

Biological Assessment of

Sarasota Reverse Osmosis / Ion Exchange Water Treatment Plant

Sarasota County

NPDES #FL0043621

Sampled March 2004

March 2005

Biology Section

Bureau of Laboratories

Division of Resource Assessment and Management

Quality Manual No. 870346G

NELAC Certification No. E31780

Florida Department of Environmental Protection

Fifth Year Inspection Summary

Discharger:	Sarasota Reverse Osmosis Plant
County:	Sarasota
NPDES Number:	FL0043621
Permit Expiration:	November 30, 2004

Toxics Sampling Inspection **(XSI)**

Date Sampled: March 29, 2004

Results: Effluent levels of combined radium 226 and 228 (15.9 pCi/L) and radium 226 (15.3 pCi/L) exceeded the Class III Marine Water Quality Criteria (62-302.530(58) (a) (b), F.A.C.) and the facility's permit limit (≤ 5 pCi/L). Aluminum, copper, and nickel were detected in the effluent at levels below the practical quantitation limit and above the minimum detection limit. All effluent metals complied with Class III Marine Water Quality Criteria and permit limits. No organic priority pollutants were detected in the effluent sample.

Compliance Biomonitoring Inspection **(CBI)**

Date Sampled: March 29, 2004

Results: The effluent sample was acutely toxic to the mysid shrimp, *Americamysis bahia*. Test organism mortality was 100% at 48 hours and is an exceedance of Rules 62-302.500(1) (a) (4), and 62-302.530(62), F.A.C. The mortality may be due to the seawater-ion imbalance of the sample. The test results did not indicate toxicity to the fish, *Menidia beryllina*. Previous research conducted by the FDEP showed that *A. bahia* is more sensitive to seawater-ion imbalances than is *M. beryllina*.

Water Quality Inspection **(WQI)**

Date Sampled: March 29, 2004

Results: Fecal and total coliforms were detected in the effluent and the receiving water at levels that did not exceed Class III Marine Water Quality Criteria. Effluent nutrient concentrations did not appear to contribute to concentrations at the receiving water stations. Nutrient levels at all stations were typical of levels found in estuaries throughout Florida. The effluent level of total suspended solids (TSS, 17 mg/L) exceeded the facility's permit limit (5 mg/L). Algal growth potential was below the 10 mg dry wt/L "problem" threshold in the effluent sample (7.4 mg dry wt/L) and at Stations 1-6.

Impact Bioassessment Inspection **(IBI)**

Date Sampled: March 23, 2004

Results: Several polycyclic aromatic hydrocarbons (PAHs) were detected in the sediments at Stations 1 and 2 above the Threshold Effect Levels (TELs) according to Florida coastal sediment quality guidelines (MacDonald 1994). The pesticides chlordane and DDT were also detected in sediments at Stations 1 and 2 above the Probable Effect Levels (PELs). DDD, a derivative of DDT, exceeded the TEL at Station 5. Cadmium exceeded the TEL at all stations while chromium and nickel exceeded the TELs or PELs at Stations 3-6.

Quantitative measures of benthic macroinvertebrate assemblages from ponar samples did not show any clear patterns of degradation at sampling stations in Sarasota Bay. Taxa richness, number of individuals, and diversity were lower at Stations 5 and 6 compared to the other stations; there does not appear to be any association between these differences and the effluent or sediment chemistry results, which suggests other potential sources of contaminants in the watershed.

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 Sarasota RO Plant is located in Sarasota County, Florida (Appendix 1). This facility is a potable water treatment facility. The wastewater discharged consists of reject water from the reverse osmosis process and the rinse and regeneration wastewaters from the ion exchange process (see Facility Summary in Appendix 2).

The effluent is discharged into a wetland/ mixing pond via a 5-foot culvert, which drains into Hog Creek, and travels west for approximately 400 meters before discharging into Sarasota Bay. Upstream land use consists predominantly of industrial and residential. Hog Creek was recently restored under the Hog Creek Restoration Project, headed up by FDEP and the Sarasota National Estuary Program in order to re-establish productive estuarine tributary habitat that will be beneficial to the improvement and maintenance of biological diversity in Sarasota Bay, an Outstanding Florida Waterbody. Restoration efforts consisted of creating a wetland at the outfall, planting native vegetation, removing exotic plants, and creating a wetland prior to the confluence of Hog Creek with Sarasota Bay. Prior to restoration, Hog Creek was a drainage ditch for the surrounding watershed.

The facility does not currently have any mixing zones but has expressed interest in applying for mixing zones for radium 226 & 228 and gross alpha particle activity. The facility submitted a request for a variance of the standards for radium 226 & 228 and gross alpha, in addition to the dilution requirements of Rule 62-4.244(3) in reference to acute toxicity (see Facility Summary in Appendix 2).

The NPDES permitted capacity is 2.8 MGD. The annual average daily flow for March 2003 through March 2004 was 2.3 MGD and the mean maximum daily flow was 2.7 MGD. The flow during the survey was 2.25 MGD.

The average daily flow of surface water discharge from the Sarasota RO Water Treatment Plant averaged 2.2 to 2.3 million gallons per day on March 22, 2004 when the original effluent sample and associated receiving water samples were collected. However, approximately 10 minutes of each hour the facility discharges RO filter rinse cycle water (backwash) mixed with seawater; the remaining 50 minutes the facility is discharging the reverse osmosis (RO) concentrate (reject) water. The March 22, 2004 effluent was unknowingly sampled during the rinse cycle and therefore did not reflect the typical RO concentrate being discharged. The effluent was resampled on March 29, 2004. Effluent results from the March 29, 2004 sampling event are reported in Table 1 and throughout this report. Results from the study sites (Stations 1-6) are reported from March 23, 2004.

Class III Marine Surface Water Quality Criteria and facility permit limits are listed in Table 1. According to the Facility Summary and discharge monitoring reports, from October 2002 through March 2004, the plant had several exceedences for flow, TSS, hydrogen sulfide, chronic toxicity, and a pH value below the acceptable range (Appendices 2 and 9).

Methods

The purpose of this investigation was to determine the discharger's effects on the biota of the receiving waters. Rhodamine dye was injected into the effluent over incoming and outgoing tides in an attempt to establish an effluent gradient in Sarasota Bay. Shallow tidally influenced streams like Hog Creek tend to be physically stressed systems where a number of environmental parameters (e.g., water temperature, salinity fluctuations, low dissolved oxygen, water color, turbidity, fluctuating wind and tidal conditions, and the amount and quality and of freshwater input) interact in various combinations making it difficult for organisms to adapt to the wide range of conditions. Very often, the result is a system dominated by a few organisms tolerant of such unstable and harsh conditions. Establishing biological expectations in these systems is problematic and is why sampling stations were located in Sarasota Bay rather than Hog Creek.

Dye was injected into the effluent train and allowed to mix sufficiently before entering Hog Creek and flowing to Sarasota Bay. The dye was immediately diluted upon entering Sarasota Bay, making it impossible to establish a dilution gradient. Instead, chemical and biological comparisons were made at stations in Sarasota Bay south of Hog Creek at similar depths and substrate types. Prevailing winds were out of the Northwest, and for this reason Station 1 was located approximately 20 meters south of Hog Creek; subsequent stations were roughly 10 m apart (see Map in Appendix 1). Habitat assessment scores were identical at all stations in terms of community types observed, tidal fluctuation, freshwater discharges, wave action, and sediment type (see Habitat Assessment Data Sheets in Appendix 7). Details of measurements and data interpretation are 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: Julie Espy, Ken Espy, and Sally Levings of the FDEP Central Laboratory in Tallahassee and Melissa Gunter, Nahir Cornwell, Lori Pillsbury, and Todd Falkner of the FDEP Southwest District. The report was reviewed by District representatives and

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

Sarasota Reverse Osmosis Water Treatment Plant	Class III Marine Stds	Effluent Limits *	Effluent Samples 3/29/04 **	Station 1 3/23/04	Station 2 3/23/04	Station 3 3/23/04	Station 4 3/23/04	Station 5 3/23/04	Station 6 3/23/04
Organic Constituents (µg/L)									
none detected	-	-	-	-	-	-	-	-	-
Metals (µg/L unless otherwise noted)									
Aluminum	≤ 1500	-	20 I	429	238	327	443	324	304
Arsenic	≤ 50	-	28 U	18 U	18 U	27 U	18 U	18 U	27 U
Cadmium	≤ 9.3	= 9.3	0.13 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Calcium (mg/L)	-	-	1130	373	486	428	360	387	429
Chromium-III	-	-	38 U	15 U	28 U	50 U	23 U	27 U	39 U
Copper	≤ 3.7	= 2.9	0.48 I	1.28 A	0.95	1.02	1.15	0.95	0.99
Iron	≤ 300	= 300	10 U	271	158	230	279	201	200
Lead	≤ 8.5	-	0.25 U	0.78 I	0.5 U	0.66 I	0.75 I	0.53 I	0.58 I
Magnesium (mg/L)	-	-	1020	1320	1300	1340	1310	1300	1370
Nickel	≤ 8.3	-	1.4 I	1 U	1 U	1 U	1 U	1 U	1 U
Selenium	≤ 71	-	12 U	34 U	16 U	53 U	16 U	34 U	69 U
Silver	≤2.3	-	0.1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Zinc	≤ 86	-	18 U	10 U	10 U	15 U	10 U	10 U	15 U
Nutrients (mg/L)									
Ortho-phosphate	-	-	0.013	0.026	0.017	0.02	0.019	0.018	0.018
Total Phosphorus	-	≤ 1	0.22	0.14	0.11 A	0.12	0.11	0.14	0.1
Ammonia	-	-	0.49	0.026 I	0.062 A	0.032 I	0.02 U	0.03 I	0.026 I
Unionized Ammonia	-	-	< 0.02 c	< 0.02 c	< 0.02 c	< 0.02 c	< 0.02 c	< 0.02 c	< 0.02 c
Nitrate+Nitrite	-	-	0.22	0.019	0.047	0.013	0.012	0.021	0.013
Total Kjeldahl Nitrogen	-	-	1	0.62 J	0.63 JA	0.66 J	0.59 J	0.67 J	0.62 J
Organic Nitrogen	-	-	0.51 c	0.59 c	0.57 c	0.63 c	0.59 c	0.64 c	0.59 c
Total Nitrogen	-	≤ 3	1.22 c	0.64 c	0.68 c	0.67 c	0.6 c	0.69 c	0.63 c
General Physical and Chemical Parameters									
Alpha, Total (pCi/L)	≤ 15	≤ 15	57.8 U	-	-	-	-	-	-
Alpha-Counting Error (pCi/L)	-	-	34.4	-	-	-	-	-	-
Combined Radium 226/228 (pCi/L)	≤ 5	≤ 5	15.9 c	-	-	-	-	-	-
Radium 226 (pCi/L)	-	-	15.3	-	-	-	-	-	-
Radium 226-Counting Error (pCi/L)	-	-	0.6	-	-	-	-	-	-
Radium 228 (pCi/L)	-	-	1.9	-	-	-	-	-	-
Radium 228-Counting Error (pCi/L)	-	-	0.7	-	-	-	-	-	-
Dissolved Oxygen (mg/L)	≥ 4.0 s	-	8.4	7.0	6.6	6.8	6.5	6.3	6.1
pH (S.U.)	6.5 - 8.5 s	6.5 < 8.0	7.2	7.5	7.5	7.5	7.5	7.5	7.5
Salinity (ppt)	-	-	12.72	33	33.2	33	33	33	33
Conductivity (umhos/cm)	-	Report	22789	50298	50566	50236	50360	50248	50460
Temperature (C)	-	-	25.8	21.7	21.2	21.4	21.3	21.4	21.2
Total Suspended Solids (mg/L)	-	≤ 5	17	23 A	20	23	26	12 I	18
Turbidity (NTU)	≤ 29 t	-	1.7	10	7.7	9	11	7.2	8.1 A
BOD, 5 day (mg/L)	-	-	-	2 U	2 U	2.03	2 U	2 U	2 U
CBOD, 5 day (mg/L)	-	≤ 5	-	2 U	2.17	2.38	3.23	3.67	2.7
Chlorophyll a (µg/L)	-	-	-	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.96 U
Phaeophytin (µg/L)	-	-	-	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.96 U
Oil and Grease (mg/L)	≤ 5	-	0.69 U	-	-	-	-	-	-
Bromide (mg/L)	-	-	27	56 A	62	58	60	58	62
Chloride (mg/L)	-	Report	8600	17000	18000	18000	18000	17000	18000
Hydrogen Sulfide (mg/L)	-	≤ 0.04	-	-	-	-	-	-	-
Sulfide (mg/L) **	-	-	0.05 U	0.05 UQ	0.05 UQ	0.05 UQ	0.05 UQ	0.05 UQ	0.05 UQ
Fluoride (mg/L)	≤ 5	≤ 5	2.3	1.1	0.98	0.95	0.97	1.1	0.92
Sulfate (mg/L)	-	-	3100	2600	2600	2600	2500	2500	2500
Potassium (mg/L)	-	-	-	364	357	388	372	358	374
Sodium (mg/L)	-	-	-	9480	9070	10000	9730	9520	9850
Alkalinity (mg CaCO3/L)	≥ 20	-	122	130	128	128	127	130	127
Flow (MGD)	-	≤ 2.8	2.13	-	-	-	-	-	-
Hardness (mg/L)	-	-	7022 c	6367.1 c	6566.9 c	6586.8 c	6293.5 c	6319.7 c	6712.9 c
Habitat Assessment	-	-	-	58	58	58	58	58	58
Microbiology (# counts/100ml)									
Fecal Coliforms-Membrane Filter	≤ 800 s	-	1 K	45 BK	20 BK	20 BK	10 BK	30 BK	25 BK
Total Coliforms	≤ 2400 s	-	1 K	190 BK	60 BK	30 BK	30 BK	40 BK	60 BK
Toxicology Bioassays (48-hour acute screening, percent mortality in 100% effluent)									
Fish (*Menidia beryllina*)	-	NOEC	0%	-	-	-	-	-	-
Mysid (*Americamysis bahia*)	-	NOEC	100%	-	-	-	-	-	-

Value exceeds Class III Water Quality Criteria or Permit Limits or Both

* - Effluent Limits are for a 24-hr Composite sample.

** - The Effluent sample from 3/29/04 was a Grab sample.

c - Value is calculated

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

B - Results based on colony counts outside the acceptable range

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

J - Estimated value

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

Q - Sample held beyond normal holding time

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

s - Single sample

t - turbidity limit equals background turbidity + 29

the Point Source Studies Review Committee (Shannan Gunnoe, Wayne Magley, and Michael Tanski).

Results and Discussion

- Specific chemical results from the effluent samples are reported in Table 1 and a complete list of chemical analytes can be reviewed in Appendix 4. Aluminum, copper, and nickel were detected in the effluent at levels below the practical quantitation limit and above the minimum detection limit. Effluent metals complied with Class III Marine Water Quality Criteria (62-302, F.A.C.) and facility permit limits. No organic pollutants were detected in the effluent.
- Effluent pH (Standard Units) and dissolved oxygen (mg/L) did not exceed Class III Marine Water Quality Criteria (62-302, F.A.C.) or facility permit limits.
- The effluent sample was acutely toxic to the mysid shrimp, *Americamysis bahia*. Test organism mortality was 100% at 48 hours and is an exceedance of Rules 62-302.500(1) (a) (4), and 62-302.530 (62), F.A.C. The test results did not indicate toxicity to the fish, *Menidia beryllina*. While the 48-hour acute screening toxicity tests do not reflect the permit required conditions, the Department uses it to provide reasonable assurance that the facility does not adversely affect waters of the state. Previous research conducted by the FDEP demonstrated that *A. bahia* is more sensitive to seawater-ion imbalances than is *M. beryllina* (FDEP, 1995). As part of the reverse osmosis water treatment process, the source water is stripped of its ions and ACS-grade salts are added to the reject water to adjust the major seawater ions to the proportions present in natural seawater. Often, these salts do not provide a complete proportional match of all the ions, resulting in an imbalance of the major seawater ions. In the Sarasota effluent sample, the calcium concentration was 2.7 times the amount in natural 35 ppt seawater and may have caused the toxicity to the mysid shrimp.
- Effluent levels of combined radium 226 and 228 (15.9 pCi/L) and radium 226 (15.3 pCi/L) exceeded the Class III Marine Water Quality Criteria (62-302(58) (a) (b), F.A.C., and the facility's permit limit (5 pCi/L).
- The effluent total nitrogen concentration was 1.22 mg/L (Table 1). Effluent total phosphorus (0.22 mg/L), ortho-phosphate (0.013 mg/L), and ammonia concentrations (0.49 mg/L, Table 1) did not appear to contribute to levels at the receiving water stations. There did not appear to be any pattern of increased nutrients with proximity to Hog Creek. Nutrients at all stations ranged from the 5^{th}-70^{th} percentile when compared with levels typical of Florida estuaries (Appendix 5).
- The effluent level of TSS (17 mg/L) exceeded the facility's permit limit (5 mg/L).
- Rhodamine dye was injected into the effluent pipe continuously for several hours (see Appendix 3 for a complete methods description). The maximum reading at the end of pipe was ~31 ppb. The dye plume was followed for several hours during an incoming and outgoing tide on March 22, 2004. Due to the rapid initial dilution and strong winds, a dilution gradient could not be established. Instead, stations were located south of the outfall, along the course of the prevailing winds, at stations with similar depths and sediment types (see Appendices 1 and 3 for additional details).
- Habitat scores were the same across all sampling stations (58 points), placing them in the "Good" category. The shoreline consisted mostly of rip-rap and sediments were a combination of sand, gravel, and shell. There were extensive man-made discharges and alterations in the area (see Habitat Assessment Data Sheets in Appendix 7).
- Dissolved oxygen (DO as mg/L), and pH (Standard Units) at all stations complied with Class III Marine Water Quality Criteria (Table 1, 62-302.530, F.A.C.) and were within normal ranges.

Table 2. Measured algal growth potential (AGP) for total soluble inorganic limitation. Test species was *Dunaliella tertiolecta.*

Sarasota Reverse Osmosis Water Treatment Plant	AGP (measured)	Inorganic N:P ratio
Effluent (mg dry wt/L) 3/29/04	7.4	54.6
Station 1 (mg dry wt/L) 3/23/04	4.24	1.73
Station 2 (mg dry wt/L) 3/23/04	6.58 A	6.41
Station 3 (mg dry wt/L) 3/23/04	4.73	2.25
Station 4 (mg dry wt/L) 3/23/04	4.76	0.63
Station 5 (mg dry wt/L) 3/23/04	6.36	2.83
Station 6 (mg dry wt/L) 3/23/04	4.53	2.17

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

Table 3. Sediment charcterisitcs, presence of organic constituents and metals content

Sarasota Reverse Osmosis Water Treatment Plant	Sediment Quality Assessment Guidelines		Station 1		Station 2		Station 3		Station 4		Station 5		Station 6	
	TEL	PEL												
Particle size distribution (percent volume <2mm)														
<0.063 mm	-	-	33.4		5.34		33.8		27.6		34.1		5.87	
0.063-0.125 mm	-	-	12.3		2.45		9.1		7.76		9.87		7.11	
0.125-0.25 mm	-	-	29.9		20.5		28.4		32.6		31.4		45.1	
0.25-5.0 mm	-	-	15.2		41.6		22.3		23.4		14.6		27	
0.5-2.0 mm	-	-	9.31		30.1		6.41		8.66		9.95		14.9	
>2.0 mm (percent dry weight)	-	-	10		12		14		1	K	18		7.7	
Organic content														
Organic content as percent of dry weight	-	-	5.5		1.4		3.5		3.9		3.6		2.8	
Organic constituents (ug/kg)														
Benzo(a)pyrene	88.8	763	110 *	I	87.0	I	87	U	78	U	76	U	76	U
Benzo(b)fluoranthene	-	-	190.0	I	150	I	120	I	78	U	76	U	76	U
Bis(2-ethylhexyl)phthalate	182	2647	810 *	I	490	U	520	U	470	U	460	U	450	U
Chrysene	108	846	100.0	I	94	I	87	U	78	U	76	U	76	U
Fluoranthene	113	1494	160 *	I	130 *	I	87	U	78	U	76	U	76	U
Pyrene	153	1398	150.0	I	120	I	87	U	78	U	76	U	76	U
Chlordane	2.26	4.79	9.8 **	I	12 **	I	7.2	U	6.4	U	6.3	U	6.2	U
DDD-p,p'	1.22	7.81	0.91	U	0.89	U	0.96	U	0.85	U	5.4 *		0.83	U
DDE-p,p'	2.07	3.74	1.8	I	1.1	I	0.96	U	0.85	U	1.7	I	0.83	U
DDT-p,p'	1.19	4.77	1.4	U	9 **		1.4	U	1.3	U	1.3	U	1.2	U
Metals (mg/kg)														
Aluminum	-	-	4300.0	A	3500.0		6800.0		3000.0		4800.0		2600.0	
Cadmium	0.676	4.21	1.5 *	AJ	1.7 *	J	2.6 *	J	1.6 *	J	2 *	J	0.9 *	J
Chromium	52.3	160	29.7	A	20.4		333 **		54.6 *		106 *		117 *	
Copper	18.7	108	11.0	UJ	11	UJ	12	IJ	15	IJ	14	IJ	11	UJ
Iron	-	-	2840.0	A	2360		4070		13600		4270		1510	
Lead	30.2	112	17.4	A	22.2		10.7		23.3		5		8.2	
Nickel	15.9	42.8	6.5	A	5.21		45.6 **		26.9 *		258 **	A	31.9 *	
Silver	0.733	1.77	0.2	IJ	0.15	UJ	0.21	UJ	0.78	UJ	0.68	UJ	0.76	UJ
Zinc	124	271	26.0	I	18.0	I	26.0	I	12.0	I	22.0	I	12.0	I

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

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

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

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

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

J - Estimated value

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

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

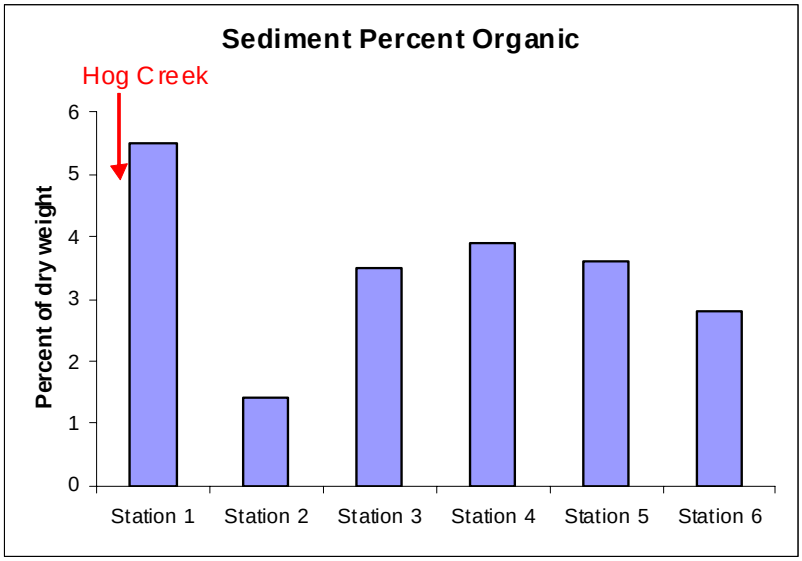


Figure 1. Sediment Percent Organic for the six sampling stations at Sarasota RO Plant.

- Algal growth potential (AGP) is a measure of nutrients available for algal growth (Miller *et al*. 1978). Raschke and Shultz (pers. comm., Ron Raschke USEPA Region 4 1987) found that AGP above 10.0 mg dry wt/L represents a "problem" threshold for marine receiving waters, implying nutrient enrichment. The AGP values of the effluent (7.4 mg dry wt/L) and the receiving water stations (4.24 - 6.58 mg dry wt/L) were not above this threshold (Table 2) indicating no nutrient enrichment related to the Sarasota RO plant discharge in this portion of Sarasota Bay.
- Chlorophyll *a* was not detected at any stations in Sarasota Bay (Table 1).
- Sediments were collected at all stations for determination of grain size and percent organic content. Sediments were sand/silt/clay mixtures, with a somewhat greater percentage of organic material at Station 1, the first site south of Hog Creek, compared to other stations (Table 3, Figures 1 and 2).
- The following organic constituents were detected in sediments at Station 1 at levels above the MDLs and below the PQLs: benzo(a)pyrene, benzo(b)fluoranthene, bis(2-ethylhexyl)phthalate, chrysene, fluoranthene, pyrene, chlordane, and DDE-p,p'. Of these, benzo(a)pyrene, bis(2-ethylhexyl)phthalate, and fluoranthene were detected at levels that exceeded the Florida Coastal Sediment Quality Guideline Threshold Effect Levels (TELs), while chlordane was detected above the Probable Effect Level (PELs) (MacDonald 1994, Appendix 3). The TEL represents the upper limit of the range of sediment contaminant concentrations where sediments are not considered to represent significant hazards to aquatic organisms. PELs are defined as the lower limit of the range of contaminant concentrations that are usually or always associated with adverse biological effects. In other words, concentrations below the TEL most likely will not cause harm to aquatic organisms while concentrations above the PEL are likely to have harmful effects. At Station 2, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, fluoranthene, pyrene, chlordane and DDE-p,p', and DDT-p,p' were detected at levels above the MDLs and below the PQLs. Fluoranthene exceeded the TEL while chlordane and DDT-p,p' exceeded the PELs. Benzo-(b)fluoranthene was detected at Station 3 at a level above the MDL and below the PQL. At Station 5, DDD-p,p' exceeded the TEL and DDE-p,p' was above the MDL and below the PQL.
- Cadmium was estimated at all stations where it exceeded the TEL in the sediments at all receiving water stations. Chromium exceeded TELs at Stations 4-6 and the PEL at Station 3. Copper was detected at Stations 3-5 at levels that were above the MDL and below the PQL. Lead was detected at all stations at levels that did not exceed the TELs or PELs. Nickel exceeded the TEL at Stations 3 and 6 and the PEL at Stations 2 and 5. Silver was detected at Station 1 at a level that was above the MDL and below the PQL. Zinc was detected at all stations at levels above the MDL and below the PQL.
- Quantitative measures of benthic macroinvertebrate assemblages from ponar samples did not show any clear pattern of degradation with proximity to the mouth of Hog Creek (Table 4, Appendices 8a and 8b). Although values for taxa richness and number of individuals were substantially lower at Stations 5 and 6 compared to Stations 1-4, there is no apparent correlation with these values and the effluent or sediment chemistry results. Polychaetes were the dominant taxa at Stations 1-3. Oligochaetes, amphipods, and bivalves were the dominant taxa at Stations 4-6, respectively. Additional multivariate statistical

Table 4. Macroinvertebrate Ponar Samples - Quantitative

Sarasota Reverse Osmosis Water Treatment Plant	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6
Summary Statisics						
Shannon-Weaver Diversity	5.02	5.22	4.73	5.24	4.73	3.34
Number of Taxa	74	70	76	79	36	19
Percent Dominant Taxon	14.5	7.9	20.6	10.5	8.5	28.3
Dominant Taxon (name)	Cirratulidae	Cirratulidae	Cirratulidae	Tubificidae	Microprotopus raneyi	Tellina
Dominant Taxon (group)	Polychaeta	Polychaeta	Polychaeta	Oligochaeta	Amphipoda	Bivalvia
Number of samples/site	5	5	5	5	5	5
Total Number of Individuals	463	365	611	532	106	74
Community Composition: Percent of total						
Amphipoda	17.3	28.0	24.2	24.4	38.6	9.5
Bivalvia	4.1	6.3	3.9	5.1	5.7	28.3
Decapoda	4.3	7.9	1.5	2.5	4.7	1.4
Diptera	0.2	0.0	0.0	0.0	1.0	0.0
Gastropoda	5.4	3.3	2.8	1.9	4.7	1.4
Isopoda	1.7	1.1	0.5	2.5	1.9	0.0
Oligochaeta	11.0	7.1	6.7	10.5	6.6	22.9
Polychaeta	53.5	41.1	56.0	49.2	34.0	24.3
Other	2.4	5.2	4.4	4.0	2.8	12.2
Functional Feeding Groups: Percent of total						
Browser / Grazer	6.5	15.4	11.0	10.2	18.4	2.0
Burrowing Deposit Feeders	20.3	12.6	21.8	18.2	12.3	32.4
Predators	4.7	7.2	5.6	7.0	9.9	4.1
Scavengers	8.5	14.6	11.3	12.1	17.4	2.0
Scrapers	4.6	2.1	1.2	1.1	3.8	1.4
Shredders	0.3	0.0	0.0	0.2	0.0	0.0
Surface Deposit Feeders	25.9	17.0	28.9	24.7	17.5	7.4
Suspension Feeders	13.4	15.9	13.1	16.0	12.3	41.2
Unknown	15.9	15.2	7.1	10.4	8.5	9.5

analyses failed to reveal any clear patterns on the effect of the discharge on the macroinvertebrate community at the sampling stations in Sarasota Bay.

- Shannon-Weaver diversity was above the 90th percentile of typical Florida estuaries at Stations 1-5 and above the 60th percentile at Station 6 (see Typical Values for Selected Parameters in Florida Estuaries, Appendix 5). For complex communities with hundreds of species, diversity does not become an unbiased estimator of diversity until 300+ individuals have been tallied (e.g. Lande 1996). This information should be taken into account when evaluating the results for Stations 5 and 6 (n=106, n=74).

Summary

Effluent levels of combined radium 226 and 228 (15.9 pCi/L) and radium 226 (15.3 pCi/L) exceeded the Class III Marine Water Quality Criteria (62-302(58)(a)(b), F.A.C.) and the facility's permit limit (5 pCi/L).

The effluent sample was acutely toxic to the mysid shrimp, *Americamysis bahia*. Test organism mortality was 100% at 48 hours and is a violation of Rules 62-302.500(1)(a)(4), and 62-302.530(62), F.A.C. The test results did not indicate toxicity to the fish, *Menidia beryllina*. Previous research conducted by the FDEP demonstrated that *A. bahia* is more sensitive to seawater-ion imbalances than is *M. beryllina.* This mortality was probably caused by sensitivity to an imbalance in the proportions of major seawater ions common in the reverse osmosis treatment process rather than an unidentified toxicant. However, follow-up bioassay tests may be warranted to verify this and determine the actual cause of toxicity.

TSS in the effluent sample (17 mg/L) exceeded the facility's permit limit (5 mg/L) and according to discharge monitoring reports, has been an ongoing issue for the facility.

A number of organic priority pollutants and metal contaminants were present in the sediments at levels that exceeded TELs and or PELs at Stations 1, 2 and 5 in Sarasota Bay. These contaminants were not detected in the effluent sample at correspondingly elevated levels, nor did the contaminants show any clear distributional patterns relative to their proximity to the outfall. Quantitative measures of benthic macroinvertebrate assemblages did not show any consistent pattern of degradation with proximity to the mouth of Hog Creek or in relation to the contaminants present in the sediments. However, sediments integrate contaminants over time and are of fundamental importance to benthic communities; therefore, the presence of these contaminants at these elevated levels is cause for concern and warrants additional monitoring in order to determine the source and potential effects on longer-lived organisms with a greater susceptibility to bioaccumulation.

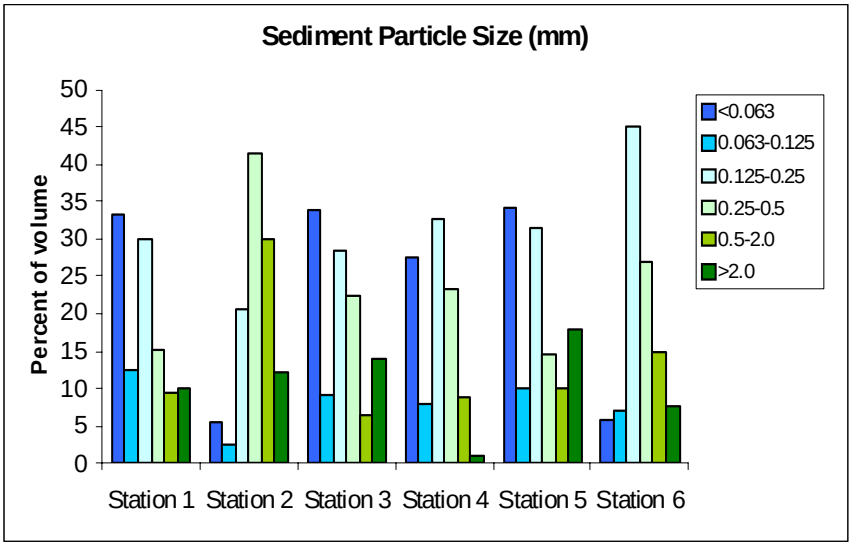


Figure 2. Sediment Particle Size for the six sampling stations at Sarasota RO Plant.

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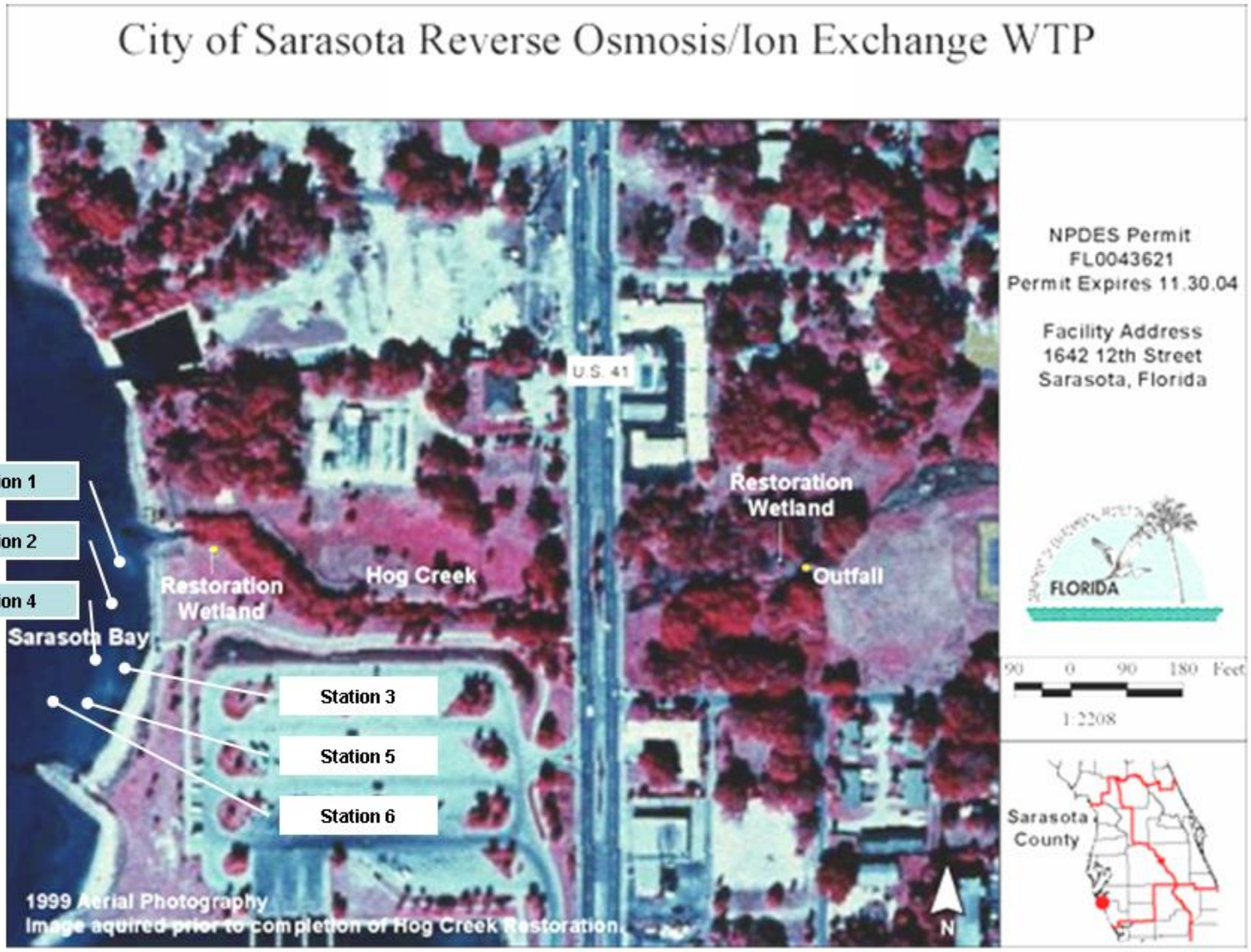
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Appendices

- Appendix 1. Map of facility
- Appendix 2. Facility summary
- Appendix 3. Measurements and data interpretation
- Appendix 4. Chemical analyses of effluent and receiving water.
- Appendix 5. Typical values for selected parameters in Florida estuaries
- Appendix 6. Additional physical, chemical, toxicological and microbiological results
- Appendix 7. Habitat Assessment field sheets
- Appendix 8a. Ponar samples: Taxa list and macroinvertebrate density (average number of individuals per m^2)
- Appendix 8b. Ponar samples: Taxa list and total number of macroinvertebrates counted
- Appendix 9. Discharge Monitoring Report data
- Appendix 10 District effluent data for 3/29/04

Appendix 1

Map of Facility



Appendix 2

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENT PROECTION
FACILITY

Facility name: City of Sarasota Reverse Osmosis/Ion Exchange Water Treatment Plant
Date of Summary: February 3, 2004

Location (detailed ARC view map attached): See Attached site location map County: Sarasota District: SWD

NPDES Permit: FL0043621 State GMS # and Facility Type: Industrial Waste
State expiration date: November 30, 2004

Function of facility: The facility is a potable water treatment facility.

Description of treatment process: The wastewater discharged consists of reject water from the Reverse Osmosis process and the rinse and regeneration wastewaters from the Ion Exchange process.

Receiving waters: Hog Creek, which is a tributary to Sarasota Bay, an OFW Classification of water: III Predominantly Marine

Design Flow: The NPDES permit does not contain a design flow, although according to a facility construction/modification permit, the discharge flow of 2.8 MGD is listed.

Mean Flow (12 month average): Mean average daily flow = 2.3 MGD
Flow during survey: Mean maximum daily flow = 2.7 MGD

Discharge is: Continuous Therefore, the best time to sample the outfall is: Anytime

If facility has a mixing zone proved details (size and parameters): The facility does not currently have a mixing zone but has expressed interest in applying for a mixing zone for radium 226 & 228 and gross alpha. The facility submitted a request for a variance of the standards for radium 226/228 and gross alpha particle activity, in addition to the dilution requirements of Rule 62-4.244(3) in reference to acute toxicity.

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

Parameter (units)	Discharge Limitations			Monitoring Freq.
	Min	Max	30-day Ave.	
Flow (MGD)	N/A	2.8	Report	Continuous
$CBOD_5$ (mg/L)	N/A	5.0	Report	1 / week
Total Suspended Solids (mg/L)	N/A	5.0	Report	1 / week
Total Nitrogen (mg/L)	N/A	3.0	Report	1 / week
Total Phosphorus (mg/L)	N/A	1.0	Report	1 / week
Combined Radium 226/228 (pCi/L)	N/A	5.0	Report	1 / week
Gross Alpha Particle Activity (pCi/L)	N/A	15.0	Report	1 / week
pH (s.u.)	6.5	8.0	Report	Continuous
Dissolved Oxygen (mg/L)	5.0	N/A	N/A	1 / day
Specific Conductance (umhos/com)	Report	Report	N/A	1 / day
Iron (mg/L)	N/A	0.3	Report	1 / week
Fluoride (mg/L)	N/A	5.0	Report	1 / week
Hydrogen Sulfide (mg/L)	N/A	0.04	N/A	1 / week
Total Residual Chlorine (mg/L)	N/A	0.01	N/A	1 / day
Chlorides (mg/L)	N/A	Report	Report	1 / week
Total Recoverable Cadmium (µg/L)	N/A	9.3	N/A	1 / month*
Total Recoverable Copper (µg/L)	N/A	2.9	N/A	1 / month*
Whole Effluent Toxicity	Marine definitive chronic – every 6 months			

* Single sample except for flow

Describe special permit conditions and permit modifications:
As required by the NPDES permit, the facility must conduct Hog Creek ambient water quality and biological monitoring on a quarterly basis in order to assess the existing Hog Creek ecosystem, establish an environmental baseline and monitor future hydrobiological changes, if any. The monitoring began prior to the Hog Creek Restoration Project, resulting in pre- and post-restoration comparison reports.

Description of permitted outfall(s):

The facility discharges into Hog Creek, waterbody ID 1951, Class III predominantly marine water, through a 5-foot culvert. The effluent is discharged into a wetland/mixing pond, which drains into Hog Creek, which leads to Sarasota Bay. The outfall location was recently restored under the Hog Creek Restoration Project, headed up by DEP and the Sarasota National Estuary Program in order to re-establish productive estuarine tributary habitat that will be beneficial to the improvement and maintenance of biological diversity in Sarasota Bay.

List permit violations (form DMR data or other sources) and plant upsets that occurred within past year:
The facility's Discharge Monitoring Reports (DMRs) were reviewed from October 2002 through September 2003. Table 1 contains the permit limit exceedances as reported on the DMRs.

Table 1: Effluent permit limit exceedances as reported on the facility's discharge monitoring reports.

Parameter	Date of Violation	Result	Permit Limit Exceedances		Permit Limit	Units
			Daily Max	Daily Min		
Hydrogen Sulfide	October 2002		0.31		0.04	mg/L
Flow	October 2002 (2x)		3.1		2.8	MGD
Flow	November 2002 (29x)		3.3		2.8	MGD
Hydrogen Sulfide	December 2002		0.32		0.04	mg/L
Flow	December 2002 (9x)		3.2		2.8	MGD
Hydrogen Sulfide	January 2003 (2x)		0.56		0.04	mg/L
Flow	January 2003 (3x)		3.0		2.8	MGD
Chronic Toxicity Test (routine) *A. bahia* survival, growth & fecundity	January 14 – 21, 2003	50% 50% 50%			100%	%
Chronic Toxicity Test (addtl) *A. bahia* survival, growth & fecundity	February 10 – 17, 2003	50% 50% 50%				%
TSS	February 2003		6.3		5.0 max	mg/L
Hydrogen Sulfide	February 2003 (2x)		0.55		0.04 max	mg/L
Flow	March 2003 (5x)		2.9		2.8 max	MGD
Total Suspended Solids (TSS) [1]	March 2003		**6.6**		5.0 max	mg/L
Chronic Toxicity Test (routine) *A. bahia* survival & growth	July 7 – 14, 2003	50% 50%			100%	%
Chronic Toxicity Test (addtl) *A. bahia* survival, growth & fecundity [2]	July 28 – Aug 04, 2003	50% 25% 25%			100%	%
pH	Sept 2003			6.2	6.5 min	s.u.

1 Per a letter from the City dated April 21, 2003, the TSS exceedance was attributed to weather conditions with 29 mph winds during the week of March 17, 2003.
2 Toxicity attributed to ion-imbalance.

Describe previous impact bioassessments, WQBELs, and previous or current enforcement actions:

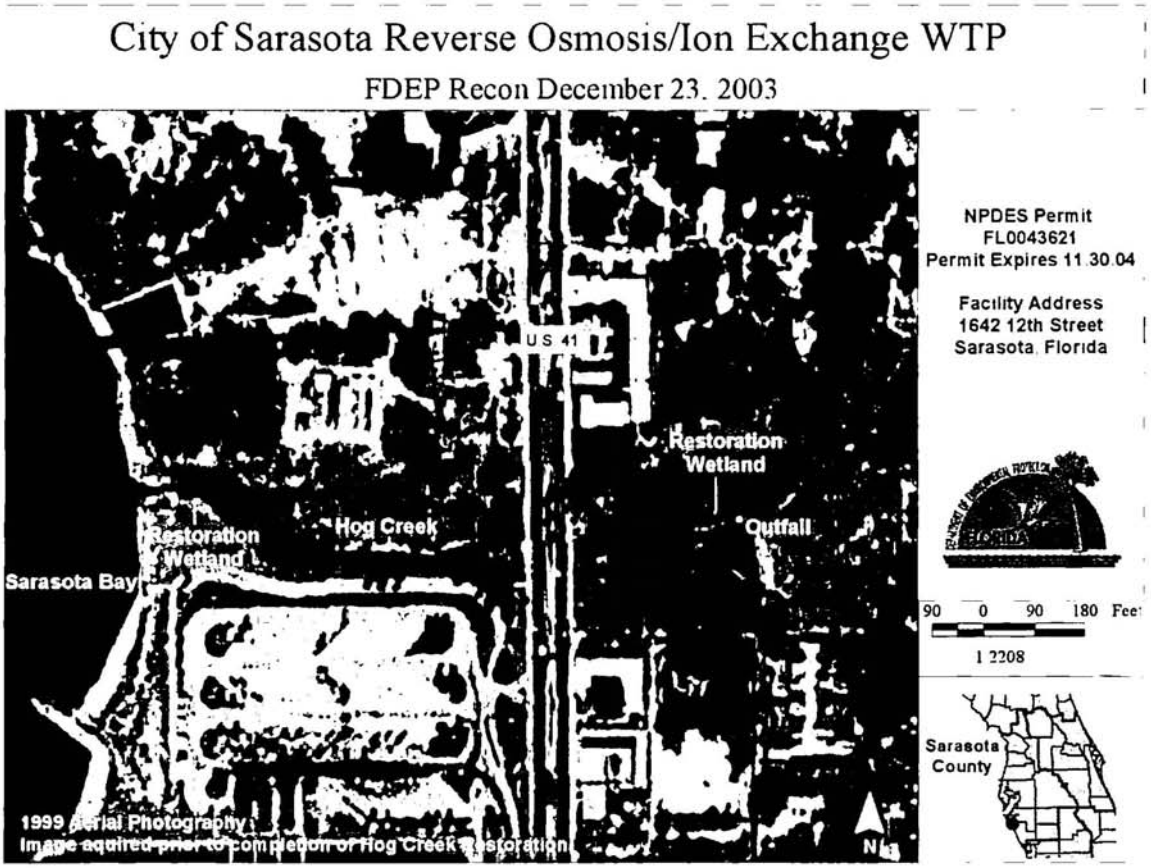
According to a letter dated December 31, 2001, from Jan Mandrup-Poulsen, FDEP, a Level I WQBEL was performed on March 28, 1991. Based on the WQBEL data, the initial conclusion was that the City of Sarasota RO/Ion Exchange WTP was unable to meet water quality standards for specific conductance, dissolved oxygen, total chlorine residual, radium 226, gross alpha particle activity levels. However, the study concluded that no overall negative influence could be detected in Sarasota Bay.

On June 8, 1999, the facility was issued an Administrative Order, AO-040-SW, which ordered the plant to submit plans to the Department for bringing the discharge into compliance with acute and chronic whole effluent toxicity, radium 226/228 and gross alpha particle activity. On August 30, 2001, a variance request was submitted for review for radium 226/228 and gross alpha particle activity.

Discuss comparability of DMR results to past DEP sampling results and whether there are trends (improving, declining) in the data set. If ambient monitoring is required by permit then discuss results:
The Department is in the process of conducting an internal review of the ambient data results. Quarterly reports are provided to the Department by Mote Marine Laboratory, that conduct water and sediment quality pre- and post-restoration comparisons between Hog Creek and a reference location within Palma Sola Creek, which is outside of the influence of the brine reject discharge. Copies of these reports can be provided to staff in Tallahassee upon request.

Additional information
Hog Creek, WBID 1951, was listed on the 303D 1998 list for nutrients, although the WBID was not placed on the Planning List.

Figure 1: City of Sarasota RO/Ion Exchange WTP surface water discharge site location map.



Staff contributing to this review:
Biologist: Melissa Gunter
Inspector:
Engineer:
Grey line denotes that biologist should know data
Black line denotes that inspector or engineer should know data

Appendix 3

Explanation of Measurements

(1) Quality Assurance and Quality Control

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

(2) Chemical Analyses of the Effluent

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

(3) Toxicity Bioassays

Acute screening toxicity bioassays were performed on the effluent sample using the water flea, *Americamysis bahia,* and the fish, *Menidia beryllina* 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 sampling stations were analyzed for the presence and concentration of total and fecal coliform bacteria following FDEP SOPs MB1_0 and MB1_1. High levels of fecal or total coliform bacteria may constitute violation of 62-302.530(6), 62-302.530(7) and/or facility permit limits.

(5) Establishment of Sampling Stations

Rhodamine dye was continuously fed into the effluent stream and tracked in the receiving water using a fluorometer. Rhodamine is a conservative tracer and may be used to track dilution to <1% of effluent. Background readings of fluorescence were taken to correct for interference in the water column. Rhodamine dye was fed into the effluent pipe for several hours of continuous injection (see Appendix 3 for a complete methods description). The maximum reading at the end of pipe was ~31 ppb. The dye plume was followed for several hours during an incoming and outgoing tide on March 29, 2004. Due to an initial dilution and strong winds a dilution gradient could not be established. Instead, stations were located south of the outfall, along the course of the prevailing winds, at stations with similar depths and sediment types

Dye concentration was adjusted to give approximately 31 ppb at the end of the discharge pipe. The dye study was conducted on March 29, 2004. Dye injection began on an incoming tide and continued through slack water until low tide. A boat was used to continuously pump receiving water through the fluorometer, recording the dye concentration at the end of the outfall and tracking the path of the effluent plume. Weather conditions were confounded by strong winds from the northwest that drove the effluent back onto the adjoining shore.

Replicate stations were then established after measurement of effluent dilution in the receiving water. Because the effluent plume moved approximately parallel to the shoreline, stations were selected in the same depth of water at similar distances from the shoreline. Effluent dilution varied depending on tidal flow and was more rapid during periods of strong flow, so estimates of the exposure of stations to effluent were made based on the range of values recorded. Two stations (1, 2, 4 and 5) were located at increasing distances south of the outfall after the effluent entered hog Creek at estimated effluent exposures of 10-30% (see Appendix 1 for map). Station 3 was located approximately 10 meters east (inshore) of Station 4. Station 6 was approximately 10 m to the west (offshore) of Station 5. All stations were placed at estimated effluent dilutions of 1-3%.

(6) Algal Growth Potential (AGP)

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

The concentration of nutrients in a water sample may be used to calculate the expected yield of AGP in a low salinity sample under the assumption that other required nutrients (e.g. silicon, micronutrients) are present in excess (Miller *et al*. 1978). The expected amount of production is calculated as 38 times the total soluble inorganic nitrogen (nitrate and nitrite plus ammonia) under nitrogen limitation or 430 times the ortho-phosphate (OP) concentration under phosphorus limitation with an error of ± 20%. When the ratio of nitrogen to phosphorus (N:P) is less than 10:1, nitrogen limitation of algal production is likely. When the N:P ratio

is 20:1 or greater, phosphorus limitation is likely (EPA-822-B-00-002). For ratios in-between, co-limitation may occur. Production of lower biomass than expected may be evidence of growth inhibition related to toxic compounds present in the water sample tested and may be a violation of 62-302.530(62) F.A.C.. Expected AGP cannot be calculated for marine samples incubated with *Dunaliella.*

(7) Sediment Sampling

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

When cores were collected, the core was split and the depth of the discontinuity layer was measured to the nearest mm with a ruler. The discontinuity layer, where present, is a line at varying depths in the sediment where the sediments become black and anoxic. Where it can be measured, the discontinuity layer provides an estimate of the oxygenation depth of sediments. For example, in polluted or highly organic sediments, the discontinuity layer is usually <10 mm deep while in well-aerated sediments, it may be >10 cm.

Due to the coarseness of the some of the sediments, the discontinuity layer could not be consistently measured.

(8) Sediment Quality Assessment Guidelines

These guidelines define the ranges of contaminant concentrations that can be used to evaluate sediment quality data. Data used to generate the guidelines are primarily based on acute toxicity studies. The Threshold Effect Level (TEL) represents the upper limit of the range of contaminant concentrations that do not represent significant hazards to aquatic organisms. The Probably Effect Level (PEL) defines the lower limit of the range that is usually or always associated with adverse biological effects. Concentrations in this range are considered to represent significant or immediate hazards to aquatic organisms. Between these ranges, adverse biological effects are possible but it is difficult to predict the severity of the effects. It is important to note that these guidelines do not address the potential for bioaccumulation.

(9) Algal Phytoplankton

Methods: Phytoplankton were sampled using a 1 L grab sample (QA Rule SOP FS7100).

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..

(10) Benthic Macroinvertebrate Assemblages

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

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

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

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

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

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

(11) 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. Preliminary multivariate analyses were performed using Primer^{TM} to explore the pattern of macrobenthic community structure among sampling sites.

Appendix 4

Chemical analysis of effluent and receiving water

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/22/2004 10:55	Effluent	BNA-Water	1,2,4-Trichlorobenzene	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	1,2-Dichlorobenzene	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	1,3-Dichlorobenzene	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	1,4-Dichlorobenzene	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	2,4,6-Trichlorophenol	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	2,4-Dichlorophenol	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	2,4-Dimethylphenol	47	ug/L	U	47	190
3/22/2004 10:55	Effluent	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	56
3/22/2004 10:55	Effluent	BNA-Water	2,4-Dinitrotoluene	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	2,6-Dinitrotoluene	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	2-Chloronaphthalene	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	2-Chlorophenol	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	2-Methyl-4,6-dinitrophenol	2.8	ug/L	U	2.8	11
3/22/2004 10:55	Effluent	BNA-Water	2-Nitrophenol	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	3,3'-Dichlorobenzidine	37	ug/L	U	37	150
3/22/2004 10:55	Effluent	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.6
3/22/2004 10:55	Effluent	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.6
3/22/2004 10:55	Effluent	BNA-Water	4,4'-DDT	1.4	ug/L	UJ	1.4	5.6
3/22/2004 10:55	Effluent	BNA-Water	4-Bromophenyl phenyl ether	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	4-Chloro-3-methylphenol	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.5
3/22/2004 10:55	Effluent	BNA-Water	4-Nitrophenol	14	ug/L	U	14	56
3/22/2004 10:55	Effluent	BNA-Water	Acenaphthene	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	Acenaphthylene	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.6
3/22/2004 10:55	Effluent	BNA-Water	Anthracene	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	Benzidine	93	ug/L	U	93	370
3/22/2004 10:55	Effluent	BNA-Water	Benzo(a)anthracene	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	Benzo(a)pyrene	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	Benzo(b)fluoranthene	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	Benzo(g,h,i)perylene	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	Benzo(k)fluoranthene	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	Bis(2-chloroethoxy)methane	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	Bis(2-chloroethyl)ether	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	Bis(2-chloroisopropyl)ether	2.8	ug/L	U	2.8	11
3/22/2004 10:55	Effluent	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	56
3/22/2004 10:55	Effluent	BNA-Water	Butyl benzyl phthalate	4.7	ug/L	U	4.7	19
3/22/2004 10:55	Effluent	BNA-Water	Chrysene	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	Di-n-butyl phthalate	4.7	ug/L	U	4.7	19
3/22/2004 10:55	Effluent	BNA-Water	Di-n-octyl phthalate	0.93	ug/L	U	0.93	3.7

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/22/2004 10:55	Effluent	BNA-Water	Dibenzo(a,h)anthracene	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.6
3/22/2004 10:55	Effluent	BNA-Water	Diethyl phthalate	0.97	ug/L	I	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	Dimethyl phthalate	47	ug/L	U	47	190
3/22/2004 10:55	Effluent	BNA-Water	Endosulfan I	3.7	ug/L	U	3.7	15
3/22/2004 10:55	Effluent	BNA-Water	Endosulfan II	3.7	ug/L	U	3.7	15
3/22/2004 10:55	Effluent	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.6
3/22/2004 10:55	Effluent	BNA-Water	Endrin	1.4	ug/L	UJ	1.4	5.6
3/22/2004 10:55	Effluent	BNA-Water	Endrin aldehyde	3.7	ug/L	U	3.7	15
3/22/2004 10:55	Effluent	BNA-Water	Fluoranthene	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	Fluorene	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.6
3/22/2004 10:55	Effluent	BNA-Water	Heptachlor epoxide	1.4	ug/L	UJ	1.4	5.6
3/22/2004 10:55	Effluent	BNA-Water	Hexachlorobenzene	0.93	ug/L	UJ	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	Hexachlorobutadiene	2.8	ug/L	UJ	2.8	11
3/22/2004 10:55	Effluent	BNA-Water	Hexachlorocyclopentadiene	2.8	ug/L	UJ	2.8	11
3/22/2004 10:55	Effluent	BNA-Water	Hexachloroethane	2.8	ug/L	U	2.8	11
3/22/2004 10:55	Effluent	BNA-Water	Indeno(1,2,3-cd)pyrene	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	Isophorone	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.5
3/22/2004 10:55	Effluent	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.5
3/22/2004 10:55	Effluent	BNA-Water	N-Nitrosodiphenylamine	2.8	ug/L	U	2.8	11
3/22/2004 10:55	Effluent	BNA-Water	Naphthalene	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.5
3/22/2004 10:55	Effluent	BNA-Water	Pentachlorophenol	2.8	ug/L	U	2.8	11
3/22/2004 10:55	Effluent	BNA-Water	Phenanthrene	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	Phenol	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	Pyrene	0.93	ug/L	U	0.93	3.7
3/22/2004 10:55	Effluent	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.6
3/22/2004 10:55	Effluent	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.6
3/22/2004 10:55	Effluent	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.6
3/22/2004 10:55	Effluent	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.6
3/22/2004 10:55	Effluent	Bio-AGP/LimNut	Algal Growth Potential	4.72	mg DryWt/L		0.1	0.3
3/22/2004 10:55	Effluent	Bio-Toxicology	Bioassay-Acute-Screen-SW-Fish, LC50		100	LC50	L	
3/22/2004 10:55	Effluent	Bio-Toxicology	Bioassay-Acute-Screen-SW-Mysid, LC50		100	LC50	L	
3/22/2004 10:55	Effluent	GC-Water	Alachlor	0.57	ug/L	UJ	0.57	2.28
3/22/2004 10:55	Effluent	GC-Water	Aldrin	0.0094	ug/L	U	0.0094	0.0376
3/22/2004 10:55	Effluent	GC-Water	Alpha-BHC	0.0094	ug/L	U	0.0094	0.0376
3/22/2004 10:55	Effluent	GC-Water	Ametryn	0.047	ug/L	U	0.047	0.188
3/22/2004 10:55	Effluent	GC-Water	Atrazine	0.047	ug/L	UJ	0.047	0.188
3/22/2004 10:55	Effluent	GC-Water	Azinphos Methyl	0.047	ug/L	U	0.047	0.188
3/22/2004 10:55	Effluent	GC-Water	Beta-BHC	0.0094	ug/L	U	0.0094	0.0376
3/22/2004 10:55	Effluent	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
3/22/2004 10:55	Effluent	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/22/2004 10:55	Effluent	GC-Water	Chlordane	0.19	ug/L	U	0.19	0.76
3/22/2004 10:55	Effluent	GC-Water	Chlorpyrifos Ethyl	0.047	ug/L	U	0.047	0.188
3/22/2004 10:55	Effluent	GC-Water	Chlorpyrifos Methyl	0.094	ug/L	U	0.094	0.376
3/22/2004 10:55	Effluent	GC-Water	DDD-p,p'	0.019	ug/L	U	0.019	0.076
3/22/2004 10:55	Effluent	GC-Water	DDE-p,p'	0.019	ug/L	U	0.019	0.076
3/22/2004 10:55	Effluent	GC-Water	DDT-p,p'	0.028	ug/L	U	0.028	0.112
3/22/2004 10:55	Effluent	GC-Water	Delta-BHC	0.0094	ug/L	U	0.0094	0.0376
3/22/2004 10:55	Effluent	GC-Water	Diazinon	0.047	ug/L	U	0.047	0.188
3/22/2004 10:55	Effluent	GC-Water	Dieldrin	0.019	ug/L	U	0.019	0.076
3/22/2004 10:55	Effluent	GC-Water	Endosulfan I	0.019	ug/L	U	0.019	0.076
3/22/2004 10:55	Effluent	GC-Water	Endosulfan II	0.019	ug/L	U	0.019	0.076
3/22/2004 10:55	Effluent	GC-Water	Endosulfan Sulfate	0.019	ug/L	U	0.019	0.076
3/22/2004 10:55	Effluent	GC-Water	Endrin	0.047	ug/L	U	0.047	0.188
3/22/2004 10:55	Effluent	GC-Water	Endrin Aldehyde	0.019	ug/L	U	0.019	0.076
3/22/2004 10:55	Effluent	GC-Water	Ethion	0.047	ug/L	U	0.047	0.188
3/22/2004 10:55	Effluent	GC-Water	Ethoprop	0.094	ug/L	U	0.094	0.376
3/22/2004 10:55	Effluent	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
3/22/2004 10:55	Effluent	GC-Water	Fonofos	0.094	ug/L	U	0.094	0.376
3/22/2004 10:55	Effluent	GC-Water	Gamma-BHC	0.0094	ug/L	U	0.0094	0.0376
3/22/2004 10:55	Effluent	GC-Water	Heptachlor	0.0094	ug/L	U	0.0094	0.0376
3/22/2004 10:55	Effluent	GC-Water	Heptachlor Epoxide	0.019	ug/L	U	0.019	0.076
3/22/2004 10:55	Effluent	GC-Water	Hexazinone	0.094	ug/L	U	0.094	0.376
3/22/2004 10:55	Effluent	GC-Water	Malathion	0.14	ug/L	U	0.14	0.56
3/22/2004 10:55	Effluent	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
3/22/2004 10:55	Effluent	GC-Water	Methoxychlor	0.047	ug/L	U	0.047	0.188
3/22/2004 10:55	Effluent	GC-Water	Metolachlor	0.47	ug/L	UJ	0.47	1.88
3/22/2004 10:55	Effluent	GC-Water	Metribuzin	0.094	ug/L	U	0.094	0.376
3/22/2004 10:55	Effluent	GC-Water	Mevinphos	0.19	ug/L	UJ	0.19	0.76
3/22/2004 10:55	Effluent	GC-Water	Naled	0.75	ug/L	UJ	0.75	3
3/22/2004 10:55	Effluent	GC-Water	Norflurazon	0.094	ug/L	U	0.094	0.376
3/22/2004 10:55	Effluent	GC-Water	PCB-1016	0.19	ug/L	U	0.19	0.76
3/22/2004 10:55	Effluent	GC-Water	PCB-1221	0.19	ug/L	U	0.19	0.76
3/22/2004 10:55	Effluent	GC-Water	PCB-1232	0.19	ug/L	U	0.19	0.76
3/22/2004 10:55	Effluent	GC-Water	PCB-1242	0.28	ug/L	U	0.28	1.12
3/22/2004 10:55	Effluent	GC-Water	PCB-1248	0.19	ug/L	U	0.19	0.76
3/22/2004 10:55	Effluent	GC-Water	PCB-1254	0.28	ug/L	U	0.28	1.12
3/22/2004 10:55	Effluent	GC-Water	PCB-1260	0.19	ug/L	U	0.19	0.76
3/22/2004 10:55	Effluent	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
3/22/2004 10:55	Effluent	GC-Water	Parathion Methyl	0.094	ug/L	U	0.094	0.376
3/22/2004 10:55	Effluent	GC-Water	Phorate	0.047	ug/L	U	0.047	0.188
3/22/2004 10:55	Effluent	GC-Water	Prometryn	0.14	ug/L	UJ	0.14	0.56
3/22/2004 10:55	Effluent	GC-Water	Simazine	0.047	ug/L	U	0.047	0.188
3/22/2004 10:55	Effluent	GC-Water	Toxaphene	0.71	ug/L	U	0.71	2.84
3/22/2004 10:55	Effluent	Metals-Water	Aluminum	20	ug/L	U	20	80

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/22/2004 10:55	Effluent	Metals-Water	Arsenic	9	ug/L	U	9	36
3/22/2004 10:55	Effluent	Metals-Water	Cadmium	0.12	ug/L	U	0.12	0.5
3/22/2004 10:55	Effluent	Metals-Water	Calcium	448	mg/L		1	4
3/22/2004 10:55	Effluent	Metals-Water	Chromium	14	ug/L	U	14	56
3/22/2004 10:55	Effluent	Metals-Water	Copper	0.2	ug/L	U	0.2	0.8
3/22/2004 10:55	Effluent	Metals-Water	Iron	13	ug/L	I	10	40
3/22/2004 10:55	Effluent	Metals-Water	Lead	0.25	ug/L	U	0.25	1
3/22/2004 10:55	Effluent	Metals-Water	Magnesium	225	mg/L		0.4	1.6
3/22/2004 10:55	Effluent	Metals-Water	Nickel	1	ug/L	U	1	4
3/22/2004 10:55	Effluent	Metals-Water	Potassium	21.3	mg/L		0.04	0.16
3/22/2004 10:55	Effluent	Metals-Water	Selenium	10	ug/L	U	10	40
3/22/2004 10:55	Effluent	Metals-Water	Silver	0.1	ug/L	U	0.1	0.4
3/22/2004 10:55	Effluent	Metals-Water	Sodium	520	mg/L		20	80
3/22/2004 10:55	Effluent	Metals-Water	Zinc	5	ug/L	U	5	20
3/22/2004 10:55	Effluent	Nutrients-Liquid	Alkalinity	153	mg CaCO3/L		0.65	2.5
3/22/2004 10:55	Effluent	Nutrients-Liquid	Ammonia-N	0.22	mg N/L		0.01	0.02
3/22/2004 10:55	Effluent	Nutrients-Liquid	Bromide	3.2	mg Br/L	A	0.4	1
3/22/2004 10:55	Effluent	Nutrients-Liquid	Chloride	1000	mg Cl/L	A	40	100
3/22/2004 10:55	Effluent	Nutrients-Liquid	Fluoride	2.5	mg F/L		0.05	0.1
3/22/2004 10:55	Effluent	Nutrients-Liquid	NO2NO3-N	0.15	mg N/L		0.004	0.01
3/22/2004 10:55	Effluent	Nutrients-Liquid	N_KJEL_TOT	0.61	mg N/L	A	0.12	0.4
3/22/2004 10:55	Effluent	Nutrients-Liquid	O-Phosphate-P	0.011	mg P/L		0.004	0.01
3/22/2004 10:55	Effluent	Nutrients-Liquid	Sulfate	1800	mg SO4/L	A	40	100
3/22/2004 10:55	Effluent	Nutrients-Liquid	Sulfide	0.05	mg S/L	U	0.05	0.2
3/22/2004 10:55	Effluent	Nutrients-Liquid	TSS	4	mg/L	U	4	16
3/22/2004 10:55	Effluent	Nutrients-Liquid	Total-P	0.13	mg P/L	A	0.02	0.06
3/22/2004 10:55	Effluent	Overflow	Alpha, Total	27.6	pCi/L			
3/22/2004 10:55	Effluent	Overflow	Alpha-Counting Error	5.5	pCi/L			
3/22/2004 10:55	Effluent	Overflow	Oil and Grease	0.79	mg/l	I		
3/22/2004 10:55	Effluent	Overflow	Radium 226	7.8	pCi/L			
3/22/2004 10:55	Effluent	Overflow	Radium 226-Counting Error	0.4	pCi/L			
3/22/2004 10:55	Effluent	Overflow	Radium 228	1.2	pCi/L			
3/22/2004 10:55	Effluent	Overflow	Radium 228-Counting Error	0.6	pCi/L			
3/22/2004 10:55	Blank	BNA-Water	1,2,4-Trichlorobenzene	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	1,2-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	1,3-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	1,4-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	2,4,6-Trichlorophenol	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	2,4-Dichlorophenol	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
3/22/2004 10:55	Blank	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	57
3/22/2004 10:55	Blank	BNA-Water	2,4-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	2,6-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	2-Chloronaphthalene	0.95	ug/L	U	0.95	3.8

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/22/2004 10:55	Blank	BNA-Water	2-Chlorophenol	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	11
3/22/2004 10:55	Blank	BNA-Water	2-Nitrophenol	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
3/22/2004 10:55	Blank	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
3/22/2004 10:55	Blank	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7
3/22/2004 10:55	Blank	BNA-Water	4,4'-DDT	1.4	ug/L	UJ	1.4	5.7
3/22/2004 10:55	Blank	BNA-Water	4-Bromophenyl phenyl ether	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	4-Chloro-3-methylphenol	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.6
3/22/2004 10:55	Blank	BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
3/22/2004 10:55	Blank	BNA-Water	Acenaphthene	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	Acenaphthylene	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
3/22/2004 10:55	Blank	BNA-Water	Anthracene	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	Benzidine	95	ug/L	U	95	380
3/22/2004 10:55	Blank	BNA-Water	Benzo(a)anthracene	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	Benzo(a)pyrene	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	Benzo(b)fluoranthene	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	Benzo(g,h,i)perylene	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	Benzo(k)fluoranthene	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	Bis(2-chloroethoxy)methane	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	Bis(2-chloroethyl)ether	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	11
3/22/2004 10:55	Blank	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
3/22/2004 10:55	Blank	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
3/22/2004 10:55	Blank	BNA-Water	Chrysene	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
3/22/2004 10:55	Blank	BNA-Water	Di-n-octyl phthalate	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	Dibenzo(a,h)anthracene	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
3/22/2004 10:55	Blank	BNA-Water	Diethyl phthalate	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
3/22/2004 10:55	Blank	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
3/22/2004 10:55	Blank	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
3/22/2004 10:55	Blank	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
3/22/2004 10:55	Blank	BNA-Water	Endrin	1.4	ug/L	UJ	1.4	5.7
3/22/2004 10:55	Blank	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
3/22/2004 10:55	Blank	BNA-Water	Fluoranthene	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	Fluorene	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
3/22/2004 10:55	Blank	BNA-Water	Heptachlor epoxide	1.4	ug/L	UJ	1.4	5.7
3/22/2004 10:55	Blank	BNA-Water	Hexachlorobenzene	0.95	ug/L	UJ	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	Hexachlorobutadiene	2.9	ug/L	UJ	2.9	11

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/22/2004 10:55	Blank	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	11
3/22/2004 10:55	Blank	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	11
3/22/2004 10:55	Blank	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	Isophorone	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.6
3/22/2004 10:55	Blank	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.6
3/22/2004 10:55	Blank	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	11
3/22/2004 10:55	Blank	BNA-Water	Naphthalene	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.6
3/22/2004 10:55	Blank	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	11
3/22/2004 10:55	Blank	BNA-Water	Phenanthrene	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	Phenol	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	Pyrene	0.95	ug/L	U	0.95	3.8
3/22/2004 10:55	Blank	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
3/22/2004 10:55	Blank	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
3/22/2004 10:55	Blank	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
3/22/2004 10:55	Blank	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
3/22/2004 10:55	Blank	GC-Water	Alachlor	0.58	ug/L	UJ	0.58	2.32
3/22/2004 10:55	Blank	GC-Water	Aldrin	0.0096	ug/L	U	0.0096	0.0384
3/22/2004 10:55	Blank	GC-Water	Alpha-BHC	0.0096	ug/L	U	0.0096	0.0384
3/22/2004 10:55	Blank	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.192
3/22/2004 10:55	Blank	GC-Water	Atrazine	0.048	ug/L	UJ	0.048	0.192
3/22/2004 10:55	Blank	GC-Water	Azinphos Methyl	0.048	ug/L	U	0.048	0.192
3/22/2004 10:55	Blank	GC-Water	Beta-BHC	0.0096	ug/L	U	0.0096	0.0384
3/22/2004 10:55	Blank	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
3/22/2004 10:55	Blank	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
3/22/2004 10:55	Blank	GC-Water	Chlordane	0.19	ug/L	U	0.19	0.76
3/22/2004 10:55	Blank	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.192
3/22/2004 10:55	Blank	GC-Water	Chlorpyrifos Methyl	0.096	ug/L	U	0.096	0.384
3/22/2004 10:55	Blank	GC-Water	DDD-p,p'	0.019	ug/L	U	0.019	0.076
3/22/2004 10:55	Blank	GC-Water	DDE-p,p'	0.019	ug/L	U	0.019	0.076
3/22/2004 10:55	Blank	GC-Water	DDT-p,p'	0.029	ug/L	U	0.029	0.116
3/22/2004 10:55	Blank	GC-Water	Delta-BHC	0.0096	ug/L	U	0.0096	0.0384
3/22/2004 10:55	Blank	GC-Water	Diazinon	0.048	ug/L	U	0.048	0.192
3/22/2004 10:55	Blank	GC-Water	Dieldrin	0.019	ug/L	U	0.019	0.076
3/22/2004 10:55	Blank	GC-Water	Endosulfan I	0.019	ug/L	U	0.019	0.076
3/22/2004 10:55	Blank	GC-Water	Endosulfan II	0.019	ug/L	U	0.019	0.076
3/22/2004 10:55	Blank	GC-Water	Endosulfan Sulfate	0.019	ug/L	U	0.019	0.076
3/22/2004 10:55	Blank	GC-Water	Endrin	0.048	ug/L	U	0.048	0.192
3/22/2004 10:55	Blank	GC-Water	Endrin Aldehyde	0.019	ug/L	U	0.019	0.076
3/22/2004 10:55	Blank	GC-Water	Ethion	0.048	ug/L	U	0.048	0.192
3/22/2004 10:55	Blank	GC-Water	Ethoprop	0.096	ug/L	U	0.096	0.384
3/22/2004 10:55	Blank	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
3/22/2004 10:55	Blank	GC-Water	Fonofos	0.096	ug/L	U	0.096	0.384

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/22/2004 10:55	Blank	GC-Water	Gamma-BHC	0.0096	ug/L	U	0.0096	0.0384
3/22/2004 10:55	Blank	GC-Water	Heptachlor	0.0096	ug/L	U	0.0096	0.0384
3/22/2004 10:55	Blank	GC-Water	Heptachlor Epoxide	0.019	ug/L	U	0.019	0.076
3/22/2004 10:55	Blank	GC-Water	Hexazinone	0.096	ug/L	U	0.096	0.384
3/22/2004 10:55	Blank	GC-Water	Malathion	0.14	ug/L	U	0.14	0.56
3/22/2004 10:55	Blank	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
3/22/2004 10:55	Blank	GC-Water	Methoxychlor	0.048	ug/L	U	0.048	0.192
3/22/2004 10:55	Blank	GC-Water	Metolachlor	0.48	ug/L	UJ	0.48	1.92
3/22/2004 10:55	Blank	GC-Water	Metribuzin	0.096	ug/L	U	0.096	0.384
3/22/2004 10:55	Blank	GC-Water	Mevinphos	0.19	ug/L	UJ	0.19	0.76
3/22/2004 10:55	Blank	GC-Water	Naled	0.77	ug/L	UJ	0.77	3.08
3/22/2004 10:55	Blank	GC-Water	Norflurazon	0.096	ug/L	U	0.096	0.384
3/22/2004 10:55	Blank	GC-Water	PCB-1016	0.19	ug/L	U	0.19	0.76
3/22/2004 10:55	Blank	GC-Water	PCB-1221	0.19	ug/L	U	0.19	0.76
3/22/2004 10:55	Blank	GC-Water	PCB-1232	0.19	ug/L	U	0.19	0.76
3/22/2004 10:55	Blank	GC-Water	PCB-1242	0.29	ug/L	U	0.29	1.16
3/22/2004 10:55	Blank	GC-Water	PCB-1248	0.19	ug/L	U	0.19	0.76
3/22/2004 10:55	Blank	GC-Water	PCB-1254	0.29	ug/L	U	0.29	1.16
3/22/2004 10:55	Blank	GC-Water	PCB-1260	0.19	ug/L	U	0.19	0.76
3/22/2004 10:55	Blank	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
3/22/2004 10:55	Blank	GC-Water	Parathion Methyl	0.096	ug/L	U	0.096	0.384
3/22/2004 10:55	Blank	GC-Water	Phorate	0.048	ug/L	U	0.048	0.192
3/22/2004 10:55	Blank	GC-Water	Prometryn	0.14	ug/L	UJ	0.14	0.56
3/22/2004 10:55	Blank	GC-Water	Simazine	0.048	ug/L	U	0.048	0.192
3/22/2004 10:55	Blank	GC-Water	Toxaphene	0.72	ug/L	U	0.72	2.88
3/22/2004 10:55	Blank	Metals-Water	Aluminum	20	ug/L	U	20	80
3/22/2004 10:55	Blank	Metals-Water	Arsenic	9	ug/L	U	9	36
3/22/2004 10:55	Blank	Metals-Water	Cadmium	0.025	ug/L	U	0.025	0.1
3/22/2004 10:55	Blank	Metals-Water	Calcium	0.066	mg/L	I	0.05	0.2
3/22/2004 10:55	Blank	Metals-Water	Chromium	3	ug/L	U	3	12
3/22/2004 10:55	Blank	Metals-Water	Copper	0.21	ug/L	I	0.2	0.8
3/22/2004 10:55	Blank	Metals-Water	Iron	10	ug/L	U	10	40
3/22/2004 10:55	Blank	Metals-Water	Lead	0.05	ug/L	U	0.05	0.2
3/22/2004 10:55	Blank	Metals-Water	Magnesium	0.02	mg/L	U	0.02	0.08
3/22/2004 10:55	Blank	Metals-Water	Nickel	1	ug/L	U	1	4
3/22/2004 10:55	Blank	Metals-Water	Potassium	0.02	mg/L	U	0.02	0.08
3/22/2004 10:55	Blank	Metals-Water	Selenium	1	ug/L	U	1	4
3/22/2004 10:55	Blank	Metals-Water	Silver	0.02	ug/L	U	0.02	0.08
3/22/2004 10:55	Blank	Metals-Water	Sodium	1	mg/L	U	1	4
3/22/2004 10:55	Blank	Metals-Water	Zinc	5	ug/L	U	5	20
3/22/2004 10:55	Blank	Nutrients-Liquid	Alkalinity	0.65	mg CaCO3/L	U	0.65	2.5
3/22/2004 10:55	Blank	Nutrients-Liquid	Ammonia-N	0.01	mg N/L	U	0.01	0.02
3/22/2004 10:55	Blank	Nutrients-Liquid	Bromide	0.2	mg Br/L	U	0.2	0.5
3/22/2004 10:55	Blank	Nutrients-Liquid	Chloride	0.2	mg Cl/L	U	0.2	0.5

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/22/2004 10:55	Blank	Nutrients-Liquid	Fluoride	0.05	mg F/L	U	0.05	0.1
3/22/2004 10:55	Blank	Nutrients-Liquid	NO2NO3-N	0.004	mg N/L	U	0.004	0.01
3/22/2004 10:55	Blank	Nutrients-Liquid	N_KJEL_TOT	0.06	mg N/L	U	0.06	0.2
3/22/2004 10:55	Blank	Nutrients-Liquid	O-Phosphate-P	0.004	mg P/L	U	0.004	0.01
3/22/2004 10:55	Blank	Nutrients-Liquid	Sulfate	0.2	mg SO4/L	U	0.2	0.5
3/22/2004 10:55	Blank	Nutrients-Liquid	Sulfide	0.05	mg S/L	U	0.05	0.2
3/22/2004 10:55	Blank	Nutrients-Liquid	TSS	4	mg/L	U	4	16
3/22/2004 10:55	Blank	Nutrients-Liquid	Total-P	0.02	mg P/L	U	0.02	0.06
3/22/2004 10:55	Blank	Overflow	Alpha, Total	0.7	pCi/L	U		
3/22/2004 10:55	Blank	Overflow	Alpha-Counting Error	0.4	pCi/L			
3/22/2004 10:55	Blank	Overflow	Oil and Grease	0.69	mg/l	U		
3/22/2004 10:55	Blank	Overflow	Radium 226	0.1	pCi/L			
3/22/2004 10:55	Blank	Overflow	Radium 226-Counting Error	0.1	pCi/L			
3/22/2004 10:55	Blank	Overflow	Radium 228	0.9	pCi/L	U		
3/22/2004 10:55	Blank	Overflow	Radium 228-Counting Error	0.6	pCi/L			
3/23/2004	STATION 1	BNA-Waste	1,2,4-Trichlorobenzene	250	ug/kg	U	250	1000
3/23/2004	STATION 1	BNA-Waste	1,2-Dichlorobenzene	250	ug/kg	U	250	1000
3/23/2004	STATION 1	BNA-Waste	1,3-Dichlorobenzene	250	ug/kg	U	250	1000
3/23/2004	STATION 1	BNA-Waste	1,4-Dichlorobenzene	250	ug/kg	U	250	1000
3/23/2004	STATION 1	BNA-Waste	2,4,6-Trichlorophenol	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	2,4-Dichlorophenol	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	2,4-Dimethylphenol	2500	ug/kg	U	2500	10000
3/23/2004	STATION 1	BNA-Waste	2,4-Dinitrophenol	500	ug/kg	U	500	2000
3/23/2004	STATION 1	BNA-Waste	2,4-Dinitrotoluene	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	2,6-Dinitrotoluene	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	2-Chloronaphthalene	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	2-Chlorophenol	250	ug/kg	U	250	1000
3/23/2004	STATION 1	BNA-Waste	2-Methyl-4,6-dinitrophenol	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	2-Nitrophenol	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	3,3'-Dichlorobenzidine	5000	ug/kg	U	5000	20000
3/23/2004	STATION 1	BNA-Waste	4,4'-DDD	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	4,4'-DDE	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	4,4'-DDT	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	4-Bromophenyl phenyl ether	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	4-Chloro-3-methylphenol	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	4-Chlorophenyl phenyl ether	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	4-Nitrophenol	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Acenaphthene	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Acenaphthylene	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Aldrin	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Anthracene	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Azobenzene/1,2-Diphenylhydrazine	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Benzidine	1800	ug/kg	U	1800	7200
3/23/2004	STATION 1	BNA-Waste	Benzo(a)anthracene	83	ug/kg	U	83	330

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/23/2004	STATION 1	BNA-Waste	Benzo(a)pyrene	110	ug/kg	I	83	330
3/23/2004	STATION 1	BNA-Waste	Benzo(b)fluoranthene	190	ug/kg	I	83	330
3/23/2004	STATION 1	BNA-Waste	Benzo(g,h,i)perylene	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Benzo(k)fluoranthene	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Bis(2-chloroethoxy)methane	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Bis(2-chloroethyl)ether	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Bis(2-chloroisopropyl)ether	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Bis(2-ethylhexyl)phthalate	810	ug/kg	I	500	2000
3/23/2004	STATION 1	BNA-Waste	Butyl benzyl phthalate	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Chrysene	100	ug/kg	I	83	330
3/23/2004	STATION 1	BNA-Waste	Di-n-butyl phthalate	500	ug/kg	U	500	2000
3/23/2004	STATION 1	BNA-Waste	Di-n-octyl phthalate	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Dibenzo(a,h)anthracene	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Dieldrin	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Diethyl phthalate	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Dimethyl phthalate	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Endosulfan I	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Endosulfan II	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Endosulfan sulfate	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Endrin	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Endrin aldehyde	83	ug/kg	UJ	83	330
3/23/2004	STATION 1	BNA-Waste	Fluoranthene	160	ug/kg	I	83	330
3/23/2004	STATION 1	BNA-Waste	Fluorene	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Heptachlor	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Heptachlor epoxide	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Hexachlorobenzene	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Hexachlorobutadiene	250	ug/kg	U	250	1000
3/23/2004	STATION 1	BNA-Waste	Hexachlorocyclopentadiene	83	ug/kg	UJ	83	330
3/23/2004	STATION 1	BNA-Waste	Hexachloroethane	250	ug/kg	U	250	1000
3/23/2004	STATION 1	BNA-Waste	Indeno(1,2,3-cd)pyrene	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Isophorone	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	N-Nitrosodi-n-propylamine	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	N-Nitrosodimethylamine	500	ug/kg	U	500	2000
3/23/2004	STATION 1	BNA-Waste	N-Nitrosodiphenylamine	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Naphthalene	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Nitrobenzene	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Pentachlorophenol	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Phenanthrene	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Phenol	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	Pyrene	150	ug/kg	I	83	330
3/23/2004	STATION 1	BNA-Waste	alpha-BHC	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	beta-BHC	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	delta-BHC	83	ug/kg	U	83	330
3/23/2004	STATION 1	BNA-Waste	gamma-BHC	83	ug/kg	U	83	330

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/23/2004	STATION 1	Bio-SedPrtSz/AFDW	Sediment % Organic		5.5	% dry wt		
3/23/2004	STATION 1	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, 0.063-0.125mm		12.3	% vol <2mm		
3/23/2004	STATION 1	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, 0.125-0.25 mm		29.9	% vol <2mm		
3/23/2004	STATION 1	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, 0.25-0.5 mm		15.2	% vol <2mm		
3/23/2004	STATION 1	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, 0.5-2.0 mm			9.31	% vol <2mm	
3/23/2004	STATION 1	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, <0.063 mm			33.4	% vol <2mm	
3/23/2004	STATION 1	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, >2.0 mm		10	%tot drywt		
3/23/2004	STATION 1	GC-Soil	Alachlor	27	ug/kg	U	27	108
3/23/2004	STATION 1	GC-Soil	Aldrin	0.46	ug/Kg	U	0.46	1.84
3/23/2004	STATION 1	GC-Soil	Alpha-BHC	0.46	ug/Kg	U	0.46	1.84
3/23/2004	STATION 1	GC-Soil	Ametryn	2.3	ug/kg	U	2.3	9.2
3/23/2004	STATION 1	GC-Soil	Atrazine	2.3	ug/kg	U	2.3	9.2
3/23/2004	STATION 1	GC-Soil	Azinphos Methyl	2.3	ug/kg	U	2.3	9.2
3/23/2004	STATION 1	GC-Soil	Beta-BHC	0.46	ug/Kg	U	0.46	1.84
3/23/2004	STATION 1	GC-Soil	Bromacil	18	ug/kg	U	18	72
3/23/2004	STATION 1	GC-Soil	Chlordane	9.8	ug/Kg	I	6.8	27.2
3/23/2004	STATION 1	GC-Soil	Chlorpyrifos Ethyl	2.3	ug/kg	U	2.3	9.2
3/23/2004	STATION 1	GC-Soil	Chlorpyrifos Methyl	4.6	ug/kg	U	4.6	18.4
3/23/2004	STATION 1	GC-Soil	DDD-p,p'	0.91	ug/Kg	U	0.91	3.64
3/23/2004	STATION 1	GC-Soil	DDE-p,p'	1.8	ug/Kg	I	0.91	3.64
3/23/2004	STATION 1	GC-Soil	DDT-p,p'	1.4	ug/Kg	U	1.4	5.6
3/23/2004	STATION 1	GC-Soil	Delta-BHC	0.91	ug/Kg	U	0.91	3.64
3/23/2004	STATION 1	GC-Soil	Diazinon	4.6	ug/kg	U	4.6	18.4
3/23/2004	STATION 1	GC-Soil	Dieldrin	0.46	ug/Kg	U	0.46	1.84
3/23/2004	STATION 1	GC-Soil	Endosulfan I	0.46	ug/Kg	U	0.46	1.84
3/23/2004	STATION 1	GC-Soil	Endosulfan II	0.46	ug/Kg	U	0.46	1.84
3/23/2004	STATION 1	GC-Soil	Endosulfan Sulfate	0.91	ug/Kg	U	0.91	3.64
3/23/2004	STATION 1	GC-Soil	Endrin	2.3	ug/Kg	U	2.3	9.2
3/23/2004	STATION 1	GC-Soil	Endrin Aldehyde	0.91	ug/Kg	U	0.91	3.64
3/23/2004	STATION 1	GC-Soil	Ethion	2.3	ug/kg	U	2.3	9.2
3/23/2004	STATION 1	GC-Soil	Ethoprop	4.6	ug/kg	U	4.6	18.4
3/23/2004	STATION 1	GC-Soil	Fenamiphos	18	ug/kg	U	18	72
3/23/2004	STATION 1	GC-Soil	Fonofos	4.6	ug/kg	U	4.6	18.4
3/23/2004	STATION 1	GC-Soil	Gamma-BHC	0.46	ug/Kg	U	0.46	1.84
3/23/2004	STATION 1	GC-Soil	Heptachlor	0.46	ug/Kg	U	0.46	1.84
3/23/2004	STATION 1	GC-Soil	Heptachlor Epoxide	0.46	ug/Kg	U	0.46	1.84
3/23/2004	STATION 1	GC-Soil	Hexazinone	9.1	ug/kg	U	9.1	36.4
3/23/2004	STATION 1	GC-Soil	Malathion	6.8	ug/kg	U	6.8	27.2
3/23/2004	STATION 1	GC-Soil	Methamidophos	23	ug/kg	U	23	92
3/23/2004	STATION 1	GC-Soil	Methoxychlor	11	ug/Kg	U	11	44
3/23/2004	STATION 1	GC-Soil	Metolachlor	23	ug/kg	U	23	92
3/23/2004	STATION 1	GC-Soil	Metribuzin	4.6	ug/kg	U	4.6	18.4
3/23/2004	STATION 1	GC-Soil	Mevinphos	9.1	ug/kg	U	9.1	36.4
3/23/2004	STATION 1	GC-Soil	Monocrotophos	46	ug/kg	U	46	184

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/23/2004	STATION 1	GC-Soil	Naled	37	ug/kg	U	37	148
3/23/2004	STATION 1	GC-Soil	Norflurazon	4.6	ug/kg	U	4.6	18.4
3/23/2004	STATION 1	GC-Soil	PCB-1016	14	ug/Kg	U	14	56
3/23/2004	STATION 1	GC-Soil	PCB-1221	9.1	ug/Kg	U	9.1	36.4
3/23/2004	STATION 1	GC-Soil	PCB-1232	20	ug/Kg	U	20	80
3/23/2004	STATION 1	GC-Soil	PCB-1242	14	ug/Kg	U	14	56
3/23/2004	STATION 1	GC-Soil	PCB-1248	9.1	ug/Kg	U	9.1	36.4
3/23/2004	STATION 1	GC-Soil	PCB-1254	9.1	ug/Kg	U	9.1	36.4
3/23/2004	STATION 1	GC-Soil	PCB-1260	14	ug/Kg	U	14	56
3/23/2004	STATION 1	GC-Soil	Parathion Ethyl	6.8	ug/kg	U	6.8	27.2
3/23/2004	STATION 1	GC-Soil	Parathion Methyl	6.8	ug/kg	U	6.8	27.2
3/23/2004	STATION 1	GC-Soil	Phorate	2.3	ug/kg	U	2.3	9.2
3/23/2004	STATION 1	GC-Soil	Prometryn	6.8	ug/kg	U	6.8	27.2
3/23/2004	STATION 1	GC-Soil	Simazine	2.3	ug/kg	U	2.3	9.2
3/23/2004	STATION 1	GC-Soil	Toxaphene	34	ug/Kg	U	34	136
3/23/2004	STATION 1	Metals-Waste	Aluminum	4300	mg/Kg	A	270	1100
3/23/2004	STATION 1	Metals-Waste	Cadmium	1.5	mg/Kg	AJ	0.073	0.29
3/23/2004	STATION 1	Metals-Waste	Chromium	29.7	mg/Kg	A	0.39	1.6
3/23/2004	STATION 1	Metals-Waste	Copper	11	mg/Kg	UJ	11	43
3/23/2004	STATION 1	Metals-Waste	Iron	2840	mg/Kg	A	9.8	39
3/23/2004	STATION 1	Metals-Waste	Lead	17.4	mg/Kg	A	0.98	3.9
3/23/2004	STATION 1	Metals-Waste	Nickel	6.54	mg/Kg	A	0.24	0.98
3/23/2004	STATION 1	Metals-Waste	Silver	0.2	mg/Kg	IJ	0.15	0.2
3/23/2004	STATION 1	Metals-Waste	Zinc	26	mg/Kg	I	2	25.6
3/23/2004	STATION 1 REP 2	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	23	# Taxa			
3/23/2004	STATION 1 REP 3	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	48	# Taxa			
3/23/2004	STATION 1 REP 4	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	20	# Taxa			
3/23/2004	STATION 1 REP 5	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	13	# Taxa			
3/23/2004	STATION 2	BNA-Waste	1,2,4-Trichlorobenzene	240	ug/kg	U	240	970
3/23/2004	STATION 2	BNA-Waste	1,2-Dichlorobenzene	240	ug/kg	U	240	970
3/23/2004	STATION 2	BNA-Waste	1,3-Dichlorobenzene	240	ug/kg	U	240	970
3/23/2004	STATION 2	BNA-Waste	1,4-Dichlorobenzene	240	ug/kg	U	240	970
3/23/2004	STATION 2	BNA-Waste	2,4,6-Trichlorophenol	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	2,4-Dichlorophenol	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	2,4-Dimethylphenol	2400	ug/kg	U	2400	9700
3/23/2004	STATION 2	BNA-Waste	2,4-Dinitrophenol	490	ug/kg	U	490	1900
3/23/2004	STATION 2	BNA-Waste	2,4-Dinitrotoluene	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	2,6-Dinitrotoluene	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	2-Chloronaphthalene	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	2-Chlorophenol	240	ug/kg	U	240	970
3/23/2004	STATION 2	BNA-Waste	2-Methyl-4,6-dinitrophenol	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	2-Nitrophenol	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	3,3'-Dichlorobenzidine	4900	ug/kg	U	4900	19000
3/23/2004	STATION 2	BNA-Waste	4,4'-DDD	81	ug/kg	U	81	320

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/23/2004	STATION 2	BNA-Waste	4,4'-DDE	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	4,4'-DDT	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	4-Bromophenyl phenyl ether	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	4-Chloro-3-methylphenol	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	4-Chlorophenyl phenyl ether	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	4-Nitrophenol	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Acenaphthene	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Acenaphthylene	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Aldrin	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Anthracene	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Azobenzene/1,2-Diphenylhydrazine	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Benzidine	1800	ug/kg	U	1800	7000
3/23/2004	STATION 2	BNA-Waste	Benzo(a)anthracene	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Benzo(a)pyrene	87	ug/kg	I	81	320
3/23/2004	STATION 2	BNA-Waste	Benzo(b)fluoranthene	150	ug/kg	I	81	320
3/23/2004	STATION 2	BNA-Waste	Benzo(g,h,i)perylene	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Benzo(k)fluoranthene	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Bis(2-chloroethoxy)methane	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Bis(2-chloroethyl)ether	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Bis(2-chloroisopropyl)ether	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Bis(2-ethylhexyl)phthalate	490	ug/kg	U	490	1900
3/23/2004	STATION 2	BNA-Waste	Butyl benzyl phthalate	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Chrysene	94	ug/kg	I	81	320
3/23/2004	STATION 2	BNA-Waste	Di-n-butyl phthalate	490	ug/kg	U	490	1900
3/23/2004	STATION 2	BNA-Waste	Di-n-octyl phthalate	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Dibenzo(a,h)anthracene	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Dieldrin	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Diethyl phthalate	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Dimethyl phthalate	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Endosulfan I	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Endosulfan II	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Endosulfan sulfate	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Endrin	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Endrin aldehyde	81	ug/kg	UJ	81	320
3/23/2004	STATION 2	BNA-Waste	Fluoranthene	130	ug/kg	I	81	320
3/23/2004	STATION 2	BNA-Waste	Fluorene	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Heptachlor	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Heptachlor epoxide	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Hexachlorobenzene	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Hexachlorobutadiene	240	ug/kg	U	240	970
3/23/2004	STATION 2	BNA-Waste	Hexachlorocyclopentadiene	81	ug/kg	UJ	81	320
3/23/2004	STATION 2	BNA-Waste	Hexachloroethane	240	ug/kg	U	240	970
3/23/2004	STATION 2	BNA-Waste	Indeno(1,2,3-cd)pyrene	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Isophorone	81	ug/kg	U	81	320

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/23/2004	STATION 2	BNA-Waste	N-Nitrosodi-n-propylamine	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	N-Nitrosodimethylamine	490	ug/kg	U	490	1900
3/23/2004	STATION 2	BNA-Waste	N-Nitrosodiphenylamine	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Naphthalene	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Nitrobenzene	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Pentachlorophenol	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Phenanthrene	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Phenol	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	Pyrene	120	ug/kg	I	81	320
3/23/2004	STATION 2	BNA-Waste	alpha-BHC	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	beta-BHC	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	delta-BHC	81	ug/kg	U	81	320
3/23/2004	STATION 2	BNA-Waste	gamma-BHC	81	ug/kg	U	81	320
3/23/2004	STATION 2	Bio-SedPrtSz/AFDW	Sediment % Organic		1.4	% dry wt		
3/23/2004	STATION 2	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, 0.063-0.125mm		2.45	% vol <2mm		
3/23/2004	STATION 2	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, 0.125-0.25 mm		20.5	% vol <2mm		
3/23/2004	STATION 2	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, 0.25-0.5 mm		41.6	% vol <2mm		
3/23/2004	STATION 2	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, 0.5-2.0 mm			30.1	% vol <2mm	
3/23/2004	STATION 2	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, <0.063 mm			5.34	% vol <2mm	
3/23/2004	STATION 2	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, >2.0 mm		12	%tot drywt		
3/23/2004	STATION 2	GC-Soil	Alachlor	27	ug/kg	U	27	108
3/23/2004	STATION 2	GC-Soil	Aldrin	0.45	ug/Kg	U	0.45	1.8
3/23/2004	STATION 2	GC-Soil	Alpha-BHC	0.45	ug/Kg	U	0.45	1.8
3/23/2004	STATION 2	GC-Soil	Ametryn	2.2	ug/kg	U	2.2	8.8
3/23/2004	STATION 2	GC-Soil	Atrazine	2.2	ug/kg	U	2.2	8.8
3/23/2004	STATION 2	GC-Soil	Azinphos Methyl	2.2	ug/kg	U	2.2	8.8
3/23/2004	STATION 2	GC-Soil	Beta-BHC	0.45	ug/Kg	U	0.45	1.8
3/23/2004	STATION 2	GC-Soil	Bromacil	18	ug/kg	U	18	72
3/23/2004	STATION 2	GC-Soil	Chlordane	12	ug/Kg	I	6.7	26.8
3/23/2004	STATION 2	GC-Soil	Chlorpyrifos Ethyl	2.2	ug/kg	U	2.2	8.8
3/23/2004	STATION 2	GC-Soil	Chlorpyrifos Methyl	4.5	ug/kg	U	4.5	18
3/23/2004	STATION 2	GC-Soil	DDD-p,p'	0.89	ug/Kg	U	0.89	3.56
3/23/2004	STATION 2	GC-Soil	DDE-p,p'	1.1	ug/Kg	I	0.89	3.56
3/23/2004	STATION 2	GC-Soil	DDT-p,p'	9	ug/Kg		1.3	5.2
3/23/2004	STATION 2	GC-Soil	Delta-BHC	0.89	ug/Kg	U	0.89	3.56
3/23/2004	STATION 2	GC-Soil	Diazinon	4.5	ug/kg	U	4.5	18
3/23/2004	STATION 2	GC-Soil	Dieldrin	0.45	ug/Kg	U	0.45	1.8
3/23/2004	STATION 2	GC-Soil	Endosulfan I	0.45	ug/Kg	U	0.45	1.8
3/23/2004	STATION 2	GC-Soil	Endosulfan II	0.45	ug/Kg	U	0.45	1.8
3/23/2004	STATION 2	GC-Soil	Endosulfan Sulfate	0.89	ug/Kg	U	0.89	3.56
3/23/2004	STATION 2	GC-Soil	Endrin	2.2	ug/Kg	U	2.2	8.8
3/23/2004	STATION 2	GC-Soil	Endrin Aldehyde	0.89	ug/Kg	U	0.89	3.56
3/23/2004	STATION 2	GC-Soil	Ethion	2.2	ug/kg	U	2.2	8.8
3/23/2004	STATION 2	GC-Soil	Ethoprop	4.5	ug/kg	U	4.5	18

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/23/2004	STATION 2	GC-Soil	Fenamiphos	18	ug/kg	U	18	72
3/23/2004	STATION 2	GC-Soil	Fonofos	4.5	ug/kg	U	4.5	18
3/23/2004	STATION 2	GC-Soil	Gamma-BHC	0.45	ug/Kg	U	0.45	1.8
3/23/2004	STATION 2	GC-Soil	Heptachlor	0.45	ug/Kg	U	0.45	1.8
3/23/2004	STATION 2	GC-Soil	Heptachlor Epoxide	0.45	ug/Kg	U	0.45	1.8
3/23/2004	STATION 2	GC-Soil	Hexazinone	8.9	ug/kg	U	8.9	35.6
3/23/2004	STATION 2	GC-Soil	Malathion	6.7	ug/kg	U	6.7	26.8
3/23/2004	STATION 2	GC-Soil	Methamidophos	22	ug/kg	U	22	88
3/23/2004	STATION 2	GC-Soil	Methoxychlor	11	ug/Kg	U	11	44
3/23/2004	STATION 2	GC-Soil	Metolachlor	22	ug/kg	U	22	88
3/23/2004	STATION 2	GC-Soil	Metribuzin	4.5	ug/kg	U	4.5	18
3/23/2004	STATION 2	GC-Soil	Mevinphos	8.9	ug/kg	U	8.9	35.6
3/23/2004	STATION 2	GC-Soil	Monocrotophos	45	ug/kg	U	45	180
3/23/2004	STATION 2	GC-Soil	Naled	36	ug/kg	U	36	144
3/23/2004	STATION 2	GC-Soil	Norflurazon	4.5	ug/kg	U	4.5	18
3/23/2004	STATION 2	GC-Soil	PCB-1016	13	ug/Kg	U	13	52
3/23/2004	STATION 2	GC-Soil	PCB-1221	8.9	ug/Kg	U	8.9	35.6
3/23/2004	STATION 2	GC-Soil	PCB-1232	20	ug/Kg	U	20	80
3/23/2004	STATION 2	GC-Soil	PCB-1242	13	ug/Kg	U	13	52
3/23/2004	STATION 2	GC-Soil	PCB-1248	8.9	ug/Kg	U	8.9	35.6
3/23/2004	STATION 2	GC-Soil	PCB-1254	8.9	ug/Kg	U	8.9	35.6
3/23/2004	STATION 2	GC-Soil	PCB-1260	13	ug/Kg	U	13	52
3/23/2004	STATION 2	GC-Soil	Parathion Ethyl	6.7	ug/kg	U	6.7	26.8
3/23/2004	STATION 2	GC-Soil	Parathion Methyl	6.7	ug/kg	U	6.7	26.8
3/23/2004	STATION 2	GC-Soil	Phorate	2.2	ug/kg	U	2.2	8.8
3/23/2004	STATION 2	GC-Soil	Prometryn	6.7	ug/kg	U	6.7	26.8
3/23/2004	STATION 2	GC-Soil	Simazine	2.2	ug/kg	U	2.2	8.8
3/23/2004	STATION 2	GC-Soil	Toxaphene	33	ug/Kg	U	33	132
3/23/2004	STATION 2	Metals-Waste	Aluminum	3500	mg/Kg		280	1100
3/23/2004	STATION 2	Metals-Waste	Cadmium	1.7	mg/Kg	J	0.076	0.3
3/23/2004	STATION 2	Metals-Waste	Chromium	20.4	mg/Kg		0.41	1.6
3/23/2004	STATION 2	Metals-Waste	Copper	11	mg/Kg	UJ	11	43
3/23/2004	STATION 2	Metals-Waste	Iron	2360	mg/Kg		10	41
3/23/2004	STATION 2	Metals-Waste	Lead	22.2	mg/Kg		1	4.1
3/23/2004	STATION 2	Metals-Waste	Nickel	5.21	mg/Kg		0.25	1
3/23/2004	STATION 2	Metals-Waste	Silver	0.15	mg/Kg	UJ	0.15	0.61
3/23/2004	STATION 2	Metals-Waste	Zinc	18	mg/Kg	I	2	17.7
3/23/2004	STATION 2 REP 1	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	38		# Taxa		
3/23/2004	STATION 2 REP 2	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	25		# Taxa		
3/23/2004	STATION 2 REP 3	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	33		# Taxa		
3/23/2004	STATION 2 REP 4	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	26		# Taxa		
3/23/2004	STATION 2 REP 5	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	20		# Taxa		
3/23/2004	STATION 3	BNA-Waste	1,2,4-Trichlorobenzene	260	ug/kg	U	260	1000
3/23/2004	STATION 3	BNA-Waste	1,2-Dichlorobenzene	260	ug/kg	U	260	1000

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/23/2004	STATION 3	BNA-Waste	1,3-Dichlorobenzene	260	ug/kg	U	260	1000
3/23/2004	STATION 3	BNA-Waste	1,4-Dichlorobenzene	260	ug/kg	U	260	1000
3/23/2004	STATION 3	BNA-Waste	2,4,6-Trichlorophenol	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	2,4-Dichlorophenol	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	2,4-Dimethylphenol	2600	ug/kg	U	2600	10000
3/23/2004	STATION 3	BNA-Waste	2,4-Dinitrophenol	520	ug/kg	U	520	2100
3/23/2004	STATION 3	BNA-Waste	2,4-Dinitrotoluene	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	2,6-Dinitrotoluene	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	2-Chloronaphthalene	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	2-Chlorophenol	260	ug/kg	U	260	1000
3/23/2004	STATION 3	BNA-Waste	2-Methyl-4,6-dinitrophenol	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	2-Nitrophenol	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	3,3'-Dichlorobenzidine	5200	ug/kg	U	5200	21000
3/23/2004	STATION 3	BNA-Waste	4,4'-DDD	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	4,4'-DDE	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	4,4'-DDT	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	4-Bromophenyl phenyl ether	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	4-Chloro-3-methylphenol	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	4-Chlorophenyl phenyl ether	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	4-Nitrophenol	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Acenaphthene	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Acenaphthylene	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Aldrin	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Anthracene	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Azobenzene/1,2-Diphenylhydrazine	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Benzidine	1900	ug/kg	U	1900	7600
3/23/2004	STATION 3	BNA-Waste	Benzo(a)anthracene	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Benzo(a)pyrene	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Benzo(b)fluoranthene	120	ug/kg	I	87	350
3/23/2004	STATION 3	BNA-Waste	Benzo(g,h,i)perylene	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Benzo(k)fluoranthene	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Bis(2-chloroethoxy)methane	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Bis(2-chloroethyl)ether	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Bis(2-chloroisopropyl)ether	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Bis(2-ethylhexyl)phthalate	520	ug/kg	U	520	2100
3/23/2004	STATION 3	BNA-Waste	Butyl benzyl phthalate	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Chrysene	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Di-n-butyl phthalate	520	ug/kg	U	520	2100
3/23/2004	STATION 3	BNA-Waste	Di-n-octyl phthalate	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Dibenzo(a,h)anthracene	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Dieldrin	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Diethyl phthalate	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Dimethyl phthalate	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Endosulfan I	87	ug/kg	U	87	350

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/23/2004	STATION 3	BNA-Waste	Endosulfan II	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Endosulfan sulfate	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Endrin	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Endrin aldehyde	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Fluoranthene	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Fluorene	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Heptachlor	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Heptachlor epoxide	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Hexachlorobenzene	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Hexachlorobutadiene	260	ug/kg	U	260	1000
3/23/2004	STATION 3	BNA-Waste	Hexachlorocyclopentadiene	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Hexachloroethane	260	ug/kg	U	260	1000
3/23/2004	STATION 3	BNA-Waste	Indeno(1,2,3-cd)pyrene	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Isophorone	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	N-Nitrosodi-n-propylamine	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	N-Nitrosodimethylamine	520	ug/kg	U	520	2100
3/23/2004	STATION 3	BNA-Waste	N-Nitrosodiphenylamine	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Naphthalene	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Nitrobenzene	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Pentachlorophenol	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Phenanthrene	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Phenol	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	Pyrene	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	alpha-BHC	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	beta-BHC	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	delta-BHC	87	ug/kg	U	87	350
3/23/2004	STATION 3	BNA-Waste	gamma-BHC	87	ug/kg	U	87	350
3/23/2004	STATION 3	Bio-SedPrtSz/AFDW	Sediment % Organic		3.5	% dry wt		
3/23/2004	STATION 3	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, 0.063-0.125mm		9.1	% vol <2mm		
3/23/2004	STATION 3	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, 0.125-0.25 mm		28.4	% vol <2mm		
3/23/2004	STATION 3	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, 0.25-0.5 mm		22.3	% vol <2mm		
3/23/2004	STATION 3	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, 0.5-2.0 mm			6.41	% vol <2mm	
3/23/2004	STATION 3	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, <0.063 mm			33.8	% vol <2mm	
3/23/2004	STATION 3	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, >2.0 mm		14	%tot drywt		
3/23/2004	STATION 3	GC-Soil	Alachlor	29	ug/kg	U	29	116
3/23/2004	STATION 3	GC-Soil	Aldrin	0.48	ug/Kg	U	0.48	1.92
3/23/2004	STATION 3	GC-Soil	Alpha-BHC	0.48	ug/Kg	U	0.48	1.92
3/23/2004	STATION 3	GC-Soil	Ametryn	2.4	ug/kg	U	2.4	9.6
3/23/2004	STATION 3	GC-Soil	Atrazine	2.4	ug/kg	U	2.4	9.6
3/23/2004	STATION 3	GC-Soil	Azinphos Methyl	2.4	ug/kg	U	2.4	9.6
3/23/2004	STATION 3	GC-Soil	Beta-BHC	0.48	ug/Kg	U	0.48	1.92
3/23/2004	STATION 3	GC-Soil	Bromacil	19	ug/kg	U	19	76
3/23/2004	STATION 3	GC-Soil	Chlordane	7.2	ug/Kg	U	7.2	28.8
3/23/2004	STATION 3	GC-Soil	Chlorpyrifos Ethyl	2.4	ug/kg	U	2.4	9.6

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/23/2004	STATION 3	GC-Soil	Chlorpyrifos Methyl	4.8	ug/kg	U	4.8	19.2
3/23/2004	STATION 3	GC-Soil	DDD-p,p'	0.96	ug/Kg	U	0.96	3.84
3/23/2004	STATION 3	GC-Soil	DDE-p,p'	0.96	ug/Kg	U	0.96	3.84
3/23/2004	STATION 3	GC-Soil	DDT-p,p'	1.4	ug/Kg	U	1.4	5.6
3/23/2004	STATION 3	GC-Soil	Delta-BHC	0.96	ug/Kg	U	0.96	3.84
3/23/2004	STATION 3	GC-Soil	Diazinon	4.8	ug/kg	U	4.8	19.2
3/23/2004	STATION 3	GC-Soil	Dieldrin	0.48	ug/Kg	U	0.48	1.92
3/23/2004	STATION 3	GC-Soil	Endosulfan I	0.48	ug/Kg	U	0.48	1.92
3/23/2004	STATION 3	GC-Soil	Endosulfan II	0.48	ug/Kg	U	0.48	1.92
3/23/2004	STATION 3	GC-Soil	Endosulfan Sulfate	0.96	ug/Kg	U	0.96	3.84
3/23/2004	STATION 3	GC-Soil	Endrin	2.4	ug/Kg	U	2.4	9.6
3/23/2004	STATION 3	GC-Soil	Endrin Aldehyde	0.96	ug/Kg	U	0.96	3.84
3/23/2004	STATION 3	GC-Soil	Ethion	2.4	ug/kg	U	2.4	9.6
3/23/2004	STATION 3	GC-Soil	Ethoprop	4.8	ug/kg	U	4.8	19.2
3/23/2004	STATION 3	GC-Soil	Fenamiphos	19	ug/kg	U	19	76
3/23/2004	STATION 3	GC-Soil	Fonofos	4.8	ug/kg	U	4.8	19.2
3/23/2004	STATION 3	GC-Soil	Gamma-BHC	0.48	ug/Kg	U	0.48	1.92
3/23/2004	STATION 3	GC-Soil	Heptachlor	0.48	ug/Kg	U	0.48	1.92
3/23/2004	STATION 3	GC-Soil	Heptachlor Epoxide	0.48	ug/Kg	U	0.48	1.92
3/23/2004	STATION 3	GC-Soil	Hexazinone	9.6	ug/kg	U	9.6	38.4
3/23/2004	STATION 3	GC-Soil	Malathion	7.2	ug/kg	U	7.2	28.8
3/23/2004	STATION 3	GC-Soil	Methamidophos	24	ug/kg	U	24	96
3/23/2004	STATION 3	GC-Soil	Methoxychlor	12	ug/Kg	U	12	48
3/23/2004	STATION 3	GC-Soil	Metolachlor	24	ug/kg	U	24	96
3/23/2004	STATION 3	GC-Soil	Metribuzin	4.8	ug/kg	U	4.8	19.2
3/23/2004	STATION 3	GC-Soil	Mevinphos	9.6	ug/kg	U	9.6	38.4
3/23/2004	STATION 3	GC-Soil	Monocrotophos	48	ug/kg	U	48	192
3/23/2004	STATION 3	GC-Soil	Naled	39	ug/kg	U	39	156
3/23/2004	STATION 3	GC-Soil	Norflurazon	4.8	ug/kg	U	4.8	19.2
3/23/2004	STATION 3	GC-Soil	PCB-1016	14	ug/Kg	U	14	56
3/23/2004	STATION 3	GC-Soil	PCB-1221	9.6	ug/Kg	U	9.6	38.4
3/23/2004	STATION 3	GC-Soil	PCB-1232	22	ug/Kg	U	22	88
3/23/2004	STATION 3	GC-Soil	PCB-1242	14	ug/Kg	U	14	56
3/23/2004	STATION 3	GC-Soil	PCB-1248	9.6	ug/Kg	U	9.6	38.4
3/23/2004	STATION 3	GC-Soil	PCB-1254	9.6	ug/Kg	U	9.6	38.4
3/23/2004	STATION 3	GC-Soil	PCB-1260	14	ug/Kg	U	14	56
3/23/2004	STATION 3	GC-Soil	Parathion Ethyl	7.2	ug/kg	U	7.2	28.8
3/23/2004	STATION 3	GC-Soil	Parathion Methyl	7.2	ug/kg	U	7.2	28.8
3/23/2004	STATION 3	GC-Soil	Phorate	2.4	ug/kg	U	2.4	9.6
3/23/2004	STATION 3	GC-Soil	Prometryn	7.2	ug/kg	U	7.2	28.8
3/23/2004	STATION 3	GC-Soil	Simazine	2.4	ug/kg	U	2.4	9.6
3/23/2004	STATION 3	GC-Soil	Toxaphene	36	ug/Kg	U	36	144
3/23/2004	STATION 3	Metals-Waste	Aluminum	6800	mg/Kg		580	2300
3/23/2004	STATION 3	Metals-Waste	Cadmium	2.6	mg/Kg	J	0.077	0.31

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/23/2004	STATION 3	Metals-Waste	Chromium	333	mg/Kg		0.41	1.7
3/23/2004	STATION 3	Metals-Waste	Copper	12	mg/Kg	IJ	0.62	12.5
3/23/2004	STATION 3	Metals-Waste	Iron	4070	mg/Kg		10	41
3/23/2004	STATION 3	Metals-Waste	Lead	10.7	mg/Kg		1	4.1
3/23/2004	STATION 3	Metals-Waste	Nickel	45.6	mg/Kg		0.26	1
3/23/2004	STATION 3	Metals-Waste	Silver	0.21	mg/Kg	UJ	0.21	0.87
3/23/2004	STATION 3	Metals-Waste	Zinc	26	mg/Kg	I	2.1	25.8
3/23/2004	STATION 3 REP 1	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	42		# Taxa		
3/23/2004	STATION 3 REP 2	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	26		# Taxa		
3/23/2004	STATION 3 REP 3	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	31		# Taxa		
3/23/2004	STATION 3 REP 4	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	27		# Taxa		
3/23/2004	STATION 3 REP 5	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	27		# Taxa		
3/23/2004	STATION 4	BNA-Waste	1,2,4-Trichlorobenzene	230	ug/kg	U	230	930
3/23/2004	STATION 4	BNA-Waste	1,2-Dichlorobenzene	230	ug/kg	U	230	930
3/23/2004	STATION 4	BNA-Waste	1,3-Dichlorobenzene	230	ug/kg	U	230	930
3/23/2004	STATION 4	BNA-Waste	1,4-Dichlorobenzene	230	ug/kg	U	230	930
3/23/2004	STATION 4	BNA-Waste	2,4,6-Trichlorophenol	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	2,4-Dichlorophenol	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	2,4-Dimethylphenol	2200	ug/kg	U	2200	9300
3/23/2004	STATION 4	BNA-Waste	2,4-Dinitrophenol	470	ug/kg	U	470	1900
3/23/2004	STATION 4	BNA-Waste	2,4-Dinitrotoluene	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	2,6-Dinitrotoluene	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	2-Chloronaphthalene	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	2-Chlorophenol	230	ug/kg	U	230	930
3/23/2004	STATION 4	BNA-Waste	2-Methyl-4,6-dinitrophenol	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	2-Nitrophenol	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	3,3'-Dichlorobenzidine	4700	ug/kg	U	4700	19000
3/23/2004	STATION 4	BNA-Waste	4,4'-DDD	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	4,4'-DDE	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	4,4'-DDT	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	4-Bromophenyl phenyl ether	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	4-Chloro-3-methylphenol	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	4-Chlorophenyl phenyl ether	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	4-Nitrophenol	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Acenaphthene	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Acenaphthylene	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Aldrin	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Anthracene	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Azobenzene/1,2-Diphenylhydrazine	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Benzidine	1700	ug/kg	U	1700	6700
3/23/2004	STATION 4	BNA-Waste	Benzo(a)anthracene	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Benzo(a)pyrene	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Benzo(b)fluoranthene	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Benzo(g,h,i)perylene	78	ug/kg	U	78	310

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/23/2004	STATION 4	BNA-Waste	Benzo(k)fluoranthene	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Bis(2-chloroethoxy)methane	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Bis(2-chloroethyl)ether	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Bis(2-chloroisopropyl)ether	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Bis(2-ethylhexyl)phthalate	470	ug/kg	U	470	1900
3/23/2004	STATION 4	BNA-Waste	Butyl benzyl phthalate	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Chrysene	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Di-n-butyl phthalate	470	ug/kg	U	470	1900
3/23/2004	STATION 4	BNA-Waste	Di-n-octyl phthalate	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Dibenzo(a,h)anthracene	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Dieldrin	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Diethyl phthalate	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Dimethyl phthalate	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Endosulfan I	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Endosulfan II	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Endosulfan sulfate	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Endrin	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Endrin aldehyde	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Fluoranthene	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Fluorene	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Heptachlor	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Heptachlor epoxide	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Hexachlorobenzene	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Hexachlorobutadiene	230	ug/kg	U	230	930
3/23/2004	STATION 4	BNA-Waste	Hexachlorocyclopentadiene	78	ug/kg	UJ	78	310
3/23/2004	STATION 4	BNA-Waste	Hexachloroethane	230	ug/kg	U	230	930
3/23/2004	STATION 4	BNA-Waste	Indeno(1,2,3-cd)pyrene	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Isophorone	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	N-Nitrosodi-n-propylamine	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	N-Nitrosodimethylamine	470	ug/kg	U	470	1900
3/23/2004	STATION 4	BNA-Waste	N-Nitrosodiphenylamine	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Naphthalene	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Nitrobenzene	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Pentachlorophenol	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Phenanthrene	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Phenol	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	Pyrene	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	alpha-BHC	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	beta-BHC	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	delta-BHC	78	ug/kg	U	78	310
3/23/2004	STATION 4	BNA-Waste	gamma-BHC	78	ug/kg	U	78	310
3/23/2004	STATION 4	Bio-SedPrtSz/AFDW	Sediment % Organic		3.9	% dry wt		
3/23/2004	STATION 4	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, 0.063-0.125mm		7.76	% vol <2mm		
3/23/2004	STATION 4	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, 0.125-0.25 mm		32.6	% vol <2mm		

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/23/2004	STATION 4	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, 0.25-0.5 mm		23.4	% vol <2mm		
3/23/2004	STATION 4	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, 0.5-2.0 mm			8.66	% vol <2mm	
3/23/2004	STATION 4	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, <0.063 mm			27.6	% vol <2mm	
3/23/2004	STATION 4	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, >2.0 mm		1	%tot drywt		K
3/23/2004	STATION 4	GC-Soil	Alachlor	26	ug/kg	U	26	104
3/23/2004	STATION 4	GC-Soil	Aldrin	0.43	ug/Kg	U	0.43	1.72
3/23/2004	STATION 4	GC-Soil	Alpha-BHC	0.43	ug/Kg	U	0.43	1.72
3/23/2004	STATION 4	GC-Soil	Ametryn	2.1	ug/kg	U	2.1	8.4
3/23/2004	STATION 4	GC-Soil	Atrazine	2.1	ug/kg	U	2.1	8.4
3/23/2004	STATION 4	GC-Soil	Azinphos Methyl	2.1	ug/kg	U	2.1	8.4
3/23/2004	STATION 4	GC-Soil	Beta-BHC	0.43	ug/Kg	U	0.43	1.72
3/23/2004	STATION 4	GC-Soil	Bromacil	17	ug/kg	U	17	68
3/23/2004	STATION 4	GC-Soil	Chlordane	6.4	ug/Kg	U	6.4	25.6
3/23/2004	STATION 4	GC-Soil	Chlorpyrifos Ethyl	2.1	ug/kg	U	2.1	8.4
3/23/2004	STATION 4	GC-Soil	Chlorpyrifos Methyl	4.3	ug/kg	U	4.3	17.2
3/23/2004	STATION 4	GC-Soil	DDD-p,p'	0.85	ug/Kg	U	0.85	3.4
3/23/2004	STATION 4	GC-Soil	DDE-p,p'	0.85	ug/Kg	U	0.85	3.4
3/23/2004	STATION 4	GC-Soil	DDT-p,p'	1.3	ug/Kg	U	1.3	5.2
3/23/2004	STATION 4	GC-Soil	Delta-BHC	0.85	ug/Kg	U	0.85	3.4
3/23/2004	STATION 4	GC-Soil	Diazinon	4.3	ug/kg	U	4.3	17.2
3/23/2004	STATION 4	GC-Soil	Dieldrin	0.43	ug/Kg	U	0.43	1.72
3/23/2004	STATION 4	GC-Soil	Endosulfan I	0.43	ug/Kg	U	0.43	1.72
3/23/2004	STATION 4	GC-Soil	Endosulfan II	0.43	ug/Kg	U	0.43	1.72
3/23/2004	STATION 4	GC-Soil	Endosulfan Sulfate	0.85	ug/Kg	U	0.85	3.4
3/23/2004	STATION 4	GC-Soil	Endrin	2.1	ug/Kg	U	2.1	8.4
3/23/2004	STATION 4	GC-Soil	Endrin Aldehyde	0.85	ug/Kg	U	0.85	3.4
3/23/2004	STATION 4	GC-Soil	Ethion	2.1	ug/kg	U	2.1	8.4
3/23/2004	STATION 4	GC-Soil	Ethoprop	4.3	ug/kg	U	4.3	17.2
3/23/2004	STATION 4	GC-Soil	Fenamiphos	17	ug/kg	U	17	68
3/23/2004	STATION 4	GC-Soil	Fonofos	4.3	ug/kg	U	4.3	17.2
3/23/2004	STATION 4	GC-Soil	Gamma-BHC	0.43	ug/Kg	U	0.43	1.72
3/23/2004	STATION 4	GC-Soil	Heptachlor	0.43	ug/Kg	U	0.43	1.72
3/23/2004	STATION 4	GC-Soil	Heptachlor Epoxide	0.43	ug/Kg	U	0.43	1.72
3/23/2004	STATION 4	GC-Soil	Hexazinone	8.5	ug/kg	U	8.5	34
3/23/2004	STATION 4	GC-Soil	Malathion	6.4	ug/kg	U	6.4	25.6
3/23/2004	STATION 4	GC-Soil	Methamidophos	21	ug/kg	U	21	84
3/23/2004	STATION 4	GC-Soil	Methoxychlor	2.1	ug/Kg	UJ	2.1	8.4
3/23/2004	STATION 4	GC-Soil	Metolachlor	21	ug/kg	U	21	84
3/23/2004	STATION 4	GC-Soil	Metribuzin	4.3	ug/kg	U	4.3	17.2
3/23/2004	STATION 4	GC-Soil	Mevinphos	8.5	ug/kg	U	8.5	34
3/23/2004	STATION 4	GC-Soil	Monocrotophos	43	ug/kg	U	43	172
3/23/2004	STATION 4	GC-Soil	Naled	35	ug/kg	U	35	140
3/23/2004	STATION 4	GC-Soil	Norflurazon	4.3	ug/kg	U	4.3	17.2
3/23/2004	STATION 4	GC-Soil	PCB-1016	13	ug/Kg	U	13	52

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/23/2004	STATION 4	GC-Soil	PCB-1221	8.5	ug/Kg	U	8.5	34
3/23/2004	STATION 4	GC-Soil	PCB-1232	19	ug/Kg	U	19	76
3/23/2004	STATION 4	GC-Soil	PCB-1242	13	ug/Kg	U	13	52
3/23/2004	STATION 4	GC-Soil	PCB-1248	8.5	ug/Kg	U	8.5	34
3/23/2004	STATION 4	GC-Soil	PCB-1254	8.5	ug/Kg	U	8.5	34
3/23/2004	STATION 4	GC-Soil	PCB-1260	13	ug/Kg	U	13	52
3/23/2004	STATION 4	GC-Soil	Parathion Ethyl	6.4	ug/kg	U	6.4	25.6
3/23/2004	STATION 4	GC-Soil	Parathion Methyl	6.4	ug/kg	U	6.4	25.6
3/23/2004	STATION 4	GC-Soil	Phorate	2.1	ug/kg	U	2.1	8.4
3/23/2004	STATION 4	GC-Soil	Prometryn	6.4	ug/kg	U	6.4	25.6
3/23/2004	STATION 4	GC-Soil	Simazine	2.1	ug/kg	U	2.1	8.4
3/23/2004	STATION 4	GC-Soil	Toxaphene	32	ug/Kg	U	32	128
3/23/2004	STATION 4	Metals-Waste	Aluminum	3000	mg/Kg		280	1100
3/23/2004	STATION 4	Metals-Waste	Cadmium	1.6	mg/Kg	J	0.075	0.3
3/23/2004	STATION 4	Metals-Waste	Chromium	54.6	mg/Kg		0.4	1.6
3/23/2004	STATION 4	Metals-Waste	Copper	15	mg/Kg	IJ	0.6	15.1
3/23/2004	STATION 4	Metals-Waste	Iron	13600	mg/Kg		20	81
3/23/2004	STATION 4	Metals-Waste	Lead	23.3	mg/Kg		1	4
3/23/2004	STATION 4	Metals-Waste	Nickel	26.9	mg/Kg		0.25	1
3/23/2004	STATION 4	Metals-Waste	Silver	0.78	mg/Kg	UJ	0.78	3.1
3/23/2004	STATION 4	Metals-Waste	Zinc	12	mg/Kg	I	2	12.3
3/23/2004	STATION 4 REP 1	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	36	# Taxa			
3/23/2004	STATION 4 REP 2	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	45	# Taxa			
3/23/2004	STATION 4 REP 3	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	12	# Taxa			
3/23/2004	STATION 4 REP 4	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	25	# Taxa			
3/23/2004	STATION 4 REP 5	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	46	# Taxa			
3/23/2004	STATION 5	BNA-Waste	1,2,4-Trichlorobenzene	230	ug/kg	U	230	920
3/23/2004	STATION 5	BNA-Waste	1,2-Dichlorobenzene	230	ug/kg	U	230	920
3/23/2004	STATION 5	BNA-Waste	1,3-Dichlorobenzene	230	ug/kg	U	230	920
3/23/2004	STATION 5	BNA-Waste	1,4-Dichlorobenzene	230	ug/kg	U	230	920
3/23/2004	STATION 5	BNA-Waste	2,4,6-Trichlorophenol	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	2,4-Dichlorophenol	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	2,4-Dimethylphenol	2200	ug/kg	U	2200	9100
3/23/2004	STATION 5	BNA-Waste	2,4-Dinitrophenol	460	ug/kg	U	460	1800
3/23/2004	STATION 5	BNA-Waste	2,4-Dinitrotoluene	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	2,6-Dinitrotoluene	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	2-Chloronaphthalene	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	2-Chlorophenol	230	ug/kg	U	230	920
3/23/2004	STATION 5	BNA-Waste	2-Methyl-4,6-dinitrophenol	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	2-Nitrophenol	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	3,3'-Dichlorobenzidine	4500	ug/kg	U	4500	18000
3/23/2004	STATION 5	BNA-Waste	4,4'-DDD	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	4,4'-DDE	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	4,4'-DDT	76	ug/kg	U	76	310

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/23/2004	STATION 5	BNA-Waste	4-Bromophenyl phenyl ether	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	4-Chloro-3-methylphenol	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	4-Chlorophenyl phenyl ether	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	4-Nitrophenol	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Acenaphthene	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Acenaphthylene	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Aldrin	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Anthracene	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Azobenzene/1,2-Diphenylhydrazine	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Benzidine	1700	ug/kg	U	1700	6600
3/23/2004	STATION 5	BNA-Waste	Benzo(a)anthracene	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Benzo(a)pyrene	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Benzo(b)fluoranthene	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Benzo(g,h,i)perylene	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Benzo(k)fluoranthene	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Bis(2-chloroethoxy)methane	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Bis(2-chloroethyl)ether	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Bis(2-chloroisopropyl)ether	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Bis(2-ethylhexyl)phthalate	460	ug/kg	U	460	1800
3/23/2004	STATION 5	BNA-Waste	Butyl benzyl phthalate	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Chrysene	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Di-n-butyl phthalate	460	ug/kg	U	460	1800
3/23/2004	STATION 5	BNA-Waste	Di-n-octyl phthalate	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Dibenzo(a,h)anthracene	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Dieldrin	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Diethyl phthalate	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Dimethyl phthalate	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Endosulfan I	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Endosulfan II	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Endosulfan sulfate	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Endrin	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Endrin aldehyde	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Fluoranthene	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Fluorene	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Heptachlor	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Heptachlor epoxide	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Hexachlorobenzene	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Hexachlorobutadiene	230	ug/kg	U	230	920
3/23/2004	STATION 5	BNA-Waste	Hexachlorocyclopentadiene	76	ug/kg	UJ	76	310
3/23/2004	STATION 5	BNA-Waste	Hexachloroethane	230	ug/kg	U	230	920
3/23/2004	STATION 5	BNA-Waste	Indeno(1,2,3-cd)pyrene	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Isophorone	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	N-Nitrosodi-n-propylamine	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	N-Nitrosodimethylamine	460	ug/kg	U	460	1800

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/23/2004	STATION 5	BNA-Waste	N-Nitrosodiphenylamine	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Naphthalene	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Nitrobenzene	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Pentachlorophenol	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Phenanthrene	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Phenol	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	Pyrene	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	alpha-BHC	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	beta-BHC	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	delta-BHC	76	ug/kg	U	76	310
3/23/2004	STATION 5	BNA-Waste	gamma-BHC	76	ug/kg	U	76	310
3/23/2004	STATION 5	Bio-SedPrtSz/AFDW	Sediment % Organic		3.6	% dry wt		
3/23/2004	STATION 5	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, 0.063-0.125mm		9.87	% vol <2mm		
3/23/2004	STATION 5	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, 0.125-0.25 mm		31.4	% vol <2mm		
3/23/2004	STATION 5	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, 0.25-0.5 mm		14.6	% vol <2mm		
3/23/2004	STATION 5	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, 0.5-2.0 mm			9.95	% vol <2mm	
3/23/2004	STATION 5	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, <0.063 mm			34.1	% vol <2mm	
3/23/2004	STATION 5	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, >2.0 mm		18	%tot drywt		
3/23/2004	STATION 5	GC-Soil	Alachlor	25	ug/kg	U	25	100
3/23/2004	STATION 5	GC-Soil	Aldrin	0.42	ug/Kg	U	0.42	1.68
3/23/2004	STATION 5	GC-Soil	Alpha-BHC	0.42	ug/Kg	U	0.42	1.68
3/23/2004	STATION 5	GC-Soil	Ametryn	2.1	ug/kg	U	2.1	8.4
3/23/2004	STATION 5	GC-Soil	Atrazine	2.1	ug/kg	U	2.1	8.4
3/23/2004	STATION 5	GC-Soil	Azinphos Methyl	2.1	ug/kg	U	2.1	8.4
3/23/2004	STATION 5	GC-Soil	Beta-BHC	0.42	ug/Kg	U	0.42	1.68
3/23/2004	STATION 5	GC-Soil	Bromacil	17	ug/kg	U	17	68
3/23/2004	STATION 5	GC-Soil	Chlordane	6.3	ug/Kg	U	6.3	25.2
3/23/2004	STATION 5	GC-Soil	Chlorpyrifos Ethyl	2.1	ug/kg	U	2.1	8.4
3/23/2004	STATION 5	GC-Soil	Chlorpyrifos Methyl	4.2	ug/kg	U	4.2	16.8
3/23/2004	STATION 5	GC-Soil	DDD-p,p'	5.4	ug/Kg		0.84	3.36
3/23/2004	STATION 5	GC-Soil	DDE-p,p'	1.7	ug/Kg	I	0.84	3.36
3/23/2004	STATION 5	GC-Soil	DDT-p,p'	1.3	ug/Kg	U	1.3	5.2
3/23/2004	STATION 5	GC-Soil	Delta-BHC	0.84	ug/Kg	U	0.84	3.36
3/23/2004	STATION 5	GC-Soil	Diazinon	4.2	ug/kg	U	4.2	16.8
3/23/2004	STATION 5	GC-Soil	Dieldrin	0.42	ug/Kg	U	0.42	1.68
3/23/2004	STATION 5	GC-Soil	Endosulfan I	0.42	ug/Kg	U	0.42	1.68
3/23/2004	STATION 5	GC-Soil	Endosulfan II	0.42	ug/Kg	U	0.42	1.68
3/23/2004	STATION 5	GC-Soil	Endosulfan Sulfate	0.84	ug/Kg	U	0.84	3.36
3/23/2004	STATION 5	GC-Soil	Endrin	2.1	ug/Kg	U	2.1	8.4
3/23/2004	STATION 5	GC-Soil	Endrin Aldehyde	0.84	ug/Kg	U	0.84	3.36
3/23/2004	STATION 5	GC-Soil	Ethion	2.1	ug/kg	U	2.1	8.4
3/23/2004	STATION 5	GC-Soil	Ethoprop	4.2	ug/kg	U	4.2	16.8
3/23/2004	STATION 5	GC-Soil	Fenamiphos	17	ug/kg	U	17	68
3/23/2004	STATION 5	GC-Soil	Fonofos	4.2	ug/kg	U	4.2	16.8

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/23/2004	STATION 5	GC-Soil	Gamma-BHC	0.42	ug/Kg	U	0.42	1.68
3/23/2004	STATION 5	GC-Soil	Heptachlor	0.42	ug/Kg	U	0.42	1.68
3/23/2004	STATION 5	GC-Soil	Heptachlor Epoxide	0.42	ug/Kg	U	0.42	1.68
3/23/2004	STATION 5	GC-Soil	Hexazinone	8.4	ug/kg	U	8.4	33.6
3/23/2004	STATION 5	GC-Soil	Malathion	6.3	ug/kg	U	6.3	25.2
3/23/2004	STATION 5	GC-Soil	Methamidophos	21	ug/kg	U	21	84
3/23/2004	STATION 5	GC-Soil	Methoxychlor	10	ug/Kg	U	10	40
3/23/2004	STATION 5	GC-Soil	Metolachlor	21	ug/kg	U	21	84
3/23/2004	STATION 5	GC-Soil	Metribuzin	4.2	ug/kg	U	4.2	16.8
3/23/2004	STATION 5	GC-Soil	Mevinphos	8.4	ug/kg	U	8.4	33.6
3/23/2004	STATION 5	GC-Soil	Monocrotophos	42	ug/kg	U	42	168
3/23/2004	STATION 5	GC-Soil	Naled	34	ug/kg	U	34	136
3/23/2004	STATION 5	GC-Soil	Norflurazon	4.2	ug/kg	U	4.2	16.8
3/23/2004	STATION 5	GC-Soil	PCB-1016	13	ug/Kg	U	13	52
3/23/2004	STATION 5	GC-Soil	PCB-1221	8.4	ug/Kg	U	8.4	33.6
3/23/2004	STATION 5	GC-Soil	PCB-1232	19	ug/Kg	U	19	76
3/23/2004	STATION 5	GC-Soil	PCB-1242	13	ug/Kg	U	13	52
3/23/2004	STATION 5	GC-Soil	PCB-1248	8.4	ug/Kg	U	8.4	33.6
3/23/2004	STATION 5	GC-Soil	PCB-1254	8.4	ug/Kg	U	8.4	33.6
3/23/2004	STATION 5	GC-Soil	PCB-1260	13	ug/Kg	U	13	52
3/23/2004	STATION 5	GC-Soil	Parathion Ethyl	6.3	ug/kg	U	6.3	25.2
3/23/2004	STATION 5	GC-Soil	Parathion Methyl	6.3	ug/kg	U	6.3	25.2
3/23/2004	STATION 5	GC-Soil	Phorate	2.1	ug/kg	U	2.1	8.4
3/23/2004	STATION 5	GC-Soil	Prometryn	6.3	ug/kg	U	6.3	25.2
3/23/2004	STATION 5	GC-Soil	Simazine	2.1	ug/kg	U	2.1	8.4
3/23/2004	STATION 5	GC-Soil	Toxaphene	32	ug/Kg	U	32	128
3/23/2004	STATION 5	Metals-Waste	Aluminum	4800	mg/Kg		290	1100
3/23/2004	STATION 5	Metals-Waste	Cadmium	2	mg/Kg	J	0.077	0.31
3/23/2004	STATION 5	Metals-Waste	Chromium	106	mg/Kg		0.41	1.6
3/23/2004	STATION 5	Metals-Waste	Copper	14	mg/Kg	IJ	0.61	14.4
3/23/2004	STATION 5	Metals-Waste	Iron	4270	mg/Kg		10	41
3/23/2004	STATION 5	Metals-Waste	Lead	5	mg/Kg		1	4.1
3/23/2004	STATION 5	Metals-Waste	Nickel	258	mg/Kg	A	1	4
3/23/2004	STATION 5	Metals-Waste	Silver	0.68	mg/Kg	UJ	0.68	2.6
3/23/2004	STATION 5	Metals-Waste	Zinc	22	mg/Kg	I	2	21.5
3/23/2004	STATION 5 REP 1	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	23		# Taxa		
3/23/2004	STATION 5 REP 2	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	4		# Taxa		
3/23/2004	STATION 5 REP 3	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	16		# Taxa		
3/23/2004	STATION 5 REP 4	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	13		# Taxa		
3/23/2004	STATION 5 REP 5	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	12		# Taxa		
3/23/2004	STATION 6	BNA-Waste	1,2,4-Trichlorobenzene	230	ug/kg	U	230	910
3/23/2004	STATION 6	BNA-Waste	1,2-Dichlorobenzene	230	ug/kg	U	230	910
3/23/2004	STATION 6	BNA-Waste	1,3-Dichlorobenzene	230	ug/kg	U	230	910
3/23/2004	STATION 6	BNA-Waste	1,4-Dichlorobenzene	230	ug/kg	U	230	910

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/23/2004	STATION 6	BNA-Waste	2,4,6-Trichlorophenol	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	2,4-Dichlorophenol	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	2,4-Dimethylphenol	2300	ug/kg	U	2300	9100
3/23/2004	STATION 6	BNA-Waste	2,4-Dinitrophenol	450	ug/kg	U	450	1800
3/23/2004	STATION 6	BNA-Waste	2,4-Dinitrotoluene	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	2,6-Dinitrotoluene	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	2-Chloronaphthalene	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	2-Chlorophenol	230	ug/kg	U	230	910
3/23/2004	STATION 6	BNA-Waste	2-Methyl-4,6-dinitrophenol	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	2-Nitrophenol	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	3,3'-Dichlorobenzidine	4500	ug/kg	U	4500	18000
3/23/2004	STATION 6	BNA-Waste	4,4'-DDD	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	4,4'-DDE	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	4,4'-DDT	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	4-Bromophenyl phenyl ether	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	4-Chloro-3-methylphenol	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	4-Chlorophenyl phenyl ether	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	4-Nitrophenol	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Acenaphthene	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Acenaphthylene	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Aldrin	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Anthracene	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Azobenzene/1,2-Diphenylhydrazine	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Benzidine	1600	ug/kg	U	1600	6600
3/23/2004	STATION 6	BNA-Waste	Benzo(a)anthracene	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Benzo(a)pyrene	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Benzo(b)fluoranthene	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Benzo(g,h,i)perylene	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Benzo(k)fluoranthene	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Bis(2-chloroethoxy)methane	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Bis(2-chloroethyl)ether	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Bis(2-chloroisopropyl)ether	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Bis(2-ethylhexyl)phthalate	450	ug/kg	U	450	1800
3/23/2004	STATION 6	BNA-Waste	Butyl benzyl phthalate	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Chrysene	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Di-n-butyl phthalate	450	ug/kg	U	450	1800
3/23/2004	STATION 6	BNA-Waste	Di-n-octyl phthalate	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Dibenzo(a,h)anthracene	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Dieldrin	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Diethyl phthalate	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Dimethyl phthalate	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Endosulfan I	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Endosulfan II	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Endosulfan sulfate	76	ug/kg	U	76	300

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/23/2004	STATION 6	BNA-Waste	Endrin	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Endrin aldehyde	76	ug/kg	UJ	76	300
3/23/2004	STATION 6	BNA-Waste	Fluoranthene	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Fluorene	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Heptachlor	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Heptachlor epoxide	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Hexachlorobenzene	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Hexachlorobutadiene	230	ug/kg	U	230	910
3/23/2004	STATION 6	BNA-Waste	Hexachlorocyclopentadiene	76	ug/kg	UJ	76	300
3/23/2004	STATION 6	BNA-Waste	Hexachloroethane	230	ug/kg	U	230	910
3/23/2004	STATION 6	BNA-Waste	Indeno(1,2,3-cd)pyrene	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Isophorone	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	N-Nitrosodi-n-propylamine	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	N-Nitrosodimethylamine	450	ug/kg	U	450	1800
3/23/2004	STATION 6	BNA-Waste	N-Nitrosodiphenylamine	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Naphthalene	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Nitrobenzene	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Pentachlorophenol	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Phenanthrene	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Phenol	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	Pyrene	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	alpha-BHC	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	beta-BHC	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	delta-BHC	76	ug/kg	U	76	300
3/23/2004	STATION 6	BNA-Waste	gamma-BHC	76	ug/kg	U	76	300
3/23/2004	STATION 6	Bio-SedPrtSz/AFDW	Sediment % Organic		2.8	% dry wt		
3/23/2004	STATION 6	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, 0.063-0.125mm		7.11	% vol <2mm		
3/23/2004	STATION 6	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, 0.125-0.25 mm		45.1	% vol <2mm		
3/23/2004	STATION 6	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, 0.25-0.5 mm		27	% vol <2mm		
3/23/2004	STATION 6	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, 0.5-2.0 mm			14.9	% vol <2mm	
3/23/2004	STATION 6	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, <0.063 mm			5.87	% vol <2mm	
3/23/2004	STATION 6	Bio-SedPrtSz/AFDW	Sediment Particle Size, %, >2.0 mm		7.7	%tot drywt		
3/23/2004	STATION 6	GC-Soil	Alachlor	25	ug/kg	U	25	100
3/23/2004	STATION 6	GC-Soil	Aldrin	0.42	ug/Kg	U	0.42	1.68
3/23/2004	STATION 6	GC-Soil	Alpha-BHC	0.42	ug/Kg	U	0.42	1.68
3/23/2004	STATION 6	GC-Soil	Ametryn	2.1	ug/kg	U	2.1	8.4
3/23/2004	STATION 6	GC-Soil	Atrazine	2.1	ug/kg	U	2.1	8.4
3/23/2004	STATION 6	GC-Soil	Azinphos Methyl	2.1	ug/kg	U	2.1	8.4
3/23/2004	STATION 6	GC-Soil	Beta-BHC	0.42	ug/Kg	U	0.42	1.68
3/23/2004	STATION 6	GC-Soil	Bromacil	17	ug/kg	U	17	68
3/23/2004	STATION 6	GC-Soil	Chlordane	6.2	ug/Kg	U	6.2	24.8
3/23/2004	STATION 6	GC-Soil	Chlorpyrifos Ethyl	2.1	ug/kg	U	2.1	8.4
3/23/2004	STATION 6	GC-Soil	Chlorpyrifos Methyl	4.2	ug/kg	U	4.2	16.8
3/23/2004	STATION 6	GC-Soil	DDD-p,p'	0.83	ug/Kg	U	0.83	3.32

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/23/2004	STATION 6	GC-Soil	DDE-p,p'	0.83	ug/Kg	U	0.83	3.32
3/23/2004	STATION 6	GC-Soil	DDT-p,p'	1.2	ug/Kg	U	1.2	4.8
3/23/2004	STATION 6	GC-Soil	Delta-BHC	0.83	ug/Kg	U	0.83	3.32
3/23/2004	STATION 6	GC-Soil	Diazinon	4.2	ug/kg	U	4.2	16.8
3/23/2004	STATION 6	GC-Soil	Dieldrin	0.42	ug/Kg	U	0.42	1.68
3/23/2004	STATION 6	GC-Soil	Endosulfan I	0.42	ug/Kg	U	0.42	1.68
3/23/2004	STATION 6	GC-Soil	Endosulfan II	0.42	ug/Kg	U	0.42	1.68
3/23/2004	STATION 6	GC-Soil	Endosulfan Sulfate	0.83	ug/Kg	U	0.83	3.32
3/23/2004	STATION 6	GC-Soil	Endrin	2.1	ug/Kg	U	2.1	8.4
3/23/2004	STATION 6	GC-Soil	Endrin Aldehyde	0.83	ug/Kg	U	0.83	3.32
3/23/2004	STATION 6	GC-Soil	Ethion	2.1	ug/kg	U	2.1	8.4
3/23/2004	STATION 6	GC-Soil	Ethoprop	4.2	ug/kg	U	4.2	16.8
3/23/2004	STATION 6	GC-Soil	Fenamiphos	17	ug/kg	U	17	68
3/23/2004	STATION 6	GC-Soil	Fonofos	4.2	ug/kg	U	4.2	16.8
3/23/2004	STATION 6	GC-Soil	Gamma-BHC	0.42	ug/Kg	U	0.42	1.68
3/23/2004	STATION 6	GC-Soil	Heptachlor	0.42	ug/Kg	U	0.42	1.68
3/23/2004	STATION 6	GC-Soil	Heptachlor Epoxide	0.42	ug/Kg	U	0.42	1.68
3/23/2004	STATION 6	GC-Soil	Hexazinone	8.3	ug/kg	U	8.3	33.2
3/23/2004	STATION 6	GC-Soil	Malathion	6.2	ug/kg	U	6.2	24.8
3/23/2004	STATION 6	GC-Soil	Methamidophos	21	ug/kg	U	21	84
3/23/2004	STATION 6	GC-Soil	Methoxychlor	2.1	ug/Kg	UJ	2.1	8.4
3/23/2004	STATION 6	GC-Soil	Metolachlor	21	ug/kg	U	21	84
3/23/2004	STATION 6	GC-Soil	Metribuzin	4.2	ug/kg	U	4.2	16.8
3/23/2004	STATION 6	GC-Soil	Mevinphos	8.3	ug/kg	U	8.3	33.2
3/23/2004	STATION 6	GC-Soil	Monocrotophos	42	ug/kg	U	42	168
3/23/2004	STATION 6	GC-Soil	Naled	34	ug/kg	U	34	136
3/23/2004	STATION 6	GC-Soil	Norflurazon	4.2	ug/kg	U	4.2	16.8
3/23/2004	STATION 6	GC-Soil	PCB-1016	12	ug/Kg	U	12	48
3/23/2004	STATION 6	GC-Soil	PCB-1221	8.3	ug/Kg	U	8.3	33.2
3/23/2004	STATION 6	GC-Soil	PCB-1232	19	ug/Kg	U	19	76
3/23/2004	STATION 6	GC-Soil	PCB-1242	12	ug/Kg	U	12	48
3/23/2004	STATION 6	GC-Soil	PCB-1248	8.3	ug/Kg	U	8.3	33.2
3/23/2004	STATION 6	GC-Soil	PCB-1254	8.3	ug/Kg	U	8.3	33.2
3/23/2004	STATION 6	GC-Soil	PCB-1260	12	ug/Kg	U	12	48
3/23/2004	STATION 6	GC-Soil	Parathion Ethyl	6.2	ug/kg	U	6.2	24.8
3/23/2004	STATION 6	GC-Soil	Parathion Methyl	6.2	ug/kg	U	6.2	24.8
3/23/2004	STATION 6	GC-Soil	Phorate	2.1	ug/kg	U	2.1	8.4
3/23/2004	STATION 6	GC-Soil	Prometryn	6.2	ug/kg	U	6.2	24.8
3/23/2004	STATION 6	GC-Soil	Simazine	2.1	ug/kg	U	2.1	8.4
3/23/2004	STATION 6	GC-Soil	Toxaphene	31	ug/Kg	U	31	124
3/23/2004	STATION 6	Metals-Waste	Aluminum	2600	mg/Kg		280	1100
3/23/2004	STATION 6	Metals-Waste	Cadmium	0.9	mg/Kg	J	0.074	0.3
3/23/2004	STATION 6	Metals-Waste	Chromium	117	mg/Kg		0.4	1.6
3/23/2004	STATION 6	Metals-Waste	Copper	11	mg/Kg	UJ	11	44

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/23/2004	STATION 6	Metals-Waste	Iron	1510	mg/Kg		9.9	40
3/23/2004	STATION 6	Metals-Waste	Lead	8.2	mg/Kg		0.99	4
3/23/2004	STATION 6	Metals-Waste	Nickel	31.9	mg/Kg		0.25	0.99
3/23/2004	STATION 6	Metals-Waste	Silver	0.76	mg/Kg	UJ	0.76	3
3/23/2004	STATION 6	Metals-Waste	Zinc	12	mg/Kg	I	2	11.7
3/23/2004	STATION 6 REP 1	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	12		# Taxa		
3/23/2004	STATION 6 REP 2	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	7		# Taxa		
3/23/2004	STATION 6 REP 3	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	10		# Taxa		
3/23/2004	STATION 6 REP 4	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	4		# Taxa		
3/23/2004	STATION 6 REP 5	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	3		# Taxa		
3/23/2004	STATION1 REP 1	Bio-Invertebrates	Macroinvert-Marine-Quan-NatSubstr-# Taxa	31		# Taxa		
3/23/2004 8:20	CORE BLANK	BNA-Water	1,2,4-Trichlorobenzene	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	1,2-Dichlorobenzene	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	1,3-Dichlorobenzene	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	1,4-Dichlorobenzene	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	2,4,6-Trichlorophenol	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	2,4-Dichlorophenol	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	2,4-Dimethylphenol	49	ug/L	U	49	190
3/23/2004 8:20	CORE BLANK	BNA-Water	2,4-Dinitrophenol	15	ug/L	U	15	58
3/23/2004 8:20	CORE BLANK	BNA-Water	2,4-Dinitrotoluene	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	2,6-Dinitrotoluene	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	2-Chloronaphthalene	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	2-Chlorophenol	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	12
3/23/2004 8:20	CORE BLANK	BNA-Water	2-Nitrophenol	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	3,3'-Dichlorobenzidine	39	ug/L	U	39	160
3/23/2004 8:20	CORE BLANK	BNA-Water	4,4'-DDD	1.5	ug/L	U	1.5	5.8
3/23/2004 8:20	CORE BLANK	BNA-Water	4,4'-DDE	1.5	ug/L	U	1.5	5.8
3/23/2004 8:20	CORE BLANK	BNA-Water	4,4'-DDT	1.5	ug/L	UJ	1.5	5.8
3/23/2004 8:20	CORE BLANK	BNA-Water	4-Bromophenyl phenyl ether	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	4-Chloro-3-methylphenol	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.8
3/23/2004 8:20	CORE BLANK	BNA-Water	4-Nitrophenol	15	ug/L	U	15	58
3/23/2004 8:20	CORE BLANK	BNA-Water	Acenaphthene	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	Acenaphthylene	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	Aldrin	1.5	ug/L	U	1.5	5.8
3/23/2004 8:20	CORE BLANK	BNA-Water	Anthracene	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	Benzidine	97	ug/L	U	97	390
3/23/2004 8:20	CORE BLANK	BNA-Water	Benzo(a)anthracene	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	Benzo(a)pyrene	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	Benzo(b)fluoranthene	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	Benzo(g,h,i)perylene	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	Benzo(k)fluoranthene	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	Bis(2-chloroethoxy)methane	0.97	ug/L	U	0.97	3.9

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/23/2004 8:20	CORE BLANK	BNA-Water	Bis(2-chloroethyl)ether	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	12
3/23/2004 8:20	CORE BLANK	BNA-Water	Bis(2-ethylhexyl)phthalate	15	ug/L	U	15	58
3/23/2004 8:20	CORE BLANK	BNA-Water	Butyl benzyl phthalate	4.9	ug/L	U	4.9	19
3/23/2004 8:20	CORE BLANK	BNA-Water	Chrysene	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	Di-n-butyl phthalate	4.9	ug/L	U	4.9	19
3/23/2004 8:20	CORE BLANK	BNA-Water	Di-n-octyl phthalate	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	Dibenzo(a,h)anthracene	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	Dieldrin	1.5	ug/L	U	1.5	5.8
3/23/2004 8:20	CORE BLANK	BNA-Water	Diethyl phthalate	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	Dimethyl phthalate	49	ug/L	U	49	190
3/23/2004 8:20	CORE BLANK	BNA-Water	Endosulfan I	3.9	ug/L	U	3.9	16
3/23/2004 8:20	CORE BLANK	BNA-Water	Endosulfan II	3.9	ug/L	U	3.9	16
3/23/2004 8:20	CORE BLANK	BNA-Water	Endosulfan sulfate	1.5	ug/L	U	1.5	5.8
3/23/2004 8:20	CORE BLANK	BNA-Water	Endrin	1.5	ug/L	UJ	1.5	5.8
3/23/2004 8:20	CORE BLANK	BNA-Water	Endrin aldehyde	3.9	ug/L	U	3.9	16
3/23/2004 8:20	CORE BLANK	BNA-Water	Fluoranthene	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	Fluorene	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	Heptachlor	1.5	ug/L	U	1.5	5.8
3/23/2004 8:20	CORE BLANK	BNA-Water	Heptachlor epoxide	1.5	ug/L	UJ	1.5	5.8
3/23/2004 8:20	CORE BLANK	BNA-Water	Hexachlorobenzene	0.97	ug/L	UJ	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	Hexachlorobutadiene	2.9	ug/L	UJ	2.9	12
3/23/2004 8:20	CORE BLANK	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	12
3/23/2004 8:20	CORE BLANK	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	12
3/23/2004 8:20	CORE BLANK	BNA-Water	Indeno(1,2,3-cd)pyrene	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	Isophorone	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.8
3/23/2004 8:20	CORE BLANK	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.8
3/23/2004 8:20	CORE BLANK	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	12
3/23/2004 8:20	CORE BLANK	BNA-Water	Naphthalene	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.8
3/23/2004 8:20	CORE BLANK	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	12
3/23/2004 8:20	CORE BLANK	BNA-Water	Phenanthrene	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	Phenol	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	Pyrene	0.97	ug/L	U	0.97	3.9
3/23/2004 8:20	CORE BLANK	BNA-Water	alpha-BHC	1.5	ug/L	U	1.5	5.8
3/23/2004 8:20	CORE BLANK	BNA-Water	beta-BHC	1.5	ug/L	U	1.5	5.8
3/23/2004 8:20	CORE BLANK	BNA-Water	delta-BHC	1.5	ug/L	U	1.5	5.8
3/23/2004 8:20	CORE BLANK	BNA-Water	gamma-BHC	1.5	ug/L	U	1.5	5.8
3/23/2004 8:20	CORE BLANK	GC-Water	Alachlor	0.58	ug/L	UJ	0.58	2.32
3/23/2004 8:20	CORE BLANK	GC-Water	Aldrin	0.0097	ug/L	U	0.0097	0.0388
3/23/2004 8:20	CORE BLANK	GC-Water	Alpha-BHC	0.0097	ug/L	U	0.0097	0.0388
3/23/2004 8:20	CORE BLANK	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.192
3/23/2004 8:20	CORE BLANK	GC-Water	Atrazine	0.048	ug/L	UJ	0.048	0.192

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/23/2004 8:20	CORE BLANK	GC-Water	Azinphos Methyl	0.048	ug/L	U	0.048	0.192
3/23/2004 8:20	CORE BLANK	GC-Water	Beta-BHC	0.0097	ug/L	U	0.0097	0.0388
3/23/2004 8:20	CORE BLANK	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
3/23/2004 8:20	CORE BLANK	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
3/23/2004 8:20	CORE BLANK	GC-Water	Chlordane	0.19	ug/L	U	0.19	0.76
3/23/2004 8:20	CORE BLANK	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.192
3/23/2004 8:20	CORE BLANK	GC-Water	Chlorpyrifos Methyl	0.097	ug/L	U	0.097	0.388
3/23/2004 8:20	CORE BLANK	GC-Water	DDD-p,p'	0.019	ug/L	U	0.019	0.076
3/23/2004 8:20	CORE BLANK	GC-Water	DDE-p,p'	0.019	ug/L	U	0.019	0.076
3/23/2004 8:20	CORE BLANK	GC-Water	DDT-p,p'	0.029	ug/L	U	0.029	0.116
3/23/2004 8:20	CORE BLANK	GC-Water	Delta-BHC	0.0097	ug/L	U	0.0097	0.0388
3/23/2004 8:20	CORE BLANK	GC-Water	Diazinon	0.048	ug/L	U	0.048	0.192
3/23/2004 8:20	CORE BLANK	GC-Water	Dieldrin	0.019	ug/L	U	0.019	0.076
3/23/2004 8:20	CORE BLANK	GC-Water	Endosulfan I	0.019	ug/L	U	0.019	0.076
3/23/2004 8:20	CORE BLANK	GC-Water	Endosulfan II	0.019	ug/L	U	0.019	0.076
3/23/2004 8:20	CORE BLANK	GC-Water	Endosulfan Sulfate	0.019	ug/L	U	0.019	0.076
3/23/2004 8:20	CORE BLANK	GC-Water	Endrin	0.048	ug/L	U	0.048	0.192
3/23/2004 8:20	CORE BLANK	GC-Water	Endrin Aldehyde	0.019	ug/L	U	0.019	0.076
3/23/2004 8:20	CORE BLANK	GC-Water	Ethion	0.048	ug/L	U	0.048	0.192
3/23/2004 8:20	CORE BLANK	GC-Water	Ethoprop	0.097	ug/L	U	0.097	0.388
3/23/2004 8:20	CORE BLANK	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
3/23/2004 8:20	CORE BLANK	GC-Water	Fonofos	0.097	ug/L	U	0.097	0.388
3/23/2004 8:20	CORE BLANK	GC-Water	Gamma-BHC	0.0097	ug/L	U	0.0097	0.0388
3/23/2004 8:20	CORE BLANK	GC-Water	Heptachlor	0.0097	ug/L	U	0.0097	0.0388
3/23/2004 8:20	CORE BLANK	GC-Water	Heptachlor Epoxide	0.019	ug/L	U	0.019	0.076
3/23/2004 8:20	CORE BLANK	GC-Water	Hexazinone	0.097	ug/L	U	0.097	0.388
3/23/2004 8:20	CORE BLANK	GC-Water	Malathion	0.14	ug/L	U	0.14	0.56
3/23/2004 8:20	CORE BLANK	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
3/23/2004 8:20	CORE BLANK	GC-Water	Methoxychlor	0.048	ug/L	U	0.048	0.192
3/23/2004 8:20	CORE BLANK	GC-Water	Metolachlor	0.48	ug/L	UJ	0.48	1.92
3/23/2004 8:20	CORE BLANK	GC-Water	Metribuzin	0.097	ug/L	U	0.097	0.388
3/23/2004 8:20	CORE BLANK	GC-Water	Mevinphos	0.19	ug/L	UJ	0.19	0.76
3/23/2004 8:20	CORE BLANK	GC-Water	Naled	0.78	ug/L	UJ	0.78	3.12
3/23/2004 8:20	CORE BLANK	GC-Water	Norflurazon	0.097	ug/L	U	0.097	0.388
3/23/2004 8:20	CORE BLANK	GC-Water	PCB-1016	0.19	ug/L	U	0.19	0.76
3/23/2004 8:20	CORE BLANK	GC-Water	PCB-1221	0.19	ug/L	U	0.19	0.76
3/23/2004 8:20	CORE BLANK	GC-Water	PCB-1232	0.19	ug/L	U	0.19	0.76
3/23/2004 8:20	CORE BLANK	GC-Water	PCB-1242	0.29	ug/L	U	0.29	1.16
3/23/2004 8:20	CORE BLANK	GC-Water	PCB-1248	0.19	ug/L	U	0.19	0.76
3/23/2004 8:20	CORE BLANK	GC-Water	PCB-1254	0.29	ug/L	U	0.29	1.16
3/23/2004 8:20	CORE BLANK	GC-Water	PCB-1260	0.19	ug/L	U	0.19	0.76
3/23/2004 8:20	CORE BLANK	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
3/23/2004 8:20	CORE BLANK	GC-Water	Parathion Methyl	0.097	ug/L	U	0.097	0.388
3/23/2004 8:20	CORE BLANK	GC-Water	Phorate	0.048	ug/L	U	0.048	0.192

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/23/2004 8:20	CORE BLANK	GC-Water	Prometryn	0.14	ug/L	UJ	0.14	0.56
3/23/2004 8:20	CORE BLANK	GC-Water	Simazine	0.048	ug/L	U	0.048	0.192
3/23/2004 8:20	CORE BLANK	GC-Water	Toxaphene	0.73	ug/L	U	0.73	2.92
3/23/2004 8:20	CORE BLANK	Metals-Water	Aluminum	16	ug/L	U	16	64
3/23/2004 8:20	CORE BLANK	Metals-Water	Cadmium	0.025	ug/L	U	0.025	0.1
3/23/2004 8:20	CORE BLANK	Metals-Water	Chromium	3	ug/L	U	3	12
3/23/2004 8:20	CORE BLANK	Metals-Water	Copper	1	ug/L	U	1	4
3/23/2004 8:20	CORE BLANK	Metals-Water	Iron	34	ug/L	I	10	40
3/23/2004 8:20	CORE BLANK	Metals-Water	Lead	0.05	ug/L	U	0.05	0.2
3/23/2004 8:20	CORE BLANK	Metals-Water	Nickel	4	ug/L	U	4	16
3/23/2004 8:20	CORE BLANK	Metals-Water	Silver	0.02	ug/L	U	0.02	0.08
3/23/2004 8:20	CORE BLANK	Metals-Water	Zinc	5	ug/L	U	5	20
3/23/2004 8:35	STATION 2	Bio-AGP/LimNut	Algal Growth Potential	6.58	mg DryWt/L	A	0.1	0.3
3/23/2004 8:35	STATION 2	Bio-Chl-a	Chlorophyll-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
3/23/2004 8:35	STATION 2	Bio-Chl-a	Phaeophytin-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
3/23/2004 8:35	STATION 2	Metals-Water	Aluminum	238	ug/L		14	56
3/23/2004 8:35	STATION 2	Metals-Water	Arsenic	18	ug/L	U	18	72
3/23/2004 8:35	STATION 2	Metals-Water	Cadmium	0.25	ug/L	U	0.25	1
3/23/2004 8:35	STATION 2	Metals-Water	Calcium	486	mg/L		1	4
3/23/2004 8:35	STATION 2	Metals-Water	Chromium	28	ug/L	U	28	110
3/23/2004 8:35	STATION 2	Metals-Water	Copper	0.95	ug/L		0.2	0.8
3/23/2004 8:35	STATION 2	Metals-Water	Iron	158	ug/L		20	80
3/23/2004 8:35	STATION 2	Metals-Water	Lead	0.5	ug/L	U	0.5	2
3/23/2004 8:35	STATION 2	Metals-Water	Magnesium	1300	mg/L		0.4	1.6
3/23/2004 8:35	STATION 2	Metals-Water	Nickel	1	ug/L	U	1	4
3/23/2004 8:35	STATION 2	Metals-Water	Potassium	357	mg/L		0.8	3.2
3/23/2004 8:35	STATION 2	Metals-Water	Selenium	16	ug/L	U	16	64
3/23/2004 8:35	STATION 2	Metals-Water	Silver	0.2	ug/L	U	0.2	0.8
3/23/2004 8:35	STATION 2	Metals-Water	Sodium	9070	mg/L		100	400
3/23/2004 8:35	STATION 2	Metals-Water	Zinc	10	ug/L	U	10	40
3/23/2004 8:35	STATION 2	Nutrients-Liquid	Alkalinity	128	mg CaCO3/L		0.65	2.5
3/23/2004 8:35	STATION 2	Nutrients-Liquid	Ammonia-N	0.062	mg N/L	A	0.02	0.04
3/23/2004 8:35	STATION 2	Nutrients-Liquid	Bromide	62	mg Br/L		10	25
3/23/2004 8:35	STATION 2	Nutrients-Liquid	Chloride	18000	mg Cl/L		100	250
3/23/2004 8:35	STATION 2	Nutrients-Liquid	Fluoride	0.98	mg F/L		0.05	0.1
3/23/2004 8:35	STATION 2	Nutrients-Liquid	NO2NO3-N	0.047	mg N/L		0.004	0.01
3/23/2004 8:35	STATION 2	Nutrients-Liquid	N_KJEL_TOT	0.63	mg N/L	JA	0.12	0.4
3/23/2004 8:35	STATION 2	Nutrients-Liquid	O-Phosphate-P	0.017	mg P/L		0.004	0.01
3/23/2004 8:35	STATION 2	Nutrients-Liquid	Sulfate	2600	mg SO4/L		100	250
3/23/2004 8:35	STATION 2	Nutrients-Liquid	Sulfide	0.05	mg S/L	UQ	0.05	0.2
3/23/2004 8:35	STATION 2	Nutrients-Liquid	TSS	20	mg/L		4	16
3/23/2004 8:35	STATION 2	Nutrients-Liquid	Total-P	0.11	mg P/L	A	0.02	0.06
3/23/2004 8:35	STATION 2	Nutrients-Liquid	Turbidity	7.7	NTU		0.05	0.05
3/23/2004 8:50	STATION 1	Bio-AGP/LimNut	Algal Growth Potential	4.24	mg DryWt/L		0.1	0.3

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/23/2004 8:50	STATION 1	Bio-Chl-a	Chlorophyll-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
3/23/2004 8:50	STATION 1	Bio-Chl-a	Phaeophytin-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
3/23/2004 8:50	STATION 1	Metals-Water	Aluminum	429	ug/L		14	56
3/23/2004 8:50	STATION 1	Metals-Water	Arsenic	18	ug/L	U	18	72
3/23/2004 8:50	STATION 1	Metals-Water	Cadmium	0.25	ug/L	U	0.25	1
3/23/2004 8:50	STATION 1	Metals-Water	Calcium	373	mg/L		0.1	0.4
3/23/2004 8:50	STATION 1	Metals-Water	Chromium	15	ug/L	U	15	60
3/23/2004 8:50	STATION 1	Metals-Water	Copper	1.28	ug/L	A	0.2	0.8
3/23/2004 8:50	STATION 1	Metals-Water	Iron	271	ug/L		20	80
3/23/2004 8:50	STATION 1	Metals-Water	Lead	0.78	ug/L	I	0.5	2
3/23/2004 8:50	STATION 1	Metals-Water	Magnesium	1320	mg/L		0.4	1.6
3/23/2004 8:50	STATION 1	Metals-Water	Nickel	1	ug/L	U	1	4
3/23/2004 8:50	STATION 1	Metals-Water	Potassium	364	mg/L		0.8	3.2
3/23/2004 8:50	STATION 1	Metals-Water	Selenium	34	ug/L	U	34	140
3/23/2004 8:50	STATION 1	Metals-Water	Silver	0.2	ug/L	U	0.2	0.8
3/23/2004 8:50	STATION 1	Metals-Water	Sodium	9480	mg/L		100	400
3/23/2004 8:50	STATION 1	Metals-Water	Zinc	10	ug/L	U	10	40
3/23/2004 8:50	STATION 1	Nutrients-Liquid	Alkalinity	130	mg CaCO3/L		0.65	2.5
3/23/2004 8:50	STATION 1	Nutrients-Liquid	Ammonia-N	0.026	mg N/L	I	0.02	0.04
3/23/2004 8:50	STATION 1	Nutrients-Liquid	Bromide	56	mg Br/L	A	10	25
3/23/2004 8:50	STATION 1	Nutrients-Liquid	Chloride	17000	mg Cl/L		100	250
3/23/2004 8:50	STATION 1	Nutrients-Liquid	Fluoride	1.1	mg F/L		0.05	0.1
3/23/2004 8:50	STATION 1	Nutrients-Liquid	NO2NO3-N	0.019	mg N/L		0.004	0.01
3/23/2004 8:50	STATION 1	Nutrients-Liquid	N_KJEL_TOT	0.62	mg N/L	J	0.12	0.4
3/23/2004 8:50	STATION 1	Nutrients-Liquid	O-Phosphate-P	0.026	mg P/L		0.004	0.01
3/23/2004 8:50	STATION 1	Nutrients-Liquid	Sulfate	2600	mg SO4/L		100	250
3/23/2004 8:50	STATION 1	Nutrients-Liquid	Sulfide	0.05	mg S/L	UQ	0.05	0.2
3/23/2004 8:50	STATION 1	Nutrients-Liquid	TSS	23	mg/L	A	4	16
3/23/2004 8:50	STATION 1	Nutrients-Liquid	Total-P	0.14	mg P/L		0.02	0.06
3/23/2004 8:50	STATION 1	Nutrients-Liquid	Turbidity	10	NTU		0.05	0.05
3/23/2004 9:00	STATION 3	Bio-AGP/LimNut	Algal Growth Potential	4.73	mg DryWt/L		0.1	0.3
3/23/2004 9:00	STATION 3	Bio-Chl-a	Chlorophyll-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
3/23/2004 9:00	STATION 3	Bio-Chl-a	Phaeophytin-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
3/23/2004 9:00	STATION 3	Metals-Water	Aluminum	327	ug/L		21	84
3/23/2004 9:00	STATION 3	Metals-Water	Arsenic	27	ug/L	U	27	110
3/23/2004 9:00	STATION 3	Metals-Water	Cadmium	0.25	ug/L	U	0.25	1
3/23/2004 9:00	STATION 3	Metals-Water	Calcium	428	mg/L		1	4
3/23/2004 9:00	STATION 3	Metals-Water	Chromium	50	ug/L	U	50	200
3/23/2004 9:00	STATION 3	Metals-Water	Copper	1.02	ug/L		0.2	0.8
3/23/2004 9:00	STATION 3	Metals-Water	Iron	230	ug/L		30	120
3/23/2004 9:00	STATION 3	Metals-Water	Lead	0.66	ug/L	I	0.5	2
3/23/2004 9:00	STATION 3	Metals-Water	Magnesium	1340	mg/L		0.4	1.6
3/23/2004 9:00	STATION 3	Metals-Water	Nickel	1	ug/L	U	1	4
3/23/2004 9:00	STATION 3	Metals-Water	Potassium	388	mg/L		0.8	3.2

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/23/2004 9:00	STATION 3	Metals-Water	Selenium	53	ug/L	U	53	210
3/23/2004 9:00	STATION 3	Metals-Water	Silver	0.2	ug/L	U	0.2	0.8
3/23/2004 9:00	STATION 3	Metals-Water	Sodium	10000	mg/L		100	400
3/23/2004 9:00	STATION 3	Metals-Water	Zinc	15	ug/L	U	15	60
3/23/2004 9:00	STATION 3	Nutrients-Liquid	Alkalinity	128	mg CaCO3/L		0.65	2.5
3/23/2004 9:00	STATION 3	Nutrients-Liquid	Ammonia-N	0.032	mg N/L	I	0.02	0.04
3/23/2004 9:00	STATION 3	Nutrients-Liquid	Bromide	58	mg Br/L		10	25
3/23/2004 9:00	STATION 3	Nutrients-Liquid	Chloride	18000	mg Cl/L		100	250
3/23/2004 9:00	STATION 3	Nutrients-Liquid	Fluoride	0.95	mg F/L		0.05	0.1
3/23/2004 9:00	STATION 3	Nutrients-Liquid	NO2NO3-N	0.013	mg N/L		0.004	0.01
3/23/2004 9:00	STATION 3	Nutrients-Liquid	N_KJEL_TOT	0.66	mg N/L	J	0.12	0.4
3/23/2004 9:00	STATION 3	Nutrients-Liquid	O-Phosphate-P	0.02	mg P/L		0.004	0.01
3/23/2004 9:00	STATION 3	Nutrients-Liquid	Sulfate	2600	mg SO4/L		100	250
3/23/2004 9:00	STATION 3	Nutrients-Liquid	Sulfide	0.05	mg S/L	UQ	0.05	0.2
3/23/2004 9:00	STATION 3	Nutrients-Liquid	TSS	23	mg/L		4	16
3/23/2004 9:00	STATION 3	Nutrients-Liquid	Total-P	0.12	mg P/L		0.02	0.06
3/23/2004 9:00	STATION 3	Nutrients-Liquid	Turbidity	9	NTU		0.05	0.05
3/23/2004 9:10	STATION 5	Bio-AGP/LimNut	Algal Growth Potential	6.36	mg DryWt/L		0.1	0.3
3/23/2004 9:10	STATION 5	Bio-Chl-a	Chlorophyll-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
3/23/2004 9:10	STATION 5	Bio-Chl-a	Phaeophytin-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
3/23/2004 9:10	STATION 5	Metals-Water	Aluminum	324	ug/L		14	56
3/23/2004 9:10	STATION 5	Metals-Water	Arsenic	18	ug/L	U	18	72
3/23/2004 9:10	STATION 5	Metals-Water	Cadmium	0.25	ug/L	U	0.25	1
3/23/2004 9:10	STATION 5	Metals-Water	Calcium	387	mg/L		0.1	0.4
3/23/2004 9:10	STATION 5	Metals-Water	Chromium	27	ug/L	U	27	110
3/23/2004 9:10	STATION 5	Metals-Water	Copper	0.95	ug/L		0.2	0.8
3/23/2004 9:10	STATION 5	Metals-Water	Iron	201	ug/L		20	80
3/23/2004 9:10	STATION 5	Metals-Water	Lead	0.53	ug/L	I	0.5	2
3/23/2004 9:10	STATION 5	Metals-Water	Magnesium	1300	mg/L		0.4	1.6
3/23/2004 9:10	STATION 5	Metals-Water	Nickel	1	ug/L	U	1	4
3/23/2004 9:10	STATION 5	Metals-Water	Potassium	358	mg/L		0.8	3.2
3/23/2004 9:10	STATION 5	Metals-Water	Selenium	34	ug/L	U	34	140
3/23/2004 9:10	STATION 5	Metals-Water	Silver	0.2	ug/L	U	0.2	0.8
3/23/2004 9:10	STATION 5	Metals-Water	Sodium	9520	mg/L		100	400
3/23/2004 9:10	STATION 5	Metals-Water	Zinc	10	ug/L	U	10	40
3/23/2004 9:10	STATION 5	Nutrients-Liquid	Alkalinity	130	mg CaCO3/L		0.65	2.5
3/23/2004 9:10	STATION 5	Nutrients-Liquid	Ammonia-N	0.03	mg N/L	I	0.02	0.04
3/23/2004 9:10	STATION 5	Nutrients-Liquid	Bromide	58	mg Br/L		10	25
3/23/2004 9:10	STATION 5	Nutrients-Liquid	Chloride	17000	mg Cl/L		100	250
3/23/2004 9:10	STATION 5	Nutrients-Liquid	Fluoride	1.1	mg F/L		0.05	0.1
3/23/2004 9:10	STATION 5	Nutrients-Liquid	NO2NO3-N	0.021	mg N/L		0.004	0.01
3/23/2004 9:10	STATION 5	Nutrients-Liquid	N_KJEL_TOT	0.67	mg N/L	J	0.12	0.4
3/23/2004 9:10	STATION 5	Nutrients-Liquid	O-Phosphate-P	0.018	mg P/L		0.004	0.01
3/23/2004 9:10	STATION 5	Nutrients-Liquid	Sulfate	2500	mg SO4/L		100	250

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/23/2004 9:10	STATION 5	Nutrients-Liquid	Sulfide	0.05	mg S/L	UQ	0.05	0.2
3/23/2004 9:10	STATION 5	Nutrients-Liquid	TSS	12	mg/L	I	4	16
3/23/2004 9:10	STATION 5	Nutrients-Liquid	Total-P	0.14	mg P/L		0.02	0.06
3/23/2004 9:10	STATION 5	Nutrients-Liquid	Turbidity	7.2	NTU		0.05	0.05
3/23/2004 9:15	STATION 4	Bio-AGP/LimNut	Algal Growth Potential	4.76	mg DryWt/L		0.1	0.3
3/23/2004 9:15	STATION 4	Bio-Chl-a	Chlorophyll-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
3/23/2004 9:15	STATION 4	Bio-Chl-a	Phaeophytin-A, Monochromatic, Water	0.85	ug/L	U	0.85	2.6
3/23/2004 9:15	STATION 4	Metals-Water	Aluminum	443	ug/L		14	56
3/23/2004 9:15	STATION 4	Metals-Water	Arsenic	18	ug/L	U	18	72
3/23/2004 9:15	STATION 4	Metals-Water	Cadmium	0.25	ug/L	U	0.25	1
3/23/2004 9:15	STATION 4	Metals-Water	Calcium	360	mg/L		0.1	0.4
3/23/2004 9:15	STATION 4	Metals-Water	Chromium	23	ug/L	U	23	92
3/23/2004 9:15	STATION 4	Metals-Water	Copper	1.15	ug/L		0.2	0.8
3/23/2004 9:15	STATION 4	Metals-Water	Iron	279	ug/L		20	80
3/23/2004 9:15	STATION 4	Metals-Water	Lead	0.75	ug/L	I	0.5	2
3/23/2004 9:15	STATION 4	Metals-Water	Magnesium	1310	mg/L		0.4	1.6
3/23/2004 9:15	STATION 4	Metals-Water	Nickel	1	ug/L	U	1	4
3/23/2004 9:15	STATION 4	Metals-Water	Potassium	372	mg/L		0.8	3.2
3/23/2004 9:15	STATION 4	Metals-Water	Selenium	16	ug/L	U	16	64
3/23/2004 9:15	STATION 4	Metals-Water	Silver	0.2	ug/L	U	0.2	0.8
3/23/2004 9:15	STATION 4	Metals-Water	Sodium	9730	mg/L		100	400
3/23/2004 9:15	STATION 4	Metals-Water	Zinc	10	ug/L	U	10	40
3/23/2004 9:15	STATION 4	Nutrients-Liquid	Alkalinity	127	mg CaCO3/L		0.65	2.5
3/23/2004 9:15	STATION 4	Nutrients-Liquid	Ammonia-N	0.02	mg N/L	U	0.02	0.04
3/23/2004 9:15	STATION 4	Nutrients-Liquid	Bromide	60	mg Br/L		10	25
3/23/2004 9:15	STATION 4	Nutrients-Liquid	Chloride	18000	mg Cl/L		100	250
3/23/2004 9:15	STATION 4	Nutrients-Liquid	Fluoride	0.97	mg F/L		0.05	0.1
3/23/2004 9:15	STATION 4	Nutrients-Liquid	NO2NO3-N	0.012	mg N/L		0.004	0.01
3/23/2004 9:15	STATION 4	Nutrients-Liquid	N_KJEL_TOT	0.59	mg N/L	J	0.12	0.4
3/23/2004 9:15	STATION 4	Nutrients-Liquid	O-Phosphate-P	0.019	mg P/L		0.004	0.01
3/23/2004 9:15	STATION 4	Nutrients-Liquid	Sulfate	2500	mg SO4/L		100	250
3/23/2004 9:15	STATION 4	Nutrients-Liquid	Sulfide	0.05	mg S/L	UQ	0.05	0.2
3/23/2004 9:15	STATION 4	Nutrients-Liquid	TSS	26	mg/L		4	16
3/23/2004 9:15	STATION 4	Nutrients-Liquid	Total-P	0.11	mg P/L		0.02	0.06
3/23/2004 9:15	STATION 4	Nutrients-Liquid	Turbidity	11	NTU		0.05	0.05
3/23/2004 9:30	STATION 6	Bio-AGP/LimNut	Algal Growth Potential	4.53	mg DryWt/L		0.1	0.3
3/23/2004 9:30	STATION 6	Bio-Chl-a	Chlorophyll-A, Monochromatic, Water	0.96	ug/L	U	0.96	2.9
3/23/2004 9:30	STATION 6	Bio-Chl-a	Phaeophytin-A, Monochromatic, Water	0.96	ug/L	U	0.96	2.9
3/23/2004 9:30	STATION 6	Metals-Water	Aluminum	304	ug/L		21	84
3/23/2004 9:30	STATION 6	Metals-Water	Arsenic	27	ug/L	U	27	110
3/23/2004 9:30	STATION 6	Metals-Water	Cadmium	0.25	ug/L	U	0.25	1
3/23/2004 9:30	STATION 6	Metals-Water	Calcium	429	mg/L		1	4
3/23/2004 9:30	STATION 6	Metals-Water	Chromium	39	ug/L	U	39	160
3/23/2004 9:30	STATION 6	Metals-Water	Copper	0.99	ug/L		0.2	0.8

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/23/2004 9:30	STATION 6	Metals-Water	Iron	200	ug/L		30	120
3/23/2004 9:30	STATION 6	Metals-Water	Lead	0.58	ug/L	I	0.5	2
3/23/2004 9:30	STATION 6	Metals-Water	Magnesium	1370	mg/L		0.4	1.6
3/23/2004 9:30	STATION 6	Metals-Water	Nickel	1	ug/L	U	1	4
3/23/2004 9:30	STATION 6	Metals-Water	Potassium	374	mg/L		0.8	3.2
3/23/2004 9:30	STATION 6	Metals-Water	Selenium	69	ug/L	U	69	280
3/23/2004 9:30	STATION 6	Metals-Water	Silver	0.2	ug/L	U	0.2	0.8
3/23/2004 9:30	STATION 6	Metals-Water	Sodium	9850	mg/L		100	400
3/23/2004 9:30	STATION 6	Metals-Water	Zinc	15	ug/L	U	15	60
3/23/2004 9:30	STATION 6	Nutrients-Liquid	Alkalinity	127	mg CaCO3/L		0.65	2.5
3/23/2004 9:30	STATION 6	Nutrients-Liquid	Ammonia-N	0.026	mg N/L	I	0.02	0.04
3/23/2004 9:30	STATION 6	Nutrients-Liquid	Bromide	62	mg Br/L		10	25
3/23/2004 9:30	STATION 6	Nutrients-Liquid	Chloride	18000	mg Cl/L		100	250
3/23/2004 9:30	STATION 6	Nutrients-Liquid	Fluoride	0.92	mg F/L		0.05	0.1
3/23/2004 9:30	STATION 6	Nutrients-Liquid	NO2NO3-N	0.013	mg N/L		0.004	0.01
3/23/2004 9:30	STATION 6	Nutrients-Liquid	N_KJEL_TOT	0.62	mg N/L	J	0.12	0.4
3/23/2004 9:30	STATION 6	Nutrients-Liquid	O-Phosphate-P	0.018	mg P/L		0.004	0.01
3/23/2004 9:30	STATION 6	Nutrients-Liquid	Sulfate	2500	mg SO4/L		100	250
3/23/2004 9:30	STATION 6	Nutrients-Liquid	Sulfide	0.05	mg S/L	UQ	0.05	0.2
3/23/2004 9:30	STATION 6	Nutrients-Liquid	TSS	18	mg/L		4	16
3/23/2004 9:30	STATION 6	Nutrients-Liquid	Total-P	0.1	mg P/L		0.02	0.06
3/23/2004 9:30	STATION 6	Nutrients-Liquid	Turbidity	8.1	NTU	A	0.05	0.05
3/29/2004 10:00	Field Blank	BNA-Water	1,2,4-Trichlorobenzene	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	1,2-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	1,3-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	1,4-Dichlorobenzene	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	2,4,6-Trichlorophenol	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	2,4-Dichlorophenol	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
3/29/2004 10:00	Field Blank	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	57
3/29/2004 10:00	Field Blank	BNA-Water	2,4-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	2,6-Dinitrotoluene	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	2-Chloronaphthalene	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	2-Chlorophenol	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	11
3/29/2004 10:00	Field Blank	BNA-Water	2-Nitrophenol	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
3/29/2004 10:00	Field Blank	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.7
3/29/2004 10:00	Field Blank	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.7
3/29/2004 10:00	Field Blank	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.7
3/29/2004 10:00	Field Blank	BNA-Water	4-Bromophenyl phenyl ether	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	4-Chloro-3-methylphenol	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.6

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/29/2004 10:00	Field Blank	BNA-Water	4-Nitrophenol	14	ug/L	U	14	57
3/29/2004 10:00	Field Blank	BNA-Water	Acenaphthene	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	Acenaphthylene	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.7
3/29/2004 10:00	Field Blank	BNA-Water	Anthracene	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	Benzidine	95	ug/L	U	95	380
3/29/2004 10:00	Field Blank	BNA-Water	Benzo(a)anthracene	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	Benzo(a)pyrene	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	Benzo(b)fluoranthene	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	Benzo(g,h,i)perylene	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	Benzo(k)fluoranthene	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	Bis(2-chloroethoxy)methane	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	Bis(2-chloroethyl)ether	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	11
3/29/2004 10:00	Field Blank	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	57
3/29/2004 10:00	Field Blank	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
3/29/2004 10:00	Field Blank	BNA-Water	Chrysene	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
3/29/2004 10:00	Field Blank	BNA-Water	Di-n-octyl phthalate	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	Dibenzo(a,h)anthracene	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.7
3/29/2004 10:00	Field Blank	BNA-Water	Diethyl phthalate	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
3/29/2004 10:00	Field Blank	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
3/29/2004 10:00	Field Blank	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
3/29/2004 10:00	Field Blank	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.7
3/29/2004 10:00	Field Blank	BNA-Water	Endrin	1.4	ug/L	U	1.4	5.7
3/29/2004 10:00	Field Blank	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
3/29/2004 10:00	Field Blank	BNA-Water	Fluoranthene	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	Fluorene	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.7
3/29/2004 10:00	Field Blank	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.7
3/29/2004 10:00	Field Blank	BNA-Water	Hexachlorobenzene	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	11
3/29/2004 10:00	Field Blank	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	11
3/29/2004 10:00	Field Blank	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	11
3/29/2004 10:00	Field Blank	BNA-Water	Indeno(1,2,3-cd)pyrene	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	Isophorone	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.6
3/29/2004 10:00	Field Blank	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.6
3/29/2004 10:00	Field Blank	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	11
3/29/2004 10:00	Field Blank	BNA-Water	Naphthalene	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.6
3/29/2004 10:00	Field Blank	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	11

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/29/2004 10:00	Field Blank	BNA-Water	Phenanthrene	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	Phenol	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	Pyrene	0.95	ug/L	U	0.95	3.8
3/29/2004 10:00	Field Blank	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.7
3/29/2004 10:00	Field Blank	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.7
3/29/2004 10:00	Field Blank	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.7
3/29/2004 10:00	Field Blank	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.7
3/29/2004 10:00	Field Blank	GC-Water	Alachlor	0.59	ug/L	U	0.59	2.36
3/29/2004 10:00	Field Blank	GC-Water	Ametryn	0.05	ug/L	U	0.05	0.2
3/29/2004 10:00	Field Blank	GC-Water	Atrazine	0.05	ug/L	U	0.05	0.2
3/29/2004 10:00	Field Blank	GC-Water	Azinphos Methyl	0.05	ug/L	U	0.05	0.2
3/29/2004 10:00	Field Blank	GC-Water	Bromacil	0.2	ug/L	U	0.2	0.8
3/29/2004 10:00	Field Blank	GC-Water	Butylate	0.2	ug/L	U	0.2	0.8
3/29/2004 10:00	Field Blank	GC-Water	Chlorpyrifos Ethyl	0.05	ug/L	U	0.05	0.2
3/29/2004 10:00	Field Blank	GC-Water	Chlorpyrifos Methyl	0.099	ug/L	U	0.099	0.396
3/29/2004 10:00	Field Blank	GC-Water	Diazinon	0.05	ug/L	U	0.05	0.2
3/29/2004 10:00	Field Blank	GC-Water	Ethion	0.05	ug/L	U	0.05	0.2
3/29/2004 10:00	Field Blank	GC-Water	Ethoprop	0.099	ug/L	U	0.099	0.396
3/29/2004 10:00	Field Blank	GC-Water	Fenamiphos	0.2	ug/L	U	0.2	0.8
3/29/2004 10:00	Field Blank	GC-Water	Fonofos	0.099	ug/L	U	0.099	0.396
3/29/2004 10:00	Field Blank	GC-Water	Hexazinone	0.099	ug/L	U	0.099	0.396
3/29/2004 10:00	Field Blank	GC-Water	Malathion	0.15	ug/L	U	0.15	0.6
3/29/2004 10:00	Field Blank	GC-Water	Metalaxyl	0.25	ug/L	U	0.25	1
3/29/2004 10:00	Field Blank	GC-Water	Metolachlor	0.5	ug/L	U	0.5	2
3/29/2004 10:00	Field Blank	GC-Water	Metribuzin	0.099	ug/L	U	0.099	0.396
3/29/2004 10:00	Field Blank	GC-Water	Mevinphos	0.2	ug/L	U	0.2	0.8
3/29/2004 10:00	Field Blank	GC-Water	Naled	0.79	ug/L	U	0.79	3.16
3/29/2004 10:00	Field Blank	GC-Water	Norflurazon	0.099	ug/L	U	0.099	0.396
3/29/2004 10:00	Field Blank	GC-Water	Parathion Ethyl	0.15	ug/L	U	0.15	0.6
3/29/2004 10:00	Field Blank	GC-Water	Parathion Methyl	0.099	ug/L	U	0.099	0.396
3/29/2004 10:00	Field Blank	GC-Water	Phorate	0.05	ug/L	U	0.05	0.2
3/29/2004 10:00	Field Blank	GC-Water	Prometryn	0.15	ug/L	U	0.15	0.6
3/29/2004 10:00	Field Blank	GC-Water	Simazine	0.05	ug/L	U	0.05	0.2
3/29/2004 10:00	Field Blank	Metals-Water	Aluminum	7	ug/L	U	7	28
3/29/2004 10:00	Field Blank	Metals-Water	Arsenic	9	ug/L	U	9	36
3/29/2004 10:00	Field Blank	Metals-Water	Cadmium	0.025	ug/L	U	0.025	0.1
3/29/2004 10:00	Field Blank	Metals-Water	Calcium	0.05	mg/L	U	0.05	0.2
3/29/2004 10:00	Field Blank	Metals-Water	Chromium	3	ug/L	U	3	12
3/29/2004 10:00	Field Blank	Metals-Water	Copper	0.2	ug/L	U	0.2	0.8
3/29/2004 10:00	Field Blank	Metals-Water	Iron	10	ug/L	U	10	40
3/29/2004 10:00	Field Blank	Metals-Water	Lead	0.05	ug/L	U	0.05	0.2
3/29/2004 10:00	Field Blank	Metals-Water	Magnesium	0.02	mg/L	U	0.02	0.08
3/29/2004 10:00	Field Blank	Metals-Water	Nickel	1	ug/L	U	1	4
3/29/2004 10:00	Field Blank	Metals-Water	Selenium	1	ug/L	U	1	4

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/29/2004 10:00	Field Blank	Metals-Water	Silver	0.02	ug/L	U	0.02	0.08
3/29/2004 10:00	Field Blank	Metals-Water	Zinc	5	ug/L	U	5	20
3/29/2004 10:00	Field Blank	Nutrients-Liquid	Alkalinity	0.65	mg CaCO3/L	U	0.65	2.5
3/29/2004 10:00	Field Blank	Nutrients-Liquid	Ammonia-N	0.01	mg N/L	U	0.01	0.02
3/29/2004 10:00	Field Blank	Nutrients-Liquid	Bromide	0.2	mg Br/L	U	0.2	0.5
3/29/2004 10:00	Field Blank	Nutrients-Liquid	Chloride	0.2	mg Cl/L	U	0.2	0.5
3/29/2004 10:00	Field Blank	Nutrients-Liquid	Fluoride	0.05	mg F/L	U	0.05	0.1
3/29/2004 10:00	Field Blank	Nutrients-Liquid	NO2NO3-N	0.004	mg N/L	U	0.004	0.01
3/29/2004 10:00	Field Blank	Nutrients-Liquid	N_KJEL_TOT	0.06	mg N/L	U	0.06	0.2
3/29/2004 10:00	Field Blank	Nutrients-Liquid	O-Phosphate-P	0.004	mg P/L	U	0.004	0.01
3/29/2004 10:00	Field Blank	Nutrients-Liquid	Sulfate	0.2	mg SO4/L	U	0.2	0.5
3/29/2004 10:00	Field Blank	Nutrients-Liquid	Sulfide	0.05	mg S/L	U	0.05	0.2
3/29/2004 10:00	Field Blank	Nutrients-Liquid	Total-P	0.02	mg P/L	U	0.02	0.06
3/29/2004 10:00	Field Blank	Overflow	Alpha, Total	0.9	pCi/L	U		
3/29/2004 10:00	Field Blank	Overflow	Alpha-Counting Error	0.5	pCi/L			
3/29/2004 10:00	Field Blank	Overflow	Oil and Grease	0.76	mg/l	I		
3/29/2004 10:00	Field Blank	Overflow	Radium 226	0.2	pCi/L	U		
3/29/2004 10:00	Field Blank	Overflow	Radium 226-Counting Error	0.1	pCi/L			
3/29/2004 10:00	Field Blank	Overflow	Radium 228	0.9	pCi/L	U		
3/29/2004 10:00	Field Blank	Overflow	Radium 228-Counting Error	0.6	pCi/L			
3/29/2004 10:30	Effluent	Bio-AGP/LimNut	Algal Growth Potential	7.38	mg DryWt/L	0.1	0.3	
3/29/2004 10:30	Effluent	Bio-Toxicology	Bioassay-Acute-Screen-SW-Fish, LC50		100	LC50	JL	
3/29/2004 10:30	Effluent	Bio-Toxicology	Bioassay-Acute-Screen-SW-Mysid, LC50		100	LC50	K	
3/29/2004 10:30	Effluent	BNA-Water	1,2,4-Trichlorobenzene	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	1,2-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	1,3-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	1,4-Dichlorobenzene	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	2,4,6-Trichlorophenol	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	2,4-Dichlorophenol	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	2,4-Dimethylphenol	48	ug/L	U	48	190
3/29/2004 10:30	Effluent	BNA-Water	2,4-Dinitrophenol	14	ug/L	U	14	58
3/29/2004 10:30	Effluent	BNA-Water	2,4-Dinitrotoluene	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	2,6-Dinitrotoluene	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	2-Chloronaphthalene	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	2-Chlorophenol	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	2-Methyl-4,6-dinitrophenol	2.9	ug/L	U	2.9	12
3/29/2004 10:30	Effluent	BNA-Water	2-Nitrophenol	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	3,3'-Dichlorobenzidine	38	ug/L	U	38	150
3/29/2004 10:30	Effluent	BNA-Water	4,4'-DDD	1.4	ug/L	U	1.4	5.8
3/29/2004 10:30	Effluent	BNA-Water	4,4'-DDE	1.4	ug/L	U	1.4	5.8
3/29/2004 10:30	Effluent	BNA-Water	4,4'-DDT	1.4	ug/L	U	1.4	5.8
3/29/2004 10:30	Effluent	BNA-Water	4-Bromophenyl phenyl ether	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	4-Chloro-3-methylphenol	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	4-Chlorophenyl phenyl ether	1.9	ug/L	U	1.9	7.7

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/29/2004 10:30	Effluent	BNA-Water	4-Nitrophenol	14	ug/L	U	14	58
3/29/2004 10:30	Effluent	BNA-Water	Acenaphthene	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	Acenaphthylene	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	Aldrin	1.4	ug/L	U	1.4	5.8
3/29/2004 10:30	Effluent	BNA-Water	Anthracene	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	Benzidine	96	ug/L	U	96	380
3/29/2004 10:30	Effluent	BNA-Water	Benzo(a)anthracene	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	Benzo(a)pyrene	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	Benzo(b)fluoranthene	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	Benzo(g,h,i)perylene	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	Benzo(k)fluoranthene	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	Bis(2-chloroethoxy)methane	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	Bis(2-chloroethyl)ether	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	Bis(2-chloroisopropyl)ether	2.9	ug/L	U	2.9	12
3/29/2004 10:30	Effluent	BNA-Water	Bis(2-ethylhexyl)phthalate	14	ug/L	U	14	58
3/29/2004 10:30	Effluent	BNA-Water	Butyl benzyl phthalate	4.8	ug/L	U	4.8	19
3/29/2004 10:30	Effluent	BNA-Water	Chrysene	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	Di-n-butyl phthalate	4.8	ug/L	U	4.8	19
3/29/2004 10:30	Effluent	BNA-Water	Di-n-octyl phthalate	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	Dibenzo(a,h)anthracene	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	Dieldrin	1.4	ug/L	U	1.4	5.8
3/29/2004 10:30	Effluent	BNA-Water	Diethyl phthalate	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	Dimethyl phthalate	48	ug/L	U	48	190
3/29/2004 10:30	Effluent	BNA-Water	Endosulfan I	3.8	ug/L	U	3.8	15
3/29/2004 10:30	Effluent	BNA-Water	Endosulfan II	3.8	ug/L	U	3.8	15
3/29/2004 10:30	Effluent	BNA-Water	Endosulfan sulfate	1.4	ug/L	U	1.4	5.8
3/29/2004 10:30	Effluent	BNA-Water	Endrin	1.4	ug/L	U	1.4	5.8
3/29/2004 10:30	Effluent	BNA-Water	Endrin aldehyde	3.8	ug/L	U	3.8	15
3/29/2004 10:30	Effluent	BNA-Water	Fluoranthene	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	Fluorene	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	Heptachlor	1.4	ug/L	U	1.4	5.8
3/29/2004 10:30	Effluent	BNA-Water	Heptachlor epoxide	1.4	ug/L	U	1.4	5.8
3/29/2004 10:30	Effluent	BNA-Water	Hexachlorobenzene	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	Hexachlorobutadiene	2.9	ug/L	U	2.9	12
3/29/2004 10:30	Effluent	BNA-Water	Hexachlorocyclopentadiene	2.9	ug/L	UJ	2.9	12
3/29/2004 10:30	Effluent	BNA-Water	Hexachloroethane	2.9	ug/L	U	2.9	12
3/29/2004 10:30	Effluent	BNA-Water	Indeno(1,2,3-cd)pyrene	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	Isophorone	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	N-Nitrosodi-n-propylamine	1.9	ug/L	U	1.9	7.7
3/29/2004 10:30	Effluent	BNA-Water	N-Nitrosodimethylamine	1.9	ug/L	U	1.9	7.7
3/29/2004 10:30	Effluent	BNA-Water	N-Nitrosodiphenylamine	2.9	ug/L	U	2.9	12
3/29/2004 10:30	Effluent	BNA-Water	Naphthalene	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	Nitrobenzene	1.9	ug/L	U	1.9	7.7
3/29/2004 10:30	Effluent	BNA-Water	Pentachlorophenol	2.9	ug/L	U	2.9	12

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/29/2004 10:30	Effluent	BNA-Water	Phenanthrene	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	Phenol	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	Pyrene	0.96	ug/L	U	0.96	3.8
3/29/2004 10:30	Effluent	BNA-Water	alpha-BHC	1.4	ug/L	U	1.4	5.8
3/29/2004 10:30	Effluent	BNA-Water	beta-BHC	1.4	ug/L	U	1.4	5.8
3/29/2004 10:30	Effluent	BNA-Water	delta-BHC	1.4	ug/L	U	1.4	5.8
3/29/2004 10:30	Effluent	BNA-Water	gamma-BHC	1.4	ug/L	U	1.4	5.8
3/29/2004 10:30	Effluent	GC-Water	Alachlor	0.58	ug/L	U	0.58	2.32
3/29/2004 10:30	Effluent	GC-Water	Ametryn	0.048	ug/L	U	0.048	0.192
3/29/2004 10:30	Effluent	GC-Water	Atrazine	0.048	ug/L	U	0.048	0.192
3/29/2004 10:30	Effluent	GC-Water	Azinphos Methyl	0.048	ug/L	U	0.048	0.192
3/29/2004 10:30	Effluent	GC-Water	Bromacil	0.19	ug/L	U	0.19	0.76
3/29/2004 10:30	Effluent	GC-Water	Butylate	0.19	ug/L	U	0.19	0.76
3/29/2004 10:30	Effluent	GC-Water	Chlorpyrifos Ethyl	0.048	ug/L	U	0.048	0.192
3/29/2004 10:30	Effluent	GC-Water	Chlorpyrifos Methyl	0.097	ug/L	U	0.097	0.388
3/29/2004 10:30	Effluent	GC-Water	Diazinon	0.048	ug/L	U	0.048	0.192
3/29/2004 10:30	Effluent	GC-Water	Ethion	0.048	ug/L	U	0.048	0.192
3/29/2004 10:30	Effluent	GC-Water	Ethoprop	0.097	ug/L	U	0.097	0.388
3/29/2004 10:30	Effluent	GC-Water	Fenamiphos	0.19	ug/L	U	0.19	0.76
3/29/2004 10:30	Effluent	GC-Water	Fonofos	0.097	ug/L	U	0.097	0.388
3/29/2004 10:30	Effluent	GC-Water	Hexazinone	0.097	ug/L	U	0.097	0.388
3/29/2004 10:30	Effluent	GC-Water	Malathion	0.14	ug/L	U	0.14	0.56
3/29/2004 10:30	Effluent	GC-Water	Metalaxyl	0.24	ug/L	U	0.24	0.96
3/29/2004 10:30	Effluent	GC-Water	Metolachlor	0.48	ug/L	U	0.48	1.92
3/29/2004 10:30	Effluent	GC-Water	Metribuzin	0.097	ug/L	U	0.097	0.388
3/29/2004 10:30	Effluent	GC-Water	Mevinphos	0.19	ug/L	U	0.19	0.76
3/29/2004 10:30	Effluent	GC-Water	Naled	0.78	ug/L	U	0.78	3.12
3/29/2004 10:30	Effluent	GC-Water	Norflurazon	0.097	ug/L	U	0.097	0.388
3/29/2004 10:30	Effluent	GC-Water	Parathion Ethyl	0.14	ug/L	U	0.14	0.56
3/29/2004 10:30	Effluent	GC-Water	Parathion Methyl	0.097	ug/L	U	0.097	0.388
3/29/2004 10:30	Effluent	GC-Water	Phorate	0.048	ug/L	U	0.048	0.192
3/29/2004 10:30	Effluent	GC-Water	Prometryn	0.14	ug/L	U	0.14	0.56
3/29/2004 10:30	Effluent	GC-Water	Simazine	0.048	ug/L	U	0.048	0.192
3/29/2004 10:30	Effluent	Metals-Water	Aluminum	20	ug/L	I	10	40
3/29/2004 10:30	Effluent	Metals-Water	Arsenic	28	ug/L	U	28	110
3/29/2004 10:30	Effluent	Metals-Water	Cadmium	0.13	ug/L	U	0.13	0.5
3/29/2004 10:30	Effluent	Metals-Water	Calcium	1130	mg/L		1	4
3/29/2004 10:30	Effluent	Metals-Water	Chromium	38	ug/L	U	38	150
3/29/2004 10:30	Effluent	Metals-Water	Copper	0.48	ug/L	I	0.2	0.8
3/29/2004 10:30	Effluent	Metals-Water	Iron	10	ug/L	U	10	40
3/29/2004 10:30	Effluent	Metals-Water	Lead	0.25	ug/L	U	0.25	1
3/29/2004 10:30	Effluent	Metals-Water	Magnesium	1020	mg/L		0.4	1.6
3/29/2004 10:30	Effluent	Metals-Water	Nickel	1.4	ug/L	I	1	4
3/29/2004 10:30	Effluent	Metals-Water	Selenium	12	ug/L	U	12	48

Date Sampled	Field ID	Analysis Group	Component	Result	Units	Remark	MDL	PQL
3/29/2004 10:30	Effluent	Metals-Water	Silver	0.1	ug/L	U	0.1	0.4
3/29/2004 10:30	Effluent	Metals-Water	Zinc	18	ug/L	U	18	72
3/29/2004 10:30	Effluent	Nutrients-Liquid	Alkalinity	122	mg CaCO3/L	0.65	2.5	
3/29/2004 10:30	Effluent	Nutrients-Liquid	Ammonia-N	0.49	mg N/L		0.02	0.04
3/29/2004 10:30	Effluent	Nutrients-Liquid	Bromide	27	mg Br/L		4	10
3/29/2004 10:30	Effluent	Nutrients-Liquid	Chloride	8600	mg Cl/L		80	200
3/29/2004 10:30	Effluent	Nutrients-Liquid	Fluoride	2.3	mg F/L		0.05	0.1
3/29/2004 10:30	Effluent	Nutrients-Liquid	NO2NO3-N	0.22	mg N/L		0.02	0.05
3/29/2004 10:30	Effluent	Nutrients-Liquid	N_KJEL_TOT	1	mg N/L		0.12	0.4
3/29/2004 10:30	Effluent	Nutrients-Liquid	O-Phosphate-P	0.013	mg P/L		0.004	0.01
3/29/2004 10:30	Effluent	Nutrients-Liquid	Sulfate	3100	mg SO4/L		40	100
3/29/2004 10:30	Effluent	Nutrients-Liquid	Sulfide	0.05	mg S/L	U	0.05	0.2
3/29/2004 10:30	Effluent	Nutrients-Liquid	TSS	17	mg/L		4	16
3/29/2004 10:30	Effluent	Nutrients-Liquid	Total-P	0.22	mg P/L		0.02	0.06
3/29/2004 10:30	Effluent	Nutrients-Liquid	Turbidity	1	NTU		0.05	0.05
3/29/2004 10:30	Effluent	Overflow	Alpha, Total	57.8	pCi/L	U		
3/29/2004 10:30	Effluent	Overflow	Alpha-Counting Error	34.4	pCi/L			
3/29/2004 10:30	Effluent	Overflow	Oil and Grease	0.69	mg/l	U		
3/29/2004 10:30	Effluent	Overflow	Radium 226	15.3	pCi/L			
3/29/2004 10:30	Effluent	Overflow	Radium 226-Counting Error	0.6	pCi/L			
3/29/2004 10:30	Effluent	Overflow	Radium 228	1.9	pCi/L			
3/29/2004 10:30	Effluent	Overflow	Radium 228-Counting Error	0.7	pCi/L			

Appendix 5

Typical Values for Selected Parameters in Florida Waters

Percentile Distribution (690 stations)

Station 1

Percentile Distribution

Parameter	5%	10%	20%	30%	40%	50%	60%	70%	80%	90%	95%	Measured
ESTUARIES (690 stations)												
Phytoplankton Chlorophyll *a*	**2.14**	3.28	4.49	5.13	6	6.93	7.94	9.6	12.4	17.6	22.2	-
Dredge Diversity	1.34	1.53	1.91	2.28	2.56	2.9	3.15	3.59	4.01	4.53	**4.98**	**5.02**
Dredge Taxa Richness	4	6	9	11	15	18.5	25	35	41	**62**	90	**74**
TKN	0.26	0.34	0.42	0.5	**0.59**	0.69	0.76	0.82	0.95	1.3	1.49	**0.62 J**
NH3+NH4	0.01	**0.02**	0.03	0.04	0.05	0.06	0.08	0.09	0.13	0.22	0.28	**0.026 I**
NO2-NO3	0	0	0.01	0.01	**0.01**	0.02	0.03	0.05	0.08	0.17	0.23	**0.019**
Total Phosphorus	0.01	0.02	0.06	0.07	0.1	0.11	**0.14**	0.17	0.23	0.43	0.59	**0.14**
Ortho-Phosphate	0.01	**0.02**	0.03	0.04	0.04	0.05	0.07	0.09	0.12	0.21	0.44	**0.026**
Turbidity	3.5	4	4.5	5.05	5.4	5.6	6.3	6.8	**8**	11.4	11.75	**10**

Station 2

Percentile Distribution

Parameter	5%	10%	20%	30%	40%	50%	60%	70%	80%	90%	95%	Measured
ESTUARIES (690 stations)												
Phytoplankton Chlorophyll *a*	**2.14**	3.28	4.49	5.13	6	6.93	7.94	9.6	12.4	17.6	22.2	-
Dredge Diversity	1.34	1.53	1.91	2.28	2.56	2.9	3.15	3.59	4.01	4.53	**4.98**	**5.22**
Dredge Taxa Richness	4	6	9	11	15	18.5	25	35	41	**62**	90	**70**
TKN	0.26	0.34	0.42	0.5	**0.59**	0.69	0.76	0.82	0.95	1.3	1.49	**0.63 JA**
NH3+NH4	0.01	0.02	0.03	0.04	0.05	**0.06**	0.08	0.09	0.13	0.22	0.28	**0.062 A**
NO2-NO3	0	0	0.01	0.01	0.01	0.02	**0.03**	0.05	0.08	0.17	0.23	**0.047**
Total Phosphorus	0.01	0.02	0.06	0.07	0.1	**0.11**	0.14	0.17	0.23	0.43	0.59	**0.11 A**
Ortho-Phosphate	**0.01**	0.02	0.03	0.04	0.04	0.05	0.07	0.09	0.12	0.21	0.44	**0.017**
Turbidity	3.5	4	4.5	5.05	5.4	5.6	6.3	**6.8**	8	11.4	11.75	**7.7**

Station 3

Percentile Distribution

Parameter	5%	10%	20%	30%	40%	50%	60%	70%	80%	90%	95%	Measured
ESTUARIES (690 stations)												
Phytoplankton Chlorophyll *a*	**2.14**	3.28	4.49	5.13	6	6.93	7.94	9.6	12.4	17.6	22.2	-
Dredge Diversity	1.34	1.53	1.91	2.28	2.56	2.9	3.15	3.59	4.01	**4.53**	4.98	**4.73**
Dredge Taxa Richness	4	6	9	11	15	18.5	25	35	41	**62**	90	**76**
TKN	0.26	0.34	0.42	0.5	**0.59**	0.69	0.76	0.82	0.95	1.3	1.49	**0.66 J**
NH3+NH4	0.01	0.02	**0.03**	0.04	0.05	0.06	0.08	0.09	0.13	0.22	0.28	**0.032 I**
NO2-NO3	0	0	0.01	0.01	**0.01**	0.02	0.03	0.05	0.08	0.17	0.23	**0.013**
Total Phosphorus	0.01	0.02	0.06	0.07	0.1	**0.11**	0.14	0.17	0.23	0.43	0.59	**0.12**
Ortho-Phosphate	0.01	**0.02**	0.03	0.04	0.04	0.05	0.07	0.09	0.12	0.21	0.44	**0.02**
Turbidity	3.5	4	4.5	5.05	5.4	5.6	6.3	6.8	**8**	11.4	11.75	**9**

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

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

J - Estimated value

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

Station 4

Percentile Distribution

Parameter	5%	10%	20%	30%	40%	50%	60%	70%	80%	90%	95%	Measured
ESTUARIES (690 stations)												
Phytoplankton Chlorophyll *a*	**2.14**	3.28	4.49	5.13	6	6.93	7.94	9.6	12.4	17.6	22.2	-
Dredge Diversity	1.34	1.53	1.91	2.28	2.56	2.9	3.15	3.59	4.01	4.53	**4.98**	**5.24**
Dredge Taxa Richness	4	6	9	11	15	18.5	25	35	41	**62**	90	**79**
TKN	0.26	0.34	0.42	0.5	**0.59**	0.69	0.76	0.82	0.95	1.3	1.49	**0.59 J**
NH3+NH4	0.01	**0.02**	0.03	0.04	0.05	0.06	0.08	0.09	0.13	0.22	0.28	**0.02 U**
NO2-NO3	0	0	0.01	0.01	**0.01**	0.02	0.03	0.05	0.08	0.17	0.23	**0.012**
Total Phosphorus	0.01	0.02	0.06	0.07	0.1	**0.11**	0.14	0.17	0.23	0.43	0.59	**0.11**
Ortho-Phosphate	**0.01**	0.02	0.03	0.04	0.04	0.05	0.07	0.09	0.12	0.21	0.44	**0.019**
Turbidity	3.5	4	4.5	5.05	5.4	5.6	6.3	6.8	**8**	11.4	11.75	**11**

Station 5

Percentile Distribution

Parameter	5%	10%	20%	30%	40%	50%	60%	70%	80%	90%	95%	Measured
ESTUARIES (690 stations)												
Phytoplankton Chlorophyll *a*	**2.14**	3.28	4.49	5.13	6	6.93	7.94	9.6	12.4	17.6	22.2	-
Dredge Diversity	1.34	1.53	1.91	2.28	2.56	2.9	3.15	3.59	4.01	**4.53**	4.98	**4.73**
Dredge Taxa Richness	4	6	9	11	15	18.5	25	**35**	41	62	90	**36**
TKN	0.26	0.34	0.42	0.5	**0.59**	0.69	0.76	0.82	0.95	1.3	1.49	**0.67 J**
NH3+NH4	0.01	0.02	**0.03**	0.04	0.05	0.06	0.08	0.09	0.13	0.22	0.28	**0.03 I**
NO2-NO3	0	0	0.01	0.01	0.01	0.02	0.03	0.05	0.08	**0.17**	0.23	**0.021**
Total Phosphorus	0.01	0.02	0.06	0.07	0.1	0.11	**0.14**	0.17	0.23	0.43	0.59	**0.14**
Ortho-Phosphate	**0.01**	0.02	0.03	0.04	0.04	0.05	0.07	0.09	0.12	0.21	0.44	**0.018**
Turbidity	3.5	4	4.5	5.05	5.4	5.6	6.3	**6.8**	8	11.4	11.75	**7.2**

Station 6

Percentile Distribution

Parameter	5%	10%	20%	30%	40%	50%	60%	70%	80%	90%	95%	Measured
ESTUARIES (690 stations)												
Phytoplankton Chlorophyll *a*	**2.14**	3.28	4.49	5.13	6	6.93	7.94	9.6	12.4	17.6	22.2	-
Dredge Diversity	1.34	1.53	1.91	2.28	2.56	2.9	**3.15**	3.59	4.01	4.53	4.98	**3.34**
Dredge Taxa Richness	4	6	9	11	15	**18.5**	25	35	41	62	90	**19**
TKN	0.26	0.34	0.42	0.5	**0.59**	0.69	0.76	0.82	0.95	1.3	1.49	**0.62 J**
NH3+NH4	0.01	**0.02**	0.03	0.04	0.05	0.06	0.08	0.09	0.13	0.22	0.28	**0.026 I**
NO2-NO3	0	0	0.01	0.01	**0.01**	0.02	0.03	0.05	0.08	0.17	0.23	**0.013**
Total Phosphorus	0.01	0.02	0.06	0.07	**0.1**	0.11	0.14	0.17	0.23	0.43	0.59	**0.1**
Ortho-Phosphate	**0.01**	0.02	0.03	0.04	0.04	0.05	0.07	0.09	0.12	0.21	0.44	**0.018**
Turbidity	3.5	4	4.5	5.05	5.4	5.6	6.3	6.8	**8**	11.4	11.75	**8.1 A**

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

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

J - Estimated value

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

FDEP Biology Section - Acute Screening Bioassay Bench Sheets

Facility: J.E.A Sarasota RO

Address: 1642 12th Street

City: Sarasota County: Sarasota

Contact/District: Melina Grantor / SW

NPDES Permit #: FL 0043621

LIMS Job #: TLH-2004-03-30-032 LIMS Sample #: 744688

Sample Collection: Date: 3/29/04 Time: 1030

Lims Data Entry: 4/2/04 mf even 4/2/04

Data Entry Verification: 4/2/04 cap

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

Test Type: Screening

Static / Static Renewal / Flow-through

Test Duration: (48) 96 Hours.

Light Intensity : 50 - 100 ft. candles.

Photoperiod : 16 hours light 8 hours dark.

Initial sample handling:

Test 1 validation:

Control survival ≥90%: (Yes) No

Temperature Range ≤3°C: (Yes) No

Test 2 validation:

Control survival ≥90%: (Yes) No

Temperature Range ≤3°C: (Yes) No

Comments:

(A) - Revised # Ammonia should be 0.326mg/L, MF 4/5/04

PH adjustment : yes (no) Initial pH NaOH N HCl N Drops mL Final pH

Aeration : yes (no) Initial DO: mg/L Final DO: mg/L Duration: minutes Rate: - bubbles/min

Salinity adjusted (Test 1): yes (no) Initial Salinity: Final Salinity: Salts Hypersaline brine

Salinity adjusted (Test 2): yes (no) Initial Salinity: Final Salinity: Salts Hypersaline brine

Dechlorination: yes (no) mL of 0.025N Sodium Thiosulfate per liter of sample. Final TRC

Temperature Range °C

Incubator # 3 Range 23.0-24.5 Ust

Room B246: 23.5 - 24.0°C

Waterbath: —

Sample Validation:

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

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

Investigators' Signatures

Christa A Levine

Marshall Faircloth

James Daniel

REVIEWER

V.2 2/26/04

Water Quality Parameters	20% DMW	Well Water	Salt Water (ASW) NSW Test 1	Salt Water (ASW) NSW Test 2	Moderately Hard Water	Original Sample	Method	Measured by	Verified by
Field Total Residual Cl2 (mg/L):	N/A	N/A	N/A	N/A	N/A		not measured		MF
Lab Total Residual Cl2 (mg/L):			<0.03	<0.03		<0.03	HACH	CAP	MF
Alkalinity (mg/L as $CaCO_3$):			251	251		166	HACH	JD	CAP
Hardness (mg/L as $CaCO_3$):			N/A	N/A		N/A	HACH	JD	CAP
Total Ammonia (mg/L as N):			<0.034	<0.034		~~0.362~~ (A) 0.326mg/L MF 4/5/04	DENVER	MF	MF
Salinity (ppt):			~15	~15		15.0	YSI	CAP	MF

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[redacted]

FDEP Biology Section - - Bioassay Bench Sheet

Survival

LIMS Sample #: 744688 Test #: 1 Test Started: Date 3-30-04 Time: 1333

Organism: A. bahia Test Ended: Date 4/1/04 Time: 1215

Organism Batch: #85 Diluent/ Batch: F-30 1 #16

Organism Age: 3 days Food: YCT *P. subcapitata* Artemia (circled)

Chamber Size 1000 mL Batch: ___ ___ 0194025 G

Test Volume 500 mL Feeding: ~~Prior to test~~ (CAP) - Prior to renewal - Daily (circled)

Concentration	Replicate	Chamber #	Test Hour: 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
CTRL	A	G9	5	5	5	~~d~~		
	B	G10	5	5	5 W (CAP)	(CAP)		
	C	G11	5	5	5			
	D	G12	5	5	5			
100%	A	G13	5/0	—				
	B	G14	5/0	—				
	C	G15	5/0	—				
	D	G16	5/0	—				

Organisms loaded by: CAP Checked by: (initials) MF CAP

Loading Verified by: MF

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

Comments: 100% mortality in 100% sample concentration within [illegible]. CAP test terminated @ 24 hr.

Test Results:

% mortality in 100% sample 100

LC_{50}: < 100% If Calculated: 95% CI ______ Method: ______

A. bahia fed prior to test and daily.

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

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

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V.1 2/23/04

FDEP Biology Section - - Bioassay Bench Sheet

Survival

LIMS Sample #: 744688 Test #: 2 Test Started: Date 3-30-04 Time: 1340

Organism: M. beryllina Test Ended: Date 4/1/04 Time: 1245

Organism Batch: #11 Diluent/ Batch: ASW, #16

Organism Age: 15 days Food: YCT P. subcapitata Artemia

Chamber Size 1000 mL Batch: 0194025G

Test Volume 500 mL Feeding: Prior to test - Prior to renewal - Daily

Concentration	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
CTRL	A	G17	5	5	5			
	B	G18	5	5	5			
	C	G19	5	5	5			
	D	G20	5	5	5			
100%	A	G21	5	5	5			
	B	G22	5	5	5			
	C	G23	5	5	5			
	D	G24	5	5	5			
Organisms loaded by: CAP		Checked by: (initials)	MF	CAP	CAP			

Loading Verified by: MF

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

Comments: NCR created due to test organism being 1 day older than allowable range of 1-14 days for Menidia beryllina.

Test Results:

% mortality in 100% sample Ø

LC_{50}: >100% If Calculated: 95% CI_____ Method:_____

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

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

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[redacted]

Bioassay Parameters

LIMS Sample # : 744688 **Test # :** 1 **of** 2

TEST SOP: TA07_ 03 **Test Species:** *Ceriodaphnia dubia Cyprinella leedsi Pimephales promelas* *(Americamysis bahia)* *Menidia beryllina* Other:_____

V.1 2/24/04

Concentration CTRL	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	/				
pH (S.U.)	8.4	/				
Temperature °C	25.2	/				
Dissolved Oxygen mg/L	7.0	/				
Conductivity ~~µmhos~~ (mmhos)	24.8	/				
(initials) Measured by:	MF					
(initials) Recorded by:	MF					

Comments: Test terminated @ 24 hrs 100% mortality in 100% sample concentration within 1 hr of loading.

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A					
pH (S.U.)	7.6					
Temperature °C	25.0					
Dissolved Oxygen mg/L	7.1					
Conductivity ~~µmhos~~ (mmhos)	24.1					
(initials) Measured by:	MF					
(initials) Recorded by:	MF					

Comments: Test terminated @ 24 hours - 100% mortality in 100% sample concentration within 1 hour of loading.

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

Comments:

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

Comments:

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V.1 2/24/04

[redacted] Page

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[redacted]

Bioassay Parameters

LIMS Sample # : 744688 **Test # :** 2 **of** 2

TEST SOP: TA-07- 04 **Test Species:** *Ceriodaphnia dubia Cyprinella leedsi Pimephales promelas Americamysis bahia Menidia beryllina* Other:

V.1 2/24/04

Concentration CTRL	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C			
pH (S.U.)	8.4	7.5	8.3			
Temperature °C	25.2	24.0	24.7			
Dissolved Oxygen mg/L	7.1	6.8	6.6			
Conductivity ~~µmhos~~ mmhos	25.0	24.2	26.4			
(initials) Measured by:	MF	CAP	CAP			
(initials) Recorded by:	MF	CAP	CAP			

Comments:

Concentration 100%	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate	A	B	C			
pH (S.U.)	7.6	7.5	8.0			
Temperature °C	25.0	24.0	24.3			
Dissolved Oxygen mg/L	7.1	7.2	7.1			
Conductivity ~~µmhos~~ mmhos	24.0	23.4	25.9			
(initials) Measured by:	MF	CAP	CAP			
(initials) Recorded by:	MF	CAP	CAP			

Comments:

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

Comments:

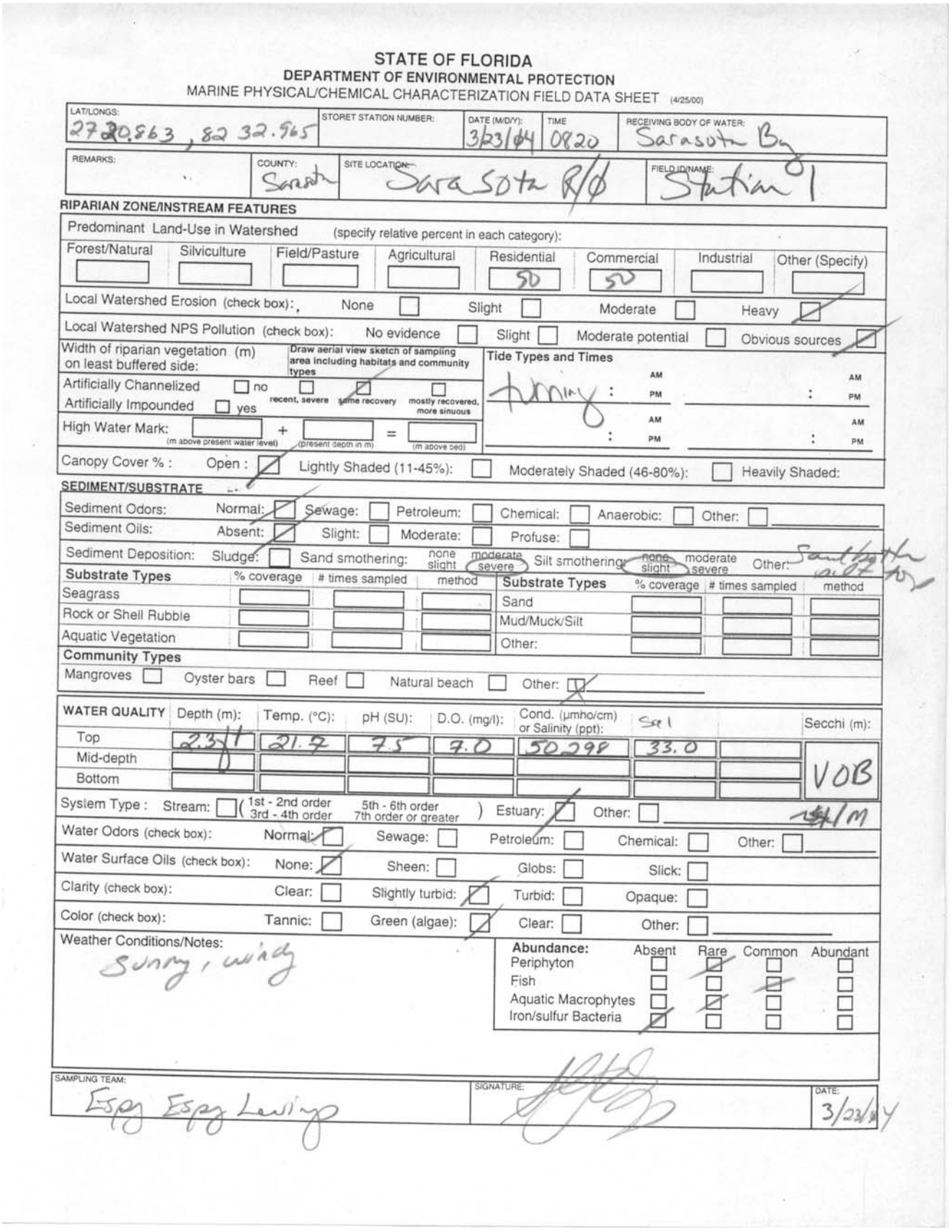
Concentration	0 Hr.	24 Hr.	48 Hr. before renewal	48 Hr. after renewal	72 Hr.	96 Hr.
Replicate						
pH (S.U.)						
Temperature °C						
Dissolved Oxygen mg/L						
Conductivity µmhos mmhos						
(initials) Measured by:						
(initials) Recorded by:						

Comments:

[redacted]

Appendix 7

Habitat Assessment Field Sheets



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

LAT/LONGS: 27 20.863, 82 32.965 | STORET STATION NUMBER: | DATE (M/D/Y): 3/23/04 | TIME: 0820 | RECEIVING BODY OF WATER: Sarasota Bay

REMARKS: | COUNTY: Sarasota | SITE LOCATION: Sarasota R/O | FIELD ID/NAME: Station 1

RIPARIAN ZONE/INSTREAM FEATURES

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

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)
				50	50		

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

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

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

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

Tide Types and Times: Army : AM/PM

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

Artificially Impounded ☐ yes

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

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

SEDIMENT/SUBSTRATE

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

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

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

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

Community Types

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

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) or Salinity (ppt):	Sal		Secchi (m):
Top	2.3	21.7	7.5	7.0	50.298	33.0		VOB
Mid-depth								
Bottom								

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

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

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

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

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

Weather Conditions/Notes: Sunny, windy

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

SAMPLING TEAM: Espy Espy Lewis | SIGNATURE: | DATE: 3/24/04

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

SUBMITTING AGENCY CODE: / SUBMITTING AGENCY NAME:	STORET STATION NUMBER:	DATE (M/D/Y):	RECEIVING BODY OF WATER:
		3/23/04	Sarasota Bay

REMARKS:	LOCATION:	FIELD ID/NAME:
	Sarasota R/o Plant output	Station #1

Habitat Parameter / Score	Excellent	Good	Fair	Poor
Littoral Alterations: 4	None—Unaltered shoreline. 9-10 points	Mostly natural shoreline, but with occasional riprap. 6-8 points	Shoreline consisting mostly of riprap and vertical seawalls. 3-5 points	Shoreline consisting almost entirely of vertical seawalls. 0-2 points
Community Types Observed: 28	At least four communities observed from the following list: mangrove swamp, marsh, oyster bar, grass bed, reef, saltern, natural beach, or tidal creek. 38-50 points	Two or three communities observed from those listed. 26-37 points	One community observed from those listed. 13-25 points	No communities observed from those listed. 0-12 points
Tidal Fluctuation: 3	>0.75 m. 4-5 points	0.5 - 0.75 m. 3 points	0.25 - 0.5 m. 2 points	<0.25 m. 0-1 point
Freshwater Discharges/ Alterations: 2	Only natural runoff.. 9-10 points	Mostly natural runoff, but with a few, small stormwater sources. 6-8 points	Considerable stormwater discharge from local roads, parking lots, etc. 3-5 points	Extensive manmade discharges, especially from canals draining large tracts of land. 0-2 points
Flow and Wave Action: 9	Light to moderate wave action present except under the harshest weather conditions. Flow unrestricted by manmade structures. 9-10 points	—	—	Heavy wave action sometimes present even during average weather conditions, or flow restricted by manmade structures so that velocities are very high. 0-2 points
Sediment Type: 12	Combination of sand, gravel, and shell. 12-15 points	Primarily sand, with small areas of mud. 8-11 points	Mixture of sand and mud, or well-aerated mud only. 4-7 points	Anaerobic mud. 0-3 points

TOTAL SCORE: 58

COMMENTS:

ANALYSIS DATE:	ANALYST:	SIGNATURE:
3/23/04	Ken Espl	

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

LAT/LONGS:	STORET STATION NUMBER:	DATE (M/D/Y):	TIME	RECEIVING BODY OF WATER:
2720.857/8232.968		3/22/04	0835	Sarasota Bay

REMARKS:	COUNTY:	SITE LOCATION:	FIELD ID/NAME:
	Sarasota	Sarasota R/D	Station 2

RIPARIAN ZONE/INSTREAM FEATURES

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

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)
				50	50		

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

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

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

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

Tide Types and Times

: AM PM		: AM PM	
: AM PM		: AM PM	

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

Artificially Impounded ☐ yes

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

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

SEDIMENT/SUBSTRATE

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

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

Sediment Deposition: Sludge: ☐ Sand smothering: none slight (moderate) severe Silt smothering: none (slight) moderate severe Other: sand bank

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

Community Types

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

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) or Salinity (ppt):	Sal		Secchi (m):
Top	2.4 ft	24.2	7.5	6.6	50566	33.2		VOB IM
Mid-depth								
Bottom								

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

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

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

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

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

Weather Conditions/Notes:

Sunny windy

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

SAMPLING TEAM:	SIGNATURE:	DATE:
Espy, Espy, Lewis		3/22/04

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

SUBMITTING AGENCY CODE: / SUBMITTING AGENCY NAME:	STORET STATION NUMBER:	DATE (M/D/Y):	RECEIVING BODY OF WATER:
		3/23/04	Sarasota Bay

REMARKS:	LOCATION:	FIELD ID/NAME:
	Sarasota R/O Plant output	Station #2

Habitat Parameter / score	Excellent	Good	Fair	Poor
Littoral Alterations: 4	None—Unaltered shoreline. 9-10 points	Mostly natural shoreline, but with occasional riprap. 6-8 points	Shoreline consisting mostly of riprap and vertical seawalls. 3-5 points	Shoreline consisting almost entirely of vertical seawalls. 0-2 points
Community Types Observed: 28	At least four communities observed from the following list: mangrove swamp, marsh, oyster bar, grass bed, reef, saltern, natural beach, or tidal creek. 38-50 points	Two or three communities observed from those listed. 26-37 points	One community observed from those listed. 13-25 points	No communities observed from those listed. 0-12 points
Tidal Fluctuation: 3	>0.75 m. 4-5 points	0.5 - 0.75 m. 3 points	0.25 - 0.5 m. 2 points	<0.25 m. 0-1 point
Freshwater Discharges/ Alterations: 2	Only natural runoff.. 9-10 points	Mostly natural runoff, but with a few, small stormwater sources. 6-8 points	Considerable stormwater discharge from local roads, parking lots, etc. 3-5 points	Extensive manmade discharges, especially from canals draining large tracts of land. 0-2 points
Flow and Wave Action: 9	Light to moderate wave action present except under the harshest weather conditions. Flow unrestricted by manmade structures. 9-10 points	—	—	Heavy wave action sometimes present even during average weather conditions, or flow restricted by manmade structures so that velocities are very high. 0-2 points
Sediment Type: 12	Combination of sand, gravel, and shell. 12-15 points	Primarily sand, with small areas of mud. 8-11 points	Mixture of sand and mud, or well-aerated mud only. 4-7 points	Anaerobic mud. 0-3 points

TOTAL SCORE: 58

COMMENTS:

ANALYSIS DATE:	ANALYST:	SIGNATURE:
3/23/04	Ken Espy	

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

LAT/LONGS:	STORET STATION NUMBER:	DATE (M/D/Y):	TIME	RECEIVING BODY OF WATER:
27 20 84 82 32.96		3/23/04	0900	Sarasota Bay

REMARKS:	COUNTY:	SITE LOCATION:	FIELD ID/NAME:
	Sarasota	Sarasota R/O	Station 3

RIPARIAN ZONE/INSTREAM FEATURES

Predominant Land-Use in Watershed (specify relative percent in each category): launch ramp/park

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)
				50	50		

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

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

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

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

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

Artificially Impounded ☐ yes

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

Tide Types and Times

Drain:	AM / PM	Incoming:	AM / PM
:	AM / PM	:	AM / PM

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

SEDIMENT/SUBSTRATE

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

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

Sediment Deposition: Sludge: ☐ Sand smothering: none / slight / moderate / severe Silt smothering: none / slight / moderate / severe Other: sand bit w/ silt

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

Community Types

Mangroves ☐ Oyster bars ☐ Reef ☐ Natural beach ☐ Other: ☑ dredged beach / riprap

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) or Salinity (ppt):	Sal		Secchi (m):
Top	2.3 ft	21.4	7.5	6.8	50.236	33.0		VOB 1,2
Mid-depth								
Bottom								

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

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

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

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

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

Weather Conditions/Notes:
Sunny, windy

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

SAMPLING TEAM:	SIGNATURE:	DATE:
Espy, Espy, Lewis		3/23/04

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

SUBMITTING AGENCY CODE: / SUBMITTING AGENCY NAME:	STORET STATION NUMBER:	DATE (M/D/Y):	RECEIVING BODY OF WATER:
		3/23/04	Sarasota Bay

REMARKS:	LOCATION:	FIELD ID/NAME:
	Sarasota R/O Plant Output	Station # 3

Habitat Parameter / score	Excellent	Good	Fair	Poor
Littoral Alterations: 4	None—Unaltered shoreline. 9-10 points	Mostly natural shoreline, but with occasional riprap. 6-8 points	Shoreline consisting mostly of riprap and vertical seawalls. 3-5 points	Shoreline consisting almost entirely of vertical seawalls. 0-2 points
Community Types Observed: 28	At least four communities observed from the following list: mangrove swamp, marsh, oyster bar, grass bed, reef, saltern, natural beach, or tidal creek. 38-50 points	Two or three communities observed from those listed. 26-37 points	One community observed from those listed. 13-25 points	No communities observed from those listed. 0-12 points
Tidal Fluctuation: 3	>0.75 m. 4-5 points	0.5 - 0.75 m. 3 points	0.25 - 0.5 m. 2 points	<0.25 m. 0-1 point
Freshwater Discharges/ Alterations: 2	Only natural runoff.. 9-10 points	Mostly natural runoff, but with a few, small stormwater sources. 6-8 points	Considerable stormwater discharge from local roads, parking lots, etc. 3-5 points	Extensive manmade discharges, especially from canals draining large tracts of land. 0-2 points
Flow and Wave Action: 9	Light to moderate wave action present except under the harshest weather conditions. Flow unrestricted by manmade structures. 9-10 points	—	—	Heavy wave action sometimes present even during average weather conditions, or flow restricted by manmade structures so that velocities are very high. 0-2 points
Sediment Type: 12	Combination of sand, gravel, and shell. 12-15 points	Primarily sand, with small areas of mud. 8-11 points	Mixture of sand and mud, or well-aerated mud only. 4-7 points	Anaerobic mud. 0-3 points

TOTAL SCORE: 58

COMMENTS:

ANALYSIS DATE:	ANALYST:	SIGNATURE:
3/23/04	Ken Espy	

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

LAT/LONGS:	STORET STATION NUMBER:	DATE (M/D/Y):	TIME	RECEIVING BODY OF WATER:
27 20.829 / 82 32.967		3/23/04	0900	Sarasota R/O

REMARKS:	COUNTY:	SITE LOCATION:	FIELD ID/NAME:
	Sarasota	Sarasota R/O	Station 4

RIPARIAN ZONE/INSTREAM FEATURES

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

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)
				50	50		

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

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

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

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

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

Artificially Impounded ☐ yes

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

Tide Types and Times

Turning: AM/PM : AM/PM

AM/PM : AM/PM

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

SEDIMENT/SUBSTRATE

Sediment Odors: Normal: ☒ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Anaerobic: ☐ Other: ☐ Deep layers aerobic

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

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

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

Community Types

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

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) or Salinity (ppt):	Sal		Secchi (m):
Top	2.4 ft	21.3	7.5	6.5	50,360	33.0		VOB 1.2
Mid-depth								
Bottom								

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

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

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

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

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

Weather Conditions/Notes:

Sunny, windy

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

SAMPLING TEAM:	SIGNATURE:	DATE:
Espy Espy Lewis		3/23/04

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

SUBMITTING AGENCY CODE: / SUBMITTING AGENCY NAME:	STORET STATION NUMBER:	DATE (M/D/Y):	RECEIVING BODY OF WATER:
		3/23/04	Sarasota Bay

REMARKS:	LOCATION:	FIELD ID/NAME:
	Sarasota R/O Plant Output	Station #4

Habitat Parameter / score	Excellent	Good	Fair	Poor
Littoral Alterations: 4	None—Unaltered shoreline. 9-10 points	Mostly natural shoreline, but with occasional riprap. 6-8 points	Shoreline consisting mostly of riprap and vertical seawalls. 3-5 points	Shoreline consisting almost entirely of vertical seawalls. 0-2 points
Community Types Observed: 28	At least four communities observed from the following list: mangrove swamp, marsh, oyster bar, grass bed, reef, saltern, natural beach, or tidal creek. 38-50 points	Two or three communities observed from those listed. 26-37 points	One community observed from those listed. 13-25 points	No communities observed from those listed. 0-12 points
Tidal Fluctuation: 3	>0.75 m. 4-5 points	0.5 - 0.75 m. 3 points	0.25 - 0.5 m. 2 points	<0.25 m. 0-1 point
Freshwater Discharges/ Alterations: 2	Only natural runoff.. 9-10 points	Mostly natural runoff, but with a few, small stormwater sources. 6-8 points	Considerable stormwater discharge from local roads, parking lots, etc. 3-5 points	Extensive manmade discharges, especially from canals draining large tracts of land. 0-2 points
Flow and Wave Action: 9	Light to moderate wave action present except under the harshest weather conditions. Flow unrestricted by manmade structures. 9-10 points	—	—	Heavy wave action sometimes present even during average weather conditions, or flow restricted by manmade structures so that velocities are very high. 0-2 points
Sediment Type: 12	Combination of sand, gravel, and shell. 12-15 points	Primarily sand, with small areas of mud. 8-11 points	Mixture of sand and mud, or well-aerated mud only. 4-7 points	Anaerobic mud. 0-3 points

TOTAL SCORE: 58

COMMENTS:

ANALYSIS DATE:	ANALYST:	SIGNATURE:
3/23/04	Ken Espy	

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

LAT/LONGS:	STORET STATION NUMBER:	DATE (M/D/Y):	TIME	RECEIVING BODY OF WATER:
27 20 823 / 82 32 969		3/23/04	0910	Sarasota Bay

REMARKS:	COUNTY:	SITE LOCATION:	FIELD ID/NAME:
	Sarasota	Sarasota RØ	Station 5

RIPARIAN ZONE/INSTREAM FEATURES

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

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)
				50	50		

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

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

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

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

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

Artificially Impounded ☐ yes

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

Tide Types and Times

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

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

SEDIMENT/SUBSTRATE

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

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

Sediment Deposition: Sludge: ☐ Sand smothering: none slight moderate severe Silt smothering: none slight moderate severe Other: part of the silt

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

Community Types

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

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) or Salinity (ppt):	Sal		Secchi (m):
Top	2.4	21.4	7.5	6.3	50,248	30	33.0	VOB 1.2
Mid-depth								
Bottom								

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

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

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

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

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

Weather Conditions/Notes:
Sunny, windy

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

SAMPLING TEAM:	SIGNATURE:	DATE:
Espy Espy, Lewis		3/24/04

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

SUBMITTING AGENCY CODE: / SUBMITTING AGENCY NAME:	STORET STATION NUMBER:	DATE (M/D/Y):	RECEIVING BODY OF WATER:
		3/23/04	Sarasota Bay

REMARKS:	LOCATION:	FIELD ID/NAME:
	Sarasota R/O Plant output	Station #5

Habitat Parameter / Score	Excellent	Good	Fair	Poor
Littoral Alterations: 4	None—Unaltered shoreline. 9-10 points	Mostly natural shoreline, but with occasional riprap. 6-8 points	Shoreline consisting mostly of riprap and vertical seawalls. 3-5 points	Shoreline consisting almost entirely of vertical seawalls. 0-2 points
Community Types Observed: 28	At least four communities observed from the following list: mangrove swamp, marsh, oyster bar, grass bed, reef, saltern, natural beach, or tidal creek. 38-50 points	Two or three communities observed from those listed. 26-37 points	One community observed from those listed. 13-25 points	No communities observed from those listed. 0-12 points
Tidal Fluctuation: 3	>0.75 m. 4-5 points	0.5 - 0.75 m. 3 points	0.25 - 0.5 m. 2 points	<0.25 m. 0-1 point
Freshwater Discharges/ Alterations: 2	Only natural runoff.. 9-10 points	Mostly natural runoff, but with a few, small stormwater sources. 6-8 points	Considerable stormwater discharge from local roads, parking lots, etc. 3-5 points	Extensive manmade discharges, especially from canals draining large tracts of land. 0-2 points
Flow and Wave Action: 9	Light to moderate wave action present except under the harshest weather conditions. Flow unrestricted by manmade structures. 9-10 points	—	—	Heavy wave action sometimes present even during average weather conditions, or flow restricted by manmade structures so that velocities are very high. 0-2 points
Sediment Type: 12	Combination of sand, gravel, and shell. 12-15 points	Primarily sand, with small areas of mud. 8-11 points	Mixture of sand and mud, or well-aerated mud only. 4-7 points	Anaerobic mud. 0-3 points

TOTAL SCORE: 58

COMMENTS:

ANALYSIS DATE:	ANALYST:	SIGNATURE:
3/23/04	Ken Espy	

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

LAT/LONGS:	STORET STATION NUMBER:	DATE (M/D/Y):	TIME	RECEIVING BODY OF WATER:
27 20.819, 82 32.972		3/23/04	0915	Sarasota Bay

REMARKS:	COUNTY:	SITE LOCATION:	FIELD ID/NAME:
	Sarasota	Sarasota R10	Station 6

RIPARIAN ZONE/INSTREAM FEATURES

Predominant Land-Use in Watershed (specify relative percent in each category): phg lot / catch bay

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)
				50	50		

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

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

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

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

Tide Types and Times: turning

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

Artificially Impounded ☐ yes

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

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

SEDIMENT/SUBSTRATE Sand bottom

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

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

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

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

Community Types

Mangroves ☐ Oyster bars ☐ Reef ☐ Natural beach ☐ Other: ☑ Riprap / beach, jetty

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) or Salinity (ppt):	Sal		Secchi (m):
Top	2.3 ft	21.2	7.5	6.1	50460	33.0		1.9 VOB
Mid-depth								
Bottom								

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

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

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

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

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

Weather Conditions/Notes: sunny windy

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

SAMPLING TEAM:	SIGNATURE:	DATE:
Espy, Espy Lewis		3/24/04

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

SUBMITTING AGENCY CODE: / SUBMITTING AGENCY NAME:	STORET STATION NUMBER:	DATE (M/D/Y):	RECEIVING BODY OF WATER:
		3/23/04	Sarasota Bay

REMARKS:	LOCATION:	FIELD ID/NAME:
	Sarasota R/o Plant Output	Station #6

Habitat Parameter / score	Excellent	Good	Fair	Poor
Littoral Alterations: 4	None—Unaltered shoreline. 9-10 points	Mostly natural shoreline, but with occasional riprap. 6-8 points	Shoreline consisting mostly of riprap and vertical seawalls. 3-5 points	Shoreline consisting almost entirely of vertical seawalls. 0-2 points
Community Types Observed: 28	At least four communities observed from the following list: mangrove swamp, marsh, oyster bar, grass bed, reef, saltern, natural beach, or tidal creek. 38-50 points	Two or three communities observed from those listed. 26-37 points	One community observed from those listed. 13-25 points	No communities observed from those listed. 0-12 points
Tidal Fluctuation: 3	>0.75 m. 4-5 points	0.5 - 0.75 m. 3 points	0.25 - 0.5 m. 2 points	<0.25 m. 0-1 point
Freshwater Discharges/ Alterations: 2	Only natural runoff.. 9-10 points	Mostly natural runoff, but with a few, small stormwater sources. 6-8 points	Considerable stormwater discharge from local roads, parking lots, etc. 3-5 points	Extensive manmade discharges, especially from canals draining large tracts of land. 0-2 points
Flow and Wave Action: 9	Light to moderate wave action present except under the harshest weather conditions. Flow unrestricted by manmade structures. 9-10 points	—	—	Heavy wave action sometimes present even during average weather conditions, or flow restricted by manmade structures so that velocities are very high. 0-2 points
Sediment Type: 12	Combination of sand, gravel, and shell. 12-15 points	Primarily sand, with small areas of mud. 8-11 points	Mixture of sand and mud, or well-aerated mud only. 4-7 points	Anaerobic mud. 0-3 points

TOTAL SCORE: 58

COMMENTS:

ANALYSIS DATE:	ANALYST:	SIGNATURE:
3/23/04	Ken Espy	

Appendix 8a

Benthic macroinvertebrates collected from ponar samples from upstream and downstream of the Sarasota RO facility (3/23/04). Taxa collected and density (average number of individuals/m^2) rounded to the nearest individual (n = 5 samples/site). See SOP LT 7100 sect. 4.2.1 for method on collapsing taxa. [Station 6 is wrapped.]

	Station 1	Station 2	Station 3	Station 4	Station 5	Station6
Annelida						
Oligochaeta						
Tubificidae	425	217	342	467	59	142
Polychaeta						
Anaitides sp.	17	10	80	33	-	-
Apoprionospio pygmaea	34	128	50	17	58	17
Aricidea philbinae	50	42	67	75	-	-
Armandia sp.	25	17	17	-	-	-
Axiothella sp.	-	17	25	-	-	-
Capitella capitata complex	25	8	8	108	8	-
Chone sp.	58	75	-	66	8	-
Cirratulidae	558	242	1,050	-	17	25
Cirriformia sp.	-	-	-	130	-	-
Cirrophorus sp.	-	-	17	8	25	50
Diopatra sp.	33	-	-	-	-	-
Dipolydora socialis	-	-	-	-	8	-
Dipolydora sp.	-	9	-	-	-	-
Dorvilleidae	-	8	-	-	-	-
Eteone heteropoda	-	30	20	-	-	-
Eupolymnia sp.	-	-	25	-	-	-
Exogone sp.	-	17	33	-	-	-
Glycera americana	8	17	25	-	-	-
Glycera robusta	-	-	-	25	-	-
Glycinde nordmanni	-	-	20	-	-	-
Glycinde solitaria	8	8	30	-	8	-
Glycinde sp.	-	-	-	17	-	-
Grubeosyllis sp.	-	-	-	17	-	-
Gyptis sp.	-	8	-	-	-	-
Hesionidae	-	-	8	8	-	-
Heteromastus filiformis	-	-	-	8	-	-
Isolda pulchella	-	-	8	-	-	-
Kinbergonuphis simoni	-	-	-	58	-	-
Leitoscoloplos robustus	275	217	125	125	25	25
Lysilla sp.	83	17	-	-	8	-
Magelona sp.	50	-	25	8	8	-
Maldanidae	17	-	-	25	-	-
Mediomastus ambiseta	217	58	-	108	17	-
Mediomastus sp.	-	-	592	-	-	8
Megalomma bioculatum	-	-	17	9	-	-
Melinna maculata	-	-	33	33	-	-
Neanthes acuminata	-	-	17	101	59	-
Nereididae	75	25	-	-	-	17
Nereiphylla fragilis	8	-	-	-	-	-
Nereis sp.	-	-	-	40	-	-
Onuphidae	-	33	17	-	-	-
Paraprionospio pinnata	9	-	17	-	-	-
Pectinaria gouldi	-	-	-	8	-	-
Pectinaria sp.	-	-	8	-	-	-
Phyllodoce mucosa	-	-	-	25	-	-
Phyllodoce sp.	8	10	-	-	-	-

Appendix 8a (cont'd)

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6
Piromis roberti	25	-	-	-	-	-
Pista quadrilobata	8	-	-	-	-	-
Pista sp.	-	-	-	50	-	-
Polydora cornuta	-	-	25	-	-	-
Polydora sp.	95	17	-	59	33	-
Prionospio fallax	9	-	-	-	-	-
Prionospio heterobranchia	302	154	442	465	8	-
Sabellaria sp.	8	8	-	-	-	-
Sabellariidae	-	-	-	17	-	-
Scolelepis sp.	26	26	33	42	8	8
Sphaerosyllis sp.	-	17	-	-	-	-
Spio sp.	9	-	-	-	-	-
Spiochaetopterus costarum oculatus	8	8	8	-	-	-
Spiophanes bombyx	17	26	8	34	-	-
Tharyx sp.	-	-	-	461	-	-
Arthropoda						
Crustacea						
Amphipoda						
Ampelisca abdita	-	16	19	17	-	-
Ampelisca holmesi	-	206	424	183	42	-
Ampelisca sp.	-	-	-	-	-	8
Ampelisca vadorum	-	-	39	17	-	-
Ampelisca verrilli	142	16	39	-	-	-
Ampithoe longimana	-	-	19	-	74	-
Ampithoe ramondi	75	-	-	39	-	-
Batea catharinensis	8	51	59	159	-	-
Bemlos setosus	30	-	76	-	-	-
Bemlos sp.	-	-	-	30	-	-
Bemlos/plesiolembos complex	-	43	-	-	-	-
Caprella sp.	-	13	27	10	-	-
Cerapus sp.	55	27	35	50	10	-
Corophiidae	-	-	-	-	-	8
Cymadusa compta	8	17	57	19	9	-
Deflexilodes sp. a	17	39	50	-	-	-
Deutella incerta	150	-	40	153	-	-
Deutella sp.	-	13	-	-	8	-
Elasmopus balkomanus	-	-	-	17	-	-
Elasmopus levis	-	-	42	-	-	-
Elasmopus sp.	-	34	-	-	-	-
Ericthonius brasiliensis	36	134	131	158	40	-
Eusiridae	8	-	-	-	-	-
Grandidierella bonnieroides	-	-	9	25	-	-
Hartmanodes nyei	17	183	8	50	50	17
Hemiaegina minuta	-	-	-	20	33	-
Isaeidae	-	-	-	17	-	-
Ischyroceridae	-	9	-	-	-	-
Listriella barnardi	-	17	17	8	-	-
Lysianassidae	-	-	-	8	-	-
Lysianopsis sp.	17	-	-	-	-	-
Melita nitida complex	-	-	-	8	-	-
Melitidae	8	-	8	-	-	-
Microprotopus raneyi	-	-	-	-	75	17
Microprotopus shoemakeri	-	-	-	-	-	8
Microprotopus sp.	17	-	42	-	-	-
Monocorophium sp.	9	9	-	-	-	-
Monocorophium tuberculatum	-	-	61	-	-	-

Pariambidae	50	17	8	8	-	-

Appendix 8a (cont'd)

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6
Phoxocephalidae	-	9	-	8	-	-
Rudilemboides naglei	20	-	17	79	-	-
Shoemakerella cubensis	-	-	8	-	-	-
Cumacea						
Almyracuma proximoculi	8	-	-	-	-	-
Cyclaspis sp.	-	-	-	25	-	-
Cyclaspis pustulata	8	-	-	-	-	-
Cyclaspis varians	-	25	83	-	-	17
Oxyurostylis sp.	-	17	33	8	8	-
Oxyurostylis smithi	-	-	-	-	-	50
Decapoda						
Hippolyte sp.	79	53	50	-	-	-
Hippolyte zostericola	-	-	-	42	-	-
Paguridae	62	158	25	42	42	-
Portunidae	-	-	-	8	-	-
Processidae	-	11	-	-	-	-
Undetermined Decapoda	-	-	-	-	-	8
Xanthidae	26	21	-	17	-	-
Isopoda						
Dynamenella sp.	22	-	-	-	-	-
Dynamenella angulata	-	-	8	25	-	-
Edotea triloba	17	8	-	25	-	-
Erichsonella attenuata	17	25	-	50	17	-
Erichsonella filiformis	-	-	17	-	-	-
Paracerceis caudata	11	-	-	8	-	-
Mysidacea						
Bowmaniella sp.	-	8	-	-	-	-
Tanaidacea						
Hargeria rapax	-	-	13	-	-	-
Kalliapseudes sp. a	-	8	-	-	-	-
Leptochelia sp.	-	-	-	50	-	-
Pseudonototanais sp.	-	-	13	-	-	-
Pseudonototanais sp. b	-	17	-	-	-	-
Thoracica						
Balanus sp.	-	-	-	-	8	-
Diptera						
Dicrotendipes sp.	8	-	-	-	-	-
Dicrotendipes lobus	-	-	-	-	8	-
Bryozoa						
Undetermined Bryozoa	-	-	-	8	-	-
Echinodermata						
Ophiurida	33	8	-	8	-	-
Ophiuroidea	-	-	-	8	-	-
Mollusca						
Bivalvia						
Amygdalum papyrium	-	-	-	10	-	-
Arcidae	-	-	-	20	-	-
Laevicardium sp.	23	9	10	68	-	-
Lyonsia floridana	-	-	-	10	-	-
Lyonsia sp.	-	-	10	-	-	-
Macoma sp.	-	-	-	10	-	-
Macoma tenta	11	-	32	-	-	-
Mulinia lateralis	-	35	20	-	25	-
Mysella planulata	34	-	-	-	-	-
Nucula proxima	-	9	-	-	-	-

	Nucula sp.	23	-	-	-	-	-
	Nuculana sp.	-	9	10	10	-	-

Appendix 8a (cont'd)

		Station 1	Station 2	Station 3	Station 4	Station 5	Station 6
	Tagelus divisus	11	-	-	-	-	-
	Tellina sp.	56	131	118	98	25	175
Gastropoda							
	Acteocina sp.	-	9	-	-	-	-
	Acteonidae	11	-	-	-	-	-
	Astyris lunata	22	-	18	-	17	-
	Cerithiidae	22	-	36	-	-	-
	Costoanachis sp.	11	-	-	-	-	-
	Crepidula maculosa	11	36	-	-	-	-
	Crepidula plana	-	-	18	-	-	-
	Crepidula sp.	-	-	-	28	-	-
	Haminoeidae	-	-	27	-	-	-
	Melanella sp.	11	-	-	-	-	-
	Nassarius sp.	88	45	35	37	17	8
	Nudibranchia	-	-	-	9	8	-
	Prunum apicinum	-	9	-	9	-	-
	Turbonilla sp.	33	-	9	-	-	-
Nemertea							
	Undetermined Nemertea	17	58	50	67	8	8
Sipuncula							
	Undetermined Sipuncula	25	17	33	-	-	-

Appendix 8b

Benthic macroinvertebrates collected in ponar samples from upstream and downstream of the Sarasota RO facility (3/23/04). Taxa collected and total number of individuals counted (n = 5 samples/site).

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6
Annelida						
Oligochaeta						
Tubificidae	51	26	41	56	7	17
Polychaeta						
Anaitides sp.	2	1	8	4	-	-
Apoprionospio pygmaea	4	15	6	2	7	1
Apoprionospio sp.	-	-	-	-	-	1
Aricidea philbinae	5	5	8	8	-	-
Aricidea sp.	-	-	-	1	-	-
Armandia sp.	3	2	2	-	-	-
Axiothella sp.	-	1	1	-	-	-
Capitella capitata complex	3	1	1	13	1	-
Chone sp.	5	6	-	7	1	-
Cirratulidae	67	29	126	12	2	3
Cirriformia sp.	-	-	-	13	-	-
Cirrophorus sp.	-	-	2	1	3	2
Diopatra sp.	1	-	-	-	-	-
Dipolydora socialis	-	-	-	-	1	-
Dipolydora sp.	-	1	-	-	-	-
Dorvilleidae	-	1	-	-	-	-
Eteone heteropoda	-	3	2	-	-	-
Eupolymnia sp.	-	-	1	-	-	-
Exogone sp.	-	1	2	-	-	-
Glycera americana	1	1	2	-	-	-
Glycera robusta	-	-	-	1	-	-
Glycera sp.	-	1	1	2	-	-
Glycinde nordmanni	-	-	2	-	-	-
Glycinde solitaria	1	1	3	-	1	-
Glycinde sp.	-	-	-	2	-	-
Goniadidae	-	-	1	-	-	-
Grubeosyllis sp.	-	-	-	2	-	-
Gyptis sp.	-	1	-	-	-	-
Hesionidae	-	-	1	1	-	-
Heteromastus filiformis	-	-	-	1	-	-
Isolda pulchella	-	-	1	-	-	-
Kinbergonuphis simoni	-	-	-	3	-	-
Leitoscoloplos robustus	6	3	1	3	1	1
Leitoscoloplos sp.	27	23	14	6	2	1
Lysilla sp.	10	2	-	-	1	-
Magelona sp.	6	-	3	1	1	-
Maldanidae	2	1	2	3	-	-
Mediomastus ambiseta	2	1	-	2	1	-
Mediomastus sp.	24	6	71	11	1	1
Megalomma bioculatum	-	-	1	1	-	-
Melinna maculata	-	-	4	4	-	-
Neanthes acuminata	-	-	1	4	3	-
Neanthes sp.	-	-	-	1	-	-
Nereididae	9	3	1	10	4	2
Nereiphylla fragilis	1	-	-	-	-	-
Nereis sp.	-	-	-	2	-	-
Onuphidae	3	4	2	4	-	-
Orbiniidae	-	-	-	6	-	1

Appendix 8b (cont'd)

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6
Paraonidae	1	-	-	-	-	4
Paraprionospio pinnata	1	-	2	-	-	-
Pectinaria gouldi	-	-	-	1	-	-
Pectinaria sp.	-	-	1	-	-	-
Phyllodoce mucosa	-	-	-	2	-	-
Phyllodoce sp.	1	1	-	1	-	-
Phyllodocidae	-	1	2	-	-	-
Piromis roberti	3	-	-	-	-	-
Pista quadrilobata	1	-	-	-	-	-
Pista sp.	-	-	-	4	-	-
Polydora cornuta	-	-	1	-	-	-
Polydora sp.	11	2	2	7	4	-
Prionospio fallax	1	-	-	-	-	-
Prionospio heterobranchia	34	18	52	50	1	-
Prionospio sp.	1	-	1	5	-	-
Sabellaria sp.	1	1	-	-	-	-
Sabellariidae	-	-	-	2	-	-
Sabellidae	2	3	1	1	-	-
Scolelepis sp.	3	3	4	5	1	1
Sphaerosyllis sp.	-	1	-	-	-	-
Spio sp.	1	-	-	-	-	-
Spiochaetopterus costarum oculatus	1	1	1	-	-	-
Spionidae	2	1	-	1	-	-
Spiophanes bombyx	2	3	1	4	-	-
Syllidae	-	2	2	-	-	-
Terebellidae	-	-	2	2	-	-
Tharyx sp.	-	-	-	46	-	-
Arthropoda						
Crustacea						
Amphipoda						
Ampelisca abdita	-	1	1	1	-	-
Ampelisca holmesi	-	13	22	11	3	-
Ampelisca sp.	12	13	35	13	2	1
Ampelisca vadorum	-	-	2	1	-	-
Ampelisca verrilli	5	1	2	-	-	-
Ampithoe longimana	-	-	2	-	2	-
Ampithoe ramondi	1	-	-	1	-	-
Ampithoe sp.	8	-	-	3	6	-
Ampithoidae	-	-	1	1	1	-
Aoridae	1	4	-	2	-	-
Batea catharinensis	1	6	7	18	-	-
Bateidae	-	-	-	1	-	-
Bemlos setosus	3	-	9	-	-	-
Bemlos sp.	-	-	-	3	-	-
Bemlos/plesiolembos complex	-	1	-	-	-	-
Caprella sp.	-	1	2	1	-	-
Caprellidae	1	1	3	4	-	-
Cerapus sp.	6	3	4	6	1	-
Corophiidae	1	1	1	-	1	1
Cymadusa compta	1	1	6	2	1	-
Cymadusa sp.	-	1	-	-	-	-
Deflexilodes sp. a	2	4	6	-	-	-
Deutella incerta	17	-	2	15	-	-
Deutella sp.	-	1	1	-	1	-
Elasmopus balkomanus	-	-	-	1	-	-
Elasmopus levis	-	-	2	-	-	-

Appendix 8b (cont'd)

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6
Elasmopus sp.	-	4	3	1	-	-
Ericthonius brasiliensis	4	15	15	19	4	-
Eusiridae	1	-	-	-	-	-
Grandidierella bonnieroides	-	-	1	3	-	-
Hartmanodes nyei	2	19	1	6	6	2
Hemiaegina minuta	-	-	-	2	4	-
Isaeidae	-	-	-	2	-	-
Ischyroceridae	-	1	-	-	-	-
Listriella barnardi	-	2	1	1	-	-
Listriella sp.	-	-	1	-	-	-
Lysianassidae	-	-	-	1	-	-
Lysianopsis sp.	2	-	-	-	-	-
Melita nitida complex	-	-	-	1	-	-
Melitidae	1	-	1	-	-	-
Microprotopus raneyi	-	-	-	-	4	2
Microprotopus shoemakeri	-	-	-	-	-	1
Microprotopus sp.	2	-	5	-	5	-
Monocorophium sp.	1	1	6	-	-	-
Monocorophium tuberculatum	-	-	1	-	-	-
Oedicerotidae	-	3	-	-	-	-
Pariambidae	6	2	1	1	-	-
Phoxocephalidae	-	1	-	1	-	-
Rudilemboides naglei	2	-	2	8	-	-
Shoemakerella cubensis	-	-	1	-	-	-
Undetermined Amphipoda	-	2	1	-	-	-
Cumacea						
Almyracuma proximoculi	1	-	-	-	-	-
Cyclaspis sp.	-	-	2	3	-	-
Cyclaspis pustulata	1	-	-	-	-	-
Cyclaspis varians	-	3	8	-	-	2
Oxyurostylis sp.	-	2	4	1	1	3
Oxyurostylis smithi	-	-	-	-	-	3
Decapoda						
Hippolyte sp.	3	5	6	4	-	-
Hippolyte zostericola	-	-	-	1	-	-
Hippolytidae	6	-	-	-	-	-
Paguridae	7	15	3	5	4	-
Portunidae	-	-	-	1	-	-
Processidae	-	1	-	-	-	-
Undetermined Decapoda	1	6	-	-	1	1
Xanthidae	3	2	-	2	-	-
Isopoda						
Dynamenella sp.	2	-	-	-	-	-
Dynamenella angulata	-	-	1	3	-	-
Edotea triloba	2	1	-	3	-	-
Erichsonella attenuata	2	3	-	6	2	-
Erichsonella filiformis	-	-	2	-	-	-
Paracerceis caudata	1	-	-	1	-	-
Sphaeromatidae	1	-	-	-	-	-
Mysidacea						
Bowmaniella sp.	-	1	-	-	-	-
Tanaidacea						
Hargeria rapax	-	-	1	-	-	-
Kalliapseudes sp. a	-	1	-	-	-	-
Leptochelia sp.	-	-	-	3	-	-
Leptocheliidae	-	1	1	3	-	-

Appendix 8b (cont'd)

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6
Pseudonototanais sp.	-	-	1	-	-	-
Pseudonototanais sp. b	-	1	-	-	-	-
Thoracica						
Balanus sp.	-	-	-	-	1	-
Insecta						
Diptera						
Dicrotendipes sp.	1	-	-	-	-	-
Dicrotendipes lobus	-	-	-	-	1	-
Bryozoa						
Undetermined Bryozoa	-	-	-	1	-	-
Echinodermata						
Ophiurida	4	1	-	1	-	-
Ophiuroidea	-	-	-	1	-	-
Mollusca						
Bivalvia						
Amygdalum papyrium	-	-	-	1	-	-
Arcidae	-	-	-	2	-	-
Laevicardium sp.	2	1	1	7	-	-
Lyonsia floridana	-	-	-	1	-	-
Lyonsia sp.	-	-	1	-	-	-
Macoma sp.	-	-	1	1	-	-
Macoma tenta	1	-	2	-	-	-
Mactridae	-	-	1	-	-	-
Mulinia lateralis	-	4	1	-	2	-
Mysella planulata	3	-	-	-	-	-
Nucula proxima	-	1	-	-	-	-
Nucula sp.	2	-	-	-	-	-
Nuculana sp.	-	1	1	1	-	-
Tagelus divisus	1	-	-	-	-	-
Tellina sp.	5	15	11	10	1	8
Tellinidae	-	-	1	-	1	9
Undetermined Bivalvia	5	1	4	4	2	4
Gastropoda						
Acteocina sp.	-	1	-	-	-	-
Acteonidae	1	-	-	-	-	-
Astyris lunata	2	-	2	-	2	-
Calyptraeidae	-	3	-	-	-	-
Cerithiidae	2	-	4	-	-	-
Costoanachis sp.	1	-	-	-	-	-
Crepidula maculosa	1	1	-	-	-	-
Crepidula plana	-	-	1	-	-	-
Crepidula sp.	-	-	1	3	-	-
Haminoeidae	-	-	3	-	-	-
Melanella sp.	1	-	-	-	-	-
Nassarius sp.	8	5	4	4	2	1
Nudibranchia	-	-	-	1	1	-
Prunum apicinum	-	1	-	1	-	-
Turbonilla sp.	3	-	1	-	-	-
Undetermined Gastropoda	6	1	1	1	-	-
Nemertea						
Undetermined Nemertea	2	7	6	8	1	1
Sipuncula						
Undetermined Sipuncula	3	2	4	-	-	-

Appendix 9

Discharge Monitoring Reports: March 2003 – March 2004

Facility Name	Outfall Type	Monitoring Date	Outfall Indicator	Parameter Code	Parameter Description	Monitoring Location Code	Concentration (1)	Concentration Limit (1)	Concentration Statistical Base (1)	Concentration (2)	Concentration Limit (2)	Concentration Statistical Base (2)	Concentration (3)	Concentration Limit (3)	Concentration Statistical Base (3)	Concentration Units	Violation Code
SARASOTA RO WATER PLANT	EFFLUENT	9/30/2003	001-1	P 00400	PH	1	6.2	6.5	MINIMUM		DELMON		7.9	8	MAXIMUM	SU	E90
SARASOTA RO WATER PLANT	EFFLUENT	10/31/2003	001-1	P 00530	SOLIDS, TOTAL SUSPENDED	1		DELMON		4	ADDMON	MO AVG	8.5	5	MAXIMUM	MG/L	E90
SARASOTA RO WATER PLANT	EFFLUENT	12/31/2003	001-1	P 00530	SOLIDS, TOTAL SUSPENDED	1		DELMON		3.7	ADDMON	MO AVG	6.1	5	MAXIMUM	MG/L	E90
SARASOTA RO WATER PLANT	EFFLUENT	3/31/2004	001-1	P 00400	PH	1	7.1	6.5	MINIMUM		DELMON		8.1	8	MAXIMUM	SU	E90
SARASOTA RO WATER PLANT	EFFLUENT	3/31/2004	001-1	P 00530	SOLIDS, TOTAL SUSPENDED	1		DELMON		3.4	ADDMON	MO AVG	6	5	MAXIMUM	MG/L	E90

Appendix 10

District Effluent Data

FL DEP SW Disctrict Chemistry Laboratory Report
Phone # 813-744-6100 DEP CompQAP # 880078 NELAP # E34886

City of Sarasota Reverse Osmosis Water Treatment Plant Reject Cycle

Project:	FYI5		*Type: SARASOTA RO WTP*		*Requested by:*	GUNTER
Site		*Time*	*Date*	*Log*	*Samplers*	*RQ#*
FIELD BLANK		1000	3/29/2004	30049	GUNTER	2004-03-29-29
EFFLUENT		1030	3/29/2004	30050	GUNTER	2004-03-29-29

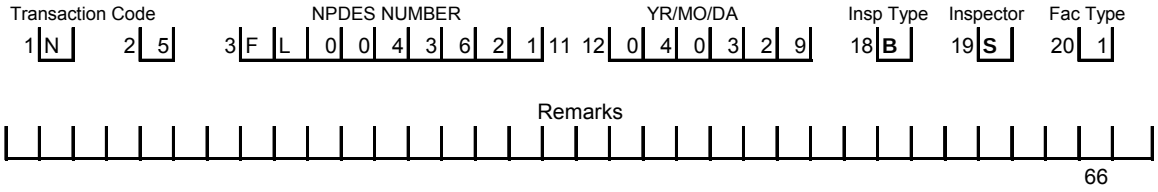
Code	*parameter*	*units*	*site: FB*	*site: EFFLU*
29	log#	log	30049	30050
10	water temp.	deg C		
78	secchi	meters		
80	color	Pt-Co		
94	conductivity	umho/cm		
299	diss.Oxygen	mg/l		
301	diss.Oxygen	%		
314	cbod5	mg/l		
406	pH	units		
410	alkalinity	mg/l		
480	salinity	0/00		
530	tss	mg/l	1U	9
4192	sample depth	meters		
31501	t-coliforms	#/100ml	1K	1K
31616	f-coliforms	#/100ml	1K	1K
82079	turbidity	NTU	.1U	1.7
82903	total depth	meters		

K less than, U not detected,

Results for NELAP accredited tests contained in this report meet the requirements specified for the National Environmental Laboratory Accreditation Program. Uncertainty associated with the analytical results contained in this report can be estimated from the quality assurance results and from published test performance acceptance criteria.

The Bioassay of Sarasota Reverse Osmosis Water Treatment Plant effluent sampled on March 29, 2004 , NPDES #FL0043621.

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



The Priority Pollutants Analysis for Bioassay of Sarasota Reverse Osmosis Water Treatment Plant effluent sampled on March 29, 2004, NPDES #FL0043621.

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

