

Effluent Quality Assessment

Palm Beach County Southern Region Water Reclamation Facility

Palm Beach County

NPDES #FLA041424

Formerly

FL0041424

Sampled June 2, 2008

September 2008

Biology Section
Bureau of Laboratories
Division of Environmental Assessment and Restoration

Quality Manual No. 870346G
NELAC Certification No. E31780

Palm Beach County Southern Region Water Reclamation Facility, 12751 Hagen Ranch Road, Boynton Beach, Palm Beach County, Florida, 33437 NPDES #FLA041424. Effluent samples for this facility and for the L30 Canal were collected on June 2, 2008.

Introduction

Palm Beach County Southern Region Water Reclamation Facility (WRF) is a wastewater treatment facility which uses the activated-sludge treatment process to treat domestic wastewater. Treated effluent is primarily disposed by reuse. Secondary disposal of effluent is via injection wells and wetlands. Effluent is not discharged to surface waters. The facility has a design capacity of 35 million gallons per day (MGD) annual average daily flow (AADF). The AADF at the facility from June 2007 through May 2008 was: to reuse system R-001, 10.89 MGD; to Injection Well #1, 2.20 MGD; to Injection Well #2, 2.76 MGD; to the Green Cay Village irrigation system, 0.65 MGD and to the Wakodahatchee manmade wetlands, 0.69 MGD.

The wastewater treatment system consists of:

- five influent channels;
- three fine mechanical bar screens;
- four 15.0 MGD aerated grit basins;
- four 205 gallon per minute cyclone degritters;
- eight 0.66 MG clarifiers;
- six 2.67 MGD automatic backwash cloth media filters;
- three 2.0 MGD automatic backwash multi-media sand filters;
- one 5 MG and two 2.5 MG concrete basins used as chlorine contact chambers, reclaimed water storage and equalization basins;
- two 200 gpm online gravity belt thickeners and one 350 gpm backup gravity belt thickener;
- four primary anaerobic digesters;
- two secondary anaerobic digesters; and,
- one waste gas burner.

Sodium hypochlorite is used for chlorination. Dechlorination is not necessary due to lack of surface water discharge. Residuals are disposed by land application; or, are transported to the Palm Beach County Solid Waste Authority Composting Facility for further treatment and disposal or disposal in a Class I or Class II solid waste landfill.

The facility has no Administrative Orders, Consent Orders or mixing zones. A review of Discharge Monitoring Report (DMR) data for the past year, revealed no violations during the past year. (Facility information provided by Meghna Pandya of FDEP Southeast District.)

The facility has no permitted toxicity test requirements; however, a 48-hour acute screening test can provide 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.) if the mortality in 100% effluent is less than 20%.

Methods

Samples were collected from the facility's laboratory sampling tap and from the L30 Canal by Terry Davis (FDEP Southeast 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 screening toxicity tests and algal growth potential test were performed following internal DEP SOPs TA07_01, TA07_02, 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.

Total residual chlorine (TRC) was detected in the sample-tap bioassay sample in the laboratory. TRC was not detected in the bioassay sample from the L30 Canal. An aliquot of the sample-tap bioassay sample was dechlorinated by the addition of sodium thiosulfate (0.025 N) at a rate of 1.4 mL per liter of sample to neutralize the chlorine. Bioassays were performed on the dechlorinated aliquot in addition to the bioassays performed on the original samples. The same concentration of sodium thiosulfate was added to the dechlorinated test controls. The purpose of the dechlorinated test controls was to confirm that there was no adverse effect of adding sodium thiosulfate to the sample. There was no mortality in the dechlorinated controls of either test species.

Prior to test initiation, the bioassay sample from the L30 canal was aerated for 20 minutes at approximately 100 bubbles per minute, to decrease the dissolved oxygen concentration from 10 mg/L to 8.6 mg/L.

Toxicity Test Results **Sample-tap sample**

Tests were performed June 2 - 4, 2008.

Ceriodaphnia dubia 48-hour acute screening bioassay –	LC_{50} < 100%, 100% mortality* in 100% sample 1 hour after test initiation
Ceriodaphnia dubia 48-hour acute screening bioassay –	LC_{50} > 100%, 0% mortality* in Dechlorinated 100% sample at 48 hours
Cyprinella leedsi 48-hour acute screening bioassay –	LC_{50} < 100%, 100% mortality* in 100% sample 30 minutes after test initiation
Cyprinella leedsi 48-hour acute screening bioassay –	LC_{50} > 100%, 40% mortality* in Dechlorinated 100% sample at 48 hours

The bioassay sample from the sampling tap was acutely toxic to the test organisms, producing 100% mortality within one hour of test initiation. The dechlorinated sample aliquots were not acutely toxic to the *C. dubia* test species but showed moderate toxicity to the *C. leedsi* test organisms within 48 hours. The cause of the observed toxicity was attributed to both the effluent's total residual chlorine (2.66 mg/L measured in the field; 1.32 mg/L measured in the laboratory) and unionized ammonia (0.35 mg/L at test initiation). Unknown constituents may also have contributed to the observed mortality. Total residual chlorine levels as low as 0.028 mg/L have been found to be acutely toxic to some freshwater fish and invertebrates (EPA 1986). Unionized ammonia levels as low as 0.08 mg/L and 0.5 mg/L have been found to be acutely toxic to some freshwater fish and invertebrates, respectively (EPA 1986).

Toxicity Test Results **L30 Canal**

Tests were performed June 2 - 4, 2008.

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

The bioassay samples from the L30 Canal 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 Algal Growth Potential (AGP) in the effluent from the sample-tap and in the effluent from the L30 Canal were, respectively, 547 mg dry wt/L and 14 mg dry wt/L of the unicellular green alga, *Pseudokirchneriella subcapitata*, formerly known as *Selenastrum capricornutum*. Raschke and Shultz (1987) found that AGP values above 5.0 mg dry weight/L represent a "problem" threshold for fresh receiving waters, implying nutrient enrichment. The analytical chemistry suggests that both samples are phosphorus-limited. The predicted AGP based on inorganic phosphorus concentrations was 283.8 (±20%) mg dry wt/L for the sample from Outfall D-002 and was 47.3 (±20%) mg dry wt/L for the sample from the L30 Canal (Table 1; Miller et al. 1978).

See Table 1 for AGP results.

Chemistry Results

Total residual chlorine (TRC) was detected in the effluent from the sample-tap in the field (2.66 mg/L) and in the bioassay lab (1.32 mg/L). TRC was not measured in the field in the sample from the L30 Canal but was detected in the bioassay laboratory (0.04 mg/L); this result was likely due to interference within the sample since there are no known sources of chlorine discharging directly into the L30 Canal near the sample collection point. Total ammonia (13.95 mg/L) was detected in the bioassay sample from the sample-tap in the laboratory but was not detected in the bioassay sample from the L30 Canal. The total ammonia concentration in the sample from sample-tap collected and preserved for chemical analysis was 19 mg/L. Based on the pH, salinity, and temperature of the effluent as collected, the calculated unionized ammonia concentration was 0.22 mg/L.

Although the dissolved oxygen (DO) in the effluent from the sample-tap as measured in the field (2.12 mg/L) violated the DO criterion for Class III freshwater (≥ 5.0 mg/L; 62-302.530(30), F.A.C.), the criterion is not applicable since the facility doesn't discharge to surface waters of the State.

Iron and nickel were detected in the effluent from the sample-tap at levels that comply with Class III fresh water quality criteria (62-302.530, F.A.C.). Atrazine, copper and zinc were detected between the laboratory method detection limits (MDL) and practical quantitation limits (PQL).

Arsenic and copper were detected in sample from the L30 canal at levels that comply with Class III fresh water quality criteria (62-302.530, F.A.C.). Iron and nickel were detected between the laboratory method detection limits (MDL) and practical quantitation limits (PQL).

See Table 2 for results of analytes detected in the effluent, and corresponding limits. See Appendix E for a complete list of chemical analyses performed. See Appendix F for bioassay lab equipment.

Conclusion

The effluent sample collected from the facility's laboratory sample tap on June 2, 2008, was acutely toxic to both test species during the 48-hour acute screening bioassays. The cause of the toxicity was attributed to the effluent's total residual chlorine and unionized ammonia. The dechlorinated aliquot of this sample was not acutely toxic to the *Ceriodaphnia dubia* test organisms but was moderately toxic to the *Cyprinella leedsi* test organisms. The toxicity in the dechlorinated sample was primarily attributed to the effluent's unionized ammonia. The bioassay sample collected from the L30 canal was not toxic to either test species during the 48-hour acute screening bioassays. The effluent AGP and the L30 Canal AGP

results both exceeded the "problem" threshold for fresh receiving waters suggesting nutrient enrichment may be an issue.

Effluent water quality samples did not 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.

USEPA. 1986. Quality Criteria for Water. EPA 440/5-86-001.

Table 1. Measured and predicted algal growth potential (AGP; mg dry weight/L) for total soluble inorganic nitrogen (TSIN), orthophosphate (OP), total nitrogen (TN) and total phosphorus (TP) limitation of the freshwater species *Pseudokirchneriella subcapitata* and ratios of nitrogen to phosphorus for samples collected from the Palm Beach County Southern Region Water Reclamation Facility on June 2, 2008.

Palm Beach County Southern Region Water Reclamation Facility								
Location	AGP (measured)	Predicted AGP (TSIN) ± 20%	Predicted AGP (OP) ± 20%	Predicted AGP (TN) ± 20%	Predicted AGP (TP) ± 20%	Inorganic N:P ratio	Total N:P ratio
D-002 effluent	547.0	988.0 ± 197.6	283.8 ± 56.8	1102.0 ± 220.4	382.7 ± 76.5	39.4	32.6
L30 canal at inactive outfall	14.0	240.9 ± 48.2	47.3 ± 9.5	304.0 ± 60.8	94.6 ± 18.9	57.6	36.4

Table 2. Effluent limits, Class III Freshwater Criteria* and chemical and microbiological data for samples collected from the Palm Beach County Southern Region Water Reclamation Facility on June 2, 2008.

Palm Beach County Southern Region Water Reclamation Facility NPDES# FLA041424	Class III Criteria*	Effluent Limits R-001	Effluent from sample-tap		Canal L30 at inactive outfall	
Organic Constituents (µg/L)						
Atrazine	-	-	0.093	I	-	
Atrazine	-	-	-		0.29	
Metals (µg/L unless otherwise noted)						
Aluminum	-	-	60	U	60	U
Arsenic	≤ 50	-	0.5	U	4.1	
Cadmium	≤ 0.3 b	-	0.02	U	0.02	U
Calcium (mg/L)	-	Report	33.8		57.2	
Chromium-III	≤ 82.7 b	-	1	U	1	U
Copper	≤ 8.9 b	-	1.8	I	4.5	
Iron	≤ 1,000	-	280		35	I
Lead	≤ 3.0 b	-	0.2	U	0.2	U
Magnesium (mg/L)	-	Report	2.6		5.8	
Nickel	≤ 50.0 b	-	2.6		0.69	I
Selenium	≤ 5.0	-	0.5	U	0.5	U
Silver	≤ 0.07	-	0.025	U	0.025	U
Zinc	≤ 114.8 b	-	19	I	5	U
Nutrients (mg/L)						
Ortho-phosphate	-	-	0.66		0.11	A
Total Phosphorus	-	-	0.89	Y	0.22	Y
Total Ammonia	-	-	19	Y	0.039	Y
Un-ionized Ammonia	≤ 0.02 s	-	0.22	c	≤ 0.02	c
Nitrate and Nitrite	-	-	7	Y	6.3	Y
Total Kjeldahl Nitrogen	-	-	22	Y	1.7	Y
Organic Nitrogen	-	-	3	c	1.661	c
Total Nitrogen	-	-	29	c	8	c
General Physical and Chemical Parameters						
Dissolved Oxygen (mg/L)	≥ 5.0	-	2.1		6.9	
pH (SU)	6.0 - 8.5	6.0 - 8.5 s	7.1		8.5	
Conductivity (µmhos/cm)	≤ 1,275	-	655		435	
Temperature °C	-	-	29.8		31.2	
Total Residual Chlorine (mg/L)	≤ 0.01	≥ 1.0 s	2.66		0.04	£
Chlorophyll a (µg/L) - Corrected	-	-	2.4		39	
Phaeophytin (µg/L)	-	-	0.25	I	5.5	
Total Suspended Solids (mg/L)	-	≤ 5.0 s	4	U	6	I
Total Dissolved Solids (mg/L)	-	≤ 500 sp	4	U	6	I
CBOD, 5 day (mg/L), N - inhibited	-	≤ 60 sp	0.26	IV	6.5	V
Sodium (mg/L)	-	≤ 160 sp	-		-	
Fluoride (mg/L)	-	≤ 2.0 sp	-		-	
Chloride (mg/L)		≤ 250 sp	-		-	
Flow (MGD)	-	≤ 35 a	10.89[1]	a	-	
Hardness (mg $CaCO_3$)	-	-	95.11	c	166.71	c
Microbiology (Number of colony forming units/100ml)						
Fecal Coliforms	≤ 400s [#]		1	U	-	

Value exceeds the Class III Water Quality Criteria or permit limits

a - Annual average
b - Value is calculated based on hardness
c - Value is calculated
p - Limit based on 24-hour flow proportioned composite sample
s - Single sample
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
U - Material analyzed for but not detected; value reported is the method detection limit
V - Analyte was detected in both sample and method blank
Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
£ - Analysis performed in bioassay laboratory
- If 10 or fewer samples are taken within a month, the single sample limit is 400 CFU (62-302.530(6), F.A.C.)
* - Class III Criteria is not applicable to this facility since there is no discharge to surface waters of the State.
1 - AADF through Reuse System R-001

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2008-06-02-32
(Palm Beach County Southern Regional WWTP

Requester: Jennifer Paris
Field Report Prepared By: Terry Davis
Collected By: Terry Davis
Send Final Report To: Todd Brown
Sampling Agency: Southeast District

Customer: SE-DIST
Project ID: FYI3
PMAS: 1143

Lab ID *	Location: D-002 -			☐ Comp ☒ Grab	Collection (begin) Date: 6/2/08 Time: 1100	Eastern Central	Collection (end) Date Time	Eastern Central	Bottle Group(s)**	
	Field ID: 51-PBS-1			Tot Res Chlorine (mg/L): 8.66	Diss Oxygen (mg/L): 28%		Storet Station Number		A	
	Matrix (Include type e.g. Salt, Fresh, etc): water, fresh	Temp (C): 24.78	pH: 7.09	Sample Depth: ☒ m ☐ ft: .0	655	☐ Salinity (PPTh) ☒ Sp Conductance (umho/cm)		NPDES Number		
	Latitude o ' "	Longitude o ' "		Comments: Sample from tap in lab. Samples preserved @ 4 deg C pH<2						
Lab ID *	Location: Inactive outfall - Canal L30			☐ Comp ☒ Grab	Collection (begin) Date: 6/2/08 Time: 1200	Eastern Central	Collection (end) Date Time	Eastern Central	Bottle Group(s)**	
	Field ID: 51-PBS-2			Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L): 92.2%		Storet Station Number: 7.43737 (1.86 mg/L)		A	
	Matrix (Include type e.g. Salt, Fresh, etc): water, fresh	Temp (C): 31.22	pH: 8.53	Sample Depth: ☒ m ☐ ft: .1	435	☐ Salinity (PPTh) ☒ Sp Conductance (umho/cm)		NPDES Number		
	Latitude o ' "	Longitude o ' "		Comments: Direct deposit sampling Samples preserved @ 4 deg C pH<2						
Lab ID *	Location: Blank			☐ Comp ☒ Grab	Collection (begin) Date: 6/2/08 Time: 1215	Eastern Central	Collection (end) Date Time	Eastern Central	Bottle Group(s)**	
	Field ID: 51-PBS-3			Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)		Storet Station Number		B	
	Matrix (Include type e.g. Salt, Fresh, etc): water, R.O.	Temp (C)	pH	Sample Depth: ☒ m ☐ ft: .01		☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)		NPDES Number		
	Latitude o ' "	Longitude o ' "		Comments						
Lab ID *	Location			☐ Comp ☐ Grab	Collection (begin) Date Time	Eastern Central	Collection (end) Date Time	Eastern Central	Bottle Group(s)**	
	Field ID			Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)		Storet Station Number			
	Matrix (Include type e.g. Salt, Fresh, etc)	Temp (C)	pH	Sample Depth: ☐ m ☐ ft		☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)		NPDES Number		
	Latitude o ' "	Longitude o ' "		Comments: 4 biosafety Reid in Tox by JP Sample 1 @ 1052 6.3.08 Sample 2 @ 1143 6.3.08						

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
Thaws	6/3/08/1430	DHL	Tahmoures Ebrahimi	06/03/08 9:55				

*Shaded Areas for Lab use only

Please see reverse side for Bottle Group information.

last revised October 1, 2003

P04 (3) PING 6/3/08 15:17

FDEP Biology Laboratory - Acute Screen Bioassay Bench Sheets

JUG ID

Facility: (Palm Beach 1) – Palm Beach County Southern Regional WWTP

Address : 12751 Hagen Ranch Road

City: Boynton Beach **County:** Palm Beach Zip 33437

Contact/District: T. Davis / Southeast

NPDES Permit #: FL 0041424

LIMS Job #: TH-2008-06-03-56-01 **LIMS Sample #:** 1105439

Lims Data Entry: 6-12-08 MF Data Entry Verification: E 13-08 DD

Sample Collection: Date: 6.2.08 Time: 1100

Hold Time Start: Date: 6.2.08 Time: 1100

Comments: Sample aliquot dechlorinated by addition of 1.4mL of 0.025N Sodium thiosulfate per liter of Sample. Dechlorinated controls prepared by adding 1.4mL of 0.025N Sodium thiosulfate to the appropriate control media. MF 6-12-08

Test 1 C. dubia – Chlorinated test 100% mortality in 100% sample at 1 hr after test initiation.

Test 2 – C. leodsi – Chlorinated test 100% mortality in 100% sample with 30 minutes of initiation. MF 6-5-08

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

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

Test 1 validation: **Test 1:** SOP TA 07_01
Control survival ≥90%: (Yes) No
Temperature Range ≤3°C: (Yes) No

Test 2 validation: **Test 2:** SOP TA 07_02
Control survival ≥90%: (Yes) No
Temperature Range ≤3°C: (Yes) No

Initial sample handling:

PH adjustment : yes (no) Initial pH: ____ NaOH N HCl N ____ Drops mL Final pH: ____

Aeration : yes (no) Initial DO: ____mg/L Final DO: ____mg/L Duration: ____minutes Rate: ~____bubbles/min

Salinity adjusted (Test 1): yes (no) Initial Salinity: ____ Final Salinity: ____ Salts Hypersaline brine

Salinity adjusted (Test 2): yes (no) Initial Salinity: ____ Final Salinity: ____ Salts Hypersaline brine

Dechlorination: (yes) no 1.4 mL of 0.025N Sodium Thiosulfate per liter of sample. Final TRC: 0.07 mg/L

Sample Validation:

Temperature: Shipped ≤6°C (Yes) No Hand Delivered: Cooling (received °C < collected °C) (Yes) No N/A MF

Holding Time: ≤36 Hours (Yes) No (Composite-end of collection; grab-when collected; 4 in 24 - time last sample collected)

Light Intensity : 50 - 100 ft. candles

Photoperiod : 16 light 8 dark

Temperature Range °C:

Incubator # 2 min. 24.0 max. 24.7 mean 24.4

Incubator # ____ min. ____ max. ____ mean ____

Room B246 min. 23.8 max. 25.6 mean 24.7

SOP Compliant.

Test 1:% mortality in 100% sample: 0% LC50: >100% dechlorinated

Test 2:% mortality in 100% sample: 40% LC50: >100% dechlorinated

Investigators' Signatures

James Dassek

Marshall Faircloth

Brent Nall

Scott 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: deciler 100%	Original Sample	Method	Measured by	Verified by
Field Total Residual Cl_2 (mg/L):	N/A	N/A	N/A	N/A	NA	2.66 MF	HACH	T. Davis	MF
Lab Total Residual Cl_2 (mg/L):	<0.03	<0.03			0.07	~~1.32~~	HACH	JD	MF
Alkalinity (mg/L as $CaCO_3$):	85	150			—	175	HACH	BA	MF
Hardness (mg/L as $CaCO_3$):	83	135			—	113	HACH	BA	MF
Total Ammonia (mg/L as N):	<0.017	<0.017			—	13.95	DENVER	MF	JD
Salinity (ppth):	<1	<1			<1	<1	YSI / Mettler	JD	MF

V 1.4 9/12/05

Appendix B. (continued)



FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 110539 Test #: 1/2 SOP#:TA 07-01 Test Started: Date 6-3-08 Time: 1315
Organism/Batch/Age: Cobia \ 20-08 \ < 24 hours Test Ended: Date 6-5-08 Time: 1305
Chamber/Test Volume: 30mL / 20 ml Diluent/ Batch: 20% DMW / 5.30.08
Food/Batch: YCT 7-26-08 P.sub 1-31-08 Artemia 0hr — 24hr — 48hr — 72hr — Artemia Lot# —
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	Ø (A)	-			
	B	B	5	Ø	-			
	C	C	5	Ø	-			
	D	D	5	Ø	-			
100%	A	A	5	0 SD	—			
	B	B	5	0 SD	—			
	C	C	5	0 SD	—			
	D	D	5	0 SD	—			
Dechlorinated Control	A	A	5	5	5			
	B	B	5	5	5			
	C	C	5	5	5			
	D	D	5	5	5			
Dechlorinated 100%	A	A	5	5	5			
	B	B	5	5	5			
	C	C	5	5	5			
	D	D	5	5	5			
Loaded/Verified by: MF / BA		Checked by:	BA	BA/MF	BA			

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

Test Results:
Screening Tests: Report LC50 as >100%, =100%, or <100%.
% mortality in 100% sample: 100% LC50: <100%
If Calculated: 95% CI_____ Method_____
Substitute highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

Comments: (A) Incorrect entry - test terminated at 1 hour after initiation due to 100% mortality in the 100% sample test concentration MF 6-3-08

Dechlorinated - 0% mortality at 48 hours LC50 = >100% MF 6-12-08

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Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 110539 Test #: 2/2 SOP#:TA 07 02 Test Started: Date 6-3-08 Time: 1320
Organism/Batch/Age: C. dubia / 6.3.08 / 12 days Test Ended: Date 6-5-08 Time: 1305
Chamber/Test Volume: 100 / 500 ml Diluent/ Batch: well H2O / 6-2-08
Food/Batch: YCT — P.sub — Artemia 0hr 90-08 24hr - 48hr — 72hr — Artemia Lot# 38435
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	D1	5	5 (A)	–			
	B	D2	5	5	–			
	C	D3	5	5	–			
	D	D4	5	5	–			
100%	A	D5	5	0 50	–			
	B	D6	5	0 50	–			
	C	D7	5	0 50	–			
	D	D8	5	0 50	–			
Dechlorinated Control	A	D21	5	5	5			
	B	D22	5	5	5			
	C	D23	5	5	5			
	D	D24	5	5	5			
Dechlorinated 100%	A	A21	5	5	230			
	B	A22	5	230	0 20			
	C	A23	5	5	5			
	D	A24	5	5	5			
			JD	JD	JD			

Loaded/Verified by: JD / BR Checked by:
m = missing d = dead BR/AR = Before/After Renewal
Test Results:
Screening Tests: Report LC50 as >100%, =100%, or <100%.
% mortality in 100% sample: 100% LC50: >100
If Calculated: 95% CI_____ Method_____
Substitute highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

Comments: (A) Test terminated at 0hr +30 minutes due to 100% mortality in the 100% sample test concentration, MF 6.3.08
Dechlorinated - 40% mortality LC50 >100% at 48 hours MF 6.12.08

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000023

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 110 5439 **Test #:** 1 of 2

TEST SOP #: TA07_ 01 **Test Species:** (*Ceriodaphnia dubia*) *Cyprinella leedsi* *Pimephales promelas* *Americamysis bahia* *Menidia beryllina* Other:_____

Concentration Ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M					
pH (S.U.)	8.0					
Temperature °C	24.4					
Dissolved Oxygen mg/L	8.2					
Conductivity (µmhos) mmhos	172					
(initials) Measured by:	MF					
(initials) Recorded by:	MF					

Comments: Test Terminated at 0 hour + 1 hour 6-3-08 MF

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M					
pH (S.U.)	7.5					
Temperature °C	24.4					
Dissolved Oxygen mg/L	6.3					
Conductivity (µmhos) mmhos	666					
(initials) Measured by:	MF					
(initials) Recorded by:	MF					

Comments:

Concentration Control	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M		M			
pH (S.U.)	8.1		8.1			
Temperature °C	24.4		24.1			
Dissolved Oxygen mg/L	8.2		7.3			
Conductivity (µmhos) mmhos	194		222			
(initials) Measured by:	MF		BA			
(initials) Recorded by:	MF		BA			

Comments:

Concentration 100% dechlorinated	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M		M			
pH (S.U.)	7.6		8.1			
Temperature °C	24.2		24.0			
Dissolved Oxygen mg/L	7.0		6.8			
Conductivity (µmhos) mmhos	687		676			
(initials) Measured by:	MF		BA			
(initials) Recorded by:	MF		BA			

Comments:

000024

V 2.0 2/24/04

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 1105439 **Test #:** 2 of 2

TEST SOP #: TA07_02 **Test Species:** *Ceriodaphnia dubia* (*Cyprinella leedsi*) *Pimephales promelas* *Americamysis bahia* *Menidia beryllina* Other:_____

Concentration Ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B				
pH (S.U.)	7.8					
Temperature °C	24.2					
Dissolved Oxygen mg/L	7.8					
Conductivity (µmhos) mmhos	268					
(initials) Measured by:	JD					
(initials) Recorded by:	JD					

Comments: TOST Terminated at 0 hour +30 minutes MA 6-3-08

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A					
pH (S.U.)	7.3					
Temperature °C	25.9					
Dissolved Oxygen mg/L	5.7					
Conductivity (µmhos) mmhos	680					
(initials) Measured by:	JD					
(initials) Recorded by:	JD					

Comments:

Concentration Dechlor Ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	<			
pH (S.U.)	7.8	8.1	8.1			
Temperature °C	24.3	24.1	24.5			
Dissolved Oxygen mg/L	7.9	6.4	6.7			
Conductivity (µmhos) mmhos	288	310	287			
(initials) Measured by:	JD	JD	JD			
(initials) Recorded by:	JD	JD	JD			

Comments:

Concentration Dechlor 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	<			
pH (S.U.)	7.4	8.0	8.0			
Temperature °C	25.5	24.2	24.5			
Dissolved Oxygen mg/L	6.2	5.8	6.0			
Conductivity (µmhos) mmhos	700	693 ~~693~~ JD	676			
(initials) Measured by:	JD	JD	JD			
(initials) Recorded by:	JD	JD	JD			

Comments:

V 2.0 2/24/04

FDEP Biology Laboratory - Acute Screen Bioassay Bench Sheets

Facility: (Palm Beach 2) Palm Beach County Southern Regional WWTP (Proj ID)

Address: 12751 Hagen Ranch Road

City: Boynton Beach County: Palm Beach ZIP 33437

Contact/District: T. Davis / Southeast

NPDES Permit #: FL 0041424

LIMS Job #: TIH-2008-06-03-56-02 LIMS Sample #: 1105440

Lims Data Entry: 6-12-08 MF Data Entry Verification: 6-13-08 BA

Sample Collection: Date: 6.2.08 Time: 1200

Hold Time Start: Date: 6.2.08 Time: 1200

Comments:

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

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

Test 1 validation: **Test 1:** SOP TA 07_01
Control survival ≥90%: (Yes) No
Temperature Range ≤3°C: (Yes) No

Test 2 validation: **Test 2:** SOP TA 07_02
Control survival ≥90%: (Yes) No
Temperature Range ≤3°C: (Yes) No

Initial sample handling:

PH adjustment : yes (No) Initial pH: ____ NaOH N HCl N ____ Drops mL Final pH: ____

Aeration : (yes) no Initial DO: 10.0 mg/L Final DO: 8.6 mg/L Duration: 20 minutes Rate: ~100 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) NA

Holding Time: ≤36 Hours (Yes) No (Composite-end of collection; grab-when collected; 4 in 24 - time last sample collected)

Light Intensity : 50 - 100 ft. candles

Photoperiod : 16 light 8 dark

Temperature Range °C:

Incubator # 2 min. 26.0 max. 26.7 mean 26.4

Incubator # ____ min. ____ max. ____ mean ____

Room B246 min. 23.8 max. 25.6 mean 24.7

Test 1:% mortality in 100% sample: 0 % LC50: >100%

Test 2:% mortality in 100% sample: 0 % LC50: >100%

Investigators' Signatures

James Davis

Maribell Faircloth

Brad Alba

REVIEWER

Water Quality Parameters	20% DMW	Moderately Hard Water/ (Well Water)	Salt Water ASW NSW Test 1	Salt Water ASW NSW Test 2	Other:	Original Sample	Method	Measured by	Verified by
Field Total Residual 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				0.04	HACH	JD	MF
Alkalinity (mg/L as $CaCO_3$):	85	150				160	HACH	BA	MF
Hardness (mg/L as $CaCO_3$):	83	135				159	HACH	BA	MF
Total Ammonia (mg/L as N):	<0.017	<0.017				<0.017	DENVER	MF	JD
Salinity (ppth):	<1	<1				<1	YSI / Mettler	JD	MF

V 1.4 9/12/05

Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1105440 Test #: 1/2 SOP#:TA 07-01 Test Started: Date 6-3-08 Time: 1440

Organism/Batch/Age: C.dubia \ 20-08 \ <24hr Test Ended: Date 6-5-08 Time: 1310

Chamber/Test Volume: 30mL / 20 ml Diluent/ Batch: 20% DMW / 5-30-08

Food/Batch: YCT 7-26-07 P.sub 1-31-08 Artemia 0hr — 24hr — 48hr — 72hr — Artemia Lot# —

Feeding: (Prior to Test) Prior to Renewal Daily

			Test Hour					
Concentration	Replicate	Chamber #	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			
Loaded/Verified by: MF / BA		Checked by:	SD	BA	BA			

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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Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1105440 Test #: 02 SOP#:TA 07-02 Test Started: Date 6-3-08 Time: 1430
Organism/Batch/Age: Cladocera/6.3.08/12days Test Ended: Date 6.5.08 Time: 1430
Chamber/Test Volume: 1000 / 500 ml Diluent/ Batch: Well H2O / 6-2-08
Food/Batch: YCT — P.sub — Artemia 0hr 90-08 24hr — 48hr — 72hr — Artemia Lot# 38438
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	D13	5	5	5			
	B	D14	5	5	5			
	C	D15	5	5	5			
	D	D16	5	5	5			
100%	A	D17	5	5	5			
	B	D18	5	5	5			
	C	D19	5	5	5			
	D	D20	5	5	5			
Loaded/Verified by: JD / BA		Checked by:	JD	JD	JD			

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

Test Results:
Screening Tests: Report LC50 as >100%, =100%, or <100%.
% mortality in 100% sample: 20 % LC50: >100%
If Calculated: 95% CI_____ Method_____

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

Comments:

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FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 110540 **Test #:** 1 of 2

TEST SOP #: TA07_01 **Test Species:** (Ceriodaphnia dubia) *Cyprinella leedsi* *Pimephales promelas* *Americamysis bahia* *Menidia beryllina* Other:_____

Concentration ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M		M			
pH (S.U.)	7.9		8.1			
Temperature °C	24.3		24.0			
Dissolved Oxygen mg/L	8.3		7.2			
Conductivity (µmhos) mmhos	171		191			
(initials) Measured by:	BA		BA			
(initials) Recorded by:	BA		BA			

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M		M			
pH (S.U.)	8.5		8.5			
Temperature °C	24.5		24.0			
Dissolved Oxygen mg/L	8.2		7.1			
Conductivity (µmhos) mmhos	443		485			
(initials) Measured by:	BA		BA			
(initials) Recorded by:	BA		BA			

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:

000029

V 2.0 2/24/04

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 1105440 Test #: 2 of 2

TEST SOP #: TA07_02 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.)	7.9	8.1	8.2			
Temperature °C	24.0	24.0	24.4			
Dissolved Oxygen mg/L	8.0	6.5	6.5			
Conductivity (µmhos) mmhos	275	287	288			
(initials) Measured by:	JJ	JJ	JD			
(initials) Recorded by:	JD	JD	JD			

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.)	8.4	8.2	8.2			
Temperature °C	24.2	24.0	24.5			
Dissolved Oxygen mg/L	8.6	6.3	6.6			
Conductivity (µmhos) mmhos	447	458	453			
(initials) Measured by:	JJ	JD	JD			
(initials) Recorded by:	JD	JJ	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:

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

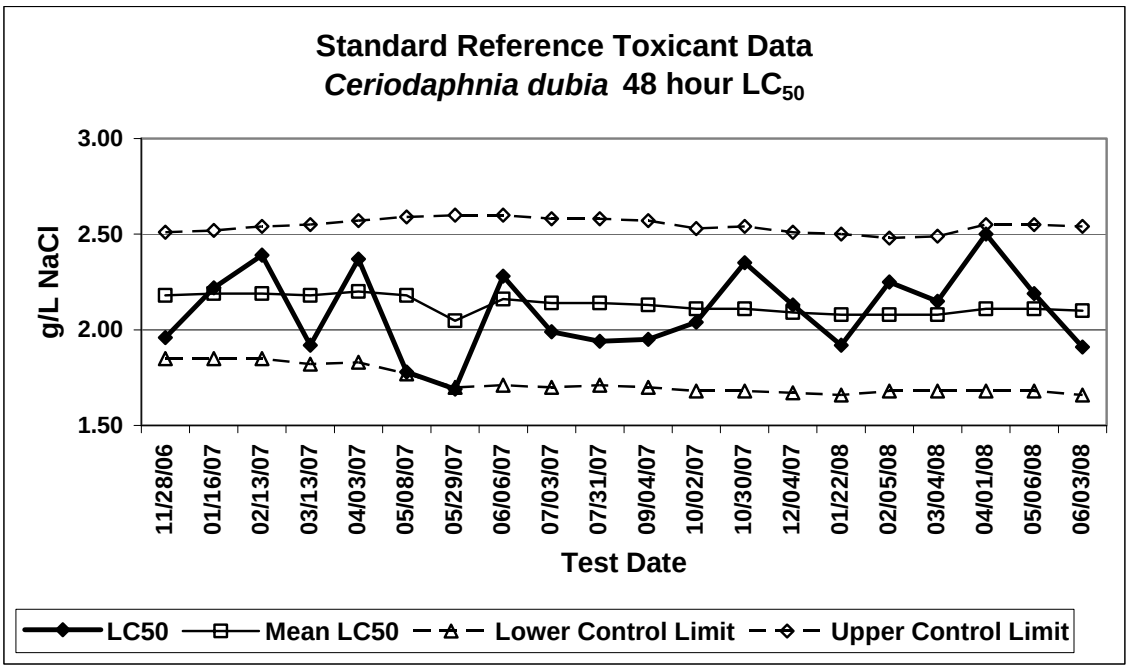
Florida Department of Environmental Protection
Bureau of Laboratories

Standard Reference Toxicant (SRT) Test Data - 48-hour Acute Toxicity
Ceriodaphnia dubia (water flea) - Sodium Chloride (NaCl)

Date	LC50	Mean LC50	Std Dev	Lower Control Limit	Upper Control Limit
11/28/06	1.96	2.18	0.17	1.85	2.51
01/16/07	2.22	2.19	0.17	1.85	2.52
02/13/07	2.39	2.19	0.17	1.85	2.54
03/13/07	1.92	2.18	0.18	1.82	2.55
04/03/07	2.37	2.20	0.18	1.83	2.57
05/08/07	1.78	2.18	0.21	1.77	2.59
05/29/07	1.69	2.05	0.23	1.70	2.60
06/06/07	2.28	2.16	0.22	1.71	2.60
07/03/07	1.99	2.14	0.22	1.70	2.58
07/31/07	1.94	2.14	0.22	1.71	2.58
09/04/07	1.95	2.13	0.22	1.70	2.57
10/02/07	2.04	2.11	0.21	1.68	2.53
10/30/07	2.35	2.11	0.21	1.68	2.54
12/04/07	2.13	2.09	0.20	1.67	2.51
01/22/08	1.92	2.08	0.20	1.66	2.50
02/05/08	2.25	2.08	0.20	1.68	2.48
03/04/08	2.15	2.08	0.20	1.68	2.49
04/01/08	2.50	2.11	0.22	1.68	2.55
05/06/08	2.19	2.11	0.22	1.68	2.55
06/03/08	1.91	2.10	0.22	1.66	2.54

Means are of the last 20 SRT tests.
Lower Control Limit = mean - 2 * Std Dev
Upper Control Limit = mean + 2 * Std Dev

CV = 10.47
EPA reference 75th quartile CV = 29%



Appendix C. (continued)

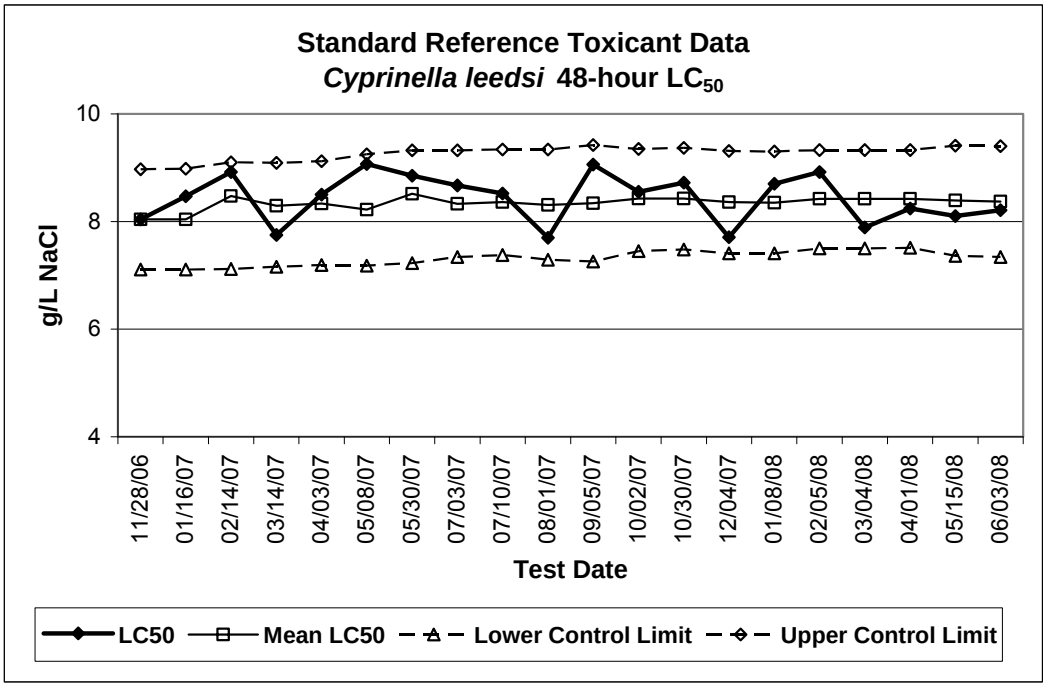
Florida Department of Environmental Protection
Bureau of Laboratories

Standard Reference Toxicant (SRT) Test Data - 48-hour Acute Toxicity
Cyprinella leedsi (bannerfin shiner) - Sodium Chloride (NaCl)

Date	LC50	Mean LC50	Std Dev	Lower Control Limit	Upper Control Limit
11/28/06	8.04	8.04	0.46	7.11	8.97
01/16/07	8.47	8.04	0.30	7.11	8.98
02/14/07	8.92	8.48	0.44	7.12	9.10
03/14/07	7.75	8.30	0.51	7.16	9.09
04/03/07	8.50	8.34	0.45	7.19	9.12
05/08/07	9.07	8.22	0.52	7.18	9.25
05/30/07	8.85	8.51	0.48	7.23	9.32
07/03/07	8.67	8.33	0.50	7.34	9.32
07/10/07	8.52	8.36	0.49	7.38	9.34
08/01/07	7.7	8.31	0.51	7.29	9.34
09/05/07	9.06	8.34	0.54	7.26	9.42
10/02/07	8.55	8.43	0.47	7.45	9.35
10/30/07	8.72	8.43	0.47	7.48	9.37
12/04/07	7.71	8.36	0.47	7.41	9.31
01/08/08	8.7	8.35	0.47	7.41	9.30
02/05/08	8.92	8.42	0.46	7.50	9.33
03/04/08	7.89	8.42	0.46	7.50	9.33
04/01/08	8.24	8.42	0.45	7.51	9.33
05/15/08	8.1	8.39	0.51	7.36	9.41
06/03/08	8.21	8.37	0.51	7.34	9.40

Means are of the last 20 SRT tests.
Lower Confidence Limit = mean - 2 * Std Dev
Upper Confidence Limit = mean + 2 * Std Dev

CV = 6.14
EPA reference 75th quartile CV = 19%



Appendix C. (continued)

000015

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 #: 20%DMW 1-30-08
Toxicant/ Batch#: Nacl 1-6-08

Test Beginning: Date: 6-3-08 Time: 1300
Test Ending: Date: 6-7-08 Time: 1205

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	0.03	Hach	JD
Alkalinity (mg/L as $CaCO_3$):	85	Hach	BA
Hardness (mg.L as $CaCO_3$):	83	Hach	BA
Total Ammonia (mg/L as N):	<0.017	Denver	MF
Salinity (ppth):	<1	Mettler	BA

Organism Batch #/ Age: 20-08 / <24hrs
Feeding: Prior to test / Prior to renewal / Daily
Food: YCT, Algae, *S. subcapitata* Artemia: Lot #_____
Food Batch: ~~Algae 1-31-08~~ 1-31-08 0hr____ 24hr____ 48hr____ 72hr____
Chamber size: 30 mL
Test volume: 20 mL per replicate

Conc.	Rep.	Chamber #	Number Live			pH (SU)			Temperature (° C)			D.O. (mg/L)			Uncorrected Conductivity µmhos/cm (mmhos/cm)		
			0 hr	24 hr	48 hr	0 hr	24 hr	48 hr	0 hr	24 hr	48 hr	0 hr	24 hr	48 hr	0 hr	24 hr	48 hr
µg/L mg/L			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	A	5	5	5	8.1		8.1	24.4		24.0	8.1		7.9	0.174		0.187
	B	B	5	5	5												
	C	C	5	5	5												
	D	D	5	5	5												
1.5	A	A	5	5	5	8.0		8.1	24.2		24.0	8.1		7.2	2.75		3.39
	B	B	5	5	5												
	C	C	5	5	5												
	D	D	5	5	5												
2.0	A	A	5	4 1D	2 2D	8.1		8.1	24.2		24.0	8.1		7.2	3.69		5.54
	B	B	5	5	4 1D											B	4.52
	C	C	5	5	0 5D												
	D	D	5	4 1D	1 3D												
2.5	A	A	5	1 4D	0 1D	8.1		8.1	24.3		24.0	8.0		7.3	4.60		5.54
	B	B	5	5	0 5D												
	C	C	5	5	1 4D												
	D	D	5	5	0 5D												
3.0	A	A	5	2 3D	0 2D	8.1		8.1	24.1		24.0	7.9		7.3	5.41		6.40
	B	B	5	2 3D	0 2D												
	C	C	5	1 4D	0 1D												
	D	D	5	3 2D	0 3D												
4.0	A	A	5	0 5D	–	8.1		8.1	24.2		24.0	7.9		7.2	7.11		8.13
	B	B	5	1 4D	0 1D												
	C	C	5	0 5D	–												
	D	D	5	2 3D	0 2D												
	A																
	B																
	C																
	D																
Loaded / measured by:			MF	BA	BA	MF		BA	MF		BA	MF		BA	MF		BA
Recorded by:			MF	BA	BA	MF		BA	MF		BA	MF		BA	MF		BA

Investigators' Signatures
Marshall Faircloth
Brian Akin
James Daniels
Melita Cuthrie
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 23.8 max 25.6 mean 24.7
Incubator # ___ min_____ max_____ mean_____
Room B246 min 25.8 max 26.8 mean 26.3

Comments:

Statistics: Method: Spearman-Karber
48/ 96 hour LC_{50}: 1.91
95% Confidence Interval: lower 1.81 upper 2.03

Appendix C. (continued)

000016

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 2 of 2

Diluent/ Batch #: 20‰nw/ 5.30.08
Toxicant/ Batch#: NaCl / 6.2.08

Test Beginning: Date: 6-3-08 Time: 1300
Test Ending: Date: 6-7-08 Time: 1205

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	0.03	Hach	JD
Alkalinity (mg/L as $CaCO_3$):	85	Hach	BA
Hardness (mg.L as $CaCO_3$):	83	Hach	BA
Total Ammonia (mg/L as N):	0.017	Denver	MF
Salinity (ppth):	<1	Mettler	BA

Organism Batch #/ Age: 20-08 / <24hrs
Feeding: (Prior to test) / Prior to renewal / Daily
Food: (YCT) (P.subcapitata) Artemia: Lot # —
Food Batch: 7-26-07 1-31-08 0hr — 24hr — 48hr — 72hr —
Chamber size: 30 mL
Test volume: 20 mL per replicate

Conc.			Number Live			pH (SU)			Temperature (° C)			D.O. (mg/L)			Uncorrected Conductivity µmhos/cm (mmhos/cm)		
(12) µg/L mg/L	Rep.	Chamber #	0 hr	24 hr	48 hr	0 hr	24 hr	48 hr	0 hr	24 hr	48 hr	0 hr	24 hr	48 hr	0 hr	24 hr	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	A	5	5	5	8.2		8.1	24.0		24.7	7.1		7.1 (A)	0.178		0.189
	B	B	5	5	5								A Rep>	7.2			
	C	C	5	5	5								MF 6-7-08				
	D	D	5	5	5												
1.5	A	A	5	5	5	8.1		8.0	24.0		24.7	7.4		7.1 (A)	2.87		3.01
	B	B	5	5	5								A Rep-	7.0			
	C	C	5	5	5								MF 6-7-08				
	D	D	5	5	5												
2.0	A	A	2	1 ID	0 ID	8.1		8.0	24.0		24.7	7.2		7.2 (A)	3.76		3.95
	B	B	4	3 ID	0 3D								A Rep	6.8			
	C	C	—	—	—								MF 6-7-08				
	D	D	1	1	0 1D									(A)			
2.5	A	A	—			8.2			24.0			7.2		7.7	4.13		
	B	B	—														
	C	C	1														
	D	D	—														
3.0	A	A	—														
	B	B	—														
	C	C	—														
	D	D	—														
4.0	A	A															
	B	B															
	C	C															
	D	D															
	A																
	B																
	C																
	D																
Loaded / measured by:			BA	JD	MF	BA		MF	BA		MF	BA		MF	BA		MF
Recorded by:			BA	JD	MF	BA		MF	BA		MF	BA		MF	BA		MF

Investigators' Signatures
Brad Alvarez
Marshall Faircloth
James Daniels
Loretta C. Wolfe

Concentrations prepared by: BA
Loading verified by: BA
Light Intensity: 50-100 FL candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min. 23.8 max. 25.6 mean 24.7
Incubator # ___ min. ___ max. ___ mean ___
Room B246 min. 23.8 max. 26.8 mean 26.1

Comments: (A) Transcription error - 24 48hr data BA 6-5-08
95% CI not reliable

Statistics: Method: Spearman-Karber
48 / (96) hour LC_{50}: 1.73

Appendix C. (continued)

000017

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 #: Well / 6.208
Toxicant/ Batch#: NaCl / 6.208

Test Beginning: Date: 6/3/08 Time: 1400
Test Ending: Date: 6-7-08 Time: 1220

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	2.03	Hach	JD
Alkalinity (mg/L as $CaCO_3$):	150	Hach	BA
Hardness (mg.L as $CaCO_3$):	135	Hach	BA
Total Ammonia (mg/L as N):	0.017	Denver	MF
Salinity (ppth):	21	Mettler	JD

Organism Batch #/ Age: 6/3/08 / 12 days
Feeding: (Prior to test) (Prior to renewal) Daily
Food: YCT P.subcapitata Artemia: Lot # 3843 8
Food Batch: — — 0hr 9068 24hr ____ 48hr 2208 72hr ____
Chamber size: 1000 mL
Test volume: 500 mL per replicate

Conc. (%) µg/L mg/L	Rep.	Chamber #	Number Live 0 hr / 24 hr / 48 hr / 48 hr / 72 hr / 96 hr	pH (SU) 0 hr / 24 hr / 48 hr / 48 hr / 72 hr / 96 hr	Temperature (°C) 0 hr / 24 hr / 48 hr / 48 hr / 72 hr / 96 hr	D.O. (mg/L) 0 hr / 24 hr / 48 hr / 48 hr / 72 hr / 96 hr	Uncorrected Conductivity µmhos/cm (mmhos/cm) 0 hr / 24 hr / 48 hr / 48 hr / 72 hr / 96 hr
Control	A	F1	10 / 10 / 10	7.8 / / 8.1	24.0 / / 24.6	8.1 / / 6.5	0.275 / / 0.309
	B	F2	10 / 10 / 10	/ 7.8 /	/ 24.2 /	/ 6.4 /	/ 0.280 /
	C						
	D						
6	A	F3	10 / 10 / 10	7.9 / / 8.1	24.0 / / 24.7	7.8 / / 6.4	10.8 / / 11.2
	B	F4	10 / 10 / 10	/ 7.9 /	/ 24.1 /	/ 5.8 /	/ 10.9 /
	C						
	D						
7	A	F5	10 / 10 / 9[10]	7.9 / / 8.1	24.0 / / 24.7	8.0 / / 6.4	12.7 / / 13.1
	B	F6	10 / 9[10] / 9	/ 7.9 /	/ 24.1 /	/ 5.7 /	/ 12.9 /
	C						
	D						
8	A	F7	10 / 10 / 10	7.9 / / 8.1	24.0 / / 24.8	7.8 / / 5.9	14.8 / / 15.1
	B	F8	10 / 7[10] / 7	/ 7.9 /	/ 24.2 /	/ 5.6 /	/ 14.8 /
	C						
	D						
9	A	F9	10 / 0[10] / —	7.9 / /	24.0 / /	7.8 / /	16.4 / /
	B	F10	10 / 0[10] / —	/ 7.9 /	/ 24.2 /	/ 5.3 /	/ 16.1 /
	C						
	D						
10	A	F11	10 / 0[10] / —	7.9 / /	24.0 / /	7.8 / /	18.3 / /
	B	F12	10 / 0[10] / —	/ 7.7 /	/ 24.3 /	/ 4.6 /	/ 18.0 /
	C						
	D						
	A						
	B						
	C						
	D						
Loaded / measured by:			JD / /	/ /	/ /	/ /	/ /
Recorded by:			JD / /	/ /	/ /	/ /	/ /

Investigators' Signatures
Jason Diamond
Brad Call
Marshall Faircloth
Loretta C. Wolfe
REVIEWER

Concentrations prepared by: JD
Loading verified by: CK
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min. 23.8 max. 25.6 mean 24.7
Incubator # ___ min. ___ max. ___ mean ___
Room B246 min. 25.8 max. 26.3 mean 26.3

Comments:
95% confidence lower 7.98 upper: 8.44

Statistics: Method: Spearman-Karber
(48)/ 96 hour LC_{50}: 8.21

Appendix C. (continued)

000018

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 2 of 2

Diluent/ Batch #: Well / 6.2.08
Toxicant/ Batch#: Nacl / 6.2.09

Test Beginning: Date: 6.3.08 Time: 1400
Test Ending: Date: 6-7-08 Time: 1220

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	0.03	Hach	JD
Alkalinity (mg/L as $CaCO_3$):	150	Hach	BA
Hardness (mg.L as $CaCO_3$):	135	Hach	BA
Total Ammonia (mg/L as N):	<0.07	Denver	MF
Salinity (ppth):	22	Mettler	JD

Organism Batch #/ Age: 6.3.08 / 12 days
Feeding: ~~Prior to test~~ ~~Prior to renewal~~ / Daily
Food: YCT *P.subcapitata* Artemia: Lot # 3843 8
Food Batch: — — 0hr 8:58 24hr ____ 48hr 12:25 72hr ____
Chamber size: 1000 mL
Test volume: 500 mL per replicate

Conc. (%) µg/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 µmhos/cm (mmhos/cm) 0 hr (48 hr)	24 hr (72 hr)	48 hr (96 hr)
Control	A	F1	10	10	10	8.0		8.1	24.0		25.1	7.2		6.3	0.276		0.287
	B	F2	10	10	10		7.8			24.0			5.8			0.278	
	C																
	D																
6	A	F3	10	10	10	7.9		8.0	24.0		25.2	7.0		6.2	11.1		11.3
	B	F4	10	10	10		7.9			24.7			5.7			11.1	
	C																
	D																
7	A	F5	9	9	9	7.9		8.0	24.0		25.1	7.0		6.3	13.1		13.4
	B	F6	9	9	9		7.9			24.6			5.8			13.1	
	C																
	D																
8	A	F7	10	10	10	8.0		8.0	24.0		24.9	7.0		6.2	14.7		15.0
	B	F8	7	7	7		7.8			24.6			5.8			14.7	
	C																
	D																
9	A	F9															
	B	F10															
	C																
	D																
10	A	F11															
	B	F12															
	C																
	D																
	A																
	B																
	C																
	D																
Loaded / measured by:			JD	JD	MF	JD	JD	MF	JD	JD	MF	JD	JD	MF	JD	JD	MF
Recorded by:			JD	JD	MF	JD	JD	MF	JD	JD	MF	JD	JD	MF	JD	JD	MF

Investigators' Signatures
Marshall Fairclath
James Daniels
Rosetta Crosse
REVIEWER

Concentrations prepared by: JD
Loading verified by: BA
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min. 23.8 max. 25.6 mean 24.7
Incubator # ___ min. ____ max. ____ mean ____
Room B246 min. 25.8 max. 26.8 mean 26.3

Comments:

Statistics: Method: Spearman-Karber
48 / (96) hour LC_{50}: 8.21
95% Confidence Interval: lower 7.98 upper 8.44 BA

Appendix C. (continued)

***Ceriodaphnia dubia* Acute Standard Reference Toxicant Test**

DATE: 6-3-08 DURATION: 48 hr TOXICANT : NaCl
SPECIES: *Ceriodaphnia dubia*

RAW DATA: Concentration (g/l)	Number Exposed	Mortalities
.00	20	0
1.50	20	0
2.00	20	13
2.50	20	19
3.00	20	20
4.00	20	20

SPEARMAN-KARBER TRIM: .00%

SPEARMAN-KARBER ESTIMATES: **LC50: 1.91**
95% LOWER CONFIDENCE: 1.81
95% UPPER CONFIDENCE: 2.03

***Cyprinella leedsi* Acute Standard Reference Toxicant Test**

DATE: 6-3-08 DURATION: 48 hr TOXICANT : NaCl
SPECIES: *Cyprinella leedsi*

RAW DATA: Concentration (g/L)	Number Exposed	Mortalities
.00	20	0
6.00	20	0
7.00	20	2
8.00	20	3
9.00	20	20
10.00	20	20

SPEARMAN-KARBER TRIM: .00%

SPEARMAN-KARBER ESTIMATES: **LC50: 8.21**
95% LOWER CONFIDENCE: 7.98
95% UPPER CONFIDENCE: 8.44

Appendix D. Test Organism Receipt

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: 06/02/08

Shipped to: FDEP

P.O. No: _____

Species	Quantity	Age	Brood Number	Temperature	Salinity
Mysidopsis bahia	150	4 days	MS080530	27°C	15ppt
Menidia beryllina	150	12 day	SS080522	27°C	20ppt
Cyprinella leedsi	250	11 days	CL080523	27°C	
Pimephales promelas	150	9 days	FM080525-bio	27°C	

Packed by: MP

Shipped Via: FedEx

Notes: _____

Thank you for your order.

Appendix E. Chemical Analyses performed on effluent from the Palm Beach County Southern Region Water Reclamation Facility and the L30 Canal, sampled on June 2, 2008.

Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
Effluent	AGP/LN	Algal Growth Potential	547		mg DryWt/L	0.3	0.9
Effluent	Chlorophyll/Grain Size/BOD	Phaeophytin-a	0.25	I	ug/L	0.24	0.71
Effluent	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	0.26	IV	mg/L	0.2	2
Effluent	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	2.4		ug/L	0.55	1.7
Effluent	Microbiology	Total Coliforms-Membrane Filter			#/100 mL		
Effluent	Overflow	Fecal Coliforms-Membrane Filter	1	U	#/100 mL	1	
Effluent	Toxicology	Bioassay-Acute-Scrn-FW-Fish,LC50-dechlr	100	L	LC50		
Effluent	Toxicology	Bioassy-Acute-Scrn-FW-Cdubia,LC50-dechlr	100	L	LC50		
Effluent	Toxicology	Bioassay-Acute-Screen-FW-C.dubia, LC50	100	K	LC50		
Effluent	Toxicology	Bioassay-Acute-Screen-FW-Fish, LC50	100	K	LC50		
Effluent	Metals	Copper	1.8	I	ug/L	0.5	2
Effluent	Metals	Cadmium	0.02	U	ug/L	0.02	0.08
Effluent	Metals	Selenium	0.5	U	ug/L	0.5	2
Effluent	Metals	Iron	280		ug/L	30	120
Effluent	Metals	Lead	0.2	U	ug/L	0.2	0.8
Effluent	Metals	Nickel	2.6		ug/L	0.25	1
Effluent	Metals	Aluminum	60	U	ug/L	60	240
Effluent	Metals	Beryllium	0.025	U	ug/L	0.025	0.1
Effluent	Metals	Silver	0.025	U	ug/L	0.025	0.1
Effluent	Metals	Arsenic	0.5	U	ug/L	0.5	2
Effluent	Metals	Zinc	19	I	ug/L	5	20
Effluent	Metals	Antimony	0.5	U	ug/L	0.5	2
Effluent	Metals	Magnesium	2.6		mg/L	0.04	0.16
Effluent	Metals	Calcium	33.8		mg/L	0.075	0.3
Effluent	Metals	Chromium	1	U	ug/L	1	4
Effluent	Nutrients	Total-P	0.89	Y	mg P/L	0.02	0.06
Effluent	Nutrients	TSS	4	U	mg/L	4	16
Effluent	Nutrients	O-Phosphate-P	0.66		mg P/L	0.016	0.04
Effluent	Nutrients	Kjeldahl Nitrogen	22	Y	mg N/L	0.8	2
Effluent	Nutrients	NO2NO3-N	7	Y	mg N/L	0.04	0.1
Effluent	Nutrients	Ammonia-N	19	Y	mg N/L	0.5	1
Effluent	Pesticides	Metolachlor	0.5	U	ug/L	0.5	2
Effluent	Pesticides	Simazine	0.05	U	ug/L	0.05	0.2
Effluent	Pesticides	Fenamiphos	0.2	U	ug/L	0.2	0.8
Effluent	Pesticides	Fonofos	0.1	U	ug/L	0.1	0.4
Effluent	Pesticides	Butylate	0.2	U	ug/L	0.2	0.8

Appendix E. (continued)

Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
Effluent	Pesticides	Prometryn	0.15	U	ug/L	0.15	0.6
Effluent	Pesticides	Bromacil	0.2	U	ug/L	0.2	0.8
Effluent	Pesticides	Parathion Methyl	0.1	U	ug/L	0.1	0.4
Effluent	Pesticides	Mevinphos	0.2	UJ	ug/L	0.2	0.8
Effluent	Pesticides	Ametryn	0.05	U	ug/L	0.05	0.2
Effluent	Pesticides	Ethoprop	0.1	UJ	ug/L	0.1	0.4
Effluent	Pesticides	Metribuzin	0.1	U	ug/L	0.1	0.4
Effluent	Pesticides	Naled	0.8	U	ug/L	0.8	3.2
Effluent	Pesticides	Atrazine	0.093	I	ug/L	0.05	0.2
Effluent	Pesticides	Alachlor	0.6	U	ug/L	0.6	2.4
Effluent	Pesticides	Parathion Ethyl	0.15	U	ug/L	0.15	0.6
Effluent	Pesticides	Malathion	0.15	U	ug/L	0.15	0.6
Effluent	Pesticides	Ethion	0.05	U	ug/L	0.05	0.2
Effluent	Pesticides	Chlorpyrifos Ethyl	0.05	U	ug/L	0.05	0.2
Effluent	Pesticides	Azinphos Methyl	0.2	U	ug/L	0.2	0.8
Effluent	Pesticides	Diazinon	0.15	U	ug/L	0.15	0.6
Effluent	Pesticides	Norflurazon	0.15	U	ug/L	0.15	0.6
Effluent	Pesticides	Chlorpyrifos Methyl	0.1	U	ug/L	0.1	0.4
Effluent	Pesticides	Metalaxyl	0.25	U	ug/L	0.25	1
Effluent	Pesticides	Phorate	0.05	UJ	ug/L	0.05	0.2
Effluent	Pesticides	Hexazinone	0.1	UJ	ug/L	0.1	0.4
Effluent	Priority Organic Pollutants	2,4-Dinitrophenol	15	U	ug/L	15	59
Effluent	Priority Organic Pollutants	2-Nitrophenol	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	4-Nitrophenol	15	U	ug/L	15	59
Effluent	Priority Organic Pollutants	Benzo(a)anthracene	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	Dieldrin	1.5	UJ	ug/L	1.5	5.9
Effluent	Priority Organic Pollutants	N-Nitrosodimethylamine	2	U	ug/L	2	7.8
Effluent	Priority Organic Pollutants	2-Chlorophenol	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	Acenaphthylene	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	Benzo(k)fluoranthene	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	Di-n-butyl phthalate	4.9	U	ug/L	4.9	20
Effluent	Priority Organic Pollutants	Hexachlorocyclopentadiene	2.9	UJ	ug/L	2.9	12
Effluent	Priority Organic Pollutants	Naphthalene	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	4,4'-DDE	1.5	UJ	ug/L	1.5	5.9
Effluent	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	Benzidine	98	U	ug/L	98	390
Effluent	Priority Organic Pollutants	Endrin aldehyde	3.9	UJ	ug/L	3.9	16

Appendix E. (continued)

Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
Effluent	Priority Organic Pollutants	Hexachloroethane	2.9	U	ug/L	2.9	12
Effluent	Priority Organic Pollutants	Phenanthrene	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	alpha-BHC	1.5	U	ug/L	1.5	5.9
Effluent	Priority Organic Pollutants	gamma-BHC	1.5	U	ug/L	1.5	5.9
Effluent	Priority Organic Pollutants	4,4'-DDD	1.5	UJ	ug/L	1.5	5.9
Effluent	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	2	U	ug/L	2	7.8
Effluent	Priority Organic Pollutants	Anthracene	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	Endosulfan II	3.9	UJ	ug/L	3.9	16
Effluent	Priority Organic Pollutants	Endrin	1.5	UJ	ug/L	1.5	5.9
Effluent	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	Phenol	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	2,4-Dichlorophenol	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	2,4-Dimethylphenol	9.8	U	ug/L	9.8	39
Effluent	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.9	U	ug/L	2.9	12
Effluent	Priority Organic Pollutants	Acenaphthene	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	Aldrin	1.5	U	ug/L	1.5	5.9
Effluent	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.98	UJ	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	Dimethyl phthalate	9.8	UJ	ug/L	9.8	39
Effluent	Priority Organic Pollutants	Fluoranthene	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	Fluorene	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	Heptachlor	1.5	U	ug/L	1.5	5.9
Effluent	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	2,6-Dinitrotoluene	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	3,3'-Dichlorobenzidine	39	UJ	ug/L	39	160
Effluent	Priority Organic Pollutants	Benzo(a)pyrene	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	Benzo(b)fluoranthene	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	Di-n-octyl phthalate	0.98	UJ	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	Endosulfan sulfate	1.5	UJ	ug/L	1.5	5.9
Effluent	Priority Organic Pollutants	Heptachlor epoxide	1.5	U	ug/L	1.5	5.9
Effluent	Priority Organic Pollutants	Hexachlorobenzene	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	Nitrobenzene	2	U	ug/L	2	7.8
Effluent	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	2-Chloronaphthalene	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	2.9	U	ug/L	2.9	12
Effluent	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	15	U	ug/L	15	59
Effluent	Priority Organic Pollutants	Chrysene	0.98	U	ug/L	0.98	3.9

Appendix E. (continued)

Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
Effluent	Priority Organic Pollutants	Diethyl phthalate	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	Endosulfan I	3.9	U	ug/L	3.9	16
Effluent	Priority Organic Pollutants	Isophorone	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	Pyrene	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	beta-BHC	1.5	U	ug/L	1.5	5.9
Effluent	Priority Organic Pollutants	delta-BHC	1.5	U	ug/L	1.5	5.9
Effluent	Priority Organic Pollutants	2,4-Dinitrotoluene	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	4,4'-DDT	1.5	U	ug/L	1.5	5.9
Effluent	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.98	U	ug/L	0.98	3.9
Effluent	Priority Organic Pollutants	Butyl benzyl phthalate	4.9	U	ug/L	4.9	20
Effluent	Priority Organic Pollutants	Hexachlorobutadiene	2.9	U	ug/L	2.9	12
Effluent	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	2	U	ug/L	2	7.8
Effluent	Priority Organic Pollutants	Pentachlorophenol	2.9	U	ug/L	2.9	12
Effluent	Field Parameter	Dissolved Oxygen	2.12		mg/L		
Effluent	Field Parameter	Temperature	29.78		C		
Effluent	Field Parameter	pH	7.09				
Effluent	Field Parameter	Total Residual Chlorine	2.66		mg/L		
Effluent	Field Parameter	Specific Conductance	655		umhos/cm		
Effluent	Field Parameter	Sample Depth	0.1		m		
L30 Canal	AGP/LN	Algal Growth Potential	14		mg DryWt/L	0.3	0.9
L30 Canal	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	39		ug/L	0.69	2.1
L30 Canal	Chlorophyll/Grain Size/BOD	Phaeophytin-a	5.5		ug/L	0.3	0.89
L30 Canal	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	6.5	V	mg/L	0.2	2
L30 Canal	Overflow	Fecal Coliforms-Membrane Filter	7		#/100 mL	1	
L30 Canal	Toxicology	Bioassay-Acute-Screen-FW-C.dubia, LC50	100	L	LC50		
L30 Canal	Toxicology	Bioassay-Acute-Screen-FW-Fish, LC50	100	L	LC50		
L30 Canal	Metals	Cadmium	0.02	U	ug/L	0.02	0.08
L30 Canal	Metals	Beryllium	0.025	U	ug/L	0.025	0.1
L30 Canal	Metals	Calcium	57.2		mg/L	0.075	0.3
L30 Canal	Metals	Antimony	0.5	U	ug/L	0.5	2
L30 Canal	Metals	Arsenic	4.1		ug/L	0.5	2
L30 Canal	Metals	Zinc	5	U	ug/L	5	20
L30 Canal	Metals	Nickel	0.69	I	ug/L	0.25	1
L30 Canal	Metals	Silver	0.025	U	ug/L	0.025	0.1
L30 Canal	Metals	Lead	0.2	U	ug/L	0.2	0.8
L30 Canal	Metals	Selenium	0.5	U	ug/L	0.5	2
L30 Canal	Metals	Magnesium	5.8		mg/L	0.04	0.16
L30 Canal	Metals	Iron	35	I	ug/L	30	120

Appendix E. (continued)

Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
L30 Canal	Metals	Copper	4.5		ug/L	0.5	2
L30 Canal	Metals	Chromium	1	U	ug/L	1	4
L30 Canal	Metals	Aluminum	60	U	ug/L	60	240
L30 Canal	Nutrients	Kjeldahl Nitrogen	1.7	Y	mg N/L	0.08	0.2
L30 Canal	Nutrients	NO2NO3-N	6.3	Y	mg N/L	0.04	0.1
L30 Canal	Nutrients	Ammonia-N	0.039	Y	mg N/L	0.01	0.02
L30 Canal	Nutrients	TSS	6	I	mg/L	4	16
L30 Canal	Nutrients	O-Phosphate-P	0.11	A	mg P/L	0.004	0.01
L30 Canal	Nutrients	Total-P	0.22	Y	mg P/L	0.02	0.06
L30 Canal	Pesticides	Ametryn	0.052	U	ug/L	0.052	0.21
L30 Canal	Pesticides	Prometryn	0.16	U	ug/L	0.16	0.64
L30 Canal	Pesticides	Azinphos Methyl	0.21	U	ug/L	0.21	0.84
L30 Canal	Pesticides	Chlorpyrifos Ethyl	0.052	U	ug/L	0.052	0.21
L30 Canal	Pesticides	Fenamiphos	0.21	U	ug/L	0.21	0.84
L30 Canal	Pesticides	Naled	0.83	U	ug/L	0.83	3.3
L30 Canal	Pesticides	Mevinphos	0.21	UJ	ug/L	0.21	0.84
L30 Canal	Pesticides	Butylate	0.21	U	ug/L	0.21	0.84
L30 Canal	Pesticides	Alachlor	0.62	U	ug/L	0.62	2.5
L30 Canal	Pesticides	Atrazine	0.29		ug/L	0.052	0.21
L30 Canal	Pesticides	Bromacil	0.21	U	ug/L	0.21	0.84
L30 Canal	Pesticides	Norflurazon	0.16	U	ug/L	0.16	0.64
L30 Canal	Pesticides	Hexazinone	0.1	UJ	ug/L	0.1	0.4
L30 Canal	Pesticides	Metalaxyl	0.26	U	ug/L	0.26	1
L30 Canal	Pesticides	Malathion	0.16	U	ug/L	0.16	0.64
L30 Canal	Pesticides	Fonofos	0.1	U	ug/L	0.1	0.4
L30 Canal	Pesticides	Ethoprop	0.1	UJ	ug/L	0.1	0.4
L30 Canal	Pesticides	Ethion	0.052	U	ug/L	0.052	0.21
L30 Canal	Pesticides	Phorate	0.052	UJ	ug/L	0.052	0.21
L30 Canal	Pesticides	Metolachlor	0.52	U	ug/L	0.52	2.1
L30 Canal	Pesticides	Parathion Ethyl	0.16	U	ug/L	0.16	0.64
L30 Canal	Pesticides	Parathion Methyl	0.1	U	ug/L	0.1	0.4
L30 Canal	Pesticides	Metribuzin	0.1	U	ug/L	0.1	0.4
L30 Canal	Pesticides	Simazine	0.052	U	ug/L	0.052	0.21
L30 Canal	Pesticides	Chlorpyrifos Methyl	0.1	U	ug/L	0.1	0.4
L30 Canal	Pesticides	Diazinon	0.052	U	ug/L	0.052	0.21
L30 Canal	Priority Organic Pollutants	2,4-Dichlorophenol	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	2,4-Dinitrophenol	16	U	ug/L	16	62
L30 Canal	Priority Organic Pollutants	3,3'-Dichlorobenzidine	42	UJ	ug/L	42	170

Appendix E. (continued)

Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
L30 Canal	Priority Organic Pollutants	Benzo(g,h,i)perylene	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	Benzo(k)fluoranthene	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	Endrin aldehyde	4.2	UJ	ug/L	4.2	17
L30 Canal	Priority Organic Pollutants	Nitrobenzene	2.1	U	ug/L	2.1	8.3
L30 Canal	Priority Organic Pollutants	2-Chlorophenol	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	2-Nitrophenol	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	4,4'-DDE	1.6	UJ	ug/L	1.6	6.2
L30 Canal	Priority Organic Pollutants	Benzo(b)fluoranthene	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	Naphthalene	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	alpha-BHC	1.6	U	ug/L	1.6	6.2
L30 Canal	Priority Organic Pollutants	2,4,6-Trichlorophenol	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	2,4-Dinitrotoluene	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	2-Chloronaphthalene	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	4-Nitrophenol	16	U	ug/L	16	62
L30 Canal	Priority Organic Pollutants	Anthracene	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	Benzo(a)anthracene	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	Endosulfan I	4.2	U	ug/L	4.2	17
L30 Canal	Priority Organic Pollutants	Endrin	1.6	UJ	ug/L	1.6	6.2
L30 Canal	Priority Organic Pollutants	Heptachlor	1.6	U	ug/L	1.6	6.2
L30 Canal	Priority Organic Pollutants	Hexachlorobenzene	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	16	U	ug/L	16	62
L30 Canal	Priority Organic Pollutants	Di-n-butyl phthalate	5.2	U	ug/L	5.2	21
L30 Canal	Priority Organic Pollutants	Dibenzo(a,h)anthracene	1	UJ	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	Dieldrin	1.6	UJ	ug/L	1.6	6.2
L30 Canal	Priority Organic Pollutants	Dimethyl phthalate	10	UJ	ug/L	10	42
L30 Canal	Priority Organic Pollutants	Fluoranthene	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	Fluorene	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	Hexachloroethane	3.1	U	ug/L	3.1	12
L30 Canal	Priority Organic Pollutants	Pentachlorophenol	3.1	U	ug/L	3.1	12
L30 Canal	Priority Organic Pollutants	Phenol	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	Pyrene	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	delta-BHC	1.6	U	ug/L	1.6	6.2
L30 Canal	Priority Organic Pollutants	4-Bromophenyl phenyl ether	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	Benzo(a)pyrene	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	Hexachlorobutadiene	3.1	U	ug/L	3.1	12
L30 Canal	Priority Organic Pollutants	beta-BHC	1.6	U	ug/L	1.6	6.2
L30 Canal	Priority Organic Pollutants	gamma-BHC	1.6	U	ug/L	1.6	6.2

Appendix E. (continued)

Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
L30 Canal	Priority Organic Pollutants	Acenaphthene	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	Aldrin	1.6	U	ug/L	1.6	6.2
L30 Canal	Priority Organic Pollutants	Butyl benzyl phthalate	5.2	U	ug/L	5.2	21
L30 Canal	Priority Organic Pollutants	Diethyl phthalate	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	Endosulfan sulfate	1.6	UJ	ug/L	1.6	6.2
L30 Canal	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	2.1	U	ug/L	2.1	8.3
L30 Canal	Priority Organic Pollutants	N-Nitrosodimethylamine	2.1	U	ug/L	2.1	8.3
L30 Canal	Priority Organic Pollutants	1,2,4-Trichlorobenzene	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	2,6-Dinitrotoluene	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.1	U	ug/L	3.1	12
L30 Canal	Priority Organic Pollutants	4,4'-DDD	1.6	UJ	ug/L	1.6	6.2
L30 Canal	Priority Organic Pollutants	4,4'-DDT	1.6	U	ug/L	1.6	6.2
L30 Canal	Priority Organic Pollutants	Benzidine	100	U	ug/L	100	420
L30 Canal	Priority Organic Pollutants	Bis(2-chloroethyl)ether	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	Isophorone	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	2,4-Dimethylphenol	10	U	ug/L	10	42
L30 Canal	Priority Organic Pollutants	4-Chloro-3-methylphenol	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	2.1	U	ug/L	2.1	8.3
L30 Canal	Priority Organic Pollutants	Acenaphthylene	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	3.1	U	ug/L	3.1	12
L30 Canal	Priority Organic Pollutants	Chrysene	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	Di-n-octyl phthalate	1	UJ	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	Endosulfan II	4.2	UJ	ug/L	4.2	17
L30 Canal	Priority Organic Pollutants	Heptachlor epoxide	1.6	U	ug/L	1.6	6.2
L30 Canal	Priority Organic Pollutants	Hexachlorocyclopentadiene	3.1	UJ	ug/L	3.1	12
L30 Canal	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	1	U	ug/L	1	4.2
L30 Canal	Priority Organic Pollutants	Phenanthrene	1	U	ug/L	1	4.2
L30 Canal	Field Parameter	Temperature	31.22		C		
L30 Canal	Field Parameter	pH	8.53				
L30 Canal	Field Parameter	Specific Conductance	435		umhos/cm		
L30 Canal	Field Parameter	Sample Depth	0.1		m		
L30 Canal	Field Parameter	Dissolved Oxygen	6.86		mg/L		
Blank	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	0.2	U	mg/L	0.2	2
Blank	Metals	Beryllium	0.025	U	ug/L	0.025	0.1
Blank	Metals	Silver	0.025	U	ug/L	0.025	0.1
Blank	Metals	Zinc	5	U	ug/L	5	20
Blank	Metals	Lead	0.2	U	ug/L	0.2	0.8
Blank	Metals	Iron	30	U	ug/L	30	120

Appendix E. (continued)

Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
Blank	Metals	Cadmium	0.02	U	ug/L	0.02	0.08
Blank	Metals	Chromium	1	U	ug/L	1	4
Blank	Metals	Selenium	0.5	U	ug/L	0.5	2
Blank	Metals	Copper	0.5	U	ug/L	0.5	2
Blank	Metals	Arsenic	0.5	U	ug/L	0.5	2
Blank	Metals	Calcium	0.075	U	mg/L	0.075	0.3
Blank	Metals	Antimony	0.5	U	ug/L	0.5	2
Blank	Metals	Magnesium	0.04	U	mg/L	0.04	0.16
Blank	Metals	Aluminum	60	U	ug/L	60	240
Blank	Metals	Nickel	0.25	U	ug/L	0.25	1
Blank	Nutrients	NO2NO3-N	6.5	Y	mg N/L	0.04	0.1
Blank	Nutrients	O-Phosphate-P	0.004	U	mg P/L	0.004	0.01
Blank	Nutrients	Ammonia-N	0.01	UY	mg N/L	0.01	0.02
Blank	Nutrients	Total-P	0.02	UY	mg P/L	0.02	0.06
Blank	Nutrients	Kjeldahl Nitrogen	0.08	UY	mg N/L	0.08	0.2
Blank	Pesticides	Naled	0.77	U	ug/L	0.77	3.1
Blank	Pesticides	Ethoprop	0.096	UJ	ug/L	0.096	0.38
Blank	Pesticides	Fenamiphos	0.19	U	ug/L	0.19	0.76
Blank	Pesticides	Fonofos	0.096	U	ug/L	0.096	0.38
Blank	Pesticides	Ethion	0.048	U	ug/L	0.048	0.19
Blank	Pesticides	Prometryn	0.14	U	ug/L	0.14	0.56
Blank	Pesticides	Norflurazon	0.14	U	ug/L	0.14	0.56
Blank	Pesticides	Bromacil	0.19	U	ug/L	0.19	0.76
Blank	Pesticides	Alachlor	0.58	U	ug/L	0.58	2.3
Blank	Pesticides	Parathion Methyl	0.096	U	ug/L	0.096	0.38
Blank	Pesticides	Parathion Ethyl	0.14	U	ug/L	0.14	0.56
Blank	Pesticides	Metalaxyl	0.24	U	ug/L	0.24	0.96
Blank	Pesticides	Chlorpyrifos Ethyl	0.048	U	ug/L	0.048	0.19
Blank	Pesticides	Mevinphos	0.19	UJ	ug/L	0.19	0.76
Blank	Pesticides	Ametryn	0.048	U	ug/L	0.048	0.19
Blank	Pesticides	Diazinon	0.048	U	ug/L	0.048	0.19
Blank	Pesticides	Simazine	0.048	U	ug/L	0.048	0.19
Blank	Pesticides	Phorate	0.048	UJ	ug/L	0.048	0.19
Blank	Pesticides	Metolachlor	0.48	U	ug/L	0.48	1.9
Blank	Pesticides	Malathion	0.14	U	ug/L	0.14	0.56
Blank	Pesticides	Hexazinone	0.096	UJ	ug/L	0.096	0.38
Blank	Pesticides	Butylate	0.19	U	ug/L	0.19	0.76
Blank	Pesticides	Chlorpyrifos Methyl	0.096	U	ug/L	0.096	0.38

Appendix E. (continued)

Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
Blank	Pesticides	Azinphos Methyl	0.19	U	ug/L	0.19	0.76
Blank	Pesticides	Metribuzin	0.096	U	ug/L	0.096	0.38
Blank	Pesticides	Atrazine	0.048	U	ug/L	0.048	0.19
Blank	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	Dieldrin	1.4	UJ	ug/L	1.4	5.8
Blank	Priority Organic Pollutants	Endosulfan I	3.8	U	ug/L	3.8	15
Blank	Priority Organic Pollutants	Endosulfan sulfate	1.4	UJ	ug/L	1.4	5.8
Blank	Priority Organic Pollutants	Heptachlor epoxide	1.4	U	ug/L	1.4	5.8
Blank	Priority Organic Pollutants	Nitrobenzene	1.9	U	ug/L	1.9	7.7
Blank	Priority Organic Pollutants	Phenanthrene	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	4-Nitrophenol	14	U	ug/L	14	58
Blank	Priority Organic Pollutants	Dimethyl phthalate	9.6	UJ	ug/L	9.6	38
Blank	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	2,4-Dichlorophenol	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	2,4-Dimethylphenol	9.6	U	ug/L	9.6	38
Blank	Priority Organic Pollutants	4,4'-DDE	1.4	UJ	ug/L	1.4	5.8
Blank	Priority Organic Pollutants	Anthracene	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	Benzo(a)pyrene	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	Butyl benzyl phthalate	4.8	U	ug/L	4.8	19
Blank	Priority Organic Pollutants	Di-n-butyl phthalate	4.8	U	ug/L	4.8	19
Blank	Priority Organic Pollutants	Endrin aldehyde	3.8	UJ	ug/L	3.8	15
Blank	Priority Organic Pollutants	Heptachlor	1.4	U	ug/L	1.4	5.8
Blank	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	Pyrene	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	gamma-BHC	1.4	U	ug/L	1.4	5.8
Blank	Priority Organic Pollutants	2,6-Dinitrotoluene	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	Diethyl phthalate	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	Fluoranthene	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	Phenol	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	2,4-Dinitrophenol	14	U	ug/L	14	58
Blank	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.9	U	ug/L	2.9	12
Blank	Priority Organic Pollutants	2-Nitrophenol	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	3,3'-Dichlorobenzidine	38	UJ	ug/L	38	150
Blank	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	1.9	U	ug/L	1.9	7.7
Blank	Priority Organic Pollutants	Acenaphthene	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	1.9	U	ug/L	1.9	7.7
Blank	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9	U	ug/L	1.9	7.7

Appendix E. (continued)

Field ID	Analysis	Component	Result	Remark	Units	MDL	PQL
Blank	Priority Organic Pollutants	beta-BHC	1.4	U	ug/L	1.4	5.8
Blank	Priority Organic Pollutants	2,4-Dinitrotoluene	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	2-Chloronaphthalene	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	4,4'-DDD	1.4	UJ	ug/L	1.4	5.8
Blank	Priority Organic Pollutants	4,4'-DDT	1.4	U	ug/L	1.4	5.8
Blank	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	Benzo(b)fluoranthene	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	Di-n-octyl phthalate	0.96	UJ	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.96	UJ	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	Endrin	1.4	UJ	ug/L	1.4	5.8
Blank	Priority Organic Pollutants	Hexachlorobutadiene	2.9	U	ug/L	2.9	12
Blank	Priority Organic Pollutants	Hexachlorocyclopentadiene	2.9	UJ	ug/L	2.9	12
Blank	Priority Organic Pollutants	Hexachloroethane	2.9	U	ug/L	2.9	12
Blank	Priority Organi`c Pollutants	alpha-BHC	1.4	U	ug/L	1.4	5.8
Blank	Priority Organic Pollutants	delta-BHC	1.4	U	ug/L	1.4	5.8
Blank	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	Acenaphthylene	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	Benzo(k)fluoranthene	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	2.9	U	ug/L	2.9	12
Blank	Priority Organic Pollutants	Chrysene	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	Endosulfan II	3.8	UJ	ug/L	3.8	15
Blank	Priority Organic Pollutants	Fluorene	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	Isophorone	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	Pentachlorophenol	2.9	U	ug/L	2.9	12
Blank	Priority Organic Pollutants	2-Chlorophenol	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	Aldrin	1.4	U	ug/L	1.4	5.8
Blank	Priority Organic Pollutants	Benzidine	96	U	ug/L	96	380
Blank	Priority Organic Pollutants	Benzo(a)anthracene	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	14	U	ug/L	14	58
Blank	Priority Organic Pollutants	Hexachlorobenzene	0.96	U	ug/L	0.96	3.8
Blank	Priority Organic Pollutants	Naphthalene	0.96	U	ug/L	0.96	3.8

Appendix F. Bioassay Laboratory Instruments

Facility ID: Palm Beach County Southern Region Water Relamation Facility

Test Dates: June 3-5, 2008
SRT Dates: June 3-7, 2008

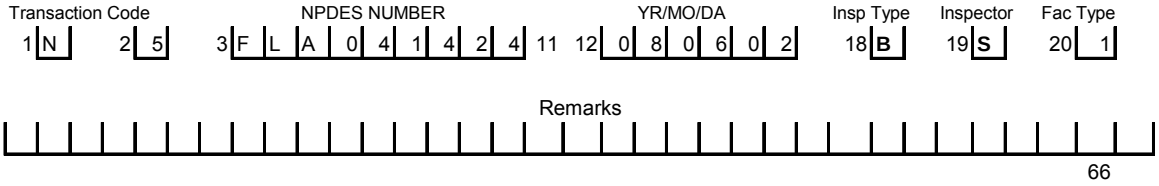
METER / DEVICE	ID	SOP	Parameter	Method	√ used
YSI Model 58 Dissolved Oxygen Meter	90H018262	TA06_04	Dissolved Oxygen	SM 4500 O G	√
Accumet AR-10 pH Meter	93312105	TA06_23	pH	SM 4500 H^+	√
Mettler-Toledo SevenMulti Conductivity Meter	SN 1225117049 Probe H04257	TA06_25	Conductivity Salinity	SM 2510 B SM 2520 B	√ √
Denver Model 225 ISE with ammonia probe	SN K01377	TA06_17	Ammonia	SM 4500 NH3 F	√
Thermometer (DO probe)	YSI 5750 SN 05J1720	TA06_05	Temperature	SM-2530B modified DEP SOP-001/01 FT1400	√
Hach Pocket Colorimeter II	05050C026378	TA06_22	Total Residual Chlorine	EPA 330.5 SM 4500 CL G	√
Alkalinity (Hach Kit)	No SN	TA06_08	Alkalinity	SM 2320 B	√
Hardness (Hach Kit)	No SN	TA06_09	Hardness	SM 2340 C	√
OHAUS Balance 250D	1125481084	TA06_21 TA06_27	Weight	-	
S-Weights	BIO-S-WEIGHTS-01	NA	Balance check	-	

SM-2530B modified to allow use electronic and non-mercury filled thermometers.
Insert other device information in blank spaces(if used). Test ID = Facility or SRTs (acute SRT--Chronic SRT)

Comments:

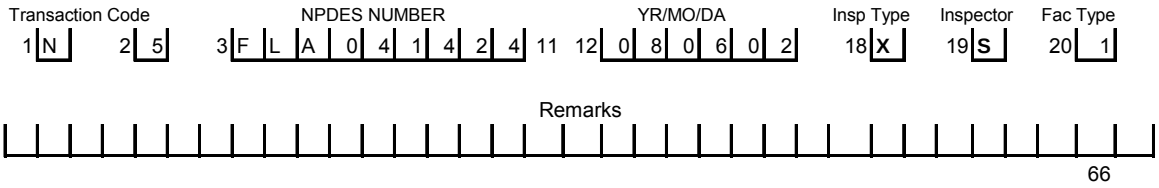
The Bioassay of the Palm Beach County Southern Region Water Reclamation Facility effluent sampled on June 2, 2008. NPDES #FLA041424.

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



The Priority Pollutants Analysis of the Palm Beach County Southern Region Water Reclamation Facility effluent sampled on June 2, 2008. NPDES #FLA041424.

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



Biological Analyses of the Palm Beach County Southern Region Water Reclamation Facility effluent sampled on June 2, 2008. NPDES #FLA041424.

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

