

Bioassays of

City Industries Ground Water Remediation

Orange County

NPDES # FL0043265

Sampled February 5, 2007

May 2007

Biology Section
Bureau of Laboratories
Division of Resource Assessment and Management

Quality Manual No. 870346G
NELAC Certification No. E31780

City Industries Ground Water Remediation, 3825 Forsyth Road, Winter Park, Orange County, Florida, NPDES #FL0043265. Effluent samples for this facility were collected on February 5, 2007.

Introduction

City Industries Ground Water Remediation is an existing facility which pumps, treats, and discharges groundwater from an EPA Superfund Site. The Superfund site is a former solvent recycling facility. The contaminants of interest include tri-chloroethene, cis-1, 2-dichloroethene, and vinyl chloride. The facility has a permitted monthly average flow of 0.15 million gallons per day (MGD) with a maximum daily flow of 0.17 MGD. The average monthly flow from February 1, 2006, through January 31, 2007, was 0.05 MGD. Contaminated groundwater is pumped from the ground through 13 wells. Flows are recorded at each well. The water from each well is pumped to the treatment facility via a pipe system. Wastewater is combined in a distribution header and treated in an air-stripper tower (treatment is part of a remediation plan approved by the Federal EPA and not part of the state permit). Chlorine is not used at the facility. Treated wastewater is discharged via a 15.24 cm (6 in) diameter, 76 m (250 ft) long pipe through Outfall D-001 to the Class III Freshwaters of the Crane Creek Canal, thence to Union Park Canal, and finally to the Little Econlockhatchee River. Outfall D-001 is located approximately at latitude 28º 36' 5.48" N and longitude 81º 17' 40.25" W.

The facility has no Administrative Orders (AO) or Consent Orders (CO). A warning letter was issued on December 7, 2005, due to permit limit violations for total phosphorus. This enforcement case has been closed. There are no mixing zones established for this facility. A review of discharge monitoring report (DMR) data (January 2006 – January 2007) did not reveal any noticeable trends. The DMR data showed violations of permit limits for total phosphorus, total ammonia, and pH (September 2006). (Facility information provided by Michael Eckoff of FDEP Central District and Larry Sims of L. S. Sims and Associates.)

Methods

Samples were collected from the EFF-01 NPDES sampling point for Outfall D-001 by Steve Kent, Waylon Locklear, and Michael Eckhoff (FDEP Central 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. 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 February 6–8, 2006.

Ceriodaphnia dubia 48-hour acute screening bioassay –	LC_{50} > 100%, 5% 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 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 27.5 mg dry wt/L of the unicellular green alga, *Pseudokirchneriella subcapitata*, formerly known as *Selenastrum capricornutum*. Raschke and Shultz (1987) found that AGP values above 5.0 mg dry weight/L represent a "problem" threshold for fresh receiving waters, implying nutrient enrichment. The analytical chemistry suggests that the effluent is nitrogen -limited. The predicted AGP based on inorganic nitrogen concentrations was 13.5 (±20%) mg dry wt/L (Table 1; Miller et al. 1978).

See Table 1 for AGP results.

Chemistry Results

Total residual chlorine was not detected in the bioassay sample in the laboratory. Total ammonia was detected in the bioassay sample in the laboratory at a concentration of 0.067 mg/L. The total ammonia concentration in the sample collected and preserved for chemical analysis was 0.054 mg/L. Based on the pH, salinity, and temperature of the effluent as collected, the calculated unionized ammonia concentration was less than 0.02 mg/L.

Iron was detected in the effluent at levels that comply with the Class III freshwater quality criterion (62-302.530, F.A.C.). Bromacil, chromium, and copper were detected between the laboratory method detection limits (MDL) and practical quantitation limits (PQL). Aluminum was also detected in the effluent.

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

Conclusion

The effluent sample collected from the EFF-01 sampling point for outfall D-001 for this facility on February 5, 2007, was not acutely toxic to either test species during the 48-hour acute screening bioassays. The effluent AGP result exceeded the "problem" threshold for fresh receiving waters. Effluent water quality samples did not exceed any applicable water quality standards or violate any permit conditions.

Literature Cited

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

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 nitrogen (TSIN) and total nitrogen (TN) limitation of the freshwater species *Pseudokirchneriella subcapitata* and ratios of nitrogen to phosphorus for samples collected from City Industries Ground Water Remediation on Febraury 5, 2007.

Location	AGP (measured)	Predicted AGP (TSIN) ± 20%	Predicted AGP (TN) ± 20%	Inorganic N:P ratio	Total N:P ratio
Effluent	27.5	13.5 ± 2.7	19.0 ± 3.8	0.6	0.7

Table 2. Effluent limits, Class III Fresh Criteria, and chemical and microbiological data for samples collected from City Industries Ground Water Remediation on February 5, 2007.

City Industries Ground Water Remediation NPDES #FL0043265	Class III Fresh Stds	Effluent Limits	Effluent	
Organic Constituents (µg/L)				
Bromacil	-	-	0.22	I
1,1-Dichloroethylene	≤ 3.2 a	≤ 3.2 m	0.5	U
1,4 Dioxane	-	Report	-	
Metals (µg/L unless otherwise noted)				
Aluminum	-	-	245	
Arsenic	≤ 50	-	0.5	U
Cadmium	≤ 0.6 b	-	0.05	U
Calcium (mg/L)	-	-	15.8	f
Chromium-III	≤ 47.0 b	-	0.83	I
Copper	≤ 5.0 b	≤ 5.0 b	0.76	I
Iron	≤ 1,000	≤ 1,000	274	
Lead	≤ 1.2 b	-	0.2	U
Magnesium (mg/L)	-	-	2.0	
Nickel	≤ 27.9 b	-	1.0	U
Selenium	≤ 5.0	-	0.5	U
Silver	≤ 0.07	-	0.025	U
Zinc	≤ 64.0 b	-	3.0	U
Nutrients (mg/L)				
Ortho-phosphate	-	-	0.58	Q
Total Phosphorus	-	≤ 1.6	0.68	A
Total Ammonia	-	-	0.054	
Un-ionized Ammonia	≤ 0.02 s	≤ 0.02 s	≤ 0.02	c
Nitrate and Nitrite	-	-	0.3	
Total Kjeldahl Nitrogen	-	-	0.2	I
Organic Nitrogen	-	-	0.146	c
Total Nitrogen	-	≤ 4.8	0.5	c
General Physical and Chemical Parameters				
Dissolved Oxygen (mg/L)	≥ 5.0 s	≥ 6.0 s	6.7	
pH (SU)	6.0 - 8.5 s	6.0 - 8.5 s	6.6	
Conductivity (µmhos/cm)	≤ 1,275 s	-	139.5	
Temperature (°C)	-	Report	21.4	
Turbidity (NTU)	≤ 29 t	-	-	
CBOD, 5 day (mg/L), N - inhibited	-	≤ 8.0	0.2	U
Chemical Oxygen Demand (COD; mg/L)	-	Report	20	U
Flow (MGD)	-	0.15 m	0.05 m	
Hardness (mg/L $CaCO_3$)	-	Report	47.69	c
Microbiology (Number of counts/100ml)				
Fecal Coliforms	≤ 800 s	Report	-	
Total Coliforms	≤ 2400 s	Report	-	

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
f - Analyte was detected in the effluent equipment blank
m - Monthly average
s - Single sample
t - Shall not exceed 29 NTUs above background
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
Q - Sample held beyond normal holding time
U - Material analyzed for but not detected; value reported is the method detection limit

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2007-02-05-29
City Industries GW Remediation

Requester: Shannan Bogdanov

Field Report Prepared By: PHIL KANE / S. KENT

Customer: CEN-DIST

Collected By: KENT, LOCKLEAR, ECKOFF

Send Final Report To: Phil Kane

Project ID: FYI3

Sampling Agency: FDEP CENTRAL DISTRICT

PMAS: 1143

Lab ID *	Location	Comp / Grab	Collection (begin) Date Time Eastern Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
	CITI INDUSTRIES ORLANDO, FL	Grab	2/5/07	PK	B
	Field ID: CITI	Tot Res Chlorine (mg/L): N/A	Diss Oxygen (mg/L): 6.53 mg/L 6.28	Storet Station Number:	
	Matrix (Include type e.g. Salt, Fresh, etc): BLANK	Temp (C): 21.34 mg/L 21.14 mg/L	pH: 5.55 mg/L 5.69 mg/L	Sample Depth: N/A m / ft	Salinity (PPTh) / Sp Conductance (umho/cm): 140.5 mg/L
	Latitude: o ' "	Longitude: o ' "	Comments:	NPDES Number: FL0043265	

Lab ID *	Location	Comp / Grab	Collection (begin) Date Time Eastern Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
	CITI INDUSTRIES ORLANDO, FL	Grab	2/5/07 Time 1000		A
	Field ID: CITI	Tot Res Chlorine (mg/L): N/A	Diss Oxygen (mg/L): 6.68	Storet Station Number:	
	Matrix (Include type e.g. Salt, Fresh, etc): EFFLUENT	Temp (C): 21.39	pH: 6.55	Sample Depth: N/A m / ft	Salinity (PPTh) / Sp Conductance (umho/cm): 139.5
	Latitude: o ' "	Longitude: o ' "	Comments: NO CHLORIN USED BY FACILITY	NPDES Number: FL0043265	

Lab ID *	Location	Comp / Grab	Collection (begin) Date Time Eastern Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
	CITI INDUSTRIES ORLANDO, FL (BIOASSAY)	Grab	2/5/07 Time 1030	2/5/07 Time 1100	A
	Field ID: CITI	Tot Res Chlorine (mg/L): N/A	Diss Oxygen (mg/L): 6.68	Storet Station Number:	
	Matrix (Include type e.g. Salt, Fresh, etc): EFFLUENT BIOASSAY	Temp (C): 21.39	pH: 6.55	Sample Depth: m / ft	Salinity (PPTh) / Sp Conductance (umho/cm): 139.5
	Latitude: o ' "	Longitude: o ' "	Comments: NO CHLORINE USED BY FACILITY	NPDES Number: FL0043265	

Lab ID *	Location	Comp / Grab	Collection (begin) Date Time Eastern Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
	Field ID	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number	
	Matrix (Include type e.g. Salt, Fresh, etc): Temp (C): pH:	Sample Depth: m / ft	Salinity (PPTh) / Sp Conductance (umho/cm)	NPDES Number	
	Latitude: o ' "	Longitude: o ' "	Comments: 2 boxes rec'd 9:45 2/6/07 10 Jars Rec'd		

Relinquished By:	Date/Time	Shipping Method	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
KENT, LOCKLEAR	02/05/07	DHL						

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

FDEP Biology Section - Acute Screen Bioassay Bench Sheets

Facility: CITY INDUSTRIES GROUND WATER REMEDIATION

Address: 3825 FORSYTH RD.

City: WINTER PARK County: ORANGE

Contact/District: S. KENT / CD

NPDES Permit #: FL 0043265

LIMS Job #: TLH-2007-02-06-25-01 LIMS Sample #: 9B2019

Lims Data Entry: 2-8-07 MF Data Entry Verification: 2.9.07 J.D

Sample Collection: Date: 2/5/2007 Time: 1100

Hold Time Start: Date: 2/5/2007 Time: 1100

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 # 2 Range 24.1-25.8
Room B246: 22.7-23.8
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

Dave Abelson
James Bandy
Patsy Vichaikul
Marshall Faircloth

Nicole 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 Cl_2 (mg/L):	N/A	N/A	N/A	N/A		—	—	NA	MF
Lab Total Residual Cl_2 (mg/L):	<0.03	<0.03				<0.03	HACH	~~PP~~	BA
Alkalinity (mg/L as $CaCO_3$):	84	142				53	HACH	~~PP~~	BA
Hardness (mg/L as $CaCO_3$):	105	153				97	HACH	~~PP~~	BA
Total Ammonia (mg/L as N):	<0.017	<0.017				0.0671	DENVER	MF	~~PP~~
Salinity (ppth):	<1.0	<1.0				<1.0	YSI / Mettler	JD	~~PP~~

V 1.4 9/12/05

Appendix B. (continued)

FDEP Biology Section - Bioassay Survival Sheet

LIMS Sample #: 982014 Test #: 1 Test Started: Date 2/6/07 Time: 12:25
Organism: C. dubia SOP #: TA 07_ d Test Ended: Date 2/8/07 Time: 12:00
Organism Batch: 6-07 Diluent/ Batch: DMW 12-2-07
Organism Age: <24 hr Food: YCT *P. subcapitata* *Artemia*
Chamber Size: 30 mL Batch: 3-06 5-06 —
Test Volume: 20 mL Feeding: Prior to test - Prior to renewal - Daily

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Ctrl	A	A	5	5	5			
	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	4 1D			
	D	D	5	5	5			
Organisms loaded by: BA		Checked by:	[redacted]	BA	JD			

Loading Verified by: JD
m = missing d = dead BR = before renewal AR = after renewal

Comments:

Test Results:
% mortality in 100% sample: 5%
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).

V 2.1 11/01/2005

Page 000007

Appendix B. (continued)

FDEP Biology Section - Bioassay Survival Sheet

LIMS Sample #: 982014 **Test #:** 2 **Test Started:** Date 2/6/07 Time: 12:30
Organism: C. leds? **SOP #:** TA 07_02 **Test Ended:** Date 2-8-07 Time: 1145
Organism Batch: 2-6-07 **Diluent/ Batch:** well H₂O / 2-5-07
Organism Age: 12 days **Food:** YCT *P. subcapitata* *Artemia*
Chamber Size: 1000 mL **Batch:** — — 651-53640/8-07
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	B9	5	5	5			
	B	B10	5	5	5			
	C	B11	5	5	5			
	D	B12	5	5	5			
100%	A	B13	5	5	5			
	B	B14	5	5	5			
	C	B15	5	5	5			
	D	B16	5	5	5			
Organisms loaded by: JD		Checked by:		JD	JD			

Loading Verified by: PA

Comments:

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

Test Results:
% mortality in 100% sample: Ø
LC₅₀: >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).

V 2.1 11/01/2005

Page 000008

Appendix B. (continued)

FDEP Biology Section - Bioassay Parameter Sheet

Test #: 1 of 2

LIMS Sample # : 982014

TEST SOP #: TA07_61

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		M			
pH (S.U.)	8.1		8.1			
Temperature °C	25.8		24.9			
Dissolved Oxygen mg/L	8.0		7.5			
Conductivity µmhos mmhos	18.4		220			
(initials) Measured by:	JS		JS			
(initials) Recorded by:	JD		JD			

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A		M			
pH (S.U.)	7.9		8.2			
Temperature °C	24.1		24.4			
Dissolved Oxygen mg/L	7.8		7.7			
Conductivity µmhos mmhos	144.8		152.2			
(initials) Measured by:	JD		JD			
(initials) Recorded by:	JD		JD			

Comments:

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

Comments:

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:

000009

V 2.0 2/24/04

Page

FDEP Biology Section - Bioassay Parameter Sheet

LIMS Sample # : 982014 **Test #:** 2 of 2

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

Concentration Ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C			
pH (S.U.)	7.8	8.0	8.2			
Temperature °C	25.8	24.7	24.9			
Dissolved Oxygen mg/L	7.8	7.4	7.5			
Conductivity µmhos mmhos	276	282	284			
(initials) Measured by:	JD	JD	JD			
(initials) Recorded by:	JD	JD	JD			

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C			
pH (S.U.)	7.8	7.9	8.0			
Temperature °C	25.8	25.0 (A)	25.1			
Dissolved Oxygen mg/L	7.1	7.2	7.2			
Conductivity µmhos mmhos	148.7	149.4	153.3			
(initials) Measured by:	JD	JD	JD			
(initials) Recorded by:	JD	JD	JD			

Comments: (A) overstrike correction MF 2-8-07 25.0°C is correct value.

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

Comments:

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

Comments:

V 2.0 2/24/04

Appendix C. SRT Bench Sheets and Statistical Analysis

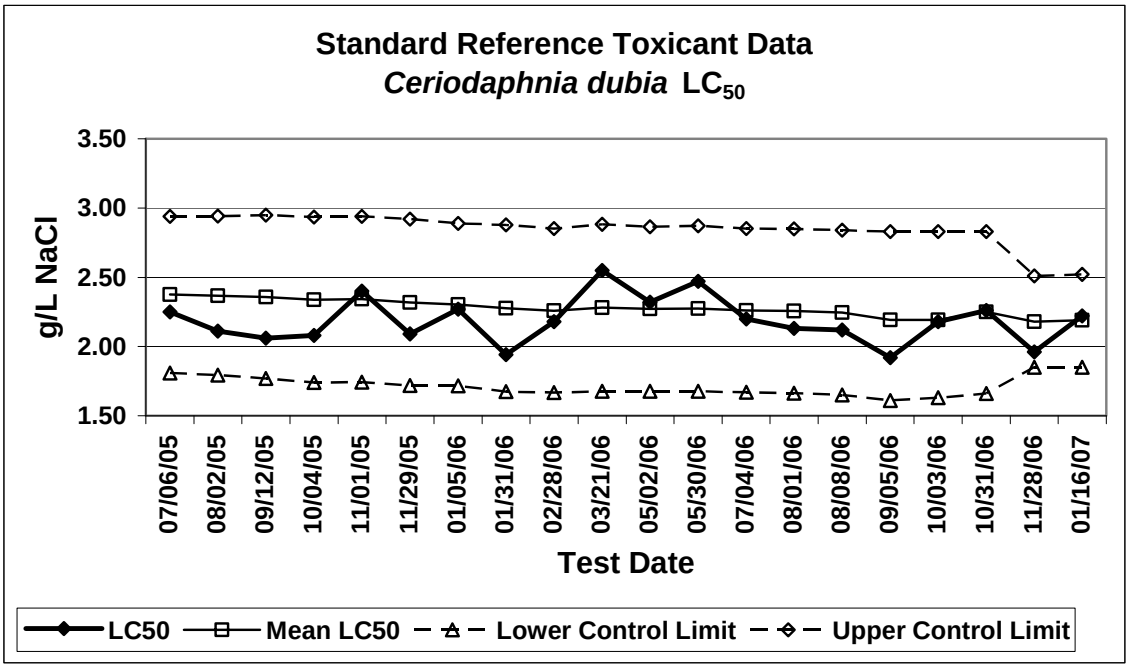
Florida Department of Environmental Protection
Bureau of Laboratories

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
07/06/05	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
07/04/06	2.20	2.26	0.30	1.67	2.85
08/01/06	2.13	2.26	0.30	1.66	2.85
08/08/06	2.12	2.24	0.30	1.65	2.84
09/05/06	1.92	2.19	0.30	1.61	2.83
10/03/06	2.18	2.19	0.30	1.63	2.83
10/31/06	2.26	2.25	0.29	1.66	2.83
11/28/06	1.96	2.18	0.17	1.85	2.51
01/16/07	2.22	2.19	0.17	1.85	2.52

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

CV = 7.76
EPA reference 75th quartile CV = 29%



Appendix C. (continued)

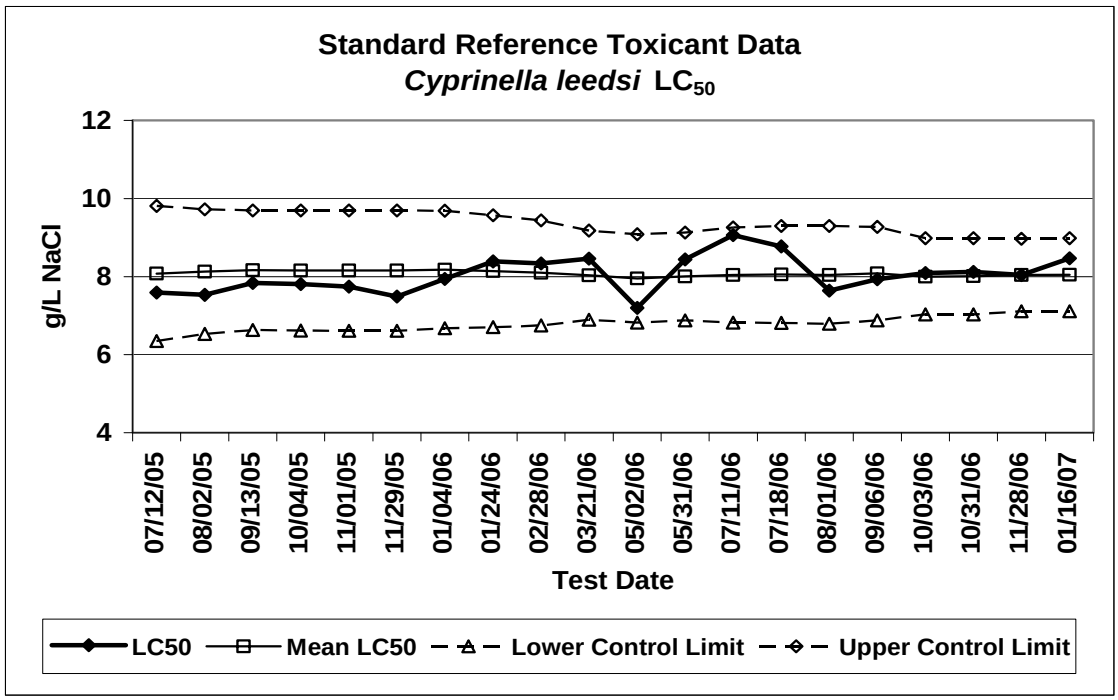
Florida Department of Environmental Protection
Bureau of Laboratories

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
07/12/05	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	7.2	7.95	0.57	6.82	9.09
05/31/06	8.44	8.00	0.56	6.88	9.13
07/11/06	9.06	8.04	0.61	6.82	9.26
07/18/06	8.77	8.05	0.62	6.81	9.29
08/01/06	7.64	8.04	0.63	6.79	9.29
09/06/06	7.93	8.08	0.60	6.88	9.27
10/03/06	8.09	8.00	0.49	7.03	8.98
10/31/06	8.12	8.01	0.49	7.03	8.98
11/28/06	8.04	8.04	0.46	7.11	8.97
01/16/07	8.47	8.04	0.47	7.11	8.98

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

CV = 5.85
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 1-9-07
Toxicant/ Batch# NaCl 1.16.07

Test Beginning: Date: 1.16.07 Time: 1430
Test Ending: Date: 1/20/07 Time: 1200

Organism Batch #/ Age: 3-07 / 24hrs (started mysis mf 2/4/07)
Feeding: Prior to test/ Prior to renewal/ Daily
Food: YCT P.subcapitata Artemia
Food Batch: 2-06 5-06 —
Chamber size: 30 mL
Test volume: 20 mL per replicate

Water Quality Parameters:	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	DW
Alkalinity (mg/L as $CaCO_3$):	85	Hach	EJ
Hardness (mg/L as CaCO3):	90	Hach	EJ
Total Ammonia (mg/L as N):	40.017	Denver	DW
Salinity (ppth):	<1	Mettler	BA

Conc. µg/L (g/L)	Rep.	Chamber#	Number Live 0 hr	Number Live 24 hr	Number Live 48 hr	pH (SU) 0 hr	pH (SU) 24 hr	pH (SU) 48 hr	Temperature (° C) 0 hr	Temperature (° C) 24 hr	Temperature (° C) 48 hr	D.O. (mg/l) 0 hr	D.O. (mg/l) 24 hr	D.O. (mg/l) 48 hr	UNCORRECTED Cond. (mmhos/cm) / Cond. (µmhom/cm) 0 hr	24 hr	48 hr
Control	A	A	5	5	5	7.9		7.8	24.0		24.4	7.2		7.4	~~1220~~ (B)		0209
	B	B	5	5	5												
	C	C	5	5	5												
	D	D	5	5	5												
1.5	A	A	5	5	5	7.9		7.8	24.0		24.2	7.2		7.4	288		3.17
	B	B	5	5	4 1D												
	C	C	5	5	4 1D												
	D	D	5	5	5												
2.0	A	A	5	5	5	8.0		7.9	24.3		24.0	6.9		7.3	382		4.21
	B	B	5	5	5												
	C	C	5	5	5												
	D	D	5	5	4 1D												
2.3	A	A	5	4 1D	0 4D	8.1		7.9	24.0		24.0	7.1		7.3	490		5.34
	B	B	5	5	0 5D												
	C	C	5	4 1D	0 4D												
	D	D	5	5	0 5D												
3.0	A	A	5	3 2D	0 3D	8.1		7.9	24.0		24.0	7.2		7.3	580		6.28
	B	B	5	1 4D	0 1D												
	C	C	5	3 2D	0 3D												
	D	D	5	2 3D	0 2D												
4.0	A	A	5	0 5D	—	8.1		8.0	24.3		24.0	7.4		7.4	726		8.01
	B	B	5	1 4D	0 1D												
	C	C	5	0 5D	—												
	D	D	5	1 4D	0 1D												
	A																
	B																
	C																
	D																
Loaded / measured by:			DW	BA	BA	JD		BA	JD		BA	JD		BA	JD		BA
Recorded by:			BA	BA	BA	JD		BA	JD		BA	JD		BA	JD		BA

mf 2/8/07 data transcription error corrected.

Investigators' Signatures
Brenna Allen
Patsy Vichaikul
Erin Wilcox
James Grant
Marshall Faircloth
Nicki Mikenas
REVIEWER

Concentrations prepared by: JD
Loading verified by: JD
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min. 23.4 max 29.4 mean 24.6
Incubator # ____ min. _____ max. _____ mean _____
Room B246 min. 22.7 max. 24.1 mean 23.5

Remarks:
(A) 95% confidence limits are not reliable according to TSK program BA 2-8-07
(B) .178 JD 2.9.07 transcriptional error. 48 Pharm mf 2-9-07 NON monotonically increasing mortality at

Statistical Results: Method: Spearman-Karber
(48) / 96 hour LC50: 2.22
95% Confidence Interval: lower (2) upper _____

Revised 02/21/06

Page 000070

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 1-9-07
Toxicant/ Batch# NaCl 1-4-07

Test Beginning: Date: 1-16-07 Time: 14.30
Test Ending: Date: 1.20.07 Time: 1200

Water Quality Parameters:	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	DW
Alkalinity (mg/L as $CaCO_3$):	85	Hach	BA
Hardness (mg/L as CaCO3):	90	Hach	BA
Total Ammonia (mg/L as N):	<0.017	Denver	DW
Salinity (ppth):	<1	Mettler	BA

Organism Batch #/ Age: 3-07 / <24hrs
Feeding: Prior to test / Prior to renewal / Daily
Food: YCT P.*subcapitata* Artemia
Food Batch: 2-06 5-06 —
Chamber size: 30 mL
Test volume: 20 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) 0 hr / 24 hr / 48 hr		
			48 hr	72 hr	96 hr	48 hr	72 hr	96 hr	48 hr	72 hr	96 hr	48 hr	72 hr	96 hr	48 hr	72 hr	96 hr
Control	A	A	5	5	5	7.8		8.1	24.1		24.0	7.2		7.9	3.80		3.80 BA 0.223
	B	B	5	5	5												
	C	C	5	5	5												
	D	D	5	5	5												
1.5	A	A	5	5	5	8.0		8.1	24.2		24.0	7.5		7.8	3.02		3.14
	B	B	4	2 2D	1 1D												
	C	C	4	3 3D	3 3D												
	D	D	5	5	5												
2.0	A	A	5	4 1D	4	8.0		8.1	24.0		24.1	7.4		7.9	4.00		4.3
	B	B	5	5	4 1D												
	C	C	5	5	4 1D												
	D	D	4	3 1D	3												
2.5	A	A	0	—	—	8.0		—	24.0		—	7.3		—	4.87		—
	B	B	0	—	—												
	C	C	0	—	—												
	D	D	0	—	—												
3.0	A	A	0	—	—	—			—			—			—		—
	B	B	0	—	—												
	C	C	0	—	—												
	D	D	0	—	—												
4.0	A	A	0	—	—	—			—			—			—		—
	B	B	0	—	—												
	C	C	0	—	—												
	D	D	0	—	—												
	A																
	B																
	C																
	D																
Loaded / measured by:			BA	BA	JD	BA		JD	BA		JD	BA		JD	BA		JD
Recorded by:			BA	BA	JD	BA		JD	BA		JD	BA		JD	BA		JD

Investigators' Signatures
Brian Nelson
Daisy Michaud
Erin Wilcox
Marshall Faircloth
Nigel Wellendy
REVIEWER

Concentrations prepared by: JD
Loading verified by: JD
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min. 23.4 max. 25.9 mean 24.6
Incubator # ____ min. ____ max. ____ mean ____
Room B246 min. 22 max. 24.7 mean 23.5

Remarks:

Statistical Results: Method: Spearman-Karber
48 / 96 hour LC50: 2.03
95% Confidence Interval: lower 1.78 upper 2.43

Revised 02/21/06

Page 000071

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#: WBIH2O 11607
Toxicant/ Batch# NaCl / 11607

Test Beginning: Date: 01/16/07 Time: 1345
Test Ending: Date: 1/20/07 Time: 1200

Water Quality Parameters:	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	PPV
Alkalinity (mg/L as $CaCO_3$):	142	Hach	[illegible]
Hardness (mg/L as CaCO3):	136	Hach	[illegible]
Total Ammonia (mg/L as N):	<0.07	Denver	PPV
Salinity (ppth):	<1	Mettler	BA

Organism Batch #/ Age: 1-16-07 / 11d 4h
Feeding: (Prior to test) / Prior to renewal / Daily
Food: YCT — P.subcapitata — Artemia GSI-536-90 1-07, 3-07
Food Batch: _____ _____
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. (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	B13	10	10	10	7.7		8.1	24.0		24.6	7.6		7.1	0.269		0.302
	B	B14	10	10	10		7.7			24.3			6.5			0.295	
	C																
	D																
6.0	A	B15	10	10	10	7.7	7.8	8.2	24.0		24.7	7.6		6.9	10.51		10.9
	B	B16	10	10	9[10]		7.8			24.3			6.7			10.7	
	C																
	D																
7.0	A	B17	10	9[10]	8[10]	7.8		8.2	24.0		24.9	7.6		6.8	12.35		12.7
	B	B18	10	10	10		7.9			24.2			6.7			12.3	
	C																
	D																
8.0	A	B19	10	7[30]	7	7.8		8.2	24.0		24.8	7.6		6.8	13.71		14.2
	B	B20	10	8[20]	8		7.9			24.2			6.4			13.9	
	C																
	D																
9.0	A	B21	10	5[50]	5	7.8		8.2	24.0		24.5	7.6		6.8	15.30		15.8
	B	B22	10	3[20]	2[10]		7.9			24.4			6.4			15.6	
	C																
	D																
10.0	A	B23	10	8[00]	—	7.8			24.0		24.8	7.6			17.05		
	B	B24	10	1[00]	0[10]		7.9	8.2		24.3			6.4	6.8		17.3	17.5
	C																
	D																
	A																
	B																
	C																
	D																
Loaded / measured by:			JD	JD	JD	CW	BA	PPV	CW	JD	JD	CW	BA	PPV	CW	BA	PPV
Recorded by:			BA	JD	JD	CW	BA	PPV	CW	JD	JD	CW	BA	PPV	CW	BA	PPV

Investigators' Signatures
Bruce Anderson
Patsy Michaud
Erin Wilcox
[illegible]
[illegible]
Mandi Wellendorf
REVIEWER

Concentrations prepared by: JD
Loading verified by: CW
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 7 min. 23.1 max. 25.9 mean 24.6
Incubator # ___ min. ___ max. ___ mean ___
Room B246 min. 22.7 max. 24.1 mean 23.5

Remarks:

Statistical Results: Method: Spearman-Karber
48/96 hour LC50: 8.47
95% Confidence Interval: lower 8.11 upper 8.86

Revised 02/21/06

Page 000072

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 1.1607
Toxicant/ Batch# NaCl / 1.16.07

Test Beginning: Date: 01/16/07 Time: 1345
Test Ending: Date: 1.20.07 Time: 1200

Water Quality Parameters:	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	
Alkalinity (mg/L as $CaCO_3$):	142	Hach	
Hardness (mg/L as CaCO3):	136	Hach	
Total Ammonia (mg/L as N):	<0.07	Denver	
Salinity (ppth):	<1	Mettler	

Organism Batch #/ Age: 1-16-07 / 11 hrs
Feeding: Prior to test / Prior to renewal / Daily
Food: YCT — P.*subcapitata* — Artemia 6 SL 5 36 40
Food Batch: — — 1-07, 3-07
Chamber size: 1000 mL
Test volume: 500 mL per replicate

UNCORRECTED Cond. (mmhos/cm) Cond. (µmhom/cm)

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	Cond. 0 hr / 48 hr	Cond. 24 hr / 72 hr	Cond. 48 hr / 96 hr
Control	A	B13	10	10	9/0	7.9		8.1	24.0		24.6	7.5		7.0	0.295		0.289
	B	B14	10	10	10		7.8			24.8			6.7			0.287	
	C																
	D																
6.0	A	B15	10	10	9/0	7.9		8.1	24.0		24.6	7.3		7.3	1.02		1.17
	B	B16	10	10	9/0		7.8			24.8			6.5			11.29	
	C																
	D																
7.0	A	B17	9	8/0	7/0	7.9		8.1	24.1		24.8	7.4		7.3	12.64		13.0
	B	B18	10	10	10		7.9			24.4			6.4			12.79	
	C																
	D																
8.0	A	B19	7	6/0	6	7.9		8.2	24.1		24.7	7.4		7.3	14.39		14.8
	B	B20	8	6/0	6		7.9			24.7			6.4			14.6	
	C																
	D																
9.0	A	B21	5	5	5	7.9		8.1	24.0		24.6	7.4		7.0	15.66		16.2
	B	B22	3	2/0	1/0		7.9			24.6			6.4			15.9	
	C																
	D																
10.0	A	B23	—	—	—	—		—	—		—	—		—	—		—
	B	B24	0	0	—		—			—			/			—	
	C																
	D																
	A																
	B																
	C																
	D																
Loaded / measured by:			JD	JD	JD	JD	BA	JD	JD	JD	JD	JD	BA	JD	JD	BA	JD
Recorded by:			JD	JD	JD	JD	BA	JD	JD	JD	JD	JD	BA	JD	JD	BA	JD

Investigators' Signatures
Brooke Bullock
Rachel Uchytil
Erin Wilcox
Jean Bass
Nicole Wellendorf
REVIEWER

Concentrations prepared by: JD
Loading verified by: EW
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min. 23.4 max. 25.9 mean 24.6
Incubator # ____ min. ____ max. ____ mean ____
Room B246 min. 22.2 max. 24.7 mean 23.5

Remarks: (A) Transcription error from Page 72 1-19-07 BA

Statistical Results: Method: Spearman-Karber
48 (96) hour LC50: 8.30
95% Confidence Interval: lower 7.92 upper 8.69

Revised 02/21/06

Page 000073

Appendix C. (continued)

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

DATE: 01-16-07 DURATION: 48 h TOXICANT: NaCl
SPECIES: *Ceriodaphnia dubia*

RAW DATA: Concentration (g/L)	Number Exposed	Mortalities
0.00	20	0
1.50	20	2
2.00	20	1
2.50	20	20
3.00	20	20
4.00	20	20

SPEARMAN-KARBER TRIM: 7.50%

SPEARMAN-KARBER ESTIMATES: **LC50: 2.22**
95% CONFIDENCE LIMITS ARE NOT RELIABLE.

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

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

DATE: 01-16-07 DURATION: 48 h TOXICANT: NaCl
SPECIES: *Cyprinella leedsi*

RAW DATA: Concentration (g/L)	Number Exposed	Mortalities
0.00	20	0
6.00	20	1
7.00	20	2
8.00	20	5
9.00	20	13
10.00	20	20

SPEARMAN-KARBER TRIM: 5.00%

SPEARMAN-KARBER ESTIMATES**:** **LC50: 8.47**
95% LOWER CONFIDENCE: 8.11
95% UPPER CONFIDENCE: 8.86

Appendix D. Test Organism Receipts

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

NELAC Accredited

Organism Shipment Record

State of Florida Aquaculture Certificate Number AQ0668007

Date: 1/15/21

Shipped to: [illegible]

P.O. No: _____

Species	Quantity	Age	Brood Number	Temperature	Salinity
Mysidopsis bahia	150+	4 Days	MBC7C111	25°C	~30‰
Menidia beryllina	150+	11 Days	SSC7C103	25°C	~30‰
Cyprinella leedsi	150+	11 Days	CLC7C104	25°C	
Pimephales promelas	150+	13 Days	FHC7C103-150	25°C	

Packed by: [illegible]

Shipped Via: FedEx

Notes: _____

Thank you for your order.

Appendix D. (continued)

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

NELAC Accredited

Organism Shipment Record

State of Florida Aquaculture Certificate Number AQ0668007

Date: 2/5/07

Shipped to: I-DEP

P.O. No: _____

Species	Quantity	Age	Brood Number	Temperature	Salinity
Mysidopsis bahia					
Menidia beryllina					
Cyprinella leedsi	150+	11 Day	CL070125	25C	
Pimephales promelas					

Packed by: Frank Gary

Shipped Via: FedEx

Notes: _____

Thank you for your order.

Appendix E. Chemical Analyses performed on the effluent from the City Industries Ground Water Remediation Outfall D-001, sampled on February 5, 2007.

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
2/5/2007 10:00	CITI	Bio-AGP/LimNut	Algal Growth Potential	27.5	mg DryWt/L		0.3	0.9
2/5/2007 10:00	CITI	Bio-BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	0.2	mg/L	U	0.2	2
2/5/2007 10:00	CITI	Bio-Chl-a	Chlorophyll-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
2/5/2007 10:00	CITI	Bio-Chl-a	Phaeophytin-A, Monochromatic, Water	1.5	ug/L	U	1.5	4.5
2/5/2007 11:00	CITI	Bio-Toxicology	Bioassay-Acute-Screen-FW-C.dubia, LC50	100	LC50	L		
2/5/2007 11:00	CITI	Bio-Toxicology	Bioassay-Acute-Screen-FW-Fish, LC50	100	LC50	L		
2/5/2007 10:00	CITI	BNA-Water	1,2,4-Trichlorobenzene	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	1,2-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	1,3-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	1,4-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	2,4,6-Trichlorophenol	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	2,4-Dichlorophenol	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
2/5/2007 10:00	CITI	BNA-Water	2,4-Dinitrophenol	14	ug/L	UJ	14	57
2/5/2007 10:00	CITI	BNA-Water	2,4-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	2,6-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	2-Chloronaphthalene	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	2-Chlorophenol	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	11
2/5/2007 10:00	CITI	BNA-Water	2-Nitrophenol	0.95	ug/L	UJ	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	UJ	38	150
2/5/2007 10:00	CITI	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
2/5/2007 10:00	CITI	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7
2/5/2007 10:00	CITI	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.7
2/5/2007 10:00	CITI	BNA-Water	4-Bromophenyl phenyl ether	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	4-Chloro-3-methylphenol	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.6
2/5/2007 10:00	CITI	BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
2/5/2007 10:00	CITI	BNA-Water	Acenaphthene	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	Acenaphthylene	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
2/5/2007 10:00	CITI	BNA-Water	Anthracene	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	Benzidine	95	ug/L	UJ	95	380
2/5/2007 10:00	CITI	BNA-Water	Benzo(a)anthracene	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	Benzo(a)pyrene	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	Benzo(b)fluoranthene	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	Benzo(g,h,i)perylene	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	Benzo(k)fluoranthene	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	Bis(2-chloroethoxy)methane	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	Bis(2-chloroethyl)ether	0.95	ug/L	U	0.95	3.8

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
2/5/2007 10:00	CITI	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	11
2/5/2007 10:00	CITI	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
2/5/2007 10:00	CITI	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
2/5/2007 10:00	CITI	BNA-Water	Chrysene	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
2/5/2007 10:00	CITI	BNA-Water	Di-n-octyl phthalate	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	Dibenzo(a,h)anthracene	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
2/5/2007 10:00	CITI	BNA-Water	Diethyl phthalate	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
2/5/2007 10:00	CITI	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
2/5/2007 10:00	CITI	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
2/5/2007 10:00	CITI	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
2/5/2007 10:00	CITI	BNA-Water	Endrin	1.4	ug/L	UJ	1.4	5.7
2/5/2007 10:00	CITI	BNA-Water	Endrin aldehyde	3.8	ug/L	UJ	3.8	15
2/5/2007 10:00	CITI	BNA-Water	Fluoranthene	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	Fluorene	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
2/5/2007 10:00	CITI	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
2/5/2007 10:00	CITI	BNA-Water	Hexachlorobenzene	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	11
2/5/2007 10:00	CITI	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	11
2/5/2007 10:00	CITI	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	11
2/5/2007 10:00	CITI	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	Isophorone	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.6
2/5/2007 10:00	CITI	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.6
2/5/2007 10:00	CITI	BNA-Water	N-Nitrosodiphenylamine/ Diphenylamine	2.9	ug/L	U	2.9	11
2/5/2007 10:00	CITI	BNA-Water	Naphthalene	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.6
2/5/2007 10:00	CITI	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	11
2/5/2007 10:00	CITI	BNA-Water	Phenanthrene	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	Phenol	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	Pyrene	0.95	ug/L	U	0.95	3.8
2/5/2007 10:00	CITI	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
2/5/2007 10:00	CITI	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
2/5/2007 10:00	CITI	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
2/5/2007 10:00	CITI	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
2/5/2007 10:00	CITI - BLANK	BNA-Water	1,2,4-Trichlorobenzene	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	1,2-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	1,3-Dichlorobenzene	0.96	ug/L	U	0.96	3.8

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
2/5/2007 10:00	CITI - BLANK	BNA-Water	1,4-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	2,4,6-Trichlorophenol	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	2,4-Dichlorophenol	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
2/5/2007 10:00	CITI - BLANK	BNA-Water	2,4-Dinitrophenol	14	ug/L	UJ	14	58
2/5/2007 10:00	CITI - BLANK	BNA-Water	2,4-Dinitrotoluene	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	2,6-Dinitrotoluene	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	2-Chloronaphthalene	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	2-Chlorophenol	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	12
2/5/2007 10:00	CITI - BLANK	BNA-Water	2-Nitrophenol	0.96	ug/L	UJ	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	UJ	38	150
2/5/2007 10:00	CITI - BLANK	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	4-Bromophenyl phenyl ether	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	4-Chloro-3-methylphenol	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.7
2/5/2007 10:00	CITI - BLANK	BNA-Water	4-Nitrophenol	14	ug/L	U	14	58
2/5/2007 10:00	CITI - BLANK	BNA-Water	Acenaphthene	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	Acenaphthylene	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	Anthracene	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	Benzidine	96	ug/L	UJ	96	380
2/5/2007 10:00	CITI - BLANK	BNA-Water	Benzo(a)anthracene	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	Benzo(a)pyrene	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	Benzo(b)fluoranthene	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	Benzo(g,h,i)perylene	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	Benzo(k)fluoranthene	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	Bis(2-chloroethoxy)methane	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	Bis(2-chloroethyl)ether	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	12
2/5/2007 10:00	CITI - BLANK	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	58
2/5/2007 10:00	CITI - BLANK	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
2/5/2007 10:00	CITI - BLANK	BNA-Water	Chrysene	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
2/5/2007 10:00	CITI - BLANK	BNA-Water	Di-n-octyl phthalate	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	Dibenzo(a,h)anthracene	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	Diethyl phthalate	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
2/5/2007 10:00	CITI - BLANK	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
2/5/2007 10:00	CITI - BLANK	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
2/5/2007 10:00	CITI - BLANK	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	Endrin	1.4	ug/L	UJ	1.4	5.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	Endrin aldehyde	3.8	ug/L	UJ	3.8	15
2/5/2007 10:00	CITI - BLANK	BNA-Water	Fluoranthene	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	Fluorene	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	Hexachlorobenzene	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	12
2/5/2007 10:00	CITI - BLANK	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	12
2/5/2007 10:00	CITI - BLANK	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	12
2/5/2007 10:00	CITI - BLANK	BNA-Water	Indeno(1,2,3-cd)pyrene	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	Isophorone	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.7
2/5/2007 10:00	CITI - BLANK	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.7
2/5/2007 10:00	CITI - BLANK	BNA-Water	N-Nitrosodiphenylamine/ Diphenylamine	2.9	ug/L	U	2.9	12
2/5/2007 10:00	CITI - BLANK	BNA-Water	Naphthalene	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.7
2/5/2007 10:00	CITI - BLANK	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	12
2/5/2007 10:00	CITI - BLANK	BNA-Water	Phenanthrene	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	Phenol	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	Pyrene	0.96	ug/L	U	0.96	3.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.8
2/5/2007 10:00	CITI - BLANK	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.8
2/5/2007 10:00	CITI	GC-Water	Alachlor	0.6	ug/L	U	0.6	2.4
2/5/2007 10:00	CITI	GC-Water	Ametryn	0.05	ug/L	U	0.05	0.2
2/5/2007 10:00	CITI	GC-Water	Atrazine	0.05	ug/L	UJ	0.05	0.2
2/5/2007 10:00	CITI	GC-Water	Azinphos Methyl	0.2	ug/L	UJ	0.2	0.8
2/5/2007 10:00	CITI	GC-Water	Bromacil	0.22	ug/L	I	0.2	0.8
2/5/2007 10:00	CITI	GC-Water	Butylate	0.2	ug/L	U	0.2	0.8
2/5/2007 10:00	CITI	GC-Water	Chlorpyrifos Ethyl	0.05	ug/L	U	0.05	0.2
2/5/2007 10:00	CITI	GC-Water	Chlorpyrifos Methyl	0.1	ug/L	U	0.1	0.4
2/5/2007 10:00	CITI	GC-Water	Diazinon	0.05	ug/L	UJ	0.05	0.2
2/5/2007 10:00	CITI	GC-Water	Ethion	0.05	ug/L	U	0.05	0.2
2/5/2007 10:00	CITI	GC-Water	Ethoprop	0.1	ug/L	U	0.1	0.4
2/5/2007 10:00	CITI	GC-Water	Fenamiphos	0.2	ug/L	U	0.2	0.8
2/5/2007 10:00	CITI	GC-Water	Fonofos	0.1	ug/L	U	0.1	0.4

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
2/5/2007 10:00	CITI	GC-Water	Hexazinone	0.1	ug/L	U	0.1	0.4
2/5/2007 10:00	CITI	GC-Water	Malathion	0.15	ug/L	U	0.15	0.6
2/5/2007 10:00	CITI	GC-Water	Metalaxyl	0.25	ug/L	UJ	0.25	1
2/5/2007 10:00	CITI	GC-Water	Metolachlor	0.5	ug/L	U	0.5	2
2/5/2007 10:00	CITI	GC-Water	Metribuzin	0.1	ug/L	U	0.1	0.4
2/5/2007 10:00	CITI	GC-Water	Mevinphos	0.2	ug/L	U	0.2	0.8
2/5/2007 10:00	CITI	GC-Water	Naled	0.8	ug/L	UJ	0.8	3.2
2/5/2007 10:00	CITI	GC-Water	Norflurazon	0.15	ug/L	U	0.15	0.6
2/5/2007 10:00	CITI	GC-Water	Parathion Ethyl	0.15	ug/L	U	0.15	0.6
2/5/2007 10:00	CITI	GC-Water	Parathion Methyl	0.1	ug/L	U	0.1	0.4
2/5/2007 10:00	CITI	GC-Water	Phorate	0.05	ug/L	U	0.05	0.2
2/5/2007 10:00	CITI	GC-Water	Prometryn	0.15	ug/L	U	0.15	0.6
2/5/2007 10:00	CITI	GC-Water	Simazine	0.05	ug/L	U	0.05	0.2
2/5/2007 10:00	CITI - BLANK	GC-Water	Alachlor	0.57	ug/L	U	0.57	2.3
2/5/2007 10:00	CITI - BLANK	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.19
2/5/2007 10:00	CITI - BLANK	GC-Water	Atrazine	0.048	ug/L	UJ	0.048	0.19
2/5/2007 10:00	CITI - BLANK	GC-Water	Azinphos Methyl	0.19	ug/L	UJ	0.19	0.76
2/5/2007 10:00	CITI - BLANK	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
2/5/2007 10:00	CITI - BLANK	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
2/5/2007 10:00	CITI - BLANK	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.19
2/5/2007 10:00	CITI - BLANK	GC-Water	Chlorpyrifos Methyl	0.095	ug/L	U	0.095	0.38
2/5/2007 10:00	CITI - BLANK	GC-Water	Diazinon	0.048	ug/L	UJ	0.048	0.19
2/5/2007 10:00	CITI - BLANK	GC-Water	Ethion	0.048	ug/L	U	0.048	0.19
2/5/2007 10:00	CITI - BLANK	GC-Water	Ethoprop	0.095	ug/L	U	0.095	0.38
2/5/2007 10:00	CITI - BLANK	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
2/5/2007 10:00	CITI - BLANK	GC-Water	Fonofos	0.095	ug/L	U	0.095	0.38
2/5/2007 10:00	CITI - BLANK	GC-Water	Hexazinone	0.095	ug/L	U	0.095	0.38
2/5/2007 10:00	CITI - BLANK	GC-Water	Malathion	0.14	ug/L	U	0.14	0.56
2/5/2007 10:00	CITI - BLANK	GC-Water	Metalaxyl	0.24	ug/L	UJ	0.24	0.96
2/5/2007 10:00	CITI - BLANK	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.9
2/5/2007 10:00	CITI - BLANK	GC-Water	Metribuzin	0.095	ug/L	U	0.095	0.38
2/5/2007 10:00	CITI - BLANK	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
2/5/2007 10:00	CITI - BLANK	GC-Water	Naled	0.76	ug/L	UJ	0.76	3
2/5/2007 10:00	CITI - BLANK	GC-Water	Norflurazon	0.14	ug/L	U	0.14	0.56
2/5/2007 10:00	CITI - BLANK	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
2/5/2007 10:00	CITI - BLANK	GC-Water	Parathion Methyl	0.095	ug/L	U	0.095	0.38
2/5/2007 10:00	CITI - BLANK	GC-Water	Phorate	0.048	ug/L	U	0.048	0.19
2/5/2007 10:00	CITI - BLANK	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
2/5/2007 10:00	CITI - BLANK	GC-Water	Simazine	0.048	ug/L	U	0.048	0.19
2/5/2007 10:00	CITI	Metals-Water	Aluminum	245	ug/L		4	16
2/5/2007 10:00	CITI	Metals-Water	Arsenic	0.5	ug/L	U	0.5	2

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
2/5/2007 10:00	CITI	Metals-Water	Cadmium	0.05	ug/L	U	0.05	0.2
2/5/2007 10:00	CITI	Metals-Water	Calcium	15.8	mg/L		0.02	0.08
2/5/2007 10:00	CITI	Metals-Water	Chromium	0.83	ug/L	I	0.3	1.2
2/5/2007 10:00	CITI	Metals-Water	Copper	0.76	ug/L	I	0.2	0.8
2/5/2007 10:00	CITI	Metals-Water	Iron	274	ug/L		5	20
2/5/2007 10:00	CITI	Metals-Water	Lead	0.2	ug/L	U	0.2	0.8
2/5/2007 10:00	CITI	Metals-Water	Magnesium	2	mg/L		0.005	0.02
2/5/2007 10:00	CITI	Metals-Water	Nickel	1	ug/L	U	1	4
2/5/2007 10:00	CITI	Metals-Water	Selenium	0.5	ug/L	U	0.5	2
2/5/2007 10:00	CITI	Metals-Water	Silver	0.025	ug/L	U	0.025	0.1
2/5/2007 10:00	CITI	Metals-Water	Zinc	3	ug/L	U	3	12
2/5/2007 10:00	CITI - BLANK	Metals-Water	Aluminum	4	ug/L	U	4	16
2/5/2007 10:00	CITI - BLANK	Metals-Water	Arsenic	0.5	ug/L	U	0.5	2
2/5/2007 10:00	CITI - BLANK	Metals-Water	Cadmium	0.05	ug/L	U	0.05	0.2
2/5/2007 10:00	CITI - BLANK	Metals-Water	Calcium	0.025	mg/L	I	0.02	0.08
2/5/2007 10:00	CITI - BLANK	Metals-Water	Chromium	0.3	ug/L	U	0.3	1.2
2/5/2007 10:00	CITI - BLANK	Metals-Water	Copper	0.2	ug/L	U	0.2	0.8
2/5/2007 10:00	CITI - BLANK	Metals-Water	Iron	5	ug/L	U	5	20
2/5/2007 10:00	CITI - BLANK	Metals-Water	Lead	0.2	ug/L	U	0.2	0.8
2/5/2007 10:00	CITI - BLANK	Metals-Water	Magnesium	0.005	mg/L	U	0.005	0.02
2/5/2007 10:00	CITI - BLANK	Metals-Water	Nickel	1	ug/L	U	1	4
2/5/2007 10:00	CITI - BLANK	Metals-Water	Selenium	0.5	ug/L	U	0.5	2
2/5/2007 10:00	CITI - BLANK	Metals-Water	Silver	0.025	ug/L	U	0.025	0.1
2/5/2007 10:00	CITI - BLANK	Metals-Water	Zinc	3	ug/L	U	3	12
2/5/2007 10:00	CITI	Nutrients-Liquid	Alkalinity	34	mg CaCO3/L		0.65	2.5
2/5/2007 10:00	CITI	Nutrients-Liquid	Ammonia-N	0.054	mg N/L		0.01	0.02
2/5/2007 10:00	CITI	Nutrients-Liquid	Kjeldahl Nitrogen	0.2	mg N/L	I	0.08	0.2
2/5/2007 10:00	CITI	Nutrients-Liquid	NO2NO3-N	0.3	mg N/L		0.04	0.1
2/5/2007 10:00	CITI	Nutrients-Liquid	O-Phosphate-P	0.58	mg P/L	Q	0.04	0.1
2/5/2007 10:00	CITI	Nutrients-Liquid	Total-P	0.68	mg P/L	A	0.02	0.06
2/5/2007 10:00	CITI - BLANK	Nutrients-Liquid	Ammonia-N	0.01	mg N/L	U	0.01	0.02
2/5/2007 10:00	CITI - BLANK	Nutrients-Liquid	Kjeldahl Nitrogen	0.08	mg N/L	U	0.08	0.2
2/5/2007 10:00	CITI - BLANK	Nutrients-Liquid	NO2NO3-N	0.004	mg N/L	U	0.004	0.01
2/5/2007 10:00	CITI - BLANK	Nutrients-Liquid	O-Phosphate-P	0.011	mg P/L		0.004	0.01
2/5/2007 10:00	CITI - BLANK	Nutrients-Liquid	Total-P	0.02	mg P/L	U	0.02	0.06
2/5/2007 10:00	CITI	Overflow	COD	20	mg/L	U		
2/5/2007 10:00	CITI - BLANK	Overflow	COD	20	mg/L	U		
2/5/2007 10:00	CITI	VOC-Water	1,1-Dichloroethene	0.5	ug/L	U	0.5	2
2/5/2007 10:00	TRIP BLANK	VOC-Water	1,1-Dichloroethene	0.5	ug/L	U	0.5	2

The Bioassay of City Industries Ground Water Remediation effluent sampled on February 5, 2007. NPDES #FL0043265.

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 0 0 4 3 2 6 5 11	12 0 7 0 2 0 5	18 B	19 S	20 2

Remarks

66

The Priority Pollutants Analysis of City Industries Ground Water Remediation effluent sampled on February 5, 2007. NPDES #FL0043265.

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 0 0 4 3 2 6 5 11	12 0 7 0 2 0 5	18 X	19 S	20 2

Remarks

66

Biological Analyses of City Industries Groung Water Remediation effluent sampled on Febraury 5, 2007. NPDES FL0043265.

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 0 0 4 3 2 6 5 11	12 0 7 0 2 0 5	18 S	19 S	20 2

Remarks

66