

Effluent Quality Assessment of the

Exxon Mobil Oil Corporation
(ElectroPhos Site)

Polk County

NPDES #FL0002666

Sampled March 5, 2007

June 2007

Biology Section
Bureau of Laboratories
Division of Resource Assessment and Management

Quality Manual No. 870346G
NELAC Certification No. E31780

ExxonMobil Oil Corporation, ElectroPhos Site, 1155 Pebbledale Road, Mulberry, Polk County, Florida, NPDES #FL0002666. Effluent samples for this facility were collected on March 5, 2007.

Introduction

ExxonMobil Oil Corporation is currently closed, but formerly produced elemental phosphorus. The facility does not have a design flow and does not report a monthly mean flow. The mean monthly-maximum daily flow from March 1, 2006, through February 28, 2007, was 0.660 million gallons per day (MGD). The flow during the sampling event was 0.102 MGD. When active, the facility produced elemental phosphorus and circulated process wastewater and phosphorous sludge byproduct to phossy ponds for cooling and deposition of elemental phosphorous. The phossy ponds were closed in 1987 and the plant was dismantled in 1988. The facility was designed and operated for zero discharge except during or after a 25-year, 24-hour rainfall event. Stormwater from offsite now enters the "clear-water ponds," which contain residues from previous facility activity that could potentially impact surface waters. Discharge to surface waters is intermittent and rainfall dependent. Stormwater from the clear-water ponds is discharged through Outfall 001 to a roadside ditch that enters the Class III Freshwaters of the North Prong Alafia River. Outfall 001 is located approximately at latitude 27º 50' 28"N, and longitude 81º 56' 38" W.

There is no Administrative Order (AO) for this facility. The facility currently has a Consent Order (Consent Order No. 01-629) for ground water discharge from the phossy ponds to the clear-water ponds. The groundwater monitoring plan includes the installation of a slurry wall and a synthetic liner to cover the closed phossy ponds. Piezometers are used to monitor the horizontal seepage from the closed phossy ponds to the clear-water ponds. The facility has no mixing zones. A review of DMR data showed a permit violation for dissolved oxygen (value 4.18 mg/L, permitted limit ≥ 5.0 mg/L) at Outfall 001 in April 2005. There is an ongoing issue with dissolved oxygen at this outfall. The aerator has been moved several times and is not functioning well enough to raise the dissolved oxygen above 5.0 mg/L. The receiving waters often have dissolved oxygen concentrations less than 2.0 mg/L and the clear-water pond the effluent drains from often has dissolved oxygen concentrations less than 5.0 mg/L. There are no toxicity testing requirements for this facility. (Facility information provided by Jacki Champion of FDEP Southwest District Bureau of Mine Reclamation-Phosphate Management Program.)

Methods

Samples were collected from the EFF-1 NPDES sampling point (downstream side of V-notch weir before effluent mixes with receiving water) for Outfall 001 by Jacki Champion (FDEP Southwest District Bureau of Mine Reclamation-Phosphate Management Program) 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. The Department uses the 48-hour acute screening toxicity test to provide reasonable assurance that the facility does not adversely affect waters of the state.

Toxicity Test Results

Tests were performed March 6-8, 2007.

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

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

The bioassay sample was not acutely toxic to the test organisms.

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

*NOTE: In a 48-hour acute screening test of 100% effluent, mortality of <20% provides 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 13.4 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 3.0 (±20%) mg dry wt/L (Table 1; Miller et al. 1978).

See Table 1 for AGP results.

Chemistry Results

Total residual chlorine and total ammonia were not detected in the bioassay sample in the laboratory. The total ammonia concentration in the sample collected and preserved for chemical analysis was 0.061 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 a level that complies with the Class III fresh water quality criterion (62-302.530, F.A.C.). Nickel was detected between the laboratory method detection limit (MDL) and practical quantitation limit (PQL). Copper was detected in the equipment blank. Aluminum was also detected in the sample. The effluent dissolved oxygen (4.3 mg/L) as measured in the field was less than the Class III Freshwater criterion for dissolved oxygen (≥ 5.0 mg/L; 62-302.530(31), F.A.C.).

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 Exxon Mobil Oil Corporation Outfall D-001 for this facility on March 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 dissolved oxygen did not meet the water quality standard for dissolved oxygen (62-302.530(31), F.A.C.).

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 the nitrogen to phosphorus for samples collected from Exxon Mobil Oil Corporation on March 5, 2007 .

Location	AGP (measured)	Predicted AGP (TSIN) ± 20%	Predicted AGP (TN) ± 20%	Inorganic N:P ratio	Total N:P ratio
Outfall D-001	13.4	3.0 ± 0.6	38.6 ± 7.7	0.029	0.4

Table 2. Effluent limits, Class III Freshwater Criteria, and chemical data for samples collected from Exxon Mobil Oil Corporation on March 5, 2007

Exxon Mobil Oil Corporation NPDES #FL0002666	Class III Fresh Stds	Effluent Limits	Outfall D-001	
Organic Constituents (µg/L)				
None Detected	-	-	-	
Metals (µg/L unless otherwise noted)				
Aluminum	-	-	127	
Arsenic	≤ 50	-	0.5	U
Cadmium	≤ 0.23 b	-	0.05	U
Calcium (mg/L)	-	-	21.5	
Chromium-III	≤ 70.6 b	-	1	U
Copper	≤ 7.6 b	-	0.2	Uf
Iron	≤ 1,000	-	98	
Lead	≤ 2.3 b	-	0.2	U
Magnesium (mg/L)	-	-	6	
Nickel	≤ 42.5 b	-	0.63	I
Selenium	≤ 5.0	-	0.5	U
Silver	≤ 0.07	-	0.025	U
Zinc	≤ 97.5 b	-	3	U
Nutrients (mg/L)				
Ortho-phosphate	-	-	2.7	
Total Phosphorus	-	Report	2.8	
Total Ammonia	-	-	0.061	
Un-ionized Ammonia	≤ 0.02 c	-	≤ 0.02	c
Nitrate and Nitrite	-	-	0.017	
Total Kjeldahl Nitrogen	-	-	1	
Organic Nitrogen	-	-	0.939	c
Total Nitrogen	-	-	1.017	c
General Physical and Chemical Parameters				
Dissolved Oxygen (mg/L)	≥ 5.0	-	4.3	
pH (SU)	6.0 - 8.5	6.0 - 8.5 s	7.1	
Conductivity (µmhos/cm)	≤ 1,275	≤ 1,275 s	195	
Temperature (°C)	-	-	26.2	
Total Residual Chlorine (mg/L)	≤ 0.01	-	< 0.03	£
Chlorophyll a (µg/L)	-	-	2.6	I
Phaeophytin (µg/L)	-	-	3	U
Total Suspended Solids (mg/L)	-	Report	4	I
Total Dissolved Solids (mg/L)	-	-	130	
Turbidity (NTU)	≤ 29 t	≤ 29 t	3.4	
Color (pt-Co)	-	-	40	
Oils and Greases (mg/L)	≤ 5.0	-	4.7	IV
Chloride (mg/L)	-	-	12	
Fluoride (mg/L)	≤ 10	≤ 10 s	3.1	
Sulfate (mg/L)	-	-	8.6	
Cyanide (mg/L)	-	≤ 5.2 s	-	
Alpha, Total (pCi/L)	≤ 15	-	1.3	
Alpha-Counting Error (pCi/L)	-	-	0.7	
Radium 226 (pCi/L)	-	-	0.7	
Radium 226-Counting Error (pCi/L)	-	-	0.2	
Radium 228 (pCi/L)	-	-	0.9	U
Radium 228-Counting Error (pCi/L)	-	-	0.6	
Radium 226 + 228 (pCi/L)	≤ 5	-	0.7	c
Flow (MGD)	-	Report	0.6598	m
Hardness (mg $CaCO_3$)	-	-	78.39	c

Value exceeds the Class III Water Quality Criteria or permit limits

b - Value is calculated based on hardness
c - Value is calculated
f - Analyte was detected in the equipment blank between the method detection limit and the practical quantitation limit
m - Mean monthly maximum flow (facility does not report mean monthly flow)
s - Single sample
t - Shall not exceed 29 NTUs above background
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
U - Material analyzed for but not detected; value reported is the method detection limit
V - Analyte was detected in both sample and method blank
£ - Bioassay laboratory measurement

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2007-03-05-43
Exxon Mobil Closed Phossy Pond

Requester: Shannan Bogdanov
Field Report Prepared By: Jacki Champion
Collected By: Jacki Champion
Send Final Report To Vishwas Sathe
Sampling Agency: FDEP – BMR – Phosphate Mgmt.

Customer: BMR-TAMPA
Project ID: FYI3
PMAS: 1163

Lab ID *	Location / Field ID / Matrix / Temp (C) / pH / Latitude / Longitude	Collection (begin) / Collection (end) / Tot Res Chlorine (mg/L) / Diss Oxygen (mg/L) / Storet Station Number / Sample Depth / Salinity (PPTh) / Sp Conductance (umho/cm) / NPDES Number / Comments	Bottle Group(s)**
	Location: Exxon Mobil Field ID: Outfall 001 Matrix: Fresh Water Temp (C): 26.2 pH: 7.14 Latitude: o ' " Longitude: o ' "	X Grab; Date 3/5/07 Time 10:40 Eastern/Central; Diss Oxygen (mg/L): 4.3 Sample Depth: ft; Sp Conductance (umho/cm): 195; NPDES Number: FL0002666 Comments:	A
	Location: Exxon Mobil - Bioassay Samples Field ID: Outfall 001 - Bioassay Samples Matrix: Fresh Water Temp (C): 26.2 pH: 7.14 Latitude: o ' " Longitude: o ' "	X Grab; Date 3/5/07 Time 10:40 Eastern/Central; Diss Oxygen (mg/L): 4.3 Sample Depth: ft; Sp Conductance (umho/cm): 195; NPDES Number: FL0002666 Comments:	A
	Location: Exxon Mobil Field ID: Equipment Blank Matrix: Fresh Water Temp (C): pH: Latitude: o ' " Longitude: o ' "	X Grab; Date 3/5/07 Time 10:10 Eastern/Central Tot Res Chlorine (mg/L): Sample Depth: m / ft Sp Conductance (umho/cm): FL0002666 Comments:	B
	Location: Field ID: Matrix: Temp (C): pH: Latitude: o ' " Longitude: o ' "	Grab; Date Time Eastern/Central Tot Res Chlorine (mg/L): Diss Oxygen (mg/L): Sample Depth: m / ft Sp Conductance (umho/cm): Comments: 8-bottles, 09:45 3-6-07 JD	

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	3/5/07 2:00pm	DHL	HBT	3-6-07 08:55				

* 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: Exxon Mobil Oil Corporation

Address: 1155 Pebbledale Road

City: Mulberry, Fl. County: Polk Zip 33860

Contact/District: Jacki Champion / Southwest

NPDES Permit #: FL 0002666

LIMS Job #: TLH-2007-03-06-TS LIMS Sample #: 990500

Lims Data Entry: MF 3-14-07 Data Entry Verification: JD 3/14/07

Sample Collection: Date: 3-5-07 Time: 1040

Hold Time Start: Date: 3-6-07 5 MF Time: 1040

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 # IR Range 25.9-26.4
Room B246: 24.7-25.8
Waterbath: NA

Sample Validation:

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

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

Investigators' Signatures
Marshall Faircloth
Daisy Vichiacal
Bruce D
James Danner

REVIEWER Nicole Wellendorf

Water Quality Parameters	20% DMW	Moderately Hard Water/ (Well Water)	Salt Water ASW NSW Test 1	Salt Water ASW NSW Test 2	Other:	Original Sample	Method	Measured by	Verified by
Field Total Residual Cl_2 (mg/L):	N/A	N/A	N/A	N/A		—	NOT measured		MF
Lab Total Residual Cl_2 (mg/L):	<0.03	<0.03				<0.03	HACH	PDV	MF
Alkalinity (mg/L as $CaCO_3$):	80	140				96	HACH	BA	MF
Hardness (mg/L as $CaCO_3$):	83	140				96	HACH	BA	MF
Total Ammonia (mg/L as N):	<0.017	<0.017	—	—		<0.017	DENVER	MF	PDV
Salinity (ppth):	<1	<1				<1	~~YSI~~ Mettler	JD	MF

V 1.4 9/12/05

Appendix B. (continued)

FDEP Biology Section - Bioassay Survival Sheet

LIMS Sample #: 990508
Organism: C.dubia
Organism Batch: 10-07
Organism Age: < 24 Hr.
Chamber Size: 30 mL
Test Volume: 20 mL

Test #: 1
SOP #: TA 07_01
Diluent/ Batch: DHW 12-23-07
Food: (YCT) (P. subcapitata) Artemia
Batch: 1-7-07 2-7-07 —
Feeding: (Prior to test) Prior to renewal - Daily

Test Started: Date 3-6-07 Time: 1255
Test Ended: Date 3-8-07 Time: 1025

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Control	A	A	5	5	5			
	B	B	5	5	5			
	C	C	5	5	5			
	D	D	5	5	5			
100%	A	A	5	5	5			
	B	B	5	5	5			
	C	C	5	5	5			
	D	D	5	5	5			
Organisms loaded by: BA		Checked by:		mF	mF			

Loading Verified by: PPV

Comments:

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

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).

V 2.1 11/01/2005

Page 000012

Appendix B. (continued)

FDEP Biology Section - Bioassay Survival Sheet

LIMS Sample #: 990508
Test #: 2
Test Started: Date 3-6-07 Time: 1255
Organism: C. leodes
SOP #: TA 07_02
Test Ended: Date 3-3-07 Time: 1040
Organism Batch: 3-6-07
Diluent/ Batch: WELL / 3-6-07
Organism Age: 12 DAYS
Food: YCT P. subcapitata Artemia
Chamber Size: 1000 mL
Batch: — — 21-07 (lot# ESL-556-90)
Test Volume: 500 mL
Feeding: Prior to test Prior to renewal - Daily

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Ctrl	A	A13	5	5	5			
	B	A14	5	5	5			
	C	A15	5	5	5			
	D	A16	5	5	5			
100%	A	A17	5	5	5			
	B	A18	5	5	5			
	C	A19	5	5	5			
	D	A20	5	5	5			
Organisms loaded by: JD		Checked by:	[redacted]	JD	JD			
Loading Verified by: MF			Comments:					

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

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).

V 2.1 11/01/2005

Page 000013

FDEP Biology Section - Bioassay Parameter Sheet

LIMS Sample # : 990508 **Test #:** 1 of 2

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

Concentration	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M	|	M			
pH (S.U.)	8.1	|	8.1			
Temperature °C	24.6	|	25.5			
Dissolved Oxygen mg/L	7.7	|	6.8			
Conductivity (µmhos) mmhos	195	|	203			
(initials) Measured by:	MF		MF			
(initials) Recorded by:	MF		MF			

Comments:

Concentration	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	M	|	M			
pH (S.U.)	7.3	|	8.0			
Temperature °C	24.9	|	25.5			
Dissolved Oxygen mg/L	6.2	|	6.5			
Conductivity (µmhos) mmhos	228	|	247			
(initials) Measured by:	MF		MF			
(initials) Recorded by:	MF		MF			

Comments:

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

Comments:

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

Comments:

000014

V 2.0 2/24/04

Page

FDEP Biology Section - Bioassay Parameter Sheet

LIMS Sample # : 990508 **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	8.1	8.3			
Temperature °C	25.3	24.4	25.3			
Dissolved Oxygen mg/L	7.7	7.2	6.6			
Conductivity ~~µmhos~~ mmhos	34	290	292			
(initials) Measured by:	DD	PA/DD	DD			
(initials) Recorded by:	DD	PA/DD	DD			

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.)	7.2	7.7	7.4			
Temperature °C	25.7	24.8	25.1			
Dissolved Oxygen mg/L	5.8	6.7	6.5			
Conductivity ~~µmhos~~ mmhos	240	240	243			
(initials) Measured by:	DD	PA/DD	DD			
(initials) Recorded by:	DD	PA/DD	DD			

Comments:

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

Comments:

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

Comments:

Appendix C. SRT Bench Sheets and Statistical Analysis

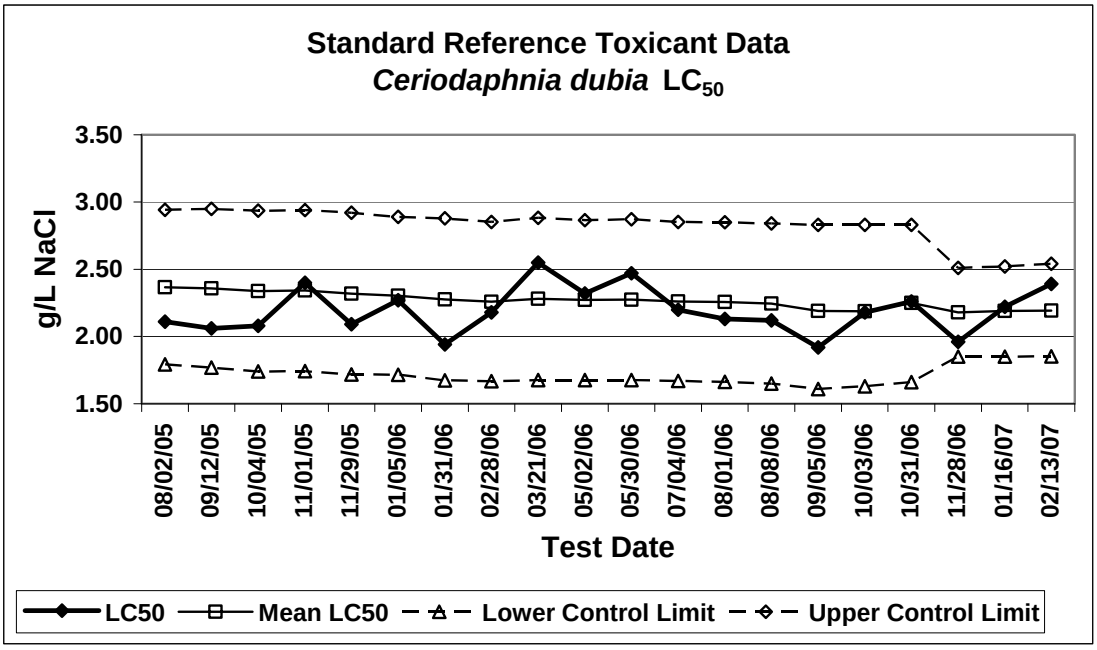
Florida Department of Environmental Protection
Bureau of Laboratories

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

Date	LC50	Mean LC50	Std Dev	Lower Control Limit	Upper Control Limit
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
02/13/07	2.39	2.19	0.17	1.85	2.54

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)

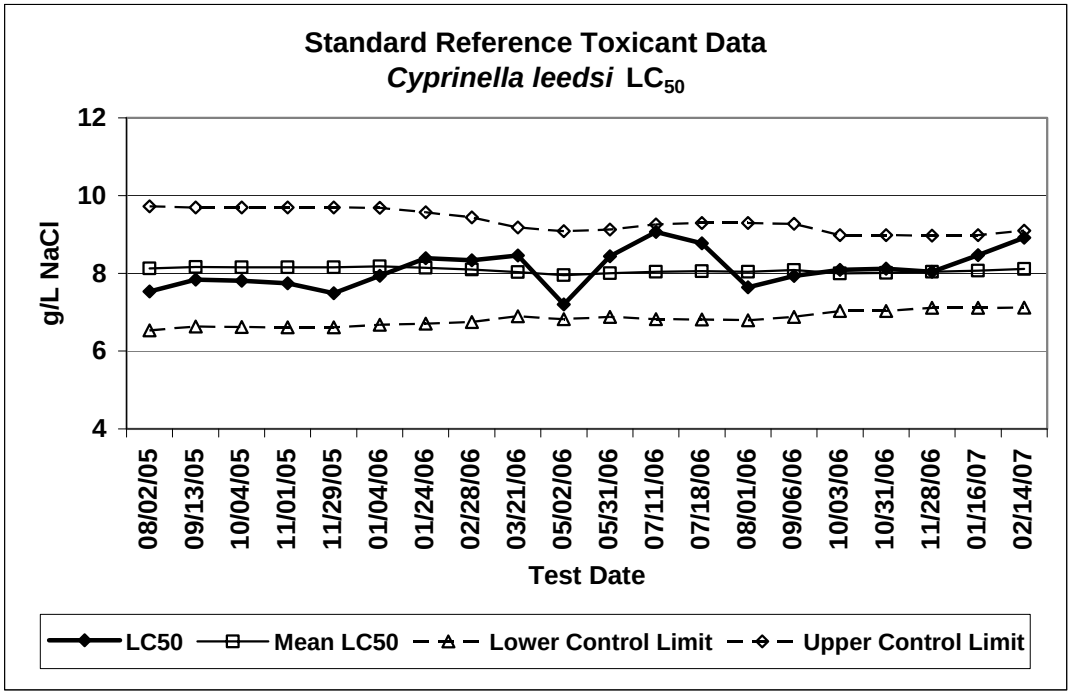
Florida Department of Environmental Protection
Bureau of Laboratories

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
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	8.07	0.47	7.11	8.98
02/14/07	8.92	8.11	0.49	7.12	9.10

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

CV = 6.04
EPA reference 75th quartile CV = 19%



Appendix C. (continued)

FDEP Biology Laboratory - Acute SRT Bench Sheet

Test Organism: *Americamysis bahia* Method 2007.0 | *Menidia beryllina* Method 2006.0 | *Hyalella azteca* Method 100.1 EPA-600-R-99-064
Ceriodaphnia dubia Method 2002.0 | *Cyprinella leedsi* Method 2000.0 | *Pimephales promelas* Method 2000.0 | Other: _____

Method from EPA-821-R-02-012
Test Type: 48 hour non-renewal / 96 hour renewal
Test Page 1 of 2

Diluent/ Batch #: DMW 122.07
Toxicant/ Batch#: NaCl 12.1307

Test Beginning: Date: 2.13.07 Time: 14:00
Test Ending: Date: 2-17-07 Time: 1235

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	BA
Alkalinity (mg/L as $CaCO_3$):	86	Hach	JD
Hardness (mg.L as $CaCO_3$):	100	Hach	JD
Total Ammonia (mg/L as N):	<0.07	Denver	MF
Salinity (ppth):	<1	Mettler	BA

Organism Batch #/ Age: 8-07 1 <24hr
Feeding: Prior to test/ Prior to renewal/ Daily
Food: YCT / *P.subcapitata* Artemia: Lot #_____
Food Batch: 2-06 5-06 0hr — 24hr — 48hr — 72hr —
Chamber size: 30 mL
Test volume: 20 mL per replicate

Conc. (%) µg/L mg/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 Conductivity µmhom/cm (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	7.7		7.6	25.6		24.0	6.9		7.8	0.180		0.129
	B	B	5	5	5												
	C	C	5	5	5												
	D	D	5	5	5												
1.5	A	A	5	5	5	7.7		7.6	26.0		24.0	7.1		7.7	2.95		3.16
	B	B	5	5	5												
	C	C	5	5	5												
	D	D	5	5	5												
2.0	A	A	5	5	3 20	7.7		7.7	25.7		24.0	6.9		7.7	3.35		4.5
	B	B	5	5	5												
	C	C	5	5	5												
	D	D	5	5	5												
2.5	A	A	5	5	4 10	7.8		7.8	25.3		24.0	7.0		7.7	4.69		5.44
	B	B	5	5	3 20												
	C	C	5	5	1 40												
	D	D	5	5	1 40												
3.0	A	A	5	4 40	0 40	7.8		7.8	25.2		24.0	7.0		7.8	5.51		6.14
	B	B	5	5	0 50												
	C	C	5	5	0 50												
	D	D	5	5	0 50												
4.0	A	A	5	1 40	0 40	7.8		7.8	24.7		24.0	7.0		7.8	7.2		7.91
	B	B	5	0 50	0												
	C	C	5	0 50	0												
	D	D	5	1 40	0												
	A																
	B																
	C																
	D																
Loaded / measured by:			BA	BA	BA	BA		BA	BA		BA	BA		BA	BA		BA
Recorded by:			BA	BA	BA	BA		BA	BA		BA	BA		BA	BA		BA

Investigators' Signatures
Janice Daniels
Barbara Blakeslee
Patsy Vichaikul
Marshall Fairbanks
Nicole Wellendorf
REVIEWER

Concentrations prepared by: BA
Loading verified by: JD
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min. 24.5 max. 26.6 mean 25.7
Incubator # ___ min. _____ max. _____ mean _____
Room B246 min. 23.1 max. 25.9 mean 24.6

Comments:

Statistics: Method: Spearman-Karber
48/ 96 hour LC_{50}: 2.39
95% Confidence Interval: lower 2.26 upper 2.53

PAGE 000001

revised 08/24/06 SP

Appendix C. (continued)

FDEP Biology Laboratory - Acute SRT Bench Sheet

Test Organism: *Americamysis bahia* (Method 2007.0) *Menidia beryllina* (Method 2006.0) *Hyalella azteca* (Method 100.1 EPA-600-R-99-064)
Ceriodaphnia dubia (Method 2002.0) *Cyprinella leedsi* (Method 2000.0) *Pimephales promelas* (Method 2000.0) *Other:* _____

Method from EPA-821-R-02-012
Test Type: 48 hour non-renewal / (96 hour renewal)
Test Page 2 of 2

Diluent/ Batch #: DmW 12.2.07
Toxicant/ Batch#: NaCl 12.2.07 .12

Test Beginning: Date: 2.13.07 Time: 14.00
Test Ending: Date: 2-17-07 Time: 1235

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	BA
Alkalinity (mg/L as $CaCO_3$):	86	Hach	JD
Hardness (mg.L as $CaCO_3$):	100	Hach	JD
Total Ammonia (mg/L as N):	0.07	Denver	MF
Salinity (ppth):	<1	Mettler	BA

Organism Batch #/ Age: 8-07 1 <24hr
Feeding: (Prior to test) / (Prior to renewal) / Daily
Food: (YCT) (P.subcapitata) Artemia: Lot # —
Food Batch: 2-06 5-06 0hr — 24hr — 48hr — 72hr —
Chamber size: 30 mL
Test volume: 20 mL per replicate

Conc. µg/L mg/L	Rep.	Chamber #	Number Live 0 hr / 48 hr	24 hr / 72 hr	48 hr / 96 hr	pH (SU) 0 hr / 48 hr	24 hr / 72 hr	48 hr / 96 hr	Temperature (°C) 0 hr / 48 hr	24 hr / 72 hr	48 hr / 96 hr	D.O. (mg/L) 0 hr / 48 hr	24 hr / 72 hr	48 hr / 96 hr	Uncorrected Conductivity µmhom/cm (mmhos/cm) 0 hr / 48 hr	24 hr / 72 hr	48 hr / 96 hr
Control	A	A	5	5	5	7.7		8.2	24.2		23.9	7.9		8.1	0.179		0.205
	B	B	5	4(1D)	4												
	C	C	5	5	5												
	D	D	5	5	5												
1.5	A	A	5	5	5	7.6		8.1	24.4		24.1	7.9		7.9	3.09		3.39
	B	B	5	5	5												
	C	C	5	5	5												
	D	D	5	5	5												
2.0	A	A	3	3	3	7.7		8.1	24.7		24.0	7.5		7.9	3.84		4.17
	B	B	5	3(1D)	3												
	C	C	5	4(1D)	2(2D)												
	D	D	5	4(1D)	4												
2.5	A	A	4	1(3D)	0(1D)	7.7		8.1	24.9		23.9	7.4		7.8	4.77		5.12
	B	B	3	0(3D)	—												
	C	C	1	0(1D)	—												
	D	D	1	0(1D)	—				—		—	—					
3.0	A	A	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	B	B	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	C	C	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	D	D	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4.0	A	A	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	B	B	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	C	C	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	D	D	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	A																
	B																
	C																
	D																
Loaded / measured by:			MF	MF	MF	BA		MF	BA		MF	BA		MF	BA		MF
Recorded by:			MF	MF	MF	BA		MF	BA		MF	BA		MF	BA		MF

Investigators' Signatures
James Daniels
Paula Nobrega
Haley Vichaikul
Marshall Faircloth
Nicole Wellendorf
REVIEWER

Concentrations prepared by: PA
Loading verified by: JD
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min 24.5 max 26.6 mean 25.7
Incubator # ___ min ___ max ___ mean ___
Room B248 min 23.3 max 25.9 mean 24.6

Comments:

Statistics: Method: Spearman-Karber
48 / (96) hour LC_{50}: 2.03
95% Confidence Interval: lower 1.92 upper 2.14

PAGE 000002

revised 08/24/06 SP

Appendix C. (continued)

FDEP Biology Laboratory - Acute SRT Bench Sheet

Test Organism: *Americamysis bahia* Method 2007.0 | *Menidia beryllina* Method 2006.0 | *Hyalella azteca* Method 100.1 EPA-600-R-99-064
Ceriodaphnia dubia Method 2002.0 | *Cyprinella leedsi* ~~Method 2000.0~~ | *Pimephales promelas* Method 2000.0 | Other: _____

Method from EPA-821-R-02-012
Test Type: 48 hour non-renewal / 96 hour renewal
Test Page 1 of 2

Diluent/ Batch #: Well H, 01 2.12.07
Toxicant/ Batch#: NaCl 1 2.13.07

Test Beginning: Date: 2-14-07 Time: 10:00
Test Ending: Date: 2-18-07 Time: 10:30

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	BA
Alkalinity (mg/L as $CaCO_3$):	158	Hach	JD
Hardness (mg.L as $CaCO_3$):	158	Hach	JD
Total Ammonia (mg/L as N):	<0.017	Denver	MF
Salinity (ppth):	<1	Mettler	BA

Organism Batch #/ Age: 2-13-07 / 1 day
Feeding: (Prior to test) (Prior to renewal) Daily
Food: YCT *P.subcapitata* (Artemia) Lot # GSL-63C-50
Food Batch: — — 0hr 10:01 24hr — 48hr 12:07 72hr —
Chamber size: 1000 mL
Test volume: 500 mL per replicate

Conc. µg/L ~~mg/L~~	Rep.	Chamber #	Number Live 0 hr	24 hr	48 hr	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 Conductivity µmhom/cm (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	A13	10	10	10	7.7		8.2	24.2		24.7	7.1		7.2	0.303		0.320
	B	A14	10	10	10		7.9			25.3			6.8			0.313	
	C																
	D																
6.0	A	A15	10	10	10	7.7		8.2	24.6		24.5	7.5		7.3	10.5		10.9
	B	A16	10	10	10		7.9			24.6			7.0			10.4	
	C																
	D																
7.0	A	A17	10	10	10	7.7		8.2	24.8		24.5	7.8		7.2	12.1		12.5
	B	A18	10	10	10		8.0			24.6			7.1			12.0	
	C																
	D																
8.0	A	A19	10	9:10	9:00	7.8		8.2	24.8		24.3	7.8		7.2	13.6		14.0
	B	A20	10	8:30	8		8.0			24.3			7.2			13.7	
	C																
	D				(A) MF 2.16.07												
9.0	A	A21	10	8:20	8:20	7.8		8.2	24.8		24.1	7.3		7.1	15.2		15.8
	B	A22	10	8:20	8:20		8.0			24.7			7.2			15.2	
	C																
	D																
10.0	A	A23	10	10:00	—	7.8			24.8			7.3			16.7		~~17.4~~ BA
	B	A24	10	2:30	1:10		8.0	8.2		24.8	24.0		7.3	7.1		16.7	17.4
	C																
	D																
	A																
	B																
	C																
	D																
Loaded / measured by:			BA	JD	MF	BA	BA	BA	BA	JD	BA	BA	BA	BA	BA	BA	BA
Recorded by:			BA	JD	MF	BA	BA	BA	BA	JD	BA	BA	BA	BA	BA	BA	BA

Investigators' Signatures
James Daniels
Peter Abate
Patsy Kenaley
Marshall Faircloth
Majili Wellendorf
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 24.5 max 26.6 mean 25.7
Incubator # ___ min ___ max ___ mean ___
Room B246 min 23.3 max 25.9 mean 24.6

Comments: (A) recorded wrong # above MF 2.16.07

Statistics: Method: Spearman-Karber
(48)/ 96 hour LC_{50}: 8.92
95% Confidence Interval: lower 8.66 upper 9.25

PAGE 000003

revised 08/24/06 SP

Appendix C. (continued)

FDEP Biology Laboratory - Acute SRT Bench Sheet

Test Organism: *Americamysis bahia* (Method 2007.0) *Menidia beryllina* (Method 2006.0) *Hyalella azteca* (Method 100.1 EPA-600-R-99-064) *Ceriodaphnia dubia* (Method 2002.0) *Cyprinella leedsi* (Method 2000.0) *Pimephales promelas* (Method 2000.0) Other: _____

Method from EPA-821-R-02-012
Test Type: 48 hour non-renewal / 96 hour renewal
Test Page 2 of 2

Diluent/ Batch #: Well H2O / 2.12.07
Toxicant/ Batch#: NaCl / 12-7-07

Test Beginning: Date: 2-13-07 (14 BA) Time: 10:00
Test Ending: Date: 2-18-07 Time: 10:30

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	BA
Alkalinity (mg/L as $CaCO_3$):	158	Hach	DD
Hardness (mg.L as $CaCO_3$):	158	Hach	DD
Total Ammonia (mg/L as N):	<0.07	Denver	MF
Salinity (ppth):	<1	Mettler	BA

Organism Batch #/ Age: 2-13-07 / 1 Hdys
Feeding: (Prior to test) (Prior to renewal) Daily
Food: YCT *P.subcapitata* Artemia: Lot # GSL-536-40
Food Batch: — — 0hr 10-07 24hr — 48hr 12-07 72hr —
Chamber size: 1000 mL
Test volume: 500 mL per replicate

Conc. µg/L (mg/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	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 Conductivity µmhom/cm (mmhos/cm) 0 hr	Uncorrected Conductivity 24 hr	Uncorrected Conductivity 48 hr
Control	A	A13	10	10	10	8.2		8.1	24.1		24.4 (B) 24.6	7.7		7.1	0.288		0.346
	B	A11	10	10	10		7.9			24.1			7.0			0.297	
	C																
	D										(B)						
6.0	A	A15	10	10	10	8.2		8.1	24.1		23.8	7.4		6.7	10.2		10.7
	B	A16	10	9 10	9		8.0			24.0	24.9		6.8			10.6	
	C																
	D										(B)						
7.0	A	A17	10	10	10	8.1		8.1	24.1		24.6	7.5		6.7	12.5		12.7
	B	A18	10	10	10		8.0			24.2	24.5		6.6			12.3	
	C																
	D										(B)						
8.0	A	A19	8	8	8	8.1		8.1	24.1		25.0	7.6		6.7	14.0		14.2
	B	A20	8	8	8		8.0			24.0	24.3		6.5			14.1	
	C																
	D																
9.0	A	A21	6	6	6	8.1		8.1	24.0		24.5	7.4		6.5	15.5		15.6
	B	A22	6	6	6		8.0			23.9			6.6			15.3	
	C																
	D																
100	A	A23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	B	A24	10 10	0 10	-	8.1	8.1	-	24.0	23.9	-	7.4	6.7	—	17.2	17.1	—
	C																
	D																
	A																
	B																
	C																
	D																
Loaded / measured by:			MF	MF	MF (A)	MF	MF	BA	MF	MF	MF (B)	MF	MF	BA	MF	MF	BA
Recorded by:			MF	MF	MF (A) MF 2/17/07	MF	MF	BA	MF	MF	MF (B)	MF	MF	BA	MF	MF	BA

Investigators' Signatures
James Daniels
Brian Abshier
Patsy Michaud
Marshall Faircloth
Heidi Wellendorf
REVIEWER

Concentrations prepared by: MF
Loading verified by: BA
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min 24.5 max 26.6 mean 25.7
Incubator # ___ min ___ max ___ mean ___
Room B246 min 23.2 max 25.9 mean 24.6

Comments: (A) initials in wrong space MF 2-17-07
(B) recorded incorrect tests MF 2/17/07

Statistics: Method: Spearman-Karber
48 / (96) hour LC_{50}: 8.86
95% Confidence Interval: lower 8.55 upper 9.18

PAGE 000004

revised 08/24/06 SP

Appendix C. (continued)

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

DATE: 02-13-07 DURATION: 48 hr. TOXICANT: NaCl
SPECIES: *Ceriodaphnia dubia*

RAW DATA: Concentration (g/L)	Number Exposed	Mortalities
0.0	20	0
1.5	20	0
2.0	20	2
2.5	20	11
3.0	20	20
4.0	20	20

SPEARMAN-KARBER TRIM: 0.00%

SPEARMAN-KARBER ESTIMATES: **LC50: 2.39**
95% LOWER CONFIDENCE: 2.26
95% UPPER CONFIDENCE: 2.53

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

DATE: 02-14-07 DURATION: 48 hr. TOXICANT: NaCl
SPECIES: *Cyprinella leedsi*

RAW DATA: Concentration (g/L)	Number Exposed	Mortalities
0	20	0
6	20	0
7	20	0
8	20	4
9	20	8
10	20	19

SPEARMAN-KARBER TRIM: 5.00%

SPEARMAN-KARBER ESTIMATES: **LC50: 8.92**
95% LOWER CONFIDENCE: 8.60
95% UPPER CONFIDENCE: 9.25

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: 2/12/07

Shipped to: FDEP

P.O. No: _____

Species	Quantity	Age	Brood Number	Temperature	Salinity
Mysidopsis bahia	150+	4 Days	MSO70208	25°C	~30‰
Menidia beryllina	150+	14 Days	SSO70131	25°C	~30‰
Cyprinella leedsi	150+	14 Days	CLC70131	25°C	
Pimephales promelas	150+	17 Days	FMC7CC5-1610	25°C	

Packed by: Frank Garvin

Shipped Via: Fed-Ex

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: 3/5/07

Shipped to: FDEP

P.O. No: _____

Species	Quantity	Age	Brood Number	Temperature	Salinity
Mysidopsis bahia	550+	6 Days	MSC7C22.7	25°C	~30‰
Menidia beryllina	550+	10 Days	SSC7C23	25°C	~30‰
Cyprinella leedsi					
Pimephales promelas	150+	11 Days	CHC7C22	25°C	

Packed by: Frank Gary

Shipped Via: FedEx

Notes: _____

Thank you for your order.

Appendix E. Chemical Analyses performed on the effluent from the ExxonMobil Oil Corporation (ElectroPhos Site), Outfall D-001, sampled on March 5, 2007.

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/5/2007 10:40	OUTFALL 001	Bio-AGP/LimNut	Algal Growth Potential	13.4	mg DryWt/L		0.3	0.9
3/5/2007 10:40	OUTFALL 001	Bio-Chl-a	Chlorophyll-A, Monochromatic, Water	2.6	ug/L	I	1.7	5.2
3/5/2007 10:40	OUTFALL 001	Bio-Chl-a	Phaeophytin-A, Monochromatic, Water	3	ug/L	U	3	9
3/5/2007 10:40	OUTFALL 001	Bio-Toxicology	Bioassay-Acute-Screen-FW-C.dubia, LC50	100	LC50	L		
3/5/2007 10:40	OUTFALL 001	Bio-Toxicology	Bioassay-Acute-Screen-FW-Fish, LC50	100	LC50	L		
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	1,2,4-Trichlorobenzene	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	1,2-Dichlorobenzene	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	1,3-Dichlorobenzene	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	1,4-Dichlorobenzene	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	2,4,6-Trichlorophenol	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	2,4-Dichlorophenol	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	2,4-Dimethylphenol	53	ug/L	U	53	210
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	2,4-Dinitrophenol	16	ug/L	U	16	63
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	2,4-Dinitrotoluene	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	2,6-Dinitrotoluene	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	2-Chloronaphthalene	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	2-Chlorophenol	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	2-Methyl-4,6-dinitrophenol	3.2	ug/L	U	3.2	13
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	2-Nitrophenol	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	3,3'-Dichlorobenzidine	42	ug/L	U	42	170
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	4,4'-DDD	1.6	ug/L	U	1.6	6.3
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	4,4'-DDE	1.6	ug/L	U	1.6	6.3
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	4,4'-DDT	1.6	ug/L	U	1.6	6.3
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	4-Bromophenyl phenyl ether	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	4-Chloro-3-methylphenol	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	4-Chlorophenyl phenyl ether	2.1	ug/L	U	2.1	8.4
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	4-Nitrophenol	16	ug/L	U	16	63
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Acenaphthene	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Acenaphthylene	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Aldrin	1.6	ug/L	U	1.6	6.3
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Anthracene	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Benzidine	110	ug/L	U	110	420
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Benzo(a)anthracene	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Benzo(a)pyrene	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Benzo(b)fluoranthene	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Benzo(g,h,i)perylene	1.1	ug/L	U	1.1	4.2

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Benzo(k)fluoranthene	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Bis(2-chloroethoxy)methane	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Bis(2-chloroethyl)ether	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Bis(2-chloroisopropyl)ether	3.2	ug/L	U	3.2	13
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Bis(2-ethylhexyl)phthalate	16	ug/L	U	16	63
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Butyl benzyl phthalate	5.3	ug/L	U	5.3	21
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Chrysene	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Di-n-butyl phthalate	5.3	ug/L	U	5.3	21
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Di-n-octyl phthalate	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Dibenzo(a,h)anthracene	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Dieldrin	1.6	ug/L	U	1.6	6.3
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Diethyl phthalate	1.3	ug/L	I	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Dimethyl phthalate	53	ug/L	U	53	210
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Endosulfan I	4.2	ug/L	U	4.2	17
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Endosulfan II	4.2	ug/L	U	4.2	17
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Endosulfan sulfate	1.6	ug/L	U	1.6	6.3
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Endrin	1.6	ug/L	U	1.6	6.3
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Endrin aldehyde	4.2	ug/L	U	4.2	17
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Fluoranthene	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Fluorene	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Heptachlor	1.6	ug/L	U	1.6	6.3
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Heptachlor epoxide	1.6	ug/L	U	1.6	6.3
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Hexachlorobenzene	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Hexachlorobutadiene	3.2	ug/L	U	3.2	13
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Hexachlorocyclopentadiene	3.2	ug/L	U	3.2	13
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Hexachloroethane	3.2	ug/L	U	3.2	13
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Indeno(1,2,3-cd)pyrene	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Isophorone	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	N-Nitrosodi-n-propylamine	2.1	ug/L	U	2.1	8.4
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	N-Nitrosodimethylamine	2.1	ug/L	U	2.1	8.4
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	N-Nitrosodiphenylamine/ Diphenylamine	3.2	ug/L	U	3.2	13
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Naphthalene	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Nitrobenzene	2.1	ug/L	U	2.1	8.4
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Pentachlorophenol	3.2	ug/L	U	3.2	13
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Phenanthrene	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Phenol	1.1	ug/L	U	1.1	4.2
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	Pyrene	1.1	ug/L	U	1.1	4.2

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	alpha-BHC	1.6	ug/L	U	1.6	6.3
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	beta-BHC	1.6	ug/L	U	1.6	6.3
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	delta-BHC	1.6	ug/L	U	1.6	6.3
3/5/2007 10:10	EQUIPMENT BLANK	BNA-Water	gamma-BHC	1.6	ug/L	U	1.6	6.3
3/5/2007 10:40	OUTFALL 001	BNA-Water	1,2,4-Trichlorobenzene	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	1,2-Dichlorobenzene	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	1,3-Dichlorobenzene	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	1,4-Dichlorobenzene	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	2,4,6-Trichlorophenol	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	2,4-Dichlorophenol	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	2,4-Dimethylphenol	49	ug/L	U	49	190
3/5/2007 10:40	OUTFALL 001	BNA-Water	2,4-Dinitrophenol	15	ug/L	U	15	58
3/5/2007 10:40	OUTFALL 001	BNA-Water	2,4-Dinitrotoluene	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	2,6-Dinitrotoluene	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	2-Chloronaphthalene	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	2-Chlorophenol	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	12
3/5/2007 10:40	OUTFALL 001	BNA-Water	2-Nitrophenol	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	3,3'-Dichlorobenzidine	39	ug/L	U	39	160
3/5/2007 10:40	OUTFALL 001	BNA-Water	4,4'-DDD	1.5	ug/L	U	1.5	5.8
3/5/2007 10:40	OUTFALL 001	BNA-Water	4,4'-DDE	1.5	ug/L	U	1.5	5.8
3/5/2007 10:40	OUTFALL 001	BNA-Water	4,4'-DDT	1.5	ug/L	U	1.5	5.8
3/5/2007 10:40	OUTFALL 001	BNA-Water	4-Bromophenyl phenyl ether	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	4-Chloro-3-methylphenol	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.8
3/5/2007 10:40	OUTFALL 001	BNA-Water	4-Nitrophenol	15	ug/L	U	15	58
3/5/2007 10:40	OUTFALL 001	BNA-Water	Acenaphthene	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	Acenaphthylene	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	Aldrin	1.5	ug/L	U	1.5	5.8
3/5/2007 10:40	OUTFALL 001	BNA-Water	Anthracene	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	Benzidine	97	ug/L	U	97	390
3/5/2007 10:40	OUTFALL 001	BNA-Water	Benzo(a)anthracene	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	Benzo(a)pyrene	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	Benzo(b)fluoranthene	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	Benzo(g,h,i)perylene	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	Benzo(k)fluoranthene	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	Bis(2-chloroethoxy)methane	0.97	ug/L	U	0.97	3.9

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/5/2007 10:40	OUTFALL 001	BNA-Water	Bis(2-chloroethyl)ether	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	12
3/5/2007 10:40	OUTFALL 001	BNA-Water	Bis(2-ethylhexyl)phthalate	15	ug/L	U	15	58
3/5/2007 10:40	OUTFALL 001	BNA-Water	Butyl benzyl phthalate	4.9	ug/L	U	4.9	19
3/5/2007 10:40	OUTFALL 001	BNA-Water	Chrysene	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	Di-n-butyl phthalate	4.9	ug/L	U	4.9	19
3/5/2007 10:40	OUTFALL 001	BNA-Water	Di-n-octyl phthalate	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	Dibenzo(a,h)anthracene	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	Dieldrin	1.5	ug/L	U	1.5	5.8
3/5/2007 10:40	OUTFALL 001	BNA-Water	Diethyl phthalate	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	Dimethyl phthalate	49	ug/L	U	49	190
3/5/2007 10:40	OUTFALL 001	BNA-Water	Endosulfan I	3.9	ug/L	U	3.9	16
3/5/2007 10:40	OUTFALL 001	BNA-Water	Endosulfan II	3.9	ug/L	U	3.9	16
3/5/2007 10:40	OUTFALL 001	BNA-Water	Endosulfan sulfate	1.5	ug/L	U	1.5	5.8
3/5/2007 10:40	OUTFALL 001	BNA-Water	Endrin	1.5	ug/L	U	1.5	5.8
3/5/2007 10:40	OUTFALL 001	BNA-Water	Endrin aldehyde	3.9	ug/L	U	3.9	16
3/5/2007 10:40	OUTFALL 001	BNA-Water	Fluoranthene	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	Fluorene	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	Heptachlor	1.5	ug/L	U	1.5	5.8
3/5/2007 10:40	OUTFALL 001	BNA-Water	Heptachlor epoxide	1.5	ug/L	U	1.5	5.8
3/5/2007 10:40	OUTFALL 001	BNA-Water	Hexachlorobenzene	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	12
3/5/2007 10:40	OUTFALL 001	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	U	2.9	12
3/5/2007 10:40	OUTFALL 001	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	12
3/5/2007 10:40	OUTFALL 001	BNA-Water	Indeno(1,2,3-cd)pyrene	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	Isophorone	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.8
3/5/2007 10:40	OUTFALL 001	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.8
3/5/2007 10:40	OUTFALL 001	BNA-Water	N-Nitrosodiphenylamine/ Diphenylamine	2.9	ug/L	U	2.9	12
3/5/2007 10:40	OUTFALL 001	BNA-Water	Naphthalene	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.8
3/5/2007 10:40	OUTFALL 001	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	12
3/5/2007 10:40	OUTFALL 001	BNA-Water	Phenanthrene	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	Phenol	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	Pyrene	0.97	ug/L	U	0.97	3.9
3/5/2007 10:40	OUTFALL 001	BNA-Water	alpha-BHC	1.5	ug/L	U	1.5	5.8
3/5/2007 10:40	OUTFALL 001	BNA-Water	beta-BHC	1.5	ug/L	U	1.5	5.8

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/5/2007 10:40	OUTFALL 001	BNA-Water	delta-BHC	1.5	ug/L	U	1.5	5.8
3/5/2007 10:40	OUTFALL 001	BNA-Water	gamma-BHC	1.5	ug/L	U	1.5	5.8
3/5/2007 10:10	EQUIPMENT BLANK	GC-Water	Alachlor	0.62	ug/L	UJ	0.62	2.5
3/5/2007 10:10	EQUIPMENT BLANK	GC-Water	Ametryn	0.052	ug/L	U	0.052	0.21
3/5/2007 10:10	EQUIPMENT BLANK	GC-Water	Atrazine	0.052	ug/L	U	0.052	0.21
3/5/2007 10:10	EQUIPMENT BLANK	GC-Water	Azinphos Methyl	0.21	ug/L	UJ	0.21	0.84
3/5/2007 10:10	EQUIPMENT BLANK	GC-Water	Bromacil	0.21	ug/L	U	0.21	0.84
3/5/2007 10:10	EQUIPMENT BLANK	GC-Water	Butylate	0.21	ug/L	UJ	0.21	0.84
3/5/2007 10:10	EQUIPMENT BLANK	GC-Water	Chlorpyrifos Ethyl	0.052	ug/L	U	0.052	0.21
3/5/2007 10:10	EQUIPMENT BLANK	GC-Water	Chlorpyrifos Methyl	0.1	ug/L	U	0.1	0.4
3/5/2007 10:10	EQUIPMENT BLANK	GC-Water	Diazinon	0.052	ug/L	U	0.052	0.21
3/5/2007 10:10	EQUIPMENT BLANK	GC-Water	Ethion	0.052	ug/L	U	0.052	0.21
3/5/2007 10:10	EQUIPMENT BLANK	GC-Water	Ethoprop	0.1	ug/L	U	0.1	0.4
3/5/2007 10:10	EQUIPMENT BLANK	GC-Water	Fenamiphos	0.21	ug/L	U	0.21	0.84
3/5/2007 10:10	EQUIPMENT BLANK	GC-Water	Fonofos	0.1	ug/L	U	0.1	0.4
3/5/2007 10:10	EQUIPMENT BLANK	GC-Water	Hexazinone	0.1	ug/L	U	0.1	0.4
3/5/2007 10:10	EQUIPMENT BLANK	GC-Water	Malathion	0.15	ug/L	U	0.15	0.6
3/5/2007 10:10	EQUIPMENT BLANK	GC-Water	Metalaxyl	0.26	ug/L	U	0.26	1
3/5/2007 10:10	EQUIPMENT BLANK	GC-Water	Metolachlor	0.52	ug/L	U	0.52	2.1
3/5/2007 10:10	EQUIPMENT BLANK	GC-Water	Metribuzin	0.1	ug/L	U	0.1	0.4
3/5/2007 10:10	EQUIPMENT BLANK	GC-Water	Mevinphos	0.21	ug/L	U	0.21	0.84
3/5/2007 10:10	EQUIPMENT BLANK	GC-Water	Naled	0.82	ug/L	UJ	0.82	3.3
3/5/2007 10:10	EQUIPMENT BLANK	GC-Water	Norflurazon	0.15	ug/L	UJ	0.15	0.6
3/5/2007 10:10	EQUIPMENT BLANK	GC-Water	Parathion Ethyl	0.15	ug/L	UJ	0.15	0.6
3/5/2007 10:10	EQUIPMENT BLANK	GC-Water	Parathion Methyl	0.1	ug/L	UJ	0.1	0.4
3/5/2007 10:10	EQUIPMENT BLANK	GC-Water	Phorate	0.052	ug/L	U	0.052	0.21
3/5/2007 10:10	EQUIPMENT BLANK	GC-Water	Prometryn	0.15	ug/L	UJ	0.15	0.6
3/5/2007 10:10	EQUIPMENT BLANK	GC-Water	Simazine	0.052	ug/L	U	0.052	0.21
3/5/2007 10:40	OUTFALL 001	GC-Water	Alachlor	0.6	ug/L	UJ	0.6	2.4
3/5/2007 10:40	OUTFALL 001	GC-Water	Ametryn	0.05	ug/L	U	0.05	0.2
3/5/2007 10:40	OUTFALL 001	GC-Water	Atrazine	0.05	ug/L	U	0.05	0.2
3/5/2007 10:40	OUTFALL 001	GC-Water	Azinphos Methyl	0.2	ug/L	UJ	0.2	0.8
3/5/2007 10:40	OUTFALL 001	GC-Water	Bromacil	0.2	ug/L	U	0.2	0.8
3/5/2007 10:40	OUTFALL 001	GC-Water	Butylate	0.2	ug/L	UJ	0.2	0.8
3/5/2007 10:40	OUTFALL 001	GC-Water	Chlorpyrifos Ethyl	0.05	ug/L	U	0.05	0.2
3/5/2007 10:40	OUTFALL 001	GC-Water	Chlorpyrifos Methyl	0.1	ug/L	U	0.1	0.4
3/5/2007 10:40	OUTFALL 001	GC-Water	Diazinon	0.05	ug/L	U	0.05	0.2

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/5/2007 10:40	OUTFALL 001	GC-Water	Ethion	0.05	ug/L	U	0.05	0.2
3/5/2007 10:40	OUTFALL 001	GC-Water	Ethoprop	0.1	ug/L	U	0.1	0.4
3/5/2007 10:40	OUTFALL 001	GC-Water	Fenamiphos	0.2	ug/L	U	0.2	0.8
3/5/2007 10:40	OUTFALL 001	GC-Water	Fonofos	0.1	ug/L	U	0.1	0.4
3/5/2007 10:40	OUTFALL 001	GC-Water	Hexazinone	0.1	ug/L	U	0.1	0.4
3/5/2007 10:40	OUTFALL 001	GC-Water	Malathion	0.15	ug/L	U	0.15	0.6
3/5/2007 10:40	OUTFALL 001	GC-Water	Metalaxyl	0.25	ug/L	U	0.25	1
3/5/2007 10:40	OUTFALL 001	GC-Water	Metolachlor	0.5	ug/L	U	0.5	2
3/5/2007 10:40	OUTFALL 001	GC-Water	Metribuzin	0.1	ug/L	U	0.1	0.4
3/5/2007 10:40	OUTFALL 001	GC-Water	Mevinphos	0.2	ug/L	U	0.2	0.8
3/5/2007 10:40	OUTFALL 001	GC-Water	Naled	0.8	ug/L	UJ	0.8	3.2
3/5/2007 10:40	OUTFALL 001	GC-Water	Norflurazon	0.15	ug/L	UJ	0.15	0.6
3/5/2007 10:40	OUTFALL 001	GC-Water	Parathion Ethyl	0.15	ug/L	UJ	0.15	0.6
3/5/2007 10:40	OUTFALL 001	GC-Water	Parathion Methyl	0.1	ug/L	UJ	0.1	0.4
3/5/2007 10:40	OUTFALL 001	GC-Water	Phorate	0.05	ug/L	U	0.05	0.2
3/5/2007 10:40	OUTFALL 001	GC-Water	Prometryn	0.15	ug/L	UJ	0.15	0.6
3/5/2007 10:40	OUTFALL 001	GC-Water	Simazine	0.05	ug/L	U	0.05	0.2
3/5/2007 10:10	EQUIPMENT BLANK	Mercury-Water	Mercury	0.12	ug/L	U	0.12	0.5
3/5/2007 10:40	OUTFALL 001	Mercury-Water	Mercury	0.12	ug/L	U	0.12	0.5
3/5/2007 10:10	EQUIPMENT BLANK	Metals-Water	Aluminum	15	ug/L	U	15	60
3/5/2007 10:10	EQUIPMENT BLANK	Metals-Water	Arsenic	0.5	ug/L	U	0.5	2
3/5/2007 10:10	EQUIPMENT BLANK	Metals-Water	Cadmium	0.05	ug/L	U	0.05	0.2
3/5/2007 10:10	EQUIPMENT BLANK	Metals-Water	Calcium	0.02	mg/L	U	0.02	0.08
3/5/2007 10:10	EQUIPMENT BLANK	Metals-Water	Chromium	1	ug/L	U	1	4
3/5/2007 10:10	EQUIPMENT BLANK	Metals-Water	Copper	0.22	ug/L	I	0.2	0.8
3/5/2007 10:10	EQUIPMENT BLANK	Metals-Water	Iron	5	ug/L	U	5	20
3/5/2007 10:10	EQUIPMENT BLANK	Metals-Water	Lead	0.2	ug/L	U	0.2	0.8
3/5/2007 10:10	EQUIPMENT BLANK	Metals-Water	Magnesium	0.025	mg/L	U	0.025	0.1
3/5/2007 10:10	EQUIPMENT BLANK	Metals-Water	Nickel	0.25	ug/L	U	0.25	1
3/5/2007 10:10	EQUIPMENT BLANK	Metals-Water	Selenium	0.5	ug/L	U	0.5	2
3/5/2007 10:10	EQUIPMENT BLANK	Metals-Water	Silver	0.025	ug/L	U	0.025	0.1
3/5/2007 10:10	EQUIPMENT BLANK	Metals-Water	Zinc	3	ug/L	U	3	12
3/5/2007 10:40	OUTFALL 001	Metals-Water	Aluminum	127	ug/L		15	60
3/5/2007 10:40	OUTFALL 001	Metals-Water	Arsenic	0.5	ug/L	U	0.5	2
3/5/2007 10:40	OUTFALL 001	Metals-Water	Cadmium	0.05	ug/L	U	0.05	0.2
3/5/2007 10:40	OUTFALL 001	Metals-Water	Calcium	21.5	mg/L		0.02	0.08
3/5/2007 10:40	OUTFALL 001	Metals-Water	Chromium	1	ug/L	U	1	4

Appendix E. (continued)

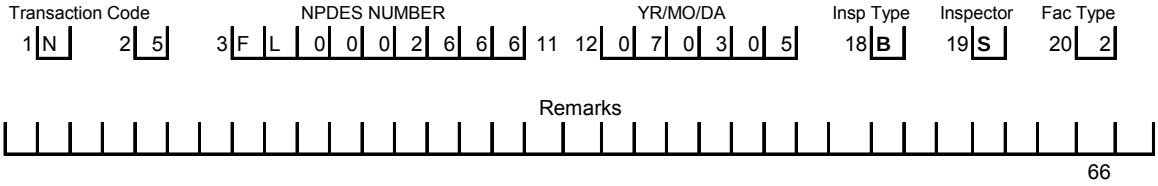
Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/5/2007 10:40	OUTFALL 001	Metals-Water	Copper	0.2	ug/L	U	0.2	0.8
3/5/2007 10:40	OUTFALL 001	Metals-Water	Iron	98	ug/L		5	20
3/5/2007 10:40	OUTFALL 001	Metals-Water	Lead	0.2	ug/L	U	0.2	0.8
3/5/2007 10:40	OUTFALL 001	Metals-Water	Magnesium	6	mg/L		0.025	0.1
3/5/2007 10:40	OUTFALL 001	Metals-Water	Nickel	0.63	ug/L	I	0.25	1
3/5/2007 10:40	OUTFALL 001	Metals-Water	Selenium	0.5	ug/L	U	0.5	2
3/5/2007 10:40	OUTFALL 001	Metals-Water	Silver	0.025	ug/L	U	0.025	0.1
3/5/2007 10:40	OUTFALL 001	Metals-Water	Zinc	3	ug/L	U	3	12
3/5/2007 10:10	EQUIPMENT BLANK	Nutrients-Liquid	Ammonia-N	0.01	mg N/L	U	0.01	0.02
3/5/2007 10:10	EQUIPMENT BLANK	Nutrients-Liquid	Chloride	0.2	mg Cl/L	U	0.2	0.5
3/5/2007 10:10	EQUIPMENT BLANK	Nutrients-Liquid	Cyanide	0.005	mg CN/L	U	0.005	0.02
3/5/2007 10:10	EQUIPMENT BLANK	Nutrients-Liquid	Fluoride	0.05	mg F/L	U	0.05	0.1
3/5/2007 10:10	EQUIPMENT BLANK	Nutrients-Liquid	Kjeldahl Nitrogen	0.08	mg N/L	U	0.08	0.2
3/5/2007 10:10	EQUIPMENT BLANK	Nutrients-Liquid	NO2NO3-N	0.004	mg N/L	U	0.004	0.01
3/5/2007 10:10	EQUIPMENT BLANK	Nutrients-Liquid	O-Phosphate-P	0.004	mg P/L	U	0.004	0.01
3/5/2007 10:10	EQUIPMENT BLANK	Nutrients-Liquid	Sulfate	0.2	mg SO4/L	U	0.2	0.5
3/5/2007 10:10	EQUIPMENT BLANK	Nutrients-Liquid	Total-P	0.02	mg P/L	U	0.02	0.06
3/5/2007 10:40	OUTFALL 001	Nutrients-Liquid	Ammonia-N	0.061	mg N/L		0.01	0.02
3/5/2007 10:40	OUTFALL 001	Nutrients-Liquid	Chloride	12	mg Cl/L		0.2	0.5
3/5/2007 10:40	OUTFALL 001	Nutrients-Liquid	Color	40	PCU		5	5
3/5/2007 10:40	OUTFALL 001	Nutrients-Liquid	Cyanide	0.005	mg CN/L	U	0.005	0.02
3/5/2007 10:40	OUTFALL 001	Nutrients-Liquid	Fluoride	3.1	mg F/L		0.05	0.1
3/5/2007 10:40	OUTFALL 001	Nutrients-Liquid	Kjeldahl Nitrogen	1	mg N/L		0.08	0.2
3/5/2007 10:40	OUTFALL 001	Nutrients-Liquid	NO2NO3-N	0.017	mg N/L		0.004	0.01
3/5/2007 10:40	OUTFALL 001	Nutrients-Liquid	O-Phosphate-P	2.7	mg P/L		0.08	0.2
3/5/2007 10:40	OUTFALL 001	Nutrients-Liquid	Sulfate	8.6	mg SO4/L		0.2	0.5
3/5/2007 10:40	OUTFALL 001	Nutrients-Liquid	TDS	130	mg/L		15	60
3/5/2007 10:40	OUTFALL 001	Nutrients-Liquid	TSS	4	mg/L	I	4	16
3/5/2007 10:40	OUTFALL 001	Nutrients-Liquid	Total-P	2.8	mg P/L		0.1	0.3
3/5/2007 10:40	OUTFALL 001	Nutrients-Liquid	Turbidity	3.4	NTU		0.05	0.05
3/5/2007 10:10	EQUIPMENT BLANK	Overflow	Alpha, Total	0.8	pCi/L	U		
3/5/2007 10:10	EQUIPMENT BLANK	Overflow	Alpha-Counting Error	0.5	pCi/L			
3/5/2007 10:10	EQUIPMENT BLANK	Overflow	Oil and Grease	1.7	mg/L	U		
3/5/2007 10:10	EQUIPMENT BLANK	Overflow	Radium 226	0.2	pCi/L			
3/5/2007 10:10	EQUIPMENT BLANK	Overflow	Radium 226-Counting Error	0.1	pCi/L			
3/5/2007 10:10	EQUIPMENT BLANK	Overflow	Radium 228	1	pCi/L	U		
3/5/2007 10:10	EQUIPMENT BLANK	Overflow	Radium 228-Counting Error	0.6	pCi/L			

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/5/2007 10:40	OUTFALL 001	Overflow	Alpha, Total	1.3	pCi/L			
3/5/2007 10:40	OUTFALL 001	Overflow	Alpha-Counting Error	0.7	pCi/L			
3/5/2007 10:40	OUTFALL 001	Overflow	Oil and Grease	4.7	mg/L	IV		
3/5/2007 10:40	OUTFALL 001	Overflow	Radium 226	0.7	pCi/L			
3/5/2007 10:40	OUTFALL 001	Overflow	Radium 226-Counting Error	0.2	pCi/L			
3/5/2007 10:40	OUTFALL 001	Overflow	Radium 228	0.9	pCi/L	U		
3/5/2007 10:40	OUTFALL 001	Overflow	Radium 228-Counting Error	0.6	pCi/L			

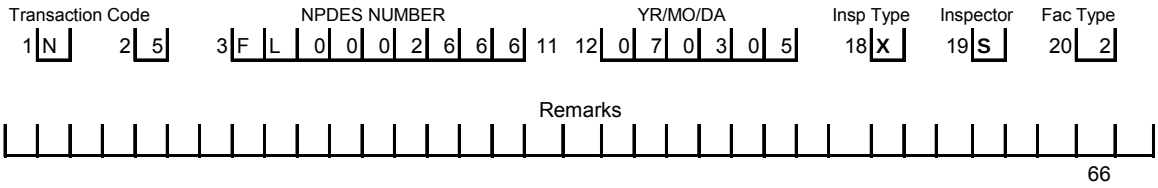
The Bioassay of ExxonMobil Oil Corporation effluent sampled on March 5, 2007. NPDES #FL0002666.

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



The Priority Pollutants Analysis of ExxonMobil Oil Corporation effluent sampled on March 5, 2007. NPDES #FL0002666.

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



Biological Analyses of ExxonMobil Oil Corporation effluent sampled on March 5, 2007. NPDES #FL0002666.

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

