

Bioassays of

Wheelabrator South Broward Resource Recovery Facility

Broward County

NPDES #FLS267562

Sampled June 26, 2006

October 2006

Biology Section
Bureau of Laboratories
Division of Resource Assessment and Management

Quality Manual No. 870346G
NELAC Certification No. E31780

Wheelabrator South Broward Resource Recovery Facility, 4400 South State Road 7, Ft. Lauderdale, Broward County, Florida, NPDES #FLS267562. Effluent samples for this facility were collected on June 26, 2006.

Introduction

The Wheelabrator South Broward Resource Recovery Facility is a mass-burn waste-to-energy plant capable of processing 2,250 tons of non-hazardous municipal solid waste per day. At full capacity, the plant can generate 60 megawatts of electrical power. Electricity generated at the facility is sold to Florida Power and Light Company. The facility does not have a permitted design flow but for reference purposes, the discharge from outfalls D-001 (serving the southern sector) and D-002 (serving the northern sector) may reach peak rates of 41.1 cubic feet per second (CFS) and 58.8 CFS, respectively, during a 25-year/72-hour storm event. There was no discharge reported on the facility's Discharge Monitoring Reports (DMR) from May 2005-April 2006 and there was no discharge during the sampling event (June 26, 2006). The refuse combustion and energy production process components are all located on the southern section of the site, whereas the landfill for the incinerator ash residue (monofill) is located at the northern section of the site. The resource recovery facility and landfill are physically separated by a parcel of property that formerly housed the Fort Lauderdale Compost Plant.

All process wastewaters and contaminated stormwater are captured in a central wastewater-storage tank. Water from this tank is utilized for various plant processes, e.g., ash quenching and flue gas cleaning. The water from the central wastewater-storage tank is "lost" during the reuse process by evaporation and general process consumption. This reuse water is not being discharged into, and is isolated from, the stormwater ponds. Stormwater discharged from both sections of the site consist jointly of runoff from roads, roofs, outdoor machinery, equipment storage areas, and runoff from closed or inactive monofill sections. All stormwater in the southern section is collected in a 1.9 million gallon (MG) retention pond or in a separate stormwater detention pond that overflows to the 1.9 MG retention pond. Stormwater at the northern section is dispersed through a wooded area before entering two retention ponds (in series) with a total estimated storage capacity of 60 MG.

Treatment of stormwater is attained primarily by normal settling, natural degradation, dilution, and biological breakdown and uptake of pollutants, as stormwater is conveyed from point of generation to the final detention bodies where it remains in storage until it is actually released from the outfalls. Both outfalls have a baffle system for final removal of oil, grease, and other floating material. Outfall D-001 is located at the eastern end of the southern 1.9 MG stormwater detention pond, approximately at latitude 26º 04' 11" N, longitude 80º 12' 10" W. Outfall D-002, at the eastern end of the northern 60 MG stormwater detention pond, is located approximately at latitude 26º 04' 37" N, longitude 80º 12' 02" W. The discharges from Outfall D-001 and Outfall D-002 sheet-flow, respectively, across approximately 61 m (200 ft) and 305 m (1000 ft) wide swaths of natural preserve area before they reach the Class III freshwater receiving waters of the C-11 canal thence to the South Fork New River.

There are no Administrative Orders (AO) or Consent Orders (CO) for this facility. The facility has no mixing zones. During the past year, there have been no violations reported on the facility's DMR. (Facility information provided by Paul Sze and Val deOlloqui of FDEP Southeast District).

Methods

Samples were collected from the 1.9 MG stormwater pond adjacent to the STM-01 NPDES sampling point (discharge control structure) for Outfall D-001 by Terry Davis (FDEP Southeast District) following DEP-SOP-001/01 FS 2400 Wastewater Sampling. The facility was not discharging during the sampling event. 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 screen 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. While the 48-hour acute screening toxicity test does not reflect the permit required conditions, the Department uses it to provide reasonable assurance that the facility does not adversely affect waters of the state.

Toxicity Test Results

Tests were performed June 27-29, 2006.

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 either the *Ceriodaphnia dubia* or the *Cyprinella leedsi* 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 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% indicates low to moderate levels of toxicity, and further action may be required. Mortality of >50% provides reasonable assurance that the effluent fails to meet the minimum requirement to discharge to waters of the state (Rule 62-4.244(3)(a), F.A.C.).

Algal Growth Potential

The effluent Algal Growth Potential (AGP) was less than the laboratory method detection limit (MDL) of 0.30 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 results for total nitrogen and total phosphorus suggests that the effluent is phosphorus limited. Ortho-phosphate (OP) was not detected; therefore, AGP could not be predicted for OP (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 0.029 mg/L. Based on the pH, salinity, and temperature of the effluent as collected, the calculated unionized ammonia concentration was < 0.02 mg/L.

Aluminum was detected in the effluent. Barium, iron, and zinc were detected in the effluent at levels that comply with Class III fresh water quality criteria. Chromium III, lead, and nickel were detected between the laboratory method detection limits (MDL) and practical quantitation limits (PQL). The effluent dissolved oxygen concentration (3.84 mg/L) did not meet the Freshwater Quality Standard of ≥ 5 mg/L (62-302.530(31), F.A.C.); however, this was not a violation because the facility was not discharging.

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 June 26, 2006, was not acutely toxic to either test species during the 48-hour acute screen bioassays. The effluent AGP result was less than the "problem" threshold for fresh receiving waters. Effluent dissolved oxygen failed to meet the Class III Freshwater Quality criteria; however, this was not a violation because the facility was not discharging. Effluent water quality samples did not exceed any permit criteria.

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 Pseudokirchneriella subcapitata *for ortho phosphate (OP) and total phosphorus (TP) limitation and ratios of nitrogen to phosphorous for samples collected from Wheelabrator South Broward Resource Recovery Facility on June 26, 2006.*

Location	AGP (measured)	Predicted AGP (OP) ± 20%	Predicted AGP (TP) ± 20%	Inorganic N:P ratio	Total N:P ratio
Effluent Samples	0.300 U	NC	9.46 ± 1.892	NC	26.64

NC- Not calculable because orthophosphate was not detected in the sample
U - Material analyzed for but not detected; value reported is the minimum detection limit

Table 2. Effluent limits, Class III Freshwater Criteria and chemical data for samples collected from Wheelabrator South Broward Resource Recovery Facility on June 26, 2006.

Wheelabrator South Broward NPDES# FLS267562	Class III Freshwater Stds	Effluent Limits	Effluent Samples
Organic Constituents (µg/L)			
None detected	-	-	-
Metals (µg/L unless otherwise noted)			
Aluminum	-	-	73 A
Arsenic	≤ 50	Report	5 U
Barium	-	Report	38.4 A
Cadmium	≤ 1.8 b	Report	0.5 U
Calcium (mg/L)	-	-	68.6 A
Chromium-III	≤ 140.7 b	Report	0.44 I
Copper	≤ 15.6 b	-	2 U
Iron	≤ 1,000	-	101 A
Lead	≤ 6.8 b	Report	4 I
Magnesium (mg/L)	-	Report	2.6 A
Mercury	≤ 0.012	Report	0.12 U
Nickel	≤ 86.6 b	-	1.4 I
Selenium	≤ 5	Report	5 U
Silver	≤ 0.07	Report	0.25 U
Zinc	≤ 199 b	-	13 A
Nutrients (mg/L)			
Ortho-phosphate	-	-	0.004 U
Total Phosphorus	-	-	0.022 I
Ammonia	-	-	0.029
Unionized Ammonia	≤ 0.02	-	< 0.02 c
Nitrate+Nitrite	-	-	0.006 I
Total Kjeldahl Nitrogen	-	Report	0.58
Organic Nitrogen	-	-	0.55 c
Total Nitrogen	-	-	0.59 c
Organic Carbon (mg/L)	-	Report	6.2
General Physical and Chemical Parameters			
pH (S.U.)	6-8.5	6-8.5	7.2
Conductivity (umhos/cm)	≤ 1,275	-	445
Temperature (C)	-	-	28.2
Dissolved Oxygen (mg/L)	≥ 5	-	3.5 c
Chemical Oxygen Demand (mg/L)	-	Report	20 U
Total Dissolved Solids (mg/L)	-	Report	272
Total Suspended Solids (mg/L)	-	≤ 60	8 I
Oil and Grease (mg/L)	≤ 5	≤ 5	1.7 U
Chlorophyll-*a* (µg/L)	-	-	0.85 U
Phaeophytin-*a* (µg/L)	-	-	1.5 U
Flow (MGD)	-	Report	0 *
Alkalinity (mg/L)	≥ 20	-	142
Hardness (mg/L)	-	Report	182 c
Cyanide (mg/L)	≤ 0.0052	Report	0.01 U

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

b - Value is calculated based on hardness

c - Calculated value

A - Value reported is the mean of two or more determinations

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

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

* - no flow was reported on the facility's DMR from May 2005-April 2006

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2006-06-26-26
Wheelabrator South Broward

Customer: SE-DIST

Project ID: FYI3

PMAS: 1163

Requester: Shannan Bogdanov

Collected By: Terry Davis

Sampling Agency: SE District

Field Report Prepared By: T. Davis

Send Final Report To: Terry Davis or Bill Theil

Lab ID *

Location: D-001

Field ID: 51-WBS-1

Matrix (Include type e.g. Salt, Fresh, etc):

Temp (C): 28.23

pH: 7.15

Latitude: o ' " .

Longitude: o ' " .

☐ Comp ☒ Grab

Collection (begin) Date: 6/26/06 Time: 1105 Eastern Central

Collection (end) Date: Time: Eastern Central

Tot Res Chlorine (mg/L):

Diss Oxygen (mg/L): 4.52

Storet Station Number:

Sample Depth: ☒ m ☐ ft: .1

☐ Salinity (PPTh)

☒ Sp Conductance (umho/cm): 445

NPDES Number:

Bottle Group(s)**: A

Comments:

Lab ID *

Location: D-002

Field ID: 51-WBS-2

Matrix (Include type e.g. Salt, Fresh, etc):

Temp (C):

pH:

Latitude: o ' " .

Longitude: o ' " .

☐ Comp ☒ Grab

Collection (begin) Date: 6/26/06 Time: Eastern Central

Collection (end) Date: Time: Eastern Central

Tot Res Chlorine (mg/L):

Diss Oxygen (mg/L):

Storet Station Number:

Sample Depth: ☒ m ☐ ft: 1

☐ Salinity (PPTh)

☐ Sp Conductance (umho/cm):

NPDES Number:

Bottle Group(s)**:

Comments:

Lab ID *

Location: Blank

Field ID: 51-WBS-3

Matrix (Include type e.g. Salt, Fresh, etc):

Temp (C):

pH:

Latitude: o ' " .

Longitude: o ' " .

☐ Comp ☒ Grab

Collection (begin) Date: 6/26/06 Time: 0955 Eastern Central

Collection (end) Date: Time: Eastern Central

Tot Res Chlorine (mg/L):

Diss Oxygen (mg/L):

Storet Station Number:

Sample Depth: ☒ m ☐ ft: .01

☐ Salinity (PPTh)

☐ Sp Conductance (umho/cm):

NPDES Number:

Bottle Group(s)**: B

Comments:

Lab ID *

Location:

Field ID:

Matrix (Include type e.g. Salt, Fresh, etc):

Temp (C):

pH:

Latitude: o ' " .

Longitude: o ' " .

☐ Comp ☐ Grab

Collection (begin) Date: Time: Eastern Central

Collection (end) Date: Time: Eastern Central

Tot Res Chlorine (mg/L):

Diss Oxygen (mg/L):

Storet Station Number:

Sample Depth: ☐ m ☐ ft

☐ Salinity (PPTh)

☐ Sp Conductance (umho/cm):

NPDES Number:

Bottle Group(s)**:

Comments:

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
T. Davis	6/26/06 1600	DHL	ABB	6-27-06 08:55				

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

IBSY 6-27-06 1020 SAB

last revised October 1, 2003

FDEP Biology Section - Acute Screen Bioassay Bench Sheets

Facility: Wheelabrator South Broward Resource Recovery Facility

Address: 4400 South State Road 7

City: Ft. Lauderdale County: Broward

Contact/District: Terry Davis / Southeast District

NPDES Permit #: FLS 267562

LIMS Job #: TLH-20060-27-32 LIMS Sample #: 932084

Lims Data Entry: 6-29-06 SP Data Entry Verification: 6-29-06 MP

Sample Collection: Date: 6-26-06 Time: 11:05

Hold Time Start: Date: 6-26-06 Time: 11:05

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.

Light Intensity : 50 - 100 ft. candles.

Photoperiod : 16 hours light 8 hours dark.

Test 1 validation: **Test 1:** SOP TA 07_01

Control survival ≥90%: (Yes) No

Temperature Range ≤3°C: (Yes) No

Test 2 validation: **Test 2:** SOP TA 07_02

Control survival ≥90%: (Yes) No

Temperature Range ≤3°C: (Yes) No

Initial sample handling:

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

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

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

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

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

Temperature Range °C

Incubator # 3 Range 24.5 - 25.0

Room B246: 24.9 - 26.0

Waterbath: n/A

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

Sarah Pritchard

Marshall Faircloth

Bruce Atkinson

Jenee Davis

Nicki Wellendorf

REVIEWER

Water Quality Parameters	20% DMW	Moderately Hard Water/ (Well Water)	Salt Water ASW NSW Test 1	Salt Water ASW NSW Test 2	Other:	Original Sample	Method	Measured by	Verified by
Field Total Residual Cl2 (mg/L):	N/A	N/A	N/A	N/A		not measured		—	SP
Lab Total Residual Cl2 (mg/L):	<0.03	<0.03				<003	HACH	SP	BA
Alkalinity (mg/L as $CaCO_3$):	83	136				151	HACH	BA	SP
Hardness (mg/L as $CaCO_3$):	86	132				177	HACH	BA	SP
Total Ammonia (mg/L as N):	<0.017	<0.017				<0.017	DENVER	BA	SP
Salinity (ppth):	<1	<1				<1	YSI / Mettler	BA	SP

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Appendix B. Bench Sheets (continued)

FDEP Biology Section - Bioassay Survival Sheet

LIMS Sample #: 932084 Test #: 1 Test Started: Date 6-27-06 Time: 12:20

Organism: C.dubia SOP #: TA 07_01 Test Ended: Date 6-29-06 Time: 12:50

Organism Batch: 27-06 Diluent/ Batch: DMW / 17-06

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

Chamber Size: 30 mL Batch: 1-06 3-06 —

Test Volume: 20 mL Feeding: Prior to test (circled) - 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	~~B~~ A	5	5	5			
	B	B	5	5	5			
	C	C	5	5	5			
	D	D	5	5	5			
100%	A	A	5	5	5			
	B	B	5	5	5			
	C	C	5	5	5			
	D	D	5	5	5			
Organisms loaded by: BA		Checked by:		MF	BA			

Loading Verified by: JP

Comments:

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

Test Results:

% mortality in 100% sample: 0

LC_{50}: >100 If Calculated: 95% CI____ Method:____

Screening Tests:

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

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

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Appendix B. Bench Sheets (continued)

FDEP Biology Section - Bioassay Survival Sheet

LIMS Sample #: 932084 Test #: 2 Test Started: Date 6 27 06 Time: 12:00

Organism: C. leedsi SOP #: TA 07_02 Test Ended: Date 6-29-06 Time: 13:00

Organism Batch: 13-06 Diluent/ Batch: Well H2O / 6-26-06

Organism Age: 7 days Food: YCT *P. subcapitata* *Artemia*

Chamber Size: 1000 mL Batch: – – GSL-53690

Test Volume: 500 mL Feeding: Prior to test (circled) - 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			
	B	D2	5	5	5			
	C	D3	5	5	5			
	D	D4	5	5	5			
100%	A	D5	5	5	5			
	B	D6	5	5	5			
	C	D7	5	5	5			
	D	D8	5	5	5			
Organisms loaded by: JP		Checked by:	[redacted]	BA	BA			

Loading Verified by: SR

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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FDEP Biology Section - Bioassay Parameter Sheet

LIMS Sample # : 932084 Test #: 1 of 2

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

Concentration CTRL	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A		A,B			
pH (S.U.)	8.0		8.0			
Temperature °C	24.8		24.5			
Dissolved Oxygen mg/L	6.8		6.8			
Conductivity ~~µmhos~~ mmhos	177.0		191.9			
(initials) Measured by:	BA		BA			
(initials) Recorded by:	BA		BA			

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A		A,B			
pH (S.U.)	7.6		8.4			
Temperature °C	25.3		24.3			
Dissolved Oxygen mg/L	5.2		6.9			
Conductivity ~~µmhos~~ mmhos	448		462			
(initials) Measured by:	BA		BA			
(initials) Recorded by:	BA		BA			

Comments:

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

Comments:

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

Comments:

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FDEP Biology Section - Bioassay Parameter Sheet

LIMS Sample # : 932084 **Test #:** 2 of 2

TEST SOP #: TA07_ 02 **Test Species:** *Ceriodaphnia dubia* (*Cyprinella leedsi*) *Pimephales promelas* *Americamysis bahia* *Menidia beryllina* Other:_____

Concentration CTRL	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C			
pH (S.U.)	8.0	8.1	8.1			
Temperature °C	24.6	24.9	24.5			
Dissolved Oxygen mg/L	7.3	6.2	6.2			
Conductivity ~~µmhos~~ mmhos	269	285	282			
(initials) Measured by:	~~JD~~	BA	BA			
(initials) Recorded by:	~~JD~~	BA	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.)	7.6	8.2	8.3			
Temperature °C	25.0	24.5	24.3			
Dissolved Oxygen mg/L	5.2	6.1	6.2			
Conductivity ~~µmhos~~ mmhos	452	462	462			
(initials) Measured by:	~~JD~~	BA	BA			
(initials) Recorded by:	~~JD~~	BA	BA			

Comments:

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

Comments:

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

Comments:

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Appendix C. SRT Bench Sheets and Statistical Analysis

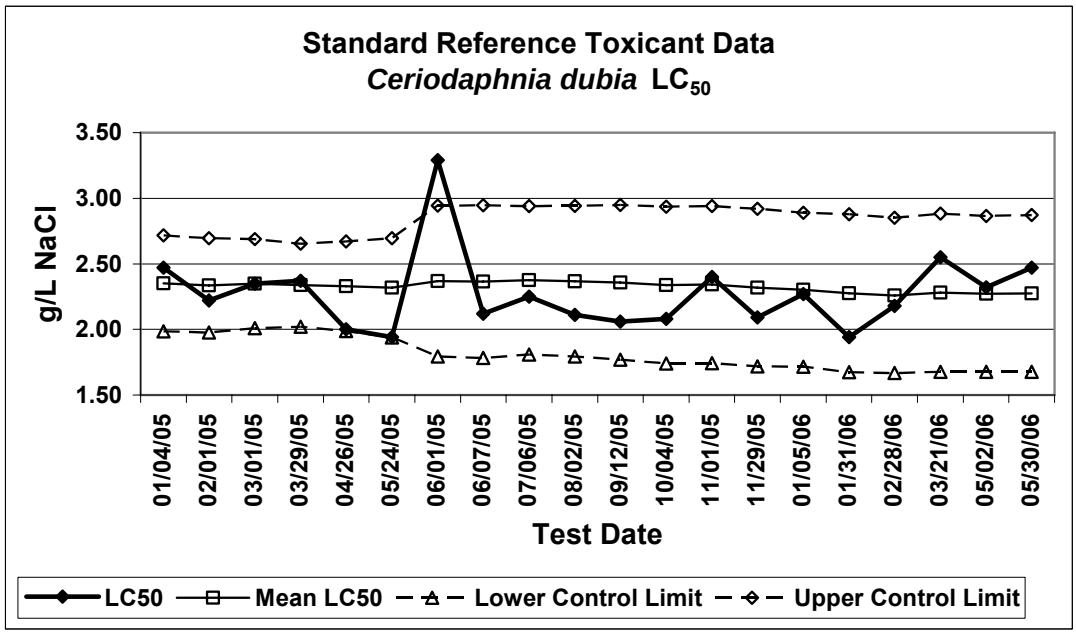
Florida Department of Environmental Protection
Bureau of Laboratories

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
01/04/05	2.47	2.35	0.18	1.98	2.72
02/01/05	2.22	2.34	0.18	1.98	2.70
03/01/05	2.35	2.35	0.17	2.01	2.69
03/29/05	2.37	2.34	0.16	2.02	2.65
04/26/05	2.00	2.33	0.17	1.99	2.67
05/24/05	1.94	2.32	0.19	1.94	2.70
06/01/05	3.29	2.37	0.29	1.79	2.94
06/07/05	2.12	2.36	0.29	1.78	2.95
07/06/05	2.25	2.37	0.28	1.81	2.94
08/02/05	2.11	2.37	0.29	1.79	2.94
09/12/05	2.06	2.36	0.29	1.77	2.95
10/04/05	2.08	2.34	0.30	1.74	2.94
11/01/05	2.40	2.34	0.30	1.74	2.94
11/29/05	2.09	2.32	0.30	1.72	2.92
01/05/06	2.27	2.30	0.29	1.72	2.89
01/31/06	1.94	2.28	0.30	1.67	2.88
02/28/06	2.18	2.26	0.30	1.67	2.85
03/21/06	2.55	2.28	0.30	1.68	2.88
05/02/06	2.32	2.27	0.30	1.68	2.87
05/30/06	2.47	2.27	0.30	1.68	2.87

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

CV = 13.14
EPA reference 75th quartile CV = 29%



Appendix C. (continued)

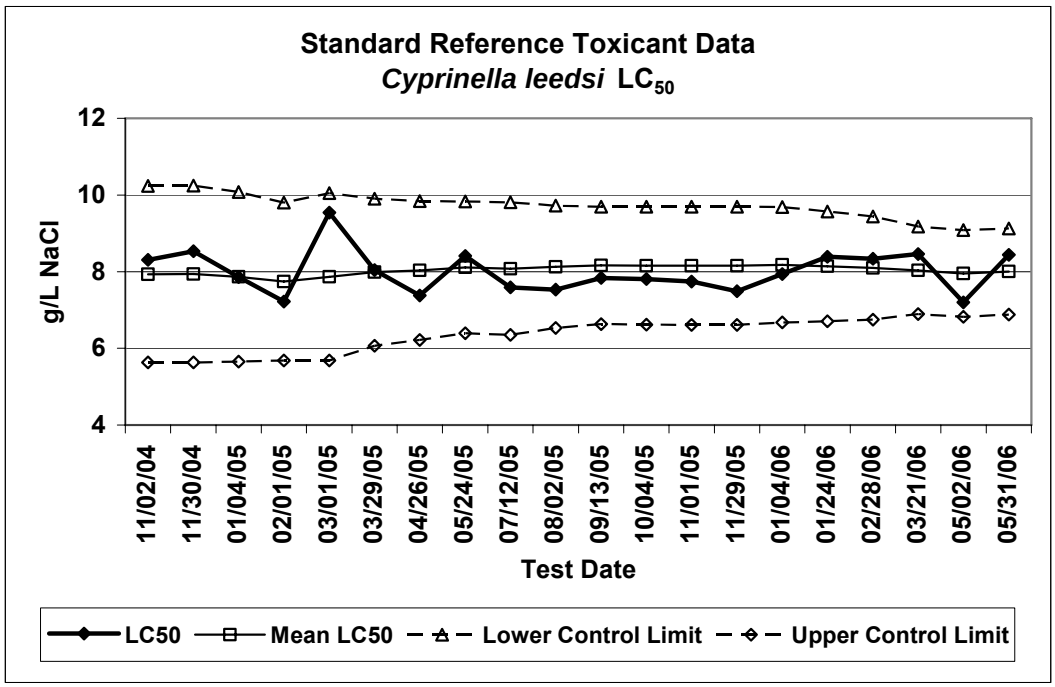
Florida Department of Environmental Protection
Bureau of Laboratories

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

Date	LC50	Mean LC50	Std Dev	Lower Control Limit	Upper Control Limit
11/02/04	8.31	7.93	1.15	5.63	10.24
11/30/04	8.53	7.94	1.15	5.63	10.24
01/04/05	7.86	7.87	1.11	5.65	10.08
02/01/05	7.22	7.74	1.03	5.68	9.80
03/01/05	9.54	7.87	1.09	5.68	10.05
03/29/05	8.04	7.99	0.96	6.07	9.91
04/26/05	7.38	8.03	0.90	6.22	9.84
05/24/05	8.41	8.11	0.86	6.40	9.83
07/12/05	7.59	8.08	0.86	6.35	9.81
08/02/05	7.53	8.13	0.80	6.53	9.72
09/13/05	7.84	8.16	0.77	6.63	9.70
10/04/05	7.81	8.16	0.77	6.62	9.69
11/01/05	7.74	8.15	0.77	6.61	9.69
11/29/05	7.49	8.15	0.77	6.61	9.69
01/04/06	7.94	8.18	0.75	6.67	9.68
01/24/06	8.39	8.14	0.72	6.71	9.57
02/28/06	8.34	8.09	0.67	6.75	9.44
03/21/06	8.46	8.04	0.57	6.89	9.18
05/02/06	7.20	7.95	0.57	6.82	9.09
05/31/06	8.44	8.00	0.56	6.88	9.13

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

CV = 7.04
EPA reference 75th quartile CV = 19%



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 / 13-06, 14-06
Toxicant/ Batch# NaCl / 6-06

Test Beginning: Date: 5-30-06 Time: 11:50
Test Ending: Date: 6-3-06 Time: 0930

Organism Batch #/ Age: 23-06 / <24hrs
Feeding: (Prior to test) (Prior to renewal) Daily
Food: YCT P.subcapitata Artemia
Food Batch: 5-05 3-06 —
Chamber size: 30 mL
Test volume: 20 mL per replicate

Water Quality Parameters:	13-06 Diluted	14-06 Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	<0.03	Hach	BA
Alkalinity (mg/L as $CaCO_3$):	81	87	Hach	MF/BA
Hardness (mg/L as CaCO3):	85	85	Hach	MF/BA
Total Ammonia (mg/L as N):	<0.067	<0.067	Denver	MF
Salinity (ppth):	<1	<1	Mettler	SP

Conc µg/L (g/L)	Rep.	Chamber#	Number Live 0 hr (48 hr)	Number Live 24 hr (72 hr)	Number Live 48 hr (96 hr)	pH (SU) 0 hr (48 hr)	pH (SU) 24 hr (72 hr)	pH (SU) 48 hr (96 hr)	Temperature (° C) 0 hr (48 hr)	Temperature (° C) 24 hr (72 hr)	Temperature (° C) 48 hr (96 hr)	D.O. (mg/l) 0 hr (48 hr)	D.O. (mg/l) 24 hr (72 hr)	D.O. (mg/l) 48 hr (96 hr)	UNCORRECTED Cond. (mmhos/cm) Cond. (µmhos/cm) 0 hr (48 hr)	UNCORRECTED Cond. (mmhos/cm) Cond. (µmhos/cm) 24 hr (72 hr)	UNCORRECTED Cond. (mmhos/cm) Cond. (µmhos/cm) 48 hr (96 hr)
Control	A	A	5	5	5	8.3		8.0	25.5		24.5	7.5		7.4	0.171		0.205
	B	B	5	5	5												
	C	C	5	5	5												
	D	D	5	5	5												
1.5	A	A	5	5	5	8.1		7.9	25.8		24.6	7.5		7.0	354 (A)		338
	B	B	5	5	5												
	C	C	5	5	5												
	D	D	5	5	5												
2.0	A	A	5	5	5	8.1		7.9	25.9		24.7	7.5		7.1	347		4.31
	B	B	5	5	5												
	C	C	5	5	5												
	D	D	5	5	5												
2.5	A	A	5	0 5D	—	8.1		7.9	25.9		24.9	7.6		7.1	4.98		5.84
	B	B	5	3 2D 5	2 3D												
	C	C	5	1 4D 5	4 1D												
	D	D	5	2 3D 0	4 1D												
3.0	A	A	5	0 5D	—	8.1	8.1	7.9	25.9	25.2	24.9	7.4	7.2	7.1	5.70	6.18	6.50
	B	B	5	3 2D	0 1D												
	C	C	5	1 4D	0 1D												
	D	D	5	2 3D	0 2D												
4.6	A	A	5	0 5D	-	8.1	8.1	—	25.9	25.1	—	7.6	7.3	—	7.41	7.67	—
	B	B	5	0 5D	-												
	C	C	5	0 5D	-												
	D	D	5	0 5D	-												
	A																
	B																
	C																
	D																
Loaded / measured by:			BA	SP	MF	SP	SP	MF	SP	SP	MF	SP	SP	MF	SP	SP	MF
Recorded by:			SP	SP	MF	SP	SP	MF	SP	SP	MF	SP	SP	MF	SP	SP	MF

Investigators' Signatures
Sarah Pritchard
Brad Antrim
Marshall Faircloth
Nicole Wilkerdf
REVIEWER

Concentrations prepared by: SP/BA
Loading verified by: SP
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min. 23.0 max. 26.0 mean 24.5
Incubator # ___ min. ___ max. ___ mean ___
Room B246 min. 24.2 max. 24.9 mean 24.6

Remarks:
(A) remixed ; passed concentration before loading conductivity 2.99 mmhos SP
(B) transcription error SP

Statistical Results: Method: Spearman-Karber
(48) 96 hour LC50: 2.47
95% Confidence Interval: lower 2.36 upper 2.59

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 / 13-06, 14-06
Toxicant/ Batch# NaCl / 6-06

Test Beginning: Date: 5-30-06 Time: 11:50
Test Ending: Date: 6-3-06 Time: 0930

Organism Batch #/ Age: 23-06 / <24hrs
Feeding: (Prior to test) (Prior to renewal) / Daily
Food: YCT P.subcapitata Artemia
Food Batch: 5-05 3-06
Chamber size: 30 mL
Test volume: 20 mL per replicate

Water Quality Parameters:	13-06 Diluent	14-06 Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	<0.03	Hach	BP BN
Alkalinity (mg/L as $CaCO_3$):	81	87	Hach	X BA
Hardness (mg/L as CaCO3):	85	85	Hach	X BA
Total Ammonia (mg/L as N):	<0.017	0.017	Denver	MF
Salinity (ppth):	<1	<1	Mettler	30

Conc. µg/L g/L	Rep.	Chamber#	Number Live 0 hr / 24 hr / 48 hr			pH (SU) 0 hr / 24 hr / 48 hr			Temperature (° C) 0 hr / 24 hr / 48 hr			D.O. (mg/l) 0 hr / 24 hr / 48 hr			UNCORRECTED Cond. (mmhos/cm) Cond. (µmhom/cm) 0 hr / 24 hr / 48 hr		
			48 hr	72 hr	96 hr	48 hr	72 hr	96 hr	48 hr	72 hr	96 hr	48 hr	72 hr	96 hr	48 hr	72 hr	96 hr
Control	A	A	5	4 10	4	8.1		8.1	24.3		24.9	7.4		7.0	0.168		0.208
	B	B	5	5	5												
	C	C	5	5	5												
	D	D	5	5	5												
1.5	A	A	5	5	5	8.1		8.1	24.7		25.0	7.4		6.9	2.92		3.54
	B	B	5	5	4 10												
	C	C	5	5	4 10												
	D	D	5	4 10	4												
2.0	A	A	5	4 10	4	8.1		8.1	24.7		25.3	7.4		6.8	3.84		4.64
	B	B	5	5	5												
	C	C	5	3 20	3												
	D	D	5	2 30	0 20												
2.5	A	A	0	—	—	8.0		—	24.8		25.7 (A)	7.3		—	4.80		5.26 (A)
	B	B	2	0 20	—		8.0			25.2			7.0			5.15	
	C	C	4	0 40	—												
	D	D	4	0 40	—												
3.0	A	A	-	-	-	8.1		-	24.7		-	7.3		-	5.66		-
	B	B	-	-	-		-			-			-			-	
	C	C	-	-	-												
	D	D	-	-	-												
4.0	A	A	-	-	-	-		-	-		-	-	-	-	-		-
	B	B	-	-	-												
	C	C	-	-	-												
	D	D	-	-	-												
	A																
	B																
	C																
	D																
Loaded / measured by:			MF	MF	MF	MF	MF	MF	MF	MF	MF	MF	MF	MF	MF	MF	MF
Recorded by:			MF	MF	MF	MF	MF	MF	MF	MF	MF	MF	MF	MF	MF	MF	MF

Investigators' Signatures
Sarah Pinckney
Brad Peaden
Marshall Faircloth
Nicole Wellenkoff
REVIEWER

Concentrations prepared by: MF
Loading verified by: MH
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min. 23.0 max. 26.0 mean 24.5
Incubator # ___ min. ___ max. ___ mean ___
Room B246 min. 24.2 max. 27.9 mean 24.6

Remarks: (A) measurements not necessary - MF 6/2/06

Statistical Results: Method: Spearman-Karber
48 / 96 hour LC50: 2.03
95% Confidence Interval: lower 1.88 upper 2.18
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 2

Diluent/ Batch#: well HO 5-30-06
Toxicant/ Batch# NaCl 1-6-06

Test Beginning: Date: 5-31-06 Time: 1345
Test Ending: Date: 6-4-06 Time: 1330

Water Quality Parameters:	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	BA/MD
Alkalinity (mg/L as $CaCO_3$):	142	Hach	BA
Hardness (mg/L as CaCO3):	131	Hach	BA
Total Ammonia (mg/L as N):	<0.017	Denver	MF
Salinity (ppth):	<1	Mettler	BA

Organism Batch #/ Age: 11-06 / 8 days
Feeding: Prior to test / Prior to renewal / Daily
Food: YCT P.*subcapitata* Artemia
Food Batch: — — GSL-536-90
Chamber size: 1000 mL
Test volume: 500 mL per replicate

Conc. µg/L (B1)	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	D13	10	10	10	7.8		7.9	24.5		24.4	7.0		5.9	0.305		0.323
	B	D14	10	10	9 (D)		7.9			24.2			6.0			0.312	
	C																
	D																
6.0	A	D15	10	10	10	7.8		7.9	24.9		24.3	7.0		5.6	10.4		10.17
	B	D16	10	10	10		7.9			24.0			6.1			9.8	
	C																
	D																
7.0	A	D17	10	9 (D)	9	7.8		7.9	24.9		24.3	7.5		5.6	~~13.7~~ (B)	11.9	12.5
	B	D18	10	9 (D)	9		7.9			24.1			6.2		12.3 (A)		
	C																
	D																
8.0	A	D19	10	8 (D)	6 (D)	7.9		7.9	25.0		24.3	7.5		5.8	13.9		14.1
	B	D20	10	5 (D)	5		7.9			24.1			6.0			13.6	
	C																
	D																
9.0	A	D21	10	4 (D)	4	7.8		7.9	25.0		24.3	7.0		5.9	15.6		15.9
	B	D22	10	7 (D)	5 (D)		7.9			24.1			6.2			15.5	
	C																
	D																
10.0	A	D23	10	3 (D)	1 (D)	7.9		7.9	25.0		24.3	7.2		6.0	17.1		17.3
	B	D24	10	1 (D)	0 (D)		7.9			24.1			6.3			16.8	
	C																
	D																
	A																
	B																
	C																
	D																
Loaded / measured by:			JD	JD	JD	JD	JD	BA	JD	JD	BA	JD	JD	BA	JD	JD	BA
Recorded by:			BA	JD	JD	JD	JD	BA	JD	JD	BA	JD	JD	BA	JD	2	BA

Investigators' Signatures
Bruce Anderson
James Daniels
Marshall Faircloth
Sarah Pankhurst
Nicole Wellenhoff
REVIEWER

Concentrations prepared by: BA
Loading verified by: BA
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min. 24.2 max. 26.6 mean 25.4
Incubator # ___ min. ___ max. ___ mean ___
Room B246 min. 24.2 max. 24.9 mean 24.6

Remarks:
(B) Transcription error JD.

Statistical Results: 8.44 BA Method: Spearman-Karber
(68) 96 hour LC50: 5.13
95% Confidence Interval: lower 8.07 upper 8.82

Revised 03/21/06

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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#: Well H2O 5-30-06
Toxicant/ Batch# NaCl 1-06

Test Beginning: Date: 5-31-06 Time: 1345
Test Ending: Date: 6-4-06 Time: 13:30

Water Quality Parameters:	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	BA/FD
Alkalinity (mg/L as $CaCO_3$):	142	Hach	BA
Hardness (mg/L as CaCO3):	131	Hach	BD
Total Ammonia (mg/L as N):	< 0.317	Denver	MF
Salinity (ppth):	<1	Mettler	BA

Organism Batch #/ Age: 11-06 / 8 days
Feeding: (Prior to test) (Prior to renewal) / Daily
Food: YCT P.subcapitata Artemia
Food Batch: — — 651-534-40
Chamber size: 1000 mL
Test volume: 500 mL per replicate

Conc. µg/L g/L	Rep.	Chamber#	Number Live 0 hr / 24 hr / 48 hr			pH (SU) 0 hr / 24 hr / 48 hr			Temperature (° C) 0 hr / 24 hr / 48 hr			D.O. (mg/l) 0 hr / 24 hr / 48 hr			UNCORRECTED Cond. (mmhos/cm) Cond. (µmhos/cm) 0 hr / 24 hr / 48 hr		
			48 hr	72 hr	96 hr	48 hr	72 hr	96 hr	48 hr	72 hr	96 hr	48 hr	72 hr	96 hr	48 hr	72 hr	96 hr
Control	A	D13	10	10	9(0)	8.1	8.0		25.0	24.3		7.0	6.2		0.296	0.277	
	B	D14	9	9	9			8.3			24.5			6.7			0.303
	C																
	D																
6.6	A	D15	10	9(0)	9	8.0	7.9		24.9	24.2		7.1	6.0		10.5	10.3	
	B	D16	10	10	10			8.1			24.4			6.6			10.7
	C																
	D																
7.0	A	D17	9	9	9	8.0	7.9		24.9	24.3		7.1	6.0		12.3	12.6	
	B	D18	9	9	6			8.2			24.2			6.9			12.8
	C																
	D																
8.0	A	D19	6	6	6	8.0	7.9		24.8	24.5		6.5	6.0		13.7	14.1	
	B	D20	5	5	5			8.2			24.0			6.5			14.4
	C																
	D																
9.0	A	D21	4	4	4	8.0	8.0	8.2 (B)	24.9	24.5		6.8	6.1	6.7 (B)	15.7	15.3	16.2 (A)
	B	D22	5	4(0)	3(0)						24.0						
	C																
	D																
10.0	A	D23	1	1	1	8.0	8.0		24.8	24.5	24.2	7.0	6.2	6.7	17.2	17.4	17.8
	B	D24	0	—	—			8.2 (B)									
	C																
	D																
	A																
	B																
	C																
	D																
Loaded / measured by:			JD	MF	JD	JD	MF	JD	JD	MF	JD	JD	MF	JD	JD	MF	JD
Recorded by:			JD	MF	JD	JD	MF	JD	JD	MF	JD	JD	MF	JD	JD	MF	JD

Investigators' Signatures
Bruce Goodwin
Jason Dimmitt
Marshall Faircloth
Jessica Kirkland
Nicole Wellendorf
REVIEWER

Concentrations prepared by: JD
Loading verified by: NA
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min. 24.2 max. 24.6 mean 24.4
Incubator # ___ min. ___ max. ___ mean ___
Room B246 min. 24.2 max. 24.9 mean 24.6

Remarks: (A) measurements recorded in wrong space. MF for JD. 6/26/06. Personal communication.

Statistical Results: Method: Spearman-Karber
48 / 96 hour LC50: 8.43
95% Confidence Interval: lower 8.08 upper 8.79

Revised 02/21/06

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Appendix C. (continued)

Ceriodaphnia dubia Acute Standard Reference Toxicant Test

DATE: 5-30-06 DURATION: 48 h TOXICANT : NaCl
SPECIES: *C.dubia*

RAW DATA:	Concentration (g/L)	Number Exposed	Mortalities
	0.00	20	0
	1.50	20	0
	2.00	20	0
	2.50	20	10
	3.00	20	20
	4.00	20	20

SPEARMAN-KARBER TRIM: .00%

SPEARMAN-KARBER ESTIMATES: LC_{50}: 2.47
95% LOWER CONFIDENCE: 2.36
95% UPPER CONFIDENCE: 2.59

Cyprinella leedsi Acute Standard Reference Toxicant Test

DATE: 5-31-06 DURATION: 48 h TOXICANT : NaCl
SPECIES: *C.leedsi*

RAW DATA:	Concentration (g/L)	Number Exposed	Mortalities
	0.00	20	1
	6.00	20	0
	7.00	20	2
	8.00	20	9
	9.00	20	11
	10.00	20	19

SPEARMAN-KARBER TRIM: 5.13%

SPEARMAN-KARBER ESTIMATES: LC_{50}: 8.44
95% LOWER CONFIDENCE: 8.07
95% UPPER CONFIDENCE: 8.82

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

Appendix D. Test Organism Receipt

11842 Research Circle
Alachua, FL 32615
T: (386) 462-7889
F: (386) 462-7264
www.hydrosphere.net

HYDROSPHERE
research

Packaging List

Date	Customer Number	Order Shipped Via
5/30/2006	NA	Hydrosphere Research
Customer		**Order Prepared By**
FDEP Marshall Faircloth Biology Mail Stop 6515 2600 Blair Stone Road Tallahassee, Fl 32399-2400		D. Onash

Quantity	Description
150	P. promelas hatch date 05/23/06
150	C. leedsi hatch date 05/23/06

Appendix D. (continued)

11842 Research Circle
Alachua, FL 32615
T: (386) 462-7889
F: (386) 462-7264
www.hydrosphere.net

HYDROSPHERE
research

Packaging List

Date	Customer Number	Order Shipped Via
06/26/06	NA	Hydrosphere Research
Customer		**Order Prepared By**
FDEP Marshall Faircloth Biology Mail Stop 6515 2600 Blair Stone Road Tallahassee, Fl 32399-2400		D. Onash

Quantity	Description
120	C. leedsi hatch date 6/20/06

Appendix E. Chemical Analyses performed on the effluent from the Wheelabrator South Broward Resource Recovery Facility Outfall D-001, sampled on June 26, 2006.

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
06/26/06 11:05	51-WBS-1	Bio-AGP/LimNut	Algal Growth Potential	0.3	mg DryWt/L	U	0.3	0.9
06/26/06 11:05	51-WBS-1	Bio-Chl-a	Chlorophyll-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
06/26/06 11:05	51-WBS-1	Bio-Chl-a	Phaeophytin-A, Monochromatic, Water	1.5	ug/L	U	1.5	4.5
06/26/06 11:05	51-WBS-1	Bio-Toxicology	Bioassay-Acute-Screen-FW-C.dubia, LC50	100	LC50	L		
06/26/06 11:05	51-WBS-1	Bio-Toxicology	Bioassay-Acute-Screen-FW-Fish, LC50	100	LC50	L		
06/26/06 11:05	51-WBS-1	BNA-Water	1,2,4-Trichlorobenzene	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	1,2-Dichlorobenzene	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	1,3-Dichlorobenzene	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	1,4-Dichlorobenzene	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	2,4,6-Trichlorophenol	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	2,4-Dichlorophenol	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	2,4-Dimethylphenol	50	ug/L	U	50	200
06/26/06 11:05	51-WBS-1	BNA-Water	2,4-Dinitrophenol	15	ug/L	U	15	59
06/26/06 11:05	51-WBS-1	BNA-Water	2,4-Dinitrotoluene	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	2,6-Dinitrotoluene	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	2-Chloronaphthalene	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	2-Chlorophenol	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	2-Methyl-4,6-dinitrophenol	3	ug/L	U	3	12
06/26/06 11:05	51-WBS-1	BNA-Water	2-Nitrophenol	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	3,3'-Dichlorobenzidine	40	ug/L	U	40	160
06/26/06 11:05	51-WBS-1	BNA-Water	4,4'-DDD	1.5	ug/L	U	1.5	5.9
06/26/06 11:05	51-WBS-1	BNA-Water	4,4'-DDE	1.5	ug/L	U	1.5	5.9
06/26/06 11:05	51-WBS-1	BNA-Water	4,4'-DDT	1.5	ug/L	UJ	1.5	5.9
06/26/06 11:05	51-WBS-1	BNA-Water	4-Bromophenyl phenyl ether	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	4-Chloro-3-methylphenol	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	4-Chlorophenyl phenyl ether	2	ug/L	U	2	7.9
06/26/06 11:05	51-WBS-1	BNA-Water	4-Nitrophenol	15	ug/L	U	15	59
06/26/06 11:05	51-WBS-1	BNA-Water	Acenaphthene	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	Acenaphthylene	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	Aldrin	1.5	ug/L	U	1.5	5.9
06/26/06 11:05	51-WBS-1	BNA-Water	alpha-BHC	1.5	ug/L	U	1.5	5.9
06/26/06 11:05	51-WBS-1	BNA-Water	Anthracene	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	Benzidine	99	ug/L	U	99	400
06/26/06 11:05	51-WBS-1	BNA-Water	Benzo(a)anthracene	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	Benzo(a)pyrene	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	Benzo(b)fluoranthene	0.99	ug/L	U	0.99	4

Appendix E. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
06/26/06 11:05	51-WBS-1	BNA-Water	Benzo(g,h,i)perylene	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	Benzo(k)fluoranthene	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	beta-BHC	1.5	ug/L	U	1.5	5.9
06/26/06 11:05	51-WBS-1	BNA-Water	Bis(2-chloroethoxy)methane	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	Bis(2-chloroethyl)ether	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	Bis(2-chloroisopropyl)ether	3	ug/L	U	3	12
06/26/06 11:05	51-WBS-1	BNA-Water	Bis(2-ethylhexyl)phthalate	15	ug/L	U	15	59
06/26/06 11:05	51-WBS-1	BNA-Water	Butyl benzyl phthalate	5	ug/L	U	5	20
06/26/06 11:05	51-WBS-1	BNA-Water	Chrysene	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	delta-BHC	1.5	ug/L	U	1.5	5.9
06/26/06 11:05	51-WBS-1	BNA-Water	Dibenzo(a,h)anthracene	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	Dieldrin	1.5	ug/L	U	1.5	5.9
06/26/06 11:05	51-WBS-1	BNA-Water	Diethyl phthalate	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	Dimethyl phthalate	50	ug/L	U	50	200
06/26/06 11:05	51-WBS-1	BNA-Water	Di-n-butyl phthalate	29	ug/L	U	29	120
06/26/06 11:05	51-WBS-1	BNA-Water	Di-n-octyl phthalate	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	Endosulfan I	4	ug/L	U	4	16
06/26/06 11:05	51-WBS-1	BNA-Water	Endosulfan II	4	ug/L	U	4	16
06/26/06 11:05	51-WBS-1	BNA-Water	Endosulfan sulfate	1.5	ug/L	UJ	1.5	5.9
06/26/06 11:05	51-WBS-1	BNA-Water	Endrin	1.5	ug/L	UJ	1.5	5.9
06/26/06 11:05	51-WBS-1	BNA-Water	Endrin aldehyde	4	ug/L	U	4	16
06/26/06 11:05	51-WBS-1	BNA-Water	Fluoranthene	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	Fluorene	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	gamma-BHC	1.5	ug/L	U	1.5	5.9
06/26/06 11:05	51-WBS-1	BNA-Water	Heptachlor	1.5	ug/L	U	1.5	5.9
06/26/06 11:05	51-WBS-1	BNA-Water	Heptachlor epoxide	1.5	ug/L	U	1.5	5.9
06/26/06 11:05	51-WBS-1	BNA-Water	Hexachlorobenzene	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	Hexachlorobutadiene	3	ug/L	UJ	3	12
06/26/06 11:05	51-WBS-1	BNA-Water	Hexachlorocyclopentadiene	3	ug/L	UJ	3	12
06/26/06 11:05	51-WBS-1	BNA-Water	Hexachloroethane	3	ug/L	U	3	12
06/26/06 11:05	51-WBS-1	BNA-Water	Indeno(1,2,3-cd)pyrene	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	Isophorone	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	Naphthalene	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	Nitrobenzene	2	ug/L	U	2	7.9
06/26/06 11:05	51-WBS-1	BNA-Water	N-Nitrosodimethylamine	2	ug/L	U	2	7.9
06/26/06 11:05	51-WBS-1	BNA-Water	N-Nitrosodi-n-propylamine	2	ug/L	U	2	7.9
06/26/06 11:05	51-WBS-1	BNA-Water	N-Nitrosodiphenylamine	3	ug/L	UJ	3	12

Appendix E. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
06/26/06 11:05	51-WBS-1	BNA-Water	Pentachlorophenol	3	ug/L	U	3	12
06/26/06 11:05	51-WBS-1	BNA-Water	Phenanthrene	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	Phenol	0.99	ug/L	U	0.99	4
06/26/06 11:05	51-WBS-1	BNA-Water	Pyrene	0.99	ug/L	U	0.99	4
06/26/06 09:55	51-WBS-3	BNA-Water	1,2,4-Trichlorobenzene	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	1,2-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	1,3-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	1,4-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	2,4,6-Trichlorophenol	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	2,4-Dichlorophenol	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
06/26/06 09:55	51-WBS-3	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	58
06/26/06 09:55	51-WBS-3	BNA-Water	2,4-Dinitrotoluene	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	2,6-Dinitrotoluene	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	2-Chloronaphthalene	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	2-Chlorophenol	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	12
06/26/06 09:55	51-WBS-3	BNA-Water	2-Nitrophenol	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
06/26/06 09:55	51-WBS-3	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.8
06/26/06 09:55	51-WBS-3	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.8
06/26/06 09:55	51-WBS-3	BNA-Water	4,4'-DDT	1.4	ug/L	UJ	1.4	5.8
06/26/06 09:55	51-WBS-3	BNA-Water	4-Bromophenyl phenyl ether	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	4-Chloro-3-methylphenol	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.7
06/26/06 09:55	51-WBS-3	BNA-Water	4-Nitrophenol	14	ug/L	U	14	58
06/26/06 09:55	51-WBS-3	BNA-Water	Acenaphthene	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	Acenaphthylene	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.8
06/26/06 09:55	51-WBS-3	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.8
06/26/06 09:55	51-WBS-3	BNA-Water	Anthracene	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	Benzidine	96	ug/L	U	96	380
06/26/06 09:55	51-WBS-3	BNA-Water	Benzo(a)anthracene	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	Benzo(a)pyrene	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	Benzo(b)fluoranthene	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	Benzo(g,h,i)perylene	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	Benzo(k)fluoranthene	0.96	ug/L	U	0.96	3.8

Appendix E. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
06/26/06 09:55	51-WBS-3	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.8
06/26/06 09:55	51-WBS-3	BNA-Water	Bis(2-chloroethoxy)methane	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	Bis(2-chloroethyl)ether	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	12
06/26/06 09:55	51-WBS-3	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	58
06/26/06 09:55	51-WBS-3	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
06/26/06 09:55	51-WBS-3	BNA-Water	Chrysene	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.8
06/26/06 09:55	51-WBS-3	BNA-Water	Dibenzo(a,h)anthracene	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.8
06/26/06 09:55	51-WBS-3	BNA-Water	Diethyl phthalate	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
06/26/06 09:55	51-WBS-3	BNA-Water	Di-n-butyl phthalate	29	ug/L	U	29	110
06/26/06 09:55	51-WBS-3	BNA-Water	Di-n-octyl phthalate	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
06/26/06 09:55	51-WBS-3	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
06/26/06 09:55	51-WBS-3	BNA-Water	Endosulfan sulfate	1.4	ug/L	UJ	1.4	5.8
06/26/06 09:55	51-WBS-3	BNA-Water	Endrin	1.4	ug/L	UJ	1.4	5.8
06/26/06 09:55	51-WBS-3	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
06/26/06 09:55	51-WBS-3	BNA-Water	Fluoranthene	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	Fluorene	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.8
06/26/06 09:55	51-WBS-3	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.8
06/26/06 09:55	51-WBS-3	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.8
06/26/06 09:55	51-WBS-3	BNA-Water	Hexachlorobenzene	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	Hexachlorobutadiene	2.9	ug/L	UJ	2.9	12
06/26/06 09:55	51-WBS-3	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	12
06/26/06 09:55	51-WBS-3	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	12
06/26/06 09:55	51-WBS-3	BNA-Water	Indeno(1,2,3-cd)pyrene	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	Isophorone	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	Naphthalene	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.7
06/26/06 09:55	51-WBS-3	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.7
06/26/06 09:55	51-WBS-3	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.7
06/26/06 09:55	51-WBS-3	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	UJ	2.9	12
06/26/06 09:55	51-WBS-3	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	12
06/26/06 09:55	51-WBS-3	BNA-Water	Phenanthrene	0.96	ug/L	U	0.96	3.8

Appendix E. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
06/26/06 09:55	51-WBS-3	BNA-Water	Phenol	0.96	ug/L	U	0.96	3.8
06/26/06 09:55	51-WBS-3	BNA-Water	Pyrene	0.96	ug/L	U	0.96	3.8
06/26/06 11:05	51-WBS-1	GC-Water	Alachlor	0.58	ug/L	U	0.58	2.3
06/26/06 11:05	51-WBS-1	GC-Water	Ametryn	0.049	ug/L	U	0.049	0.2
06/26/06 11:05	51-WBS-1	GC-Water	Atrazine	0.049	ug/L	U	0.049	0.2
06/26/06 11:05	51-WBS-1	GC-Water	Azinphos Methyl	0.19	ug/L	U	0.19	0.76
06/26/06 11:05	51-WBS-1	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
06/26/06 11:05	51-WBS-1	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
06/26/06 11:05	51-WBS-1	GC-Water	Chlorpyrifos Ethyl	0.049	ug/L	U	0.049	0.2
06/26/06 11:05	51-WBS-1	GC-Water	Chlorpyrifos Methyl	0.097	ug/L	U	0.097	0.39
06/26/06 11:05	51-WBS-1	GC-Water	Diazinon	0.049	ug/L	U	0.049	0.2
06/26/06 11:05	51-WBS-1	GC-Water	Ethion	0.049	ug/L	U	0.049	0.2
06/26/06 11:05	51-WBS-1	GC-Water	Ethoprop	0.097	ug/L	U	0.097	0.39
06/26/06 11:05	51-WBS-1	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
06/26/06 11:05	51-WBS-1	GC-Water	Fonofos	0.097	ug/L	U	0.097	0.39
06/26/06 11:05	51-WBS-1	GC-Water	Hexazinone	0.097	ug/L	U	0.097	0.39
06/26/06 11:05	51-WBS-1	GC-Water	Malathion	0.15	ug/L	UJ	0.15	0.6
06/26/06 11:05	51-WBS-1	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
06/26/06 11:05	51-WBS-1	GC-Water	Metolachlor	0.49	ug/L	U	0.49	2
06/26/06 11:05	51-WBS-1	GC-Water	Metribuzin	0.097	ug/L	U	0.097	0.39
06/26/06 11:05	51-WBS-1	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
06/26/06 11:05	51-WBS-1	GC-Water	Naled	0.78	ug/L	U	0.78	3.1
06/26/06 11:05	51-WBS-1	GC-Water	Norflurazon	0.15	ug/L	U	0.15	0.6
06/26/06 11:05	51-WBS-1	GC-Water	Parathion Ethyl	0.15	ug/L	U	0.15	0.6
06/26/06 11:05	51-WBS-1	GC-Water	Parathion Methyl	0.097	ug/L	U	0.097	0.39
06/26/06 11:05	51-WBS-1	GC-Water	Phorate	0.049	ug/L	U	0.049	0.2
06/26/06 11:05	51-WBS-1	GC-Water	Prometryn	0.15	ug/L	U	0.15	0.6
06/26/06 11:05	51-WBS-1	GC-Water	Simazine	0.049	ug/L	U	0.049	0.2
06/26/06 09:55	51-WBS-3	GC-Water	Alachlor	0.57	ug/L	U	0.57	2.3
06/26/06 09:55	51-WBS-3	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.19
06/26/06 09:55	51-WBS-3	GC-Water	Atrazine	0.048	ug/L	U	0.048	0.19
06/26/06 09:55	51-WBS-3	GC-Water	Azinphos Methyl	0.19	ug/L	U	0.19	0.76
06/26/06 09:55	51-WBS-3	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
06/26/06 09:55	51-WBS-3	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
06/26/06 09:55	51-WBS-3	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.19
06/26/06 09:55	51-WBS-3	GC-Water	Chlorpyrifos Methyl	0.095	ug/L	U	0.095	0.38
06/26/06 09:55	51-WBS-3	GC-Water	Diazinon	0.048	ug/L	U	0.048	0.19

Appendix E. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
06/26/06 09:55	51-WBS-3	GC-Water	Ethion	0.048	ug/L	U	0.048	0.19
06/26/06 09:55	51-WBS-3	GC-Water	Ethoprop	0.095	ug/L	U	0.095	0.38
06/26/06 09:55	51-WBS-3	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
06/26/06 09:55	51-WBS-3	GC-Water	Fonofos	0.095	ug/L	U	0.095	0.38
06/26/06 09:55	51-WBS-3	GC-Water	Hexazinone	0.095	ug/L	U	0.095	0.38
06/26/06 09:55	51-WBS-3	GC-Water	Malathion	0.14	ug/L	UJ	0.14	0.56
06/26/06 09:55	51-WBS-3	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
06/26/06 09:55	51-WBS-3	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.9
06/26/06 09:55	51-WBS-3	GC-Water	Metribuzin	0.095	ug/L	U	0.095	0.38
06/26/06 09:55	51-WBS-3	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
06/26/06 09:55	51-WBS-3	GC-Water	Naled	0.76	ug/L	U	0.76	3
06/26/06 09:55	51-WBS-3	GC-Water	Norflurazon	0.14	ug/L	U	0.14	0.56
06/26/06 09:55	51-WBS-3	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
06/26/06 09:55	51-WBS-3	GC-Water	Parathion Methyl	0.095	ug/L	U	0.095	0.38
06/26/06 09:55	51-WBS-3	GC-Water	Phorate	0.048	ug/L	U	0.048	0.19
06/26/06 09:55	51-WBS-3	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
06/26/06 09:55	51-WBS-3	GC-Water	Simazine	0.048	ug/L	U	0.048	0.19
06/26/06 11:05	51-WBS-1	Mercury-Water	Mercury	0.12	ug/L	U	0.12	0.5
06/26/06 09:55	51-WBS-3	Mercury-Water	Mercury	0.12	ug/L	U	0.12	0.5
06/26/06 11:05	51-WBS-1	Metals-Water	Aluminum	73	ug/L	A	4	16
06/26/06 11:05	51-WBS-1	Metals-Water	Arsenic	5	ug/L	U	5	20
06/26/06 11:05	51-WBS-1	Metals-Water	Barium	38.4	ug/L	A	0.2	0.8
06/26/06 11:05	51-WBS-1	Metals-Water	Cadmium	0.5	ug/L	U	0.5	2
06/26/06 11:05	51-WBS-1	Metals-Water	Calcium	68.6	mg/L	A	0.02	0.08
06/26/06 11:05	51-WBS-1	Metals-Water	Chromium	0.44	ug/L	I	0.3	1.2
06/26/06 11:05	51-WBS-1	Metals-Water	Copper	2	ug/L	U	2	8
06/26/06 11:05	51-WBS-1	Metals-Water	Iron	101	ug/L	A	5	20
06/26/06 11:05	51-WBS-1	Metals-Water	Lead	4	ug/L	I	2	8
06/26/06 11:05	51-WBS-1	Metals-Water	Magnesium	2.6	mg/L	A	0.005	0.02
06/26/06 11:05	51-WBS-1	Metals-Water	Nickel	1.4	ug/L	I	1	4
06/26/06 11:05	51-WBS-1	Metals-Water	Selenium	5	ug/L	U	5	20
06/26/06 11:05	51-WBS-1	Metals-Water	Silver	0.25	ug/L	U	0.25	1
06/26/06 11:05	51-WBS-1	Metals-Water	Zinc	13	ug/L	A	3	12
06/26/06 09:55	51-WBS-3	Metals-Water	Aluminum	4	ug/L	U	4	16
06/26/06 09:55	51-WBS-3	Metals-Water	Arsenic	0.5	ug/L	U	0.5	2
06/26/06 09:55	51-WBS-3	Metals-Water	Barium	0.2	ug/L	U	0.2	0.8
06/26/06 09:55	51-WBS-3	Metals-Water	Cadmium	0.05	ug/L	U	0.05	0.2

Appendix E. (continued)

Date Sampled	Field ID	Analysis	Component	Result	Units	Remark	MDL	PQL
06/26/06 09:55	51-WBS-3	Metals-Water	Calcium	0.02	mg/L	U	0.02	0.08
06/26/06 09:55	51-WBS-3	Metals-Water	Chromium	0.3	ug/L	U	0.3	1.2
06/26/06 09:55	51-WBS-3	Metals-Water	Copper	0.2	ug/L	U	0.2	0.8
06/26/06 09:55	51-WBS-3	Metals-Water	Iron	5	ug/L	U	5	20
06/26/06 09:55	51-WBS-3	Metals-Water	Lead	0.2	ug/L	U	0.2	0.8
06/26/06 09:55	51-WBS-3	Metals-Water	Magnesium	0.005	mg/L	U	0.005	0.02
06/26/06 09:55	51-WBS-3	Metals-Water	Nickel	1	ug/L	U	1	4
06/26/06 09:55	51-WBS-3	Metals-Water	Selenium	0.5	ug/L	U	0.5	2
06/26/06 09:55	51-WBS-3	Metals-Water	Silver	0.025	ug/L	U	0.025	0.1
06/26/06 09:55	51-WBS-3	Metals-Water	Zinc	3	ug/L	U	3	12
06/26/06 11:05	51-WBS-1	Nutrients-Liquid	Alkalinity	142	mg CaCO3/L		0.65	2.5
06/26/06 11:05	51-WBS-1	Nutrients-Liquid	Ammonia-N	0.029	mg N/L		0.01	0.02
06/26/06 11:05	51-WBS-1	Nutrients-Liquid	Cyanide	0.01	mg CN/L	U	0.01	0.04
06/26/06 11:05	51-WBS-1	Nutrients-Liquid	Kjeldahl Nitrogen	0.58	mg N/L		0.16	0.4
06/26/06 11:05	51-WBS-1	Nutrients-Liquid	NO2NO3-N	0.006	mg N/L	I	0.004	0.01
06/26/06 11:05	51-WBS-1	Nutrients-Liquid	O-Phosphate-P	0.004	mg P/L	U	0.004	0.01
06/26/06 11:05	51-WBS-1	Nutrients-Liquid	Organic Carbon	6.2	mg C/L		1	5
06/26/06 11:05	51-WBS-1	Nutrients-Liquid	TDS	272	mg/L		15	60
06/26/06 11:05	51-WBS-1	Nutrients-Liquid	Total-P	0.022	mg P/L	I	0.02	0.06
06/26/06 11:05	51-WBS-1	Nutrients-Liquid	TSS	8	mg/L	I	4	16
06/26/06 09:55	51-WBS-3	Nutrients-Liquid	Ammonia-N	0.01	mg N/L	U	0.01	0.02
06/26/06 09:55	51-WBS-3	Nutrients-Liquid	Cyanide	0.01	mg CN/L	U	0.01	0.04
06/26/06 09:55	51-WBS-3	Nutrients-Liquid	Kjeldahl Nitrogen	0.08	mg N/L	U	0.08	0.2
06/26/06 09:55	51-WBS-3	Nutrients-Liquid	NO2NO3-N	0.004	mg N/L	U	0.004	0.01
06/26/06 09:55	51-WBS-3	Nutrients-Liquid	O-Phosphate-P	0.004	mg P/L	U	0.004	0.01
06/26/06 09:55	51-WBS-3	Nutrients-Liquid	Organic Carbon	1	mg C/L	U	1	5
06/26/06 09:55	51-WBS-3	Nutrients-Liquid	Total-P	0.02	mg P/L	U	0.02	0.06
06/26/06 11:05	51-WBS-1	Overflow	COD	20	mg/L	U		
06/26/06 11:05	51-WBS-1	Overflow	Oil and Grease	1.7	mg/L	U		
06/26/06 09:55	51-WBS-3	Overflow	COD	20	mg/L	U		
06/26/06 09:55	51-WBS-3	Overflow	Oil and Grease	1.7	mg/L	U		

The Bioassay of Wheelabrator South Broward Resource Recovery Facility effluent sampled on June 26, 2006. NPDES #FLS267562.

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

Transaction Code	NPDES NUMBER	YR/MO/DA	Insp Type	Inspector	Fac Type
1 N 2 5	3 F L S 2 6 7 5 6 2 11	12 0 6 0 6 2 6	18 **B**	19 **S**	20 2

Remarks

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The Priority Pollutants Analysis of Wheelabrator South Broward Resource Recovery Facility effluent sampled on June 26, 2006. NPDES #FLS267562.

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

Transaction Code	NPDES NUMBER	YR/MO/DA	Insp Type	Inspector	Fac Type
1 N 2 5	3 F L S 2 6 7 5 6 2 11	12 0 6 0 6 2 6	18 **X**	19 **S**	20 2

Remarks

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Biological Analyses of Wheelabrator South Broward Resource Recovery Facility effluent sampled on June 26, 2006. NPDES #FLS267562.

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

Transaction Code	NPDES NUMBER	YR/MO/DA	Insp Type	Inspector	Fac Type
1 N 2 5	3 F L S 2 6 7 5 6 2 11	12 0 6 0 6 2 6	18 **S**	19 **S**	20 2

Remarks

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