

Effluent Quality Assessment

Kinder Morgan Ammonia Facility

Hillsborough County

NPDES #FL0000264

Sampled July 28, 2008

January 2009

Biology Section
Bureau of Laboratories
Division of Environmental Assessment and Restoration

Quality Manual No. 870346G
NELAC Certification No. E31780

Kinder Morgan Ammonia Facility (formerly IMC Port Sutton Ammonia Terminal), 4801 Port Sutton Rd., Tampa, Hillsborough County, Florida, 33619. NPDES #FL0000264. Effluent samples for this facility were collected on July 28, 2008.

Introduction

Kinder Morgan Ammonia Facility is a bulk anhydrous ammonia storage facility. The terminal receives, stores, and distributes anhydrous ammonia used in the offsite manufacture of chemical fertilizers (principally ammonium phosphate products) for agricultural use. The facility receives anhydrous ammonia by ship, stores the refrigerated liquid product in a 50,000 ton tank, and distributes the product by pipeline, truck, and rail.

The facility utilizes a new water intake system, which uses the Tampa Electric Company's (TECO) effluent discharge from the Port Sutton Channel, to provide once-through non-contact heating water for the ammonia. The once-through, non-contact heating water and stormwater runoff are continuously discharged through Outfall D-006, a concrete stilling-basin flowing over a rectangular weir, to Port Sutton Channel, a Class III marine water body. The D-006 outfall line is approximately 0.76 m (2.5 feet) in length, and the point of discharge is located approximately at latitude 27°54'14" N, longitude 82°24'34" W. The facility does not have a permitted discharge limit. The average annual daily discharge from July 2007 through June 2008 was 5.15 million gallons per day.

On rare, emergency-only conditions, groundwater will be pumped from the two deep wells for use as once-through, non-contact heating water, which shall then be discharged through Outfall D-006.

The facility has no Administrative Orders, Consent Orders or mixing zones. A review of Discharge Monitoring Report (DMR) data for the past year, revealed only one permit violation (Feb. 2007 – Radium 226+228 value 7.90 pCi/L; permitted value 5.0 pCi/L). Facility inspections have questioned the calibration of the flow meter, and a warning letter has been issued for failure to perform acute toxicity tests when using groundwater pumping and the emergency outfall. DMR trends over the past 5 years have proven to be stable.

Previous FYI results are not relevant because the heating water source was changed from groundwater pumping to neighboring power plant discharge. The change occurred in May 2005. (Facility information provided by Jacquelyn Champion of FDEP BMMR Phosphate Management, Southwest District).

Methods

Samples were collected from the EFF-06 NPDES sampling point for Outfall D-006 by Jacquelyn Champion, Scott Rose, and Mike Lynch (FDEP BMMR Phosphate Management SW 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_03, TA07_04, 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.

Toxicity Test Results

Tests were performed July 29 - 31, 2008.

Americamysis bahia 48-hour acute screening bioassay – LC_{50} > 100%, 5%* mortality in 100% sample at 48 hours

Menidia beryllina 48-hour acute screening bioassay – LC_{50} > 100%, 10%* mortality in 100% sample at 48 hours

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

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

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

Algal Growth Potential

The effluent Algal Growth Potential (AGP) was 3.0 mg dry wt/L U (U - Material analyzed for but not detected; value reported is the method detection limit) of the saltwater species, *Dunaliella tertiolecta.* Raschke and Shultz found that AGP values above 10.0 mg dry weight/L represent a "problem" threshold for marine receiving waters, implying nutrient enrichment (personal communication, Marshall Faircloth, et. al. FDEP, with Ron Raschke USEPA Region 4 1987). The analytical chemistry suggests that the effluent is nitrogen-limited (Table 1; Maloney et al. 1974).

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 0.023 mg/L. Based on the pH, salinity, and temperature of the effluent as collected, the calculated unionized ammonia concentration was ≤0.02 mg/L.

Fluoride, total alpha particles and combined radium 226+228 were detected in the effluent at levels that comply with Class III marine quality criteria (62-302.530, F.A.C.) and/or permit limits. Arsenic and oils and greases were detected between the laboratory method detection limits (MDL) and practical quantitation limits (PQL).

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

Conclusion

The effluent sample collected from Outfall D-006 for this facility on July 28, 2008, was not acutely toxic to either test species during the 48-hour acute screening bioassays. The effluent AGP result was less than the "problem" threshold for marine receiving waters. Effluent water quality samples did not exceed any applicable water quality standards or violate any permit conditions.

Literature Cited

Maloney, T. E., W. E. Miller, and D. T. Specht. 1974. The Marine Algal Assay Procedure: Bottle Test. National Environmental Research Center Office of Research and Development. U. S. EPA, Corvallis, Oregon. 43 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 algal growth potential (AGP; mg dry weight/L) of the marine species *Dunaliella tertiolecta* and ratios of nitrogen to phosphorus for samples collected from Kinder Morgan Ammonia Facility on July 28, 2008.

Kinder Morgan Ammonia Facility NPDES# FL0000264			
Location	**AGP (measured)**	**Inorganic N:P ratio**	**Total N:P ratio**
Effluent	3.0 A U	0.1	2.4
A - Value reported is the mean of two or more determinations			
U - Material analyzed for but not detected; value reported is the method detection limit			

Table 2. Effluent limits, Class III Criteria for predominantly marine waters and chemical data for samples collected from Kinder Morgan Ammonia Facility on July 28, 2008.

Kinder Morgan Ammonia Facility NPDES #FL0000264	Class III Criteria	Effluent Limits	Effluent		
Metals (µg/L unless otherwise noted)					
Aluminum	≤ 1,500	-	180	U	
Arsenic	≤ 50	-	3	I	
Cadmium	≤ 8.8	-	0.06	U	
Copper	≤ 3.7	-	1.5	UJ	
Iron	≤ 300	-	90	U	
Lead	≤ 8.5	-	0.6	U	
Nickel	≤ 8.3	-	0.75	U	
Selenium	≤ 71	-	1.5	U	
Silver	≤ 2.3	-	0.075	U	
Zinc	≤ 86	-	15	U	
Nutrients (mg/L)					
Ortho-phosphate	-	-	0.22	A	
Total Phosphorus	-	Report	0.32		
Total Ammonia	-	Report	0.023		
Un-ionized Ammonia	-	Report	≤ 0.02	c	
Nitrate and Nitrite	-	-	0.004	U	
Total Kjeldahl Nitrogen	-	-	0.75	J	
Organic Nitrogen	-	-	0.727	c	
Total Nitrogen	-	Report	0.752	c	
General Physical and Chemical Parameters					
Dissolved Oxygen (mg/L)	≥ 4.0	≥ 4.0 d	7.0		
pH (SU)	6.5 - 8.5	6.5 - 8.5 s	7.7		
Conductivity (µmhos/cm)	-	Report	42,890		
Temperature °C	-	Report	19.6		
Salinity	-	-	31.2	c	
Total Residual Chlorine (mg/L)	≤ 0.01	-	≤ 0.03	£	
Chlorophyll a (µg/L) - Corrected	-	-	13		
Phaeophytin (µg/L)	-	-	3.3		
Total Suspended Solids (mg/L)	-	Report	4	U	
Total Dissolved Solids (mg/L)	-	-	28,200	A	
CBOD, 5 day (mg/L), N - inhibited	-	-	1.3	AI	
Oils and Greases (mg/L)	≤ 5.0	-	1.5	I F	1.4 I *
Chloride (mg/L)	-	-	15,000		
Fluoride (mg/L)	≤ 5.0	≤ 5.0 d	1.2		
Sulfate (mg/L)	-	-	2,100		
Alpha, Total (pCi/L)	≤ 15	-	1.8		
Alpha-Counting Error (pCi/L)	-	-	0.9		
Radium 226 (pCi/L)	-	-	1.1		
Radium 226-Counting Error (pCi/L)	-	-	0.2		
Radium 228 (pCi/L)	-	-	0.8		
Radium 228-Counting Error (pCi/L)	-	-	0.5		
Radium 226 + 228 (pCi/L)	≤ 5.0 d	≤ 5.0 d	1.9	c	
Flow (MGD)	-	Report	5.15	a	
Hardness (mg $CaCO_3$)	-	-	5224.05	c	

Value exceeds the Class III Water Quality Criteria or permit limits

a - Annual average
c - Value is calculated
d - Daily maximum
s - Single sample
A - Value reported is the mean of two or more determinations
F - Analyte was detected in both sample and field blank
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
J - Estimated value
U - Material analyzed for but not detected; value reported is the method detection limit
- If 10 or fewer samples are taken within a month, the single sample limit is 400 CFU (62-302.530(6), F.A.C.)
£ - Measured and entered in Central Lab tox sheets
* - Material detected in field blanks

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2008-07-07-22
Kinder Morgan Tampaplex Terminal - Port Sutton Ammonia Terminal

Requester: Jennifer Paris
Field Report Prepared By: Jacki Champion

Customer: BMR-TAMPA
Collected By: Scott Rose / Jacki Champion / Mike Lynch
Send Final Report To: Vishwas Sathe

Project ID: FYI5
Sampling Agency: FDEP

PMAS: 1143

Lab ID *	Location	Comp / Grab	Collection (begin) Date Time Eastern Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
	Outfall D-006 - Kinder Morgan Amm.	X Grab	7/28/08 9:35		A
	Field ID: Outfall D-006	Tot Res Chlorine (mg/L):	Diss Oxygen (mg/L): 6.96	Storet Station Number:	
	Matrix (Include type e.g. Salt, Fresh, etc): Salt Water	Temp (C): 19.56	pH: 7.72	Sample Depth ☐ m ☐ ft:	42890 ☐ Salinity (PPTh) ☒ Sp Conductance (umho/cm) NPDES Number: FL0000264
	Latitude o ' "	Longitude o ' "	Comments:		

Lab ID *	Location	Comp / Grab	Collection (begin) Date Time Eastern Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
	Kinder Morgan Ammonia Terminal	X Grab	7/28/08 9:45		B
	Field ID: Blanks	Tot Res Chlorine (mg/L):	Diss Oxygen (mg/L):	Storet Station Number:	
	Matrix (Include type e.g. Salt, Fresh, etc): Fresh Water	Temp (C):	pH:	Sample Depth ☐ m ☐ ft:	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm) NPDES Number: FL0000264
	Latitude o ' "	Longitude o ' "	Comments: Field Blank		

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

Lab ID *	Location	Comp / Grab	Collection (begin) Date Time Eastern Central	Collection (end) Date Time Eastern Central	Bottle Group(s)**
		☐ Grab			
	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: Shipping Rec'd by JD-Tox 4°C 7/29/08		

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
JMC	7/28/08 10:30	DHL	AB	7-29-08 @ 8:25				

* Shaded Areas for Lab use only

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

FDEP Biology Laboratory - Acute Screen Bioassay Bench Sheets

Facility: Kinder Morgan Port Sutton Terminal

Address: 4310 Pendola Point Rd

City: Tampa, Fl **County:** 39A Hillsborough

Contact/District: Jacki Champion / ~~Staff~~ BA BMR - Tampa

NPDES Permit #: FL ~~0122904~~ FL0000264 BA (wrong permit #)

LIMS Job #: TLH-2008-07-29-13-01 **LIMS Sample #:** 1118383

Lims Data Entry: 8-1-08 MF Data Entry Verification: 8-1-08 BA

Sample Collection: Date: 7.28.08 Time: 0935

Hold Time Start: Date: 7.28.08 Time: 0935

Comments:

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

Test Type: (Screen)
(Static) / Static Renewal / Flow-through
Test Duration: (48) 96 Hours.

Test 1 validation: **Test 1:** SOP TA 07_03_
Control survival ≥90%: (Yes) No
Temperature Range ≤3°C: (Yes) No

Test 2 validation: **Test 2:** SOP TA 07_04_
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: ____

Sample Validation:

Temperature: Shipped ≤6°C (Yes) No Hand Delivered: Cooling (received °C < collected °C) ~~(Yes)~~ NA MF No
Holding Time: ≤36 Hours (Yes) No (Composite-end of collection; grab-when collected; 4 in 24 - time last sample collected)

Light Intensity : 50 - 100 ft. candles
Photoperiod : 16 light 8 dark
Temperature Range °C:
Incubator # 2 min 25.5 max 26.4 mean 26.0
Incubator # ____ min.____ max.____ mean____
Room B246 min 25.1 max 25.7 mean 25.4

Test 1:% mortality in 100% sample: 5% LC50: >100%
Test 2:% mortality in 100% sample: 10% LC50: >100%

Investigators' Signatures

James Daniels
Brad Abel
Marshall Faircloth

Loretta C. Wolfe
REVIEWER

Water Quality Parameters	20% DMW	Moderately Hard Water/ Well Water	Salt Water (NSW) 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		<0.03	not measured	MF	
Lab Total Residual Cl_2 (mg/L):			<0.03			<0.03	HACH	JD	BA
Alkalinity (mg/L as $CaCO_3$):			233			147	HACH	BA	JD
Hardness (mg/L as $CaCO_3$):			~~034~~			~~MF 34~~	HACH	–	–
Total Ammonia (mg/L as N):			<0.~~07~~ MF			<0.~~07~~	DENVER	BA	JD
Salinity (ppth):			27.5			28.5	YSI / (Mettler)	BA/SD	JD

V 1.4 9/12/05

Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1118383 Test #: 1/2 SOP#:TA 07 03 Test Started: Date 7.28.08 Time: 1300

Organism/Batch/Age: A.bahia/72908/5days Test Ended: Date 7.29.08 Time: 1200

Chamber/Test Volume: 1000 / 500 ml Diluent/ Batch: ASW 20400 / 72809

Food/Batch: YCT — P.sub — Artemia 0hr 121 24hr 122 48hr — 72hr — Artemia Lot# 38438

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	A2	5	5	5			
	B	A2	5	5	5			
	C	A3	5	5	5			
	D	A4	5	5	5			
100%	A	A5	5	5	5			
	B	A6	5	5	5			
	C	A7	5	5	4/D			
	D	A8	5	5	5			
Salt Ctrl	A	A9						
	B	A10						
	C	A11						
	D	A12						

Salt Control Not required. J.D.

Loaded/Verified by: JD / RP Checked by: JD JD JD

m = missing d = dead BR/AR = Before/After Renewal

Test Results:

Screening Tests: Report LC50 as >100%, =100%, or <100%.

% mortality in 100% sample: 5% LC50: >100%

If Calculated: 95% CI_____ Method_____

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

Comments:

PAGE V 2.1 11/01/2005

000012

Appendix B. (continued)

FDEP Biology Laboratory - Bioassay Survival Bench Sheet

LIMS Sample #: 1118383 Test #: 2/2 SOP#:TA 07 04 Test Started: Date 7.24.08 Time: 1255

Organism/Batch/Age: M.beryllina / 7.29.08 / 13 days Test Ended: Date 7.28.08 Time: 1205

Chamber/Test Volume: 1000 / 500 ml Diluent/ Batch: ASW 20‰ / 7.28.09

Food/Batch: YCT – P.sub – Artemia 0hr 121 24hr – 48hr – 72hr – Artemia Lot# 38438

Feeding: (Prior to Test) Prior to Renewal Daily

Concentration	Replicate	Chamber #	0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Ctrl	A	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	3 2D	3			
	D	A20	5	5	5			
Salt Ctrl (crossed out)	A	A21						
	B	A22						
	C	A23						
	D	A24						
Loaded/Verified by: JD / BP		Checked by:	JD	JD	JD			

Salt Ctrl not reported

m = missing d = dead BR/AR = Before/After Renewal

Comments:

Test Results:

Screening Tests: Report LC50 as >100%, =100%, or <100%.

% mortality in 100% sample: 10% LC50: >100%

If Calculated: 95% CI ________ Method ________

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

PAGE V 2.1 11/01/2005

000013

FDEP Biology Laboratory - Bioassay Parameter Bench Sheet

IMS Sample # : 1118383 Test #: 1 of 2

EST SOP #: TA07_03 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.
eplicate	A	B	C			
H (S.U.)	8,4	8,3	8,1			
emperature °C	24.9	24,1	24,1			
issolved Oxygen mg/L	6.2	5,2	4,5			
onductivity µmhos (mmhos)	39,9	41,2	41,4			
(initials) Measured by:	JD	JD	JD			
(initials) Recorded by:	JD	JD	JD			

omments:

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.)	7,9	7,9	7,8			
Temperature °C	25,4	24,2	24,2			
Dissolved Oxygen mg/L	6,3	5,1	4,5			
Conductivity µmhos (mmhos)	44,3	43,6	43,6			
(initials) Measured by:	JD	JD	JD			
(initials) Recorded by:	JD	JD	JD			

Comments:

Concentration Salt ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
eplicate						
H (S.U.)						
emperature °C						
issolved Oxygen mg/L						
onductivity µmhos mmhos						
(initials) Measured by:						
(initials) Recorded by:						

omments:

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 Laboratory - Bioassay Parameter Bench Sheet

LIMS Sample # : 111383 **Test #:** 2 of 2

TEST SOP #: TA07_ 04 **Test Species:** *Ceriodaphnia dubia* *Cyprinella leedsi* *Pimephales promelas* *Americamysis bahia* (*Menidia beryllina*) Other:_____

Concentration Ctrl	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C			
pH (S.U.)	8.4	8.3	8.2			
Temperature °C	25.0	24.1	24.2			
Dissolved Oxygen mg/L	6.4	5.2	5.0			
Conductivity µmhos (mmhos)	41.9	41.1	41.4			
(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.)	7.9	7.9	7.9			
Temperature °C	25.4	24.5	24.2			
Dissolved Oxygen mg/L	6.3	5.1	5.4			
Conductivity µmhos (mmhos)	44.8	43.6	43.5			
(initials) Measured by:	JD	JD	JD			
(initials) Recorded by:	JD	JD	JD			

Comments:

Concentration Salt Ctrl	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

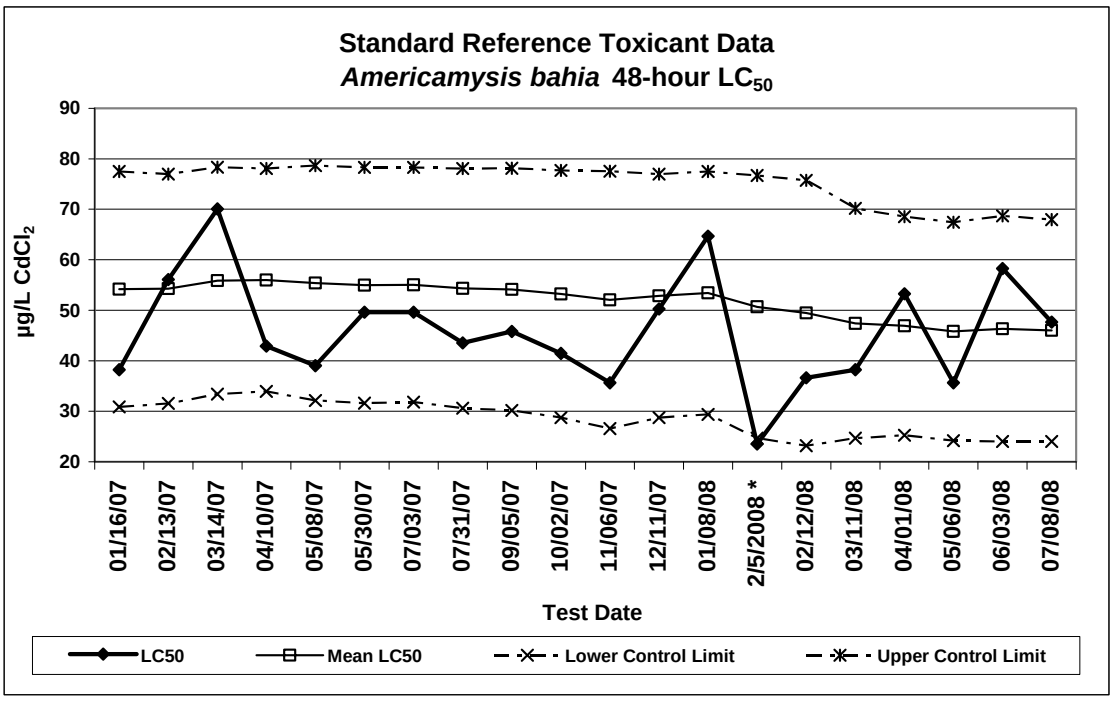
Florida Department of Environmental Protection
Bureau of Laboratories

Standard Reference Toxicant (SRT) Test Data - 48-hour Acute Toxicity
Americamysis bahia (mysid shrimp) - Cadmium Chloride ($CdCl_2$)

Date	LC50	Mean LC50	Std Dev	Lower Control Limit	Upper Control Limit
01/16/07	38.23	54.18	11.66	30.86	77.50
02/13/07	56.06	54.27	11.36	31.55	76.99
03/14/07	70.07	55.86	11.23	33.40	78.32
04/10/07	42.91	56.00	11.04	33.91	78.08
05/08/07	39.00	55.42	11.63	32.16	78.68
05/30/07	49.64	54.95	11.67	31.62	78.29
07/03/07	49.64	55.04	11.62	31.80	78.27
07/31/07	43.54	54.34	11.88	30.58	78.10
09/05/07	45.79	54.15	11.99	30.17	78.13
10/02/07	41.44	53.25	12.24	28.76	77.73
11/06/07	35.65	52.06	12.76	26.55	77.57
12/11/07	50.27	52.86	12.06	28.75	76.98
01/08/08	64.65	53.42	12.03	29.36	77.48
2/5/2008 *	23.52	50.68	13.02	24.64	76.72
02/12/08	36.63	49.45	13.14	23.17	75.74
03/11/08	38.21	47.42	11.38	24.66	70.19
04/01/08	53.27	46.90	10.82	25.26	68.53
05/06/08	35.65	45.82	10.81	24.19	67.45
06/03/08	58.28	46.36	11.17	24.03	68.69
07/08/08	47.67	46.00	10.99	24.02	67.98

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

CV = 23.89
EPA reference 75th quartile CV = 26%



* Test result exceeded control limits on 2/5/2008. Test repeated on 2/12/2008.

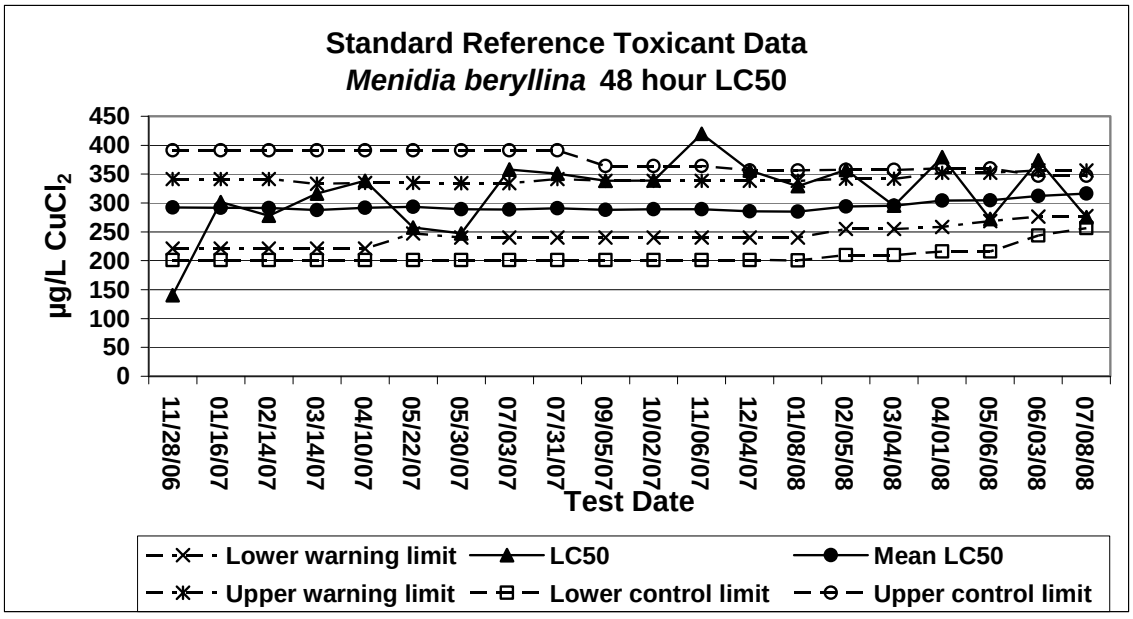
Appendix C. (continued)

Florida Department of Environmental Protection
Bureau of Laboratories

Standard Reference Toxicant (SRT) Test Data - Acute Toxicity
Menidia beryllina (Inland silverside) - Copper Chloride ($CuCl_2$)

Date	LC50	Mean LC50	Lower control limit	Lower warning limit	Upper warning limit	Upper control limit
11/28/06	140.31	292.22	201.0	221.3	341.2	391.4
01/16/07	301.29	291.93	201.0	221.3	341.2	391.4
02/14/07	278.00	291.27	201.0	221.3	341.2	391.4
03/14/07	316.16	287.74	201.0	221.3	333.3	391.4
04/10/07	338.35	291.67	201.0	221.3	334.8	391.4
05/22/07	257.44	293.42	201.0	247.5	334.8	391.4
05/30/07	247.36	289.10	201.0	239.9	334.4	391.4
07/03/07	357.65	288.79	201.0	239.9	334.4	391.4
07/31/07	350.68	290.88	201.0	239.9	341.4	391.4
09/05/07	338.18	288.38	201.0	239.9	338.2	363.8
10/02/07	338.90	289.15	201.0	239.9	338.4	363.8
11/06/07	419.55	289.15	201.0	239.9	338.4	363.8
12/04/07	356.07	285.50	201.0	239.9	338.4	356.2
01/08/08	329.03	285.29	200.9	239.9	338.5	356.2
02/05/08	357.47	294.07	210.0	254.9	341.9	357.5
03/04/08	295.52	295.31	210.0	254.9	341.9	357.5
04/01/08	379.50	304.05	216.2	258.5	352.0	359.8
05/06/08	272.50	304.73	216.2	268.7	352.0	359.8
06/03/08	373.47	312.52	243.9	276.6	356.4	347.1
07/08/08	275.20	316.13	256.4	277.3	356.4	347.1

Means are of the last 20 SRT tests.
Upper warning and control limits are the 75th and 90th percentiles, respectively, of the past 20 LC50s.
Lower warning and control limits are the 25th and 10th percentiles, respectively, of the past 20 LC50s.
EPA reference 75th quartile CV = 21% **CV = 19.29**



Appendix C. (continued)

[redacted]

000039

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 #: ASW / 6.23.08
Toxicant/ Batch#: $CdCl_2$ / 7.7.08

Test Beginning: Date: 7.8.08 Time: 1330
Test Ending: Date: 7-12-08 Time: 1225

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	42.03	Hach	[illegible]
Alkalinity (mg/L as $CaCO_3$):	105	Hach	BA
Hardness (mg.L as $CaCO_3$):	—	Hach	—
Total Ammonia (mg/L as N):	<0.034	Denver	MF
Salinity (ppth):	~20	Mettler	[illegible]

Organism Batch #/ Age: 7808 / 5 days
Feeding: (Prior to test) (Prior to renewal) (Daily)
Food: YCT P.subcapitata Artemia: Lot # 38438
Food Batch: — —
Chamber size: 350 mL
Test volume: 350 mL per replicate
0hr 113 24hr 114 48hr 115 72hr 116

Conc. g/L (µg/L) mg/L	Rep.	Chamber #	Number Live 0hr / 24hr / 48hr (~~48 hr~~ / ~~72 hr~~ / ~~96 hr~~)	pH (SU) 0hr / 24hr / 48hr (~~48 hr~~ / ~~72 hr~~ / ~~96 hr~~)	Temperature (°C) 0hr / 24hr / 48hr (~~48 hr~~ / ~~72 hr~~ / ~~96 hr~~)	D.O. (mg/L) 0hr / 24hr / 48hr (~~48 hr~~ / ~~72 hr~~ / ~~96 hr~~)	Uncorrected Conductivity µmhos/cm (mmhos/cm) 0hr / 24hr / 48hr (~~48 hr~~ / ~~72 hr~~ / ~~96 hr~~)
Control	A	Tox 1	5 / 5 / 5	8.3 / — / 8.0	24.0 / — / 24.3	6.9 / — / 4.6	32.4 / — / 32.7
	B	Tox 2	5 / 5 / 5	— / 8.1 / —	— / 24.2 / —	— / 4.6 / —	— / 32.1 / —
	C	Tox 3	5 / 5 / 5				
	D	Tox 4	5 / 5 / 5				
20	A	Tox 5	5 / 5 / 5	8.4 / — / 7.9	24.1 / — / 24.2	6.7 / — / 4.5	34.4 / — / 32.9
	B	Tox 6	5 / 5 / 5	— / 8.2 / —	— / 24.3 / —	— / 4.4 / —	— / 33.7 / —
	C	Tox 7	5 / 5 / 5				
	D	Tox 8	5 / 5 / 5				
30	A	Tox 9	5 / 4D / 4	8.4 / — / 8.1	24.2 / — / 24.2	6.8 / — / 4.3	34.2 / — / 33.2
	B	Tox 10	5 / 5 / 5	— / 8.2 / —	— / 24.3 / —	— / 4.3 / —	— / 33.8 / —
	C	Tox 11	5 / 5 / 5				
	D	Tox 12	5 / 5 / 5				
45	A	Tox 13	5 / 1D / 2D	8.4 / — / 8.0	24.2 / — / 24.2	6.9 / — / 4.4	34.2 / — / 35.1
	B	Tox 14	5 / 5 / 4D	— / 8.2 / —	— / 24.3 / —	— / 4.7 / —	— / 34.3 / —
	C	Tox 15	5 / 3D / 3				
	D	Tox 16	5 / 4D / 1D				
67	A	Tox 17	5 / 3D / 1D	8.4 / — / 8.1	24.2 / — / 24.1	6.8 / — / 4.4	33.9 / — / 35.1
	B	Tox 18	5 / 3D / 0D	— / 8.1 / —	— / 24.1 / —	— / 4.7 / —	— / 34.3 / —
	C	Tox 19	5 / 2D / 0D				
	D	Tox 20	5 / 4D / 3D				
100	A	Tox 21	5 / 3D / 0D	8.4 / — / 8.1	24.5 / — / 24.2	6.8 / — / 4.9	34.3 / — / 35.3
	B	Tox 22	5 / 1D / 0D	— / 8.2 / —	— / 24.2 / —	— / 4.8 / —	— / 34.8 / —
	C	Tox 23	5 / 1D / 0D				
	D	Tox 24	5 / 3D / 0D				
	A						
	B						
	C						
	D						
Loaded / measured by:			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Recorded by:			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Investigators' Signatures
[illegible]
Brent Nelson
Marshall Faircloth
[illegible]
[illegible]
REVIEWER

Concentrations prepared by: [illegible]
Loading verified by: [illegible]
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min. 25.7 max. 26.7 mean 26.2
Incubator # ___ min. ___ max. ___ mean ___
Room B246 min. 22.7 max. 25.7 mean 24.2

Comments:

Statistics: Method: Spearman-Karber
(48) 96 hour LC_{50}: 47.67
95% Confidence Interval: lower 42.22 upper 53.83

Appendix C. (continued)

000037

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 #: ASW / 6.23.08
Toxicant/ Batch#: CuCl2 / 7.7.08

Test Beginning: Date: 7.8.08 Time: 1335
Test Ending: Date: 7-12-08 Time: 1215

Water Quality Parameters	Diluent	Method	Initials
Total Residual Cl_2 (mg/L):	<0.03	Hach	JD
Alkalinity (mg/L as $CaCO_3$):	225	Hach	BK
Hardness (mg.L as $CaCO_3$):	—	Hach	--
Total Ammonia (mg/L as N):	<0.031	Denver	MC
Salinity (ppth):	~30	Mettler	JD

Organism Batch #/ Age: 7808 / 13d 1.5
Feeding: (Prior to test) (Prior to renewal) Daily
Food: YCT \ *P.subcapitata* \ Artemia Lot # 38738
Food Batch: _____ _____ 0hr 115 24hr — 48hr 115 72hr —
Chamber size: 1000 mL
Test volume: 500 mL per replicate

Conc. g/L (µg/L) mg/L	Rep.	Chamber #	Number Live 0hr / 24hr / 48hr (48hr / 72hr / 96hr)	pH (SU) 0hr / 24hr / 48hr (48hr / 72hr / 96hr)	Temperature (°C) 0hr / 24hr / 48hr (48hr / 72hr / 96hr)	D.O. (mg/L) 0hr / 24hr / 48hr (48hr / 72hr / 96hr)	Uncorrected Conductivity µmhos/cm (mmhos/cm) 0hr / 24hr / 48hr (48hr / 72hr / 96hr)
Control	A	A1	10 / 10 / 10	8.4 / — / 8.2	24.0 / — / 24.6	6.8 / — / 5.7	33.2 / — / 33.4
	B	A2	10 / 10 / 10	— / 8.3 / —	— / 24.2 / —	— / 5.9 / —	— / 34.3 / —
	C						
	D						
100	A	A3	10 / 10 / 10	8.4 / — / 8.2	24.1 / — / 24.7	6.8 / — / 5.7	33.7 / — / 34.9
	B	A4	10 / 10 / 10	— / 8.3 / —	— / 24.2 / —	— / 5.8 / —	— / 34.7 / —
	C						
	D						
200	A	A5	10 / 9.0 / 9	8.4 / — / 8.2	24.2 / — / 24.6	6.5 / — / 5.7	338 / — / 34.1
	B	A6	10 / 8.5 / 8	— / 8.3 / —	— / 24.7 / —	— / 5.8 / .	— / 34.8 / —
	C						
	D						
300	A	A7	10 / 5.5 / 5	8.4 / — / 8.2	24.4 / — / 24.6	6.6 / — / 5.8	33.9 / — / 34.7
	B	A8	10 / 5.5 / 5	— / 8.3 / —	— / 24.4 / —	— / 5.9 / —	— / 34.9 / —
	C						
	D						
400	A	A9	10 / 3.0 / 2	8.4 / — / 8.2	24.5 / — / 24.6	6.8 / — / 6.0	33.6 / — / 35.7
	B	A10	10 / 0.0 / —	— / 8.3 / —	— / 24.3 / —	— / 5.8 / —	— / 34.5 / —
	C						
	D						
500	A	A11	10 / 0.0 /	8.4 / — / —	24.7 / — / —	6.9 / — / —	34.0 / — /
	B	A12	10 / 0.0 /	— / 8.3 / —	— / 24.3 / —	— / 5.8 / —	— / 34.9 / —
	C						
	D						
	A						
	B						
	C						
	D						
Loaded / measured by:			JD / JD / JD	JD / JD / JD	JD / JD / JD	JD / JD / JD	JD / JD / JD
Recorded by:			JD / JD / JD	JD / JD / JD	JD / JD / JD	JD / JD / JD	JD / JD / JD

Investigators' Signatures
James Daniels
Brian Jones
Marshall Faircloth
Loretta C. Wolfe
REVIEWER

Concentrations prepared by: JD
Loading verified by: BA
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark
Temperature Range °C:
Incubator # 2 min. 25.1 max. 26.7 mean 26.2
Incubator # ___ min. _____ max. _____ mean _____
Room B248 min. 22.7 max. 25.7 mean 24.2

Comments:
Blower: 243.6

Statistics: Method: Spearman-Karber
48/ 96 hour LC_{50}: 275.2 (BA)
95% Confidence Interval: lower 246.3 (BA) upper 310.89

Appendix C. (continued)

***Americamysis bahia* Acute Standard Reference Toxicant Test**

DATE: 7-8-08 DURATION: 48 hr TOXICANT: CdCl2
SPECIES: *Americamysis bahia*

RAW DATA: Concentration (µg/L)	Number Exposed	Mortalities
0.00	20	0
20.00	20	0
30.00	20	1
45.00	20	10
67.00	20	16
100.00	20	20

SPEARMAN-KARBER TRIM: .00%

SPEARMAN-KARBER ESTIMATES: LC50: 47.67
95% LOWER CONFIDENCE: 42.22
95% UPPER CONFIDENCE: 53.83

***Menidia beryllina* Standard Reference Toxicant Test**

DATE: 7-8-08 DURATION: 48 hr TOXICANT: CuCl2
SPECIES: *Menidia beryllina*

RAW DATA: Concentration (µg/L)	Number Exposed	Mortalities
0.00	20	0
100.00	20	0
200.00	20	3
300.00	20	10
400.00	20	18
500.00	20	20

SPEARMAN-KARBER TRIM: .00%

SPEARMAN-KARBER ESTIMATES: LC50: 275.20
95% LOWER CONFIDENCE: 243.60
95% UPPER CONFIDENCE: 310.89

Appendix D. Test Organism Receipts

MARINCO BIOASSAY LABORATORY
The Aquatic Toxicology Specialists

NELAP Certification # E84191

Organism Shipment Record

State of Florida Aquaculture Certificate Number AQ0668007

Date: 7/7/08

Shipped to: FDEP

P.O. No: N/A

Species	Quantity	Age	Brood Number	Temp.	pH	Salinity
Mysidopsis bahia	150	4 DAYS	MS 080703	26°C	8.1 s.u	20‰
Menidia beryllina	150	12 DAYS	SS 080625	25°C	8.0 s.u	20‰
						Hardness
Cyprinella leedsi	150	10 DAYS	CL 080627	26°C	7.9	90mg/L
Pimephales promelas	150	8 DAYS	FM 080629	25°C	7.8	86mg/L

Packed by: JU

Shipped Via: FedEx

Notes: _____

Thank you for your order.

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

Appendix D. (continued)

MARINCO BIOASSAY LABORATORY
The Aquatic Toxicology Specialists

NELAP Certification # E84191

Organism Shipment Record

State of Florida Aquaculture Certificate Number AQ0668007

Date: 7/28/08

Shipped to: FDEP

P.O. No: _____

Species	Quantity	Age	Brood Number	Temp.	pH	Salinity
Mysidopsis bahia	100	4 DAYS	MS080724	25°C	7.7	18ppt
Menidia beryllina	100	12 DAYS	SS080716	25°C	7.8	18ppt
						Hardness
Cyprinella leedsi	100	10 DAYS	CL080718	25°C	7.6	88mg/L
Pimephales promelas						

Packed by: [signature]

Shipped Via: FedEx

Notes: _____

Thank you for your order.

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

Appendix E. Chemical Analyses performed on the effluent from the Kinder Morgan Ammonia Facility Outfall D-006, sampled on July 28, 2008.

Date Sampled	Field ID	Analysis Group	Components	Result	Remarks	Units	MDL	PQL
7/28/2008 9:35	Effluent	AGP/LN	Algal Growth Potential	3	A U	mg DryWt/L	3	3
7/28/2008 9:35	Effluent	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	1.3	AI	mg/L	0.2	2
7/28/2008 9:35	Effluent	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	13		ug/L	0.55	1.7
7/28/2008 9:35	Effluent	Chlorophyll/Grain Size/BOD	Phaeophytin-a	3.3		ug/L	0.24	0.71
7/28/2008 9:35	Effluent	Toxicology	Bioassay-Acute-Screen-SW-Fish, LC50	100	L	LC50		
7/28/2008 9:35	Effluent	Toxicology	Bioassay-Acute-Screen-SW-Mysid, LC50	100	L	LC50		
7/28/2008 9:35	Effluent	Metals	Chromium	1.5	U	ug/L	1.5	6
7/28/2008 9:35	Effluent	Metals	Iron	90	U	ug/L	90	360
7/28/2008 9:35	Effluent	Metals	Zinc	15	U	ug/L	15	60
7/28/2008 9:35	Effluent	Metals	Magnesium	1060	A	mg/L	2	8
7/28/2008 9:35	Effluent	Metals	Nickel	0.75	U	ug/L	0.75	3
7/28/2008 9:35	Effluent	Metals	Lead	0.6	U	ug/L	0.6	2.4
7/28/2008 9:35	Effluent	Metals	Cadmium	0.06	U	ug/L	0.06	0.24
7/28/2008 9:35	Effluent	Metals	Aluminum	180	U	ug/L	180	720
7/28/2008 9:35	Effluent	Metals	Selenium	1.5	U	ug/L	1.5	6
7/28/2008 9:35	Effluent	Metals	Sodium	8590	A	mg/L	25	100
7/28/2008 9:35	Effluent	Metals	Arsenic	3	I	ug/L	1.5	6
7/28/2008 9:35	Effluent	Metals	Calcium	344	A	mg/L	0.22	0.9
7/28/2008 9:35	Effluent	Metals	Silver	0.075	U	ug/L	0.075	0.3
7/28/2008 9:35	Effluent	Metals	Copper	1.5	UJ	ug/L	1.5	6
7/28/2008 9:35	Effluent	Nutrients	NO2NO3-N	0.004	U	mg N/L	0.004	0.01
7/28/2008 9:35	Effluent	Nutrients	Fluoride	1.2		mg F/L	0.25	0.5
7/28/2008 9:35	Effluent	Nutrients	Kjeldahl Nitrogen	0.75	J	mg N/L	0.08	0.2
7/28/2008 9:35	Effluent	Nutrients	Sulfate	2100		mg SO4/L	40	100
7/28/2008 9:35	Effluent	Nutrients	Chloride	15000		mg Cl/L	40	200
7/28/2008 9:35	Effluent	Nutrients	O-Phosphate-P	0.22	A	mg P/L	0.008	0.02
7/28/2008 9:35	Effluent	Nutrients	Ammonia-N	0.023		mg N/L	0.01	0.02
7/28/2008 9:35	Effluent	Nutrients	TDS	28200	A	mg/L	750	3000
7/28/2008 9:35	Effluent	Nutrients	Total-P	0.32		mg P/L	0.02	0.06
7/28/2008 9:35	Effluent	Nutrients	TSS	4	U	mg/L	4	16
7/28/2008 9:35	Effluent	Overflow	Oil and Grease	1.5	I	mg/L	1.4	5
7/28/2008 9:35	Effluent	Overflow	Radium 228	0.8		pCi/L		
7/28/2008 9:35	Effluent	Overflow	Radium 228-Counting Error	0.5		pCi/L		

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Components	Result	Remarks	Units	MDL	PQL
7/28/2008 9:35	Effluent	Overflow	Alpha, Total	1.8		pCi/L		
7/28/2008 9:35	Effluent	Overflow	Radium 226-Counting Error	0.2		pCi/L		
7/28/2008 9:35	Effluent	Overflow	Alpha-Counting Error	0.9		pCi/L		
7/28/2008 9:35	Effluent	Overflow	Radium 226	1.1		pCi/L		
7/28/2008 9:35	Effluent	Pesticides	Metolachlor	0.51	U	ug/L	0.51	2
7/28/2008 9:35	Effluent	Pesticides	Metribuzin	0.1	U	ug/L	0.1	0.4
7/28/2008 9:35	Effluent	Pesticides	Mevinphos	0.2	U	ug/L	0.2	0.8
7/28/2008 9:35	Effluent	Pesticides	Phorate	0.051	U	ug/L	0.051	0.2
7/28/2008 9:35	Effluent	Pesticides	Ametryn	0.051	U	ug/L	0.051	0.2
7/28/2008 9:35	Effluent	Pesticides	Bromacil	0.2	U	ug/L	0.2	0.8
7/28/2008 9:35	Effluent	Pesticides	Fonofos	0.1	U	ug/L	0.1	0.4
7/28/2008 9:35	Effluent	Pesticides	Hexazinone	0.1	U	ug/L	0.1	0.4
7/28/2008 9:35	Effluent	Pesticides	Naled	0.81	UJ	ug/L	0.81	3.2
7/28/2008 9:35	Effluent	Pesticides	Norflurazon	0.15	U	ug/L	0.15	0.6
7/28/2008 9:35	Effluent	Pesticides	Ethion	0.051	U	ug/L	0.051	0.2
7/28/2008 9:35	Effluent	Pesticides	Malathion	0.15	U	ug/L	0.15	0.6
7/28/2008 9:35	Effluent	Pesticides	Metalaxyl	0.25	U	ug/L	0.25	1
7/28/2008 9:35	Effluent	Pesticides	Parathion Ethyl	0.15	U	ug/L	0.15	0.6
7/28/2008 9:35	Effluent	Pesticides	Parathion Methyl	0.1	U	ug/L	0.1	0.4
7/28/2008 9:35	Effluent	Pesticides	Chlorpyrifos Ethyl	0.051	U	ug/L	0.051	0.2
7/28/2008 9:35	Effluent	Pesticides	Ethoprop	0.1	U	ug/L	0.1	0.4
7/28/2008 9:35	Effluent	Pesticides	Fenamiphos	0.2	U	ug/L	0.2	0.8
7/28/2008 9:35	Effluent	Pesticides	Alachlor	0.61	U	ug/L	0.61	2.4
7/28/2008 9:35	Effluent	Pesticides	Atrazine	0.051	U	ug/L	0.051	0.2
7/28/2008 9:35	Effluent	Pesticides	Azinphos Methyl	0.2	U	ug/L	0.2	0.8
7/28/2008 9:35	Effluent	Pesticides	Butylate	0.2	U	ug/L	0.2	0.8
7/28/2008 9:35	Effluent	Pesticides	Simazine	0.051	U	ug/L	0.051	0.2
7/28/2008 9:35	Effluent	Pesticides	Chlorpyrifos Methyl	0.1	U	ug/L	0.1	0.4
7/28/2008 9:35	Effluent	Pesticides	Diazinon	0.051	UJ	ug/L	0.051	0.2
7/28/2008 9:35	Effluent	Pesticides	Prometryn	0.15	U	ug/L	0.15	0.6
7/28/2008 9:35	Effluent	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	1.9	U	ug/L	1.9	7.6
7/28/2008 9:35	Effluent	Priority Organic Pollutants	4-Nitrophenol	14	U	ug/L	14	57
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Dieldrin	1.4	U	ug/L	1.4	5.7
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Endrin aldehyde	3.8	UJ	ug/L	3.8	15
7/28/2008 9:35	Effluent	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.95	U	ug/L	0.95	3.8

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Components	Result	Remarks	Units	MDL	PQL
7/28/2008 9:35	Effluent	Priority Organic Pollutants	2,6-Dinitrotoluene	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	2-Chlorophenol	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Benzidine	95	U	ug/L	95	380
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Benzo(a)anthracene	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Benzo(k)fluoranthene	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Dimethyl phthalate	9.5	UJ	ug/L	9.5	38
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Endosulfan I	3.8	U	ug/L	3.8	15
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Fluorene	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Naphthalene	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	delta-BHC	1.4	U	ug/L	1.4	5.7
7/28/2008 9:35	Effluent	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	2.9	U	ug/L	2.9	11
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Di-n-butyl phthalate	4.8	U	ug/L	4.8	19
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Endosulfan sulfate	1.4	U	ug/L	1.4	5.7
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Heptachlor epoxide	1.4	U	ug/L	1.4	5.7
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	2-Chloronaphthalene	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	4,4'-DDD	1.4	U	ug/L	1.4	5.7
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Aldrin	1.4	UJ	ug/L	1.4	5.7
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Anthracene	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Benzo(b)fluoranthene	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Chrysene	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Endrin	1.4	U	ug/L	1.4	5.7
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Hexachlorobenzene	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Hexachlorocyclopentadiene	2.9	U	ug/L	2.9	11
7/28/2008 9:35	Effluent	Priority Organic Pollutants	2,4-Dimethylphenol	9.5	U	ug/L	9.5	38
7/28/2008 9:35	Effluent	Priority Organic Pollutants	2,4-Dinitrophenol	14	U	ug/L	14	57
7/28/2008 9:35	Effluent	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.9	U	ug/L	2.9	11
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Acenaphthene	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Di-n-octyl phthalate	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Diethyl phthalate	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Pyrene	0.95	U	ug/L	0.95	3.8

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Components	Result	Remarks	Units	MDL	PQL
7/28/2008 9:35	Effluent	Priority Organic Pollutants	gamma-BHC	1.4	U	ug/L	1.4	5.7
7/28/2008 9:35	Effluent	Priority Organic Pollutants	4,4'-DDT	1.4	U	ug/L	1.4	5.7
7/28/2008 9:35	Effluent	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Benzo(a)pyrene	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Butyl benzyl phthalate	4.8	U	ug/L	4.8	19
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Fluoranthene	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Hexachlorobutadiene	2.9	U	ug/L	2.9	11
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Hexachloroethane	2.9	U	ug/L	2.9	11
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Isophorone	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9	U	ug/L	1.9	7.6
7/28/2008 9:35	Effluent	Priority Organic Pollutants	alpha-BHC	1.4	U	ug/L	1.4	5.7
7/28/2008 9:35	Effluent	Priority Organic Pollutants	2,4-Dichlorophenol	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	3,3'-Dichlorobenzidine	38	U	ug/L	38	150
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	14	U	ug/L	14	57
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Endosulfan II	3.8	UJ	ug/L	3.8	15
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Heptachlor	1.4	U	ug/L	1.4	5.7
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Nitrobenzene	1.9	U	ug/L	1.9	7.6
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Pentachlorophenol	2.9	UJ	ug/L	2.9	11
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Phenanthrene	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	2,4-Dinitrotoluene	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Acenaphthylene	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	1.9	U	ug/L	1.9	7.6
7/28/2008 9:35	Effluent	Priority Organic Pollutants	Phenol	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	beta-BHC	1.4	U	ug/L	1.4	5.7
7/28/2008 9:35	Effluent	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	2-Nitrophenol	0.95	U	ug/L	0.95	3.8
7/28/2008 9:35	Effluent	Priority Organic Pollutants	4,4'-DDE	1.4	U	ug/L	1.4	5.7
7/28/2008 9:35	Effluent	Field Parameter	Dissolved Oxygen	6.96		mg/L		
7/28/2008 9:35	Effluent	Field Parameter	Specific Conductance	42890		umhos/cm		
7/28/2008 9:35	Effluent	Field Parameter	pH	7.72				
7/28/2008 9:35	Effluent	Field Parameter	Temperature	19.56		C		
7/28/2008 9:45	Blank	Metals	Iron	30	U	ug/L	30	120
7/28/2008 9:45	Blank	Metals	Magnesium	0.04	U	mg/L	0.04	0.16
7/28/2008 9:45	Blank	Metals	Selenium	0.5	U	ug/L	0.5	2

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Components	Result	Remarks	Units	MDL	PQL
7/28/2008 9:45	Blank	Metals	Silver	0.025	U	ug/L	0.025	0.1
7/28/2008 9:45	Blank	Metals	Sodium	0.5	U	mg/L	0.5	2
7/28/2008 9:45	Blank	Metals	Zinc	5	U	ug/L	5	20
7/28/2008 9:45	Blank	Metals	Copper	0.5	U	ug/L	0.5	2
7/28/2008 9:45	Blank	Metals	Nickel	0.25	U	ug/L	0.25	1
7/28/2008 9:45	Blank	Metals	Arsenic	0.5	U	ug/L	0.5	2
7/28/2008 9:45	Blank	Metals	Aluminum	60	U	ug/L	60	240
7/28/2008 9:45	Blank	Metals	Lead	0.2	U	ug/L	0.2	0.8
7/28/2008 9:45	Blank	Metals	Cadmium	0.02	U	ug/L	0.02	0.08
7/28/2008 9:45	Blank	Metals	Chromium	0.5	U	ug/L	0.5	2
7/28/2008 9:45	Blank	Metals	Calcium	0.075	U	mg/L	0.075	0.3
7/28/2008 9:45	Blank	Nutrients	Sulfate	0.2	U	mg SO4/L	0.2	0.5
7/28/2008 9:45	Blank	Nutrients	Fluoride	0.05	U	mg F/L	0.05	0.1
7/28/2008 9:45	Blank	Nutrients	Total-P	0.02	U	mg P/L	0.02	0.06
7/28/2008 9:45	Blank	Nutrients	TSS	4	U	mg/L	4	16
7/28/2008 9:45	Blank	Nutrients	Chloride	0.2	U	mg Cl/L	0.2	1
7/28/2008 9:45	Blank	Nutrients	TDS	15	U	mg/L	15	60
7/28/2008 9:45	Blank	Nutrients	Ammonia-N	0.01	U	mg N/L	0.01	0.02
7/28/2008 9:45	Blank	Nutrients	NO2NO3-N	0.004	U	mg N/L	0.004	0.01
7/28/2008 9:45	Blank	Nutrients	Kjeldahl Nitrogen	0.08	U	mg N/L	0.08	0.2
7/28/2008 9:45	Blank	Nutrients	O-Phosphate-P	0.004	U	mg P/L	0.004	0.01
7/28/2008 9:45	Blank	Overflow	Radium 228-Counting Error	0.5		pCi/L		
7/28/2008 9:45	Blank	Overflow	Radium 228	0.8	U	pCi/L		
7/28/2008 9:45	Blank	Overflow	Radium 226-Counting Error	0.1		pCi/L		
7/28/2008 9:45	Blank	Overflow	Alpha-Counting Error	0.5		pCi/L		
7/28/2008 9:45	Blank	Overflow	Oil and Grease	1.4	I	mg/L	1.4	5
7/28/2008 9:45	Blank	Overflow	Alpha, Total	0.8	U	pCi/L		
7/28/2008 9:45	Blank	Overflow	Radium 226	0.1	U	pCi/L		
7/28/2008 9:45	Blank	Pesticides	Fenamiphos	0.19	U	ug/L	0.19	0.76
7/28/2008 9:45	Blank	Pesticides	Chlorpyrifos Methyl	0.097	U	ug/L	0.097	0.39
7/28/2008 9:45	Blank	Pesticides	Metalaxyl	0.24	U	ug/L	0.24	0.96
7/28/2008 9:45	Blank	Pesticides	Mevinphos	0.19	U	ug/L	0.19	0.76
7/28/2008 9:45	Blank	Pesticides	Phorate	0.049	U	ug/L	0.049	0.2
7/28/2008 9:45	Blank	Pesticides	Prometryn	0.15	U	ug/L	0.15	0.6
7/28/2008 9:45	Blank	Pesticides	Alachlor	0.58	U	ug/L	0.58	2.3

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Components	Result	Remarks	Units	MDL	PQL
7/28/2008 9:45	Blank	Pesticides	Butylate	0.19	U	ug/L	0.19	0.76
7/28/2008 9:45	Blank	Pesticides	Parathion Methyl	0.097	U	ug/L	0.097	0.39
7/28/2008 9:45	Blank	Pesticides	Simazine	0.049	U	ug/L	0.049	0.2
7/28/2008 9:45	Blank	Pesticides	Bromacil	0.19	U	ug/L	0.19	0.76
7/28/2008 9:45	Blank	Pesticides	Diazinon	0.049	UJ	ug/L	0.049	0.2
7/28/2008 9:45	Blank	Pesticides	Hexazinone	0.097	U	ug/L	0.097	0.39
7/28/2008 9:45	Blank	Pesticides	Malathion	0.15	U	ug/L	0.15	0.6
7/28/2008 9:45	Blank	Pesticides	Metolachlor	0.49	U	ug/L	0.49	2
7/28/2008 9:45	Blank	Pesticides	Naled	0.78	UJ	ug/L	0.78	3.1
7/28/2008 9:45	Blank	Pesticides	Azinphos Methyl	0.19	U	ug/L	0.19	0.76
7/28/2008 9:45	Blank	Pesticides	Chlorpyrifos Ethyl	0.049	U	ug/L	0.049	0.2
7/28/2008 9:45	Blank	Pesticides	Parathion Ethyl	0.15	U	ug/L	0.15	0.6
7/28/2008 9:45	Blank	Pesticides	Metribuzin	0.097	U	ug/L	0.097	0.39
7/28/2008 9:45	Blank	Pesticides	Fonofos	0.097	U	ug/L	0.097	0.39
7/28/2008 9:45	Blank	Pesticides	Ethoprop	0.097	U	ug/L	0.097	0.39
7/28/2008 9:45	Blank	Pesticides	Ethion	0.049	U	ug/L	0.049	0.2
7/28/2008 9:45	Blank	Pesticides	Norflurazon	0.15	U	ug/L	0.15	0.6
7/28/2008 9:45	Blank	Pesticides	Ametryn	0.049	U	ug/L	0.049	0.2
7/28/2008 9:45	Blank	Pesticides	Atrazine	0.049	U	ug/L	0.049	0.2
7/28/2008 9:45	Blank	Priority Organic Pollutants	alpha-BHC	1.5	U	ug/L	1.5	5.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	2,4-Dinitrophenol	15	U	ug/L	15	59
7/28/2008 9:45	Blank	Priority Organic Pollutants	2-Chloronaphthalene	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	2	U	ug/L	2	7.8
7/28/2008 9:45	Blank	Priority Organic Pollutants	Anthracene	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	2.9	U	ug/L	2.9	12
7/28/2008 9:45	Blank	Priority Organic Pollutants	Diethyl phthalate	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	Fluorene	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	Hexachlorobutadiene	2.9	U	ug/L	2.9	12
7/28/2008 9:45	Blank	Priority Organic Pollutants	delta-BHC	1.5	U	ug/L	1.5	5.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	Benzo(a)pyrene	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	Di-n-butyl phthalate	4.9	U	ug/L	4.9	20
7/28/2008 9:45	Blank	Priority Organic Pollutants	Di-n-octyl phthalate	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	Hexachloroethane	2.9	U	ug/L	2.9	12
7/28/2008 9:45	Blank	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	2	U	ug/L	2	7.8
7/28/2008 9:45	Blank	Priority Organic Pollutants	Nitrobenzene	2	U	ug/L	2	7.8

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Components	Result	Remarks	Units	MDL	PQL
7/28/2008 9:45	Blank	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	2,6-Dinitrotoluene	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	Aldrin	1.5	UJ	ug/L	1.5	5.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	Endosulfan I	3.9	U	ug/L	3.9	16
7/28/2008 9:45	Blank	Priority Organic Pollutants	N-Nitrosodimethylamine	2	U	ug/L	2	7.8
7/28/2008 9:45	Blank	Priority Organic Pollutants	Pyrene	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	Benzo(k)fluoranthene	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	15	U	ug/L	15	59
7/28/2008 9:45	Blank	Priority Organic Pollutants	Butyl benzyl phthalate	4.9	U	ug/L	4.9	20
7/28/2008 9:45	Blank	Priority Organic Pollutants	Dimethyl phthalate	9.8	UJ	ug/L	9.8	39
7/28/2008 9:45	Blank	Priority Organic Pollutants	Phenol	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	2,4-Dimethylphenol	9.8	U	ug/L	9.8	39
7/28/2008 9:45	Blank	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.9	U	ug/L	2.9	12
7/28/2008 9:45	Blank	Priority Organic Pollutants	Benzidine	98	U	ug/L	98	390
7/28/2008 9:45	Blank	Priority Organic Pollutants	Benzo(a)anthracene	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	Dieldrin	1.5	U	ug/L	1.5	5.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	Endosulfan II	3.9	UJ	ug/L	3.9	16
7/28/2008 9:45	Blank	Priority Organic Pollutants	Fluoranthene	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	Heptachlor epoxide	1.5	U	ug/L	1.5	5.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	Phenanthrene	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	2,4-Dichlorophenol	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	2-Chlorophenol	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	2-Nitrophenol	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	4,4'-DDE	1.5	U	ug/L	1.5	5.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	Acenaphthylene	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	Chrysene	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	Endrin aldehyde	3.9	UJ	ug/L	3.9	16
7/28/2008 9:45	Blank	Priority Organic Pollutants	Hexachlorocyclopentadiene	2.9	U	ug/L	2.9	12
7/28/2008 9:45	Blank	Priority Organic Pollutants	Isophorone	0.98	U	ug/L	0.98	3.9

Appendix E. (continued)

Date Sampled	Field ID	Analysis Group	Components	Result	Remarks	Units	MDL	PQL
7/28/2008 9:45	Blank	Priority Organic Pollutants	Naphthalene	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	Pentachlorophenol	2.9	UJ	ug/L	2.9	12
7/28/2008 9:45	Blank	Priority Organic Pollutants	beta-BHC	1.5	U	ug/L	1.5	5.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	3,3'-Dichlorobenzidine	39	U	ug/L	39	160
7/28/2008 9:45	Blank	Priority Organic Pollutants	4,4'-DDD	1.5	U	ug/L	1.5	5.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	4,4'-DDT	1.5	U	ug/L	1.5	5.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	Acenaphthene	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	Endrin	1.5	U	ug/L	1.5	5.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	Hexachlorobenzene	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	gamma-BHC	1.5	U	ug/L	1.5	5.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	2,4-Dinitrotoluene	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	4-Nitrophenol	15	U	ug/L	15	59
7/28/2008 9:45	Blank	Priority Organic Pollutants	Benzo(b)fluoranthene	0.98	U	ug/L	0.98	3.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	Endosulfan sulfate	1.5	U	ug/L	1.5	5.9
7/28/2008 9:45	Blank	Priority Organic Pollutants	Heptachlor	1.5	U	ug/L	1.5	5.9

Appendix F. Toxicity Instrumentation

FDEP Biology Laboratory - Bioassay Instrument Identification

Test Dates: July 29 - 31, 2008

Test ID: Kinder Morgan Ammonia Facility SRT Dates: July 8 - 12, 2008

METER / DEVICE	ID	SOP	Parameter	Method	√ used
YSI Model 58 Dissolved Oxygen Meter	90H018262	TA06_04	Dissolved Oxygen	SM 4500 O G	√
Accumet AR-10 pH Meter	93312105	TA06_23	pH	SM 4500 H^+	√
Mettler-Toledo SevenMulti Conductivity Meter	SN 1225117049 Probe H04257	TA06_25	Conductivity Salinity	SM 2510 B SM 2520 B	√ √
Denver Model 225 ISE with ammonia probe	SN K01377	TA06_17	Ammonia	SM 4500 NH3 F	√
Thermometer (DO probe)	YSI 5750 SN 05J1720	TA06_05	Temperature	SM-2530B modified DEP SOP-001/01 FT1400	√
Hach Pocket Colorimeter II	05050C026378	TA06_22	Total Residual Chlorine	EPA 330.5 SM 4500 CL G	√
Alkalinity (Hach Kit)	No SN	TA06_08	Alkalinity	SM 2320 B	√
Hardness (Hach Kit)	No SN	TA06_09	Hardness	SM 2340 C	√
OHAUS Balance 250D	1125481084	TA06_21 TA06_27	Weight	-	√
S-Weights	BIO-S-WEIGHTS-01	NA	Balance check	-	√

SM-2530B modified to allow use electronic and non-mercury filled thermometers.
Insert other device information in blank spaces(if used). Test ID = Facility or SRTs (acute SRT--Chronic SRT)

Comments:

V 1.4 8/21/08 BA

The Bioassay of Kinder Morgan Ammonia Facility effluent sampled on July 28, 2008. NPDES #FL0000264.

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 0 0 2 6 4 11	12 0 8 0 7 2 8	18 **B**	19 **S**	20 2

Remarks

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The Priority Pollutants Analysis of Kinder Morgan Ammonia Facility effluent sampled on July 28, 2008. NPDES #FL0000264.

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 0 0 2 6 4 11	12 0 8 0 7 2 8	18 **X**	19 **S**	20 2

Remarks

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Biological Analyses of Kinder Morgan Ammonia Facility effluent sampled on July 28, 2008. NPDES #FL0000264.

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 0 0 2 6 4 11	12 0 8 0 7 2 8	18 **S**	19 **S**	20 2

Remarks

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