


Bioassays of

# Tampa Bay Regional Water Treatment Plant

Hillsborough County

NPDES #FL0187691

Sampled May 25, 2005

July 2005

**Biology Section**
**Bureau of Laboratories**
**Division of Resource Assessment and Management**

Quality Manual No. 870346G
NELAC Certification No. E31780

Tampa Bay Regional Water Treatment Plant, 9302 Stannum Road, Tampa, Hillsborough County, Florida, NPDES #FL0187691. Effluent samples for this facility were collected on May 25, 2005.

## Introduction

The Tampa Bay Regional Water Treatment Plant has a design flow of 15 million gallons per day (MGD). The facility has an intermittent discharge, and during the sampling event, the discharge was 12.4 MGD. In addition to the discharge during the sampling event, since January 2004 the facility has discharged during July 2004 (monthly average 0.5 MGD), August 2004 (monthly average 0.1 MGD) and September 2004 (monthly average 0.1 MGD). The facility processes 66 MGD of surface water from the Hillsborough River, Tampa Bypass Canal, and the Alafia River into potable water. Treatment of surface water consists of coagulation, flocculation, sedimentation, ozonation, biologically active (carbon) filtration, disinfection by chloramination (chloramines added rather than chlorine) and dechlorination with sodium bisulfite and/or thiosulfate. Discharges consist of raw, partially treated, or fully treated and unchlorinated or dechlorinated water. Discharges occurred after initial start-up and may occur occasionally due to process upsets, raw water quality excursions, problems in downstream piping, storage, or pumping facilities, or other circumstances. Discharge is through outfall D-001 to the Class III fresh waters of an unnamed creek, thence to the Class III Marine waters of the Palm River.

This facility was constructed in 2001, and has had no previous fifth year or third year inspections. There are no Administrative or Consent Orders concerning the facility. The facility has no mixing zones (facility information provided by Lori Pillsbury and Tommy O'Neal of FDEP Southwest District).

## Methods

Samples were collected from the D-001 NPDES sampling point by Nahir Cornwell (FDEP Southwest District) following DEP-SOP-001/01 FS 2400 Wastewater Sampling. All DEP SOP's are available on the web at: http://www.floridadep.org/labs/qa/sops.htm.

The acute screening toxicity tests and algal growth potential test were performed following internal DEP SOP's TA07_01, TA07_02, and TA08_01 through TA08_07. All internal DEP SOP's are available on the web at: http://www.floridadep.org/labs/cgi-bin/sop/biosop.asp. While the 48-hour acute screening toxicity test does not reflect the permit required conditions, the Department uses it to provide reasonable assurance that the facility does not adversely affect waters of the state.

Prior to test initiation, bioassay samples were aerated for 30 minutes at approximately 100 bubbles per minute, to decrease the supersaturated dissolved oxygen concentration from 9.5 mg/L down to 7.5 mg/L.

## Toxicity Test Results

Tests were performed May 26 - 28, 2005.

| | |
|---|---|
| *Ceriodaphnia dubia* 48-hr acute screening bioassay – | $LC_{50}$ > 100%, 0% mortality* in 100% sample at 48 hours |
| *Cyprinella leedsi* 48-hr acute screening bioassay – | $LC_{50}$ > 100%, 0% mortality* in 100% sample at 48 hours |

The bioassay samples were not acutely toxic to the test organisms.

See Appendix 1 for bioassay bench sheets.

*NOTE: In a 48-hr 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% mortality 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 2.1 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 phosphorus-limited. The predicted AGP based on inorganic phosphorus concentrations was 2.58 (±20%) mg dry wt/L (Table 1; Miller et al. 1978).

See Table 1 for AGP results.

## Chemistry Results

The total residual chlorine (TRC) concentration (0.1 mg/L) measured in the effluent sample in the field exceeded the Class III freshwater surface water criterion for TRC of ≤ 0.01 mg/L (62-302.530(19), F.A.C.). TRC was not detected in the bioassay sample in the laboratory. Total ammonia was not detected in either the bioassay sample or in the sample collected and preserved for chemical analysis.

Iron was detected in the effluent at a level that complies with its Class III fresh water quality criterion. Aluminum, nickel, and selenium were detected between the laboratory minimum detection limits (MDL) and practical quantitation limits (PQL).

See Table 2 for results of analytes detected in the effluent, and corresponding limits.

See Appendix 2 for a complete list of chemical analyses performed.

## Conclusion

The effluent samples collected from Outfall D-001 for this facility on May 25, 2005 were not acutely toxic to either test species during the 48-hour bioassays. The effluent AGP result was less than the "problem" threshold for fresh receiving waters. The effluent total residual chlorine (TRC) concentration exceeded the Class III freshwater surface water criterion.

## 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.

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 wt/L) of* Pseudokirchneriella subcapitata *for ortho phosphate (OP) limitation, and ratios of nitrogen to phosphorus for the sample collected from Tampa Bay Regional WTP on May 25, 2005.*

| Location | AGP (measured) | Predicted AGP (OP) ± 20% | Predicted AGP (TP) ± 20% | Inorganic N:P ratio | Total N:P ratio |
|---|---|---|---|---|---|
| Effluent | 2.10 A | 2.58 ± 0.516 | Not Applicable* | 161.67 | Not Applicable* |

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

* Total phosphorus was not detected in the effluent, so predictions could not be made, and the total N:P ratio could not be calculated.

*Table 2. Effluent limits, Class III Freshwater Criteria, and chemical data for the samples collected from Tampa Bay Regional Water Treatment Plant on May 25, 2005.*

| **Tampa Bay Regional WTP NPDES# FL0187691** | Class III Freshwater Stds | Effluent Limits | Effluent |
|---|---|---|---|
| **Metals (µg/L unless otherwise noted)** | | | |
| Aluminum | - | - | 18 I |
| Arsenic | ≤ 50 | - | 4 U |
| Cadmium | ≤ 2.4 b | - | 0.13 U |
| Calcium (mg/L) | - | - | 84 A |
| Chromium-III | ≤ 184.6 b | - | 2 U |
| Copper | ≤ 20.6 b | - | 0.5 U |
| Iron | ≤ 1,000 | - | 130 A |
| Lead | ≤ 10.4 b | - | 0.075 U |
| Magnesium (mg/L) | - | - | 10.6 |
| Nickel | ≤ 114.5 b | - | 3.2 I |
| Selenium | ≤ 5 | - | 1.3 I |
| Silver | ≤ 0.07 | - | 0.025 U |
| Zinc | ≤ 263.4 b | - | 3 U |
| **Nutrients (mg/L)** | | | |
| Ortho-phosphate | - | - | 0.006 I |
| Total Phosphorus | - | - | 0.02 U |
| Ammonia | - | - | 0.01 U |
| Unionized Ammonia | ≤ 0.02 | - | < 0.02 c |
| Nitrate+Nitrite | - | - | 0.97 |
| Total Kjeldahl Nitrogen | - | - | 0.14 I |
| Organic Nitrogen | - | - | 0.14 c |
| Total Nitrogen | - | - | 1.11 c |
| **General Physical and Chemical Parameters** | | | |
| Dissolved Oxygen (mg/L) | ≥ 5 | ≥ 5 | 10.9 |
| pH (S.U.) | 6.0 - 8.5 | 6.5 - 8.5 | 7.2 |
| Conductivity (umhos/cm) | ≤ 1,275 | - | 641 |
| Temperature (C) | - | - | 26.6 |
| TSS (mg/L) | - | ≤ 6 s | 4 U |
| Turbidity (NTU) | - | - | 0.35 |
| BOD (mg/L) | - | - | 2.4 |
| Total Residual Chlorine | ≤ 0.01 | ≤ 0.01 | 0.1 |
| Hardness (mg/L) | - | - | 253.4 c |

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

b - Value is calculated based on hardness

c - calculated value

s - Single sample

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

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

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

# FDEP Biology Section - Acute
## Bioassay Bench Sheets

Facility: Tampa Bay Regional WTP
Address: 9302 Stannum Road
City: ~~Brandon~~ SP Tampa County: Hillsborough
Contact/District: Lori Pillsbury / Southwest
NPDES Permit #: FL 0187691
LIMS Job #: TLH-2005-05-26-20 LIMS Sample #: 839010

Sample Collection: Date: 5-25-05 Time: 0915
Hold time Start: Date: 5-25-05 Time: 0915

Comments:
(A) Correct value <0.03 mg/L SP

Total residual chlorine (TRC) was not detected in the bioAssay sample, however TRC was unexpectedly detected in the Algal growth Potential sample and the BOD sample. all samples were collected at same location. TRC in AGP was 1.48 mg/L, TRC in BOD was 1.62 mg/L. Client was notified. MF 6-2-05

Lims Data Entry: 6-2-05 MF
Data Entry Verification: 6-2-05 DN

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

Test Type: Screening / Definitive
(Static) / Static Renewal / Flow-through
Test Duration: (48) 96 Hours.
Light Intensity : 50 - 100 ft. candles.
Photoperiod : 16 hours light 8 hours dark.
Initial sample handling:

Test 1 validation: SOP TA07_01
Control survival ≥90%: (Yes) No
Temperature Range ≤3°C: (Yes) No
Test 2 validation: SOP TA07_02
Control survival ≥90%: (Yes) No
Temperature Range ≤3°C: (Yes) No

PH adjustment : yes (no) Initial pH NaOH N HCl N Drops mL Final pH
Aeration : (yes) no Initial DO: 9.5 mg/L Final DO: 7.5 mg/L Duration: 30 minutes Rate: ~100 bubbles/min
Salinity adjusted (Test 1): yes (no) Initial Salinity: Final Salinity: Salts Hypersaline brine
Salinity adjusted (Test 2): yes (no) Initial Salinity: Final Salinity: Salts Hypersaline brine
Dechlorination: yes (no) mL of 0.025N Sodium Thiosulfate per liter of sample. Final TRC

Temperature Range °C
Incubator # 3 Range 23.8-24.5
Room B246: 23.5-24.1
Waterbath: N/A

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

Investigators' Signatures
Sarah Pritchard
Dennis Nicholson
Nyree Daniel
Marshall Faircloth
Nicole Wellendorf
REVIEWER

| Water Quality Parameters | 20% DMW | Well Water | Salt Water ASW NSW Test 1 | Salt Water ASW NSW Test 2 | Moderately Hard Water | Original Sample | Method | Measured by | Verified by |
|---|---|---|---|---|---|---|---|---|---|
| Field Total Residual Cl2 (mg/L): | N/A | N/A | N/A | N/A | N/A | 0.1 | Hach kit | N.Comwell | SP |
| Lab Total Residual Cl2 (mg/L): | <0.03 | <0.03 | | | | ~~1.48~~ (A) | HACH | [illegible] | SP |
| Alkalinity (mg/L as $CaCO_3$): | 91 | 135 | | | | 96 | HACH | SP | DN |
| Hardness (mg/L as $CaCO_3$): | 94 | 134 | | | | 238 | HACH | SP | DN |
| Total Ammonia (mg/L as N): | <0.017 | <0.017 | | | | <0.017 | DENVER | DN | SP |
| Salinity (ppth): | <1 | <1 | | | | <1 ppth | YSI (Mettler) | DN | MF |

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## Appendix 1. Bench Sheets (continued)

FDEP Biology Section - - Bioassay Bench Sheet
Survival

LIMS Sample #: 839010 Test #: 1 Test Started: Date 5-26-05 Time: 1430
Organism: C. dubia Test Ended: Date 5-28-05 Time: 1230
Organism Batch: 17-05 Diluent/ Batch: 20% DMW / 15-05
Organism Age: <24 hrs Food: (YCT) (*P. subcapitata*) *Artemia*
Chamber Size 30 mL Batch: 2-05 1-05
Test Volume 20 mL Feeding: (Prior to test) - Prior to renewal - Daily

| Concentration | Replicate | Chamber # | Test Hour 0 hr | 24 hr | 48 hr BR | 48 hr AR | 72 hr | 96 hr |
|---|---|---|---|---|---|---|---|---|
| CTRL | A | A | 5 | 5 | 5 | | | |
| | B | B | 5 | 5 | 5 | | | |
| | C | C | 5 | 5 | 5 | | | |
| | D | D | 5 | 5 | 5 | | | |
| 100% | A | A | 5 | 5 | 5 | | | |
| | B | B | 5 | 5 | 5 | | | |
| | C | C | 5 | 5 | 5 | | | |
| | D | D | 5 | 5 | 5 | | | |
| Organisms loaded by: SP | Checked by: | | [redacted] | JD | SP | | | |

Loading verified at 0 hours by: → JD (initials)

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).

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## Appendix 1. Bench Sheets (continued)

FDEP Biology Section - - Bioassay Bench Sheet
Survival

LIMS Sample #: 839010 Test #: 2 Test Started: Date 5-26-05 Time: 1430
Organism: C. leedsi Test Ended: Date 5-28-05 Time: 1230
Organism Batch: 14-05 Diluent/ Batch: Well / NA
Organism Age: 10 days Food: YCT *P. subcapitata* (Artemia)
Chamber Size 1000 mL Batch: ___ ___ 35138425 GB
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 | F1 | 5 | 5 | 5 | | | |
| | B | F2 | 5 | 5 | 5 | | | |
| | C | F3 | 5 | 5 | 5 | | | |
| | D | F4 | 5 | 5 | 5 | | | |
| 100% | A | F5 | 5 | 5 | 5 | | | |
| | B | F6 | 5 | 5 | 5 | | | |
| | C | F7 | 5 | 5 | 5 | | | |
| | D | F8 | 5 | 5 | 5 | | | |
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| Organisms loaded by: JD | | Checked by: (initials) | [redacted] | JD | SP | | | |

Loading verified at 0 hours by: SP

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).

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## Appendix 1. Bench Sheets (continued)

Bioassay Parameters

LIMS Sample #: 839010 Test #: 1 of 2

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

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| Concentration CTRL | 0 Hr. | 24 Hr. | 48 Hr. before renewal | 48 Hr. after renewal | 72 Hr. | 96 Hr. |
|---|---|---|---|---|---|---|
| Replicate | A | | B | | | |
| pH (S.U.) | 8.1 | | 8.2 | | | |
| Temperature °C | 24.2 | | 24.0 | | | |
| Dissolved Oxygen mg/L | 7.7 | | 7.7 | | | |
| Conductivity µmhos mmhos | 97 (A) | | 251 | | | |
| (initials) Measured by: | SP/ea | | SP | | | |
| (initials) Recorded by: | SP/ea | | SP | | | |

Comments: (A) transcription error 176 µmhos SP

| Concentration 100% | 0 Hr. | 24 Hr. | 48 Hr. before renewal | 48 Hr. after renewal | 72 Hr. | 96 Hr. |
|---|---|---|---|---|---|---|
| Replicate | A | | B | | | |
| pH (S.U.) | 8.0 | | 8.2 | | | |
| Temperature °C | 24.9 | | 24.1 | | | |
| Dissolved Oxygen mg/L | 7.8 | | 24.1 (B) SP | | | |
| Conductivity µmhos mmhos | 619 | | 725 | | | |
| (initials) Measured by: | SP/ea | | SP | | | |
| (initials) Recorded by: | SP/ea | | SP | | | |

Comments: (B) Correct value 7.8 recording error SP

| 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.1 2/24/04

000102

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Bioassay Parameters

LIMS Sample # : 839010 Test # : 2 of 2

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

V.1 2/24/04

| Concentration CTRL | 0 Hr. | 24 Hr. | 48 Hr. before renewal | 48 Hr. after renewal | 72 Hr. | 96 Hr. |
|---|---|---|---|---|---|---|
| Replicate | A | B | C | | | |
| pH (S.U.) | 8.0 | 8.3 | 8.4 | | | |
| Temperature °C | 24.9 | 24.0 | 24.0 | | | |
| Dissolved Oxygen mg/L | 7.7 | 7.6 | 8.0 | | | |
| Conductivity (µmhos) mmhos | 271 | 321 | 337 | | | |
| (initials) Measured by: | SP/LW | JD | SP | | | |
| (initials) Recorded by: | SP/LW | JD | SP | | | |

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.) | 8.0 | 8.1 | 8.2 | | | |
| Temperature °C | 25.5 | 24.7 | 24.9 | | | |
| Dissolved Oxygen mg/L | 7.8 | 7.9 | 7.8 | | | |
| Conductivity (µmhos) mmhos | 649 | 720 | 710 | | | |
| (initials) Measured by: | SP/LW | JD | SP | | | |
| (initials) Recorded by: | SP/LW | JD | SP | | | |

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 2. Chemical Analyses performed on the effluent from Tampa Bay Regional WTP Outfall D-001, sampled on May 25, 2005.**

| Date Sampled | Field ID | Analysis Group | Component | Result | Units | Remark | MDL | PQL |
|---|---|---|---|---|---|---|---|---|
| 5/25/2005 9:15 | Effluent | Bio-AGP/LimNut | Algal Growth Potential | 2.1 | mg DryWt/L | A | 0.3 | 0.9 |
| 5/25/2005 9:15 | Effluent | Bio-BOD | Biochemical Oxygen Demand-5 Day,N-Inhib | 2.4 | mg/L | | | |
| 5/25/2005 9:15 | Effluent | Bio-Chl-a | Chlorophyll-A, Monochromatic, Water | 0.85 | ug/L | U | 0.85 | 2.6 |
| 5/25/2005 9:15 | Effluent | Bio-Chl-a | Phaeophytin-A, Monochromatic, Water | 0.85 | ug/L | U | 0.85 | 2.6 |
| 5/25/2005 9:15 | Effluent | Bio-Toxicology | Bioassay-Acute-Screen-FW-C.dubia, LC50 | 100 | LC50 | L | | |
| 5/25/2005 9:15 | Effluent | Bio-Toxicology | Bioassay-Acute-Screen-FW-Fish, LC50 | 100 | LC50 | L | | |
| 5/25/2005 9:15 | Effluent | BNA-Water | 1,2,4-Trichlorobenzene | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | 1,2-Dichlorobenzene | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | 1,3-Dichlorobenzene | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | 1,4-Dichlorobenzene | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | 2,4,6-Trichlorophenol | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | 2,4-Dichlorophenol | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | 2,4-Dimethylphenol | 50 | ug/L | U | 50 | 200 |
| 5/25/2005 9:15 | Effluent | BNA-Water | 2,4-Dinitrophenol | 15 | ug/L | U | 15 | 60 |
| 5/25/2005 9:15 | Effluent | BNA-Water | 2,4-Dinitrotoluene | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | 2,6-Dinitrotoluene | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | 2-Chloronaphthalene | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | 2-Chlorophenol | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | 2-Methyl-4,6-dinitrophenol | 3 | ug/L | U | 3 | 12 |
| 5/25/2005 9:15 | Effluent | BNA-Water | 2-Nitrophenol | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | 3,3'-Dichlorobenzidine | 40 | ug/L | UJ | 40 | 160 |
| 5/25/2005 9:15 | Effluent | BNA-Water | 4,4'-DDD | 1.5 | ug/L | U | 1.5 | 6 |
| 5/25/2005 9:15 | Effluent | BNA-Water | 4,4'-DDE | 1.5 | ug/L | U | 1.5 | 6 |
| 5/25/2005 9:15 | Effluent | BNA-Water | 4,4'-DDT | 1.5 | ug/L | U | 1.5 | 6 |
| 5/25/2005 9:15 | Effluent | BNA-Water | 4-Bromophenyl phenyl ether | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | 4-Chloro-3-methylphenol | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | 4-Chlorophenyl phenyl ether | 2 | ug/L | U | 2 | 8 |
| 5/25/2005 9:15 | Effluent | BNA-Water | 4-Nitrophenol | 15 | ug/L | U | 15 | 60 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Acenaphthene | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Acenaphthylene | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Aldrin | 1.5 | ug/L | U | 1.5 | 6 |
| 5/25/2005 9:15 | Effluent | BNA-Water | alpha-BHC | 1.5 | ug/L | U | 1.5 | 6 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Anthracene | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Benzidine | 100 | ug/L | U | 100 | 400 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Benzo(a)anthracene | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Benzo(a)pyrene | 1 | ug/L | U | 1 | 4 |

## Appendix 2. (continued)

| Date Sampled | Field ID | Analysis Group | Component | Result | Units | Remark | MDL | PQL |
|---|---|---|---|---|---|---|---|---|
| 5/25/2005 9:15 | Effluent | BNA-Water | Benzo(b)fluoranthene | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Benzo(g,h,i)perylene | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Benzo(k)fluoranthene | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | beta-BHC | 1.5 | ug/L | U | 1.5 | 6 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Bis(2-chloroethoxy)methane | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Bis(2-chloroethyl)ether | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Bis(2-chloroisopropyl)ether | 3 | ug/L | U | 3 | 12 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Bis(2-ethylhexyl)phthalate | 15 | ug/L | U | 15 | 60 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Butyl benzyl phthalate | 5 | ug/L | U | 5 | 20 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Chrysene | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | delta-BHC | 1.5 | ug/L | U | 1.5 | 6 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Dibenzo(a,h)anthracene | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Dieldrin | 1.5 | ug/L | U | 1.5 | 6 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Diethyl phthalate | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Dimethyl phthalate | 50 | ug/L | U | 50 | 200 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Di-n-butyl phthalate | 5 | ug/L | U | 5 | 20 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Di-n-octyl phthalate | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Endosulfan I | 4 | ug/L | U | 4 | 16 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Endosulfan II | 4 | ug/L | U | 4 | 16 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Endosulfan sulfate | 1.5 | ug/L | U | 1.5 | 6 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Endrin | 1.5 | ug/L | U | 1.5 | 6 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Endrin aldehyde | 4 | ug/L | U | 4 | 16 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Fluoranthene | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Fluorene | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | gamma-BHC | 1.5 | ug/L | U | 1.5 | 6 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Heptachlor | 1.5 | ug/L | U | 1.5 | 6 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Heptachlor epoxide | 1.5 | ug/L | U | 1.5 | 6 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Hexachlorobenzene | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Hexachlorobutadiene | 3 | ug/L | U | 3 | 12 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Hexachlorocyclopentadiene | 3 | ug/L | U | 3 | 12 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Hexachloroethane | 3 | ug/L | U | 3 | 12 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Indeno(1,2,3-cd)pyrene | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Isophorone | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Naphthalene | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Nitrobenzene | 2 | ug/L | U | 2 | 8 |
| 5/25/2005 9:15 | Effluent | BNA-Water | N-Nitrosodimethylamine | 2 | ug/L | U | 2 | 8 |
| 5/25/2005 9:15 | Effluent | BNA-Water | N-Nitrosodi-n-propylamine | 2 | ug/L | U | 2 | 8 |

## Appendix 2. (continued)

| Date Sampled | Field ID | Analysis Group | Component | Result | Units | Remark | MDL | PQL |
|---|---|---|---|---|---|---|---|---|
| 5/25/2005 9:15 | Effluent | BNA-Water | N-Nitrosodiphenylamine | 3 | ug/L | U | 3 | 12 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Pentachlorophenol | 3 | ug/L | U | 3 | 12 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Phenanthrene | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Phenol | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:15 | Effluent | BNA-Water | Pyrene | 1 | ug/L | U | 1 | 4 |
| 5/25/2005 9:45 | Blank | BNA-Water | 1,2,4-Trichlorobenzene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | 1,2-Dichlorobenzene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | 1,3-Dichlorobenzene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | 1,4-Dichlorobenzene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | 2,4,6-Trichlorophenol | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | 2,4-Dichlorophenol | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | 2,4-Dimethylphenol | 48 | ug/L | U | 48 | 190 |
| 5/25/2005 9:45 | Blank | BNA-Water | 2,4-Dinitrophenol | 14 | ug/L | U | 14 | 58 |
| 5/25/2005 9:45 | Blank | BNA-Water | 2,4-Dinitrotoluene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | 2,6-Dinitrotoluene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | 2-Chloronaphthalene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | 2-Chlorophenol | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | 2-Methyl-4,6-dinitrophenol | 2.9 | ug/L | U | 2.9 | 12 |
| 5/25/2005 9:45 | Blank | BNA-Water | 2-Nitrophenol | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | 3,3'-Dichlorobenzidine | 38 | ug/L | UJ | 38 | 150 |
| 5/25/2005 9:45 | Blank | BNA-Water | 4,4'-DDD | 1.4 | ug/L | U | 1.4 | 5.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | 4,4'-DDE | 1.4 | ug/L | U | 1.4 | 5.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | 4,4'-DDT | 1.4 | ug/L | U | 1.4 | 5.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | 4-Bromophenyl phenyl ether | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | 4-Chloro-3-methylphenol | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | 4-Chlorophenyl phenyl ether | 1.9 | ug/L | U | 1.9 | 7.7 |
| 5/25/2005 9:45 | Blank | BNA-Water | 4-Nitrophenol | 14 | ug/L | U | 14 | 58 |
| 5/25/2005 9:45 | Blank | BNA-Water | Acenaphthene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | Acenaphthylene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | Aldrin | 1.4 | ug/L | U | 1.4 | 5.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | alpha-BHC | 1.4 | ug/L | U | 1.4 | 5.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | Anthracene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | Benzidine | 96 | ug/L | U | 96 | 380 |
| 5/25/2005 9:45 | Blank | BNA-Water | Benzo(a)anthracene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | Benzo(a)pyrene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | Benzo(b)fluoranthene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | Benzo(g,h,i)perylene | 0.96 | ug/L | U | 0.96 | 3.8 |

## Appendix 2. (continued)

| Date Sampled | Field ID | Analysis Group | Component | Result | Units | Remark | MDL | PQL |
|---|---|---|---|---|---|---|---|---|
| 5/25/2005 9:45 | Blank | BNA-Water | Benzo(k)fluoranthene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | beta-BHC | 1.4 | ug/L | U | 1.4 | 5.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | Bis(2-chloroethoxy)methane | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | Bis(2-chloroethyl)ether | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | Bis(2-chloroisopropyl)ether | 2.9 | ug/L | U | 2.9 | 12 |
| 5/25/2005 9:45 | Blank | BNA-Water | Bis(2-ethylhexyl)phthalate | 14 | ug/L | U | 14 | 58 |
| 5/25/2005 9:45 | Blank | BNA-Water | Butyl benzyl phthalate | 4.8 | ug/L | U | 4.8 | 19 |
| 5/25/2005 9:45 | Blank | BNA-Water | Chrysene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | delta-BHC | 1.4 | ug/L | U | 1.4 | 5.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | Dibenzo(a,h)anthracene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | Dieldrin | 1.4 | ug/L | U | 1.4 | 5.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | Diethyl phthalate | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | Dimethyl phthalate | 48 | ug/L | U | 48 | 190 |
| 5/25/2005 9:45 | Blank | BNA-Water | Di-n-butyl phthalate | 4.8 | ug/L | U | 4.8 | 19 |
| 5/25/2005 9:45 | Blank | BNA-Water | Di-n-octyl phthalate | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | Endosulfan I | 3.8 | ug/L | U | 3.8 | 15 |
| 5/25/2005 9:45 | Blank | BNA-Water | Endosulfan II | 3.8 | ug/L | U | 3.8 | 15 |
| 5/25/2005 9:45 | Blank | BNA-Water | Endosulfan sulfate | 1.4 | ug/L | U | 1.4 | 5.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | Endrin | 1.4 | ug/L | U | 1.4 | 5.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | Endrin aldehyde | 3.8 | ug/L | U | 3.8 | 15 |
| 5/25/2005 9:45 | Blank | BNA-Water | Fluoranthene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | Fluorene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | gamma-BHC | 1.4 | ug/L | U | 1.4 | 5.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | Heptachlor | 1.4 | ug/L | U | 1.4 | 5.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | Heptachlor epoxide | 1.4 | ug/L | U | 1.4 | 5.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | Hexachlorobenzene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | Hexachlorobutadiene | 2.9 | ug/L | U | 2.9 | 12 |
| 5/25/2005 9:45 | Blank | BNA-Water | Hexachlorocyclopentadiene | 2.9 | ug/L | U | 2.9 | 12 |
| 5/25/2005 9:45 | Blank | BNA-Water | Hexachloroethane | 2.9 | ug/L | U | 2.9 | 12 |
| 5/25/2005 9:45 | Blank | BNA-Water | Indeno(1,2,3-cd)pyrene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | Isophorone | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | Naphthalene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | Nitrobenzene | 1.9 | ug/L | U | 1.9 | 7.7 |
| 5/25/2005 9:45 | Blank | BNA-Water | N-Nitrosodimethylamine | 1.9 | ug/L | U | 1.9 | 7.7 |
| 5/25/2005 9:45 | Blank | BNA-Water | N-Nitrosodi-n-propylamine | 1.9 | ug/L | U | 1.9 | 7.7 |
| 5/25/2005 9:45 | Blank | BNA-Water | N-Nitrosodiphenylamine | 2.9 | ug/L | U | 2.9 | 12 |
| 5/25/2005 9:45 | Blank | BNA-Water | Pentachlorophenol | 2.9 | ug/L | U | 2.9 | 12 |

## Appendix 2. (continued)

| Date Sampled | Field ID | Analysis Group | Component | Result | Units | Remark | MDL | PQL |
|---|---|---|---|---|---|---|---|---|
| 5/25/2005 9:45 | Blank | BNA-Water | Phenanthrene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | Phenol | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:45 | Blank | BNA-Water | Pyrene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 5/25/2005 9:15 | Effluent | GC-Water | Alachlor | 0.6 | ug/L | U | 0.6 | 2.4 |
| 5/25/2005 9:15 | Effluent | GC-Water | Ametryn | 0.05 | ug/L | U | 0.05 | 0.2 |
| 5/25/2005 9:15 | Effluent | GC-Water | Atrazine | 0.05 | ug/L | U | 0.05 | 0.2 |
| 5/25/2005 9:15 | Effluent | GC-Water | Azinphos Methyl | 0.05 | ug/L | U | 0.05 | 0.2 |
| 5/25/2005 9:15 | Effluent | GC-Water | Bromacil | 0.2 | ug/L | U | 0.2 | 0.8 |
| 5/25/2005 9:15 | Effluent | GC-Water | Butylate | 0.2 | ug/L | U | 0.2 | 0.8 |
| 5/25/2005 9:15 | Effluent | GC-Water | Chlorpyrifos Ethyl | 0.05 | ug/L | U | 0.05 | 0.2 |
| 5/25/2005 9:15 | Effluent | GC-Water | Chlorpyrifos Methyl | 0.1 | ug/L | U | 0.1 | 0.4 |
| 5/25/2005 9:15 | Effluent | GC-Water | Diazinon | 0.05 | ug/L | U | 0.05 | 0.2 |
| 5/25/2005 9:15 | Effluent | GC-Water | Ethion | 0.05 | ug/L | U | 0.05 | 0.2 |
| 5/25/2005 9:15 | Effluent | GC-Water | Ethoprop | 0.1 | ug/L | U | 0.1 | 0.4 |
| 5/25/2005 9:15 | Effluent | GC-Water | Fenamiphos | 0.2 | ug/L | U | 0.2 | 0.8 |
| 5/25/2005 9:15 | Effluent | GC-Water | Fonofos | 0.1 | ug/L | U | 0.1 | 0.4 |
| 5/25/2005 9:15 | Effluent | GC-Water | Hexazinone | 0.1 | ug/L | U | 0.1 | 0.4 |
| 5/25/2005 9:15 | Effluent | GC-Water | Malathion | 0.15 | ug/L | UJ | 0.15 | 0.6 |
| 5/25/2005 9:15 | Effluent | GC-Water | Metalaxyl | 0.25 | ug/L | U | 0.25 | 1 |
| 5/25/2005 9:15 | Effluent | GC-Water | Metolachlor | 0.5 | ug/L | U | 0.5 | 2 |
| 5/25/2005 9:15 | Effluent | GC-Water | Metribuzin | 0.1 | ug/L | U | 0.1 | 0.4 |
| 5/25/2005 9:15 | Effluent | GC-Water | Mevinphos | 0.2 | ug/L | U | 0.2 | 0.8 |
| 5/25/2005 9:15 | Effluent | GC-Water | Naled | 0.8 | ug/L | U | 0.8 | 3.2 |
| 5/25/2005 9:15 | Effluent | GC-Water | Norflurazon | 0.1 | ug/L | U | 0.1 | 0.4 |
| 5/25/2005 9:15 | Effluent | GC-Water | Parathion Ethyl | 0.15 | ug/L | U | 0.15 | 0.6 |
| 5/25/2005 9:15 | Effluent | GC-Water | Parathion Methyl | 0.1 | ug/L | U | 0.1 | 0.4 |
| 5/25/2005 9:15 | Effluent | GC-Water | Phorate | 0.05 | ug/L | U | 0.05 | 0.2 |
| 5/25/2005 9:15 | Effluent | GC-Water | Prometryn | 0.15 | ug/L | U | 0.15 | 0.6 |
| 5/25/2005 9:15 | Effluent | GC-Water | Simazine | 0.05 | ug/L | U | 0.05 | 0.2 |
| 5/25/2005 9:45 | Blank | GC-Water | Alachlor | 0.57 | ug/L | U | 0.57 | 2.3 |
| 5/25/2005 9:45 | Blank | GC-Water | Ametryn | 0.048 | ug/L | U | 0.048 | 0.19 |
| 5/25/2005 9:45 | Blank | GC-Water | Atrazine | 0.048 | ug/L | U | 0.048 | 0.19 |
| 5/25/2005 9:45 | Blank | GC-Water | Azinphos Methyl | 0.048 | ug/L | U | 0.048 | 0.19 |
| 5/25/2005 9:45 | Blank | GC-Water | Bromacil | 0.19 | ug/L | U | 0.19 | 0.76 |
| 5/25/2005 9:45 | Blank | GC-Water | Butylate | 0.19 | ug/L | U | 0.19 | 0.76 |
| 5/25/2005 9:45 | Blank | GC-Water | Chlorpyrifos Ethyl | 0.048 | ug/L | U | 0.048 | 0.19 |
| 5/25/2005 9:45 | Blank | GC-Water | Chlorpyrifos Methyl | 0.095 | ug/L | U | 0.095 | 0.38 |

## Appendix 2. (continued)

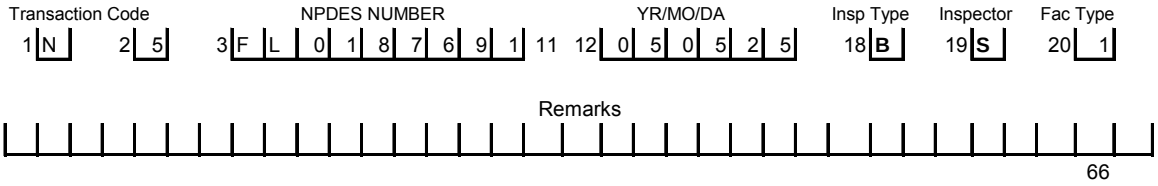
| Date Sampled | Field ID | Analysis Group | Component | Result | Units | Remark | MDL | PQL |
|---|---|---|---|---|---|---|---|---|
| 5/25/2005 9:45 | Blank | GC-Water | Diazinon | 0.048 | ug/L | U | 0.048 | 0.19 |
| 5/25/2005 9:45 | Blank | GC-Water | Ethion | 0.048 | ug/L | U | 0.048 | 0.19 |
| 5/25/2005 9:45 | Blank | GC-Water | Ethoprop | 0.095 | ug/L | U | 0.095 | 0.38 |
| 5/25/2005 9:45 | Blank | GC-Water | Fenamiphos | 0.19 | ug/L | U | 0.19 | 0.76 |
| 5/25/2005 9:45 | Blank | GC-Water | Fonofos | 0.095 | ug/L | U | 0.095 | 0.38 |
| 5/25/2005 9:45 | Blank | GC-Water | Hexazinone | 0.095 | ug/L | U | 0.095 | 0.38 |
| 5/25/2005 9:45 | Blank | GC-Water | Malathion | 0.14 | ug/L | UJ | 0.14 | 0.56 |
| 5/25/2005 9:45 | Blank | GC-Water | Metalaxyl | 0.24 | ug/L | U | 0.24 | 0.96 |
| 5/25/2005 9:45 | Blank | GC-Water | Metolachlor | 0.48 | ug/L | U | 0.48 | 1.9 |
| 5/25/2005 9:45 | Blank | GC-Water | Metribuzin | 0.095 | ug/L | U | 0.095 | 0.38 |
| 5/25/2005 9:45 | Blank | GC-Water | Mevinphos | 0.19 | ug/L | U | 0.19 | 0.76 |
| 5/25/2005 9:45 | Blank | GC-Water | Naled | 0.76 | ug/L | U | 0.76 | 3 |
| 5/25/2005 9:45 | Blank | GC-Water | Norflurazon | 0.095 | ug/L | U | 0.095 | 0.38 |
| 5/25/2005 9:45 | Blank | GC-Water | Parathion Ethyl | 0.14 | ug/L | U | 0.14 | 0.56 |
| 5/25/2005 9:45 | Blank | GC-Water | Parathion Methyl | 0.095 | ug/L | U | 0.095 | 0.38 |
| 5/25/2005 9:45 | Blank | GC-Water | Phorate | 0.048 | ug/L | U | 0.048 | 0.19 |
| 5/25/2005 9:45 | Blank | GC-Water | Prometryn | 0.14 | ug/L | U | 0.14 | 0.56 |
| 5/25/2005 9:45 | Blank | GC-Water | Simazine | 0.048 | ug/L | U | 0.048 | 0.19 |
| 5/25/2005 9:15 | Effluent | Metals-Water | Aluminum | 18 | ug/L | I | 5 | 20 |
| 5/25/2005 9:15 | Effluent | Metals-Water | Arsenic | 4 | ug/L | U | 4 | 16 |
| 5/25/2005 9:15 | Effluent | Metals-Water | Cadmium | 0.13 | ug/L | U | 0.13 | 0.52 |
| 5/25/2005 9:15 | Effluent | Metals-Water | Calcium | 84 | mg/L | A | 0.075 | 0.3 |
| 5/25/2005 9:15 | Effluent | Metals-Water | Chromium | 2 | ug/L | U | 2 | 8 |
| 5/25/2005 9:15 | Effluent | Metals-Water | Copper | 0.5 | ug/L | U | 0.5 | 2 |
| 5/25/2005 9:15 | Effluent | Metals-Water | Iron | 130 | ug/L | A | 10 | 40 |
| 5/25/2005 9:15 | Effluent | Metals-Water | Lead | 0.075 | ug/L | U | 0.075 | 0.3 |
| 5/25/2005 9:15 | Effluent | Metals-Water | Magnesium | 10.6 | mg/L | A | 0.02 | 0.08 |
| 5/25/2005 9:15 | Effluent | Metals-Water | Nickel | 3.2 | ug/L | I | 2 | 8 |
| 5/25/2005 9:15 | Effluent | Metals-Water | Selenium | 1.3 | ug/L | I | 0.5 | 2 |
| 5/25/2005 9:15 | Effluent | Metals-Water | Silver | 0.025 | ug/L | U | 0.025 | 0.1 |
| 5/25/2005 9:15 | Effluent | Metals-Water | Zinc | 3 | ug/L | U | 3 | 12 |
| 5/25/2005 9:45 | Blank | Metals-Water | Aluminum | 5 | ug/L | U | 5 | 20 |
| 5/25/2005 9:45 | Blank | Metals-Water | Arsenic | 4 | ug/L | U | 4 | 16 |
| 5/25/2005 9:45 | Blank | Metals-Water | Cadmium | 0.13 | ug/L | U | 0.13 | 0.52 |
| 5/25/2005 9:45 | Blank | Metals-Water | Calcium | 0.075 | mg/L | U | 0.075 | 0.3 |
| 5/25/2005 9:45 | Blank | Metals-Water | Chromium | 2 | ug/L | U | 2 | 8 |
| 5/25/2005 9:45 | Blank | Metals-Water | Copper | 0.5 | ug/L | U | 0.5 | 2 |

## Appendix 2. (continued)

| Date Sampled | Field ID | Analysis Group | Component | Result | Units | Remark | MDL | PQL |
|---|---|---|---|---|---|---|---|---|
| 5/25/2005 9:45 | Blank | Metals-Water | Iron | 10 | ug/L | U | 10 | 40 |
| 5/25/2005 9:45 | Blank | Metals-Water | Lead | 0.075 | ug/L | U | 0.075 | 0.3 |
| 5/25/2005 9:45 | Blank | Metals-Water | Magnesium | 0.02 | mg/L | U | 0.02 | 0.08 |
| 5/25/2005 9:45 | Blank | Metals-Water | Nickel | 2 | ug/L | U | 2 | 8 |
| 5/25/2005 9:45 | Blank | Metals-Water | Selenium | 0.5 | ug/L | U | 0.5 | 2 |
| 5/25/2005 9:45 | Blank | Metals-Water | Silver | 0.025 | ug/L | U | 0.025 | 0.1 |
| 5/25/2005 9:45 | Blank | Metals-Water | Zinc | 3 | ug/L | U | 3 | 12 |
| 5/25/2005 9:15 | Effluent | Nutrients-Liquid | Ammonia-N | 0.01 | mg N/L | U | 0.01 | 0.02 |
| 5/25/2005 9:15 | Effluent | Nutrients-Liquid | Kjeldahl Nitrogen | 0.14 | mg N/L | I | 0.06 | 0.2 |
| 5/25/2005 9:15 | Effluent | Nutrients-Liquid | NO2NO3-N | 0.97 | mg N/L | | 0.02 | 0.05 |
| 5/25/2005 9:15 | Effluent | Nutrients-Liquid | O-Phosphate-P | 0.006 | mg P/L | I | 0.004 | 0.01 |
| 5/25/2005 9:15 | Effluent | Nutrients-Liquid | Total-P | 0.02 | mg P/L | U | 0.02 | 0.06 |
| 5/25/2005 9:15 | Effluent | Nutrients-Liquid | TSS | 4 | mg/L | U | 4 | 16 |
| 5/25/2005 9:15 | Effluent | Nutrients-Liquid | Turbidity | 0.35 | NTU | | 0.05 | 0.05 |
| 5/25/2005 9:45 | Blank | Nutrients-Liquid | Ammonia-N | 0.01 | mg N/L | U | 0.01 | 0.02 |
| 5/25/2005 9:45 | Blank | Nutrients-Liquid | Kjeldahl Nitrogen | 0.06 | mg N/L | U | 0.06 | 0.2 |
| 5/25/2005 9:45 | Blank | Nutrients-Liquid | NO2NO3-N | 0.007 | mg N/L | I | 0.004 | 0.01 |
| 5/25/2005 9:45 | Blank | Nutrients-Liquid | O-Phosphate-P | 0.004 | mg P/L | U | 0.004 | 0.01 |
| 5/25/2005 9:45 | Blank | Nutrients-Liquid | Total-P | 0.02 | mg P/L | U | 0.02 | 0.06 |

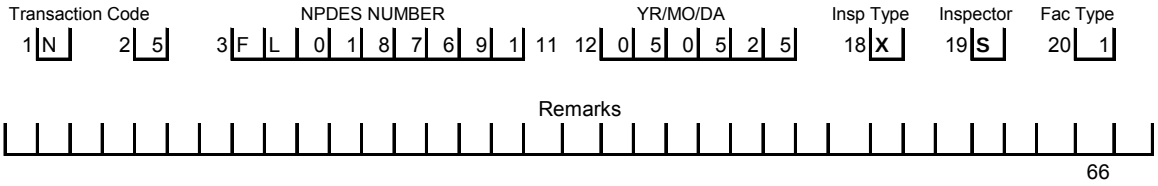
## The Bioassay of Tampa Bay Regional Water Treatment Plant effluent sampled on May 25, 2005, NPDES #FL0187691.

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




## The Priority Pollutants Analysis of Tampa Bay Regional Water Treatment Plant effluent sampled on May 25, 2005, NPDES #FL0187691.

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




## Biological Analyses of Tampa Bay Regional Water Treatment Plant effluent sampled on May 25, 2005, NPDES #FL0187691.

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

