


**Effluent Quality Assessment**

# Baldwin Wastewater Treatment Facility

Duval County

NPDES #FL0027812

Sampled February 9, 2009

May 2009

**Biology Section**
**Bureau of Laboratories**
**Division of Environmental Assessment and Restoration**

Quality Manual No. 870346G
NELAC Certification No. E31780

Baldwin WWTF, 800 South Main Street, Baldwin, Duval County, Florida 32234, NPDES #FL0027812. Effluent samples for this facility were collected on February 9, 2009.

## Introduction

Baldwin Wastewater Treatment Facility (WWTF) is an extended-aeration activated-sludge wastewater treatment facility which treats domestic wastewater. Effluent discharge is continuous. The facility has a design flow of 0.4 million gallons daily (MGD) annual average daily flow (AADF). The average daily flow from February to December 2008 was 0.269 MGD. Wastewater treatment consists of:

- an influent pump station with two submersible pumps;
- a preliminary treatment unit consisting of:
    - a 1.83 m (6ft) static screen;
    - an aerated grit chamber;
- an equalization basin consisting of:
    - an aerated surge tank;
    - three transfer pumps;
    - blowers; and
    - an air diffuser system;
- a biological treatment unit consisting of:
    - an anoxic basin;
    - an aeration basin; and
    - three positive displacement blowers;
- a center- feed type secondary clarifier;
- a disc filter with four filter discs;
- an ultraviolet disinfection unit; and
- two aerobic digesters.

Effluent is discharged to a drainage ditch, thence to the Class III freshwaters of the Little St. Mary's River at discharge location D-001. Outfall D-001 is approximately 1.52 m (5 ft) in length and discharges at a depth of 1.07 m (3.5 ft). The point of discharge is located approximately at latitude 30° 17' 46" N, longitude 81° 58' 45" W.

Baldwin WWTF must comply with the following Administrative Order (AO 103 NE) schedule:

- Facility must comply with normal permit limitations, except for limits of total nitrogen and total phosphorus which were due January 22, 2009,
- The facility must develop and submit a plan of study, including an implementation schedule to upgrade the facilities' operation, and/or modify the treatment system in order to meet the total phosphorus and total nitrogen limits. The facility must submit an appropriate application for permit revision or modification as needed. The DEP will review and notify the facility in writing concerning the status of the revisions within 30 days of receipt. The plan and permit revisions were due March 1, 2008.
- The facility must implement the plan of action, due upon approval by the DEP.
- The facility must have submitted the first progress report by December 31, 2008.
- The facility must submit the second progress report by June 30, 2009.
- The facility must provide the final written report to update the facility optimization to meet the total phosphorus and total nitrogen TMDL mass load allocation. The DEP will review and notify the facility in writing concerning the status of the revisions within 30 days of receipt. This is due by December 31, 2009.
- The facility must be in compliance with the final limits for total phosphorus and total nitrogen by June 30, 2010.

A Consent Order (CO) (OGC# 08-2301) has been opened for an unauthorized bypass of the treatment process. The CO is asking the facility to pay a fine of 7,500 dollars. The facility had until February 6, 2009, to accept the terms of the CO.

The facility has no mixing zones. A review of the facility's Discharge Monitoring Report data revealed the following violations:

**Permit violations according to DMR data for Baldwin WWTF**

| Date | Parameter | | Results | Limit |
|---|---|---|---|---|
| March 2008 | CBOD (mg/L) | m | 8.18 | 4 |
| March 2008 | CBOD (mg/L) | s | 15 | 6.4 |
| March 2008 | Total Suspended Solids (mg/L) | m | 40.03 | 30 |
| April 2008 | CBOD (mg/L) | m | 13 | 4 |
| April 2008 | CBOD (mg/L) | s | 20 | 6.4 |
| May 2008 | Total Ammonia (mg/L) | m | 4.1 | 0.9 |
| May 2008 | Total Ammonia (mg/L) | w | 1.02 | 1 |
| May 2008 | Total Ammonia (mg/L) | s | 6.4 | 1.4 |
| June 2008 | CBOD (mg/L) | a | 3.5 | 3.2 |
| June 2008 | pH (SU) | s | 9.2 | 7.5 |
| July 2008 | CBOD (mg/L) | a | 3.4 | 3.2 |
| July 2008 | Fecal Coliforms (CFU/100ml) | s | 7200 | 800 |
| Aug- Dec 2008 | CBOD (mg/L) | a | 3.5 | 3.2 |
| August 2008 | Fecal Coliforms (CFU/100ml) | s | 7200 | 800 |
| September 2008 | Fecal Coliforms (CFU/100ml) | s | 1200 | 800 |

a - Annual average
m - Monthly average
s - Single sample
w - Weekly average

The facilities' effluent has been historically poor due to improperly operating equipment and budget restraints. (Facility information provided by Brian Kirts of FDEP Northeast District.)

## Methods

Samples were collected from the EFD-1 NPDES sampling point for Outfall D-001 by Eesa Ali and Stephen Nye (FDEP Northeast District) following DEP-SOP-001/01 FS 2400 Wastewater Sampling. All DEP SOPs are available on the web at: http://www.floridadep.org/labs/qa/sops.htm.

See Appendix A for the completed chain of custody form.

The 48-hour acute screening toxicity tests and algal growth potential test were performed following internal DEP SOPs TA07_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.

Prior to test initiation, the bioassay sample was aerated for 30 minutes at approximately 100 bubbles per minute, to decrease the dissolved oxygen concentration from 12.2 mg/L to 8.6 mg/L.

## Toxicity Test Results

Tests were performed February 10 - 12, 2009.

*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 sample was not acutely toxic to the test organisms.

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

*NOTE: In a 48-hour acute screening test of 100% effluent, mortality of <20% provides confidence that the effluent meets the acute toxicity criterion of Florida's Surface Water Quality Standards (Rule 62-302.500 (1)(a)4, F.A.C.). Mortality between 20-50% indicates low to moderate levels of toxicity, and further action may be required. Mortality of >50% indicates that the effluent fails to meet the minimum requirement to discharge to waters of the state (Rule 62-4.244(3)(a), F.A.C.).

## Algal Growth Potential

The effluent Algal Growth Potential (AGP) was 400 mg dry wt/L of the unicellular green alga, *Pseudokirchneriella subcapitata*, formerly known as *Selenastrum capricornutum*. Raschke and Schultz (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 837.6 (±20%) mg dry wt/L (Table 1; Miller et al. 1978).

See Table 1 for AGP results.

## Chemistry Results

Total residual chlorine and total ammonia were not detected in the bioassay sample in the laboratory. The total ammonia concentration in the sample collected and preserved for chemical analysis was 0.042 mg N/L. Based on the pH, salinity, and temperature of the effluent as collected, the calculated unionized ammonia concentration was ≤ 0.02 mg/L.

Copper, iron, nickel, and zinc were detected in the effluent at levels that comply with Class III fresh water quality criteria (62-302.530, F.A.C.). Aluminum, arsenic, chromium, lead, silver, chlorophyll *a,* and total suspended solids were detected between the laboratory method detection limits (MDL) and practical quantitation limits (PQL).

Total nitrogen (24.7 mg/L calculated value) concentrations in the effluent exceeded the permit conditions (1.40 mg/L 8-hour flow proportioned composite sample; NPDES permit # FL0027812), but not the interim limits (Report actual levels of total nitrogen to DEP with DMR data; AO 103 NE) set by the DEP for the current administrative order.

The Fecal Coliforms (2200 CFU/100 ml) concentration in the effluent exceeded both the Class III Fresh water criteria and the permit conditions (≤ 800 CFU/100ml for any one sample; 62-302.530(6) and NPDES # FL0027812).

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

## Conclusion

The effluent sample collected from Outfall D-001 for this facility on January 9, 2009, was not acutely toxic to either test species during the 48-hour acute screening bioassays. The effluent AGP result greatly exceeded the "problem" threshold for fresh receiving waters, implying nutrient enrichment. Total nitrogen exceeded the original permit conditions, but not the interim limits set

by the DEP. Fecal Coliforms exceeded both the Class III fresh water criterion and the NPDES permit conditions.

## Literature Cited

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

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

**Table 1. Measured and predicted algal growth potential (AGP; mg dry weight/L) for total soluble inorganic nitrogen (TSIN) and total nitrogen (TN) limitation of the freshwater species *Pseudokirchneriella subcapitata* for samples collected from Baldwin Wastewater Treatment Facility on February 9, 2009.**

| Baldwin WWTF<br>NPDES# FL0027812 | | | | | |
|---|---|---|---|---|---|
| Location | AGP (measured) | Predicted AGP (TSIN) ± 20% | Predicted AGP (TN) ± 20% | Inorganic N:P ratio | Total N:P ratio |
| Effluent | 400.0 | 837.6 ± 167.5 | 938.6 ± 187.7 | 8.2 | 6.3 |

**Table 2. Effluent limits, Class III Freshwater Criteria and chemical data for samples collected from the Baldwin Wastewater Treatment Plant on February 9, 2009.**

| Baldwin WWTF NPDES# FL0027812 | Class III Criteria | Effluent Limits | Effluent | |
|---|---|---|---|---|
| **Organic Constituents (µg/L)** | | | | |
| None Detected | - | - | None Detected | |
| **Metals (µg/L unless otherwise noted)** | | | | |
| Aluminum | - | - | 83 | I |
| Arsenic | ≤ 50 | - | 0.38 | I |
| Cadmium | ≤ 0.4 b | - | 0.03 | U |
| Calcium (mg/L) | - | - | 41.7 | |
| Chromium-III | ≤ 129.7 b | - | 0.25 | I |
| Copper | ≤ 14.3 b | - | 3.37 | |
| Iron | ≤ 1,000 | - | 180 | |
| Lead | ≤ 6.0 b | - | 0.55 | I |
| Magnesium (mg/L) | - | - | 14.7 | |
| Nickel | ≤ 79.5 b | - | 2.04 | |
| Selenium | ≤ 5.0 | - | 0.2 | U |
| Silver | ≤ 0.07 | - | 0.023 | I |
| Zinc | ≤ 182.8 b | - | 63 | |
| **Nutrients (mg/L)** | | | | |
| Ortho-phosphate | - | - | 2.7 | |
| Total Phosphorus | - | - | 3.9 | |
| Total Ammonia | - | 1.40 p | 0.042 | |
| Un-ionized Ammonia | ≤ 0.02 s | Report | ≤ 0.02 | c |
| Nitrate and Nitrite | - | - | 22 | |
| Total Kjeldahl Nitrogen | - | - | 2.7 | |
| Organic Nitrogen | - | - | 2.658 | c |
| Total Nitrogen | - | 1.40 p | 24.7 | c |
| **General Physical and Chemical Parameters** | | | | |
| Dissolved Oxygen (mg/L) | ≥ 5.0 | ≥ 7.0 | 10.7 | |
| pH (SU) | 6.0 - 8.5 | 6.0 - 7.5 | 7.2 | |
| Conductivity (µmhos/cm) | ≤ 1,275 | - | 622 | |
| Temperature (°C) | - | Report | 17.7 | |
| Salinity | - | - | < 0.36 | c |
| Total Residual Chlorine (mg/L) | ≤ 0.01 | - | ≤ 0.03 | £ |
| Chlorophyll *a* (µg/L) - Corrected | - | - | 1.2 | I |
| Phaeophytin (µg/L) | - | - | 0.24 | U |
| Total Suspended Solids (mg/L) | - | 60.0 p | 8 | I |
| CBOD, 5 day (mg/L), N - inhibited | - | 6.4 p | 3.8 | |
| Flow (MGD) | - | 0.4 a | 0.269 | a |
| Hardness (mg $CaCO_3$) | - | - | 164.66 | c |
| **Microbiology (Number of colony forming units/100ml)** | | | | |
| Fecal Coliforms | ≤ 400s # | ≤ 800s | 2200 | |

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 - 8- hour flow proportioned composite
s - Single sample
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
U - Material analyzed for but not detected; value reported is the method detection limit
£ - Measured in Central lab and recorded in Tox sheets
# - If 10 or fewer samples are taken within a month, the single sample limit is 400 CFU (62-302.530(6), F.A.C.)

20090209.25

# Florida Department of Environmental Protection

## Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2008-12-15-35-

John R Kelly Generating Station

Requester: Jennifer Paris

Field Report Prepared By: EA

Customer: NE-DIST

Collected By: SN/EA

Send Final Report To Tom Kallemeyn

Project ID: FYI3

Sampling Agency: DEP NE

PMAS: 1143

| Lab ID * | Location | | | Comp / Grab | Collection (begin) Date Time Eastern Central | Collection (end) Date Time Eastern Central | Bottle Group(s)** |
|---|---|---|---|---|---|---|---|
| | Baldwin WWTP EFD-01 | | | ☑ Comp ☐ Grab | Date 2/5/09 Time 1405 Central | Date 2/6/09 Time 1152 Central | A |
| | 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 | Toxicity, UV disinfection | | |
| Lab ID * | Location | | | Comp / Grab | Collection (begin) Date Time Eastern Central | Collection (end) Date Time Eastern Central | Bottle Group(s)** |
| | Baldwin WWTP EFD-1 | | | ☐ Comp ☑ Grab | Date 2/5/09 Time 1300 Central | Date Time Central | A |
| | Field ID | | | Tot Res Chlorine (mg/L) | Diss Oxygen (mg/L) 10.72 | Storet Station Number | |
| | Matrix (Include type e.g. Salt, Fresh, etc | Temp (C) 17.7 | pH 7.15 | Sample Depth 0.4 ☐ m ☐ ft | 6.22 ☐ 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)** |
| | Blank | | | ☐ Comp ☑ Grab | Date 2/5/09 Time 1300 Central | Date Time Central | B |
| | 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) Date Time Eastern Central | Collection (end) Date Time Eastern Central | Bottle Group(s)** |
| | | | | ☐ Comp ☐ Grab | Date Time Central | Date Time Central | |
| | 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 | 2 Dioxin, Rec'd w/Tox by JD, 11:00 2/10/09 | | |

| Relinquished By: | Date/Time | Shipping Method: | Received By: | Date/Time | Relinquished By: | Date/Time | Received By: | Date/Time |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 2-10-09/0950 |

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

# FDEP Biology Laboratory - Acute Screen Bioassay Bench Sheets

Facility: Baldwin WWTF

Address: 800 S. Main St.

City: Baldwin County: Duval

Contact/District: Brian Ickes / NED

NPDES Permit #: FL 0027812

LIMS Job #: MH-2009-02-40-63 LIMS Sample #: 1164813

Lims Data Entry: 2-17-09 MF Data Entry Verification: 2.17.09 JB

Sample Collection: Date: 2.9.09 Time: 1250

Hold Time Start: Date: 2.9.09 Time: 1250

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

(√one)

Test 1 incubated in: ☑ Incubator #: 2 ☐ Waterbath #:

Test 2 incubated in: ☑ Incubator #: 2 ☐ Waterbath #:

**Initial sample handling:**

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

Aeration : (yes) no Initial DO: 12.2 mg/L Final DO: 8.6 mg/L Duration: 30 minutes Rate: ~ 160 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: ____

Light Intensity : 50 - 100 ft. candles

Photoperiod : 16 light 8 dark

Temperature Range °C: (If used)

Incubator # 2 min. 24.7 max. 26.4 mean 25.6

Incubator # ____ min. ____ max. ____ mean ____

Waterbath # ____ min. ____ max. ____ mean ____

Room B246 min. 24.5 max. 25.8 mean 25.2

**Sample Validation:**

Temperature: Shipped ≤6°C (Yes) No — IF 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)

| Water Quality Parameters | Batch # | 1-30-09 20% DMW | 2-10-09 Well Water | Moderately Hard Water | Salt Water ASW NSW Test 1 | Salt Water ASW NSW Test 2 | ~~Baker~~ ~~Other~~ sample in ~~Original Sample~~ | | Measured by | Verified by |
|---|---|---|---|---|---|---|---|---|---|---|
| Field Total Residual $Cl_2$ (mg/L): | | N/A | N/A | N/A | N/A | N/A | Not measured | | — | MF |
| Lab Total Residual $Cl_2$ (mg/L): | | <0.03 | <0.03 | | | | <0.03 | | " | BA |
| Alkalinity (mg/L as $CaCO_3$): | | 83 | 160 | | | | 104 | | BA/ACR | " |
| Hardness (mg/L as $CaCO_3$): | | 85 | 143 | | | | 183 | | BA/ACR | " |
| Total Ammonia (mg/L as N): | | <0.07 | <0.017 | | | | <0.017 | | ML | BA |
| Conductivity: (µmhos) mmhos | | 187 | 286 | | | | 655 | | " | " |
| Salinity (ppth): | | — | — | | | | 0.21 | | " | " |

Investigators' Signatures

James David

Bruce Alexander

Marshall Faircloth

Kim M Spencer

Loretta C. Wolfe

REVIEWER

V 1.6 7/5/06

## Appendix B. (continued)

**FDEP Biology Laboratory - Bioassay Survival Bench Sheet**

LIMS Sample #: 1164813 Test #: 1/2 SOP#:TA 07_01 Test Started: Date 2-10-09 Time: 12:15

Organism/Batch/Age: C. dubia / 5-09 / <24 hrs Test Ended: Date 2.12.09 Time: 11:45

Chamber/Test Volume: 30 / 20 ml Diluent/ Batch: DMW / 1.30.09 Test Duration: (48 hr) 96 hr

Food/Batch: [✓] YCT 6.18.08 [ ] P.sub 7.18.08

[ ] Artemia Lot#_____ Batch #: 0hr_____ 24hr_____ 48hr_____ 72hr_____

Feeding: [✓] Prior to Test [ ] Prior to Renewal [✓] 0 hr [ ] 24 hr [ ] 48 hr [ ] 72 hr

| Concentration | Replicate | Chamber # | Test Hour: 0 hr | 24 hr | 48 hr BR | 48 hr AR | 72 hr | 96 hr |
|---|---|---|---|---|---|---|---|---|
| ctrl | A | A | 5 | 5 | 4 1D | | | |
| | 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 | | | |
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| | | | | | | | | |
| Loaded/Verified by: BA / MF | | Checked by: | JD | 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 ~~<100%~~ JD incorrect sign 2/11/09 by MF

If Calculated: 95% CI_____ Method_____

V 2.3 7/15/2008

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 #: 1164813 Test #: 2/2 SOP#:TA 07 02 Test Started: Date 2-10-09 Time: 12:30

Organism/Batch/Age: Cleeds' / 21009 / 10 days Test Ended: Date 2-12-09 Time: 11:34

Chamber/Test Volume: 1000 / 500 ml Diluent/ Batch: Well / 2-10-09 Test Duration: (48 hr) 96 hr

Food/Batch: ☐ YCT_____ ☐ P.sub_____

☐ Artemia Lot# 38438 Batch #: 0hr 19-09 24hr_____ 48hr_____ 72hr_____

Feeding: ☑ Prior to Test ☐ Prior to Renewal ☑ 0 hr ☐ 24 hr ☐ 48 hr ☐ 72 hr

| 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 | D 14 | 5 | 5 | 5 | | | |
| | C | D 15 | 5 | 5 | 5 | | | |
| | D | D 16 | 5 | 5 | 5 | | | |
| 100% | A | D 17 | 5 | 5 | 5 | | | |
| | B | D 19 | 5 | 5 | 5 | | | |
| | C | D 20 | 5 | 5 | 5 | | | |
| | D | D 21 | 5 | 5 | 5 | | | |
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| | | | | | | | | |
| Loaded/Verified by: TB / mF | | Checked by: | TB | TB | TBA | | | |

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 (TB 2/11/09 incorrect sign by mF)

If Calculated: 95% CI________ Method________

V 2.3 7/15/2008

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

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## FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 1164813 Test #: 1 of 2 mf 5-18-09

TEST SOP #: TA07_01 Test Species: ☒ *Ceriodaphnia dubia* ☐ *Cyprinella leedsi* ☐ *Pimephales promelas*

Test aerated: yes (no) (circle one) Check 1: ☐ *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 | | | |
| pH (S.U.) | 7.4 | | 7.6 | | | |
| Temperature °C | 24.0 | | 24.3 | | | |
| Dissolved Oxygen mg/L aerate if < 4 | 8.6 | | 7.3 | | | |
| Conductivity (µmhos) mmhos | 187 | | 190 | | | |
| Salinity ppth | — | | — | | | |
| (initials) Measured by: | BA | | BA | | | |
| (initials) Recorded by: | MM | | BA | | | |

Comments:

| Concentration 100% | 0 Hr. | 24 Hr. | 48 Hr. before renewal | 48 Hr. after renewal | 72 Hr. | 96 Hr. |
|---|---|---|---|---|---|---|
| Replicate | A | | A | | | |
| pH (S.U.) | 8.1 | | 8.0 | | | |
| Temperature °C | 25.0 | | 24.5 | | | |
| Dissolved Oxygen mg/L aerate if < 4 | 8.4 | | 7.0 | | | |
| Conductivity (µmhos) mmhos | 655 | | 685 | | | |
| Salinity ppth | — | | — | | | |
| (initials) Measured by: | BA | | BA | | | |
| (initials) Recorded by: | MM | | BA | | | |

Comments:

Salinity only needs measuring if saltwater.

| 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 aerate if < 4 | | | | | | |
| Conductivity µmhos mmhos | | | | | | |
| Salinity ppth | | | | | | |
| (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 aerate if < 4 | | | | | | |
| Conductivity µmhos mmhos | | | | | | |
| Salinity ppth | | | | | | |
| (initials) Measured by: | | | | | | |
| (initials) Recorded by: | | | | | | |

Comments:

mf 10-23-08 Pagination correction

Page ~~00 040~~ 000040

## FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

**LIMS Sample # :** 1164813 **Test #:** 2 of 2

**TEST SOP #:** TA07 02 (Mysid 2-4 48 Chronic Estuary)

**Test Species:** ☐ *Ceriodaphnia dubia* ☒ *Cyprinella leedsi* ☐ *Pimephales promelas*

Test aerated: ~~yes~~ no (circle one) Check 1: ☐ *Americamysis bahia* ☐ *Menidia beryllina* ☐ Other:_____

| Concentration Ctl | 0 Hr. | 24 Hr. | 48 Hr. before renewal | 48 Hr. after renewal | 72 Hr. | 96 Hr. |
|---|---|---|---|---|---|---|
| Replicate | A | B | C | | | |
| pH (S.U.) | 7.8 | 8.1 | 8.1 | | | |
| Temperature °C | 24.0 | 24.2 | 24.4 | | | |
| Dissolved Oxygen mg/L aerate if < 4 | 8.7 | 7.3 | 7.4 | | | |
| Conductivity (µmhos) mmhos | 286 | 282 | 295 | | | |
| Salinity ppth | — | — | — | | | |
| (initials) Measured by: | [illegible] | [illegible] | BA | | | |
| (initials) Recorded by: | KMS | [illegible] | BA | | | |

Comments:

| Concentration 100% | 0 Hr. | 24 Hr. | 48 Hr. before renewal | 48 Hr. after renewal | 72 Hr. | 96 Hr. |
|---|---|---|---|---|---|---|
| Replicate | A | B | C | | | |
| pH (S.U.) | 7.5 | 8.0 | 8.1 | | | |
| Temperature °C | 24.7 | 24.7 | 24.4 | | | |
| Dissolved Oxygen mg/L aerate if < 4 | 8.6 | 7.0 | 6.9 | | | |
| Conductivity (µmhos) mmhos | 661 | 643 | 666 | | | |
| Salinity ppth | — | — | — | | | |
| (initials) Measured by: | [illegible] | [illegible] | BA | | | |
| (initials) Recorded by: | KMS | [illegible] | BA | | | |

Comments:

Salinity only needs measuring if saltwater.

| 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 aerate if < 4 | | | | | | |
| Conductivity µmhos mmhos | | | | | | |
| Salinity ppth | | | | | | |
| (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 aerate if < 4 | | | | | | |
| Conductivity µmhos mmhos | | | | | | |
| Salinity ppth | | | | | | |
| (initials) Measured by: | | | | | | |
| (initials) Recorded by: | | | | | | |

Comments:

## Appendix B. (continued)

Bioassay Instrument ID

Test ID: Baldwin WW7F Dates: Feb 10 - Feb 12, 2009

| 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 | SM 2510 B | ✓ |
| | | | Salinity | 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 of electronic and non-mercury filled thermometers.

Insert other device information in blank spaces(if used). Test ID = Facility or SRTs (acute SRT–Chronic SRT)

entered by m fairclough 2/10/09

V 1.1 6/12/08 MF

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## Appendix C. SRT Bench Sheets and Statistical Analysis

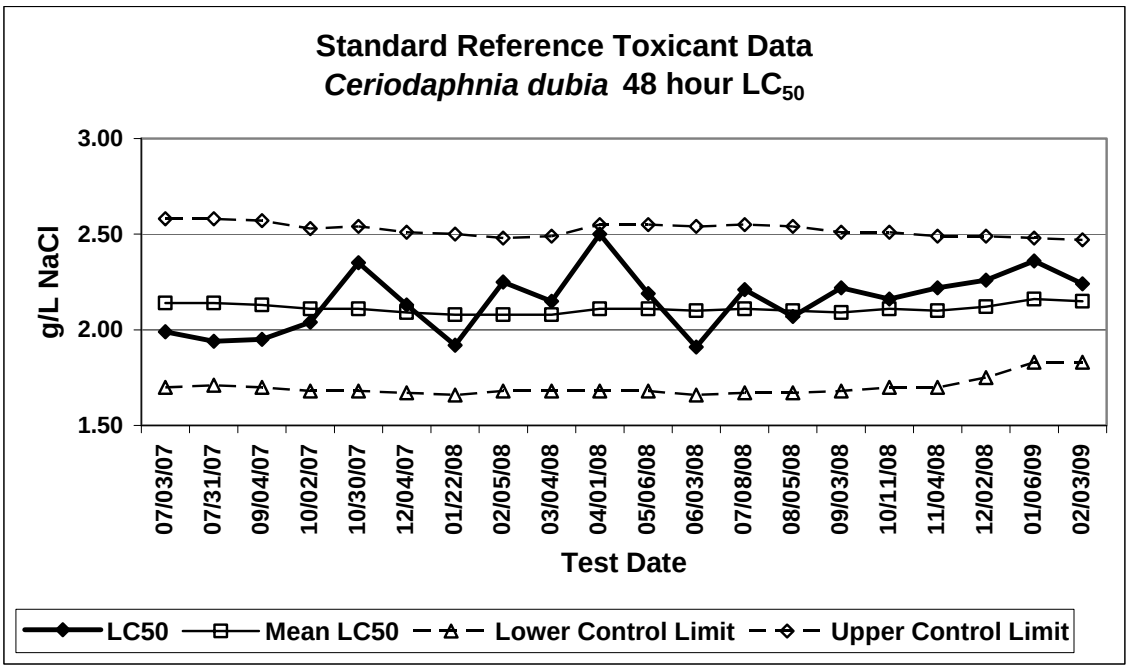
Florida Department of Environmental Protection
Bureau of Laboratories

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 |
|---|---|---|---|---|---|
| 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 |
| 07/08/08 | 2.21 | 2.11 | 0.22 | 1.67 | 2.55 |
| 08/05/08 | 2.07 | 2.10 | 0.22 | 1.67 | 2.54 |
| 09/03/08 | 2.22 | 2.09 | 0.21 | 1.68 | 2.51 |
| 10/11/08 | 2.16 | 2.11 | 0.20 | 1.70 | 2.51 |
| 11/04/08 | 2.22 | 2.10 | 0.20 | 1.70 | 2.49 |
| 12/02/08 | 2.26 | 2.12 | 0.19 | 1.75 | 2.49 |
| 01/06/09 | 2.36 | 2.16 | 0.16 | 1.83 | 2.48 |
| 02/03/09 | 2.24 | 2.15 | 0.16 | 1.83 | 2.47 |

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

**CV = 7.47**
EPA reference 75th quartile CV = 29%



## Appendix C. (continued)

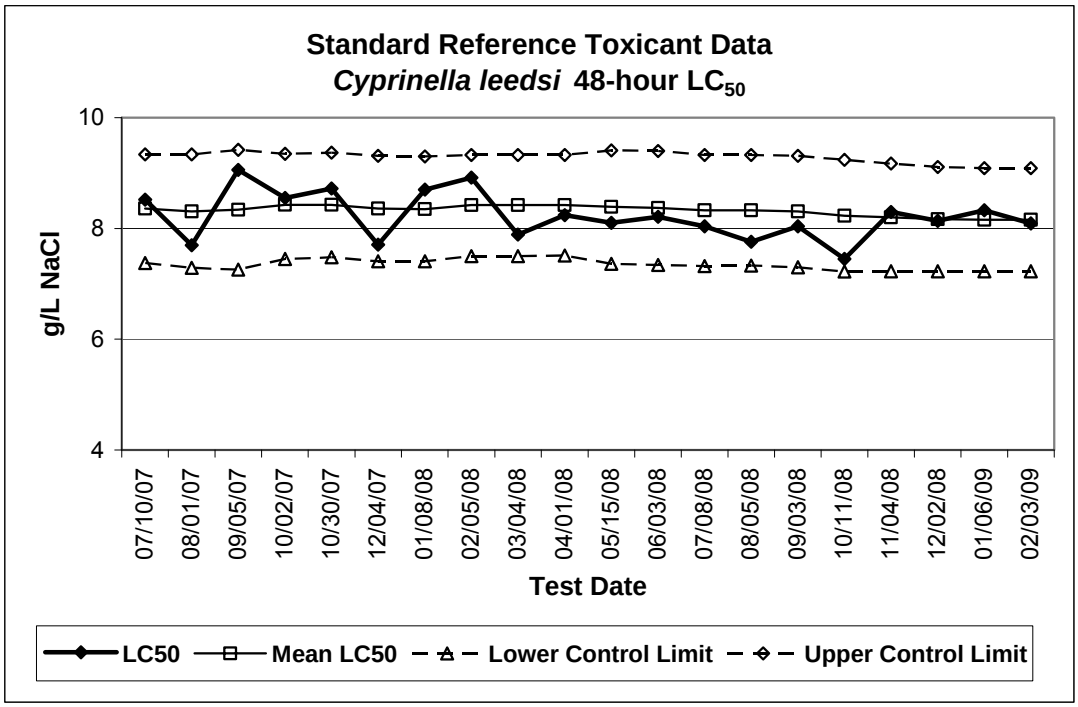
Florida Department of Environmental Protection
Bureau of Laboratories

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

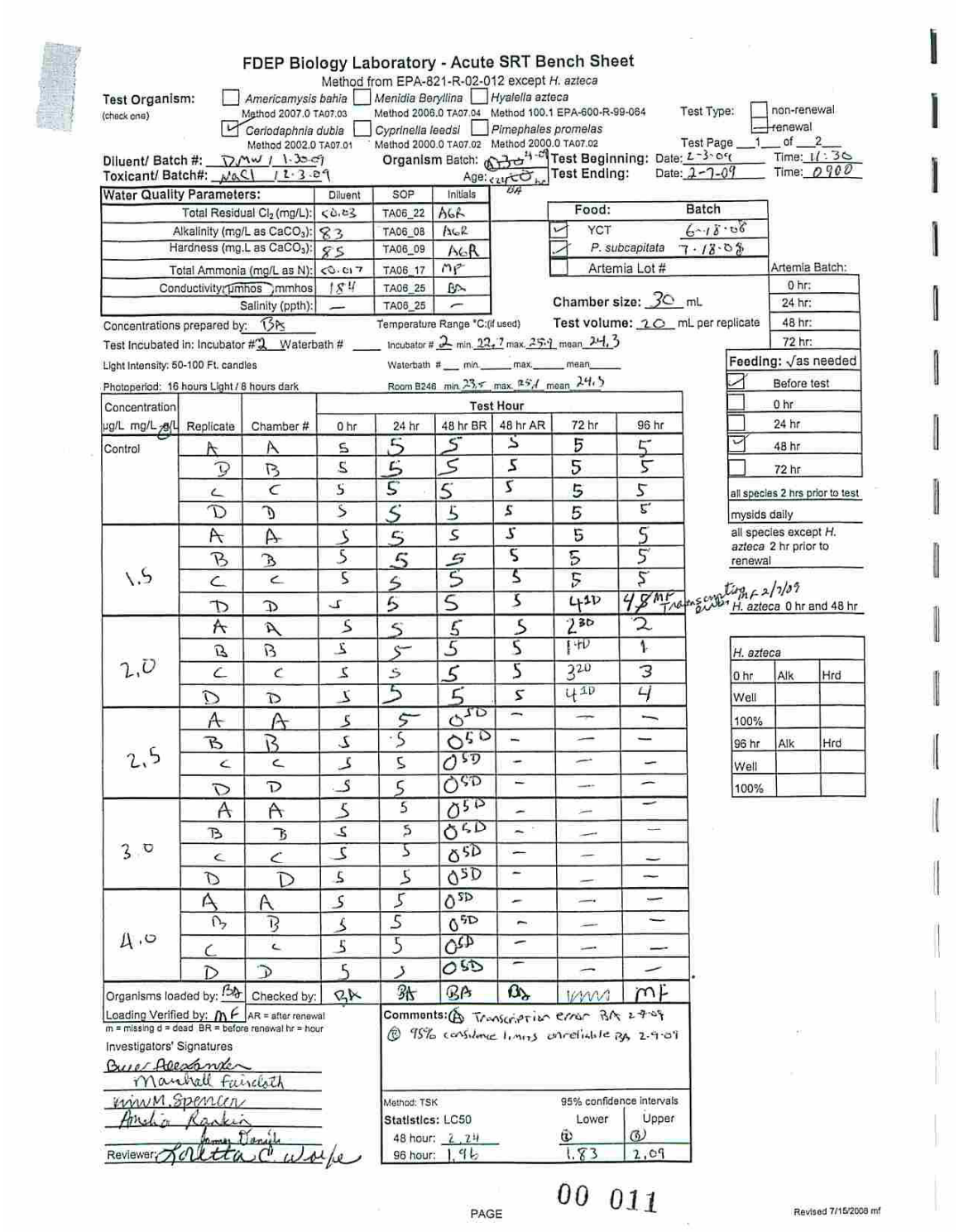
| Date | LC50 | Mean LC50 | Std Dev | Lower Control Limit | Upper Control Limit |
|---|---|---|---|---|---|
| 07/10/07 | 8.52 | 8.36 | 0.49 | 7.38 | 9.34 |
| 08/01/07 | 7.7 | 8.31 | 0.51 | 7.29 | 9.34 |
| 09/05/07 | 9.06 | 8.34 | 0.54 | 7.26 | 9.42 |
| 10/02/07 | 8.55 | 8.43 | 0.47 | 7.45 | 9.35 |
| 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 |
| 07/08/08 | 8.04 | 8.33 | 0.50 | 7.32 | 9.33 |
| 08/05/08 | 7.76 | 8.33 | 0.50 | 7.33 | 9.33 |
| 09/03/08 | 8.04 | 8.31 | 0.50 | 7.30 | 9.31 |
| 10/11/08 | 7.45 | 8.23 | 0.51 | 7.22 | 9.24 |
| 11/04/08 | 8.3 | 8.20 | 0.48 | 7.23 | 9.17 |
| 12/02/08 | 8.14 | 8.17 | 0.47 | 7.23 | 9.11 |
| 01/06/09 | 8.33 | 8.16 | 0.47 | 7.23 | 9.09 |
| 02/03/09 | 8.09 | 8.16 | 0.47 | 7.23 | 9.09 |

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

**CV = 5.7**
EPA reference 75th quartile CV = 19%



## Appendix C. (continued)



**FDEP Biology Laboratory - Acute SRT Bench Sheet**

Method from EPA-821-R-02-012 except *H. azteca*

**Test Organism:** (check one)
- ☐ *Americamysis bahia* Method 2007.0 TA07.03
- ☐ *Menidia Beryllina* Method 2006.0 TA07.04
- ☐ *Hyalella azteca* Method 100.1 EPA-600-R-99-064
- ☑ *Ceriodaphnia dubia* Method 2002.0 TA07.01
- ☐ *Cyprinella leedsi* Method 2000.0 TA07.02
- ☐ *Pimephales promelas* Method 2000.0 TA07.02

Test Type: ☐ non-renewal ☐ renewal

Test Page 1 of 2

**Diluent/ Batch #:** DMW / 1-30-09
**Toxicant/ Batch#:** NaCl / 2-3-09
**Organism Batch:** 0330 4-09 Age: carried 0h
**Test Beginning:** Date: 2-3-09 Time: 11:30
**Test Ending:** Date: 2-7-09 Time: 0900

| Water Quality Parameters: | Diluent | SOP | Initials |
|---|---|---|---|
| Total Residual $Cl_2$ (mg/L): | <0.03 | TA06_22 | AGR |
| Alkalinity (mg/L as $CaCO_3$): | 83 | TA06_08 | AGR |
| Hardness (mg.L as $CaCO_3$): | 85 | TA06_09 | AGR |
| Total Ammonia (mg/L as N): | <0.017 | TA06_17 | MF |
| Conductivity: ☐ µmhos ☐ mmhos | 184 | TA06_25 | BA |
| Salinity (ppth): | — | TA06_25 | — |

| Food: | Batch |
|---|---|
| ☑ YCT | 6-18-08 |
| ☑ *P. subcapitata* | 7-18-08 |
| ☐ Artemia Lot # | |

Artemia Batch:
0 hr:
24 hr:
48 hr:
72 hr:

**Chamber size:** 30 mL
**Test volume:** 20 mL per replicate

Concentrations prepared by: BA
Test Incubated in: Incubator #2 Waterbath # ____ Temperature Range °C:(if used)
Incubator # 2 min. 22.7 max. 25.9 mean 24.3
Light Intensity: 50-100 Ft. candles
Waterbath # ___ min. ____ max. ____ mean ____
Photoperiod: 16 hours Light / 8 hours dark
Room B246 min. 23.5 max. 25.1 mean 24.3

**Feeding:** √as needed

| | |
|---|---|
| ☑ | Before test |
| ☐ | 0 hr |
| ☐ | 24 hr |
| ☑ | 48 hr |
| ☐ | 72 hr |

all species 2 hrs prior to test
mysids daily
all species except *H. azteca* 2 hr prior to renewal
*H. azteca* 0 hr and 48 hr

| Concentration µg/L mg/L ☐ | Replicate | Chamber # | Test Hour 0 hr | 24 hr | 48 hr BR | 48 hr AR | 72 hr | 96 hr |
|---|---|---|---|---|---|---|---|---|
| Control | 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 |
| 1.5 | 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 | 4 1D | 4/8 MF Transcription error MF 2/3/09 |
| 2.0 | A | A | 5 | 5 | 5 | 5 | 2 3D | 2 |
| | B | B | 5 | 5 | 5 | 5 | 1 4D | 1 |
| | C | C | 5 | 5 | 5 | 5 | 3 2D | 3 |
| | D | D | 5 | 5 | 5 | 5 | 4 1D | 4 |
| 2.5 | A | A | 5 | 5 | 0 5D | — | — | — |
| | B | B | 5 | 5 | 0 5D | — | — | — |
| | C | C | 5 | 5 | 0 5D | — | — | — |
| | D | D | 5 | 5 | 0 5D | — | — | — |
| 3.0 | A | A | 5 | 5 | 0 5D | — | — | — |
| | B | B | 5 | 5 | 0 5D | — | — | — |
| | C | C | 5 | 5 | 0 5D | — | — | — |
| | D | D | 5 | 5 | 0 5D | — | — | — |
| 4.0 | A | A | 5 | 5 | 0 5D | — | — | — |
| | B | B | 5 | 5 | 0 5D | — | — | — |
| | C | C | 5 | 5 | 0 5D | — | — | — |
| | D | D | 5 | 5 | 0 5D | — | — | — |
| Organisms loaded by: BA | | Checked by: | BA | BA | BA | BA | MM | MF |

| *H. azteca* | | |
|---|---|---|
| 0 hr | Alk | Hrd |
| Well | | |
| 100% | | |
| 96 hr | Alk | Hrd |
| Well | | |
| 100% | | |

Loading Verified by: MF AR = after renewal
m = missing d = dead BR = before renewal hr = hour

Investigators' Signatures
Bruce Alexander
Marshall Faircloth
Mindy M. Spencer
Amelia Rankin
Reviewer: Loretta C. Wolfe

**Comments:** (A) Transcription error BA 2-9-09
(B) 95% confidence limits unreliable BA 2-9-09

Method: TSK
**Statistics:** LC50

| 95% confidence intervals | Lower | Upper |
|---|---|---|
| 48 hour: 2.24 | (B) | (A) |
| 96 hour: 1.96 | 1.83 | 2.09 |

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Revised 7/15/2008 mf

## Appendix C. (continued)

**FDEP Biology Laboratory - Acute SRT Bench Sheet**
0-96 hour parameters

Methods from EPA-821-R-02-012 except *H. azteca*

Test Page 2 of 2

**Test Organism:** (check one)
- ☐ *Americamysis bahia* Method 2007.0 TA07.03
- ☐ *Menidia Beryllina* Method 2006.0 TA07.04
- ☐ *Hyalella azteca* Method 100.1 EPA-600-R-99-064
- ☒ *Ceriodaphnia dubia* Method 2002.0 TA07.01
- ☐ *Cyprinella leedsi* Method 2000.0 TA07.02
- ☐ *Pimephales promelas* Method 2000.0 TA07.02

**Test Beginning:** Date: 2-3-09 Time: 1130
**Test Ending:** Date: 2-7-09 Time: 0900

Test Type: ☐ non-renewal ☒ renewal

hr = hour AR = after renewal BR = before renewal

| Concentration µg/L mg/L pH | Replicate | Test Hour | pH (SU) | Temperature (°C) | Dissolved Oxygen (mg/L) | Conductivity ☑ µmhos ☐ mmhos | Salinity (ppth) |
|---|---|---|---|---|---|---|---|
| Control | M | 0 hr | 7.9 | 24.0 | 8.3 | 184 | — |
| | | 24 hr | — | — | — | ~~2930~~ (A) | — |
| | A | 48 hr BR | 7.7 | 24.0 | 8.1 | 195 | |
| | m | 48 hr AR | 7.9 | 24.0 | 8.0 | 178 | |
| | | 72 hr | — | — | — | — | |
| | A | 96 hr | 8.1 | 24.1 | 7.6 | 210 | |
| 1.5 | M | 0 hr | 7.9 | 24.0 | 8.3 | 2930 | |
| | | 24 hr | — | — | — | ~~3200~~ (A) | |
| | A | 48 hr BR | 7.8 | 24.0 | 8.0 | 3200 | |
| | m | 48 hr AR | 8.0 | 24.0 | 8.1 | 2930 | |
| | | 72 hr | — | — | — | — | |
| | A | 96 hr | 8.0 | 24.3 | 7.8 | 3150 | |
| 2.0 | M | 0 hr | 7.9 | 24.0 | 8.3 | 3870 | |
| | | 24 hr | — | — | — | — | |
| | A | 48 hr BR | 7.8 | 24.0 | 7.9 | 4400 | |
| | m | 48 hr AR | 8.0 | 24.0 | 8.2 | 3760 | |
| | | 72 hr | — | — | — | — | |
| | A | 96 hr | 8.1 | 24.3 | 7.7 | 4070 | |
| 2.5 | M | 0 hr | 7.9 | 24.0 | 8.3 | 4760 | |
| | | 24 hr | — | — | — | — | |
| | A | 48 hr BR | 7.9 | 24.0 | 8.0 | 5430 | |
| | | 48 hr AR | | | | | |
| | | 72 hr | | | | | |
| | | 96 hr | | | | | |
| 3.0 | M | 0 hr | 8.0 | 24.0 | 8.3 | 5610 | |
| | | 24 hr | — | — | — | — | |
| | A | 48 hr BR | 7.9 | 24.0 | 7.9 | 6300 | |
| | | 48 hr AR | | | | | |
| | | 72 hr | | | | | |
| | | 96 hr | | | | | |
| 4.0 | M | 0 hr | 8.0 | 24.0 | 8.3 | 7290 | |
| | | 24 hr | — | — | — | — | |
| | A | 48 hr BR | 8.0 | 24.0 | 7.7 | 8050 | |
| | | 48 hr AR | | | | | |
| | | 72 hr | | | | | |
| | | 96 hr | | | | | |

Investigators Signatures
Brent Rickman-Jan
Marshall Fairchild
Kim M. Spencer
James Daniel

Reviewed By: Loretta C. Wolfe

Measured by:
0 hr: BA
24 hr: BA
48 hr BR: BA
48 hr AR: BA
72 hr: BA
96 hr: MF

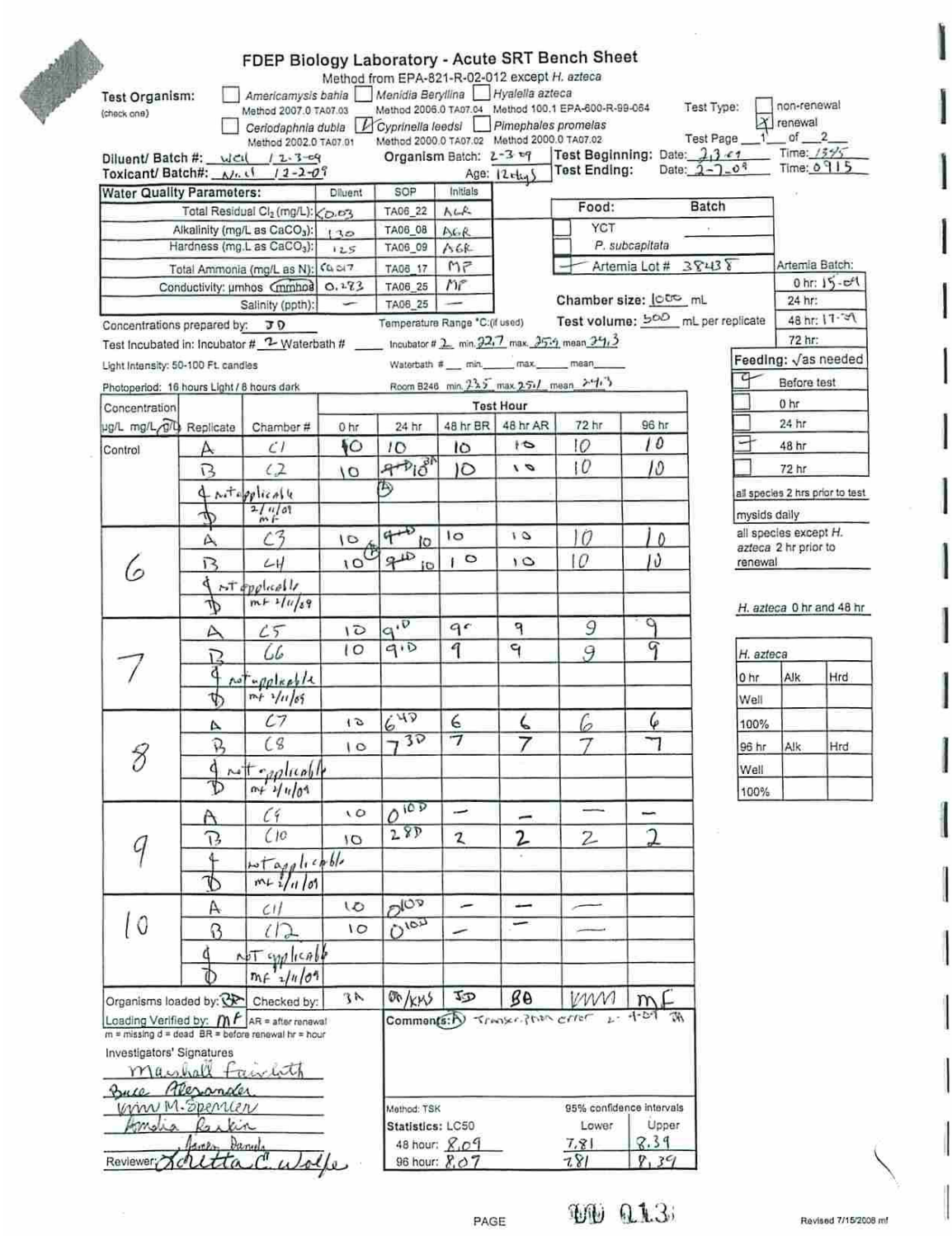
Measure/record salinity for marine tests

Comments: (A) Transcription error BA 2-3-09

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Revised 07/15/2008 MF

## Appendix C. (continued)



**FDEP Biology Laboratory - Acute SRT Bench Sheet**

Method from EPA-821-R-02-012 except *H. azteca*

**Test Organism:** (check one)
- ☐ *Americamysis bahia* Method 2007.0 TA07.03
- ☐ *Menidia Beryllina* Method 2006.0 TA07.04
- ☐ *Hyalella azteca* Method 100.1 EPA-600-R-99-064
- ☐ *Ceriodaphnia dubia* Method 2002.0 TA07.01
- ☒ *Cyprinella leedsi* Method 2000.0 TA07.02
- ☐ *Pimephales promelas* Method 2000.0 TA07.02

Test Type: ☐ non-renewal ☒ renewal

Test Page 1 of 2

Diluent/ Batch #: WCH 12-3-09
Toxicant/ Batch#: NaCl 12-2-09

Organism Batch: 2-3 09 Age: 12 hrs

Test Beginning: Date: 2-3-09 Time: 1345
Test Ending: Date: 2-7-09 Time: 0915

| Water Quality Parameters: | Diluent | SOP | Initials |
|---|---|---|---|
| Total Residual $Cl_2$ (mg/L): | <0.03 | TA06_22 | AGR |
| Alkalinity (mg/L as $CaCO_3$): | 130 | TA06_08 | AGR |
| Hardness (mg.L as $CaCO_3$): | 125 | TA06_09 | AGR |
| Total Ammonia (mg/L as N): | <0.07 | TA06_17 | MF |
| Conductivity: µmhos (mmhos) | 0.283 | TA06_25 | MF |
| Salinity (ppth): | — | TA06_25 | — |

| Food: | Batch |
|---|---|
| ☐ YCT | |
| ☐ *P. subcapitata* | |
| ☑ Artemia Lot # | 38438 |

Artemia Batch:
0 hr: 15-09
24 hr:
48 hr: 17-39
72 hr:

Chamber size: 1000 mL
Test volume: 500 mL per replicate

Concentrations prepared by: JD
Test Incubated in: Incubator # 2 Waterbath # ____
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark

Temperature Range °C:(if used)
Incubator # 2 min. 22.7 max. 25.4 mean 24.3
Waterbath # ___ min. ____ max. ____ mean ____
Room B246 min. 23.5 max. 25.1 mean 24.3

**Feeding:** √as needed

| | |
|---|---|
| ☑ | Before test |
| ☐ | 0 hr |
| ☐ | 24 hr |
| ☑ | 48 hr |
| ☐ | 72 hr |

all species 2 hrs prior to test

mysids daily

all species except *H. azteca* 2 hr prior to renewal

*H. azteca* 0 hr and 48 hr

| *H. azteca* | | |
|---|---|---|
| 0 hr | Alk | Hrd |
| Well | | |
| 100% | | |
| 96 hr | Alk | Hrd |
| Well | | |
| 100% | | |

| Concentration µg/L mg/L (g/L) | Replicate | Chamber # | Test Hour 0 hr | 24 hr | 48 hr BR | 48 hr AR | 72 hr | 96 hr |
|---|---|---|---|---|---|---|---|---|
| Control | A | C1 | 10 | 10 | 10 | 10 | 10 | 10 |
| | B | C2 | 10 | 9 4D 10 3A | 10 | 10 | 10 | 10 |
| | ♀ | not applicable | | (A) | | | | |
| | ♂ | mf 2/11/09 | | | | | | |
| 6 | A | C3 | 10 | 9 4D 10 | 10 | 10 | 10 | 10 |
| | B | C4 | 10 (A) | 9 4D 10 | 10 | 10 | 10 | 10 |
| | ♀ | not applicable | | | | | | |
| | ♂ | mf 2/11/09 | | | | | | |
| 7 | A | C5 | 10 | 9 1D | 9 | 9 | 9 | 9 |
| | B | C6 | 10 | 9 1D | 9 | 9 | 9 | 9 |
| | ♀ | not applicable | | | | | | |
| | ♂ | mf 2/11/09 | | | | | | |
| 8 | A | C7 | 10 | 6 4D | 6 | 6 | 6 | 6 |
| | B | C8 | 10 | 7 3D | 7 | 7 | 7 | 7 |
| | ♀ | not applicable | | | | | | |
| | ♂ | mf 2/11/09 | | | | | | |
| 9 | A | C9 | 10 | 0 10D | — | — | — | — |
| | B | C10 | 10 | 2 8D | 2 | 2 | 2 | 2 |
| | ♀ | not applicable | | | | | | |
| | ♂ | mf 2/11/09 | | | | | | |
| 10 | A | C11 | 10 | 0 10D | — | — | — | |
| | B | C12 | 10 | 0 10D | — | — | — | |
| | ♀ | not applicable | | | | | | |
| | ♂ | mf 2/11/09 | | | | | | |
| Organisms loaded by: BR | | Checked by: | BA | BR/KMS | JD | BB | VMM | MF |

Loading Verified by: MF AR = after renewal
m = missing d = dead BR = before renewal hr = hour

Comments: A Transfer pipet error 2-4-09 BA

Investigators' Signatures
Marshall Faircloth
Bruce Alexander
VMM M. Spencer
Amelia Rankin
James Daniels
Reviewer: Loretta C. Wolfe

Method: TSK

| Statistics: LC50 | 95% confidence intervals Lower | Upper |
|---|---|---|
| 48 hour: 8.09 | 7.81 | 8.39 |
| 96 hour: 8.07 | 7.81 | 8.39 |

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Revised 7/15/2008 mf

## Appendix C. (continued)

**FDEP Biology Laboratory - Acute SRT Bench Sheet**
0-96 hour parameters

Methods from EPA-821-R-02-012 except *H. azteca* — Test Page 2 of 2

**Test Organism:** (check one)
- ☐ *Americamysis bahia* Method 2007.0 TA07.03
- ☐ *Menidia Beryllina* Method 2006.0 TA07.04
- ☐ *Hyalella azteca* Method 100.1 EPA-600-R-99-064
- ☐ *Ceriodaphnia dubia* Method 2002.0 TA07.01
- ☑ *Cyprinella leedsi* Method 2000.0 TA07.02
- ☐ *Pimephales promelas* Method 2000.0 TA07.02

**Test Beginning:** Date: 2/3/09 Time: 1350
**Test Ending:** Date: 2-7-09 Time: 0915
**Test Type:** ☐ non-renewal ☑ renewal

hr = hour AR = after renewal BR = before renewal

| Concentration µg/L mg/L % | Replicate | Test Hour | pH (SU) | Temperature (°C) | Dissolved Oxygen (mg/L) | Conductivity ☐ µmhos ☑ mmhos | Salinity (ppth) |
|---|---|---|---|---|---|---|---|
| Control | A | 0 hr | 7.9 | 24.0 | 7.9 | 0.283 | |
| | B | 24 hr | 7.8 | 24.0 | 7.5 | 0.295 | |
| | A ¢ | 48 hr BR | 8.1 | 24.0 | 7.4 | 0.297 | |
| | A ¢ | 48 hr AR | 8.1 | 24.2 | 7.9 | 0.298 | |
| | B | 72 hr | 7.8 | 23.1 | 7.0 | 0.308 | |
| | A | 96 hr | 8.2 | 24.1 | 7.0 | 0.319 | |
| 6 | A | 0 hr | 7.9 | 24.2 | 8.1 | 11.5 | |
| | B | 24 hr | 7.9 | 24.0 | 7.3 | 11.6 | |
| | A | 48 hr BR | 8.1 | 24.0 | 7.3 | 11.7 | |
| | A | 48 hr AR | 8.1 | 24.2 | 7.4 | 11.4 | |
| | B | 72 hr | 7.8 | 23.0 | 6.9 | 12.0 | |
| | A | 96 hr | 8.1 | 24.1 | 7.0 | 12.4 | |
| 7 | A | 0 hr | 7.9 | 24.1 | 8.2 | 12.5 | |
| | B | 24 hr | 8.0 | 24.0 | 7.2 | 13.4 | |
| | A | 48 hr BR | 8.1 | 24.0 | 6.8 | 13.4 | |
| | A | 48 hr AR | 8.0 | 24.2 | 7.4 | 13.3 | |
| | B | 72 hr | 7.8 | 23.2 | 6.5 | 13.9 | |
| | A | 96 hr | 8.1 | 24.6 | 6.7 | 14.3 | |
| 8 | A | 0 hr | 7.9 | 24.2 | 8.2 | 15.2 | |
| | B | 24 hr | 7.9 | 24.0 | 6.8 | 15.3 | |
| | A | 48 hr BR | 8.1 | 24.0 | 6.9 | 15.4 | |
| | B | 48 hr AR | 8.0 | 24.1 | 7.4 | 15.0 | |
| | B | 72 hr | 7.8 | 23.1 | 6.6 | 15.6 | |
| | A | 96 hr | 8.1 | 24.0 | 6.6 | 16.2 | |
| 9 | A | 0 hr | 7.9 | 24.2 | 8.1 | 16.9 | |
| | B | 24 hr | 7.9 | 24.0 | 6.6 | 16.9 | |
| | B | 48 hr BR | 8.1 | 24.0 | 7.0 | 16.9 | |
| | B | 48 hr AR | 8.0 | 24.1 | 7.3 | 16.0 | |
| | B | 72 hr | 7.8 | 22.7 | 6.7 | 16.9 | |
| | B | 96 hr | 8.1 | 24.1 | 6.9 | 17.3 | |
| 10 | A | 0 hr | 7.9 | 24.3 | 8.0 | 18.6 | |
| | B | 24 hr | 7.9 | 24.0 | 6.2 | 18.6 | |
| | | 48 hr BR | | | | | |
| | | 48 hr AR | | | | | |
| | | 72 hr | | | | | |
| | | 96 hr | | | | | |

Investigators Signatures
Marshall Faircloth
Kimm. Spencer
Bruce Alexander
Amelia Rankin
James Dysart
Reviewed By: Loretta C Wolfe

Measured by:
0 hr: MF
24 hr: BA
48 hr BR: KMS
48 hr AR: KMS
72 hr: BA
96 hr: MP

Measure/record salinity for marine tests

Comments:

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Revised 07/15/2008 MF

## Appendix C. (continued)

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

DATE: 2-3-09 DURATION: 48 hr TOXICANT: NaCl
SPECIES: *Ceriodaphnia dubia*

| RAW DATA: Concentration (g/L) | Number Exposed | Mortalities |
|---|---|---|
| 0.00 | 20 | 0 |
| 1.50 | 20 | 0 |
| 2.00 | 20 | 0 |
| 2.50 | 20 | 20 |
| 3.00 | 20 | 20 |
| 4.00 | 20 | 20 |

SPEARMAN-KARBER TRIM: .00%

SPEARMAN-KARBER ESTIMATES: LC50: 2.24
95% CONFIDENCE LIMITS ARE NOT RELIABLE.

---

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

DATE: 2-3-09 DURATION: 48 hr TOXICANT: NaCl
SPECIES: *Cyprinella leedsi*

| RAW DATA: Concentration (g/L) | Number Exposed | Mortalities |
|---|---|---|
| 0.00 | 20 | 0 |
| 6.00 | 20 | 0 |
| 7.00 | 20 | 2 |
| 8.00 | 20 | 7 |
| 9.00 | 20 | 18 |
| 10.00 | 20 | 20 |

SPEARMAN-KARBER TRIM: .00%

SPEARMAN-KARBER ESTIMATES: LC50: 8.09
95% LOWER CONFIDENCE: 7.81
95% UPPER CONFIDENCE: 8.39

## Appendix D. Test Organism Receipts

MARINCO BIOASSAY LABORATORY
The Aquatic Toxicology Specialists

NELAP Certification # E84191

### Organism Shipment Record

State of Florida Aquaculture Certificate Number AQ0668007

Date: 8/2/09

Shipped to: FDEP

P.O. No: N/A

| Species | Quantity | Age | Brood Number | Temp. | pH | Salinity |
|---|---|---|---|---|---|---|
| *Mysidopsis bahia* | 150 | 4 DAYS | MS090129 | 25°C | 7.9 | 20‰ |
| *Menidia beryllina* | 150 | 1 DAYS<br>11 DAYS STR | MS090122 | 25°C | 7.9 | 20‰ |
| | | | | | | Hardness |
| *Cyprinella leedsi* | 200 | 11 DAYS | CL090122 | 25°C | 7.8 | 80mg/L |
| *Pimephales promelas* | 150 | 9 DAY | FM090124 | 25°C | 7.8 | 80mg/L |
| | | | | | | |

Packed by:

Shipped Via: FedEx

Notes:

Thank you for your order.

4569 Samuel Street · Sarasota, FL 34233 · Tel: 941-925-3594 · Fax: 941-922-3874 · Web: www.biologylab.com

## Appendix D. (continued)

MARINCO BIOASSAY LABORATORY
The Aquatic Toxicology Specialists

NELAP Certification # E84191

### Organism Shipment Record

**State of Florida Aquaculture Certificate Number AQ0668007**

Date: 2/9/09

Shipped to: FDEP

P.O. No: N/A

| Species | Quantity | Age | Brood Number | Temp. | pH | Salinity |
|---|---|---|---|---|---|---|
| *Mysidopsis bahia* | | | | | | |
| | | | | | | |
| *Menidia beryllina* | | | | | | |
| | | | | | | |
| | | | | | | Hardness |
| *Cyprinella leedsi* | 100 | 9DAYS | CL090131 | 25°C | 7.8 | 80mg/L |
| | | | | | | |
| *Pimephales promelas* | 500 | <24HRS | FM090208-1745 | 25°C | 7.8 | 80mg/L |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Packed by: JC

Shipped Via: FedEx

Notes:

Thank you for your order.

4569 Samuel Street · Sarasota, FL 34233 · Tel: 941-925-3594 · Fax: 941-922-3874 · Web: www.biologylab.com

**Appendix E. Chemical Analyses performed on the effluent from the Baldwin Wastewater Treatment Facility Outfall D-001, sampled on February 9, 2009.**

| Date Sampled | Field ID | Analysis Group | Components | Results | Remarks | Units | MDL | PQL |
|---|---|---|---|---|---|---|---|---|
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Chlorophyll/Grain Size/BOD | Chlorophyll-a, Corrected | 1.2 | I | ug/L | 0.55 | 1.7 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Chlorophyll/Grain Size/BOD | Phaeophytin-a | 0.24 | U | ug/L | 0.24 | 0.71 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Overflow | Fecal Coliforms-Membrane Filter | 2200 | | #/100 mL | 100 | |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Metals | Lead | 0.55 | I | ug/L | 0.2 | 0.8 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Metals | Copper | 3.37 | | ug/L | 0.5 | 0.5 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Metals | Chromium | 0.25 | I | ug/L | 0.2 | 0.8 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Metals | Nickel | 2.04 | | ug/L | 0.25 | 1 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Metals | Zinc | 63 | | ug/L | 5 | 20 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Metals | Cadmium | 0.03 | U | ug/L | 0.03 | 0.12 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Metals | Selenium | 0.2 | U | ug/L | 0.2 | 0.8 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Metals | Silver | 0.023 | I | ug/L | 0.01 | 0.04 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Metals | Aluminum | 83 | I | ug/L | 60 | 240 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Metals | Magnesium | 14.7 | | mg/L | 0.04 | 0.16 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Metals | Iron | 180 | | ug/L | 30 | 120 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Metals | Arsenic | 0.38 | I | ug/L | 0.25 | 1 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Metals | Calcium | 41.7 | | mg/L | 0.075 | 0.3 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Alachlor | 0.6 | U | ug/L | 0.6 | 2.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Diazinon | 0.05 | U | ug/L | 0.05 | 0.2 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Ethion | 0.05 | U | ug/L | 0.05 | 0.2 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Fonofos | 0.1 | U | ug/L | 0.1 | 0.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Malathion | 0.15 | U | ug/L | 0.15 | 0.6 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Parathion Ethyl | 0.15 | U | ug/L | 0.15 | 0.6 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Chlordane | 0.2 | U | ug/L | 0.2 | 0.8 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | DDD-p,p' | 0.02 | U | ug/L | 0.02 | 0.08 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Endosulfan II | 0.02 | U | ug/L | 0.02 | 0.08 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Heptachlor Epoxide | 0.02 | U | ug/L | 0.02 | 0.08 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Alpha-BHC | 0.01 | U | ug/L | 0.01 | 0.04 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Azinphos Methyl | 0.2 | U | ug/L | 0.2 | 0.8 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Metolachlor | 0.5 | U | ug/L | 0.5 | 2 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | DDT-p,p' | 0.03 | U | ug/L | 0.03 | 0.12 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Endosulfan I | 0.02 | U | ug/L | 0.02 | 0.08 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Toxaphene | 0.75 | U | ug/L | 0.75 | 3 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Ametryn | 0.05 | U | ug/L | 0.05 | 0.2 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Chlorpyrifos Ethyl | 0.05 | U | ug/L | 0.05 | 0.2 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Chlorpyrifos Methyl | 0.1 | U | ug/L | 0.1 | 0.4 |

## Appendix E. (continued)

| Date Sampled | Field ID | Analysis Group | Components | Results | Remarks | Units | MDL | PQL |
|---|---|---|---|---|---|---|---|---|
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Ethoprop | 0.1 | U | ug/L | 0.1 | 0.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Fenamiphos | 0.2 | U | ug/L | 0.2 | 0.8 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Hexazinone | 0.1 | U | ug/L | 0.1 | 0.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Metalaxyl | 0.25 | U | ug/L | 0.25 | 1 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Delta-BHC | 0.01 | U | ug/L | 0.01 | 0.04 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Endrin Aldehyde | 0.02 | U | ug/L | 0.02 | 0.08 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Heptachlor | 0.01 | U | ug/L | 0.01 | 0.04 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Parathion Methyl | 0.1 | U | ug/L | 0.1 | 0.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Phorate | 0.05 | U | ug/L | 0.05 | 0.2 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Gamma-BHC | 0.01 | U | ug/L | 0.01 | 0.04 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Beta-BHC | 0.01 | U | ug/L | 0.01 | 0.04 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Butylate | 0.2 | U | ug/L | 0.2 | 0.8 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Mevinphos | 0.2 | U | ug/L | 0.2 | 0.8 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Naled | 0.8 | UJ | ug/L | 0.8 | 3.2 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Prometryn | 0.15 | U | ug/L | 0.15 | 0.6 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Simazine | 0.05 | U | ug/L | 0.05 | 0.2 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | DDE-p,p' | 0.02 | U | ug/L | 0.02 | 0.08 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Dieldrin | 0.02 | U | ug/L | 0.02 | 0.08 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Endrin | 0.05 | U | ug/L | 0.05 | 0.2 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Methoxychlor | 0.05 | U | ug/L | 0.05 | 0.2 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Atrazine | 0.05 | U | ug/L | 0.05 | 0.2 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Bromacil | 0.2 | U | ug/L | 0.2 | 0.8 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Metribuzin | 0.1 | U | ug/L | 0.1 | 0.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Norflurazon | 0.15 | U | ug/L | 0.15 | 0.6 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Aldrin | 0.01 | U | ug/L | 0.01 | 0.04 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Pesticides | Endosulfan Sulfate | 0.02 | U | ug/L | 0.02 | 0.08 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | 3,3'-Dichlorobenzidine | 44 | UJ | ug/L | 44 | 180 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | 4-Chlorophenyl phenyl ether | 2.2 | U | ug/L | 2.2 | 8.8 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Hexachlorocyclopentadiene | 3.3 | UJ | ug/L | 3.3 | 13 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Butyl benzyl phthalate | 5.5 | U | ug/L | 5.5 | 22 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | 2-Nitrophenol | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | 2,4-Dinitrotoluene | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Hexachlorobutadiene | 3.3 | U | ug/L | 3.3 | 13 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Di-n-butyl phthalate | 5.5 | U | ug/L | 5.5 | 22 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | 4-Nitrophenol | 16 | U | ug/L | 16 | 66 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Bis(2-ethylhexyl)phthalate | 16 | U | ug/L | 16 | 66 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Hexachlorobenzene | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | N-Nitrosodi-n-propylamine | 2.2 | U | ug/L | 2.2 | 8.8 |

## Appendix E. (continued)

| Date Sampled | Field ID | Analysis Group | Components | Results | Remarks | Units | MDL | PQL |
|---|---|---|---|---|---|---|---|---|
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Nitrobenzene | 2.2 | U | ug/L | 2.2 | 8.8 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Phenanthrene | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | 2,4-Dimethylphenol | 11 | U | ug/L | 11 | 44 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | 4-Chloro-3-methylphenol | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | N-Nitrosodiphenylamine/ Diphenylamine | 3.3 | U | ug/L | 3.3 | 13 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Pyrene | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | 2-Chloronaphthalene | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Di-n-octyl phthalate | 1.1 | UJ | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Hexachloroethane | 3.3 | U | ug/L | 3.3 | 13 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Naphthalene | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | 1,2,4-Trichlorobenzene | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | 2,4-Dinitrophenol | 16 | U | ug/L | 16 | 66 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | 2-Chlorophenol | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Anthracene | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Bis(2-chloroethoxy)methane | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Bis(2-chloroethyl)ether | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Diethyl phthalate | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Dimethyl phthalate | 11 | UJ | ug/L | 11 | 44 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Fluorene | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Indeno(1,2,3-cd)pyrene | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Isophorone | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Pentachlorophenol | 3.3 | UJ | ug/L | 3.3 | 13 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | 2,6-Dinitrotoluene | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | 2-Methyl-4,6-dinitrophenol | 3.3 | U | ug/L | 3.3 | 13 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | 4-Bromophenyl phenyl ether | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Acenaphthylene | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Benzo(a)anthracene | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Benzo(g,h,i)perylene | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | N-Nitrosodimethylamine | 2.2 | U | ug/L | 2.2 | 8.8 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Benzo(b)fluoranthene | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Benzo(k)fluoranthene | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Bis(2-chloroisopropyl)ether | 3.3 | U | ug/L | 3.3 | 13 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Dibenzo(a,h)anthracene | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Fluoranthene | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Phenol | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | 2,4,6-Trichlorophenol | 1.1 | UJ | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | 2,4-Dichlorophenol | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Acenaphthene | 1.1 | U | ug/L | 1.1 | 4.4 |

## Appendix E. (continued)

| Date Sampled | Field ID | Analysis Group | Components | Results | Remarks | Units | MDL | PQL |
|---|---|---|---|---|---|---|---|---|
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Benzidine | 110 | U | ug/L | 110 | 440 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Benzo(a)pyrene | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Priority Organic Pollutants | Chrysene | 1.1 | U | ug/L | 1.1 | 4.4 |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Field Parameter | Dissolved Oxygen | 10.72 | | mg/L | | |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Field Parameter | Temperature | 17.7 | | C | | |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Field Parameter | Specific Conductance | 622 | | umhos/cm | | |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Field Parameter | pH | 7.15 | | | | |
| 2/9/2009 13:12 | BALDWIN WWTP EFD-1 | Field Parameter | Sample Depth | 0.4 | | m | | |
| 2/9/2009 12:50 | BALDWIN WWTP EFD-01 | AGP/LN | Algal Growth Potential | 400 | | mg DryWt/L | 0.3 | 0.9 |
| 2/9/2009 12:50 | BALDWIN WWTP EFD-01 | Chlorophyll/Grain Size/BOD | Biochemical Oxygen Demand-5 Day,N-Inhib | 3.8 | | mg/L | 0.2 | 2 |
| 2/9/2009 12:50 | BALDWIN WWTP EFD-01 | Toxicology | Bioassay-Acute-Screen-FW-C.dubia, LC50 | 100 | L | LC50 | | |
| 2/9/2009 12:50 | BALDWIN WWTP EFD-01 | Toxicology | Bioassay-Acute-Screen-FW-Fish, LC50 | 100 | L | LC50 | | |
| 2/9/2009 12:50 | BALDWIN WWTP EFD-01 | Nutrients | TSS | 8 | I | mg/L | 4 | 16 |
| 2/9/2009 12:50 | BALDWIN WWTP EFD-01 | Nutrients | NO2NO3-N | 22 | | mg N/L | 0.2 | 0.5 |
| 2/9/2009 12:50 | BALDWIN WWTP EFD-01 | Nutrients | Kjeldahl Nitrogen | 2.7 | | mg N/L | 0.4 | 1 |
| 2/9/2009 12:50 | BALDWIN WWTP EFD-01 | Nutrients | Ammonia-N | 0.042 | | mg N/L | 0.01 | 0.02 |
| 2/9/2009 12:50 | BALDWIN WWTP EFD-01 | Nutrients | O-Phosphate-P | 2.7 | | mg P/L | 0.04 | 0.1 |
| 2/9/2009 12:50 | BALDWIN WWTP EFD-01 | Nutrients | Total-P | 3.9 | | mg P/L | 0.1 | 0.3 |
| 2/9/2009 13:00 | BLANK | Metals | Iron | 30 | U | ug/L | 30 | 120 |
| 2/9/2009 13:00 | BLANK | Metals | Lead | 0.2 | U | ug/L | 0.2 | 0.8 |
| 2/9/2009 13:00 | BLANK | Metals | Cadmium | 0.03 | U | ug/L | 0.03 | 0.12 |
| 2/9/2009 13:00 | BLANK | Metals | Aluminum | 60 | U | ug/L | 60 | 240 |
| 2/9/2009 13:00 | BLANK | Metals | Zinc | 5 | U | ug/L | 5 | 20 |
| 2/9/2009 13:00 | BLANK | Metals | Selenium | 0.2 | U | ug/L | 0.2 | 0.8 |
| 2/9/2009 13:00 | BLANK | Metals | Silver | 0.01 | U | ug/L | 0.01 | 0.04 |
| 2/9/2009 13:00 | BLANK | Metals | Magnesium | 0.04 | U | mg/L | 0.04 | 0.16 |
| 2/9/2009 13:00 | BLANK | Metals | Chromium | 0.2 | U | ug/L | 0.2 | 0.8 |
| 2/9/2009 13:00 | BLANK | Metals | Arsenic | 0.25 | U | ug/L | 0.25 | 1 |
| 2/9/2009 13:00 | BLANK | Metals | Calcium | 0.075 | U | mg/L | 0.075 | 0.3 |
| 2/9/2009 13:00 | BLANK | Metals | Copper | 0.5 | U | ug/L | 0.5 | 0.5 |
| 2/9/2009 13:00 | BLANK | Metals | Nickel | 0.25 | U | ug/L | 0.25 | 1 |
| 2/9/2009 13:00 | BLANK | Nutrients | NO2NO3-N | 0.004 | U | mg N/L | 0.004 | 0.01 |
| 2/9/2009 13:00 | BLANK | Nutrients | TSS | 4 | U | mg/L | 4 | 16 |
| 2/9/2009 13:00 | BLANK | Nutrients | Total-P | 0.02 | U | mg P/L | 0.02 | 0.06 |
| 2/9/2009 13:00 | BLANK | Nutrients | Kjeldahl Nitrogen | 0.08 | U | mg N/L | 0.08 | 0.2 |
| 2/9/2009 13:00 | BLANK | Nutrients | O-Phosphate-P | 0.004 | U | mg P/L | 0.004 | 0.01 |
| 2/9/2009 13:00 | BLANK | Nutrients | Ammonia-N | 0.01 | U | mg N/L | 0.01 | 0.02 |
| 2/9/2009 13:00 | BLANK | Pesticides | Atrazine | 0.05 | U | ug/L | 0.05 | 0.2 |

## Appendix E. (continued)

| Date Sampled | Field ID | Analysis Group | Components | Results | Remarks | Units | MDL | PQL |
|---|---|---|---|---|---|---|---|---|
| 2/9/2009 13:00 | BLANK | Pesticides | Parathion Ethyl | 0.15 | U | ug/L | 0.15 | 0.6 |
| 2/9/2009 13:00 | BLANK | Pesticides | Phorate | 0.05 | U | ug/L | 0.05 | 0.2 |
| 2/9/2009 13:00 | BLANK | Pesticides | Prometryn | 0.15 | U | ug/L | 0.15 | 0.6 |
| 2/9/2009 13:00 | BLANK | Pesticides | Aldrin | 0.0099 | U | ug/L | 0.0099 | 0.04 |
| 2/9/2009 13:00 | BLANK | Pesticides | Beta-BHC | 0.0099 | U | ug/L | 0.0099 | 0.04 |
| 2/9/2009 13:00 | BLANK | Pesticides | Heptachlor | 0.0099 | U | ug/L | 0.0099 | 0.04 |
| 2/9/2009 13:00 | BLANK | Pesticides | Ametryn | 0.05 | U | ug/L | 0.05 | 0.2 |
| 2/9/2009 13:00 | BLANK | Pesticides | Ethoprop | 0.099 | U | ug/L | 0.099 | 0.4 |
| 2/9/2009 13:00 | BLANK | Pesticides | Parathion Methyl | 0.099 | U | ug/L | 0.099 | 0.4 |
| 2/9/2009 13:00 | BLANK | Pesticides | DDD-p,p' | 0.02 | U | ug/L | 0.02 | 0.08 |
| 2/9/2009 13:00 | BLANK | Pesticides | Delta-BHC | 0.0099 | U | ug/L | 0.0099 | 0.04 |
| 2/9/2009 13:00 | BLANK | Pesticides | Malathion | 0.15 | U | ug/L | 0.15 | 0.6 |
| 2/9/2009 13:00 | BLANK | Pesticides | Metolachlor | 0.5 | U | ug/L | 0.5 | 2 |
| 2/9/2009 13:00 | BLANK | Pesticides | DDE-p,p' | 0.02 | U | ug/L | 0.02 | 0.08 |
| 2/9/2009 13:00 | BLANK | Pesticides | Endrin | 0.05 | U | ug/L | 0.05 | 0.2 |
| 2/9/2009 13:00 | BLANK | Pesticides | Gamma-BHC | 0.0099 | U | ug/L | 0.0099 | 0.04 |
| 2/9/2009 13:00 | BLANK | Pesticides | Heptachlor Epoxide | 0.02 | U | ug/L | 0.02 | 0.08 |
| 2/9/2009 13:00 | BLANK | Pesticides | Alachlor | 0.6 | U | ug/L | 0.6 | 2.4 |
| 2/9/2009 13:00 | BLANK | Pesticides | Fenamiphos | 0.2 | U | ug/L | 0.2 | 0.8 |
| 2/9/2009 13:00 | BLANK | Pesticides | Fonofos | 0.099 | U | ug/L | 0.099 | 0.4 |
| 2/9/2009 13:00 | BLANK | Pesticides | Metalaxyl | 0.25 | U | ug/L | 0.25 | 1 |
| 2/9/2009 13:00 | BLANK | Pesticides | Mevinphos | 0.2 | U | ug/L | 0.2 | 0.8 |
| 2/9/2009 13:00 | BLANK | Pesticides | Norflurazon | 0.15 | U | ug/L | 0.15 | 0.6 |
| 2/9/2009 13:00 | BLANK | Pesticides | Dieldrin | 0.02 | U | ug/L | 0.02 | 0.08 |
| 2/9/2009 13:00 | BLANK | Pesticides | Bromacil | 0.2 | U | ug/L | 0.2 | 0.8 |
| 2/9/2009 13:00 | BLANK | Pesticides | Chlorpyrifos Ethyl | 0.05 | U | ug/L | 0.05 | 0.2 |
| 2/9/2009 13:00 | BLANK | Pesticides | Chlorpyrifos Methyl | 0.099 | U | ug/L | 0.099 | 0.4 |
| 2/9/2009 13:00 | BLANK | Pesticides | Alpha-BHC | 0.0099 | U | ug/L | 0.0099 | 0.04 |
| 2/9/2009 13:00 | BLANK | Pesticides | DDT-p,p' | 0.03 | U | ug/L | 0.03 | 0.12 |
| 2/9/2009 13:00 | BLANK | Pesticides | Endosulfan Sulfate | 0.02 | U | ug/L | 0.02 | 0.08 |
| 2/9/2009 13:00 | BLANK | Pesticides | Methoxychlor | 0.05 | U | ug/L | 0.05 | 0.2 |
| 2/9/2009 13:00 | BLANK | Pesticides | Toxaphene | 0.74 | U | ug/L | 0.74 | 3 |
| 2/9/2009 13:00 | BLANK | Pesticides | Azinphos Methyl | 0.2 | U | ug/L | 0.2 | 0.8 |
| 2/9/2009 13:00 | BLANK | Pesticides | Butylate | 0.2 | U | ug/L | 0.2 | 0.8 |
| 2/9/2009 13:00 | BLANK | Pesticides | Simazine | 0.05 | U | ug/L | 0.05 | 0.2 |
| 2/9/2009 13:00 | BLANK | Pesticides | Endrin Aldehyde | 0.02 | U | ug/L | 0.02 | 0.08 |
| 2/9/2009 13:00 | BLANK | Pesticides | Diazinon | 0.05 | U | ug/L | 0.05 | 0.2 |
| 2/9/2009 13:00 | BLANK | Pesticides | Ethion | 0.05 | U | ug/L | 0.05 | 0.2 |

## Appendix E. (continued)

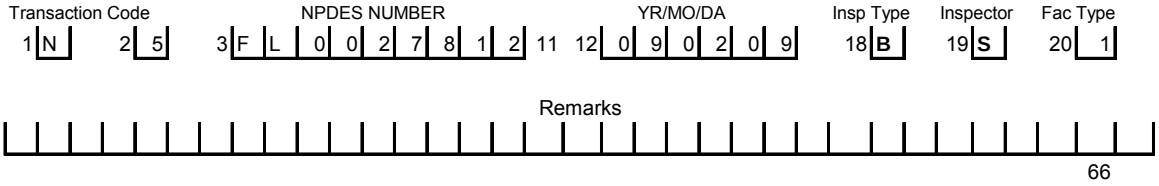
| Date Sampled | Field ID | Analysis Group | Components | Results | Remarks | Units | MDL | PQL |
|---|---|---|---|---|---|---|---|---|
| 2/9/2009 13:00 | BLANK | Pesticides | Hexazinone | 0.099 | U | ug/L | 0.099 | 0.4 |
| 2/9/2009 13:00 | BLANK | Pesticides | Naled | 0.79 | UJ | ug/L | 0.79 | 3.2 |
| 2/9/2009 13:00 | BLANK | Pesticides | Metribuzin | 0.099 | U | ug/L | 0.099 | 0.4 |
| 2/9/2009 13:00 | BLANK | Pesticides | Chlordane | 0.2 | U | ug/L | 0.2 | 0.8 |
| 2/9/2009 13:00 | BLANK | Pesticides | Endosulfan I | 0.02 | U | ug/L | 0.02 | 0.08 |
| 2/9/2009 13:00 | BLANK | Pesticides | Endosulfan II | 0.02 | U | ug/L | 0.02 | 0.08 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | 2,4-Dichlorophenol | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Naphthalene | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Acenaphthene | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Bis(2-ethylhexyl)phthalate | 16 | U | ug/L | 16 | 63 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Pyrene | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | 2,4-Dinitrophenol | 16 | U | ug/L | 16 | 63 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | N-Nitrosodimethylamine | 2.1 | U | ug/L | 2.1 | 8.4 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Benzo(a)anthracene | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | 2-Nitrophenol | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Nitrobenzene | 2.1 | U | ug/L | 2.1 | 8.4 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Isophorone | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Dimethyl phthalate | 10 | UJ | ug/L | 10 | 42 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | 2-Methyl-4,6-dinitrophenol | 3.1 | U | ug/L | 3.1 | 13 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Benzidine | 100 | U | ug/L | 100 | 420 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Benzo(a)pyrene | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Bis(2-chloroisopropyl)ether | 3.1 | U | ug/L | 3.1 | 13 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Phenanthrene | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Acenaphthylene | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Chrysene | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Di-n-octyl phthalate | 1 | UJ | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Fluoranthene | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Hexachlorobutadiene | 3.1 | U | ug/L | 3.1 | 13 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | N-Nitrosodiphenylamine/ Diphenylamine | 3.1 | U | ug/L | 3.1 | 13 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Phenol | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | 2-Chloronaphthalene | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | 4-Chlorophenyl phenyl ether | 2.1 | U | ug/L | 2.1 | 8.4 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | 4-Nitrophenol | 16 | U | ug/L | 16 | 63 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Bis(2-chloroethyl)ether | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Fluorene | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Hexachlorobenzene | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Hexachloroethane | 3.1 | U | ug/L | 3.1 | 13 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Indeno(1,2,3-cd)pyrene | 1 | U | ug/L | 1 | 4.2 |

## Appendix E. (continued)

| Date Sampled | Field ID | Analysis Group | Components | Results | Remarks | Units | MDL | PQL |
|---|---|---|---|---|---|---|---|---|
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | N-Nitrosodi-n-propylamine | 2.1 | U | ug/L | 2.1 | 8.4 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | 1,2,4-Trichlorobenzene | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | 2,4-Dimethylphenol | 10 | U | ug/L | 10 | 42 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | 2-Chlorophenol | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | 4-Chloro-3-methylphenol | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Anthracene | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Benzo(g,h,i)perylene | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Dibenzo(a,h)anthracene | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Hexachlorocyclopentadiene | 3.1 | UJ | ug/L | 3.1 | 13 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Pentachlorophenol | 3.1 | UJ | ug/L | 3.1 | 13 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | 4-Bromophenyl phenyl ether | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Bis(2-chloroethoxy)methane | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Di-n-butyl phthalate | 5.2 | U | ug/L | 5.2 | 21 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Diethyl phthalate | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | 2,4,6-Trichlorophenol | 1 | UJ | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | 2,4-Dinitrotoluene | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | 2,6-Dinitrotoluene | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | 3,3'-Dichlorobenzidine | 42 | UJ | ug/L | 42 | 170 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Benzo(b)fluoranthene | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Benzo(k)fluoranthene | 1 | U | ug/L | 1 | 4.2 |
| 2/9/2009 13:00 | BLANK | Priority Organic Pollutants | Butyl benzyl phthalate | 5.2 | U | ug/L | 5.2 | 21 |

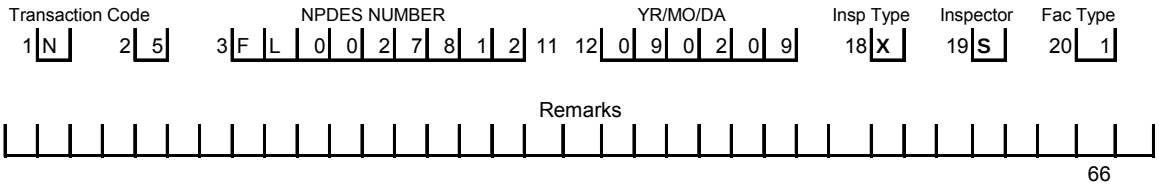
## The Bioassay of Baldwin Wastewater Treatment Facility effluent sampled on February 9, 2009. NPDES #FL0027812.

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




## The Priority Pollutants Analysis of Baldwin Wastewater Treatment Facility effluent sampled on February 9, 2009. NPDES #FL0027812.

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




## Biological Analyses Baldwin Wastewater Treatment Facility effluent sampled on February 9, 2009. NPDES #FL0027812.

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

