

Biological Assessment of

Chattahoochee WWTP

Gadsden County

NPDES #FL0027669

Sampled April 28, 2003

December 2003

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 Chattahoochee WWTP
County:	Gadsden
NPDES Number:	FL0027669
Permit Expiration:	2/1/2004

Toxics Sampling Inspection **(XSI)**

Date Sampled: 4/28/03

Results: Aluminum, cadmium, copper, iron, lead, silver, and zinc were detected in the effluent at levels that complied with Class III Water Quality Criteria (FAC 62-302) and facility permit limits. No organic priority pollutants were detected in the effluent sample.

Compliance Biomonitoring Inspection **(CBI)**

Date Sampled: 4/28/03

Results: The effluent sample was chronically toxic to the fish, *Pimephales promelas,* but not to the water flea, *Ceriodaphnia dubia,* during the 7-day chronic screening bioassay. This may constitute a violation of 62-302.520(21), 62-302.530(62) F.A.C. and/or facility permit limits.

Water Quality Inspection **(WQI)**

Date Sampled: 4/28/03

Results: Although fecal coliform samples from the effluent and receiving water sites were held beyond normal holding times, the high values suggest that Class III standards are potentially being exceeded. The effluent value of 12,000 CFU/100ml is cause for concern and suggests inadequate chlorination prior to discharge. At all locations, total coliform counts were below Class III Water Quality Criteria.

Chlorophyll *a* in the Test Site phytoplankton sample (70 μg/L) was elevated and if representative of conditions throughout the year, this stream segment would meet the 20 ug/L threshold for nutrient impairment under the Impaired Waters Rule. TKN exceeded the permit limit (2.0 mg/L) on 4/28/03 (3.5 mg/L) and again on 5/2/03 (2.2 mg/L).

Impact Bioassessment Inspection **(IBI)**

Date Sampled: 4/28/03

Results: The facility does not appear to be altering the benthic macroinvertebrate community in Mosquito Creek. The qualitative SCI results placed both sites in the "Good" category. And the diversity values were higher than 90% and 95% of other typical Florida waters at the Control and Test Sites, respectively.

There was a 34% reduction in diversity in the periphyton sample at the Test Site compared to the Control Site, suggesting that the facility may be altering the algal community in Mosquito Creek. The increase in contribution of the dominant taxon, *Eunotia* sp. from 57% at the Control Site to 78% at the Test Site is further illustration of the changes occurring in the algal communities downstream of the outfall.

Biological assessments are prepared by FDEP staff to provide information for review of NPDES permit renewal applications. Biological assessments, in conjunction with other information concerning the subject facility and its receiving-water body, are used to determine appropriate permit conditions.

Introduction

The City of Chattahoochee WWTP is located in Gadsden County, Florida (Appendix 1) and provides secondary treatment of sewage for the City. Activities at this plant include pumping raw sewage from an influent wet well to a contact stabilization tank. From there, sewage travels to the clarifier that separates solids from the supernatant. The solids are returned for reaeration and subsequently sent to the contact stabilization tank. The supernatant flows from the clarifier to the chlorine contact chamber, where it is chlorinated for disinfection and dechlorinated with sulfur dioxide gas. From the contact chamber, it flows via gravity to Outfall D001 and is discharged into the Class III fresh waters of Mosquito Creek (see Facility Summary in Appendix 2). The facility has a mixing zone for un-ionized ammonia, consisting of the entire width and depth of Mosquito Creek from the Point of Discharge and extending 481 feet downstream. The design flow of the wastewater system is 0.50 million gallons per day (MGD). The mean flow from January 2002 to March 2003 was 0.332 MGD. The actual mean flow for the month of April 2003 was 0.424 MGD and the average on the day of sampling was 0.394 MGD (Roderick McMillon, Plant Operator).

Surface Water Quality Criteria and facility permit limits are listed in Table 1. According to the facility's monthly discharge monitoring reports in February 2002, the plant had a TSS single sample result of 42 mg/L (permit limit 30.0 mg/L) and in August 2002, a TKN single sample result of 2.8 mg/L (permit limit 2.0 mg/L) (Appendix 2).

Methods

The purpose of this investigation was to determine the effects of the facility's effluent on the biota of the receiving waters. Chemical and biological comparisons were made between a control site (located in Mosquito Creek approximately 50 meters above the outfall) and a test site (located in Mosquito Creek approximately 10 meters downstream of the discharge). Detailed methods and their relationship to Florida Administrative Code 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: Mike Heyn, Johnny Richardson, Julie Riley and David Whiting of the DEP Central Laboratory in Tallahassee. The report was reviewed by District representatives and the Point Source Studies Review Committee (Wayne Magley, Chuck Ziegmont and Michael Tanski).

Results and Discussion

- Specific chemical results are reported in Table 1 and a complete list of chemical analytes can be reviewed in Appendix 4. Aluminum, cadmium, copper, iron, lead, silver and zinc were detected in the effluent at levels that complied with Class III Water Quality Criteria (FAC 62-302) and facility permit limits.
- No organic pollutants were detected in the effluent. Effluent conductivity (µmhos/cm), pH (Standard Units) and dissolved oxygen (mg/L) complied with Class III Water Quality Criteria (62-302 F.A.C.) and facility permit limits.
- Habitat assessment scores were similar between the Control Site with 111 points and the Test Site with 115 points (Table 1, data sheets in Appendix 7). The Control and Test Sites lost points in all Primary Habitat components, but the Control Site lost additional points related to severe sand smothering in Mosquito Creek. Bank stability, habitat smothering, and a reduction in substrate availability were components that were negatively impacted by the increased erosion potential at the Control Site.
- Dissolved oxygen (DO as mg/L), pH (Standard Units), and conductivity (µmhos/cm) at the Test and Control Sites complied with Class III Water Quality Criteria (Table 1, 62-302.530 F.A.C.).
- The effluent sample was chronically toxic to the fish, *Pimephales promelas,* but not to the water flea, *Ceriodaphnia dubia,* during the 7-day chronic screening bioassay (See Table 1 for percent mortality and Appendix 6 for bioassay bench sheets). This may constitute a violation of 62-302.520(21), 62-302.530(62) F.A.C. and/or facility permit limits. The effluent sample was chronically, but not acutely, toxic to the fish *P. promelas* during the seven-day chronic screening bioassay. The average dry weight of the fish in the 100% sample concentration (0.369 mg) was significantly less ($P<0.05$) than the average control fish weight (0.600 mg). There was 87% survival of fish in the 100% sample compared to 92% survival in the laboratory control water during the seven-day test period. The No Observed Effect Concentration (NOEC) was less than 100% effluent since growth effects were observed in the 100% sample concentration. This constitutes a violation of the facility's permit and an exceedance of Chapter 62-302.530 (62) F.A.C. The effluent was not

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

Chattahoochee WWTP	Class III Stds	Grab Effluent Limits 4/28/03	Grab Effluent 4/28/03	Grab Effluent 4/30/03	Grab Effluent 5/2/03	Control Site	Test Site
Organic Constituents (µg/L)							
None Detected						-	-
Metals (µg/L unless otherwise noted)							
Aluminum	≤1500	-	146	75	76	-	-
Arsenic	≤50	-	1 U	7 U	1 U	-	-
Cadmium	b	≤1.4	0.037 I	0.025 I	0.035 I	-	-
Calcium (mg/L)	-	-	35.5	36.2	35.5	-	-
Chromium-III	b	≤106.4	2 U	2 U	2 U	-	-
Copper	b	≤11.6	5 I	5.1 I	4.7 I	-	-
Iron	≤1000	-	147	85	84	-	-
Lead	b	≤4.4	0.53	0.39 I	0.33 I	-	-
Magnesium (mg/L)	-	-	9.9	9.7	9.8	-	-
Nickel	b	≤64.9	2 U	2 U	2 U	-	-
Selenium	≤5	-	1 U	1 U	1 U	-	-
Silver	≤0.07	-	0.055 I	0.025 I	0.025 I	-	-
Zinc	b	≤149.1	19	18 I	20	-	-
Nutrients (mg/L)							
Ortho-phosphate	-	-	1.1	-	-	0.033	0.024
Total Phosphorus	-	-	1.3 A	-	1.3	0.062	0.078
Ammonia	-	Report	2.1	2.1	0.97 A	0.03	0.041
Unionized Ammonia	≤0.02	-	0.01 c	-	-	<0.02 U	<0.02 U
Nitrate+Nitrite	-	-	0.073	-	5.4 A	0.42	0.47
Total Kjeldahl Nitrogen	-	2.0 s	3.5 A	-	2.2	0.38	0.44
Organic Nitrogen	-	-	1.4 c	-	1.23 c	0.35 c	0.4 c
Total Nitrogen	-	Report	3.57 c	-	7.6 c	0.8 c	0.91 c
General Physical and Chemical Parameters							
Habitat Assessment	-	-	-	-	-	111	115
Dissolved Oxygen (mg/L)	≥5	-	9.2 A	-	-	8.5 A	9.7 A
pH (S.U.)	6.0-8.5	-	6.8 A	-	-	6.6 A	6.5 A
Conductivity (umhos/cm)	≤1275	-	364 A	-	-	67 A	72.7 A
Temperature (C)	-	-	22.4 A	-	-	20.1 A	19.3 A
TSS	-	30.0 s	7 IQ	-	-	-	-
BOD (mg/L)	-	-	3.2 A	-	-	-	-
Chlorophyll a (µg/L)	-	-	-	-	-	0.85 U	70
Phaeophytin (µg/L)	-	-	-	-	-	0.85 U	0
Flow (MGD)	-	0.5	0.394	-	-	-	-
Hardness (mg/L)	-	-	129.4 c	130.4 c	129.0 c	-	-
Total Residual Chlorine (mg/L)	≤0.01	0.01	0.03 U	-	-	-	-
Microbiology (# counts/100ml)							
Fecal Coliforms-Membrane Filter	≤800 s	-	12000 Q	-	-	1300 Q	1650 AQ
Total Coliforms-Membrane Filter	≤2400	-	20 Q	-	-	110 Q	46 AQ
Toxicity (7-day chronic screening bioassay, no observed effect concentration)							
Fish - NOEC	> 100%	-	< 100% d	-	-	-	-
Water flea - NOEC	> 100%	-	100 d	-	-	-	-

Value exceeds the Class Facility's Permit Limit

a - Annual average
b - Value is calculated based on hardness
c - Value is calculated
d - Chronic test performed using composite effluent samples
A - Value reported is the mean of two or more determinations
I - Value reported is < the minimum quantitation limit, and ≥the minimum detection limit
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 minimum detection limit
s - Single sample
NOEC - A no observed effect concentration less than 100% effluent will constitute a violation of this permit

Table 2. Measured and predicted algal growth potential (AGP) for total soluble inorganic nitrogen (TSIN) limitation

Location	AGP (measured)	Predicted AGP (TSIN) ± 20%	Inorganic N:P ratio
Control (mg dry wt/L)	16.0	17.1 ± 3.4	13.6
Test (mg dry wt/L)	24.3	19.4 ± 3.9	21.3
Effluent (mg dry wt/L)	157.0	82.6 ± 16.5	2.0

acutely or chronically toxic to the water flea *Ceriodaphnia dubia* during a seven-day chronic screening bioassay.

- Although fecal coliform samples from the effluent and receiving water sites were held beyond normal holding times, the values suggest Class III standards and permit limits may be exceeded if analyzed within holding time. The effluent value of 12,000 counts/100ml is a cause for concern and suggests inadequate chlorination prior to discharge. The receiving water fecal coliform counts potentially exceeded the Class III Criteria 62-302.530 (6) F.A.C. both upstream and downstream of the outfall. In the effluent and receiving water samples, total coliform counts were below Class III Water Quality Criteria (See Table 1 for results and Appendix 6 for laboratory worksheets).
- Effluent concentrations of TKN exceeded the facility's permit limit (2.0 mg/L) on 4/28/03 (3.5 mg/L) and 5/2/03 (2.2 mg/L). Data from the grab samples suggested that effluent nutrient concentration may be highly variable. Nitrate + nitrite concentration on 4/28/2003 was 0.073 mg/L but on 5/2/2003 it was 5.4 mg/L, more than 70 times as high.
- Levels of nitrate + nitrite at the Control and Test Sites were higher than those at 80% of typical Florida streams (Appendix 5). Effluent nutrients appear to be contributing to somewhat elevated levels at the Test Site. All other nutrients were similar to those of the 30th percentile or less of typical Florida streams.
- 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 5.0 mg dry wt/L represent a "problem" threshold for fresh receiving waters, implying nutrient enrichment. AGP values at the Control and Test Sites exceeded the "problem threshold". The Control Site concentration was 16 mg dry wt/L and the Test Site was 24.3 mg dry wt/L (Table 2). The effluent AGP value of 157 mg dry wt/L demonstrated the potential for significant algal growth given the level of nutrients in the effluent sample and explains the increase seen at the Test Site. These results suggest that already elevated levels of nutrients present in Mosquito Creek are being increased with the addition of the Chattahoochee WWTP discharge.
- Chlorophyll *a* in the Test Site phytoplankton sample (70 mg/L) was elevated and if representative of conditions throughout the year, this stream segment would meet the 20 ug/L threshold for nutrient impairment under the Impaired Waters Rule (62-303 F.A.C.) (Table 1).
- There were shifts in the algal community composition between the Control and Test Sites. Diversity was 34% higher at the Control Site compared to the Test Site. In addition, there was shift of the dominant taxon, *Eunotia* sp., from 57% composition at the Control Site to 78% at the Test Site (Table 3, Appendix 8). Periphyton chlorophyll *a* concentration was undetected at the Control Site and 2.9 mg/m^2 at the Test Site.
- Quantitative measures of benthic macroinvertebrate assemblages from Hester-Dendy samplers showed similar communities at the Control and Test Sites (Table 4, Appendix 9). The facility does not appear to be exerting a negative effect on the benthic macroinvertebrate communities in Mosquito Creek. The diversity was higher than 90% and 95% of other typical Florida streams at the Control and Test Sites, respectively. The samples were similar in terms of the number of taxa, the number of EPT

Table 3. Periphyton composition

Chattahoochee WWTP	**Control Site**	**Test Site**
Number of Taxa	19	20
Shannon-Weaver Diversity	2.15	1.42
Chlorophyll a (mg/m^2)	0.080 U	2.9
Phaeophytin (mg/m^2)	0.080 U	0.52
Algal Density (number/cm^2)	227646	4488
Percent Dominant Taxon	56.8	78.2
Dominant Taxon (name)	*Eunotia*	*Eunotia*
Number of Algal Units Identified	301	303
Percentage Composition		
Blue-green algae	2.3	2.0
Diatoms	95.4	97.0
Green algae	2.3	1.0
Other	0.0	0.0

U - Analyzed but not detected; value reported is the minimum detection level.

taxa, Florida Index points and the percent contribution of the dominant taxon to the entire sample.

- Qualitative measures of benthic macroinvertebrate assemblages from dipnet samples are summarized in Tables 5 and 6 and taxa lists are given in Appendix 10. Both sites received 21 Stream Condition Index points placing them in the "Good" category. Several individual metrics were higher at the Test Site compared to the Control Site. For example, the Control Site had 16 total taxa, and 4 Florida Index points, while the Test Site had 22 total taxa, and 12 Florida Index points. Both sites were dominated by the Ephemeropteran, *Caenis* sp. There was severe sand smothering at the Control Site as noted in the habitat assessment and may explain some of the differences in the macroinvertebrate community assemblages between the two receiving water sites.

Summary

The effluent sample was chronically toxic to the fish during the 7-day chronic screening bioassay and may constitute a violation of 62-302.520(21), 62-302.530(62) F.A.C. and/or facility permit limits. Metals detected in the effluent sample complied with Class III Water Quality Criteria.

Effluent TKN samples exceeded the facility's permit limit of 2.0 mg/L in two separate sampling events. Nitrate + nitrite at the Control and Test Sites was higher than 80% of other typical Florida streams, suggesting additional sources of this nutrient in the watershed. Other nutrient levels were similar or slightly higher at the Test Site compared to the Control Site and other typical Florida waters. Data from the three grab samples suggested that effluent nutrient concentration may be highly variable. Nitrate + nitrite concentration on 4/28/2003 was 0.073mg/L but on 5/2/2003 it was 5.4 mg/L, more than 70 times as high.

Fecal coliforms were held beyond the normal holding times but colony counts were elevated and suggest the facility's permit limit and Class III standards may have been violated. Fecal coliform counts were also elevated in the Control and Test Site samples, suggesting additional sources of these organisms in the Mosquito Creek watershed.

The facility did not appear to be negatively affecting the macroinvertebrate communities in Mosquito Creek. The diversity was higher than 90% and 95% of other typical Florida streams at the Control and Test Sites, respectively. The samples were similar in terms of the number of taxa, the number of EPT taxa, Florida Index points and the percent contribution of the dominant taxon to the entire sample. Similar results were found in the qualitative dip-net sweeps. Both sites received scores of 21 SCI points, placing them in the "Good" category.

Diversity was 34% lower in the periphyton sample from the Test Site compared to the Control Site sample. There was also an increase in the dominant taxon from 57% to 78% from the Control Site to the Test Site suggesting a worsening trend due to the effluent. These results combined with the elevated AGP levels, suggest that the facility is contributing to elevated levels of nutrients in Mosquito Creek.

Table 4. Macroinvertebrate Hester-Dendy Samples - Quantitative

Chattahoochee WWTP	Control Site	Test Site
Summary Statisics		
Shannon-Weaver Diversity	3.84	3.98
Number of Taxa	32	37
Florida Index	28	28
Number of EPT Taxa	13	11
Percent Dominant Taxon	22.5	18.4
Dominant Taxon (name)	*Cheumatopsyche*	*Cheumatopsyche*
Dominant Taxon (group)	Trichoptera	Trichoptera
Total Number of Individuals	495	660
Community Composition: Percent of total		
Diptera	32.5	41.8
Ephemeroptera	11.5	8.8
Oligochaeta	0.0	0.3
Plecoptera	13.7	15.6
Trichoptera	38.8	29.4
Other	3.4	4.1
Functional Feeding Groups: Percent of total		
Burrowing Deposit Feeders	0.0	0.3
Piercer	0.2	0.0
Predators	14.5	15.4
Surface Deposit Feeders	20.3	25.9
Suspension Feeders	44.0	43.9
Scrapers	7.3	6.3
Shredders	8.2	6.0
Unknown	5.5	2.2

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Table 5. Macroinvertebrate Dipnet Samples - Qualitative

Chattahoochee WWTP	Control Site	Test Site
Stream Condition Index (value)	21	21
Stream Condition Index (word)	Good	Good
Stream Condition Index Metrics		
Number of Taxa	16	22
Florida Index	4	12
Number of EPT Taxa	7	7
Number of Chironomid Taxa	4	6
Percent Dominant Taxon	56.0	64.8
Percent Diptera	14.0	12.4
Percent Suspension Feeders and Filtere	12.0	10.5
Total Number of Individuals	100	105
Community Composition: Percent of total		
Dominant Taxon (name)	*Caenis*	*Caenis*
Dominant Taxon (group)	Ephemeroptera	Ephemeroptera
Ephemeroptera	73.0	70.5
Plecoptera	6.0	1.9
Trichoptera	2.0	4.8
Other	19.0	22.9
Functional Feeding Groups: Percent of total		
Burrowing Deposit Feeders	3.0	3.8
Piercer	0.0	1.0
Predators	6.0	3.8
Surface Deposit Feeders	38.5	42.4
Suspension Feeders and Filterers	12.0	10.5
Scrapers	38.5	37.6
Shredders	2.0	1.0
Unknown	0.0	0.0

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Table 6a. Stream Condition Index Metrics: Panhandle West, Summer Index
Chattahoochee WWTP Control Site

Metric:	**Value**	**5**	**3**	**1**	**Score**
Total Number of Taxa	16	≥31	30-16	<16	3
Number of EPT Taxa	7	≥7	6-4	<4	5
Number of Chironomid Taxa	4	≥9	8-5	<5	1
Percent Contribution of Dominant Taxon	56.0	≤22	23-61	>61	3
Percent Diptera	14.0	-	≤50	>50	3
Florida Index	4	≥16	15-8	<8	1
Percent Suspension Feeders and Filterers	12.0	≥12	11-6	<6	5
Total Score		**Good**			**21**
Interpretation of Scores		Excellent			27-33
		Good			**21-26**
		Poor			14-20
		Very Poor			7-13

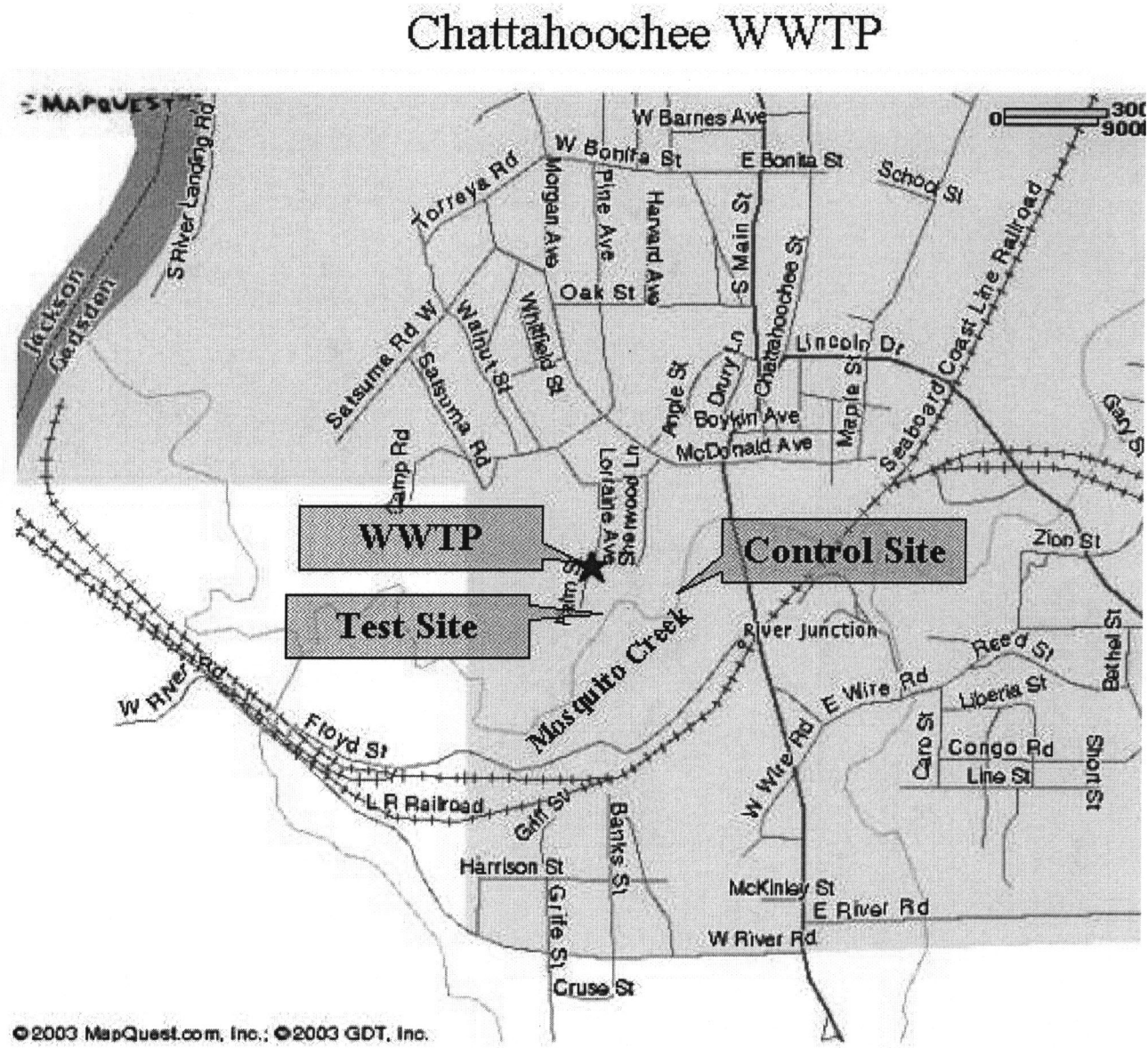
Table 6b. Stream Condition Index Metrics: Panhandle West, Summer Index
Chattahoochee WWTP Test Site

Metric:	**Value**	**5**	**3**	**1**	**Score**
Total Number of Taxa	22	≥31	30-16	<16	3
Number of EPT Taxa	7	≥7	6-4	<4	5
Number of Chironomid Taxa	6	≥9	8-5	<5	3
Percent Contribution of Dominant Taxon	64.8	≤22	23-61	>61	1
Percent Diptera	12.4	-	≤50	>50	3
Florida Index	12	≥16	15-8	<8	3
Percent Suspension Feeders and Filterers	10.5	≥12	11-6	<6	3
Total Score		**Good**			**21**
Interpretation of Scores		Excellent			27-33
		Good			**21-26**
		Poor			14-20
		Very Poor			7-13

Appendices

- Appendix 1. Map of facility
- Appendix 2. Facility summary
- Appendix 3. Explanation of measurements
- Appendix 4. Chemical analyses of effluent and receiving water.
- Appendix 5. Typical values for selected parameters in Florida waters
- Appendix 6. Additional physical, chemical, toxicological and microbiological results
- Appendix 7. Habitat Assessment field sheets
- Appendix 8a. Periphyton: Taxa list and density (number of individuals per cm^2)
- Appendix 8b. Periphyton: Taxa list and number of individuals counted
- Appendix 9a. Hester-Dendy multi-plate samplers: Taxa list and macroinvertebrate density (average number of individuals per m^2)
- Appendix 9b. Hester-Dendy multi-plate samplers: Taxa list and total number of macroinvertebrates counted
- Appendix 10a. Dipnet samples: Taxa list and number of macroinvertebrates counted (collapsed)
- Appendix 10b. Dipnet samples: Taxa list and number of macroinvertebrates counted
- Appendix 11a. Phytoplankton: Taxa list and density (number of individuals per mL)
- Appendix 11b. Phytoplankton: Taxa list and number of individuals counted

Appendix 1 - Map of Chattahoochee WWTP



State of Florida
Department of Environmental Protection
Facility Introduction

Things to include in the introduction:

- **Type of facility**
- **Former names**
- **Design flow**
- **Average flow (with dates of time period flow was measured)**
- **Description of the treatment process**
- **Chlorination/dechlorination methods (if applicable)**
- **Receiving water and classification (i.e. Class III fresh waters of the St. John's River)**
- **If mixing zone is present and for what. If several, list all.**
- **Sampling location, specify lat/longs of NPDES point and/or effluent collection point**
- **Any other information about the facility or the effluent that is relevant to the effluent samples. (i.e. recent violations, unusual discharge location, combined effluent with another facility, reason bioassay sample may be chlorinated, etc.)**

TEXT:

The City of Chattahoochee WWTP is an existing 0.50 MGD MMADF activated sludge wastewater treatment facility featuring an influent pump station, influent screening, contact stabilization, clarification, aerobic digestion of residuals, chlorine gas disinfection, and sulfur dioxide gas dechlorination. Average Daily Flow from January-March, 2003 has been recorded at 0.468 MGD. Treated, dechlorinated effluent is discharged to Mosquito Creek (Class III freshwaters) at Discharge Location D001, located adjacent to the facility, and consists of an 18-inch diameter pipe at or near the surface of Mosquito Creek. A Mixing Zone for un-ionized ammonia has been established, consisting of the entire width and depth of Mosquito Creek from the Point of Discharge and extending 481 feet downstream. The Point of Discharge is located approximately at Latitude 30° 41' 07" N and Longitude 84° 50' 46" W.

Facility Summary

Facility Name (as it appears on permit): City of Chattahoochee WWTP		Former Names:
Physical Address: 211 Palm Street Chattahoochee, FL 32324	NPDES Permit No.:FL0027669-001-DW1P Expiration Date: 2/1/2004	Prepared By:
County: Gadsden District: Northwest	State Permit No.: Expiration Date:	Facility Type: Domestic Wastewater Treatment
Function of Facility: Provides secondary treatment of sewage for the City of Chattahoochee		
Sampling Location (specify lat/longs of NPDES point): Latitude 30° 41' 07" N Longitude 84° 50' 46" W		
Description of treatment process: Raw sewage is pumped from influent wet well to contact stabilization tank. From there, sewage is sent to the clarifier, which separates the solids from the supernatant. The solids are returned for reaeration and subsequently sent to the contact stabilization tank. The supernatant flows from the clarifier to the Chlorine Contact Chamber (CCC), where it is chlorinated for disinfection, and dechlorinated with SO_2 gas as it exits the CCC. From the CCC, it flows via gravity to Outfall D001.		
Receiving Waters: Mosquito Creek		Classification: III Freshwater
Temperature (C): 23.3°C		Design Flow: 0.50 MGD MAADF
pH (SU): 6.73		Mean Flow: 0.332 MGD MAADF (1/02-3/03)
Conductivity (umhos/cm):		Flow During Survey:
Dissolved Oxygen (mg/L): 5.1 mg/l		Total Residual Chlorine (mg/L): 0.9 (dis)/0.0 (dechl)
Discharge is: Continuous		
Facility Mixing Zone Details: A Mixing Zone for un-ionized ammonia has been established, consisting of the entire width and depth of Mosquito Creek from the Point of Discharge and extending 481 feet downstream.		
List Effluent Limits:		

Parameter and Units	Limit	Describe special permit conditions and permit modifications:
Flow	0.50 MGD	Continuous monitoring
CBOD5	20.0 mg/l single sample 15.0 mg/l weekly average 12.5 mg/l monthly average 10.0 mg/l annual average	Weekly sampling 8-hour FPC
Total Suspended Solids	30.0 mg/l single sample 22.5 mg/l weekly average 18.8mg/l monthly average 15.0 mg/l annual average	Weekly sampling 8-hour FPC
Total Nitrogen	Report	Weekly sampling 8-hour FPC
Total Kjeldahl Nitrogen	2.0 mg/l single sample	Weekly sampling 8-hour FPC
Total Ammonia-Nitrogen	Report	Weekly sampling 8-hour FPC

Total Phosphorus	**Report**	**Weekly sampling 8-hour FPC**
pH	**6.0 to 8.5**	**Continuous grab**
Dissolved Oxygen	**5.0 mg/l minimum**	**Daily grab**
Total Residual Chlorine (Disinfection)	**0.5 mg/l minimum**	**Continuous grab**
Total Residual Chlorine (Dechlorination)	**0.1 mg/l maximum**	**Daily grab**
Fecal Coliform	**800/100 ml single sample Report monthly geom. mean 200/100 ml annual average**	**Weekly grab**
Whole Effluent Toxicity		**Semi-annual**

Description of permitted outfall: Treated, dechlorinated effluent is discharged to Mosquito Creek (Class III freshwaters) at Discharge Location D001, located adjacent to the facility, and consists of an 18-inch diameter pipe at or near the surface of Mosquito Creek.

List permit violations (DMR data) and plant upsets that occurred at the plant within the last year:
2/02: TSS single sample of 42 mg/l (limit 30.0 mg/l)
8/02: TKN single sample of 2.8 mg/l (limit 2.0 mg/l)

Describe previous impact bioassessments, WQBEL's, and previous or current enforcement actions:

Discuss MOR trends to prior data; is trend improving or declining:

Additional Information:

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 limit and the practical quantitation limit 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

Acute screening toxicity bioassays were performed on the effluent sample using the water flea, *Ceriodaphnia dubia,* and the fish, *Cyprinella leedsi* following FDEP SOPs TA07_01 and TA07_02. 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 control and test sites 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) Habitat Assessment

Habitat assessment is used to evaluate the physical structure and extent of disturbance in a waterbody. Eight aspects are ranked, with 20 possible points for each aspect (QA Rule SOP FT 3100). The Habitat Assessment score includes types and amounts of benthic substrates, water velocity, amount of sand or silt accumulation, extent of artificial channelization, bank stability, and riparian zone width and vegetation type. All scores are summed to yield an overall Habitat Assessment score. Habitat Assessment score ranges from 11-160 and overall habitat quality is assigned to one of four categories: Optimal (120-160 points), Suboptimal (80-119 points), Marginal (40-79 points), and Poor (11-39 points).

(6) Algal Growth Potential (AGP)

The effluent and water from control and test sites are autoclaved, filtered (0.45μm), inoculated with the unicellular green alga, *Pseudokirchneriella subcapitata* (formerly *Selenastrum capricornutum,* USEPA 2002*),* and 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 5.0 mg dry weight/L represents a "problem" threshold for fresh 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 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 (USEPA 2000). 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..

(7) Algal Phytoplankton and Periphyton Assemblages

Methods: Periphyton were sampled at both control and test sites by incubating glass microscope slides in a standard periphytometer for 28 days (QA Rule SOP FS7210). Phytoplankton were sampled using a 1 L grab sample (QA Rule SOP FS7100). Periphyton and phytoplankton were subsampled and identified to the lowest practical level, usually species (FDEP SOPs AB03, AB03_1 and AB05).

Chlorophyll *a* Content: Chlorophyll *a* content is measured in both phytoplankton and periphyton 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..

Algal Density: Algal density is estimated as number of natural units/ml for phytoplankton samples and number of natural units/cm^2 for periphyton samples. Although algal density of a single site is highly variable and depends on a number of factors, comparison of algal density at a control site to algal density at a related test site gives a partial comparison of algal biomass at the two sites (Stevenson and Smol 2003).

Taxa richness: Taxa richness is the number of distinct algal taxa present in a sample. Extreme nutrient enrichment tends to reduce the number of different types of algae present in a sample because a few tolerant taxa tend to reproduce rapidly and constitute the majority of the cells present. However, moderate nutrient enrichment of nutrient poor waters may sometimes be correlated with increased algal taxa richness (Stevenson and Bahls 1999) as the algal community begins to respond to the increased input of nutrients.

Community Composition: Shifts in relative proportions of major groups of algae downstream of a point source, compared to upstream, control conditions, may indicate negative effects of a discharge (Stevenson and Bahls 1999) and 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 with more equitable abundance among taxa (Magurran 1988). Low diversity scores 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..

(8) Benthic Macroinvertebrate Assemblages

Methods: Benthic macroinvertebrates were collected using two methods. Quantitative samples were collected from Hester-Dendy multi-plate samplers incubated for 28 days (QA Rule SOP FS7430). Qualitative collections are made using 20 dipnet sweeps (QA Rule SOP FS7420). 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. Stress, habitat destruction and pollution tend to reduce the number of different types of organisms present (Karr and Chu 1998). 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..

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 Hester-Dendy multiplate samplers incubated for 28 days at test and control sites constitutes a violation of 62-302.530(11) F.A.C..

The Florida Index: Some organisms become rare or absent as the intensity or duration of disturbance increases. The Florida Index assigns points to stream-dwelling macroinvertebrates based on their ranked sensitivity to pollution (Beck 1954). A site with a high Florida Index score is considered healthy (Ross 1990). Decreases in Florida Index points 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..

Ephemeroptera/Plecoptera/Trichoptera (EPT) Taxa: This value is the number of EPT taxa present. More EPT taxa are usually present in unpolluted waters (Plafkin *et al.*, 1989, Wallace *et al.*, 1996). Decreases in the number of EPT taxa 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..

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.). In Florida, pollution may be responsible for reducing the numbers of filter feeders (FDEP 1994) and shredders (EA Engineering 1994). 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..

The Stream Condition Index (SCI): The SCI is a composite macroinvertebrate metric developed for Florida. Using data from qualitative dipnet samples, the SCI assigns points to seven parameters, depending on how closely each parameter approaches an expected reference condition (QA Rule SOP LT 7200). Points are summed to yield a final SCI score (range 7-33, depending on region and index period). Included in the calculation of SCI are taxa richness, number of EPT taxa, number of Chironomid taxa, percent contribution of the dominant taxon, the Florida Index, percent contribution of Diptera, and the percent contribution of suspension and filter feeders. Scores are broken into four ordinal groups: Excellent, Good, Poor and Very Poor. A decrease in ordinal SCI score from the Control to the Test site may be evidence of degradation related to a facility's effluent. An SCI score of "Poor" or "Very Poor" 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..

(9) 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

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
4/28/2003	COMPOSITE EFFLUENT	Bio-Toxicology	Bioassay-Chronic-Scrn-FW-C.dubia, NOEC	100	NOEC			
4/28/2003	COMPOSITE EFFLUENT	Bio-Toxicology	Bioassay-Chronic-Scrn-FW-Fish, NOEC	100	NOEC	K		
4/28/2003	TEST SITE	Bio-AGP/LimNut	Algal Growth Potential	24.3	mg DryWt/L		0.1	0.3
4/28/2003	TEST SITE	Bio-Chl-a	Chlorophyll-A, Monochromatic, Periphyton	2.9	mg/m2		0.071	0.21
4/28/2003	TEST SITE	Bio-Chl-a	Chlorophyll-A, Monochromatic, Water	70	ug/L		3.4	10
4/28/2003	TEST SITE	Bio-Chl-a	Phaeophytin-A, Monochromatic, Periphyton	0.52	mg/m2		0.071	0.21
4/28/2003	TEST SITE	Bio-Chl-a	Phaeophytin-A, Monochromatic, Water	0	ug/L		3.4	10
4/28/2003	TEST SITE	Bio-Invertebrates	Macroinvert-FW-Qual-Dipnetx20-# Taxa	22	# Taxa			
4/28/2003	TEST SITE	Bio-Microbiology	Fecal Coliforms-Membrane Filter	1650	#/100 mL	AQ		
4/28/2003	TEST SITE	Bio-Microbiology	Total Coliforms-Membrane Filter	46	#/100 mL	AQ		
4/28/2003	TEST SITE	Bio-Peri/Phyto	Periphyton-Quantitative-# Diatom Taxa	13	#Taxa			
4/28/2003	TEST SITE	Bio-Peri/Phyto	Periphyton-Quantitative-# Wet Taxa	7	#Taxa			
4/28/2003	TEST SITE	Nutrients-Liquid	Ammonia-N	0.041	mg N/L		0.01	0.02
4/28/2003	TEST SITE	Nutrients-Liquid	NO2NO3-N	0.47	mg N/L		0.004	0.01
4/28/2003	TEST SITE	Nutrients-Liquid	N_KJEL_TOT	0.44	mg N/L		0.06	0.2
4/28/2003	TEST SITE	Nutrients-Liquid	O-Phosphate-P	0.024	mg P/L		0.004	0.01
4/28/2003	TEST SITE	Nutrients-Liquid	Total-P	0.078	mg P/L		0.015	0.04
4/28/2003	TEST SITE- REP 1 STATION 8 BOTTOM	Bio-Invertebrates	Macroinvert-FW-Quan-ArtSubstr-# Taxa	9	# Taxa			
4/28/2003	TEST SITE- REP 4 STATION 8 BOTTOM	Bio-Invertebrates	Macroinvert-FW-Quan-ArtSubstr-# Taxa	14	# Taxa			
4/28/2003	TEST SITE- STATION 8B FLOATING	Bio-Invertebrates	Macroinvert-FW-Quan-ArtSubstr-# Taxa	24	# Taxa			
4/28/2003	TEST SITE- STATION 8C FLOATING	Bio-Invertebrates	Macroinvert-FW-Quan-ArtSubstr-# Taxa	21	# Taxa			
4/28/2003	CONTROL SITE	Bio-AGP/LimNut	Algal Growth Potential	16	mg DryWt/L	0.1	0.3	
4/28/2003	CONTROL SITE	Bio-Chl-a	Chlorophyll-A, Monochromatic, Periphyton	0.08	mg/m2	U	0.08	0.24
4/28/2003	CONTROL SITE	Bio-Chl-a	Chlorophyll-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
4/28/2003	CONTROL SITE	Bio-Chl-a	Phaeophytin-A, Monochromatic, Periphyton	0.08	mg/m2	U	0.08	0.24
4/28/2003	CONTROL SITE	Bio-Chl-a	Phaeophytin-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
4/28/2003	CONTROL SITE	Bio-Invertebrates	Macroinvert-FW-Qual-Dipnetx20-# Taxa	16	# Taxa			
4/28/2003	CONTROL SITE	Bio-Microbiology	Fecal Coliforms-Membrane Filter	1300	#/100 mL	Q		
4/28/2003	CONTROL SITE	Bio-Microbiology	Total Coliforms-Membrane Filter	110	#/100 mL	Q		
4/28/2003	CONTROL SITE	Bio-Peri/Phyto	Periphyton-Quantitative-# Diatom Taxa	12	#Taxa			
4/28/2003	CONTROL SITE	Bio-Peri/Phyto	Periphyton-Quantitative-# Wet Taxa	7	#Taxa			
4/28/2003	CONTROL SITE	Nutrients-Liquid	Ammonia-N	0.03	mg N/L		0.01	0.02
4/28/2003	CONTROL SITE	Nutrients-Liquid	NO2NO3-N	0.42	mg N/L		0.004	0.01
4/28/2003	CONTROL SITE	Nutrients-Liquid	N_KJEL_TOT	0.38	mg N/L		0.06	0.2
4/28/2003	CONTROL SITE	Nutrients-Liquid	O-Phosphate-P	0.033	mg P/L		0.004	0.01
4/28/2003	CONTROL SITE	Nutrients-Liquid	Total-P	0.062	mg P/L		0.015	0.04
4/28/2003	CONTROL SITE- STATION 4B FLOATING	Bio-Invertebrates	Macroinvert-FW-Quan-ArtSubstr-# Taxa	22	# Taxa			
4/28/2003	CONTROL SITE- STATION 4C FLOATING	Bio-Invertebrates	Macroinvert-FW-Quan-ArtSubstr-# Taxa	20	# Taxa			
4/28/2003	CONTROL SITE- STATION 4D FLOATING	Bio-Invertebrates	Macroinvert-FW-Quan-ArtSubstr-# Taxa	20	# Taxa			
4/28/2003	CONTROL SITE-REP 1 STATION 4 BOTTOM	Bio-Invertebrates	Macroinvert-FW-Quan-ArtSubstr-# Taxa	3	# Taxa			
4/28/2003	CONTROL SITE-REP 2 STATION 4 BOTTOM	Bio-Invertebrates	Macroinvert-FW-Quan-ArtSubstr-# Taxa	9	# Taxa			
4/28/2003	CONTROL SITE-REP 3 STATION 4 BOTTOM	Bio-Invertebrates	Macroinvert-FW-Quan-ArtSubstr-# Taxa	2	# Taxa			
4/28/2003	CONTROL SITE- STATION 4A FLOATING	Bio-Invertebrates	Macroinvert-FW-Quan-ArtSubstr-# Taxa	21	# Taxa			
4/28/2003	GRAB EFFLUENT	BNA-Water	1,2,4,5-Tetrachlorobenzene	0.98	ug/L	UJ	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	1,2,4-Trichlorobenzene	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	1,2-Dichlorobenzene	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	1,3,5-Trinitrobenzene	3.9	ug/L	U	3.9	16
4/28/2003	GRAB EFFLUENT	BNA-Water	1,3-Dichlorobenzene	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	1,3-Dinitrobenzene	2	ug/L	U	2	7.8

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
4/28/2003	GRAB EFFLUENT	BNA-Water	1,4-Dichlorobenzene	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	1,4-Naphthoquinone	20	ug/L	UJ	20	78
4/28/2003	GRAB EFFLUENT	BNA-Water	1-Naphthylamine	9.8	ug/L	UJ	9.8	39
4/28/2003	GRAB EFFLUENT	BNA-Water	2,3,4,6-Tetrachlorophenol	2	ug/L	UJ	2	7.8
4/28/2003	GRAB EFFLUENT	BNA-Water	2,4,5-Trichlorophenol	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	2,4,6-Trichlorophenol	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	2,4-Dichlorophenol	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	2,4-Dimethylphenol	49	ug/L	U	49	200
4/28/2003	GRAB EFFLUENT	BNA-Water	2,4-Dinitrophenol	15	ug/L	U	15	59
4/28/2003	GRAB EFFLUENT	BNA-Water	2,4-Dinitrotoluene	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	2,6-Dichlorophenol	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	2,6-Dinitrotoluene	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	2-Acetylaminofluorene	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	2-Chloronaphthalene	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	2-Chlorophenol	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	12
4/28/2003	GRAB EFFLUENT	BNA-Water	2-Methylnaphthalene	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	2-Naphthylamine	9.8	ug/L	U	9.8	39
4/28/2003	GRAB EFFLUENT	BNA-Water	2-Nitroaniline	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	2-Nitrophenol	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	2-Picoline	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	3,3'-Dichlorobenzidine	39	ug/L	U	39	160
4/28/2003	GRAB EFFLUENT	BNA-Water	3,3'-Dimethylbenzidine	20	ug/L	UJ	20	78
4/28/2003	GRAB EFFLUENT	BNA-Water	3-Methylcholanthrene	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	3-Nitroaniline	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	4,4'-DDD	1.5	ug/L	U	1.5	5.9
4/28/2003	GRAB EFFLUENT	BNA-Water	4,4'-DDE	1.5	ug/L	U	1.5	5.9
4/28/2003	GRAB EFFLUENT	BNA-Water	4,4'-DDT	1.5	ug/L	U	1.5	5.9
4/28/2003	GRAB EFFLUENT	BNA-Water	4-Aminobiphenyl	3.9	ug/L	U	3.9	16
4/28/2003	GRAB EFFLUENT	BNA-Water	4-Bromophenyl phenyl ether	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	4-Chloro-3-methylphenol	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	4-Chloroaniline	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	4-Chlorophenyl phenyl ether	2	ug/L	U	2	7.8
4/28/2003	GRAB EFFLUENT	BNA-Water	4-Nitroaniline	0.98	ug/L	UJ	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	4-Nitrophenol	15	ug/L	U	15	59
4/28/2003	GRAB EFFLUENT	BNA-Water	5-Nitro-o-toluidine	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	7,12-Dimethylbenz(a)anthracene	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Acenaphthene	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Acenaphthylene	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Acetophenone	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Aldrin	1.5	ug/L	U	1.5	5.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Aniline	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Anthracene	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Azobenzene/1,2-Diphenylhydrazine	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Benzidine	98	ug/L	U	98	390
4/28/2003	GRAB EFFLUENT	BNA-Water	Benzo(a)anthracene	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Benzo(a)pyrene	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Benzo(b)fluoranthene	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Benzo(g,h,i)perylene	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Benzo(k)fluoranthene	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Benzyl alcohol	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Bis(2-chloroethoxy)methane	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Bis(2-chloroethyl)ether	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	12

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
4/28/2003	GRAB EFFLUENT	BNA-Water	Bis(2-ethylhexyl)phthalate	15	ug/L	U	15	59
4/28/2003	GRAB EFFLUENT	BNA-Water	Butyl benzyl phthalate	4.9	ug/L	U	4.9	20
4/28/2003	GRAB EFFLUENT	BNA-Water	Chrysene	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Di-n-butyl phthalate	4.9	ug/L	U	4.9	20
4/28/2003	GRAB EFFLUENT	BNA-Water	Di-n-octyl phthalate	0.98	ug/L	UJ	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Dibenzo(a,h)anthracene	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Dibenzofuran	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Dieldrin	1.5	ug/L	U	1.5	5.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Diethyl phthalate	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Dimethyl phthalate	49	ug/L	U	49	200
4/28/2003	GRAB EFFLUENT	BNA-Water	Dimethylaminoazobenzene	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Dinoseb	3.9	ug/L	U	3.9	16
4/28/2003	GRAB EFFLUENT	BNA-Water	Diphenylamine	2.9	ug/L	U	2.9	12
4/28/2003	GRAB EFFLUENT	BNA-Water	Endosulfan I	3.9	ug/L	U	3.9	16
4/28/2003	GRAB EFFLUENT	BNA-Water	Endosulfan II	3.9	ug/L	U	3.9	16
4/28/2003	GRAB EFFLUENT	BNA-Water	Endosulfan sulfate	1.5	ug/L	U	1.5	5.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Endrin	1.5	ug/L	U	1.5	5.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Endrin aldehyde	3.9	ug/L	U	3.9	16
4/28/2003	GRAB EFFLUENT	BNA-Water	Ethyl methanesulfonate	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Fluoranthene	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Fluorene	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Heptachlor	1.5	ug/L	U	1.5	5.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Heptachlor epoxide	1.5	ug/L	U	1.5	5.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Hexachlorobenzene	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Hexachlorobutadiene	2.9	ug/L	UJ	2.9	12
4/28/2003	GRAB EFFLUENT	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	12
4/28/2003	GRAB EFFLUENT	BNA-Water	Hexachloroethane	2.9	ug/L	UJ	2.9	12
4/28/2003	GRAB EFFLUENT	BNA-Water	Hexachloropropene	2	ug/L	UJ	2	7.8
4/28/2003	GRAB EFFLUENT	BNA-Water	Indeno(1,2,3-cd)pyrene	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Isophorone	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Isosafrole	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Methapyrilene	3.9	ug/L	U	3.9	16
4/28/2003	GRAB EFFLUENT	BNA-Water	Methyl methanesulfonate	0.98	ug/L	UJ	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	N-Nitrosodi-n-butylamine	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	N-Nitrosodi-n-propylamine	2	ug/L	U	2	7.8
4/28/2003	GRAB EFFLUENT	BNA-Water	N-Nitrosodiethylamine	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	N-Nitrosodimethylamine	2	ug/L	U	2	7.8
4/28/2003	GRAB EFFLUENT	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	12
4/28/2003	GRAB EFFLUENT	BNA-Water	N-Nitrosomethylethylamine	2	ug/L	U	2	7.8
4/28/2003	GRAB EFFLUENT	BNA-Water	N-Nitrosomorpholine	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	N-Nitrosopiperidine	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	N-Nitrosopyrrolidine	2	ug/L	U	2	7.8
4/28/2003	GRAB EFFLUENT	BNA-Water	Naphthalene	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Nitrobenzene	2	ug/L	U	2	7.8
4/28/2003	GRAB EFFLUENT	BNA-Water	Nitroquinoline-1-oxide	20	ug/L	U	20	78
4/28/2003	GRAB EFFLUENT	BNA-Water	Pentachlorobenzene	0.98	ug/L	UJ	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Pentachloroethane	49	ug/L	U	49	200
4/28/2003	GRAB EFFLUENT	BNA-Water	Pentachloronitrobenzene	0.98	ug/L	UJ	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	12
4/28/2003	GRAB EFFLUENT	BNA-Water	Phenacetin	3.9	ug/L	U	3.9	12
4/28/2003	GRAB EFFLUENT	BNA-Water	Phenanthrene	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Phenol	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Pyrene	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	Pyridine	3.9	ug/L	UJ	3.9	16

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
4/28/2003	GRAB EFFLUENT	BNA-Water	Safrole	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	BNA-Water	alpha-BHC	1.5	ug/L	U	1.5	5.9
4/28/2003	GRAB EFFLUENT	BNA-Water	beta-BHC	1.5	ug/L	U	1.5	5.9
4/28/2003	GRAB EFFLUENT	BNA-Water	delta-BHC	1.5	ug/L	U	1.5	5.9
4/28/2003	GRAB EFFLUENT	BNA-Water	gamma-BHC	1.5	ug/L	U	1.5	5.9
4/28/2003	GRAB EFFLUENT	BNA-Water	m,p-Cresols	2	ug/L	U	2	7.8
4/28/2003	GRAB EFFLUENT	BNA-Water	o-Cresol	2	ug/L	U	2	7.8
4/28/2003	GRAB EFFLUENT	BNA-Water	o-Toluidine	0.98	ug/L	U	0.98	3.9
4/28/2003	GRAB EFFLUENT	Bio-AGP/LimNut	Algal Growth Potential	157	mg DryWt/L	0.1	0.3	
4/28/2003	GRAB EFFLUENT	Bio-BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	3.2	mg/L	A		
4/28/2003	GRAB EFFLUENT	Bio-Chl-a	Chlorophyll-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
4/28/2003	GRAB EFFLUENT	Bio-Chl-a	Phaeophytin-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
4/28/2003	GRAB EFFLUENT	Bio-Microbiology	Fecal Coliforms-Membrane Filter	12000	#/100 mL	Q		
4/28/2003	GRAB EFFLUENT	Bio-Microbiology	Total Coliforms-Membrane Filter	20	#/100 mL	Q		
4/28/2003	GRAB EFFLUENT	Bio-Toxicology	Total Chlorine	0.03	mg/L	U		
4/28/2003	GRAB EFFLUENT	GC-Water	Alachlor	0.59	ug/L	U	0.59	2.36
4/28/2003	GRAB EFFLUENT	GC-Water	Ametryn	0.049	ug/L	U	0.049	0.196
4/28/2003	GRAB EFFLUENT	GC-Water	Atrazine	0.049	ug/L	U	0.049	0.196
4/28/2003	GRAB EFFLUENT	GC-Water	Azinphos Methyl	0.049	ug/L	U	0.049	0.196
4/28/2003	GRAB EFFLUENT	GC-Water	Bromacil	0.2	ug/L	U	0.2	0.8
4/28/2003	GRAB EFFLUENT	GC-Water	Butylate	0.2	ug/L	U	0.2	0.8
4/28/2003	GRAB EFFLUENT	GC-Water	Chlorpyrifos Ethyl	0.049	ug/L	U	0.049	0.196
4/28/2003	GRAB EFFLUENT	GC-Water	Chlorpyrifos Methyl	0.098	ug/L	U	0.098	0.392
4/28/2003	GRAB EFFLUENT	GC-Water	Diazinon	0.049	ug/L	U	0.049	0.196
4/28/2003	GRAB EFFLUENT	GC-Water	Ethion	0.049	ug/L	U	0.049	0.196
4/28/2003	GRAB EFFLUENT	GC-Water	Ethoprop	0.098	ug/L	U	0.098	0.392
4/28/2003	GRAB EFFLUENT	GC-Water	Fenamiphos	0.2	ug/L	U	0.2	0.8
4/28/2003	GRAB EFFLUENT	GC-Water	Fonofos	0.098	ug/L	U	0.098	0.392
4/28/2003	GRAB EFFLUENT	GC-Water	Hexazinone	0.098	ug/L	U	0.098	0.392
4/28/2003	GRAB EFFLUENT	GC-Water	Malathion	0.15	ug/L	UJ	0.15	0.6
4/28/2003	GRAB EFFLUENT	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
4/28/2003	GRAB EFFLUENT	GC-Water	Metolachlor	0.49	ug/L	U	0.49	1.96
4/28/2003	GRAB EFFLUENT	GC-Water	Metribuzin	0.098	ug/L	U	0.098	0.392
4/28/2003	GRAB EFFLUENT	GC-Water	Mevinphos	0.2	ug/L	U	0.2	0.8
4/28/2003	GRAB EFFLUENT	GC-Water	Naled	0.78	ug/L	U	0.78	3.12
4/28/2003	GRAB EFFLUENT	GC-Water	Norflurazon	0.098	ug/L	U	0.098	0.392
4/28/2003	GRAB EFFLUENT	GC-Water	Parathion Ethyl	0.15	ug/L	UJ	0.15	0.6
4/28/2003	GRAB EFFLUENT	GC-Water	Parathion Methyl	0.098	ug/L	U	0.098	0.392
4/28/2003	GRAB EFFLUENT	GC-Water	Phorate	0.049	ug/L	U	0.049	0.196
4/28/2003	GRAB EFFLUENT	GC-Water	Prometryn	0.15	ug/L	U	0.15	0.6
4/28/2003	GRAB EFFLUENT	GC-Water	Simazine	0.049	ug/L	U	0.049	0.196
4/28/2003	GRAB EFFLUENT	Metals-Water	Aluminum	146	ug/L		10	40
4/28/2003	GRAB EFFLUENT	Metals-Water	Arsenic	1	ug/L	U	1	4
4/28/2003	GRAB EFFLUENT	Metals-Water	Cadmium	0.037	ug/L	I	0.025	0.1
4/28/2003	GRAB EFFLUENT	Metals-Water	Calcium	35.5	mg/L		0.05	0.3
4/28/2003	GRAB EFFLUENT	Metals-Water	Chromium	2	ug/L	U	2	8
4/28/2003	GRAB EFFLUENT	Metals-Water	Copper	5	ug/L	I	0.8	3.2
4/28/2003	GRAB EFFLUENT	Metals-Water	Iron	147	ug/L		10	40
4/28/2003	GRAB EFFLUENT	Metals-Water	Lead	0.53	ug/L		0.1	0.4
4/28/2003	GRAB EFFLUENT	Metals-Water	Magnesium	9.9	mg/L		0.01	0.04
4/28/2003	GRAB EFFLUENT	Metals-Water	Nickel	2	ug/L	U	2	8
4/28/2003	GRAB EFFLUENT	Metals-Water	Selenium	1	ug/L	U	1	4
4/28/2003	GRAB EFFLUENT	Metals-Water	Silver	0.055	ug/L	I	0.02	0.08
4/28/2003	GRAB EFFLUENT	Metals-Water	Zinc	19	ug/L		3	12

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
4/28/2003	GRAB EFFLUENT	Nutrients-Liquid	Ammonia-N	2.1	mg N/L		0.2	0.4
4/28/2003	GRAB EFFLUENT	Nutrients-Liquid	NO2NO3-N	0.073	mg N/L		0.004	0.01
4/28/2003	GRAB EFFLUENT	Nutrients-Liquid	N_KJEL_TOT	3.5	mg N/L	A	0.06	0.2
4/28/2003	GRAB EFFLUENT	Nutrients-Liquid	O-Phosphate-P	1.1	mg P/L		0.04	0.1
4/28/2003	GRAB EFFLUENT	Nutrients-Liquid	TSS	7	mg/L	IQ	4	16
4/28/2003	GRAB EFFLUENT	Nutrients-Liquid	Total-P	1.3	mg P/L	A	0.09	0.24
4/28/2003	EQUIPMENT BLANK	BNA-Water	1,2,4,5-Tetrachlorobenzene	0.97	ug/L	UJ	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	1,2,4-Trichlorobenzene	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	1,2-Dichlorobenzene	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	1,3,5-Trinitrobenzene	3.9	ug/L	U	3.9	16
4/28/2003	EQUIPMENT BLANK	BNA-Water	1,3-Dichlorobenzene	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	1,3-Dinitrobenzene	1.9	ug/L	U	1.9	7.8
4/28/2003	EQUIPMENT BLANK	BNA-Water	1,4-Dichlorobenzene	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	1,4-Naphthoquinone	19	ug/L	UJ	19	78
4/28/2003	EQUIPMENT BLANK	BNA-Water	1-Naphthylamine	9.7	ug/L	UJ	9.7	39
4/28/2003	EQUIPMENT BLANK	BNA-Water	2,3,4,6-Tetrachlorophenol	1.9	ug/L	UJ	1.9	7.8
4/28/2003	EQUIPMENT BLANK	BNA-Water	2,4,5-Trichlorophenol	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	2,4,6-Trichlorophenol	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	2,4-Dichlorophenol	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	2,4-Dimethylphenol	49	ug/L	U	49	190
4/28/2003	EQUIPMENT BLANK	BNA-Water	2,4-Dinitrophenol	15	ug/L	U	15	58
4/28/2003	EQUIPMENT BLANK	BNA-Water	2,4-Dinitrotoluene	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	2,6-Dichlorophenol	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	2,6-Dinitrotoluene	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	2-Acetylaminofluorene	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	2-Chloronaphthalene	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	2-Chlorophenol	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	12
4/28/2003	EQUIPMENT BLANK	BNA-Water	2-Methylnaphthalene	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	2-Naphthylamine	9.7	ug/L	U	9.7	39
4/28/2003	EQUIPMENT BLANK	BNA-Water	2-Nitroaniline	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	2-Nitrophenol	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	2-Picoline	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	3,3'-Dichlorobenzidine	39	ug/L	U	39	160
4/28/2003	EQUIPMENT BLANK	BNA-Water	3,3'-Dimethylbenzidine	19	ug/L	UJ	19	78
4/28/2003	EQUIPMENT BLANK	BNA-Water	3-Methylcholanthrene	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	3-Nitroaniline	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	4,4'-DDD	1.5	ug/L	U	1.5	5.8
4/28/2003	EQUIPMENT BLANK	BNA-Water	4,4'-DDE	1.5	ug/L	U	1.5	5.8
4/28/2003	EQUIPMENT BLANK	BNA-Water	4,4'-DDT	1.5	ug/L	U	1.5	5.8
4/28/2003	EQUIPMENT BLANK	BNA-Water	4-Aminobiphenyl	3.9	ug/L	U	3.9	16
4/28/2003	EQUIPMENT BLANK	BNA-Water	4-Bromophenyl phenyl ether	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	4-Chloro-3-methylphenol	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	4-Chloroaniline	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.8
4/28/2003	EQUIPMENT BLANK	BNA-Water	4-Nitroaniline	0.97	ug/L	UJ	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	4-Nitrophenol	15	ug/L	U	15	58
4/28/2003	EQUIPMENT BLANK	BNA-Water	5-Nitro-o-toluidine	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	7,12-Dimethylbenz(a)anthracene	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Acenaphthene	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Acenaphthylene	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Acetophenone	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Aldrin	1.5	ug/L	U	1.5	5.8
4/28/2003	EQUIPMENT BLANK	BNA-Water	Aniline	0.97	ug/L	U	0.97	3.9

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
4/28/2003	EQUIPMENT BLANK	BNA-Water	Anthracene	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Azobenzene/1,2-Diphenylhydrazine	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Benzidine	97	ug/L	U	97	390
4/28/2003	EQUIPMENT BLANK	BNA-Water	Benzo(a)anthracene	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Benzo(a)pyrene	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Benzo(b)fluoranthene	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Benzo(g,h,i)perylene	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Benzo(k)fluoranthene	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Benzyl alcohol	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Bis(2-chloroethoxy)methane	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Bis(2-chloroethyl)ether	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	12
4/28/2003	EQUIPMENT BLANK	BNA-Water	Bis(2-ethylhexyl)phthalate	15	ug/L	U	15	58
4/28/2003	EQUIPMENT BLANK	BNA-Water	Butyl benzyl phthalate	4.9	ug/L	U	4.9	19
4/28/2003	EQUIPMENT BLANK	BNA-Water	Chrysene	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Di-n-butyl phthalate	4.9	ug/L	U	4.9	19
4/28/2003	EQUIPMENT BLANK	BNA-Water	Di-n-octyl phthalate	0.97	ug/L	UJ	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Dibenzo(a,h)anthracene	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Dibenzofuran	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Dieldrin	1.5	ug/L	U	1.5	5.8
4/28/2003	EQUIPMENT BLANK	BNA-Water	Diethyl phthalate	4.3	ug/L		0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Dimethyl phthalate	49	ug/L	U	49	190
4/28/2003	EQUIPMENT BLANK	BNA-Water	Dimethylaminoazobenzene	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Dinoseb	3.9	ug/L	U	3.9	16
4/28/2003	EQUIPMENT BLANK	BNA-Water	Diphenylamine	2.9	ug/L	U	2.9	12
4/28/2003	EQUIPMENT BLANK	BNA-Water	Endosulfan I	3.9	ug/L	U	3.9	16
4/28/2003	EQUIPMENT BLANK	BNA-Water	Endosulfan II	3.9	ug/L	U	3.9	16
4/28/2003	EQUIPMENT BLANK	BNA-Water	Endosulfan sulfate	1.5	ug/L	U	1.5	5.8
4/28/2003	EQUIPMENT BLANK	BNA-Water	Endrin	1.5	ug/L	U	1.5	5.8
4/28/2003	EQUIPMENT BLANK	BNA-Water	Endrin aldehyde	3.9	ug/L	U	3.9	16
4/28/2003	EQUIPMENT BLANK	BNA-Water	Ethyl methanesulfonate	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Fluoranthene	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Fluorene	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Heptachlor	1.5	ug/L	U	1.5	5.8
4/28/2003	EQUIPMENT BLANK	BNA-Water	Heptachlor epoxide	1.5	ug/L	U	1.5	5.8
4/28/2003	EQUIPMENT BLANK	BNA-Water	Hexachlorobenzene	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Hexachlorobutadiene	2.9	ug/L	UJ	2.9	12
4/28/2003	EQUIPMENT BLANK	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	12
4/28/2003	EQUIPMENT BLANK	BNA-Water	Hexachloroethane	2.9	ug/L	UJ	2.9	12
4/28/2003	EQUIPMENT BLANK	BNA-Water	Hexachloropropene	1.9	ug/L	UJ	1.9	7.8
4/28/2003	EQUIPMENT BLANK	BNA-Water	Indeno(1,2,3-cd)pyrene	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Isophorone	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Isosafrole	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Methapyrilene	3.9	ug/L	U	3.9	16
4/28/2003	EQUIPMENT BLANK	BNA-Water	Methyl methanesulfonate	0.97	ug/L	UJ	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	N-Nitrosodi-n-butylamine	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.8
4/28/2003	EQUIPMENT BLANK	BNA-Water	N-Nitrosodiethylamine	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.8
4/28/2003	EQUIPMENT BLANK	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	12
4/28/2003	EQUIPMENT BLANK	BNA-Water	N-Nitrosomethylethylamine	1.9	ug/L	U	1.9	7.8
4/28/2003	EQUIPMENT BLANK	BNA-Water	N-Nitrosomorpholine	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	N-Nitrosopiperidine	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	N-Nitrosopyrrolidine	1.9	ug/L	U	1.9	7.8

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
4/28/2003	EQUIPMENT BLANK	BNA-Water	Naphthalene	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.8
4/28/2003	EQUIPMENT BLANK	BNA-Water	Nitroquinoline-1-oxide	19	ug/L	U	19	78
4/28/2003	EQUIPMENT BLANK	BNA-Water	Pentachlorobenzene	0.97	ug/L	UJ	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Pentachloroethane	49	ug/L	U	49	190
4/28/2003	EQUIPMENT BLANK	BNA-Water	Pentachloronitrobenzene	0.97	ug/L	UJ	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	12
4/28/2003	EQUIPMENT BLANK	BNA-Water	Phenacetin	3.9	ug/L	U	3.9	12
4/28/2003	EQUIPMENT BLANK	BNA-Water	Phenanthrene	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Phenol	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Pyrene	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	Pyridine	3.9	ug/L	UJ	3.9	16
4/28/2003	EQUIPMENT BLANK	BNA-Water	Safrole	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	BNA-Water	alpha-BHC	1.5	ug/L	U	1.5	5.8
4/28/2003	EQUIPMENT BLANK	BNA-Water	beta-BHC	1.5	ug/L	U	1.5	5.8
4/28/2003	EQUIPMENT BLANK	BNA-Water	delta-BHC	1.5	ug/L	U	1.5	5.8
4/28/2003	EQUIPMENT BLANK	BNA-Water	gamma-BHC	1.5	ug/L	U	1.5	5.8
4/28/2003	EQUIPMENT BLANK	BNA-Water	m,p-Cresols	1.9	ug/L	U	1.9	7.8
4/28/2003	EQUIPMENT BLANK	BNA-Water	o-Cresol	1.9	ug/L	U	1.9	7.8
4/28/2003	EQUIPMENT BLANK	BNA-Water	o-Toluidine	0.97	ug/L	U	0.97	3.9
4/28/2003	EQUIPMENT BLANK	GC-Water	Alachlor	0.58	ug/L	U	0.58	2.32
4/28/2003	EQUIPMENT BLANK	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.192
4/28/2003	EQUIPMENT BLANK	GC-Water	Atrazine	0.048	ug/L	U	0.048	0.192
4/28/2003	EQUIPMENT BLANK	GC-Water	Azinphos Methyl	0.048	ug/L	U	0.048	0.192
4/28/2003	EQUIPMENT BLANK	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
4/28/2003	EQUIPMENT BLANK	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
4/28/2003	EQUIPMENT BLANK	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.192
4/28/2003	EQUIPMENT BLANK	GC-Water	Chlorpyrifos Methyl	0.096	ug/L	U	0.096	0.384
4/28/2003	EQUIPMENT BLANK	GC-Water	Diazinon	0.048	ug/L	U	0.048	0.192
4/28/2003	EQUIPMENT BLANK	GC-Water	Ethion	0.048	ug/L	U	0.048	0.192
4/28/2003	EQUIPMENT BLANK	GC-Water	Ethoprop	0.096	ug/L	U	0.096	0.384
4/28/2003	EQUIPMENT BLANK	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
4/28/2003	EQUIPMENT BLANK	GC-Water	Fonofos	0.096	ug/L	U	0.096	0.384
4/28/2003	EQUIPMENT BLANK	GC-Water	Hexazinone	0.096	ug/L	U	0.096	0.384
4/28/2003	EQUIPMENT BLANK	GC-Water	Malathion	0.14	ug/L	UJ	0.14	0.56
4/28/2003	EQUIPMENT BLANK	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
4/28/2003	EQUIPMENT BLANK	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.92
4/28/2003	EQUIPMENT BLANK	GC-Water	Metribuzin	0.096	ug/L	U	0.096	0.384
4/28/2003	EQUIPMENT BLANK	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
4/28/2003	EQUIPMENT BLANK	GC-Water	Naled	0.77	ug/L	U	0.77	3.08
4/28/2003	EQUIPMENT BLANK	GC-Water	Norflurazon	0.096	ug/L	U	0.096	0.384
4/28/2003	EQUIPMENT BLANK	GC-Water	Parathion Ethyl	0.14	ug/L	UJ	0.14	0.56
4/28/2003	EQUIPMENT BLANK	GC-Water	Parathion Methyl	0.096	ug/L	U	0.096	0.384
4/28/2003	EQUIPMENT BLANK	GC-Water	Phorate	0.048	ug/L	U	0.048	0.192
4/28/2003	EQUIPMENT BLANK	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
4/28/2003	EQUIPMENT BLANK	GC-Water	Simazine	0.048	ug/L	U	0.048	0.192
4/28/2003	EQUIPMENT BLANK	Metals-Water	Aluminum	10	ug/L	U	10	40
4/28/2003	EQUIPMENT BLANK	Metals-Water	Arsenic	1	ug/L	U	1	4
4/28/2003	EQUIPMENT BLANK	Metals-Water	Cadmium	0.025	ug/L	U	0.025	0.1
4/28/2003	EQUIPMENT BLANK	Metals-Water	Calcium	0.05	mg/L	U	0.05	0.3
4/28/2003	EQUIPMENT BLANK	Metals-Water	Chromium	2	ug/L	U	2	8
4/28/2003	EQUIPMENT BLANK	Metals-Water	Copper	1.9	ug/L	U	0.8	3.2
4/28/2003	EQUIPMENT BLANK	Metals-Water	Iron	10	ug/L	U	10	40
4/28/2003	EQUIPMENT BLANK	Metals-Water	Lead	0.1	ug/L	U	0.1	0.4

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
4/28/2003	EQUIPMENT BLANK	Metals-Water	Magnesium	0.01	mg/L	U	0.01	0.04
4/28/2003	EQUIPMENT BLANK	Metals-Water	Nickel	2	ug/L	U	2	8
4/28/2003	EQUIPMENT BLANK	Metals-Water	Selenium	1	ug/L	U	1	4
4/28/2003	EQUIPMENT BLANK	Metals-Water	Silver	0.02	ug/L	U	0.02	0.08
4/28/2003	EQUIPMENT BLANK	Metals-Water	Zinc	3	ug/L	U	3	12
4/28/2003	EQUIPMENT BLANK	Nutrients-Liquid	Ammonia-N	0.01	mg N/L	U	0.01	0.02
4/28/2003	EQUIPMENT BLANK	Nutrients-Liquid	NO2NO3-N	0.004	mg N/L	U	0.004	0.01
4/28/2003	EQUIPMENT BLANK	Nutrients-Liquid	N_KJEL_TOT	0.06	mg N/L	U	0.06	0.2
4/28/2003	EQUIPMENT BLANK	Nutrients-Liquid	O-Phosphate-P	0.004	mg P/L	U	0.004	0.01
4/28/2003	EQUIPMENT BLANK	Nutrients-Liquid	Total-P	0.015	mg P/L	U	0.015	0.04
4/29/2003	GRAB EFFLUENT	BNA-Water	1,2,4,5-Tetrachlorobenzene	0.97	ug/L	UJ	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	1,2,4-Trichlorobenzene	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	1,2-Dichlorobenzene	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	1,3,5-Trinitrobenzene	3.9	ug/L	U	3.9	16
4/29/2003	GRAB EFFLUENT	BNA-Water	1,3-Dichlorobenzene	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	1,3-Dinitrobenzene	1.9	ug/L	U	1.9	7.8
4/29/2003	GRAB EFFLUENT	BNA-Water	1,4-Dichlorobenzene	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	1,4-Naphthoquinone	19	ug/L	UJ	19	78
4/29/2003	GRAB EFFLUENT	BNA-Water	1-Naphthylamine	9.7	ug/L	U	9.7	39
4/29/2003	GRAB EFFLUENT	BNA-Water	2,3,4,6-Tetrachlorophenol	1.9	ug/L	UJ	1.9	7.8
4/29/2003	GRAB EFFLUENT	BNA-Water	2,4,5-Trichlorophenol	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	2,4,6-Trichlorophenol	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	2,4-Dichlorophenol	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	2,4-Dimethylphenol	49	ug/L	U	49	190
4/29/2003	GRAB EFFLUENT	BNA-Water	2,4-Dinitrophenol	15	ug/L	U	15	58
4/29/2003	GRAB EFFLUENT	BNA-Water	2,4-Dinitrotoluene	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	2,6-Dichlorophenol	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	2,6-Dinitrotoluene	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	2-Acetylaminofluorene	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	2-Chloronaphthalene	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	2-Chlorophenol	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	12
4/29/2003	GRAB EFFLUENT	BNA-Water	2-Methylnaphthalene	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	2-Naphthylamine	9.7	ug/L	U	9.7	39
4/29/2003	GRAB EFFLUENT	BNA-Water	2-Nitroaniline	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	2-Nitrophenol	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	2-Picoline	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	3,3'-Dichlorobenzidine	39	ug/L	U	39	160
4/29/2003	GRAB EFFLUENT	BNA-Water	3,3'-Dimethylbenzidine	19	ug/L	UJ	19	78
4/29/2003	GRAB EFFLUENT	BNA-Water	3-Methylcholanthrene	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	3-Nitroaniline	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	4,4'-DDD	1.5	ug/L	U	1.5	5.8
4/29/2003	GRAB EFFLUENT	BNA-Water	4,4'-DDE	1.5	ug/L	U	1.5	5.8
4/29/2003	GRAB EFFLUENT	BNA-Water	4,4'-DDT	1.5	ug/L	U	1.5	5.8
4/29/2003	GRAB EFFLUENT	BNA-Water	4-Aminobiphenyl	3.9	ug/L	U	3.9	16
4/29/2003	GRAB EFFLUENT	BNA-Water	4-Bromophenyl phenyl ether	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	4-Chloro-3-methylphenol	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	4-Chloroaniline	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.8
4/29/2003	GRAB EFFLUENT	BNA-Water	4-Nitroaniline	0.97	ug/L	UJ	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	4-Nitrophenol	15	ug/L	U	15	58
4/29/2003	GRAB EFFLUENT	BNA-Water	5-Nitro-o-toluidine	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	7,12-Dimethylbenz(a)anthracene	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Acenaphthene	0.97	ug/L	U	0.97	3.9

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
4/29/2003	GRAB EFFLUENT	BNA-Water	Acenaphthylene	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Acetophenone	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Aldrin	1.5	ug/L	U	1.5	5.8
4/29/2003	GRAB EFFLUENT	BNA-Water	Aniline	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Anthracene	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Azobenzene/1,2-Diphenylhydrazine	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Benzidine	97	ug/L	U	97	390
4/29/2003	GRAB EFFLUENT	BNA-Water	Benzo(a)anthracene	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Benzo(a)pyrene	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Benzo(b)fluoranthene	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Benzo(g,h,i)perylene	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Benzo(k)fluoranthene	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Benzyl alcohol	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Bis(2-chloroethoxy)methane	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Bis(2-chloroethyl)ether	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	12
4/29/2003	GRAB EFFLUENT	BNA-Water	Bis(2-ethylhexyl)phthalate	15	ug/L	U	15	58
4/29/2003	GRAB EFFLUENT	BNA-Water	Butyl benzyl phthalate	4.9	ug/L	U	4.9	19
4/29/2003	GRAB EFFLUENT	BNA-Water	Chrysene	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Di-n-butyl phthalate	4.9	ug/L	U	4.9	19
4/29/2003	GRAB EFFLUENT	BNA-Water	Di-n-octyl phthalate	0.97	ug/L	UJ	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Dibenzo(a,h)anthracene	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Dibenzofuran	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Dieldrin	1.5	ug/L	U	1.5	5.8
4/29/2003	GRAB EFFLUENT	BNA-Water	Diethyl phthalate	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Dimethyl phthalate	49	ug/L	U	49	190
4/29/2003	GRAB EFFLUENT	BNA-Water	Dimethylaminoazobenzene	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Dinoseb	3.9	ug/L	U	3.9	16
4/29/2003	GRAB EFFLUENT	BNA-Water	Diphenylamine	2.9	ug/L	U	2.9	12
4/29/2003	GRAB EFFLUENT	BNA-Water	Endosulfan I	3.9	ug/L	U	3.9	16
4/29/2003	GRAB EFFLUENT	BNA-Water	Endosulfan II	3.9	ug/L	U	3.9	16
4/29/2003	GRAB EFFLUENT	BNA-Water	Endosulfan sulfate	1.5	ug/L	U	1.5	5.8
4/29/2003	GRAB EFFLUENT	BNA-Water	Endrin	1.5	ug/L	U	1.5	5.8
4/29/2003	GRAB EFFLUENT	BNA-Water	Endrin aldehyde	3.9	ug/L	U	3.9	16
4/29/2003	GRAB EFFLUENT	BNA-Water	Ethyl methanesulfonate	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Fluoranthene	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Fluorene	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Heptachlor	1.5	ug/L	U	1.5	5.8
4/29/2003	GRAB EFFLUENT	BNA-Water	Heptachlor epoxide	1.5	ug/L	U	1.5	5.8
4/29/2003	GRAB EFFLUENT	BNA-Water	Hexachlorobenzene	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Hexachlorobutadiene	2.9	ug/L	UJ	2.9	12
4/29/2003	GRAB EFFLUENT	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	12
4/29/2003	GRAB EFFLUENT	BNA-Water	Hexachloroethane	2.9	ug/L	UJ	2.9	12
4/29/2003	GRAB EFFLUENT	BNA-Water	Hexachloropropene	1.9	ug/L	UJ	1.9	7.8
4/29/2003	GRAB EFFLUENT	BNA-Water	Indeno(1,2,3-cd)pyrene	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Isophorone	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Isosafrole	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Methapyrilene	3.9	ug/L	U	3.9	16
4/29/2003	GRAB EFFLUENT	BNA-Water	Methyl methanesulfonate	0.97	ug/L	UJ	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	N-Nitrosodi-n-butylamine	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.8
4/29/2003	GRAB EFFLUENT	BNA-Water	N-Nitrosodiethylamine	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.8
4/29/2003	GRAB EFFLUENT	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	12

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
4/29/2003	GRAB EFFLUENT	BNA-Water	N-Nitrosomethylethylamine	1.9	ug/L	U	1.9	7.8
4/29/2003	GRAB EFFLUENT	BNA-Water	N-Nitrosomorpholine	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	N-Nitrosopiperidine	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	N-Nitrosopyrrolidine	1.9	ug/L	U	1.9	7.8
4/29/2003	GRAB EFFLUENT	BNA-Water	Naphthalene	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.8
4/29/2003	GRAB EFFLUENT	BNA-Water	Nitroquinoline-1-oxide	19	ug/L	U	19	78
4/29/2003	GRAB EFFLUENT	BNA-Water	Pentachlorobenzene	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Pentachloroethane	49	ug/L	U	49	190
4/29/2003	GRAB EFFLUENT	BNA-Water	Pentachloronitrobenzene	0.97	ug/L	UJ	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	12
4/29/2003	GRAB EFFLUENT	BNA-Water	Phenacetin	3.9	ug/L	U	3.9	12
4/29/2003	GRAB EFFLUENT	BNA-Water	Phenanthrene	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Phenol	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Pyrene	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	Pyridine	3.9	ug/L	U	3.9	16
4/29/2003	GRAB EFFLUENT	BNA-Water	Safrole	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	BNA-Water	alpha-BHC	1.5	ug/L	U	1.5	5.8
4/29/2003	GRAB EFFLUENT	BNA-Water	beta-BHC	1.5	ug/L	U	1.5	5.8
4/29/2003	GRAB EFFLUENT	BNA-Water	delta-BHC	1.5	ug/L	U	1.5	5.8
4/29/2003	GRAB EFFLUENT	BNA-Water	gamma-BHC	1.5	ug/L	U	1.5	5.8
4/29/2003	GRAB EFFLUENT	BNA-Water	m,p-Cresols	1.9	ug/L	U	1.9	7.8
4/29/2003	GRAB EFFLUENT	BNA-Water	o-Cresol	1.9	ug/L	U	1.9	7.8
4/29/2003	GRAB EFFLUENT	BNA-Water	o-Toluidine	0.97	ug/L	U	0.97	3.9
4/29/2003	GRAB EFFLUENT	GC-Water	Alachlor	0.59	ug/L	U	0.59	2.36
4/29/2003	GRAB EFFLUENT	GC-Water	Ametryn	0.049	ug/L	U	0.049	0.196
4/29/2003	GRAB EFFLUENT	GC-Water	Atrazine	0.049	ug/L	U	0.049	0.196
4/29/2003	GRAB EFFLUENT	GC-Water	Azinphos Methyl	0.049	ug/L	U	0.049	0.196
4/29/2003	GRAB EFFLUENT	GC-Water	Bromacil	0.2	ug/L	U	0.2	0.8
4/29/2003	GRAB EFFLUENT	GC-Water	Butylate	0.2	ug/L	U	0.2	0.8
4/29/2003	GRAB EFFLUENT	GC-Water	Chlorpyrifos Ethyl	0.049	ug/L	U	0.049	0.196
4/29/2003	GRAB EFFLUENT	GC-Water	Chlorpyrifos Methyl	0.098	ug/L	U	0.098	0.392
4/29/2003	GRAB EFFLUENT	GC-Water	Diazinon	0.049	ug/L	U	0.049	0.196
4/29/2003	GRAB EFFLUENT	GC-Water	Ethion	0.049	ug/L	U	0.049	0.196
4/29/2003	GRAB EFFLUENT	GC-Water	Ethoprop	0.098	ug/L	U	0.098	0.392
4/29/2003	GRAB EFFLUENT	GC-Water	Fenamiphos	0.2	ug/L	U	0.2	0.8
4/29/2003	GRAB EFFLUENT	GC-Water	Fonofos	0.098	ug/L	U	0.098	0.392
4/29/2003	GRAB EFFLUENT	GC-Water	Hexazinone	0.098	ug/L	U	0.098	0.392
4/29/2003	GRAB EFFLUENT	GC-Water	Malathion	0.15	ug/L	UJ	0.15	0.6
4/29/2003	GRAB EFFLUENT	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
4/29/2003	GRAB EFFLUENT	GC-Water	Metolachlor	0.49	ug/L	U	0.49	1.96
4/29/2003	GRAB EFFLUENT	GC-Water	Metribuzin	0.098	ug/L	U	0.098	0.392
4/29/2003	GRAB EFFLUENT	GC-Water	Mevinphos	0.2	ug/L	U	0.2	0.8
4/29/2003	GRAB EFFLUENT	GC-Water	Naled	0.78	ug/L	U	0.78	3.12
4/29/2003	GRAB EFFLUENT	GC-Water	Norflurazon	0.098	ug/L	U	0.098	0.392
4/29/2003	GRAB EFFLUENT	GC-Water	Parathion Ethyl	0.15	ug/L	UJ	0.15	0.6
4/29/2003	GRAB EFFLUENT	GC-Water	Parathion Methyl	0.098	ug/L	U	0.098	0.392
4/29/2003	GRAB EFFLUENT	GC-Water	Phorate	0.049	ug/L	U	0.049	0.196
4/29/2003	GRAB EFFLUENT	GC-Water	Prometryn	0.15	ug/L	U	0.15	0.6
4/29/2003	GRAB EFFLUENT	GC-Water	Simazine	0.049	ug/L	U	0.049	0.196
4/29/2003	GRAB EFFLUENT	Metals-Water	Aluminum	75	ug/L		10	40
4/29/2003	GRAB EFFLUENT	Metals-Water	Arsenic	7	ug/L	U	7	28
4/29/2003	GRAB EFFLUENT	Metals-Water	Cadmium	0.025	ug/L	I	0.025	0.1
4/29/2003	GRAB EFFLUENT	Metals-Water	Calcium	36.2	mg/L		0.05	0.3

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
4/29/2003	GRAB EFFLUENT	Metals-Water	Chromium	2	ug/L	U	2	8
4/29/2003	GRAB EFFLUENT	Metals-Water	Copper	5.1	ug/L	I	0.8	3.2
4/29/2003	GRAB EFFLUENT	Metals-Water	Iron	85	ug/L		10	40
4/29/2003	GRAB EFFLUENT	Metals-Water	Lead	0.39	ug/L	I	0.1	0.4
4/29/2003	GRAB EFFLUENT	Metals-Water	Magnesium	9.7	mg/L		0.01	0.04
4/29/2003	GRAB EFFLUENT	Metals-Water	Nickel	2	ug/L	U	2	8
4/29/2003	GRAB EFFLUENT	Metals-Water	Selenium	1	ug/L	U	1	4
4/29/2003	GRAB EFFLUENT	Metals-Water	Silver	0.025	ug/L	I	0.02	0.08
4/29/2003	GRAB EFFLUENT	Metals-Water	Zinc	18	ug/L	I	3	12
4/29/2003	GRAB EFFLUENT	Nutrients-Liquid	Ammonia-N	2.1	mg N/L		0.1	0.2
4/25/2003	BLANK	BNA-Water	1,2,4,5-Tetrachlorobenzene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	1,2,4-Trichlorobenzene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	1,2-Dichlorobenzene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	1,3,5-Trinitrobenzene	3.9	ug/L	U	3.9	16
4/25/2003	BLANK	BNA-Water	1,3-Dichlorobenzene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	1,3-Dinitrobenzene	1.9	ug/L	U	1.9	7.8
4/25/2003	BLANK	BNA-Water	1,4-Dichlorobenzene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	1,4-Naphthoquinone	19	ug/L	UJ	19	78
4/25/2003	BLANK	BNA-Water	1-Naphthylamine	9.7	ug/L	U	9.7	39
4/25/2003	BLANK	BNA-Water	2,3,4,6-Tetrachlorophenol	1.9	ug/L	U	1.9	7.8
4/25/2003	BLANK	BNA-Water	2,4,5-Trichlorophenol	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	2,4,6-Trichlorophenol	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	2,4-Dichlorophenol	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	2,4-Dimethylphenol	49	ug/L	U	49	190
4/25/2003	BLANK	BNA-Water	2,4-Dinitrophenol	15	ug/L	U	15	58
4/25/2003	BLANK	BNA-Water	2,4-Dinitrotoluene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	2,6-Dichlorophenol	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	2,6-Dinitrotoluene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	2-Acetylaminofluorene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	2-Chloronaphthalene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	2-Chlorophenol	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	12
4/25/2003	BLANK	BNA-Water	2-Methylnaphthalene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	2-Naphthylamine	9.7	ug/L	U	9.7	39
4/25/2003	BLANK	BNA-Water	2-Nitroaniline	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	2-Nitrophenol	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	2-Picoline	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	3,3'-Dichlorobenzidine	39	ug/L	U	39	160
4/25/2003	BLANK	BNA-Water	3,3'-Dimethylbenzidine	19	ug/L	UJ	19	78
4/25/2003	BLANK	BNA-Water	3-Methylcholanthrene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	3-Nitroaniline	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	4,4'-DDD	1.5	ug/L	U	1.5	5.8
4/25/2003	BLANK	BNA-Water	4,4'-DDE	1.5	ug/L	U	1.5	5.8
4/25/2003	BLANK	BNA-Water	4,4'-DDT	1.5	ug/L	U	1.5	5.8
4/25/2003	BLANK	BNA-Water	4-Aminobiphenyl	3.9	ug/L	U	3.9	16
4/25/2003	BLANK	BNA-Water	4-Bromophenyl phenyl ether	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	4-Chloro-3-methylphenol	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	4-Chloroaniline	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.8
4/25/2003	BLANK	BNA-Water	4-Nitroaniline	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	4-Nitrophenol	15	ug/L	U	15	58
4/25/2003	BLANK	BNA-Water	5-Nitro-o-toluidine	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	7,12-Dimethylbenz(a)anthracene	0.97	ug/L	U	0.97	3.9

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
4/25/2003	BLANK	BNA-Water	Acenaphthene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Acenaphthylene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Acetophenone	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Aldrin	1.5	ug/L	U	1.5	5.8
4/25/2003	BLANK	BNA-Water	Aniline	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Anthracene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Azobenzene/1,2-Diphenylhydrazine	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Benzidine	97	ug/L	UJ	97	390
4/25/2003	BLANK	BNA-Water	Benzo(a)anthracene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Benzo(a)pyrene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Benzo(b)fluoranthene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Benzo(g,h,i)perylene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Benzo(k)fluoranthene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Benzyl alcohol	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Bis(2-chloroethoxy)methane	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Bis(2-chloroethyl)ether	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	12
4/25/2003	BLANK	BNA-Water	Bis(2-ethylhexyl)phthalate	15	ug/L	U	15	58
4/25/2003	BLANK	BNA-Water	Butyl benzyl phthalate	4.9	ug/L	U	4.9	19
4/25/2003	BLANK	BNA-Water	Chrysene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Di-n-butyl phthalate	4.9	ug/L	U	4.9	19
4/25/2003	BLANK	BNA-Water	Di-n-octyl phthalate	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Dibenzo(a,h)anthracene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Dibenzofuran	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Dieldrin	1.5	ug/L	U	1.5	5.8
4/25/2003	BLANK	BNA-Water	Diethyl phthalate	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Dimethyl phthalate	49	ug/L	U	49	190
4/25/2003	BLANK	BNA-Water	Dimethylaminoazobenzene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Dinoseb	3.9	ug/L	UJ	3.9	16
4/25/2003	BLANK	BNA-Water	Diphenylamine	2.9	ug/L	U	2.9	12
4/25/2003	BLANK	BNA-Water	Endosulfan I	3.9	ug/L	U	3.9	16
4/25/2003	BLANK	BNA-Water	Endosulfan II	3.9	ug/L	U	3.9	16
4/25/2003	BLANK	BNA-Water	Endosulfan sulfate	1.5	ug/L	U	1.5	5.8
4/25/2003	BLANK	BNA-Water	Endrin	1.5	ug/L	UJ	1.5	5.8
4/25/2003	BLANK	BNA-Water	Endrin aldehyde	3.9	ug/L	U	3.9	16
4/25/2003	BLANK	BNA-Water	Ethyl methanesulfonate	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Fluoranthene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Fluorene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Heptachlor	1.5	ug/L	U	1.5	5.8
4/25/2003	BLANK	BNA-Water	Heptachlor epoxide	1.5	ug/L	U	1.5	5.8
4/25/2003	BLANK	BNA-Water	Hexachlorobenzene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	12
4/25/2003	BLANK	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	U	2.9	12
4/25/2003	BLANK	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	12
4/25/2003	BLANK	BNA-Water	Hexachloropropene	1.9	ug/L	UJ	1.9	7.8
4/25/2003	BLANK	BNA-Water	Indeno(1,2,3-cd)pyrene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Isophorone	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Isosafrole	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Methapyrilene	3.9	ug/L	U	3.9	16
4/25/2003	BLANK	BNA-Water	Methyl methanesulfonate	0.97	ug/L	UJ	0.97	3.9
4/25/2003	BLANK	BNA-Water	N-Nitrosodi-n-butylamine	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.8
4/25/2003	BLANK	BNA-Water	N-Nitrosodiethylamine	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.8

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
4/25/2003	BLANK	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	12
4/25/2003	BLANK	BNA-Water	N-Nitrosomethylethylamine	1.9	ug/L	U	1.9	7.8
4/25/2003	BLANK	BNA-Water	N-Nitrosomorpholine	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	N-Nitrosopiperidine	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	N-Nitrosopyrrolidine	1.9	ug/L	U	1.9	7.8
4/25/2003	BLANK	BNA-Water	Naphthalene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.8
4/25/2003	BLANK	BNA-Water	Nitroquinoline-1-oxide	19	ug/L	UJ	19	78
4/25/2003	BLANK	BNA-Water	Pentachlorobenzene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Pentachloroethane	49	ug/L	U	49	190
4/25/2003	BLANK	BNA-Water	Pentachloronitrobenzene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	12
4/25/2003	BLANK	BNA-Water	Phenacetin	3.9	ug/L	U	3.9	12
4/25/2003	BLANK	BNA-Water	Phenanthrene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Phenol	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Pyrene	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	Pyridine	3.9	ug/L	UJ	3.9	16
4/25/2003	BLANK	BNA-Water	Safrole	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	BNA-Water	alpha-BHC	1.5	ug/L	U	1.5	5.8
4/25/2003	BLANK	BNA-Water	beta-BHC	1.5	ug/L	U	1.5	5.8
4/25/2003	BLANK	BNA-Water	delta-BHC	1.5	ug/L	U	1.5	5.8
4/25/2003	BLANK	BNA-Water	gamma-BHC	1.5	ug/L	U	1.5	5.8
4/25/2003	BLANK	BNA-Water	m,p-Cresols	1.9	ug/L	U	1.9	7.8
4/25/2003	BLANK	BNA-Water	o-Cresol	1.9	ug/L	U	1.9	7.8
4/25/2003	BLANK	BNA-Water	o-Toluidine	0.97	ug/L	U	0.97	3.9
4/25/2003	BLANK	GC-Water	Alachlor	0.58	ug/L	U	0.58	2.32
4/25/2003	BLANK	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.192
4/25/2003	BLANK	GC-Water	Atrazine	0.048	ug/L	U	0.048	0.192
4/25/2003	BLANK	GC-Water	Azinphos Methyl	0.048	ug/L	U	0.048	0.192
4/25/2003	BLANK	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
4/25/2003	BLANK	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
4/25/2003	BLANK	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.192
4/25/2003	BLANK	GC-Water	Chlorpyrifos Methyl	0.097	ug/L	U	0.097	0.388
4/25/2003	BLANK	GC-Water	Diazinon	0.048	ug/L	U	0.048	0.192
4/25/2003	BLANK	GC-Water	Ethion	0.048	ug/L	U	0.048	0.192
4/25/2003	BLANK	GC-Water	Ethoprop	0.097	ug/L	U	0.097	0.388
4/25/2003	BLANK	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
4/25/2003	BLANK	GC-Water	Fonofos	0.097	ug/L	U	0.097	0.388
4/25/2003	BLANK	GC-Water	Hexazinone	0.097	ug/L	U	0.097	0.388
4/25/2003	BLANK	GC-Water	Malathion	0.14	ug/L	UJ	0.14	0.56
4/25/2003	BLANK	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
4/25/2003	BLANK	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.92
4/25/2003	BLANK	GC-Water	Metribuzin	0.097	ug/L	U	0.097	0.388
4/25/2003	BLANK	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
4/25/2003	BLANK	GC-Water	Naled	0.78	ug/L	U	0.78	3.12
4/25/2003	BLANK	GC-Water	Norflurazon	0.097	ug/L	U	0.097	0.388
4/25/2003	BLANK	GC-Water	Parathion Ethyl	0.14	ug/L	UJ	0.14	0.56
4/25/2003	BLANK	GC-Water	Parathion Methyl	0.097	ug/L	U	0.097	0.388
4/25/2003	BLANK	GC-Water	Phorate	0.048	ug/L	U	0.048	0.192
4/25/2003	BLANK	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
4/25/2003	BLANK	GC-Water	Simazine	0.048	ug/L	U	0.048	0.192
4/25/2003	BLANK	Metals-Water	Aluminum	10	ug/L	U	10	40
4/25/2003	BLANK	Metals-Water	Arsenic	1	ug/L	U	1	4
4/25/2003	BLANK	Metals-Water	Cadmium	0.025	ug/L	U	0.025	0.1

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
4/25/2003	BLANK	Metals-Water	Calcium	0.05	mg/L	U	0.05	0.3
4/25/2003	BLANK	Metals-Water	Chromium	2	ug/L	U	2	8
4/25/2003	BLANK	Metals-Water	Copper	1.9	ug/L	U	0.8	3.2
4/25/2003	BLANK	Metals-Water	Iron	10	ug/L	U	10	40
4/25/2003	BLANK	Metals-Water	Lead	0.1	ug/L	U	0.1	0.4
4/25/2003	BLANK	Metals-Water	Magnesium	0.01	mg/L	U	0.01	0.04
4/25/2003	BLANK	Metals-Water	Nickel	2	ug/L	U	2	8
4/25/2003	BLANK	Metals-Water	Selenium	1	ug/L	U	1	4
4/25/2003	BLANK	Metals-Water	Silver	0.02	ug/L	U	0.02	0.08
4/25/2003	BLANK	Metals-Water	Zinc	3	ug/L	U	3	12
4/25/2003	BLANK	Nutrients-Liquid	Ammonia-N	0.01	mg N/L	U	0.01	0.02
4/25/2003	BLANK	Nutrients-Liquid	Cyanide	0.005	mg CN/L	U	0.005	0.02
4/25/2003	BLANK	Nutrients-Liquid	NO2NO3-N	0.004	mg N/L	U	0.004	0.01
4/25/2003	BLANK	Nutrients-Liquid	N_KJEL_TOT	0.06	mg N/L	U	0.06	0.2
4/25/2003	BLANK	Nutrients-Liquid	O-Phosphate-P	0.004	mg P/L	UQ	0.004	0.01
4/25/2003	BLANK	Nutrients-Liquid	Total-P	0.015	mg P/L	U	0.015	0.04
4/25/2003	BLANK	Overflow	Oil and Grease	1.3	mg/l	IV		
4/25/2003	TRIP BLANK	VOC-Water	1,1,1-Trichloroethane	0.2	ug/L	U	0.2	1
4/25/2003	TRIP BLANK	VOC-Water	1,1,2,2-Tetrachloroethane	0.2	ug/L	U	0.2	1
4/25/2003	TRIP BLANK	VOC-Water	1,1,2-Trichloroethane	0.2	ug/L	U	0.2	1
4/25/2003	TRIP BLANK	VOC-Water	1,1-Dichloroethane	0.2	ug/L	U	0.2	1
4/25/2003	TRIP BLANK	VOC-Water	1,1-Dichloroethene	0.2	ug/L	U	0.2	1
4/25/2003	TRIP BLANK	VOC-Water	1,2-Dichlorobenzene	0.2	ug/L	U	0.2	1
4/25/2003	TRIP BLANK	VOC-Water	1,2-Dichloroethane	0.2	ug/L	U	0.2	1
4/25/2003	TRIP BLANK	VOC-Water	1,2-Dichloropropane	0.2	ug/L	U	0.2	1
4/25/2003	TRIP BLANK	VOC-Water	1,3-Dichlorobenzene	0.2	ug/L	U	0.2	1
4/25/2003	TRIP BLANK	VOC-Water	1,4-Dichlorobenzene	0.2	ug/L	U	0.2	1
4/25/2003	TRIP BLANK	VOC-Water	2-Chloroethylvinyl ether	0.5	ug/L	U	0.5	2
4/25/2003	TRIP BLANK	VOC-Water	Benzene	0.5	ug/L	U	0.5	2
4/25/2003	TRIP BLANK	VOC-Water	Bromodichloromethane	0.2	ug/L	U	0.2	1
4/25/2003	TRIP BLANK	VOC-Water	Bromoform	0.2	ug/L	U	0.2	1
4/25/2003	TRIP BLANK	VOC-Water	Bromomethane	0.5	ug/L	U	0.5	2
4/25/2003	TRIP BLANK	VOC-Water	Carbon tetrachloride	0.2	ug/L	U	0.2	1
4/25/2003	TRIP BLANK	VOC-Water	Chlorobenzene	0.2	ug/L	U	0.2	1
4/25/2003	TRIP BLANK	VOC-Water	Chloroethane	0.5	ug/L	U	0.5	2
4/25/2003	TRIP BLANK	VOC-Water	Chloroform	0.2	ug/L	U	0.2	1
4/25/2003	TRIP BLANK	VOC-Water	Chloromethane	0.5	ug/L	U	0.5	2
4/25/2003	TRIP BLANK	VOC-Water	Dibromochloromethane	0.2	ug/L	U	0.2	1
4/25/2003	TRIP BLANK	VOC-Water	Ethylbenzene	0.5	ug/L	U	0.5	2
4/25/2003	TRIP BLANK	VOC-Water	Methylene chloride	0.5	ug/L	U	0.5	2
4/25/2003	TRIP BLANK	VOC-Water	Tetrachloroethene	0.2	ug/L	U	0.2	1
4/25/2003	TRIP BLANK	VOC-Water	Toluene	0.5	ug/L	U	0.5	2
4/25/2003	TRIP BLANK	VOC-Water	Trichloroethene	0.2	ug/L	U	0.2	1
4/25/2003	TRIP BLANK	VOC-Water	Trichlorofluoromethane	0.2	ug/L	U	0.2	1
4/25/2003	TRIP BLANK	VOC-Water	Vinyl chloride	0.5	ug/L	U	0.5	2
4/25/2003	TRIP BLANK	VOC-Water	cis-1,3-Dichloropropene	0.2	ug/L	U	0.2	1
4/25/2003	TRIP BLANK	VOC-Water	m,p-Xylene	0.5	ug/L	U	0.5	2
4/25/2003	TRIP BLANK	VOC-Water	o-Xylene	0.5	ug/L	U	0.5	2
4/25/2003	TRIP BLANK	VOC-Water	trans-1,2-Dichloroethene	0.2	ug/L	U	0.2	1
4/25/2003	TRIP BLANK	VOC-Water	trans-1,3-Dichloropropene	0.2	ug/L	U	0.2	1
4/25/2003	#3	BNA-Water	1,2,4,5-Tetrachlorobenzene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	1,2,4-Trichlorobenzene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	1,2-Dichlorobenzene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	1,3,5-Trinitrobenzene	3.9	ug/L	U	3.9	16

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
4/25/2003	#3	BNA-Water	1,3-Dichlorobenzene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	1,3-Dinitrobenzene	2	ug/L	U	2	7.8
4/25/2003	#3	BNA-Water	1,4-Dichlorobenzene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	1,4-Naphthoquinone	20	ug/L	UJ	20	78
4/25/2003	#3	BNA-Water	1-Naphthylamine	9.8	ug/L	U	9.8	39
4/25/2003	#3	BNA-Water	2,3,4,6-Tetrachlorophenol	2	ug/L	U	2	7.8
4/25/2003	#3	BNA-Water	2,4,5-Trichlorophenol	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	2,4,6-Trichlorophenol	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	2,4-Dichlorophenol	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	2,4-Dimethylphenol	49	ug/L	U	49	200
4/25/2003	#3	BNA-Water	2,4-Dinitrophenol	15	ug/L	U	15	59
4/25/2003	#3	BNA-Water	2,4-Dinitrotoluene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	2,6-Dichlorophenol	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	2,6-Dinitrotoluene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	2-Acetylaminofluorene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	2-Chloronaphthalene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	2-Chlorophenol	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	12
4/25/2003	#3	BNA-Water	2-Methylnaphthalene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	2-Naphthylamine	9.8	ug/L	U	9.8	39
4/25/2003	#3	BNA-Water	2-Nitroaniline	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	2-Nitrophenol	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	2-Picoline	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	3,3'-Dichlorobenzidine	39	ug/L	U	39	160
4/25/2003	#3	BNA-Water	3,3'-Dimethylbenzidine	20	ug/L	UJ	20	78
4/25/2003	#3	BNA-Water	3-Methylcholanthrene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	3-Nitroaniline	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	4,4'-DDD	1.5	ug/L	U	1.5	5.9
4/25/2003	#3	BNA-Water	4,4'-DDE	1.5	ug/L	U	1.5	5.9
4/25/2003	#3	BNA-Water	4,4'-DDT	1.5	ug/L	U	1.5	5.9
4/25/2003	#3	BNA-Water	4-Aminobiphenyl	3.9	ug/L	U	3.9	16
4/25/2003	#3	BNA-Water	4-Bromophenyl phenyl ether	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	4-Chloro-3-methylphenol	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	4-Chloroaniline	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	4-Chlorophenyl phenyl ether	2	ug/L	U	2	7.8
4/25/2003	#3	BNA-Water	4-Nitroaniline	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	4-Nitrophenol	15	ug/L	U	15	59
4/25/2003	#3	BNA-Water	5-Nitro-o-toluidine	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	7,12-Dimethylbenz(a)anthracene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Acenaphthene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Acenaphthylene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Acetophenone	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Aldrin	1.5	ug/L	U	1.5	5.9
4/25/2003	#3	BNA-Water	Aniline	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Anthracene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Azobenzene/1,2-Diphenylhydrazine	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Benzidine	98	ug/L	UJ	98	390
4/25/2003	#3	BNA-Water	Benzo(a)anthracene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Benzo(a)pyrene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Benzo(b)fluoranthene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Benzo(g,h,i)perylene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Benzo(k)fluoranthene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Benzyl alcohol	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Bis(2-chloroethoxy)methane	0.98	ug/L	U	0.98	3.9

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
4/25/2003	#3	BNA-Water	Bis(2-chloroethyl)ether	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	12
4/25/2003	#3	BNA-Water	Bis(2-ethylhexyl)phthalate	15	ug/L	U	15	59
4/25/2003	#3	BNA-Water	Butyl benzyl phthalate	4.9	ug/L	U	4.9	20
4/25/2003	#3	BNA-Water	Chrysene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Di-n-butyl phthalate	4.9	ug/L	U	4.9	20
4/25/2003	#3	BNA-Water	Di-n-octyl phthalate	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Dibenzo(a,h)anthracene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Dibenzofuran	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Dieldrin	1.5	ug/L	U	1.5	5.9
4/25/2003	#3	BNA-Water	Diethyl phthalate	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Dimethyl phthalate	49	ug/L	U	49	200
4/25/2003	#3	BNA-Water	Dimethylaminoazobenzene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Dinoseb	3.9	ug/L	UJ	3.9	16
4/25/2003	#3	BNA-Water	Diphenylamine	2.9	ug/L	U	2.9	12
4/25/2003	#3	BNA-Water	Endosulfan I	3.9	ug/L	U	3.9	16
4/25/2003	#3	BNA-Water	Endosulfan II	3.9	ug/L	U	3.9	16
4/25/2003	#3	BNA-Water	Endosulfan sulfate	1.5	ug/L	U	1.5	5.9
4/25/2003	#3	BNA-Water	Endrin	1.5	ug/L	UJ	1.5	5.9
4/25/2003	#3	BNA-Water	Endrin aldehyde	3.9	ug/L	U	3.9	16
4/25/2003	#3	BNA-Water	Ethyl methanesulfonate	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Fluoranthene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Fluorene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Heptachlor	1.5	ug/L	U	1.5	5.9
4/25/2003	#3	BNA-Water	Heptachlor epoxide	1.5	ug/L	U	1.5	5.9
4/25/2003	#3	BNA-Water	Hexachlorobenzene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	12
4/25/2003	#3	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	U	2.9	12
4/25/2003	#3	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	12
4/25/2003	#3	BNA-Water	Hexachloropropene	2	ug/L	UJ	2	7.8
4/25/2003	#3	BNA-Water	Indeno(1,2,3-cd)pyrene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Isophorone	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Isosafrole	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Methapyrilene	3.9	ug/L	U	3.9	16
4/25/2003	#3	BNA-Water	Methyl methanesulfonate	0.98	ug/L	UJ	0.98	3.9
4/25/2003	#3	BNA-Water	N-Nitrosodi-n-butylamine	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	N-Nitrosodi-n-propylamine	2	ug/L	U	2	7.8
4/25/2003	#3	BNA-Water	N-Nitrosodiethylamine	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	N-Nitrosodimethylamine	2	ug/L	U	2	7.8
4/25/2003	#3	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	12
4/25/2003	#3	BNA-Water	N-Nitrosomethylethylamine	2	ug/L	U	2	7.8
4/25/2003	#3	BNA-Water	N-Nitrosomorpholine	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	N-Nitrosopiperidine	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	N-Nitrosopyrrolidine	2	ug/L	U	2	7.8
4/25/2003	#3	BNA-Water	Naphthalene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Nitrobenzene	2	ug/L	U	2	7.8
4/25/2003	#3	BNA-Water	Nitroquinoline-1-oxide	20	ug/L	UJ	20	78
4/25/2003	#3	BNA-Water	Pentachlorobenzene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Pentachloroethane	49	ug/L	U	49	200
4/25/2003	#3	BNA-Water	Pentachloronitrobenzene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	12
4/25/2003	#3	BNA-Water	Phenacetin	3.9	ug/L	U	3.9	12
4/25/2003	#3	BNA-Water	Phenanthrene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Phenol	0.98	ug/L	U	0.98	3.9

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
4/25/2003	#3	BNA-Water	Pyrene	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	Pyridine	3.9	ug/L	UJ	3.9	16
4/25/2003	#3	BNA-Water	Safrole	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	BNA-Water	alpha-BHC	1.5	ug/L	U	1.5	5.9
4/25/2003	#3	BNA-Water	beta-BHC	1.5	ug/L	U	1.5	5.9
4/25/2003	#3	BNA-Water	delta-BHC	1.5	ug/L	U	1.5	5.9
4/25/2003	#3	BNA-Water	gamma-BHC	1.5	ug/L	U	1.5	5.9
4/25/2003	#3	BNA-Water	m,p-Cresols	2	ug/L	U	2	7.8
4/25/2003	#3	BNA-Water	o-Cresol	2	ug/L	U	2	7.8
4/25/2003	#3	BNA-Water	o-Toluidine	0.98	ug/L	U	0.98	3.9
4/25/2003	#3	Bio-AGP/LimNut	Algal Growth Potential	8.41	mg DryWt/L	0.1	0.3	
4/25/2003	#3	Bio-Chl-a	Chlorophyll-A, Monochromatic, Water	0.85	ug/L	UQ	0.85	2.6
4/25/2003	#3	Bio-Chl-a	Phaeophytin-A, Monochromatic, Water	0.85	ug/L	UQ	0.85	2.6
4/25/2003	#3	GC-Water	Alachlor	0.59	ug/L	U	0.59	2.36
4/25/2003	#3	GC-Water	Ametryn	0.049	ug/L	U	0.049	0.196
4/25/2003	#3	GC-Water	Atrazine	0.049	ug/L	U	0.049	0.196
4/25/2003	#3	GC-Water	Azinphos Methyl	0.049	ug/L	U	0.049	0.196
4/25/2003	#3	GC-Water	Bromacil	0.2	ug/L	U	0.2	0.8
4/25/2003	#3	GC-Water	Butylate	0.2	ug/L	U	0.2	0.8
4/25/2003	#3	GC-Water	Chlorpyrifos Ethyl	0.049	ug/L	U	0.049	0.196
4/25/2003	#3	GC-Water	Chlorpyrifos Methyl	0.098	ug/L	U	0.098	0.392
4/25/2003	#3	GC-Water	Diazinon	0.049	ug/L	U	0.049	0.196
4/25/2003	#3	GC-Water	Ethion	0.049	ug/L	U	0.049	0.196
4/25/2003	#3	GC-Water	Ethoprop	0.098	ug/L	U	0.098	0.392
4/25/2003	#3	GC-Water	Fenamiphos	0.2	ug/L	U	0.2	0.8
4/25/2003	#3	GC-Water	Fonofos	0.098	ug/L	U	0.098	0.392
4/25/2003	#3	GC-Water	Hexazinone	0.098	ug/L	U	0.098	0.392
4/25/2003	#3	GC-Water	Malathion	0.15	ug/L	UJ	0.15	0.6
4/25/2003	#3	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
4/25/2003	#3	GC-Water	Metolachlor	0.49	ug/L	U	0.49	1.96
4/25/2003	#3	GC-Water	Metribuzin	0.098	ug/L	U	0.098	0.392
4/25/2003	#3	GC-Water	Mevinphos	0.2	ug/L	U	0.2	0.8
4/25/2003	#3	GC-Water	Naled	0.78	ug/L	U	0.78	3.12
4/25/2003	#3	GC-Water	Norflurazon	0.098	ug/L	U	0.098	0.392
4/25/2003	#3	GC-Water	Parathion Ethyl	0.15	ug/L	UJ	0.15	0.6
4/25/2003	#3	GC-Water	Parathion Methyl	0.098	ug/L	U	0.098	0.392
4/25/2003	#3	GC-Water	Phorate	0.049	ug/L	U	0.049	0.196
4/25/2003	#3	GC-Water	Prometryn	0.15	ug/L	U	0.15	0.6
4/25/2003	#3	GC-Water	Simazine	0.049	ug/L	U	0.049	0.196
4/25/2003	#3	Metals-Water	Aluminum	118	ug/L		10	40
4/25/2003	#3	Metals-Water	Arsenic	1	ug/L	U	1	4
4/25/2003	#3	Metals-Water	Cadmium	0.025	ug/L	U	0.025	0.1
4/25/2003	#3	Metals-Water	Calcium	70.2	mg/L		0.05	0.3
4/25/2003	#3	Metals-Water	Chromium	2	ug/L	U	2	8
4/25/2003	#3	Metals-Water	Copper	1.9	ug/L	U	0.8	3.2
4/25/2003	#3	Metals-Water	Iron	33	ug/L	I	10	40
4/25/2003	#3	Metals-Water	Lead	0.1	ug/L	U	0.1	0.4
4/25/2003	#3	Metals-Water	Magnesium	6.7	mg/L		0.01	0.04
4/25/2003	#3	Metals-Water	Nickel	2.7	ug/L	I	2	8
4/25/2003	#3	Metals-Water	Selenium	1	ug/L	U	1	4
4/25/2003	#3	Metals-Water	Silver	0.02	ug/L	U	0.02	0.08
4/25/2003	#3	Metals-Water	Zinc	15	ug/L		3	12
4/25/2003	#3	Nutrients-Liquid	Ammonia-N	0.045	mg N/L		0.01	0.02
4/25/2003	#3	Nutrients-Liquid	Cyanide	0.005	mg CN/L	U	0.005	0.02

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
4/25/2003	#3	Nutrients-Liquid	NO2NO3-N	0.91	mg N/L	A	0.04	0.1
4/25/2003	#3	Nutrients-Liquid	N_KJEL_TOT	0.68	mg N/L		0.06	0.2
4/25/2003	#3	Nutrients-Liquid	O-Phosphate-P	0.016	mg P/L	Q	0.004	0.01
4/25/2003	#3	Nutrients-Liquid	Total-P	0.048	mg P/L		0.015	0.04
4/25/2003	#3	Overflow	Oil and Grease	0.6	mg/l	IV		
4/25/2003	#3	VOC-Water	1,1,1-Trichloroethane	0.2	ug/L	U	0.2	1
4/25/2003	#3	VOC-Water	1,1,2,2-Tetrachloroethane	0.2	ug/L	U	0.2	1
4/25/2003	#3	VOC-Water	1,1,2-Trichloroethane	0.2	ug/L	U	0.2	1
4/25/2003	#3	VOC-Water	1,1-Dichloroethane	0.2	ug/L	U	0.2	1
4/25/2003	#3	VOC-Water	1,1-Dichloroethene	0.2	ug/L	U	0.2	1
4/25/2003	#3	VOC-Water	1,2-Dichlorobenzene	0.2	ug/L	U	0.2	1
4/25/2003	#3	VOC-Water	1,2-Dichloroethane	0.2	ug/L	U	0.2	1
4/25/2003	#3	VOC-Water	1,2-Dichloropropane	0.2	ug/L	U	0.2	1
4/25/2003	#3	VOC-Water	1,3-Dichlorobenzene	0.2	ug/L	U	0.2	1
4/25/2003	#3	VOC-Water	1,4-Dichlorobenzene	0.2	ug/L	U	0.2	1
4/25/2003	#3	VOC-Water	2-Chloroethylvinyl ether	0.5	ug/L	U	0.5	2
4/25/2003	#3	VOC-Water	Benzene	0.5	ug/L	U	0.5	2
4/25/2003	#3	VOC-Water	Bromodichloromethane	10	ug/L		0.2	1
4/25/2003	#3	VOC-Water	Bromoform	3	ug/L		0.2	1
4/25/2003	#3	VOC-Water	Bromomethane	0.5	ug/L	U	0.5	2
4/25/2003	#3	VOC-Water	Carbon tetrachloride	0.2	ug/L	U	0.2	1
4/25/2003	#3	VOC-Water	Chlorobenzene	0.2	ug/L	U	0.2	1
4/25/2003	#3	VOC-Water	Chloroethane	0.5	ug/L	U	0.5	2
4/25/2003	#3	VOC-Water	Chloroform	9.5	ug/L		0.2	1
4/25/2003	#3	VOC-Water	Chloromethane	0.5	ug/L	U	0.5	2
4/25/2003	#3	VOC-Water	Dibromochloromethane	12	ug/L		0.2	1
4/25/2003	#3	VOC-Water	Ethylbenzene	0.5	ug/L	U	0.5	2
4/25/2003	#3	VOC-Water	Methylene chloride	0.5	ug/L	U	0.5	2
4/25/2003	#3	VOC-Water	Tetrachloroethene	0.2	ug/L	U	0.2	1
4/25/2003	#3	VOC-Water	Toluene	0.5	ug/L	U	0.5	2
4/25/2003	#3	VOC-Water	Trichloroethene	0.2	ug/L	U	0.2	1
4/25/2003	#3	VOC-Water	Trichlorofluoromethane	0.2	ug/L	U	0.2	1
4/25/2003	#3	VOC-Water	Vinyl chloride	0.5	ug/L	U	0.5	2
4/25/2003	#3	VOC-Water	cis-1,3-Dichloropropene	0.2	ug/L	U	0.2	1
4/25/2003	#3	VOC-Water	m,p-Xylene	0.5	ug/L	U	0.5	2
4/25/2003	#3	VOC-Water	o-Xylene	0.5	ug/L	U	0.5	2
4/25/2003	#3	VOC-Water	trans-1,2-Dichloroethene	0.2	ug/L	U	0.2	1
4/25/2003	#3	VOC-Water	trans-1,3-Dichloropropene	0.2	ug/L	U	0.2	1
5/2/2003	GRAB EFFLUENT	BNA-Water	1,2,4,5-Tetrachlorobenzene	0.97	ug/L	UJ	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	1,2,4-Trichlorobenzene	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	1,2-Dichlorobenzene	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	1,3,5-Trinitrobenzene	3.9	ug/L	U	3.9	16
5/2/2003	GRAB EFFLUENT	BNA-Water	1,3-Dichlorobenzene	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	1,3-Dinitrobenzene	1.9	ug/L	U	1.9	7.8
5/2/2003	GRAB EFFLUENT	BNA-Water	1,4-Dichlorobenzene	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	1,4-Naphthoquinone	19	ug/L	UJ	19	78
5/2/2003	GRAB EFFLUENT	BNA-Water	1-Naphthylamine	9.7	ug/L	U	9.7	39
5/2/2003	GRAB EFFLUENT	BNA-Water	2,3,4,6-Tetrachlorophenol	1.9	ug/L	UJ	1.9	7.8
5/2/2003	GRAB EFFLUENT	BNA-Water	2,4,5-Trichlorophenol	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	2,4,6-Trichlorophenol	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	2,4-Dichlorophenol	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	2,4-Dimethylphenol	49	ug/L	U	49	190
5/2/2003	GRAB EFFLUENT	BNA-Water	2,4-Dinitrophenol	15	ug/L	U	15	58
5/2/2003	GRAB EFFLUENT	BNA-Water	2,4-Dinitrotoluene	0.97	ug/L	U	0.97	3.9

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
5/2/2003	GRAB EFFLUENT	BNA-Water	2,6-Dichlorophenol	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	2,6-Dinitrotoluene	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	2-Acetylaminofluorene	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	2-Chloronaphthalene	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	2-Chlorophenol	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	12
5/2/2003	GRAB EFFLUENT	BNA-Water	2-Methylnaphthalene	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	2-Naphthylamine	9.7	ug/L	U	9.7	39
5/2/2003	GRAB EFFLUENT	BNA-Water	2-Nitroaniline	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	2-Nitrophenol	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	2-Picoline	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	3,3'-Dichlorobenzidine	39	ug/L	U	39	160
5/2/2003	GRAB EFFLUENT	BNA-Water	3,3'-Dimethylbenzidine	19	ug/L	UJ	19	78
5/2/2003	GRAB EFFLUENT	BNA-Water	3-Methylcholanthrene	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	3-Nitroaniline	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	4,4'-DDD	1.5	ug/L	U	1.5	5.8
5/2/2003	GRAB EFFLUENT	BNA-Water	4,4'-DDE	1.5	ug/L	U	1.5	5.8
5/2/2003	GRAB EFFLUENT	BNA-Water	4,4'-DDT	1.5	ug/L	U	1.5	5.8
5/2/2003	GRAB EFFLUENT	BNA-Water	4-Aminobiphenyl	3.9	ug/L	U	3.9	16
5/2/2003	GRAB EFFLUENT	BNA-Water	4-Bromophenyl phenyl ether	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	4-Chloro-3-methylphenol	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	4-Chloroaniline	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.8
5/2/2003	GRAB EFFLUENT	BNA-Water	4-Nitroaniline	0.97	ug/L	UJ	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	4-Nitrophenol	15	ug/L	U	15	58
5/2/2003	GRAB EFFLUENT	BNA-Water	5-Nitro-o-toluidine	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	7,12-Dimethylbenz(a)anthracene	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Acenaphthene	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Acenaphthylene	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Acetophenone	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Aldrin	1.5	ug/L	U	1.5	5.8
5/2/2003	GRAB EFFLUENT	BNA-Water	Aniline	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Anthracene	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Azobenzene/1,2-Diphenylhydrazine	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Benzidine	97	ug/L	U	97	390
5/2/2003	GRAB EFFLUENT	BNA-Water	Benzo(a)anthracene	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Benzo(a)pyrene	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Benzo(b)fluoranthene	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Benzo(g,h,i)perylene	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Benzo(k)fluoranthene	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Benzyl alcohol	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Bis(2-chloroethoxy)methane	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Bis(2-chloroethyl)ether	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	12
5/2/2003	GRAB EFFLUENT	BNA-Water	Bis(2-ethylhexyl)phthalate	15	ug/L	U	15	58
5/2/2003	GRAB EFFLUENT	BNA-Water	Butyl benzyl phthalate	4.9	ug/L	U	4.9	19
5/2/2003	GRAB EFFLUENT	BNA-Water	Chrysene	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Di-n-butyl phthalate	4.9	ug/L	U	4.9	19
5/2/2003	GRAB EFFLUENT	BNA-Water	Di-n-octyl phthalate	0.97	ug/L	UJ	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Dibenzo(a,h)anthracene	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Dibenzofuran	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Dieldrin	1.5	ug/L	U	1.5	5.8
5/2/2003	GRAB EFFLUENT	BNA-Water	Diethyl phthalate	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Dimethyl phthalate	49	ug/L	U	49	190

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
5/2/2003	GRAB EFFLUENT	BNA-Water	Dimethylaminoazobenzene	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Dinoseb	3.9	ug/L	U	3.9	16
5/2/2003	GRAB EFFLUENT	BNA-Water	Diphenylamine	2.9	ug/L	U	2.9	12
5/2/2003	GRAB EFFLUENT	BNA-Water	Endosulfan I	3.9	ug/L	U	3.9	16
5/2/2003	GRAB EFFLUENT	BNA-Water	Endosulfan II	3.9	ug/L	U	3.9	16
5/2/2003	GRAB EFFLUENT	BNA-Water	Endosulfan sulfate	1.5	ug/L	U	1.5	5.8
5/2/2003	GRAB EFFLUENT	BNA-Water	Endrin	1.5	ug/L	U	1.5	5.8
5/2/2003	GRAB EFFLUENT	BNA-Water	Endrin aldehyde	3.9	ug/L	U	3.9	16
5/2/2003	GRAB EFFLUENT	BNA-Water	Ethyl methanesulfonate	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Fluoranthene	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Fluorene	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Heptachlor	1.5	ug/L	U	1.5	5.8
5/2/2003	GRAB EFFLUENT	BNA-Water	Heptachlor epoxide	1.5	ug/L	U	1.5	5.8
5/2/2003	GRAB EFFLUENT	BNA-Water	Hexachlorobenzene	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Hexachlorobutadiene	2.9	ug/L	UJ	2.9	12
5/2/2003	GRAB EFFLUENT	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	12
5/2/2003	GRAB EFFLUENT	BNA-Water	Hexachloroethane	2.9	ug/L	UJ	2.9	12
5/2/2003	GRAB EFFLUENT	BNA-Water	Hexachloropropene	1.9	ug/L	UJ	1.9	7.8
5/2/2003	GRAB EFFLUENT	BNA-Water	Indeno(1,2,3-cd)pyrene	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Isophorone	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Isosafrole	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Methapyrilene	3.9	ug/L	U	3.9	16
5/2/2003	GRAB EFFLUENT	BNA-Water	Methyl methanesulfonate	0.97	ug/L	UJ	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	N-Nitrosodi-n-butylamine	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.8
5/2/2003	GRAB EFFLUENT	BNA-Water	N-Nitrosodiethylamine	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.8
5/2/2003	GRAB EFFLUENT	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	12
5/2/2003	GRAB EFFLUENT	BNA-Water	N-Nitrosomethylethylamine	1.9	ug/L	U	1.9	7.8
5/2/2003	GRAB EFFLUENT	BNA-Water	N-Nitrosomorpholine	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	N-Nitrosopiperidine	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	N-Nitrosopyrrolidine	1.9	ug/L	U	1.9	7.8
5/2/2003	GRAB EFFLUENT	BNA-Water	Naphthalene	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.8
5/2/2003	GRAB EFFLUENT	BNA-Water	Nitroquinoline-1-oxide	19	ug/L	U	19	78
5/2/2003	GRAB EFFLUENT	BNA-Water	Pentachlorobenzene	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Pentachloroethane	49	ug/L	U	49	190
5/2/2003	GRAB EFFLUENT	BNA-Water	Pentachloronitrobenzene	0.97	ug/L	UJ	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	12
5/2/2003	GRAB EFFLUENT	BNA-Water	Phenacetin	3.9	ug/L	U	3.9	12
5/2/2003	GRAB EFFLUENT	BNA-Water	Phenanthrene	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Phenol	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Pyrene	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	Pyridine	3.9	ug/L	U	3.9	16
5/2/2003	GRAB EFFLUENT	BNA-Water	Safrole	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	BNA-Water	alpha-BHC	1.5	ug/L	U	1.5	5.8
5/2/2003	GRAB EFFLUENT	BNA-Water	beta-BHC	1.5	ug/L	U	1.5	5.8
5/2/2003	GRAB EFFLUENT	BNA-Water	delta-BHC	1.5	ug/L	U	1.5	5.8
5/2/2003	GRAB EFFLUENT	BNA-Water	gamma-BHC	1.5	ug/L	U	1.5	5.8
5/2/2003	GRAB EFFLUENT	BNA-Water	m,p-Cresols	1.9	ug/L	U	1.9	7.8
5/2/2003	GRAB EFFLUENT	BNA-Water	o-Cresol	1.9	ug/L	U	1.9	7.8
5/2/2003	GRAB EFFLUENT	BNA-Water	o-Toluidine	0.97	ug/L	U	0.97	3.9
5/2/2003	GRAB EFFLUENT	GC-Water	Alachlor	0.59	ug/L	U	0.59	2.36
5/2/2003	GRAB EFFLUENT	GC-Water	Ametryn	0.049	ug/L	U	0.049	0.196

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
5/2/2003	GRAB EFFLUENT	GC-Water	Atrazine	0.049	ug/L	U	0.049	0.196
5/2/2003	GRAB EFFLUENT	GC-Water	Azinphos Methyl	0.049	ug/L	U	0.049	0.196
5/2/2003	GRAB EFFLUENT	GC-Water	Bromacil	0.2	ug/L	U	0.2	0.8
5/2/2003	GRAB EFFLUENT	GC-Water	Butylate	0.2	ug/L	U	0.2	0.8
5/2/2003	GRAB EFFLUENT	GC-Water	Chlorpyrifos Ethyl	0.049	ug/L	UJ	0.049	0.196
5/2/2003	GRAB EFFLUENT	GC-Water	Chlorpyrifos Methyl	0.098	ug/L	U	0.098	0.392
5/2/2003	GRAB EFFLUENT	GC-Water	Diazinon	0.049	ug/L	U	0.049	0.196
5/2/2003	GRAB EFFLUENT	GC-Water	Ethion	0.049	ug/L	U	0.049	0.196
5/2/2003	GRAB EFFLUENT	GC-Water	Ethoprop	0.098	ug/L	U	0.098	0.392
5/2/2003	GRAB EFFLUENT	GC-Water	Fenamiphos	0.2	ug/L	U	0.2	0.8
5/2/2003	GRAB EFFLUENT	GC-Water	Fonofos	0.098	ug/L	U	0.098	0.392
5/2/2003	GRAB EFFLUENT	GC-Water	Hexazinone	0.098	ug/L	U	0.098	0.392
5/2/2003	GRAB EFFLUENT	GC-Water	Malathion	0.15	ug/L	U	0.15	0.6
5/2/2003	GRAB EFFLUENT	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
5/2/2003	GRAB EFFLUENT	GC-Water	Metolachlor	0.49	ug/L	U	0.49	1.96
5/2/2003	GRAB EFFLUENT	GC-Water	Metribuzin	0.098	ug/L	U	0.098	0.392
5/2/2003	GRAB EFFLUENT	GC-Water	Mevinphos	0.2	ug/L	UJ	0.2	0.8
5/2/2003	GRAB EFFLUENT	GC-Water	Naled	0.78	ug/L	UJ	0.78	3.12
5/2/2003	GRAB EFFLUENT	GC-Water	Norflurazon	0.098	ug/L	U	0.098	0.392
5/2/2003	GRAB EFFLUENT	GC-Water	Parathion Ethyl	0.15	ug/L	U	0.15	0.6
5/2/2003	GRAB EFFLUENT	GC-Water	Parathion Methyl	0.098	ug/L	U	0.098	0.392
5/2/2003	GRAB EFFLUENT	GC-Water	Phorate	0.049	ug/L	U	0.049	0.196
5/2/2003	GRAB EFFLUENT	GC-Water	Prometryn	0.15	ug/L	U	0.15	0.6
5/2/2003	GRAB EFFLUENT	GC-Water	Simazine	0.049	ug/L	U	0.049	0.196
5/2/2003	GRAB EFFLUENT	Metals-Water	Aluminum	76	ug/L		10	40
5/2/2003	GRAB EFFLUENT	Metals-Water	Arsenic	1	ug/L	U	1	4
5/2/2003	GRAB EFFLUENT	Metals-Water	Cadmium	0.035	ug/L	I	0.025	0.1
5/2/2003	GRAB EFFLUENT	Metals-Water	Calcium	35.5	mg/L		0.05	0.3
5/2/2003	GRAB EFFLUENT	Metals-Water	Chromium	2	ug/L	U	2	8
5/2/2003	GRAB EFFLUENT	Metals-Water	Copper	4.7	ug/L	I	0.8	3.2
5/2/2003	GRAB EFFLUENT	Metals-Water	Iron	84	ug/L		10	40
5/2/2003	GRAB EFFLUENT	Metals-Water	Lead	0.33	ug/L	I	0.1	0.4
5/2/2003	GRAB EFFLUENT	Metals-Water	Magnesium	9.8	mg/L		0.01	0.04
5/2/2003	GRAB EFFLUENT	Metals-Water	Nickel	2	ug/L	U	2	8
5/2/2003	GRAB EFFLUENT	Metals-Water	Selenium	1	ug/L	U	1	4
5/2/2003	GRAB EFFLUENT	Metals-Water	Silver	0.025	ug/L	I	0.02	0.08
5/2/2003	GRAB EFFLUENT	Metals-Water	Zinc	20	ug/L		3	12
5/2/2003	GRAB EFFLUENT	Nutrients-Liquid	Ammonia-N	0.97	mg N/L	A	0.2	0.4
5/2/2003	GRAB EFFLUENT	Nutrients-Liquid	NO2NO3-N	5.4	mg N/L	A	0.4	1
5/2/2003	GRAB EFFLUENT	Nutrients-Liquid	N_KJEL_TOT	2.2	mg N/L		0.6	2
5/2/2003	GRAB EFFLUENT	Nutrients-Liquid	Total-P	1.3	mg P/L		0.15	0.4

Appendix 5

Typical Values for Selected Parameters in Florida Waters

Percentile Distribution (1617 stations)

CONTROL SITE

Parameter	5%	10%	20%	30%	40%	50%	60%	70%	80%	90%	95%	Measured
Periphyton Chlorophyll *a* (mg/m^2)	0.31	0.43	0.77	1.04	2.16	2.94	6.45	10.51	17.00	39.51	60.85	**0.08 U**
Hester-Dendy Diversity	0.84	2.12	2.48	2.74	2.88	3.09	3.25	3.40	3.52	**3.76**	3.90	**3.84**
Hester-Dendy Taxa Richness	6	6.5	9	11.5	13	15	17	21.5	26	29	**32**	**32**
Dipnet Taxa Richness	9	**12**	17	20	22	24.5	26	28	31	37	53	**16**
Total Kjeldahl Nitrogen	**0.30**	0.39	0.56	0.73	0.87	1.00	1.11	1.26	1.49	1.93	2.80	**0.38**
Total Ammonia	0.02	**0.02**	0.04	0.05	0.06	0.08	0.11	0.14	0.20	0.34	0.60	**0.03**
Nitrate plus Nitrite	0.01	0.01	0.03	0.05	0.07	0.10	0.14	0.20	**0.32**	0.64	1.05	**0.42**
Total Phosphorus	0.02	0.03	0.05	**0.06**	0.10	0.13	0.18	0.25	0.39	0.74	1.51	**0.062**
Orthophosphate	0.01	0.01	**0.03**	0.04	0.05	0.08	0.11	0.17	0.27	0.59	1.37	**0.033**
Turbidity (NTU)	0.60	0.90	1.20	1.45	2.10	2.80	3.60	4.50	6.65	10.45	16.30	**ND**

TEST SITE

Parameter	5%	10%	20%	30%	40%	50%	60%	70%	80%	90%	95%	Measured
Periphyton Chlorophyll *a* (mg/m^2)	0.31	0.43	0.77	1.04	**2.16**	2.94	6.45	10.51	17.00	39.51	60.85	**2.9**
Hester-Dendy Diversity	0.84	2.12	2.48	2.74	2.88	3.09	3.25	3.40	3.52	3.76	**3.90**	**3.98**
Hester-Dendy Taxa Richness	6	6.5	9	11.5	13	15	17	21.5	26	29	**32**	**37**
Dipnet Taxa Richness	9	12	17	20	**22**	24.5	26	28	31	37	53	**22**
Total Kjeldahl Nitrogen	0.30	**0.39**	0.56	0.73	0.87	1.00	1.11	1.26	1.49	1.93	2.80	**0.44**
Total Ammonia	0.02	0.02	**0.04**	0.05	0.06	0.08	0.11	0.14	0.20	0.34	0.60	**0.041**
Nitrate plus Nitrite	0.01	0.01	0.03	0.05	0.07	0.10	0.14	0.20	**0.32**	0.64	1.05	**0.47**
Total Phosphorus	0.02	0.03	0.05	**0.06**	0.10	0.13	0.18	0.25	0.39	0.74	1.51	**0.078**
Orthophosphate	0.01	**0.01**	0.03	0.04	0.05	0.08	0.11	0.17	0.27	0.59	1.37	**0.024**
Turbidity (NTU)	0.60	0.90	1.20	1.45	2.10	2.80	3.60	4.50	6.65	10.45	16.30	**ND**

Taxa richness and diversity values are for benthic macroinvertebrates. Hester-Dendy sample= benthic macroinvertebrates collected from a standardized multi-plate sampler. Dipnet taxa richness = number of taxa collected in standardized dipnet sweep samples. Diversity = Shannon-Weaver H'. NTU = Nephelometric turbidity units. Adapted from Joe Hand, FDER, personal communication, 1991 (data collected 1980-1989). ND = No data. U = Material analyzed for but not detected; value reported is the minimum detection limit.

Appendix 6

Additional physical, chemical, toxicological and microbiological results

Table 1. Data recorded during the chronic screening bioassays of a sample of effluent from City of Chattahoochee WWTP, 211 Palm Street, Chattahoochee, Gadsden County, Florida, NPDES# FL0027669-001-DW1P, performed from 29 April to 6 May 2003.

Facility:	City of Chattahoochee WWTP		NPDES #:	FL0027669-001-DW1P	Facility Type:	Domestic Wastewater Treatment	Analysts: Marshall Faircloth
Location:	211 Palm Street, Chattahoochee		Contact/District:	Krigey/NW			Joshua Ayres
County:	Gadsden		Test type:	chronic renewal screen			James Daniels
Sample #1 Collection Date:	4/28/2003	Time: 0930	# tests:	2	Receiving Water:	Mosquito Creek	Daisys Tamayo
Sample #2 Collection Date:	4/30/2003	Time: 1030	Chlorination Type:	chlorinated			Christa Pierini
Sample #3 Collection Date:	5/2/2003	Time: 1000		sample dechlorinated by facility			
Test Beginning Date:	4/29/2003	Time: 1330				Page 1 of 3	
Test Ending Date:	5/5/2003	Time: 1600	FDEP SOP#:	TA07_05			Reviewer: Rob Buda

Organism: *Ceriodaphnia dubia*		Life stage: <24 hrs			[A]Feeding: YCT/Algae				
		Chamber size: 30mL			Food Batch #: 1/13				
	Sample/Diluent	# Young							
Concentrations	Volume(mL)	0 hr	24 hr	48 hr	72 hr	96 hr	120 hr	144 hr[B]	Total
Control A	0/20	0	0	0	0	4	8	13	25
Control B	0/20	0	0	0	0	6	9	0	15
Control C	0/20	0	0	0	0	5	10	0	15
Control D	0/20	0	0	0	0	4	9	14	27
Control E	0/20	0	0	0	0	5	9	0	14
Control F	0/20	0	0	0	0	3	9	13	25
Control G	0/20	0	0	0	0	4	10	0	14
Control H	0/20	0	0	0	0	3	7	14	24
Control I	0/20	0	0	0	5	0	7	12	24
Control J	0/20	0	0	0	3	0	7	11	21
100% A	20/0	0	0	0	0	4	7	0	11
100% B	20/0	0	0	0	0	4	9	11	24
100% C	20/0	0	0	0	0	1	8	14	23
100% D	20/0	0	0	0	0	5	6	14	25
100% E	20/0	0	0	0	0	0	9	7	16
100% F	20/0	0	0	0	0	3	10	11	24
100% G	20/0	0	0	0	0	0	see footnote [C]		
100% H	20/0	0	0	0	0	0	0	7	7
100% I	20/0	0	0	0	0	0	12	10	22
100% J	20/0	0	0	0	0	0	8	15	23

Test Statistics	Method	NOEC
Survival	t test	100%
Reproduction	t test	100%

Test statistics	t value	Probability
Survival	1.0000	p>0.05
Reproduction	0.8998	p>0.05

Adult Mortality	Percent
Control	0.0%
100%	10.0%

Total Young	# Young	Young per Adult
Control	204	20.4
100%	175	19.4

LIMS	
Job number 1:	TLH-2003-04-28-31
sample number 1:	670025
Job number 2:	TLH-2003-04-30-33-01
sample number 2:	670674
Job number 3:	TLH-2003-05-02-19
sample number 3:	671459

Data Transcription Verification	
date:	9/3/2003
by:	Cathy Oaks
	Brad Richardson

Total Residual CL2	mg/L	Method
Field:	0.90	-
Lab Sample 1:	<0.03	Hach
Lab Sample 2:	<0.03	Hach
Lab Sample 3:	<0.03	Hach

Ammonia	Total (mg/L)	Unionized (mg/L)
Control water :	<0.017	<0.017
100% Sample 1:	0.808	0.098
100% Sample 2:	1.15	0.026
100% Sample 3:	1.58	0.022

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control water:	82	80
100% Sample 1:	105	123
100% Sample 2:	105	120
100% Sample 3:	110	120

Organism:	*Ceriodaphnia dubia*		After Renewal "new sample"				Before Renewal "old sample"	
Concentration	Surrogate	Hour	pH	Temp. (°C)	DO (mg/L)	Conductivity	pH	DO (mg/L)
Control	A	0	8.2	24.9	8.1	220	-	-
100%			8.3	24.7	8.2	370	-	-
Control	B	24	8.3	25.7	7.9	190	8.1	8.0
100%			8.2	25.7	7.8	370	8.2	8.0
Control	C	48	8.2	25.8	7.7	200	8.2	7.9
100%			7.5	25.7	7.9	375	8.1	7.9
Control	D	72	8.3	25.8	7.6	170	8.1	7.6
100%			7.7	24.9	7.7	365	8.1	7.7
Control	E	96	8.2	24.8	7.8	176	8.0	7.9
100%			7.3	25.3	7.8	383	8.0	7.8
Control	F	120	8.1	24.8	7.8	190	8.2	7.9
100%			8.2	25.0	8.0	390	7.8	7.9
Control	G	144	-	-	-	-	8.0	8.1
100%			-	-	-	-	8.0	8.2

[A] Organisms were fed daily.

[B] Test ended due to sufficent amount of control births.

Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 25.5-27.0°C.
Incubator #3 temperature range for the test period was 24.0-25.5°C.
Light Intensity during the test was 50-100 foot candles.
Photoperiod during the test was 16 hours of light : 8 hours of dark.
Conductivity value is uncorrected umhos/cm.
DO = dissolved oxygen.

[C] Replicate G test organism was accidently discarded prior to gender identification therefore, this replicate was not used in determinging neonates per adult.