Biological Assessment of City of

Clearwater East and Northeast AWWTPs

Pinellas County

NPDES #FL0021865 (E)

NPDES #FL0128937 (NE)

October 18, 20, and 22, 2004

September 2005

Biology Section

Bureau of Laboratories

Division of Resource Assessment and Management

Quality Manual No. 870346G

NELAC Certification No. E31780

Florida Department of Environmental Protection

Fifth Year Inspection Summary

Discharger:	City of Clearwater E/NE AWWTPs	County:	Pinellas
Physical Address:	3141 Gulf to Bay Blvd	Permit Expiration:	June 1, 2005 (E)
NPDES Number:	FL0021865 (E) and FL0128937 (NE)		August 24, 2005 (NE)

Toxics Sampling Inspection **(XSI)**

Date Sampled: October 18, 20, 22, 2004

Results: Atrazine was detected in the effluent on three sampling dates at levels above the minimum detection limit and below the practical quantitation limit. Copper (5.6 μg/L), lead (12.7 μg/L), and nickel (16 μg/L) were detected in the effluent sample at levels that exceeded Class II Water Quality Criteria (3.7 μg/L, 8.5 μg/L, and 8.3 μg/L, respectively) (62-302(24)(40) and (45) F.A.C.). Grab and composite results were comparable for metals and organic constituents.

Compliance Biomonitoring Inspection **(CBI)**

Date Sampled: October 18, 20, 22, 2004

Results: The effluent samples were not toxic to the fish, *Pimephales promelas,* or to the water flea, *Ceriodaphnia dubia,* during the 7-day chronic bioassays.

Water Quality Inspection **(WQI)**

Date Sampled: October 18, 2004

Results: Fecal and total coliform counts complied with Class II Water Quality Criteria or the facilities permit limits. Nutrients at all sites were typical of levels found in estuaries throughout Florida. Algal growth potential was above the 5 mg dry wt/L freshwater “problem” threshold in the effluent sample (29.2 mg dry wt/L) but below the 10 mg dry wt/L marine threshold at all receiving water sites.

Impact Bioassessment Inspection **(IBI)**

Date Sampled: October 18, 2004

Results: No organic pollutants were detected in the sediment samples. Test Site 2 had a chromium level above the Threshold Effect Level (TEL) and below the Probable Effect Level (PEL) when compared to Sediment Quality Guidelines for Florida coastal waters (MacDonald 1994). There was a substantial increase in the number of individuals in the benthic macroinvertebrate assemblages from ponar samples at the Test Sites compared to the Control Sites suggesting enrichment near the outfall. The Tampa Bay Benthic Index scores places both the Control and Test Sites in the “Protection Areas” category (D. Wade, pers comm., Janicki Envir. 2005)

Biological assessments prepared by FDEP staff, provide information for NPDES permit renewal applications and in conjunction with other information concerning the subject facility and its receiving-water body, aid in determining appropriate permit conditions.

Introduction

The Clearwater East and Northeast facilities are advanced wastewater treatment plants (AWWTPs) located in Pinellas County, Florida (Appendix 1). The design flow for the combined discharge is 18.5 million gallons per day (MGD). The treatment process is similar between the two facilities and consists of mechanical bar screening and grit removal, followed by a Bardenpho advanced wastewater treatment process. The Bardenpho process consists of primary anoxic treatment, aeration, secondary anoxic treatment, re-aeration, and clarification. The treated effluent is filtered through a sand filter and infused with chlorine gas for disinfection. After disinfection, the effluent of each plant is discharged to a common mixing basin at the East Facility and then through a dechlorination basin, which utilizes sulfur dioxide. Effluent is discharged through Outfall D001, which extends 427 meters south of the facility into Old Tampa Bay (Class II Marine Water, Outstanding Florida Waterbody). The discharge pipe is a 48-inch (1.2-meter) ductile iron transmission pipe, which directs the combined effluent to an underwater outfall located at a depth of 2-3 meters with an upturned elbow. The combined flow during this survey was 8.19 MGD on 10/18/04, 8.24 MGD on 10/20/04 and 7.86 MGD on 10/22/04 (Michele Duggan, Southwest District).

Class II Water Quality Criteria and facility permit limits are listed in Table 1. According to the facilities' discharge monitoring reports, the East plant has had an exceedance of the total residual chlorine limit in May 2004 and the East and Northeast plants had 7-day chronic toxicity failures in the *Ceriodaphnia dubia* test in July 2004 (Appendix 9).

Methods

The purpose of this investigation was to determine the discharger's effects on the biota of the receiving waters in Old Tampa Bay. Effluent and receiving water samples were collected on October 18, 2004. Additional effluent samples were collected on October 20 and 22, 2004 for the 7-day chronic bioassay renewals and are reported in Table 1.

Exposure to effluent was estimated using rhodamine dye measurements of effluent mixing during incoming and outgoing tides. Chemical and biological comparisons were intended to be made along a gradient of effluent exposure; however, the effluent was immediately diluted within a few meters of the Point of Discharge (POD), making it impossible to establish a dilution gradient. Instead, four of the six sites served as Test Sites (Sites 1-4) and were located approximately 7-10 meters around the POD while the remaining two sites were Control Sites (Sites 5-6), approximately 200 meters east of the outfall in an area out of the immediate influence of the treatment plants (See Map in Appendix 1). Further details of measurements and data interpretation are given in Appendix 3.

All field and laboratory biological methods followed Biology Section Standard Operating Procedures (SOPs, see http://www.floridadep.org/labs/qa/2002sops.htm for details) and met DEP quality assurance/quality control standards (see http://www.floridadep.org/labs/qa/index.htm).

The following were involved in this investigation: Lori Pilsbury, Nahir Cornwell, Melissa Gunter, Mary Szafraniec, Adam Szczerba, Todd Falkner, and Michele Duggan (FDEP Southwest District), and Joy Jackson, Ken Espy, David Whiting, and Lori Wolfe of FDEP Central Laboratory in Tallahassee. The report was reviewed by District representatives and the Point Source Studies Review Committee (Wayne Magley, Shannan Gunnoe, and Michael Tanski).

Results and Discussion

- Specific chemical results from the effluent samples are reported in Table 1 and a complete list of chemical analytes can be reviewed in Appendix 4. Copper was detected in the effluent sample on 10/22 (5.6 µg/L) at a level that exceeded the permit limit (3.7 µg/L) but was below the practical quantitation limit (PQL 8.8 µg/L). Lead (12.7 µg/L) and nickel (16 µg/L) were detected in the effluent at levels that exceeded Class II Water Quality Criterion (8.5 µg/L and 8.3 µg/L, respectively). Effluent grab and composite results were comparable for metals, organic constituents, and pesticides.
- Atrazine was detected in the effluent (0.052 - 0.076 µg/L) on three sampling dates at levels above the minimum detection limit and below the practical quantitation limit.

Table 1. Effluent limits, Class II Criteria and chemical, microbiological, and toxicological data.

City of Clearwater E / NE WWTPs	Class II Stds	E / NE Plant Effluent Limits	Effluent Composite 10/18/04	Effluent Grab 10/18/04	Effluent Grab 10/20/04	Effluent Grab 10/22/04	Test Site 1	Test Site 2	Test Site 3	Test Site 4	Control Site 5	Control Site 6
Organic Constituents (µg/L)												
Atrazine	-	-	-	0.076 I	0.063 I	0.052 I	-	-	-	-	-	-
Bromo-dichloromethane	≤ 22 a	≤ 43 a	-	-	-	-	-	–	-	-	-	-
Metals (µg/L unless otherwise noted)												
Manganese	≤ 0.1	-	-	-	-	-	-	-	-	-	-	-
Aluminum	≤ 1500	-	94	82	92	332	-	-	-	-	-	-
Arsenic	≤ 50	-	6 U	6 U	6 U	6 U	-	-	-	-	-	-
Cadmium	≤ 9.3	-	0.075 U	0.075 U	0.075	0.075 U	-	-	-	-	-	-
Calcium (mg/L)	-	-	82.7	77.6	83.3	85.7	-	-	-	-	-	-
Chromium-III	-	-	2 U	2 U	2 U	25.8	-	-	-	-	-	-
Copper	≤ 3.7	≤ 3.7	2.3 I	2.8 I	2.1 I	5.6 I	-	-	-	-	-	-
Iron	≤ 300	-	68 I	42 I	56	287	-	-	-	-	-	-
Lead	≤ 8.5	-	0.13 I	0.17 I	0.31 U	12.7	-	-	-	-	-	-
Magnesium (mg/L)	-	-	8	8	8	8.2	-	-	-	-	-	-
Nickel	≤ 8.3	-	2.6 I	2.4 I	2.5 I	16	-	-	-	-	-	-
Selenium	≤ 71	-	0.5 U	0.5 U	0.5 U	0.5 U	-	-	-	-	-	-
Silver	≤ 2.3	-	0.024 I	0.02 U	0.031 I	0.049 I	-	-	-	-	-	-
Zinc	≤ 86	-	24	33	24	47	-	-	-	-	-	-
Nutrients (mg/L)												
Ortho-phosphate	-	-	-	0.13	-	-	0.11	0.12	0.11	0.11	0.13	0.11
Total Phosphorus	-	-	0.21	0.15	-	-	0.18	0.2	0.22	0.21	0.18	0.18 AJ
Ammonia	-	-	0.03 A	0.03	0.034	0.025	0.018 I	0.02 I	0.026	0.022	0.025	0.019 I
Unionized Ammonia	-	-	-	< 0.02	-	-	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Nitrate+Nitrite	-	-	0.76	0.54 A	-	-	0.022	0.025	0.04	0.042	0.018	0.019
Organic Nitrogen	-	-	0.63	0.56	-	-	0.9	0.8	0.97	0.95	0.76	0.8
Kjeldahl Nitrogen	-	-	0.66	0.59	-	-	0.92	0.82	1	0.97	0.78	0.82 A
Total Nitrogen	-	≤ 6	1.42 c	1.13 c	-	-	0.942	0.845	1.04	1.012	0.798	0.839
General Physical and Chemical Parameters												
Habitat Assessment	-	-	-	-	-	-	23	23	23	23	30	30
Dissolved Oxygen (mg/L) E Plant	≤ 4.0	≤ 5.0	-	9.4	-	9.3	7	6.4	7	7.2	7.0	7.2
Dissolved Oxygen (mg/L) NE Plant	≤ 4.0	≤ 4.0	-	9.4	-	9.3	7	6.4	7	7.2	7.0	7.2
Salinity (PPTh)	-	-	-	-	-	0.5	12.6	12.6	12.8	12.5	13.9	13.9
pH (S.U.)	-	6.5-8.5	-	7.2	-	7.2	7.8	7.8	7.8	7.8	7.9	7.9
Conductivity (umhos/cm)	-	-	-	950	-	-	21,050	21,103	21,380	20,950	23,046	23,080
Temperature (C)	-	-	-	27.3	-	28.2	26.8	26.5	26.9	26.9	26.5	26.5
TSS (mg/L) **	-	5 a	4 U	4 U	-	-	13 I	14 I	14 I	12 I	13 I	10 I
Chlorophyll a (µg/L)	-	-	-	0.85 U	-	-	0.85 U	1.5 I	1.9 I	4 A	0.85 U	0.85 U
Phaeophytin-A (µg/L)	-	-	-	0.85 U	-	-	0.85 U	0 J	0 J	0 A	0.85 U	0.85 U
Turbidity (NTU)	-	-	0.65 Q	0.45 Q	-	-	-	-	-	-	-	-
BOD (mg/L) **	-	-	0.2 UQ	No Result *	-	-	-	-	-	-	-	-
CBOD 5-day (mg/L) **	-	10	1.3 AQ	0.98 I	-	-	-	-	-	-	-	-
Oil and Grease (mg/L)	≤ 5	-	-	0.69 U	-	-	-	-	-	-	-	-
Flow (East Plant)	-	5	8.2	8.2	7.9	-	-	-	-	-	-	-
Flow (Northeast Plant)	-	13.5	8.2	8.2	7.9	-	-	-	-	-	-	-
Microbiology (# counts/100ml)												
Fecal Coliforms-Membrane Filter	≤ 800 s, MPN	≤ 25	-	1 K	-	-	1 K	1 K	5 BK	5 BK	1 K	1 K
Total Coliforms-Membrane Filter	-	-	-	10 BK	-	-	20 BK	10 BK	40 BK	20 BK	1 K	1 K
Toxicology Bioassays (7-Day chronic screening toxicity test, NOEC percent mortality in 100% effluent)												
Fish (P. promelas)	-	100%	100%	-	-	-	-	-	-	-	-	-
Water flea (C. dubia)	-	100%	100%	-	-	-	-	-	-	-	-	-

Value Exceeds the Class II Water Quality Criteria

a - Annual average

c - Value is calculated

s - Single sample

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

B - Results based on colony counts outside the acceptable range

I - The reported value is between the MDL and the PQL.

J - Estimated value

K - Actual value is known to be less than value given

Q - Sample held beyond normal holding time

U - Material analyzed for but not detected; value reported is the MDL.

NOEC - A no observed effect concentration less than 100% effluent will constitute a violation of this permit

* Test wasn't requested

** Test was a composite

Table 2. Measured and predicted algal growth potential (AGP) for total soluble inorganic nitrogen (TSIN) limitation and total nitrogen (TN) limitation of *Pseudokirchneriella subcapitata* (Fresh), and *Dunaliella tertiolecta* (Salt-adjusted).

Clearwater E / NE WWTP	AGP (measured)	Predicted AGP (TSIN) ± 20%	Predicted AGP (TN) ± 20%	Inorganic N:P ratio	**Total N:P ratio**
Effluent (mg dry wt/L) Outfall- D001	29.2	21.7 ± 4.3	42.9 ± 8.6	4.4	7.5
Test Site 1 (mg dry wt/L)	4.06 J	- -	-	0.36	0.12
Test Site 2 (mg dry wt/L)	4.64 J	- -	-	0.38	0.12
Test Site 3 (mg dry wt/L)	4.31 AJ	- -	-	0.6	0.18
Test Site 4 (mg dry wt/L)	3.37 J	- -	-	0.58	0.2
Control Site 5 (mg dry wt/L)	1.57 J	- -	-	0.33	0.1
Control Site 6 (mg dry wt/L)	2.1 J	- -	-	0.35	0.11

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

J - Estimated value

- The effluent pH (Standard Units) and dissolved oxygen (DO; mg/L) values complied with Class II Water Quality Criteria (62-302 F.A.C.) and facility permit limits.
- The effluent samples were not toxic to the fish, *Pimephales promeles,* or to the water flea, *Ceriodaphnia dubia,* during the 7-day chronic bioassays (See Table 1 for percent mortality and Appendix 6 for bioassay bench sheets).
- Habitat at the Test and Control Sites was similar except for the presence of rip rap and vertical seawalls at the Test Sites and the influx of freshwater from the wastewater treatment plant compared to the Control Sites. The sediments at all sites were mostly anaerobic muds (see Habitat Assessment Field Sheets in Appendix 7).
- Dissolved oxygen and pH at the Test and Control Sites complied with Class II Water Quality Criteria (Table 1, 62-302.530 F.A.C.) and were within normal ranges. In a depth profile, dissolved oxygen was on average ~1.0 mg/L lower, temperature was ~1 °C lower, and salinity was 1-2 ppt higher on the bottom compared to surface readings (Appendix 7)
- Fecal and total coliforms levels in the effluent and receiving waters did not exceed Class II Water Quality Criteria (See Table 1 for results and Appendix 6 for laboratory worksheets).
- The total nitrogen concentration in the composite effluent sample was 1.42 mg/L, which appears to have contributed to higher levels at the Test Sites (0.845-1.04 mg/L) compared to the Control Sites (0.798-0.839 mg/L; Table 1). A composite effluent total phosphorus (0.21 mg/L) sample and grab samples for ortho-phosphate (0.13 mg/L) and ammonia (0.03 mg/L, Table 1) did not appear to contribute to elevations at the Test Sites.
- Algal growth potential (AGP) is a measure of nutrients available for algal growth (Miller *et al.* 1978). Raschke and Shultz (1987) found that AGP above 10.0 mg dry wt/L in marine receiving waters and 5.0 mg dry wt/L in fresh waters are associated with nutrient enrichment. The AGP value of the freshwater effluent was 29.2 mg dry wt/L, exceeding the problem threshold. AGP values at the Test and Control Sites however, were below the 10 mg dry wt/L marine threshold (Table 2). There was no evidence of growth inhibition in AGP data from the effluent sample.
- Chlorophyll *a* levels were undetected in the effluent sample and samples from Sites 1, 5 and 6. Chlorophyll *a* was above the MDL and below the PQL at sites 2-3 (Table 1). The level at Test Site 4 was below the 20th percentile of values typical of Florida estuaries (Appendix 5)
- There were no obvious differences in sediment grain size or percent organic material in the sediments at the Test versus the Control Sites. All sites were dominated by particles 0.25 mm in diameter or smaller (Table 3, Figures 1 and 2).
- Phenol was detected in the sediments at Site 3 above the MDL and below the PQL (Table 3). Test Site 2 had a chromium level above the Threshold Effect Level (TEL) and below the Probable Effect Level (PEL) when compared to

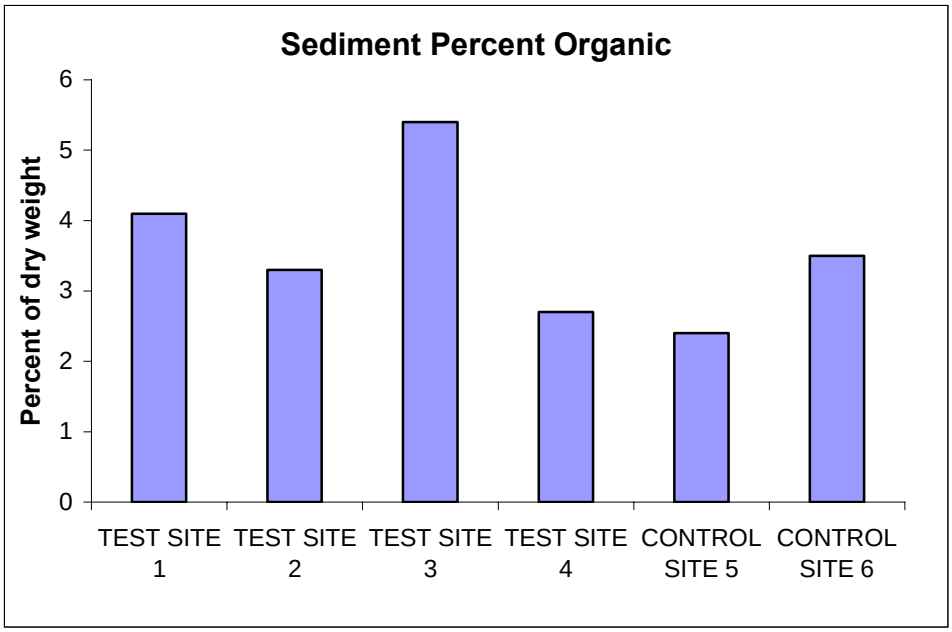


Figure 1. Sediment Percent Organic for the six sampling stations at Clearwater E \ NE AWWTP.

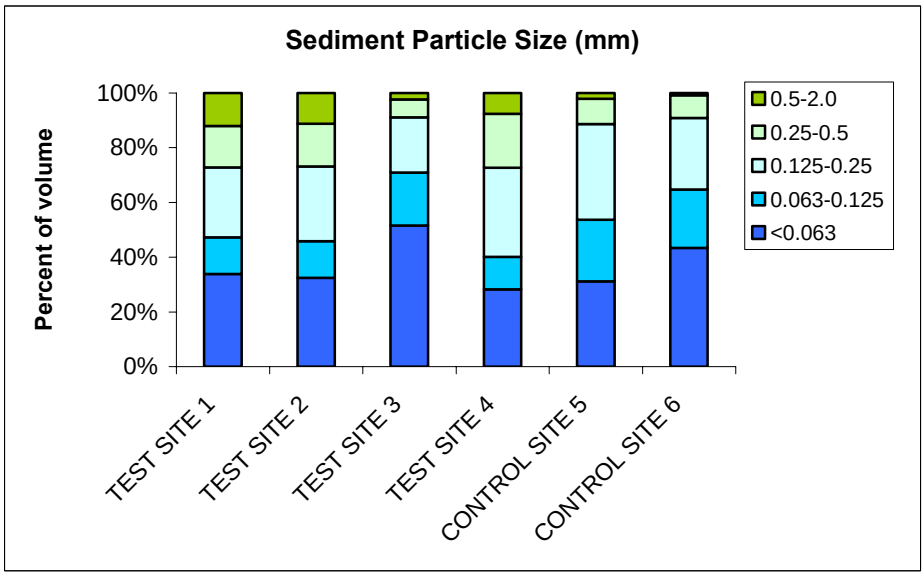


Figure 2. Sediment Particle Size for the six sampling stations at Clearwater E \ NE AWWTP.

Sediment Quality Guidelines for Florida coastal waters (MacDonald 1994). The TEL represents the upper limit of the range of sediment contaminant concentrations where sediments are not considered to represent significant hazards to aquatic organisms. PELs are defined as the lower limit of the range of contaminant concentrations that are usually or always associated with adverse biological effects. In other words, concentrations below the TEL most likely will not cause harm to aquatic organisms while concentrations above the PEL are likely to have harmful effects.

- The cumacean, *Cyclaspis varians*, was dominant at all sites except Test Site 2 where the polychaete, *Streblospio* sp. was dominant (Table 4, Appendix 8a, 8b). The average Test Site diversity was 2.5 compared to 2.95 at the Control Sites and the average taxa richness was 31.5 at the Test Sites compared to 27.5 at the Control Sites. The average number of individuals was substantially higher at the Test Sites (2,947) compared to the Control Sites (611) and helps explain the diversity and richness patterns (i.e., diversity tends to decrease with substantially more individuals while richness tends to increase).
- The macroinvertebrate data was also analyzed using the Tampa Bay Benthic Index (TBBI), which integrates the total number of individuals and taxa, and the proportion of spionidae and capitellidae polychaetes (Malloy et al. 2005). Sites with scores < 73 are categorized as "Potential Restoration Sites", sites with scores ≥ 73 and < 87 are categorized as "Intermediate" and sites with scores ≥ 87 are considered "Protection Areas" (Malloy et. al. 2005). There was little difference in the TBBI scores between the Test Sites (average score = 88) and the Control Sites (average score = 90); both fell into the "Protection Areas" category (Table 5a, b). Individually, Test Sites 2 and 3 fell into the "Intermediate" category with scores of 81 and 83, respectively.
- Preliminary multivariate analyses were performed using PrimerTM to explore the

Table 3. Sediment and Metals Analysis: Clearwater East \ Northeast WWTP, October 18, 2004.

Clearwater E / NE WWTP's	Sediment Quality		Test Site 1	Test Site 2	Test Site 3	Test Site 4	Control Site 5	Control Site 6
	TEL	PEL						
Particle Size distribution (percent volume <2mm)								
<0.063 mm	-	-	33.8 A	32.4	51.6	28.3	31.2	43.4
0.063 - 0.125 mm	-	-	13.4 A	13.4	19.4	11.9	22.5	21.4
0.125 - 0.25 mm	-	-	25.6 A	27.4	20.2	32.6	35	26.2
0.25 - 0.5 mm	-	-	15.2 A	15.6	6.56	19.7	9.19	8.16
0.5 - 2.0 mm	-	-	12.0 A	11.2	2.31	7.57	2.14	0.87
2.0 mm (percent dry weight)	-	-	4.2 A	8.1	1 K	1 K	1 K	1 K
Organic Content								
Organic content as percent of dry weight	-	-	4.1 A	3.3	5.4	2.7	2.4	3.5
Organic Constituents (µg/kg)								
Phenol	-	-	110 U	360 I	130 U	100 U	100 U	130 U
Metals (mg/kg)								
Aluminum	-	-	10600	13900	13000	7260	8170	11700
Arsenic	7.24	41.6	2.7	4.1	3.1	1.6 I	1.7 I	3
Cadmium	0.676	4.21	0.15 I	0.089 I	0.25 I	0.11 I	0.13 I	0.18 I
Calcium	-	-	11300	5050	5130	4820	3570	4010
Chromium-III	52.3	160	38.3	67.5*	39.4	23.3	24.7	33.6
Copper	18.7	108	5.2	3.1	8.2	4.6	4.6	6.7
Iron	-	-	6080	7040	8670	4730	5580	7840
Lead	30.2	112	8.2	5.1	13	6.5	8.7	11.7
Magnesium	-	-	4100	5550	4160	2320	2530	3560
Manganese	-	-	30.2	22.9	41.9	23.9	26.2	34.4
Nickel	15.9	42.8	5.54	6.19	7.66	4.26	5.07	6.87
Selenium	-	-	0.57 U	0.65 U	0.86 I	0.64 U	0.64 U	0.67 U
Silver	0.733	1.77	0.13 I	0.093 U	0.19 I	0.11 I	0.12 I	0.19 I
Zinc	124	271	20	23.4	25.8	14	16.6	22.3

Sediment Quality Assessment Guidelines (MacDonald et al. 1984): TEL = Threshold Effects Level; PEL = Probable Effects Level

* Exceeds the threshold efflects level from the Sediment Quality Guidelines (MacDonald et al. 1984)

** Exceeds the probable efflects level from the Sediment Quality Guidelines (MacDonald et al. 1984)

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

I - Value reported is < the practical quantitation limit, and ≥ the minimum detection limit

K - Actual value is known to be less than value given

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

Table 4. Macroinvertebrate Ponar Samples - Quantitative

Clearwater E / NE WWTP's	Test Site 1	Test Site 2	Test Site 3	Test Site 4	Control Site 5	Control Site 6
Summary Statisics						
Shannon-Weaver Diversity	2.77	2.39	2.83	2.01	3	2.89
Number of Taxa	34	32	27	33	27	28
Percent Dominant Taxon	40.29	44.39	33.54	53.98	30.33	38.58
Dominant Taxon (name)	Cyclaspis varians	Streblospio	Cyclaspis varians	Cyclaspis varians	Cyclaspis varians	Cyclaspis varians
Dominant Taxon (group)	Cumacea	Polychaeta	Cumacea	Cumacea	Cumacea	Cumacea
Number of ponars/site	4	5	5	5	5	5
Total Number of Individuals	1541	4165	1649	4433	613	609
Community Composition: Percent of total						
Amphipoda	6.2	15.3	9.0	21.2	2.5	4.6
Cumacea	40.4	23.3	33.5	54.0	30.3	38.6
Gastropoda	0.3	0.1	0.2	0.2	1.0	1.2
Oligochaeta	0.5	0.1	0.5	0.4	1.8	0.8
Pelecypoda	21.9	6.5	12.7	1.7	22.5	12.0
Polychaeta	28.5	53.2	42.6	21.2	35.6	37.9
Other	2.2	1.5	1.5	1.3	3.8	4.9
Functional Feeding Groups: Percent of total						
Browser / Grazer	3.2	7.6	4.5	10.7	1.3	2.5
Burrowing Deposit Feeders	1.5	0.3	0.6	0.5	3.2	3.5
Predators	14.0	6.0	15.3	4.6	34.3	33.3
Scavengers	3.4	7.7	4.7	10.9	2.1	2.7
Surface Deposit Feeders	9.1	25.1	15.2	9.7	3.2	3.5
Suspension Feeders	68.6	53.2	59.5	63.5	55.1	53.4
Other	0.2	0.1	0.2	0.1	0.8	1.1

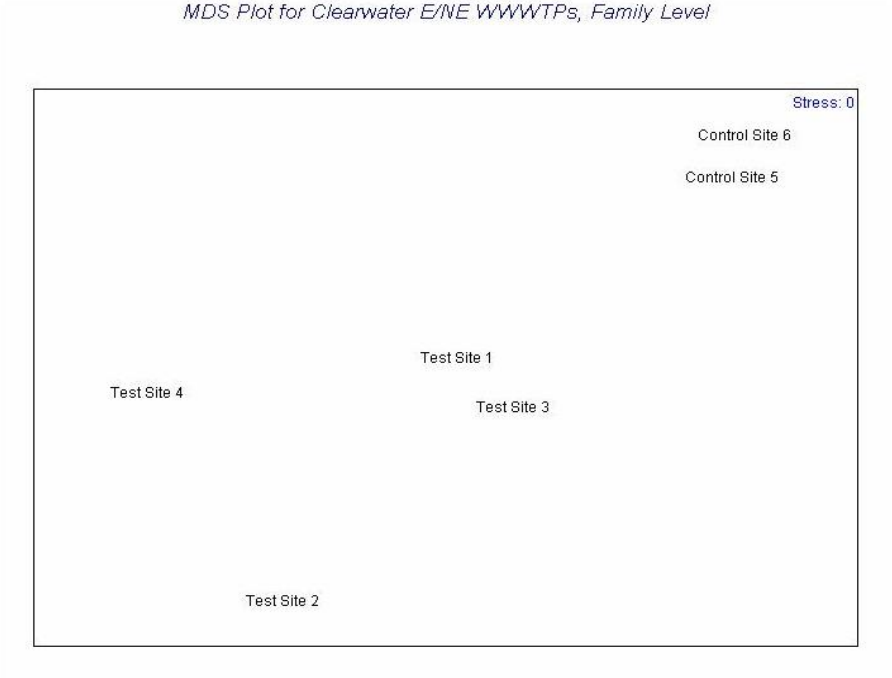


Figure 3. NMDS plot of six study sites for Clearwater E/ NE WWTP at the Family level.

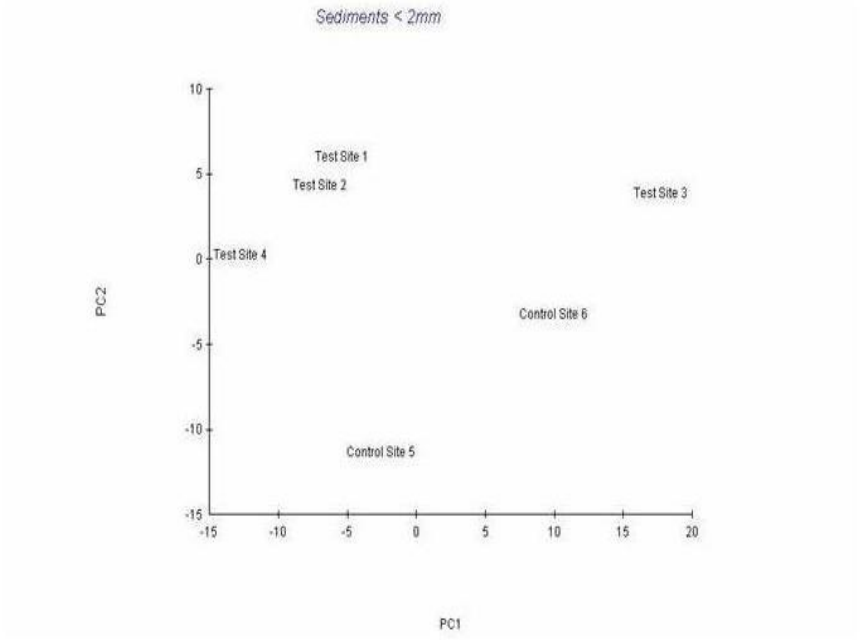


Figure 4. PCA plot of six study sites using sediment particle size for Clearwater E/ NE WWTP.

pattern of macrobenthic community structure among sampling sites. The samples from each site were summed for analyses, and taxa were aggregated to the family level. This removed possible biases from differences in the level of identification among sites. Intersample similarity was calculated using the Bray-Curtis measure (Clarke and Warwick 2001) and non-metric multi-dimensional scaling (nMDS) was performed. This analysis results in a kind of non-dimensional "map" that shows how similar the macrobenthic community is between sites. The entire data matrix (taxa by site) was used to calculate how similar any two samples are to each other, independent of all other samples. The communities at Test Sites 1 and 3 were very similar to one another as were Control Sites 5 and 6 while Test Sites 2 and 4 were somewhat less similar to one another (Figure 3). Test Sites 1 and 3 were oriented north and south of the outfall and along the axis of greatest tidal flushing which may explain why the communities at these sites were more similar to the Control Sites communities than those of Test Sites 2 and 4.

- A SIMPER similarity routine was performed in PrimerTM to show which families contributed most to the differences seen among sites (Appendix 10). Test Sites 1 and 3 were 45% similar to Test Sites 2 and 4 and 47% similar to Control Sites 1 and 2. Test Sites 2 and 4 were only 18% similar to Control Sites 1 and 2. Extremely high numbers of

Table 5a. Tampa Bay Benthic Index, sites kept separate, October 18, 2004.

Clearwater E / NE WWTP's	Test Site 1	Test Site 2	Test Site 3	Test Site 4	Control Site 5	Control Site 6
Number of ponars/site	4	5	5	5	5	5
Salinity (ppt)	12.6	12.6	12.8	12.5	13.9	13.9
Number of Taxa	34	32	27	33	27	28
Number of Individuals	1541	4165	1649	4433	613	609
Spionid Polychaete Abundance	193	1855	429	679	30	40
Capitellid Polychaete Abundance	9	2	2	1	1	1
Re-scaled TBBI Score	8.70	8.07	8.29	8.71	8.78	8.78
TBBI Score for Categories	**87.01**	**80.72**	**82.93**	**87.11**	**87.77**	**87.81**
TBBI Categories	**Protection Areas**	**Intermediate**	**Intermediate**	**Protection Areas**	**Protection Areas**	**Protection Areas**

the spionid polychate, *Streblospio* sp. and the bodotriid cumacean, *Cyclapsis varians* at Test Sites 2 and 4 explain ~65% of the difference between Test Sites 2 and 4 and Control Sites 1 and 2 (Appendix 10).

- When a number of different variables (DO, pH, conductivity, color, etc.) are collected in a study, detecting patterns in the data can be difficult. Often, the variables measured are correlated with each other to varying degrees. A statistical method called Principle Components Analysis (PCA) can be used to minimize these problems. PCA reduces the data to a small number of uncorrelated variables, which are expressed as linear combinations of the original variables. The first linear combination (i.e., the first PC) represents the linear combination of variables that explains most of the variance the principal components generated. The second principal component explains as much of the "remaining variance" as possible, and so forth. Often, the first and second PC's are plotted (e.g., Figure 4) to see if a particular treatment or other factor appear to group together. Separate PCA analyses were run using PrimerTM for the following suites of variables: sediment grain size, sediment chemistry, water chemistry and physical/chemical parameters. For non-sediment analyses, the plots of the first and second PC's showed a "shotgun" pattern with a low percent of the variance explained. The PCA using sediment grain sizes < 2mm resulted in 74% of the variance explained in PC1 and 97% explained by PC1 and PC2 (Figure 4 and Appendix 11). Although the results appear to be statistically significant, the actual differences in sediment grain size are relatively small and may not be ecologically significant (Table 3).

Table 5b. Tampa Bay Benthic Index, sites combined, October 18, 2004.

Clearwater E / NE WWTP's	Test Sites 1- 4	Control Sites 5 - 6
Number of ponars/site	19	10
Salinity (ppt)	12.6	13.9
Number of Taxa	44	33
Number of Individuals	11788	1222
Spionid Polychaete Abundance	3156	70
Capitellid Polychaete Abundance	14	2
Re-scaled TBBI Score	8.77	8.97
TBBI Score for Categories	**87.66**	**89.69**
TBBI Categories	**Protection Areas**	**Protection Areas**

Summary

Several metals were detected in the effluent samples, but only lead (12.7 µg/L) and nickel (16 µg/L) exceeded Class II Water Quality Criteria (8.5 µg/L and 8.3 µg/L, respectively). Copper (5.6 µg/L) was above the Class II criterion (3.7 µg/L), but below the laboratory practical quantitation limit.

The AGP value of the effluent sample exceeded the 5 mg dry wt/L freshwater "problem" threshold. The AGP results for the Test Site samples were all below the 10 mg dry wt/L threshold for marine waters and were similar to the Control Site AGP results.

Test Site 2 had a chromium level above the Threshold Effect Level (TEL) and below the Probable Effect Level (PEL) when compared

to Sediment Quality Guidelines for Florida coastal waters (MacDonald 1994).

Overall, the benthic communities at the Control Sites were different from those at the Test Sites as suggested by the Bray Curtis and SIMPER functions in PrimerTM. There were approximately five times as many benthic macroinvertebrates at the Test Sites as at the Control Sites although the diversity was on average 15% lower at the Test Sites compared to the Control Sites (Table 4). Spionid polychaetes and cumaceans were extremely abundant at Test Sites 2 and 4, which may be in response to the increased production near the outfall. The Tampa Bay Benthic Index placed both the Control and Test Sites in the "Protection Areas" category with average scores of 88 and 90, respectively.

Literature Cited

American Public Health Association (APHA). 1992. Standard methods for the examination of water and wastewater. 18th edition.

Clarke, K. R. and R. M. Warwick. 2001. Change in marine communities: An approach to statistical analysis and interpretation. 2nd edition. Primer-E Ltd., Plymouth.

EA Engineering, Science, and Technology and Tetra Tech, Inc. 1994. Bioassessment for the nonpoint source program (draft). Prepared for the Florida Department of Environmental Protection. Unpaginated.

Graf, G., Bengtsson, W., Diesner, U., and Theede, H. 1988. Benthic response to sedimentation of a spring phytoplankton bloom: process and budget. Marine Biology 67: 201-208.

MacDonald, D. D. 1994. Approach to the assessment of sediment quality in Florida coastal waters. Volume 1. Development and evaluation of sediment quality assessment guidelines. Report to Florida Department of Environmental Protection, Office of Water Policy. 126 pp.

Magurran, A. E. 1988. Ecological diversity and its measurement. Princeton University Press, Princeton, New Jersey.

Malloy, K., D. Wade, T. Janicki and S. Grabe. 2004. Development of a benthic index for use as a management tool in establishing and monitoring sediment quality targets for the Tampa Bay Estuary. Bay Area Scientific and Information Symposium- 4 Proceedings, 2004. S. Treat, editor. Published by the Tampa Bay Estuary Program and USGS.

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.

Roberts, S., P. Vasseur, and D. Dive. 1990. Combined Effects Between Atrazine, Copper, pH, on Target and Non Target Species. Water Res. 24(4):485-491.

Ross, L. T. 1990. Methods for aquatic biology. Florida Department of Environmental Regulation Technical Series 10 (1): 1-47.

Sokal, R. R. and F. J. Rohlf. 1995. Biometry, Third edition. W. H. Freeman and Company, New York.

Weber, C. I. 1993. Methods for measuring the acute toxicity of effluents to freshwater and marine organisms. 4th edition. EPA/600/4-90/027. U. S. EPA, Cincinnati, Ohio. 216 pp.

USEPA. 2002. Short-term methods for estimating the chronic toxicity of effluents and receiving waters to freshwater organisms. 4th Edition. EPA-821-R-02-013.

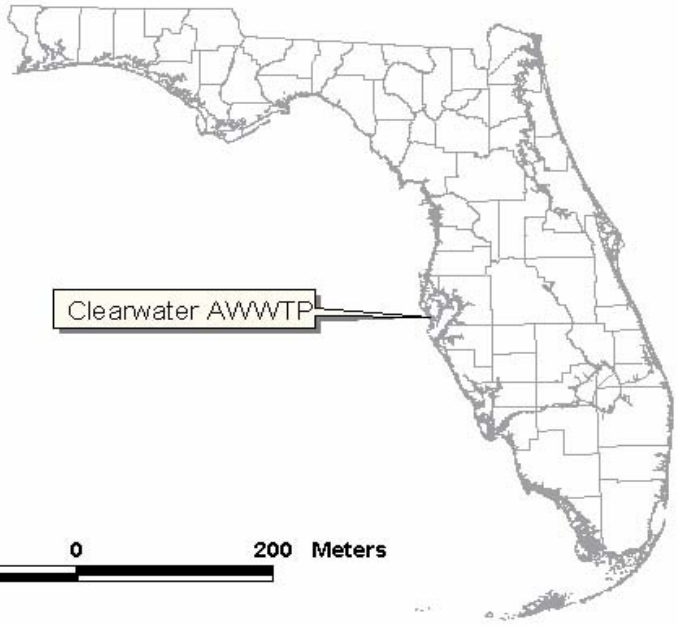
Appendices

- Appendix 1. Map of facility
- Appendix 2. Facility summary
- Appendix 3. Measurements and data interpretation
- Appendix 4. Chemical analyses of effluent and receiving water.
- Appendix 5. Typical values for selected parameters in Florida estuaries
- Appendix 6. Additional physical, chemical, toxicological and microbiological results
- Appendix 7. Habitat Assessment and Physical/Chemical Characterization field sheets
- Appendix 8a. Taxa list and macroinvertebrate density (average number of individuals per m^2)
- Appendix 8b. Taxa list and total number of macroinvertebrates (counted)
- Appendix 9. Discharge Monitoring Reports
- Appendix 10. SIMPER analysis results.
- Appendix 11. Principle Component Analysis

Appendix 1

Clearwater AWWTP







200 0 200 Meters

Fifth Year Inspection Program
FDEP- Bureau of Laboratories
Created on: April 4, 2005
Created by: Julie Espy

Appendix 2

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENT PROECTION
FACILITY SUMMARY

Facility name: City of Clearwater E / NE AWWTPs Date of Summary: October 8, 2004

Location (detailed ARC view map attached): County: Pinellas District: SWD
Latitude N 27°57'24" Longitude W 082°42'23" (OUTFALL)

NPDES Permit: FL0128937 (NE) FL0021865 (E) State expiration date: Aug. 2005 Facility Type: Domestic

Function of facility: Type I domestic advanced wastewater treatment plant

Description of treatment process: The two facilities are advanced wastewater treatment plants. High level disinfection is achieved by gaseous chlorination. After disinfection, the effluent of each plant is discharged to a mixing basin and then through a dechlorination basin, which utilizes sulfur dioxide, prior to discharge through Outfall D001.

Receiving waters: Old Tampa Bay Classification of water: Class II Marine Water, Outstanding Florida Water

Design Flow: 18.5 MGD (shared between facilities)
13.5 MGD Northeast
5.0 MGD East

Mean Flow (12 month average): currently approx 7 MGD
exact flows will be recorded during sampling

Discharge is: continuous Therefore, the best time to sample the outfall is: regular business hours

If facility has a mixing zone proved details (size and parameters): The facility has a mixing zone for Dichloro-bromomethane. The limit at the outfall is 43 µg/L. (The State water quality limit is 34 µg/L.)

List effluent limits (add or remove rows and columns):

Parameter	Units	AnnAvg	MoAvg	WklyAvg	Max	Min	Composite Sample
CBOD5	mg/L	5.0	6.25	7.5	10.0	--	FPC
TSS	mg/L	5.0	6.25	7.5	10.0	--	FPC
Total Nitrogen	mg/L	3.0	3.75	4.5	6.0	--	FPC
Chlorine, Total Residual (For High level disinfection)	mg/L	--	--	--	--	1.0	Grab
TSS (For High level disinfection)	mg/L	--	--	--	5.0	--	Grab
Chlorine, Total Residual (For Dechlorination)	mg/L	--	--	--	0.01	--	Continuous
Dissolved Oxygen	Mg/L	--	--	--	--	5.0	Grab
Coliform, Fecal	#/100 mL	75% BDL	(See permit condition I.A.5)		25	--	Grab
Copper, Total Recoverable	ug/L	--	--	--	2.9	--	--
pH	SU	--	--	--	8.5	6.5	Continuous
Dichlorobromomethane	µg/L	22.0	--	--	--	--	Grab

Describe special permit conditions and permit modifications: This effluent is the combined effluent from 2 plants. The two facilities are responsible for any violations at the end of pipe.

Description of permitted outfall(s): 18.5 MGD AADF permitted discharge shared between Clearwater's E and NE AWWTP to Old Tampa Bay (Class II Marine Water, OFW). Outfall D001 is 1400 feet south of the Clearwater East AWWTP in the bay. It is a 48 inch ductile iron transmission pipe which directs the combined effluent to an underwater outfall located at a depth of eight to ten feet with an upturn elbow.

List permit violations (form DMR data or other sources) and plant upsets that occurred within past year: The facility is under a consent order for toxicity violations. This is an on-going problem and may progress into a TIE/TRE. THM violations have occurred in the past. A mixing zone for THMs has recently been approved.

Describe previous impact bioassessments, WQBELs, and previous or current enforcement actions: A biological assessment was conducted in November of 1997 for this discharge. The results of the study showed no negative impacts on the receiving water body from the discharge.

Contributing to this review: Watershed Management: Lori Pillsbury Inspector: Michele Duggan Engineer: Jeff Hilton, P.E.

Appendix 3

Explanation of Measurements

(1) Quality Assurance and Quality Control

FDEP's quality assurance requirements for analytical laboratories and field activities are codified in Chapter 62-160, F.A.C., Quality Assurance (QA Rule) and in internal Standard Operating Procedures (FDEP SOPs). Methods for all analyses are on file at the FDEP Central Laboratory in Tallahassee and may be viewed on the web at http://www.floridadep.org/labs/sop/index.htm and/or http://www.floridadep.org/labs/qa/index.htm .

(2) Chemical Analyses of the Effluent

The effluent was analyzed for nutrients, metals, organic constituents (base, neutral, and acid extractables) and pesticides following FDEP SOPs. A list of the analytes tested for, results, data qualifiers, the minimum detection limits and the practical quantitation limits are given in Appendix 4. The results from these analyses were compared with Water Quality Criteria (62-302 F.A.C.) and facility permit limits (Table 1, Appendix 2). Exceedances of Water Quality Criteria may be violations of specific provisions of Chapter 62-302 (F.A.C.) and/ or facility permit limits.

(3) Toxicity Bioassays

Chronic toxicity bioassays were performed on the effluent sample using the water flea, *Pimephales promeles,* and the fish, *Cyprinella leedsi* following FDEP SOPs TA07_05 and TA07_09. Failure of toxicity testing may constitute a violation of 62-302.520(21), 62-302.530(62) and/or facility permit limits.

(4) Bacteriological Testing

The effluent and water from sampling stations were analyzed for the presence and concentration of total and fecal coliform bacteria following FDEP SOPs MB1_0 and MB1_1. High levels of fecal or total coliform bacteria may constitute violation of 62-302.530(6), 62-302.530(7) and/or facility permit limits.

(5) Establishment of Sampling Stations

The original sampling design called for making chemical and biological comparisons among six sampling stations located along an effluent dilution gradient leading from close to the outfall where dilution was minimal (two stations) to an area of intermediate dilution (two stations) and an area unexposed to effluent (two control stations). However, due to the buoyancy of the freshwater effluent and the large size of the marine receiving water, the effluent was diluted within 10 meters of the point of discharge making it impossible to establish a dilution gradient.

Rhodamine dye was continuously fed into the effluent stream and tracked in the receiving water using a fluorometer. Rhodamine is a conservative tracer and may be used to track dilution to <1% of effluent. Background readings of fluorescence were taken to correct for interference in the water column. Dye concentration was adjusted to give approximately 100 ppb at the end of the discharge pipe. The dye study was conducted on 19 October 2004. Dye injection began on an incoming tide and continued through slack water until low tide. A boat was used to track the path of the effluent plume. Weather conditions were good during collections with light winds and sunny skies.

Because an effluent gradient could not be established, four Test Sites were located approximately 7-10 meters around the point of discharge (POD) in a clockwise direction. Site 1 was oriented roughly north of the boil and Sites 2-4 were located east, south, and west of the POD, respectively. Sites 5 and 6 served as Control Sites and were located approximately 200 meters east of the POD and out of the influence of the effluent, the physical alterations to the shoreline due to the presence of the wastewater treatment plant and the bridge. Sites 5 and 6 were rouhly 15 meters apart with Site 5 north of Site 6.

(6) Algal Growth Potential (AGP)

The effluent and water samples from the six Sites were autoclaved, filtered (0.45μm), inoculated with the unicellular green alga, *Pseudokirchneriella subcapitata* (formerly *Selenastrum capricornutum,* USEPA 2002*)* or *Dunaliella tertiolecta,* depending upon the salinity of the water sample. Samples were incubated for 14 days (FDEP SOP TA08_05). The algal growth potential (AGP) value is the peak growth of the alga within that 14-day period, recorded as mg dry weight/L. Raschke and Shultz (1987) found that an AGP above 10.0 mg dry weight/L represents a “problem” threshold for marine receiving waters, implying nutrient enrichment. High AGP values may constitute one line of evidence for violation of 62-302.530(47) F.A.C., 62-302.530(48)(a) F.A.C. and/or 62-302.530(48)(b) F.A.C..

The concentration of nutrients in a water sample may be used to calculate the expected yield of AGP in a low salinity sample under the assumption that other required nutrients (e.g. silicon, micronutrients) are present in excess (Miller *et al*. 1978). The expected amount of production is calculated as 38 times the total soluble inorganic nitrogen (nitrate and nitrite plus ammonia) under nitrogen limitation or 430 times the ortho-phosphate (OP) concentration under phosphorus limitation with an error of ± 20%. When the ratio of nitrogen to phosphorus (N:P) is less than 10:1, nitrogen limitation of algal production is likely. When the N:P ratio is 20:1 or greater, phosphorus limitation is likely (EPA-822-B-00-002). For ratios in-between, co-limitation may occur. Production of lower biomass than expected may be evidence of growth inhibition related to toxic compounds present in the water sample tested and may be a violation of 62-302.530(62) F.A.C.. Expected AGP cannot be calculated for marine samples incubated with *Dunaliella.*

(7) Sediment Sampling

Sediment cores were collected with a stainless steel core tube at all sampling Sites following QA Rule SOP FS4000. Samples were analyzed for metals, organic constituents, pesticides, organic content and sediment grain size in the laboratory following FDEP SOPs.

(8) Algal Phytoplankton

Chlorophyll *a* Content: Chlorophyll *a* content is measured in phytoplankton samples to estimate algal biomass (FDEP SOP BB05). High algal biomass implies nutrient stress (Stevenson and Bahls 1999) and may be a violation of 62-302.530(47) F.A.C., 62-302.530(48)(a) F.A.C. and/or 62-302.530(48)(b) F.A.C..

(9) Benthic Macroinvertebrate Assemblages

Methods: Benthic macroinvertebrates were collected using a petite ponar dredge following QA Rule SOP FS7530. Five replicate ponar samples were collected at each Site and sieved through a 500 μm mesh. Benthic macroinvertebrates were sorted and identified to the lowest practical taxonomic level, usually species (FDEP SOP IZ06).

Taxa richness: Taxa richness is the number of distinct macroinvertebrate taxa present in a sample. Decreases in taxa richness related to a facility's effluent may constitute violations of 62-302.530(47) F.A.C., 62-302.530(48)(a) F.A.C., 62-302.530(48)(b) F.A.C. and/or 62-302.530(62) F.A.C..

Percent Contribution of Dominant Taxon: Percent contribution of the dominant taxon is calculated by dividing the number of individuals in the most abundant taxa by the total number of individuals counted. Percent contribution of the dominant taxon tends to increase with increasing perturbation (Plafkin *et al*., 1989). Increases in the percent contribution of the dominant taxon related to a facility's effluent may constitute violations of 62-302.530(47) F.A.C., 62-302.530(48)(a) F.A.C. and/or 62-302.530(48)(b) F.A.C..

Community Composition: Shifts in proportions of major groups of organisms downstream of a point source, compared to upstream, control conditions, may indicate negative effects of a discharge (Karr and Chu 1998). Shifts in community composition related to a facility's effluent may constitute violations of 62-302.530(47) F.A.C., 62-302.530(48)(a) F.A.C., 62-302.530(48)(b) F.A.C. and/or 62-302.530(62) F.A.C..

Functional Feeding Groups: Environmental degradation may differentially affect groups of invertebrates based on how the group feeds (e.g. predators, deposit feeders, etc.). Changes in the proportions of functional feeding groups related to a facility's effluent may constitute violations of 62-302.530(47) F.A.C., 62-302.530(48)(a) F.A.C., 62-302.530(48)(b) F.A.C. and/or 62-302.530(62) F.A.C..

Shannon-Weaver Diversity Index: This index is specified in the Florida Administrative Code 62-302 as a measure of biological integrity. Low diversity scores are undesirable. Where diversity is low, only a few taxa are abundant as compared to an area where many taxa are present in equitable abundance among taxa (Magurran 1988). A difference of 25% in Shannon-Weaver diversity between results from petite ponar samples at test and control sites constitutes a violation of 62-302.530(11) F.A.C.

Tampa Bay Benthic Index: This index was developed by the Tampa Bay Estuary Program specifically for Tampa Bay and can be applied to each of the seven main bay segments. The draft TBBI was salinity corrected and took into account sediment quality, gastropod abundance, proportion of total abundance represented by spionid polychaetes, bivalve abundance, and spionid abundance (Malloy et. al. 2004). The final version computes the expected number of taxa based on salinity and calculates the proportion of spionid and capitellid polychaetes to come up with a raw Index score with calues ranging from 0 to 10. Raw scores are multiplied by 10 to come up with a scaled Index of 0 to 100. Sites with scores less than 73 are categorized as "Potential Restoration Sites", sites with scores >=73 and < 87 are categorized as "Intermediate" and sites with scores >= 87 are considered "Potential Restoration" (Malloy et. al. 2004).

(10) Statistical Comparisons

Statistical comparisons of the proportions of taxa, major groups or feeding groups were made using 95% confidence intervals on proportions. A 95% confidence interval is the range of values above and below a given proportion that has a 95% chance of containing the true proportion (Sokal and Rohlf 1995). If the 95% confidence intervals for two proportions do not overlap, then the proportion of X in sample 1 is significantly different from the proportion of X in sample 2 at $p<0.05$. A "$p<0.05$" level of significance means that there is less than a 5% chance that the true proportions in the two samples are the same. All comparisons that are labeled as significant in the text have a probability <0.05 that the proportions are the same.

Appendix 4

Chemical analysis of effluent and receiving water

Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
10/18/04	Effl Composite	Bio-BOD	BOD-5 Day	0.2	mg/L	UQ		
10/18/04	Effl Composite	Bio-BOD	BOD-5 Day,N-Inhib	1.3	mg/L	AQ		
10/18/04	Effl Composite	Bio-BOD	BOD-5 Day	0.2	UQ			
10/18/04	Effl Composite	Bio-BOD	BOD-5 Day,N-Inhib	1.3	AQ			
10/18/04	Effl Composite	Bio-Toxicology	Bioassay-Chron-Def-FW-C.dubia	100	IC20	L		
10/18/04	Effl Composite	Bio-Toxicology	Bioassay-Chron-Def-FW-C.dubia	100	NOEC			
10/18/04	Effl Composite	Bio-Toxicology	Bioassay-Chron-Def-FW-Fish	100	IC20	L		
10/18/04	Effl Composite	Bio-Toxicology	Bioassay-Chron-Def-FW-Fish	100	NOEC			
10/18/04	Effl Composite	Bio-Toxicology	Bioassay-Chron-Def-FW-C.dubia	100	L			
10/18/04	Effl Composite	Bio-Toxicology	Bioassay-Chron-Def-FW-C.dubia	100				
10/18/04	Effl Composite	Bio-Toxicology	Bioassay-Chron-Def-FW-Fish	100	L			
10/18/04	Effl Composite	Bio-Toxicology	Bioassay-Chron-Def-FW-Fish	100				
10/18/04	Effl Composite	Metals-Water	Aluminum	94	ug/L		5	20
10/18/04	Effl Composite	Metals-Water	Arsenic	6	ug/L	U	6	24
10/18/04	Effl Composite	Metals-Water	Cadmium	0.075	ug/L	U	0.075	0.3
10/18/04	Effl Composite	Metals-Water	Calcium	82.7	mg/L		0.05	0.2
10/18/04	Effl Composite	Metals-Water	Chromium	2	ug/L	U	2	8
10/18/04	Effl Composite	Metals-Water	Copper	2.3	ug/L	I	0.75	3
10/18/04	Effl Composite	Metals-Water	Iron	68	ug/L	I	31	120
10/18/04	Effl Composite	Metals-Water	Lead	0.13	ug/L	I	0.075	0.3
10/18/04	Effl Composite	Metals-Water	Magnesium	8	mg/L		0.02	0.08
10/18/04	Effl Composite	Metals-Water	Nickel	2.6	ug/L	I	2	8
10/18/04	Effl Composite	Metals-Water	Selenium	0.5	ug/L	U	0.5	2
10/18/04	Effl Composite	Metals-Water	Silver	0.024	ug/L	I	0.02	0.08
10/18/04	Effl Composite	Metals-Water	Zinc	24	ug/L		3	12
10/18/04	Effl Composite	Metals-Water	Aluminum	94				
10/18/04	Effl Composite	Metals-Water	Arsenic	6	U			
10/18/04	Effl Composite	Metals-Water	Cadmium	0.075	U			
10/18/04	Effl Composite	Metals-Water	Calcium	82.7				
10/18/04	Effl Composite	Metals-Water	Chromium	2	U			
10/18/04	Effl Composite	Metals-Water	Copper	2.3	I			
10/18/04	Effl Composite	Metals-Water	Iron	68	I			
10/18/04	Effl Composite	Metals-Water	Lead	0.13	I			
10/18/04	Effl Composite	Metals-Water	Magnesium	8				
10/18/04	Effl Composite	Metals-Water	Nickel	2.6	I			
10/18/04	Effl Composite	Metals-Water	Selenium	0.5	U			
10/18/04	Effl Composite	Metals-Water	Silver	0.024	I			
10/18/04	Effl Composite	Metals-Water	Zinc	24				
10/18/04	Effl Composite	Nutrients-Liquid	Ammonia-N	0.03	mg N/L	A	0.01	0.02
10/18/04	Effl Composite	Nutrients-Liquid	Kjeldahl Nitrogen	0.66	mg N/L		0.12	0.4
10/18/04	Effl Composite	Nutrients-Liquid	NO2NO3-N	0.76	mg N/L		0.04	0.1
10/18/04	Effl Composite	Nutrients-Liquid	TSS	4	mg/L	U	4	16
10/18/04	Effl Composite	Nutrients-Liquid	Total-P	0.21	mg P/L		0.02	0.06
10/18/04	Effl Composite	Nutrients-Liquid	Turbidity	0.65	NTU	Q	0.05	0.05
10/18/04	Effl Composite	Nutrients-Liquid	Ammonia-N	0.03	A			
10/18/04	Effl Composite	Nutrients-Liquid	Kjeldahl Nitrogen	0.66				
10/18/04	Effl Composite	Nutrients-Liquid	NO2NO3-N	0.76				
10/18/04	Effl Composite	Nutrients-Liquid	TSS	4	U			
10/18/04	Effl Composite	Nutrients-Liquid	Total-P	0.21				
10/18/04	Effl Composite	Nutrients-Liquid	Turbidity	0.65	Q			
10/18/04	Effluent	Bio-AGP/LimNut	Algal Growth Potential	29.2	mg DryWt/L		0.3	0.9
10/18/04	Effluent	Bio-AGP/LimNut	Algal Growth Potential	29.2				
10/18/04	Effluent	Bio-BOD	BOD-5 Day	No Result	mg/L			
10/18/04	Effluent	Bio-BOD	BOD-5 Day,N-Inhib	0.98	mg/L	I		
10/18/04	Effluent	Bio-BOD	BOD-5 Day	No Result				
10/18/04	Effluent	Bio-BOD	BOD-5 Day,N-Inhib	0.98	I			
10/18/04	Effluent	Bio-Chl-a	Chl-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
10/18/04	Effluent	Bio-Chl-a	Phytn-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
10/18/04	Effluent	Bio-Chl-a	Chl-A, Monochromatic, Water	0.85	U			
10/18/04	Effluent	Bio-Chl-a	Phytn-A, Monochromatic, Water	0.85	U			
10/18/04	Effluent	BNA-Water	1,2,4-Trichlorobenzene	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	1,2-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	1,3-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	1,4-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	2,4,6-Trichlorophenol	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	2,4-Dichlorophenol	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190

10/18/04	Effluent	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	57
10/18/04	Effluent	BNA-Water	2,4-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	2,6-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	2-Chloronaphthalene	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	2-Chlorophenol	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	11
10/18/04	Effluent	BNA-Water	2-Nitrophenol	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
10/18/04	Effluent	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
10/18/04	Effluent	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7
10/18/04	Effluent	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.7
10/18/04	Effluent	BNA-Water	4-Bromophenyl phenyl ether	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	4-Chloro-3-methylphenol	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.6
10/18/04	Effluent	BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
10/18/04	Effluent	BNA-Water	Acenaphthene	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	Acenaphthylene	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
10/18/04	Effluent	BNA-Water	Anthracene	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	Benzidine	95	ug/L	U	95	380
10/18/04	Effluent	BNA-Water	Benzo(a)anthracene	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	Benzo(a)pyrene	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	Benzo(b)fluoranthene	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	Benzo(g,h,i)perylene	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	Benzo(k)fluoranthene	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	Bis(2-chloroethoxy)methane	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	Bis(2-chloroethyl)ether	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	11
10/18/04	Effluent	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
10/18/04	Effluent	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
10/18/04	Effluent	BNA-Water	Chrysene	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
10/18/04	Effluent	BNA-Water	Di-n-octyl phthalate	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	Dibenzo(a,h)anthracene	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
10/18/04	Effluent	BNA-Water	Diethyl phthalate	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
10/18/04	Effluent	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
10/18/04	Effluent	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
10/18/04	Effluent	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
10/18/04	Effluent	BNA-Water	Endrin	1.4	ug/L	U	1.4	5.7
10/18/04	Effluent	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
10/18/04	Effluent	BNA-Water	Fluoranthene	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	Fluorene	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
10/18/04	Effluent	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
10/18/04	Effluent	BNA-Water	Hexachlorobenzene	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	11
10/18/04	Effluent	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	11
10/18/04	Effluent	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	11
10/18/04	Effluent	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	Isophorone	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.6
10/18/04	Effluent	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.6
10/18/04	Effluent	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	11
10/18/04	Effluent	BNA-Water	Naphthalene	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.6
10/18/04	Effluent	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	11
10/18/04	Effluent	BNA-Water	Phenanthrene	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	Phenol	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	Pyrene	0.95	ug/L	U	0.95	3.8
10/18/04	Effluent	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
10/18/04	Effluent	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
10/18/04	Effluent	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
10/18/04	Effluent	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
10/18/04	Effluent	BNA-Water	1,2,4-Trichlorobenzene	0.95	U			
10/18/04	Effluent	BNA-Water	1,2-Dichlorobenzene	0.95	U			
10/18/04	Effluent	BNA-Water	1,3-Dichlorobenzene	0.95	U			
10/18/04	Effluent	BNA-Water	1,4-Dichlorobenzene	0.95	U			
10/18/04	Effluent	BNA-Water	2,4,6-Trichlorophenol	0.95	U			
10/18/04	Effluent	BNA-Water	2,4-Dichlorophenol	0.95	U			
10/18/04	Effluent	BNA-Water	2,4-Dimethylphenol	48	U			
10/18/04	Effluent	BNA-Water	2,4-Dinitrophenol	14	U			
10/18/04	Effluent	BNA-Water	2,4-Dinitrotoluene	0.95	U			
10/18/04	Effluent	BNA-Water	2,6-Dinitrotoluene	0.95	U			

10/18/04	Effluent	BNA-Water	2-Chloronaphthalene	0.95	U			
10/18/04	Effluent	BNA-Water	2-Chlorophenol	0.95	U			
10/18/04	Effluent	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	U			
10/18/04	Effluent	BNA-Water	2-Nitrophenol	0.95	U			
10/18/04	Effluent	BNA-Water	3,3'-Dichlorobenzidine	38	U			
10/18/04	Effluent	BNA-Water	4,4'-DDD	1.4	U			
10/18/04	Effluent	BNA-Water	4,4'-DDE	1.4	U			
10/18/04	Effluent	BNA-Water	4,4'-DDT	1.4	U			
10/18/04	Effluent	BNA-Water	4-Bromophenyl phenyl ether	0.95	U			
10/18/04	Effluent	BNA-Water	4-Chloro-3-methylphenol	0.95	U			
10/18/04	Effluent	BNA-Water	4-Chlorophenyl phenyl ether	1.9	U			
10/18/04	Effluent	BNA-Water	4-Nitrophenol	14	U			
10/18/04	Effluent	BNA-Water	Acenaphthene	0.95	U			
10/18/04	Effluent	BNA-Water	Acenaphthylene	0.95	U			
10/18/04	Effluent	BNA-Water	Aldrin	1.4	U			
10/18/04	Effluent	BNA-Water	Anthracene	0.95	U			
10/18/04	Effluent	BNA-Water	Benzidine	95	U			
10/18/04	Effluent	BNA-Water	Benzo(a)anthracene	0.95	U			
10/18/04	Effluent	BNA-Water	Benzo(a)pyrene	0.95	U			
10/18/04	Effluent	BNA-Water	Benzo(b)fluoranthene	0.95	U			
10/18/04	Effluent	BNA-Water	Benzo(g,h,i)perylene	0.95	U			
10/18/04	Effluent	BNA-Water	Benzo(k)fluoranthene	0.95	U			
10/18/04	Effluent	BNA-Water	Bis(2-chloroethoxy)methane	0.95	U			
10/18/04	Effluent	BNA-Water	Bis(2-chloroethyl)ether	0.95	U			
10/18/04	Effluent	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	U			
10/18/04	Effluent	BNA-Water	Bis(2-ethylhexyl)phthalate	14	U			
10/18/04	Effluent	BNA-Water	Butyl benzyl phthalate	4.8	U			
10/18/04	Effluent	BNA-Water	Chrysene	0.95	U			
10/18/04	Effluent	BNA-Water	Di-n-butyl phthalate	4.8	U			
10/18/04	Effluent	BNA-Water	Di-n-octyl phthalate	0.95	U			
10/18/04	Effluent	BNA-Water	Dibenzo(a,h)anthracene	0.95	U			
10/18/04	Effluent	BNA-Water	Dieldrin	1.4	U			
10/18/04	Effluent	BNA-Water	Diethyl phthalate	0.95	U			
10/18/04	Effluent	BNA-Water	Dimethyl phthalate	48	U			
10/18/04	Effluent	BNA-Water	Endosulfan I	3.8	U			
10/18/04	Effluent	BNA-Water	Endosulfan II	3.8	U			
10/18/04	Effluent	BNA-Water	Endosulfan sulfate	1.4	U			
10/18/04	Effluent	BNA-Water	Endrin	1.4	U			
10/18/04	Effluent	BNA-Water	Endrin aldehyde	3.8	U			
10/18/04	Effluent	BNA-Water	Fluoranthene	0.95	U			
10/18/04	Effluent	BNA-Water	Fluorene	0.95	U			
10/18/04	Effluent	BNA-Water	Heptachlor	1.4	U			
10/18/04	Effluent	BNA-Water	Heptachlor epoxide	1.4	U			
10/18/04	Effluent	BNA-Water	Hexachlorobenzene	0.95	U			
10/18/04	Effluent	BNA-Water	Hexachlorobutadiene	2.9	U			
10/18/04	Effluent	BNA-Water	Hexachlorocyclopentadiene	2.9	UJ			
10/18/04	Effluent	BNA-Water	Hexachloroethane	2.9	U			
10/18/04	Effluent	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	U			
10/18/04	Effluent	BNA-Water	Isophorone	0.95	U			
10/18/04	Effluent	BNA-Water	N-Nitrosodi-n-propylamine	1.9	U			
10/18/04	Effluent	BNA-Water	N-Nitrosodimethylamine	1.9	U			
10/18/04	Effluent	BNA-Water	N-Nitrosodiphenylamine	2.9	U			
10/18/04	Effluent	BNA-Water	Naphthalene	0.95	U			
10/18/04	Effluent	BNA-Water	Nitrobenzene	1.9	U			
10/18/04	Effluent	BNA-Water	Pentachlorophenol	2.9	U			
10/18/04	Effluent	BNA-Water	Phenanthrene	0.95	U			
10/18/04	Effluent	BNA-Water	Phenol	0.95	U			
10/18/04	Effluent	BNA-Water	Pyrene	0.95	U			
10/18/04	Effluent	BNA-Water	alpha-BHC	1.4	U			
10/18/04	Effluent	BNA-Water	beta-BHC	1.4	U			
10/18/04	Effluent	BNA-Water	delta-BHC	1.4	U			
10/18/04	Effluent	BNA-Water	gamma-BHC	1.4	U			
10/18/04	Effluent	GC-Water	Alachlor	0.58	ug/L	U	0.58	2.3
10/18/04	Effluent	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.19
10/18/04	Effluent	GC-Water	Atrazine	0.076	ug/L	I	0.048	0.19
10/18/04	Effluent	GC-Water	Azinphos Methyl	0.048	ug/L	U	0.048	0.19
10/18/04	Effluent	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
10/18/04	Effluent	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
10/18/04	Effluent	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.19
10/18/04	Effluent	GC-Water	Chlorpyrifos Methyl	0.096	ug/L	U	0.096	0.38
10/18/04	Effluent	GC-Water	Diazinon	0.048	ug/L	U	0.048	0.19
10/18/04	Effluent	GC-Water	Ethion	0.048	ug/L	U	0.048	0.19
10/18/04	Effluent	GC-Water	Ethoprop	0.096	ug/L	U	0.096	0.38
10/18/04	Effluent	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
10/18/04	Effluent	GC-Water	Fonofos	0.096	ug/L	U	0.096	0.38

10/18/04	Effluent	GC-Water	Hexazinone	0.096	ug/L	U	0.096	0.38
10/18/04	Effluent	GC-Water	Malathion	0.14	ug/L	U	0.14	0.56
10/18/04	Effluent	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
10/18/04	Effluent	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.9
10/18/04	Effluent	GC-Water	Metribuzin	0.096	ug/L	U	0.096	0.38
10/18/04	Effluent	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
10/18/04	Effluent	GC-Water	Naled	0.77	ug/L	UJ	0.77	3.1
10/18/04	Effluent	GC-Water	Norflurazon	0.096	ug/L	U	0.096	0.38
10/18/04	Effluent	GC-Water	Parathion Ethyl	0.14	ug/L	UJ	0.14	0.56
10/18/04	Effluent	GC-Water	Parathion Methyl	0.096	ug/L	U	0.096	0.38
10/18/04	Effluent	GC-Water	Phorate	0.048	ug/L	U	0.048	0.19
10/18/04	Effluent	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
10/18/04	Effluent	GC-Water	Simazine	0.048	ug/L	U	0.048	0.19
10/18/04	Effluent	GC-Water	Alachlor	0.58	U			
10/18/04	Effluent	GC-Water	Ametryn	0.048	U			
10/18/04	Effluent	GC-Water	Atrazine	0.076	I			
10/18/04	Effluent	GC-Water	Azinphos Methyl	0.048	U			
10/18/04	Effluent	GC-Water	Bromacil	0.19	U			
10/18/04	Effluent	GC-Water	Butylate	0.19	U			
10/18/04	Effluent	GC-Water	Chlorpyrifos Ethyl	0.048	U			
10/18/04	Effluent	GC-Water	Chlorpyrifos Methyl	0.096	U			
10/18/04	Effluent	GC-Water	Diazinon	0.048	U			
10/18/04	Effluent	GC-Water	Ethion	0.048	U			
10/18/04	Effluent	GC-Water	Ethoprop	0.096	U			
10/18/04	Effluent	GC-Water	Fenamiphos	0.19	U			
10/18/04	Effluent	GC-Water	Fonofos	0.096	U			
10/18/04	Effluent	GC-Water	Hexazinone	0.096	U			
10/18/04	Effluent	GC-Water	Malathion	0.14	U			
10/18/04	Effluent	GC-Water	Metalaxyl	0.24	U			
10/18/04	Effluent	GC-Water	Metolachlor	0.48	U			
10/18/04	Effluent	GC-Water	Metribuzin	0.096	U			
10/18/04	Effluent	GC-Water	Mevinphos	0.19	U			
10/18/04	Effluent	GC-Water	Naled	0.77	UJ			
10/18/04	Effluent	GC-Water	Norflurazon	0.096	U			
10/18/04	Effluent	GC-Water	Parathion Ethyl	0.14	UJ			
10/18/04	Effluent	GC-Water	Parathion Methyl	0.096	U			
10/18/04	Effluent	GC-Water	Phorate	0.048	U			
10/18/04	Effluent	GC-Water	Prometryn	0.14	U			
10/18/04	Effluent	GC-Water	Simazine	0.048	U			
10/18/04	Effluent	Metals-Water	Aluminum	82	ug/L		5	20
10/18/04	Effluent	Metals-Water	Arsenic	6	ug/L	U	6	24
10/18/04	Effluent	Metals-Water	Cadmium	0.075	ug/L	U	0.075	0.3
10/18/04	Effluent	Metals-Water	Calcium	77.6	mg/L		0.05	0.2
10/18/04	Effluent	Metals-Water	Chromium	2	ug/L	U	2	8
10/18/04	Effluent	Metals-Water	Copper	2.8	ug/L	I	0.75	3
10/18/04	Effluent	Metals-Water	Iron	42	ug/L	I	31	120
10/18/04	Effluent	Metals-Water	Lead	0.17	ug/L	I	0.075	0.3
10/18/04	Effluent	Metals-Water	Magnesium	8	mg/L		0.02	0.08
10/18/04	Effluent	Metals-Water	Nickel	2.4	ug/L	I	2	8
10/18/04	Effluent	Metals-Water	Selenium	0.5	ug/L	U	0.5	2
10/18/04	Effluent	Metals-Water	Silver	0.02	ug/L	U	0.02	0.08
10/18/04	Effluent	Metals-Water	Zinc	33	ug/L		3	12
10/18/04	Effluent	Metals-Water	Aluminum	82				
10/18/04	Effluent	Metals-Water	Arsenic	6	U			
10/18/04	Effluent	Metals-Water	Cadmium	0.075	U			
10/18/04	Effluent	Metals-Water	Calcium	77.6				
10/18/04	Effluent	Metals-Water	Chromium	2	U			
10/18/04	Effluent	Metals-Water	Copper	2.8	I			
10/18/04	Effluent	Metals-Water	Iron	42	I			
10/18/04	Effluent	Metals-Water	Lead	0.17	I			
10/18/04	Effluent	Metals-Water	Magnesium	8				
10/18/04	Effluent	Metals-Water	Nickel	2.4	I			
10/18/04	Effluent	Metals-Water	Selenium	0.5	U			
10/18/04	Effluent	Metals-Water	Silver	0.02	U			
10/18/04	Effluent	Metals-Water	Zinc	33				
10/18/04	Effluent	Nutrients-Liquid	Ammonia-N	0.03	mg N/L		0.01	0.02
10/18/04	Effluent	Nutrients-Liquid	Kjeldahl Nitrogen	0.59	mg N/L		0.12	0.4
10/18/04	Effluent	Nutrients-Liquid	NO2NO3-N	0.54	mg N/L	A	0.04	0.1
10/18/04	Effluent	Nutrients-Liquid	O-Phosphate-P	0.13	mg P/L		0.008	0.02
10/18/04	Effluent	Nutrients-Liquid	TSS	4	mg/L	U	4	16
10/18/04	Effluent	Nutrients-Liquid	Total-P	0.15	mg P/L		0.02	0.06
10/18/04	Effluent	Nutrients-Liquid	Turbidity	0.45	NTU	Q	0.05	0.05
10/18/04	Effluent	Nutrients-Liquid	Ammonia-N	0.03				
10/18/04	Effluent	Nutrients-Liquid	Kjeldahl Nitrogen	0.59				
10/18/04	Effluent	Nutrients-Liquid	NO2NO3-N	0.54	A			

10/18/04	Effluent	Nutrients-Liquid	O-Phosphate-P	0.13				
10/18/04	Effluent	Nutrients-Liquid	TSS	4	U			
10/18/04	Effluent	Nutrients-Liquid	Total-P	0.15				
10/18/04	Effluent	Nutrients-Liquid	Turbidity	0.45	Q			
10/18/04	Effluent	Overflow	Oil and Grease	0.69	mg/L	U		
10/18/04	Effluent	Overflow	Oil and Grease	0.69	U			
10/20/04	Effluent	BNA-Water	1,2,4-Trichlorobenzene	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	1,2-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	1,3-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	1,4-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	2,4,6-Trichlorophenol	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	2,4-Dichlorophenol	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
10/20/04	Effluent	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	57
10/20/04	Effluent	BNA-Water	2,4-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	2,6-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	2-Chloronaphthalene	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	2-Chlorophenol	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	11
10/20/04	Effluent	BNA-Water	2-Nitrophenol	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
10/20/04	Effluent	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
10/20/04	Effluent	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7
10/20/04	Effluent	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.7
10/20/04	Effluent	BNA-Water	4-Bromophenyl phenyl ether	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	4-Chloro-3-methylphenol	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.6
10/20/04	Effluent	BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
10/20/04	Effluent	BNA-Water	Acenaphthene	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	Acenaphthylene	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
10/20/04	Effluent	BNA-Water	Anthracene	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	Benzidine	95	ug/L	U	95	380
10/20/04	Effluent	BNA-Water	Benzo(a)anthracene	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	Benzo(a)pyrene	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	Benzo(b)fluoranthene	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	Benzo(g,h,i)perylene	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	Benzo(k)fluoranthene	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	Bis(2-chloroethoxy)methane	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	Bis(2-chloroethyl)ether	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	11
10/20/04	Effluent	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
10/20/04	Effluent	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
10/20/04	Effluent	BNA-Water	Chrysene	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
10/20/04	Effluent	BNA-Water	Di-n-octyl phthalate	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	Dibenzo(a,h)anthracene	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
10/20/04	Effluent	BNA-Water	Diethyl phthalate	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
10/20/04	Effluent	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
10/20/04	Effluent	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
10/20/04	Effluent	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
10/20/04	Effluent	BNA-Water	Endrin	1.4	ug/L	U	1.4	5.7
10/20/04	Effluent	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
10/20/04	Effluent	BNA-Water	Fluoranthene	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	Fluorene	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
10/20/04	Effluent	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
10/20/04	Effluent	BNA-Water	Hexachlorobenzene	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	11
10/20/04	Effluent	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	11
10/20/04	Effluent	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	11
10/20/04	Effluent	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	Isophorone	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.6
10/20/04	Effluent	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.6
10/20/04	Effluent	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	11
10/20/04	Effluent	BNA-Water	Naphthalene	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.6
10/20/04	Effluent	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	11
10/20/04	Effluent	BNA-Water	Phenanthrene	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	Phenol	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	Pyrene	0.95	ug/L	U	0.95	3.8
10/20/04	Effluent	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7

10/20/04	Effluent	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
10/20/04	Effluent	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
10/20/04	Effluent	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
10/20/04	Effluent	BNA-Water	1,2,4-Trichlorobenzene	0.95	U			
10/20/04	Effluent	BNA-Water	1,2-Dichlorobenzene	0.95	U			
10/20/04	Effluent	BNA-Water	1,3-Dichlorobenzene	0.95	U			
10/20/04	Effluent	BNA-Water	1,4-Dichlorobenzene	0.95	U			
10/20/04	Effluent	BNA-Water	2,4,6-Trichlorophenol	0.95	U			
10/20/04	Effluent	BNA-Water	2,4-Dichlorophenol	0.95	U			
10/20/04	Effluent	BNA-Water	2,4-Dimethylphenol	48	U			
10/20/04	Effluent	BNA-Water	2,4-Dinitrophenol	14	U			
10/20/04	Effluent	BNA-Water	2,4-Dinitrotoluene	0.95	U			
10/20/04	Effluent	BNA-Water	2,6-Dinitrotoluene	0.95	U			
10/20/04	Effluent	BNA-Water	2-Chloronaphthalene	0.95	U			
10/20/04	Effluent	BNA-Water	2-Chlorophenol	0.95	U			
10/20/04	Effluent	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	U			
10/20/04	Effluent	BNA-Water	2-Nitrophenol	0.95	U			
10/20/04	Effluent	BNA-Water	3,3'-Dichlorobenzidine	38	U			
10/20/04	Effluent	BNA-Water	4,4'-DDD	1.4	U			
10/20/04	Effluent	BNA-Water	4,4'-DDE	1.4	U			
10/20/04	Effluent	BNA-Water	4,4'-DDT	1.4	U			
10/20/04	Effluent	BNA-Water	4-Bromophenyl phenyl ether	0.95	U			
10/20/04	Effluent	BNA-Water	4-Chloro-3-methylphenol	0.95	U			
10/20/04	Effluent	BNA-Water	4-Chlorophenyl phenyl ether	1.9	U			
10/20/04	Effluent	BNA-Water	4-Nitrophenol	14	U			
10/20/04	Effluent	BNA-Water	Acenaphthene	0.95	U			
10/20/04	Effluent	BNA-Water	Acenaphthylene	0.95	U			
10/20/04	Effluent	BNA-Water	Aldrin	1.4	U			
10/20/04	Effluent	BNA-Water	Anthracene	0.95	U			
10/20/04	Effluent	BNA-Water	Benzidine	95	U			
10/20/04	Effluent	BNA-Water	Benzo(a)anthracene	0.95	U			
10/20/04	Effluent	BNA-Water	Benzo(a)pyrene	0.95	U			
10/20/04	Effluent	BNA-Water	Benzo(b)fluoranthene	0.95	U			
10/20/04	Effluent	BNA-Water	Benzo(g,h,i)perylene	0.95	U			
10/20/04	Effluent	BNA-Water	Benzo(k)fluoranthene	0.95	U			
10/20/04	Effluent	BNA-Water	Bis(2-chloroethoxy)methane	0.95	U			
10/20/04	Effluent	BNA-Water	Bis(2-chloroethyl)ether	0.95	U			
10/20/04	Effluent	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	U			
10/20/04	Effluent	BNA-Water	Bis(2-ethylhexyl)phthalate	14	U			
10/20/04	Effluent	BNA-Water	Butyl benzyl phthalate	4.8	U			
10/20/04	Effluent	BNA-Water	Chrysene	0.95	U			
10/20/04	Effluent	BNA-Water	Di-n-butyl phthalate	4.8	U			
10/20/04	Effluent	BNA-Water	Di-n-octyl phthalate	0.95	U			
10/20/04	Effluent	BNA-Water	Dibenzo(a,h)anthracene	0.95	U			
10/20/04	Effluent	BNA-Water	Dieldrin	1.4	U			
10/20/04	Effluent	BNA-Water	Diethyl phthalate	0.95	U			
10/20/04	Effluent	BNA-Water	Dimethyl phthalate	48	U			
10/20/04	Effluent	BNA-Water	Endosulfan I	3.8	U			
10/20/04	Effluent	BNA-Water	Endosulfan II	3.8	U			
10/20/04	Effluent	BNA-Water	Endosulfan sulfate	1.4	U			
10/20/04	Effluent	BNA-Water	Endrin	1.4	U			
10/20/04	Effluent	BNA-Water	Endrin aldehyde	3.8	U			
10/20/04	Effluent	BNA-Water	Fluoranthene	0.95	U			
10/20/04	Effluent	BNA-Water	Fluorene	0.95	U			
10/20/04	Effluent	BNA-Water	Heptachlor	1.4	U			
10/20/04	Effluent	BNA-Water	Heptachlor epoxide	1.4	U			
10/20/04	Effluent	BNA-Water	Hexachlorobenzene	0.95	U			
10/20/04	Effluent	BNA-Water	Hexachlorobutadiene	2.9	U			
10/20/04	Effluent	BNA-Water	Hexachlorocyclopentadiene	2.9	UJ			
10/20/04	Effluent	BNA-Water	Hexachloroethane	2.9	U			
10/20/04	Effluent	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	U			
10/20/04	Effluent	BNA-Water	Isophorone	0.95	U			
10/20/04	Effluent	BNA-Water	N-Nitrosodi-n-propylamine	1.9	U			
10/20/04	Effluent	BNA-Water	N-Nitrosodimethylamine	1.9	U			
10/20/04	Effluent	BNA-Water	N-Nitrosodiphenylamine	2.9	U			
10/20/04	Effluent	BNA-Water	Naphthalene	0.95	U			
10/20/04	Effluent	BNA-Water	Nitrobenzene	1.9	U			
10/20/04	Effluent	BNA-Water	Pentachlorophenol	2.9	U			
10/20/04	Effluent	BNA-Water	Phenanthrene	0.95	U			
10/20/04	Effluent	BNA-Water	Phenol	0.95	U			
10/20/04	Effluent	BNA-Water	Pyrene	0.95	U			
10/20/04	Effluent	BNA-Water	alpha-BHC	1.4	U			
10/20/04	Effluent	BNA-Water	beta-BHC	1.4	U			
10/20/04	Effluent	BNA-Water	delta-BHC	1.4	U			
10/20/04	Effluent	BNA-Water	gamma-BHC	1.4	U			

10/20/04	Effluent	GC-Water	Alachlor	0.57	ug/L	U	0.57	2.3
10/20/04	Effluent	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.19
10/20/04	Effluent	GC-Water	Atrazine	0.063	ug/L	I	0.048	0.19
10/20/04	Effluent	GC-Water	Azinphos Methyl	0.048	ug/L	U	0.048	0.19
10/20/04	Effluent	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
10/20/04	Effluent	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
10/20/04	Effluent	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.19
10/20/04	Effluent	GC-Water	Chlorpyrifos Methyl	0.095	ug/L	U	0.095	0.38
10/20/04	Effluent	GC-Water	Diazinon	0.048	ug/L	U	0.048	0.19
10/20/04	Effluent	GC-Water	Ethion	0.048	ug/L	U	0.048	0.19
10/20/04	Effluent	GC-Water	Ethoprop	0.095	ug/L	U	0.095	0.38
10/20/04	Effluent	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
10/20/04	Effluent	GC-Water	Fonofos	0.095	ug/L	U	0.095	0.38
10/20/04	Effluent	GC-Water	Hexazinone	0.095	ug/L	U	0.095	0.38
10/20/04	Effluent	GC-Water	Malathion	0.14	ug/L	U	0.14	0.56
10/20/04	Effluent	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
10/20/04	Effluent	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.9
10/20/04	Effluent	GC-Water	Metribuzin	0.095	ug/L	U	0.095	0.38
10/20/04	Effluent	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
10/20/04	Effluent	GC-Water	Naled	0.76	ug/L	UJ	0.76	3
10/20/04	Effluent	GC-Water	Norflurazon	0.095	ug/L	U	0.095	0.38
10/20/04	Effluent	GC-Water	Parathion Ethyl	0.14	ug/L	UJ	0.14	0.56
10/20/04	Effluent	GC-Water	Parathion Methyl	0.095	ug/L	U	0.095	0.38
10/20/04	Effluent	GC-Water	Phorate	0.048	ug/L	U	0.048	0.19
10/20/04	Effluent	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
10/20/04	Effluent	GC-Water	Simazine	0.048	ug/L	U	0.048	0.19
10/20/04	Effluent	GC-Water	Alachlor	0.57	U			
10/20/04	Effluent	GC-Water	Ametryn	0.048	U			
10/20/04	Effluent	GC-Water	Atrazine	0.063	I			
10/20/04	Effluent	GC-Water	Azinphos Methyl	0.048	U			
10/20/04	Effluent	GC-Water	Bromacil	0.19	U			
10/20/04	Effluent	GC-Water	Butylate	0.19	U			
10/20/04	Effluent	GC-Water	Chlorpyrifos Ethyl	0.048	U			
10/20/04	Effluent	GC-Water	Chlorpyrifos Methyl	0.095	U			
10/20/04	Effluent	GC-Water	Diazinon	0.048	U			
10/20/04	Effluent	GC-Water	Ethion	0.048	U			
10/20/04	Effluent	GC-Water	Ethoprop	0.095	U			
10/20/04	Effluent	GC-Water	Fenamiphos	0.19	U			
10/20/04	Effluent	GC-Water	Fonofos	0.095	U			
10/20/04	Effluent	GC-Water	Hexazinone	0.095	U			
10/20/04	Effluent	GC-Water	Malathion	0.14	U			
10/20/04	Effluent	GC-Water	Metalaxyl	0.24	U			
10/20/04	Effluent	GC-Water	Metolachlor	0.48	U			
10/20/04	Effluent	GC-Water	Metribuzin	0.095	U			
10/20/04	Effluent	GC-Water	Mevinphos	0.19	U			
10/20/04	Effluent	GC-Water	Naled	0.76	UJ			
10/20/04	Effluent	GC-Water	Norflurazon	0.095	U			
10/20/04	Effluent	GC-Water	Parathion Ethyl	0.14	UJ			
10/20/04	Effluent	GC-Water	Parathion Methyl	0.095	U			
10/20/04	Effluent	GC-Water	Phorate	0.048	U			
10/20/04	Effluent	GC-Water	Prometryn	0.14	U			
10/20/04	Effluent	GC-Water	Simazine	0.048	U			
10/20/04	Effluent	Metals-Water	Aluminum	92	ug/L		5	20
10/20/04	Effluent	Metals-Water	Arsenic	6	ug/L	U	6	24
10/20/04	Effluent	Metals-Water	Cadmium	0.075	ug/L	U	0.075	0.3
10/20/04	Effluent	Metals-Water	Calcium	83.3	mg/L		0.05	0.2
10/20/04	Effluent	Metals-Water	Chromium	2	ug/L	U	2	8
10/20/04	Effluent	Metals-Water	Copper	2.1	ug/L	I	0.75	3
10/20/04	Effluent	Metals-Water	Iron	56	ug/L		10	40
10/20/04	Effluent	Metals-Water	Lead	0.31	ug/L	U	0.31	1.2
10/20/04	Effluent	Metals-Water	Magnesium	8	mg/L		0.02	0.08
10/20/04	Effluent	Metals-Water	Nickel	2.5	ug/L	I	2	8
10/20/04	Effluent	Metals-Water	Selenium	0.5	ug/L	U	0.5	2
10/20/04	Effluent	Metals-Water	Silver	0.031	ug/L	I	0.02	0.08
10/20/04	Effluent	Metals-Water	Zinc	24	ug/L		3	12
10/20/04	Effluent	Metals-Water	Aluminum	92				
10/20/04	Effluent	Metals-Water	Arsenic	6	U			
10/20/04	Effluent	Metals-Water	Cadmium	0.075	U			
10/20/04	Effluent	Metals-Water	Calcium	83.3				
10/20/04	Effluent	Metals-Water	Chromium	2	U			
10/20/04	Effluent	Metals-Water	Copper	2.1	I			
10/20/04	Effluent	Metals-Water	Iron	56				
10/20/04	Effluent	Metals-Water	Lead	0.31	U			
10/20/04	Effluent	Metals-Water	Magnesium	8				
10/20/04	Effluent	Metals-Water	Nickel	2.5	I			

10/20/04	Effluent	Metals-Water	Selenium	0.5	U			
10/20/04	Effluent	Metals-Water	Silver	0.031	I			
10/20/04	Effluent	Metals-Water	Zinc	24				
10/20/04	Effluent	Nutrients-Liquid	Ammonia-N	0.034	mg N/L		0.01	0.02
10/20/04	Effluent	Nutrients-Liquid	Ammonia-N	0.034				
10/22/04	Effluent	BNA-Water	1,2,4-Trichlorobenzene	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	1,2-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	1,3-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	1,4-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	2,4,6-Trichlorophenol	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	2,4-Dichlorophenol	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
10/22/04	Effluent	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	57
10/22/04	Effluent	BNA-Water	2,4-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	2,6-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	2-Chloronaphthalene	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	2-Chlorophenol	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	11
10/22/04	Effluent	BNA-Water	2-Nitrophenol	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
10/22/04	Effluent	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
10/22/04	Effluent	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7
10/22/04	Effluent	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.7
10/22/04	Effluent	BNA-Water	4-Bromophenyl phenyl ether	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	4-Chloro-3-methylphenol	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.6
10/22/04	Effluent	BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
10/22/04	Effluent	BNA-Water	Acenaphthene	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	Acenaphthylene	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
10/22/04	Effluent	BNA-Water	Anthracene	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	Benzidine	95	ug/L	U	95	380
10/22/04	Effluent	BNA-Water	Benzo(a)anthracene	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	Benzo(a)pyrene	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	Benzo(b)fluoranthene	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	Benzo(g,h,i)perylene	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	Benzo(k)fluoranthene	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	Bis(2-chloroethoxy)methane	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	Bis(2-chloroethyl)ether	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	11
10/22/04	Effluent	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
10/22/04	Effluent	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
10/22/04	Effluent	BNA-Water	Chrysene	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
10/22/04	Effluent	BNA-Water	Di-n-octyl phthalate	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	Dibenzo(a,h)anthracene	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
10/22/04	Effluent	BNA-Water	Diethyl phthalate	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
10/22/04	Effluent	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
10/22/04	Effluent	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
10/22/04	Effluent	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
10/22/04	Effluent	BNA-Water	Endrin	1.4	ug/L	UJ	1.4	5.7
10/22/04	Effluent	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
10/22/04	Effluent	BNA-Water	Fluoranthene	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	Fluorene	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
10/22/04	Effluent	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
10/22/04	Effluent	BNA-Water	Hexachlorobenzene	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	11
10/22/04	Effluent	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	U	2.9	11
10/22/04	Effluent	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	11
10/22/04	Effluent	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	Isophorone	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.6
10/22/04	Effluent	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.6
10/22/04	Effluent	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	11
10/22/04	Effluent	BNA-Water	Naphthalene	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.6
10/22/04	Effluent	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	11
10/22/04	Effluent	BNA-Water	Phenanthrene	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	Phenol	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	Pyrene	0.95	ug/L	U	0.95	3.8
10/22/04	Effluent	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
10/22/04	Effluent	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7

10/22/04	Effluent	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
10/22/04	Effluent	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
10/22/04	Effluent	GC-Water	Alachlor	0.59	ug/L	U	0.59	2.4
10/22/04	Effluent	GC-Water	Ametryn	0.049	ug/L	U	0.049	0.2
10/22/04	Effluent	GC-Water	Atrazine	0.052	ug/L	I	0.049	0.2
10/22/04	Effluent	GC-Water	Azinphos Methyl	0.049	ug/L	U	0.049	0.2
10/22/04	Effluent	GC-Water	Bromacil	0.2	ug/L	U	0.2	0.8
10/22/04	Effluent	GC-Water	Butylate	0.2	ug/L	U	0.2	0.8
10/22/04	Effluent	GC-Water	Chlorpyrifos Ethyl	0.049	ug/L	U	0.049	0.2
10/22/04	Effluent	GC-Water	Chlorpyrifos Methyl	0.098	ug/L	U	0.098	0.39
10/22/04	Effluent	GC-Water	Diazinon	0.049	ug/L	U	0.049	0.2
10/22/04	Effluent	GC-Water	Ethion	0.049	ug/L	U	0.049	0.2
10/22/04	Effluent	GC-Water	Ethoprop	0.098	ug/L	U	0.098	0.39
10/22/04	Effluent	GC-Water	Fenamiphos	0.2	ug/L	U	0.2	0.8
10/22/04	Effluent	GC-Water	Fonofos	0.098	ug/L	UJ	0.098	0.39
10/22/04	Effluent	GC-Water	Hexazinone	0.098	ug/L	U	0.098	0.39
10/22/04	Effluent	GC-Water	Malathion	0.15	ug/L	U	0.15	0.6
10/22/04	Effluent	GC-Water	Metalaxyl	0.25	ug/L	U	0.25	1
10/22/04	Effluent	GC-Water	Metolachlor	0.49	ug/L	U	0.49	2
10/22/04	Effluent	GC-Water	Metribuzin	0.098	ug/L	U	0.098	0.39
10/22/04	Effluent	GC-Water	Mevinphos	0.2	ug/L	U	0.2	0.8
10/22/04	Effluent	GC-Water	Naled	0.78	ug/L	UJ	0.78	3.1
10/22/04	Effluent	GC-Water	Norflurazon	0.098	ug/L	U	0.098	0.39
10/22/04	Effluent	GC-Water	Parathion Ethyl	0.15	ug/L	UJ	0.15	0.6
10/22/04	Effluent	GC-Water	Parathion Methyl	0.098	ug/L	U	0.098	0.39
10/22/04	Effluent	GC-Water	Phorate	0.049	ug/L	U	0.049	0.2
10/22/04	Effluent	GC-Water	Prometryn	0.15	ug/L	U	0.15	0.6
10/22/04	Effluent	GC-Water	Simazine	0.049	ug/L	U	0.049	0.2
10/22/04	Effluent	Metals-Water	Aluminum	332	ug/L		5	20
10/22/04	Effluent	Metals-Water	Arsenic	6	ug/L	U	6	24
10/22/04	Effluent	Metals-Water	Cadmium	0.075	ug/L	U	0.075	0.3
10/22/04	Effluent	Metals-Water	Calcium	85.7	mg/L		0.05	0.2
10/22/04	Effluent	Metals-Water	Chromium	25.8	ug/L		2	8
10/22/04	Effluent	Metals-Water	Copper	5.6	ug/L	I	2.2	8.8
10/22/04	Effluent	Metals-Water	Iron	287	ug/L		10	40
10/22/04	Effluent	Metals-Water	Lead	12.7	ug/L		0.075	0.3
10/22/04	Effluent	Metals-Water	Magnesium	8.2	mg/L		0.02	0.08
10/22/04	Effluent	Metals-Water	Nickel	16	ug/L		2	8
10/22/04	Effluent	Metals-Water	Selenium	0.5	ug/L	U	0.5	2
10/22/04	Effluent	Metals-Water	Silver	0.049	ug/L	I	0.02	0.08
10/22/04	Effluent	Metals-Water	Zinc	47	ug/L		3	12
10/22/04	Effluent	Nutrients-Liquid	Ammonia-N	0.025	mg N/L		0.01	0.02
10/20/04	Site 1	Bio-AFDW	Sediment % Organic	4.1	% dry wt	A		
10/20/04	Site 1	Bio-AFDW	Sed Particle Size, %, 0.063-0.125mm	13.4	% vol <2mm	A		
10/20/04	Site 1	Bio-AFDW	Sed Particle Size, %, 0.125-0.25 mm	25.6	% vol <2mm	A		
10/20/04	Site 1	Bio-AFDW	Sed Particle Size, %, 0.25-0.5 mm	15.2	% vol <2mm	A		
10/20/04	Site 1	Bio-AFDW	Sed Particle Size, %, 0.5-2.0 mm	12	% vol <2mm	A		
10/20/04	Site 1	Bio-AFDW	Sed Particle Size, %, <0.063 mm	33.8	% vol <2mm	A		
10/20/04	Site 1	Bio-AFDW	Sed Particle Size, %, >2.0 mm	4.2	%tot drywt	A		
10/20/04	Site 1	Bio-AGP/LimNut	Algal Growth Potential	4.06	mg DryWt/L	J	0.3	0.9
10/20/04	Site 1	Bio-Chl-a	Chl-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
10/20/04	Site 1	Bio-Chl-a	Phytn-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
10/20/04	Site 1	BNA-Waste	1,2,4-Trichlorobenzene	330	ug/kg	U	330	1.30E+03
10/20/04	Site 1	BNA-Waste	1,2-Dichlorobenzene	330	ug/kg	U	330	1.30E+03
10/20/04	Site 1	BNA-Waste	1,3-Dichlorobenzene	330	ug/kg	U	330	1.30E+03
10/20/04	Site 1	BNA-Waste	1,4-Dichlorobenzene	330	ug/kg	U	330	1.30E+03
10/20/04	Site 1	BNA-Waste	2,4,6-Trichlorophenol	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	2,4-Dichlorophenol	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	2,4-Dimethylphenol	3.30E+03	ug/kg	U	3.30E+03	1.30E+04
10/20/04	Site 1	BNA-Waste	2,4-Dinitrophenol	660	ug/kg	U	660	2.60E+03
10/20/04	Site 1	BNA-Waste	2,4-Dinitrotoluene	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	2,6-Dinitrotoluene	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	2-Chloronaphthalene	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	2-Chlorophenol	330	ug/kg	U	330	1.30E+03
10/20/04	Site 1	BNA-Waste	2-Methyl-4,6-dinitrophenol	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	2-Nitrophenol	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	3,3'-Dichlorobenzidine	6.60E+03	ug/kg	UJ	6.60E+03	2.60E+04
10/20/04	Site 1	BNA-Waste	4,4'-DDD	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	4,4'-DDE	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	4,4'-DDT	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	4-Bromophenyl phenyl ether	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	4-Chloro-3-methylphenol	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	4-Chlorophenyl phenyl ether	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	4-Nitrophenol	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Acenaphthene	110	ug/kg	U	110	440

10/20/04	Site 1	BNA-Waste	Acenaphthylene	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Aldrin	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Anthracene	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Azobenzene/1,2-Diphenylhydrazine	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Benzidine	2.40E+03	ug/kg	U	2.40E+03	9.50E+03
10/20/04	Site 1	BNA-Waste	Benzo(a)anthracene	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Benzo(a)pyrene	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Benzo(b)fluoranthene	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Benzo(g,h,i)perylene	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Benzo(k)fluoranthene	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Bis(2-chloroethoxy)methane	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Bis(2-chloroethyl)ether	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Bis(2-chloroisopropyl)ether	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Bis(2-ethylhexyl)phthalate	660	ug/kg	U	660	2.60E+03
10/20/04	Site 1	BNA-Waste	Butyl benzyl phthalate	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Chrysene	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Di-n-butyl phthalate	660	ug/kg	U	660	2.60E+03
10/20/04	Site 1	BNA-Waste	Di-n-octyl phthalate	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Dibenzo(a,h)anthracene	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Dieldrin	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Diethyl phthalate	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Dimethyl phthalate	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Endosulfan I	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Endosulfan II	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Endosulfan sulfate	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Endrin	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Endrin aldehyde	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Fluoranthene	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Fluorene	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Heptachlor	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Heptachlor epoxide	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Hexachlorobenzene	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Hexachlorobutadiene	330	ug/kg	U	330	1.30E+03
10/20/04	Site 1	BNA-Waste	Hexachlorocyclopentadiene	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Hexachloroethane	330	ug/kg	U	330	1.30E+03
10/20/04	Site 1	BNA-Waste	Indeno(1,2,3-cd)pyrene	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Isophorone	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	N-Nitrosodi-n-propylamine	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	N-Nitrosodimethylamine	660	ug/kg	U	660	2.60E+03
10/20/04	Site 1	BNA-Waste	N-Nitrosodiphenylamine	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Naphthalene	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Nitrobenzene	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Pentachlorophenol	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Phenanthrene	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Phenol	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	Pyrene	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	alpha-BHC	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	beta-BHC	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	delta-BHC	110	ug/kg	U	110	440
10/20/04	Site 1	BNA-Waste	gamma-BHC	110	ug/kg	U	110	440
10/20/04	Site 1	GC-Soil	Alachlor	36	ug/kg	U	36	140
10/20/04	Site 1	GC-Soil	Aldrin	0.61	ug/Kg	U	0.61	2.4
10/20/04	Site 1	GC-Soil	Alpha-BHC	0.61	ug/Kg	U	0.61	2.4
10/20/04	Site 1	GC-Soil	Ametryn	3	ug/kg	U	3	12
10/20/04	Site 1	GC-Soil	Atrazine	3	ug/kg	U	3	12
10/20/04	Site 1	GC-Soil	Azinphos Methyl	3	ug/kg	U	3	12
10/20/04	Site 1	GC-Soil	Beta-BHC	0.61	ug/Kg	U	0.61	2.4
10/20/04	Site 1	GC-Soil	Bromacil	24	ug/kg	U	24	96
10/20/04	Site 1	GC-Soil	Chlordane	9.1	ug/Kg	U	9.1	36
10/20/04	Site 1	GC-Soil	Chlorpyrifos Ethyl	3	ug/kg	U	3	12
10/20/04	Site 1	GC-Soil	Chlorpyrifos Methyl	6.1	ug/kg	U	6.1	24
10/20/04	Site 1	GC-Soil	DDD-p,p'	1.2	ug/Kg	U	1.2	4.8
10/20/04	Site 1	GC-Soil	DDE-p,p'	1.2	ug/Kg	U	1.2	4.8
10/20/04	Site 1	GC-Soil	DDT-p,p'	1.8	ug/Kg	U	1.8	7.2
10/20/04	Site 1	GC-Soil	Delta-BHC	1.2	ug/Kg	U	1.2	4.8
10/20/04	Site 1	GC-Soil	Diazinon	6.1	ug/kg	U	6.1	24
10/20/04	Site 1	GC-Soil	Dieldrin	0.61	ug/Kg	U	0.61	2.4
10/20/04	Site 1	GC-Soil	Endosulfan I	0.61	ug/Kg	U	0.61	2.4
10/20/04	Site 1	GC-Soil	Endosulfan II	0.61	ug/Kg	U	0.61	2.4
10/20/04	Site 1	GC-Soil	Endosulfan Sulfate	1.2	ug/Kg	U	1.2	4.8
10/20/04	Site 1	GC-Soil	Endrin	3	ug/Kg	UJ	3	12
10/20/04	Site 1	GC-Soil	Endrin Aldehyde	1.2	ug/Kg	U	1.2	4.8
10/20/04	Site 1	GC-Soil	Ethion	3	ug/kg	U	3	12
10/20/04	Site 1	GC-Soil	Ethoprop	6.1	ug/kg	U	6.1	24
10/20/04	Site 1	GC-Soil	Fenamiphos	24	ug/kg	U	24	96

10/20/04	Site 1	GC-Soil	Fonofos	6.1	ug/kg	U	6.1	24
10/20/04	Site 1	GC-Soil	Gamma-BHC	0.61	ug/Kg	U	0.61	2.4
10/20/04	Site 1	GC-Soil	Heptachlor	0.61	ug/Kg	U	0.61	2.4
10/20/04	Site 1	GC-Soil	Heptachlor Epoxide	0.61	ug/Kg	U	0.61	2.4
10/20/04	Site 1	GC-Soil	Hexazinone	12	ug/kg	U	12	48
10/20/04	Site 1	GC-Soil	Malathion	9.1	ug/kg	U	9.1	36
10/20/04	Site 1	GC-Soil	Methamidophos	30	ug/kg	U	30	120
10/20/04	Site 1	GC-Soil	Methoxychlor	3	ug/Kg	U	3	12
10/20/04	Site 1	GC-Soil	Metolachlor	30	ug/kg	U	30	120
10/20/04	Site 1	GC-Soil	Metribuzin	6.1	ug/kg	U	6.1	24
10/20/04	Site 1	GC-Soil	Mevinphos	12	ug/kg	U	12	48
10/20/04	Site 1	GC-Soil	Monocrotophos	30	ug/kg	U	30	120
10/20/04	Site 1	GC-Soil	Naled	49	ug/kg	UJ	49	200
10/20/04	Site 1	GC-Soil	Norflurazon	6.1	ug/kg	U	6.1	24
10/20/04	Site 1	GC-Soil	PCB-1016	18	ug/Kg	U	18	72
10/20/04	Site 1	GC-Soil	PCB-1221	12	ug/Kg	UJ	12	48
10/20/04	Site 1	GC-Soil	PCB-1232	27	ug/Kg	UJ	27	110
10/20/04	Site 1	GC-Soil	PCB-1242	18	ug/Kg	UJ	18	72
10/20/04	Site 1	GC-Soil	PCB-1248	12	ug/Kg	U	12	48
10/20/04	Site 1	GC-Soil	PCB-1254	12	ug/Kg	U	12	48
10/20/04	Site 1	GC-Soil	PCB-1260	18	ug/Kg	U	18	72
10/20/04	Site 1	GC-Soil	Parathion Ethyl	9.1	ug/kg	U	9.1	36
10/20/04	Site 1	GC-Soil	Parathion Methyl	9.1	ug/kg	U	9.1	36
10/20/04	Site 1	GC-Soil	Phorate	3	ug/kg	U	3	12
10/20/04	Site 1	GC-Soil	Prometryn	9.1	ug/kg	U	9.1	36
10/20/04	Site 1	GC-Soil	Simazine	3	ug/kg	U	3	12
10/20/04	Site 1	GC-Soil	Toxaphene	45	ug/Kg	U	45	180
10/20/04	Site 1	Metals-Waste	Aluminum	1.06E+04	mg/Kg		61	250
10/20/04	Site 1	Metals-Waste	Arsenic	2.7	mg/Kg		0.57	2.3
10/20/04	Site 1	Metals-Waste	Cadmium	0.15	mg/Kg	I	0.061	0.25
10/20/04	Site 1	Metals-Waste	Calcium	1.13E+04	mg/Kg		25	98
10/20/04	Site 1	Metals-Waste	Chromium	38.3	mg/Kg		0.16	0.65
10/20/04	Site 1	Metals-Waste	Copper	5.2	mg/Kg		0.57	2.3
10/20/04	Site 1	Metals-Waste	Iron	6.08E+03	mg/Kg		1.2	4.9
10/20/04	Site 1	Metals-Waste	Lead	8.2	mg/Kg		0.41	1.6
10/20/04	Site 1	Metals-Waste	Magnesium	4.10E+03	mg/Kg		2	8.2
10/20/04	Site 1	Metals-Waste	Manganese	30.2	mg/Kg		0.041	0.16
10/20/04	Site 1	Metals-Waste	Nickel	5.54	mg/Kg		0.16	0.65
10/20/04	Site 1	Metals-Waste	Selenium	0.57	mg/Kg	U	0.57	2.3
10/20/04	Site 1	Metals-Waste	Silver	0.13	mg/Kg	I	0.082	0.33
10/20/04	Site 1	Metals-Waste	Zinc	20	mg/Kg		1.2	4.9
10/20/04	Site 1	Nutrients-Liquid	Ammonia-N	0.018	mg N/L	I	0.01	0.02
10/20/04	Site 1	Nutrients-Liquid	Kjeldahl Nitrogen	0.92	mg N/L		0.06	0.2
10/20/04	Site 1	Nutrients-Liquid	NO2NO3-N	0.022	mg N/L		0.004	0.01
10/20/04	Site 1	Nutrients-Liquid	O-Phosphate-P	0.11	mg P/L		0.008	0.02
10/20/04	Site 1	Nutrients-Liquid	TSS	13	mg/L	I	4	16
10/20/04	Site 1	Nutrients-Liquid	Total-P	0.18	mg P/L		0.02	0.06
10/20/04	Site 1 REP.1	Bio-Invertebrates	Quan-NatSubstr-# Taxa	19	# Taxa			
10/20/04	Site 1 REP.2	Bio-Invertebrates	Quan-NatSubstr-# Taxa		# Taxa			
10/20/04	Site 1 REP.3	Bio-Invertebrates	Quan-NatSubstr-# Taxa	20	# Taxa			
10/20/04	Site 1 REP.4	Bio-Invertebrates	Quan-NatSubstr-# Taxa	21	# Taxa			
10/20/04	Site 1 REP.5	Bio-Invertebrates	Quan-NatSubstr-# Taxa	21	# Taxa			
10/20/04	Site 2	Bio-AFDW	Sediment % Organic	3.3	% dry wt			
10/20/04	Site 2	Bio-AFDW	Sed Particle Size, %, 0.063-0.125mm	13.4	% vol <2mm			
10/20/04	Site 2	Bio-AFDW	Sed Particle Size, %, 0.125-0.25 mm	27.4	% vol <2mm			
10/20/04	Site 2	Bio-AFDW	Sed Particle Size, %, 0.25-0.5 mm	15.6	% vol <2mm			
10/20/04	Site 2	Bio-AFDW	Sed Particle Size, %, 0.5-2.0 mm	11.2	% vol <2mm			
10/20/04	Site 2	Bio-AFDW	Sed Particle Size, %, <0.063 mm	32.4	% vol <2mm			
10/20/04	Site 2	Bio-AFDW	Sed Particle Size, %, >2.0 mm	8.1	%tot drywt			
10/20/04	Site 2	Bio-AGP/LimNut	Algal Growth Potential	4.64	mg DryWt/L	J	0.3	0.9
10/20/04	Site 2	Bio-Chl-a	Chl-A, Monochromatic, Water	1.5	ug/L	I	0.85	2.6
10/20/04	Site 2	Bio-Chl-a	Phytn-A, Monochromatic, Water	0	ug/L	J	0.85	2.6
10/20/04	Site 2	BNA-Waste	1,2,4-Trichlorobenzene	290	ug/kg	U	290	1.10E+03
10/20/04	Site 2	BNA-Waste	1,2-Dichlorobenzene	290	ug/kg	U	290	1.10E+03
10/20/04	Site 2	BNA-Waste	1,3-Dichlorobenzene	290	ug/kg	U	290	1.10E+03
10/20/04	Site 2	BNA-Waste	1,4-Dichlorobenzene	290	ug/kg	U	290	1.10E+03
10/20/04	Site 2	BNA-Waste	2,4,6-Trichlorophenol	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	2,4-Dichlorophenol	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	2,4-Dimethylphenol	2.90E+03	ug/kg	U	2.90E+03	1.10E+04
10/20/04	Site 2	BNA-Waste	2,4-Dinitrophenol	570	ug/kg	U	570	2.30E+03
10/20/04	Site 2	BNA-Waste	2,4-Dinitrotoluene	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	2,6-Dinitrotoluene	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	2-Chloronaphthalene	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	2-Chlorophenol	290	ug/kg	U	290	1.10E+03
10/20/04	Site 2	BNA-Waste	2-Methyl-4,6-dinitrophenol	96	ug/kg	U	96	380

10/20/04	Site 2	BNA-Waste	2-Nitrophenol	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	3,3'-Dichlorobenzidine	5.70E+03	ug/kg	UJ	5.70E+03	2.30E+04
10/20/04	Site 2	BNA-Waste	4,4'-DDD	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	4,4'-DDE	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	4,4'-DDT	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	4-Bromophenyl phenyl ether	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	4-Chloro-3-methylphenol	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	4-Chlorophenyl phenyl ether	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	4-Nitrophenol	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Acenaphthene	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Acenaphthylene	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Aldrin	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Anthracene	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Azobenzene/1,2-Diphenylhydrazine	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Benzidine	2.10E+03	ug/kg	U	2.10E+03	8.30E+03
10/20/04	Site 2	BNA-Waste	Benzo(a)anthracene	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Benzo(a)pyrene	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Benzo(b)fluoranthene	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Benzo(g,h,i)perylene	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Benzo(k)fluoranthene	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Bis(2-chloroethoxy)methane	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Bis(2-chloroethyl)ether	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Bis(2-chloroisopropyl)ether	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Bis(2-ethylhexyl)phthalate	570	ug/kg	U	570	2.30E+03
10/20/04	Site 2	BNA-Waste	Butyl benzyl phthalate	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Chrysene	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Di-n-butyl phthalate	570	ug/kg	U	570	2.30E+03
10/20/04	Site 2	BNA-Waste	Di-n-octyl phthalate	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Dibenzo(a,h)anthracene	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Dieldrin	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Diethyl phthalate	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Dimethyl phthalate	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Endosulfan I	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Endosulfan II	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Endosulfan sulfate	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Endrin	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Endrin aldehyde	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Fluoranthene	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Fluorene	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Heptachlor	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Heptachlor epoxide	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Hexachlorobenzene	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Hexachlorobutadiene	290	ug/kg	U	290	1.10E+03
10/20/04	Site 2	BNA-Waste	Hexachlorocyclopentadiene	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Hexachloroethane	290	ug/kg	U	290	1.10E+03
10/20/04	Site 2	BNA-Waste	Indeno(1,2,3-cd)pyrene	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Isophorone	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	N-Nitrosodi-n-propylamine	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	N-Nitrosodimethylamine	570	ug/kg	U	570	2.30E+03
10/20/04	Site 2	BNA-Waste	N-Nitrosodiphenylamine	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Naphthalene	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Nitrobenzene	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Pentachlorophenol	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Phenanthrene	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	Phenol	360	ug/kg	I	96	380
10/20/04	Site 2	BNA-Waste	Pyrene	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	alpha-BHC	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	beta-BHC	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	delta-BHC	96	ug/kg	U	96	380
10/20/04	Site 2	BNA-Waste	gamma-BHC	96	ug/kg	U	96	380
10/20/04	Site 2	GC-Soil	Alachlor	32	ug/kg	U	32	130
10/20/04	Site 2	GC-Soil	Aldrin	0.53	ug/Kg	U	0.53	2.1
10/20/04	Site 2	GC-Soil	Alpha-BHC	0.53	ug/Kg	U	0.53	2.1
10/20/04	Site 2	GC-Soil	Ametryn	2.6	ug/kg	U	2.6	10
10/20/04	Site 2	GC-Soil	Atrazine	2.6	ug/kg	U	2.6	10
10/20/04	Site 2	GC-Soil	Azinphos Methyl	2.6	ug/kg	U	2.6	10
10/20/04	Site 2	GC-Soil	Beta-BHC	0.53	ug/Kg	U	0.53	2.1
10/20/04	Site 2	GC-Soil	Bromacil	21	ug/kg	U	21	84
10/20/04	Site 2	GC-Soil	Chlordane	7.9	ug/Kg	U	7.9	32
10/20/04	Site 2	GC-Soil	Chlorpyrifos Ethyl	2.6	ug/kg	U	2.6	10
10/20/04	Site 2	GC-Soil	Chlorpyrifos Methyl	5.3	ug/kg	U	5.3	21
10/20/04	Site 2	GC-Soil	DDD-p,p'	1.1	ug/Kg	U	1.1	4.4
10/20/04	Site 2	GC-Soil	DDE-p,p'	1.1	ug/Kg	U	1.1	4.4
10/20/04	Site 2	GC-Soil	DDT-p,p'	1.6	ug/Kg	U	1.6	6.4
10/20/04	Site 2	GC-Soil	Delta-BHC	1.1	ug/Kg	U	1.1	4.4

10/20/04	Site 2	GC-Soil	Diazinon	5.3	ug/kg	U	5.3	21
10/20/04	Site 2	GC-Soil	Dieldrin	0.53	ug/Kg	U	0.53	2.1
10/20/04	Site 2	GC-Soil	Endosulfan I	0.53	ug/Kg	U	0.53	2.1
10/20/04	Site 2	GC-Soil	Endosulfan II	0.53	ug/Kg	U	0.53	2.1
10/20/04	Site 2	GC-Soil	Endosulfan Sulfate	1.1	ug/Kg	U	1.1	4.4
10/20/04	Site 2	GC-Soil	Endrin	2.6	ug/Kg	UJ	2.6	10
10/20/04	Site 2	GC-Soil	Endrin Aldehyde	1.1	ug/Kg	U	1.1	4.4
10/20/04	Site 2	GC-Soil	Ethion	2.6	ug/kg	U	2.6	10
10/20/04	Site 2	GC-Soil	Ethoprop	5.3	ug/kg	U	5.3	21
10/20/04	Site 2	GC-Soil	Fenamiphos	21	ug/kg	U	21	84
10/20/04	Site 2	GC-Soil	Fonofos	5.3	ug/kg	U	5.3	21
10/20/04	Site 2	GC-Soil	Gamma-BHC	0.53	ug/Kg	U	0.53	2.1
10/20/04	Site 2	GC-Soil	Heptachlor	0.53	ug/Kg	U	0.53	2.1
10/20/04	Site 2	GC-Soil	Heptachlor Epoxide	0.53	ug/Kg	U	0.53	2.1
10/20/04	Site 2	GC-Soil	Hexazinone	11	ug/kg	U	11	44
10/20/04	Site 2	GC-Soil	Malathion	7.9	ug/kg	U	7.9	32
10/20/04	Site 2	GC-Soil	Methamidophos	26	ug/kg	U	26	100
10/20/04	Site 2	GC-Soil	Methoxychlor	2.6	ug/Kg	U	2.6	10
10/20/04	Site 2	GC-Soil	Metolachlor	26	ug/kg	U	26	100
10/20/04	Site 2	GC-Soil	Metribuzin	5.3	ug/kg	U	5.3	21
10/20/04	Site 2	GC-Soil	Mevinphos	11	ug/kg	U	11	44
10/20/04	Site 2	GC-Soil	Monocrotophos	26	ug/kg	U	26	100
10/20/04	Site 2	GC-Soil	Naled	43	ug/kg	UJ	43	170
10/20/04	Site 2	GC-Soil	Norflurazon	5.3	ug/kg	U	5.3	21
10/20/04	Site 2	GC-Soil	PCB-1016	16	ug/Kg	U	16	64
10/20/04	Site 2	GC-Soil	PCB-1221	11	ug/Kg	UJ	11	44
10/20/04	Site 2	GC-Soil	PCB-1232	24	ug/Kg	UJ	24	96
10/20/04	Site 2	GC-Soil	PCB-1242	16	ug/Kg	UJ	16	64
10/20/04	Site 2	GC-Soil	PCB-1248	11	ug/Kg	U	11	44
10/20/04	Site 2	GC-Soil	PCB-1254	11	ug/Kg	U	11	44
10/20/04	Site 2	GC-Soil	PCB-1260	16	ug/Kg	U	16	64
10/20/04	Site 2	GC-Soil	Parathion Ethyl	7.9	ug/kg	U	7.9	32
10/20/04	Site 2	GC-Soil	Parathion Methyl	7.9	ug/kg	U	7.9	32
10/20/04	Site 2	GC-Soil	Phorate	2.6	ug/kg	U	2.6	10
10/20/04	Site 2	GC-Soil	Prometryn	7.9	ug/kg	U	7.9	32
10/20/04	Site 2	GC-Soil	Simazine	2.6	ug/kg	U	2.6	10
10/20/04	Site 2	GC-Soil	Toxaphene	39	ug/Kg	U	39	160
10/20/04	Site 2	Metals-Waste	Aluminum	1.39E+04	mg/Kg		70	280
10/20/04	Site 2	Metals-Waste	Arsenic	4.1	mg/Kg		0.65	2.6
10/20/04	Site 2	Metals-Waste	Cadmium	0.089	mg/Kg	I	0.07	0.28
10/20/04	Site 2	Metals-Waste	Calcium	5.05E+03	mg/Kg		28	110
10/20/04	Site 2	Metals-Waste	Chromium	67.5	mg/Kg		0.19	0.75
10/20/04	Site 2	Metals-Waste	Copper	3.1	mg/Kg		0.65	2.6
10/20/04	Site 2	Metals-Waste	Iron	7.04E+03	mg/Kg		1.4	5.6
10/20/04	Site 2	Metals-Waste	Lead	5.1	mg/Kg		0.47	1.9
10/20/04	Site 2	Metals-Waste	Magnesium	5.55E+03	mg/Kg		2.3	9.3
10/20/04	Site 2	Metals-Waste	Manganese	22.9	mg/Kg		0.047	0.19
10/20/04	Site 2	Metals-Waste	Nickel	6.19	mg/Kg		0.19	0.75
10/20/04	Site 2	Metals-Waste	Selenium	0.65	mg/Kg	U	0.65	2.6
10/20/04	Site 2	Metals-Waste	Silver	0.093	mg/Kg	U	0.093	0.37
10/20/04	Site 2	Metals-Waste	Zinc	23.4	mg/Kg		1.4	5.6
10/20/04	Site 2	Nutrients-Liquid	Ammonia-N	0.02	mg N/L	I	0.01	0.02
10/20/04	Site 2	Nutrients-Liquid	Kjeldahl Nitrogen	0.82	mg N/L		0.06	0.2
10/20/04	Site 2	Nutrients-Liquid	NO2NO3-N	0.025	mg N/L		0.004	0.01
10/20/04	Site 2	Nutrients-Liquid	O-Phosphate-P	0.12	mg P/L		0.008	0.02
10/20/04	Site 2	Nutrients-Liquid	TSS	14	mg/L	I	4	16
10/20/04	Site 2	Nutrients-Liquid	Total-P	0.2	mg P/L		0.02	0.06
10/20/04	Site 2 REP.1	Bio-Invertebrates	Macroinvert-Quan-NatSubstr-# Taxa	20	# Taxa			
10/20/04	Site 2 REP.2	Bio-Invertebrates	Macroinvert-Quan-NatSubstr-# Taxa	18	# Taxa			
10/20/04	Site 2 REP.3	Bio-Invertebrates	Macroinvert-Quan-NatSubstr-# Taxa	13	# Taxa			
10/20/04	Site 2 REP.4	Bio-Invertebrates	Macroinvert-Quan-NatSubstr-# Taxa	12	# Taxa			
10/20/04	Site 2 REP.5	Bio-Invertebrates	Macroinvert-Quan-NatSubstr-# Taxa	17	# Taxa			
10/20/04	Site 3	Bio-AFDW	Sediment % Organic	5.4	% dry wt			
10/20/04	Site 3	Bio-AFDW	Sed Particle Size, %, 0.063-0.125mm	19.4	% vol <2mm			
10/20/04	Site 3	Bio-AFDW	Sed Particle Size, %, 0.125-0.25 mm	20.2	% vol <2mm			
10/20/04	Site 3	Bio-AFDW	Sed Particle Size, %, 0.25-0.5 mm	6.56	% vol <2mm			
10/20/04	Site 3	Bio-AFDW	Sed Particle Size, %, 0.5-2.0 mm	2.31	% vol <2mm			
10/20/04	Site 3	Bio-AFDW	Sed Particle Size, %, <0.063 mm	51.6	% vol <2mm			
10/20/04	Site 3	Bio-AFDW	Sed Particle Size, %, >2.0 mm	1	%tot drywt	K		
10/20/04	Site 3	Bio-AGP/LimNut	Algal Growth Potential	4.31	mg DryWt/L	AJ	0.3	0.9
10/20/04	Site 3	Bio-Chl-a	Chl-A, Monochromatic, Water	1.9	ug/L	I	0.85	2.6
10/20/04	Site 3	Bio-Chl-a	Phytn-A, Monochromatic, Water	0	ug/L	J	0.85	2.6
10/20/04	Site 3	BNA-Waste	1,2,4-Trichlorobenzene	400	ug/kg	U	400	1.60E+03
10/20/04	Site 3	BNA-Waste	1,2-Dichlorobenzene	400	ug/kg	U	400	1.60E+03
10/20/04	Site 3	BNA-Waste	1,3-Dichlorobenzene	400	ug/kg	U	400	1.60E+03

10/20/04	Site 3	BNA-Waste	1,4-Dichlorobenzene	400	ug/kg	U	400	1.60E+03
10/20/04	Site 3	BNA-Waste	2,4,6-Trichlorophenol	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	2,4-Dichlorophenol	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	2,4-Dimethylphenol	4.00E+03	ug/kg	U	4.00E+03	1.60E+04
10/20/04	Site 3	BNA-Waste	2,4-Dinitrophenol	810	ug/kg	U	810	3.20E+03
10/20/04	Site 3	BNA-Waste	2,4-Dinitrotoluene	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	2,6-Dinitrotoluene	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	2-Chloronaphthalene	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	2-Chlorophenol	400	ug/kg	U	400	1.60E+03
10/20/04	Site 3	BNA-Waste	2-Methyl-4,6-dinitrophenol	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	2-Nitrophenol	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	3,3'-Dichlorobenzidine	8.10E+03	ug/kg	UJ	8.10E+03	3.20E+04
10/20/04	Site 3	BNA-Waste	4,4'-DDD	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	4,4'-DDE	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	4,4'-DDT	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	4-Bromophenyl phenyl ether	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	4-Chloro-3-methylphenol	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	4-Chlorophenyl phenyl ether	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	4-Nitrophenol	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Acenaphthene	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Acenaphthylene	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Aldrin	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Anthracene	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Azobenzene/1,2-Diphenylhydrazine	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Benzidine	2.90E+03	ug/kg	U	2.90E+03	1.20E+04
10/20/04	Site 3	BNA-Waste	Benzo(a)anthracene	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Benzo(a)pyrene	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Benzo(b)fluoranthene	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Benzo(g,h,i)perylene	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Benzo(k)fluoranthene	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Bis(2-chloroethoxy)methane	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Bis(2-chloroethyl)ether	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Bis(2-chloroisopropyl)ether	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Bis(2-ethylhexyl)phthalate	810	ug/kg	U	810	3.20E+03
10/20/04	Site 3	BNA-Waste	Butyl benzyl phthalate	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Chrysene	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Di-n-butyl phthalate	810	ug/kg	U	810	3.20E+03
10/20/04	Site 3	BNA-Waste	Di-n-octyl phthalate	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Dibenzo(a,h)anthracene	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Dieldrin	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Diethyl phthalate	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Dimethyl phthalate	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Endosulfan I	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Endosulfan II	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Endosulfan sulfate	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Endrin	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Endrin aldehyde	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Fluoranthene	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Fluorene	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Heptachlor	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Heptachlor epoxide	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Hexachlorobenzene	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Hexachlorobutadiene	400	ug/kg	U	400	1.60E+03
10/20/04	Site 3	BNA-Waste	Hexachlorocyclopentadiene	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Hexachloroethane	400	ug/kg	U	400	1.60E+03
10/20/04	Site 3	BNA-Waste	Indeno(1,2,3-cd)pyrene	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Isophorone	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	N-Nitrosodi-n-propylamine	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	N-Nitrosodimethylamine	810	ug/kg	U	810	3.20E+03
10/20/04	Site 3	BNA-Waste	N-Nitrosodiphenylamine	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Naphthalene	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Nitrobenzene	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Pentachlorophenol	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Phenanthrene	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Phenol	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	Pyrene	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	alpha-BHC	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	beta-BHC	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	delta-BHC	130	ug/kg	U	130	540
10/20/04	Site 3	BNA-Waste	gamma-BHC	130	ug/kg	U	130	540
10/20/04	Site 3	GC-Soil	Alachlor	44	ug/kg	U	44	180
10/20/04	Site 3	GC-Soil	Aldrin	0.74	ug/Kg	U	0.74	3
10/20/04	Site 3	GC-Soil	Alpha-BHC	0.74	ug/Kg	U	0.74	3
10/20/04	Site 3	GC-Soil	Ametryn	3.7	ug/kg	U	3.7	15
10/20/04	Site 3	GC-Soil	Atrazine	3.7	ug/kg	U	3.7	15

10/20/04	Site 3	GC-Soil	Azinphos Methyl	3.7	ug/kg	U	3.7	15
10/20/04	Site 3	GC-Soil	Beta-BHC	0.74	ug/Kg	U	0.74	3
10/20/04	Site 3	GC-Soil	Bromacil	30	ug/kg	U	30	120
10/20/04	Site 3	GC-Soil	Chlordane	11	ug/Kg	U	11	44
10/20/04	Site 3	GC-Soil	Chlorpyrifos Ethyl	3.7	ug/kg	U	3.7	15
10/20/04	Site 3	GC-Soil	Chlorpyrifos Methyl	7.4	ug/kg	U	7.4	30
10/20/04	Site 3	GC-Soil	DDD-p,p'	1.5	ug/Kg	U	1.5	6
10/20/04	Site 3	GC-Soil	DDE-p,p'	1.5	ug/Kg	U	1.5	6
10/20/04	Site 3	GC-Soil	DDT-p,p'	2.2	ug/Kg	U	2.2	8.8
10/20/04	Site 3	GC-Soil	Delta-BHC	1.5	ug/Kg	U	1.5	6
10/20/04	Site 3	GC-Soil	Diazinon	7.4	ug/kg	U	7.4	30
10/20/04	Site 3	GC-Soil	Dieldrin	0.74	ug/Kg	U	0.74	3
10/20/04	Site 3	GC-Soil	Endosulfan I	0.74	ug/Kg	U	0.74	3
10/20/04	Site 3	GC-Soil	Endosulfan II	0.74	ug/Kg	U	0.74	3
10/20/04	Site 3	GC-Soil	Endosulfan Sulfate	1.5	ug/Kg	U	1.5	6
10/20/04	Site 3	GC-Soil	Endrin	3.7	ug/Kg	UJ	3.7	15
10/20/04	Site 3	GC-Soil	Endrin Aldehyde	1.5	ug/Kg	U	1.5	6
10/20/04	Site 3	GC-Soil	Ethion	3.7	ug/kg	U	3.7	15
10/20/04	Site 3	GC-Soil	Ethoprop	7.4	ug/kg	U	7.4	30
10/20/04	Site 3	GC-Soil	Fenamiphos	30	ug/kg	U	30	120
10/20/04	Site 3	GC-Soil	Fonofos	7.4	ug/kg	U	7.4	30
10/20/04	Site 3	GC-Soil	Gamma-BHC	0.74	ug/Kg	U	0.74	3
10/20/04	Site 3	GC-Soil	Heptachlor	0.74	ug/Kg	U	0.74	3
10/20/04	Site 3	GC-Soil	Heptachlor Epoxide	0.74	ug/Kg	U	0.74	3
10/20/04	Site 3	GC-Soil	Hexazinone	15	ug/kg	U	15	60
10/20/04	Site 3	GC-Soil	Malathion	11	ug/kg	U	11	44
10/20/04	Site 3	GC-Soil	Methamidophos	37	ug/kg	U	37	150
10/20/04	Site 3	GC-Soil	Methoxychlor	3.7	ug/Kg	U	3.7	15
10/20/04	Site 3	GC-Soil	Metolachlor	37	ug/kg	U	37	150
10/20/04	Site 3	GC-Soil	Metribuzin	7.4	ug/kg	U	7.4	30
10/20/04	Site 3	GC-Soil	Mevinphos	15	ug/kg	U	15	60
10/20/04	Site 3	GC-Soil	Monocrotophos	37	ug/kg	U	37	150
10/20/04	Site 3	GC-Soil	Naled	60	ug/kg	UJ	60	240
10/20/04	Site 3	GC-Soil	Norflurazon	7.4	ug/kg	U	7.4	30
10/20/04	Site 3	GC-Soil	PCB-1016	22	ug/Kg	U	22	88
10/20/04	Site 3	GC-Soil	PCB-1221	15	ug/Kg	UJ	15	60
10/20/04	Site 3	GC-Soil	PCB-1232	33	ug/Kg	UJ	33	130
10/20/04	Site 3	GC-Soil	PCB-1242	22	ug/Kg	UJ	22	88
10/20/04	Site 3	GC-Soil	PCB-1248	15	ug/Kg	U	15	60
10/20/04	Site 3	GC-Soil	PCB-1254	15	ug/Kg	U	15	60
10/20/04	Site 3	GC-Soil	PCB-1260	22	ug/Kg	U	22	88
10/20/04	Site 3	GC-Soil	Parathion Ethyl	11	ug/kg	U	11	44
10/20/04	Site 3	GC-Soil	Parathion Methyl	11	ug/kg	U	11	44
10/20/04	Site 3	GC-Soil	Phorate	3.7	ug/kg	U	3.7	15
10/20/04	Site 3	GC-Soil	Prometryn	11	ug/kg	U	11	44
10/20/04	Site 3	GC-Soil	Simazine	3.7	ug/kg	U	3.7	15
10/20/04	Site 3	GC-Soil	Toxaphene	56	ug/Kg	U	56	220
10/20/04	Site 3	Metals-Waste	Aluminum	1.30E+04	mg/Kg		70	280
10/20/04	Site 3	Metals-Waste	Arsenic	3.1	mg/Kg		0.66	2.6
10/20/04	Site 3	Metals-Waste	Cadmium	0.25	mg/Kg	I	0.07	0.28
10/20/04	Site 3	Metals-Waste	Calcium	5.13E+03	mg/Kg		28	110
10/20/04	Site 3	Metals-Waste	Chromium	39.4	mg/Kg		0.19	0.75
10/20/04	Site 3	Metals-Waste	Copper	8.2	mg/Kg		0.66	2.6
10/20/04	Site 3	Metals-Waste	Iron	8.67E+03	mg/Kg		1.4	5.6
10/20/04	Site 3	Metals-Waste	Lead	13	mg/Kg		0.47	1.9
10/20/04	Site 3	Metals-Waste	Magnesium	4.16E+03	mg/Kg		2.3	9.4
10/20/04	Site 3	Metals-Waste	Manganese	41.9	mg/Kg		0.047	0.19
10/20/04	Site 3	Metals-Waste	Nickel	7.66	mg/Kg		0.19	0.75
10/20/04	Site 3	Metals-Waste	Selenium	0.86	mg/Kg	I	0.66	2.6
10/20/04	Site 3	Metals-Waste	Silver	0.19	mg/Kg	I	0.094	0.37
10/20/04	Site 3	Metals-Waste	Zinc	25.8	mg/Kg		1.4	5.6
10/20/04	Site 3	Nutrients-Liquid	Ammonia-N	0.026	mg N/L		0.01	0.02
10/20/04	Site 3	Nutrients-Liquid	Kjeldahl Nitrogen	1	mg N/L		0.06	0.2
10/20/04	Site 3	Nutrients-Liquid	NO2NO3-N	0.04	mg N/L		0.004	0.01
10/20/04	Site 3	Nutrients-Liquid	O-Phosphate-P	0.11	mg P/L		0.008	0.02
10/20/04	Site 3	Nutrients-Liquid	TSS	14	mg/L	I	4	16
10/20/04	Site 3	Nutrients-Liquid	Total-P	0.22	mg P/L		0.02	0.06
10/20/04	Site 3 REP.1	Bio-Invertebrates	Macroinvert-Quan-NatSubstr-# Taxa	18	# Taxa			
10/20/04	Site 3 REP.2	Bio-Invertebrates	Macroinvert-Quan-NatSubstr-# Taxa	12	# Taxa			
10/20/04	Site 3 REP.3	Bio-Invertebrates	Macroinvert-Quan-NatSubstr-# Taxa	17	# Taxa			
10/20/04	Site 3 REP.4	Bio-Invertebrates	Macroinvert-Quan-NatSubstr-# Taxa	18	# Taxa			
10/20/04	Site 3 REP.5	Bio-Invertebrates	Macroinvert-Quan-NatSubstr-# Taxa	14	# Taxa			
10/20/04	Site 4	Bio-AFDW	Sediment % Organic	2.7	% dry wt			
10/20/04	Site 4	Bio-AFDW	Sed Particle Size, %, 0.063-0.125mm	11.9	% vol <2mm			
10/20/04	Site 4	Bio-AFDW	Sed Particle Size, %, 0.125-0.25 mm	32.6	% vol <2mm			

10/20/04	Site 4	Bio-AFDW	Sed Particle Size, %, 0.25-0.5 mm	19.7	% vol <2mm			
10/20/04	Site 4	Bio-AFDW	Sed Particle Size, %, 0.5-2.0 mm	7.57	% vol <2mm			
10/20/04	Site 4	Bio-AFDW	Sed Particle Size, %, <0.063 mm	28.3	% vol <2mm			
10/20/04	Site 4	Bio-AFDW	Sed Particle Size, %, >2.0 mm	1	%tot drywt	K		
10/20/04	Site 4	Bio-AGP/LimNut	Algal Growth Potential	3.37	mg DryWt/L	J	0.3	0.9
10/20/04	Site 4	Bio-Chl-a	Chl-A, Monochromatic, Water	4	ug/L	A	0.85	2.6
10/20/04	Site 4	Bio-Chl-a	Phytn-A, Monochromatic, Water	0	ug/L	A	0.85	2.6
10/20/04	Site 4	BNA-Waste	1,2,4-Trichlorobenzene	310	ug/kg	U	310	1.20E+03
10/20/04	Site 4	BNA-Waste	1,2-Dichlorobenzene	310	ug/kg	U	310	1.20E+03
10/20/04	Site 4	BNA-Waste	1,3-Dichlorobenzene	310	ug/kg	U	310	1.20E+03
10/20/04	Site 4	BNA-Waste	1,4-Dichlorobenzene	310	ug/kg	U	310	1.20E+03
10/20/04	Site 4	BNA-Waste	2,4,6-Trichlorophenol	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	2,4-Dichlorophenol	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	2,4-Dimethylphenol	3.10E+03	ug/kg	U	3.10E+03	1.20E+04
10/20/04	Site 4	BNA-Waste	2,4-Dinitrophenol	620	ug/kg	U	620	2.50E+03
10/20/04	Site 4	BNA-Waste	2,4-Dinitrotoluene	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	2,6-Dinitrotoluene	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	2-Chloronaphthalene	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	2-Chlorophenol	310	ug/kg	U	310	1.20E+03
10/20/04	Site 4	BNA-Waste	2-Methyl-4,6-dinitrophenol	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	2-Nitrophenol	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	3,3'-Dichlorobenzidine	6.20E+03	ug/kg	UJ	6.20E+03	2.50E+04
10/20/04	Site 4	BNA-Waste	4,4'-DDD	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	4,4'-DDE	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	4,4'-DDT	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	4-Bromophenyl phenyl ether	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	4-Chloro-3-methylphenol	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	4-Chlorophenyl phenyl ether	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	4-Nitrophenol	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Acenaphthene	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Acenaphthylene	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Aldrin	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Anthracene	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Azobenzene/1,2-Diphenylhydrazine	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Benzidine	2.20E+03	ug/kg	U	2.20E+03	9.00E+03
10/20/04	Site 4	BNA-Waste	Benzo(a)anthracene	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Benzo(a)pyrene	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Benzo(b)fluoranthene	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Benzo(g,h,i)perylene	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Benzo(k)fluoranthene	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Bis(2-chloroethoxy)methane	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Bis(2-chloroethyl)ether	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Bis(2-chloroisopropyl)ether	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Bis(2-ethylhexyl)phthalate	620	ug/kg	U	620	2.50E+03
10/20/04	Site 4	BNA-Waste	Butyl benzyl phthalate	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Chrysene	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Di-n-butyl phthalate	620	ug/kg	U	620	2.50E+03
10/20/04	Site 4	BNA-Waste	Di-n-octyl phthalate	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Dibenzo(a,h)anthracene	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Dieldrin	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Diethyl phthalate	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Dimethyl phthalate	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Endosulfan I	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Endosulfan II	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Endosulfan sulfate	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Endrin	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Endrin aldehyde	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Fluoranthene	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Fluorene	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Heptachlor	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Heptachlor epoxide	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Hexachlorobenzene	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Hexachlorobutadiene	310	ug/kg	U	310	1.20E+03
10/20/04	Site 4	BNA-Waste	Hexachlorocyclopentadiene	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Hexachloroethane	310	ug/kg	U	310	1.20E+03
10/20/04	Site 4	BNA-Waste	Indeno(1,2,3-cd)pyrene	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Isophorone	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	N-Nitrosodi-n-propylamine	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	N-Nitrosodimethylamine	620	ug/kg	U	620	2.50E+03
10/20/04	Site 4	BNA-Waste	N-Nitrosodiphenylamine	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Naphthalene	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Nitrobenzene	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Pentachlorophenol	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Phenanthrene	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	Phenol	100	ug/kg	U	100	410

10/20/04	Site 4	BNA-Waste	Pyrene	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	alpha-BHC	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	beta-BHC	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	delta-BHC	100	ug/kg	U	100	410
10/20/04	Site 4	BNA-Waste	gamma-BHC	100	ug/kg	U	100	410
10/20/04	Site 4	GC-Soil	Alachlor	34	ug/kg	U	34	140
10/20/04	Site 4	GC-Soil	Aldrin	0.57	ug/Kg	U	0.57	2.3
10/20/04	Site 4	GC-Soil	Alpha-BHC	0.57	ug/Kg	U	0.57	2.3
10/20/04	Site 4	GC-Soil	Ametryn	2.9	ug/kg	U	2.9	12
10/20/04	Site 4	GC-Soil	Atrazine	2.9	ug/kg	U	2.9	12
10/20/04	Site 4	GC-Soil	Azinphos Methyl	2.9	ug/kg	U	2.9	12
10/20/04	Site 4	GC-Soil	Beta-BHC	0.57	ug/Kg	U	0.57	2.3
10/20/04	Site 4	GC-Soil	Bromacil	23	ug/kg	U	23	92
10/20/04	Site 4	GC-Soil	Chlordane	8.6	ug/Kg	U	8.6	34
10/20/04	Site 4	GC-Soil	Chlorpyrifos Ethyl	2.9	ug/kg	U	2.9	12
10/20/04	Site 4	GC-Soil	Chlorpyrifos Methyl	5.7	ug/kg	U	5.7	23
10/20/04	Site 4	GC-Soil	DDD-p,p'	1.1	ug/Kg	U	1.1	4.4
10/20/04	Site 4	GC-Soil	DDE-p,p'	1.1	ug/Kg	U	1.1	4.4
10/20/04	Site 4	GC-Soil	DDT-p,p'	1.7	ug/Kg	U	1.7	6.8
10/20/04	Site 4	GC-Soil	Delta-BHC	1.1	ug/Kg	U	1.1	4.4
10/20/04	Site 4	GC-Soil	Diazinon	5.7	ug/kg	U	5.7	23
10/20/04	Site 4	GC-Soil	Dieldrin	0.57	ug/Kg	U	0.57	2.3
10/20/04	Site 4	GC-Soil	Endosulfan I	0.57	ug/Kg	U	0.57	2.3
10/20/04	Site 4	GC-Soil	Endosulfan II	0.57	ug/Kg	U	0.57	2.3
10/20/04	Site 4	GC-Soil	Endosulfan Sulfate	1.1	ug/Kg	U	1.1	4.4
10/20/04	Site 4	GC-Soil	Endrin	2.9	ug/Kg	UJ	2.9	12
10/20/04	Site 4	GC-Soil	Endrin Aldehyde	1.1	ug/Kg	U	1.1	4.4
10/20/04	Site 4	GC-Soil	Ethion	2.9	ug/kg	U	2.9	12
10/20/04	Site 4	GC-Soil	Ethoprop	5.7	ug/kg	U	5.7	23
10/20/04	Site 4	GC-Soil	Fenamiphos	23	ug/kg	U	23	92
10/20/04	Site 4	GC-Soil	Fonofos	5.7	ug/kg	U	5.7	23
10/20/04	Site 4	GC-Soil	Gamma-BHC	0.57	ug/Kg	U	0.57	2.3
10/20/04	Site 4	GC-Soil	Heptachlor	0.57	ug/Kg	U	0.57	2.3
10/20/04	Site 4	GC-Soil	Heptachlor Epoxide	0.57	ug/Kg	U	0.57	2.3
10/20/04	Site 4	GC-Soil	Hexazinone	11	ug/kg	U	11	44
10/20/04	Site 4	GC-Soil	Malathion	8.6	ug/kg	U	8.6	34
10/20/04	Site 4	GC-Soil	Methamidophos	29	ug/kg	U	29	120
10/20/04	Site 4	GC-Soil	Methoxychlor	2.9	ug/Kg	U	2.9	12
10/20/04	Site 4	GC-Soil	Metolachlor	29	ug/kg	U	29	120
10/20/04	Site 4	GC-Soil	Metribuzin	5.7	ug/kg	U	5.7	23
10/20/04	Site 4	GC-Soil	Mevinphos	11	ug/kg	U	11	44
10/20/04	Site 4	GC-Soil	Monocrotophos	29	ug/kg	U	29	120
10/20/04	Site 4	GC-Soil	Naled	46	ug/kg	UJ	46	180
10/20/04	Site 4	GC-Soil	Norflurazon	5.7	ug/kg	U	5.7	23
10/20/04	Site 4	GC-Soil	PCB-1016	17	ug/Kg	U	17	68
10/20/04	Site 4	GC-Soil	PCB-1221	11	ug/Kg	UJ	11	44
10/20/04	Site 4	GC-Soil	PCB-1232	26	ug/Kg	UJ	26	100
10/20/04	Site 4	GC-Soil	PCB-1242	17	ug/Kg	UJ	17	68
10/20/04	Site 4	GC-Soil	PCB-1248	11	ug/Kg	U	11	44
10/20/04	Site 4	GC-Soil	PCB-1254	11	ug/Kg	U	11	44
10/20/04	Site 4	GC-Soil	PCB-1260	17	ug/Kg	U	17	68
10/20/04	Site 4	GC-Soil	Parathion Ethyl	8.6	ug/kg	U	8.6	34
10/20/04	Site 4	GC-Soil	Parathion Methyl	8.6	ug/kg	U	8.6	34
10/20/04	Site 4	GC-Soil	Phorate	2.9	ug/kg	U	2.9	12
10/20/04	Site 4	GC-Soil	Prometryn	8.6	ug/kg	U	8.6	34
10/20/04	Site 4	GC-Soil	Simazine	2.9	ug/kg	U	2.9	12
10/20/04	Site 4	GC-Soil	Toxaphene	43	ug/Kg	U	43	170
10/20/04	Site 4	Metals-Waste	Aluminum	7.26E+03	mg/Kg		27	110
10/20/04	Site 4	Metals-Waste	Arsenic	1.6	mg/Kg	I	0.64	2.5
10/20/04	Site 4	Metals-Waste	Cadmium	0.11	mg/Kg	I	0.068	0.27
10/20/04	Site 4	Metals-Waste	Calcium	4.82E+03	mg/Kg		27	110
10/20/04	Site 4	Metals-Waste	Chromium	23.3	mg/Kg		0.18	0.73
10/20/04	Site 4	Metals-Waste	Copper	4.6	mg/Kg		0.64	2.5
10/20/04	Site 4	Metals-Waste	Iron	4.73E+03	mg/Kg		1.4	5.5
10/20/04	Site 4	Metals-Waste	Lead	6.5	mg/Kg		0.45	1.8
10/20/04	Site 4	Metals-Waste	Magnesium	2.32E+03	mg/Kg		2.3	9.1
10/20/04	Site 4	Metals-Waste	Manganese	23.9	mg/Kg		0.045	0.18
10/20/04	Site 4	Metals-Waste	Nickel	4.26	mg/Kg		0.18	0.73
10/20/04	Site 4	Metals-Waste	Selenium	0.64	mg/Kg	U	0.64	2.5
10/20/04	Site 4	Metals-Waste	Silver	0.11	mg/Kg	I	0.091	0.36
10/20/04	Site 4	Metals-Waste	Zinc	14	mg/Kg		2.7	11
10/20/04	Site 4	Nutrients-Liquid	Ammonia-N	0.022	mg N/L		0.01	0.02
10/20/04	Site 4	Nutrients-Liquid	Kjeldahl Nitrogen	0.97	mg N/L		0.06	0.2
10/20/04	Site 4	Nutrients-Liquid	NO2NO3-N	0.042	mg N/L		0.004	0.01
10/20/04	Site 4	Nutrients-Liquid	O-Phosphate-P	0.11	mg P/L		0.008	0.02

10/20/04	Site 4	Nutrients-Liquid	TSS	12	mg/L	I	4	16
10/20/04	Site 4	Nutrients-Liquid	Total-P	0.21	mg P/L		0.02	0.06
10/20/04	Site 4 REP.1	Bio-Invertebrates	Macroinvert-Quan-NatSubstr-# Taxa	22	# Taxa			
10/20/04	Site 4 REP.2	Bio-Invertebrates	Macroinvert-Quan-NatSubstr-# Taxa	12	# Taxa			
10/20/04	Site 4 REP.3	Bio-Invertebrates	Macroinvert-Quan-NatSubstr-# Taxa	14	# Taxa			
10/20/04	Site 4 REP.4	Bio-Invertebrates	Macroinvert-Quan-NatSubstr-# Taxa	19	# Taxa			
10/20/04	Site 4 REP.5	Bio-Invertebrates	Macroinvert-Quan-NatSubstr-# Taxa	20	# Taxa			
10/20/04	Site 5	Bio-AFDW	Sediment % Organic	2.4	% dry wt			
10/20/04	Site 5	Bio-AFDW	Sed Particle Size, %, 0.063-0.125mm	22.5	% vol <2mm			
10/20/04	Site 5	Bio-AFDW	Sed Particle Size, %, 0.125-0.25 mm	35	% vol <2mm			
10/20/04	Site 5	Bio-AFDW	Sed Particle Size, %, 0.25-0.5 mm	9.19	% vol <2mm			
10/20/04	Site 5	Bio-AFDW	Sed Particle Size, %, 0.5-2.0 mm	2.14	% vol <2mm			
10/20/04	Site 5	Bio-AFDW	Sed Particle Size, %, <0.063 mm	31.2	% vol <2mm			
10/20/04	Site 5	Bio-AFDW	Sed Particle Size, %, >2.0 mm	1	%tot drywt	K		
10/20/04	Site 5	Bio-AGP/LimNut	Algal Growth Potential	1.57	mg DryWt/L	J	0.3	0.9
10/20/04	Site 5	Bio-Chl-a	Chl-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
10/20/04	Site 5	Bio-Chl-a	Phytn-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
10/20/04	Site 5	BNA-Waste	1,2,4-Trichlorobenzene	310	ug/kg	U	310	1.20E+03
10/20/04	Site 5	BNA-Waste	1,2-Dichlorobenzene	310	ug/kg	U	310	1.20E+03
10/20/04	Site 5	BNA-Waste	1,3-Dichlorobenzene	310	ug/kg	U	310	1.20E+03
10/20/04	Site 5	BNA-Waste	1,4-Dichlorobenzene	310	ug/kg	U	310	1.20E+03
10/20/04	Site 5	BNA-Waste	2,4,6-Trichlorophenol	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	2,4-Dichlorophenol	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	2,4-Dimethylphenol	3.10E+03	ug/kg	U	3.10E+03	1.20E+04
10/20/04	Site 5	BNA-Waste	2,4-Dinitrophenol	620	ug/kg	U	620	2.50E+03
10/20/04	Site 5	BNA-Waste	2,4-Dinitrotoluene	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	2,6-Dinitrotoluene	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	2-Chloronaphthalene	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	2-Chlorophenol	310	ug/kg	U	310	1.20E+03
10/20/04	Site 5	BNA-Waste	2-Methyl-4,6-dinitrophenol	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	2-Nitrophenol	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	3,3'-Dichlorobenzidine	6.20E+03	ug/kg	UJ	6.20E+03	2.50E+04
10/20/04	Site 5	BNA-Waste	4,4'-DDD	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	4,4'-DDE	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	4,4'-DDT	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	4-Bromophenyl phenyl ether	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	4-Chloro-3-methylphenol	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	4-Chlorophenyl phenyl ether	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	4-Nitrophenol	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Acenaphthene	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Acenaphthylene	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Aldrin	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Anthracene	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Azobenzene/1,2-Diphenylhydrazine	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Benzidine	2.20E+03	ug/kg	U	2.20E+03	9.00E+03
10/20/04	Site 5	BNA-Waste	Benzo(a)anthracene	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Benzo(a)pyrene	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Benzo(b)fluoranthene	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Benzo(g,h,i)perylene	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Benzo(k)fluoranthene	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Bis(2-chloroethoxy)methane	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Bis(2-chloroethyl)ether	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Bis(2-chloroisopropyl)ether	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Bis(2-ethylhexyl)phthalate	620	ug/kg	U	620	2.50E+03
10/20/04	Site 5	BNA-Waste	Butyl benzyl phthalate	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Chrysene	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Di-n-butyl phthalate	620	ug/kg	U	620	2.50E+03
10/20/04	Site 5	BNA-Waste	Di-n-octyl phthalate	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Dibenzo(a,h)anthracene	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Dieldrin	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Diethyl phthalate	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Dimethyl phthalate	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Endosulfan I	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Endosulfan II	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Endosulfan sulfate	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Endrin	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Endrin aldehyde	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Fluoranthene	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Fluorene	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Heptachlor	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Heptachlor epoxide	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Hexachlorobenzene	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Hexachlorobutadiene	310	ug/kg	U	310	1.20E+03
10/20/04	Site 5	BNA-Waste	Hexachlorocyclopentadiene	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Hexachloroethane	310	ug/kg	U	310	1.20E+03

10/20/04	Site 5	BNA-Waste	Indeno(1,2,3-cd)pyrene	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Isophorone	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	N-Nitrosodi-n-propylamine	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	N-Nitrosodimethylamine	620	ug/kg	U	620	2.50E+03
10/20/04	Site 5	BNA-Waste	N-Nitrosodiphenylamine	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Naphthalene	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Nitrobenzene	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Pentachlorophenol	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Phenanthrene	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Phenol	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	Pyrene	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	alpha-BHC	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	beta-BHC	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	delta-BHC	100	ug/kg	U	100	410
10/20/04	Site 5	BNA-Waste	gamma-BHC	100	ug/kg	U	100	410
10/20/04	Site 5	GC-Soil	Alachlor	34	ug/kg	U	34	140
10/20/04	Site 5	GC-Soil	Aldrin	0.57	ug/Kg	U	0.57	2.3
10/20/04	Site 5	GC-Soil	Alpha-BHC	0.57	ug/Kg	U	0.57	2.3
10/20/04	Site 5	GC-Soil	Ametryn	2.9	ug/kg	U	2.9	12
10/20/04	Site 5	GC-Soil	Atrazine	2.9	ug/kg	U	2.9	12
10/20/04	Site 5	GC-Soil	Azinphos Methyl	2.9	ug/kg	U	2.9	12
10/20/04	Site 5	GC-Soil	Beta-BHC	0.57	ug/Kg	U	0.57	2.3
10/20/04	Site 5	GC-Soil	Bromacil	23	ug/kg	U	23	92
10/20/04	Site 5	GC-Soil	Chlordane	8.6	ug/Kg	U	8.6	34
10/20/04	Site 5	GC-Soil	Chlorpyrifos Ethyl	2.9	ug/kg	U	2.9	12
10/20/04	Site 5	GC-Soil	Chlorpyrifos Methyl	5.7	ug/kg	U	5.7	23
10/20/04	Site 5	GC-Soil	DDD-p,p'	1.1	ug/Kg	U	1.1	4.4
10/20/04	Site 5	GC-Soil	DDE-p,p'	1.1	ug/Kg	U	1.1	4.4
10/20/04	Site 5	GC-Soil	DDT-p,p'	1.7	ug/Kg	U	1.7	6.8
10/20/04	Site 5	GC-Soil	Delta-BHC	1.1	ug/Kg	U	1.1	4.4
10/20/04	Site 5	GC-Soil	Diazinon	5.7	ug/kg	U	5.7	23
10/20/04	Site 5	GC-Soil	Dieldrin	0.57	ug/Kg	U	0.57	2.3
10/20/04	Site 5	GC-Soil	Endosulfan I	0.57	ug/Kg	U	0.57	2.3
10/20/04	Site 5	GC-Soil	Endosulfan II	0.57	ug/Kg	U	0.57	2.3
10/20/04	Site 5	GC-Soil	Endosulfan Sulfate	1.1	ug/Kg	U	1.1	4.4
10/20/04	Site 5	GC-Soil	Endrin	2.9	ug/Kg	UJ	2.9	12
10/20/04	Site 5	GC-Soil	Endrin Aldehyde	1.1	ug/Kg	U	1.1	4.4
10/20/04	Site 5	GC-Soil	Ethion	2.9	ug/kg	U	2.9	12
10/20/04	Site 5	GC-Soil	Ethoprop	5.7	ug/kg	U	5.7	23
10/20/04	Site 5	GC-Soil	Fenamiphos	23	ug/kg	U	23	92
10/20/04	Site 5	GC-Soil	Fonofos	5.7	ug/kg	U	5.7	23
10/20/04	Site 5	GC-Soil	Gamma-BHC	0.57	ug/Kg	U	0.57	2.3
10/20/04	Site 5	GC-Soil	Heptachlor	0.57	ug/Kg	U	0.57	2.3
10/20/04	Site 5	GC-Soil	Heptachlor Epoxide	0.57	ug/Kg	U	0.57	2.3
10/20/04	Site 5	GC-Soil	Hexazinone	11	ug/kg	U	11	44
10/20/04	Site 5	GC-Soil	Malathion	8.6	ug/kg	U	8.6	34
10/20/04	Site 5	GC-Soil	Methamidophos	29	ug/kg	U	29	120
10/20/04	Site 5	GC-Soil	Methoxychlor	2.9	ug/Kg	U	2.9	12
10/20/04	Site 5	GC-Soil	Metolachlor	29	ug/kg	U	29	120
10/20/04	Site 5	GC-Soil	Metribuzin	5.7	ug/kg	U	5.7	23
10/20/04	Site 5	GC-Soil	Mevinphos	11	ug/kg	U	11	44
10/20/04	Site 5	GC-Soil	Monocrotophos	29	ug/kg	U	29	120
10/20/04	Site 5	GC-Soil	Naled	46	ug/kg	UJ	46	180
10/20/04	Site 5	GC-Soil	Norflurazon	5.7	ug/kg	U	5.7	23
10/20/04	Site 5	GC-Soil	PCB-1016	17	ug/Kg	U	17	68
10/20/04	Site 5	GC-Soil	PCB-1221	11	ug/Kg	UJ	11	44
10/20/04	Site 5	GC-Soil	PCB-1232	26	ug/Kg	UJ	26	100
10/20/04	Site 5	GC-Soil	PCB-1242	17	ug/Kg	UJ	17	68
10/20/04	Site 5	GC-Soil	PCB-1248	11	ug/Kg	U	11	44
10/20/04	Site 5	GC-Soil	PCB-1254	11	ug/Kg	U	11	44
10/20/04	Site 5	GC-Soil	PCB-1260	17	ug/Kg	U	17	68
10/20/04	Site 5	GC-Soil	Parathion Ethyl	8.6	ug/kg	U	8.6	34
10/20/04	Site 5	GC-Soil	Parathion Methyl	8.6	ug/kg	U	8.6	34
10/20/04	Site 5	GC-Soil	Phorate	2.9	ug/kg	U	2.9	12
10/20/04	Site 5	GC-Soil	Prometryn	8.6	ug/kg	U	8.6	34
10/20/04	Site 5	GC-Soil	Simazine	2.9	ug/kg	U	2.9	12
10/20/04	Site 5	GC-Soil	Toxaphene	43	ug/Kg	U	43	170
10/20/04	Site 5	Metals-Waste	Aluminum	8.17E+03	mg/Kg		69	280
10/20/04	Site 5	Metals-Waste	Arsenic	1.7	mg/Kg	I	0.64	2.6
10/20/04	Site 5	Metals-Waste	Cadmium	0.13	mg/Kg	I	0.069	0.28
10/20/04	Site 5	Metals-Waste	Calcium	3.57E+03	mg/Kg		28	110
10/20/04	Site 5	Metals-Waste	Chromium	24.7	mg/Kg		0.18	0.74
10/20/04	Site 5	Metals-Waste	Copper	4.6	mg/Kg		0.64	2.6
10/20/04	Site 5	Metals-Waste	Iron	5.58E+03	mg/Kg		1.4	5.5
10/20/04	Site 5	Metals-Waste	Lead	8.7	mg/Kg		0.46	1.8

10/20/04	Site 5	Metals-Waste	Magnesium	2.53E+03	mg/Kg		2.3	9.2
10/20/04	Site 5	Metals-Waste	Manganese	26.2	mg/Kg		0.046	0.18
10/20/04	Site 5	Metals-Waste	Nickel	5.07	mg/Kg		0.18	0.74
10/20/04	Site 5	Metals-Waste	Selenium	0.64	mg/Kg	U	0.64	2.6
10/20/04	Site 5	Metals-Waste	Silver	0.12	mg/Kg	I	0.092	0.37
10/20/04	Site 5	Metals-Waste	Zinc	16.6	mg/Kg		1.4	5.5
10/20/04	Site 5	Nutrients-Liquid	Ammonia-N	0.025	mg N/L		0.01	0.02
10/20/04	Site 5	Nutrients-Liquid	Kjeldahl Nitrogen	0.78	mg N/L		0.06	0.2
10/20/04	Site 5	Nutrients-Liquid	NO2NO3-N	0.018	mg N/L		0.004	0.01
10/20/04	Site 5	Nutrients-Liquid	O-Phosphate-P	0.13	mg P/L		0.008	0.02
10/20/04	Site 5	Nutrients-Liquid	TSS	13	mg/L	I	4	16
10/20/04	Site 5	Nutrients-Liquid	Total-P	0.18	mg P/L		0.02	0.06
10/20/04	Site 5 REP.1	Bio-Invertebrates	Quan-NatSubstr-# Taxa	15	# Taxa			
10/20/04	Site 5 REP.2	Bio-Invertebrates	Quan-NatSubstr-# Taxa	15	# Taxa			
10/20/04	Site 5 REP.3	Bio-Invertebrates	Quan-NatSubstr-# Taxa	18	# Taxa			
10/20/04	Site 5 REP.4	Bio-Invertebrates	Quan-NatSubstr-# Taxa	13	# Taxa			
10/20/04	Site 5 REP.5	Bio-Invertebrates	Quan-NatSubstr-# Taxa	16	# Taxa			
10/20/04	Site 6	Bio-AFDW	Sediment % Organic	3.5	% dry wt			
10/20/04	Site 6	Bio-AFDW	Sed Particle Size, %, 0.063-0.125mm	21.4	% vol <2mm			
10/20/04	Site 6	Bio-AFDW	Sed Particle Size, %, 0.125-0.25 mm	26.2	% vol <2mm			
10/20/04	Site 6	Bio-AFDW	Sed Particle Size, %, 0.25-0.5 mm	8.16	% vol <2mm			
10/20/04	Site 6	Bio-AFDW	Sed Particle Size, %, 0.5-2.0 mm	0.87	% vol <2mm			
10/20/04	Site 6	Bio-AFDW	Sed Particle Size, %, <0.063 mm	43.4	% vol <2mm			
10/20/04	Site 6	Bio-AFDW	Sed Particle Size, %, >2.0 mm	1	%tot drywt	K		
10/20/04	Site 6	Bio-AGP/LimNut	Algal Growth Potential	2.1	mg DryWt/L	J	0.3	0.9
10/20/04	Site 6	Bio-Chl-a	Chl-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
10/20/04	Site 6	Bio-Chl-a	Phytn-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
10/20/04	Site 6	BNA-Waste	1,2,4-Trichlorobenzene	380	ug/kg	U	380	1.50E+03
10/20/04	Site 6	BNA-Waste	1,2-Dichlorobenzene	380	ug/kg	U	380	1.50E+03
10/20/04	Site 6	BNA-Waste	1,3-Dichlorobenzene	380	ug/kg	U	380	1.50E+03
10/20/04	Site 6	BNA-Waste	1,4-Dichlorobenzene	380	ug/kg	U	380	1.50E+03
10/20/04	Site 6	BNA-Waste	2,4,6-Trichlorophenol	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	2,4-Dichlorophenol	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	2,4-Dimethylphenol	3.70E+03	ug/kg	U	3.70E+03	1.50E+04
10/20/04	Site 6	BNA-Waste	2,4-Dinitrophenol	750	ug/kg	U	750	3.00E+03
10/20/04	Site 6	BNA-Waste	2,4-Dinitrotoluene	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	2,6-Dinitrotoluene	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	2-Chloronaphthalene	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	2-Chlorophenol	380	ug/kg	U	380	1.50E+03
10/20/04	Site 6	BNA-Waste	2-Methyl-4,6-dinitrophenol	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	2-Nitrophenol	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	3,3'-Dichlorobenzidine	7.50E+03	ug/kg	UJ	7.50E+03	3.00E+04
10/20/04	Site 6	BNA-Waste	4,4'-DDD	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	4,4'-DDE	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	4,4'-DDT	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	4-Bromophenyl phenyl ether	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	4-Chloro-3-methylphenol	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	4-Chlorophenyl phenyl ether	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	4-Nitrophenol	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Acenaphthene	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Acenaphthylene	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Aldrin	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Anthracene	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Azobenzene/1,2-Diphenylhydrazine	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Benzidine	2.70E+03	ug/kg	U	2.70E+03	1.10E+04
10/20/04	Site 6	BNA-Waste	Benzo(a)anthracene	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Benzo(a)pyrene	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Benzo(b)fluoranthene	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Benzo(g,h,i)perylene	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Benzo(k)fluoranthene	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Bis(2-chloroethoxy)methane	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Bis(2-chloroethyl)ether	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Bis(2-chloroisopropyl)ether	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Bis(2-ethylhexyl)phthalate	750	ug/kg	U	750	3.00E+03
10/20/04	Site 6	BNA-Waste	Butyl benzyl phthalate	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Chrysene	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Di-n-butyl phthalate	750	ug/kg	U	750	3.00E+03
10/20/04	Site 6	BNA-Waste	Di-n-octyl phthalate	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Dibenzo(a,h)anthracene	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Dieldrin	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Diethyl phthalate	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Dimethyl phthalate	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Endosulfan I	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Endosulfan II	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Endosulfan sulfate	130	ug/kg	U	130	500

10/20/04	Site 6	BNA-Waste	Endrin	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Endrin aldehyde	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Fluoranthene	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Fluorene	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Heptachlor	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Heptachlor epoxide	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Hexachlorobenzene	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Hexachlorobutadiene	380	ug/kg	U	380	1.50E+03
10/20/04	Site 6	BNA-Waste	Hexachlorocyclopentadiene	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Hexachloroethane	380	ug/kg	U	380	1.50E+03
10/20/04	Site 6	BNA-Waste	Indeno(1,2,3-cd)pyrene	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Isophorone	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	N-Nitrosodi-n-propylamine	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	N-Nitrosodimethylamine	750	ug/kg	U	750	3.00E+03
10/20/04	Site 6	BNA-Waste	N-Nitrosodiphenylamine	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Naphthalene	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Nitrobenzene	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Pentachlorophenol	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Phenanthrene	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Phenol	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	Pyrene	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	alpha-BHC	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	beta-BHC	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	delta-BHC	130	ug/kg	U	130	500
10/20/04	Site 6	BNA-Waste	gamma-BHC	130	ug/kg	U	130	500
10/20/04	Site 6	GC-Soil	Alachlor	41	ug/kg	U	41	160
10/20/04	Site 6	GC-Soil	Aldrin	0.69	ug/Kg	U	0.69	2.8
10/20/04	Site 6	GC-Soil	Alpha-BHC	0.69	ug/Kg	U	0.69	2.8
10/20/04	Site 6	GC-Soil	Ametryn	3.5	ug/kg	U	3.5	14
10/20/04	Site 6	GC-Soil	Atrazine	3.5	ug/kg	U	3.5	14
10/20/04	Site 6	GC-Soil	Azinphos Methyl	3.5	ug/kg	U	3.5	14
10/20/04	Site 6	GC-Soil	Beta-BHC	0.69	ug/Kg	U	0.69	2.8
10/20/04	Site 6	GC-Soil	Bromacil	28	ug/kg	U	28	110
10/20/04	Site 6	GC-Soil	Chlordane	10	ug/Kg	U	10	40
10/20/04	Site 6	GC-Soil	Chlorpyrifos Ethyl	3.5	ug/kg	U	3.5	14
10/20/04	Site 6	GC-Soil	Chlorpyrifos Methyl	6.9	ug/kg	U	6.9	28
10/20/04	Site 6	GC-Soil	DDD-p,p'	1.4	ug/Kg	U	1.4	5.6
10/20/04	Site 6	GC-Soil	DDE-p,p'	1.4	ug/Kg	U	1.4	5.6
10/20/04	Site 6	GC-Soil	DDT-p,p'	2.1	ug/Kg	U	2.1	8.4
10/20/04	Site 6	GC-Soil	Delta-BHC	1.4	ug/Kg	U	1.4	5.6
10/20/04	Site 6	GC-Soil	Diazinon	6.9	ug/kg	U	6.9	28
10/20/04	Site 6	GC-Soil	Dieldrin	0.69	ug/Kg	U	0.69	2.8
10/20/04	Site 6	GC-Soil	Endosulfan I	0.69	ug/Kg	U	0.69	2.8
10/20/04	Site 6	GC-Soil	Endosulfan II	0.69	ug/Kg	U	0.69	2.8
10/20/04	Site 6	GC-Soil	Endosulfan Sulfate	1.4	ug/Kg	U	1.4	5.6
10/20/04	Site 6	GC-Soil	Endrin	3.5	ug/Kg	UJ	3.5	14
10/20/04	Site 6	GC-Soil	Endrin Aldehyde	1.4	ug/Kg	U	1.4	5.6
10/20/04	Site 6	GC-Soil	Ethion	3.5	ug/kg	U	3.5	14
10/20/04	Site 6	GC-Soil	Ethoprop	6.9	ug/kg	U	6.9	28
10/20/04	Site 6	GC-Soil	Fenamiphos	28	ug/kg	U	28	110
10/20/04	Site 6	GC-Soil	Fonofos	6.9	ug/kg	U	6.9	28
10/20/04	Site 6	GC-Soil	Gamma-BHC	0.69	ug/Kg	U	0.69	2.8
10/20/04	Site 6	GC-Soil	Heptachlor	0.69	ug/Kg	U	0.69	2.8
10/20/04	Site 6	GC-Soil	Heptachlor Epoxide	0.69	ug/Kg	U	0.69	2.8
10/20/04	Site 6	GC-Soil	Hexazinone	14	ug/kg	U	14	56
10/20/04	Site 6	GC-Soil	Malathion	10	ug/kg	U	10	40
10/20/04	Site 6	GC-Soil	Methamidophos	35	ug/kg	U	35	140
10/20/04	Site 6	GC-Soil	Methoxychlor	3.5	ug/Kg	U	3.5	14
10/20/04	Site 6	GC-Soil	Metolachlor	35	ug/kg	U	35	140
10/20/04	Site 6	GC-Soil	Metribuzin	6.9	ug/kg	U	6.9	28
10/20/04	Site 6	GC-Soil	Mevinphos	14	ug/kg	U	14	56
10/20/04	Site 6	GC-Soil	Monocrotophos	35	ug/kg	U	35	140
10/20/04	Site 6	GC-Soil	Naled	56	ug/kg	UJ	56	220
10/20/04	Site 6	GC-Soil	Norflurazon	6.9	ug/kg	U	6.9	28
10/20/04	Site 6	GC-Soil	PCB-1016	21	ug/Kg	U	21	84
10/20/04	Site 6	GC-Soil	PCB-1221	14	ug/Kg	UJ	14	56
10/20/04	Site 6	GC-Soil	PCB-1232	31	ug/Kg	UJ	31	120
10/20/04	Site 6	GC-Soil	PCB-1242	21	ug/Kg	UJ	21	84
10/20/04	Site 6	GC-Soil	PCB-1248	14	ug/Kg	U	14	56
10/20/04	Site 6	GC-Soil	PCB-1254	14	ug/Kg	U	14	56
10/20/04	Site 6	GC-Soil	PCB-1260	21	ug/Kg	U	21	84
10/20/04	Site 6	GC-Soil	Parathion Ethyl	10	ug/kg	U	10	40
10/20/04	Site 6	GC-Soil	Parathion Methyl	10	ug/kg	U	10	40
10/20/04	Site 6	GC-Soil	Phorate	3.5	ug/kg	U	3.5	14
10/20/04	Site 6	GC-Soil	Prometryn	10	ug/kg	U	10	40

10/20/04	Site 6	GC-Soil	Simazine	3.5	ug/kg	U	3.5	14
10/20/04	Site 6	GC-Soil	Toxaphene	52	ug/Kg	U	52	210
10/20/04	Site 6	Metals-Waste	Aluminum	1.17E+04	mg/Kg		72	290
10/20/04	Site 6	Metals-Waste	Arsenic	3	mg/Kg		0.67	2.7
10/20/04	Site 6	Metals-Waste	Cadmium	0.18	mg/Kg	I	0.072	0.29
10/20/04	Site 6	Metals-Waste	Calcium	4.01E+03	mg/Kg		29	110
10/20/04	Site 6	Metals-Waste	Chromium	33.6	mg/Kg		0.19	0.76
10/20/04	Site 6	Metals-Waste	Copper	6.7	mg/Kg		0.67	2.7
10/20/04	Site 6	Metals-Waste	Iron	7.84E+03	mg/Kg		1.4	5.7
10/20/04	Site 6	Metals-Waste	Lead	11.7	mg/Kg		0.48	1.9
10/20/04	Site 6	Metals-Waste	Magnesium	3.56E+03	mg/Kg		2.4	9.6
10/20/04	Site 6	Metals-Waste	Manganese	34.4	mg/Kg		0.048	0.19
10/20/04	Site 6	Metals-Waste	Nickel	6.87	mg/Kg		0.19	0.76
10/20/04	Site 6	Metals-Waste	Selenium	0.67	mg/Kg	U	0.67	2.7
10/20/04	Site 6	Metals-Waste	Silver	0.19	mg/Kg	I	0.096	0.38
10/20/04	Site 6	Metals-Waste	Zinc	22.3	mg/Kg		1.4	5.7
10/20/04	Site 6	Nutrients-Liquid	Ammonia-N	0.019	mg N/L	I	0.01	0.02
10/20/04	Site 6	Nutrients-Liquid	Kjeldahl Nitrogen	0.82	mg N/L	A	0.06	0.2
10/20/04	Site 6	Nutrients-Liquid	NO2NO3-N	0.019	mg N/L		0.004	0.01
10/20/04	Site 6	Nutrients-Liquid	O-Phosphate-P	0.11	mg P/L		0.008	0.02
10/20/04	Site 6	Nutrients-Liquid	TSS	10	mg/L	I	4	16
10/20/04	Site 6	Nutrients-Liquid	Total-P	0.18	mg P/L	AJ	0.02	0.06
10/20/04	Site 6 REP.1	Bio-Invertebrates	Quan-NatSubstr-# Taxa	18	# Taxa			
10/20/04	Site 6 REP.2	Bio-Invertebrates	Quan-NatSubstr-# Taxa	14	# Taxa			
10/20/04	Site 6 REP.3	Bio-Invertebrates	Quan-NatSubstr-# Taxa	14	# Taxa			
10/20/04	Site 6 REP.4	Bio-Invertebrates	Quan-NatSubstr-# Taxa	15	# Taxa			
10/20/04	Site 6 REP.5	Bio-Invertebrates	Quan-NatSubstr-# Taxa	17	# Taxa			
10/20/04	Core Blank	BNA-Water	1,2,4-Trichlorobenzene	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	1,2-Dichlorobenzene	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	1,3-Dichlorobenzene	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	1,4-Dichlorobenzene	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	2,4,6-Trichlorophenol	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	2,4-Dichlorophenol	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	2,4-Dimethylphenol	49	ug/L	U	49	200
10/20/04	Core Blank	BNA-Water	2,4-Dinitrophenol	15	ug/L	U	15	59
10/20/04	Core Blank	BNA-Water	2,4-Dinitrotoluene	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	2,6-Dinitrotoluene	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	2-Chloronaphthalene	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	2-Chlorophenol	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	12
10/20/04	Core Blank	BNA-Water	2-Nitrophenol	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	3,3'-Dichlorobenzidine	39	ug/L	U	39	160
10/20/04	Core Blank	BNA-Water	4,4'-DDD	1.5	ug/L	U	1.5	5.9
10/20/04	Core Blank	BNA-Water	4,4'-DDE	1.5	ug/L	U	1.5	5.9
10/20/04	Core Blank	BNA-Water	4,4'-DDT	1.5	ug/L	U	1.5	5.9
10/20/04	Core Blank	BNA-Water	4-Bromophenyl phenyl ether	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	4-Chloro-3-methylphenol	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	4-Chlorophenyl phenyl ether	2	ug/L	U	2	7.8
10/20/04	Core Blank	BNA-Water	4-Nitrophenol	15	ug/L	U	15	59
10/20/04	Core Blank	BNA-Water	Acenaphthene	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	Acenaphthylene	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	Aldrin	1.5	ug/L	U	1.5	5.9
10/20/04	Core Blank	BNA-Water	Anthracene	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	Benzidine	98	ug/L	U	98	390
10/20/04	Core Blank	BNA-Water	Benzo(a)anthracene	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	Benzo(a)pyrene	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	Benzo(b)fluoranthene	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	Benzo(g,h,i)perylene	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	Benzo(k)fluoranthene	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	Bis(2-chloroethoxy)methane	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	Bis(2-chloroethyl)ether	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	12
10/20/04	Core Blank	BNA-Water	Bis(2-ethylhexyl)phthalate	15	ug/L	U	15	59
10/20/04	Core Blank	BNA-Water	Butyl benzyl phthalate	4.9	ug/L	U	4.9	20
10/20/04	Core Blank	BNA-Water	Chrysene	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	Di-n-butyl phthalate	4.9	ug/L	U	4.9	20
10/20/04	Core Blank	BNA-Water	Di-n-octyl phthalate	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	Dibenzo(a,h)anthracene	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	Dieldrin	1.5	ug/L	U	1.5	5.9
10/20/04	Core Blank	BNA-Water	Diethyl phthalate	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	Dimethyl phthalate	49	ug/L	U	49	200
10/20/04	Core Blank	BNA-Water	Endosulfan I	3.9	ug/L	U	3.9	16
10/20/04	Core Blank	BNA-Water	Endosulfan II	3.9	ug/L	U	3.9	16
10/20/04	Core Blank	BNA-Water	Endosulfan sulfate	1.5	ug/L	U	1.5	5.9
10/20/04	Core Blank	BNA-Water	Endrin	1.5	ug/L	U	1.5	5.9

10/20/04	Core Blank	BNA-Water	Endrin aldehyde	3.9	ug/L	U	3.9	16
10/20/04	Core Blank	BNA-Water	Fluoranthene	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	Fluorene	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	Heptachlor	1.5	ug/L	U	1.5	5.9
10/20/04	Core Blank	BNA-Water	Heptachlor epoxide	1.5	ug/L	U	1.5	5.9
10/20/04	Core Blank	BNA-Water	Hexachlorobenzene	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	12
10/20/04	Core Blank	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	12
10/20/04	Core Blank	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	12
10/20/04	Core Blank	BNA-Water	Indeno(1,2,3-cd)pyrene	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	Isophorone	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	N-Nitrosodi-n-propylamine	2	ug/L	U	2	7.8
10/20/04	Core Blank	BNA-Water	N-Nitrosodimethylamine	2	ug/L	U	2	7.8
10/20/04	Core Blank	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	12
10/20/04	Core Blank	BNA-Water	Naphthalene	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	Nitrobenzene	2	ug/L	U	2	7.8
10/20/04	Core Blank	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	12
10/20/04	Core Blank	BNA-Water	Phenanthrene	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	Phenol	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	Pyrene	0.98	ug/L	U	0.98	3.9
10/20/04	Core Blank	BNA-Water	alpha-BHC	1.5	ug/L	U	1.5	5.9
10/20/04	Core Blank	BNA-Water	beta-BHC	1.5	ug/L	U	1.5	5.9
10/20/04	Core Blank	BNA-Water	delta-BHC	1.5	ug/L	U	1.5	5.9
10/20/04	Core Blank	BNA-Water	gamma-BHC	1.5	ug/L	U	1.5	5.9
10/20/04	Core Blank	GC-Water	Alachlor	0.64	ug/L	U	0.64	2.6
10/20/04	Core Blank	GC-Water	Aldrin	0.011	ug/L	U	0.011	0.044
10/20/04	Core Blank	GC-Water	Alpha-BHC	0.011	ug/L	U	0.011	0.044
10/20/04	Core Blank	GC-Water	Ametryn	0.053	ug/L	U	0.053	0.21
10/20/04	Core Blank	GC-Water	Atrazine	0.053	ug/L	U	0.053	0.21
10/20/04	Core Blank	GC-Water	Azinphos Methyl	0.053	ug/L	U	0.053	0.21
10/20/04	Core Blank	GC-Water	Beta-BHC	0.011	ug/L	U	0.011	0.044
10/20/04	Core Blank	GC-Water	Bromacil	0.21	ug/L	U	0.21	0.84
10/20/04	Core Blank	GC-Water	Butylate	0.21	ug/L	U	0.21	0.84
10/20/04	Core Blank	GC-Water	Chlordane	0.21	ug/L	U	0.21	0.84
10/20/04	Core Blank	GC-Water	Chlorpyrifos Ethyl	0.053	ug/L	U	0.053	0.21
10/20/04	Core Blank	GC-Water	Chlorpyrifos Methyl	0.11	ug/L	U	0.11	0.44
10/20/04	Core Blank	GC-Water	DDD-p,p'	0.021	ug/L	U	0.021	0.084
10/20/04	Core Blank	GC-Water	DDE-p,p'	0.021	ug/L	U	0.021	0.084
10/20/04	Core Blank	GC-Water	DDT-p,p'	0.032	ug/L	U	0.032	0.13
10/20/04	Core Blank	GC-Water	Delta-BHC	0.011	ug/L	U	0.011	0.044
10/20/04	Core Blank	GC-Water	Diazinon	0.053	ug/L	U	0.053	0.21
10/20/04	Core Blank	GC-Water	Dieldrin	0.021	ug/L	U	0.021	0.084
10/20/04	Core Blank	GC-Water	Endosulfan I	0.021	ug/L	U	0.021	0.084
10/20/04	Core Blank	GC-Water	Endosulfan II	0.021	ug/L	U	0.021	0.084
10/20/04	Core Blank	GC-Water	Endosulfan Sulfate	0.053	ug/L	U	0.053	0.21
10/20/04	Core Blank	GC-Water	Endrin	0.053	ug/L	U	0.053	0.21
10/20/04	Core Blank	GC-Water	Endrin Aldehyde	0.021	ug/L	U	0.021	0.084
10/20/04	Core Blank	GC-Water	Ethion	0.053	ug/L	U	0.053	0.21
10/20/04	Core Blank	GC-Water	Ethoprop	0.11	ug/L	U	0.11	0.44
10/20/04	Core Blank	GC-Water	Fenamiphos	0.21	ug/L	U	0.21	0.84
10/20/04	Core Blank	GC-Water	Fonofos	0.11	ug/L	UJ	0.11	0.44
10/20/04	Core Blank	GC-Water	Gamma-BHC	0.011	ug/L	U	0.011	0.044
10/20/04	Core Blank	GC-Water	Heptachlor	0.011	ug/L	U	0.011	0.044
10/20/04	Core Blank	GC-Water	Heptachlor Epoxide	0.021	ug/L	U	0.021	0.084
10/20/04	Core Blank	GC-Water	Hexazinone	0.11	ug/L	U	0.11	0.44
10/20/04	Core Blank	GC-Water	Malathion	0.16	ug/L	U	0.16	0.64
10/20/04	Core Blank	GC-Water	Metalaxyl	0.27	ug/L	U	0.27	1.1
10/20/04	Core Blank	GC-Water	Methoxychlor	0.053	ug/L	U	0.053	0.21
10/20/04	Core Blank	GC-Water	Metolachlor	0.53	ug/L	U	0.53	2.1
10/20/04	Core Blank	GC-Water	Metribuzin	0.11	ug/L	U	0.11	0.44
10/20/04	Core Blank	GC-Water	Mevinphos	0.21	ug/L	U	0.21	0.84
10/20/04	Core Blank	GC-Water	Naled	0.85	ug/L	UJ	0.85	3.4
10/20/04	Core Blank	GC-Water	Norflurazon	0.11	ug/L	U	0.11	0.44
10/20/04	Core Blank	GC-Water	PCB-1016	0.21	ug/L	U	0.21	0.84
10/20/04	Core Blank	GC-Water	PCB-1221	0.21	ug/L	U	0.21	0.84
10/20/04	Core Blank	GC-Water	PCB-1232	0.21	ug/L	UJ	0.21	0.84
10/20/04	Core Blank	GC-Water	PCB-1242	0.32	ug/L	U	0.32	1.3
10/20/04	Core Blank	GC-Water	PCB-1248	0.21	ug/L	U	0.21	0.84
10/20/04	Core Blank	GC-Water	PCB-1254	0.32	ug/L	U	0.32	1.3
10/20/04	Core Blank	GC-Water	PCB-1260	0.21	ug/L	U	0.21	0.84
10/20/04	Core Blank	GC-Water	Parathion Ethyl	0.16	ug/L	UJ	0.16	0.64
10/20/04	Core Blank	GC-Water	Parathion Methyl	0.11	ug/L	U	0.11	0.44
10/20/04	Core Blank	GC-Water	Phorate	0.053	ug/L	U	0.053	0.21
10/20/04	Core Blank	GC-Water	Prometryn	0.16	ug/L	U	0.16	0.64
10/20/04	Core Blank	GC-Water	Simazine	0.053	ug/L	U	0.053	0.21

10/20/04	Core Blank	GC-Water	Toxaphene	0.8	ug/L	UJ	0.8	3.2
10/20/04	Core Blank	Metals-Water	Aluminum	12	ug/L	U	12	48
10/20/04	Core Blank	Metals-Water	Arsenic	6	ug/L	U	6	24
10/20/04	Core Blank	Metals-Water	Cadmium	0.075	ug/L	U	0.075	0.3
10/20/04	Core Blank	Metals-Water	Calcium	0.05	mg/L	U	0.05	0.2
10/20/04	Core Blank	Metals-Water	Chromium	4.5	ug/L	I	2	8
10/20/04	Core Blank	Metals-Water	Copper	0.75	ug/L	U	0.75	3
10/20/04	Core Blank	Metals-Water	Iron	34	ug/L	I	10	40
10/20/04	Core Blank	Metals-Water	Lead	0.3	ug/L	U	0.3	1.2
10/20/04	Core Blank	Metals-Water	Magnesium	0.02	mg/L	U	0.02	0.08
10/20/04	Core Blank	Metals-Water	Nickel	4.9	ug/L	I	2	8
10/20/04	Core Blank	Metals-Water	Selenium	0.5	ug/L	U	0.5	2
10/20/04	Core Blank	Metals-Water	Silver	0.02	ug/L	U	0.02	0.08
10/20/04	Core Blank	Metals-Water	Zinc	3	ug/L	U	3	12
10/17/04	Equip Blank	Bio-BOD	BOD-5 Day	1.5	mg/L	Q		
10/17/04	Equip Blank	Bio-BOD	BOD-5 Day,N-Inhib	0.2	mg/L	UQ		
10/17/04	Equip Blank	Bio-BOD	BOD-5 Day	1.5	mg/L	Q		
10/17/04	Equip Blank	Bio-BOD	BOD-5 Day,N-Inhib	0.2	mg/L	UQ		
10/17/04	Equip Blank	Metals-Water	Aluminum	5	ug/L	U	5	20
10/17/04	Equip Blank	Metals-Water	Arsenic	6	ug/L	U	6	24
10/17/04	Equip Blank	Metals-Water	Cadmium	0.075	ug/L	U	0.075	0.3
10/17/04	Equip Blank	Metals-Water	Calcium	0.05	mg/L	U	0.05	0.2
10/17/04	Equip Blank	Metals-Water	Chromium	2	ug/L	U	2	8
10/17/04	Equip Blank	Metals-Water	Copper	0.75	ug/L	U	0.75	3
10/17/04	Equip Blank	Metals-Water	Iron	10	ug/L	U	10	40
10/17/04	Equip Blank	Metals-Water	Lead	0.075	ug/L	U	0.075	0.3
10/17/04	Equip Blank	Metals-Water	Magnesium	0.02	mg/L	U	0.02	0.08
10/17/04	Equip Blank	Metals-Water	Nickel	2	ug/L	U	2	8
10/17/04	Equip Blank	Metals-Water	Selenium	0.5	ug/L	U	0.5	2
10/17/04	Equip Blank	Metals-Water	Silver	0.02	ug/L	U	0.02	0.08
10/17/04	Equip Blank	Metals-Water	Zinc	3	ug/L	U	3	12
10/17/04	Equip Blank	Metals-Water	Aluminum	5	U			
10/17/04	Equip Blank	Metals-Water	Arsenic	6	U			
10/17/04	Equip Blank	Metals-Water	Cadmium	0.075	U			
10/17/04	Equip Blank	Metals-Water	Calcium	0.05	U			
10/17/04	Equip Blank	Metals-Water	Chromium	2	U			
10/17/04	Equip Blank	Metals-Water	Copper	0.75	U			
10/17/04	Equip Blank	Metals-Water	Iron	10	U			
10/17/04	Equip Blank	Metals-Water	Lead	0.075	U			
10/17/04	Equip Blank	Metals-Water	Magnesium	0.02	U			
10/17/04	Equip Blank	Metals-Water	Nickel	2	U			
10/17/04	Equip Blank	Metals-Water	Selenium	0.5	U			
10/17/04	Equip Blank	Metals-Water	Silver	0.02	U			
10/17/04	Equip Blank	Metals-Water	Zinc	3	U			
10/17/04	Equip Blank	Nutrients-Liquid	Ammonia-N	0.01	mg N/L	U	0.01	0.02
10/17/04	Equip Blank	Nutrients-Liquid	Kjeldahl Nitrogen	0.06	mg N/L	U	0.06	0.2
10/17/04	Equip Blank	Nutrients-Liquid	NO2NO3-N	0.028	mg N/L		0.004	0.01
10/17/04	Equip Blank	Nutrients-Liquid	TSS	4	mg/L	U	4	16
10/17/04	Equip Blank	Nutrients-Liquid	Total-P	0.02	mg P/L	U	0.02	0.06
10/17/04	Equip Blank	Nutrients-Liquid	Turbidity	0.05	NTU	UQ	0.05	0.05
10/17/04	Equip Blank	Nutrients-Liquid	Ammonia-N	0.01	U			
10/17/04	Equip Blank	Nutrients-Liquid	Kjeldahl Nitrogen	0.06	U			
10/17/04	Equip Blank	Nutrients-Liquid	NO2NO3-N	0.028				
10/17/04	Equip Blank	Nutrients-Liquid	TSS	4	U			
10/17/04	Equip Blank	Nutrients-Liquid	Total-P	0.02	U			
10/17/04	Equip Blank	Nutrients-Liquid	Turbidity	0.05	UQ			
10/18/04	Field Blank	BNA-Water	1,2,4-Trichlorobenzene	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	1,2-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	1,3-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	1,4-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	2,4,6-Trichlorophenol	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	2,4-Dichlorophenol	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
10/18/04	Field Blank	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	57
10/18/04	Field Blank	BNA-Water	2,4-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	2,6-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	2-Chloronaphthalene	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	2-Chlorophenol	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	11
10/18/04	Field Blank	BNA-Water	2-Nitrophenol	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
10/18/04	Field Blank	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
10/18/04	Field Blank	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7
10/18/04	Field Blank	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.7
10/18/04	Field Blank	BNA-Water	4-Bromophenyl phenyl ether	0.95	ug/L	U	0.95	3.8

10/18/04	Field Blank	BNA-Water	4-Chloro-3-methylphenol	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.6
10/18/04	Field Blank	BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
10/18/04	Field Blank	BNA-Water	Acenaphthene	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	Acenaphthylene	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
10/18/04	Field Blank	BNA-Water	Anthracene	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	Benzidine	95	ug/L	U	95	380
10/18/04	Field Blank	BNA-Water	Benzo(a)anthracene	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	Benzo(a)pyrene	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	Benzo(b)fluoranthene	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	Benzo(g,h,i)perylene	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	Benzo(k)fluoranthene	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	Bis(2-chloroethoxy)methane	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	Bis(2-chloroethyl)ether	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	11
10/18/04	Field Blank	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
10/18/04	Field Blank	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
10/18/04	Field Blank	BNA-Water	Chrysene	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
10/18/04	Field Blank	BNA-Water	Di-n-octyl phthalate	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	Dibenzo(a,h)anthracene	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
10/18/04	Field Blank	BNA-Water	Diethyl phthalate	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
10/18/04	Field Blank	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
10/18/04	Field Blank	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
10/18/04	Field Blank	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
10/18/04	Field Blank	BNA-Water	Endrin	1.4	ug/L	U	1.4	5.7
10/18/04	Field Blank	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
10/18/04	Field Blank	BNA-Water	Fluoranthene	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	Fluorene	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
10/18/04	Field Blank	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
10/18/04	Field Blank	BNA-Water	Hexachlorobenzene	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	11
10/18/04	Field Blank	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	11
10/18/04	Field Blank	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	11
10/18/04	Field Blank	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	Isophorone	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.6
10/18/04	Field Blank	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.6
10/18/04	Field Blank	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	11
10/18/04	Field Blank	BNA-Water	Naphthalene	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.6
10/18/04	Field Blank	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	11
10/18/04	Field Blank	BNA-Water	Phenanthrene	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	Phenol	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	Pyrene	0.95	ug/L	U	0.95	3.8
10/18/04	Field Blank	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
10/18/04	Field Blank	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
10/18/04	Field Blank	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
10/18/04	Field Blank	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
10/18/04	Field Blank	BNA-Water	1,2,4-Trichlorobenzene	0.95	U			
10/18/04	Field Blank	BNA-Water	1,2-Dichlorobenzene	0.95	U			
10/18/04	Field Blank	BNA-Water	1,3-Dichlorobenzene	0.95	U			
10/18/04	Field Blank	BNA-Water	1,4-Dichlorobenzene	0.95	U			
10/18/04	Field Blank	BNA-Water	2,4,6-Trichlorophenol	0.95	U			
10/18/04	Field Blank	BNA-Water	2,4-Dichlorophenol	0.95	U			
10/18/04	Field Blank	BNA-Water	2,4-Dimethylphenol	48	U			
10/18/04	Field Blank	BNA-Water	2,4-Dinitrophenol	14	U			
10/18/04	Field Blank	BNA-Water	2,4-Dinitrotoluene	0.95	U			
10/18/04	Field Blank	BNA-Water	2,6-Dinitrotoluene	0.95	U			
10/18/04	Field Blank	BNA-Water	2-Chloronaphthalene	0.95	U			
10/18/04	Field Blank	BNA-Water	2-Chlorophenol	0.95	U			
10/18/04	Field Blank	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	U			
10/18/04	Field Blank	BNA-Water	2-Nitrophenol	0.95	U			
10/18/04	Field Blank	BNA-Water	3,3'-Dichlorobenzidine	38	U			
10/18/04	Field Blank	BNA-Water	4,4'-DDD	1.4	U			
10/18/04	Field Blank	BNA-Water	4,4'-DDE	1.4	U			
10/18/04	Field Blank	BNA-Water	4,4'-DDT	1.4	U			
10/18/04	Field Blank	BNA-Water	4-Bromophenyl phenyl ether	0.95	U			
10/18/04	Field Blank	BNA-Water	4-Chloro-3-methylphenol	0.95	U			
10/18/04	Field Blank	BNA-Water	4-Chlorophenyl phenyl ether	1.9	U			
10/18/04	Field Blank	BNA-Water	4-Nitrophenol	14	U			

10/18/04	Field Blank	BNA-Water	Acenaphthene	0.95	U			
10/18/04	Field Blank	BNA-Water	Acenaphthylene	0.95	U			
10/18/04	Field Blank	BNA-Water	Aldrin	1.4	U			
10/18/04	Field Blank	BNA-Water	Anthracene	0.95	U			
10/18/04	Field Blank	BNA-Water	Benzidine	95	U			
10/18/04	Field Blank	BNA-Water	Benzo(a)anthracene	0.95	U			
10/18/04	Field Blank	BNA-Water	Benzo(a)pyrene	0.95	U			
10/18/04	Field Blank	BNA-Water	Benzo(b)fluoranthene	0.95	U			
10/18/04	Field Blank	BNA-Water	Benzo(g,h,i)perylene	0.95	U			
10/18/04	Field Blank	BNA-Water	Benzo(k)fluoranthene	0.95	U			
10/18/04	Field Blank	BNA-Water	Bis(2-chloroethoxy)methane	0.95	U			
10/18/04	Field Blank	BNA-Water	Bis(2-chloroethyl)ether	0.95	U			
10/18/04	Field Blank	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	U			
10/18/04	Field Blank	BNA-Water	Bis(2-ethylhexyl)phthalate	14	U			
10/18/04	Field Blank	BNA-Water	Butyl benzyl phthalate	4.8	U			
10/18/04	Field Blank	BNA-Water	Chrysene	0.95	U			
10/18/04	Field Blank	BNA-Water	Di-n-butyl phthalate	4.8	U			
10/18/04	Field Blank	BNA-Water	Di-n-octyl phthalate	0.95	U			
10/18/04	Field Blank	BNA-Water	Dibenzo(a,h)anthracene	0.95	U			
10/18/04	Field Blank	BNA-Water	Dieldrin	1.4	U			
10/18/04	Field Blank	BNA-Water	Diethyl phthalate	0.95	U			
10/18/04	Field Blank	BNA-Water	Dimethyl phthalate	48	U			
10/18/04	Field Blank	BNA-Water	Endosulfan I	3.8	U			
10/18/04	Field Blank	BNA-Water	Endosulfan II	3.8	U			
10/18/04	Field Blank	BNA-Water	Endosulfan sulfate	1.4	U			
10/18/04	Field Blank	BNA-Water	Endrin	1.4	U			
10/18/04	Field Blank	BNA-Water	Endrin aldehyde	3.8	U			
10/18/04	Field Blank	BNA-Water	Fluoranthene	0.95	U			
10/18/04	Field Blank	BNA-Water	Fluorene	0.95	U			
10/18/04	Field Blank	BNA-Water	Heptachlor	1.4	U			
10/18/04	Field Blank	BNA-Water	Heptachlor epoxide	1.4	U			
10/18/04	Field Blank	BNA-Water	Hexachlorobenzene	0.95	U			
10/18/04	Field Blank	BNA-Water	Hexachlorobutadiene	2.9	U			
10/18/04	Field Blank	BNA-Water	Hexachlorocyclopentadiene	2.9	UJ			
10/18/04	Field Blank	BNA-Water	Hexachloroethane	2.9	U			
10/18/04	Field Blank	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	U			
10/18/04	Field Blank	BNA-Water	Isophorone	0.95	U			
10/18/04	Field Blank	BNA-Water	N-Nitrosodi-n-propylamine	1.9	U			
10/18/04	Field Blank	BNA-Water	N-Nitrosodimethylamine	1.9	U			
10/18/04	Field Blank	BNA-Water	N-Nitrosodiphenylamine	2.9	U			
10/18/04	Field Blank	BNA-Water	Naphthalene	0.95	U			
10/18/04	Field Blank	BNA-Water	Nitrobenzene	1.9	U			
10/18/04	Field Blank	BNA-Water	Pentachlorophenol	2.9	U			
10/18/04	Field Blank	BNA-Water	Phenanthrene	0.95	U			
10/18/04	Field Blank	BNA-Water	Phenol	0.95	U			
10/18/04	Field Blank	BNA-Water	Pyrene	0.95	U			
10/18/04	Field Blank	BNA-Water	alpha-BHC	1.4	U			
10/18/04	Field Blank	BNA-Water	beta-BHC	1.4	U			
10/18/04	Field Blank	BNA-Water	delta-BHC	1.4	U			
10/18/04	Field Blank	BNA-Water	gamma-BHC	1.4	U			
10/18/04	Field Blank	GC-Water	Alachlor	0.58	ug/L	U	0.58	2.3
10/18/04	Field Blank	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.19
10/18/04	Field Blank	GC-Water	Atrazine	0.048	ug/L	U	0.048	0.19
10/18/04	Field Blank	GC-Water	Azinphos Methyl	0.048	ug/L	U	0.048	0.19
10/18/04	Field Blank	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
10/18/04	Field Blank	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
10/18/04	Field Blank	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.19
10/18/04	Field Blank	GC-Water	Chlorpyrifos Methyl	0.096	ug/L	U	0.096	0.38
10/18/04	Field Blank	GC-Water	Diazinon	0.048	ug/L	U	0.048	0.19
10/18/04	Field Blank	GC-Water	Ethion	0.048	ug/L	U	0.048	0.19
10/18/04	Field Blank	GC-Water	Ethoprop	0.096	ug/L	U	0.096	0.38
10/18/04	Field Blank	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
10/18/04	Field Blank	GC-Water	Fonofos	0.096	ug/L	U	0.096	0.38
10/18/04	Field Blank	GC-Water	Hexazinone	0.096	ug/L	U	0.096	0.38
10/18/04	Field Blank	GC-Water	Malathion	0.14	ug/L	U	0.14	0.56
10/18/04	Field Blank	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
10/18/04	Field Blank	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.9
10/18/04	Field Blank	GC-Water	Metribuzin	0.096	ug/L	U	0.096	0.38
10/18/04	Field Blank	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
10/18/04	Field Blank	GC-Water	Naled	0.77	ug/L	UJ	0.77	3.1
10/18/04	Field Blank	GC-Water	Norflurazon	0.096	ug/L	U	0.096	0.38
10/18/04	Field Blank	GC-Water	Parathion Ethyl	0.14	ug/L	UJ	0.14	0.56
10/18/04	Field Blank	GC-Water	Parathion Methyl	0.096	ug/L	U	0.096	0.38
10/18/04	Field Blank	GC-Water	Phorate	0.048	ug/L	U	0.048	0.19
10/18/04	Field Blank	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56

10/18/04	Field Blank	GC-Water	Simazine	0.048	ug/L	U	0.048	0.19
10/18/04	Field Blank	GC-Water	Alachlor	0.58	U			
10/18/04	Field Blank	GC-Water	Ametryn	0.048	U			
10/18/04	Field Blank	GC-Water	Atrazine	0.048	U			
10/18/04	Field Blank	GC-Water	Azinphos Methyl	0.048	U			
10/18/04	Field Blank	GC-Water	Bromacil	0.19	U			
10/18/04	Field Blank	GC-Water	Butylate	0.19	U			
10/18/04	Field Blank	GC-Water	Chlorpyrifos Ethyl	0.048	U			
10/18/04	Field Blank	GC-Water	Chlorpyrifos Methyl	0.096	U			
10/18/04	Field Blank	GC-Water	Diazinon	0.048	U			
10/18/04	Field Blank	GC-Water	Ethion	0.048	U			
10/18/04	Field Blank	GC-Water	Ethoprop	0.096	U			
10/18/04	Field Blank	GC-Water	Fenamiphos	0.19	U			
10/18/04	Field Blank	GC-Water	Fonofos	0.096	U			
10/18/04	Field Blank	GC-Water	Hexazinone	0.096	U			
10/18/04	Field Blank	GC-Water	Malathion	0.14	U			
10/18/04	Field Blank	GC-Water	Metalaxyl	0.24	U			
10/18/04	Field Blank	GC-Water	Metolachlor	0.48	U			
10/18/04	Field Blank	GC-Water	Metribuzin	0.096	U			
10/18/04	Field Blank	GC-Water	Mevinphos	0.19	U			
10/18/04	Field Blank	GC-Water	Naled	0.77	UJ			
10/18/04	Field Blank	GC-Water	Norflurazon	0.096	U			
10/18/04	Field Blank	GC-Water	Parathion Ethyl	0.14	UJ			
10/18/04	Field Blank	GC-Water	Parathion Methyl	0.096	U			
10/18/04	Field Blank	GC-Water	Phorate	0.048	U			
10/18/04	Field Blank	GC-Water	Prometryn	0.14	U			
10/18/04	Field Blank	GC-Water	Simazine	0.048	U			
10/18/04	Field Blank	Metals-Water	Aluminum	5	ug/L	U	5	20
10/18/04	Field Blank	Metals-Water	Arsenic	6	ug/L	U	6	24
10/18/04	Field Blank	Metals-Water	Cadmium	0.075	ug/L	U	0.075	0.3
10/18/04	Field Blank	Metals-Water	Calcium	0.05	mg/L	U	0.05	0.2
10/18/04	Field Blank	Metals-Water	Chromium	2	ug/L	U	2	8
10/18/04	Field Blank	Metals-Water	Copper	0.96	ug/L	I	0.75	3
10/18/04	Field Blank	Metals-Water	Iron	10	ug/L	U	10	40
10/18/04	Field Blank	Metals-Water	Lead	0.092	ug/L	I	0.075	0.3
10/18/04	Field Blank	Metals-Water	Magnesium	0.02	mg/L	U	0.02	0.08
10/18/04	Field Blank	Metals-Water	Nickel	2	ug/L	U	2	8
10/18/04	Field Blank	Metals-Water	Selenium	0.5	ug/L	U	0.5	2
10/18/04	Field Blank	Metals-Water	Silver	0.02	ug/L	U	0.02	0.08
10/18/04	Field Blank	Metals-Water	Zinc	3	ug/L	U	3	12
10/18/04	Field Blank	Metals-Water	Aluminum	5	U			
10/18/04	Field Blank	Metals-Water	Arsenic	6	U			
10/18/04	Field Blank	Metals-Water	Cadmium	0.075	U			
10/18/04	Field Blank	Metals-Water	Calcium	0.05	U			
10/18/04	Field Blank	Metals-Water	Chromium	2	U			
10/18/04	Field Blank	Metals-Water	Copper	0.96	I			
10/18/04	Field Blank	Metals-Water	Iron	10	U			
10/18/04	Field Blank	Metals-Water	Lead	0.092	I			
10/18/04	Field Blank	Metals-Water	Magnesium	0.02	U			
10/18/04	Field Blank	Metals-Water	Nickel	2	U			
10/18/04	Field Blank	Metals-Water	Selenium	0.5	U			
10/18/04	Field Blank	Metals-Water	Silver	0.02	U			
10/18/04	Field Blank	Metals-Water	Zinc	3	U			
10/18/04	Field Blank	Nutrients-Liquid	Ammonia-N	0.01	mg N/L	U	0.01	0.02
10/18/04	Field Blank	Nutrients-Liquid	Kjeldahl Nitrogen	0.06	mg N/L	U	0.06	0.2
10/18/04	Field Blank	Nutrients-Liquid	NO2NO3-N	0.004	mg N/L	U	0.004	0.01
10/18/04	Field Blank	Nutrients-Liquid	O-Phosphate-P	0.004	mg P/L	U	0.004	0.01
10/18/04	Field Blank	Nutrients-Liquid	TSS	4	mg/L	U	4	16
10/18/04	Field Blank	Nutrients-Liquid	Total-P	0.02	mg P/L	U	0.02	0.06
10/18/04	Field Blank	Nutrients-Liquid	Turbidity	0.05	NTU	UQ	0.05	0.05
10/18/04	Field Blank	Nutrients-Liquid	Ammonia-N	0.01	U			
10/18/04	Field Blank	Nutrients-Liquid	Kjeldahl Nitrogen	0.06	U			
10/18/04	Field Blank	Nutrients-Liquid	NO2NO3-N	0.004	U			
10/18/04	Field Blank	Nutrients-Liquid	O-Phosphate-P	0.004	U			
10/18/04	Field Blank	Nutrients-Liquid	TSS	4	U			
10/18/04	Field Blank	Nutrients-Liquid	Total-P	0.02	U			
10/18/04	Field Blank	Nutrients-Liquid	Turbidity	0.05	UQ			
10/18/04	Field Blank	Overflow	Oil and Grease	0.69	mg/L	U		
10/18/04	Field Blank	Overflow	Oil and Grease	0.69	U			

Appendix 5

Typical Values for Selected Parameters in Florida Waters Percentile Distribution (690 Sites)

Test Site 1

	Percentile Distribution											
Parameter	**5%**	**10%**	**20%**	**30%**	**40%**	**50%**	**60%**	**70%**	**80%**	**90%**	**95%**	**Measured**
ESTUARIES (690 Stations)												
Phytoplankton Chlorophyll a	2.14	3.28	4.49	5.13	6	6.93	7.94	9.6	12.4	17.6	22.2	-
Dredge Diversity	1.34	1.53	1.91	2.28	**2.56**	2.9	3.15	3.59	4.01	4.53	4.98	**2.77**
Dredge Taxa Richness	4	6	9	11	15	18.5	**25**	35	41	62	90	**34**
TKN	0.26	0.34	0.42	0.5	0.59	0.69	0.76	**0.82**	0.95	1.3	1.49	**0.92**
NH3+NH4	**0.01**	0.02	0.03	0.04	0.05	0.06	0.08	0.09	0.13	0.22	0.28	**0.018 I**
NO2-NO3	0	0	0.01	0.01	0.01	**0.02**	0.03	0.05	0.08	0.17	0.23	**0.022**
Total Phosphorus	0.01	0.02	0.06	0.07	0.1	0.11	0.14	**0.17**	0.23	0.43	0.59	**0.18**
Ortho-Phosphate	0.01	0.02	0.03	0.04	0.04	0.05	0.07	**0.09**	0.12	0.21	0.44	**0.11**
Turbidity	3.5	4	4.5	5.05	5.4	5.6	6.3	6.8	**8**	11.4	11.75	-

Test Site 2

	Percentile Distribution											
Parameter	**5%**	**10%**	**20%**	**30%**	**40%**	**50%**	**60%**	**70%**	**80%**	**90%**	**95%**	**Measured**
ESTUARIES (690 Stations)												
Phytoplankton Chlorophyll a	**2.14**	3.28	4.49	5.13	6	6.93	7.94	9.6	12.4	17.6	22.2	-
Dredge Diversity	1.34	1.53	1.91	**2.28**	2.56	2.9	3.15	3.59	4.01	4.53	4.98	**2.39**
Dredge Taxa Richness	4	6	9	11	15	18.5	**25**	35	41	62	90	**32**
TKN	0.26	0.34	0.42	0.5	0.59	0.69	0.76	**0.82**	0.95	1.3	1.49	**0.82**
NH3+NH4	0.01	**0.02**	0.03	0.04	0.05	0.06	0.08	0.09	0.13	0.22	0.28	**0.021 I**
NO2-NO3	0	0	0.01	0.01	0.01	**0.02**	0.03	0.05	0.08	0.17	0.23	**0.025**
Total Phosphorus	0.01	0.02	0.06	0.07	0.1	0.11	0.14	**0.17**	0.23	0.43	0.59	**0.2**
Ortho-Phosphate	0.01	0.02	0.03	0.04	0.04	0.05	0.07	0.09	**0.12**	0.21	0.44	**0.12**
Turbidity	3.5	4	4.5	5.05	5.4	5.6	6.3	6.8	8	11.4	11.75	-

Test Site 3

	Percentile Distribution											
Parameter	**5%**	**10%**	**20%**	**30%**	**40%**	**50%**	**60%**	**70%**	**80%**	**90%**	**95%**	**Measured**
ESTUARIES (690 Stations)												
Phytoplankton Chlorophyll a	**2.14**	3.28	4.49	5.13	6	6.93	7.94	9.6	12.4	17.6	22.2	-
Dredge Diversity	1.34	1.53	1.91	2.28	**2.56**	2.9	3.15	3.59	4.01	4.53	4.98	**2.83**
Dredge Taxa Richness	4	6	9	11	15	18.5	**25**	35	41	62	90	**27**
TKN	0.26	0.34	0.42	0.5	0.59	0.69	0.76	0.82	**0.95**	1.3	1.49	**1**
NH3+NH4	0.01	**0.02**	0.03	0.04	0.05	0.06	0.08	0.09	0.13	0.22	0.28	**0.027**
NO2-NO3	0	0	0.01	0.01	0.01	0.02	**0.03**	0.05	0.08	0.17	0.23	**0.04**
Total Phosphorus	0.01	0.02	0.06	0.07	0.1	0.11	0.14	**0.17**	0.23	0.43	0.59	**0.22**
Ortho-Phosphate	0.01	0.02	0.03	0.04	0.04	0.05	0.07	**0.09**	0.12	0.21	0.44	**0.11**
Turbidity	3.5	4	4.5	5.05	5.4	5.6	6.3	6.8	8	11.4	11.75	-

I - Value reported is < the minimum quantitation limit, and ≥ the minimum detection limit

Appendix 5 (continued)

Test Site 4

	Percentile Distribution											
Parameter	**5%**	**10%**	**20%**	**30%**	**40%**	**50%**	**60%**	**70%**	**80%**	**90%**	**95%**	**Measured**
ESTUARIES (690 Stations)												
Phytoplankton Chlorophyll a	2.14	3.28	4.49	5.13	6	6.93	7.94	9.6	12.4	17.6	22.2	-
Dredge Diversity	1.34	1.53	**1.91**	2.28	2.56	2.9	3.15	3.59	4.01	4.53	4.98	**2.01**
Dredge Taxa Richness	4	6	9	11	15	18.5	**25**	35	41	62	90	**33**
TKN	0.26	0.34	0.42	0.5	0.59	0.69	0.76	0.82	**0.95**	1.3	1.49	**0.97**
NH3+NH4	0.01	**0.02**	0.03	0.04	0.05	0.06	0.08	0.09	0.13	0.22	0.28	**0.023**
NO2-NO3	0	0	0.01	0.01	0.01	0.02	**0.03**	0.05	0.08	0.17	0.23	**0.042**
Total Phosphorus	0.01	0.02	0.06	0.07	0.1	0.11	0.14	**0.17**	0.23	0.43	0.59	**0.21**
Ortho-Phosphate	0.01	0.02	0.03	0.04	0.04	0.05	0.07	**0.09**	0.12	0.21	0.44	**0.11**
Turbidity	3.5	4	4.5	5.05	5.4	5.6	6.3	6.8	8	11.4	11.75	-

Control Site 5

	Percentile Distribution											
Parameter	**5%**	**10%**	**20%**	**30%**	**40%**	**50%**	**60%**	**70%**	**80%**	**90%**	**95%**	**Measured**
ESTUARIES (690 Stations)												
Phytoplankton Chlorophyll a	2.14	3.28	4.49	5.13	6	6.93	7.94	9.6	12.4	17.6	22.2	-
Dredge Diversity	1.34	1.53	1.91	2.28	2.56	**2.9**	3.15	3.59	4.01	4.53	4.98	**3**
Dredge Taxa Richness	4	6	9	11	15	18.5	**25**	35	41	62	90	**27**
TKN	0.26	0.34	0.42	0.5	0.59	0.69	**0.76**	0.82	0.95	1.3	1.49	**0.78**
NH3+NH4	0.01	0.02	**0.03**	0.04	0.05	0.06	0.08	0.09	0.13	0.22	0.28	**0.026**
NO2-NO3	0	0	0.01	0.01	0.01	0.02	0.03	0.05	0.08	**0.17**	0.23	**0.018**
Total Phosphorus	0.01	0.02	0.06	0.07	0.1	0.11	0.14	**0.17**	0.23	0.43	0.59	**0.18**
Ortho-Phosphate	0.01	0.02	0.03	0.04	0.04	0.05	0.07	0.09	**0.12**	0.21	0.44	**0.13**
Turbidity	3.5	4	4.5	5.05	5.4	5.6	6.3	6.8	8	11.4	11.75	-

Control Site 6

	Percentile Distribution											
Parameter	**5%**	**10%**	**20%**	**30%**	**40%**	**50%**	**60%**	**70%**	**80%**	**90%**	**95%**	**Measured**
ESTUARIES (690 Stations)												
Phytoplankton Chlorophyll a	2.14	3.28	4.49	5.13	6	6.93	7.94	9.6	12.4	17.6	22.2	-
Dredge Diversity	1.34	1.53	1.91	2.28	**2.56**	2.9	3.15	3.59	4.01	4.53	4.98	**2.89**
Dredge Taxa Richness	4	6	9	11	15	18.5	**25**	35	41	62	90	**28**
TKN	0.26	0.34	0.42	0.5	0.59	0.69	0.76	**0.82**	0.95	1.3	1.49	**0.82 A**
NH3+NH4	0.01	**0.02**	0.03	0.04	0.05	0.06	0.08	0.09	0.13	0.22	0.28	**0.02 I**
NO2-NO3	0	0	0.01	0.01	**0.01**	0.02	0.03	0.05	0.08	0.17	0.23	**0.019**
Total Phosphorus	0.01	0.02	0.06	0.07	0.1	0.11	0.14	**0.17**	0.23	0.43	0.59	**0.18 AJ**
Ortho-Phosphate	0.01	0.02	0.03	0.04	0.04	0.05	0.07	**0.09**	0.12	0.21	0.44	**0.11**
Turbidity	3.5	4	4.5	5.05	5.4	5.6	6.3	6.8	8	11.4	11.75	-

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

I - Value reported is < the minimum quantitation limit, and ≥ the minimum detection limit

J - Estimated value

Appendix 6

Additional physical, chemical, toxicological and microbiological results

FL DEP SW Disctrict Chemistry Laboratory Report **3804 Coconut Palm Dr.**
Phone # 813-744-6100 DEP CompQAP # 880078 NELAP # E34886 **Tampa, FL 33619**
Page 1

Project: CLEARWATER *Type:* FYI5 *Requested by:* PILLSBURY

Site	*Time*	*Date*	*Analysis Date/Time*	*Log*	*Samplers*	*RQ#*	*Notes*
STATION 1	1225	10/20/2004	10/20/041545	31118	PILLSBURY	2004-10-18-32	
STATION 2	1340	10/20/2004	10/20/041545	31119	PILLSBURY	2004-10-18-32	
STATION 3	1305	10/20/2004	10/20/041545	31120	PILLSBURY	2004-10-18-32	
STATION 4	1300	10/20/2004	10/20/041545	31121	PILLSBURY	2004-10-18-32	
STATION 5	1100	10/20/2004	10/20/041545	31122	PILLSBURY	2004-10-18-32	
STATION 6	1130	10/20/2004	10/20/041545	31123	PILLSBURY	2004-10-18-32	

Code	*parameter*	*units*	*STATION 1*	*STATION 2*	*STATION 3*	*STATION 4*	*STATION 5*	*STATION 6*	*site:*
29	log#	log	31118	31119	31120	31121	31122	31123	
10	water temp.	deg C							
78	secchi	meters							
94	conductivity	umho/cm							
299	diss.Oxygen	mg/l							
301	diss.Oxygen	%							
406	pH	units							
480	salinity	0/00							
82903	total depth	meters							
31501	t-coliforms	#/100ml	20BK	10BK	40BK	20BK	1K	1K	
31616	f-coliforms	#/100ml	1K	1K	5BK	5BK	1K	1K	
4192	sample depth	meters							

A denotes mean, B counts unacceptable, J estimate, K less than, L greater than, O data lost, Q out of holding time, T value is less than MDL, U not detected, V analyte detected in blank, Y improperly preserved, Z too numerous to count, D field measurement **Results for NELAP accredited tests contained in this report meet the requirements specified for the National Environmental Laboratory Accreditation Program. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published test performance acceptance criteria.**

FL DEP SW Disctrict Chemistry Laboratory Report **3804 Coconut Palm Dr.**
Phone # 813-744-6100 DEP CompQAP # 880078 NELAP # E34886 **Tampa, FL 33619**
Page

Project: CLEARWAT *Type:* FYI *Requested by:* PILLSBU

Site	*Time*	*Date*	*Analysis Date/Time*	*Log*	*Samplers*	*RQ#*	*Notes*
OUTFALL-D001	101	10/18/20	10/18/0414	3107	CORNWELL,GU	2004-10-18-	
FIELD BLANK	101	10/18/20	10/18/0414	3107	CORNWELL,GU	2004-10-18-	

Code	*parameter*	*units*	*OUTFALL*	*FB*	*site:*	*site:*	*site:*	*site:*	*site:*
29	log	log	3107	3107					
10	water	deg							
78	secch	meter							
94	conductivi	umho/c							
299	diss.Oxyg	mg/							
301	diss.Oxyg	%							
406	pH	unit							
480	salinit	0/0							
8290	total	meter							
3150	t-	#/100	10B	1K					
3161	f-	#/100	1K	1K					
419	sample	meter							

A denotes mean, B counts unacceptable, J estimate, K less than, L greater than, O data lost, Q out of holding time, T value is less than MDL, U not detected, V analyte detected in blank, Y improperly preserved, Z too numerous to count, D field measurement **Results for NELAP accredited tests contained in this report meet the requirements specified for the National Environmental Laboratory Accreditation Program. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published test performance acceptance criteria.**

Appendix 6

Additional physical, chemical, toxicological and microbiological results

Chronic Definitive Bioassay Benchsheet

Sample Identification, Test Conditions and Physical Chemistry

Sample Source: City of Clearwater WWTP
Address: 3141 Gulf to Bay Blvd., Clearwater
County: Pinellas
NPDES Permit #FL 0021365
Contact/District N. Cornwall / Southwest
Start Date 10/19/04 Time 1930 End Date: 10/26/04 Time 1500
LIMS entry: 11-05-04 verified: 11/05/04 DN
Incubator # 3 Temperature Range: 24.0-26.0
Room B246 Temperature Range: 23.5-25.5

Feeding: Daily YCT Batch#: 4/5 0.1 ml
P. subcapitata Batch#: 34 0.1 ml

***Ceriodaphnia dubia* Bench Sheet**

SOP#: TA07_05
Light Intensity : 50 - 100 ft. candles - (yes) no
Photoperiod : 16 light 8 dark - (yes) no
Chamber size : 30 ml Organism Batch #: 39
Sample volume : 20 ml Organism age : < 24hr. hours

Organism: *Ceriodaphnia dubia*

Water Quality Parameters

	Field Chlorine mg/L			Lab Chlorine mg/L			Alkalinity mg/L as $CaCO_3$			Hardness mg/L as $CaCO_3$		
Lab Sample #:	1	2	3	1	2	3	1	2	3	1	2	3
Sample:	Not measured in toxicity study			<0.03	<0.03	<0.03	168	168	173	226	219	235
Diluent/Control:				<0.03	<0.03	<0.03	87	87	77	92	92	88
Method:	—	—	—	Hach	Hach	Hach	Hach	Hach	Hach	Hach	Hach	Hach
Measured by:	—	—	—	SP	SP	MF	SP	DN	DN	SP	DN	DN
Verified by:	MF	MF	MF	MF	MF	DN	MF	MF	MF	MF	MF	MF

(1) incorrect value recorded MF 11-27-04

	Conductivity (circle one) (umhos-cm) mmhos-cm			Ammonia mg/L		
Lab Sample#:	1	2	3	1	2	3
Sample:	1050	1061	1100	<0.017	<0.017	<0.017
Diluent/Control:	180	182	185	<0.017	<0.017	<0.017
Method:	Mettler	Mettler	Mettler	Denver	Denver	Denver
Measured by:	SP	DN	MF	MF	MF	MF
Verified by:	MF	MF	DN	DN	DN	DN

Statistics

Control % cv:	26.1
Dunnetts PMSD:	27.31
Survival NOEC:	100%
Survival LOEC:	—
~~Growth~~ NOEC:	100% reproduction
~~Growth~~ LOEC:	— reproduction

Sample Received	LAB ID #	LIMS SAMPLE #	LIMS JOB #
Test Day 0	Sample: 1	789036	TLH -2004-10-20-25-01
Test Day 2	Sample: 2	790138	TLH - 2004-10-21-95
Test Day 4	Sample: 3	790727	TLH - 2004-10-25-07

Lab Sample #	Collection Date/Time	Received Date/Time
1	10-18-04 0630	10-19-04 1650
2	10-20-04 0630	10-21-04 1105
3	10-22-04 0630	10-23-04 1105

Diluent / Control Batch #:	Days Used
DMW/37	4
DMW 38	3

Investigators' signatures
Kevin Nicholson
Frank Richard
Nicole Wellenhof
Marshall Faircloth
Jane Smith
reviewer Nicole Wellenhof

Comments:
Sample #1 Aerated 13 min @ 100 bubbles/min to lower DO 10-19-04
Sample # 2 aerated 23 minutes to lower DO 10-21-04
Sample # 3 aerated 20 minutes to lower DO on 10-23-04
ICP20 could not be calculated as reproduction in concentration were not 20% less than control reproduction

re-issued 10/11/05 MF

Facility City of Clearwater LAWTP

Biology Laboratory Chronic Definitive Bioassay
Ceriodaphnia dubia Bench Sheets - Reproduction
SOP TA07_05

Begin Test:
Date: 10/19/04 Time: 1930
End Test:
Date: 10-26-04 Time: 1500

LIMS Sample # 789036 for lab sample #1.

Conc.	Day	Replicate Number 1	2	3	4	5	6	7	8	9	10	Total neonates	Surviving adults	Neonates per adult
Control	0*	[redacted]										[redacted]	10	[redacted]
	1	[redacted]										[redacted]	10	[redacted]
	2	0	0	0	0	0	0	0	0	0	0	0	10	0
	3	0	0	0	0	0	0	0	0	2	0	2	10	0.2
	4	0	0	4	3	0	4	3	0	0	X 8	20	10	2.0
	5	9	8	8	0	0	8	8	10	7	0	58	10	5.8
	6	0	0	0	7	6	0	0	0	13	9	35	10	3.5
	7	11	13	10	10	0	13	11	14	0	5	87	10	8.7
	8	—	—	—	—	—	—	—	—	—	—	—	—	—
	Total	20	21	22	20	6	25	22	24	22	20	202	10	20.2

Conc.	Day	Replicate Number 1	2	3	4	5	6	7	8	9	10	Total neonates	Surviving adults	Neonates per adult
6.25%	0*	[redacted]										[redacted]	10	[redacted]
	1	[redacted]										[redacted]	10	[redacted]
	2	0	0	0	0	0	0	0	0	0	0	0	10	0
	3	0	0	0	0	0	0	0	0	0	0	0	10	0
	4	4	4	4	4	3	5	3	4	2	5	38	10	3.8
	5	7	3	7	7	7	8	8	7	10	0	64	10	6.4
	6	0	0	0	0	0	0	X 5	16	16	8	40	10	4.0
	7	12	7	11	5	1	14	11	0	1	0	62	10	6.2
	8	—	—	—	—	—	—	—	—	—	—	—	—	—
	Total	23	14	22	16	11	27	22	28	29	13	204	10	20.4

*Day 0 = equals test initiation day. X = Dead (original organism)

revised 10/11/04 MF

organisms loaded by: NKW

Day	**Counted by:
0	SR/MF
1	MF
2	NKW
3	SD/MF (A)
4	MF
5	MF
6	MP
7	MF
8	—

**Initials (A) MF 2nd counted on 10-23-04

Test acceptability

Mean control reproduction 15/female (yes) no
Third Brood ≥8 in 60% of surviving females (yes) no
Temperature range ≤3°: (yes) no
Control survival ≥80%: (yes) no

Comments: Day 4 control Rep 9 = 0 Rep 10 = 6. MF 10/26/04
Day 6 Rep 7 6.25% = 0 MF
Rep 8 6.25% total = 27 MF 12/6/04

Facility: City of Clearwater

Begin Test: Date: 10/19/04 Time: 1930
End Test: Date: 10/24/04 Time: 1500

Biology Laboratory Chronic Definitive Bioassay
Ceriodaphnia dubia Bench Sheets - Reproduction
SOP TA07_05
LIMS Sample # 789036 for lab sample #1.

Conc.	Day	Replicate Number 1	2	3	4	5	6	7	8	9	10	Total neonates	Surviving Adults	Neonates per adult
12.50%	0*	[redacted]										[redacted]	10	[redacted]
	1	[redacted]										[redacted]	10	[redacted]
	2	0	0	0	0	0	0	0	0	0	0	0	10	0
	3	0	0	0	0	0	0	0	0	0	0	0	10	0
	4	4	4	4	3	3	5	4	4	0	3	34	10	3.4
	5	7	5	8	0	9	6	7	8	8	0	58	10	5.8
	6	0	0	0	7	0	0	12	11	0	10	40	10	4.0
	7	11	15	12	13	13	13	1	0	14	16	108	10	10.8
	8	—	—	—	—	—	—	—	—	—	—	—	—	—
	Total	22	24	24	23	25	24	24	23	22	29	240	10	24.0

Conc.	Day	Replicate Number 1	2	3	4	5	6	7	8	9	10	Total neonates	Surviving Adults	Neonates per adult
25%	0*	[redacted]										[redacted]	10	[redacted]
	1	[redacted]										[redacted]	10	[redacted]
	2	0	0	0	0	0	0	0	0	0	0	0	10	0
	3	0	0	0	0	0	0	0	0	0	0	0	10	0
	4	5	4	5	6	4	4	3	4	4	4	43	10	4.3
	5	9	10	11	6	9	10	8	8	8	0	79	10	7.9
	6	0	0	0	0	0	0	0	0	11	11	22	10	2.2
	7	14	15	12	13	7	13	11	13	0	14	112	10	11.2
	8	—	—	—	—	—	—	—	—	—	—		—	—
	Total	28	29	28	25	20	27	22	25	23	29	256	10	256

Conc.	Day	Replicate Number 1	2	3	4	5	6	7	8	9	10	Total neonates	Surviving Adults	Neonates per adult
50%	0*	[redacted]										[redacted]	10	[redacted]
	1	[redacted]										[redacted]	10	[redacted]
	2	0	0	0	0	0	0	0	0	0	0	0	10	0
	3	0	0	0	0	0	0	0	0	0	0	0	10	0
	4	5	08	4	4	5	4	4	4	4	5	39	10	3.9
	5 [IN]	10	10	11	6	9	10	11	2	6	8	84	10	8.4
	6	12	15	0	0	3	0	0	13	0	0	43	10	4.3
	7	0	0	3	12	13	16	13	0	12	15	84	10	8.4
	8	—	—	—	—	—	—	—	—	—	—	—	—	—
	Total	25	25	15	27	30	31	28	19	22	28	250	10	25.0

Conc.	Day	Replicate Number 1	2	3	4	5	6	7	8	9	10	Total neonates	Surviving Adults	Neonates per adult
100%	0*	[redacted]										[redacted]	10	[redacted]
	1	[redacted]										[redacted]	10	[redacted]
	2	0	0	0	0	0	0	0	0	0	0	0	10	0
	3	0	0	0	0	0	0	0	0	0	0	0	10	0
	4	3	0	0	3	4	6	4	X1	0	5	26	9	2.6
	5	6	6	7	7	8	10	8	}	9	9	70	9	7.0
	6	12	11	6	12	0	13	14	}	13	0	81	9	8.1
	7	0	0	0	0	10	0	0	}	0	13	23	9	2.3
	8	—	—	—	—	—	—	—	}	—	—	—	—	—
	Total	21	17	13	22	22	29	26	1	22	27	200	(10)	200

*Day 0 = equals test initiation day. X = Dead (original organism)

revised 10/11/04 MF

Comments: Rep 2 50% Day 4 wrote in wrong place (neonates MF 12-23-04) 12-7-04 100% all Females so Divide by 10 - MF
10-24-04 50% Rep 1 = 8 Rep 6 = 11
Rep 3 = 8
Rep 4 = 11

Ceriodaphnia dubia Chronic Bioassay Parameters

SOP TA07_05

Facility: City of Clearwater WWTP

LIMS Sample #: 769034 (for lab sample 1)

Start Date: 10/19/04 End Date: 10/26/04

Start Time: 1930 End Time: 1500

Comment:

Test Day			New Sample						Old Sample					
							Cond						Cond	
		Conc.	Test Rep.	pH (su)	Temp (°C)	DO (mg/L)	(µmhos/cm) (mmhos/cm)		Test Rep.	pH (su)	Temp (°C)	DO (mg/L)	(µmhos/cm) (mmhos/cm)	
Day 0	sample:	Control	A	8.1	24.0	8.0	180							
	1	6.25%	A	8.2	24.1	8.1	250							
	1	12.5%	A	8.2	24.3	8.0	300							
	1	25%	A	8.2	24.1	8.1	410							
	1	50%	A	8.2	24.0	8.1	640							
	1	100%	A	8.2	24.0	8.1	1050							
	Measured by:			SF	SF	SF	SF							
	Recorded by:			SF	SF	SF	SF							
Day 1	sample:	Control	A	8.0	24.0	7.4	185		A	8.1	24.3	7.4	200	
	1	6.25%	A	8.1	24.4	7.5	235		A	8.0	24.2	7.4	260	
	1	12.5%	A	8.1	24.5	7.5	295		A	8.0	24.2	7.4	315	
	1	25%	A	8.2	24.4	7.5	395		A	8.0	24.2	7.4	425	
	1	50%	A	8.2	24.3	7.6	610		A	8.0	24.2	7.4	650	
	1	100%	A	8.3	24.3	7.7	1025		A	8.2	24.2	7.6	1085	
	Measured by:			MF	MF	MF	MF			MF	MF	MF	MF	
	Recorded by:			MF	MF	MF	MF			MF	MF	MF	MF	
Day 2	sample:	Control	A	8.1	24.3	7.4	192		A	7.9	24.4	6.7	190	
	2	6.25%	A	8.1	24.4	7.4	242		A	7.9	24.4	6.8	250	
	2	12.5%	A	8.1	24.4	7.3	302		A	8.2	24.4	6.9	315	
	2	25%	A	8.2	24.4	7.3	411		A	8.2	24.4	6.8	435	
	2	50%	A	8.2	24.3	7.3	628		A	8.2	24.4	6.9	670	
	2	100%	A	8.2	24.0	7.3	1035		A	8.3	24.8	6.9	1110	
	Measured by:			DN	DN	DN	DN			MF	MF	MF	MF	
	Recorded by:			DN	DN	DN	DN			MF	NKW	MF	MF	
Day 3	sample:	Control	A	8.1	24.0	7.3	185		A	8.1	24.2	7.2	230	
	2	6.25%	A	8.2	24.0	7.6	235		A	8.1	24.1	7.2	340	
	2	12.5%	A	8.2	24.1	7.4	290		A	7.9	24.0	7.1	440	
	2	25%	A	8.2	24.0	7.6	405		A	7.8	24.1	7.3	505	
	2	50%	A	8.2	24.0	7.5	625		A	8.7	24.1	7.0	670	
	2	100%	A	8.1	24.5	7.8	1055		A	8.7	24.0	7.2	1050	
	Measured by:			DN	DN	DN	DN			SD	SD	SD	SD	
	Recorded by:			DN	DN	DN	DN			SD	SD	SD	SD	

Test Rep. = Replicate Circle µmhos-cm or mmhos-cm

revised 10/11/04 mf

Chronic Definitive Bioassay Benchsheet

Sample Identification, Test Conditions and Physical Chemistry

Sample Source: City of Clearwater WWTP
Address: 3141 Gulf to Bay Blvd., Clearwater
County: Pinellas
NPDES Permit #FL 0021865
Contact/District: N. Cornwell / Southwest
Start Date: 10/18/04 Time: 1930 End Date: 10/26/04 Time: 1315
LIMS entry: 11-5-04 MF verified: 11-5-04 DN
Incubator # 3 Temperature Range: 24.0-26.0
Room B246 Temperature Range: 23.5-25.5
Feeding: 2 X Daily Artemia Lot#: C41254256

P. promelas and *M. beryllina* Bench Sheet

P. promelas SOP#: TA07_09 *M. beryllina* SOP#: TA07_14
Light Intensity : 50 - 100 ft. candles - (yes) no
Photoperiod : 16 light 8 dark (yes) no
Chamber size : 1 L Organism Batch #: 27
Sample volume : 500 ml Organism age : ~~24~~ 24 hours 72 days
Organism: (*P. promelas*) *M.beryllina* (circle one)

Water Quality Parameters

	Field Chlorine mg/L			Lab Chlorine mg/L			Alkalinity mg/L as $CaCO_3$			Hardness mg/L as $CaCO_3$		
Lab Sample #:	1	2	3	1	2	3	1	2	3	1	2	3
Sample:	0.0 (A)	NOT measured due to toxicity		<0.03	<0.03	0.04	108	168	173	220	219	235
Diluent/Control:				<0.03	<0.03	<0.03	87	87	77	91	91	83
Method:	—	—	—	Hach	Hach	Hach	Hach	Hach	Hach	Hach	Hach	Hach
Measured by:	N. Cornwell	—	—	SF	SF	MF	SF	DN	DN	SF	DN	DN
Verified by:	MF	MF	MF	MF	MF	DN	MF	MF	MF	MF	MF	MF

	Conductivity (circle one) µmhos-cm		mmhos-cm	Ammonia mg/L			Salinity ppth		
Lab Sample#:	1	2	3	1	2	3	1	2	3
Sample:	1077	1060	1100	<0.017	<0.017	<0.017	<1	<1	<1
Diluent/Control:	378	352	335	<0.017	<0.017	<0.017	<1	<1	<1
Method:	Mettler	Mettler	Mettler	Denver	Denver	Denver	Mettler	Mettler	Mettler
Measured by:	SP	DN	MF	MF	MF	MF	MF	MF	MF
Verified by:	DN	MF	DN	DN	DN	DN	DN	DN	DN

Statistics (A)

Control %cv:	12.7 wt 5.1 surv
Dunnetts PMSD:	24.45% (C)
Survival NOEC:	100%
Survival LOEC:	—
Growth NOEC:	100%
Growth LOEC:	—

Sample Received	LAB ID #	LIMS SAMPLE #	LIMS JOB #
Test Day 0	Sample: 1	789036	TLH-2004-10-20-25
Test Day 2	Sample: 2	790138	TLH - 2004-10-21-95
Test Day 4	Sample: 3	790727	TLH - 2004-10-25-07

4th started to write Job # MF 10-22-04

Lab Sample #	Collection Date/Time	Received Date/Time
1	10-18-04 0630	10-19-04 1650
2	10-20-04 0630	10-21-04 1105
3	10-22-04 0630	10-23-04 1105

Diluent / Control Batch #:	Days Used
MHW #22	4
MHW #23	3

Investigators' signatures
Diane Nichols
Sarah Pinkard
Heidi Wellendorf
Marshall Faircloth
James Daniels
reviewer Heidi Wellendorf

Comments: (A) NOT measured MF 10-27-04
(B) Control % CV: 12.7 wt 5.1 survival MF 11/1/04
(C) PMSD 24.45% weight (wt) 15.82% survival (MF 11/1/04
10 to 20 for weight could not be calculated as mean weights in concentrations were not less than 20% of control.

Page 000001

Chronic Definitive Bioassay Survival Benchsheet

Facility: City of Clearwater WLCTP

LIMS Sample Number: 789036
(for Lab Sample # 1)

Department of Environmental Protection
Biology Laboratory Chronic Screening Bioassay
P. promelas SOP TA07_09 *M. beryllina* SOP TA07_14

Organism: (*P. promelas*) *M.beryllina* (circle one)

		TEST DAY							
Concentration	Replicate	0	1	2	3	4	5	6	7
Control	A	10	10	10	10	10	10	10	10
	B	10	10	10	10	10	10	10	10
	C	10	10	10	10	10	10	10	10
	D	10	9	9	9	9	9	9	9
Sample 6.25%	A	10	10	10	10	10	10	10	10
	B	10	10	10	10	10	10	10	10
	C	10	10	10	10	10	10	10	10
	D	10	10	10	10	10	10	10	10
Sample 12.5 %	A	10	10	10	10	10	10	10	10
	B	10	10	10	10	10	10	~~10~~ (3)	10
	C	10	10	10	10	10	10	10	10
	D	10	10	10	10	10	10	10	10
Sample 25 %	A	10	10	10	10	10	10	10	10
	B	10	10	10	9	9	9	9	9
	C	10	10	10	10	10	10	10	10
	D	10	10	10	10	10	10	10	10
Sample 50 %	A	10	10	10	10	10	10	10	10
	B	10	10	10	10	10	10	10	10
	C	10	10	10	10	10	10	10	10
	D	10	10	10	10	10	10	10	10
Sample 100 %	A	10	10	10	10	10	10	10	10
	B	10	10	10	10	10	10	9 (3)	9
	C	10	10	10	10	10	10	9 (3)	9 (3)
	D	10	10	10	10	10	10	10	10
Sample %	A	10	10	10	10	(1)			
	B	10	10	10	10	—			
	C	10	10	10	10	—			
	D	10	10	10	10	—			
Loaded by: MF	Checked by: [redacted]		JD	JD	JD	DN	JD	JD	JD

↳ NLW/SP

Comments: (1) Only 2 concentrations. ZPA 12/23/04
(3) wrong spot - JD 12/31/04

revised 10/11/04 MF

Chronic Definitive Bioassay Parameters Benchsheet

pg 1

P. promelas and M. beryllina SOP TA07_09 and TA-07_15

Sample Source: City of Clearwater WWTP — Start Date: 10/19/04 — End Date: 11/20/04

LIMS Sample #: 7992-26 (for L.lab sample #1) — Start Time: 1926 — End Time: 1215

conc = concentration — rep = replicate — circle umhos or mmhos

Test Day			New Sample						Old Sample					
	Conc.	Test Rep.	pH (su)	Temp (°C)	DO (mg/L)	Conductivity umhos mmhos	Salinity ppth	Test Rep.	pH (su)	Temp (°C)	DO (mg/L)	Conductivity umhos mmhos	Salinity ppth
Day 0 sample:	Control	A	8.0	24.0	8.1	378	<1						
1	6.25	A	8.1	24.2	8.0	390	<1						
1	12.5	A	8.1	24.3	8.0	441	<1						
1	25	A	8.1	24.2	8.1	521	<1						
1	50	A	8.1	24.2	8.3	617	<1						
1	100	A	7.9	24.1	8.7	1063	<1						
1	—	A	—	—	—	—	—						
Measured by:		SF	SF	SF	SF	SF							
Recorded by:		SD	SF	SF	SF	SF							
		Rep	pH	Temp	DO	Conductivity	Salinity	Rep	pH	Temp	DO	Conductivity	Salinity
Day 1 sample:	Control	B	7.8	24.9	7.2	370	<1	B	7.9	24.4	7.9	336	<1
1	6.25	B	7.8	24.4	6.5	399	<1	B	8.0	24.4	7.8	384	<1
1	12.5	B	7.8	24.5	6.8	445	<1	B	8.1	24.4	7.8	429	<1
1	25.0	B	7.9	24.5	7.1	572	<1	B	8.2	24.4	7.8	528	<1
1	50.0	B	8.0	24.4	6.7	719	<1	B	8.2	24.4	8.0	694	<1
1	100.0	B	8.3	24.4	6.9	1112	<1	B	8.3	24.5	8.0	1016	<1
1	—	B	—	—	—	—	—	B	—	—	—	—	—
Measured by:		DN	DN	DN	DN	DN	DN	DN	DN	DN	DN	DN	DN
Recorded by:		DN	DN	DN	DN	DN	DN	DN	DN	DN	DN	DN	DN
		Rep	pH	Temp	DO	Conductivity	Salinity	Rep	pH	Temp	DO	Conductivity	Salinity
Day 2 sample:	Control	C	7.9	24.5	6.5	352	<1	C	7.9	24.0	7.0	355	<1
2	6.25	C	7.8	24.6	6.4	462	<1	C	8.0	24.2	7.2	391	<1
2	12.5	C	7.9	24.4	6.5	446	<1	C	8.0	24.2	7.0	435	<1
2	25.0	C	7.9	24.5	6.3	541	<1	C	8.0	24.0	7.1	529	<1
2	50.0	C	8.1	24.4	6.3	714	<1	C	8.1	24.0	7.0	694	<1
2	100.0	C	8.3	24.2	6.4	1081	<1	C	8.0	24.0	7.1	1062	<1
2	—	C	—	—	—	—	—	C	—	—	—	—	—
Measured by:		DN	DN	DN	DN	DN	DN	DN	DN	DN	DN	DN	DN
Recorded by:		DN	DN	DN	DN	DN	DN	DN	DN	DN	DN	DN	DN
		Rep	pH	Temp	DO	Conductivity	Salinity	Rep	pH	Temp	DO	Conductivity	Salinity
Day 3 sample:	Control	D	7.9	24.2	7.3	335	<1	D	7.7	24.8	6.0	350	<1
2	6.25	D	8.0	24.4	7.3	380	<1	D	7.7	24.8	6.5	400	<1
2	12.5	D	8.0	24.3	7.2	432	<1	D	7.8	24.0	6.4	440	<1
2	25.0	D	8.0	24.4	7.2	515	<1	D	8.1	24.3	6.3	530	<1
2	50.0	D	8.0	24.5	7.2	700	<1	D	8.0	24.4	6.5	715	<1
2	100.0	D	8.1	24.7	7.3	1050	<1	D	8.1	24.2	6.3	1075	<1
2	—	D	—	—	—	—	—	D	—	—	—	—	—
Measured by:		DN	DN	DN	DN	DN	DN	DN	DN	DN	DN	DN	DN
Recorded by:		DN	DN	DN	DN	DN	DN	DN	DN	DN	DN	DN	DN

revised 10/11/04 ml

Comments: For salinity <1 ppth report <1. For salinity > 1 ppth, conductivity measurement is not required if salinity probe is functional.

ⓐ Recorded Old sample parameters on wrong side (under new sample) DN 10/21/04.

ⓐ Old sample parameters DN 10/21/04

ⓑ 12.5 chemistry recorded on wrong side DN 10/21/04

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Chronic Definitive Bioassay Parameters Benchsheet

P. promelas and M. berylllina SOP TA07_09 and TA-07_15

Sample Source: City of Clearwater LCWTP — Start Date: 10/19/04 — End Date: 10/26/04

LIMS Sample #: 769536 (for Lab sample #1) — Start Time: 1515 — End Time: 1515

conc = concentration — rep = replicate

Test Day		Conc.	New Sample: Test Rep.	pH (su)	Temp (°C)	DO (mg/L)	Conductivity (umhos/cm)	Salinity (ppth)	Old Sample: Test Rep.	pH (su)	Temp (°C)	DO (mg/L)	Conductivity (umhos/cm)	Salinity (ppth)
Day 4	sample:	Control	A	7.8	25.6	~~6.4~~ 6.9	335	<1	A	7.8	25.6	6.9	392	<1
	3	6.25	A	7.9	25.6	~~6.4~~ 6.9	385	<1	A	7.9	25.6	6.9	390	<1
	3	12.5	A	8.0	25.6	~~7.2~~ 7.2	440	<1	A	8.0	25.6	7.2	435	<1
	3	25.0	A	8.0	25.6	~~7.4~~ 7.4	530	<1	A	8.0	25.6	7.4	530	<1
	3	50.0	A	8.0	25.3	~~6.9~~ 6.9	715	<1	A	8.1	25.3	6.9	715	<1
	3	100.0	A	8.1	25.5	~~6.7~~ 6.7	1076	<1	A	8.2	25.5	6.7	1075	<1
	3	—	A	—	—	—	—	—	A	—	—	—	—	—
	Measured by:			DN	DN	DN	DN	DN		DN	DN	DN	DN	DN
	Recorded by:			DN	DN	DN	DN	DN		DN	DN	DN	DN	DN
Day 5			Rep	pH	Temp	DO	Conductivity	Salinity	Rep	pH	Temp	DO	Conductivity	Salinity
	sample:	Control	B	~~7.6~~ 7.8	24.7	7.5	335	<1	B	7.8	24.4	6.6	350	<1
	3	6.25	B	~~7.6~~ 7.6	24.6	7.4	355	<1	B	7.8	24.6	5.9	395	<1
	3	12.5	B	7.9	24.6	7.4	430	<1	B	7.7	24.6	5.6	440	<1
	3	25.0	B	7.9	24.4	7.2	530	<1	B	7.7	24.4	5.3	535	<1
	3	50.0	B	7.6	24.6	7.2	710	<1	B	7.6	24.6	5.3	725	<1
	3	100.0	B	7.6	24.6	7.2	1030	<1	B	7.6	24.9	4.9	1105	<1
	3	—	B	—	—	—	—	—	B	—	—	—	—	—
	Measured by:			MF	MF	MF	MF	MF		MF	MF	MF	MF	MF
	Recorded by:			MF	MF	MF	MF	MF		MF	MF	MF	MF	MF
Day 6			Rep	pH	Temp	DO	Conductivity	Salinity	Rep	pH	Temp	DO	Conductivity	Salinity
	sample:	Control	C	7.4	24.6	7.5	370	<1	C		D			
	3	6.25	C	8.0	24.8	7.4	390	<1	C		MF 10/25/04			
	3	12.5	C	8.0	24.9	7.3	450	<1	C					
	3	25.0	C	8.0	24.9	7.3	540	<1	C					
	3	50.0	C	8.0	25.1	7.3	720	<1	C					
	3	100.0	C	7.4	25.3	7.5	1070	<1	C					
	3	—	C	—	—	—	—	—	C					
	Measured by:			DN	DN	DN	DN	DN						
	Recorded by:			DN	DN	DN	DN	DN						
Day 7			Rep	pH	Temp	DO	Conductivity	Salinity	Rep	pH	Temp	DO	Conductivity	Salinity
	sample:	Control							D	7.5	24.3	6.4	365	—
	3	6.25							D	7.8	24.1	6.5	4.6	—
	3	12.5							D	7.8	24.2	6.5	450	—
	3	25.0							D	7.9	24.2	6.6	530	—
	3	50.0							D	8.1	24.4	6.5	725	—
	3	100.0							D	8.2	24.7	6.6	1050	—
	3	—							D	—	—	—	—	—
	Measured by:									SN	SN	SN	SN	SN
	Recorded by:									LLW	LLW	LLW	LLW	LLW

revised 10/11/04 ml

Comments: For salinity <1 ppth insert <1. For salinity > 1 ppth, conductivity measurement is not required if salinity probe is functional.

(5) old sample dumped upon addition of prior to parameters being taken - MF 10-25-04

(2) D.O. Day 4 New Sample. CTRL - 7.6 mg/L; 6.25 - 7.5; 12.5 - 7.5; 25.0 - 7.5; 50.0 - 7.7; 100.0 - 7.6; measured at sample. D.N 10/23/04

N3W3K (3) Measured prior to parameters being taken MF 10-25-04

8.2, 8.1, 8.1, 8.0, 8.0, 8.1

Chronic Definitive Bioassay Weighing Benchsheet

Facility: City of Clearwater WWTP

LIMS Sample Number: 789036 (for Lab Sample # 1)

P. promelas and *M. beryllina* Bench Sheet
SOP TA06_21

Concentration	Replicate	Pan #	Pan wt. g (mean wt = fish wt divided by 10; convert g to mg: move decimal 3 places to right)	Pan + Fish g	Fish wt. g	Original # Fish	Mean wt. ~~mg~~ (A)	
Control	A	1	0.02581	0.03019	0.00438	10	0.0438	
	B	2	0.02613	0.02981	0.00368	10	0.0368	
	C	3	0.02576	0.02994	0.00418	10	0.0418	
	D	4	0.02553	0.02882	0.00329	10	0.0329	0.388
sample 6.25 %	A	5	0.02549	0.02950	0.00401	10	0.0401	
	B	6	0.02500	0.02899	0.00399	10	0.0399	
	C	7	0.02503	0.02849	0.00346	10	0.0346	
	D	8	0.02560	0.02946	0.00386	10	0.0386	0.353
sample 12.5 %	A	9	0.02515	0.02866	0.00351	10	0.0351	
	B	10	0.02524	0.02903	0.00379	10	0.0379	
	C	11	0.02467	0.02849	0.00382	10	0.0382	
	D	12	0.02552	0.02873	0.00321	10	0.0321	0.351
sample 25 %	A	13	0.02605	0.02991	0.00386	10	0.0386	
	B	14	0.02479	0.02836	0.00357	10	0.0357	
	C	15	0.02516	0.02843	0.00327	10	0.0327	
	D	16	0.02506	0.02928	0.00422	10	0.0422	0.373
sample 50 %	A	17	0.02553	0.02888	0.00335	10	0.0335	
	B	18	0.02590	0.02960	0.00370	10	0.0370	
	C	19	0.02577	0.03000	0.00423	10	0.0423	
	D	20	0.02511	0.02856	0.00345	10	0.0345	0.368
sample 100 %	A	21	0.02354	0.02753	0.00399	10	0.0399	
	B	22	0.02520	0.02901	0.00381	10	0.0381	
	C	23	0.02580	0.02752	0.00172	10	0.0172	
	D	24	0.02407	0.02785	0.00378	10	0.0378	0.333
sample — %	A	~~25~~	~~0.02447~~			10		
Not needed (NKW)	B	~~26~~	~~0.02554~~			10		
	C	~~27~~	~~0.02616~~			10		
	D	~~28~~	~~0.02442~~			10		
	Weighed by initials:		MF	NKW		revised 10/11/04 mf		

Comments: Final weights done 10/28/04 (NKW)
(A) mean wt. is calculated. Actually recorded in decigrams. Multiply by 10 to get mg

Note: Pan number (#) refers to actual Pan number.

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Chronic Definitive Test Weighing Benchsheet

Quality Control

Facility: City of Clearwater WWTP

LIMS Sample Number: 789034
(for Lab Sample # 1)

P. promelas and M. beryllina Bench sheet
SOPs TA07_09, TA07_14 and TA06_21

Drying Oven ID:	Sediment oven
Temperature °C:	105°C
Hours:	6

Tare Weighing Date: 10-26-04		Final Weighing Date: 10-28-04		Measured Value		S-weight Value
Tare Pan 1 after Pan 5	0.02581	@ 0.02581	S-weights	0.00998	@	0.01000
Tare Pan 1 after Pan 10	0.02584	@ 0.02581	at tare	0.03000	@	0.03000
Tare Pan 1 after Pan 15	0.02586	@ 0.02581	S-weights	0.00988	@	0.01000
Tare Pan 1 after Pan 20	0.02586	@ 0.02581	at final	0.03985	@	0.04000
Tare Pan 1 after Pan ~~25~~ 24 LAST PAN	0.02586	@ 0.02581				
Tare Pan 1 after Pan 30		@				
Tare Pan 1 after Pan 35		@				
Tare Pan 1 after Pan 40		@				
Tare Pan 1 after Pan 45		@				
Tare Pan 1 after Pan 48		@				
Final Pan 1 after Pan 5		@				
Final Pan 1 after Pan 10		@				
Final Pan 1 after Pan 15		@				
Final Pan 1 after Pan 20		@				
Final Pan 1 after Pan 25		@				
Final Pan 1 after Pan 30		@				
Final Pan 1 after Pan 35		@				
Final Pan 1 after Pan 40		@				
Final Pan 1 after Pan 45		@				
Final Pan 1 after Pan 48		@				

Note: Pan numbers (5, 10, etc.) for Tare and Final refers to sequence of weighing as actual Pan #s may differ.

Comments: 10-28-04 - Quality control weights conducted for final pan weighing, but were not transcribed to this logbook. MKW

revised 10/11/04 MF

Appendix 7

Habitat Assessment Field Sheets

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
MARINE PHYSICAL/CHEMICAL CHARACTERIZATION FIELD DATA SHEET (4/25/00)

LAT/LONGS:	STORET STATION NUMBER:	DATE (M/D/Y):	TIME	RECEIVING BODY OF WATER:
N 27°57'19.1" / W082° 42'24.1"		10/20/04	1225	Old TPA BAY

REMARKS:	COUNTY:	SITE LOCATION:	FIELD ID/NAME:
MARINE FY1	Pinellas	Clearwater E/NE WWTP	SITE 1

RIPARIAN ZONE/INSTREAM FEATURES

Predominant Land-Use in Watershed (specify relative percent in each category):

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)

Local Watershed Erosion (check box): None ☐ Slight ☐ Moderate ☐ Heavy ☐

Local Watershed NPS Pollution (check box): No evidence ☐ Slight ☐ Moderate potential ☐ Obvious sources ☑

Width of riparian vegetation (m) on least buffered side:

Draw aerial view sketch of sampling area including habitats and community types

Artificially Channelized ☐ no ☐ recent, severe ☐ some recovery ☐ mostly recovered, more sinuous
Artificially Impounded ☐ yes

High Water Mark: ____ (m above present water level) + ____ (present depth in m) = ____ (m above bed)

Tide Types and Times

AM : PM — AM : PM
AM : PM — AM : PM

Canopy Cover % : Open : ☑ Lightly Shaded (11-45%): ☐ Moderately Shaded (46-80%): ☐ Heavily Shaded:

SEDIMENT/SUBSTRATE

Sediment Odors: Normal: ☐ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Anaerobic: ☑ Other: ☐ _____

Sediment Oils: Absent: ☐ Slight: ☐ Moderate: ☐ Profuse: ☐

Sediment Deposition: Sludge: ☐ Sand smothering: none ☐ slight ☐ moderate ☐ severe ☐ Silt smothering: none ☐ slight ☐ moderate ☐ severe ☐ Other:

Substrate Types	% coverage	# times sampled	method	Substrate Types	% coverage	# times sampled	method
Seagrass				Sand			
Rock or Shell Rubble				Mud/Muck/Silt		5	PONAR
Aquatic Vegetation				Other:			

Community Types

Mangroves ☐ Oyster bars ☐ Reef ☐ Natural beach ☐ Other: ☐ _____

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) or Salinity (ppt):	Sal		Secchi (m):
Top	0.1	26.82	7.82	6.99	21050	12.56		1.3
Mid-depth	1.1	26.09	7.82	6.41	23538	14.23		
Bottom	2.2	25.85	7.71	5.24	23839	14.42		

System Type : Stream: ☐ (1st - 2nd order 3rd - 4th order 5th - 6th order 7th order or greater) Estuary: ☑ Other: ☐ _____

Water Odors (check box): Normal: ☐ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Other: ☐ _____

Water Surface Oils (check box): None: ☐ Sheen: ☐ Globs: ☐ Slick: ☐

Clarity (check box): Clear: ☐ Slightly turbid: ☐ Turbid: ☐ Opaque: ☐

Color (check box): Tannic: ☐ Green (algae): ☐ Clear: ☐ Other: ☐ _____

Weather Conditions/Notes:
Sunny/warm
partly cloudy

Abundance:	Absent	Rare	Common	Abundant
Periphyton	☐	☐	☐	☐
Fish	☐	☐	☐	☐
Aquatic Macrophytes	☐	☐	☐	☐
Iron/sulfur Bacteria	☐	☐	☐	☐

SAMPLING TEAM:	SIGNATURE:	DATE:
Szafraniec, Szczerba, Falkner, Pillsbury		10/20/04

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
MARINE BENTHIC HABITAT ASSESSMENT FIELD DATA SHEET

SUBMITTING AGENCY CODE: / SUBMITTING AGENCY NAME:	STORET STATION NUMBER:	DATE (M/D/Y):	RECEIVING BODY OF WATER:
		10/20/04	OLD TPA BAT

REMARKS:	LOCATION:	FIELD ID/NAME:
MARINE PT1	CLEARWATER E/NE WWTP	SITE 1

Habitat Parameter / score	Excellent	Good	Fair	Poor
Littoral Alterations: 2	None—Unaltered shoreline. 9-10 points	Mostly natural shoreline, but with occasional riprap. 6-8 points	Shoreline consisting mostly of riprap and vertical seawalls. 3-5 points	Shoreline consisting almost entirely of vertical seawalls. 0-2 points
Community Types Observed: 4	At least four communities observed from the following list: mangrove swamp, marsh, oyster bar, grass bed, reef, saltern, natural beach, or tidal creek. 38-50 points	Two or three communities observed from those listed. 26-37 points	One community observed from those listed. 13-25 points	No communities observed from those listed. 0-12 points
Tidal Fluctuation: 5	>0.75 m. 4-5 points	0.5 - 0.75 m. 3 points	0.25 - 0.5 m. 2 points	<0.25 m. 0-1 point
Freshwater Discharges/ Alterations: 2	Only natural runoff.. 9-10 points	Mostly natural runoff, but with a few, small stormwater sources. 6-8 points	Considerable stormwater discharge from local roads, parking lots, etc. 3-5 points	Extensive manmade discharges, especially from canals draining large tracts of land. 0-2 points
Flow and Wave Action: 9	Light to moderate wave action present except under the harshest weather conditions. Flow unrestricted by manmade structures. 9-10 points	—	—	Heavy wave action sometimes present even during average weather conditions, or flow restricted by manmade structures so that velocities are very high. 0-2 points
Sediment Type: 1	Combination of sand, gravel, and shell. 12-15 points	Primarily sand, with small areas of mud. 8-11 points	Mixture of sand and mud, or well-aerated mud only. 4-7 points	Anaerobic mud. 0-3 points

TOTAL SCORE: 23

COMMENTS: ~ 7-10 m outside of effluent trail (N)

ANALYSIS DATE:	ANALYST:	SIGNATURE:
10/20/04	JJACKSON, KESDY	JJAckson

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
MARINE PHYSICAL/CHEMICAL CHARACTERIZATION FIELD DATA SHEET (4/25/00)

LAT/LONGS:	STORET STATION NUMBER:	DATE (M/D/Y):	TIME	RECEIVING BODY OF WATER:
N27°57'18.9" W082° 42'23.6"		10/20/04	1340	Old TPA BAY

REMARKS:	COUNTY:	SITE LOCATION:	FIELD ID/NAME:
MARINE FYI	Pinellas	CLEARWATER E/NE WWTP	SITE 2

RIPARIAN ZONE/INSTREAM FEATURES

Predominant Land-Use in Watershed (specify relative percent in each category):

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)

Local Watershed Erosion (check box): None ☐ Slight ☐ Moderate ☐ Heavy ☐

Local Watershed NPS Pollution (check box): No evidence ☐ Slight ☐ Moderate potential ☐ Obvious sources ☑

Width of riparian vegetation (m) on least buffered side:

Draw aerial view sketch of sampling area including habitats and community types

Artificially Channelized ☐ no ☐ recent, severe ☐ some recovery ☐ mostly recovered, more sinuous

Artificially Impounded ☐ yes

High Water Mark: _____ (m above present water level) + _____ (present depth in m) = _____ (m above bed)

Tide Types and Times

AM : PM _____ AM : PM _____

AM : PM _____ AM : PM _____

Canopy Cover % : Open : ☑ Lightly Shaded (11-45%): ☐ Moderately Shaded (46-80%): ☐ Heavily Shaded:

SEDIMENT/SUBSTRATE

Sediment Odors: Normal: ☐ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Anaerobic: ☐ Other: ☐ _____

Sediment Oils: Absent: ☐ Slight: ☐ Moderate: ☐ Profuse: ☐

Sediment Deposition: Sludge: ☐ Sand smothering: none ☐ slight ☐ moderate ☐ severe ☐ Silt smothering: none ☐ slight ☐ moderate ☐ severe ☐ Other:

Substrate Types	% coverage	# times sampled	method	Substrate Types	% coverage	# times sampled	method
Seagrass				Sand			
Rock or Shell Rubble				Mud/Muck/Silt		5	Ponar
Aquatic Vegetation				Other:			

Community Types

Mangroves ☐ Oyster bars ☐ Reef ☐ Natural beach ☐ Other: ☐ _____

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) or Salinity (ppt):	Sal		Secchi (m):
Top	0.1	26.50	7.77	6.43	21103	12.62		1.2
Mid-depth	1.0	26.35	7.82	6.38	23383	14.11		
Bottom	2.0	25.83	7.75	5.35	23712	14.34		

System Type : Stream: ☐ (1st - 2nd order / 3rd - 4th order 5th - 6th order / 7th order or greater) Estuary: ☑ Other: ☐ _____

Water Odors (check box): Normal: ☐ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Other: ☐ _____

Water Surface Oils (check box): None: ☐ Sheen: ☐ Globs: ☐ Slick: ☐

Clarity (check box): Clear: ☐ Slightly turbid: ☐ Turbid: ☐ Opaque: ☐

Color (check box): Tannic: ☐ Green (algae): ☐ Clear: ☐ Other: ☐ _____

Weather Conditions/Notes:

Sunny/warm

Abundance:	Absent	Rare	Common	Abundant
Periphyton	☐	☐	☐	☐
Fish	☐	☐	☐	☐
Aquatic Macrophytes	☐	☐	☐	☐
Iron/sulfur Bacteria	☐	☐	☐	☐

SAMPLING TEAM:	SIGNATURE:	DATE:
Szafraniec, Szczerba, Falkner, Pillsbury	Pillsbury	10/20/04

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
MARINE BENTHIC HABITAT ASSESSMENT FIELD DATA SHEET

SUBMITTING AGENCY CODE: / SUBMITTING AGENCY NAME:	STORET STATION NUMBER:	DATE (M/D/Y):	RECEIVING BODY OF WATER:
		10/20/04	OD TPA BAY

REMARKS:	LOCATION:	FIELD ID/NAME:
MARINE FY1	CLEARWATER E/NE TWTP	SITE 2

Habitat Parameter — Score	Excellent	Good	Fair	Poor
Littoral Alterations [2]	None—Unaltered shoreline. 9-10 points	Mostly natural shoreline, but with occasional riprap. 6-8 points	Shoreline consisting mostly of riprap and vertical seawalls. 3-5 points	Shoreline consisting almost entirely of vertical seawalls. 0-2 points
Community Types Observed [4]	At least four communities observed from the following list: mangrove swamp, marsh, oyster bar, grass bed, reef, saltern, natural beach, or tidal creek. 38-50 points	Two or three communities observed from those listed. 26-37 points	One community observed from those listed. 13-25 points	No communities observed from those listed. 0-12 points
Tidal Fluctuation [5]	>0.75 m. 4-5 points	0.5 - 0.75 m. 3 points	0.25 - 0.5 m. 2 points	<0.25 m. 0-1 point
Freshwater Discharges/ Alterations [2]	Only natural runoff.. 9-10 points	Mostly natural runoff, but with a few, small stormwater sources. 6-8 points	Considerable stormwater discharge from local roads, parking lots, etc. 3-5 points	Extensive manmade discharges, especially from canals draining large tracts of land. 0-2 points
Flow and Wave Action [9]	Light to moderate wave action present except under the harshest weather conditions. Flow unrestricted by manmade structures. 9-10 points	—	—	Heavy wave action sometimes present even during average weather conditions, or flow restricted by manmade structures so that velocities are very high. 0-2 points
Sediment Type [ ]	Combination of sand, gravel, and shell. 12-15 points	Primarily sand, with small areas of mud. 8-11 points	Mixture of sand and mud, or well-aerated mud only. 4-7 points	Anaerobic mud. 0-3 points

TOTAL SCORE [23]

COMMENTS: ~7-10 m outside of effluent boil (E)

ANALYSIS DATE:	ANALYST:	SIGNATURE:
10/20/04	TJACKSON, FDEP	Jay Jackson

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
MARINE PHYSICAL/CHEMICAL CHARACTERIZATION FIELD DATA SHEET (4/25/00)

LAT/LONGS:	STORET STATION NUMBER:	DATE (M/D/Y):	TIME	RECEIVING BODY OF WATER:
N 27°57'18.4" / W 082° 42'23.7"		10/20/04	1305	Old TPA BAY

REMARKS:	COUNTY:	SITE LOCATION:	FIELD ID/NAME:
MARINE FTI	Pinellas	CLEARWATER E/NE WWTP	SITE 3

RIPARIAN ZONE/INSTREAM FEATURES

Predominant Land-Use in Watershed (specify relative percent in each category):

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)

Local Watershed Erosion (check box): None ☐ Slight ☐ Moderate ☐ Heavy ☐

Local Watershed NPS Pollution (check box): No evidence ☐ Slight ☐ Moderate potential ☐ Obvious sources ☑

Width of riparian vegetation (m) on least buffered side:

Draw aerial view sketch of sampling area including habitats and community types

Artificially Channelized ☐ no ☐ recent, severe ☐ some recovery ☐ mostly recovered, more sinuous

Artificially Impounded ☐ yes

High Water Mark: ____ (m above present water level) + ____ (present depth in m) = ____ (m above bed)

Tide Types and Times

AM : PM — AM : PM

AM : PM — AM : PM

Canopy Cover % : Open : ☑ Lightly Shaded (11-45%): ☐ Moderately Shaded (46-80%): ☐ Heavily Shaded:

SEDIMENT/SUBSTRATE

Sediment Odors: Normal: ☐ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Anaerobic: ☑ Other: ☐ _____

Sediment Oils: Absent: ☐ Slight: ☐ Moderate: ☐ Profuse: ☐

Sediment Deposition: Sludge: ☐ Sand smothering: none ☐ slight ☐ moderate ☐ severe ☐ Silt smothering: none ☐ slight ☐ moderate ☐ severe ☐ Other:

Substrate Types	% coverage	# times sampled	method	Substrate Types	% coverage	# times sampled	method
Seagrass				Sand			
Rock or Shell Rubble				Mud/Muck/Silt		5	Ponar
Aquatic Vegetation				Other:			

Community Types

Mangroves ☐ Oyster bars ☐ Reef ☐ Natural beach ☐ Other: ☐ _____

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) or Salinity (ppt):	Sal.		Secchi (m):
Top	0.1	26.86	7.83	6.96	21380	12.80		1.2
Mid-depth	1.0	26.67	7.88	6.82	23420	14.13		
Bottom	2.0	25.85	7.75	5.39	23720	14.34		

System Type : Stream: ☐ (1st - 2nd order ☐ 3rd - 4th order ☐ 5th - 6th order ☐ 7th order or greater ☐) Estuary: ☑ Other: ☐ _____

Water Odors (check box): Normal: ☐ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Other: ☐ _____

Water Surface Oils (check box): None: ☐ Sheen: ☐ Globs: ☐ Slick: ☐

Clarity (check box): Clear: ☐ Slightly turbid: ☐ Turbid: ☐ Opaque: ☐

Color (check box): Tannic: ☐ Green (algae): ☐ Clear: ☐ Other: ☐ _____

Weather Conditions/Notes:

Sunny / warm

Abundance:	Absent	Rare	Common	Abundant
Periphyton	☐	☐	☐	☐
Fish	☐	☐	☐	☐
Aquatic Macrophytes	☐	☐	☐	☐
Iron/sulfur Bacteria	☐	☐	☐	☐

SAMPLING TEAM:	SIGNATURE:	DATE:
Szafraniec, Szczerba, Falkner, Pillsbury		10/20/04

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
MARINE BENTHIC HABITAT ASSESSMENT FIELD DATA SHEET

SUBMITTING AGENCY CODE: / SUBMITTING AGENCY NAME:	STORET STATION NUMBER:	DATE (M/D/Y):	RECEIVING BODY OF WATER:
		10/20/04	OLD TPA BAY

REMARKS:	LOCATION:	FIELD ID/NAME:
MARINE FY1	CLEARWATER E/NE WWTP	SITE 3

Habitat Parameter / Score	Excellent	Good	Fair	Poor
Littoral Alterations: 2	None—Unaltered shoreline. 9-10 points	Mostly natural shoreline, but with occasional riprap. 6-8 points	Shoreline consisting mostly of riprap and vertical seawalls. 3-5 points	Shoreline consisting almost entirely of vertical seawalls. 0-2 points
Community Types Observed: 4	At least four communities observed from the following list: mangrove swamp, marsh, oyster bar, grass bed, reef, saltern, natural beach, or tidal creek. 38-50 points	Two or three communities observed from those listed. 26-37 points	One community observed from those listed. 13-25 points	No communities observed from those listed. 0-12 points
Tidal Fluctuation: 5	>0.75 m. 4-5 points	0.5 - 0.75 m. 3 points	0.25 - 0.5 m. 2 points	<0.25 m. 0-1 point
Freshwater Discharges/ Alterations: 2	Only natural runoff.. 9-10 points	Mostly natural runoff, but with a few, small stormwater sources. 6-8 points	Considerable stormwater discharge from local roads, parking lots, etc. 3-5 points	Extensive manmade discharges, especially from canals draining large tracts of land. 0-2 points
Flow and Wave Action: 9	Light to moderate wave action present except under the harshest weather conditions. Flow unrestricted by manmade structures. 9-10 points	—	—	Heavy wave action sometimes present even during average weather conditions, or flow restricted by manmade structures so that velocities are very high. 0-2 points
Sediment Type: 1	Combination of sand, gravel, and shell. 12-15 points	Primarily sand, with small areas of mud. 8-11 points	Mixture of sand and mud, or well-aerated mud only. 4-7 points	Anaerobic mud. 0-3 points

TOTAL SCORE: 23

COMMENTS: 7-10 m outside of effluent boil (s)

ANALYSIS DATE:	ANALYST:	SIGNATURE:
10/20/04	JJACKSON, KESPY	for AJacks

chemistry

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
MARINE PHYSICAL/CHEMICAL CHARACTERIZATION FIELD DATA SHEET (4/25/00)

LAT/LONGS:	STORET STATION NUMBER:	DATE (M/D/Y):	TIME	RECEIVING BODY OF WATER:
N 27°57'18.4" / W082° 42'24.3"		10/20/04	1300	Old TPA BAY.

REMARKS:	COUNTY:	SITE LOCATION:	FIELD ID/NAME:
MARINE PY1	Pinellas	CLEARWATER E/NE UNIT 1	SITE 4

RIPARIAN ZONE/INSTREAM FEATURES

Predominant Land-Use in Watershed (specify relative percent in each category):

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)

Local Watershed Erosion (check box): None ☐ Slight ☐ Moderate ☐ Heavy ☐

Local Watershed NPS Pollution (check box): No evidence ☐ Slight ☐ Moderate potential ☐ Obvious sources ☑

Width of riparian vegetation (m) on least buffered side:

Draw aerial view sketch of sampling area including habitats and community types

Artificially Channelized ☐ no ☐ recent, severe ☐ some recovery ☐ mostly recovered, more sinuous

Artificially Impounded ☐ yes

High Water Mark: ____ (m above present water level) + ____ (present depth in m) = ____ (m above bed)

Tide Types and Times

AM : PM ____ AM : PM ____

AM : PM ____ AM : PM ____

Canopy Cover % : Open : ☑ Lightly Shaded (11-45%): ☐ Moderately Shaded (46-80%): ☐ Heavily Shaded:

SEDIMENT/SUBSTRATE

Sediment Odors: Normal: ☐ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Anaerobic: ☐ Other: ☐ ____

Sediment Oils: Absent: ☐ Slight: ☐ Moderate: ☐ Profuse: ☐

Sediment Deposition: Sludge: ☐ Sand smothering: none ☐ slight ☐ moderate ☐ severe ☐ Silt smothering: none ☐ slight ☐ moderate ☐ severe ☐ Other:

Substrate Types	% coverage	# times sampled	method	Substrate Types	% coverage	# times sampled	method
Seagrass				Sand			
Rock or Shell Rubble				Mud/Muck/Silt			
Aquatic Vegetation				Other:			

Community Types

Mangroves ☐ Oyster bars ☐ Reef ☐ Natural beach ☐ Other: ☐ ____

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) or Salinity (ppt):	Sal		Secchi (m):
Top	0.5	26.86	7.83	7.22	20950	12.50		
Mid-depth	1.2	26.70	7.88	7.19	23365	14.09		
Bottom	2.4	25.89	7.69	4.94	23775	14.38		

System Type : Stream: ☐ (1st - 2nd order 3rd - 4th order 5th - 6th order 7th order or greater) Estuary: ☐ Other: ☐ ____

Water Odors (check box): Normal: ☐ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Other: ☐ ____

Water Surface Oils (check box): None: ☐ Sheen: ☐ Globs: ☐ Slick: ☐

Clarity (check box): Clear: ☐ Slightly turbid: ☐ Turbid: ☐ Opaque: ☐

Color (check box): Tannic: ☐ Green (algae): ☐ Clear: ☐ Other: ☐ ____

Weather Conditions/Notes:

sunny / partly cloudy

Abundance:	Absent	Rare	Common	Abundant
Periphyton	☐	☐	☐	☐
Fish	☐	☐	☐	☐
Aquatic Macrophytes	☐	☐	☐	☐
Iron/sulfur Bacteria	☐	☐	☐	☐

SAMPLING TEAM:	SIGNATURE:	DATE:
Szafraniec, Szczerba, Falkner, Pillsbury		10/20/04

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
MARINE BENTHIC HABITAT ASSESSMENT FIELD DATA SHEET

SUBMITTING AGENCY CODE: / SUBMITTING AGENCY NAME:	STORET STATION NUMBER:	DATE (M/D/Y):	RECEIVING BODY OF WATER:
		10/20/04	OLD TPA BAY

REMARKS:	LOCATION:	FIELD ID/NAME:
MARINE BAY	CLEARWATER E/NC WWTP	SITE 4

Habitat Parameter / score	Excellent	Good	Fair	Poor
Littoral Alterations: 2	None—Unaltered shoreline. 9-10 points	Mostly natural shoreline, but with occasional riprap. 6-8 points	Shoreline consisting mostly of riprap and vertical seawalls. 3-5 points	Shoreline consisting almost entirely of vertical seawalls. 0-2 points
Community Types Observed: 4	At least four communities observed from the following list: mangrove swamp, marsh, oyster bar, grass bed, reef, saltern, natural beach, or tidal creek. 38-50 points	Two or three communities observed from those listed. 26-37 points	One community observed from those listed. 13-25 points	No communities observed from those listed. 0-12 points
Tidal Fluctuation: 5	>0.75 m. 4-5 points	0.5 - 0.75 m. 3 points	0.25 - 0.5 m. 2 points	<0.25 m. 0-1 point
Freshwater Discharges/ Alterations: 2	Only natural runoff.. 9-10 points	Mostly natural runoff, but with a few, small stormwater sources. 6-8 points	Considerable stormwater discharge from local roads, parking lots, etc. 3-5 points	Extensive manmade discharges, especially from canals draining large tracts of land. 0-2 points
Flow and Wave Action: 9	Light to moderate wave action present except under the harshest weather conditions. Flow unrestricted by manmade structures. 9-10 points	—	—	Heavy wave action sometimes present even during average weather conditions, or flow restricted by manmade structures so that velocities are very high. 0-2 points
Sediment Type:	Combination of sand, gravel, and shell. 12-15 points	Primarily sand, with small areas of mud. 8-11 points	Mixture of sand and mud, or well-aerated mud only. 4-7 points	Anaerobic mud. 0-3 points

TOTAL SCORE: 23

COMMENTS: ~7-10 m outside of effluent trail (W)

ANALYSIS DATE:	ANALYST:	SIGNATURE:
10/20/04	J.JACKSON, KESPT	Jay A Jackson

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
MARINE PHYSICAL/CHEMICAL CHARACTERIZATION FIELD DATA SHEET (4/25/00)

LAT/LONGS:	STORET STATION NUMBER:	DATE (M/D/Y):	TIME	RECEIVING BODY OF WATER:
N 27°57'19.7/W082° 42'18.7°		10/20/04	1100	Old Tampa Bay

REMARKS:	COUNTY:	SITE LOCATION:	FIELD ID/NAME:
MARINE FYI	Pinellas	CLEARWATER E/NE WWTP	SITE 5

RIPARIAN ZONE/INSTREAM FEATURES

Predominant Land-Use in Watershed (specify relative percent in each category):

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)

Local Watershed Erosion (check box): None ☐ Slight ☐ Moderate ☐ Heavy ☐

Local Watershed NPS Pollution (check box): No evidence ☐ Slight ☐ Moderate potential ☐ Obvious sources ☑

Width of riparian vegetation (m) on least buffered side:

Draw aerial view sketch of sampling area including habitats and community types

Artificially Channelized ☐ no ☐ recent, severe ☐ some recovery ☐ mostly recovered, more sinuous

Artificially Impounded ☐ yes

High Water Mark: _____ (m above present water level) + _____ (present depth in m) = _____ (m above bed)

Tide Types and Times

_____ AM : PM _____ AM : PM

_____ AM : PM _____ AM : PM

Canopy Cover % : Open : ☑ Lightly Shaded (11-45%): ☐ Moderately Shaded (46-80%): ☐ Heavily Shaded:

SEDIMENT/SUBSTRATE

Sediment Odors: Normal: ☐ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Anaerobic: ☑ Other: ☐ _____

Sediment Oils: Absent: ☐ Slight: ☐ Moderate: ☐ Profuse: ☐

Sediment Deposition: Sludge: ☐ Sand smothering: none ☐ slight ☐ moderate ☐ severe ☐ Silt smothering: none ☐ slight ☐ moderate ☐ severe ☐ Other:

Substrate Types	% coverage	# times sampled	method	Substrate Types	% coverage	# times sampled	method
Seagrass				Sand			
Rock or Shell Rubble				Mud/Muck/Silt		5	ponar
Aquatic Vegetation				Other:			

Community Types

Mangroves ☐ Oyster bars ☐ Reef ☐ Natural beach ☐ Other: ☐ _____

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) or Salinity (ppt):	Salinity		Secchi (m):
Top	0.1	26.47	7.90	7.05	23046	13.90		1.3
Mid-depth	1.1	25.84	7.88	6.91	23597	14.26		
Bottom	2.3	25.83	7.71	5.24	23298	14.06		

System Type : Stream: ☐ (1st - 2nd order ☐ 3rd - 4th order ☐ 5th - 6th order ☐ 7th order or greater ☐) Estuary: ☑ Other: ☐ _____

Water Odors (check box): Normal: ☐ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Other: ☐ _____

Water Surface Oils (check box): None: ☐ Sheen: ☐ Globs: ☐ Slick: ☐

Clarity (check box): Clear: ☐ Slightly turbid: ☐ Turbid: ☐ Opaque: ☐

Color (check box): Tannic: ☐ Green (algae): ☐ Clear: ☐ Other: ☐ _____

Weather Conditions/Notes:
sunny / partly cloudy
warm
light breeze

Abundance:	Absent	Rare	Common	Abundant
Periphyton	☐	☐	☐	☐
Fish	☐	☐	☐	☐
Aquatic Macrophytes	☐	☐	☐	☐
Iron/sulfur Bacteria	☐	☐	☐	☐

SAMPLING TEAM:	SIGNATURE:	DATE:
Szafraniec, Szczerba, Falkner, Pillsbury		10/20/04

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
MARINE BENTHIC HABITAT ASSESSMENT FIELD DATA SHEET

SUBMITTING AGENCY CODE: / SUBMITTING AGENCY NAME:	STORET STATION NUMBER:	DATE (M/D/Y):	RECEIVING BODY OF WATER:
		10/20/04	OLD TPA BAY

REMARKS:	LOCATION:	FIELD ID/NAME:
MARINE FYI	CLEARWATER E/NE UNITP	SITE 5

Habitat Parameter (score)	Excellent	Good	Fair	Poor
Littoral Alterations [6]	None—Unaltered shoreline. 9-10 points	Mostly natural shoreline, but with occasional riprap. 6-8 points	Shoreline consisting mostly of riprap and vertical seawalls. 3-5 points	Shoreline consisting almost entirely of vertical seawalls. 0-2 points
Community Types Observed [4]	At least four communities observed from the following list: mangrove swamp, marsh, oyster bar, grass bed, reef, saltern, natural beach, or tidal creek. 38-50 points	Two or three communities observed from those listed. 26-37 points	One community observed from those listed. 13-25 points	No communities observed from those listed. 0-12 points
Tidal Fluctuation [5]	>0.75 m. 4-5 points	0.5 - 0.75 m. 3 points	0.25 - 0.5 m. 2 points	<0.25 m. 0-1 point
Freshwater Discharges/ Alterations [5]	Only natural runoff.. 9-10 points	Mostly natural runoff, but with a few, small stormwater sources. 6-8 points	Considerable stormwater discharge from local roads, parking lots, etc. 3-5 points	Extensive manmade discharges, especially from canals draining large tracts of land. 0-2 points
Flow and Wave Action [9]	Light to moderate wave action present except under the harshest weather conditions. Flow unrestricted by manmade structures. 9-10 points	—	—	Heavy wave action sometimes present even during average weather conditions, or flow restricted by manmade structures so that velocities are very high. 0-2 points
Sediment Type [1]	Combination of sand, gravel, and shell. 12-15 points	Primarily sand, with small areas of mud. 8-11 points	Mixture of sand and mud, or well-aerated mud only. 4-7 points	Anaerobic mud. 0-3 points

TOTAL SCORE [30]

COMMENTS: ~200 m E of boil

ANALYSIS DATE:	ANALYST:	SIGNATURE:
10/20/04	JJACKSON, KESPY	

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
MARINE PHYSICAL/CHEMICAL CHARACTERIZATION FIELD DATA SHEET (4/25/00)

LAT/LONGS:	STORET STATION NUMBER:	DATE (M/D/Y):	TIME	RECEIVING BODY OF WATER:
N 27°57'19.0" / W 082° 42'18.0"		10/20/04	1130	Old TPA BAY

REMARKS:	COUNTY:	SITE LOCATION:	FIELD ID/NAME:
MARINE FT 1	Pinellas	CLEARWATER E/NE WWTP	SITE 6

RIPARIAN ZONE/INSTREAM FEATURES

Predominant Land-Use in Watershed (specify relative percent in each category):

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)

Local Watershed Erosion (check box): None ☐ Slight ☐ Moderate ☐ Heavy ☐

Local Watershed NPS Pollution (check box): No evidence ☐ Slight ☐ Moderate potential ☐ Obvious sources ☑

Width of riparian vegetation (m) on least buffered side:

Draw aerial view sketch of sampling area including habitats and community types

Artificially Channelized ☐ no ☐ recent, severe ☐ some recovery ☐ mostly recovered, more sinuous

Artificially Impounded ☐ yes

High Water Mark: _____ (m above present water level) + _____ (present depth in m) = _____ (m above bed)

Tide Types and Times

: AM / PM	: AM / PM
: AM / PM	: AM / PM

Canopy Cover % : Open : ☑ Lightly Shaded (11-45%): ☐ Moderately Shaded (46-80%): ☐ Heavily Shaded:

SEDIMENT/SUBSTRATE

Sediment Odors: Normal: ☐ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Anaerobic: ☑ Other: ☐ _____

Sediment Oils: Absent: ☐ Slight: ☐ Moderate: ☐ Profuse: ☐

Sediment Deposition: Sludge: ☐ Sand smothering: none slight moderate severe Silt smothering: none slight moderate severe Other:

Substrate Types	% coverage	# times sampled	method	Substrate Types	% coverage	# times sampled	method
Seagrass				Sand			
Rock or Shell Rubble				Mud/Muck/Silt		5	PONAR
Aquatic Vegetation				Other:			

Community Types

Mangroves ☐ Oyster bars ☐ Reef ☐ Natural beach ☐ Other: ☐ _____

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) or Salinity (ppt):	Sal		Secchi (m):
Top	0.1	26.52	7.91	7.21	23080	13.91		1.3
Mid-depth	1.1	25.91	7.89	6.97	23575	14.25		
Bottom	2.3	25.79	7.75	5.63	23672	14.31		

System Type : Stream: ☐ (1st - 2nd order 3rd - 4th order 5th - 6th order 7th order or greater) Estuary: ☑ Other: ☐ _____

Water Odors (check box): Normal: ☐ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Other: ☐ _____

Water Surface Oils (check box): None: ☐ Sheen: ☐ Globs: ☐ Slick: ☐

Clarity (check box): Clear: ☐ Slightly turbid: ☐ Turbid: ☐ Opaque: ☐

Color (check box): Tannic: ☐ Green (algae): ☐ Clear: ☐ Other: ☐ _____

Weather Conditions/Notes:
Sunny/partly cloudy
light breeze

Abundance:	Absent	Rare	Common	Abundant
Periphyton	☐	☐	☐	☐
Fish	☐	☐	☐	☐
Aquatic Macrophytes	☐	☐	☐	☐
Iron/sulfur Bacteria	☐	☐	☐	☐

SAMPLING TEAM:	SIGNATURE:	DATE:
Szafraniec, Szczerba, Falkner Pillsbury		10/20/04

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
MARINE BENTHIC HABITAT ASSESSMENT FIELD DATA SHEET

SUBMITTING AGENCY CODE: / SUBMITTING AGENCY NAME:	STORET STATION NUMBER:	DATE (M/D/Y):	RECEIVING BODY OF WATER:
		10/20/04	OLD TPA BAY

REMARKS:	LOCATION:	FIELD ID/NAME:
MARINE PT 1	CLEARWATER E/NE WWTP	SITE 6

Habitat Parameter / score	Excellent	Good	Fair	Poor
Littoral Alterations [6]	None—Unaltered shoreline. 9-10 points	Mostly natural shoreline, but with occasional riprap. 6-8 points	Shoreline consisting mostly of riprap and vertical seawalls. 3-5 points	Shoreline consisting almost entirely of vertical seawalls. 0-2 points
Community Types Observed [4]	At least four communities observed from the following list: mangrove swamp, marsh, oyster bar, grass bed, reef, saltern, natural beach, or tidal creek. 38-50 points	Two or three communities observed from those listed. 26-37 points	One community observed from those listed. 13-25 points	No communities observed from those listed. 0-12 points
Tidal Fluctuation [5]	>0.75 m. 4-5 points	0.5 - 0.75 m. 3 points	0.25 - 0.5 m. 2 points	<0.25 m. 0-1 point
Freshwater Discharges/ Alterations [5]	Only natural runoff.. 9-10 points	Mostly natural runoff, but with a few, small stormwater sources. 6-8 points	Considerable stormwater discharge from local roads, parking lots, etc. 3-5 points	Extensive manmade discharges, especially from canals draining large tracts of land. 0-2 points
Flow and Wave Action [9]	Light to moderate wave action present except under the harshest weather conditions. Flow unrestricted by manmade structures. 9-10 points	—	—	Heavy wave action sometimes present even during average weather conditions, or flow restricted by manmade structures so that velocities are very high. 0-2 points
Sediment Type [1]	Combination of sand, gravel, and shell. 12-15 points	Primarily sand, with small areas of mud. 8-11 points	Mixture of sand and mud, or well-aerated mud only. 4-7 points	Anaerobic mud. 0-3 points

TOTAL SCORE [30]

COMMENTS: ~200 m SE of boil

ANALYSIS DATE:	ANALYST:	SIGNATURE:
10/20/04	J JACKSON, K ESPY	Jay A Jackson

Appendix 8a

Benthic macroinvertebrates collected from ponar samples from the City of Clearwater E/NE AWWTP's (10/18/04). Taxa collected and density (average number of individuals/m^2) rounded to the nearest individual (n = 5 samples/site except site 1, n=4). See SOP LT 7100 sect. 4.2.1 for method on collapsing taxa.

	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
Annelida						
Oligochaeta						
Tubificidae	84	33	67	150	92	42
Polychaeta						
Ampharetidae	-	-	-	-	-	8
Amphictene sp.	11	-	-	-	-	-
Capitella sp.	94	17	17	8	8	-
Carazziella hobsonae	-	-	-	-	-	8
Diopatra cuprea	-	8	-	33	-	-
Diopatra sp.	-	-	17	-	-	-
Eteone heteropoda	125	117	58	175	8	-
Eurythoe sp.	-	-	42	-	-	-
Glycinde solitaria	1,385	900	1,583	450	1,400	1,433
Hesionidae	-	-	17	-	-	-
Malmgreniella maccrayae	11	-	-	-	-	-
Mediomastus sp.	-	-	-	-	-	8
Minuspio perkinsi	53	42	-	-	45	92
Minuspio sp.	-	-	50	25	-	-
Neanthes succinea	875	1,950	533	1,492	92	33
Onuphidae	11	-	-	-	17	-
Parahesione luteola	-	8	-	-	-	11
Paraprionospio pinnata	32	8	42	-	27	50
Pectinaria sp.	-	8	-	8	17	33
Podarkeopsis levifuscina	31	-	-	17	8	22
Prionospio sp.	85	-	-	-	9	-
Sigambra tentaculata	-	-	-	-	-	17
Spiochaetopterus costarum	21	-	-	-	-	-
Spiochaetopterus costarum oculatus	-	8	17	-	17	25
Streblospio sp.	1,841	15,408	3,483	5,633	170	183
Arthropoda						
Crustacea						
Amphipoda						
Ampelisca abdita	647	4,382	361	7,674	42	14
Ampelisca holmesi	124	35	19	93	42	57
Aoridae	11	-	-	-	-	-
Bateidae	-	-	-	8	-	-
Grandidierella bonnieroides	63	100	78	33	8	9
Melita longisetosa	157	775	776	-	33	152
Melitidae	-	-	-	8	-	-
Cumacea						
Cyclaspis varians	6,469	30,529	4,608	19,941	1,550	1,958
Oxyurostylis sp.	11	-	-	-	-	-
Decapoda						
Pinnixa cylindrica	26	-	-	-	-	-
Pinnixa sayana	26	-	56	8	-	-
Pinnixa sp.	-	-	-	-	8	33
Pinnotheridae	-	29	-	-	-	-
Xanthidae	-	29	19	17	-	-
Isopoda						
Edotea triloba	21	8	-	117	8	17

Mysidacea						
Americamysis almyra	-	-	-	17	-	-
Undetermined mysidacea	-	17	-	-	-	-
Thoracica						
Undetermined thoracica	-	383	-	8	-	-
Insecta						
Diptera						
Chironomidae	-	8	-	-	-	-
Brachiopoda						
Glottidia pyramidata	11	-	-	-	-	-
Cnidaria						
Undetermined actiniaria	-	8	-	33	-	-
Echinodermata						
Amphiuridae	52	-	8	-	42	25
Ophiophragmus sp.	-	-	-	8	-	-
Undetermined ophiurida	-	8	-	-	-	-
Mollusca						
Bivalvia						
Amygdalum papyrium	21	69	64	26	208	274
Mactrotoma fragilis	3,416	2,113	1,370	520	779	227
Mysella planulata	11	9	-	35	-	-
Tellina sp.	63	60	308	61	163	107
Gastropoda						
Acteocina sp.	-	8	17	19	50	58
Odostomia sp.	31	25	-	19	-	-
Prunum apicinum	-	-	-	19	-	-
Prunum sp.	-	-	8	-	-	-
Vitrinellidae	11	-	-	10	-	-
Nemertea						
Undetermined nemertea	188	50	75	134	183	142
Platyhelminthes						
Undetermined polycladida	42	-	50	142	83	33

Appendix 8b

Benthic macroinvertebrates collected in ponar samples from City of Clearwater E/NE AWWTPs, (10/18/04). Taxa collected and total number of individuals counted (n = 5 samples/site).

	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
Annelida						
Oligochaeta						
Tubificidae	8	4	8	18	11	5
Polychaeta						
Ampharetidae	-	-	-	-	-	1
Amphictene sp.	1	-	-	-	-	-
Capitella sp.	9	2	2	1	1	-
Carazziella hobsonae	-	-	-	-	-	1
Diopatra sp.	-	-	2	1	-	-
Diopatra cuprea	-	1	-	3	-	-
Eteone heteropoda	12	14	7	21	1	-
Eurythoe sp.	-	-	5	-	-	-
Glycinde solitaria	131	88	190	38	168	161
Goniadidae	2	20	-	16	-	11
Hesionidae	1	-	2	1	-	1
Malmgreniella maccrayae	1	-	-	-	-	-
Mediomastus sp.	-	-	-	-	-	1
Minuspio sp.	3	-	6	3	2	-
Minuspio perkinsi	2	5	-	-	3	11
Neanthes succinea	76	222	55	151	6	2
Nereididae	8	12	9	28	5	2
Onuphidae	1	-	-	-	2	-
Parahesione luteola	-	1	-	-	-	1
Paraprionospio pinnata	3	1	5	-	3	6
Pectinaria sp.	-	1	-	1	2	3
Pectinariidae	-	-	-	-	-	1
Podarkeopsis levifuscina	2	-	-	1	1	2
Prionospio sp.	8	-	-	-	1	-
Sigambra tentaculata	-	-	-	-	-	2
Spiochaetopterus costarum	2	-	-	-	-	-
Spiochaetopterus costarum oculatus	-	1	2	-	2	3
Spionidae	3	6	-	-	2	-
Streblospio sp.	174	1843	418	676	19	22
Arthropoda						
Crustacea						
Amphipoda						
Ampelisca sp.	18	27	3	94	8	3
Ampelisca abdita	47	499	39	828	1	1
Ampelisca holmesi	9	4	2	10	1	4
Amphipoda	-	-	5	-	-	2
Aoridae	1	-	-	-	-	-
Bateidae	-	-	-	1	-	-
Grandidierella bonnieroides	6	12	9	4	1	1
Melita sp.	10	31	32	-	1	6
Melita longisetosa	4	58	58	-	2	11
Melitidae	1	4	-	1	1	-
Cumacea						
Cyclaspis varians	621	970	553	2393	186	235
Oxyurostylis sp.	1	-	-	-	-	-
Decapoda						
Pinnixa sp.	3	-	5	-	1	1

Pinnixa cylindrica	1	-	-	-	-	-
Pinnixa sayana	1	-	1	1	-	-
Pinnotheridae	-	3	-	-	-	3
Undetermined decapoda	-	1	1	-	-	-
Xanthidae	-	3	2	2	-	-
Isopoda						
Edotea triloba	2	1	-	14	1	2
Mysidacea						
Americamysis almyra	-	-	-	2	-	-
Undetermined mysidacea	-	2	-	-	-	-
Thoracica						
Undetermined thoracica	-	46	-	1	-	-
Insecta						
Diptera						
Chironomidae	-	1	-	-	-	-
Brachiopoda						
Glottidia pyramidata	1	-	-	-	-	-
Cnidaria						
Undetermined actiniaria	-	1	-	4	-	-
Echinodermata						
Amphiuridae	3	-	1	-	3	3
Ophiophragmus sp.	-	-	-	1	-	-
Undetermined ophiurida	2	1	-	-	2	-
Mollusca						
Bivalvia						
Amygdalum papyrium	2	8	7	3	23	23
Mactrotoma fragilis	327	246	151	60	86	19
Mysella planulata	1	1	-	4	-	-
Tellina sp.	4	7	34	7	18	9
Tellinidae	2	-	-	-	-	-
Undetermined bivalvia	1	8	17	3	11	22
Gastropoda						
Acteocina sp.	-	1	2	2	6	7
Odostomia sp.	3	3	-	1	-	-
Prunum sp.	-	-	1	1	-	-
Prunum apicinum	-	-	-	1	-	-
Undetermined gastropoda	-	-	-	1	-	-
Vitrinellidae	1	-	-	1	-	-
Pyramidellidae	-	-	-	1	-	-
Nemertea						
Undetermined nemertea	18	6	9	16	22	17
Platyhelminthes						
Undetermined polycladida	4	-	6	17	10	4

Appendix 9

Discharge Monitoring Report Data

Facility ID	Facility Name	Outfall Type	Monitoring Date	Outfall Indicator	Parameter Code	Parameter Description	Monitoring Location Code	Concentration (1)	Concentration Limit (1)	Concentration Statistical Base (1)	Concentration Units
FL0021865	CLEARWATER-EAST WWTF	EFFLUENT	5/31/2004	001-1	P 50060	CHLORINE, TOTAL RESIDUAL	A	0.7	1	DAILY MN	MG/L
FL0021865	CLEARWATER-EAST WWTF	EFFLUENT	7/31/2004	001-T	P TBP3B	NOEL STATRE 7DAY CHR CERIODAPHNIA	P		100	MINIMUM	PER- CENT
FL0128937	CLEARWATER CITY OF NORTHEAST	EFFLUENT	7/31/2004	001-T	P TBP3B	NOEL STATRE 7DAY CHR CERIODAPHNIA	P		100	MINIMUM	PER- CENT

Appendix 10
SIMPER Analysis Results

PRIMER 5/10/2005
Similarity Percentages - species contributions

File: \\tlhlab2\biology\BioCommon\Invert Group\FYI Materials & Reports\#2 Draft\Clearwater E_NE\primer_collapsed_2_family.pri
Sample selection: All
Variable selection: All

Parameters
Standardise data: No
Transform: None
Cut off for low contributions: 90.00%
Factor name: Taxa
Factor groups
Test Site 1
Test Site 2
Test Site 3
Test Site 4
Control Site 1
Control Site 2

Groups Test Site 1 & Test Site 2 Average dissimilarity = 45.75

	Group Test Site 1	Group Test Site 2				
Species	Av.Abund	Av.Abund	Av.Diss	Diss/SD	Contrib%	Cum.%
Spionidae	2011.00	15458.00	26.49	#######	57.90	57.90
Ampeliscidae	771.00	4417.00	7.18	#######	15.70	73.60
Bodotriidae	6469.00	8083.00	3.18	#######	6.95	80.55
Mactridae	3416.00	2113.00	2.57	#######	5.61	86.16
Nereididae	875.00	1950.00	2.12	#######	4.63	90.79

Groups Test Site 1 & Test Site 3 Average dissimilarity = 26.41

	Group Test Site 1	Group Test Site 3				
Species	Av.Abund	Av.Abund	Av.Diss	Diss/SD	Contrib%	Cum.%
Mactridae	3416.00	1370.00	6.87	#######	25.99	25.99
Bodotriidae	6469.00	4608.00	6.24	#######	23.64	49.64
Spionidae	2011.00	3575.00	5.25	#######	19.87	69.51
Melitidae	157.00	776.00	2.08	#######	7.86	77.37
Ampeliscidae	771.00	380.00	1.31	#######	4.97	82.34
Nereididae	875.00	533.00	1.15	#######	4.35	86.69
Tellinidae	63.00	308.00	0.82	#######	3.11	89.80
Goniadidae	1385.00	1583.00	0.66	#######	2.52	92.31

Groups Test Site 2 & Test Site 3 Average dissimilarity = 48.06

	Group Test Site 2	Group Test Site 3				
Species	Av.Abund	Av.Abund	Av.Diss	Diss/SD	Contrib%	Cum.%
Spionidae	15458.00	3575.00	24.53	#######	51.03	51.03
Ampeliscidae	4417.00	380.00	8.33	#######	17.34	68.36
Bodotriidae	8083.00	4608.00	7.17	#######	14.92	83.29
Nereididae	1950.00	533.00	2.92	#######	6.08	89.37
Mactridae	2113.00	1370.00	1.53	#######	3.19	92.56

Groups Test Site 1 & Test Site 4 Average dissimilarity = 55.76

	Group Test Site 1	Group Test Site 4				
Species	Av.Abund	Av.Abund	Av.Diss	Diss/SD	Contrib%	Cum.%
Bodotriidae	6469.00	19941.00	25.42	#######	45.59	45.59
Ampeliscidae	771.00	7767.00	13.20	#######	23.67	69.26
Spionidae	2011.00	5658.00	6.88	#######	12.34	81.60
Mactridae	3416.00	520.00	5.46	#######	9.80	91.40

Groups Test Site 2 & Test Site 4 Average dissimilarity = 41.20

Species	Group Test Site 2 Av.Abund	Group Test Site 4 Av.Abund	Av.Diss	Diss/SD	Contrib%	Cum.%
Bodotriidae	8083.00	19941.00	16.55	#######	40.17	40.17
Spionidae	15458.00	5658.00	13.68	#######	33.20	73.37
Ampeliscidae	4417.00	7767.00	4.68	#######	11.35	84.72
Mactridae	2113.00	520.00	2.22	#######	5.40	90.11

Groups Test Site 3 & Test Site 4 Average dissimilarity = 58.39

Species	Group Test Site 3 Av.Abund	Group Test Site 4 Av.Abund	Av.Diss	Diss/SD	Contrib%	Cum.%
Bodotriidae	4608.00	19941.00	30.25	#######	51.81	51.81
Ampeliscidae	380.00	7767.00	14.57	#######	24.96	76.77
Spionidae	3575.00	5658.00	4.11	#######	7.04	83.81
Goniadidae	1583.00	450.00	2.24	#######	3.83	87.63
Nereididae	533.00	1492.00	1.89	#######	3.24	90.87

Groups Test Site 1 & Control Site 5 Average dissimilarity = 55.63

Species	Group Test Site 1 Av.Abund	Group Control Site 1 Av.Abund	Av.Diss	Diss/SD	Contrib%	Cum.%
Bodotriidae	6469.00	1550.00	23.24	#######	41.77	41.77
Mactridae	3416.00	779.00	12.46	#######	22.39	64.16
Spionidae	2011.00	251.00	8.31	#######	14.94	79.10
Nereididae	875.00	92.00	3.70	#######	6.65	85.75
Ampeliscidae	771.00	84.00	3.25	#######	5.83	91.59

Groups Test Site 2 & Control Site 5 Average dissimilarity = 80.00

Species	Group Test Site 2 Av.Abund	Group Control Site 1 Av.Abund	Av.Diss	Diss/SD	Contrib%	Cum.%
Spionidae	15458.00	251.00	38.19	#######	47.74	47.74
Bodotriidae	8083.00	1550.00	16.41	#######	20.51	68.25
Ampeliscidae	4417.00	84.00	10.88	#######	13.60	81.85
Nereididae	1950.00	92.00	4.67	#######	5.83	87.69
Mactridae	2113.00	779.00	3.35	#######	4.19	91.88

Groups Test Site 3 & Control Site 5 Average dissimilarity = 50.06

Species	Group Test Site 3 Av.Abund	Group Control Site 1 Av.Abund	Av.Diss	Diss/SD	Contrib%	Cum.%
Spionidae	3575.00	251.00	17.63	#######	35.22	35.22
Bodotriidae	4608.00	1550.00	16.22	#######	32.40	67.62
Melitidae	776.00	33.00	3.94	#######	7.87	75.49
Mactridae	1370.00	779.00	3.13	#######	6.26	81.75
Nereididae	533.00	92.00	2.34	#######	4.67	86.43
Ampeliscidae	380.00	84.00	1.57	#######	3.14	89.56
Goniadidae	1583.00	1400.00	0.97	#######	1.94	91.50

Groups Test Site 4 & Control Site 5 Average dissimilarity = 83.59

Species	Group Test Site 4 Av.Abund	Group Control Site 1 Av.Abund	Av.Diss	Diss/SD	Contrib%	Cum.%
Bodotriidae	19941.00	1550.00	43.74	#######	52.32	52.32
Ampeliscidae	7767.00	84.00	18.27	#######	21.86	74.18
Spionidae	5658.00	251.00	12.86	#######	15.38	89.57
Nereididae	1492.00	92.00	3.33	#######	3.98	93.55

Groups Test Site 1 & Control Site 6 Average dissimilarity = 56.32

Species	Group Test Site 1 Av.Abund	Group Control Site 2 Av.Abund	Av.Diss	Diss/SD	Contrib%	Cum.%
Bodotriidae	6469.00	1958.00	21.35	#######	37.90	37.90
Mactridae	3416.00	227.00	15.09	#######	26.80	64.70

Spionidae	2011.00	333.00	7.94	#######	14.10	78.80
Nereididae	875.00	33.00	3.98	#######	7.08	85.88
Ampeliscidae	771.00	71.00	3.31	#######	5.88	91.76

Groups Test Site 2 & Control Site 6 Average dissimilarity = 80.03

	Group Test Site 2	Group Control Site 6				
Species	Av.Abund	Av.Abund	Av.Diss	Diss/SD	Contrib%	Cum.%
Spionidae	15458.00	333.00	38.02	#######	47.51	47.51
Bodotriidae	8083.00	1958.00	15.40	#######	19.24	66.75
Ampeliscidae	4417.00	71.00	10.93	#######	13.65	80.41
Nereididae	1950.00	33.00	4.82	#######	6.02	86.43
Mactridae	2113.00	227.00	4.74	#######	5.92	92.35

Groups Test Site 3 & Control Site 6 Average dissimilarity = 50.71

	Group Test Site 3	Group Control Site 2				
Species	Av.Abund	Av.Abund	Av.Diss	Diss/SD	Contrib%	Cum.%
Spionidae	3575.00	333.00	17.23	#######	33.98	33.98
Bodotriidae	4608.00	1958.00	14.09	#######	27.78	61.76
Mactridae	1370.00	227.00	6.08	#######	11.98	73.74
Melitidae	776.00	152.00	3.32	#######	6.54	80.28
Nereididae	533.00	33.00	2.66	#######	5.24	85.52
Ampeliscidae	380.00	71.00	1.64	#######	3.24	88.76
Mytilidae(mollusca)	64.00	274.00	1.12	#######	2.20	90.96

Groups Test Site 4 & Control Site 6 Average dissimilarity = 83.48

	Group Test Site 4	Group Control Site 2				
Species	Av.Abund	Av.Abund	Av.Diss	Diss/SD	Contrib%	Cum.%
Bodotriidae	19941.00	1958.00	42.80	#######	51.27	51.27
Ampeliscidae	7767.00	71.00	18.32	#######	21.94	73.22
Spionidae	5658.00	333.00	12.67	#######	15.18	88.40
Nereididae	1492.00	33.00	3.47	#######	4.16	92.56

Groups Control Site 5 & Control Site 6 Average dissimilarity = 16.58

	Group Control Site 1	Group Control Site 2				
Species	Av.Abund	Av.Abund	Av.Diss	Diss/SD	Contrib%	Cum.%
Mactridae	779.00	227.00	5.42	#######	32.70	32.70
Bodotriidae	1550.00	1958.00	4.01	#######	24.17	56.87
Melitidae	33.00	152.00	1.17	#######	7.05	63.92
Spionidae	251.00	333.00	0.81	#######	4.86	68.78
Mytilidae(mollusca)	208.00	274.00	0.65	#######	3.91	72.69
Nereididae	92.00	33.00	0.58	#######	3.50	76.18
Tellinidae	163.00	107.00	0.55	#######	3.32	79.50
Polycladida	83.00	33.00	0.49	#######	2.96	82.46
Tubificidae	92.00	42.00	0.49	#######	2.96	85.43
Nemertea	183.00	142.00	0.40	#######	2.43	87.86
Goniadidae	1400.00	1433.00	0.32	#######	1.95	89.81
Pinnotheridae	8.00	33.00	0.25	#######	1.48	91.29

Appendix 11

Principal Component Analysis

Worksheet

File: \\Tlhlab5\Biology\My Documents\wolfe_L\Clearwater E_NE\LoriAnalysis\LoriClearwaterData.xls

Sample selection: All

Variable selection: All

Eigenvalues

PC	Eigenvalues	%Variation	Cum.%Variation
1	132.43	73.9	73.9
2	41.90	23.4	97.3

Eigenvectors

(Coefficients in the linear combinations of variables making up PC's)

Variable	**PC1**	**PC2**
<0.063 mm	**0.753**	**0.288**
0.063 - 0.125 mm	**0.275**	**-0.506**
0.125 - 0.25 mm	**-0.326**	**-0.572**
0.25 - 0.5 mm	**-0.405**	**0.287**
0.5 - 2.0 mm	**-0.295**	**0.502**

Principal Component Scores

Sample	SCORE1	SCORE2
Test Site 1	-5.405	6.046
Test Site 2	-6.973	4.327
Test Site 3	17.766	3.879
Test Site 4	-12.759	0.290
Control Site 5	-2.588	-11.355
Control Site 6	9.960	-3.187

The Bioassay of Clearwater East / Northeast Waste Water Treatment Plants effluent sampled on October 18, 2004, NPDES #FL0021865-01 & #FL0128937 respectively.

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	2	1	8	6	5	#	#	1	0	1	8	0	4	# **B**	# **S**	# 1
				3	F	L	0	1	2	8	9	3	7	#								

The Priority Pollutants Analysis for Bioassay of Clearwater East / Northeast Waste Water Treatment Plants effluent sampled on October 18, 2004, NPDES #FL0021865 & #FL0128937.

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	2	1	8	6	5	#	#	1	0	1	8	0	4	# **X**	# **S**	# 1
				3	F	L	0	1	2	8	9	3	7	#								