

Bioassays of

Macclenny Wastewater Treatment Facility

Baker County

NPDES #FL0040495

Sampled November 12 and 13, 2006

February 2007

Biology Section
Bureau of Laboratories
Division of Resource Assessment and Management

Quality Manual No. 870346G
NELAC Certification No. E31780

Macclenny Wastewater Treatment Facility, 798 Honeymill Road, Macclenny, Baker County, Florida, NPDES #FL0040495. Effluent samples for this facility were collected on November 12 and 13, 2006.

Introduction

The Macclenny Wastewater Treatment Facility is an advanced secondary activated-sludge domestic wastewater treatment facility. The facility has a design flow of 1.3 million gallons per day (MGD) annual average daily flow (AADF). The AADF from November 1, 2005, through October 31, 2006, was 0.766 MGD. The facility consists of an influent screening and grit removal system, four sequencing batch reactors, two "425 SF" traveling-bridge type filters with automatic backwash, two aerobic digesters, two chlorine contact chambers, one post-aeration basin, and a dechlorination unit. Chlorine gas is used for disinfection and sulfur dioxide is used for dechlorination. Treated effluent is intermittently discharged into the Class III freshwaters of Turkey Creek at Discharge Location D-001. Outfall D-001, approximately 3 m (10 feet) in length and discharging at a depth of approximately 1.8 m (6 feet), is located approximately at latitude 30º 16' 11" N and longitude 82º 07" 37" W. Residuals may be disposed by either land application or in a Class I or Class II solid waste landfill.

There are no Administrative Orders or Consent Orders for this facility. There are no mixing zones established for this facility. A review of discharge monitoring report (DMR) data (October 2005 – October 2006) did not reveal any noticeable trends. A compliance enforcement inspection (CEI) performed on May 23, 2006, rated the facility as Minor out of Compliance. DMR data showed permit violations for total nitrogen limits in October and November 2005 and in February, April, and June 2006. There was a violation of the total nitrogen-ammonia limit in April 2006 and a violation of total nitrogen-organic nitrogen limit in June 2006. A Carbonaceous Biochemical Oxygen Demand (CBOD) violation was noted in April 2006. (Facility information provided by Jennifer Paris of FDEP Northeast District.)

Methods

Samples were collected from the EFD-1 NPDES sampling point for Outfall D-001 by Joseph Emory (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 acute screening 96-hour 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. Bioassays were performed on each of four samples which were collected over a 24-hour period. While the 96-hour acute screening toxicity test does not reflect the permit required conditions, the Department uses it to provide reasonable assurance that the facility does not adversely affect waters of the state.

Total residual chlorine was detected in bioassay sample #4 in the laboratory. An aliquot of this sample was dechlorinated by the addition of sodium thiosulfate (0.025 N) at a rate of 1 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 sample. 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 10% mortality in the controls of the *Ceriodaphnia dubia* dechlorinated test. There was no mortality in the controls of the *Pimephales promelas* dechlorinated test.

Toxicity Test Results

Tests were performed November 14 - 18, 2006.

Ceriodaphnia dubia 96-hour acute screening bioassay sample 1 –	LC_{50} > 100%, 0% mortality* in 100% sample at 96 hours
Pimephales promelas 96-hour acute screening bioassay sample 1 –	LC_{50} > 100%, 0% mortality* in 100% sample at 96 hours
Ceriodaphnia dubia 96-hour acute screening bioassay sample 2 –	LC_{50} > 100%, 0% mortality* in 100% sample at 96 hours
Pimephales promelas 96-hour acute screening bioassay sample 2 –	LC_{50} > 100%, 0% mortality* in 100% sample at 96 hours
Ceriodaphnia dubia 96-hour acute screening bioassay sample 3 –	LC_{50} > 100%, 10% mortality* in 100% sample at 96 hours
Pimephales promelas 96-hour acute screening bioassay sample 3 –	LC_{50} > 100%, 0% mortality* in 100% sample at 96 hours
Ceriodaphnia dubia 96-hour acute screening bioassay sample 4–	LC_{50} < 100%, 100% mortality* in 100% sample at 24 hours
Pimephales promelas 96-hour acute screening bioassay sample 4 –	LC_{50} < 100%, 100% mortality* in 100% sample at 24 hours
Ceriodaphnia dubia 96-hour acute screening bioassay sample 4– **Dechlorinated sample**	LC_{50} > 100%, 5% mortality* in 100% sample at 96 hours
Pimephales promelas 96-hour acute screening bioassay sample 4 – **Dechlorinated sample**	LC_{50} > 100%, 5% mortality* in 100% sample at 96 hours

Bioassay samples #1, #2, #3, and the dechlorinated aliquot of sample #4 were not acutely toxic to the test organisms. The aliquot of bioassay sample #4 containing total residual chlorine (TRC) was acutely toxic to both tests species, producing 100% mortality within 24 hours of test initiation. The toxicity in this sample was primarily attributed to the TRC concentration in the sample. TRC levels as low as 0.028 mg/L have been found to be acutely toxic to some freshwater fish and invertebrates (EPA *Quality Criteria for Water* 1986, EPA 44015-86-001, 1986).

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

See Appendix B for bioassay bench sheets. See Appendix C for results of the 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.

Algal Growth Potential

The effluent Algal Growth Potential (AGP) was 169 mg dry wt/L of the unicellular green alga, *Pseudokirchneriella subcapitata*, formerly known as *Selenastrum capricornutum*. Raschke and Shultz (1987) found that AGP values above 5.0 mg dry weight/L represent a "problem" threshold for fresh receiving waters, implying nutrient enrichment. The analytical chemistry suggests that the effluent is nitrogen-limited. The predicted AGP based on inorganic nitrogen concentrations was 164.16 (±20%) mg dry wt/L (Table 1; Miller et al., 1978).

See Table 1 for AGP results

Chemistry Results

Total residual chlorine (TRC) measured in the laboratory was not detected in bioassay samples #1, #2, and #3. TRC detected in bioassay sample #4 (0.87 mg/L) exceeded both the permit limit (≤ 0.01 mg/l) and the Class III freshwater quality criterion (≤ 0.01 mg/l, 62-302.530(19), F.A.C.). TRC was not measured in the field. Total ammonia was detected in bioassay samples #1, #2, and #3, but was not detected in bioassay sample #4 in the laboratory. Based on field measurements of pH, salinity, and temperature, the calculated unionized ammonia in each of the bioassay samples was < 0.02 mg/L. The total ammonia concentration in the sample collected and preserved for chemical analysis was 0.72 mg/L. Based on the pH, salinity, and temperature of the effluent as collected, the calculated unionized ammonia concentration in this sample was < 0.02 mg/L.

Copper, iron, and zinc were detected in the effluent at levels that comply with Class III freshwater quality criteria (62-302.530, F.A.C.). Aluminum, lead, nickel, and silver 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

Effluent samples #1, #2, and #3, collected from the EFD-1 sampling point for Outfall D-001 for this facility on November 12 -13, 2006, were not acutely toxic to either test species during the 96-hour acute screen bioassays. Effluent sample #4 was acutely toxic, producing 100% mortality in both test species within 24 hours of test initiation. The toxicity was attributed to the total residual chlorine in the sample. Effluent sample #4 total residual chlorine (0.87 mg/L) exceeded both the permitted limit (≤ 0.01 mg/l) and the Class III freshwater criterion (≤ 0.01 mg/l, 62-302.530(19), F.A.C.). The effluent AGP result exceeded the "problem" threshold for fresh receiving waters.

Literature Cited

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

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

Table 1. Measured and predicted algal growth potential (AGP; mg dry weight/L) of the freshwater species Psuedokirchneriella subcapitata *for total nitrogen (TN) and total soluble inorganic nitrogen (TSIN) limitation* , *and ratios of nitrogen to phosphorus for samples collected from the Macclenny Wasterwater Treatment Facility on November 13, 2006.*

Location	AGP (measured)	Predicted AGP (TSIN) ± 20%	Predicted AGP (TN) ± 20%	Inorganic N:P ratio	Total N:P ratio
Effluent Samples	169	164.16 ± 32.832	209 ± 41.8	1.8	2.12

Table 2. Effluent limits, Class III Freshwater Criteria, chemical, and microbiological data for samples collected from the Macclenny Wastewater Treatment Facility on November 12 and 13, 2006.

Macclenny WWTF NPDES # FL0040495	Class III Freshwater Stds	Effluent Limits	Effluent Samples	Bioassay Sample 1	Bioassay Sample 2	Bioassay Sample 3	Bioassay Sample 4
Organic Constituents (µg/L)							
None Detected	-	-	-	-	-	-	-
Metals (µg/L unless otherwise noted)							
Aluminum	-	-	13 l	-	-	-	-
Arsenic	≤ 50	-	0.5 U	-	-	-	-
Cadmium	≤ 1.6 b	-	0.05 U	-	-	-	-
Calcium (mg/L)	-	-	40.6	-	-	-	-
Chromium-III	≤ 127.1 b	-	0.3 U	-	-	-	-
Copper	≤ 14 b	Report#	3.53	-	-	-	-
Iron	≤ 1,000	-	64	-	-	-	-
Lead	≤ 5.8 b	-	0.43 l	-	-	-	-
Magnesium (mg/L)	-	-	14.4	-	-	-	-
Nickel	≤ 77.9 b	-	1.3 l	-	-	-	-
Selenium	≤ 5	-	0.5 U	-	-	-	-
Silver	≤ 0.07	-	0.049 l	-	-	-	-
Zinc	≤ 179.1 b	-	77	-	-	-	-
Nutrients (mg/L)							
Ortho-phosphate	-	-	2.4	-	-	-	-
Total Phosphorus	-	-	2.6	-	-	-	-
Ammonia	-	≤ 4.0 s#	0.72	0.319 £	1.72 £	0.356 £	< 0.017 U£
Unionized Ammonia	≤ 0.02 c	-	< 0.02 c	< 0.02 c £€	< 0.02 c £€	< 0.02 c £€	< 0.02 c £€
Nitrate+Nitrite	-	-	3.6 f	-	-	-	-
Total Kjeldahl Nitrogen	-	-	1.9	-	-	-	-
Organic Nitrogen	-	≤ 4.0 s#	1.18 c	-	-	-	-
Total Nitrogen	-	≤ 4.0 s#	5.5 c	-	-	-	-
General Physical and Chemical Parameters							
Total Suspended Solids (mg/L)	-	≤ 10 s#	4 U	-	-	-	-
Dissolved Oxygen (mg/L)	≥ 5	≥ 5.0 s	9.07	8.20	8.42	9.07	9.48
pH (S.U.)	6.0 - 8.5	6.0 - 8.5	7.15	7.37	7.21	7.15	7.37
Conductivity (umhos/cm)	≤ 1,275	-	599	606	604	599	600
CBOD, 5-day (mg/L)	-	≤ 10 s#	2.8	-	-	-	-
Temperature (°C)	-	-	19.85	23.94	23.51	19.85	20.25
Total Residual Chlorine (mg/L)	≤ 0.01	≤ 0.01 s	-	< 0.03 U £	< 0.03 U £	< 0.03 U £	0.87 £
Flow (MGD)	-	≤ 1.3 a	0.741 a	-	-	-	-
Alkalinity (mg/L)	-	-	109	-	-	-	-
Hardness (mg/L)	-	Report#	160.7 c	-	-	-	-
Microbiology (# counts/100ml)							
Fecal Coliforms-Membrane Filter	≤ 800 s	≤ 800 s	2 U	-	-	-	-

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

a - Annual average

b - Value calculated based on water hardness

c - Calculated value

f - Analyte detected in field blank between the method detction limit and the practical quantitation limit

s - Single sample

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

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

- Permitted limit is for a composite sample

£ - Analyses conducted in Bioassay Lab

€ - calculation based on ph, salinity, and temperature as measured in the field

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Request Number: RQ-2006-11-13-30
MacClenny WWTF

Event ID *

Requester: Shannan Bogdanov
Field Report Prepared By: Joseph Emery

Customer: NE-DIST
Collected By: Joseph Emery
Send Final Report To Melissa Long

Project ID: FYI3
Sampling Agency: FDEP - North east District

PMAS: 1143

Lab ID *	Location	Collection (begin)	Collection (end)	Bottle Group(s)**
	MacClenny WWTF	☐ Comp ☑ Grab Date 17: 30 Time 11-12-06 Eastern Central	Date 11-12-06 Time 17:45 Eastern Central	C
	Field ID	Tot Res Chlorine (mg/L) <0.1	Diss Oxygen (mg/L) 9.20	Storet Station Number
	Matrix (Include type e.g. Salt, Fresh, etc) water	Temp (C) 23.44°C	pH 7.37	Sample Depth ☐ m ☐ ft 0.29 60f ☑ Salinity (PPTh) ☑ Sp Conductance (umho/cm) NPDES Number FL0040495
	Latitude o ' "	Longitude o ' "	Comments	

Lab ID *	Location	Collection (begin)	Collection (end)	Bottle Group(s)**
	MacClenny WWTF	☐ Comp ☑ Grab Date 11-12-06 Time 23:10 Eastern Central	Date 11-12-06 Time 23:35 Eastern Central	C
	Field ID	Tot Res Chlorine (mg/L) <0.1	Diss Oxygen (mg/L) 8.42	Storet Station Number
	Matrix (Include type e.g. Salt, Fresh, etc) water	Temp (C) 23.51	pH 7.21	Sample Depth ☐ m ☐ ft 0.29 60f ☑ Salinity (PPTh) ☑ Sp Conductance (umho/cm) NPDES Number FL0040495
	Latitude o ' "	Longitude o ' "	Comments	

Lab ID *	Location	Collection (begin)	Collection (end)	Bottle Group(s)**
	MacClenny WWTF	☐ Comp ☑ Grab Date 11-12-06 Time 7:33 Eastern Central	Date 11-13-06 Time 7:45 Eastern Central	B
	Field ID Blanks	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 FL0040495
	Latitude o ' "	Longitude o ' "	Comments Blanks	

Lab ID *	Location	Collection (begin)	Collection (end)	Bottle Group(s)**
	MacClenny WWTF	☐ Comp ☑ Grab Date 11-13-06 Time 8:05 Eastern Central	Date 11-13-06 Time 8:15 Eastern Central	C
	Field ID	Tot Res Chlorine (mg/L) <0.1	Diss Oxygen (mg/L) 9.07	Storet Station Number
	Matrix (Include type e.g. Salt, Fresh, etc) water	Temp (C) 19.85	pH 7.15	Sample Depth ☐ m ☐ ft 0.29 5 9 9 ☑ Salinity (PPTh) ☑ Sp Conductance (umho/cm) NPDES Number FL0040495
	Latitude o ' "	Longitude o ' "	Comments	

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
Joseph Emery	11-13-06 2:00	DHL	Tom E	11-14-06 8:50				

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Request Number: RQ-2006-11-13-30
MacClenny WWTF

Event ID *

Requester: Shannan Bogdanov
Field Report Prepared By: Joseph Emery

Customer: NE-DIST
Collected By: Joseph Emery
Send Final Report To Melissa Long

Project ID: FYI3
Sampling Agency: FDEP - Northeast

PMAS: 1143

Lab ID *	Location: MacClenny WWTF			☐ Comp ☑ Grab	Collection (begin) Eastern Date 11-13-06 Time 9:20 Central	Collection (end) Eastern Date 11-13-06 Time 8:35 Central		Bottle Group(s)** A
	Field ID			Tot Res Chlorine (mg/L) <0.1	Diss Oxygen (mg/L) 9.07	Storet Station Number		
	Matrix (Include type e.g. Salt, Fresh, etc) WATER	Temp (C) 19.85	pH 7.15	Sample Depth ☐ m ☐ ft 0.29	☑ Salinity (PPTh) 599 ☑ Sp Conductance (umho/cm)	NPDES Number FLG040495		
	Latitude o ' "	Longitude o ' "		Comments collected @ same time as Toxicity sample				
Lab ID *	Location: MacClenny WWTF			☐ Comp ☑ Grab	Collection (begin) Eastern Date 11-13-06 Time Central	Collection (end) Eastern Date 11-13-06 Time Central		Bottle Group(s)** C
	Field ID			Tot Res Chlorine (mg/L) <0.1	Diss Oxygen (mg/L) 9.45	Storet Station Number		
	Matrix (Include type e.g. Salt, Fresh, etc) WATER	Temp (C) 20.25	pH 7.37	Sample Depth ☐ m ☐ ft 0.29	☑ Salinity (PPTh) 600 ☑ Sp Conductance (umho/cm)	NPDES Number FLG040495		
	Latitude o ' "	Longitude o ' "		Comments				
Lab ID *	Location			☐ Comp ☐ Grab	Collection (begin) Eastern Date Time Central	Collection (end) Eastern Date Time 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				
Lab ID *	Location			☐ Comp ☐ Grab	Collection (begin) Eastern Date Time Central	Collection (end) Eastern Date Time 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				

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	11-13-06 1700	DHL	Tom. C	11-14-06 9:50				

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

FDEP Biology Section - Acute Screen 4/24 Bioassay Bench Sheets

Facility: Macclenny WWTF

Address: 798 Honey Mill Rd

City: Macclenny County: Baker

Contact/District: Joseph Emery NE-D

NPDES Permit #: FL0040495

LIMS Job #: TLH-2006-11-18-03-01 LIMS Sample #: 965580

Lims Data Entry: 11-22-06 MF Data Entry Verification: 11-22-06 BA

Sample Collection: Date: 11-12-06 Time: 5:30

Hold Time Start: Date: 11-13-06 Time: ~~5:30~~ 11:00 BA

Sample: 1 of 4

Comments: field total residual chlorine (TRC) value from facility measurements. LAB TRC value was <0.03 mg/L. MF 11-20-06

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

Test Type: Definitive

Static (Static Renewal) Flow-through

Test Duration: 48 (96) Hours.

Light Intensity : 50 - 100 ft. candles.

Photoperiod : 16 hours light 8 hours dark.

Initial sample handling:

Test 1 validation: **Test 1:** SOP 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

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

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

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

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

Dechlorination: yes (no) ____mL of 0.025N Sodium Thiosulfate per liter of sample. Final TRC: ____

Sample Validation:

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

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

Temperature Range °C

Incubator # 2 Range 24.1-26.2

Room B246 22.7-24.1

Waterbath: N/A

Investigators' Signatures

Brad Allen

Marshall Fairbeth

Jason Beverly

REVIEWER

Water Quality Parameters	20% DMW	(Moderately Hard Water) Well Water	Salt Water ASW NSW Test 1	Salt Water ASW NSW Test 2	Other: ~~[illegible]~~ PPV n/a/na	Original	Method	Measured by	Verified by
Field Total Residual Cl2 (mg/L):	N/A	N/A	N/A	N/A	N/A	<0.1	—	facility employee	MF
Lab Total Residual Cl2 (mg/L):	<0.03	<0.03	—		—	<0.03	HACH	BA	PPV
Alkalinity (mg/L as $CaCO_3$):	86	75	188		~~[illegible]~~	~~[illegible]~~ BA	HACH	PPV	BA
Hardness (mg/L as $CaCO_3$):	93	100	—		—	~~145~~ 89	HACH	PPV	BA
Total Ammonia (mg/L as N):	<0.017	<0.017	—		—	0.319	DENVER	MF	BA
Salinity (ppt):	<1	<1	—		—	<1	YSI /(Mettler)	BA	MF

V 2.0 4/12/05

Appendix B. (continued)

FDEP Biology Section - Bioassay Survival Sheet

LIMS Sample #: 965580 Test #: 1 Test Started: Date 11-14-06 Time: 1300
Organism: C. dubia SOP #: TA 07_ 01 Test Ended: Date 11-18-06 Time: 1150
Organism Batch: 47-06 Diluent/ Batch: DMW 130-06
Organism Age: <24hrs Food: YCT ~~P. subcapitata~~ Artemia
Chamber Size: 30 mL Batch: 2-06 5-06 —
Test Volume: 20 mL Feeding: ~~Prior to test~~ ~~Prior to renewal~~ - Daily

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Ctrl	A	A	5	5	5	5	5	5
	B	B	5	5	5	5	5	5
	C	C	5	5	5	5	5	5
	D	D	5	5	5	5	5	5
100%	A	A	5	5	5	5	5	5
	B	B	5	5	5	5	5	5
	C	C	5	5	5	5	5	5
	D	D	5	5	5	5	5	5
Organisms loaded by: MF	Checked by:		MF	BM	MF	MF	MF	
Loading Verified by: JD								

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

Comments:

Test Results:
% mortality in 100% sample: 0
LC_{50}: >100 If Calculated: 95% CI _____ Method: _____

Screening Tests:
Report LC50 as >100%, =100%, or <100%.
Substitue highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

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Appendix B. (continued)

FDEP Biology Section - Bioassay Survival Sheet

LIMS Sample #: 965580 Test #: 2 Test Started: Date 11-14-06 Time: 13:30
Organism: P. promelas SOP #: TA 07_02 Test Ended: Date 11-18-06 Time: 1244
Organism Batch: 2006 Diluent/ Batch: Mod Hard 1 16-06
Organism Age: 10 days Food: YCT P. subcapitata Artemia
Chamber Size: 1000 mL Batch: — — 10-06, 12-06 LT GSL-536-90
Test Volume: 500 mL Feeding: Prior to test - Prior to renewal - Daily

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Ctrl	A	D1	5	5	5	5	5	5
	B	D2	5	5	5	5	5	5
	C	D3	5	5	5	5	5	5
	D	D4	5	5	5	5	5	5
100%	A	D5	5	5	5	5	5	5
	B	D6	5	5	5	5	5	5
	C	D7	5	5	5	5	5	5
	D	D8	5	5	5	5	5	5
Organisms loaded by: JD	Checked by:		JD	JD	JD	JD	MF	
Loading Verified by: BK								

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

Comments:

Test Results:
% mortality in 100% sample: 0
LC_{50}: >100 If Calculated: 95% CI_____ Method:_____

Screening Tests:
Report LC50 as >100%, =100%, or <100%.
Substitue highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

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FDEP Biology Section - Bioassay Parameter Sheet

LIMS Sample # : 465580 **Test #:** 1 of 24 BA

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

Concentration Ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	7.7	7.9	7.9	8.0	7.3	7.9
Temperature °C	24.0	24.5	25.0	24.4	24.7	25.2
Dissolved Oxygen mg/L	7.4	7.7	7.5	7.7	7.2	7.4
Conductivity (µmhos) mmhos	341	353	342	347	337	343
(initials) Measured by:	BA	BA	JD	JD	JD	MF
(initials) Recorded by:	BA	BA	JD	JD	JD	MF

Comments:

Concentration 100 %	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	7.6	7.9	8.1	7.7	7.5	8.0
Temperature °C	24.3	24.1	24.8	24.2	24.5	25.3
Dissolved Oxygen mg/L	7.3	7.5	7.7	7.8	7.2	7.3
Conductivity (µmhos) mmhos	608	616	634	607	620	633
(initials) Measured by:	BA	BA	JD	JD	JD	MF
(initials) Recorded by:	BA	BA	JD	JD	JD	MF

Comments:

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

Comments:

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

Comments:

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FDEP Biology Section - Bioassay Parameter Sheet

LIMS Sample # : 965580 Test #: 21 of 24

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		A	A		A
pH (S.U.)	7.8		7.8	8.0		7.9
Temperature °C	24.0		24.1	24.3		24.1
Dissolved Oxygen mg/L	8.0		7.3	7.8		8.1
Conductivity ~~µmhos~~ mmhos	180.1		194	190		198
(initials) Measured by:	BA		MF	JD		MF
(initials) Recorded by:	BA		MF	JD		MF

Comments:

Concentration: 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A		A	A		A
pH (S.U.)	7.6		8.0	7.7		8.3
Temperature °C	24.0		24.1	24.5		24.0
Dissolved Oxygen mg/L	7.8		7.2	7.3		8.0
Conductivity ~~µmhos~~ mmhos	607		640	594		658
(initials) Measured by:	BA		MF	JD		MF
(initials) Recorded by:	BA		MF	JD		MF

Comments:

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

Comments:

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

Comments:

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FDEP Biology Section - Acute Screen 4/24 Bioassay Bench Sheets

Facility: Macclenny WWTF

Address: 178 Honeycutt Rd

City: Macclenny County: Baker

Contact/District: Joseph Emory NE-D

NPDES Permit #: FL 00 90495

LIMS Job #: TLH-221104-19-03-02 LIMS Sample #: 965581

Lims Data Entry: 11-22-06 MF Data Entry Verification: 11-22-06 GJ

Sample Collection: Date: 11-12-06 Time: 23:10

Hold Time Start: Date: 11-13-06 Time: 23:10 11:00 AM

Sample: 2 of 4

Comments: Field TRC value from facility by measurement. LAB TRC value was <0.03 mg/L. MF 11/20/06

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

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

Test 2 validation:
Control survival ≥90%: (Yes) No
Temperature Range ≤3°C: (Yes) No
Test 2: SOP TA 07 C2

Initial sample handling:

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

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

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

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

Dechlorination: yes (no) ____ml. of 0.025N Sodium Thiosulfate per liter of sample. Final TRC: ____

Sample Validation:

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

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

Investigators' Signatures

Marshall Faircloth

Bruce Addison

Jason Daniels

Date: 11-22

REVIEWER

Water Quality Parameters	Original Sample	Method	Measured by facility	Verified by
Field Total Residual Cl2 (mg/L):	<0.1	—	employee	MF
Lab Total Residual Cl2 (mg/L):	<0.03	HACH	BA	DW
Alkalinity (mg/L as $CaCO_3$):	155	HACH	BA	BA
Hardness (mg/L as $CaCO_3$):	184	HACH	BA	BA
Total Ammonia (mg/L as N):	1.74	DENVER	MF	BA
Salinity (ppt):	<1	YSI (Mettler)	BA	MF

V 2.0 4/12/05

Appendix B. (continued)

FDEP Biology Section - Bioassay Survival Sheet

LIMS Sample #: 965581 Test #: 1 Test Started: Date 11-14-06 Time: 1305
Organism: C. dubia SOP #: TA 07_01 Test Ended: Date 11-18-06 Time: 1158
Organism Batch: 47-06 Diluent/ Batch: DMW 1 30-06
Organism Age: <24hrs Food: YCT P. subcapitata Artemia
Chamber Size: 30 mL Batch: 2-06 5-06 ✓
Test Volume: 20 mL Feeding: ~~Prior to test~~ Prior to renewal Daily

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Ctrl	A	A	5	5	5	5	5	5
	B	B	5	5	5	5	5	5
	C	C	5	5	5	5	5	5
	D	D	5	5	5	5	5	5
100%	A	A	5	5	5	5	5	5
	B	B	5	5	5	5	5	5
	C	C	5	5	5	5	5	5
	D	D	5	5	5	5	5	5
Organisms loaded by: MF		Checked by:		MF	BA	MF	MF	mf
Loading Verified by: DD								

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

Comments:

Test Results:
% mortality in 100% sample: Ø
LC_{50}: >100 If Calculated: 95% CI_____ Method:_____

Screening Tests:
Report LC50 as >100%, =100%, or <100%.
Substitue highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

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Appendix B. (continued)

FDEP Biology Section - Bioassay Survival Sheet

LIMS Sample #: 965581 | Test #: 2 | Test Started: Date 11-14-06 Time: 1335
Organism: P. Promelas | SOP #: TA 07_02 | Test Ended: Date 11-18-06 Time: 1235
Organism Batch: 20-06 | Diluent/ Batch: Mod Hard / 1 bet
Organism Age: 10days | Food: YCT P. subcapitata Artemia lot GSL-536-10
Chamber Size: 1000 mL | Batch: — — 10-06, 12-06
Test Volume: 500 mL | Feeding: Prior to test - Prior to renewal - Daily

Concentration	Replicate	Chamber #	0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Ctrl	A	D9	5	5	5	5	5	5
	B	D10	5	5	5	5	5	5
	C	D11	5	5	5	5	5	5
	D	D12	5	5	5	5	5	5
100%	A	D13	5	5	5	5	5	5
	B	D14	5	5	5	5	5	5
	C	D15	5	5	5	5	5	5
	D	D16	5	5	5	5	5	5
Organisms loaded by: JD		Checked by:		JD	JD	JD	JD	MF

Loading Verified by: BA

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

Comments:

Test Results:
% mortality in 100% sample: ∅
LC_{50}: >100 If Calculated: 95% CI____ Method:____

Screening Tests:
Report LC50 as >100%, =100%, or <100%.
Substitue highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

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FDEP Biology Section - Bioassay Parameter Sheet

LIMS Sample # : 965581 **Test #:** 42 of ~~54~~ BA

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	C	D	A
pH (S.U.)	7.9	7.9	7.9	8.0	7.7	7.9
Temperature °C	24.0	24.0	24.6	24.0	24.3	25.2
Dissolved Oxygen mg/L	7.5	7.6	7.9	7.7	7.0	7.4
Conductivity ~~µmhos~~ mmhos	~~584~~ 174 BA	360	340	332	341	343
(initials) Measured by:	BA	BA	JD	JD	JD	MF
(initials) Recorded by:	BA	BA	JD	JD	JD	MF

Comments: A Transcription error 385 OM BA 11-14-06

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	7.5	8.0	8.2	7.6	7.7	8.0
Temperature °C	24.0	24.6	24.8	24.0	24.8	25.2
Dissolved Oxygen mg/L	7.6	7.4	7.7	7.8	6.8	7.4
Conductivity ~~µmhos~~ mmhos	598	623	603	602	621	634
(initials) Measured by:	BA	BA	JD	JD	JD	MF
(initials) Recorded by:	BA	BA	JD	JD	JD	MF

Comments:

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

Comments:

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

Comments:

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FDEP Biology Section - Bioassay Parameter Sheet

LIMS Sample # : 96558 **Test #:** 2 of 4 BA

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		A	A		A
pH (S.U.)	7.9		7.8	8.1		8.0
Temperature °C	24.0		24.0	24.1		24.0
Dissolved Oxygen mg/L	7.8		7.2	8.0		8.0
Conductivity (µmhos) mmhos	179.0		200	192.3		200
(initials) Measured by:	BA		MF	JD		MF
(initials) Recorded by:	BA		MF	JD		MF

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M		A	A		A
pH (S.U.)	7.5		8.1	7.6		8.3
Temperature °C	24.0		24.1	24.1		24.0
Dissolved Oxygen mg/L	7.6		6.9	8.0		8.0
Conductivity (µmhos) mmhos	594		617	599		651
(initials) Measured by:	BA		MF	JD		MF
(initials) Recorded by:	BA		MF	JD		MF

Comments:

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

Comments:

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

Comments:

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FDEP Biology Section - Acute Screen 4/24 Bioassay Bench Sheets

Facility: Macclenny WWTF

Address: 798 Honeymill Rd

City: Macclenny County: Baker

Contact/District: Joseph Emery NE-D

NPDES Permit #: FL0040665

LIMS Job # TLH-2006-11-0001 03 LIMS Sample #: 165582

Lims Data Entry: 11-22-06 MA Data Entry Verification: 11-22-06 MA

Sample Collection: Date: 11-13-06 Time: 8:10

Hold Time Start: Date: 11-13-06 Time: 8:10 11-14 BA

Sample: 3 of 4

Comments: Field TRC value from Facility representative. Lab TRC measurement was <0.03 mg/L. MF 11-20-06

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

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

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

Initial sample handling:

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

Aeration: yes (no) Initial DO: ____mg/L Final DO: ____mg/l Duration ____minutes Rate ____ bubbles/min

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

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

Dechlorination: yes (no) ____mL of 0.025N Sodium Thiosulfate per liter of sample Final TRC

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

Tamara Barnes

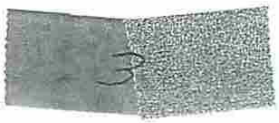
Marshall Fairleth

Brad Mobley

REVIEWER

Water Quality Parameters	Original Sample	Method	Measured by	Verified by
Field Total Residual Cl2 (mg/L):	<0.1	—	employee	MF
Lab Total Residual Cl2 (mg/L):	<0.03	HACH	BA	DRV
Alkalinity (mg/L as $CaCO_3$):	153	HACH	DRV	BA
Hardness (mg/L as $CaCO_3$):	182	HACH	DRV	BA
Total Ammonia (mg/L as N):	0.356	DENVER	MF	BA
Salinity (ppt):	<1	YSI / Mettler	BA	DRV

V 2.0 4/12/05



Appendix B. (continued)

FDEP Biology Section - Bioassay Survival Sheet

LIMS Sample #: 965582 Test #: 1 Test Started: Date 11-19-06 Time: 1310

Organism: C.dubia SOP #: TA 07_01 Test Ended: Date 11-18-06 Time: 1210

Organism Batch: 47-06 Diluent/ Batch: DMW / 30-06

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

Chamber Size: 30 mL Batch: 2-06 5-06 —

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

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Ctrl	A	A	5	5	5	5	5	5
	B	B	5	5	5	5	5	5
	C	C	5	5	5	5	5	5
	D	D	5	5	5	5	5	5
100%	A	A	5	5	5	5	5	5
	B	B	5	5	5	5	5	5
	C	C	5	5	5	5	5	5
	D	D	5	5	4 1D	4	4	3 1D
Organisms loaded by: MF		Checked by:		MF	BA	MF	MF	MF

Loading Verified by: TD

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

Comments:

Test Results:

% mortality in 100% sample: 10%

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

Screening Tests:

Report LC50 as >100%, =100%, or <100%.

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

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Appendix B. (continued)

FDEP Biology Section - Bioassay Survival Sheet

LIMS Sample #: 965582 Test #: 2 Test Started: Date 11-14-06 Time: 13:40
Organism: P. pramicus SOP #: TA 07_02 Test Ended: Date 11-18-06 Time: 1220
Organism Batch: 20-06 Diluent/ Batch: Mod. H.W. 1 16-06
Organism Age: 10 days Food: YCT P. subcapitata Artemia lot GSL 536-10
Chamber Size: 1000 mL Batch: — — 10-06, 12-06
Test Volume: 500 mL Feeding: Prior to test / Prior to renewal - Daily

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Ctrl	A	D17	5	5	5	5	5	5
	B	D18	5	5	5	5	5	5
	C	D19	5	5	5	5	5	5
	D	D20	5	5	5	5	5	5
100%	A	D21	5	5	5	5	5	5
	B	D22	5	5	5	5	5	5
	C	D23	5	5	5	5	5	5
	D	D24	5	5	5	5	5	5
Organisms loaded by: JD	Checked by:		JD	JD	JD	JD	JD	MF
Loading Verified by: BA								

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

Comments:

Test Results:
% mortality in 100% sample: 0
LC_{50}: >100 If Calculated: 95% CI _____ Method: _____

Screening Tests:
Report LC50 as >100%, =100%, or <100%.
Substitue highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

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FDEP Biology Section - Bioassay Parameter Sheet

LIMS Sample # : 465582 **Test #:** 3 of 4

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	C	D	A
pH (S.U.)	8.1	7.9	7.9	7.9	7.7	7.9
Temperature °C	24.0	24.2	24.7	24.6	24.3	24.8
Dissolved Oxygen mg/L	7.8	7.6	8.0	7.6	6.9	7.5
Conductivity µmhos mmhos	328	336	344	330	346	342
(initials) Measured by:	BA	BA	JD	JD	JD	MF
(initials) Recorded by:	BA	BA	JD	JD	JD	MF

Comments:

Concentration 100 %	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	7.7	8.0	8.1	7.6	7.8	8.1
Temperature °C	24.0	24.1	24.8	24.0	24.2	24.9
Dissolved Oxygen mg/L	7.9	7.4	7.5	7.8	6.6	7.4
Conductivity µmhos mmhos	593	620	632	599	617	632
(initials) Measured by:	BA	BA	JD	JD	JD	MF
(initials) Recorded by:	BA	BA	JD	JD	JD	MF

Comments:

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

Comments:

V 2.0 2/24/04

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

Comments:

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FDEP Biology Section - Bioassay Parameter Sheet

LIMS Sample # : 96558R **Test #:** 3 of 4

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

Concentration: Control	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M		A	A		A
pH (S.U.)	8.0		7.8	8.1		8.0
Temperature °C	24.0		24.1	24.0		24.0
Dissolved Oxygen mg/L	7.5		7.1	7.9		8.0
Conductivity (µmhos) mmhos	178.2		201	189.0		196
(initials) Measured by:	BA		MF	JD		MF
(initials) Recorded by:	BA		MF	JD		MF

Comments:

Concentration: 100 %	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M		A	A		A
pH (S.U.)	7.8		8.1	7.6		8.3
Temperature °C	24.0		24.2	24.1		24.1
Dissolved Oxygen mg/L	7.7		7.0	7.9		8.0
Conductivity (µmhos) mmhos	600		644	599		660
(initials) Measured by:	BA		MF	JD		MF
(initials) Recorded by:	BA		MF	JD		MF

Comments:

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

Comments:

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

Comments:

V 2.0 2/24/04

FDEP Biology Section - Acute Screen 4/24 Bioassay Bench Sheets

Facility: Madenny WWTF

Address: 798 Honey Mill Rd

City: Macclenny County: Baker

Contact/District: Joseph Emery NE-D

NPDES Permit #: FL0040495

LIMS Job #: TLH-20061114-23-04 LIMS Sample #: 96558-3

Lims Data Entry: 11-22-06 MF Data Entry Verification: 11-22-06 BA

Sample Collection: Date: 11-13-06 Time: 11:00

Hold Time Start: Date: 11-13-06 Time: 11:00

Sample: 4 of 4

Comments:
An aliquot of sample # 4 was dechlorinated by the addition of 1 mL of 0.025N Sodium thiosulfate per liter of sample. Dechlorinated aliquot chlorine was 0.03 mg/L. Initials 11-14-06
Field TRC value of 0.1 mg/L for this sample was taken from a facility measurement taken at the Effluent after the dipping samples were collected. The Lab TRC value was 0.57 mg/L. MF 11-20-06

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

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

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

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 mL of 0.025N Sodium Thiosulfate per liter of sample. Final TRC 0.03

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

REVIEWER

Water Quality Parameters	Original Sample	Method	Measured by Facility	Verified by
Field Total Residual Cl2 (mg/L):	0.1	—	Employee	MF
Lab Total Residual Cl2 (mg/L):	0.57	HACH	BA	PPV
Alkalinity (mg/L as $CaCO_3$):	130	HACH	PPV	BA
Hardness (mg/L as $CaCO_3$):	184	HACH	PPV	BA
Total Ammonia (mg/L as N):	0.017	DENVER	MF	BA
Salinity (ppt):	1	YSI (Mettler)	BA	MF

V 2.0 4/12/05

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Appendix B. (continued)

FDEP Biology Section - Bioassay Survival Sheet

LIMS Sample #: 965583 Test #: 1 Test Started: Date 11-14-06 Time: 1325
Organism: cdbia SOP #: TA 07_01 Test Ended: Date 11-18-06 Time: 1140
Organism Batch: 47-06 Diluent/ Batch: DMW / 30-06
Organism Age: 24hrs Food: (C) P. subcapitata Artemia
Chamber Size: 30 mL Batch: 2-06 5-06 -
Test Volume: 20 mL Feeding: Prior to test - Prior to renewal - Daily

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Ctrl	A	A	5	5	5	5	5	5
	B	B	5	5	5	5	5	5
	C	C	5	5	5	5	5	5
	D	D	5	5	5	5	5	3 2D
100%	A	A	5	0 5D	-	-	-	-
	B	B	5	0 5D	-	-	-	-
	C	C	5	0 5D	-	-	-	-
	D	D	5	0 5D	-	-	-	-
dechlor ctrl	A	A	5	5	5	5	5	5
	B	B	5	5	5	5	5	4 1D
	C	C	5	5	5	5	5	4 1D
	D	D	5	5	5	5	5	5
dechlor 100%	A	A	5	5	5	5	5	5
	B	B	5	5	5	5	5	4 1D
	C	C	5	5	5	5	5	5
	D	D	5	5	5	5	5	5

Organisms loaded by: MF Checked by: MF BR MF MF MF
Loading Verified by: JD
m = missing d = dead BR = before renewal AR = after renewal

Comments: All dead by 0900 in 100% sample MF 11-15-06
% mortality in dechlorinated sample: 5%
LC_{50}: > 100

Test Results:
% mortality in 100% sample: 100%
LC_{50}: < 100 If Calculated: 95% CI_____ Method:_____

Screening Tests:
Report LC50 as >100%, =100%, or <100%.
Substitue highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

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Appendix B. (continued)

FDEP Biology Section - Bioassay Survival Sheet

LIMS Sample #: 965583 Test #: 2 Test Started: Date 11-14-06 Time: 13:45
Organism: P. Promelas SOP #: TA 07_02 Test Ended: Date 11-18-06 Time: 1229
Organism Batch: 28-06 Diluent/ Batch: Moorhead 1 11-06
Organism Age: 10days Food: YCT P. subcapitata Artemia Lot # 6526536-10
Chamber Size: 1000 mL Batch: — — 10-06, 12-06
Test Volume: 500 mL Feeding: Prior to test - Prior to renewal - Daily

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
ctrl	A	E1	5	5	5 SD	5	5	5
	B	E2	5	5	5	5	5	5
	C	E3	5	5	5	5	5	5
	D	E4	5	5	5	5	5	5
100%	A	E5	5	0 SD	—	—	—	—
	B	E6	5	0 SD	—	—	—	—
	C	E7	5	0 SD	—	—	—	—
	D	E8	5	0 SD	—	—	—	—
dechlor ctrl	A	E9	5	5	5	5	5	5
	B	E10	5	5	5	5	5	5
	C	E11	5	5	5	5	5	5
	D	E12	5	5	5	5	5	5
dechlor 100%	A	E13	5	5	5	5	5	5
	B	E14	5	5	5	5	5	4 D
	C	E15	5	5	5	5	5	5
	D	E16	5	5	5	5	5	5
Organisms loaded by: DD	Checked by:		MP/SD	DD	DD	DD	MF	
Loading Verified by: [illegible]								

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

Comments: All dead in 100% sample by 0900. MF 11-15-06
Percent mortality in dechlorinated sample: 5%
LC_{50}: > 100

Test Results:
% mortality in 100% sample: 100%
LC_{50}: < 100 If Calculated: 95% CI _____ Method: _____

Screening Tests:
Report LC50 as >100%, =100%, or <100%.
Substitue highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration).

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FDEP Biology Section - Bioassay Parameter Sheet

LIMS Sample # : 965583 **Test #:** 4 of 4

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	~~A~~ B	C	C	D	A
pH (S.U.)	8.0	7.1	7.9	7.8	7.7	7.9
Temperature °C	24.0	25.2	24.7	24.0	25.0	24.9
Dissolved Oxygen mg/L	7.8	7.7	7.4	7.4	6.3	7.5
Conductivity ~~µmhos~~ mmhos	328	342	346	328	337	343
(initials) Measured by:	BA	BA	JD	JD	JD	MF
(initials) Recorded by:	BA	BA	JD	JD	JD	MF

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	~~B~~ B	C			
pH (S.U.)	7.2	7.6				
Temperature °C	24.0	24.5				
Dissolved Oxygen mg/L	7.8	8.0				
Conductivity ~~µmhos~~ mmhos	600	632				
(initials) Measured by:	BA	BA				
(initials) Recorded by:	BA	BA				

Comments: Test terminated at 24 hrs due to 100% mortality MF 11-22-06

Concentration dechlor ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	7.9	7.5	7.8	7.9	7.5	7.8
Temperature °C	24.0	24.8	24.0	24.0	24.3	24.9
Dissolved Oxygen mg/L	7.9	8.2	7.2	7.9	6.5	7.5
Conductivity ~~µmhos~~ mmhos	333	355	359	332	314	348
(initials) Measured by:	BA	BA	JD	JD	JD	MF
(initials) Recorded by:	BA	BA	JD	JD	JD	MF

Comments:

Concentration dechlor 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C	C	D	A
pH (S.U.)	7.5	~~7.8~~ 8.0 A	7.9	7.5	7.6	8.0
Temperature °C	24.0	~~24.3~~ 24.1 A	24.1	24.0	24.6	24.8
Dissolved Oxygen mg/L	7.9	~~7.4~~ 7.2 A	7.6	7.8	6.6	7.3
Conductivity ~~µmhos~~ mmhos	613	~~632~~ 630 A	639	595	625	636
(initials) Measured by:	BA	MF	JD	JD	JD	MF
(initials) Recorded by:	BA	MF	JD	JD	JD	MF

Comments: A. Translocation error - MF 11-13-06 need 3 mg/L to form bromine Test.

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V 2.0 2/24/04

FDEP Biology Section - Bioassay Parameter Sheet

LIMS Sample # : 965583 Test #: 4 of 11

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		A	A		A
pH (S.U.)	8.1		7.8	80		8.1
Temperature °C	29.0		24.2	24.2		24.1
Dissolved Oxygen mg/L	7.7		7.1	79		7.9
Conductivity ~~µmhos~~ mmhos	177.1		208	187.3		200
(initials) Measured by:	BA		MF	JD		MF
(initials) Recorded by:	BA		MF	JD		MF

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M	A				
pH (S.U.)	7.5	8.1				
Temperature °C	24.0	24.1				
Dissolved Oxygen mg/L	7.7	8.0				
Conductivity ~~µmhos~~ mmhos	592	603				
(initials) Measured by:	BA	MF				
(initials) Recorded by:	BA	MF				

Comments: Test terminated at 24 hours due to 100% mortality in 100% sample MF 11-22-04

Concentration Sediment ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M		A	A		A
pH (S.U.)	7.9		7.7	81		8.0
Temperature °C	29.0		24.1	24.1		24.2
Dissolved Oxygen mg/L	7.7		6.8	80		7.9
Conductivity ~~µmhos~~ mmhos	195.8		223	189		217
(initials) Measured by:	BA		MF	JD		MF
(initials) Recorded by:	BA		MF	JD		MF

Comments:

Concentration Sediment 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M	A	A	A		A
pH (S.U.)	7.5		8.0	7.5		8.2
Temperature °C	24.0		24.1	24.1		24.2
Dissolved Oxygen mg/L	7.7		7.0	8.1	7.9	7.1
Conductivity ~~µmhos~~ mmhos	616		675	586		692
(initials) Measured by:	BA		MF	JD		MF
(initials) Recorded by:	BA		MF	JD		MF

Comments:

V 2.0 2/24/04

Appendix C. SRT Bench Sheets and Statistical Analysis

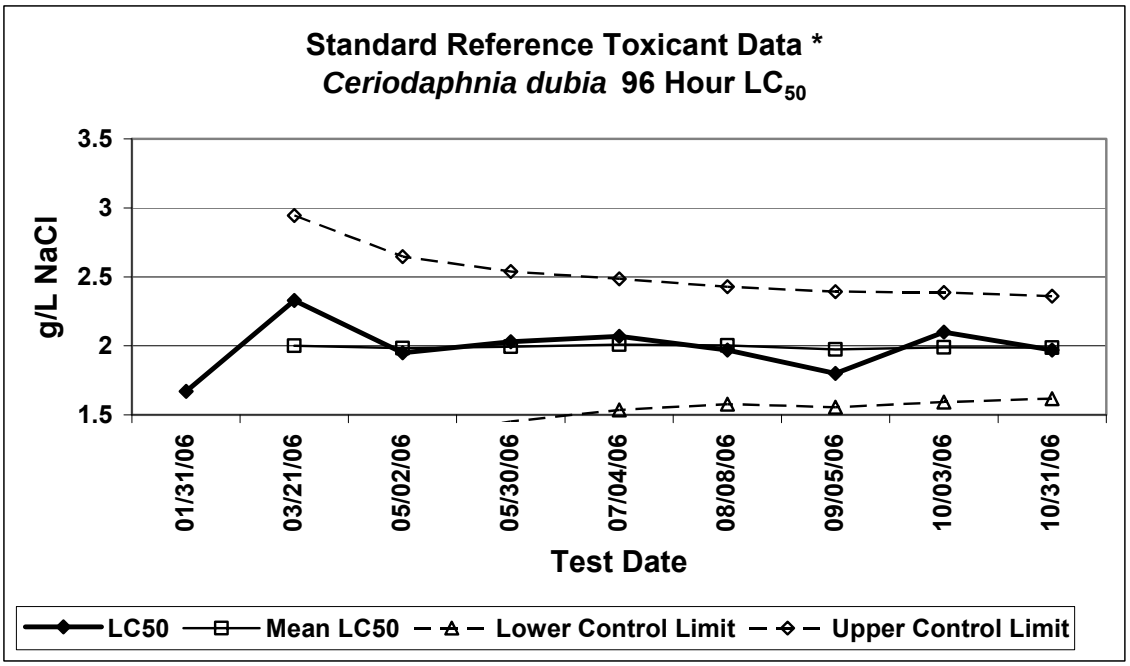
Florida Department of Environmental Protection
Bureau of Laboratories

Standard Reference Toxicant (SRT) Test Data - 96-hour Acute Toxicity
Ceriodaphnia dubia (water flea) - Sodium Chloride (NaCl)

Date	LC50	Mean LC50	Std Dev	Lower Control Limit	Upper Control Limit
01/31/06	1.67				
03/21/06	2.33	2.00	0.47	1.07	2.94
05/02/06	1.95	1.98	0.33	1.32	2.65
05/30/06	2.03	2.00	0.27	1.45	2.54
07/04/06	2.07	2.01	0.24	1.54	2.48
08/08/06	1.97	2.00	0.21	1.58	2.43
09/05/06	1.80	1.97	0.21	1.56	2.39
10/03/06	2.10	1.99	0.20	1.59	2.39
10/31/06	1.97	1.99	0.19	1.62	2.36

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

CV = 9.35
EPA reference 75th quartile CV = 29%



* Fewer than 20 data points due to recent initiation of 96 hour SRT testing.

Appendix C. (continued)

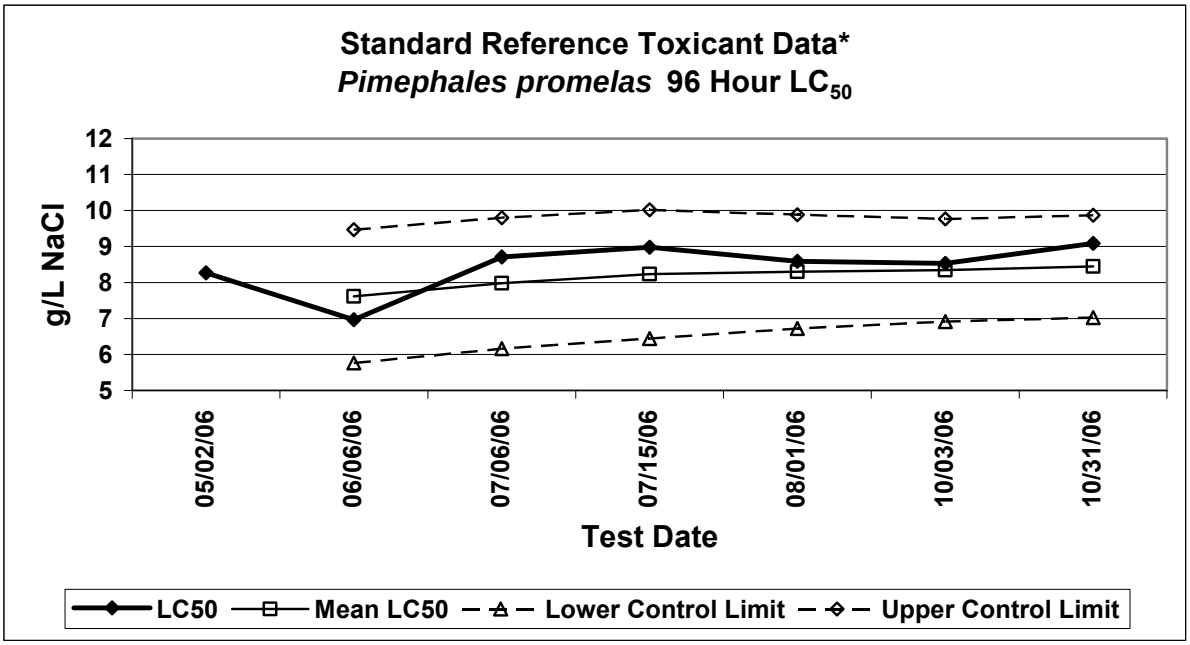
Florida Department of Environmental Protection
Bureau of Laboratories

Standard Reference Toxicant (SRT) Test Data - 96-hour Acute Toxicity
Pimephales promelas (fathead minnow) - Sodium Chloride (NaCl)

Date	LC50	Mean LC50	Std Dev	Lower Control Limit	Upper Control Limit
05/02/06	8.27				
06/06/06	6.96	7.62	0.93	5.76	9.47
07/06/06	8.71	7.98	0.91	6.16	9.80
07/15/06	8.98	8.23	0.90	6.44	10.02
08/01/06	8.59	8.30	0.79	6.72	9.89
10/03/06	8.53	8.34	0.71	6.91	9.77
10/31/06	9.09	8.45	0.71	7.02	9.87

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

CV = 8.42
EPA reference 75th quartile CV = 19%



* Fewer than 20 data points due to recent initiation of 96 hour SRT testing.

Appendix C. (continued)

FDEP Biology Section - 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: Definitive
Static / Static Renewal
Test Page 1 of 2

Diluent/ Batch#: DMW 129-06
Toxicant/ Batch# NaCl 1-4-06

Test Beginning: Date: 10/3/06 Time: 13:00
Test Ending: Date: 11-4-06 Time: 0900

Organism Batch # / Age: 45-06 / < 24 hrs (transcription error) BA 11-9-06
Feeding: ~~Prior to test~~ Prior to renewal / Daily
Food: YCT / *P.subcapitata* / Artemia
Food Batch: 2-06 4-06 —
Chamber size: 30 mL
Test volume: 20 mL per replicate

Water Quality Parameters:	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	BA
Alkalinity (mg/L as $CaCO_3$):	810	Hach	DBV
Hardness (mg/L as CaCO3):	87	Hach	DBV
Total Ammonia (mg/L as N):	<0.07	Denver	MF
Salinity (ppth):	<1	Mettler	BA

Conc. µg/L (Cu)	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 Cond. (mmhos/cm) Cond. (µmhom/cm) 0 hr / ~~48 hr~~	24 hr / ~~72 hr~~	48 hr / ~~96 hr~~
Control	A	A	5	5	5	7.8		7.7	24.0		24.0	8.0		7.8	0.178		0.199
	B	B	5	5	5												
	C	C	5	5	5												
	D	D	5	5	5												
1.5	A	A	5	5	4 1D	7.7		7.7	24.0		24.0	7.8		7.6	2.91		3.19
	B	B	5	5	5												
	C	C	5	5	4 1D												
	D	D	5	5	5												
2.0	A	A	5	5	3 2D	7.8		7.8	24.0		24.0	7.7		7.6	3.85		4.2
	B	B	5	5	3 2D												
	C	C	5	5	4 1D												
	D	D	5	5	5												
2.5	A	A	5	5	2 3D	7.8		7.9	24.0		24.0	7.6		7.6	4.82		5.17
	B	B	5	5	1 4D												
	C	C	5	5	2 3D												
	D	D	5	5	2 3D												
3.0	A	A	5	5	0 5D	7.9		8.0	24.0		24.0	7.5		7.6	5.56		6.19
	B	B	5	5	1 4D												
	C	C	5	3 2D	0 3D												
	D	D	5	4 1D	0 4D												
4.0	A	A	5	0 5D	0	7.9		—	24.0		—	7.5		—	7.21		—
	B	B	5	0 5D	—		7.9			24.2			7.8			7.7	
	C	C	5	0 5D	—												
	D	D	5	0 5D	—												
	A	~~A~~															
	B	~~B~~															
	C	~~C~~															
	D	~~D~~															
Loaded / measured by:			BA	JD	BA	BA	JD	JD	BA	JD	JD	BA	JD	JD	BA	JD	JD
Recorded by:			BA	JD	BA	BA	JD	DBV	BA	JD	DBV	BA	JD	DBV	BA	JD	DBV

Investigators' Signatures
Marshall Faircloth
Jones Dodd
Bruce Nielsen
DBV P.20
Nigel Willoughby
REVIEWER

Concentrations prepared by: BA
Loading verified by: JD
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min. 24 max. 26.0 mean 25.0
Incubator # ___ min. ~~7~~ (JD) max. ~~26~~ mean
Room B246 min. 23.8 max. 24.6 mean 24.0

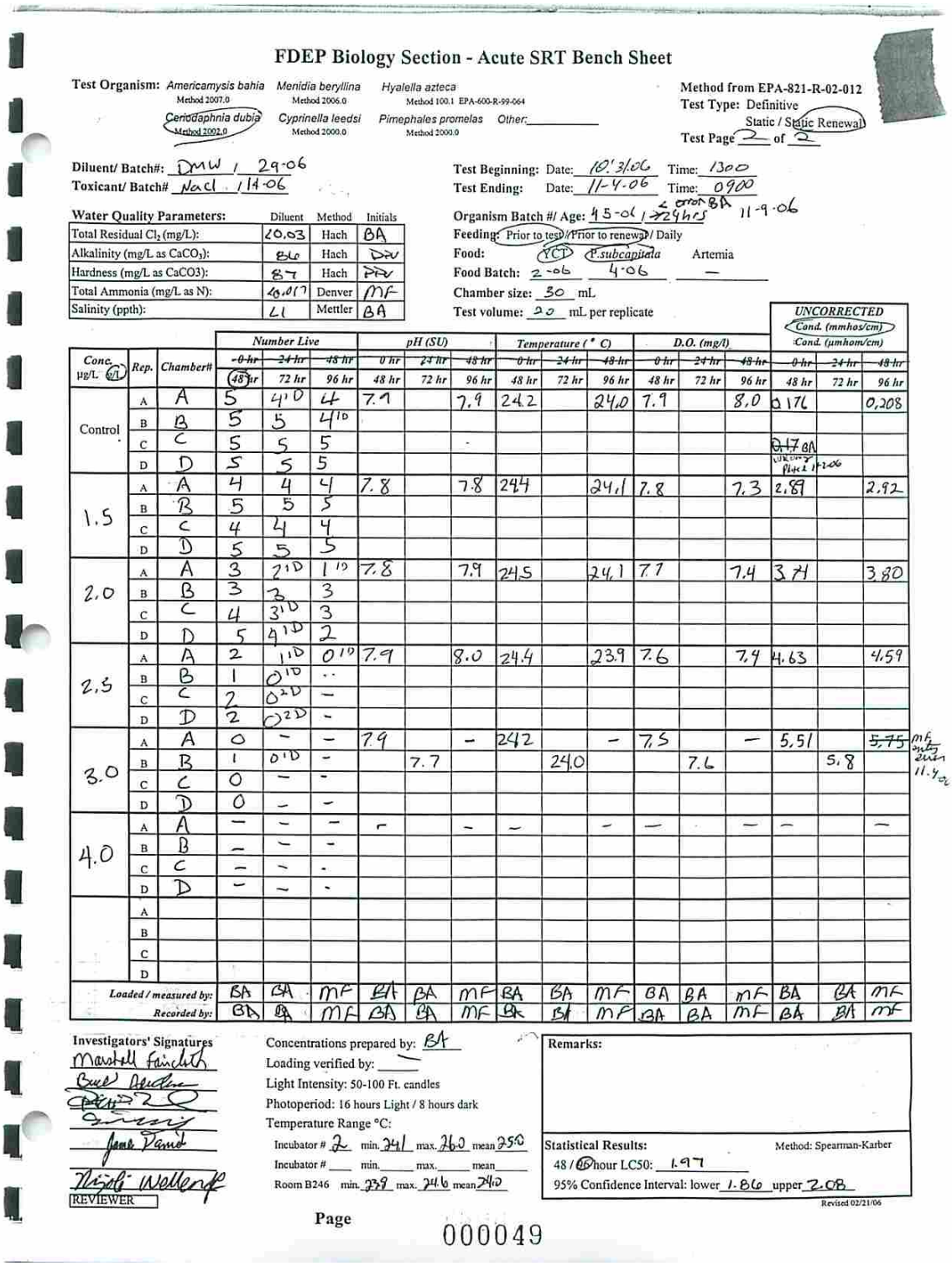
Remarks:

Statistical Results: Method: Spearman-Karber
(48) 96 hour LC50: 2.26
95% Confidence Interval: lower 2.07 upper 2.46

Revised 02/21/06

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Appendix C. (continued)



FDEP Biology Section - 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: Definitive
Static / Static Renewal
Test Page 2 of 2

Diluent/ Batch#: DMW / 29-06
Toxicant/ Batch# NaCl / 14-06

Test Beginning: Date: 10.3.06 Time: 1300
Test Ending: Date: 11-4-06 Time: 0900

Organism Batch #/ Age: 45-06 / <24hrs BA 11-9-06
Feeding: Prior to test / Prior to renewal / Daily
Food: YCT *P.subcapitata* Artemia
Food Batch: 2-06 4-06 —
Chamber size: 30 mL
Test volume: 20 mL per replicate

Water Quality Parameters:	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	BA
Alkalinity (mg/L as $CaCO_3$):	86	Hach	DW
Hardness (mg/L as CaCO3):	87	Hach	DW
Total Ammonia (mg/L as N):	<0.017	Denver	MF
Salinity (ppth):	21	Mettler	BA

Conc. µg/L (a.i.)	Rep.	Chamber#	Number Live 0 hr (48 hr)	Number Live 24 hr / 72 hr	Number Live 48 hr / 96 hr	pH (SU) 0 hr	pH (SU) 24 hr / 72 hr	pH (SU) 48 hr / 96 hr	Temperature (° C) 0 hr	Temperature (° C) 24 hr / 72 hr	Temperature (° C) 48 hr / 96 hr	D.O. (mg/l) 0 hr	D.O. (mg/l) 24 hr / 72 hr	D.O. (mg/l) 48 hr / 96 hr	UNCORRECTED Cond. (mmhos/cm) Cond. (µmhom/cm) 0 hr	24 hr / 72 hr	48 hr / 96 hr
Control	A	A	5	4 1D	4	7.7		7.9	24.2		24.0	7.9		8.0	0.176		0.208
	B	B	5	5	4 1D												
	C	C	5	5	5			-							0.178		
	D	D	5	5	5												
1.5	A	A	4	4	4	7.8		7.8	24.4		24.1	7.8		7.3	2.89		2.92
	B	B	5	5	5												
	C	C	4	4	4												
	D	D	5	5	5												
2.0	A	A	3	2 1D	1 1D	7.8		7.9	24.5		24.1	7.7		7.4	3.71		3.80
	B	B	3	3	3												
	C	C	4	3 1D	3												
	D	D	5	4 1D	2												
2.5	A	A	2	1 1D	0 1D	7.9		8.0	24.4		23.9	7.6		7.4	4.63		4.59
	B	B	1	0 1D	..												
	C	C	2	0 2D	—												
	D	D	2	0 2D	-												
3.0	A	A	0	-	-	7.9		-	24.2		-	7.5		-	5.51		5.75
	B	B	1	0 1D	-		7.7			24.0			7.6			5.8	
	C	C	0	-	-												
	D	D	0	-	-												
4.0	A	A	-	-	-	-		-	-		-	-		-	-		-
	B	B	-	-	-												
	C	C	-	-	-												
	D	D	-	-	-												
	A																
	B																
	C																
	D																
Loaded / measured by:			BA	BA	MF	BA	BA	MF	BA	BA	MF	BA	BA	MF	BA	BA	MF
Recorded by:			BA	BA	MF	BA	BA	MF	BA	BA	MF	BA	BA	MF	BA	BA	MF

MF entry error 11-9-06

Investigators' Signatures
Marshall Faircloth
Bud Ackerman
Dawn Wilson
Jamie Dowd
Nicole Wellenkamp
REVIEWER

Concentrations prepared by: BA
Loading verified by: ____
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min. 24.1 max. 26.0 mean 25.0
Incubator # ____ min. ____ max. ____ mean ____
Room B246 min. 23.9 max. 24.6 mean 24.0

Remarks:

Statistical Results: Method: Spearman-Karber
48 / 96 hour LC50: 1.97
95% Confidence Interval: lower 1.86 upper 2.08

Revised 02/21/06

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Appendix C. (continued)

FDEP Biology Section - 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: Definitive
Static (Static Renewal)
Test Page 1 of 3

Diluent/ Batch#: MHW / 15-06
Toxicant/ Batch# NaCl / 15-06

Test Beginning: Date: 10/31/06 Time: 12:40
Test Ending: Date: 11-4-06 Time: 0835

Water Quality Parameters:	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	BA
Alkalinity (mg/L as $CaCO_3$):	77	Hach	DEV
Hardness (mg/L as CaCO3):	109	Hach	DEV
Total Ammonia (mg/L as N):	<0.01	Denver	MF
Salinity (ppth):	20	Mettler	BA

21 BA

Organism Batch #/ Age: 19-06 / 9 days
Feeding: (Prior to test) (Prior to renewal) Daily
Food: YCT P.subcapitata (Artemia)
Food Batch: — — 6-06, 8-06 GSL-536-90
Chamber size: 1000 mL
Test volume: 500 mL per replicate

Conc. µg/L (Cu)	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 Cond. (mmhos/cm) 0 hr (~~48 hr~~)	24 hr (~~72 hr~~)	48 hr (~~96 hr~~)
Control	A	D13	10	10	10	7.6		7.5	24.0		24.1	7.9		7.1	0.52		0.351
	B	D14	10	9 10	9		7.6			24.2			7.0			0.382	
	C																
	D																
7.0	A	D15	10	10	10	7.6		7.5	~~24.8~~		24.3	7.6		6.9	12.27		11.5
	B	D16	10	10	10		7.6		24.8	24.3			6.7			12.17	
	C																
	D																
8.0	A	D17	10	10	10	7.7		7.6	24.0		24.4	7.6		6.8	13.9		13.5
	B	D18	10	10	10		7.6			24.2			6.6			13.2	
	C																
	D																
9.0	A	D19	10	8 2D	7D	7.7		7.6	24.0		24.4	7.5		6.8	15.3		15.1
	B	D20	10	9 1D	9		7.6			24.4			6.6			15.9	
	C																
	D																
100	A	D21	10	1 9D	0 1D	7.8		7.7	24.0		24.5	7.5		6.7	17.1	~~17.3~~ (A)	17.0
	B	D22	10	3 7D	0 3D		7.6			24.4			6.5			17.3	
	C																
	D																
120	A	D23	10	0 10D	—	7.8		—	24.0		—	7.5		—	20.0		—
	B	D24	10	0 10D			7.6			24.5			6.3			20.1	
	C																
	D																
	A																
	B																
	C																
	D																
Loaded / measured by:			TD	JD	JD	BA	JD	JD	BA	JD	JD	BA	JD	JD	BA	JD	JD
Recorded by:			BA	JD	JD	BA	JD	DEV	BA	JD	DEV	BA	JD	DEV	BA	JD	DEV

Investigators' Signatures
James Dimmel
Robert Zidl
Marshall Faircloth
Bruce Alderman
Najila Wellborn
REVIEWER

Concentrations prepared by: JD
Loading verified by: DEV
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 8 min. 24.1 max. 26.0 mean 25.0
Incubator # ___ min. ___ max. ___ mean ___
Room B246 min. 23.8 max. 24.6 mean 24.0

Remarks:
(A) Using 5th JD. 11/06

Statistical Results: Method: Spearman-Karber
(48)/ 96 hour LC50: 9.29
95% Confidence Interval: lower 9.11 upper 9.47

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Appendix C. (continued)

FDEP Biology Section - 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: Definitive
Static / Static Renewal
Test Page 2 of 2

Diluent/ Batch#: MHW / 15-06
Toxicant/ Batch# NaCl / 15-06

Test Beginning: Date: 10/3/06 Time: 12.40
Test Ending: Date: 11.4.06 Time: 0835

Water Quality Parameters:	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	BA
Alkalinity (mg/L as $CaCO_3$):	77	Hach	DV
Hardness (mg/L as CaCO3):	109	Hach	DV
Total Ammonia (mg/L as N):	<0.017	Denver	MF
Salinity (ppth):	Cl	Mettler	BA

Organism Batch #/ Age: 19-06 / 9 days
Feeding: Prior to test / Prior to renewal / Daily
Food: YCT P.*subcapitata* Artemia
Food Batch: — — 6-06, 8-06 GSL-536-90
Chamber size: 1000 mL
Test volume: 500 mL per replicate

Conc. µg/L (ai)	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 Cond. (mmhos/cm) / Cond. (µmhom/cm) 0 hr / 24 hr / 48 hr / 48 hr / 72 hr / 96 hr
Control	A	D3	10 / 10 / 10 / 7.8 / / 7.9	24.2 / / 24.0	7.7 / / 7.1	0.359 / / 0.364
	B	D4	9 / 9 / 9 / / 7.4 /	/ 24.3 /	/ 5.8 /	/ 0.349 /
	C					
	D					
7.0	A	D15	10 / 9(10) / 9 / 7.8 / 7.4 (7.8) / 7.8	24.1 / / 24.0	7.4 / / 6.8	11.2 / / 11.9
	B	D16	10 / 10 / 10 / / 7.8 /	/ 24.8 /	/ 5.7 /	/ 12.1 /
	C					
	D					
8.0	A	D17	10 / 10 / 10 / 7.8 / / 7.8	24.0 / / 24.3	7.4 / / 5.2	13.6 / / 14.2
	B	D18	10 / 10 / 10 / / 7.4 /	/ 24.3 /	/ 5.6 /	/ 14.2 /
	C					
	D					
9.0	A	D19	7 / 7 / 7 / 7.9 / / 7.8	24.0 / / 24.1	7.3 / / 6.0	15.3 / / 15.9
	B	D20	9 / 5 / 5 / / 7.4 /	/ 24.3 /	/ 5.5 /	/ 16.1 /
	C					
	D					
10.0	A	D21	0 / — / — / — / / —	— / / —	— / / —	— / / —
	B	D22	0 / — / — / / — /	/ — /	/ — /	/ — /
	C					
	D					
12.0	A	D23	— / — / — / — / / —	— / / —	— / / —	— / / —
	B	D24	— / — / — / / — /	/ — /	/ — /	/ — /
	C					
	D					
	A					
	B					
	C					
	D					
Loaded / measured by:			BA / JD / JD	JD / BA / MF	JD / BA / JD	JD / BA / MF	JD / BA / MF
Recorded by:			BA / JD / JD	DV / BA / MF	DV / JD / JD	DV / BA / MF	DV / BA / MF

Investigators' Signatures
Jane Daniels
Mandall Faircloth
Bruce Adams
Mijeli Wellendorf
REVIEWER

Concentrations prepared by: JD
Loading verified by: —
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min. 24.1 max. 26.0 mean 25.0
Incubator # ___ min. ___ max. ___ mean ___
Room B246 min. 23.8 max. 24.6 mean 24.0

Remarks: (1) Transcription error BA 11-3-06

Statistical Results: Method: Spearman-Karber
48 / 96 hour LC50: 9.09
95% Confidence Interval: lower 8.88 upper 9.32

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Appendix C. (continued)

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

DATE: 10-31-06 DURATION: 96 h TOXICANT : NaCl
SPECIES: *C. dubia*

RAW DATA: Concentration (g/L)	Number Exposed	Mortalities
0.00	20	2
1.50	20	2
2.00	20	11
2.50	20	20
3.00	20	20
4.00	20	20

SPEARMAN-KARBER TRIM: 0.00%

SPEARMAN-KARBER ESTIMATES: LC50: 1.97
95% LOWER CONFIDENCE: 1.86
95% UPPER CONFIDENCE: 2.08

NOTE: MORTALITY PROPORTIONS WERE NOT MONOTONICALLY INCREASING.
ADJUSTMENTS WERE MADE PRIOR TO SPEARMAN-KARBER ESTIMATION.

***Pimephales promelas* Acute Standard Reference Toxicant Test**

DATE: 10-31-06 DURATION: 96 h TOXICANT : NaCl
SPECIES: *P. promelas*

RAW DATA: Concentration (g/L)	Number Exposed	Mortalities
0.00	20	0
7.00	20	0
8.00	20	0
9.00	20	19
10.00	20	20
12.00	20	20

SPEARMAN-KARBER TRIM: 0.00%

SPEARMAN-KARBER ESTIMATES: LC50: 8.53
95% LOWER CONFIDENCE: 8.44
95% UPPER CONFIDENCE: 8.63

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: 10/30/06

Shipped to: FDEP

P.O. No: _____

Species	Quantity	Age	Brood Number	Temperature	Salinity
Mysidopsis bahia	150	4 Days	MSO61026	25°C	~30‰
Menidia beryllina	150	11 Days	SSO61019	25°C	~30‰
Cyprinella leedsi	150	11 Days	CLO61019	25°C	
Pimephales promelas	150	8 Days	FM061022-0905	25°C	

Packed by: Frank Gary

Shipped Via: FedEx

Notes: _____

Thank you for your order

Frank Gary

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: 11/13/06

Shipped to: T-DEP

P.O. No: _____

Species	Quantity	Age	Brood Number	Temperature	Salinity
Mysidopsis bahia	100+	4 Days	MSC61109	25°C	~30‰
Menidia beryllina	100+	11 Days	SSC61102	25°C	~30‰
Cyprinella leedsi					
Pimephales promelas	100+	9 Days	FMC 1104-0806	25°C	

Packed by: T-Frank Gang

Shipped Via: T-DEP

Notes: _____

Thank you for your order.

Appendix E. Chemical Analyses performed on the effluent from the Macclenny Wastewater Treatment Facility Outfall D-001, sampled on November 12, 2006 and November 13, 2006.

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
11/13/2006 8:20	MACCLENNY WWTF	Bio-AGP/LimNut	Algal Growth Potential	169	mg DryWt/L	A	0.3	0.9
11/13/2006 8:20	MACCLENNY WWTF	Bio-BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	2.8	mg/L		0.2	2
11/13/2006 8:20	MACCLENNY WWTF	Bio-Chl-a	Chlorophyll-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
11/13/2006 8:20	MACCLENNY WWTF	Bio-Chl-a	Phaeophytin-A, Monochromatic, Water	1.5	ug/L	U	1.5	4.5
11/12/2006 17:45	MACCLENNY WWTF	Bio-Toxicology	Bioassay-Acute-Screen-FW-C.dubia, LC50	100	LC50	L		
11/12/2006 17:45	MACCLENNY WWTF	Bio-Toxicology	Bioassay-Acute-Screen-FW-Fish, LC50	100	LC50	L		
11/12/2006 23:25	MACCLENNY WWTF	Bio-Toxicology	Bioassay-Acute-Screen-FW-C.dubia, LC50	100	LC50	L		
11/12/2006 23:25	MACCLENNY WWTF	Bio-Toxicology	Bioassay-Acute-Screen-FW-Fish, LC50	100	LC50	L		
11/13/2006 8:15	MACCLENNY WWTF	Bio-Toxicology	Bioassay-Acute-Screen-FW-C.dubia, LC50	100	LC50	L		
11/13/2006 8:15	MACCLENNY WWTF	Bio-Toxicology	Bioassay-Acute-Screen-FW-Fish, LC50	100	LC50	L		
11/13/2006 11:00	MACCLENNY WWTF	Bio-Toxicology	Bioassay-Acute-Screen-FW-C.dubia, LC50	100	LC50	K		
11/13/2006 11:00	MACCLENNY WWTF	Bio-Toxicology	Bioassay-Acute-Screen-FW-Fish, LC50	100	LC50	K		
11/13/2006 11:00	MACCLENNY WWTF	Bio-Toxicology	Bioassay-Acute-Scrn-FW-Fish,LC50-dechlr	100	LC50	L		
11/13/2006 11:00	MACCLENNY WWTF	Bio-Toxicology	Bioassy-Acute-Scrn-FW-Cdubia,LC50-dechlr	100	LC50	L		
11/13/2006 7:33	BLANKS	BNA-Water	1,2,4-Trichlorobenzene	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	1,2-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	1,3-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	1,4-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	2,4,6-Trichlorophenol	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	2,4-Dichlorophenol	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
11/13/2006 7:33	BLANKS	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	57
11/13/2006 7:33	BLANKS	BNA-Water	2,4-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	2,6-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	2-Chloronaphthalene	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	2-Chlorophenol	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	11
11/13/2006 7:33	BLANKS	BNA-Water	2-Nitrophenol	0.95	ug/L	UJ	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	UJ	38	150
11/13/2006 7:33	BLANKS	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
11/13/2006 7:33	BLANKS	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7
11/13/2006 7:33	BLANKS	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.7
11/13/2006 7:33	BLANKS	BNA-Water	4-Bromophenyl phenyl ether	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	4-Chloro-3-methylphenol	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.6
11/13/2006 7:33	BLANKS	BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
11/13/2006 7:33	BLANKS	BNA-Water	Acenaphthene	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	Acenaphthylene	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
11/13/2006 7:33	BLANKS	BNA-Water	Anthracene	0.95	ug/L	U	0.95	3.8

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
11/13/2006 7:33	BLANKS	BNA-Water	Benzidine	95	ug/L	U	95	380
11/13/2006 7:33	BLANKS	BNA-Water	Benzo(a)anthracene	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	Benzo(a)pyrene	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	Benzo(b)fluoranthene	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	Benzo(g,h,i)perylene	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	Benzo(k)fluoranthene	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	Bis(2-chloroethoxy)methane	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	Bis(2-chloroethyl)ether	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	11
11/13/2006 7:33	BLANKS	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
11/13/2006 7:33	BLANKS	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
11/13/2006 7:33	BLANKS	BNA-Water	Chrysene	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
11/13/2006 7:33	BLANKS	BNA-Water	Di-n-octyl phthalate	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	Dibenzo(a,h)anthracene	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
11/13/2006 7:33	BLANKS	BNA-Water	Diethyl phthalate	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
11/13/2006 7:33	BLANKS	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
11/13/2006 7:33	BLANKS	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
11/13/2006 7:33	BLANKS	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
11/13/2006 7:33	BLANKS	BNA-Water	Endrin	1.4	ug/L	UJ	1.4	5.7
11/13/2006 7:33	BLANKS	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
11/13/2006 7:33	BLANKS	BNA-Water	Fluoranthene	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	Fluorene	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
11/13/2006 7:33	BLANKS	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
11/13/2006 7:33	BLANKS	BNA-Water	Hexachlorobenzene	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	11
11/13/2006 7:33	BLANKS	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	U	2.9	11
11/13/2006 7:33	BLANKS	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	11
11/13/2006 7:33	BLANKS	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	Isophorone	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.6
11/13/2006 7:33	BLANKS	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.6
11/13/2006 7:33	BLANKS	BNA-Water	N-Nitrosodiphenylamine/ Diphenylamine	2.9	ug/mL	UJ	2.9	11
11/13/2006 7:33	BLANKS	BNA-Water	Naphthalene	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.6
11/13/2006 7:33	BLANKS	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	11
11/13/2006 7:33	BLANKS	BNA-Water	Phenanthrene	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	Phenol	0.95	ug/L	U	0.95	3.8

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
11/13/2006 7:33	BLANKS	BNA-Water	Pyrene	0.95	ug/L	U	0.95	3.8
11/13/2006 7:33	BLANKS	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
11/13/2006 7:33	BLANKS	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
11/13/2006 7:33	BLANKS	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
11/13/2006 7:33	BLANKS	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	1,2,4-Trichlorobenzene	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	1,2-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	1,3-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	1,4-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	2,4,6-Trichlorophenol	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	2,4-Dichlorophenol	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	57
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	2,4-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	2,6-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	2-Chloronaphthalene	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	2-Chlorophenol	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	11
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	2-Nitrophenol	0.95	ug/L	UJ	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	UJ	38	150
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.7
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	4-Bromophenyl phenyl ether	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	4-Chloro-3-methylphenol	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.6
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Acenaphthene	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Acenaphthylene	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Anthracene	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Benzidine	95	ug/L	U	95	380
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Benzo(a)anthracene	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Benzo(a)pyrene	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Benzo(b)fluoranthene	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Benzo(g,h,i)perylene	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Benzo(k)fluoranthene	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Bis(2-chloroethoxy)methane	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Bis(2-chloroethyl)ether	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	11
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Chrysene	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Di-n-octyl phthalate	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Dibenzo(a,h)anthracene	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Diethyl phthalate	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Endrin	1.4	ug/L	UJ	1.4	5.7
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Fluoranthene	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Fluorene	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Hexachlorobenzene	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	11
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	U	2.9	11
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	11
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Isophorone	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.6
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.6
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	N-Nitrosodiphenylamine/ Diphenylamine	2.9	ug/mL	UJ	2.9	11
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Naphthalene	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.6
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	11
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Phenanthrene	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Phenol	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	Pyrene	0.95	ug/L	U	0.95	3.8
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
11/13/2006 8:20	MACCLENNY WWTF	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
11/13/2006 7:33	BLANKS	GC-Water	Alachlor	0.57	ug/L	UJ	0.57	2.3
11/13/2006 7:33	BLANKS	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.19
11/13/2006 7:33	BLANKS	GC-Water	Atrazine	0.048	ug/L	U	0.048	0.19
11/13/2006 7:33	BLANKS	GC-Water	Azinphos Methyl	0.19	ug/L	U	0.19	0.76
11/13/2006 7:33	BLANKS	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
11/13/2006 7:33	BLANKS	GC-Water	Butylate	0.19	ug/L	UJ	0.19	0.76
11/13/2006 7:33	BLANKS	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.19
11/13/2006 7:33	BLANKS	GC-Water	Chlorpyrifos Methyl	0.095	ug/L	U	0.095	0.38
11/13/2006 7:33	BLANKS	GC-Water	Diazinon	0.048	ug/L	UJ	0.048	0.19
11/13/2006 7:33	BLANKS	GC-Water	Ethion	0.048	ug/L	U	0.048	0.19
11/13/2006 7:33	BLANKS	GC-Water	Ethoprop	0.095	ug/L	U	0.095	0.38
11/13/2006 7:33	BLANKS	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
11/13/2006 7:33	BLANKS	GC-Water	Fonofos	0.095	ug/L	U	0.095	0.38
11/13/2006 7:33	BLANKS	GC-Water	Hexazinone	0.095	ug/L	U	0.095	0.38
11/13/2006 7:33	BLANKS	GC-Water	Malathion	0.14	ug/L	U	0.14	0.56
11/13/2006 7:33	BLANKS	GC-Water	Metalaxyl	0.24	ug/L	UJ	0.24	0.96
11/13/2006 7:33	BLANKS	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.9
11/13/2006 7:33	BLANKS	GC-Water	Metribuzin	0.095	ug/L	U	0.095	0.38
11/13/2006 7:33	BLANKS	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
11/13/2006 7:33	BLANKS	GC-Water	Naled	0.76	ug/L	U	0.76	3
11/13/2006 7:33	BLANKS	GC-Water	Norflurazon	0.14	ug/L	U	0.14	0.56
11/13/2006 7:33	BLANKS	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
11/13/2006 7:33	BLANKS	GC-Water	Parathion Methyl	0.095	ug/L	U	0.095	0.38
11/13/2006 7:33	BLANKS	GC-Water	Phorate	0.048	ug/L	U	0.048	0.19
11/13/2006 7:33	BLANKS	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
11/13/2006 7:33	BLANKS	GC-Water	Simazine	0.048	ug/L	U	0.048	0.19
11/13/2006 8:20	MACCLENNY WWTF	GC-Water	Alachlor	0.6	ug/L	UJ	0.6	2.4
11/13/2006 8:20	MACCLENNY WWTF	GC-Water	Ametryn	0.05	ug/L	U	0.05	0.2
11/13/2006 8:20	MACCLENNY WWTF	GC-Water	Atrazine	0.05	ug/L	U	0.05	0.2
11/13/2006 8:20	MACCLENNY WWTF	GC-Water	Azinphos Methyl	0.2	ug/L	U	0.2	0.8
11/13/2006 8:20	MACCLENNY WWTF	GC-Water	Bromacil	0.2	ug/L	U	0.2	0.8
11/13/2006 8:20	MACCLENNY WWTF	GC-Water	Butylate	0.2	ug/L	UJ	0.2	0.8
11/13/2006 8:20	MACCLENNY WWTF	GC-Water	Chlorpyrifos Ethyl	0.05	ug/L	U	0.05	0.2
11/13/2006 8:20	MACCLENNY WWTF	GC-Water	Chlorpyrifos Methyl	0.1	ug/L	U	0.1	0.4
11/13/2006 8:20	MACCLENNY WWTF	GC-Water	Diazinon	0.05	ug/L	UJ	0.05	0.2
11/13/2006 8:20	MACCLENNY WWTF	GC-Water	Ethion	0.05	ug/L	U	0.05	0.2
11/13/2006 8:20	MACCLENNY WWTF	GC-Water	Ethoprop	0.1	ug/L	U	0.1	0.4
11/13/2006 8:20	MACCLENNY WWTF	GC-Water	Fenamiphos	0.2	ug/L	U	0.2	0.8
11/13/2006 8:20	MACCLENNY WWTF	GC-Water	Fonofos	0.1	ug/L	U	0.1	0.4
11/13/2006 8:20	MACCLENNY WWTF	GC-Water	Hexazinone	0.1	ug/L	U	0.1	0.4
11/13/2006 8:20	MACCLENNY WWTF	GC-Water	Malathion	0.15	ug/L	U	0.15	0.6
11/13/2006 8:20	MACCLENNY WWTF	GC-Water	Metalaxyl	0.25	ug/L	UJ	0.25	1
11/13/2006 8:20	MACCLENNY WWTF	GC-Water	Metolachlor	0.5	ug/L	U	0.5	2
11/13/2006 8:20	MACCLENNY WWTF	GC-Water	Metribuzin	0.1	ug/L	U	0.1	0.4
11/13/2006 8:20	MACCLENNY WWTF	GC-Water	Mevinphos	0.2	ug/L	U	0.2	0.8
11/13/2006 8:20	MACCLENNY WWTF	GC-Water	Naled	0.8	ug/L	U	0.8	3.2

Appendix E. (continued)

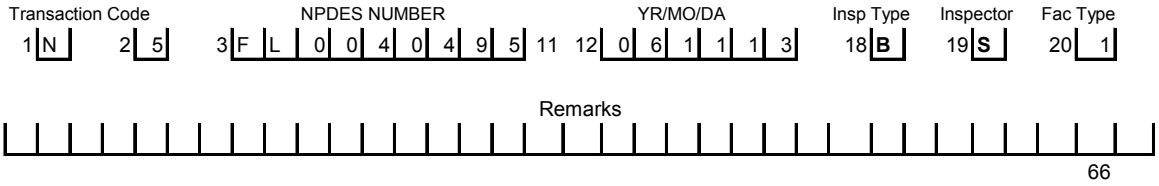
Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
11/13/2006 8:20	MACCLENNY WWTF	GC-Water	Norflurazon	0.15	ug/L	U	0.15	0.6
11/13/2006 8:20	MACCLENNY WWTF	GC-Water	Parathion Ethyl	0.15	ug/L	U	0.15	0.6
11/13/2006 8:20	MACCLENNY WWTF	GC-Water	Parathion Methyl	0.1	ug/L	U	0.1	0.4
11/13/2006 8:20	MACCLENNY WWTF	GC-Water	Phorate	0.05	ug/L	U	0.05	0.2
11/13/2006 8:20	MACCLENNY WWTF	GC-Water	Prometryn	0.15	ug/L	U	0.15	0.6
11/13/2006 8:20	MACCLENNY WWTF	GC-Water	Simazine	0.05	ug/L	U	0.05	0.2
11/13/2006 7:33	BLANKS	Metals-Water	Aluminum	4	ug/L	U	4	16
11/13/2006 7:33	BLANKS	Metals-Water	Arsenic	0.5	ug/L	U	0.5	2
11/13/2006 7:33	BLANKS	Metals-Water	Cadmium	0.05	ug/L	U	0.05	0.2
11/13/2006 7:33	BLANKS	Metals-Water	Calcium	0.02	mg/L	U	0.02	0.08
11/13/2006 7:33	BLANKS	Metals-Water	Chromium	0.3	ug/L	U	0.3	1.2
11/13/2006 7:33	BLANKS	Metals-Water	Copper	0.2	ug/L	U	0.2	0.8
11/13/2006 7:33	BLANKS	Metals-Water	Iron	5	ug/L	U	5	20
11/13/2006 7:33	BLANKS	Metals-Water	Lead	0.2	ug/L	U	0.2	0.8
11/13/2006 7:33	BLANKS	Metals-Water	Magnesium	0.005	mg/L	U	0.005	0.02
11/13/2006 7:33	BLANKS	Metals-Water	Nickel	1	ug/L	U	1	4
11/13/2006 7:33	BLANKS	Metals-Water	Selenium	0.5	ug/L	U	0.5	2
11/13/2006 7:33	BLANKS	Metals-Water	Silver	0.025	ug/L	U	0.025	0.1
11/13/2006 7:33	BLANKS	Metals-Water	Zinc	3	ug/L	U	3	12
11/13/2006 8:20	MACCLENNY WWTF	Metals-Water	Aluminum	13	ug/L	I	4	16
11/13/2006 8:20	MACCLENNY WWTF	Metals-Water	Arsenic	0.5	ug/L	U	0.5	2
11/13/2006 8:20	MACCLENNY WWTF	Metals-Water	Cadmium	0.05	ug/L	U	0.05	0.2
11/13/2006 8:20	MACCLENNY WWTF	Metals-Water	Calcium	40.6	mg/L		0.02	0.08
11/13/2006 8:20	MACCLENNY WWTF	Metals-Water	Chromium	0.3	ug/L	U	0.3	1.2
11/13/2006 8:20	MACCLENNY WWTF	Metals-Water	Copper	3.53	ug/L		0.2	0.8
11/13/2006 8:20	MACCLENNY WWTF	Metals-Water	Iron	64	ug/L		5	20
11/13/2006 8:20	MACCLENNY WWTF	Metals-Water	Lead	0.43	ug/L	I	0.2	0.8
11/13/2006 8:20	MACCLENNY WWTF	Metals-Water	Magnesium	14.4	mg/L		0.005	0.02
11/13/2006 8:20	MACCLENNY WWTF	Metals-Water	Nickel	1.3	ug/L	I	1	4
11/13/2006 8:20	MACCLENNY WWTF	Metals-Water	Selenium	0.5	ug/L	U	0.5	2
11/13/2006 8:20	MACCLENNY WWTF	Metals-Water	Silver	0.049	ug/L	I	0.025	0.1
11/13/2006 8:20	MACCLENNY WWTF	Metals-Water	Zinc	77	ug/L		3	12
11/13/2006 7:33	BLANKS	Nutrients-Liquid	Alkalinity	0.65	mg CaCO3/L	U	0.65	2.5
11/13/2006 7:33	BLANKS	Nutrients-Liquid	Ammonia-N	0.01	mg N/L	U	0.01	0.02
11/13/2006 7:33	BLANKS	Nutrients-Liquid	Kjeldahl Nitrogen	0.08	mg N/L	U	0.08	0.2
11/13/2006 7:33	BLANKS	Nutrients-Liquid	NO2NO3-N	0.006	mg N/L	I	0.004	0.01
11/13/2006 7:33	BLANKS	Nutrients-Liquid	O-Phosphate-P	0.004	mg P/L	U	0.004	0.01
11/13/2006 7:33	BLANKS	Nutrients-Liquid	Total-P	0.02	mg P/L	U	0.02	0.06
11/13/2006 8:20	MACCLENNY WWTF	Nutrients-Liquid	Alkalinity	109	mg CaCO3/L		0.65	2.5
11/13/2006 8:20	MACCLENNY WWTF	Nutrients-Liquid	Ammonia-N	0.72	mg N/L		0.01	0.02
11/13/2006 8:20	MACCLENNY WWTF	Nutrients-Liquid	Kjeldahl Nitrogen	1.9	mg N/L		0.16	0.4

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
11/13/2006 8:20	MACCLENNY WWTF	Nutrients-Liquid	NO2NO3-N	3.6	mg N/L		0.02	0.05
11/13/2006 8:20	MACCLENNY WWTF	Nutrients-Liquid	O-Phosphate-P	2.4	mg P/L		0.08	0.2
11/13/2006 8:20	MACCLENNY WWTF	Nutrients-Liquid	TSS	4	mg/L	U	4	16
11/13/2006 8:20	MACCLENNY WWTF	Nutrients-Liquid	Total-P	2.6	mg P/L		0.2	0.6

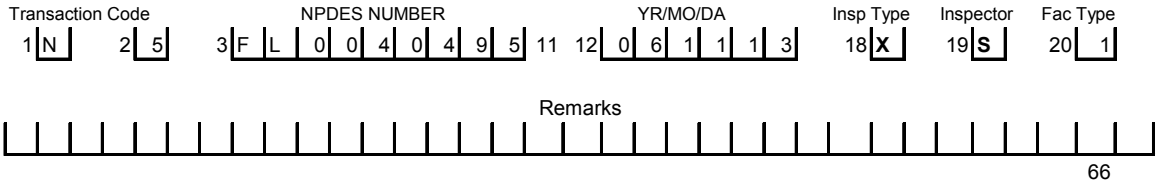
The Bioassay of Macclenny Wastewater Treatment Facility effluent sampled on November 12 and 13, 2006. NPDES #FL0040495.

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



The Priority Pollutants Analysis of Macclenny Wastewater Treatment Facility effluent sampled on November 13, 2006. NPDES #FL0040495.

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



Biological Analyses of Macclenny Wastewater Treatment Facility effluent sampled on November 13, 2006. NPDES #FL0040495.

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

