

Effluent Quality Assessment

Anastasia Island WWTF

St. Johns County

NPDES #FL0038831

Sampled September 10, 2007

January 2008

Biology Section
Bureau of Laboratories
Division of Resource Assessment and Management

Quality Manual No. 870346G
NELAC Certification No. E31780

Anastasia Island WWTF, 860 West 16th Street, St. Augustine, St. Johns County, Florida 32085, NPDES #FL0038831. Effluent samples for this facility were collected on September 10, 2007.

Introduction

Anastasia Island WWTF is a complete-mix activated-sludge domestic wastewater treatment facility. The facility has a design flow of 4.0 million gallons per day (MGD) average annual daily flow (AADF). The AADF from September 1, 2006, to August 31, 2007, was 2.43 MGD. The facility includes: an influent unit, four aeration basins, four secondary clarifiers, one chlorine contact chamber, a post-aeration basin, a shallow-bed sand filter and an aerobic digester. After chlorination, the effluent is divided into two streams. One stream flows to a post-aeration basin, where the effluent is oxygenated, dechlorinated with sulfur dioxide, and then discharged through Outfall D-001 to the Class III Marine waters of the Matanzas River. Outfall D-001 is located approximately at latitude 29º 51' 15" N, longitude 81º 18' 30" W. The outfall is approximately 30.5 m (100 feet) long and discharges at a depth of approximate 1.9 m (6.3 feet). The other stream is pumped to a shallow-bed sand filter, and then re-chlorinated before discharge through reuse system R-001 to the Marsh Creek Country Club golf course ponds. Reuse system R-001, a slow-rate public access irrigation system, has a permitted capacity of 0.8 MGD AADF. The AADF for R-001 from August 2006 through July 2007 was 0.283 MGD. Residuals are thickened with a belt-thickener and stored in an aerobic digester prior to dewatering with a belt-filter press. Dewatered residuals are hauled to the Florida Enviro Residual Management Facility for further treatment and final disposal.

The facility has no Administrative Orders or Consent Orders. The facility has no mixing zones. A review of Discharge Monitoring Report (DMR) data for the past year revealed permit limit violations for copper (value 6.1µg/L; limit ≤ 2.9 µg/L) in July 2006, pH (value 6.3 s.u.; limit 6.5 s.u. minimum) in January 2007, residual chlorine after dechlorination (value 1.0 mg/L; limit ≤ 0.01 mg/L) in February 2007, and toxicity (value LC_{50} < 100%; limit LC_{50} ≥ 100%) in June 2007. The DMR review revealed no noticeable trends in effluent data. (Facility information provided by Joseph Emery of FDEP Northeast District.)

Methods

Samples were collected from the EFD-1 NPDES sampling point (after dechlorination but before discharge to the Matanzas River) for Outfall D-001 by Joseph Emery (FDEP Northeast District) following DEP-SOP-001/01 FS 2400 Wastewater Sampling. All DEP SOPs are available on the web at: http://www.floridadep.org/labs/qa/sops.htm.

See Appendix A for the completed chain of custody form.

The 48-hour acute screening toxicity tests and algal growth potential test were performed following internal DEP SOPs TA07_03, TA07_04, and TA08_01 through TA08_09. All internal DEP SOPs 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, passing test results provide confidence that the required permit conditions would likely be met.

The bioassay sample was salinity-adjusted from an apparent salinity of approximately 1.4 parts per thousand (ppth) to approximately 20 ppth using 40 Fathoms® artificial sea salts. The salt control used for these tests were prepared by diluting artificial sea water (ASW) with well water to the original sample salinity and then salting the diluted ASW with artificial sea salts to approximate the corresponding test salinity. The purpose of the salt control was to confirm that there was no effect of adding artificial sea salts to the sample. There was no mortality in the salt controls for either test species. The AGP sample was salinity adjusted to meet the minimum salinity requirements of the marine test species.

Toxicity Test Results

Tests were performed September 11 - 13, 2007.

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

The bioassay samples were not acutely toxic to the test organisms.

See Appendix B for bioassay bench sheets. See Appendix C for results of the last 20 standard reference toxicant (SRT) tests and the bench sheets and statistical analyses of the SRT tests that correspond to these facility tests. See Appendix D for test organism receipts.

*NOTE: In a 48-hour acute screening test of 100% effluent, mortality of <20% provides confidence 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% indicates low to moderate levels of toxicity, and further action may be required. Mortality of >50% indicates 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 517 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 nitrogen-limited (Maloney, T. E., et. al., 1974).

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

Effluent single sample concentrations of bromodichloromethane (35 µg/L) and dibromchloro-methane (83 µg/L) were greater than their respective Class III marine criteria of ≤ 22 µg/L annual average (62-302.530, (35)(b) 5 F.A.C.) and ≤ 34 µg/L annual average (62-302.530, (35)(b) 3 F.A.C.). Chloroform, nickel, and zinc were detected in the effluent at levels that comply with Class III marine water quality criteria (62-302.530, F.A.C.). Copper, iron, and lead 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 E for a complete list of chemical analyses performed.

Conclusion

The effluent sample collected from the EFD-1 NPDES sampling point for Outfall D-001 for this facility on September 11, 2007, was not acutely toxic to either test species during the 48-hour acute screening bioassays. The effluent AGP result greatly exceeded the "problem" threshold for

marine receiving waters suggesting nutrient enrichment may be an issue. Effluent single sample concentrations of bromodichloromethane (35 µg/L) and dibromchloromethane (83 µg/L) were greater than their respective Class III marine criteria of ≤ 22 µg/L annual average (62-302.530, (35)(b) 5 F.A.C.) and ≤ 34 µg/L annual average (62-302.530, (35)(b) 3 F.A.C.). If their measured concentrations do not decrease, they will be in violation of their water quality criteria.

Literature Cited

Maloney, T. E., W. E. Miller, and D. T. Specht. 1974. The Marine Algal Assay Procedure: Bottle Test. National Environmental Research Center Office of Research and Development. U. S. EPA, Corvallis, Oregon. 43 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. Algal growth potential (AGP; mg dry weight/L) of the saltwater species *Dunaliella tertiolecta* and ratios of nitrogen to phosphorus in samples collected from Anastasia WWTF on September 10, 2007.

Anastasia Island Wastewater Treatment Plant			
Location	AGP	Inorganic N:P ratio	Total N:P ratio
D-001	517	4.5	4.0

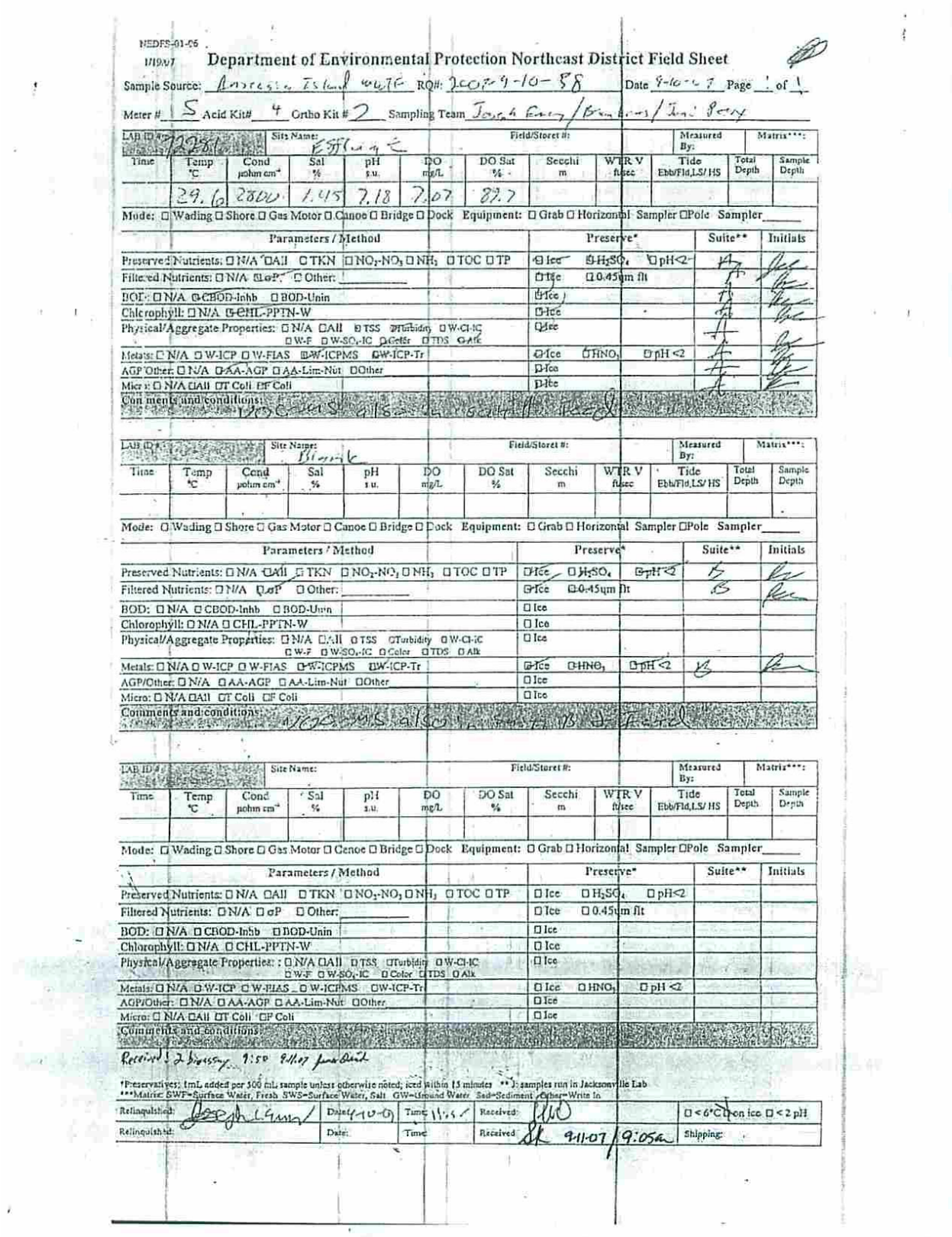
Table 2. Effluent limits, Class III Criteria for predominantly marine waters and chemical and microbiological data for samples collected from the Anastasia Island WWTF on September 10, 2007.

Anastasia Island WWTF NPDES# FL0038831	Class III Standards	Effluent Limits	Effluent	
Organic Constituents (µg/L)				
Bromodichloromethane	≤ 22 a	Report	35	
Chloroform	≤ 470.8 a	Report	8.4	
Dibromochloromethane	≤ 34 a	Report	83	
Metals (µg/L unless otherwise noted)				
Aluminum	≤ 1,500	-	60	U
Arsenic	≤ 50	-	0.5	U
Cadmium	≤ 8.8	-	0.02	U
Calcium (mg/L)	-	Report	144	
Chromium-III	-	-	1	U
Copper	≤ 3.7	≤ 2.9	0.81	I
Iron	≤ 300	-	58	I
Lead	≤ 8.5	-	0.22	I
Magnesium (mg/L)	-	Report	77.3	
Mercury	≤ 0.025	-	-	
Nickel	≤ 8.3	-	1.56	
Selenium	≤ 71	-	0.5	U
Silver	≤ 2.3	≤ 2.3	0.025	U
Zinc	≤ 86	Report	33	
Nutrients (mg/L)				
Ortho-phosphate	-	Report	2.9	
Total Phosphorus	-	Report	3.6	
Total Ammonia	-	Report	0.054	
Un-ionized Ammonia	-	-	≤ 0.02	c
Nitrate and Nitrite	-	-	13	
Total Kjeldahl Nitrogen	-	≤ 28.1 s	1.4	
Organic Nitrogen	-	Report	1.346	c
Total Nitrogen	-	Report	14.4	c
General Physical and Chemical Parameters				
Dissolved Oxygen (mg/L)	≥ 4.0	≥ 5.1s	7.1	
pH (SU)	6.5 - 8.5	6.5 - 8.5 s	7.2	
Conductivity (µmhos/cm)	-	Report	2,800	
Temperature °C	-	-	29.6	
Salinity	-	Report	1.4	£
Total Residual Chlorine (mg/L)	≤ 0.01	≤ 0.01 s	≤ 0.03	£
Total Suspended Solids (mg/L)	-	≤ 60 s	4	U
Color (pt-Co)	-	-	10	
CBOD, 5 day (mg/L), N - inhibited	-	≤ 60 s	4.8	
Flow (MGD)	-	≤ 4.0 a	2.43	a
Hardness (mg $CaCO_3$)	-	-	677.89	c
Microbiology (Number of colony forming units/100ml)				
Fecal Coliforms	≤ 800	≤ 800	64	AB

Value exceeds the Class III Water Quality Criteria or permit limits

a - Annual average
c - Value is calculated
s - Single sample
A - Value reported is the mean of two or more determinations
B - Results based on colony counts outside the acceptance range
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 method detection limit
£ - Measured in Central Laboratory bioassay lab

Appendix A. Chain of Custody Form



NEDFS-01-06
1/19/07

Department of Environmental Protection Northeast District Field Sheet

Sample Source: Anastasia Island WWTP RQI#: 20079-10-88 Date 9-10-07 Page 1 of 1

Meter # 5 Acid Kit# 4 Ortho Kit # 2 Sampling Team Joseph Emmy / Brandon / Jim Berry

LAB ID # 72981 Site Name: Effluent Field/Storet #: Measured By: Matrix***:

Time	Temp °C	Cond µohm cm⁻¹	Sal %	pH s.u.	DO mg/L	DO Sat %	Secchi m	WTR V ft/sec	Tide Ebb/Fld,LS/HS	Total Depth	Sample Depth
	29.6	2800	1.45	7.18	7.07	89.7					

Mode: ☐ Wading ☐ Shore ☐ Gas Motor ☐ Canoe ☐ Bridge ☐ Dock Equipment: ☐ Grab ☐ Horizontal Sampler ☐ Pole Sampler

Parameters / Method	Preserve*	Suite**	Initials
Preserved Nutrients: ☐ N/A ☐ All ☐ TKN ☐ NO_2-NO_3 ☐ NH_3 ☐ TOC ☐ TP	☐ Ice ☐ H_2SO_4 ☐ pH<2	A	
Filtered Nutrients: ☐ N/A ☐ oP ☐ Other:	☐ Ice ☐ 0.45µm flt	A	
BOD: ☐ N/A ☐ CBOD-Inhb ☐ BOD-Unin	☐ Ice	A	
Chlorophyll: ☐ N/A ☐ CHL-PPTN-W	☐ Ice	A	
Physical/Aggregate Properties: ☐ N/A ☐ All ☐ TSS ☐ Turbidity ☐ W-Cl-IC ☐ W-F ☐ W-SO_4-IC ☐ Color ☐ TDS ☐ Alk	☐ Ice	A	
Metals: ☐ N/A ☐ W-ICP ☐ W-FIAS ☐ W-ICPMS ☐ W-ICP-Tr	☐ Ice ☐ HNO_3 ☐ pH <2	A	
AGP Other: ☐ N/A ☐ AA-AGP ☐ AA-Lim-Nut ☐ Other	☐ Ice	A	
Micro: ☐ N/A ☐ All ☐ T Coli ☐ F Coli	☐ Ice	A	

Comments and conditions: WOC, WS, 9/10 [illegible]

LAB ID # Site Name: Blank Field/Storet #: Measured By: Matrix***:

Time	Temp °C	Cond µohm cm⁻¹	Sal %	pH s.u.	DO mg/L	DO Sat %	Secchi m	WTR V ft/sec	Tide Ebb/Fld,LS/HS	Total Depth	Sample Depth

Mode: ☐ Wading ☐ Shore ☐ Gas Motor ☐ Canoe ☐ Bridge ☐ Dock Equipment: ☐ Grab ☐ Horizontal Sampler ☐ Pole Sampler

Parameters / Method	Preserve*	Suite**	Initials
Preserved Nutrients: ☐ N/A ☐ All ☐ TKN ☐ NO_2-NO_3 ☐ NH_3 ☐ TOC ☐ TP	☐ Ice ☐ H_2SO_4 ☐ pH <2	B	
Filtered Nutrients: ☐ N/A ☐ oP ☐ Other:	☐ Ice ☐ 0.45µm flt	B	
BOD: ☐ N/A ☐ CBOD-Inhb ☐ BOD-Unin	☐ Ice		
Chlorophyll: ☐ N/A ☐ CHL-PPTN-W	☐ Ice		
Physical/Aggregate Properties: ☐ N/A ☐ All ☐ TSS ☐ Turbidity ☐ W-Cl-IC ☐ W-F ☐ W-SO_4-IC ☐ Color ☐ TDS ☐ Alk	☐ Ice		
Metals: ☐ N/A ☐ W-ICP ☐ W-FIAS ☐ W-ICPMS ☐ W-ICP-Tr	☐ Ice ☐ HNO_3 ☐ pH <2	B	
AGP/Other: ☐ N/A ☐ AA-AGP ☐ AA-Lim-Nut ☐ Other	☐ Ice		
Micro: ☐ N/A ☐ All ☐ T Coli ☐ F Coli	☐ Ice		

Comments and conditions: WOC, WS, 9/10 [illegible]

LAB ID # Site Name: Field/Storet #: Measured By: Matrix***:

Time	Temp °C	Cond µohm cm⁻¹	Sal %	pH s.u.	DO mg/L	DO Sat %	Secchi m	WTR V ft/sec	Tide Ebb/Fld,LS/HS	Total Depth	Sample Depth

Mode: ☐ Wading ☐ Shore ☐ Gas Motor ☐ Canoe ☐ Bridge ☐ Dock Equipment: ☐ Grab ☐ Horizontal Sampler ☐ Pole Sampler

Parameters / Method	Preserve*	Suite**	Initials
Preserved Nutrients: ☐ N/A ☐ All ☐ TKN ☐ NO_2-NO_3 ☐ NH_3 ☐ TOC ☐ TP	☐ Ice ☐ H_2SO_4 ☐ pH<2		
Filtered Nutrients: ☐ N/A ☐ oP ☐ Other:	☐ Ice ☐ 0.45µm flt		
BOD: ☐ N/A ☐ CBOD-Inhb ☐ BOD-Unin	☐ Ice		
Chlorophyll: ☐ N/A ☐ CHL-PPTN-W	☐ Ice		
Physical/Aggregate Properties: ☐ N/A ☐ All ☐ TSS ☐ Turbidity ☐ W-Cl-IC ☐ W-F ☐ W-SO_4-IC ☐ Color ☐ TDS ☐ Alk	☐ Ice		
Metals: ☐ N/A ☐ W-ICP ☐ W-FIAS ☐ W-ICPMS ☐ W-ICP-Tr	☐ Ice ☐ HNO_3 ☐ pH <2		
AGP/Other: ☐ N/A ☐ AA-AGP ☐ AA-Lim-Nut ☐ Other	☐ Ice		
Micro: ☐ N/A ☐ All ☐ T Coli ☐ F Coli	☐ Ice		

Comments and conditions:

Received 2 Bossy 9:50 9/11/07 [illegible]

†Preservatives: 1mL added per 500 mL sample unless otherwise noted; iced within 15 minutes **: samples run in Jacksonville Lab
***Matrix: SWF=Surface Water, Fresh SWS=Surface Water, Salt GW=Unground Water Sed=Sediment Other=Write In

Relinquished: [signature]	Date: 9-10-07	Time: 11:45	Received: [signature]	☐ < 6°C ☐ on ice ☐ < 2 pH	
Relinquished:	Date:	Time	Received: [signature] 9-11-07	9:05a	Shipping:

FDEP Biology Laboratory - Acute Screen Bioassay Bench Sheets

Facility: Anastasia Island WWTF

Address: 860 West 16th Street

City: St. Augustine County: St. Johns

Contact/District: Joseph Emory Northeast

NPDES Permit #: FL 0038831

LIMS Job #: TLH 2007-09-11-49-01 LIMS Sample #: 1043529

Lims Data Entry: 9/14/07 MF Data Entry Verification: 9.21.07 JD

Sample Collection: Date: 9.10.07 Time: 10:00

Hold Time Start: Date: 9.10.07 Time: 10:00

Comments:
Tests Aerated after 24 hrs due to low d.o. -J.D. 9/14/07
Sample salinity adjusted from ≈ 1.4 parts per thousand (ppth) to ≈ 20 ppth by the addition of artificial seasalts. Salt control prepared by diluting artificial seawater (at 20 ppth salinity) with DI water to the salinity (≈ 1.4 ppth) of the original sample then salting the diluted ASW to match the salted sample salinity. MF 9-11-07
Salinity adjusted per Permit. MF 9-11-07

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

Test Type: (Screen) Definitive
(Static) / Static Renewal / Flow-through
Test Duration: (24) 48 96 Hours.

Test 1 validation: Test 1: SOP TA 07 03
Control survival ≥90%: (Yes) No
Temperature Range ≤3°C: (Yes) No

Test 2 validation: Test 2: SOP TA 07 04
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: 1.4 Final Salinity: 20.0 (Salts) Hypersaline brine
Salinity adjusted (Test 2): (Yes) no Initial Salinity: 1.4 Final Salinity: 20.0 (Salts) Hypersaline brine
Dechlorination: yes (No) ____mL of 0.025N Sodium Thiosulfate per liter of sample. Final TRC: ____

Light Intensity : 50 - 100 ft. candles
Photoperiod : 16 light 8 dark
Temperature Range °C:
Incubator # 2 min 25.5 max 26.1 mean 25.8
Incubator # ____ min ____ max ____ mean ____
Room B246 min 24.7 max 26.0 mean 25.4

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
Marshall Faircloth
James Daniels
Bruce [illegible]

Loretta C. Wolfe
REVIEWER

Water Quality Parameters	20% DMW	Moderately Hard Water/ Well Water	Salt Water (ASW) NSW Test 1	Salt Water (ASW) NSW Test 2	Other: Salted Sample	Original Sample	Method	Measured by	Verified by
Field Total Residual Cl_2 (mg/L):	N/A	N/A	N/A	N/A	—	—	not measured *	MF	
Lab Total Residual Cl_2 (mg/L):	<0.03	—	<0.03	<0.03	<0.03	<0.03	HACH	JD/BA	BA/JD
Alkalinity (mg/L as $CaCO_3$):	95	—	221	221	180	256	HACH	JD	BA
Hardness (mg/L as $CaCO_3$):	71	—	—	—	—	400+	HACH	JD	BA
Total Ammonia (mg/L as N):	<0.017	—	<0.034	<0.034	<0.034	<0.017	DENVER	MF	JD
Salinity (ppth):	<1	—	21 → 20.0	21 → 20.0	20.0	1.4	YSI / (Mettler)	JD	BA

V 1.4 9/12/05

Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1043329 Test #: 1/2 SOP#:TA 07 03 Test Started: Date 9.1.07 Time: 12:45

Organism/Batch/Age: A.bahia/9.1.07/5 days Test Ended: Date 9.13.07 Time: 1055

Chamber/Test Volume: 1000 / 500 ml Diluent/ Batch: ASW / 8.27.07

Food/Batch: YCT – P.sub – Artemia 0hr 134.07 24hr 134.07 48hr 134.07 72hr – Artemia Lot# 551-536-90

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	F13	5	5	5			
	B	F14	5	5	5			
	C	F15	5	5	5			
	D	F16	5	5	5			
100%	A	F17	5	5	5			
	B	F18	5	5	5			
	C	F19	5	5	5			
	D	F20	5	5	5			
Slt Ctrl	A	F21	5	5	5			
	B	F22	5	5	5			
	C	F23	5	5	5			
	D	F23	5	5	5			
Loaded/Verified by: JD / BA		Checked by:	JD	JD	JD			

m = missing d = dead BR/AR = Before/After Renewal

Comments:

Test Results:

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

% mortality in 100% sample: Ø LC50: >100%

If Calculated: 95% CI_____ Method_____

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

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Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1043529 Test #: 3/7 SOP#:TA 07 04 Test Started: Date 9.11.07 Time: 1350

Organism/Batch/Age: Mby/Ila/9.11.07/13 d's/S Test Ended: Date 9.13.07 Time: 1100

Chamber/Test Volume: 1000 / 500 ml Diluent/ Batch: ASW / 8.2707

Food/Batch: YCT — P.sub — Artemia 0hr 1340 24hr — 48hr — 72hr — Artemia Lot# 531-536-90 (DD)

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
ctl	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			
Salt Ctl	A	F9	5	5	5			
	D	F10	5	5	5			
	C	F11	5	5	5			
	D	F12	5	5	5			
			DD	DD	DD			

Loaded/Verified by: DD / BA Checked by:

m = missing d = dead BR/AR = Before/After Renewal

Comments:

Test Results:

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

% mortality in 100% sample: 0 LC50: >100%

If Calculated: 95% CI _____ Method _____

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

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000013

Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 1043529 Test #: 1 of 2

TEST SOP #: TA07_03 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	C			
pH (S.U.)	8.4	8.2	8.3			
Temperature °C	24.5	24.1	24.0			
Dissolved Oxygen mg/L	6.7	4.8	6.6			
Conductivity µmhos (mmhos)	33.1	33.1	34.9			
(initials) Measured by:	DD	DD	DD			
(initials) Recorded by:	DD	DD	DD			

Comments: All test reps initiated at 24 hours due to Decrease in Dissolved Oxygen concentrations MF 9/12/07

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.)	8.3	8.2	8.3			
Temperature °C	25.6	24.2	24.0			
Dissolved Oxygen mg/L	6.8	4.0	6.7			
Conductivity µmhos (mmhos)	325	32.7	33.3			
(initials) Measured by:	DD	DD	DD			
(initials) Recorded by:	DD	DD	DD			

Comments:

Concentration 5% control	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C			
pH (S.U.)	8.4	8.3	8.2			
Temperature °C	24.5	24.4	24.1			
Dissolved Oxygen mg/L	6.8	4.5	6.7			
Conductivity µmhos (mmhos)	31.9	32.6	33.2			
(initials) Measured by:	DD	DD	DD			
(initials) Recorded by:	DD	DD	DD			

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: 000014

V 2.0 2/24/04

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 104352 9 **Test #:** 2 of 2

TEST SOP #: TA07_ 04 **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	C			
pH (S.U.)	8.3	8.2	8.2			
Temperature °C	24.3	24.0	24.1			
Dissolved Oxygen mg/L	6.7	5.2	6.4			
Conductivity µmhos (mmhos)	33.0	33.7	34.1			
(initials) Measured by:	JD	JD	JD			
(initials) Recorded by:	JD	JD	JD			

Comments: all test replicates aerated at 24 hours due to decrease in dissolved oxygen concentrations MF 9/12/07

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.)	8.3	8.2	8.3			
Temperature °C	25.6	24.0	24.0			
Dissolved Oxygen mg/L	33.0	4.7	6.6			
Conductivity µmhos (mmhos)	32.6	32.7	33.1			
(initials) Measured by:	JD	JD	JD			
(initials) Recorded by:	JD	JD	JD			

Comments:

Concentration 50% ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C			
pH (S.U.)	8.4	8.1	8.1			
Temperature °C	24.8	24.2	24.0			
Dissolved Oxygen mg/L	6.7	24.3.7	6.6			
Conductivity µmhos (mmhos)	31.9	32.4	33.2			
(initials) Measured by:	JD	JD	JD			
(initials) Recorded by:	JD	JD	JD			

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:

Appendix C. SRT Bench Sheets and Statistical Analysis

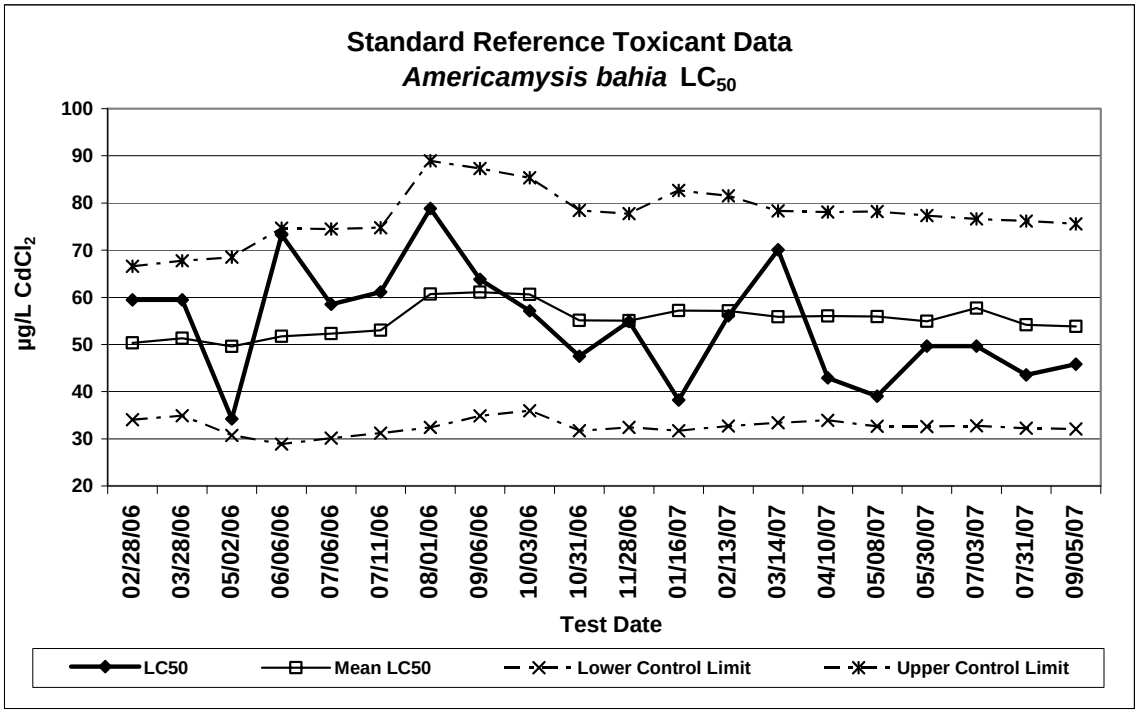
Florida Department of Environmental Protection
Bureau of Laboratories

Standard Reference Toxicant (SRT) Test Data - 48-hour Acute Toxicity
Americamysis bahia (mysid shrimp) - Cadmium Chloride ($CdCl_2$)

Date	LC50	Mean LC50	Std Dev	Lower Control Limit	Upper Control Limit
02/28/06	59.45	50.32	8.15	34.03	66.61
03/28/06	59.42	51.33	8.20	34.93	67.73
05/02/06	34.19	49.62	9.44	30.73	68.50
06/06/06	73.23	51.76	11.44	28.88	74.65
07/06/06	58.53	52.33	11.08	30.16	74.49
07/11/06	61.12	53.00	10.89	31.22	74.78
08/01/06	78.84	60.68	14.12	32.43	88.93
09/06/06	63.78	61.07	13.12	34.83	87.31
10/03/06	57.10	60.63	12.35	35.94	85.32
10/31/06	47.52	55.07	11.67	31.73	78.42
11/28/06	54.87	55.06	11.33	32.41	77.71
01/16/07	38.23	57.19	12.74	31.72	82.66
02/13/07	56.06	57.10	12.20	32.71	81.50
03/14/07	70.07	55.86	11.23	33.40	78.32
04/10/07	42.91	56.00	11.04	33.91	78.08
05/08/07	39.00	55.90	11.38	32.65	78.19
05/30/07	49.64	54.95	11.17	32.61	77.30
07/03/07	49.64	57.70	10.97	32.76	76.64
07/31/07	43.54	54.19	10.97	32.25	76.13
09/05/07	45.79	53.83	10.87	32.08	75.57

Lower Confidence Limit = mean - 2 * Std Dev
Upper Confidence Limit = mean + 2 * Std Dev

CV = 20.20
EPA reference 75th quartile CV = 26%



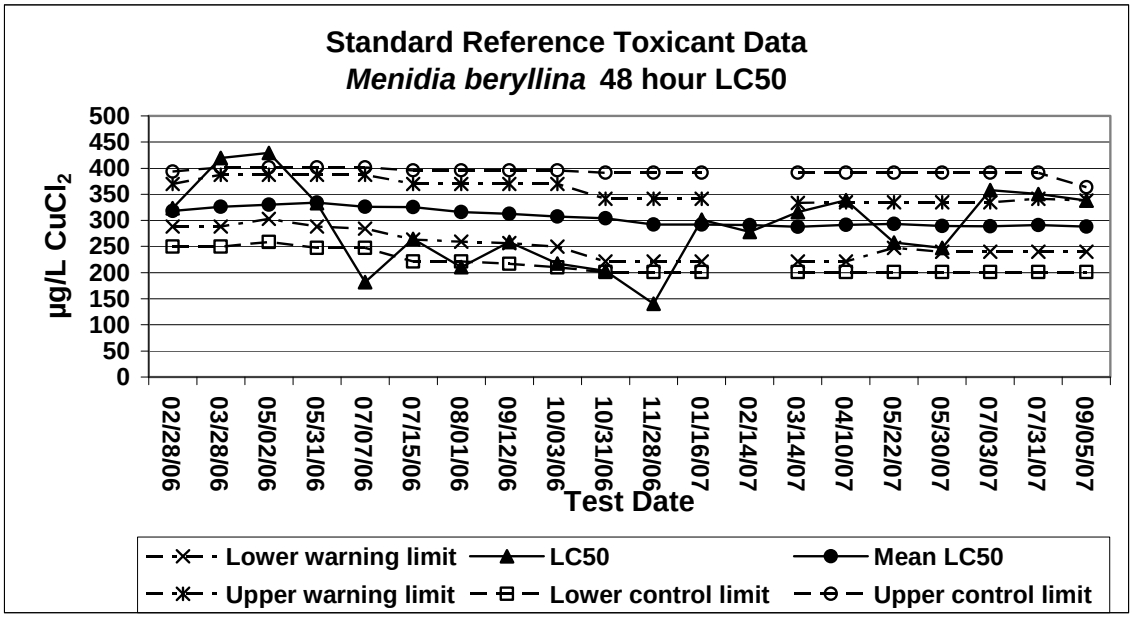
Appendix C. (continued)

Florida Department of Environmental Protection
Bureau of Laboratories

Standard Reference Toxicant (SRT) Test Data - Acute Toxicity
Menidia beryllina (Inland silverside) - Copper Chloride ($CuCl_2$)

Date	LC50	Mean LC50	Lower control limit	Lower warning limit	Upper warning limit	Upper control limit
02/28/06	323.38	318.11	250.0	275.4	356.1	388.7
03/28/06	419.55	326.32	250.0	288.5	369.7	393.6
05/02/06	429.19	330.10	250.0	288.5	387.2	401.5
05/31/06	333.13	334.26	258.8	303.2	387.2	401.5
07/07/06	181.98	326.28	247.2	288.5	387.2	401.5
07/15/06	264.59	325.48	247.2	284.4	387.2	401.5
08/01/06	210.80	316.05	221.3	263.4	369.7	395.6
09/12/06	258.82	312.50	221.3	259.6	369.7	395.6
10/03/06	217.64	307.20	217.0	256.6	369.7	395.6
10/31/06	203.06	304.28	210.0	249.7	369.7	395.6
11/28/06	140.31	292.22	201.0	221.3	341.2	391.4
01/16/07	301.29	291.93	201.0	221.3	341.2	391.4
02/14/07	278.00	291.27	201.0	221.3	341.2	391.4
03/14/07	316.16	287.74	201.0	221.3	333.3	391.4
04/10/07	338.35	291.67	201.0	221.3	334.8	391.4
05/22/07	257.44	293.42	201.0	247.5	334.8	391.4
05/30/07	247.36	289.10	201.0	239.9	334.4	391.4
07/03/07	357.65	288.79	201.0	239.9	334.4	391.4
07/31/07	350.68	290.88	201.0	239.9	341.4	391.4
09/05/07	338.18	288.38	201.0	239.9	338.2	363.8

Means are of the last 20 SRT tests.
Upper warning and control limits are the 75th and 90th percentiles, respectively, of the past 20 LC50s.
Lower warning and control limits are the 25th and 10th percentiles, respectively, of the past 20 LC50s.
EPA reference 75th quartile CV = 21% **CV = 27.09**



Appendix C. (continued)

[redacted]

FDEP Biology Laboratory - Acute SRT Bench Sheet

Test Organism: (Americamysis bahia) Menidia beryllina Hyalella azteca
~~Method 2007.0~~ Method 2006.0 Method 100.1 EPA-600-R-99-064
Ceriodaphnia dubia Cyprinella leedsi Pimephales promelas Other: _____
Method 2002.0 Method 2000.0 Method 2000.0

Method from EPA-821-R-02-012
Test Type: 48 hour non-renewal
(96) hour renewal
Test Page 1 of 2

Diluent/ Batch #: MSW / 8.2707
Toxicant/ Batch#: CdCl2 / 1.9.4mo7

Test Beginning: Date: 9.5.07 Time: 1315
Test Ending: Date: 9-9-07 Time: 13:15

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	DD
Alkalinity (mg/L as $CaCO_3$):	22.1	Hach	DD
Hardness (mg.L as $CaCO_3$):	—	Hach	—
Total Ammonia (mg/L as N):	<0.03	Denver	DD
Salinity (ppth):	≈20	Mettler	BA

Organism Batch #/ Age: 9-5-07 / 5 day$
Feeding: Prior to test / Prior to renewal / (Daily)
Food: YCT P.subcapitata Artemia: Lot # GSL-536 48
Food Batch: — —
Chamber size: 300 mL
Test volume: 250 mL per replicate
0hr 13:07 24hr 13:07 48hr 13:07 72hr 13:07

Conc. g/L (mg/L)	Rep.	Chamber #	Number Live 0 hr (~~48 hr~~)	24 hr (~~72 hr~~)	48 hr (~~96 hr~~)	pH (SU) 0 hr (~~48 hr~~)	24 hr (~~72 hr~~)	48 hr (~~96 hr~~)	Temperature (°C) 0 hr (~~48 hr~~)	24 hr (~~72 hr~~)	48 hr (~~96 hr~~)	D.O. (mg/L) 0 hr (~~48 hr~~)	24 hr (~~72 hr~~)	48 hr (~~96 hr~~)	Uncorrected Conductivity µmhom/cm (~~mmhos/cm~~) 0 hr (~~48 hr~~)	24 hr (~~72 hr~~)	48 hr (~~96 hr~~)
Control	A	tox 1	5	5	5	8.3		8.1	24.4		24.2	7.0		4.7	32.4		33.8
	B	tox 2	5	5	5		8.3			24.1			5.7			33.8	
	C	tox 3	5	5	5												
	D	tox 4	5	5	5												
20	A	tox 5	5	5	5	8.4		8.0	24.4		24.3	6.9		4.8	32.8		34.3
	B	tox 6	5	5	5		8.2			24.0			5.8			33.5	
	C	tox 7	5	5	5												
	D	tox 8	5	5	5												
30	A	tox 9	5	5	5	8.4		8.2	24.4		24.3	7.0		4.9	32.9		34.1
	B	tox 10	5	5	4D		8.3			24.0			5.9			33.6	
	C	tox 11	5	5	3D									4.5D			
	D	tox 12	5	5	5												
45	A	tox 13	5	5	3D	8.4		8.1	24.2	24.3D	24.3	7.0		4.9	32.8		34.2
	B	tox 14	5	5	4D		8.2			24.0			5.9			33.7	
	C	tox 15	5	4D	2D												
	D	tox 16	5	5	2.3D												
67	A	tox 17	5	4D	1.3D	8.4		8.2	24.1		24.4	7.1		5.1	32.9		34.0
	B	tox 18	5	5	1.4D		8.2			24.0			5.8			33.7	
	C	tox 19	5	5	0.5D												
	D	tox 20	5	4D	1.3D												
100	A	tox 21	5	4D	0.4D	8.4		8.2	24.0		24.3	7.2		5.2	32.8		33.9
	B	tox 22	5	3.2D	0.3D		8.3			24.0			5.9			34.2	
	C	tox 23	5	5	0.5D												
	D	tox 24	5	4D	0.4D												
	A																
	B																
	C																
	D																
Loaded / measured by:			DD	DD	DD	BA	DD	DD	BA	DD	DD	BA	DD	DD	BA	DD	DD
Recorded by:			DD	DD	DD	BA	DD	DD	BA	DD	DD	BA	DD	DD	BA	DD	DD

Investigators' Signatures
James David
Marshall Faircloth
[redacted]
REVIEWER

Concentrations prepared by: DD
Loading verified by: BA
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min 25.4 max 26.4 mean 25.9
Incubator # ___ min ___ max ___ mean ___
Room B246 min 24.5 max 26.4 mean 25.4

Comments:

Statistics: Method: Spearman-Karber
(48) / 96 hour LC_{50}: 45.79
95% Confidence Interval: lower 40.31 upper 52.06

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Appendix C. (continued)

FDEP Biology Laboratory - Acute SRT Bench Sheet

Test Organism: *Americamysis bahia* Method 2007.0 | *Menidia beryllina* ~~Method 2006.0~~ | *Hyalella azteca* Method 100.1 EPA-600-R-99-064
Ceriodaphnia dubia Method 2002.0 | *Cyprinella leedsi* Method 2000.0 | *Pimephales promelas* Method 2000.0 | Other: _____

Method from EPA-821-R-02-012
Test Type: 48 hour non-renewal / (96) hour renewal
Test Page 1 of 2

Diluent/ Batch #: ASW 1 8.27.07
Toxicant/ Batch#: $CuCl_2$ 1 9.4.07

Test Beginning: Date: 9-5-07 Time: 1310
Test Ending: Date: 9-9-07 Time: 1110

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<.003	Hach	JD
Alkalinity (mg/L as $CaCO_3$):	221	Hach	JD
Hardness (mg.L as $CaCO_3$):	—	Hach	—
Total Ammonia (mg/L as N):	<.034	Denver	AP
Salinity (ppth):	20	Mettler	BA

Organism Batch #/ Age: 9-5-07 12 hrs
Feeding: ~~Prior to test~~ ~~Prior to renewal~~ / Daily
Food: YCT *P.subcapitata* Artemia: Lot # GSL-536-90
Food Batch: — —
0hr 1310 24hr — 48hr 1320 72hr —
Chamber size: 1000 mL
Test volume: 500 mL per replicate

Conc. g/L (@) mg/L	Rep.	Chamber #	Number Live 0 hr	Number Live 24 hr	Number Live 48 hr	pH (SU) 0 hr	pH (SU) 24 hr	pH (SU) 48 hr	Temperature (°C) 0 hr	Temperature (°C) 24 hr	Temperature (°C) 48 hr	D.O. (mg/L) 0 hr	D.O. (mg/L) 24 hr	D.O. (mg/L) 48 hr	Uncorrected Conductivity µmhom/cm (mmhos/cm) 0 hr	Uncorrected Conductivity 24 hr	Uncorrected Conductivity 48 hr
			~~48 hr~~	~~72 hr~~	~~96 hr~~	~~48 hr~~	~~72 hr~~	~~96 hr~~	~~48 hr~~	~~72 hr~~	~~96 hr~~	~~48 hr~~	~~72 hr~~	~~96 hr~~	~~48 hr~~	~~72 hr~~	~~96 hr~~
Control	A	B1	10	10	10	8.3		8.3	24.7		24.4	6.8		6.1	323		33.2
	B	B2	10	10	10		8.3			24.2			5.8			33.5	
	C																
	D																
100	A	B3	10	10	10	8.4		8.3	24.7		24.4	6.7		6.1	32.2		33.1
	B	B4	10	10	10		8.3			24.3			5.7			32.9	
	C																
	D																
200	A	B5	10	10	10	8.4		8.3	24.6		24.3	6.8		5.7	32.8		33.4
	B	B6	10	8[20]	7[10]		8.3			24.2			5.6			33.2	
	C																
	D																
300	A	B7	10	7[30]	7	8.4		8.3	24.6		24.3	6.8		5.9	32.3		32.9
	B	B8	10	9[10]	9		8.3			24.2			5.7			33.1	
	C																
	D																
400	A	B9	10	7[30]	5[20]	8.4		8.3	24.6		24.4	~~6.8~~ 6.8 BA		6.2	32.5		33.1
	B	B10	10	5[50]	5		8.3			24.4			5.8			33.1	
	C																
	D																
500	A	B11	10	1[40]	0[10]	8.4		8.3	24.5		24.4	6.8		6.3	32.8		35.6
	B	B12	10	0[00]	—		8.3			24.7			5.8			33.7	
	C																
	D																
	A																
	B																
	C																
	D																
Loaded / measured by:			JD	JD	JD	BA	JD	JD	BA	JD	JD	BA	JD	JD	BA	JD	JD
Recorded by:			JD	JD	JD	BA	JD	JD	BA	JD	JD	BA	JD	JD	BA	JD	JD

Investigators' Signatures
James Daniels
Bruce Mackenzie
Marshall Faircloth
REVIEWER

Concentrations prepared by: BA
Loading verified by: BA
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min 25.4 max 26.4 mean 25.9
Incubator # ___ min ___ max ___ mean ___
Room B246 min 25.4 (24.5 MF) max 26.4 mean 25.4

Comments:

Statistics: (48) 96 hour LC_{50}: 338.18 Method: Spearman-Karber
95% Confidence Interval: lower 299.16 upper 381.94

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Appendix C. (continued)

DATE: 9-5-07 TEST NUMBER: 1 DURATION: 48 h
TOXICANT : CdCl2
SPECIES: *Americamysis bahia*

RAW DATA: Concentration (ug/L)	Number Exposed	Mortalities
.00	20	0
20.00	20	0
30.00	20	3
45.00	20	9
67.00	20	17
100.00	20	20

SPEARMAN-KARBER TRIM: .00%

SPEARMAN-KARBER ESTIMATES: LC50: 45.79
95% LOWER CONFIDENCE: 40.31
95% UPPER CONFIDENCE: 52.01

DATE: 9-5-07 TEST NUMBER: 1 DURATION: 48 h
TOXICANT : CuCl2
SPECIES: *Menidia beryllina*

RAW DATA: Concentration (ug/L)	Number Exposed	Mortalities
.00	20	0
100.00	20	0
200.00	20	3
300.00	20	4
400.00	20	10
500.00	20	20

SPEARMAN-KARBER TRIM: .00%

SPEARMAN-KARBER ESTIMATES: LC50: 338.19
95% LOWER CONFIDENCE: 299.46
95% UPPER CONFIDENCE: 381.94

Appendix D. Test Organism Receipts

MBL Aquaculture
4569 Samuel Street
Sarasota, Florida 34233
TEL: (800) 889-0384
FAX: (941) 922-3874
EMAIL: sales@mblaquaculture.com
WEB: www.MBLAquaculture.com

NELAC Accredited

Organism Shipment Record

State of Florida Aquaculture Certificate Number AQ0668007

Date: 9/4/07

Shipped to: FDEP

P.O. No: N/A

Species	Quantity	Age	Brood Number	Temperature	Salinity
Mysidopsis bahia	150	4 DAYS	MS070831	25°C	20‰
Menidia beryllina	150	11 DAYS	MS070824	25°C	20‰
Cyprinella leedsi	150	12 DAYS	CL070823	25°C	
Pimephales promelas	150	8 DAYS	FM070827	25°C	

Packed by: RL

Shipped Via: FedEx

Notes:

Thank you for your order.

Appendix D. (continued)

MBL Aquaculture
4569 Samuel Street
Sarasota, Florida 34233
TEL: (800) 889-0384
FAX: (941) 922-3874
EMAIL: sales@mblaquaculture.com
WEB: www.MBLAquaculture.com

NELAC Accredited

Organism Shipment Record

State of Florida Aquaculture Certificate Number AQ0668007

Date: FL DEP 9/10/07

Shipped to: FLDEP

P.O. No: N/A

Species	Quantity	Age	Brood Number	Temperature	Salinity
Mysidopsis bahia	100	4 DAYS	MS070906	25°C	20
Menidia beryllina	100	12 DAYS	SS070829	25°C	20
Cyprinella leedsi					
Pimephales promelas					

Packed by: JW

Shipped Via:

Notes:

Thank you for your order.

Appendix E. Chemical Analyses performed on the effluent from the Anastasia Wastewater Treatment Facility Outfall D-001, sampled on September 10, 2007.

Date Sampled	Field Id	Analysis group	Components	Result	Remarks	Units	MDL	PQL
9/10/2007 10:20	BLANK	Metals	Aluminum	60	U	ug/L	60	240
9/10/2007 10:20	BLANK	Metals	Calcium	0.02	U	mg/L	0.02	0.08
9/10/2007 10:20	BLANK	Metals	Iron	30	U	ug/L	30	120
9/10/2007 10:20	BLANK	Metals	Magnesium	0.04	U	mg/L	0.04	0.16
9/10/2007 10:20	BLANK	Metals	Arsenic	0.5	U	ug/L	0.5	2
9/10/2007 10:20	BLANK	Metals	Cadmium	0.02	U	ug/L	0.02	0.08
9/10/2007 10:20	BLANK	Metals	Chromium	1	U	ug/L	1	4
9/10/2007 10:20	BLANK	Metals	Copper	0.25	U	ug/L	0.25	1
9/10/2007 10:20	BLANK	Metals	Lead	0.2	U	ug/L	0.2	0.8
9/10/2007 10:20	BLANK	Metals	Nickel	0.25	U	ug/L	0.25	1
9/10/2007 10:20	BLANK	Metals	Selenium	0.5	U	ug/L	0.5	2
9/10/2007 10:20	BLANK	Metals	Silver	0.025	U	ug/L	0.025	0.1
9/10/2007 10:20	BLANK	Metals	Zinc	5	U	ug/L	5	20
9/10/2007 10:20	BLANK	Nutrients	Ammonia-N	0.01	U	mg N/L	0.01	0.02
9/10/2007 10:20	BLANK	Nutrients	NO2NO3-N	0.004	U	mg N/L	0.004	0.01
9/10/2007 10:20	BLANK	Nutrients	O-Phosphate-P	0.004	U	mg P/L	0.004	0.01
9/10/2007 10:20	BLANK	Nutrients	Kjeldahl Nitrogen	0.08	U	mg N/L	0.08	0.2
9/10/2007 10:20	BLANK	Nutrients	Total-P	0.02	U	mg P/L	0.02	0.06
9/10/2007 10:20	BLANK	Pesticides	Alachlor	0.57	U	ug/L	0.57	2.3
9/10/2007 10:20	BLANK	Pesticides	Ametryn	0.048	U	ug/L	0.048	0.19
9/10/2007 10:20	BLANK	Pesticides	Atrazine	0.048	U	ug/L	0.048	0.19
9/10/2007 10:20	BLANK	Pesticides	Azinphos Methyl	0.19	U	ug/L	0.19	0.76
9/10/2007 10:20	BLANK	Pesticides	Bromacil	0.19	U	ug/L	0.19	0.76
9/10/2007 10:20	BLANK	Pesticides	Butylate	0.19	U	ug/L	0.19	0.76
9/10/2007 10:20	BLANK	Pesticides	Chlorpyrifos Ethyl	0.048	U	ug/L	0.048	0.19
9/10/2007 10:20	BLANK	Pesticides	Chlorpyrifos Methyl	0.095	U	ug/L	0.095	0.38
9/10/2007 10:20	BLANK	Pesticides	Diazinon	0.048	U	ug/L	0.048	0.19
9/10/2007 10:20	BLANK	Pesticides	Ethion	0.048	U	ug/L	0.048	0.19
9/10/2007 10:20	BLANK	Pesticides	Ethoprop	0.095	U	ug/L	0.095	0.38
9/10/2007 10:20	BLANK	Pesticides	Fenamiphos	0.19	U	ug/L	0.19	0.76
9/10/2007 10:20	BLANK	Pesticides	Fonofos	0.095	U	ug/L	0.095	0.38
9/10/2007 10:20	BLANK	Pesticides	Hexazinone	0.095	U	ug/L	0.095	0.38
9/10/2007 10:20	BLANK	Pesticides	Malathion	0.14	U	ug/L	0.14	0.56

Appendix E. (continued)

Date Sampled	Field Id	Analysis group	Components	Result	Remarks	Units	MDL	PQL
9/10/2007 10:20	BLANK	Pesticides	Metalaxyl	0.24	U	ug/L	0.24	0.96
9/10/2007 10:20	BLANK	Pesticides	Metolachlor	0.48	U	ug/L	0.48	1.9
9/10/2007 10:20	BLANK	Pesticides	Metribuzin	0.095	U	ug/L	0.095	0.38
9/10/2007 10:20	BLANK	Pesticides	Mevinphos	0.19	U	ug/L	0.19	0.76
9/10/2007 10:20	BLANK	Pesticides	Naled	0.76	U	ug/L	0.76	3
9/10/2007 10:20	BLANK	Pesticides	Norflurazon	0.14	U	ug/L	0.14	0.56
9/10/2007 10:20	BLANK	Pesticides	Parathion Ethyl	0.14	U	ug/L	0.14	0.56
9/10/2007 10:20	BLANK	Pesticides	Parathion Methyl	0.095	U	ug/L	0.095	0.38
9/10/2007 10:20	BLANK	Pesticides	Phorate	0.048	U	ug/L	0.048	0.19
9/10/2007 10:20	BLANK	Pesticides	Prometryn	0.14	U	ug/L	0.14	0.56
9/10/2007 10:20	BLANK	Pesticides	Simazine	0.048	U	ug/L	0.048	0.19
9/10/2007 10:20	BLANK	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	2,4-Dichlorophenol	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	2,4-Dimethylphenol	9.6	U	ug/L	9.6	38
9/10/2007 10:20	BLANK	Priority Organic Pollutants	2,4-Dinitrophenol	14	U	ug/L	14	58
9/10/2007 10:20	BLANK	Priority Organic Pollutants	2,4-Dinitrotoluene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	2,6-Dinitrotoluene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	2-Chloronaphthalene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	2-Chlorophenol	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.9	U	ug/L	2.9	12
9/10/2007 10:20	BLANK	Priority Organic Pollutants	2-Nitrophenol	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	3,3'-Dichlorobenzidine	38	UJ	ug/L	38	150
9/10/2007 10:20	BLANK	Priority Organic Pollutants	4,4'-DDD	1.4	U	ug/L	1.4	5.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	4,4'-DDE	1.4	U	ug/L	1.4	5.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	4,4'-DDT	1.4	U	ug/L	1.4	5.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	1.9	U	ug/L	1.9	7.7
9/10/2007 10:20	BLANK	Priority Organic Pollutants	4-Nitrophenol	14	U	ug/L	14	58
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Acenaphthene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Acenaphthylene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Aldrin	1.4	U	ug/L	1.4	5.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Anthracene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Benzidine	96	U	ug/L	96	380

Appendix E. (continued)

Date Sampled	Field Id	Analysis group	Components	Result	Remarks	Units	MDL	PQL
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Benzo(a)anthracene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Benzo(a)pyrene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Benzo(b)fluoranthene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Benzo(k)fluoranthene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	2.9	U	ug/L	2.9	12
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	14	U	ug/L	14	58
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Butyl benzyl phthalate	4.8	U	ug/L	4.8	19
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Chrysene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Di-n-butyl phthalate	4.8	U	ug/L	4.8	19
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Di-n-octyl phthalate	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Dieldrin	1.4	U	ug/L	1.4	5.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Diethyl phthalate	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Dimethyl phthalate	48	U	ug/L	48	190
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Endosulfan I	3.8	U	ug/L	3.8	15
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Endosulfan II	3.8	U	ug/L	3.8	15
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Endosulfan sulfate	1.4	U	ug/L	1.4	5.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Endrin	1.4	U	ug/L	1.4	5.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Endrin aldehyde	3.8	U	ug/L	3.8	15
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Fluoranthene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Fluorene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Heptachlor	1.4	U	ug/L	1.4	5.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Heptachlor epoxide	1.4	U	ug/L	1.4	5.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Hexachlorobenzene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Hexachlorobutadiene	2.9	U	ug/L	2.9	12
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Hexachlorocyclopentadiene	2.9	U	ug/L	2.9	12
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Hexachloroethane	2.9	U	ug/L	2.9	12
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Isophorone	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	1.9	U	ug/L	1.9	7.7
9/10/2007 10:20	BLANK	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9	U	ug/L	1.9	7.7
9/10/2007 10:20	BLANK	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	2.9	UJ	ug/L	2.9	12

Appendix E. (continued)

Date Sampled	Field Id	Analysis group	Components	Result	Remarks	Units	MDL	PQL
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Naphthalene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Nitrobenzene	1.9	U	ug/L	1.9	7.7
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Pentachlorophenol	2.9	U	ug/L	2.9	12
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Phenanthrene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Phenol	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Pyrene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	alpha-BHC	1.4	U	ug/L	1.4	5.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	beta-BHC	1.4	U	ug/L	1.4	5.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	delta-BHC	1.4	U	ug/L	1.4	5.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	gamma-BHC	1.4	U	ug/L	1.4	5.8
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Bromodichloromethane	0.2	U	ug/L	0.2	1
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Chloroform	0.2	U	ug/L	0.2	1
9/10/2007 10:20	BLANK	Priority Organic Pollutants	Dibromochloromethane	0.2	U	ug/L	0.2	1
9/10/2007 10:00	EFFLUENT	AGP/LN	Algal Growth Potential	517		mg DryWt/L	3	3
9/10/2007 10:00	EFFLUENT	Chlorophyll/Grain Size/BOD	BOD-5 Day,N-Inhib	4.8		mg/L	0.2	2
9/10/2007 10:00	EFFLUENT	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	0.71	I	ug/L	0.55	1.7
9/10/2007 10:00	EFFLUENT	Chlorophyll/Grain Size/BOD	Phaeophytin-a	0.24	U	ug/L	0.24	0.71
9/10/2007 10:00	EFFLUENT	Toxicology	Bioassay-Acute-Screen-SW-MB, LC50	100	L	LC50		
9/10/2007 10:00	EFFLUENT	Toxicology	Bioassay-Acute-Screen-SW-AB, LC50	100	L	LC50		
9/10/2007 10:00	EFFLUENT	Metals	Aluminum	60	U	ug/L	60	240
9/10/2007 10:00	EFFLUENT	Metals	Calcium	144		mg/L	0.02	0.08
9/10/2007 10:00	EFFLUENT	Metals	Iron	58	I	ug/L	30	120
9/10/2007 10:00	EFFLUENT	Metals	Magnesium	77.3		mg/L	0.04	0.16
9/10/2007 10:00	EFFLUENT	Metals	Arsenic	0.5	U	ug/L	0.5	2
9/10/2007 10:00	EFFLUENT	Metals	Cadmium	0.02	U	ug/L	0.02	0.08
9/10/2007 10:00	EFFLUENT	Metals	Chromium	1	U	ug/L	1	4
9/10/2007 10:00	EFFLUENT	Metals	Copper	0.81	I	ug/L	0.25	1
9/10/2007 10:00	EFFLUENT	Metals	Lead	0.22	I	ug/L	0.2	0.8
9/10/2007 10:00	EFFLUENT	Metals	Nickel	1.56		ug/L	0.25	1
9/10/2007 10:00	EFFLUENT	Metals	Selenium	0.5	U	ug/L	0.5	2
9/10/2007 10:00	EFFLUENT	Metals	Silver	0.025	U	ug/L	0.025	0.1
9/10/2007 10:00	EFFLUENT	Metals	Zinc	33		ug/L	5	20
9/10/2007 10:00	EFFLUENT	Nutrients	Alkalinity	174		mg CaCO3/L	0.65	2.5
9/10/2007 10:00	EFFLUENT	Nutrients	Color	10		PCU	5	5
9/10/2007 10:00	EFFLUENT	Nutrients	Specific_Conductance	2600		umhos/cm	2	8

Appendix E. (continued)

Date Sampled	Field Id	Analysis group	Components	Result	Remarks	Units	MDL	PQL
9/10/2007 10:00	EFFLUENT	Nutrients	Ammonia-N	0.054		mg N/L	0.01	0.02
9/10/2007 10:00	EFFLUENT	Nutrients	NO2NO3-N	13		mg N/L	0.4	1
9/10/2007 10:00	EFFLUENT	Nutrients	O-Phosphate-P	2.9		mg P/L	0.16	0.4
9/10/2007 10:00	EFFLUENT	Nutrients	Kjeldahl Nitrogen	1.4		mg N/L	0.08	0.2
9/10/2007 10:00	EFFLUENT	Nutrients	Total-P	3.6		mg P/L	0.2	0.6
9/10/2007 10:00	EFFLUENT	Nutrients	TSS	4	U	mg/L	4	16
9/10/2007 10:00	EFFLUENT	Pesticides	Alachlor	0.6	U	ug/L	0.6	2.4
9/10/2007 10:00	EFFLUENT	Pesticides	Ametryn	0.05	U	ug/L	0.05	0.2
9/10/2007 10:00	EFFLUENT	Pesticides	Atrazine	0.05	U	ug/L	0.05	0.2
9/10/2007 10:00	EFFLUENT	Pesticides	Azinphos Methyl	0.2	U	ug/L	0.2	0.8
9/10/2007 10:00	EFFLUENT	Pesticides	Bromacil	0.2	U	ug/L	0.2	0.8
9/10/2007 10:00	EFFLUENT	Pesticides	Butylate	0.2	U	ug/L	0.2	0.8
9/10/2007 10:00	EFFLUENT	Pesticides	Chlorpyrifos Ethyl	0.05	U	ug/L	0.05	0.2
9/10/2007 10:00	EFFLUENT	Pesticides	Chlorpyrifos Methyl	0.1	U	ug/L	0.1	0.4
9/10/2007 10:00	EFFLUENT	Pesticides	Diazinon	0.05	U	ug/L	0.05	0.2
9/10/2007 10:00	EFFLUENT	Pesticides	Ethion	0.05	U	ug/L	0.05	0.2
9/10/2007 10:00	EFFLUENT	Pesticides	Ethoprop	0.1	U	ug/L	0.1	0.4
9/10/2007 10:00	EFFLUENT	Pesticides	Fenamiphos	0.2	U	ug/L	0.2	0.8
9/10/2007 10:00	EFFLUENT	Pesticides	Fonofos	0.1	U	ug/L	0.1	0.4
9/10/2007 10:00	EFFLUENT	Pesticides	Hexazinone	0.1	U	ug/L	0.1	0.4
9/10/2007 10:00	EFFLUENT	Pesticides	Malathion	0.15	U	ug/L	0.15	0.6
9/10/2007 10:00	EFFLUENT	Pesticides	Metalaxyl	0.25	U	ug/L	0.25	1
9/10/2007 10:00	EFFLUENT	Pesticides	Metolachlor	0.5	U	ug/L	0.5	2
9/10/2007 10:00	EFFLUENT	Pesticides	Metribuzin	0.1	U	ug/L	0.1	0.4
9/10/2007 10:00	EFFLUENT	Pesticides	Mevinphos	0.2	U	ug/L	0.2	0.8
9/10/2007 10:00	EFFLUENT	Pesticides	Naled	0.8	U	ug/L	0.8	3.2
9/10/2007 10:00	EFFLUENT	Pesticides	Norflurazon	0.15	U	ug/L	0.15	0.6
9/10/2007 10:00	EFFLUENT	Pesticides	Parathion Ethyl	0.15	U	ug/L	0.15	0.6
9/10/2007 10:00	EFFLUENT	Pesticides	Parathion Methyl	0.1	U	ug/L	0.1	0.4
9/10/2007 10:00	EFFLUENT	Pesticides	Phorate	0.05	U	ug/L	0.05	0.2
9/10/2007 10:00	EFFLUENT	Pesticides	Prometryn	0.15	U	ug/L	0.15	0.6
9/10/2007 10:00	EFFLUENT	Pesticides	Simazine	0.05	U	ug/L	0.05	0.2
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	2,4-Dichlorophenol	0.96	U	ug/L	0.96	3.8

Appendix E. (continued)

Date Sampled	Field Id	Analysis group	Components	Result	Remarks	Units	MDL	PQL
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	2,4-Dimethylphenol	9.6	U	ug/L	9.6	38
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	2,4-Dinitrophenol	14	U	ug/L	14	58
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	2,4-Dinitrotoluene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	2,6-Dinitrotoluene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	2-Chloronaphthalene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	2-Chlorophenol	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.9	U	ug/L	2.9	12
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	2-Nitrophenol	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	3,3'-Dichlorobenzidine	38	UJ	ug/L	38	150
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	4,4'-DDD	1.4	U	ug/L	1.4	5.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	4,4'-DDE	1.4	U	ug/L	1.4	5.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	4,4'-DDT	1.4	U	ug/L	1.4	5.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	1.9	U	ug/L	1.9	7.7
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	4-Nitrophenol	14	U	ug/L	14	58
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Acenaphthene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Acenaphthylene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Aldrin	1.4	U	ug/L	1.4	5.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Anthracene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Benzidine	96	U	ug/L	96	380
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Benzo(a)anthracene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Benzo(a)pyrene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Benzo(b)fluoranthene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Benzo(k)fluoranthene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	2.9	U	ug/L	2.9	12
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	14	U	ug/L	14	58
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Butyl benzyl phthalate	4.8	U	ug/L	4.8	19
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Chrysene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Di-n-butyl phthalate	4.8	U	ug/L	4.8	19
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Di-n-octyl phthalate	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.96	U	ug/L	0.96	3.8

Appendix E. (continued)

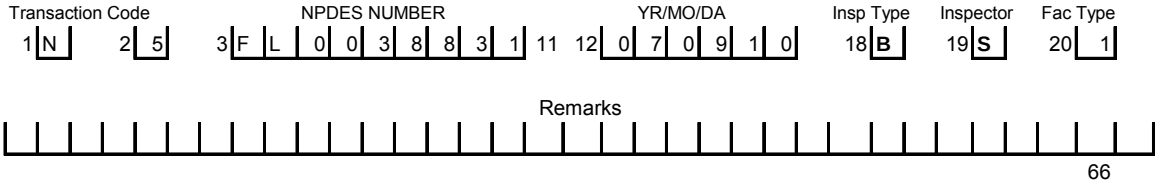
Date Sampled	Field Id	Analysis group	Components	Result	Remarks	Units	MDL	PQL
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Dieldrin	1.4	U	ug/L	1.4	5.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Diethyl phthalate	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Dimethyl phthalate	48	U	ug/L	48	190
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Endosulfan I	3.8	U	ug/L	3.8	15
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Endosulfan II	3.8	U	ug/L	3.8	15
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Endosulfan sulfate	1.4	U	ug/L	1.4	5.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Endrin	1.4	U	ug/L	1.4	5.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Endrin aldehyde	3.8	U	ug/L	3.8	15
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Fluoranthene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Fluorene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Heptachlor	1.4	U	ug/L	1.4	5.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Heptachlor epoxide	1.4	U	ug/L	1.4	5.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Hexachlorobenzene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Hexachlorobutadiene	2.9	U	ug/L	2.9	12
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Hexachlorocyclopentadiene	2.9	U	ug/L	2.9	12
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Hexachloroethane	2.9	U	ug/L	2.9	12
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Isophorone	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	1.9	U	ug/L	1.9	7.7
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9	U	ug/L	1.9	7.7
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	2.9	UJ	ug/L	2.9	12
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Naphthalene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Nitrobenzene	1.9	U	ug/L	1.9	7.7
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Pentachlorophenol	2.9	U	ug/L	2.9	12
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Phenanthrene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Phenol	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Pyrene	0.96	U	ug/L	0.96	3.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	alpha-BHC	1.4	U	ug/L	1.4	5.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	beta-BHC	1.4	U	ug/L	1.4	5.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	delta-BHC	1.4	U	ug/L	1.4	5.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	gamma-BHC	1.4	U	ug/L	1.4	5.8
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Bromodichloromethane	35		ug/L	0.2	1
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Chloroform	8.4		ug/L	0.2	1
9/10/2007 10:00	EFFLUENT	Priority Organic Pollutants	Dibromochloromethane	83		ug/L	0.2	1
9/10/2007 10:00	EFFLUENT	Field Parameters	Dissolved Oxygen	7.07		mg/L		

Appendix E. (continued)

Date Sampled	Field Id	Analysis group	Components	Result	Remarks	Units	MDL	PQL
9/10/2007 10:00	EFFLUENT	Field Parameters	Specific Conductance	2800		umhos/cm		
9/10/2007 10:00	EFFLUENT	Field Parameters	Temperature	29.6		C		
9/10/2007 10:00	EFFLUENT	Field Parameters	pH	7.18				

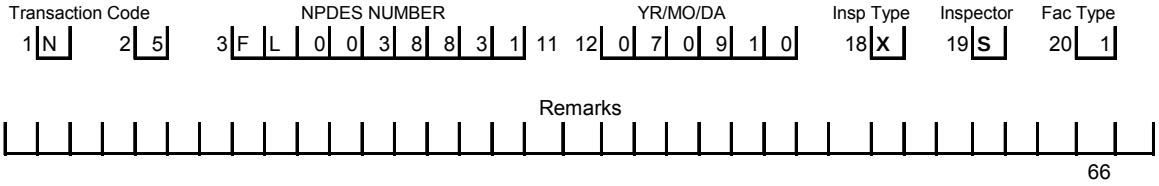
The Bioassay of Anastasia Island Wastewater Treatment Facility effluent sampled on September 10, 2007. NPDES #FL0038831.

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



The Priority Pollutants Analysis of Anastasia Island Wastewater Treatment Facility effluent sampled on September 10, 2007. NPDES #FL0038831.

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



Biological Analyses of Anastasia Island Wastewater Treatment Facility effluent sampled on September 10, 2007. NPDES #FL0038831.

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

