field Blank	Nutrients-Liquid	O-Phosphate-P	0.004	mg P/L	U	0.004	0.01
8/29/2005 11:35	Field Blank	Nutrients-Liquid	Total-P	0.02	mg P/L	U	0.02	0.06
8/29/2005 09:15	Outfall D-002	Overflow	Oil and Grease	2.1	mg/L	I		
8/29/2005 11:35	Field Blank	Overflow	Oil and Grease	1.7	mg/L	U		

The Bioassay of Busch Entertainment Corporation- Busch Gardens effluent sampled on August 29, 2005. NPDES #FL0185833.

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 1 8 5 8 3 3 11	12 0 5 0 8 2 9	18 **B**	19 **S**	20 2

Remarks

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The Priority Pollutants Analysis of Busch Entertainment Corporation- Busch Gardens effluent sampled on August 29, 2005. NPDES #FL0185833.

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 1 8 5 8 3 3 11	12 0 5 0 8 2 9	18 **X**	19 **S**	20 2

Remarks

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Biological Analyses of Busch Entertainment Corporation- Busch Gardens effluent sampled on August 29, 2005. NPDES #FL0185833.

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 1 8 5 8 3 3 11	12 0 5 0 8 2 9	18 **S**	19 **S**	20 2

Remarks

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