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**SEMIANNUAL REPORT ON
GROUNDWATER MONITORING
INDUSTRIAL WASTEWATER TREATMENT PLANT
NAVAL AIR STATION, PENSACOLA, FLORIDA**

October 1992

Prepared for:

**DEPARTMENT OF THE NAVY
SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
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Contract Number N62467-88-C-0200



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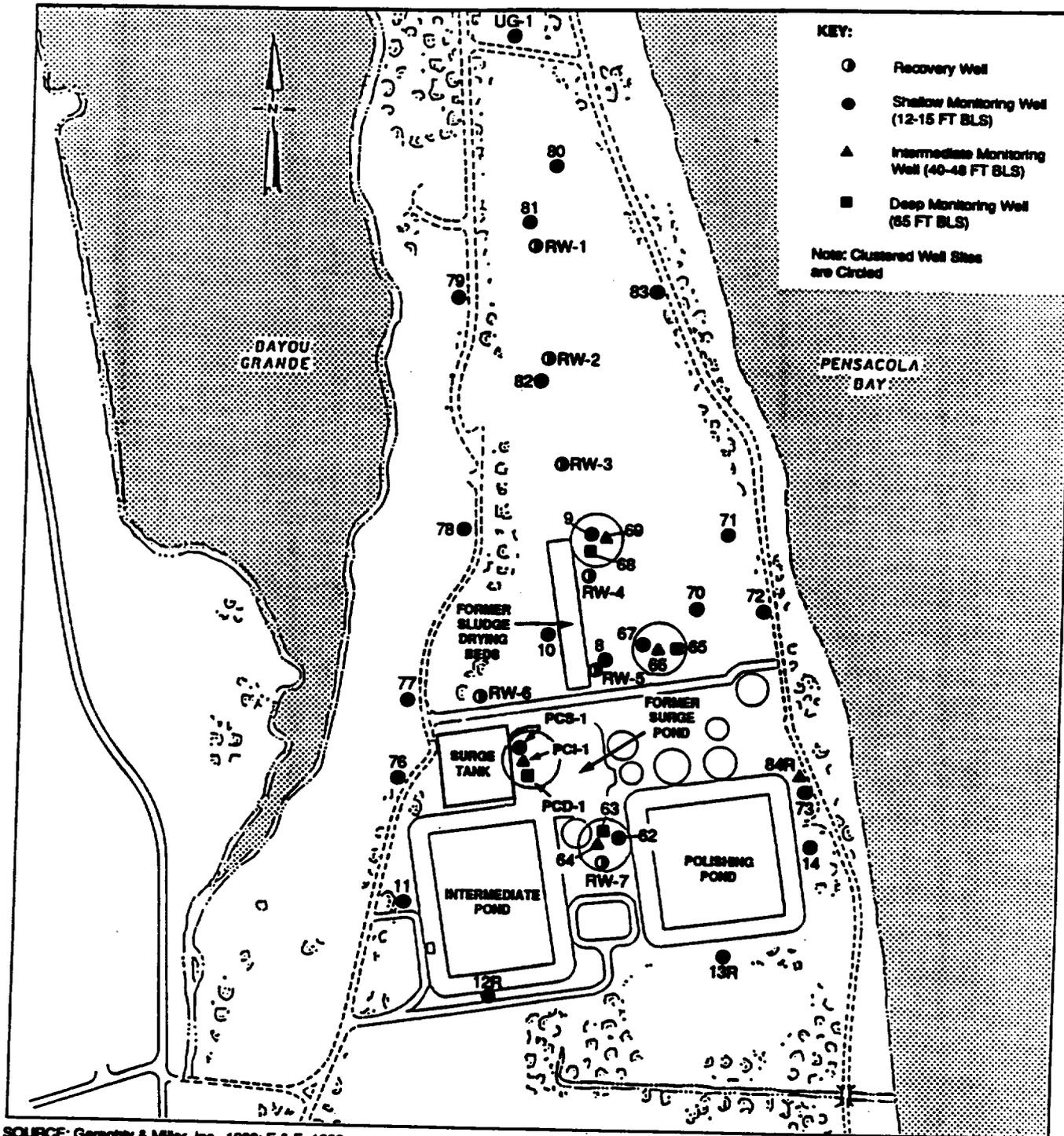
1. INTRODUCTION

This semiannual groundwater monitoring report presents the findings of the July 1992 groundwater sampling activities performed at the Industrial Wastewater Treatment Plant (IWTP) located at the Naval Air Station in Pensacola, Escambia County, Florida. This report has been prepared by Ecology and Environment, Inc., (E & E) for the Southern Division, U.S. Navy, Naval Facilities Engineering Command, under Contract No. N62467-88-C-0200. The information presented in this report is based on information and file documents provided by the Navy and on information gathered during the fieldwork conducted from January 1992 through July 1992 by E & E and/or its subcontractors and NAS Pensacola Public Works Center.

All work at the IWTP was conducted in accordance with the approved administrative documents prepared by E & E for this project. These documents include the June 1990 Project Management Plan, June 1990 Site Management Plan, July 1990 Generic Quality Assurance Project Plan (GQAPP), July 1992 General Health and Safety Plan, November 1991 and January 1992 Site-Specific Health and Safety Plans, and November 1991 and the July 1992 Site-Specific Quality Assurance Plan. The work was also conducted in accordance with the Florida Department of Environmental Regulation's (FDER) Resource Conservation and Recovery Act (RCRA) Permit No. HF17-170951 dated September 20, 1991 (FDER 1991a). Appendix A presents FDER's Quarterly Report on Groundwater Monitoring Form as well as the specific conditions of the RCRA permit.

1.1 SITE SETTING

The IWTP is located approximately 750 feet north of Chevalier Field on the basal portion of the Magazine Point Peninsula (see Figure 1-1). The



SOURCE: Geraghty & Miller, Inc., 1988; E & E, 1992

Figure 1-1
LOCATIONS OF MONITORING AND RECOVERY WELLS AT THE
NAS PENSACOLA IWTW

site is bordered on the east by Pensacola Bay and on the north and west by Bayou Grande. A total of 32 groundwater monitoring wells and seven recovery wells are located at the IWTP facility. Nineteen of these wells (12 point-of-compliance [POC], six corrective-action [CA] and one background well) are used as groundwater sampling points under the current RCRA permit. Table 1-1 presents the well construction information for all of the on-site wells at the IWTP. Also included on this table are the water levels and calculated water level elevations for the IWTP wells as measured on May 4, 1992, and July 27, 1992, as well as the total well depth for each well measured on July 27, 1992. This information will be referred to later in this report.

The principal hydrogeologic unit underlying the IWTP is the Sand-and-Gravel Aquifer, which extends to a depth of approximately 300 feet. This aquifer is divided into three zones based on contrasting permeabilities. These zones are referred to as the surficial zone, the low permeability zone, and the main producing zone (Wilkins *et al.* 1985).

The surficial zone is contiguous with land surface and contains groundwater under water table or perched water table conditions. The thickness of the surficial zone underlying the IWTP is approximately 45 feet. Depth to water within the surficial zone at the IWTP ranges from 3 to 7 feet below land surface (BLS).

Underlying the surficial zone is a zone of lower permeability sediments referred to as the low permeability zone. At the IWTP, the top of this zone occurs at approximately 45 feet BLS, and the zone ranges from 15 to 20 feet in thickness. This zone primarily functions as a confining/semi-confining unit that inhibits the flow of groundwater between the surficial and underlying main producing zone.

The top of the main producing zone occurs at approximately 65 feet BLS at the IWTP. Due to the presence of the overlying low permeability zone, groundwater in the main producing zone occurs under confined conditions. Depth to water within the main producing zone at the IWTP

Table 1-1

CONSTRUCTION DETAILS OF MONITORING AND RECOVERY WELLS INSTALLED BY E & E,
GERAGHTY AND MILLER, INC., AND MISSINKER AND ASSOCIATES, INC.,
AT HAS PENSACOLA IWTP

Well Designation	Installation Date	Total Depth Drilled (feet)	Screened Interval (feet)	Depth to Filter Pack (foot)	TOC Elevation (Foot AMSL)	Total Depth BTOC 7/27/92	Depth to Water (Foot BTOC)		Water Level Elevation (foot AMSL)	
							5/4/92	7/27/92	5/4/92	7/27/92
Shallow Zone Wells										
GM-8	3/84	12.0	9.5 - 12.0	5.5	6.12	12.70	5.56	4.44	0.56	1.68
an-9	3/84	12.0	9.3 - 11.8	5.3	5.65	12.73	5.12	3.92	0.53	1.73
GM-10	3/84	12.0	9.5 - 12.0	5.5	5.83	12.74	5.22	4.18	0.61	1.65
GM-11	3/84	12.0	9.3 - 11.8	5.5	6.00	12.72	4.63	3.80	1.37	2.20
GM-12R ^a	4/88	15.0	11.0 - 14.0	NA	9.83	17.35	8.36	7.36	1.47	2.47
GM-13R ^b	11/91	12.0	9.5 - 12.0	5.5	7.45	14.81	6.56	5.42	0.89	2.03
GM-14	3/84	12.0	8.9 - 11.4	5.0	4.56	12.78	3.81	2.86	0.75	1.70
GM-62	8/85	15.0	12.5 - 15.0	4.0	7.11	17.90	6.12	5.00	0.99	2.11
GM-67	8/85	15.0	12.5 - 15.0	8.0	6.38	17.80	5.79	4.68	0.59	1.70
an-70	8/85	15.5	12.5 - 15.0	7.0	7.15	5.72	NA ^c	NA ^c	NA ^c	NA ^c
GM-71	8/85	12.5	10.0 - 12.5	7.0	6.76	12.84	6.31	5.34	0.45	1.42
GM-72	8/85	12.5	10.0 - 12.5	7.0	7.61	13.87	6.77	5.92	0.84	1.69
GM-73	8/85	15.0	12.5 - 15.0	7.0	12.36	17.80	NA	10.82	NA	1.54
GM-76	NA	13.5	11.0 - 13.5	6.0	7.88	12.78	6.91	6.12	0.97	1.76
an-77	NA	13.5	11.0 - 13.5	5.0	4.71	12.87	4.11	3.00	0.60	1.71
on-78	NA	13.0	10.5 - 13.0	8.0	7.02	12.82	6.46	5.30	0.56	1.72
an-79	NA	12.5	10.0 - 12.5	7.0	4.65	12.88	4.39	3.15	0.26	1.50
GM-80	NA	13.5	11.0 - 13.5	8.0	4.63	12.88	4.38	3.16	0.25	1.47
GM-81	NA	12.5	10.0 - 12.5	8.0	4.33	12.84	4.30	2.80	0.03	1.53
GM-82	NA	12.5	10.0 - 12.5	7.0	4.45	13.67	4.18	2.98	0.27	1.47
an-83	NA	12.5	10.0 - 12.5	8.0	4.84	12.85	4.23	3.48	0.61	1.36

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Table 1-1 (Cont.)

Well Designation	Installation Date	Total Depth Drilled (feet)	Screened Interval (feet)	Depth to Filter Pack (feet)	TOC Elevation (feet AMSL)	Total Depth BTOC 7/27/92	Depth to Water (foot BTOC)		Water Level Elevation (feet AMSL)	
							5/4/92	7/27/92	5/4/92	7/27/92
PCS-1	3/90	20.0	15.0 - 19.75	14.0	11.40	22.50	10.40	9.29	1.00	2.11
UG-1	1981	10.4	5.4 - 10.4	NA	8.48	11.40	7.93	6.74	0.55	1.74
Intermediate Zone Wells										
GM-64	8/85	40.0	37.5 - 40.0	35.0	6.26	42.88	6.92	5.87	-0.66	0.39
GH-66	8/85	40.0	31.5 - 40.0	31.0	7.48	42.95	7.23	6.18	0.25	1.30
GH-69	8/85	40.0	37.5 - 40.5	32.0	7.85	42.84	7.39	6.23	0.46	1.62
GM-84R ^d	2/92	49.0	43.0 - 48.0	36.0	11.76	49.32	11.78	10.94	-0.02	0.82
PCI-1	3/90	45.0	40.0 - 44.75	39.0	11.01	46.68	10.31	9.24	0.76	1.83
Deep Zone Wells										
OM-63	8/85	65.0	62.5 - 65.0	56.0	6.97	65.50	5.46	5.28	1.51	1.69
OH-65	8/85	65.0	62.5 - 65.0	58.0	6.67	67.95	5.17	5.45	1.50	1.22
GM-68	8/85	65.0	62.5 - 65.0	56.0	7.00	68.00	5.46	5.01	1.54	1.99
PCD-1	3/90	70.0	65.0 - 69.15	64.0	11.28	68.71	9.51	9.18	1.77	2.10
Recovery Wells										
RW-1	10/86	30.0	15.0 - 30.0	NA	4.91	NA	NA	NA	NA	NA
RW-2	10/86	37.0	22.0 - 31.0	NA	5.88	NA	NA	NA	NA	NA
RW-3	10/86	37.0	22.0 - 37.0	NA	5.64	NA	NA	NA	NA	NA
RW-4	10/86	39.0	24.0 - 39.0	NA	3.44	NA	NA	NA	NA	NA
RW-5	10/86	39.0	24.0 - 39.0	NA	4.22	NA	NA	NA	NA	NA
RW-6	10/86	39.5	24.5 - 39.5	NA	2.66	NA	NA	NA	NA	NA
RW-7	10/86	39.0	24.0 - 39.0	NA	3.35	NA	NA	NA	NA	NA

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Table 1-1 (Cont.)

- ^a GM-12 was originally installed in March 1964, but was damaged and replaced with GM-12R in April 1988.
- ^b GM-13 was originally installed in March 1964, but was damaged and replaced with GM-13R in November 1991.
- ^c Water level not collected due to siltation in well.
- ^d GM-84 was damaged and replaced with GM-84R in February 1992.

Key:

- NA = Not available or not collected.
- TOC = Top of casing.
- AMSL = Above mean sea level.
- BTOC = Below top of casing.

Source: Ecology and Environment, Inc., 1992; Geraghty and Miller, Inc., 1985, 1987, 1988.

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ranges from 4 to 8 feet BLS. Regionally, the main producing zone generally has the highest permeability due to the occurrence of relatively thick sand and gravel beds.

The monitoring wells at the IWTP are open to three portions of the Sand-and-Gravel Aquifer. The "shallow zone" wells are open to the uppermost portion of the surficial zone, and are completed at an average depth of 15 feet BLS. The "intermediate zone" wells are open to the lower portion of the surficial zone, and are completed at an average depth of 40 feet BLS. The "deep zone" wells are open to the main producing zone, and are completed at an average depth of approximately 65 feet BLS.

1.2 SITE BACKGROUND

Historical analytical information evaluated by E & E indicates that the groundwater underlying the areas of the IWTP near the former sludge drying beds (north-central portion of the site) and the former surge pond (central portion of the site) is contaminated primarily with volatile organic compounds (VOCs), base-neutrallacid extractable organic compounds (BNAs), and metals. This contamination appears to be limited primarily to the intermediate zone, and to a lesser extent, the shallow zone. The only known potential sources of this contamination are the past and/or present activities associated with the IWTP. The IWTP' sludge drying beds and the Wastewater Treatment Plant ponds are known to have received potentially hazardous materials (E & E 1992a).

Missimer and Associates, Inc., (M & A) and Geraghty and Miller, Inc., (G & M) installed the majority of the groundwater monitoring wells at the IWTP. M & A installed seven monitoring wells at the IWTP from 1981 to 1984. G & M installed 28 monitoring wells and seven recovery wells at the IWTP between 1984 and 1986 as part of a water-quality assessment program conducted in two phases (Characterization Study [G & M 1984] and Verification Study [G & M 1986]). In September of 1987, a RCRA permit was issued to the facility (Permit No. H017-12-7026; FDER 1987). G & M subsequently began a groundwater monitoring program under this RCRA permit. G & M monitored the groundwater on a quarterly basis until May

1989. E & E assumed the quarterly groundwater monitoring in May 1989 in accordance with the above-cited RCRA permit. In March of 1990, E & E installed three additional monitoring wells at the site to replace three wells that had been destroyed during construction of the new surge tank. On September 20, 1991, a new RCRA permit was issued to the facility from FDER (Permit No. HF17-17-0951; FDER 1991a). In accordance with this permit, E & E began conducting semiannual groundwater monitoring in January 1992. For a detailed history of the IWTP, refer to E & E's Remedial Investigation/Feasibility Study Work Plan - Group 0 (E & E 1992a).

2. INVESTIGATION METHODOLOGY

2.1 GROUNDWATER SAMPLING AND ANALYSES

Nineteen groundwater samples (11 from the shallow zone, four from the intermediate zone, and four from the deep zone), plus two duplicate samples, three equipment rinsate blanks, two trip blanks, one field blank, and one preservative blank were collected during the July 1992 sampling event. Weather conditions; purge volumes; and groundwater pH, specific conductance, and temperature were recorded in the field logbook prior to collecting each sample. All well purging and sampling activities were performed in accordance with sections 6.8 and 6.11 of the GQAPP. The duplicate samples were collected in the same manner and at the same time as the original samples. The trip blanks and preservative blank were prepared in a clean location prior to sampling. The sampling equipment rinsate blanks were collected on site by rinsing the decontaminated groundwater sampling equipment with analyte-free water and collecting the rinse water. The field blank was collected on site by filling the appropriate sampling containers with analyte-free water.

Table 2-1 lists the 19 wells that were sampled, the parameters or groups of parameters for which each sample was analyzed, and the analytical method numbers used in the analyses. All samples, except as noted below, were analyzed by E & E's Analytical Services Center (ASC) in Buffalo, New York, for the specified parameters using U.S. Environmental Protection Agency (EPA) SW-846 Third Edition methods. All nitrate, total coliform, and turbidity analyses were performed by a subcontracted laboratory, Analytical Technologies, Inc., in Pensacola, Florida. All radiochemical analyses (radium-226, radium-228, gross alpha, and gross beta) were performed by a subcontracted laboratory, Environmental

Table 2-1

MONITORING WELLS SAMPLED AND PARAMETERS ANALYZED
AT HAS FERRACOLA IWTF

Well Type	Well Number	Depth	pH (150.1)	Specific Conductance (120.1)	Group 1 ^a	VOCs (8240)	Metals ^b	Complexed Cyanide (9012)
POC	PCS-1	S	X	X	X			
POC	PCI-1	I	X	X	X			
POC	PCD-1	D	X	X	X			
BG	UG-1	S	X	X	X			
POC	GM-8	S	X	X	X			
POC	GM-9	S	X	X	X			
POC	GM-10	S	X	X	X			
POC	GM-11	S	X	X				X
POC	GM-12R	S	X	X				X
POC	GM-13	S	X	X				X
POC	GM-14	S	X	X				X
CA	GM-62	S	X	X	X			
CA	GM-63	D	X	X	X			
CA	GM-64	I	X	X	X			
CA	GM-65	D	X	X	X			
CA	GM-66	I	X	X	X			
CA	GM-67	S	X	X	X			
POC	GM-68	D	X	X	X			
POC	GM-69	I	X	X	X			
	DUP 1		X	X	X			
	DUP 2		X	X	X			
	PB 1					X	X	X
	TB 1					X		
	TB 2					X		
	PB 1				X ^c			
	RB 1				X ^c			
	RB 2				X ^c			
	RB 3				X ^c			

14 [NASP]UH9000:T0547/1899/14

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Table 2-1 (Cont.)

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^a Group 1 includes: VOCs (8240), BNAs (8270), metals (6010 [barium, cadmium, chromium, total copper, iron, manganese, nickel, silver, sodium, vanadium and zinc], 7060 [arsenic], 7421 [lead], 7470 [mercury], 7740 [selenium]), chloride (325.3), sulfate (9036), fluoride (340.2), complexed cyanide (9012), gross alpha (900.0), gross beta (900.0), radium-226 (903.1), radium-228 (904.0), turbidity (180.1), nitrate (352.1), and total coliform (909A). Group 1 parameters are from the specific conditions 111.7 and 111.10 to permit No. HF17-170951.

^b Metals are the same as those included in Group 1 analyses.

^c Excluding total coliform and turbidity.

Key :

BG = Background well
POC = Point-of-compliance well
CA = corrective-action well
DUP = Duplicate sample
PB = Preservative blank
TB = Trip blank
FB = Field blank
RB = Rinsate blank
S = Shallow
I = Intermediate
D = Deep

Note: Number in parentheses indicates EPA method number used for parameter analysis.

Science and Engineering, in Gainesville, Florida. Both of these subcontracted laboratories have approved quality assurance plans on file with FDER. It should be noted that all metals analyses were performed on unfiltered groundwater samples that were preserved with nitric acid to a pH <2.0.

22 HYDROLOGIC ASSESSMENT

The hydrologic assessment at the IVTP included the measurement of water levels and calculation of water level elevations and total well depths in the existing monitoring wells, the determination of groundwater flow directions in each zone, and the calculation of the average groundwater flow rate in each zone. Static water levels were measured on May 4, 1992, and July 27, 1992, relative to the previously determined elevations of the top of casing level of each well, and the groundwater elevations were calculated using these water level measurements. The water level measurements from May 1992 were collected by personnel of the NAS Pensacola Public Works Center. The July water level measurements were collected by E & E personnel. Using these calculated elevations, groundwater flow direction and horizontal hydraulic gradients in the shallow, intermediate, and deep zones were determined for these two time periods. It should be noted that the groundwater recovery system was in operation during the measurement of the water levels in both time periods.

In addition to the groundwater flow direction, the groundwater flow rate in each of the monitored zones was determined for the two time periods (May 1992 and July 1992). As part of the tasks required for the Groundwater Flow Rate and Direction Determination Report (GFRDDR) for 1990 (E & E 1990f), short-term aquifer tests had been performed by E & E personnel at the IWTP. The aquifer tests consisted of both "slug" and pumping tests, and the purpose of these tests was to determine the approximate transmissivity (T), hydraulic conductivity (K), and groundwater flow velocity (V) for each monitored depth zone. The methodology applied in obtaining T and K using these aquifer test results and the estimated T and K for each monitored zone are presented in E & E's 1990 GFRDDR for IVTP. Given that T and K are measurements of

aquifer characteristics and are not time-dependent variables, aquifer testing was not repeated as part of the tasks required for this report. Therefore, the average estimated values for T and K presented in E & E's 1990 GFRDDR for the IWTP are used in this report to calculate the groundwater flow velocity for each zone.

The horizontal V for each zone was determined using the average estimated K values and a derivation of Darcy's Law:

$$V = \frac{KI}{n_e}$$

where: V = Velocity (feet per day [ft/day])

K = hydraulic conductivity (ft/day)

I = horizontal hydraulic gradient

n_e = effective porosity.

The effective porosity for these calculations was estimated at 28%, a value typical of unconsolidated, medium-grained sands.

The results of the hydrologic assessment are presented in Section 3.1.

3. RESULTS

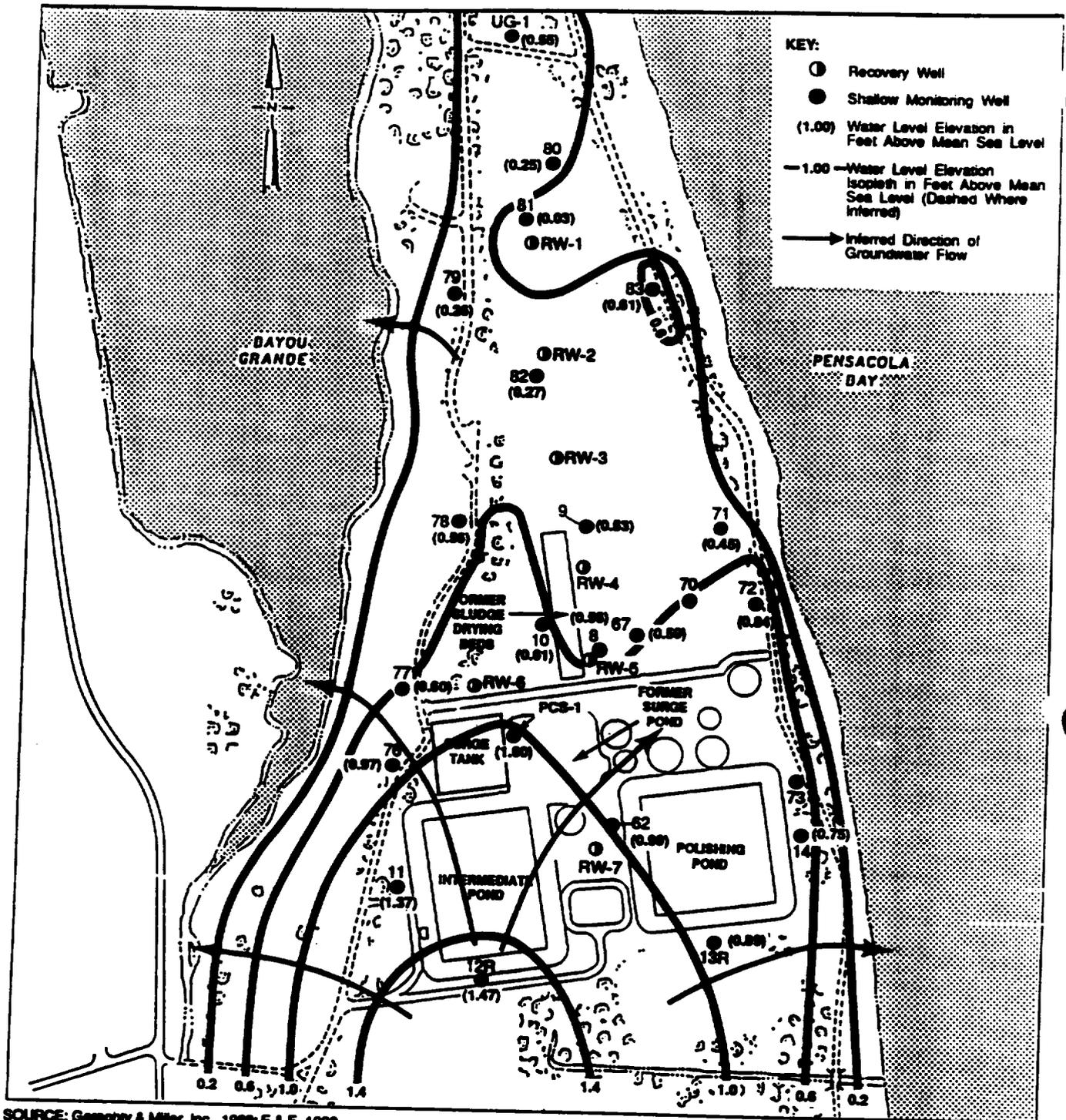
3.1 HYDROLOGIC ASSESSMENT

3.1.1 Groundwater Flow Direction and Horizontal Hydraulic Gradient

3.1.1.1 May 1992 Quarter

Figure 3-1 shows the May 1992 water level elevations and the interpreted groundwater flow directions for the shallow zone of the Sand-and-Gravel Aquifer underlying the IWTP. The water level measurements and calculated water level elevations for the shallow zone wells were presented in Table 1-1. Groundwater elevations in the shallow zone during May 1992 were generally consistent with those elevations collected in the past. Higher elevations were recorded in the central portion of the peninsula and lower elevations were recorded along the coasts. Groundwater discharge is likely into Pensacola Bay to the east and into Bayou Grande to the west and north. It should be noted that the recovery system at pump-station RW1, RW2, and RW3 usually pumps from well RW3 only. However, due to a minor problem with well RW3, the pumping was temporarily switched to well RW1 from April 14, 1992, to May 11, 1992. Consequently, the recovery system was pumping from well RW1 during the May 4, 1992, water level measurements. This may explain the low water level elevation in monitoring well GM-81 located immediately north of well RW1 in the north-central portion of the peninsula. The lower water levels in wells GM-8 and GM-67 appear to be influenced by the pumping of recovery wells RW4 and RW5. Overall, the recovery well system appears to be influencing the shallow zone, as evidenced by the slight depression and/or flattened hydraulic gradient in the general area of the recovery wells.

A horizontal hydraulic gradient was calculated in each of the flow directions for the shallow zone. Using the water level elevation



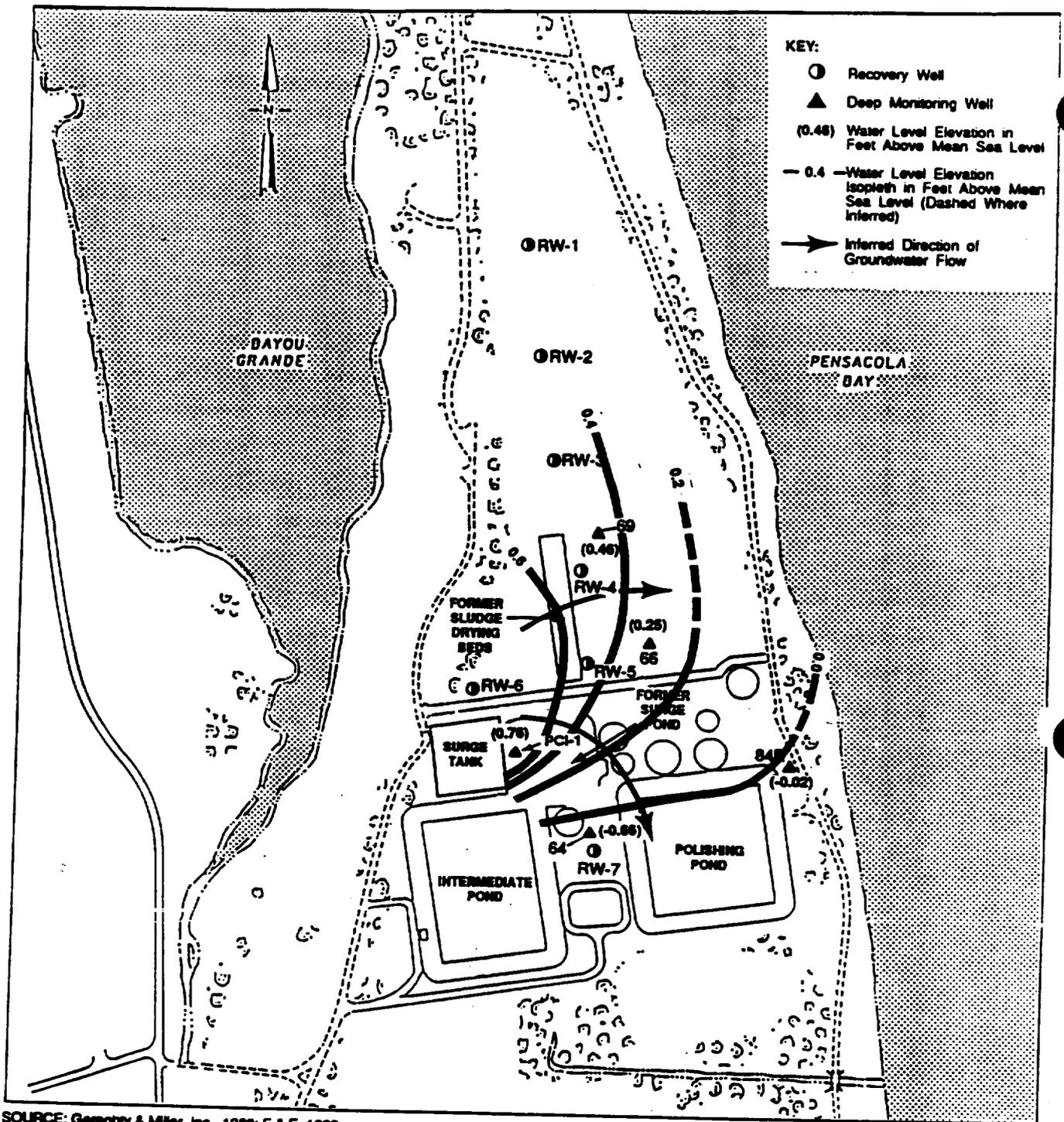
**Figure 3-1
WATER LEVEL ELEVATION MAP FOR THE SHALLOW ZONE
NAS PENSACOLA IWTW (5-4-82)**

differences between wells GM-12R and GM-74, a horizontal hydraulic gradient of 0.0007 was calculated for the northeastern flow direction. Using water level elevation differences between wells GM-12R and GM-76, a horizontal hydraulic gradient of 0.0007 was calculated for the northwestern flow direction. A horizontal hydraulic gradient also of 0.0007 was calculated for the northern flow direction using water level elevation differences between wells GM-12R and GM-82.

Figure 3-2 shows the May 1992 water level elevations and groundwater flow direction of the five intermediate zone monitoring wells GM-64, GM-66, GM-69, GM-84R, and PCI-1. The water level measurements and calculated water level elevations for the intermediate wells are presented in Table 1-1. For the area immediately underlying the facility, groundwater flow appears to be in an eastern and southeastern direction. The low water level recorded for GM-64 may reflect the pumping of recovery well RW7. Due to the presence of a confining/seaiconfining unit below this zone at approximately 40 feet BLS, the majority of groundwater in the intermediate zone underlying the IWTP probably discharges into Pensacola Bay to the east.

Using the water level elevation difference between wells PCI-1 and GM-64, a horizontal hydraulic gradient of 0.0043 was calculated for this zone in a southeasterly direction. Using the water level elevation differences between the 0.6-foot isopleth and the 0.2-foot isopleth, an easterly gradient of 0.0010 was calculated.

Figure 3-3 shows the May 1992 water level elevations and groundwater flow direction of the four deep zone monitoring wells GM-63, GM-65, GH-68, and PCD-1. The water level measurements and the calculated water level elevations for the deep zone wells were presented in Table 1-1. For the area immediately underlying the facility, groundwater flow appears to radiate from the west-central portion of the peninsula towards the northeast, east, and southeast. Groundwater discharge from the deep zone in this area is probably into Pensacola Bay (Richards 1991).



SOURCE: Geraghty & Miller, Inc., 1988; E & E, 1992

Figure 3-2
**WATER LEVEL ELEVATION MAP FOR THE INTERMEDIATE ZONE
 NAS PENSACOLA IWTP (5-4-92)**

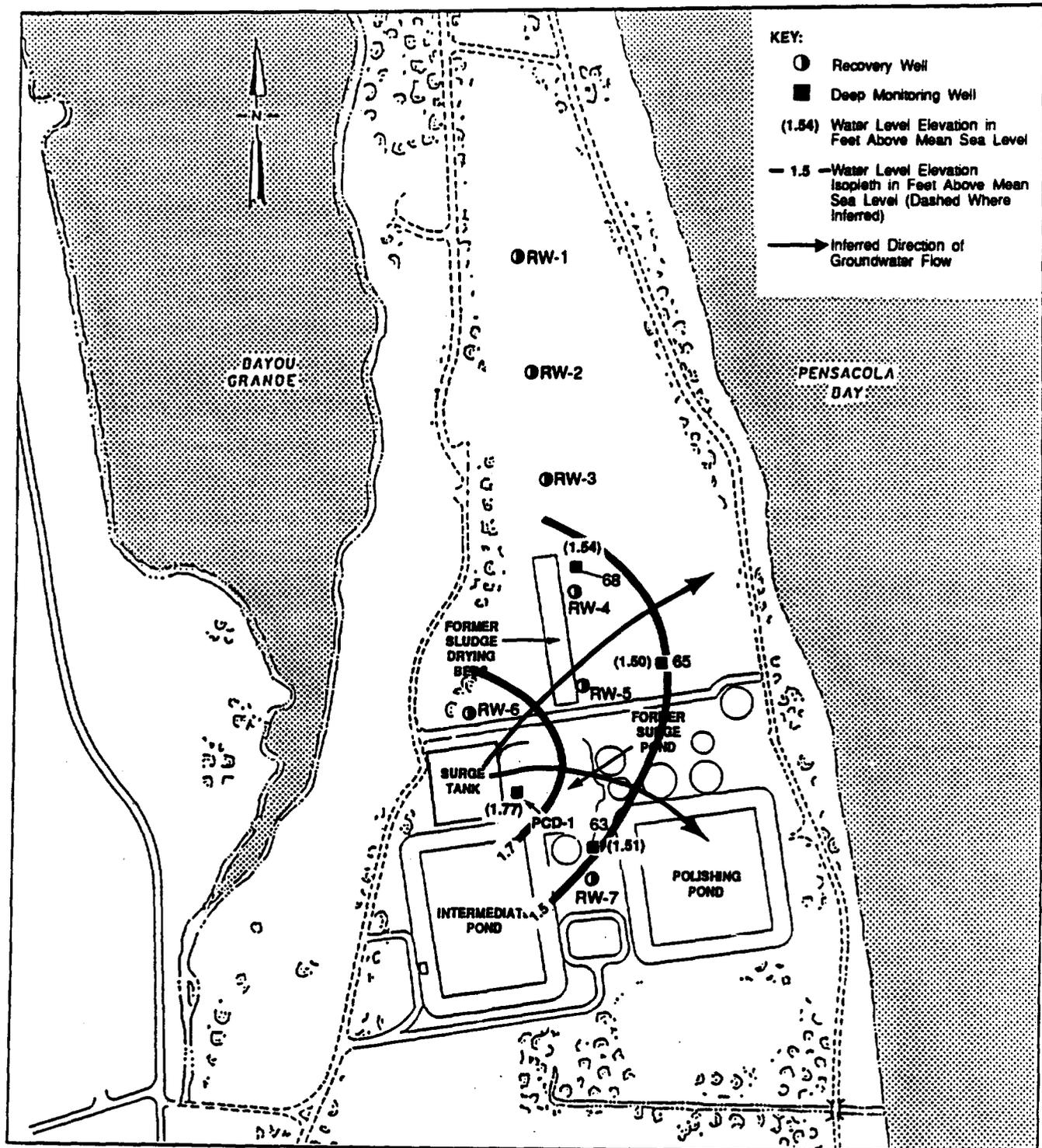


Figure 3-3
WATER LEVEL ELEVATION MAP FOR THE DEEP ZONE
NAS PENSACOLA IWTP (5-4-92)

A horizontal hydraulic gradient was calculated for the northeastern and southeastern directions of groundwater flow in the deep zone. Using the water level elevation differences between PCD-1 and GM-63, a horizontal hydraulic gradient of 0.0007 was calculated for the southeastern flow direction. Using the 1.7-foot isopleth and the 1.5-foot isopleth, the northeastern groundwater gradient was calculated to be 0.0004.

3.1.1.2 July 1992 Quarter

Figure 3-4 shows the shallow zone water level elevations as measured on July 27, 1992, and the interpreted groundwater flow direction. The water depths and calculated water level elevations for the shallow wells for July are presented in Table 1-1. Groundwater flow appears to radiate away from the south-central area of the peninsula towards the north, east, and west, similar to the Hay 1992 flow pattern. This flow pattern is a subdued reflection of the peninsular topography, with higher elevations in the central portion of the peninsula and lower elevations along the coasts. Due to the underlying low permeability zone, groundwater discharge is likely into Pensacola Bay to the east and Bayou Grande to the west and north. The water levels in the shallow zone were generally higher in the shallow zone in July than in the Hay 1992.

The horizontal hydraulic gradient in the shallow zone in the northeastern flow direction, calculated using water level elevation differences between monitoring wells GH-12R and GM-14 is approximately 0.0008. The horizontal hydraulic gradient in the northwestern direction, calculated from wells GH-12R and GH-76, is approximately 0.0010. Using water level elevation differences between wells GH-12R and GH-82, a horizontal hydraulic gradient of 0.0008 was calculated in the generally northern flow direction.

Figure 3-5 shows the water level elevations of four intermediate wells at the IWTP measured in July 1992 and the inferred intermediate zone groundwater flow direction. The July water depth measurements and calculated water level elevations for the intermediate wells are presented in Table 1-1. The groundwater flow direction in the

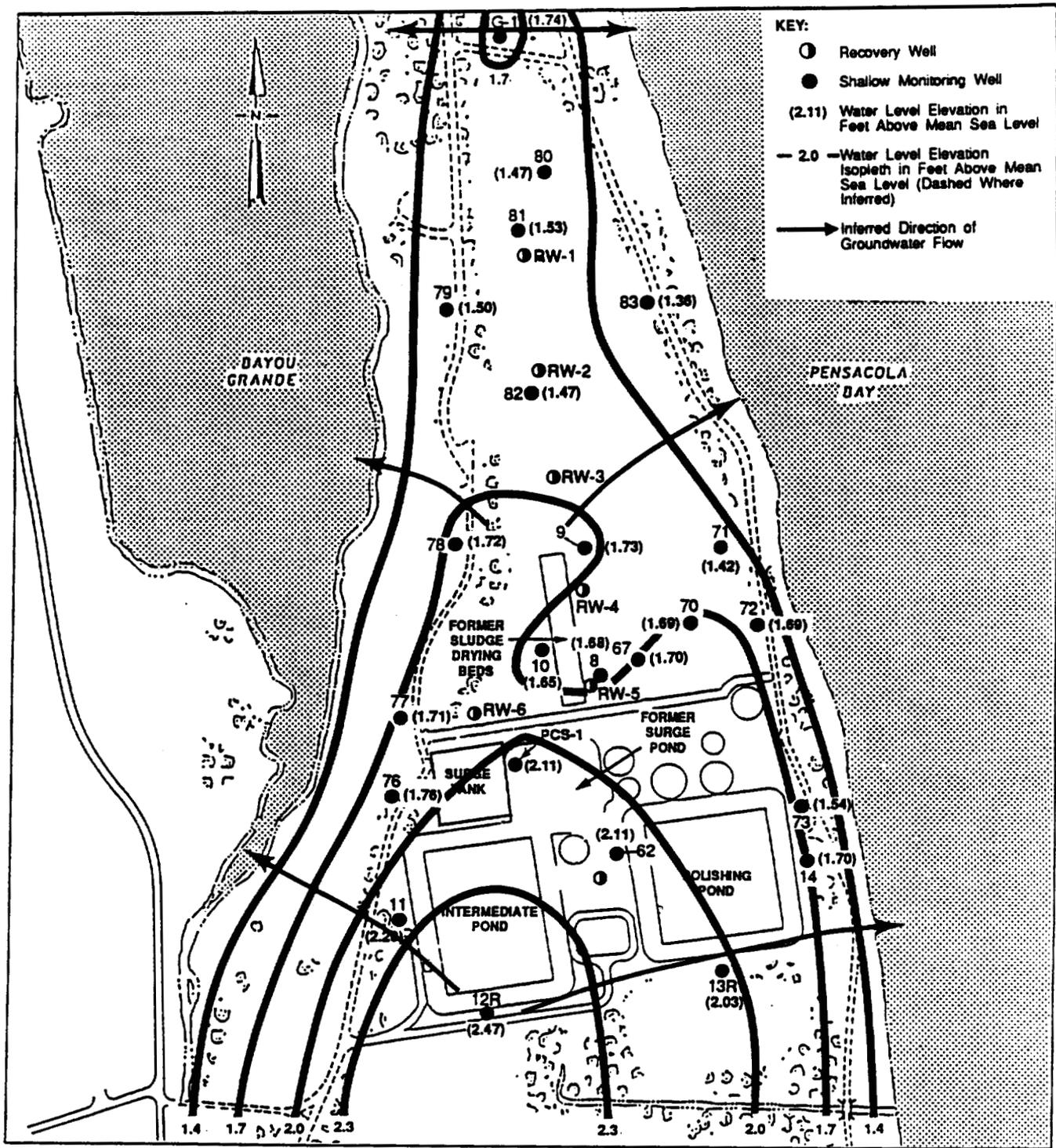


Figure 3-4
WATER LEVEL ELEVATION MAP FOR THE SHALLOW ZONE
NAS PENSACOLA IWTP (7-27-92)

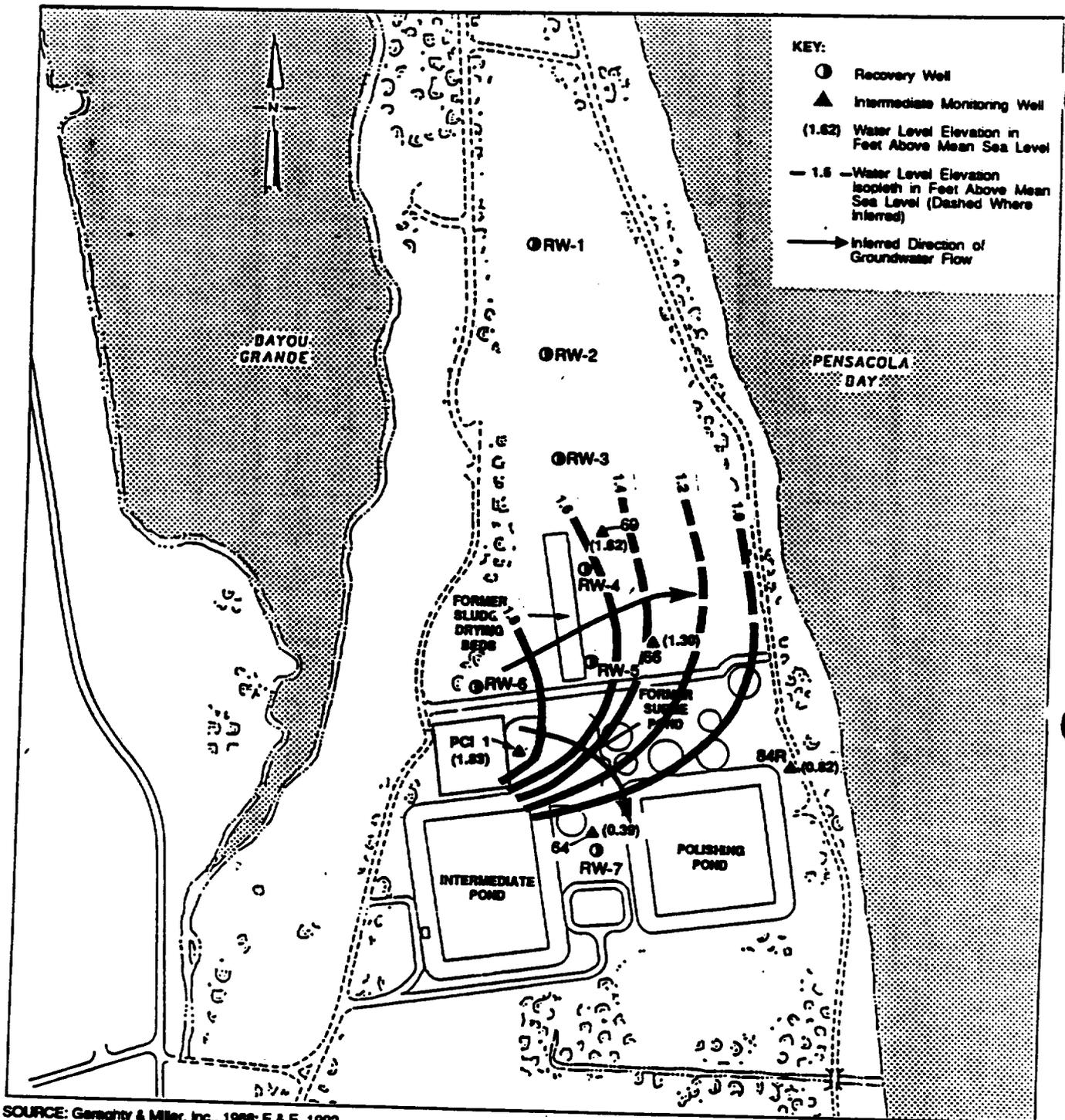


Figure 3-5
WATER LEVEL ELEVATION MAP FOR THE INTERMEDIATE ZONE
NAS PENSACOLA IWTW (7-27-92)

intermediate zone is generally to the south-southeast, east, and northeast, in a converging flow pattern that is similar to the groundwater flow pattern in this zone during May 1992. Discharge from this zone is likely to the east into Pensacola Bay. The low water level measured in GM-64 may be, to some extent, the result of the pumping of recovery well RW7 located near GM-64. In addition, it should be noted that the water levels measured in the intermediate zone in July were slightly higher than those measured in May.

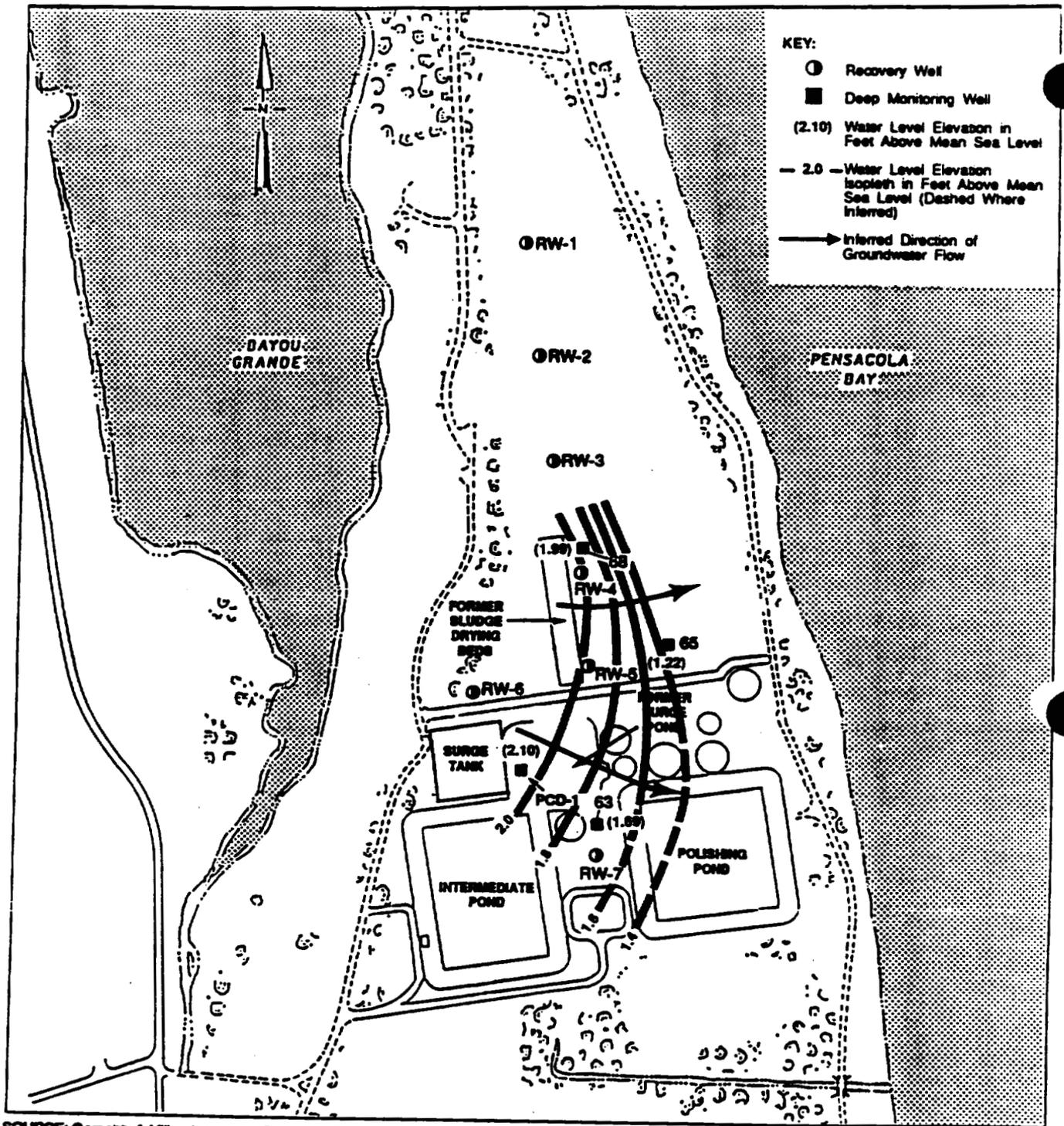
Using the water level elevation difference between the 1.8-foot isopleth and the 1.0-foot isopleth, a horizontal hydraulic gradient of 0.0012 was calculated for the eastern flow direction. Using the water level elevation difference between wells PCI-1 and GM-64, a horizontal hydraulic gradient of 0.0044 was calculated for the south-southeastern flow direction.

Figure 3-6 shows the water level elevations measured in wells GM-63, GM-65, GM-68, and PCD-1 on July 27, 1992, and the inferred deep zone groundwater flow direction. The July water depth measurements and calculated water level elevations for the deep zone wells are presented in Table 1-1. The groundwater flow appears to be in an eastern and southeastern direction, flowing toward Pensacola Bay. The water levels for the deep zone were slightly higher in July than in May.

Using the water level elevation differences between the 2.0-foot isopleth and the 1.4-foot isopleth and between monitoring well PCD-1 and the 1.4-foot isopleth, two horizontal hydraulic gradients, of 0.0034 and 0.0015, respectively, were calculated for the deep zone.

3.1.2 Groundwater Flow Rates

Using the groundwater elevations and horizontal hydraulic gradients that were presented in the preceding section and the aquifer properties (T and K) that were calculated by E & E (1990f), average estimated groundwater flow rates have been calculated for each of the three water level zones (shallow, intermediate, and deep) at the IWTP for May 1992 and July 1992. Flow rates were calculated using the equation presented



SOURCE: Geraghty & Miller, Inc., 1988; E & E, 1992

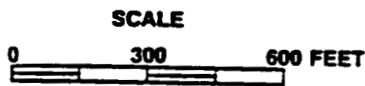


Figure 3-6
WATER LEVEL ELEVATION MAP FOR THE DEEP ZONE
NAS PENSACOLA IWTW (7-27-92)

in Section 2.1. For the purposes of calculating horizontal groundwater flow velocities (V), the reported hydraulic gradients for each zone were averaged for each time period. Tables 3-1 and 3-2 present the groundwater flow rates for each monitoring zone for May 1992 and July 1992, respectively.

3.1.2.1 May 1992 Quarter

The average estimated K for wells open to the shallow zone (23.15 feet per day [ft/day]; see Table 3-1) indicates that this zone is moderately permeable. The average hydraulic gradient (0.0007) was used to calculate the average estimated horizontal groundwater flow velocity, which is 0.0579 ft/day (21.12 feet per year [ft/yr]; see Table 3-1).

The average estimated K for wells open to the intermediate zone (0.50 ft/day; see Table 3-1) indicates that this zone is characterized by relatively low permeabilities. The average hydraulic gradient (0.0027) was used to calculate the average estimated horizontal groundwater flow velocity, which is 0.0048 ft/day (1.75 ft/yr; see Table 3-1).

The average estimated K for wells open to the deep zone (13.52 ft/day; see Table 3-1) indicates that this zone is moderately permeable. The average hydraulic gradient (0.0007) was used to calculate the average estimated horizontal groundwater flow velocity, which is 0.0338 ft/day (12.34 ft/yr; see Table 3-1).

3.1.2.2 July 1992 Quarter

For the shallow zone, the average hydraulic gradient (0.0008) was used to calculate the average estimated horizontal groundwater flow velocity for July 1992, which is 0.0661 ft/day (24.13 ft/yr; see Table 3-2).

For the intermediate zone, the hydraulic gradient (0.0028) was used to calculate the average estimated horizontal groundwater flow velocity for July 1992, which is 0.0050 ft/day (1.83 ft/yr; see Table 3-2).

Table 3-1
GROUNDWATER FLOW RATES
FOR MAY 1992

Average Estimated Transmissivity' (T) (ft ² /day)	Average Estimated Hydraulic Conductivity ^a (K) (ft/day)	Average Estimated Groundwater Flow Rate (V)	
		(ft/day)	(ft/yr)
<u>Shallow Zone</u>			
57.87	23.15	0.0579	21.12
<u>Intermediate Zone</u>			
1.26	0.50	0.0048	1.75
<u>Deep Zone</u>			
33.80	13.52	0.0338	12.34

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NOTE: Horizontal hydraulic gradients used for groundwater flow rate calculations: shallow zone 0.0007, intermediate zone 0.0027, deep zone 0.0007.

^a Averages calculated using slug and pumping test results from March 1990 aquifer testing (E & E 1990).

Table 3-2

**GROUNDWATER FLOW RATES
FOR JULY 1992**

Average Estimated Transmissivity ^a ($\frac{T}{ft^2/day}$)	Average Estimated Hydraulic Conductivity ^a (K) (ft/day)	Average Estimated Groundwater Flow Rate (V)	
		(ft/day)	(ft/yr)
<u>Shallow Zone</u>			
57.87	23.15	0.0661	24.13
<u>Intermediate Zone</u>			
1.26	0.50	0.0050	1.83
<u>Deep Zone</u>			
33.80	13.52	0.1207	44.06

14[NASP]UH9024:T0547/1900/24

NOTE: Horizontal hydraulic gradients used for groundwater flow rate calculations: shallow zone 0.0008, intermediate zone 0.0020, deep zone 0.0025.

^a Averages calculated using slug and pumping test results from March 1990 aquifer testing (E & E 1990).

For the deep zone, the average hydraulic gradient (0.0025) was used to calculate the average horizontal groundwater flow velocity for July 1992, which is 0.1207 ft/day (44.06 ft/yr; see Table 3-2).

Overall, the groundwater flow rates for the shallow and intermediate zones were comparable in May and July 1992. The flow rate was higher in the deep zone in July than in May.

32 CHEMICAL ANALYSES

The following section presents a brief summary of the results of the laboratory analyses of the groundwater samples collected from the IWTP monitoring wells in July 1992. Table 2-1 presents the specific analytical parameters or groups of parameters analyzed for each sample. Appendix B presents the FDER Parameter Monitoring Report forms for each sample and the analytical method reference summaries from E & E's ASC. Table 3-3 summarizes the analytical results for the groundwater samples collected from the shallow zone wells, Table 3-4 summarizes the analytical results for the groundwater samples collected from the intermediate zone wells, and Table 3-5 summarizes the analytical results for the groundwater samples collected from the deep zone wells. These tables present only the parameters detected in each sample. The complete analytical results for the shallow, intermediate, and deep wells are presented in appendices C, D, and E, respectively. Table C-1, included in Appendix C, presents the groundwater sample designations for the shallow zone well samples. Table D-1, included in Appendix D, presents the groundwater sample designations for the intermediate zone well samples; and Table E-1, included in Appendix E, presents the groundwater sample designations for the deep zone well samples. Due to the large number of wells sampled and parameters analyzed and detected, this summary is limited to a discussion of the occurrence and distribution of groundwater constituents which exceed Florida Primary Drinking Water Standards (FPDWSs) or Florida Secondary Drinking Water Standards (FSDWSs). All of the FPDWSs and FSDWSs cited in this report are listed in FDER's Proposed Drinking Water Standards (FDER 1992). It should be noted that the Proposed Drinking Water Standards are currently in the Final Draft stage, but will be in effect October 1, 1992. The

Table 3-3

**SUMMARY ANALYTICAL RESULTS FOR
SHALLOW ZONE MONITORING WELLS
(All results in µg/L unless noted)**

Compound	Sample No. (Location)							FPDWS/ FSDWS
	P32W001 (UG-1)	P32W008 (GM-8)	P32W009 (GM-9)	P32W010 (OK-10)	P32W062 (OK-62)	P32W067 (GM-67)	P32WPCS-1 (PCS-1)	
Barium	—	66	—	12	61	—	28	2,000
Chromium	—	—	—	11	—	—	—	100
Iron	1,300 ^a	2,300	2,400	670	1,900	8,800	2,600	300
Manganese	—	25	19	62	260	340	95	50
Sodium(mg/L)	9.1	4.4	3.2	11	4.1	73	12	160
Lead	—	—	7.6	7.3	—	—	—	15
Zinc	14	32	14	24	55	24	—	5,000
Chloride (mg/L)	17	5.8	5.5	23	9.2	110	4.8	250
Sulfate (mg/L)	25	24	4.2	18	79	180	13	250
Complexed Cyanide (mg/L)	—	—	0.016	—	0.033	2.8	0.013	—
Fluoride (mg/L)	—	0.54	0.23	0.19	0.30	0.21	0.16	2
Methylene Chloride	—	—	(L)	—	—	—	—	5
Chlorobenzene	—	20	210	—	—	(L)	—	100
Acetone	13	(L)	(L)	(L)	(L)	(L)	(L)	—
1,3-Dichlorobenzene	—	(L)	(L)	—	—	—	—	—
1,4-Dichlorobenzene	—	(L)	(L)	—	—	(L)	—	75
1,2-Dichlorobenzene	—	(L)	(L)	—	—	—	—	600
Bis(2-ethylhexyl)phthalate	—	—	—	—	—	(L)	—	—
Fluorene	—	—	—	—	—	—	(L)	—
Gross Alpha (pCi/L)	—	5.0+/-4.0	—	—	8.0+/-5.3	—	—	15
Gross Beta (pCi/L)	—	—	—	4.2+/-4.9	8.8+/-7.2	—	7.6+/-3.5	—
Radium-226 (pCi/L)	—	3.2+/-0.2	0.2+/-0.1	0.4/-0.06	2.1+/-0.2	0.4+/-0.1	0.2+/-0.2	5b
Radium-228 (pCi/L)	—	2.1+/-0.8	—	—	—	1.2+/-1.1	—	5b
Turbidity (N.T.U.)	9.7	22	44	1.2	51	68	8.3	1
Total Coliform (CLY/100)	—	—	—	—	—	—	34	1
Nitrogen, Nitrite (mg/kg)	—	—	—	—	—	—	—	—
Nitrogen, Nitrite-Nitrate (mg/kg)	—	—	—	—	1.4	—	—	—
Nitrogen, Nitrate (mg/kg)	—	—	—	—	1.4	—	—	—

Key at end of table.

14[NASP]UH9024:T0547/1917/9

Table 3-3 (Cont.)

Compound	Sample No. (Location)			
	P32W011 (GM-11)	P32W012R (GM-12)	P32W013R (GM-13)	P32W014 (GM-14)
Complexed Cyanide	0.19	—	—	0.011

14[RASP]UR9024:T0547/1917/0

^a Bold numbers indicate parameter exceeds drinking water standards.

^b The sum of the values for radium-226 and radium-228 has a RPDMS of 5.0 pCi/L.

Key:

L = Compound present below detection limit.

— = Indicates compound not detected.

N.T.U. = Turbidity units.

Table 3-4
SUMMARY ANALYTICAL RESULTS FOR
INTERMEDIATE ZONE MONITORING WELLS
(All results in µg/L unless noted)

Compound	Sample No. (Location)				FPDWS/ FSDWS
	P32W064 (GM-64)	P32W066 (GM-66)	P32W069 (GM-69)	P32WPCI-1 (PCI-1)	
Barium	—	55	28	—	2,000
Cadmium	—	35'	—	—	5
Chromium	—	320	—	100	—
Copper	—	45	—	—	1,000
Iron	150	320.000	260	180	300
Manganese	46	1,600	94	19	50
Sodium (mg/L)	60	650	580	290	160
Nickel	—	170	—	—	—
Vanadium	—	440	—	—	—
Zinc	22	400	14	34	5,000
Chloride(mg/L)	51	580	830	450	250
Sulfate (mg/L)	76	8,000	190	70	250
Complexed Cyanide (mg/L)	0.12	0.030	0.14	0.10	—
Fluoride (mg/L)	0.29	—	0.22	0.30	2
Vinyl Chloride	—	(L)	(L)	—	1
Chloroethane	—	—	32	—	—
Toluene	—	—	(L)	—	1,000
Chlorobenzene	(L)	140	160	65	100
Acetone	(L)	—	(L)	17	—
1,1-Dichloroethene	—	190	—	—	7
1,1-Dichloroethane	—	(L)	14	—	—
Total-1,2-Dichloroethene	—	660	—	—	—
Trichloroethene	—	4,200(x)	(L)	(L)	3
Total Xylenes	—	—	(L)	—	—
1,3-Dichlorobenzene	—	26	620	(L)	—
1,4-Dichlorobenzene	—	47	580	(L)	75
1,2-Dichlorobenzene	—	62	550	13	600
Naphthalene	—	49	—	—	—
Acenaphthene	—	(L)	—	—	—
2,4-Dimethylphenol	—	62	—	—	—
2-Methylphenol	—	(L)	—	—	—
2-Methylnaphthalene	—	(L)	—	—	—
2,4-Dichlorophenol	—	—	(L)	—	—
Di-n-butyl-phthalate	—	—	—	(L)	—

Key at end of table.

14[NASP]UH9024:T0547/1916/9

Table 3-4 (Cont.)

Compound	Sample No. (Location)				FPDMS/ FSDMS
	P32W064 (GM-64)	P32W066 (GM-66)	P32W069 (GM-69)	P32WPCI-1 (PCI-1)	
Gross Alpha (pCi/L)	—	64.2+/-93.8	—	16.1+/-22.3	15
Gross Beta (pCi/L)	17.4+/-40.7	197+/-148	36.9+/-37.9	32.7+/-42.6	
Radium-226 (pCi/L)	26.1+/-0.5	1.7+/-0.1	2.8+/-0.2	1.3+/-0.2	5 ^b
Radium-228 (pCi/L)	—	36.5+/-2.2	2.7+/-1.1	—	5 ^b
Turbidity (N.T.U.)	8.4	58	31	11	1
Nitrogen, Nitrite	—	—	—	—	
Nitrogen, Nitrite-Nitrate	—	—	—	0.4	
Nitrogen, Nitrate	—	—	—	0.4	

14[NASP]UR9024:TO547/1916/9

^a Bold numbers indicate parameters exceed drinking water standards.

^b The sum of the values for radium-226 and radium-228 has a FPDMS of 5.0 pCi/L.

Key:

L = Compound present below detection limit.

X = Exceeds calibration limit.

— = indicates compound not detected.

Table 3-5

**SUMMARY ANALYTICAL RESULTS FOR
DEEP ZONE MONITORING WELLS**
(All results in $\mu\text{g/L}$ unless noted)

Compound	Sample No. (Location)				FPDWS/ FSDWS
	P32W063 (OM-63)	P32W065 (OM-65)	P32W068 (OM-68)	P32WPCD-1 (PCD-1)	
Barium	--	--	72	--	2,000
Iron	1,100^a	640	1,100	600	300
Manganese	51	72	59	21	50
Sodium (mg/L)	490	89	84	190	160
Selenium	--	--	8.7	--	10
Zinc	18	130	260	35	5,000
Chloride (mg/L)	960	180	160	340	250
Sulfate (mg/L)	52	--	--	--	250
Acetone	(L)	(L)	80	44	
Trichloroethene	--	--	--	(L)	3
Di-n-butyl-phthalato	--	(L)	(L)	--	
Gross Alpha (pCi/L)	20.7+/-11.3	--	--	12.6+/-12.0	15
Gross Beta (pCi/L)	27.8+/-13.9	--	--	17.4+/-19.9	
Radium-226 (pCi/L)	5.6+/-0.3	1.9+/-0.1	1.1+/-0.1	36.4+/-0.6	5^b
Radium-228 (pCi/L)	--	--	2.2+/-1.0	--	5^b
Turbidity (N.T.U.)	51	9.6	10.9	4.2	1
Total Coliform (CLY/100)	318	50	--	--	1
Nitrogen, Nitrate	--	--	--	--	
Nitrogen, Nitrite	--	--	0.1	0.4	
Nitrogen, Nitrate	--	--	0.1	0.4	

14[NASP]UH9024:T0547/1921/12

^a Bold numbers indicate parameter exceeds drinking water standards.

^b The sum of the values for radium-226 and radium-228 has a FPDWS of 5.0 pCi/L.

Key:

L = Compound present below detection limit.

-- = Indicator compound not detected.

groundwater results in this report are compared to these proposed standards; however, the results of the four previous sampling events (February 1991, August 1991, November 1991, and January 1992) were compared to the 1990 drinking water standards.

Results from the July 1992 sampling event (for those samples exceeding the PPDVS or FSDVS) will be compared to the previous four sampling events' analytical results (February 1991, August 1991, November 1991, and January 1992). It should be noted that the recovery system was operable only during the January 1992 and July 1992 sampling events. An overall summary of these results and trends is presented in Section 4.

In general, metals, other inorganics (chloride and sulfate), radionuclides, VOCs, and BNAs were found in groundwater samples collected at the IWTP. The sources of these contaminants, unless otherwise noted below, are likely associated with the types of wastes that have been processed at the IWTP (primarily solvents, phenols, and metals).

3.21 Metals

Cadmium, chromium, iron, manganese, and sodium were the only metals detected at concentrations exceeding applicable drinking water standards (see tables 3-3, 3-4, and 3-5). Figures 3-7, 3-8, and 3-9 show the monitoring well samples which exhibited metals concentrations exceeding these applicable FPDWSs or PSDWSs for the shallow, intermediate, and deep zone samples, respectively. In general, all three zones exhibit metals contamination primarily in the areas near the former surge pond and sludge drying beds. The samples collected from the intermediate zone exhibit the highest metals concentrations.

Cadmium was detected in only one sample at the IWTP (P32W066 from intermediate zone well GM-66) at 35 micrograms per liter ($\mu\text{g}/\text{L}$) which exceeds the new FPDWS for cadmium of 5 $\mu\text{g}/\text{L}$ (FDER 1992).

Chromium was detected in only two samples at the IWTP and exceeded the FPDWS of 100 $\mu\text{g}/\text{L}$ in only one sample--P32W066 (from intermediate zone

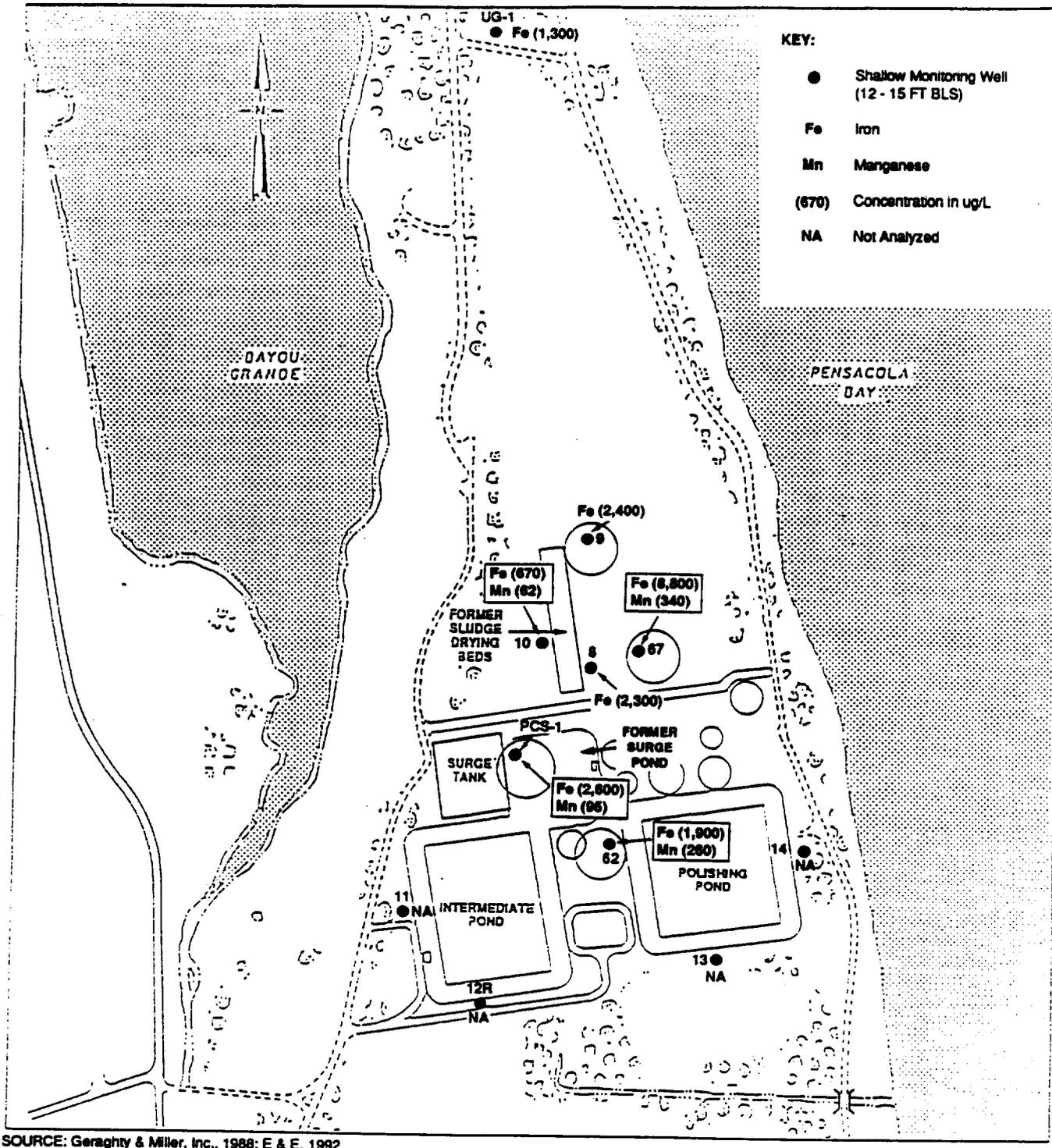
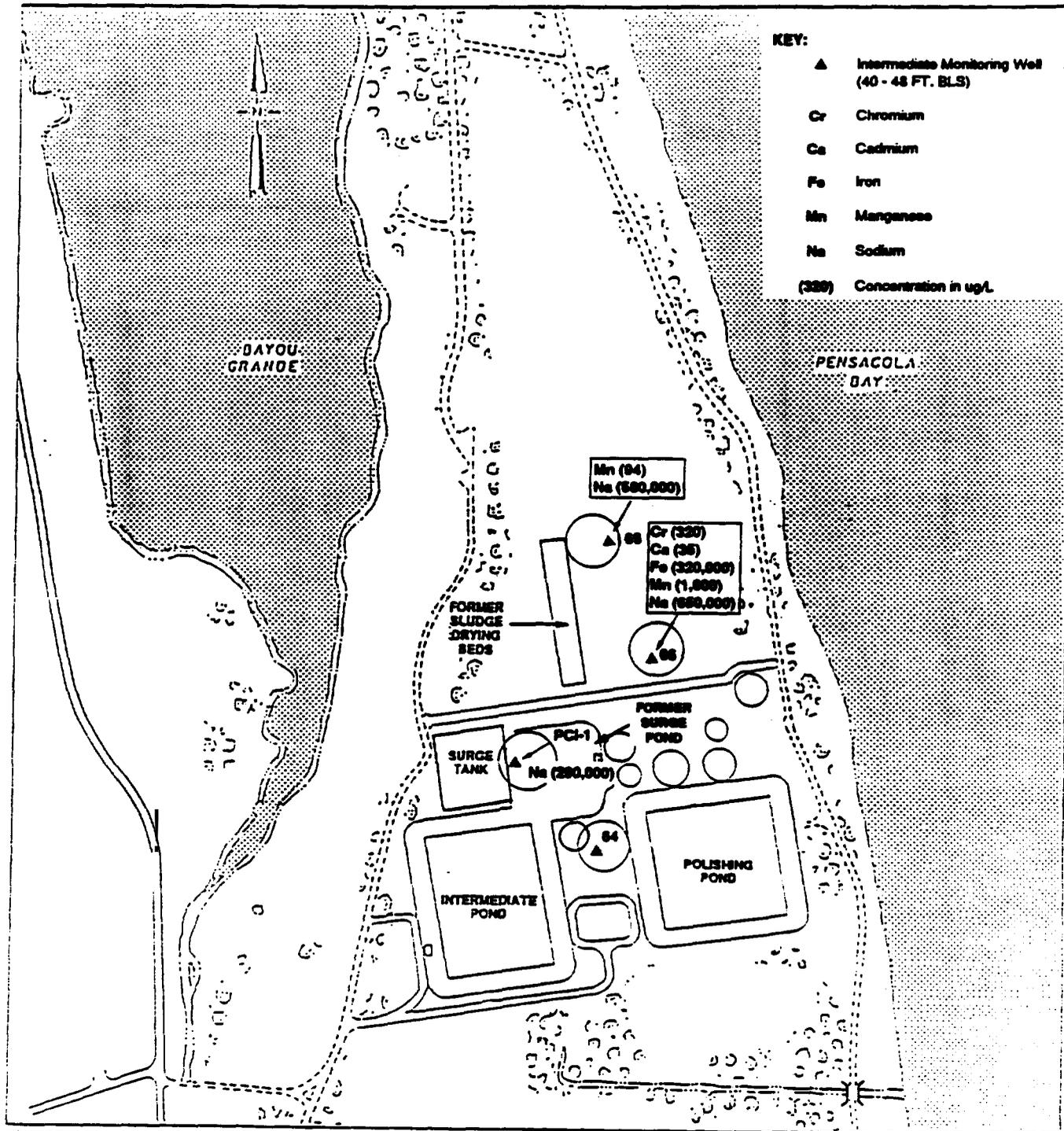


Figure 3-7
METALS CONCENTRATIONS EXCEEDING THE FPDWS OR FSDWS IN THE SHALLOW ZONE
NAS PENSACOLA IWTP



SOURCE: Geraghty & Miller, Inc., 1988; E & E, 1992

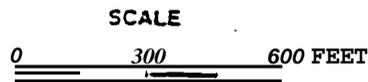
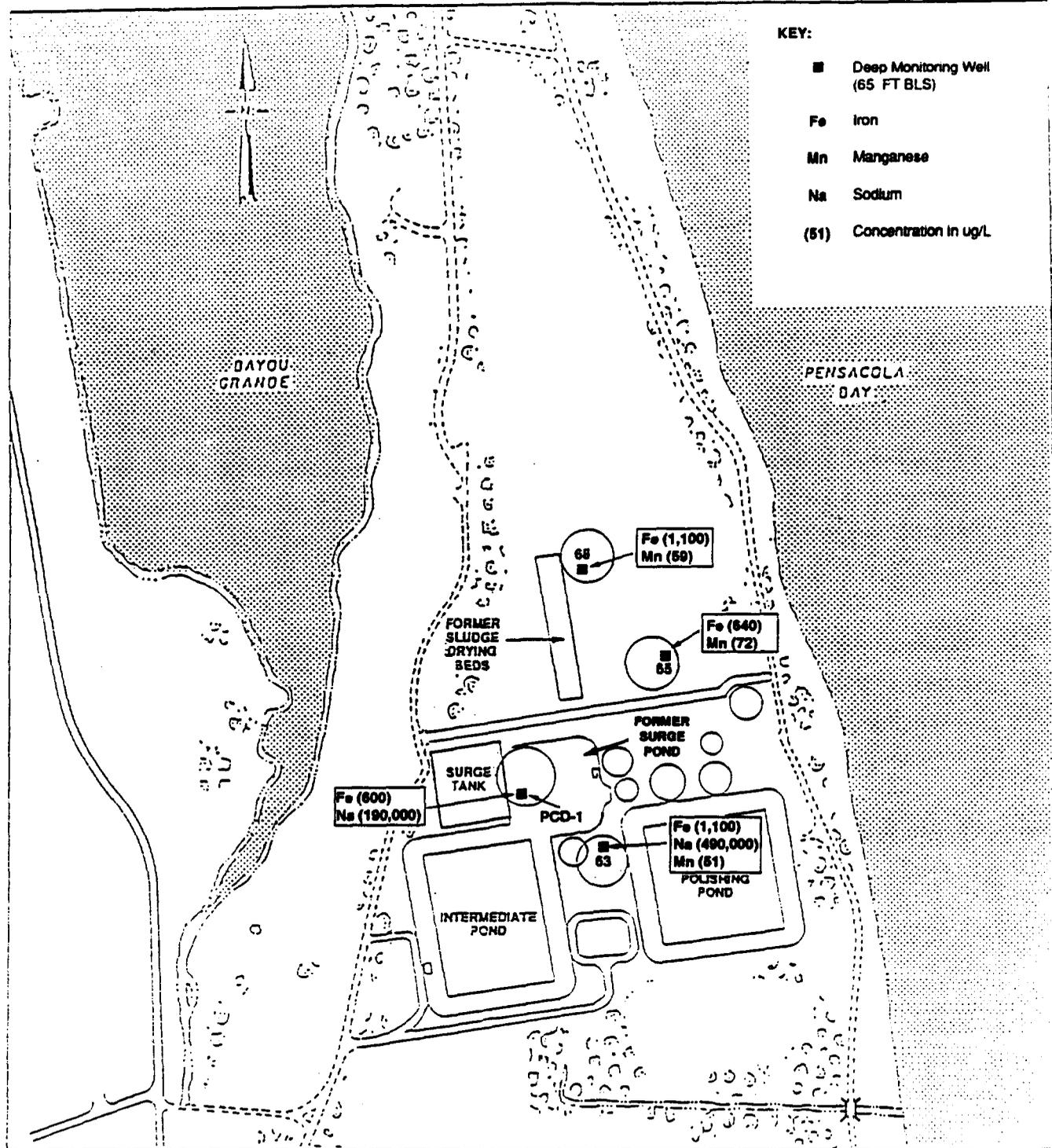


Figure 3-8
METALS CONCENTRATIONS EXCEEDING THE FPDWS OR FSDWS
IN THE INTERMEDIATE ZONE — NAS PENSACOLA IWTW



SOURCE: Geraghty & Miller, Inc., 1988; E 6 E. 1992

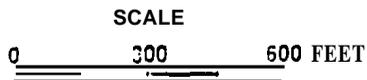


Figure 3-9
METALS CONCENTRATIONS EXCEEDING THE FPDWS OR FSDWS IN THE DEEP ZONE — NAS PENSACOLA IWTP

well GH-66). P32W066 exhibited a concentration of 320 µg/L, which is significantly above the FPDWS.

The iron Concentrations ranged from 150 µg/L in sample P32W064 to 320,000 µg/L in sample P32W066. Twelve of the 15 samples analyzed for iron had concentrations exceeding the FSDWS of 300 µg/L and included seven shallow zone samples, one intermediate zone sample, and four deep zone samples. Nine of the samples contained iron concentrations greater than 1,000 µg/L.

Manganese concentrations ranged from non-detect in sample P32W001 to 1,600 µg/L in sample P32W066. Manganese concentrations exceeding the FSDWS of 50 µg/L were detected in nine samples, including four shallow zone, two intermediate zone, and three deep zone samples.

Sodium concentrations ranged from 3.2 milligrams per liter (mg/L) in sample P32W009 to 650 mg/L in sample P32W066. The FPDWS for sodium is 160 mg/L, which was exceeded in five groundwater samples including three intermediate zone and two deep zone samples. Given that the site is bounded on the east and west by saltwater bodies, the sodium concentrations in the intermediate and deep zones probably reflect an increase in the salinity of the groundwater as the depth increases in the central portion of the site.

It should be noted that, with the exception of GM-66, monitoring wells GM-62 through GM-69 had been sampled for metals only in the last semi-annual sampling event but not in the three previous quarterly sampling events. Metals concentrations in samples from those wells in which a drinking water standard was exceeded in July 1992 were generally lower than in the previous four sampling events. The cadmium concentration in sample P32W066 collected from well GH-66 is higher in this sampling period than it was in January 1992, but lower than in February 1991. The chromium concentration in sample P32W066 in July 1992 was slightly lower than the previous sample results from well GH-66. Iron concentrations in the intermediate and deep zone samples, as well as in three of the seven shallow zone samples, were lower than in previous sampling

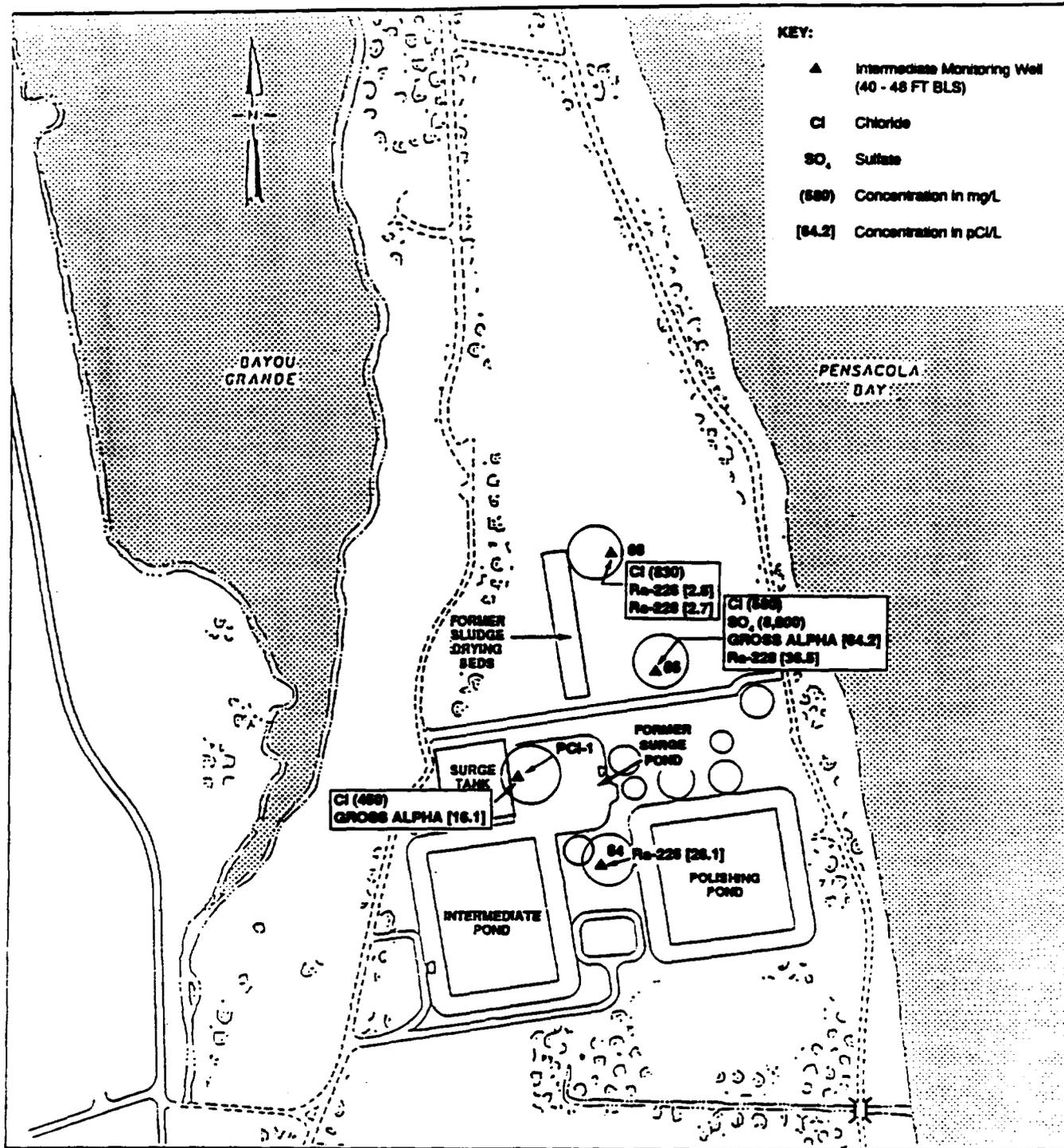
events. Other shallow zone samples showed an increase in iron concentrations. Manganese concentrations were generally lower in the samples that exceeded the FSDWS in July 1992, with the exception of samples P32WPCS-1, P32W069, and P32W063, which exhibited slightly higher manganese concentrations. Sodium concentrations were all generally the same during the July 1992 sampling event as in the previous sampling events.

3.2.2 Other Inorganics

Only chloride and sulfate were detected in groundwater samples at concentrations that exceeded applicable drinking water standards (see tables 3-3, 3-4, and 3-5). Figures 3-10 and 3-11 show the intermediate and deep zone monitoring wells, respectively, from which samples were collected which exhibited inorganic parameter concentrations exceeding an applicable FPDWS or FSDUS. Samples collected from the intermediate zone exhibited inorganic contamination in the area east of the former sludge drying beds, while samples collected from the deep zone exhibited contamination in the area near the former surge pond.

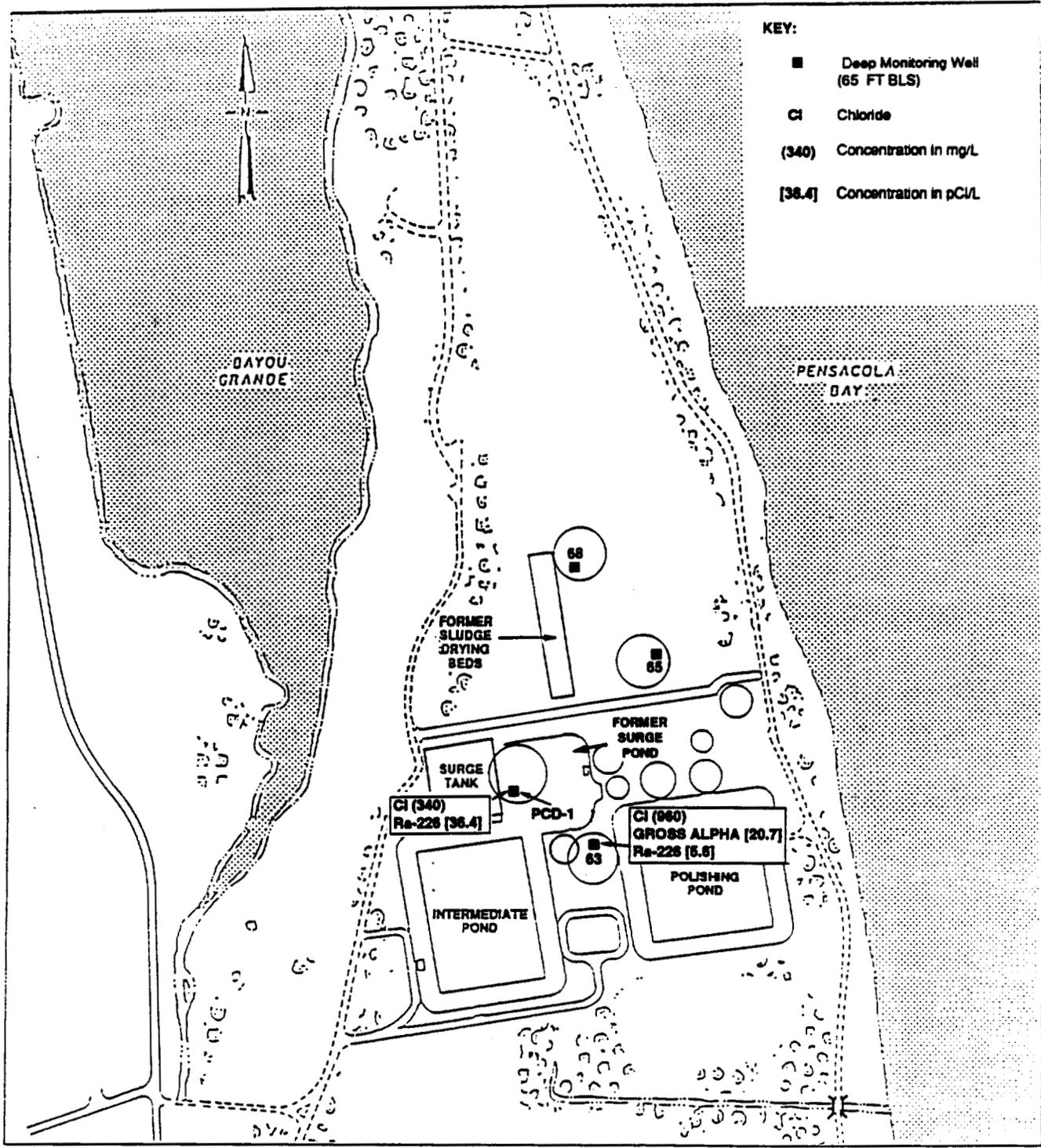
There were no shallow zone samples that exhibited inorganic parameter concentrations exceeding a drinking water standard. Chloride concentrations ranged from 4.8 mg/L in sample P32PCS-1 to 960 mg/L in sample P32W063. Chloride has a FSDWS of 250 mg/L, which was exceeded in five of the groundwater samples, including three intermediate zone samples (P32W066, P32W069, and P32WPCI-1) and two deep zone samples (P32W063 and P32WPCD-1). The presence of chloride in the intermediate and deep zone samples supports the likelihood that the saltwater bodies bounding the site to the east and west may increase the salinity of the groundwater in these deeper zones. Sulfate concentrations ranged from non-detect in samples P32W065, P32W068, and P32WPCD-1 to 8,000 mg/L in sample P32W066. Only the sample collected from intermediate well GM-66 (8,000 mg/L) exhibited a sulfate concentration exceeding the FSDWS of 250 mg/L.

The chloride concentrations exceeding the FSDWS were higher in July 1992 than the chloride concentrations detected in samples from the same wells in the previous sampling events. The sample concentration that exceeded



SOURCE: Geraghty & Miller, Inc., 1988; E & E, 1992

Figure 3-10
OTHER INORGANIC AND RADIOCHEMICAL PARAMETER CONCENTRATIONS EXCEEDING
THE FPDWS OR FSDWS IN THE INTERMEDIATE ZONE— NAS PENSACOLA IWTW



SOURCE: Geraghty & Miller, Inc., 1988; E & E, 1992

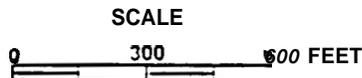


Figure 3-11
OTHER INORGANIC AND RADIOCHEMICAL PARAMETER CONCENTRATIONS
EXCEEDING THE FPDWS OR FSDWS IN THE DEEP ZONE
NAS PENSACOLA IWTP

the sulfate drinking water standard in July 1992 (P32W066; 8,000 mg/L) was lower than the concentration detected in the same well in January 1992 (9,200 mg/L), but significantly higher than the one collected in August 1991 at that well (2.0 mg/L; E & E 1991k). January 1992 and August 1991 were the only other events in which a sample from this well was analyzed for sulfate.

3.2.3 Radiochemistry

Gross alpha, gross beta, radium-226, and/or radium-228 were at detectable concentrations in all groundwater samples except P32W001, which was collected from shallow zone monitoring well UG-1 (see tables 3-3, 3-4, and 3-5). Only one shallow zone sample exhibited a combined radium-226 and radium-228 result above the FPDVS. Figures 3-10 and 3-11 show the radiochemical parameters which exceeded the applicable FPDVS in samples collected from the intermediate and deep zones, respectively. Gross alpha radioactivity ranged from nondetect in several samples to 64.2+/-93.8 picocuries per liter (pCi/L) in sample P32W066 from well GM-66. The FPDVS of 15 pCi/L for gross alpha radioactivity was exceeded in two intermediate zone groundwater samples and one deep zone sample.

The combined radium-226 and radium-228 results have a FPDVS of 5.0 pCi/L (FDER 1990). Radium-226 radioactivity ranged from non-detect in shallow zone sample P32W001 to 36.4+/-0.6 pCi/L in deep zone sample P32WPCD-1. Radium-228 concentrations ranged from non-detect in 10 of the 15 samples analyzed to 36.5+/-2.2 pCi/L in sample P32W066. The FPDVS was exceeded by one shallow zone sample in which radium-226 was 3.2+/-0.2 pCi/L and radium-228 was 2.1+/-0.8 pCi/L. Three intermediate zone samples (P32W06 (P32W063 and P32WPCD-1) exceeded the FPDVS for these radionuclides.

The shallow zone sample which exceeded the FPDVS for combined radium-226 and radium-228 was collected near the former sludge drying beds. All four samples collected from the intermediate zone, both near the former sludge drying beds and the former surge pond, had radiochemical results exceeding the FPDVSs. The two deep zone samples which exhibited radio-

chemical results exceeding the FPDWS were each located near the former surge pond.

Radiochemical analyses were conducted on samples from the IWTP during the last semiannual event but not in the three previous quarterly monitoring events. Compared to the results of the January 1992 semiannual sampling event, radiochemical results in July 1992 were lower, higher, or nearly the same. No radiochemical results exceeded the FPDWS in the shallow zone in January 1992; however, one sample collected in July 1992 had combined radium-226 and radium-228 results which did exceed the FPDWS. Gross alpha concentrations in the intermediate zone were lower in two samples and higher in two samples in July than in January 1992. Radium-226 and radium-228 concentrations in the intermediate zone were below the FPDWS in January 1992. However, three of the four intermediate zone sample concentrations exceeded the FPDWS for these radionuclides in July 1992. No deep zone samples exceeded the applicable radiochemical FPDWS in January 1992; however, two deep zone samples exceeded the FPDWS for radium-226 and one for gross alpha in July 1992.

3.2.4 Volatile Organic Compounds

Although detectable levels of VOCs were present in many of the samples analyzed, only chlorobenzene, 1,1-dichloroethene, and trichloroethene were detected at concentrations exceeding applicable drinking water standards (see tables 3-3, 3-4, and 3-5). Figure 3-12 shows the organic compound concentrations (including VOCs and BNAs) exceeding an applicable FPDWS for the intermediate zone samples. In general, VOC concentrations were highest in samples collected from the intermediate zone wells, particularly in well GM-66, located east of the former sludge drying beds. Only one sample collected from the shallow zone exceeded a FPDWS/FSDWS for VOCs. Sample P32W009, collected from monitoring well GH-9, exhibited a chlorobenzene concentration of 210 $\mu\text{g/L}$. The FPDWS for chlorobenzene is 100 $\mu\text{g/L}$. There were no organic compound concentrations that exceeded an applicable FPDWS in the deep zone samples.

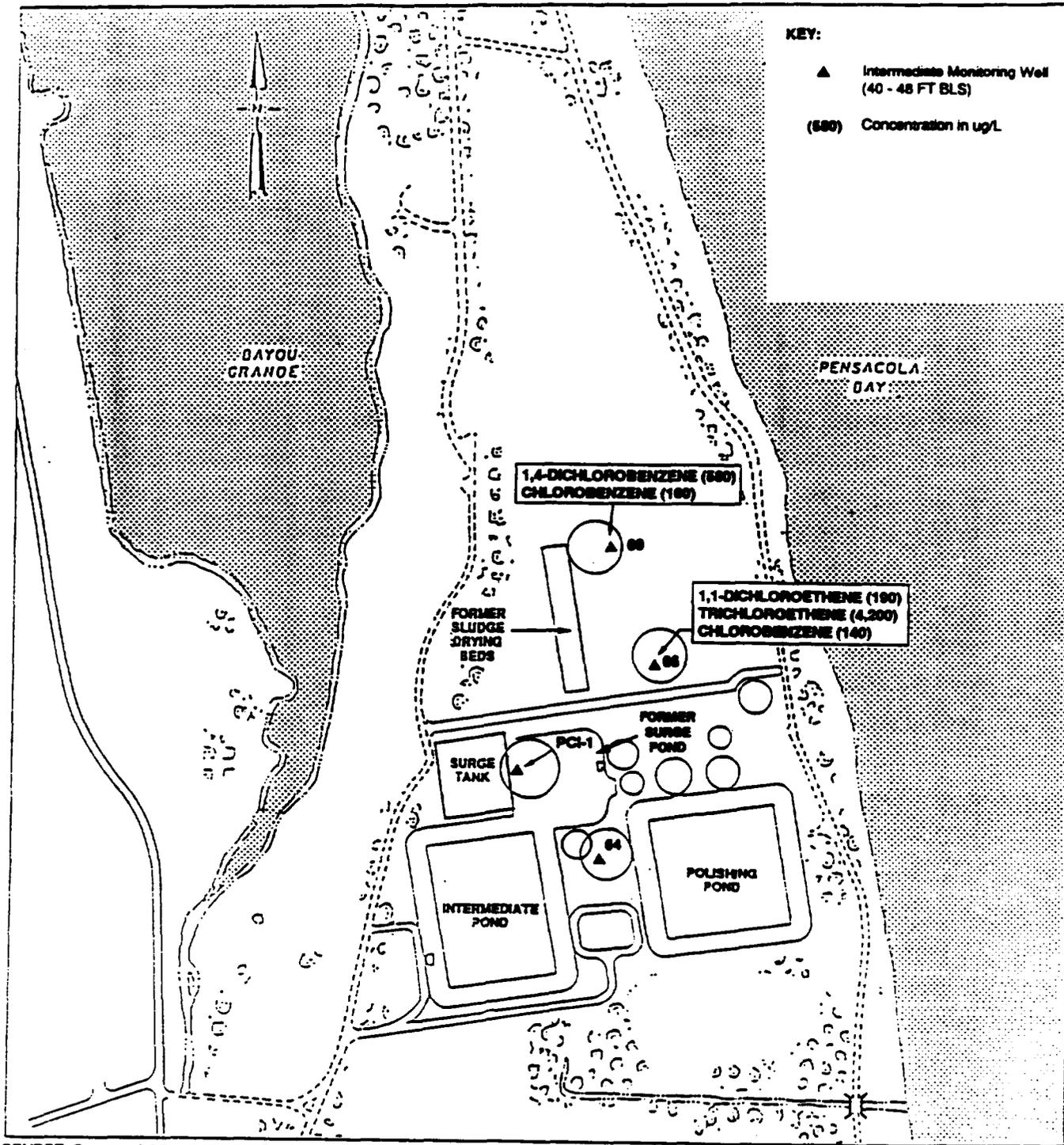


Figure 3-12
ORGANIC COMPOUND CONCENTRATIONS EXCEEDING THE FPDWS IN THE
INTERMEDIATE ZONE — NAS PENSACOLA IWTW

Groundwater sample P32W066, from intermediate monitoring well GM-66, exhibited a chlorobenzene concentration of 140 µg/L, exceeding the FPDWS. Sample P32W066 also exhibited 1,1-dichloroethene and trichloroethene concentrations of 190 µg/L and 4,200 µg/L, which are significantly above the applicable FPDWSs of 7 µg/L and 3 µg/L, respectively. Sample P32W069 collected from well GM-69 also exhibited a chlorobenzene concentration (160 µg/L) exceeding the FPDWS.

1,1-Dichloroethene was present at or below the detection limits in three of the four previous sampling events and was detected at 240 µg/L in the most recent sampling event (January 1992) in the sample from well GM-66. Trichloroethene concentrations in sample P32W066 in July 1992 are lower than the four previous sampling events. Chlorobenzene concentrations in the shallow zone are generally lower than the previous four sampling events. The chlorobenzene results in the intermediate well GM-66 are slightly higher than in the previous sampling events, and generally the same is true for well GH-69 samples.

Other VOCs such as vinyl chloride and benzene, which had previously been detected at levels exceeding the FPDWSs, were either not detected (benzene) or detected at levels below the detection limits (vinyl chloride). Overall, VOC levels are decreasing over time in samples collected from the IWTP.

3.2.5 Base-Neutral/Acid Extractables

Although detectable levels of several BNAs were reported in the groundwater samples collected at the IWTP (see tables 3-3, 3-4, and 3-5), only 1,2-dichlorobenzene and 1,4-dichlorobenzene have an applicable FPDWS (600 µg/L and 75 µg/L, respectively). Figure 3-12 shows the organic compound concentrations (including VOCs and BNAs), in intermediate zone samples, which exceed the FPDWSs. There were no shallow, intermediate, or deep zone samples exceeding the FPDWS for 1,2-dichlorobenzene. 1,4-Dichlorobenzene was detected at a concentration exceeding the FPDWS in only one sample, P32W069 (580 µg/L), from intermediate zone well GM-69 located east of the former sludge drying beds. This 1,4-dichlorobenzene concentration in the sample collected

from well GN-69 in July 1992 is slightly higher than the 1,4-dichlorobenzene concentrations detected in this well in the previous four sampling events.

3.2.6 Turbidity and Coliform

The turbidity in the groundwater samples collected and analyzed ranged from 1.2 turbidity units (N.T.U.) to 68 N.T.U. and was highest in the sample from shallow zone well GM-67 (see tables 3-3, 3-4, and 3-5). The FPDUS of 1 N.T.U. for turbidity was exceeded in all groundwater samples collected at the IWTP. Turbidity was analyzed in the groundwater samples in the previous semiannual sampling event only. Turbidity results in July 1992 were generally lower in the shallow zone samples and higher in the intermediate zone samples than in January 1992 while the deep zone samples were either higher or lower.

Only three samples (P32PCS-1, P32W063, and P32W065) exhibited detectable coliform levels at 34, 318, and 50 colonies per 100 milliliters (ML; CLY/100), respectively (see tables 3-3, 3-4, and 3-5). The first of these samples is a shallow zone sample and the two others are deep zone samples. The concentrations in all of these samples exceed the FPDUS for coliform of 1 CLY/100 using the membrane filter technique. No coliform was detected in the intermediate depth samples. Coliform analysis was conducted on groundwater samples during the previous semiannual event only. The three well samples that contained elevated concentrations of coliform during this sampling event did not contain detectable coliform during the January 1992 sampling event. It should also be noted that the two groundwater samples that contained elevated coliform during the January 1992 sampling event (from wells UG-1 and GH-64) did not contain detectable coliform during this sampling event.

33 Quality Assurance/Quality Control

3.3.1 Field Quality Assurance/Quality Control

Table 3-6 summarizes the analytical results for the field quality assurance/quality control (QA/QC) samples collected during the July 1992 groundwater sampling activities. The table lists only the parameters that were detected in each sample. The complete analytical reports for

Table 3-6

SUMMARY ANALYTICAL RESULTS FOR FIELD QA/QC SAMPLES
 (All results in $\mu\text{g/L}$ unless noted)

Compound	Sample No. (Well or Type)						FPDWS/ PSDWS
	P32W008 (GM-8)	P32W008D ^a (GM-8)	P32W010 (GM-10)	P32W010D ^b (GM-10)	P32WTB01 ^c (Trip Blank 1)	P32WTB02 ^c (Trip Blank 2)	
Barium	66	69	72	68	NA	NA	2,000
Chromium	—	—	11	—	NA	NA	100
Iron	2,300	2,100	670	590	NA	NA	300
Manganese	25	25	62	58	NA	NA	50
sodium (mg/L)	4.4	4.4	11	10	NA	NA	160
Zinc	32	16	24	41	NA	NA	5,000
Lead	—	—	1.3	6.2	NA	NA	15
Chloride (mg/L)	5.8	5.7	23	22	NA	NA	250
Sulfate (mg/L)	24	24	18	19	NA	NA	250
Fluoride (mg/L)	0.54	0.54	0.19	0.19	NA	NA	2
Chlorobenzene	20	18	—	—	—	—	100
Acetone	(L)	(L)	(L)	(L)	73	33	
2-Butanone	—	—	—	—	—	56	
1,3-Dichlorobenzene	(L)	(L)	—	—	—	—	
1,4-Dichlorobenzene	(L)	(L)	—	—	—	—	75
1,2-Dichlorobenzene	(L)	—	—	—	—	—	600
Gross Alpha (pCi/L)	5.0+/-4.0	—	—	1.6+/-2.3	NA	NA	15
Gross Beta (pCi/L)	—	5.9+/-6.1	4.2+/-4.9	—	NA	NA	
Radium-226 (pCi/L)	3.2+/-0.2	2.5+/-0.1	0.5+/-0.06	5.4+/-0.2	NA	NA	5*
Radium-228 (pCi/L)	2.1+/-0.8	1.7+/-0.9	—	—	NA	NA	5*
Turbidity	2.2	7.2	1.2	0.9	NA	NA	1

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Key at end of table.

Table 3-6 (Cont.)

Compounds	Sample No.					FPDMS/ FSDMS
	P32WRB01 (Rinsate Blank 1)	P32WRB02 (Rinsate Blank 2)	P32WRB03 (Rinsate Blank 3)	P32WRB01 (Field Blank 1)	P32WRB01 (Preser- vative Blank 1)	
Zinc	35	20	16	13	28	5,000
Mercury	—	0.42	—	—	—	2
Complexed Cyanide (mg/L)	—	0.055	0.013	—	—	
Acetone	25	24	29	31	22	
2-Butanone	46	43	43	52	37	
Gross Alpha (pCi/L)	—	—	—	—	NA	15
Gross Beta (pCi/L)	—	—	—	—	NA	
Radium-226 (pCi/L)	0.7+/-0.07	1.1+/-0.1	4.5+/-0.2	1.1+/-0.2	NA	5 ^a
Radium-228 (pCi/L)	—	—	1.3+/-1.1	—	NA	5 ^a

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^aThe sum of the values for radium-226 and radium-228 has a FPDMS OF 5.0 pCi/L.

Key:

- L = Compound present below detection limit.
- NA = Analysis not performed.
- = indicates compound not detected.

the groundwater sampling are presented in Appendix F. Also included in Appendix F is the sample number designation for the QA/QC samples (see Table F-1). The Data Validation Summary (included in Appendix G) further discusses the laboratory QA/QC results for all analyses performed.

The analytical results for all duplicate samples were generally found to be in agreement with the results for the corresponding original samples (see Table 3-6).

Relatively low concentrations of zinc, acetone, and 2-butanone were detected in each of the three rinsate blanks, the field blank, and the preservative blank. Acetone and 2-butanone were also present in the two trip blanks. Mercury was also detected in one rinsate blank, and cyanide was detected in two rinsate blanks. In addition, relatively low concentrations of radium-226 were detected in all three of the rinsate blanks as well as in the field blank (see Table 3-6). Radium-228 was detected at a relatively low concentration in one rinsate blank. The combined radium-226/radium-228 concentration in only one rinsate sample (P32WRB03) exceeded the FPDWS/FSDWS of 5 pCi/L. The concentrations of zinc detected in the field QA/QC samples is comparable to several of the well sample results. Therefore, the zinc results in the well samples may not reflect the actual zinc concentrations in the groundwater. The origin of these analytes is not known, but the relatively low concentrations at which they were detected can be considered insignificant (except zinc), and their presence in the field blanks should not invalidate the sample analytical data for those parameters. As stated below, acetone is a common laboratory contaminant and may be present as a result of laboratory contamination.

3.3.2 Laboratory Quality Assurance/Quality Control

No compounds or analytes were detected in the laboratory method blanks. However, since acetone is a common laboratory contaminant and was found at a similar level in all the field QA/QC samples, it is likely that its presence is related to laboratory contamination (see Appendix G).

4. CORRECTIVE ACTION PROGRAM

4.1 RECOVERY SYSTEM STATUS

In 1986, G & M implemented a Corrective Action Program at the IWTP to comply with the specific conditions in the FDER temporary RCRA permit No. HT17-68087 (FDER 1985). The Corrective Action Program involved the installation of a pilot system consisting of seven recovery wells in the surficial zone of the Sand-and-Gravel Aquifer to recover contaminated groundwater associated with the former surge pond and former sludge drying beds at the IWTP. The system design involved the in-line spacing of recovery wells that, when in operation, would create a composite cone of depression in the shallow groundwater that would maximize capture of the contaminant plume and minimize the potential for inducing saltwater intrusion. The recovery wells were piped together so that maintenance and monitoring of the system was accomplished at four separate pump stations (RW1, RW2, and RW3; RW4 and RW6; RW5; and RW7), each of which was equipped with two centrifugal pumps (primary and back-up). Operation of the pilot groundwater recovery system began in February 1987.

Since the start-up of the recovery system, some problems associated with the maintenance of the recovery pumps have occurred. Typically, excessive drawdown in a recovery well induced loss of prime in the pump, ultimately resulting in the failure of the pump. Between July 1990 and November 1991, the recovery system was inoperative due to maintenance problems associated with the recovery system pumps. Beginning in November 1991, repairs were made to the recovery well system. These repairs included replacing all eight centrifugal pumps at the four pump stations and installing drawdown protectors in the

recovery wells (except RW6). The drawdown protectors will shut off the recovery pumps if the water levels in the recovery wells fall below the pump intake. Currently, all pump stations are operable.

Operation and maintenance of the recovery system is currently conducted on a weekly basis. From January 31, 1992, the end of the last semiannual period, through July 26, 1992 (the end of the sampling period covered in this report), approximately 4,953,140 gallons of groundwater were recovered and pumped into the treatment system at the IUTP. Table 4-1 presents the total weekly flow from each of the pump stations. Generally, the only notable problem to date is that the intake valve in recovery well RU5 becomes periodically clogged with a "limy" substance and has to be cleaned and reprimed weekly. No other problems are currently affecting the recovery system.

4.2 EFFECTIVENESS OF THE CORRECTIVE ACTION PROGRAM

The results of the July 1992 sampling activities were compared to the results of the four previous sampling events (E & E 1991i, 1991k, 1992b, and 1992c). Only the wells from which samples exceeded a FPDWS or FSDUS during the July 1992 sampling event were evaluated. The following comparative conclusions have been made:

- o Metals concentrations in July 1992 were generally lower than in the preceding sampling events with a few exceptions.
- o Chloride concentrations were higher in July 1992 than in the previous sampling events. Sulfate concentrations were lower than in January 1992, but significantly higher than the previously recorded results in August 1991.
- o Radiochemical analyses were conducted on samples from the IUTP only during the January and July 1992 semiannual sampling events. Overall, the radiochemical results in July were higher than those in January 1992.
- o Overall, VOC concentrations in July 1992 were lower than in the previous sampling events. However, 1,1-dichloroethene was significantly higher in January and July 1992 than in the three sampling events prior to January 1992.

Table 4-1

**SUMMARY OF IWTP RECOVERY WELL PUMPING DATA
NAS PENSACOLA**

Pump Station	Date Inspected	Total Flow (gallons)	Cumulative Weekly Flow (gallons)
RW4, 6	02/08/92	126,780	
RW5	02/08/92	20,550	
RW7	02/0 8/9 2	0 ^a	147,330
RW4, 6	02/14/92	33,350	
RW5	02/14/92	5,850	
Rw7	02/14/92	22,130	61,330
RW1, 2, and 3	02/22/92	52,500	
RW4, 6	02/22/92	89,600	
RW5	02/22/92	20,680	
RW7	02/22/92	56,750	219,530
RW1, 2, and 3	02/29/92	98,000	
RW4, 6	02/29/92	90,040	
RW5	02/29/92	13,240	
RW7	02/29/92	53,590	254,870
RW1, 2, and 3	03/08/92	92,200	
RW4, 6	03/0 8/9 2	80,960	
RW5	03/0 8/9 2	14,670	
Rw7	03/08/92	47,810	235,640
RW1, 2, and 3	03/15/92	87,200	
RW4, 6	03/15/92	76,710	
RW5	03/15/92	6,850	
RW7	03/15/92	42,060	212,820
RW1, 2, and 3	03/23/92	105,800	
RW4, 6	03/2 3/9 2	91,190	
RW5	03/23/92	6,300	
Rw7	03/23/92	49,280	252,570
RW1, 2, and 3	03/31/92	110,300	
RW4, 6	03/31/92	94,750	
RW5	03/31/92	6,060	
RW7	03/3 1/9 2	50,380	261,490
RW1, 2, and 3	04/06/92	70,100	
RW4, 6	04/06/92	63,730	
RW5	04/06/92	5,480	
RW7	04/06/92	33,440	172,750
RW1, 2, and 3	04/14/92	22,200	
RW4, 6	04/14/92	63,630	
RW5	04/14/92	9,910	
RW7	04/14/92	45,000	140,740
RW1, 2, and 3	04/21/92	67,300	
RW4, 6	04/21/92	61,580	
RW5	04/2 1/9 2	30,550	
RW7	04/21/92	33,350	192,780

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Table 4-1 (Cont.)

Pump Station	Date Inspected	Total Flow (gallons)	Cumulative Weekly Flow (gallons)
RW1, 2, and 3	04/26/92	53,200	
RW4, 6	04/26/92	50,510	
RW5	04/26/92	27,730	
RW7	04/26/92	26,830	158,270
RW1, 2, and 3	05/03/92	79,200	
RW4, 6	05/03/92	68,630	
RW5	05/03/92	3,530	
RW7	05/03/92	38,060	189,420
awl, 2, and 3	05/11/92	98,000	
RW4, 6	05/11/92	82,720	
RW5	05/11/92	25,950	
RW7	05/11/92	44,470	251,140
RW1, 2, and 3	05/17/92	62,200	
RW4, 6	05/17/92	48,480	
RW5	05/17/92	300	
RW7	05/17/92	25,960	136,940
RW1, 2, and 3	05/25/92	82,200	
RW4, 6	05/21/92	64,130	
RW5	05/25/92	13,990	
RW7	05/25/92	32,760	193,080
awl, 2, and 3	05/30/92	77,700	
RW4, 6	05/30/92	53,390	
RW5	05/30/92	36,780	
RW7	05/30/92	26,420	194,290
RW1, 2, and 3	06/05/92	3,900	
RW4, 6	06/05/92	54,360	
RW5	06/05/92	37,300	
RW7	06/05/92	26,290	121,850
RW1, 2, and 3	06/14/92	54,800	
RW4, 6	06/14/92	87,190	
RW5	06/14/92	62,620	
RW7	06/14/92	43,230	247,840
RW1, 2, and 3	06/21/92	89,000	
RW4, 6	06/21/92	65,500	
RW5	06/21/92	46,860	
RW7	06/21/92	32,050	233,410
awl, 2, and 3	06/27/92	75,500	
RW4, 6	06/27/92	54,110	
RW5	06/27/92	38,960	
RW7	06/27/92	26,690	195,260
RW1, 2, and 3	07/05/92	103,900	
RW4, 6	07/05/92	76,130	
RW5	07/05/92	53,030	
RW7	07/05/92	36,650	269,710

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Table 4-1 (Cont.)

Pump Station	Date Inspected	Total Flow (gallons)	Cumulative Weekly Flow (gallons)
RW1, 2, and 3	07/13/92	77,110	
RW4, 6	07/13/92	76,200	
RW5	07/13/92	13,420	
RW7	07/13/92	36,910	203,640
RW1, 2, and 3	07/19/92	57,570	
RW4, 6	07/19/92	56,730	
RW5	07/19/92	42,240	
RW7	07/19/92	27,410	183,950
RW1, 2, and 3	07/26/92	70,030	
RW4, 6	07/26/92	68,880	
RW5	07/26/92	50,150	
RW7	07/26/92	33,430	<u>222,490</u>
		Total	4,953,140

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^a Pump station RW7 temporarily out of service due to electrical problem.

- o 1,4-Dichlorobenzene is the only state-regulated BNA that was exceeded. It was exceeded in one sample at a concentration slightly higher than the concentrations detected in that well during the four previous sampling events.
- o Turbidity and coliform analyses were performed on samples only during the January and July 1992 semiannual sampling events. Turbidity results in July 1992 were generally lower in the shallow zone samples and higher in the intermediate zone samples than in comparable samples in January 1992, while the deep zone samples were either higher or lower. Only three samples exhibited detectable coliform concentrations. None of the samples from the same wells exhibited detectable coliform in January 1992.

Overall, the concentrations of contaminants appear to have decreased for the last five sampling events. This is likely the result of the effectiveness of the recovery system as well as the natural biodegradation of organic compounds, the migration of contaminants, and the removal of the primary sources of contamination (the former surge pond and sludge drying beds). As depicted in the groundwater elevation maps, the pumping of wells in the recovery system appears to have produced an observable lowering of the water levels in the nearby monitoring wells. Groundwater contamination appears to be primarily in the intermediate zone and, to a lesser extent, in the shallow zone. In order to adequately characterize and delineate the full extent of groundwater contamination, a full-scale Remedial Investigation/ Feasibility Study (RI/FS) will be conducted at the site as part of the Naval Installation Restoration Program (see E & E 1992a).

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6. FLORIDA PROFESSIONAL GEOLOGIST SEAL

I hereby affix my seal to the Semiannual Report on Groundwater Monitoring Wastewater Treatment Facility, located at the Naval Air Station, Pensacola, Florida, in accordance with Chapter 492 of the Florida Statutes and applicable rules and regulations developed pursuant thereto:

Name : John D. Barksdale
License Number: P.G. No. 1150
State: Florida
Expiration Date: July 31, 1994

John D. Barksdale
John D. Barksdale

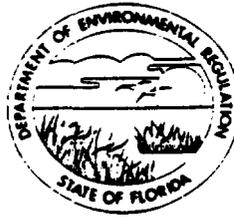
10/26/92
Date

APPENDIX A

FDER FORM AND SPECIFIC CONDITION OF RCRA PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

NORTHWEST DISTRICT
160 GOVERNMENTAL CENTER
PENSACOLA, FLORIDA 32501-5794



BOB MARTINEZ
GOVERNOR
DALE TWACHTMANN
SECRETARY
ROBERT V. KRIEDEL
DISTRICT MANAGER

QUARTERLY REPORT ON GROUND WATER MONITORING
Rule 17-4.245(6)(k)2.

GMS # 1017100625

DATE September 1992

DER PERMIT # HF17-170951

U.S. Navy Public Works - Storage Surface Impoundment Closure

Installation Name

<u>NAS Pensacola</u>	<u>Pensacola</u>	<u>Florida</u>	<u>32508</u>	<u>Escambia</u>
Address	City	State	Zip	county

Owner or Authorized Representative's Name _____ Title _____

Method of Discharge N/A

Type of Industry Military

Report for Period 2/1/92 to 7/31/92
date date

Attach monitoring data as approved in monitoring plan using parameter monitoring report forms. When applicable, attach additional sheets describing any changes in the background water quality and the discharge plume since the last reported description. Include any changes in size, direction of movement, rate of movement, and concentration changer of plume constituents in violation of the applicable standards.

NOTE: Pursuant to Rule 17-4.245(6)(k)3., at any time there is a change in the permitted volume, location or chemical, physical or microbiological composition of the discharge plume, the permittee shall notify the department and, if required by the department, submit a new report stating the volume and chemical, physical and microbiological compositions of the discharge at the point of release or contact with tnc ground water at the site boundary.

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Owner or Authorized Representative's Srgnature _____

Date _____

1. A description of cause of the noncompliance.
 2. If not corrected, the expected time of correction and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.
- (c) Reports of compliance or noncompliance with, or any progress reports on, requirements contained in any compliance schedule shall be submitted no later than 14 days after each schedule date.
- (d) All reports or information required by the Department by a hazardous waste permittee shall be signed by a person authorized to sign a permit application.

SPECIFIC CONDITIONS:

PART I - STANDARD REQUIREMENTS:

1. Two submittals in response to these permit conditions shall be submitted to:

Federal Facilities Coordinator
Bureau of Waste Cleanup
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

One submittal in response to these permit conditions shall be submitted to:

District Manager
Department of Environmental Regulation
Northwest District Office
160 Governmental Center
Pensacola, Florida 32501-5794

One submittal in response to these permit conditions shall be submitted to:

Mr. James H. Scarbrough, P.E., Chief
Waste Management Division
U.S. Environmental Protection Agency
Region IV
345 Courtland Street
Atlanta, Georgia 30365

2. All documents submitted pursuant to the conditions of this permit shall be accompanied by a cover letter stating the name and date of the document submitted, the number(s) of the Specific Condition(s) affected, and the

permit number and project name of the permit involved. All submittals modifying the approved Post-closure Plan shall be certified by the owner and operator and signed, sealed and certified by a professional engineer registered in the State of Florida except when exempted in accordance with 17-4.050 and 17-730.220(5), FAC.

3. T— Department may modify, revoke, reissue, or terminate for cause this permit. The filing of a request for a permit modification, revocation, reissuance, or termination, or the notification of planned changes or anticipated noncompliance on the part of the permittee does not stay applicability or enforceability of any permit condition. The permittee may submit any subsequent revisions to the Department for approval. Should these revisions constitute a major modification to the permit, the permittee shall meet the requirements of 17-730.290, FAC.
4. Prior to 135 calendar days before the expiration of this permit, the permittee shall submit a complete application for renewal of the permit on forms and in a manner prescribed by the Department, unless post-closure has been completed and certified in accordance with Specific Condition II.6 and accepted by the Department [17-730.300(1), FAC].
5. The Department of Environmental Regulation's 24-hour emergency telephone number is 904/488-1320. During normal business hours, the DER District Office may be contacted at 904/436-8300, and the Bureau of Waste Cleanup may be contacted at 904/488-0190.
6. The permittee shall keep a written operating record at the facility which includes:
 - a. A summary report and details of incidents that require implementation of the contingency plan.
 - b. The results of inspections.
 - c. Post-closure plan.
 - d. Monitoring, testing or analytical data where required by 40 CFR Part 264 Subparts F and G.

These records must be maintained at the facility until completion and certification of post-closure (40 CFR Parts 264.73 and .74).

7. The permittee shall comply with the applicable portions of 40 CFR Parts 260 through 268 and those conditions required by 40 CFR Part 270.30 and 270.31 (17-730.280, FAC).
8. The permittee shall revise "Part I - General" of the Application for a Hazardous Waste Facility Permit (17-730.900(2), FAC) within thirty (30) calendar days of any changes in the Part I. The revised "Part I - General" must be submitted to the Department within thirty (30) calendar days of such changes.
9. If at any time the permittee determines that actions undertaken as part of associated monitoring program no longer satisfy the requirements set forth in this permit, the permittee shall, within seven (7) calendar days, notify the Department of this finding. If the Department determines that a major modification of the permit is required, the permittee shall, within sixty (60) calendar days, submit an application for a permit modification in accordance with 17-730.290 FAC, to make any appropriate changes to the permit.

PART II - POST-CLOSURE PROGRAM:

1. Upon the effective date of this post-closure permit, the permittee shall:
 - a. Continue post-closure care in accordance with 40 CFR Part 264.117(a). The post-closure care period began October 24, 1990 and shall continue for thirty years after that date.
 - b. Maintain compliance with security provisions of 40 CFR Part 264.14 throughout the post-closure care period to prevent the unauthorized entry of persons or livestock onto the facility [40 CFR ~~264.117(b)~~ 264.117(b)].
 - c. Never disturb the final cover or any other components of the associated structures unless previous Department approval has been provided pursuant to 40 CFR Part 264.117(c).
 - d. Ensure that all post-closure care activities be in accordance with the revised February 28, 1991 Post-closure Plan required by 40 CFR Part, 264.118 [40 CFR Part 264.117(d)].
2. The permittee shall inspect the Waste Management Area and monitoring well system on a quarterly basis and after any substantial rainfall event. The permittee shall maintain an inspection log taken to record findings and remedial action taken in maintaining the final cover, containment

- structures, groundwater monitoring equipment, corrective action, control of vegetative growth, surveying benchmarks and security devices. Each item to be inspected shall be addressed and space provided to describe any defects and follow-up action to ensure repair. The inspector's name, and inspection & to and time shall be included (40 CFR Part 264.118(b)).
3. The permittee shall keep a copy of the Post-closure Plan and all revisions to the plan at the facility until post-closure care is completed and certified in accordance with 40 CFR Part 264.120 [40 CFR Part 264.118(c)].
 4. Any proposed amendments to the Post-closure Plan shall be submitted to the Department for review and approval [40 CFR Part 264.118(d)].
 5. The permittee shall comply with the requirements of 40 CFR Part 264.119(b) (Notice in deed to property). The notice shall be submitted to the Department within sixty (60) days of permit issuance.
 6. Within sixty (60) days from the completion of the established post-closure care period, the permittee shall submit to the Department by certified mail, or hand delivery, a letter signed by the permittee and an independent professional engineer registered in the State of Florida, except when exempted in accordance with 17-4.050 and 17-730.220(S), FAC, stating that the post-closure care for the hazardous waste disposal unit was performed in accordance with the specifications in the approved Post-closure Plan (40 CFR Part 264.120)].
 7. The permittee shall comply with all applicable portions of 40 CFR Parts 250 through 268 until released from post-closure care requirements.

PART III - GROUNDWATER MONITORING PROGRAM:

1. The Waste Management Area shall be imaginary lines circumscribing the sludge Drying Beds and Surge Pond designated on Attachment A (40 CFR Part 264.95(b)(1) and (2)]. The Point of Compliance shall be the northern, western, and eastern boundaries of the Waste Management Area (40 CFR Part 264.95(a)].
2. The background water quality monitoring well for the Waste Management Area shall be Well UG-1 (Attachment E).
3. The point-of-compliance (POC) wells for the Sludge Drying Beds and Surge Pond shall be PCS-1, PCI-1, PCD-1, GM-8, GM-9, GM-10, GM-68 and GM-69 (Attachment B). If future groundwater monitoring indicates a change in groundwater flow direction within the surficial aquifer, this permit may be modified to require the installation of additional point-of-compliance monitoring wells.

4. All groundwater sampling shall be conducted in accordance with an approved Quality Assurance Plan (Appendix F-5 of the revised application dated February 28, 1991). If there are any changes in the Groundwater Monitoring Plan at the facility, including changes in personnel or contractor, a revised Quality Assurance Project Plan in accordance with 17-160.220, FAC, must be submitted to the Department for review within thirty (30) days.
5. The permittee shall sample the background well, all point-of-compliance wells and assessment wells GM-62, GM-63, GM-64, GM-65, GM-66, and GM-67 (Attachment B) in January and July of each year throughout the Compliance Period specified in Specific Condition 12 of this Part. Each of these wells must be sampled for the constituents listed in Specific Conditions 7 and 10 of this Part. In addition, wells GM-11, GM-12R, GM-13 and GM-14 must be sampled for complexed cyanide in January and July of each year throughout the Compliance Period.
6. The permittee shall submit to the Department groundwater monitoring reports that provide analytical data and information requested in Specific Conditions 5, 9, 14, 15 and 18 of this Part and Specific Condition V.2. The groundwater monitoring data from each January sampling event shall be submitted no later than the following April 30 and data from each July sampling event shall be submitted no later than the following October 31. If for any reason the permittee is unable to submit analyses within the specified time, the permittee must comply with General Condition 8.
7. The Groundwater Protection Standard (40 CFR Part 264.92) shall be:

<u>Parameters</u>	<u>Concentration Limits</u>	
arsenic	0.05	mg/l
barium	1.0	mg/l
cadmium	0.01	mg/l
total chromium	0.05	mg/l
lead	0.05	mg/l
mercury	0.002	mg/l
selenium	0.01	mg/l
silver	0.05	mg/l
nickel	background	
vanadium	background	
zinc	background	
complexed cyanide	background	
2-chlorophenol	PQL	
2,4-dichlorophenol	PQL	
2,4-dimethylphenol	PQL	
4,6-dinitro-o-cresol	PQL	

2,4-dinitrophenol	PQL
2-nitrophenol	PQL
4-nitrophenol	PQL
p-chloro-m-cresol	PQL
pentachlorophenol	PQL
phenol	PQL
2,4,6-trichlorophenol	PQL
2-methyl phenol	PQL
p-methyl phenol	PQL
methyl ethyl phenol	PQL
dimethyl ethyl phenol	PQL
tetramethyl butyl phenol	PQL
acenaphthene	PQL
acenaphthylene	PQL
anthracene	PQL
benzidine	PQL
benzo(a)anthracene	PQL
benzo(a)pyrene	PQL
3,4-benzofluoranthene	PQL
benzo(ghi)perylene	PQL
bis(2-chloroethoxy)methane	PQL
bis(2-chloroethyl)ether	PQL
bis(2-chloroisopropyl)ether	PQL
bis(2-ethylhexyl)phthalate	PQL
4-bromophenyl phenyl ether	PQL
butylbenzyl phthalate	PQL
2-chloronaphthalene	PQL
4-chlorophenyl phenyl ether	PQL
chrysene	PQL
dibenzo(a,h)anthracene	PQL
1,2-dichlorobenzene	PQL
1,3-dichlorobenzene	PQL
1,4-dichlorobenzene	PQL
3,3-dichlorobenzidine	PQL
1,2-dichloropropane	PQL
1,2-dichloropropylene	PQL
ethylbenzene	PQL
methyl bromide	PQL
methyl chloride	PQL
methyl ethyl ketone	PQL
methylene chloride	PQL
1,1,2,2-tetrachloroethane	PQL
tetrachloroethylene	PQL
toluene	PQL
1,2-trans-dichloroethylene	PQL

1,1,1-trichloroethane	PQL
1,1,2-trichloroethane	PQL
trichloroethylene	PQL
trichlorofluoromethane	PQL
vinyl chloride	PQL
benzyl alcohol	PQL
methyl dihydro indene	PQL
tetramethylbenzene	PQL
"alkylated" benzene	PQL
2-hexanone	PQL
trimethyl benzene	PQL
hydroxymethyl pentanone	PQL
diethylphthalate	PQL
dimethylphthalate	PQL
di-n-butyl phthalate	PQL
2,4-dinitrotoluene	PQL
di-n-octyl-phthalate	PQL
1,2-diphenylhydrazine	PQL
fluoranthene	PQL
hexachlorobenzene	PQL
hexachlorobutadiene	PQL
hexachlorocyclopentadiene	PQL
hexachloroethane	PQL
indeno(1,2,3-cd)pyrene	PQL
isophorone	PQL
methyl naphthalene	PQL
2-methyl naphthalene	PQL
naphthalene	PQL
nitrobenzene	PQL
n-nitrosodimethylamine	PQL
n-nitrosodi-n-propylamine	PQL
n-nitrosodiphenylamide	PQL
phenanthrene	PQL
pyrene	PQL
1,2,4-trichlorobenzene	PQL
acrolein	PQL
acrylonitrile	PQL
benzene	PQL
bis(chloromethyl) ether	PQL
bromoform	PQL
carbon tetrachloride	PQL
chlorobenzene	PQL
chlorodibromomethane	PQL
chloroethane	PQL
2-chloroethylvinyl ether	PQL
chloroform	PQL

dichlorobromomethane	PQL
dichlorodifluoromethane	PQL
1,1-dichloroethane	PQL
1,2-dichloroethane	PQL
1,1-dichloroethylene	PQL

PQL = practical quantification limit (see Specific Condition 8 of this Part); mg/l = milligrams per liter; background is defined in Specific Condition 9 of this Part.

8. The Practical Quantification Limit (PQL) shall be the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. PQLs must not routinely exceed maximum contaminant levels of 17-550.310 and .320, FAC.
9. Background concentrations shall be established through sampling at the upgradient background well each time groundwater is sampled at the Point of Compliance. Background concentration for any given constituent for the purpose of this permit (see Specific Condition 7 of this Part) shall be defined as the mean of the four most recent analytical results of that constituent from well UC-1.
10. The following additional constituents shall be sampled on a semiannual basis:

turbidity	specific conductance
sodium	chloride
total coliform	copper
nitrate (as N)	iron
radium 226	fluoride
radium 228	manganese
gross alpha	sulfate
gross beta	pH

11. The permittee may apply for Alternate Concentration Limits (ACLs) for any constituent included with Specific Condition 7 of this Part in accordance with 40 CFR Part 264.94. In accordance with 40 CFR Part 264.94(b), the Department shall establish Alternate Concentration Limits (ACLs) upon approval of the ACL demonstration.
12. The Compliance Period (40 CFR Part 264.96) for the Waste Management Area began August 20, 1984 and shall be 19 years long. If the permittee is engaged in a corrective action program at the end of the Compliance Period, the Compliance Period is extended until the permittee can demonstrate that the Groundwater Protection Standard (40 CFR Part 264.92) specified in Specific Condition 7 of this Part has not been exceeded for a period of three consecutive years (40 CFR Part 264.96(c)).

PERMITTEE

Naval Public Works Cntr. - Pensacola
Naval Air Station
Pensacola, Florida 32508-6500

I.D. Number: FL9 170 024 567
Permit/Certification No.: HF17-170951
Date of Issue: September 20, 1991
Expiration Date: September 20, 1996

13. Groundwater elevations for all existing monitoring wells must be measured in January, April, July and October of each year. All groundwater elevations must be measured within the same eight hour period and must be measured prior to well purging whenever samples are to be taken. The January groundwater elevation data must be submitted no later than the following April 30; the April groundwater elevation data must be submitted no later than the following July 31; the July groundwater elevation data must be submitted no later than the following October 31; and the October groundwater elevation data must be submitted no later than January 31 of the following year. In addition, in January and July of each year, the total depth of all wells included in the groundwater monitoring program (Specific Conditions 2, 3 and 5 of this Part) must be determined by physical measurement prior to sampling to determine if siltation is occurring and to calculate the casing volume to be purged. If infilling or siltation is determined, then discovery and other corrective action taken shall be reported to the Department within fifteen (15) days.
14. The permittee shall notify the Department in writing if any damage to the groundwater monitoring wells occurs. Damage subject to this notification will be that requiring repair, not maintenance. Notification describing corrective action taken shall be given after damage has been corrected, or within fifteen (15) days from the date the damage was detected, whichever occurs first. Description of corrective action taken shall be submitted in writing to the Department, in any case, within fifteen (15) days of completion date.
15. The horizontal groundwater flow rates and directions shall be determined for each affected aquifer quarterly. This information shall be submitted to the Department with the reports required by Specific Condition 5. of this Part.
16. The permittee shall provide the Department with opportunities to observe groundwater sampling and split samples by providing notification at least ten (10) days prior to each groundwater sampling event.
17. Any proposed modifications to the Groundwater Monitoring Plan must be submitted to the Department for review. Upon Department approval, the permit shall be modified in accordance with 17-730.290, FAC.
10. If wells are to be abandoned they shall be abandoned in accordance with 17-532.500(4), FAC.

PART IV - POST-CLOSURE ASSESSMENT:

1. Additional assessment of contaminated groundwater must continue in conjunction with the CERCLA Remedial Investigation/Feasibility Study.

APPENDIX B

**PARAMETER MONITORING REPORT FORMS
AND ANALYTICAL METHOD SUMMARIES**

PARAMETER MONITORING REPORT
(Rule 17-3.402, 17-3.404 - 17-3.406)

GHS # 1017F00625

Sample Date: 07-28-92

Monitoring Well # UG-1

Well Type:

Well Name: Shallow Background

Corrective Action

Point-of-Compliance

Classification of Groundwater G-1

*

Well Developed Prior to
Sample Collection (Yes/No) YES

Groundwater Elevation
(above MSL) 1.74 ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preservatives Added
	pH	Teflon bailer	150.1	4.7		Unfiltered	
	Specific Conductance	Teflon bailer	120.1	160	umhos/cm	Unfiltered	
	Inorganics:	Teflon bailer		See attached		Unfiltered	
	Metals		See Table 2-1				HNO ₃
	Radio-chemistry		See Table 2-1				HNO ₃
	Cyanide		335.2				NaOH
	VOCS	Teflon bailer	8240	See attached		Unfiltered	HCl
	BNAs	Teflon bailer	8270	See attached		Unfiltered	

*

Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

Doc. No. 47:43

PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GHS # 1017F00625

Sample Date: 07-28-92

Monitoring Well # GH-8

Well Type:

Well Name: Shallow

Corrective Action

Point-of-Compliance

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 1.68 ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preservatives Added
	pH	Teflon bailer	150.1	7.1		Unfiltered	
	Specific Conductance	Teflon bailer	120.1	220	umhos/cm	Unfiltered	
	Inorganics :	Teflon bailer		See attached		Unfiltered	
	Metals		See Table 2-1				HNO ₃
	Radio-chemistry		See Table 2-1				HNO ₃
	Cyanide		335.2				NaOH
	VOCs	Teflon bailer	8240	See attached		Unfiltered	HCl
	BNAs	Teflon bailer	8270	See attached		Unfiltered	

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

Doc. No. 47:43

PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 07-28-92

Monitoring Well # GM-9

Well Type:

Well Name: Shallow

- Corrective Action
 Point-of-Compliance

Classification of Groundwater G-1

*

Well Developed Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 1.73 ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preservatives Added
	pH	Teflon bailer	150.1	7.4		Unfiltered	
	Specific Conductance	Teflon bailer	120.1	160	umhos/cm	Unfiltered	
	Inorganics:	Teflon bailer		See attached		Unfiltered	
	Metals		See Table 2-1				HNO ₃
	Radio-chemistry		See Table 2-1				HNO ₃
	Cyanide		335.2				NaOH
	vocs	Teflon bailer	8240.	See attached		Unfiltered	HCl
	BNAs	Teflon bailer	8270	See attached		Unfiltered	

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GHS # 1017F00625

Sample Date: 07-28-92

Monitoring Well # GH-10

Well Type:

Well Name: Shallow

- Corrective Action
- Point-of-Compliance

Classification of Groundwater G-1

*

Well Developed Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above HSL) 1.65 ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preservatives Added
	pH	Teflon bailer	150.1	6.3		Unfiltered	
	Specific Conductance	Teflon bailer	120.1	200	umhos/cm	Unfiltered	
	fnorganics:	Teflon bailer		See attached		Unfiltered	
	Metals		see Table 2-1				HNO ₃
	Radio-chemistry		see Table 2-1				HNO ₃
	Cyanide		335.2				NaOH
	VOCs	Teflon bailer	8240	See attached		Unfiltered	HCl
	BNAs	Teflon bailer	8270	See attached		Unfiltered	

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

Doc. No. 47:43

TEST CODE :WBNBA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment , Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TUTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44884

MATRIX: WATER

SAMPLE ID CLIENT: P32W069

PARAMETER	RESULTS	Q	QNT. LIMIT
Bis(2-Chloroethyl)Ether	ND		50
1,3-Dichlorobenzene	620		50
1,4-Dichlorobenzene	580		50
1,2-Dichlorobenzene	550		50
Bis(2-Chloroisopropyl)Ether	ND		50
N-Nitrosodipropylamine	ND		50
Hexachloroethane	ND		50
Nitrobenzene	ND		50
Isophorone	ND		50
Bis(2-Chloroethoxy)Methane	ND		50
1,2,4-Trichlorobenzene	ND		50
Naphthalene	ND		50
Hexachlorobutadiene	ND		50
Hexachlorocyclopentadiene	ND		50
2-Chloronaphthalene	ND		50
Dimethyl Phthalate	ND		50
Acenaphthylene	ND		50
Fluorene	ND		50
Acenaphthene	ND		50
2,4-Dinitrotoluene	ND		50
2,6-Dinitrotoluene	ND		50
Diethyl Phthalate.	ND		50
4-Chlorophenyl Phenyl Ether	ND		50
N-Nitrosodiphenylamine	ND		50
4-Bromophenyl Phenyl Ether	ND		50
Hexachlorobenzene	ND		50
Phenanthrene	ND		50
Anthracene	ND		50
Di-N-Butyl-Phthalate	ND		50
Fluoranthene	ND		50
Benzidine	ND		250
Pyrene	ND		50
Butyl Benzyl Phthalate	ND		50
3,3'-Dichlorobenzidine	ND		100
Benzo(A)Anthracene	ND		50
Bis(2-Ethylhexyl)Phthalate	ND		50
Chrysene	ND		50
Di-N-Octyl Phthalate	ND		50

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE

B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44884

MATRIX: WATER

SAMPLE ID CLIENT: P32W069

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzo(B)Fluoranthene	ND	-	50
Benzo(K)Fluoranthene	ND	-	50
Benzo(A)Pyrene	ND	-	50
Indeno(1,2,3-cd)Pyrene	ND	-	50
Dibenzo(A,H)Anthracene	ND	-	50
Benzo(G,H,I)Perlyene	ND	-	50
Benzyl Alcohol	ND	-	50
4-Chloroaniline	ND	-	50
2-flethylnapthalene	ND	-	50
2-Nitroaniline	ND	-	250
3-Nitroaniline	ND	-	250
Dibenzofuran	ND	-	50
4-Nitroaniline	ND	-	250

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc..
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44882

MATRIX: WATER

SAMPLE ID CLIENT: P32W066

PARAMETER	RESULTS	Q	QNT. LIMIT
-----	-----	-	-----
Benzo(B)Fluoranthene	ND		10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-Methylnaphthalene	PRESENT	L	10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibenzofuran	ND		10
4-Nitroaniline	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WAPBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : ACID PHENOL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44882

MATRIX : WATER

SAMPLE ID CLIENT: P32W066

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Phenol	ND	-	10
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	62		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Hethylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Methylphenol	PRESENT	L	10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WAPBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : ACID PHENOL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44879

MATRIX : WATER

SAMPLE ID CLIENT: P32W064

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Phenol	ND	-	10
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Methylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Methylphenol	ND		10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN **BLANK**
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : **WBNBNA1**

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44882

MATRIX: WATER

SAMPLE ID CLIENT: P32W066

PARAMETER	RESULTS	Q	QNT. LIMIT
Bis(2-Chloroethyl)Ether	ND		10
1,3-Dichlorobenzene	26		10
1,4-Dichlorobenzene	47		10
1,2-Dichlorobenzene	62		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	49		10
Hexachlorobutadiene	ND		10
Eexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	PRESENT	L	10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphcnylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	ND		10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	ND		10
Chrysene	ND		10
Di-N-Octyl Phthalate	ND		10

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE

B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44879

MATRIX : WATER

SAMPLE ID CLIENT: P32W064

PARAMETER	RESULTS	Q	QNT. LIMIT
Bis(2-Chloroethyl)Ether	ND		10
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Bexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	ND		10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	ND		10
Chrysene	ND		10
Di-N-Octyl Phthalate	ND		10

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE

B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GP SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44879

MATRIX: WATER

SAMPLE ID CLIENT: P32W064

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzo(B)Fluoranthene	ND	-	10
Benzo(K)Fluoranthene	ND	-	10
Benzo(A)Pyrene	ND	-	10
Indeno(1,2,3-cd)Pyrene	ND	-	10
Dibenzo(A,H)Anthracene	ND	-	10
Benzo(G,H,I)Perlyene	ND	-	10
Benzyl Alcohol	ND	-	10
4-Chloroaniline	ND	-	10
2-Hethylnaphthalene	ND	-	10
2-Nitroaniline	ND	-	50
3-Nitroaniline	ND	-	50
Dibenzofuran	ND	-	10
4-Nitroaniline	ND	-	50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WPURG 1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : PURGEABLES

UNITS : UG/L

SAMPLE ID LAB : EE-92-44884

MATRIX: WATER

SAMPLE ID CLIENT: P32W069

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Chloromethane	ND		10
Bromomethane	ND		10
Vinyl Chloride	PRESENT	L	10
Chloroethane	32		10
Methylene Chloride	ND		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	14		5.0
Total-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	PRESENT	L	5.0
Chlorodibromomethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	PRESENT	L	5.0
Chlorobenzene	160		5.0
Ethylbenzene	ND		5.0
Acetone	PRESENT	L	10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	PRESENT	L	5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WPURG 1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : PURGEABLES

UNITS : UG/L

SAMPLE ID LAB : 33-92-44885

MATRIX: WATER

SAMPLE ID CLIENT: P32PCI-1

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Chloromethane	ND		10
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chloroethane	ND		10
Methylene Chloride	ND		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
Total-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	PRESENT	L	5.0
Chlorodibromomethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	65		5.0
Ethylbenzene	ND		5.0
Acetone	17		10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WPURG 1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWIP GW SAMPLING

TEST NAME : PURGEABLES

UNITS : UG/L

SAMPLE ID LAB : BE-92-44879

MATRIX: WATER

SAMPLE ID CLIENT: P32W064

PARAMETER -----	RESULTS -----	Q -	QNT. LIMIT -----
Chloromethane	ND		10
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chloroethane	ND		10
Methylene Chloride	ND		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
Total-1,Z-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromomethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl.Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	PRESENT	L	5.0
Ethylbenzene	ND		5.0
Acetone	PRESENT	L	10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Eexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

 QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WPURG 1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : PURGEABLES

UNITS : UG/L

SAMPLE ID LAB : EE-92-44882

MATRIX: WATER

SAMPLE ID CLIENT: P32W066

PARAMETER	RESULTS	Q	QNT. LIMIT
Chloromethane	ND		200
Bromomethane	ND		200
Vinyl Chloride	PRESENT	L	200
Chloroethane	ND		200
Methylene Chloride	ND		100
1,1-Dichloroethene	190		100
1,1-Dichloroethane	PRESENT	L	100
Total-1,2-Dichloroethene	660		100
Chlorofo m	ND		100
1,2-Dichloroethane	ND		100
1,1,1-Trichloroethane	ND		100
Carbon Tetrachloride	ND		100
Bromodichloromethane	ND		100
1,2-Dichloropropane	ND		100
trans-1,3-Dichloropropene	ND		100
Trichloroethene	4200	X	100
Chlorodibroaomethane	ND		100
1,1,2-Trichloroethane	ND		100
Benzene	ND		100
cis-1,3-Dichloropropene	ND		100
2-Chloroethylvinyl'Ether	ND		200
Bromofo m	ND		100
Tetrachloroethene	ND		100
1,1,2,2-Tetrachloroethane	ND		100
Toluene	ND		100
Chlorobenzene	140		100
Ethylbenzene	ND		100
Acetone	ND		200
Carbon Disulfide	ND		100
2-Butanone	ND		200
Vinyl Acetate	ND		200
4-Hethyl-2-Pentanone	ND		200
2-Hexanone	ND		200
Styrene	ND		100
Total Xylenes	ND		100

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT
 X = EXCEEDS CALIBRATION LIMIT

TEST CODE : WS04 1

JOB NUMBER : 9201.848

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST NAME : SULFATE UNITS : MG/L
PARAMETER : Sulfate

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44695 RBO1	ND	-	2.0
EE-92-44696 RBO2	ND	-	2.0
EE-92-44697 GM-10	18	-	2.0
EE-92-44698 GM-10 DUP.	19	-	2.0
EE-92-44699 GM-8	24	-	2.0
EE-92-44700 GM-8 DUP.	24	-	2.0
EE-92-44701 FB01	ND	-	2.0
EE-92-44702 UG-1	25	-	2.0
EE-92-44703 GM-9	4.2	-	2.0
EE-92-44704 GM-67	180	-	2.0

.....

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT
 NA = NOT APPLICABLE

TEST CODE :WS04 1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TESTNAHE : SULFATE UNITS : MG/L
PARAMETER : Sulfate

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44877 P32W062	79		2.0
EE-92-44878 P32W063	52		2.0
EE-92-44879 P32W064	76		2.0
EE-92-44880 P32W065	ND		20
EE-92-44882 P32W066	8000		2.0
EE-92-44883 P32W068	ND		20
EE-92-44884 P32W069	190		2.0
EE-92-44885 P32PCI-1	70		2.0
EE-92-44886 P32PCD-1	ND		20
EE-92-44887 P32PCS-1	13		2.0
EE-92-44891 P32WRB03	ND		2.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT
NA = NOT APPLICABLE

TEST CODE :UF 1

JOB NUMBER :9201.848

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : FLUORIDE TOTAL

UNITS : MG/L

PARAMETER : Fluoride Total

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44695 RB01	ND		0.10
EE-92-44696 RB02	ND		0.10
EE-92-44697 GM-10	0.19		0.10
EE-92-44698 GM-10 DUP.	0.19		0.10
EE-92-44699 GM-8	0.54		0.10
EE-92-44700 GM-8 DUP.	0.54		0.10
EE-92-44701 FB01	ND		0.10
EE-92-44702 UG-1	ND		0.10
EE-92-44703 GM-9	0.23		0.10
EE-92-44704 GM-67	0.21		0.10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIHATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT
NA = NOT APPLICABLE

TEST CODE :WF 1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST NAME : FLUORIDE TOTAL UNITS : MG/L
PARAMETER : Fluoride Total

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44877 P32W062	0.30		0.10
EE-92-44878 P32W063	ND		0.10
EE-92-44879 P32W064	0.29		0.10
EE-92-44880 P32W065	ND		0.10
EE-92-44882 P32W066	ND		0.10
EE-92-44883 P32W068	ND		0.10
BE-92-44884 P32W069	0.22		0.10
EE-92-44885 P32PCI-1	0.30		0.10
EE-92-44886 P32PCD-1	ND		0.10
EE-92-44887 P32PCS-1	0.16		0.10
EE-92-44891 P32WRB03	ND		0.10

QUALIFIERS: C = $\text{\textcircled{C}}$ ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT
 NA = NOT APPLICABLE

TEST CODE :WCNCMP1

JOB NUMBER :9201.848

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST NAME : CYANIDE-COMPLEX UNITS : MG/L
PARAMETER : Cyanide-complex

SAMPLE ID RESULTS Q QNT. LIMIT

EE-92-44708
GM-13R ND 0.010

EE-92-44709
GM-14 0.011 0.010

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT
NA = NOT APPLICABLE

TEST CODE :WCNCMP1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAHPLING
TEST NAME : CYANIDE-COMPLEX UNITS : MG/L
PARAMETER : Cyanide-complex

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44877 P32W062	0.033		0.010
EE-92-44878 P32W063	ND		0.010
EE-92-44879 P32W064	0.12		0.010
EE-92-44880 P32W065	ND		0.010
EE-92-44882 P32W066	0.030		0.010
EE-92-44883 P32W068	ND		0.010
EE-92-44884 P32W069	0.14		0.010
EE-92-44885 P32PCI-1	0.10		0.010
EE-92-44886 P32PCD-1	ND		0.010
EE-92-44887 P32PCS-1	0.013		0.010
EE-92-44891 P32WRB03	0.013		0.010

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT
NA = NOT APPLICABLE

TEST CODE :WCL 1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GY SAMPLING
TEST NAME : CHLORIDE UNITS : MG/L
PARAMETER : Chloride

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44877 P32W062	9.2		1.0
EE-92-44878 P32W063	960		1.0
EE-92-44879 P32W064	51		1.0
EE-92-44880 P32W065	180		1.0
EE-92-44882 P32W066	580		1.0
EE-92-44883 P32W068	160		1.0
EE-92-44884 P32W069	830		1.0
EE-92-44885 P32PCI-1	450		1.0
EE-92-44886 P32PCD-1	340		1.0
EE-92-44887 P32PCS-1	4.8		1.0
EE-92-44891 P32WRB03	ND		1.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT
 NA = NOT APPLICABLE

TEST CODE :VCNCMP1

JOB NUMBER :9201.848

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST : CYANIDE-COMPLEX UNITS : MG/L
PARAMETER : Cyanide-complex

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44695 RB01	ND		0.010
EE-92-44696 RB02	0.055		0.010
EE-92-44697 GM-10	ND		0.010
EE-92-44698 GM-10 DUP.	ND		0.010
EE-92-44699 GM-8	ND		0.010
EE-92-44700 GM-8 DUP.	ND		0.010
EE-92-44701 FB01	ND		0.010
EE-92-44702 UG-1	ND		0.010
EE-92-44703 GM-9	0.016		0.010
EE-92-44704 GM-67	2.8		0.010
EE-92-44705 PB01	ND		0.010
EE-92-44706 GM-11	0.19		0.010
EE-92-44707 GM-12R	ND		0.010

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT
NA = NOT APPLICABLE

JOB NUMBER :9201.873
ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWIP GW SAMPLING
SAMPLE ID LAB : EE-92-44885 MATRIX: WATER
SAMPLE ID CLIENT: P32PCI-1

<u>PARAMETER</u>		<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>	<u>UNITS</u>
Silver	(ICP)	ND	-	10	UG/L
Arsenic	(FU)	ND		5.0	UG/L
Barium	(ICP)	ND		20	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	ND		20	UG/L
Iron	(ICP)	180		50	UG/L
Manganese	(ICP)	19		10	UG/L
Sodium	(ICP)	290000		500	UG/L
Nickel	(ICP)	ND		20	UG/L
Lead	(FU)	ND		5.0	UG/L
Selenium	(FU)	ND		5.0	UG/L
Vanadium	(ICP)	ND		20	UG/L
Zinc	(ICP)	34		10	UG/L
Mercury		ND		0.20	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WCL 1

JOB NUMBER :9201.848

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST NAME : CHLORIDE UNITS : MG/L
PARAMETER : Chloride

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44695 RB01	ND		1.0
EE-92-44696 RB02	ND		1.0
EE-92-44697 GM-10	23		1.0
EE-92-44698 GM-10 DUP.	22		1.0
EE-92-44699 GM-8	5.8		1.0
EE-92-44700 GM-8 DUP.	5.7		1.0
EE-92-44701 FB01	ND		1.0
EE-92-44702 UG-1	17		1.0
EE-92-44703 GM-9	5.5		1.0
EE-92-44704 GM-67	110		1.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT
 NA = NOT APPLICABLE

JOB NUMBER :9201.873
ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWIP GW SAMPLING
SAMPLE ID LAB : EE-92-44882 MATRIX : WATER
SAMPLE ID CLIENT: P32W066

<u>PARAMETER</u>		<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>	<u>UNITS</u>
Silver	(ICP)	ND		10	UG/L
Arsenic	(FU)	ND		25	UG/L
Barium	(ICP)	55		20	UG/L
Cadmium	(ICP)	35		5.0	UG/L
Chromium Total	(ICP)	320		10	UG/L
Copper	(ICP)	45		20	UG/L
Iron	(ICP)	320000		50	UG/L
Manganese	(ICP)	1600		10	UG/L
Sodium	(ICP)	650000		500	UG/L
Nickel	(ICP)	170		20	UG/L
Lead	(FU)	ND		5.0	UG/L
Selenium	(FU)	ND		25	UG/L
Vanadium	(ICP)	440		20	UG/L
Zinc	(ICP)	400		10	UG/L
Mercury		ND		0.20	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

JOB NUMBER :9201.873

ELAP ID = 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

SAMPLE ID LAB :EE-92-44884

MATRIX: WATER

SAMPLE ID CLIENT: P32W069

<u>PARAMETER</u>		<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIXIT</u>	<u>UNITS</u>
Silver	(ICP)	ND		10	UG/L
Arsenic	(FU)	ND		5.0	UG/L
Barium	(ICP)	28		20	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	ND		20	UG/L
Iron	(ICP)	260		50	UG/L
Manganese	(ICP)	94		10	UG/L
Sodium	(ICP)	580000		500	UG/L
Nickel	(ICP)	ND		20	UG/L
Lead	(FU)	ND		5.0	UG/L
Selenium	(FU)	ND		5.0	UG/L
Vanadium	(ICP)	ND		20	UG/L
Zinc	(ICP)	14		10	UG/L
Mercury		ND		0.20	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

Table D-1

GROUNDWATER SAMPLE DESIGNATIONS
INTERMEDIATE ZONE MONITORING WELLS

Sample Location	Sample Designation
Well GM-64	P32W064
Well GM-66	P32W066
Well GM-69	P32W069
Well PCI-1	P32WPCI-1

Doc. Num. 47:09

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

SAMPLE ID LAB :EE-92-44879

MATRIX: VATER

SAMPLE ID CLIENT: P32W064

<u>PARAMETER</u>		<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>	<u>UNITS</u>
Silver	(ICP)	ND		10	UG/L
Arsenic	(FU)	ND		5.0	UG/L
Barium	(ICP)	ND		20	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	ND		20	UG/L
Iron	(ICP)	150		50	UG/L
Manganese	(ICP)	46		10	UG/L
Sodium	(ICP)	60000		500	UG/L
Nickel	(ICP)	ND		20	UG/L
Lead	(FU)	ND		5.0	UG/L
Selenium	(FU)	ND		5.0	UG/L
Vanadium	(ICP)	ND		20	UG/L
Zinc	(ICP)	22		10	UG/L
Mercury		ND		0.20	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIHIT

APPKNDIX D

**INTERMEDIATE ZONE MONITORING WELLS
GROUNDWATER SAMPLING ANALYTICAL RESULTS**

PROJECT NUMBER 3924826 0201
FIELD GROUP ECOW2

PROJECT NAME ECOLOGY 6 ENVIRN.
PROJECT MANAGER S.P. WOODWARD

STORET CODE:
METHOD CODE:
PARAMETER :
UNITS:

1501	1562	3501	3502	9501	9502	11501	11502
R	R	R	R	R	R	R	R
ALPHA	ALPHA,CE	BETA	BETA,CE	RA226	RA226,C.E.	RA 228	RA 228,CT
PC/L	+/-PC/L	PC/L	+/-PC/L	PC/L	+/-PC/L	PC/L	+/-PC/L

FLD.GRP.	#	SAMPLE ID	DATE	TIME	1501	1562	3501	3502	9501	9502	11501	11502
ECOWZ	1	RB01	07/27/92	16:55	<1.0	0.7	<3.0	1.3	1.7	0.07	<1.0	6.5
ECOWZ	2	RE92	07/28/92	13:45	<1.0	6.6	<3.0	1.4	1.1	0.1	<1.0	0.4
ECOWZ	3	GM-10	07/28/92	10:40	<1.0	1.8	4.2	4.9	0.5	8.86	<1.0	8.4
ECOWZ	4	GM-10D	07/28/92	10:40	1.6	2.3	<3.0	4.0	5.4	8.2	<1.0	8.9
ECOWZ	5	GM-8	07/28/92	13:00	5.0	4.8	<3.0	5.9	3.2	0.2	2.1	6.8
ECOWZ	6	GM-8D	07/28/92	13:00	<1.0	3.9	5.9	6.1	2.5	0.1	1.7	0.9
ECOWZ	7	FB01	07/28/92	09:00	<1.0	0.5	<3.0	1.2	1.1	0.2	<1.0	0.9
ECOWZ	8	UC-1	07/28/92	10:10	<1.0	1.8	<3.0	3.6	<0.1	0.2	<1.0	1.1
ECOWZ	9	OM-9	07/28/92	15:50	<1.0	1.4	<3.0	3.2	0.2	0.1	<1.0	1.1
ECOWZ	10	GM-67	07/28/92	16:45	<1.0	8.6	<3.0	18.3	8.4	0.1	1.2	1.1
ECOWZ	11	GM-68	07/29/92	09:30	<1.0	3.5	<3.0	9.8	1.1	8.1	2.2	1.0
ECOWZ	12	GM-69	07/29/92	09:45	<1.0	18.9	36.9	37.9	2.0	6.2	2.7	1.1
ECOWZ	13	OM-65	07/29/92	10:45	<1.0	3.8	<3.0	7.2	1.9	0.1	<1.0	1.1
ECOWZ	14	OR-66	07/29/92	10:15	64.2	93.8	197	140	1.7	0.1	36.5	2.2
ECOWZ	15	RB03	07/29/92	13:00	<1.0	0.0	<3.0	1.3	4.5	6.2	1.3	1.1
ECOWZ	16	PCS-1	07/29/92	13:30	<1.0	2.6	7.6	3.5	0.2	6.2	<1.0	1.1
ECOWZ	17	PCD-1	07/29/92	13:45	12.6	12.0	17.4	19.9	36.4	6.6	<1.0	0.9
ECOWZ	18	PCI-1	07/29/92	14:30	16.1	22.3	32.7	42.6	1.3	0.2	<1.0	0.9
ECOWZ	19	CM-62	07/29/92	15:45	8.6	5.3	8.E	7.2	2.1	0.2	<1.0	0.0
ECOWZ	20	OR-63	07/29/92	16:15	20.7	11.3	27.8	13.9	5.6	0.3	<1.0	1.0
ECOWZ	21	CM-64	07/29/92	17:00	<1.0	29.5	17.4	40.7	26.1	0.5	<1.0	1.0



Client: ECOLOGY & ENVIRONMENTAL

Lab I.D.#: 92-6576-7
Received Date: 07/28/92
Sampled By: AMY TWITTY

Project Number: UH9000
Project Name: IWTP
Sample Site: N/S
Sample Type: N/S (GROUNDWATER)

Sample ID.: P32W067 Sample Date: 07/27&28 Time: AM & PM

N/NO3

NITROGEN NITRATE

Parameter	Units	Result	Detection Limit
NITROGEN, NITRITE	PPM	BDL	0.1
NITROGEN, NITRITE-NITRATE	PPM	BDL	0.1
NITROGEN, NITRATE	PPM	BDL	0.1



Client: ECOLOGY & ENVIRONMENTAL

Lab I.D.#: 92-6605-5
 Received Date: 07/29/92
 Sampled By: AMY TWITTY

Project Number: UH 9000
 Project Name: IWTP
 Sample Site: N/S
 Sample Type: GROUNDWATER

Sample ID. : P32WPCS-1 Sample Date: 07/29/92 The: AM & PM

N/NO3 NITROGEN NITRATE

Parameter	Units	Result	Detection Limit
NITROGEN, NITRITE	PPM	BDL	0.1
NITROGEN, NITRITE-NITRATE	PPM	BDL	0.1
NITROGEN, NITRATE	PPM	BDL	0.1

Client: ECOLOGY & ENVIRONMENTAL

Lab I.D.#: 92-6576-1
 Received Date: 07/28/92
 Sampled By: AMY TWITTY

Project Number: UH9000
 Project Name: IWTP
 Sample Site: N/S
 Sample Type: N/S (GROUNDWATER)

Sample ID.: P32W010 Sample Date: 07/27&28 Time: AM & F

N/NO3

NITROGEN NITRATE

Parameter	Units	Result	Detectic Limit
NITROGEN, NITRITE	PPM	BDL	0.1
3EI NITRITE-NITRATE	PPM	BDL	0.1
3EI NITRATE	PPM	BDL	0.1



Client: ECOLOGY & ENVIRONMENTAL

Lab I.D.#: 92-6605-8

Project Number: UH 9000

Received Date: 07/29/92

Project Name: IWTP

Sampled By: AMY TWITTY

Sample Site: N/S

Sample Type: GROUNDWATER

Sample ID. : P32W062

Sample Date: 07/29/92 Time: AM & PM

N/NO3

NITROGEN NITRATE

Parameter	Units	Result	Detection Limit
NITROGEN, NITRITE	PPM	BDL	0.1
NITROGEN, NITRITE-NITRATE	PPM	1.4	0.1
NITROGEN, NITRATE	PPM	1.4	0.1



Client: ECOLOGY & ENVIRONMENTAL

Lab I.D.#: 92-6576-3
 Received Date: 07/28/92
 Sampled By: AMY TWITTY

Project Number: UH9000
 Project Name: IWTP
 Sample Site: N/S
 Sample Type: N/S (GROUNDWATER)

Sample ID.: P32W008 Sample Date: 07/27&28 Time: AM & P:

N/NO3 NITROGEN NITRATE

Parameter	Units	Result	Detectio: Limit
NITROGEN, NITRITE	PPM	BDL	0.1
NITROGEN, NITRITE-NITRATE	PPM	BDL	0.1
NITROGEN; NITRATE	PPM	BDL	0.1



Client: ECOLOGY & ENVIRONMENTAL

Lab I.D.#: 92-6576-6
 Received Date: 07/28/92
 Sampled By: AMY TWITTY

Project Number: UH9000
 Project Name: IWTP
 Sample Site: N/S
 Sample Type: N/S (GROUNDWATER)

Sample ID.: P32W009 Sample Date: 07/27&28 Time: AM & PM

N/NO3

NITROGEN NITRATE

Parameter	Units	Result	Detection Limit
NITROGEN, NITRITE	PPM	BDL	0.1
NITROGEN, NITRITE-NITRATE	PPM	BDL	0.1
NITROGEN, NITRATE	PPM	BDL	0.1



ECOLOGY & ENVIRONMENTAL
316 S. BAYLEN ST.
SUITE 670
PENSACOLA FL 32501-0000

Lab I.D.#: 92-6576
Order Number: P61516
Received Date: 07/28/92
Client: 05039
Sampled By: AMY TWITTY
Sample Date: 07/27&28
Sample Time: AM & PM

Project Number: UH9000
Project Name: IWTP
Sample Site: N/S
Sample Type: N/S (GROUNDWATER)

N/S = Not Submit:

Lab ID	Sample ID	Parameter	Units	Results	Detect: Limit
6576-1	P32W010	TOTAL COLIFORM	CLY/100	BDL	2.0
6576-2	P32W010D	TOTAL COLIFORM	CLY/100	BDL	2.0
6576-3	P32W008	TOTAL COLIFORM	CLY/100	BDL	2.0
6576-4	P32W008D	TOTAL COLIFORM	CLY/100	BDL	2.0
6576-5	P32W001	TOTAL COLIFORM	CLY/100	BDL	2.0
6576-6	P32W009	TOTAL COLIFORM	CLY/100	BDL	2.0
6576-7	P32W067	TOTAL COLIFORM	CLY/100	BDL	2.0
6576-1	P32W010	TURBIDITY	N.T.U.	1.2	0.1
6576-2	P32W010D	TURBIDITY	N.T.U.	0.9	0.1
6576-3	P32W008	TURBIDITY	N.T.U.	2.2	0.1
6576-4	P32W008D	TURBIDITY	N.T.U.	7.2	0.1
6576-5	P32W001	TURBIDITY	N.T.U.	9.7	0.1
6576-6	P32W009	TURBIDITY	N.T.U.	4.4	0.1
6576-7	P32W067	TURBIDITY	N.T.U.	68	0.1

Comments: PPM = Parts Per Million, mg/l; CLY/100 = Colonies Per 100 mls.
Method Refs: EPA 600/4-79-020, Revised March 1983 and Standard Methods,
16th Edition, 1985. BDL = Below Detection Limits.

page 1 Approved By : *Linda Regan*



Client: ECOLOGY & ENVIRONMENTAL

Lab I.D.#: 92-6576-5
 Received Date: 07/28/92
 Sampled By: AMY TWITTY

Project Number: UH9000
 Project Name: IWTP
 Sample Site: N/S
 Sample Type: N/S (GROUNDWATER)

Sample ID.: P32W001 Sample Date: 07/27&28 Time: AM & PM

N/NO3 NITROGEN NITRATE

Parameter	Units	Result	Detection Limit
NITROGEN, NITRITE	PPM	BDL	0.1
NITROGEN, NITRITE-NITRATE	PPM	BDL	0.1
NITROGEN, NITRATE	PPM	BDL	0.1

TEST CODE : WAPBNA1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWIP GW SAMPLING

TEST NAME : ACID PHENOL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44887

MATRIX: WATER

SAMPLE ID CLIENT: P32PCS-1

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
-	-	-	-
Phenol	ND		10
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Methylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Methylphenol	ND		10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT



ECOLOGY & ENVIRONMENTAL
 316 S. BAYLEN ST.
 SUITE 670
 PWSACOLA FL 32501-0000

Lab I.D.#: 92-6605
 Order Number: P61556
 Received Date: 07/29/92
 Client: 05039
 Sampled By: AMY TWITTY
 Sample Date: 07/29/92
 Sample Time: AM & PM

Project Number: UH 9000
 Project Name: IWTP
 Sample Site: N/S
 Sample Type: GROUNDWATER

N/S = Not Submitted

Lab ID	Sample ID	Parameter	Units	Results	Detecti Limit
6605-1	P32W068	TOTAL COLIFORM	CLY/100	BDL	2.0
6605-2	P32W069	TOTAL COLIFORM	CLY/100	BDL	2.0
6605-3	P32W065	TOTAL COLIFORM	CLY/100	50	2.0
6605-4	P32W066	TOTAL COLIFORM	CLY/100	BDL	2.0
6605-5	P32WPCS-1	TOTAL COLIFORM	CLY/100	34	2.0
6605-6	P32WPCD-1	TOTAL COLIFORM	CLY/100	BDL	2.0
6605-7	P32WPCI-1	TOTAL COLIFORM	CLY/100	BDL	2.0
6605-8	P32W062	TOTAL COLIFORM	CLY/100	BDL	2.0
6605-9	P32W063	TOTAL COLIFORM	CLY/100	318	2.0
6605-10	P32W064	TOTAL COLIFORM	CLY/100	BDL	2.0
6605-1	P32W068	TURBIDITY	N.T.U.	10.9	0.1
6605-2	P32W069	TURBIDITY	N.T.U.	31	0.1
6605-3	P32W065	TURBIDITY	N.T.U.	9.6	0.1
6605-4	P32W066	TURBIDITY	N.T.U.	58	0.2+
6605-5	P32WPCS-1	TURBIDITY	N.T.U.	8.3	0.1
6605-6	P32WPCD-1	TURBIDITY	N.T.U.	4.2	0.1
6605-7	P32WPCI-1	TURBIDITY	N.T.U.	11	0.1
6605-8	P32W062	TURBIDITY	N.T.U.	5.1	0.1
6605-9	P32W063	TURBIDITY	N.T.U.	5.1	0.1
6605-10	P32W064	TURBIDITY	N.T.U.	8.4	0.1

Comments: PPM = Parts Per Million, mg/l. CLY/100 = Colonies Per 100 mls.
 Method References: EPA 600/4-79-020, Revised March 1983 and Standard
 Methods, 16th Edition, 1985. BDL = Below Detection Limits. +Elevated
 detection limit due dilution into calibration range.

Approved By : *[Signature]*
 page 1

TEST CODE :WBNBA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44887

MATRIX : WATER

SAMPLE ID CLIENT: P32PCS-1

PARAMETER	RESULTS	Q	ONT. LIMIT
Bis(2-Chloroethyl)Ether	ND		10
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Accnaphthylene	ND		10
Fluorene	PRESENT	L	10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	ND		10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	ND		10
Chrysene	ND		10
Di-N-Octyl Phthalate	ND		10

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QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44887

MATRIX: VATER

SAMPLE ID CLIENT: P32PCS-1

PARAMETER	RESULTS	Q	QNT. LIHIT
Benzo(B)Fluoranthene	ND	-	10
Benzo(K)Fluoranthene	ND	-	10
Benzo(A)Pyrene	ND	-	10
Indeno(1,2,3-cd)Pyrene	ND	-	10
Dibenzo(A,H)Anthracene	ND	-	10
Benzo(G,H,I)Perlyene	ND	-	10
Benzyl Alcohol	ND	-	10
4-Chloroaniline	ND	-	10
2-Methylnaphthalene	ND	-	10
2-Nitroaniline	ND	-	50
3-Nitroaniline	ND	-	50
Dibenzofuran	ND	-	10
4-Nitroaniline	ND	-	50

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE

B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.848

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44704

MATRIX: WATER

SAMPLE ID CLIENT: GM-67

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Benzo(B)Fluoranthene	ND	-	10
Benzo(K)Fluoranthene	ND	-	10
Benzo(A)Pyrene	ND	-	10
Indeno(1,2,3-cd)Pyrene	ND	-	10
Dibenzo(A,H)Anthracene	ND	-	10
Benzo(G,H,I)Perlyene	ND	-	10
Benzyl Alcohol	ND	-	10
4-Chloroaniline	ND	-	10
2-Methylnaphthalene	ND	-	10
2-Nitroaniline	ND	-	50
3-Nitroaniline	ND	-	50
Dibenzofuran	ND	-	10
4-Nitroaniline	ND	-	50

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE

B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WAPBNA1

JOB NUMBER : 9201.848

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : ACID PHENOL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44704

MATRIX: WATER

SAMPLE ID CLIENT: GH-67

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Phenol	ND		10
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Methylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Hethylphenol	ND		10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WAPBNA1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP **GW** SAMPLING

TEST NAME : ACID PHENOL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44877

MATRIX : WATER

SAMPLE ID CLIENT: P32W062

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Phenol	ND		10
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Methylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Methylphenol	ND		10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

.....
QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST COD& : WBNBNA1

JOB NUMBER : 9201.848
ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BAS& NEUTRAL

UNITS : UG/L

SAUPLE ID LAB : EE-92-44704

MATRIX: WATER

SAMPLE ID CLIENT: GH-67

PARAMETER	RESULTS	Q	QNT. LIHIT
Bis(2-Chloroethyl)Ether	ND		10
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	PRESENT	L	10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Eexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Eexachlorobutadiene	ND		10
Eexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthenc	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	ND		10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	PRESENT	L	10
Chrysene	ND		10
Di-N-Octyl Phthalate	ND		10

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE

B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44877

MATRIX : WATER

SAMPLE ID CLIENT: P32W062

PARAMETER	RESULTS	Q	QNT. LIMIT
-----	-----	-	-----
Bis(2-Chloroethyl)Ether	ND		10
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	ND		10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	ND		10
Chrysene	ND		10
Di-N-Octyl Phthalate	ND		10

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE

B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44877

MATRIX: WATER

SAMPLE ID CLIENT: P32W062

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzo(B)Fluoranthene	ND		10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-Methylnaphthalene	ND		10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibenzofuran	ND		10
4-Nitroaniline	ND		50

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE

B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WBNBNA1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44875

MATRIX: WATER

SAMPLE ID CLIENT: P32W010

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzo(B)Fluoranthene	ND	-	10
Benzo(K)Fluoranthene	ND	-	10
Benzo(A)Pyrene	ND	-	10
Indeno(1,2,3-cd)Pyrene	ND	-	10
Dibenzo(A,H)Anthracene	ND	-	10
Benzo(G,H,I)Perlyene	ND	-	10
Benzyl Alcohol	ND	-	10
4-Chloroaniline	ND	-	10
2-Methylnaphthalene	ND	-	10
2-Nitroaniline	ND	-	50
3-Nitroaniline	ND	-	50
Dibenzofuran	ND	-	10
4-Nitroaniline	ND	-	50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WAPBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : ACID PHENOL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44875

MATRIX: WATER

SAMPLE ID CLIENT: P32W010

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Phenol	ND	-	10
2-Chlorophenol	ND	-	10
2-Nitrophenol	ND	-	10
2,4-Dimethylphenol	ND	-	10
2,4-Dichlorophenol	ND	-	10
4-Chloro-3-Methylphenol	ND	-	10
2,4,6-Trichlorophenol	ND	-	10
2,4-Dinitrophenol	ND	-	50
4-Nitrophenol	ND	-	50
4,6-Dinitro-2-Methylphenol	ND	-	50
Pentachlorophenol	ND	-	50
2-Hethylphenol	ND	-	10
4-Methylphenol	ND	-	10
Benzoic Acid	ND	-	50
2,4,5-Trichlorophenol	ND	-	50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WAPBNA1

JOB NUMBER :9201.848

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GU SAMPLING

TEST NAME : ACID PHENOL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44703

MATRIX : WATER

SAMPLE ID CLIENT: GM-9

PARAMETER	RESULTS	Q	QNT. LIMIT
Phenol	ND		10
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Hethylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	N D		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Methylphenol	ND		10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44875

MATRIX: WATER

SAMPLE ID CLIENT: P32W010

PARAMETER	RESULTS	Q	QNT. LIMIT
Bis(2-Chloroethyl)Ether	ND		10
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlotocyclopentadienc	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Broaophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	ND		10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	ND		10
Chrysene	ND		10
Di-N-Octyl Phthalate	ND		10

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE

B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBA1

JOB NUMBER :9201.848

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OH-9000 NASP TWTP GW SAMPLING

TEST NAHE : BASE NEUTRAL

UNITS : UG/L

SAXPLE ID LAB : EE-92-44703

MATRIX: WATER

SAMPLE ID CLIENT: GM-9

PARAMETER	RESULTS	Q	QNT. LIMIT
-----	-----	-	-----
Bis(2-Chloroethyl)Ether	ND		10
1,3-Dichlorobenzene	PRESENT	L	10
1,4-Dichlorobenzene	PRESENT	L	10
1,2-Dichlorobenzene	PRESENT	L	10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Eexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate.	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Eexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	ND		10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	ND		10
Chrysene	ND		10
Di-N-Octyl Phthalate	ND		10

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE

B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.848

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44703

MATRIX: WATER

SAMPLE ID CLIENT: GH-9

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzo(B)Fluoranthene	ND		10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-Methylnaphthalene	ND		10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibcnzofuran	ND		10
4-Nitroaniline	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44872

MATRIX : WATER

SAMPLE ID CLIENT: P32W008

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzo(B)Fluoranthene	ND		10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-Hethylnaphthalene	ND		10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibenzofuran	ND		10
4-Nitroaniline	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WAPBNA1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : ACID PHENOL

UNITS : UG/L

SAHPLE ID LAB : EE-92-44872

MATRIX: VATER

SAMPLE ID CLIENT: P32W008

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Phenol	ND		10
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Hethylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Hethylphenol	ND		10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WAPBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : ACID PHENOL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44888

MATRIX: WATER

SAMPLE ID CLIENT: P32W001

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Phenol	ND	-	10
2-Chlorophenol	ND		10'
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Methylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Methylphenol	ND		10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873
ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-92-44872 MATRIX: UATER
SAMPLE ID CLIENT: P32W008

PARAMETER	RESULTS	Q	QNT. LIMIT
Bis(2-Chloroethyl)Ether	ND		10
1,3-Dichlorobenzene	PRESENT	L	10
1,4-Dichlorobenzene	PRESENT	L	10
1,Z-Dichlorobenzene	PRESENT	L	10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	ND		10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	UD		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	ND		10
Chtysene	ND		10
Di-N-Octyl Phthalate	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44888

MATRIX: WATER

SAMPLE ID CLIENT: P32W001

PARAMETER	RESULTS	Q	QNT. LIMIT
Bis(2-Chloroethyl)Ether	ND		10
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadieno	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate .	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	ND		10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	ND		10
Chrysene	ND		10
Di-N-Octyl Phthalate	ND		10

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE

B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44888

MATRIX: WATER

SAMPLE ID CLIENT: P32W001

PARAMETER	RESULTS	Q	QNT. LIHIT
Benzo(B)Fluoranthene	ND	-	10
Benzo(K)Fluoranthene	ND	-	10
Benzo(A)Pyrene	ND	-	10
Indeno(1,2,3-cd)Pyrene	ND	-	10
Dibenzo(A,H)Anthracene	ND	-	10
Benzo(G,H,I)Perlyene	ND	-	10
Benzyl Alcohol	ND	-	10
4-Chloroaniline	ND	-	10
2-Ifethylnaphthalene	ND	-	10
2-Nitroaniline	ND	-	50
3-Nitroaniline	ND	-	50
Dibenzofuran	ND	-	10
4-Nitroaniline	ND	-	50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WPURG 1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : PURGEABLES

UNITS : UG/L

SAMPLE ID LAB : 33-92-44881

MATRIX: WATER

SAMPLE ID CLIENT: P32W067

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Chloromethane	ND		10
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chloroethane	ND		10
Methylene Chloride	ND		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
Total-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromomethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	PRESENT	L	5.0
Ethylbenzene	ND		5.0
Acetone	PRESENT	L	10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Hethyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

.....
 QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WPURG 1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : PURGEABLES

UNITS : UG/L

SAMPLE ID LAB : EE-92-44887

MATRIX: WATER

SAMPLE ID CLIENT: P32PCS-1

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Chloromethane	ND		10
Bromoaethane	ND		10
Vinyl Chloride	ND		10
Chloroethane	ND		10
Methylene Chloride	ND		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
Total-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromomethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	PRESENT	L	10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

 QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WPURG 1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : PURGEABLES

UNITS : UG/L

SAMPLE ID LAB : EE-92-44875

MATRIX : WATER

SAMPLE ID CLIENT: P32W010

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Chloromethane	ND		10
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chloroethane	ND		10
Methylene Chloride	ND		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
Total-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromomethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	PRESENT	L	10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Hethyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIHATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WPURG 1

JOB NUMBER ~9201.873

ELAP ID : 10686

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : PURGEABLES

UNITS : UG/L

SAMPLE ID LAB : EE-92-44877

MATRIX: WATER

SAMPLE ID CLIENT: P32W062

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Chloromethane	ND		10
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chloroethane	ND		10
Hethylene Chloride	ND		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
Total-1,Z-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethcne	ND		5.0
Chlorodibromomethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	PRESENT	L	10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WPURG 1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : PURGEABLES

UNITS : UG/L

SAMPLE ID LAB : EE-92-44872

MATRIX: WATER

SAMPLE ID CLIENT: P32W008

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Chloromethane	ND		10
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chloroethane	ND		10
Methylene Chloride	ND		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
Total-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromomethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	20		5.0
Ethylbenzene	ND		5.0
Acetone	PRESENT	L	10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

.....
 QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WPURG 1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : PURGEABLES

UNITS : UGIL

SAMPLE ID LAB : 33-92-44874

MATRIX: WATER

SAMPLE ID CLIENT: P32W009

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Chloromethane	ND		20
Bromomethane	ND		20
Vinyl Chloride	ND		20
Chloroethane	ND		20
Methylene Chloride	PRESENT	L	10
1,1-Dichloroethene	ND		10
1,1-Dichloroethane	ND		10
Total-1,2-Dichloroethene	ND		10
Chlorofo m	ND		10
1,2-Dichloroethane	ND		10
1,1,1-Trichloroethane	ND		10
Carbon Tetrachloride	ND		10
Bromodichloroethane	ND		10
1,2-Dichloropropane	ND		10
trans-1,3-Dichloropropene	ND		10
Trichloroethene	ND		10
Chlorodibromomethane	ND		10
1,1,2-Trichloroethane	ND		10
Benzene	ND		10
cis-1,3-Dichloropropene	ND		10
2-Chlorooctylvinyl Ether	ND		20
Braofo m	ND		10
Tetrachloroethene	ND		10
1,1,2,2-Tetrachloroethane	ND		10
Toluene	ND		10
Chlorobenzene	210		10
Ethylbenzene	ND		10
Acetone	PRESENT	L	20
Carbon Disulfide	ND		10
2-Butanone	ND		20
Vinyl Acetate	ND		20
4-Hethyl-2-Pentanone	ND		20
2-Hexanone	ND		20
Styrene	ND		10
Total Xylenes	ND		10

QUALIFIERS: C = COMMENT **ND = NOT DETECTED**
J = ESTIMATED VALUE **B = ALSO PRESENT IN BLANK**
L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WS04 1

JOB NUMBER : 9201.848

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST NAME : SULFATE UNITS : MG/L
PARAMETER : Sulfate

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44695 RBO1	ND	-	2.0
EE-92-44696 RBO2	ND	-	2.0
EE-92-44697 GM-10	18	-	2.0
EE-92-44698 GM-10 DUP.	19	-	2.0
EE-92-44699 GM-8	24	-	2.0
EE-92-44700 GM-8 DUP.	24	-	2.0
EE-92-44701 FB01	ND	-	2.0
EE-92-44702 UG-1	25	-	2.0
EE-92-44703 GM-9	4.2	-	2.0
EE-92-44704 GM-67	180	-	2.0

.....
QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT
NA = NOT APPLICABLE

TEST CODE : WPURG 1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : PURGEABLES

UNITS : UG/L

SAMPLE ID LAB : EE-92-44888

MATRIX: WATER

SAMPLE ID CLIENT: P32W001

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Chloromethane	ND		10
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chloroethane	ND		10
Methylene Chloride	ND		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
Total-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromomethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromofo m	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbcnzcne	ND		5.0
Acetone	13		10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-flexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

.....
 QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WF 1

JOB NUMBER :9201.848

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST NAME : FLUORIDE TOTAL UNITS : MG/L
PARAMETER : Fluoride Total

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44695 RB01	ND	-	0.10
EE-92-44696 RB02	ND	-	0.10
EE-92-44697 GM-10	0.19	-	0.10
EE-92-44698 GM-10 DUP.	0.19	-	0.10
EE-92-44699 GM-8	0.54	-	0.10
EE-92-44700 GM-8 DUP.	0.54	-	0.10
EE-92-44701 FB01	ND	-	0.10
EE-92-44702 UG-1	ND	-	0.10
EE-92-44703 GM-9	0.23	-	0.10
EE-92-44704 GM-67	0.21	-	0.10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT
NA = NOT APPLICABLE

TEST CODE :WS04 1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST NAME : SULFATE UNITS : MG/L
PARAMETER : Sulfate

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44877 P32W062	79		2.0
EE-92-44878 P32W063	52		2.0
EE-92-44879 P32W064	76		2.0
EE-92-44880 P32W065	ND		20
EE-92-44882 P32W066	8000		2.0
EE-92-44883 P32W068	ND		20
EE-92-44884 P32W069	190		2.0
EE-92-44885 P32PCI-1	70		2.0
EE-92-44886 P32PCD-1	ND		20
EE-92-44887 P32PCS-1	13		2.0
EE-92-44891 P32WRB03	ND		2.0

.....
 QUALIFIERS: C = COMMENT IJ = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT
 NA = NOT APPLICABLE

TEST CODE :WCNMP1

JOB NUMBER :9201.848

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWIP GW SAMPLING
TEST NAME : CYANIDE-COMPLEX UNITS : MG/L
PARAMETER : Cyanide-complex

SAUPLE ID RESULTS Q QNT. LIMIT

EE-92-44708
GM-13R ND 0.010

EE-92-44709
GM-14 0.011 0.010

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT
NA = NOT APPLICABLE

TEST CODE :VF 1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST NAME : FLUORIDE TOTAL UNITS : MG/L
PARAMETER : Fluoride Total

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44877 P32W062	0.30		0.10
EE-92-44878 P32W063	ND		0.10
EE-92-44879 P32W064	0.29		0.10
EE-92-44880 P32W065	ND		0.10
EE-92-44882 P32W066	ND		0.10
EE-92-44883 P32W068	ND		0.10
EE-92-44884 P32W069	0.22		0.10
EE-92-44885 P32PCI-1	0.30		0.10
EE-92-44886 P32PCD-1	ND		0.10
EE-92-44887 P32PCS-1	0.16		0.10
EE-92-44891 P32WRB03	ND		0.10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT
 NA = NOT APPLICABLE

TEST CODE :WCNCMP1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GU SAMPLING
TEST NAME : CYANIDE-COMPLEX UNITS : MG/L
PARAMETER : Cyanide-complex

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44877 P32W062	0.033		0.010
EE-92-44878 P32W063	ND		0.010
33-92-44879 P32W064	0.12		0.010
EE-92-44880 P32W065	ND		0.010
EE-92-44882 P32W066	0.030		0.010
EE-92-44883 P32W068	ND		0.010
EE-92-44884 P32W069	0.14		0.010
EE-92-44885 P32PCI-1	0.10		0.010
EE-92-44886 P32PCD-1	ND		0.010
EE-92-44887 P32PCS-1	0.013		0.010
EE-92-44891 P32WRB03	0.013		0.010

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT
NA = NOT APPLICABLE

TEST CODE :WCNCMP1

JOB NUMBER :9201.848

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST NAME : CYANIDE-COMPLEX UNITS : MG/L
PARAMETER : Cyanide-complex

SAMPLE ID	RESULTS	Q	ONT. LIMIT
EE-92-44695 RB01	ND		0.010
EE-92-44696 RB02	0.055		0.010
EE-92-44697 GM-10	ND		0.010
EE-92-44698 GM-10 DUP.	ND		0.010
EE-92-44699 GM-8	ND		0.010
EE-92-44700 GM-8 DUP.	ND		0.010
EE-92-44701 FB01	ND		0.010
EE-92-44702 UG-1	ND		0.010
EE-92-44703 GM-9	0.016		0.010
EE-92-44704 GM-67	2.8		0.010
EE-92-44705 PB01	ND		0.010
EE-92-44706 GM-11	0.19		0.010
EE-92-44707 GM-12R	ND		0.010

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED ONT. LIMIT
NA = NOT APPLICABLE

TEST CODE :WCL 1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWIP GW SAMPLING
TEST NAME : CHLORIDE UNITS : MG/L
PARAMETER : Chloride

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44877 P32W062	9.2	-	1.0
EE-92-44878 P32W063	960	-	1.0
EE-92-44879 P32W064	51	-	1.0
EE-92-44880 P32W065	180	-	1.0
EE-92-44882 P32W066	580	-	1.0
EE-92-44883 P32W068	160	-	1.0
EE-92-44884 P32W069	830	-	1.0
EE-92-44885 P32PCI-1	450	-	1.0
EE-92-44886 P32PCD-1	340	-	1.0
EE-92-44887 P32PCS-1	4.8	-	1.0
EE-92-44891 P32WRB03	ND	-	1.0

.....
 QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT
 NA = NOT APPLICABLE

TEST CODE :WCL 1

JOB NUMBER :9201.848

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST NAME : CHLORIDE UNITS : MG/L
PARAMETER : Chloride

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44695 RB01	ND		1.0
EE-92-44696 RB02	ND		1.0
EE-92-44697 GM-10	23		1.0
EE-92-44698 GX-10 DUP.	22		1.0
EE-92-44699 GM-8	5.8		1.0
EE-92-44700 GM-8 DUP.	5.7		1.0
33-92-44701 FB01	ND		1.0
EE-92-44702 UG-1	17		1.0
EE-92-44703 GM-9	5.5		1.0
EE-92-44704 GM-67	110		1.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT
NA = NOT APPLICABLE

JOB NUMBER : 9201.848
ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWT? GW SAMPLING
SAMPLE ID LAB : EE-92-44704 MATRIX: WATER
SAMPLE ID CLIENT: GM-67

<u>PARAMETER</u>		<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIHIT</u>	<u>UNITS</u>
Silver	(ICP)	ND	-	10	UG/L
Arsenic	(FU)	ND	-	5.0	UG/L
Barium	(ICP)	ND	-	20	UG/L
Cadmium	(ICP)	ND	-	5.0	UG/L
Chromium Total	(ICP)	ND	-	10	UG/L
Copper	(ICP)	ND	-	20	UG/L
Iron	(ICP)	8800	-	50	UG/L
Hanganese	(ICP)	340	-	10	UG/L
Sodium	(ICP)	73000	-	500	UG/L
Nickel	(ICP)	ND	-	20	UG/L
Lead	(FU)	ND	-	5.0	UG/L
Selenium	(FU)	ND	-	5.0	UG/L
Vanadium	(ICP)	ND	-	20	UG/L
Zinc	(ICP)	24	-	10	UG/L
Mercury		ND	-	0.20	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

SAMPLE ID LAB :EE-92-44887

MATRIX: VATER

SAMPLE ID CLIENT: P32PCS-1

<u>PARAMETER</u>		<u>RESULTS.</u>	<u>Q</u>	<u>QNT. LIHIT</u>	<u>UNITS</u>
Silver	(ICP)	ND		10	UG/L
Arsenic	(FU)	ND		5.0	UG/L
Barium	(ICP)	28		20	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	ND		20	UG/L
Iron	(ICP)	2600		50	UG/L
Manganese	(ICP)	95		10	UG/L
Sodium	(ICP)	12000		500	UG/L
Nickel	(ICP)	ND		20	UG/L
Lead	(FU)	ND		5.0	UG/L
Selenium	(FU)	ND		5.0	UG/L
Vanadium	(ICP)	ND		20	UG/L
Zinc	(ICP)	ND		10	UG/L
Mercury		ND		0.20	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

JOB NUMBER : 9201.848
ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

SAMPLE ID LAB : EE-92-44697

MATRIX : WATER

SAMPLE ID CLIENT: GM-10

<u>PARAMETER</u>		<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>	<u>UNITS</u>
Silver	(ICP)	ND		10	UG/L
Arsenic	(FU)	ND		5.0	UG/L
-Barium	(ICP)	72		20	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
-Chromium Total	(ICP)	11		10	UG/L
Copper	(ICP)	ND		20	UG/L
·Iron	(ICP)	670		50	UG/L
-Manganese	(ICP)	62		10	UG/L
-Sodium	(ICP)	11000		500	UG/L
Nickel	(ICP)	ND		20	UG/L
.Lead	(FU)	7.3		5.0	UG/L
Selenium	(FU)	ND		5.0	UG/L
Vanadium	(ICP)	ND		20	UG/L
·Zinc	(ICP)	24		10	UG/L
Mercury		ND		0.20	UG/L

.....
QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

SAMPLE ID LAB : EE-92-44877

MATRIX: WATER

SAMPLE ID CLIENT: P32W062

<u>PARAMETER</u>		<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>	<u>UNITS</u>
Silver	(ICP)	ND		10	UG/L
Arsenic	(FU)	ND		5.0	UG/L
Barium	(ICP)	61		20	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	ND		20	UG/L
Iron	(ICP)	1900		50	UG/L
Manganese	(ICP)	260		10	UG/L
Sodium	(ICP)	4100		500	UG/L
Nickel	(ICP)	ND		20	UG/L
Lead	(FU)	ND		5.0	UG/L
Selenium	(FU)	ND		5.0	UG/L
Vanadium	(ICP)	ND		20	UG/L
Zinc	(ICP)	55		10	UG/L
Mercury		ND		0.20	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

JOB NUMBER :9201.848

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

SAMPLE ID LAB : EE-92-44699

MATRIX: WATER

SAMPLE ID CLIENT: GM-8

PARAMETER		RESULTS	Q	QNT. LIMIT	UNITS
Silver	(ICP)	ND		10	UG/L
Arsenic	(FU)	ND		5.0	UG/L
Barium	(ICP)	66		20	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	ND		20	UG/L
Iron	(ICP)	2300		50	UG/L
Manganese	(ICP)	25		10	UG/L
Sodium	(ICP)	4400		500	UG/L
Nickel	(ICP)	ND		20	UG/L
Lead	(FU)	ND		5.0	UG/L
Selenium	(FU)	ND		5.0	UG/L
Vanadium	(ICP)	ND		20	UG/L
Zinc	(ICP)	32		10	UG/L
Mercury		ND		0.20	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

JOB NUMBER :9201.848

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

SAMPLE ID LAB :EE-92-44703

MATRIX: WATER

SAHPLE ID CLIENT: GM-9

<u>PARAMETER</u>		<u>RESULTS</u>	<u>Q</u>	<u>ONT. LIMIT</u>	<u>UNITS</u>
Silver	(ICP)	ND		10	UG/L
Arsenic	(FU)	ND		5.0	UG/L
Barium	(ICP)	ND		20	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	ND		20	UG/L
Iron	(ICP)	2400		50	UG/L
Manganese	(ICP)	19		10	UG/L
Sodium	(ICP)	3200		500	UG/L
Nickel	(ICP)	ND		20	UG/L
Lead	(FU)	7.6		5.0	UG/L
Selenium	(FU)	ND		5.0	UG/L
Vanadium	(ICP)	ND		20	UG/L
Zinc	(ICP)	14		10	UG/L
Mercury		ND		0.20	UG/L

QUALIFIERS: C = ∞ ——— ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED ONT. LIMIT

Table c-1

**GROUNDWATER SAMPLE DESIGNATIONS
SHALLOW ZONE MONITORING WELLS**

Sample Location	Sample Designation
Well UG-1	P32W001
Well GM-8	P32W008
Well GM-9	P32W009
Well GM-10	P32W010
Well GM-11	P32W011
Well GM-12R	P32W012R
Well GM-13R	P32W013R
Well GM-14	P32W014
Well GM-62	P32W062
Well GM-67	P32W067
Well PCS-1	P32WPCS-1

JOB NUMBER : 9201.848
ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
SAMPLE ID LAB : EE-92-44702 MATRIX: WATER
SAMPLE ID CLIENT: UG-1

PARAMETER		RESULTS	Q	QNT. LIMIT	UNITS
Silver	(ICP)	ND	-	10	UG/L
Arsenic	(FU)	ND		5.0	UG/L
Barium	(ICP)	ND		20	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	ND		20	UG/L
Iron	(ICP)	1300		50	UG/L
Manganese	(ICP)	ND		10	UG/L
Sodium	(ICP)	9100		500	UG/L
Nickel	(ICP)	ND		20	UG/L
Lead	(FU)	ND		5.0	UG/L
Selenium	(FU)	ND		5.0	UG/L
Vanadium	(ICP)	ND		20	UG/L
Zinc	(ICP)	14		10	UG/L
Mercury		ND		0.20	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

APPENDIX C

**SHALLOW ZONE MONITORING WELLS
GROUNDWATER SAMPLING ANALYTICAL RESULTS**

PARAMETER	METHOD
Chloride	Method 9251 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SU-846, Third Edition, U.S. EPA, 1986.
Cyanide-Complex	Method 9012 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, U.S. EPA, 1986.
Fluoride Total	Method 340.2 - "Methods for the Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983.
Sulfate	Method 9036 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, U.S. EPA, 1986.
Lead	Method 7421 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, U.S. EPA, 1986.
Arsenic	Method 7060 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, U.S. EPA, 1986.
Selenium	Method 7740 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SU-846, Third Edition, U.S. EPA, 1986.
Mercury	Method 7470 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, U.S. EPA, 1986.
Barium Cadmium Chromium Total Copper Iron Manganese Nickel Silver Sodium Vanadium Zinc	Method 6010 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, U.S. EPA, 1986.
Purgeables	Method 8240 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, U.S. EPA, 1986.
Base Neutral/ Acid Phenol	Method 8270 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SU-846, Third Edition, U.S. EPA, 1986.

PARAMETER MONITORING REPORT
 (Rule 17-3.402, 17-3.404 - 17-3.406)

GHS # 1017F00625

Sample Date: 07-29-92

Monitoring Well # PCD-1

Well Type:

Well Name: Deep

- Corrective Action
 Point-of-Compliance

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above HSL) 2.10 ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preservatives Added
	pH	Submersible pump	150.1	4.5		Unfiltered	
	Specific Conductance	Submersible pump	120.1	700	mhos/cm	Unfiltered	
	tnorganics:	Submersible pump		See attached		Unfiltered	
	Metals		See Table 2-1				HNO ₃
	Radio-chemistry		See Table 2-1				HNO ₃
	Cyanide		335.2				NaOH
	VOCs	Submersible pump	8240	See attached		Unfiltered	HCl
	BNAs	Submersible pump	8270	See attached		Unfiltered	

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

PARAMETER	METHOD
Chloride	Method 9251 - "Test methods for Evaluating Solid Waste, Physical/Chemical Methods", SV-846, Third Edition, U.S. EPA, 1986.
Cyanide-Complex	Method 9012 - "Test methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, U.S. EPA, 1986.
Fluoride Total	Method 340.2 - "Methods for the Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983.
Sulfate	Method 9036 - "Test methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, U.S. EPA, 1986.
Lead	Method 7421 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SV-846, Third Edition, U.S. EPA, 1986.
Arsenic	Method 7060 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, U.S. EPA, 1986.
Selenium	Method 7740 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, U.S. EPA, 1986.
Mercury	Method 7470 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SV-846, Third Edition, U.S. EPA, 1986.
Barium Cadmium Chromium Total Copper Iron Manganese Nickel Silver Sodium Vanadium Zinc	Method 6010 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, U.S. EPA, 1986.
Base Neutral/ Acid Phenol	Method 8270 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, U.S. EPA, 1986.

PARAMETER MONITORING REPORT
(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 07-29-92

Monitoring Well # PCS-1

Well Type:

Well Name: Shallow

Corrective Action

Point-of-Compliance

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 2.11 ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis Result	units	Sample Filtered/Unfiltered	Preservatives Added
	pH	Teflon bailer	150.1	4.6		Unfiltered	
	Specific Conductance	Teflon bailer	120.1	184	umhos/cm	Unfiltered	
	Inorganics :	Teflon bailer		See attached		Unfiltered	
	Metals		See Table 2-1				HNO ₃
	Radio-chemistry		See Table 2-1				HNO ₃
	Cyanide		335.2				NaOH
	VOCS	Teflon bailer	8240	See attached		Unfiltered	HCl
	BNAs	Teflon bailer	8270	See attached		Unfiltered	

*Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

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PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 07-29-92

Monitoring Well # PCI-1

Well Type:

Well Name: Intermediate

Corrective Action

Point-of-Compliance

Classification of Groundwater G-1

*

Well Developed Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 1.83 ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis Result	Units	Sample Filtered/unfiltered	Preservatives Added
	pH	Submersible pump	150.1	7.0		Unfiltered	
	Specific Conductance	Submersible pump	120.1	760	umhos/cm	Unfiltered	
	Inorganics:	Submersible pump		See attached		Unfiltered	
	Metals		See Table 2-1				HNO ₃
	Radio-chemistry		See Table 2-1				HNO ₃
	Cyanide		335.2				NaOH
	VOCs	Submersible pump	8240	See attached		Unfiltered	HCl
	BNAs	Submersible pump	8270	See attached		Unfiltered	

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

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PARAMETER MONITORING REPORT
(Rule 17-3.402, 17-3.404 - 17-3.406)

GHS # 1017F00625

Sample Date: 07-29-92

Monitoring Well # GM-68

Well Type:

Well Name: Deep

Corrective Action

Point-of-Compliance

Classification of Groundwater G-1

*

Well Developed Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 1.99 ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preservatives Added
	pH	Submersible pump	150.1	7.5		Unfiltered	
	Specific Conductance	Submersible pump	120.1	300	umhos/cm	Unfiltered	
	Inorganics	Submersible pump		See attached		Unfiltered	
	Metals		See Table 2-1				HNO ₃
	Radio-chemistry		See Table 2-1				HNO ₃
	Cyanide		335.2				NaOH
	vocs	Submersible pump	8240	See attached		Unfiltered	HCl
	BNAs	Submersible pump	8270	See attached		Unfiltered	

*

Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

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PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GHS # 1017F00625

Sample Date: 07-29-92

Monitoring Well # GH-69

Well Type:

Well Name: Intermediate

Corrective Action

Point-of-Compliance

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 1.62 ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preservatives Added
	pH	Teflon bailer	150.1	7.6		Unfiltered	
	Specific Conductance	Teflon bailer	120.1	1,000	umhos/cm	Unfiltered	
	Inorganics:	Teflon bailer		See attached		Unfiltered	
	Metals		See Table 2-1				HNO ₃
	Radio-chemistry		See Table 2-1				HNO ₃
	Cyanide		335.2				NaOH
	VOCs	Teflon bailer	8240	See attached		Unfiltered	HCl
	BNAs	Teflon bailer	8270	See attached		Unfiltered	

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

PARAMETER MONITORING REPORT
(Rule 17-3.402, 17-3.404 - 17-3.406)

GHS # 1017F00625

Sample Date: 07-29-92

Monitoring Well # GM-66

Well Type:

Well Name: Intermediate

Corrective Action

Point-of-Compliance

Classification of Groundwater G-1

*

Well Developed Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 1.30 ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preservatives Added
	pH	Submersible pump	150.1	4.3		Unfiltered	
	Specific Conductance	Submersible pump	120.1	3,800	umhos/cm	Unfiltered	
	Inorganics	Submersible pump		See attached		Unfiltered	
	Metals		See Table 2-1				HNO ₃
	Radio-chemistry		See Table 2-1				HNO ₃
	Cyanide		335.2				NaOH
	vocs	Submersible pump	8240	See attached		Unfiltered	HCl
	BNAs	Submersible pump	8270	See attached		Unfiltered	

*

Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GHS # 1017F00625

Sample Date: 07-28-92

Monitoring Well # GH-67

Well Type:

Vell Name: Shallov

[X] Corrective Action

[] Point-of-Compliance

Classification of Groundwater G-1

Vell Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above HSL) 1.70 ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preservatives Added
	pH	Tcflon bailer	150.1	6.7		Unfiltered	
	Specific Conductance	Teflon bailer	120.1	570	umhos/cm	Unfiltered	
	Inorganics:	Teflon bailer		see attached		Unfiltered	
	Hetals		See Table 2-1				HNO ₃
	Radio-chemistry		See Table 2-1				HNO ₃
	Cyanide		335.2				NaOH
	vocs	Teflon bailer	8240	See attached		Unfiltered	HCl
	BNAS	Teflon bailer	8270	See attached		Unfiltered	

* Vell development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

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PARAMETER MONITORING REPORT
(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 07-29-92

Monitoring Well # GM-64

Well Type:

Well Name: Intermediate

- [X] Corrective Action
[] Point-of-Compliance

Classification of Groundwater G-1

*

Well Developed Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 0.39 ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preservatives Added
	pH	Teflon Bailer	150.1	8.6		Unfiltered	
	Specific Conductance	Teflon Bailer	120.1	280	umhos/cm	Unfiltered	
	Inorganics:	Teflon bailer		See attached		Unfiltered	
	Metals		See Table 2-1				HNO ₃
	Radio-chemistry		See Table 2-1				HNO ₃
	Cyanide		335.2				NaOH
	VOCS	Teflon bailer	8240	See attached		Unfiltered	HCl
	BNAs	Teflon bailer	8270	See attached		Unfiltered	

*
Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GHS # 1017F00625

Sample Date: 07-29-92

Monitoring Well # GH-65

Well Type:

Well Name: Deep

Corrective Action

Point-of-Compliance

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above HSL) 1.22 ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preservatives Added
	pH	Submersible pump	150.1	7.9		Unfiltered	
	Specific Conductance	Submersible pump	120.1	300	umhos/cm	Unfiltered	
	[Inorganics : Metals	Submersible pump	See Table 2-1	See attached		Unfiltered	HNO ₃
	Radio-chemistry		See Table 2-1				HNO ₃
	Cyanide		335.2				NaOH
	VOCs	Submersible pump	8240	see attached		Unfiltered	HCl
	BNAs	Submersible pump	8270	See attached		Unfiltered	

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

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PARAMETER MONITORING REPORT
(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 07-29-92

Monitoring Well # GM-62

Well Type:

Well Name: Shallow

- [X] Corrective Action
[] Point-of-Compliance

Classification of Groundwater G-1

*

Well Developed Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 2.11 ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preservatives Added
	pH	Teflon bailer	150.1	8.2		Unfiltered	
	Specific Conductance	Teflon bailer	120.1	190	umhos/cm	Unfiltered	
	Inorganics:	Teflon bailer		See attached		Unfiltered	
	Metals		See Table 2-1				HNO ₃
	Radio-chemistry		See Table 2-1				HNO ₃
	Cyanide		335.2				NaOH
	vocs	Teflon bailer	8240	See attached		Unfiltered	HCl
	BNAs	Teflon bailer	8270	See attached		Unfiltered	

*
Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

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PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GHS # 1017F00625

Sample Date: 07-29-92

Monitoring Well # GH-63

Well Type:

Well Name: Deep

Corrective Action

Point-of-Compliance

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above HSL) 1.69 ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preservatives Added
	pH	Teflon Bailer	150.1	7.5		Unfiltered	
	Specific Conductance	Teflon Bailer	120.1	790	umhos/cm	Unfiltered	
	tnorganics:	Teflon bailer		See attached		Unfiltered	
	Metals		See Table 2-1				HNO ₃
	Radio-chemistry		See Table 2-1				HNO ₃
	Cyanide		335.2				NaOH
	VOCs	Teflon bailer	8240	See attached		Unfiltered	HCl
	BNAS	Teflon bailer	8270	See attached		Unfiltered	

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

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PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GHS # 1017F00625

Sample Date: 07-28-92

Monitoring Well # GM-11

Well Type:

Well Name: Shallow

Corrective Action

Point-of-Compliance

Classification of Groundwater G-1

*

Well Developed Prior to
Sample Collection (Yes/No) YES

Groundwater Elevation
(above HSL) 2.20 ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preservatives Added
	pH	Teflon bailer	150.1	3.2		Unfiltered	
	Specific Conductance	Teflon bailer	104.3	200	umhos/cm	Unfiltered	
	Cyanide	Teflon bailer	335.2	See attached		Unfiltered	NaOH

*

Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GHS # 1017F00625

Sample Date: 07-28-92

Monitoring Well # GH-12R

Well Type:

Well Name: Shallow

Corrective Action

Point-of-Compliance

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above HSL) 2.47 ft

STORET Code	Parameter monitored	Sampling Method	EPA Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preservatives Added
	pH	Teflon bailer	150.1	5.5		Unfiltered	
	Specific Conductance	Teflon bailer	120.1	200	umhos/cm	Unfiltered	
	Cyanide	Teflon bailer	335.2	See attached		Unfiltered	NaOH

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 07-28-92

Monitoring Well # GM-13R

Well Type:

Well Name: Shallow

- Corrective Action
 Point-of-Compliance

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 2.03 ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preservatives Added
	pH	Teflon bailer	150.1	5.9		Unfiltered	
	Specific Conductance	Teflon bailer	120.1	180	umhos/cm	Unfiltered	
	Cyanide	Teflon bailer	335.2	See attached		Unfiltered	NaOH

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

Doc. No. 47:43

PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 07-28-92

Monitoring Well # GH-14

Well Type:

Well Name: Shallov

Corrective Action

Point-of-Compliance

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 1.70 ft

STORET Code	Parameter Monitored	Sampling Method	EPA Analysis Method	Analysis Result	Units	Sample Filtered/Unfiltered	Preservatives Added
	pH	Teflon bailer	150.1	4.2		Unfiltered	
	Specific Conductance	Teflon bailer	120.1	260	umhos/cm	Unfiltered	
	Cyanide	Teflon bailer	335.2	See attached		Unfiltered	NaOH

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

TEST CODE : WAPBNA1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWIP GW SAMPLING

TEST NAME : ACID PHENOL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44884

MATRIX: WATER

SAMPLE ID CLIENT: P32W069

PARAMETER	RESULTS	Q	QNT. LIMIT
Phenol	ND		50
2-Chlorophenol	ND		50
2-Nitrophenol	ND		50
2,4-Dimethylphenol	ND		50
2,4-Dichlorophenol	PRESENT	L	50
4-Chloro-3-Methylphenol	ND		50
2,4,6-Trichlorophenol	ND		50
2,4-Dinitrophenol	ND		250
4-Nitrophenol	ND		250
4,6-Dinitro-2-Methylphenol	ND		250
Pentachlorophenol	ND		250
2-flethylphenol	ND		50
4-Hethylphenol	ND		50
Benzoic Acid	ND		250
2,4,5-Trichlorophenol	ND		250

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GV SAHPLING
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-92-44885 MATRIX: WATER
SAHPL ID CLIENT: P32PCI-1

PARAMETER	RESULTS	Q	QNT. LIMIT
Bis(2-Chloroethyl)Ether	ND		10
1,3-Dichlorobenzene	PRESENT	L	10
1,4-Dichlorobenzene	PRESENT	L	10
1,Z-Dichlorobenzene	13		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
flexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Bexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalenc	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosdiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
.Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	PRESENT	L	10
Pluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	ND		10
Chrysene	ND		10
Di-N-Octyl Phthalate	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873
ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44885

MATRIX: WATER

SAMPLE ID CLIENT: P32PCI-1

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzo(B)Fluoranthene	ND		10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-Methylnaphthalene	ND		10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibenzofuran	ND		10
4-Nitroaniline	ND		50

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE

B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WAPBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : ACID PHENOL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44885

MATRIX : WATER

SAMPLE ID CLIENT: P32PCI-1

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>ONT. LIHIT</u>
Phenol	ND	-	10
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Hethylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Hethylphenol	ND		10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT



ECOLOGY & ENVIRONMENTAL
316 S. BAYLEN ST.
SUITE 670
PENSACOLA FL 32501-0000

Lab I.D.#: 92-6605
Order Number: P61556
Received Date: 07/29/92
Client: 05039
Sampled By: AMY TWITTY
Sample Date: 07/29/92
Sample Time: AM & PM

Project Number: UH 9000
Project Name: IWTP
Sample Site: N/S
Sample Type: GROUNDWATER

N/S = Not Submitt

Lab ID	Sample ID	Parameter	Units	Results	Detecti Limit
6605-1	P32W068	TOTAL COLIFORM	CLY/100	BDL	2.0
6605-2	P32W069	TOTAL COLIFORM	CLY/100	BDL	2.0
6605-3	P32W065	TOTAL COLIFORM	CLY/100	50	2.0
6605-4	P32W066	TOTAL COLIFORM	CLY/100	BDL	2.0
6605-5	P32WPCS-1	TOTAL COLIFORM	CLY/100	34	2.0
6605-6	P32WPCD-1	TOTAL COLIFORM	CLY/100	BDL	2.0
6605-7	P32WPCI-1	TOTAL COLIFORM	CLY/100	BDL	2.0
6605-8	P32W062	TOTAL COLIFORM	CLY/100	BDL	2.0
6605-9	P32W063	TOTAL COLIFORM	CLY/100	318	2.0
6605-10	P32W064	TOTAL COLIFORM	CLY/100	BDL	2.0
6605-1	P32W068	TURBIDITY	N.T.U.	10.9	0.1
6605-2	P32W069	TURBIDITY	N.T.U.	31	0.1
6605-3	P32W065	TURBIDITY	N.T.U.	9.6	0.1
6605-4	P32W066	TURBIDITY	N.T.U.	58	0.2+
6605-5	P32WPCS-1	TURBIDITY	N.T.U.	8.3	0.1
6605-6	P32WPCD-1	TURBIDITY	N.T.U.	4.2	0.1
6605-7	P32WPCI-1	TURBIDITY	N.T.U.	11	0.1
6605-8	P32W062	TURBIDITY	N.T.U.	5.1	0.1
6605-9	P32W063	TURBIDITY	N.T.U.	5.1	0.1
6605-10	P32W064	TURBIDITY	N.T.U.	8.4	0.1

Comments: PPM = Parts Per Million, mg/l. CLY/100 = Colonies Per 100 mls.
Method References: EPA 600/4-79-020, Revised March 1983 and Standard
Methods, 16th Edition, 1985. BDL = Below Detection Limits. +Elevated
detection limit due dilution into calibration range.

Approved By : *[Signature]*
page 1



Client: ECOLOGY & ENVIRONMENTAL

Lab I.D.#: 92-6605-10

Project Number: UH 9000

Received Date: 07/29/92

Project Name: IWTP

Sampled By: AMY TWITTY

Sample Site: N/S

Sample Type: GROUNDWATER

Sample ID. : P32W064

Sample Date: 07/29/92 Time: AM & PM

N/NO3

NITROGEN NITRATE

Parameter	Units	Result	Detection Limit
NITROGEN, NITRITE	PPM	BDL	0.1
NITROGEN, NITRITE-NITRATE	PPM	BDL	0.1
NITROGEN, NITRATE	PPM	BDL	0.1



Client: ECOLOGY & ENVIRONMENTAL

Lab I.D.#: 92-6605-4

Project Number: UH 9000

Received Date: 07/29/92

Project Name: IWTP

Sampled By: AMY TWITTY

Sample Site: N/S

Sample Type: GROUNDWATER

Sample ID.: P32W066

Sample Date: 07/29/92 Time: AM & PM

N/NO3

NITROGEN NITRATE

Parameter	Units	Result	Detection Limit
NITROGEN, NITRITE	PPM	BDL	0.1
NITROGEN, NITRITE-NITRATE	PPM	BDL	0.1
NITROGEN, NITRATE	PPM	BDL	0.1



Client: ECOLOGY & ENVIRONMENTAL

Lab I.D.#: 92-6605-2

Project Number: UH 9000

Received Date: 07/29/92

Project Name: IWTP

Sampled By: AMY TWITTY

Sample Site: N/S

Sample Type: GROUNDWATER

Sample ID. : P32W069

Sample Date: 07/29/92 Time: AM & PM

N/NO3

NITROGEN NITRATE

Parameter	Units	Result	Detection Limit
NITROGEN, NITRITE	PPM	BDL	0.1
NITROGEN, NITRITE-NITRATE	PPM	BDL	0.1
NITROGEN, NITRATE	PPM	BDL	0.1



Client: ECOLOGY & ENVIRONMENTAL

Lab I.D.#: 92-6605-7

Project Number: UH 9000

Received Date: 07/29/92

Project Name: IWIP

Sampled By: AMY TWITTY

Sample Site: N/S

Sample Type: GROUNDWATER

Sample ID.: P32WPCI-1

Sample Date: 07/29/92 Time: AM & PM

N/NO3

NITROGEN NITRATE

Parameter	Units	Result	Detection Limit
NITROGEN, NITRITE	PPM	BDL	0.1
NITROGEN, NITRITE-NITRATE	PPM	0.4	0.1
NITROGEN, NITRATE	PPM	0.4	0.1

PROJECT NUMBER 3924020 0201
 FIELD GROUP ECOLZ

PROJECT NAME ECOLOGY & ENVIRN.
 PROJECT MANAGER S.P. WOODWARD

STORET COOL:
 METHOD CODE:
 PARAMETER:
 UNITS:

1501	1502	3501	3502	9501	9502	11501	11502
R	R	R	R	R	R	R	R
ALPHA	ALPHA,CE	BETA	BETA,CE	RA226	RA226,C.E.	RA 229	RA 228,CT
PC/L	+/-PC/L	PC/L	+/-PC/L	PC/L	+/-PC/L	PC/L	+/-PC/L

FLD.GRP.	0	SAMPLE ID	DATE	TIME	1501	1502	3501	3502	9501	9502	11501	11502
ECOM2	1	RB01	07/27/92	16:55	<1.0	4.7	<3.0	1.3	0.7	0.07	<1.0	0.5
ECOM2	2	RB02	07/28/92	13:45	<1.0	0.6	<3.0	1.4	1.1	0.1	<1.0	0.4
ECOM2	3	GM-10	07/28/92	12:40	<1.0	1.8	4.2	4.9	0.5	0.06	<1.0	8.4
ECOM2	4	GM-10D	07/28/92	12:40	1.6	2.3	<3.0	4.8	5.4	0.2	<1.0	(1.9
ECOM2	5	GM-8	07/28/92	12:00	5.0	4.m	<3.0	5.9	3.2	0.2	2.1	0.8
ECOM2	6	GM-8D	07/28/92	13:00	<1.0	3.9	5.9	6.1	2.5	0.1	1.7	0.9
ECOM2	7	FB01	07/28/92	01:00	<1.0	0.5	<3.0	1.2	1.1	m2	<1.0	0.9
ECOM2	8	UG-1	07/28/92	12:10	<1.0	1.9	<3.0	3.6	<0.1	0.2	<1.0	1.1
ECOM2	9	CM-9	07/28/92	15:50	<1.0	1.4	<3.0	3.2	0.2	0.1	<1.0	1.1
ECOM2	10	GM-67	07/28/92	16:45	<1.0	0.0	<3.0	18.3	8.4	0.1	1.2	1.1
ECOM2	11	GM-68	07/29/92	09:30	<1.0	3.5	<3.0	9.9	1.1	0.1	2.2	1.0
ECOM2	12	GM-69	07/29/92	09:45	<1.0	19.9	36.9	37.9	2.9	0.2	2.7	1.1
ECOM2	13	GM-65	07/29/92	12:45	<1.0	3.9	<3.0	7.2	1.9	0.1	<1.0	1.1
ECOM2	14	GM-66	07/29/92	10:15	64.2	93.8	197	140	1.7	0.1	36.5	2.2
ECOM2	15	RB03	07/29/92	13:00	<1.0	0.0	<3.0	1.3	4.5	0.2	1.3	1.1
ECOM2	16	PCS-1	07/29/92	13:30	<1.0	2.0	1.6	3.5	0.2	0.2	<1.0	1.1
ECOM2	17	PCD-1	07/29/92	13:45	12.6	12.0	17.4	19.9	36.4	0.6	<1.0	0.9
ECOM2	18	PCI-1	07/29/92	14:30	16.1	22.3	32.7	42.6	1.3	0.2	<1.0	0.9
ECOM2	19	CM-62	07/29/92	15:45	0.0	5.3	0.0	7.2	2.1	e.2	<1.0	0.0
ECOM2	20	GM-63	07/29/92	16:15	28.7	11.3	27.9	13.9	5.6	0.3	<1.0	1.0
ECOM2	21	GM-64	07/29/92	17:00	<1.0	29.5	17.4	40.7	26.1	0.5	<1.0	1.8

APPENDIX E

**DEEP ZONE MONITORING WELLS
GROUNDWATER W L I N G ANALYTICAL RESULTS**

Table E-1

GROUNDWATER SAMPLE DESIGNATIONS
DEEP ZONE MONITORING WELLS

Sample Location	Sample Designation
yk11 GM-63	P32W063
Well GM-65	P32W065
yk11 GM-68	P32W068
yk11 PCD-1	P32WPCD-1

Doc. Num. 47:09

JOB NUMBER : 9201.873
ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWT? GW SAHPLING
SAMPLE ID LAB : EE-92-44878 MATRIX: WATER
SAMPLE ID CLIENT: P32W063

<u>PARAMETER</u>		<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>	<u>UNITS</u>
Silver	(ICP)	ND		10	UG/L
Arsenic	(FU)	ND		5.0	UG/L
Barium	(ICP)	ND		20	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	ND		20	UG/L
Iron	(ICP)	1100		50	UG/L
Manganese	(ICP)	51		10	UG/L
Sodium	(ICP)	490000		500	UG/L
Nickel	(ICP)	ND		20	UG/L
Lead	(FU)	ND		5.0	UG/L
Selenium	(FU)	ND		5.0	UG/L
Vanadium	(ICP)	ND		20	UG/L
Zinc	(ICP)	18		10	UG/L
Mercury		ND		0.20	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

JOB NUMBER :9201.873
ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWIP GW SAMPLING
SAMPLE ID LAB : EE-92-44880 MATRIX: WATER
SAMPLE ID CLIENT: P32W065

<u>PARAMETER</u>		<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>	<u>UNITS</u>
Silver	(ICP)	ND		10	UG/L
Arsenic	(FU)	ND		5.0	UG/L
Barium	(ICP)	ND		20	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper .	(ICP)	ND		20	UG/L
Iron	(ICP)	640		50	UG/L
Manganese	(ICP)	72		10	UG/L
Sodium	(ICP)	89000		500	UG/L
Nickel	(ICP)	ND		20	UG/L
Lead	(FU)	ND		5.0	UG/L
Selenium	(FU)	ND		5.0	UG/L
Vanadium	(ICP)	ND		20	UG/L
Zinc	(ICP)	130		10	UG/L
Mercury		ND		0.20	UG/L

.....
QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

SWPLE ID LAB :EE-92-44883

MATRIX: WATER

SAMPLE ID CLIENT: P32W068

<u>PARAMETER</u>		<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>	<u>UNITS</u>
Silver	(ICP)	ND	-	10	UG/L
Arsenic	(FU)	ND	-	5.0	UG/L
Barium	(ICP)	72	-	20	UG/L
Cadmium	(ICP)	ND	-	5.0	UG/L
Chromium Total	(ICP)	ND	-	10	UG/L
Copper	(ICP)	ND	-	20	UG/L
Iron	(ICP)	1100	-	50	UG/L
Manganese	(ICP)	59	-	10	UG/L
Sodium	(ICP)	84000	-	500	UG/L
Nickel	(ICP)	ND	-	20	UG/L
Lead	(FU)	ND	-	5.0	UG/L
Selenium	(FU)	8.7	-	5.0	UG/L
Vanadium	(ICP)	ND	-	20	UG/L
Zinc	(ICP)	260	-	10	UG/L
Mercury		ND	-	0.20	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOU STATED QNT. LIMIT

JOB NUMBER :9201.873
ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UA-9000 NASP TWT? GW SAMPLING
SAMPLE ID LAB : EE-92-44886 MATRIX: WATER
SAMPLE ID CLIENT: P32PCD-1

PARAMETER		RESULTS	Q	QNT. LIMIT	UNITS
Silver	(ICP)	ND		10	UG/L
Arsenic	(FU)	ND		5.0	UG/L
Barium	(ICP)	ND		20	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	ND		20	UG/L
Iron	(ICP)	600		50	UG/L
Manganese	(ICP)	21		10	UG/L
Sodium	(ICP)	190000		500	UG/L
Nickel	(ICP)	ND		20	UG/L
Lead	(FU)	ND		5.0	UG/L
Selenium	(FU)	ND		5.0	UG/L
Vanadium	(ICP)	ND		20	UG/L
Zinc	(ICP)	35		10	UG/L
Mercury		ND		0.20	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WCL 1

JOB NUMBER :9201.848
ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST NAME : CHLORIDE UNITS : MG/L
PARAMETER : Chloride

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44695 RBO1	ND	-	1.0
EE-92-44696 RBO2	ND	-	1.0
EE-92-44697 GM-10	23	-	1.0
EE-92-44698 GM-10 DUP.	22	-	1.0
EE-92-44699 GM-8	5.8	-	1.0
EE-92-44700 GM-8 DUP.	5.7	-	1.0
EE-92-44701 FB01	ND	-	1.0
EE-92-44702 UG-1	17	-	1.0
EE-92-44703 GM-9	5.5	-	1.0
EE-92-44704 GM-67	110	-	1.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT
 NA = NOT APPLICABLE

TEST CODE : WCL 1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GU SAMPLING
TEST NAME : CHLORIDE UNITS : MG/L
PARAMETER : Chloride

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44877 P32W062	9.2	-	1.0
EE-92-44878 P32W063	960	-	1.0
EE-92-44879 P32W064	51	-	1.0
EE-92-44880 P32W065	180	-	1.0
EE-92-44882 P32W066	580	-	1.0
EE-92-44883 P32W068	160	-	1.0
EE-92-44884 P32W069	830	-	1.0
EE-92-44885 P32PCI-1	450	-	1.0
EE-92-44886 P32PCD-1	340	-	1.0
EE-92-44887 P32PCS-1	4.8	-	1.0
EE-92-44891 P32WRB03	ND	-	1.0

.....
 QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT
 NA = NOT APPLICABLE

TEST CODE :WCNCMP1

JOB NUMBER :9201.848

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST NAME : CYANIDE-COMPLEX UNITS : MG/L
PARAMETER : Cyanide-complex

SAMPLE ID	RESULTS	Q	ONT. LIMIT
EE-92-44695 RB01	ND		0.010
EE-92-44696 RB02	0.055		0.010
EE-92-44697 GM-10	ND		0.010
EE-92-44698 GM-10 DUP.	ND		0.010
EE-92-44699 GM-8	ND		0.010
EE-92-44700 GM-8 DUP.	ND		0.010
EE-92-44701 FB01	ND		0.010
EE-92-44702 UG-1	ND		0.010
EE-92-44703 GM-9	0.016		0.010
EE-92-44704 GM-67	2.8		0.010
BE-924705 PB01	ND		0.010
EE-92-44706 GM-11	0.19		0.010
EE-92-44707 GM-12R	ND		0.010

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT
 NA = NOT APPLICABLE

TEST CODE :WCNCMP1

JOB NUMBER -9201.848

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST NAME : CYANIDE-COMPLEX UNITS : MG/L
PARAMETER : Cyanide-complex

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44708 GM-13R	ND		0.010
EE-92-44709 GM-14	0.011		0.010

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT
NA = NOT APPLICABLE

TEST CODE :WCNCMP1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST NAME : CYANIDE-COMPLEX UNITS : MG/L
PARAMETER : Cyanide-complex

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44877 P32W062	0.033	-	0.010
EE-92-44878 P32W063	ND		0.010
EE-92-44879 P32W064	0.12		0.010
EE-92-44880 P32W065	ND		0.010
EE-92-44882 P32W066	0.030		0.010
EE-92-44883 P32W068	ND		0.010
EE-92-44884 P32W069	0.14		0.010
EE-92-44885 P32PCI-1	0.10		0.010
EE-92-44886 P32PCD-1	ND		0.010
EE-92-44887 P32PCS-1	0.013		0.010
EE-92-44891 P32WRB03	0.013		0.010

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT
NA = NOT APPLICABLE

TEST CODE :WF 1

JOB NUMBER :9201.848

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : FLUORIDE TOTAL

UNITS : MG/L

PARAMETER : Fluoride Total

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44695 RB01	ND	-	0.10
EE-92-44696 RB02	ND	-	0.10
EE-92-44697 GM-10	0.19	-	0.10
EE-92-44698 GM-10 DUP.	0.19	-	0.10
EE-92-44699 GM-8	0.54	-	0.10
EE-92-44700 GM-8 DUP.	0.54	-	0.10
EE-92-44701 FB01	ND	-	0.10
EE-92-44702 UG-1	ND	-	0.10
EE-92-44703 GM-9	0.23	-	0.10
EE-92-44704 GM-67	0.21	-	0.10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT
NA = NOT APPLICABLE

TEST CODE :WF 1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GV SAMPLING
TEST NAME : FLUORIDE TOTAL UNITS : MG/L
PARAMETER : Fluoride Total

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44877 P32W062	0.30		0.10
EE-92-44878 P32W063	ND		0.10
EE-92-44879 P32W064	0.29		0.10
EE-92-44880 P32W065	ND		0.10
EE-92-44882 P32W066	ND		0.10
EE-92-44883 P32W068	ND		0.10
EE-92-44884 P32W069	0.22		0.10
EE-92-44885 P32PCI-1	0.30		0.10
EE-92-44886 P32PCD-1	ND		0.10
EE-92-44887 P32PCS-1	0.16		0.10
EE-92-44891 P32WRB03	ND		0.10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT
NA = NOT APPLICABLE

TEST CODE : WS04 1

JOB NUMBER : 9201.848

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST NAME : SULFATE UNITS : MG/L
PARAMETER : Sulfate

SAMPLE ID	RESULTS	Q	QNT. LIMIT
BE-92-44695 RB01	ND		2.0
EE-92-44696 RB02	ND		2.0
EE-92-44697 GM-10	18		2.0
EE-92-44698 GM-10 DUP.	19		2.0
EE-92-44699 GM-8	24		2.0
EE-92-44700 GM-8 DUP.	24		2.0
EE-92-44701 FB01	ND		2.0
EE-92-44702 UG-1	25		2.0
EE-92-44703 GM-9	4.2		2.0
EE-92-44704 GM-67	180		2.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT
NA = NOT APPLICABLE

TEST CODE :WS04 1

JOB NUMBER :9201.873
ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST NAME : SULFATE UNITS : MG/L
PARAMETER : Sulfate

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44877 P32W062	79	-	2.0
EE-92-44878 P32W063	52		2.0
EE-92-44879 P32W064	76		2.0
EE-92-44880 P32W065	ND		20
EE-92-44882 P32W066	8000		2.0
EE-92-44883 P32W068	ND		20
EE-92-44884 P32W069	190		2.0
EE-92-44885 P32PCI-1	70		2.0
EE-92-44886 P32PCD-1	ND		20
EE-92-44887 P32PCS-1	13		2.0
EE-92-44891 P32WRB03	ND		2.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT
NA = NOT APPLICABLE

TEST CODE :WPURG 1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : PURGEABLES

UNITS : UG/L

SAMPLE ID LAB : EE-92-44878

MATRIX: WATER

SAMPLE ID CLIENT: P32W063

PARAMETER -----	RESULTS	Q	QNT. LIMIT -----
Chloromethane	ND		10
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chloroethane	ND		10
Nethylene Chloride	ND		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
Total-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromomethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	PRESENT	L	10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

.....
QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WPURG 1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : PURGEABLES

UNITS : UG/L

SAMPLE ID LAB : EE-92-44880

MATRIX: WATER

SAMPLE ID CLIENT: P32W065

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Chloromethane	ND		10
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chloroethane	ND		10
Methylene Chloride	ND		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
Total-1,Z-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromomethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	PRESENT	L	10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WPURG 1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : PURGEABLES

UNITS : UG/L

SAMPLE ID LAB : EE-92-44883

MATRIX: WATER

SAMPLE ID CLIENT: P32W068

PARAMETER	RESULTS	Q	QNT. LIMIT
Chloromethane	ND		10
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chloroethane	ND		10
Methylene Chloride	ND		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
Total-1,Z-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromomethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	80		10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WPURG 1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : PURGEABLES

UNITS : UG/L

SAMPLE ID LAB : EE-92-44886

MATRIX: WATER

SAMPLE ID CLIENT: P32PCD-1

PARAMETER	RESULTS	Q	QNT. LIHIT
Chloromethane	ND		10
Broaoaethane	ND		10
Vinyl Chloride	ND		10
Chloroethane	ND		10
Methylene Chloride	ND		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
Total-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloroethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	PRESENT	L	5.0
Chlorodibroaorethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	44		10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44878

MATRIX: WATER

SAMPLE ID CLIENT: P32W063

PARAMETER	RESULTS	Q	QNT. LIMIT
Bis(2-Chloroethyl)Ether	ND		10
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10'
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	ND		10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	ND		10
Chrysene	ND		10
Di-N-Octyl Phthalate	ND		10

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE

B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WBNBNA1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAHPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : 33-92-44878

MATRIX: WATER

SAMPLE ID CLIENT: P32W063

PARAMETER	RESULTS	Q	QNT. LIHIT
Benzo(B)Fluoranthene	ND	-	10
Benzo(K)Fluoranthene	ND	-	10
Benzo(A)Pyrene	ND	-	10
Indeno(1,2,3-cd)Pyrene	ND .	-	10
Dibenzo(A,H)Anthracene	ND	-	10
Benzo(G,H,I)Perlyene	ND	-	10
Benzyl Alcohol	ND	-	10
4-Chloroaniline	ND	-	10
2-Hethylnaphthalene	ND	-	10
2-Nitroaniline	ND	-	50
3-Nitroaniline	ND	-	50
Dibenzofuran	ND	-	10
4-Nitroaniline	ND	-	50

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE

B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIHIT

TEST CODE : WAPBNA1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : ACID PHENOL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44878

MATRIX: WATER

SAMPLE ID CLIENT: P32W063

PARAMETER	RESULTS	Q	QNT. LIMIT
Phenol	ND		10
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Methylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Methylphenol	ND		10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAHPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44880

MATRIX: WATER

SAHPL ID CLIENT: P32W065

PARAMETER	RESULTS	Q	QNT. LIMIT
Bis(2-Chloroethyl)Ether	ND		10
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Bexachlorobutadifene,	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylenc	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dini trotoluene	ND		10
2,6-Dini trotoluene'	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Bexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	PRESENT	L	10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	ND		10
Chrysene	ND		10
Di-N-Octyl Phthalate	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873
ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-92-44880 MATRIX : WATER
SAMPLE ID CLIENT: P32W065

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzo(B)Fluoranthene	ND	-	10
Benzo(K)Fluoranthene	ND	-	10
Benzo(A)Pyrene	ND	-	10
Indeno(1,2,3-cd)Pyrene	ND	-	10
Dibenzo(A,H)Anthracene	ND	-	10
Benzo(G,H,I)Perlyene	ND	-	10
Benzyl Alcohol	ND	-	10
4-Chloroaniline	ND	-	10
2-Methylnaphthalene	ND	-	10
2-Nitroaniline	ND	-	50
3-Nitroaniline	ND	-	50
Dibenzofuran	ND	-	10
4-Nitroaniline	ND	-	50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WAPBNA1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW .SAMPLING

TEST NAME : ACID PHENOL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44880

MATRIX: WATER

SAMPLE ID CLIENT: P32W065

PARAMETER	RESULTS	Q	QNT. LIMIT
Phenol	ND	-	10
2-Chlorophenol	ND	-	10
2-Nitrophenol	ND	-	10
2,4-Dimethylphenol	ND	-	10
2,4-Dichlorophenol	ND	-	10
4-Chloro-3-Hethylphenol	ND	-	10
2,4,6-Trichlorophenol	ND	-	10
2,4-Dinitrophenol	ND	-	50
4-Nitrophenol	ND	-	50
4,6-Dinitro-2-Methylphenol	ND	-	50
Pentachlorophenol	ND	-	50
2-Methylphenol	ND	-	10
4-Hethylphenol	ND	-	10
Benzoic Acid	ND	-	50
2,4,5-Trichlorophenol	ND	-	50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-92-44883 MATRIX: WATER
SAMPLE ID CLIENT: P32W068

PARAMETER	RESULTS	Q	QNT. LIMIT
-----	-----	-	-----
Bis(2-Chloroethyl)Ether	ND		10
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	PRESENT	L	10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	ND		10
Chrysene	ND		10
Di-N-Octyl Phthalate	ND		10

.....
 QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : BE-92-44883

MATRIX: WATER

SAMPLE ID CLIENT: P32W068

PARAMETER	RESULTS	Q	QNT. LIHIT
Benzo(B)Fluoranthene	ND		10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-Methylnaphthalene	ND		10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibenzofuran	ND		10
4-Nitroaniline	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WAPBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : ACID PHENOL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44883

MATRIX: WATER

SAMPLE ID CLIENT: P32W068

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Phenol	ND		10
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Methylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Methylphenol	ND		10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WBNBNA1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center .

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44886

MATRIX: WATER

SAMPLE ID CLIENT: P32PCD-1

PARAMETER	RESULTS	Q	ONT. LIHIT
Bis(2-Chloroethyl)Ether	ND		10
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,Z-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Bexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Bexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	ND		10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	ND		10
Chrysene	ND		10
Di-N-Octyl Phthalate	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED ONT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44886

MATRIX: WATER

SAMPLE ID CLIENT: P32PCD-1

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzo(B)Fluoranthene	ND	-	10
Benzo(K)Fluoranthene	ND	-	10
Benzo(A)Pyrene	ND	-	10
Indeno(1,2,3-cd)Pyrene	ND	-	10
Dibenzo(A,H)Anthracene	ND	-	10
Benzo(G,H,I)Perlyene	ND	-	10
Benzyl Alcohol	ND	-	10
4-Chloroaniline	ND	-	10
2-Methylnaphthalene	ND	-	10
2-Nitroaniline	ND	-	50
3-Nitroaniline	ND	-	50
Dibenzofuran	ND	-	10
4-Nitroaniline	ND	-	50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WAPBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : ACID PEENOL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44886

MATRIX: WATER

SAMPLE ID CLIENT: P32PCD-1

PARAWETER -----	RESULTS -----	Q -	QNT. LIHIT -----
Phenol	ND		10
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Methylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Hethylphenol'	ND		50
Pentachlorophenol	ND		50
2-Hethylphenol	ND		10
4-Hethylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIHATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIWIT



ECOLOGY & ENVIRONMENTAL
 316 S. BAYLEN ST.
 SUITE 670
 PENSACOLA FL 32501-0000

Lab I.D.#: 92-6605
 Order Number: P61556
 Received Date: 07/29/92
 Client: 05039
 Sampled By: AMY TWITTY
 Sample Date: 07/29/92
 Sample Time: AM & PM

Project Number: UH 9000
 Project Name: IWTP
 Sample Site: N/S
 Sample Type: GROUNDWATER

N/S = Not Submitt

Lab ID	Sample ID	Parameter	Units	Results	Detecti Limit
6605-1	P32W068	TOTAL COLIFORM	CLY/100	BDL	2.0
6605-2	P32W069	TOTAL COLIFORM	CLY/100	BDL	2.0
6605-3	P32W065	TOTAL COLIFORM	CLY/100	50	2.0
6605-4	P32W066	TOTAL COLIFORM	CLY/100	BDL	2.0
6605-5	P32WPCS-1	TOTAL COLIFORM	CLY/100	34	2.0
6605-6	P32WPCD-1	TOTAL COLIFORM	CLY/100	BDL	2.0
6605-7	P32WPCI-1	TOTAL COLIFORM	CLY/100	BDL	2.0
6605-8	P32W062	TOTAL COLIFORM	CLY/100	BDL	2.0
6605-9	P32W063	TOTAL COLIFORM	CLY/100	318	2.0
6605-10	P32W064	TOTAL COLIFORM	CLY/100	BDL	2.0
6605-1	P32W068	TURBIDITY	N.T.U.	10.9	0.1
6605-2	P32W069	TURBIDITY	N.T.U.	31	0.1
6605-3	P32W065	TURBIDITY	N.T.U.	9.6	0.1
6605-4	P32W066	TURBIDITY	N.T.U.	58	0.2+
6605-5	P32WPCS-1	TURBIDITY	N.T.U.	8.3	0.1
6605-6	P32WPCD-1	TURBIDITY	N.T.U.	4.2	0.1
6605-7	P32WPCI-1	TURBIDITY	N.T.U.	11	0.1
6605-8	P32W062	TURBIDITY	N.T.U.	5.1	0.1
6605-9	P32W063	TURBIDITY	N.T.U.	5.1	0.1
6605-10	P32W064	TURBIDITY	N.T.U.	8.4	0.1

Comments: PPM = Parts Per Million, mg/l. CLY/100 = Colonies Per 100 mls.
 Method References: EPA 600/4-79-020, Revised March 1983 and Standard
 Methods, 16th Edition, 1985. BDL = Below Detection Limits. +Elevated
 detection limit due dilution into calibration range.

page 1 Approved By : *[Signature]*



Client: **ECOLOGY & ENVIRONMENTAL**

Lab I.D.#: **92-6605-9**

Project Number: **UH 9000**

Received Date: **07/29/92**

Project Name: **IWTP**

Sampled By: **AMY TWITTY**

Sample Site: **N/S**

Sample Type: **GROUNDWATER**

Sample ID. : **P32W063**

Sample Date: **07/29/92**

Time: **AM & PM**

N/NO3

NITROGEN NITRATE

Parameter	Units	Result	Detection Limit
NITROGEN, NITRITE	PPM	BDL	0.1
NITROGEN, NITRITE-NITRATE	PPM	BDL	0.1
NITROGEN, NITRATE	PPM	BDL	0.1



Client: ECOLOGY & ENVIRONMENTAL

Lab I.D.#: 92-6605-3

Project Number: UH 9000

Received Date: 07/29/92

Project Name: IWTP

Sampled By: AMY TWITTY

Sample Site: N/S

Sample Type: GROUNDWATER

Sample ID.: P32W065

Sample Date: 07/29/92 Time: AM & PM

N/NO3

NITROGEN NITRATE

Parameter	Units	Result	Detection Limit
NITROGEN, NITRITE	PPM	BDL	0.1
NITROGEN, NITRITE-NITRATE	PPM	BDL	0.1
NITROGEN, NITRATE	PPM	BDL	0.1



Client: ECOLOGY & ENVIRONMENTAL

Lab I.D.#: 92-6605-1
Received Date: 07/29/92
Sampled By: AMY TWITTY

Project Number: UH 9000
Project Name: IWTP
Sample Site: N/S
Sample Type: GROUNDWATER

Sample.ID. : P32W068 Sample Date: 07/29/92 Time: AM & PM

N/NO3 NITROGEN NITRATE

Parameter	Units	Result	Detection Limit
NITROGEN, NITRITE	PPM	BDL	0.1
NITROGEN, NITRITE-NITRATE	PPM	0.1	0.1
NITROGEN; NITRATE	PPM	0.1	0.1



Client: ECOLOGY & ENVIRONMENTAL

Lab I.D.#: 92-6605-6

Project Number: UH 9000

Received Date: 07/29/92

Project Name: IWIP

Sampled By: AMY TWITTY

Sample Site: N/S

Sample Type: GROUNDWATER

Sample ID.: P32WPCD-1

Sample Date: 07/29/92

Time: AM & PM

N/NO3

NITROGEN NITRATE

Parameter	Units	Result	Detection Limit
NITROGEN, NITRITE	PPM	BDL	0.1
NITROGEN, NITRITE-NITRATE	PPM	0.4	0.1
NITROGEN, NITRATE	PPM	0.4	0.1

PROJECT NUMBER 3924020 0201
 FIELD GROUP ECOW2

PROJECT NAME ECOLOGY & ENVIRM.
 PROJECT MANAGER S.P. WOODWARD

STORET CODE:	1501	1502	3511	3512	9511	9502	11501	11502				
METHOD CODE:	R	R	R	R	R	R	R	R				
PARAMETER:	ALPHA	ALPHA, CE	BETA	BETA, CE	RA226	RA226, C.E.	RA 228	RA 228, CT				
UNITS:	PC/L	+/-PC/L	PC/L	+/-PC/L	PC/L	+/-PC/L	PC/L	+/-PC/L				
FLD. GRP.	#	SAMPLE ID	DATE	TIME								
ECOW2	1	RB01	07/27/92	16:55	<1.0	0.7	<3.0	1.3	9.7	0.07	<1.0	0.5
ECOW2	2	RB02	07/28/92	13:45	<1.0	0.6	<3.0	1.4	1.1	e.1	<1.0	0.4
ECOW2	3	GM-10	07/28/92	10:40	<1.0	1.9	4.2	4.9	0.5	0.06	<1.0	0.4
ECOW2	4	GM-10D	07/28/92	10:40	1.6	2.3	<3.0	4.0	5.4	0.2	<1.0	0.9
ECOW2	5	GM-8	97/28/92	13:00	5.0	4.0	<3.0	5.9	3.2	0.2	2.1	0.8
ECOW2	6	GM-8D	07/28/92	13:00	<1.0	3.9	5.9	6.1	2.5	0.1	1.7	0.9
ECOW2	7	FB01	07/28/92	09:00	<1.0	0.5	<3.0	1.2	1.1	0.2	<1.0	0.9
ECOW2	8	UG-1	07/29/92	10:10	<1.0	1.0	<3.0	3.6	<0.1	e.2	<1.0	1.1
ECOW2	9	CH-9	07/28/92	15:50	<1.0	1.4	<3.0	3.2	e.2	0.1	<1.0	1.1
ECOW2	10	GM-67	07/28/92	16:45	<1.0	0.0	<3.0	10.3	0.4	0.1	1.2	1.1
ECOW2	11	OM-68	07/29/92	09:30	<1.0	3.5	<3.0	9.9	1.1	e.1	2.2	1.0
ECOW2	12	CM-69	01/29/92	09:45	<1.0	10.9	36.9	37.9	2.0	e.2	2.7	1.1
ECOW2	13	GM-65	07/29/92	10:45	<1.0	3.9	<3.0	7.2	1.9	e.1	<1.0	1.1
ECOW2	14	GM-66	97/29/92	10:15	64.2	93.9	197	140	1.7	e.1	36.5	2.2
ECOW2	15	RB03	07/29/92	13:00	<1.0	0.0	<3.0	1.3	4.5	0.2	1.3	1.1
ECOW2	16	PCS-1	07/29/92	13:30	<1.0	2.e	7.6	3.5	e.2	e.2	<1.0	1.1
ECOW2	17	PCD-1	07/29/92	13:45	12.6	12.0	17.4	19.9	36.4	0.6	<1.0	0.9
ECOW2	18	PCI-1	07/29/92	14:30	16.1	22.3	32.7	42.6	1.3	e.2	<1.0	9.9
ECOW2	19	611-62	07/29/92	15:45	0.0	5.3	0.0	7.2	2.1	8.2	<1.0	0.0
ECOW2	29	GM-63	07/29/92	16:15	20.7	11.3	27.0	13.9	5.6	e.3	<1.0	1.0
ECOW2	21	GM-64	07/29/92	17:00	<1.0	29.5	17.4	40.7	26.1	0.5	<1.0	1.0

3200399

APPENDIX F

FIELD AND LABORATORY QA/QC SAMPLE ANALYTICAL RESULTS

Table F-1

SAMPLE DESIGNATIONS
FIELD QA/QC SAMPLES

Sample Type	Sample Designation
Groundwater Duplicate	P32W008D
Groundwater Duplicate	P32W010D
Trip bottle blank.	P32WTB01
Trip bottle blank.	P32WTB02
Sampling equipment rinsate ^b	P32WRB01
Sampling equipment rinsate ^c	P32WRB02
Sampling equipment rinsate ^d	P32WRB03
Field blank	P32WFB01
Preservative blank.	P32WPB01

^aAnalyzed for VOCs only.

^bCollected 07-27-92

^cCollected 07-28-92

^dCollected 07-29-92

^eAnalyzed for metals, cyanide and VOCs only.

JOB NUMBER :9201.848
ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
SAMPLE ID LAB : EE-92-44699 MATRIX: WATER
SAMPLE ID CLIENT: GM-8

<u>PARAMETER</u>		<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>	<u>UNITS</u>
Silver	(ICP)	ND		10	UG/L
Arsenic	(FU)	ND		5.0	UG/L
Barium	(ICP)	66		20	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	ND		20	UG/L
Iron	(ICP)	2300		50	UG/L
Manganese	(ICP)	2s		10	UG/L
Sodium	(ICP)	4400		500	UG/L
Nickel	(ICP)	ND		20	UG/L
Lead	(FU)	ND		5.0	UG/L
Selenium	(FU)	ND		5.0	UG/L
Vanadium	(ICP)	ND		20	UG/L
Zinc	(ICP)	32		10	UG/L
Mercury		ND		0.20	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

3200401

JOB NUMBER :9201.848
ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWT? GW SAMPLING
SAMPLE ID LAB : EE-92-44700 MATRIX: WATER
SMPL ID CLIENT: GM-8 DUP.

<u>PARAMETER</u>		<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>	<u>UNITS</u>
Silver	(ICP)	ND		10	UG/L
Arsenic	(FU)	ND		5.0	UG/L
Barium	(ICP)	69		20	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	ND		20	UG/L
Iron	(ICP)	2100		50	UG/L
Manganese	(ICP)	25		10	UG/L
Sodium	(ICP)	4400		500	UG/L
Nickel	(ICP)	ND		20	UG/L
Lead	(FU)	ND		5.0	UG/L
Selenium	(FU)	ND		5.0	UG/L
Vanadium	(ICP)	ND		20	UG/L
Zinc	(ICP)	16		10	UG/L
Mercury		ND		0.20	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

JOB NUMBER :9201.848

ELAP ID = 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

SAMPLE ID LAB :EE-92-44697

MATRIX: WATER

SAMPLE ID CLIENT: GH-10

<u>PARAMETER</u>		<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>	<u>UNITS</u>
Silver	(ICP)	ND		10	UG/L
Arsenic	(FU)	ND		5.0	UG/L
-Barium	(ICP)	72		20	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
-Chromium Total	(ICP)	11		10	UG/L
Copper	(ICP)	ND		20	UG/L
-Iron	(ICP)	670		50	UG/L
-Manganese	(ICP)	62		10	UG/L
-Sodium	(ICP)	11000		500	UG/L
Nickel	(ICP)	ND		20	UG/L
Lead	(FU)	7.3		5.0	UG/L
Selenium	(FU)	ND		5.0	UG/L
Vanadium	(ICP)	ND		20	UG/L
-Zinc	(ICP)	24		10	UG/L
Mercury		ND		0.20	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATE3 QNT. LIMIT

JOB NUMBER :9201.848
ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWIP GW SAMPLING
SAMPLE ID LAB :EE-92-44698 MATRIX: WATER
SAMPLE ID CLIENT: GM-10 DUP.

<u>PARAMETER</u>		<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>	<u>UNITS</u>
Silver	(ICP)	ND	-	10	UG/L
Arsenic	(FU)	ND		5.0	UG/L
Barium	(ICP)	68		20	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	ND		20	UG/L
Iron	(ICP)	590		50	UG/L
Hanganese	(ICP)	58		10	UG/L
Sodium	(ICP)	10000		500	UG/L
Nickel	(ICP)	ND		20	UG/L
Lead	(FU)	6.2		5.0	UG/L
Selenium	(FU)	ND		5.0	UG/L
Vanadium	(ICP)	ND		20	UG/L
Zinc	(ICP)	41		10	UG/L
Mercury		ND		0.20	UG/L

.....
QUALIFIERS: C : COMMENT ND = NOT DETECTED
J : ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L : PRESENT BELOW STATED QNT. LIMIT

JOB NUMBER : 9201.848
ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
SAMPLE ID LAB : EE-92-44695 MATRIX: WATER
SAHPLE ID CLIENT: RB01

<u>PARAMETER</u>		RESULTS	Q	QNT. LIHIT	UNITS
Silver	(ICP)	ND	-	10	UG/L
Arsenic	(FU)	ND		5.0	UG/L
Barium	(ICP)	ND		20	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	ND		20	UG/L
Iron	(ICP)	ND		50	UG/L
Manganese	(ICP)	ND		10	UG/L
Sodium	(ICP)	ND		500	UG/L
Nickel	(ICP)	ND		20	UG/L
Lead	(FU)	ND		5.0	UG/L
Selenium	(FU)	ND		5.0	UG/L
Vanadium	(ICP)	ND		20	UG/L
Zinc	(ICP)	35		10	UG/L
Hercury		ND		0.20	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIHIT

JOB NUMBER :9201.848
ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWIP GW SAMPLING

SAMPLE ID LAB :EE-92-44696

MATRIX: WATER

SAMPLE ID CLIENT: RB02

<u>PARAMETER</u>		<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>	<u>UNITS</u>
Silver	(ICP)	ND		10	UG/L
Arsenic	(FU)	ND		5.0	UG/L
Barium	(ICP)	ND		20	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	ND		20	UG/L
Iron	(ICP)	ND		50	UG/L
Manganese	(ICP)	ND		10	UG/L
Sodium	(ICP)	ND		500	UG/L
Nickel	(ICP)	ND		20	UG/L
Lead	(FU)	ND		5.0	UG/L
Selenium	(FU)	ND		5.0	UG/L
Vanadium	(ICP)	ND		20	UG/L
Zinc	(ICP)	20		10	UG/L
Mercury		0.42		0.20	UG/L

.....
QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
SAMPLE ID LAB : EE-92-44891 MATRIX: WATER
SAMPLE ID CLIENT: P32WRB03

<u>PARAMETER</u>		<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>	<u>UNITS</u>
Silver	(ICP)	ND		10	UG/L
Arsenic	(FU)	ND		5.0	UG/L
Barium	(ICP)	ND		20	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	ND		20	UG/L
Iron	(ICP)	ND		50	UG/L
Manganese	(ICP)	ND		10	UG/L
Sodium	(ICP)	ND		500	UG/L
Nickel	(ICP)	ND		20	UG/L
Lead	(FU)	ND		5.0	UG/L
Selenium	(FU)	ND		5.0	UG/L
Vanadium	(ICP)	ND		20	UG/L
Zinc	(ICP)	16		10	UG/L
Mercury		ND		0.20	UG/L

.....
QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

JOB NUMBER :9201.848
ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWIP GW SAMPLING
SAMPLE ID LAB : EE-92-44701 MATRIX: WATER
SAMPLE ID CLIENT: FB01

PARAMETER		RESULTS	Q	QNT. LIHIT	UNITS
Silver	(ICP)	ND		10	UG/L
Arsenic	(FU)	ND		5.0	UG/L
Barium	(ICP)	ND		20	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	ND		20	UG/L
Iron	(ICP)	ND		50	UG/L
Manganese	(ICP)	ND		10	UG/L
Sodium	(ICP)	ND		500	UG/L
Nickel	(ICP)	ND		20	UG/L
Lead	(FU)	ND		5.0	UG/L
Selenium	(FU)	ND		5.0	UG/L
Vanadium	(ICP)	ND		20	UG/L
Zinc	(ICP)	13		10	UG/L
Mercury		ND		0.20	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

JOB NUMBER :9201.848

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

SAMPLE ID LAB :EE-92-44705

MATRIX: WATER

SAMPLE ID CLIENT: PB01

PARAMETER		RESULTS	Q	QNT. LIMIT	UNITS
Silver	(ICP)	ND	-	10	UG/L
Arsenic	(FU)	ND		5.0	UG/L
Barium	(ICP)	ND		20	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	ND		20	UG/L
Iron	(ICP)	ND		50	UG/L
Manganese	(ICP)	ND		10	UG/L
Sodium	(ICP)	ND		500	UG/L
Nickel	(ICP)	ND		20	UG/L
Lead	(FU)	ND		5.0	UG/L
Selenium	(FU)	ND		5.0	UG/L
Vanadium	(ICP)	ND		20	UG/L
Zinc	(ICP)	28		10	UG/L
Mercury		ND		0.20	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WCL 1

JOB NUMBER :9201.848
ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST NAME : CHLORIDE UNITS : MG/L
PARAMETER : Chloride

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44695 RB01	ND	-	1.0
EE-92-44696 RB02	ND	-	1.0
EE-92-44697 GM-10	23	-	1.0
EE-92-44698 GM-10 DUP.	22	-	1.0
EE-92-44699 GM-8	5.8	-	1.0
EE-92-44700 GM-8 DUP.	5.7	-	1.0
EE-92-44701 FB01	ND	-	1.0
EE-92-44702 UG-1	17	-	1.0
EE-92-44703 GH9	5.5	-	1.0
EE-92-44704 GM-67	110	-	1.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT
NA = NOT APPLICABLE

TEST CODE :WCL 1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST NAME : CHLORIDE UNITS : MG/L
PARAMETER : Chloride

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44877 P32W062	9.2		1.0
EE-92-44878 P32W063	960		1.0
EE-92-44879 P32W064	51		1.0
EE-92-44880 P32W065	180		1.0
EE-92-44882 P32W066	580		1.0
EE-92-44883 P32W068	160		1.0
EE-92-44884 P32W069	830		1.0
EE-92-44885 P32PCI-1	450		1.0
EE-92-44886 P32PCD-1	340		1.0
EE-92-44887 P32PCS-1	4.8		1.0
EE-92-44891 P32WRB03	ND		1.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT
NA = NOT APPLICABLE

3200406

TEST CODE :WCNCMP1

JOB NUMBER :9201.848

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UB-9000 NASP TWTP GW SAMPLING
TEST NAME : CYANIDE-COMPLEX UNITS : MG/L
PARAMETER : Cyanide-complex

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44695 RB01	ND		0.010
EE-92-44696 RB02	0.055		0.010
EE-92-44697 GM-10	ND		0.010
EE-92-44698 GM-10 DUP.	ND		0.010
EE-92-44699 GM-8	ND		0.010
EE-92-44700 GM-8 DUP.	ND		0.010
EE-92-44701 FB01	ND		0.010
EE-92-44702 UG-1	ND		0.010
EE-92-44703 GM-9	0.016		0.010
EE-92-44704 GM-67	2.8		0.010
EE-92-44705 PB01	ND		0.010
EE-92-44706 GM-11	0.19		0.010
EE-92-44707 GM-12R	ND		0.010

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT
NA = NOT APPLICABLE

TEST CODE :WCNMP1

JOB NUMBER :9201.848

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST NAME : CYANIDE-COMPLEX UNITS : MG/L
PARAMETER : Cyanide-complex

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44708 GM-13R	ND		0.010
EE-92-44709 GM-14	0.011		0.010

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT
NA = NOT APPLICABLE

TEST CODE :WCNCMP1

JOB NUMBER :9201.873
ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST NAME : CYANIDE-COMPLEX UNITS : MG/L
PARAMETER : Cyanide-complex

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44877 P32W062	0.033		0.010
EE-92-44878 P32W063	ND		0.010
EE-92-44879 P32W064	0.12		0.010
EE-92-44880 P32W065	ND		0.010
EE-92-44882 P32W066	0.030		0.010
EE-92-44883 P32W068	ND		0.010
EE-92-44884 P32W069	0.14		0.010
EE-92-44885 P32PCI-1	0.10		0.010
EE-92-44886 P32PCD-1	ND		0.010
EE-92-44887 P32PCS-1	0.013		0.010
EE-92-44891 P32WRB03	0.013		0.010

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT
NA = NOT APPLICABLE

TEST CODE :WF 1

JOB NUMBER :9201.848
ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST NAME : FLUORIDE TOTAL UNITS : MG/L
PARAMETER : Fluoride Total

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44695 RBO1	ND	-	0.10
EE-92-44696 RBO2	ND	-	0.10
EE-92-44697 GU-10	0.19	-	0.10
EE-92-44698 GM-10 DUP.	0.19	-	0.10
EE-92-44699 GM-8	0.54	-	0.10
EE-92-44700 GM-8 DUP.	0.54	-	0.10
EE-92-44701 FBO1	ND	-	0.10
EE-92-44702 UG-1	ND	-	0.10
EE-92-44703 GM-9	0.23	-	0.10
EE-92-44704 GM-67	0.21	-	0.10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT
NA = NOT APPLICABLE

TEST CODE :WF 1

JOB NUMBER :9201.873
ELAP.ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST NAME : FLUORIDE TOTAL UNITS : MG/L
PARAMETER : Fluoride Total

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44877 P32W062	0.30		0.10
EE-92-44878 P32W063	ND		0.10
EE-92-44879 P32W064	0.29		0.10
EE-92-44880 P32W065	ND		0.10
EE-92-44882 P32W066	ND		0.10
EE-92-44883 P32W068	ND		0.10
EE-92-44884 P32W069	0.22		0.10
EE-92-44885 P32PCI-1	0.30		0.10
EE-92-44886 P32PCD-1	ND		0.10
EE-92-44887 P32PCS-1	0.16		0.10
EE-92-44891 P32WRB03	ND		0.10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT
NA = NOT APPLICABLE

TEST CODE :WS04 1

JOB NUMBER :9201.848

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST NAME : SULFATE UNITS : MG/L
PARAMETER : Sulfate

SAMPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44695 RB01	ND		2.0
EE-92-44696 RB02	ND		2.0
EE-92-44697 GM-10	18		2.0
EE-92-44698 GM-10 DUP.	19		2.0
EE-92-44699 GM-8	24		2.0
EE-92-44700 GM-8 DUP.	24		2.0
EE-92-44701 FB01	ND		2.0
EE-92-44702 UG-1	25		2.0
EE-92-44703 GM-9	4.2		2.0
EE-92-44704 GM-67	180		2.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT
NA = NOT APPLICABLE

TEST CODE : WS04 1

JOB NUMBER : 9201.873
ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWIP GW SAMPLING
TEST NAME : SULFATE UNITS : MG/L
PARAMETER : Sulfate

SAHPLE ID	RESULTS	Q	QNT. LIMIT
EE-92-44877 P32W062	79		2.0
EE-92-44878 P32W063	52		2.0
EE-92-44879 P32W064	76		2.0
EE-92-44880 P32W065	ND		20
EE-92-44882 P32W066	8000		2.0
EE-92-44883 P32W068	ND		20
EE-92-44884 P32W069	190		2.0
BE-92-44885 P32PCI-1	70		2.0
EE-92-44886 P32PCD-1	ND		20
EE-92-44887 P32PCS-1	13		2.0
EE-92-44891 P32WRB03	ND		2.0

QUALIFIERS: C : COHENT ND : NOT DETECTED
J : ESTIMATED VALUE B : ALSO PRESENT IN BUNK
L : PRESENT BELOW STATED QNT. LIMIT
NA : NOT APPLICABLE

TEST CODE : WPURG 1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GU SAMPLING

TESTNAME : PURGEABLES

UNITS : UG/L

SAMPLE ID LAB : EE-92-44872

MATRIX: WATER

SAMPLE ID CLIENT: P32W008

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Chloromethane	ND		10
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chloroethane	ND		10
Hethylene Chloride	ND		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
Total-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromomethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	20		5.0
Ethylbenzene	ND		5.0
Acetone	PRESENT	L	10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Hethyl-2-Pentanone	ND		10
2-Eexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WPURG 1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWIP GW SAMPLING

TEST NAME : PURGEABLES

UNITS : UG/L

SAMPLE ID LAB : EE-92-44873

MATRIX: WATER

SAMPLE ID CLIENT: P32W008D

PARAMETER	RESULTS	Q	QNT. LIMIT
-----	-----	-	-----
Chloromethane	ND		10
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chloroethane	ND		10
Methylene Chloride	ND		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
Total-1,Z-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromomethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	18		5.0
Ethylbenzene	ND		5.0
Acetone	PRESENT	L	10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

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QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WPURG 1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAHPLING

TEST NAME : PURGEABLES

UNITS : UG/L

SAMPLE ID LAB : EE-92-44875

MATRIX: WATER

SAHPL ID CLIENT: P32W010

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIHIT</u>
Chloromethane	ND		10
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chloroethane	ND		10
Hethylcne Chloride	ND		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
Total-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromomethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl 'Ethcr	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	PRESENT	L	10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanonc	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WPURG 1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST NAME : PURGEABLES UNITS : UG/L
SAMPLE ID LAB : EE-92-44876 MATRIX: WATER
SAMPLE ID CLIENT: P32W010D

PARAMETER	RESULTS	Q	QNT. LIMIT
Chloromethane	ND		10
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chloroethane	ND		10
Methylene Chloride	ND		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
Total-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromomethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	PRESENT	L	10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

.....
 QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WPURG 1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT. : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : PURGEABLES

UNITS : UG/L

SAMPLE ID LAB : EE-92-44894

MATRIX: WATER

SAMPLE ID CLIENT: P32WTB01

PARAMETER	RESULTS	Q	QNT. LIMIT
Chloromethane	ND		10
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chloroethane	ND		10
Methylene Chloride	ND		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
Total-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bronodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromomethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	73		10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Hethyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WPURG 1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : PURGEABLES

UNITS : UG/L

SAMPLE ID LAB : EE-92-44895

MATRIX: WATER

SAMPLE ID CLIENT: P32WTB02

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Chloromethane	ND		10
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chloroethane	ND		10
Methylene Chloride	ND		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
Total-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromomethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	33		10
Carbon Disulfide	ND		5.0
2-Butanone	56		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE

B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WPURG 1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : PURGEABLES

UNITS : UG/L

SAMPLE ID LAB : EE-92-44889

MATRIX: WATER

SAMPLE ID CLIENT: P32WRB01

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Chloromethane	ND		10
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chloroethane	ND		10
Methylene Chloride	ND		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
Total-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromomethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	25		10
Carbon Disulfide	ND		5.0
2-Butanone	46		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WPURG 1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : PURGEABLES

UNITS : UG/L

SAMPLE ID LAB : EE-92-44890

MATRIX: WATER

SAMPLE ID CLIENT: P32WRB02

<u>PARAHETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Chloromethane	ND		10
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chloroethane	ND		10
Methylene Chloride	ND		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
Total-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromomethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	24		10
Carbon Disulfide	ND		5.0
2-Butanone	43		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Heptanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WPURG 1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAHE : PURGEABLES

UNITS : UG/L

SAHPLE ID LAB : EE-92-44891

MATRIX: WATER

SAMPLE ID CLIENT: P32WRB03

PARAMETER -----	RESULTS -----	Q -	QNT. LIMIT -----
Chloromethane	ND		10
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chloroethane	ND		10
Hethylene Chloride	ND		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
Total-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloroethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromomethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone		29	10
Carbon Disulfide	ND		5.0
2-Butanone		43	10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

 QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOV STATED QNT. LIMIT

TEST CODE :WPURG 1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST NAME : PURGEABLES UNITS : UG/L
SAMPLE ID LAB : EE-92-44892 MATRIX: WATER
SAMPLE ID CLIENT: P32WFB01

PARAMETER -----	RESULTS -----	Q -	QNT. LIMIT -----
Chloromethane	ND		10
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chloroethane	ND		10
Methylene Chloride	ND		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
Total-1,Z-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromomethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	31		10
Carbon Disulfide	ND		5.0
2-Butanone	52		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

.....
 QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WPURG 1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAHPLING

TEST NAME : PURGEABLES

UNITS : UG/L

SAMPLE ID LAB : 33-92-44893

MATRIX: WATER

SAMPLE ID CLIENT: P32WPB01

PARAMETER	RESULTS	Q	QNT. LIMIT
Chloromethane	No		10
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chloroethane	ND		10
Methylene Chloride	ND		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
Total-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bronodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromomethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	No		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone		22	10
Carbon Disulfide	ND		5.0
2-Butanone		37	10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAHPLE ID LAB : EE-92-44872

MATRIX: WATER

SAHPLE ID CLIENT: P32W008

PARAMETER	RESULTS	Q	QNT. LIMIT
Bis(2-Chloroethyl)Ether	ND	-	10
1,3-Dichlorobenzene	PRESENT	L	10
1,4-Dichlorobenzene	PRESENT	L	10
1,2-Dichlorobenzene	PRESENT	L	10
Bis(2-Chloroisopropyl)Ether	ND	-	10
N-Nitrosodipropylamine	ND	-	10
Hexachloroethane	ND	-	10
Nitrobenzene	ND	-	10
Isophorone	ND	-	10
Bis(2-Chloroethoxy)Methane	ND	-	10
1,2,4-Trichlorobenzene	ND	-	10
Naphthalene	ND	-	10
Hexachlorobutadiene	ND	-	10
Hexachlorocyclopentadiene	ND	-	10
2-Chloronaphthalene	ND	-	10
Dimethyl Phthalate	ND	-	10
Acenaphthylene	ND	-	10
Fluorene	ND	-	10
Acenaphthene	ND	-	10
2,4-Dinitrotoluene	ND	-	10
2,6-Dinitrotoluene	ND	-	10
Diethyl Phthalate	ND	-	10
4-Chlorophenyl Phenyl Ether	ND	-	10
N-Nitrosodiphenylarnine	ND	-	10
4-Bromophenyl Phenyl Ether	ND	-	10
Hexachlorobenzene	ND	-	10
Phenanthrene	ND	-	10
Anthracene	ND	-	10
Di-N-Butyl-Phthalate	ND	-	10
Fluoranthene	ND	-	10
Benzidine	ND	-	50
Pyrene	ND	-	10
Butyl Benzyl Phthalate	ND	-	10
3,3'-Dichlorobenzidine	ND	-	20
Benzo(A)Anthracene	ND	-	10
Bis(2-Ethylhexyl)Phthalate	ND	-	10
Chrysene	ND	-	10
Di-N-Octyl Phthalate	ND	-	10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIHIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environaent, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44872

MATRIX: WATER

SAMPLE ID CLIENT: P32W008

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzo(B)Fluoranthene	ND	-	10
Benzo(K)Fluoranthene	ND	-	10
Benzo(A)Pyrene	ND	-	10
Indeno(1,2,3-cd)Pyrene	ND	-	10
Dibenzo(A,H)Anthracene	ND	-	10
Benzo(G,H,I)Perlyene	ND	-	10
Benzyl Alcohol	ND	-	10
4-Chloroaniline	ND	-	10
2-Methylnaphthalene	ND	-	10
2-Nitroaniline	ND	-	50
3-Nitroaniline	ND	-	50
Dibenzofuran	ND	-	10
4-Nitroaniline	ND	-	50

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE

B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WAPBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWT? GW SAMPLING

TEST NAME : ACID PHENOL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44872

MATRIX : WATER

SAMPLE ID CLIENT: P32W008

<u>PARAHETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Phenol	ND		10
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Methylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Methylphenol	ND		10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WBNBNA1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GV SAHPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44873

MATRIX: WATER

SAMPLE ID CLIENT: P32W008D

PARAMETER	RESULTS	Q	QNT. LIHIT
Bis(2-Chloroethyl)Ether	ND		10
1,3-Dichlorobenzene	PRESENT	L	10
1,4-Dichlorobenzene	PRESENT	L	10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	ND		10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	ND		10
Chrysene	ND		10
Di-N-Octyl Phthalate	ND		10

QUALIFIERS: C = COMMENT **ND = NOT DETECTED**
J = ESTIMATED VALUE **B = ALSO PRESENT IN BLANK**
L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44873

MATRIX : WATER

SAMPLE ID CLIENT: P32W008D

PARAMETER	RESULTS	Q	QNT. LIMIT
-----	-----	-	-----
Benzo(B)Fluoranthene	ND		10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-Methylnaphthalene	ND		10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibenzofuran	ND		10
4-Nitroaniline	ND		50

.....
QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WAPBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : ACID PHENOL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44873

MATRIX: VATER

SAHPLE ID CLIENT: P32W008D

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIHIT</u>
Phenol	ND		10
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Hethylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Hethylphenol	ND		10
4-Hethylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIHIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LA0 : EE-92-44875

MATRIX : WATER

SAMPLE ID CLIENT: P32W010

PARAMETER	RESULTS	Q	QNT. LIMIT
Bis(2-Chloroethyl)Ether	ND	-	10
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	ND		10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	ND		10
Chrysene	ND		10
Di-N-Octyl Phthalate	ND		10

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE

B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WBNBNA1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAHPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44875

MATRIX: WATER

SAMPLE ID CLIENT: P32W010

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzo(B)Fluoranthene	ND		10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-Hethylnaphthalene	ND		10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibenzofuran	ND		10
4-Nitroaniline	ND		50

.....

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIHIT

TEST CODE : WAPBNA1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : ACID PHENOL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44875

MATRIX: WATER

SAMPLE ID CLIENT: P32W010

PARAMETER	RESULTS	Q	QNT. LIMIT
Phenol	ND	-	10
2-Chlorophenol	ND	-	10
2-Nitrophenol	ND	-	10
2,4-Dimethylphenol	ND	-	10
2,4-Dichlorophenol	ND	-	10
4-Chloro-3-Methylphenol	ND	-	10
2,4,6-Trichlorophenol	ND	-	10
2,4-Dinitrophenol	ND	-	50
4-Nitrophenol	ND	-	50
4,6-Dinitro-2-Methylphenol	ND	-	50
Pentachlorophenol	ND	-	50
2-Hethylphenol	ND	-	10
4-Methylphenol	ND	-	10
Benzoic Acid	ND	-	50
2,4,5-Trichlorophenol	ND	-	50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :VBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAHE : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44876

MATRIX: WATER

SAMPLE ID CLIENT: P32W010D

PARAMETER	RESULTS	Q	QNT. LIHIT
Bis(2-Chloroethyl)Ether	ND	-	10
1,3-Dichlorobenzene	ND	-	10
1,4-Dichlorobenzene	ND	-	10
1,2-Dichlorobenzene	ND	-	10
Bis(2-Chloroisopropyl)Ether	ND	-	10
N-Nitrosodipropylamine	ND	-	10
Hexachloroethane	ND	-	10
Nitrobenzene	ND	-	10
Isophorone	ND	-	10
Bis(2-Chloroethoxy)Methane	ND	-	10
1,2,4-Trichlorobenzene	ND	-	10
Naphthalene	ND	-	10
Hexachlorobutadiene	ND	-	10
Hexachlorocyclopentadiene	ND	-	10
2-Chloronaphthalene	ND	-	10
Dimethyl Phthalate	ND	-	10
Acenaphthylene	ND	-	10
Fluorene	ND	-	10
Acenaphthene	ND	-	10
2,4-Dinitrotoluene	ND	-	10
2,6-Dinitrotoluene	ND	-	10
Diethyl..Phthalate	ND	-	10
4-Chlorophenyl Phenyl Ether	ND	-	10
N-Nitrosodiphenylamine	ND	-	10
4-Bromophenyl Phenyl Ether	ND	-	10
Hexachlorobenzene	ND	-	10
Phenanthrene	ND	-	10
Anthracene	ND	-	10
Di-N-Butyl-Phthalate	ND	-	10
Fluoranthene	ND	-	10
Benzidine	ND	-	50
Pyrene	ND	-	10
Butyl Benzyl Phthalate	ND	-	10
3,3'-Dichlorobenzidine	ND	-	20
Benzo(A)Anthracene	ND	-	10
Bis(2-Ethylhexyl)Phthalate	ND	-	10
Chrysene	ND	-	10
Di-N-Octyl Phthalate	ND	-	10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44876

MATRIX: WATER

SAMPLE ID CLIENT: P32W010D

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzo(B)Fluoranthene	ND	-	10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-Methylnaphthalene	ND		10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibenzofuran	ND		10
4-Nitroaniline	ND		50

.....
QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WAPBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : ACID PHENOL

UNITS : UG/L

SAHPLE ID LAB : €E-92-44876

MATRIX: WATER

SAMPLE ID CLIENT: P32W010D

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Phenol	ND	-	10
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Hethylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Methylphenol	ND		10
4-Hethylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44889

MATRIX : WATER

SAMPLE ID CLIENT: P32WRB01

PARAMETER	RESULTS	Q	QNT. LIMIT
Bis(2-Chloroethyl)Ether	ND		10
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	ND		10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	ND		10
Chrysene	ND		10
Di-N-Octyl Phthalate	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WBNBNA1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44889

MATRIX: WATER

SAMPLE ID CLIENT: P32WRB01

PARAMETER	RESULTS	Q	QNT. LIHIT
Benzo(B)Fluoranthene	ND	-	10
Benzo(K)Fluoranthene	ND	-	10
Benzo(A)Pyrene	ND	-	10
Indeno(1,2,3-cd)Pyrene	ND	-	10
Dibenzo(A,H)Anthracene	ND	-	10
Benzo(G,H,I)Perlyene	ND	-	10
Benzyl Alcohol	ND	-	10
4-Chloroaniline	ND	-	10
2-Hethylnaphthalene	ND	-	10
2-Nitroaniline	ND	-	50
3-Nitroaniline	ND	-	50
Dibenzofuran	ND	-	10
4-Nitroaniline	ND	-	50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIHATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WAPBNA1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TUTP GW SAMPLING

TEST NAME : ACID PHENOL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44889

MATRIX: WATER

SAMPLE ID CLIENT: P32WR801

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Phenol	ND	-	10
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Methylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Methylphenol	ND		10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C : COMMENT ND = NOT DETECTED
 J : ESTIMATED VALUE B : ALSO PRESENT IN BLANK
 L : PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
TEST NAME : BASE NEUTRAL UNITS : UG/L
SAMPLE ID LAB : EE-92-44890 MATRIX: WATER
SAMPLE ID CLIENT: P32WRB02

PARAMETER	RESULTS	Q	QNT. LIHIT
Bis(2-Chloroethyl)Ether	ND	-	10
1,3-Dichlorobenzene	ND	-	10
1,4-Dichlorobenzene	ND	-	10
1,2-Dichlorobenzene	ND	-	10
Bis(2-Chloroisopropyl)Ether	ND	-	10
N-Nitrosodipropylamine	ND	-	10
Hexachloroethane	ND	-	10
Nitrobenzene	ND	-	10
Isophorone	ND	-	10
Bis(2-Chloroethoxy)Methane	ND	-	10
1,2,4-Trichlorobenzene	ND	-	10
Naphthalene	ND	-	10
Hexachlorobutadiene	ND	-	10
Bexachlorocyclopentadiene	ND	-	10
2-Chloronaphthalene	ND	-	10
Dimethyl Phthalate	ND	-	10
Acenaphthylene	ND	-	10
Fluorene	ND	-	10
Acenaphthene	ND	-	10
2,4-Dinitrotoluene	ND	-	10
2,6-Dinitrotoluene	ND	-	10
Diethyl Phthalate	ND	-	10
4-Chlorophenyl Phenyl Ether	ND	-	10
N-Nitrosodiphenylamine	ND	-	10
4-Bromophenyl Phenyl Ether	ND	-	10
Bexachlorobenzene	ND	-	10
Phenanthrene	ND	-	10
Anthracene	ND	-	10
Di-N-Butyl-Phthalate	ND	-	10
Fluoranthene	ND	-	10
Benzidine	ND	-	50
Pyrene	ND	-	10
Butyl Benzyl Phthalate	ND	-	10
3,3'-Dichlorobenzidine	ND	-	20
Benzo(A)Anthracene	ND	-	10
Bis(2-Ethylhexyl)Phthalate	ND	-	10
Chrysene	ND	-	10
Di-N-Octyl Phthalate	ND	-	10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44890

MATRIX: WATER

SAMPLE ID CLIENT: P32WRB02

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzo(B)Fluoranthene	ND		10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-Methylnaphthalene	ND		10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibenzofuran	ND		10
4-Nitroaniline	ND		50

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE

B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WAPBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAHPLING

TEST NAME : ACID PHENOL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44890

MATRIX: WATER

SAMPLE ID CLIENT: P32WRB02

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIHIT</u>
Phenol	ND	-	10
2-Chlorophenol	ND	-	10
2-Nitrophenol	ND	-	10
2,4-Dimethylphenol	ND	-	10
2,4-Dichlorophenol	ND	-	10
4-Chloro-3-Hethylphenol	ND	-	10
2,4,6-Trichlorophenol	ND	-	10
2,4-Dinitrophenol	ND	-	50
4-Nitrophenol	ND	-	50
4,6-Dinitro-2-Methylphenol	ND	-	50
Pentachlorophenol	ND	-	50
2-Methylphenol	ND	-	10
4-Hethylphenol	ND	-	10
Benzoic Acid	ND	-	50
2,4,5-Trichlorophenol	ND	-	50

.....
QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIHIT

TEST CODE :WBNBA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44891

MATRIX : WATER

SAMPLE ID CLIENT: P32WRB03

PARAMETER	RESULTS	Q	QNT. LIMIT
Bis(2-Chloroethyl)Ether	ND		10
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	ND		10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	ND		10
Chrysene	ND		10
Di-N-Octyl Phthalate	ND		10

.....

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B. = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAHPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44891

MATRIX: WATER

SAMPLE ID CLIENT: P32WRB03

PARAMETER	RESULTS	Q	QNT. LIHIT
Benzo(B)Fluoranthene	ND		10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-Methylnaphthalene	ND		10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibenzofuran	ND		10
4-Nitroaniline	ND		50

 QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WAPBNA1

JOB NUMBER :9201,873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TUTP GU SAMPLING

TEST NAME : ACID PHENOL

UNITS : UG/L

SAHPLE ID LAB : EE-92-44891

MATRIX: WATER

SAHPLE ID CLIENT: P32WRB03

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Phenol	ND		10
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Methylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Methylphenol	ND		10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

.....
QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAHE : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44892

MATRIX: WATER

SAMPLE ID CLIENT: P32WFB01

PARAMETER	RESULTS	Q	QNT. LIMIT
Bis(2-Chloroethyl)Ether	ND		10
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadienc	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	ND		10
Fluoranchene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	ND		10
Chrysene	ND		10
Di-N-Octyl Phthalate	ND		10

QUALIFIERS: C = COMMENT **ND = NOT DETECTED**
J = ESTIMATED VALUE **B = ALSO PRESENT IN BLANK**
L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : EE-92-44892

MATRIX : WATER

SAMPLE ID CLIENT: P32WFB01

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzo(B)Fluoranthene	ND		10
Benzo(K)Fluoranthene	ND		10
Benzo(A)Pyrene	ND		10
Indeno(1,2,3-cd)Pyrene	ND		10
Dibenzo(A,H)Anthracene	ND		10
Benzo(G,H,I)Perlyene	ND		10
Benzyl Alcohol	ND		10
4-Chloroaniline	ND		10
2-Methylnaphthalene	ND		10
2-Nitroaniline	ND		50
3-Nitroaniline	ND		50
Dibenzofuran	ND		10
4-Nitroaniline	ND		50

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE

B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WAPBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAHPLING

TEST NAME : ACID PHENOL

UNITS : UG/L

SAHPL ID LAB : EE-92-44892

MATRIX: WATER

SAHPL ID CLIENT: P32WFB01

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Phenol	ND		10
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Methylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Hethylphenol	ND		10
4-Hethylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT



ECOLOGY & ENVIRONMENTAL
316 S. BAYLEN ST.
SUITE 670
PENSACOLA FL 32501-0000

Lab I.D.#: 92-6576
Order Number: P61516
Received Date: 07/28/92
Client: 05039
Sampled By: AMY TWITTY
Sample Date: 07/27&28
Sample Time: AM & PM

Project Number: UH9000
Project Name: IWTP
Sample Site: N/S
Sample Type: N/S (GROUNDWATER)

N/S = Not Submitt

Lab ID	Sample ID	Parameter	Units	Results	Detecti Limit
6576-1	P32W010	TOTAL COLIFORM	CLY/100	BDL	2.0
6576-2	P32W010D	TOTAL COLIFORM	CLY/100	BDL	2.0
6576-3	P32W008	TOTAL COLIFORM	CLY/100	BDL	2.0
6576-4	P32W008D	TOTAL COLIFORM	CLY/100	BDL	2.0
6576-5	P32W001	TOTAL COLIF F	CLY/100	BDL	2.0
6576-6	P32W009	TOTAL COLIF F	CLY/100	BDL	2.0
6576-7	P32W067	TOTAL COLIFORM	CLY/100	BDL	2.0
6576-1	P32W010	TURBIDITY	N.T.U.	1.2	0.1
6576-2	P32W010D	TURBIDITY	N.T.U.	0.9	0.1
6576-3	P32W008	TURBIDITY	N.T.U.	2.2	0.1
6576-4	P32W008D	TURBIDITY	N.T.U.	7.2	0.1
6576-5	P32W001	TURBIDITY	N.T.U.	9.7	0.1
6576-6	P32W009	TURBIDITY	N.T.U.	4.4	0.1
6576-7	P32W067	TURBIDITY	N.T.U.	68	0.1

Comments: PPM = Parts Per Million, mg/l; CLY/100 = Colonies Per 100 mls.
Method Refs: EPA 600/4-79-020, Revised March 1983 and Standard Methods,
16th Edition, 1985. BDL = Below Detection Limits.

page 1 Approved By : *Linda Regan*



ECOLOGY & ENVIRONMENTAL
316 S. BAYLEN ST.
SUITE 670
PENSACOLA FL 32501-0000

Lab I.D.#: 92-6605
Order Number: P61556
Received Date: 07/29/92
Client: 05039
Sampled By: AMY TWITTY
Sample Date: 07/29/92
Sample Time: AM & PM

Project Number: UH 9000
Project Name: IWTP
Sample Site: N/S
Sample Type: GROUNDWATER

N/S = Not Submitted

Table with 6 columns: Lab ID, Sample ID, Parameter, Units, Results, Detecti Limit. Rows include data for TOTAL COLIFORM and TURBIDITY across various sample IDs.

Comments: PPM = Parts Per Million, mg/l. CLY/100 = Colonies Per 100 mls.
Method References: EPA 600/4-79-020, Revised March 1983 and Standard Methods, 16th Edition, 1985. BDL = Below Detection Limits. +Elevated detection limit due dilution into calibration range.

Approved By : [Signature]
page 1



Client: ECOLOGY & ENVIRONMENTAL

Lab I.D.#: 92-6576-3

Project Number: UH9000

Received Date: 07/28/92

Project Name: IWTP

Sampled By: AMY TWITTY

Sample Site: N/S

Sample Type: N/S (GROUNDWATER)

Sample ID.: P32W008

Sample Date: 07/27&28

Time: AM & PM

N/NO3

NITROGEN NITRATE

Parameter	Units	Result	Detection Limit
NITROGEN, NITRITE	PPM	BDL	0.1
NITROGEN, NITRITE-NITRATE	PPM	BDL	0.1
NITROGEN, NITRATE	PPM	BDL	0.1



Client: ECOLOGY & ENVIRONMENTAL

Lab I.D.#: 92-6576-4

Project Number: UH9000

Received Date: 07/28/92

Project Name: IWTP

Sampled By: AMY TWITTY

Sample Site: N/S

Sample Type: N/S (GROUNDWATER)

Sample ID.: P32W008D

Sample Date: 07/27&28 Time: AM & PM

N/NO3

NITROGEN NITRATE

Parameter	Units	Result	Detection Limit
NITROGEN, NITRITE	PPM	BDL	0.1
NITROGEN, NITRITE-NITRATE	PPM	BDL	0.1
NITROGEN, NITRATE	PPM	BDL	0.1



Client: ECOLOGY & ENVIRONMENTAL

Lab I.D.#: 92-6576-1
Received Date: 07/28/92
Sampled By: AMY TWITTY

Project Number: UH9000
Project Name: IWTP
Sample Site: N/S
Sample Type: N/S (GROUNDWATER)

Sample ID.: P32W010 Sample Date: 07/27&28 Time: AM & PM

N/NO3

NITROGEN NITRATE

Parameter	Units	Result	Detection Limit
NITROGEN, NITRITE	PPM	BDL	0.1
NITROGEN, NITRITE-NITRATE	PPM	BDL	0.1
NITROGEN; NITRATE	PPM	BDL	0.1



Client: ECOLOGY & ENVIRONMENTAL

Lab I.D.#: 92-6576-2

Project Number: UH9000

Received Date: 07/28/92

Project Name: IWTP

Sampled By: AMY TWITTY

Sample Site: N/S

Sample Type: N/S (GROUNDWATER)

Sample ID.: P32W010D

Sample Date: 07/27&28

Time: AM & PM

N/NO3

NITROGEN NITRATE

Parameter	Units	Result	Detection Limit
NITROGEN, NITRITE	PPM	BDL	0.1
NITROGEN, NITRITE-NITRATE	PPM	BDL	0.1
NITROGEN, NITRATE	PPM	BDL	0.1



Client: ECOLOGY & ENVIRONMENTAL

Lab I.D.#: 92-6576-8

Project Number: UH9000

Received Date: 07/28/92

Project Name: IWTP

Sampled By: AMY TWITTY

Sample site: N/S

Sample Type: N/S (GROUNDWATER)

Sample ID.: P32WRB01

Sample Date: 07/27&28

Time: AM & PM

N/NO3

NITROGEN NITRATE

Parameter	Units	Result	Detection Limit
NITROGEN, NITRITE	PPM	BDL	0.1
GEN NITRI -NITRATE	PPM	BDL	0.1
GEN NITRA	PPM	BDL	0.1



Client: ECOLOGY & ENVIRONMENTAL

Lab I.D.#: 92-6576-9
 Received Date: 07/28/92
 Sampled By: AMY TWITTY

Project Number: UH9000
 Project Name: IWTP
 Sample Site: N/S
 Sample Type: N/S (GROUNDWATER)

Sample ID.: P32WRB02 Sample Date: 07/27&28 Time: AM & PM

N/NO3

NITROGEN NITRATE

Parameter	Units	Result	Detection Limit
NITROGEN, NITRITE	PPM	BDL	0.1
NITROGEN, NITRITE-NITRATE	PPM	BDL	0.1
NITROGEN, NITRATE	PPM	BDL	0.1



Client: ECOLOGY & ENVIRONMENTAL

Lab I.D.#: 92-6605-11

Project Number: UH 9000

Received Date: 07/29/92

Project Name: IWTP

Sampled By: AMY TWITTY

Sample Site: N/S

Sample Type: GROUNDWATER

Sample ID.: P32WRB03

Sample Date: 07/29/92 Time: AM & PM

N/NO3

NITROGEN NITRATE

Parameter	Units	Result	Detection Limit
NITROGEN, NITRITE	PPM	BDL	0.1
NITROGEN, NITRITE-NITRATE	PPM	BDL	0.1
NITROGEN, NITRATE	PPM	BDL	0.1



Client: ECOLOGY & ENVIRONMENTAL

Lab I.D.#: 92-6576-10

Project Number: UH9000

Received Date: 07/28/92

Project Name: IWTP

Sampled By: AMY TWITTY

Sample Site: N/S

Sample Type: N/S (GROUNDWATER)

Sample ID.: P32WFB01

Sample Date: 07/27&28 Time: AM & PM

N/NO3

NITROGEN NITRATE

Parameter	Units	Result	Detection Limit
NITROGEN NITRITE	PPM	BDL	0.1
NITROGEN I -NITRATE	PPM	BDL	0.1
NITRATE	PPM	BDL	0.1

SAMPLE INSPECTION AND IDENTIFICATION SHEET/OUT OF CONTROL EVENTS

Client: Ecology & Environment

ATI Lab ID # 92-657

PROJ NUMBER: WH W-19000 ^{Customer # 42 VH-9000 LP} _{7/69}

SAMPLE	DATE
1	<u>P32 W010</u> <u>07/28/92</u>
2	<u>P32 W010D</u>
3	<u>P32 W008</u>
4	<u>P32 W008D</u>
5	<u>P32 W001</u>
6	<u>P32 W009</u>
7	<u>P32 W067</u> <u>✓</u>
8	<u>P32 WRB01</u> <u>07/27/92</u>
9	<u>P32 WRB02</u> <u>07/28/92</u>
10	<u>P32 WFB01</u> <u>↓</u>
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

PROJ NAME: IWTP

SAMPLED BY: Amy Twitty

SAMPLE SITE: N/S

SAMPLE DATE: 07/27 & 28/92

SAMPLE TIME: AM & PM

SAMPLE TYPE: N/S (Groundwater)

RUSH: Y N QC: N 0 1 2 3 4
 Date Received: 07/28/92

Is there a chain of custody? Y N

Was chain of custody signed? Y N

Were samples received cold? Y N

Were samples received in proper containers? Y N

Were samples preserved correctly? Y N

Headspace in volatile bottles? Y N/A

Were samples within holding time? Y N

SHIPPED BY: Prop Off

OUT OF CONTROL EVENTS: _____

ATI WILL PERFORM THE SERVICES IN ACCORDANCE WITH NORMAL PROFESSIONAL STANDARDS FOR THE INDUSTRY. THE TOTAL LIABILITY OF ATI, ANY AND ALL OFFICERS AND EMPLOYEES OR SUCCESSORS, TO CLIENTS FOR SERVICES PROVIDED, WILL NOT EXCEED THE FEE AMOUNT FOR SAID SERVICE. CLIENT ACCEPTANCE OF A PROPOSAL RELEASES ATI FROM ANY LIABILITY IN EXCESS THEREOF.

PM APPROVAL _____ INSPECTED BY CM DATE INSPECTED 07/28/92
 # OF REPORTS 1

ATI Lab ID 92-6576

CHAIN-OF-CUSTODY RECORD

Project No.: WH9000			Project Name: IWTP			Project Manager: AMY TWITT			NITRATE (PRES) NITRATE (UNPRES) TURBIDITY TOTAL COLIFORM			REMARKS		
Samplers: (Signatures) [Signature]			Field Tech Leader: AMY TWITT											
STATION NUMBER	DATE	TIME	SAMPLE TYPE			EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS						
			COB	GRAB	AIR									
PB01	7/27	1235	X			P32WERB01	2	X	X				8	
PB02	7/28	1245	X			P32WLB02	2	X	X				9 preserved w/H. S. 11-11-92	
GM 10	7/28	1040	X			P32W010	3	X	X	X	X		1	
M-10D	7/28	1040	X			P32W010D	3	X	X	X	X		2	
M-8	7/28	1520	X			P32W008	3	X	X	X	X		3	
M-8D	7/28	1300	X			P32W008D	3	X	X	X	X		4	
FF01	7/28	0900	X			P32WFB01	2	X	X				10	
UG-1	7/28	1010	X			P32W001	3	X	X	X	X		5	
GM 9	7/28	1550	X			P32W009	3	X	X	X	X		6	
GM 67	7/28	1645	X			P32W007	3	X	X	X	X		7	

Relinquished By: (Signature) [Signature]	Date/Time: 7/28/92 1415	Received By: (Signature) [Signature]	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Ship Via: DELIVER
Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	
Relinquished By: (Signature)	Date/Time: 7/28/92 1415	Received For Laboratory By: (Signature) [Signature]	Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)	BL/Airbill Number:
						Date: 7/28/92

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files
 *See CONCENTRATION RANGE on back of form.

3200433

QUALITY CONTROL FOR ACCURACY: PERCENT
RECOVERY OF SURROGATE SPIKES

9201.873

Compound	E & E Laboratory No. 92-	Amount Added	Amount Determined	Percent Recovery
(ng)				
Nitrobenzene-d5	44884	100	90	90
	44885	100	67	67
	44886	100	65	65
	44887	100	104	104
	44888	100	60	60
	44889	100	94	94
	44890	100	66	66
	44891	100	96	96
	44892	100	94	94
	Method Blank 1	100	68	68
2-Fluorobiphenyl	44884	100	97	97
	44885	100	61	61
	44886	100	62	62
	44887	100	91	91
	44888	100	65	65
	44889	100	86	86
	44890	100	73	73
	44891	100	87	87
	44892	100	85	85
	Method Blank 1	100	68	68
Terphenyl-d14	44884	100	100	100
	44885	100	49	49
	44886	100	69	69
	44887	100	85	85
	44888	100	81	81
	44889	100	84	84
	44890	100	86	86
	44891	100	93	93
	44892	100	95	95
	Method Blank 1	100	77	77

These recoveries are acceptable to E & E, Inc. guidelines.

QUALITY CONTROL FOR ACCURACY: PERCENT
RECOVERY OF SURROGATE SPIKES

9201.873

Compound	E & E Laboratory No. 92-	Amount Added	Amount Determined	Percent Recovery
(ng)				
Nitrobenzene-d5	Hethod Blank 2	100	70	70
	Hethod Blank 3	100	95	95
	Hethod Blank 4	100	83	83
2-Fluorobiphenyl	Method Blank 2	100	66	66
	Method Blank 3	100	85	85
	Hethod Blank 4	100	76	76
Terphenyl-d14	Method Blank 2	100	73	73
	Hethod Blank 3	100	102	102
	Hethod Blank 4	100	97	97

These recoveries are acceptable to E & E, Inc. guidelines.

QUALITY CONTROL FOR ACCURACY:
PERCENT RECOVERY OF WATER MATRIX SPIKE
(Sample # Spiked Blank)

9201.873

(ug)

Compound	Original Result	Amount Added	Amount Determined	Percent Recovery	E&E QC Limits
1,2,4-Trichlorobenzene	ND	100	83	83	15 - 115
Acenaphthene	ND	100	78	78	42 - 114
2,4-Dinitrotoluene	ND	100	104	104	18 - 156
Pyrene	ND	100	104	104	25 - 169
N-Nitroso-di-n-propylamine	ND	100	86	86	35 - 113
1,4-Dichlorobenzene	ND	100	63	63	8 - 104
Pentachlorophenol	ND	200	35	18	0 - 140
Phenol	ND	200	49	25	12 - 66
2-Chlorophenol	ND	200	95	48	17 - 113
4-Chloro-3-methylphenol	ND	200	123	62	20 - 116
4-Nitrophenol	ND	200	38	19	0 - 75

These recoveries are within E & E, Inc. limits.

ND = NOT DETECTED

**QUALITY CONTROL FOR ACCURACY: PERCENT
RECOVERY OF SURROGATE SPIKES**

9201.873

Compound	E & E Laboratory No. 92-	Amount Added	Amount Determined	Percent Recovery
(ng)				
Nitrobenzene-d5	44872	100	65	65
	44873	100	61	61
	44875	100	65	65
	44876	100	75	75
	44877	100	65	65
	44878	100	94	94
	44879	100	57	57
	44880	100	55	55
	44882	100	11	11 L
44883	100	60	60	
2-Fluorobiphenyl	44872	100	66	66
	44873	100	62	62
	44875	100	67	67
	44876	100	71	71
	44877	100	65	65
	44878	100	85	85
	44879	100	59	59
	44880	100	55	55
	44882	100	79	79
44883	100	58	58	
Terphenyl-d14	44872	100	64	64
	44873	100	60	60
	44875	100	69	69
	44876	100	79	79
	44877	100	50	50
	44878	100	57	57
	44879	100	44	44
	44880	100	33	33
	44882	100	97	97
44883	100	58	58	

With the exception of those recoveries flagged "L", these recoveries are acceptable to B & E, Inc. guidelines.

QUALITY CONTROL FOR ACCURACY:
PERCENT RECOVERY OF WATER MATRIX SPIKE
(Sample # Spiked Blank)

9201.873

(ug)

Compound	Original Result	Amount Added	Amount Determined	Percent Recovery	E&E QC Limits
1,2,4-Trichlorobenzene	ND	100	65	65	15 - 115
Acenaphthene	ND	100	56	56	42 - 114
2,4-Dinitrotoluene	ND	100	69	69	18 - 156
Pyrene	ND	100	82	82	25 - 169
N-Nitroso-di-n-propylamine	ND	100	60	60	35 - 113
1,4-Dichlorobenzene	ND	100	50	50	8 - 104
Pentachlorophenol	ND	200	121	61	0 - 140
Phenol	ND	200	52	26	12 - 66
2-Chlorophenol	ND	200	113	57	17 - 113
4-Chloro-3-methylphenol	ND	200	112	56	20 - 116
4-Nitrophenol	ND	200	55	28	0 - 75

These recoveries are within E & E, Inc. limits.

ND = NOT DETECTED

QUALITY CONTROL FOR ACCURACY:
 PERCENT RECOVERY OF WATER MATRIX SPIKE
 (Sample # Spiked Blank)

9201.873

(ug)					
Compound	Original Result	Amount Added	Amount Determined	Percent Recovery	E&E QC Limits
1,2,4-Trichlorobenzene	ND	100	78	78	15 - 115
Acenaphthene	ND	100	67	67	42 - 114
2,4-Dinitrotoluene	ND	100	85	85	18 - 156
Pyrene	ND	100	89	89	25 - 169
N-Nitroso-di-n-propylamine	ND	100	72	72	35 - 113
1,4-Dichlorobenzene	ND	100	56	56	8 - 104
Pentachlorophenol	ND	200	117	59	0 - 140
Phenol	ND	200	45	23	12 - 66
2-Chlorophenol	ND	200	111	56	17 - 113
4-Chloro-3-methylphenol	ND	200	111	56	20 - 116
4-Nitrophenol	ND	200	57	29	0 - 75

These recoveries are within E & E, Inc. limits.

ND = NOT DETECTED

QUALITY CONTROL FOR ACCURACY AND PRECISION:
 PERCENT RECOVERY AND RELATIVE PERCENT DIFFERENCE (RPD)
 OF WATER MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MSD)
 (Sample # 44875)

9201.873

(ug)

Compound	Original Value	Amount Added	Amount Determined		Percent Recovery		
			MS	MSD	MS	MSD	RPD
1,2,4-Trichlorobenzene	ND	100	68	68	68	68	0
Acenaphthene	ND	100	58	59	58	59	1.7
2,4-Dinitrotoluene	ND	100	68	72	68	72	5.7
Pyrene	ND	100	78	85	78	85	8.6
N-Nitrosodi-n-propylamine	ND	100	68	68	68	68	0
1,4-Dichlorobenzene	ND	100	51	49	51	49	4.0
Pentachlorophenol	ND	200	104	106	52	53	1.9
Phenol	ND	200	73	76	37	38	2.7
2-Chlorophenol	ND	200	104	102	52	51	1.9
4-Chloro-3-methylphenol	ND	200	116	110	58	55	5.3
4-Nitrophenol	ND	200	79	72	40	36	10.5

ND = NOT DETECTED

QUALITY CONTROL FOR ACCURACY:
PERCENT RECOVERY OF WATER MATRIX SPIKE
(Sample # 44891)

9201.873

(ug)

Compound	Original Result	Amount Added	Amount Determined	Percent Recovery	E&E QC Limits
1,2,4-Trichlorobenzene	ND	100	86	86	15 - 115
Acenaphthene	ND	100	79	79	42 - 114
2,4-Dinitrotoluene	ND	100	92	92	18 - 156
Pyrene	ND	100	114	114	25 - 169
N-Nitroso-di-n-propylamine	ND	100	79	79	35 - 113
1,4-Dichlorobenzene	ND	100	65	65	8 - 104
Pentachlorophenol	ND	200	127	64	0 - 140
Phenol	ND	200	61	31	12 - 66
2-Chlorophenol	ND	200	127	64	17 - 113
4-Chloro-3-methylphenol	ND	200	141	71	20 - 116
4-Nitrophenol	ND	200	49	25	0 - 75

These recoveries are within E & E, Inc. limits.

ND = NOT DETECTED

ECOLOGY AND ENVIRONMENT, INC.

RESULTS OF WATER ANALYSIS FOR TENTATIVELY IDENTIFIED
NAVY SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

(all results in ug/L)

9201.873

E & E Lab. No. 92-		44890	44891	44892	Method Blank 1	Quant . Limits
Compound	Sample Identity	P32WRB02	P32WRB03	P32WFB01		
3,4-Benzofluoranthene Isomers (1)		ND	ND	ND	ND	<10
1,2-Diphenylhydrazine		ND	ND	ND	ND	<50 ***
N-Nitrosodiphenylamide		ND	ND	ND	ND	***
Methyl Dihydro Indene		ND	ND	ND	ND	
Hydroxymethyl Pentanone		ND	<10*	ND	ND	<10 ***
Methyl Ethyl Phenol		ND	ND	ND	ND	***
Di-Methyl Ethyl Phenol		ND	ND	ND	ND	
Tetramethyl Butyl Phenol (Octylphenol)		ND	ND	ND	ND	<10
Tetramethyl Benzene		ND	ND	ND	ND	<10

ND = Not detected

B = Compound also detected in laboratory method blank.

* Compound present below quantitation limit.

(1) Same as Benzo(b)fluoranthene.

*** Compound searched for, quantitation limit not determined due to unavailability of standard.

ECOLOGY AND ENVIRONMENT, INC.

RESULTS OF WATER ANALYSIS FOR TENTATIVELY IDENTIFIED
NAVY SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

(all results in ug/L)

9201.873

Compound	E & E Lab. No. 92-	Method Blank 2	Method Blank 3	Method Blank 4	Quant. Limits
3,4-Benzofluoranthene Isomers (1)		ND	ND	ND	<10
1,2-Diphenylhydrazine		ND	ND	ND	<50
N-Nitrosodiphenylamide		ND	ND	ND	***
Hethyl Dihydro Indene		ND	ND	ND	
Hydroxymethyl Pentanone		ND	<10*	<10*	≤10
Hethyl Ethyl Phenol		ND	ND	ND	
Di-Methyl Ethyl Phenol		ND	ND	ND	***
Tetramethyl Butyl Phenol (Octylphenol)		ND	ND	ND	<10
Tetramethyl Benzene		ND	ND	ND	<10

ND = Not detected

B = Compound also detected in laboratory method blank.

* Compound present below quantitation limit.

(1) Same as Benzo(b)fluoranthene.

*** Compound searched for, quantitation limit not determined due to unavailability of standard.

ECOLOGY AND ENVIRONMENT, INC.

RESULTS OF WATER ANALYSIS FOR TENTATIVELY IDENTIFIED
NAVY SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

(all results in ug/L)

9201.873

E & E Lab. No. 92-		44882	44883	44884	44885	Quant . Limits
Compound	Sample Identity	P32W066	P32W068	P32W069	P32PCI-1	
3,4-Benzofluoranthene						
	Isomers (1)	ND	ND	<50	ND	<10
	1,2-Diphenylhydrazine	ND	ND	<250	<10*	≤50
	N-Nitrosodiphenylamide	ND	ND	ND	ND	***
	Methyl Dihydro Indene	ND	ND	ND	ND	***
	Hydroxymethyl Pentanone	<10*	<10*	<50	<10*	≤10
	Methyl Ethyl Phenol	ND	ND	ND	ND	***
	Di-Methyl Ethyl Phenol	ND	ND	ND	ND	***
	Tetramethyl Butyl Phenol (Octylphenol)	ND	ND	<50	<10*	<10
	Tetramethyl Benzene	<10*	ND	<50	ND	<10

ND = Not detected

B = Compound also detected in laboratory method blank.

* Compound present below quantitation limit.

(1) Same as Benzo(b)fluoranthene.

*** Compound searched for, quantitation limit not determined due to unavailability of standard.

ECOLOGY AND ENVIRONMENT, INC.

RESULTS OF WATER ANALYSIS FOR TENTATIVELY IDENTIFIED
NAVY SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

(all results in ug/L)

9201.873

E & E Lab. No. 92-		44886	44887	44888	44889	Quant. Limits
Compound	Sample Identity	P32PCD-1	P32PCS-1	P32W001	P32WRB01	
3,4-Benzofluoranthene						
Isomers (1)		ND	ND	ND	ND	<10
1,2-Diphenylhydrazine		ND	<10*	ND	ND	<50 ***
N-Nitrosodiphenylamide		ND	ND	ND	ND	***
Methyl Dihydro Indene		ND	ND	ND	ND	***
Hydroxymethyl Pentanone		11	13	<10*	ND	<10 ***
Methyl Ethyl Phenol		ND	ND	ND	ND	***
Di-Methyl Ethyl Phenol		ND	ND	ND	ND	***
Tetramethyl Butyl Phenol (Octylphenol)		ND	56	ND	ND	<10
Tetraethyl Benzene		ND	ND	ND	ND	<10

ND = Not detected

B = Compound also detected in laboratory method blank.

* Compound present below quantitation limit.

(1) Same as Benzo(b) fluoranthene.

*** Compound searched for, quantitation limit not determined due to unavailability of standard.

ECOLOGY AND ENVIRONMENT, INC.

RESULTS OF WATER ANALYSCS FOR TENTATIVELY IDENTIFIED
NAVY SEHI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

(all results in ug/L)

9201.873

E & E Lab. No. 92-		44872	14873	44875	44876	Quant. Limits
Compound	Sample Identity	P32W008	P32W008D	P32W010	P32W010D	
3,4-Benzofluoranthene						
Isomers (1)		ND	ND	ND	ND	<10
1,2-Diphenylhydrazine		ND	ND	ND	ND	≤50
N-Nitrosodiphenylamide		ND	ND	ND	ND	***
Methyl Dihydro Indene		ND	ND	ND	ND	
Hydroxymethyl Pentanone		ND	ND	ND	ND	≤10
Methyl Ethyl Phenol		ND	ND	ND	ND	***
Di-Methyl Ethyl Phenol		ND	ND	ND	ND	
Tetramethyl Butyl Phenol (Octylphenol)		ND	ND	35	38	<10
Tetramethyl Benzene		ND	ND	ND	ND	<10

ND = Not detected

B = Compound also detected in laboratory method blank.

* Compound present below quantitation limit.

(1) Same as Benzo(b)fluoranthene.

*** Compound searched for, quantitation limit not determined due to unavailability of standard.

ECOLOGY AND ENVIRONMENT, INC.

RESULTS OF WATER ANALYSIS FOR TENTATIVELY IDENTIFIED
NAVY SEHI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

(all results in ug/L)

9201.873

E & E Lab. No. 92-		44877	44878	44879	44880	Quant . Limits
Compound	Sample Identity	P32W062	P32W063	P32W064	P32W065	
3,4-Benzofluoranthene						
	Isomers (1)	ND	ND	ND	ND	<10
	1,2-Diphenylhydrazine	ND	ND	ND	ND	<50
	N-Nitrosodiphenylamide	ND	ND	ND	ND	
	Hethyl Dihydro Indene	ND	ND	ND	ND	***
	Hydroxymethyl Pentanone	ND	ND	ND	ND	<10
	Hethyl Ethyl Phenol	ND	ND	ND	ND	***
	Di-Methyl Ethyl Phenol	ND	ND	ND	ND	***
	Tetramethyl Butyl Phenol (Octylphenol)	ND	ND	14	ND	<10
	Tetramethyl Benzene	ND	ND	ND	ND	<10

ND = Not detected

B = Compound also detected in laboratory method blank.

* Compound present below quantitation limit.

(1) Same as Benzo(b)fluoranthene.

*** Compound searched for, quantitation limit not determined due to unavailability of standard.

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GU SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : METHOD BLANK 4

MATRIX: WATER

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzo(B)Fluoranthene	ND	-	10
Benzo(K)Fluoranthene	ND	-	10
Benzo(A)Pyrene	ND	-	10
Indeno(1,2,3-cd)Pyrene	ND	-	10
Dibenzo(A,H)Anthracene	ND	-	10
Benzo(G,H,I)Perlyene	ND	-	10
Benzyl Alcohol	ND	-	10
4-Chloroaniline	ND	-	10
2-Methylnaphthalene	ND	-	10
2-Nitroaniline	ND	-	50
3-Nitroaniline	ND	-	50
Dibenzofuran	ND	-	10
4-Nitroaniline	ND	-	50

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE

B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WAPBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : ACID PHENOL

UNITS : UG/L

SAMPLE ID LAB : METHOD BLANK 4

MATRIX: WATER

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Phenol	ND		10
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Hethylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Hethylphenol	ND		10
4-Hethylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WAPBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : ACID PHENOL

UNITS : UG/L

SAMPLE ID LAB : METHOD BLANK 3

MATRIX: WATER

PARAMETER	RESULTS	Q	QNT. LIMIT
Phenol	ND	-	10
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Methylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Methylphenol	ND		10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAHPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : METHOD BLANK 4

MATRIX: WATER

PARAMETER	RESULTS	Q	QNT. LIMIT
Bis(2-Chloroethyl)Ether	ND	-	10
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Eexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
fiexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	ND		10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	ND		10
Chrysene	ND		10
Di-N-Octyl Phthalate	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : METHOD BLANK 3

MATRIX: WATER

PARAMETER	RESULTS	Q	QNT. LIMIT
Bis(2-Chloroethyl)Ether	ND		10
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	ND		10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	ND		10
Chrysene	ND		10
Di-N-Octyl Phthalate	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GU SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : METHOD BLANK 3

MATRIX: WATER

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzo(B)Fluoranthene	ND	-	10
Benzo(K)Fluoranthene	ND	-	10
Benzo(A)Pyrene	ND	-	10
Indeno(1,2,3-cd)Pyrene	ND	-	10
Dibenzo(A,H)Anthracene	ND	-	10
Benzo(G,H,I)Perlyene	ND	-	10
Benzyl Alcohol	ND	-	10
4-Chloroaniline	ND	-	10
2-Methylnaphthalene	ND	-	10
2-Nitroaniline	ND	-	50
3-Nitroaniline	ND	-	50
Dibenzofuran	ND	-	10
4-Nitroaniline	ND	-	50

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE

B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WBNBNA1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWT? GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAHPLE ID LAB : METHOD BLANK 2

MATRIX: WATER

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzo(B)Fluoranthene	ND	-	10
Benzo(K)Fluoranthene	ND	-	10
Benzo(A)Pyrene	ND	-	10
Indeno(1,2,3-cd)Pyrene	ND	-	10
Dibenzo(A,H)Anthracene	ND	-	10
Benzo(G,H,I)Perlyene	ND	-	10
Benzyl Alcohol	ND	-	10
4-Chloroaniline	ND	-	10
2-Methylnaphthalene	ND	-	10
2-Nitroaniline	ND	-	50
3-Nitroaniline	ND	-	50
Dibenzofuran	ND	-	10
4-Nitroaniline	ND	-	50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WAPBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GU SAMPLING

TEST NAME : ACID PHENOL

UNITS : UG/L

SAMPLE ID LAB : METHOD BLANK 2

MATRIX: WATER

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Phenol	ND	-	10
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Methylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Methylphenol	ND		10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WAPBNA1

JOB NUMBER :9201,873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWT? GW SAMPLING

TEST NAME : ACID PHENOL

UNITS : UG/L

SAMPLE ID LAB : METHOD BLANJC 1

MATRIX: WATER

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Phenol	ND		10
2-Chlorophenol	ND		10
2-Nitrophenol	ND		10
2,4-Dimethylphenol	ND		10
2,4-Dichlorophenol	ND		10
4-Chloro-3-Methylphenol	ND		10
2,4,6-Trichlorophenol	ND		10
2,4-Dinitrophenol	ND		50
4-Nitrophenol	ND		50
4,6-Dinitro-2-Methylphenol	ND		50
Pentachlorophenol	ND		50
2-Methylphenol	ND		10
4-Methylphenol	ND		10
Benzoic Acid	ND		50
2,4,5-Trichlorophenol	ND		50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAHPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : METHOD BLANK 2

MATRIX: WATER

PARAMETER	RESULTS	Q	QNT. LIMIT
Bis(2-Chloroethyl)Ether	ND		10
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Bexachlorobutadiene	ND		10
Eexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	ND		10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	ND		10
Chrysene	ND		10
Di-N-Octyl Phthalate	ND		10

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE

B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : METHOD BLANK 1

MATRIX: WATER

PARAMETER	RESULTS	Q	QNT. LIMIT
Bis(2-Chloroethyl)Ether	ND		10
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	ND		10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	ND		10
Chrysene	ND		10
Di-N-Octyl Phthalate	ND		10

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WBNBNA1

JOB NUMBER :9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAHPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : METHOD BLANK 1

MATRIX: WATER

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzo(B)Fluoranthene	ND	-	10
Benzo(K)Fluoranthene	ND	-	10
Benzo(A)Pyrene	ND	-	10
Indeno(1,2,3-cd)Pyrene	ND	-	10
Dibenzo(A,H)Anthracene	ND	-	10
Benzo(G,H,I)Perlyene	ND	-	10
Benzyl Alcohol	ND	-	10
4-Chloroaniline	ND	-	10
2-Methylnaphthalene	ND	-	10
2-Nitroaniline	ND	-	50
3-Nitroaniline	ND	-	50
Dibenzofuran	ND	-	10
4-Nitroaniline	ND	-	50

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QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J * ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L * PRESENT BELOW STATED QNT. LIMIT

QUALITY CONTROL FOR ACCURACY: PERCENT
RECOVERY OF SURROGATE SPIKES

9201.873

Compound	E & E Laboratory No. 92-	Amount Added	Amount Determined	Percent Recovery
(ug/L)				
1,2-Dichloroethane-d4	44882	50	50	100
	44883	50	48	96
	44884	50	47	94
	44885	50	49	98
	44886	50	48	96
	44887	50	47	94
	44888	50	48	96
	44889	50	48	96
	44890	50	51	102
	44891	50	50	100
Toluene-d8	44882	50	49	98
	44883	50	50	100
	44884	50	49	98
	44885	50	50	100
	44886	50	51	102
	44887	50	50	100
	44888	50	50	100
	44889	50	50	100
	44890	50	49	98
	44891	50	50	100
4-Bromofluorobenzene	44882	50	48	96
	44883	50	49	98
	44884	50	51	102
	44885	50	48	96
	44886	50	50	100
	44887	50	49	98
	44888	50	50	100
	44889	50	48	96
	44890	50	48	96
	44891	50	49	98

These recoveries are acceptable to E & E, Inc. guidelines.

QUALITY CONTROL FOR ACCURACY: PERCENT
RECOVERY OF SURROGATE SPIKES

9201.873

Compound	E & E	Amount Added	Amount Determined	Percent Recovery
	Laboratory No. 92-			
(ug/L)				
1,2-Dichloroethane-d4	44892	50	49	98
	44893	50	48	96
	44894	50	50	100
	44895	50	49	98
	Hethod Blank 1	50	47	94
	Hethod Blank 2	50	46	92
	Hethod Blank 3	50	49	98
Toluene-d8	44892	50	49	98
	44893	50	50	100
	44894	50	50	100
	44895	50	49	98
	Hethod Blank 1	50	50	100
	Hethod Blank 2	50	50	100
	Hethod Blank 3	50	51	102
4-Bromofluorobenzene	44892	50	48	96
	44893	50	48	96
	44894	50	49	98
	44895	50	48	96
	Hethod Blank 1	50	50	100
	Hethod Blank 2	50	50	100
	Hethod Blank 3	50	50	100

These recoveries are acceptable to E & E, Inc. guidelines.

QUALITY CONTROL FOR ACCURACY AND PRECISION:
 PERCENT RECOVERY AND RELATIVE PERCENT DIFFERENCE (RPD)
 OF WATER MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MSD)
 (Sample # Spiked Blank)

9201.873

(ug/L)

Compound	Original Value	Amount Added	Amount Determined		Percent Recovery		
			MS	MSD	MS	MSD	RPD
1,1-Dichloroethene	ND	50	33	35	66	70	5.9
Trichloroethene	ND	50	45	47	90	94	4.3
Chlorobenzene	ND	50	48	48	96	96	0
Toluene	ND	50	44	44	88	88	0
Benzene	ND	50	42	44	84	88	4.7

ND = NOT DETECTED

QUALITY CONTROL FOR ACCURACY: PERCENT
RECOVERY OF SURROGATE SPIKES

9201.873

Compound	E & E Laboratory No. 92-	Amount Added	Amount Determined	Percent Recovery
(ug/L)				
1,2-Dichloroethane-d4	44872	50	48	97
	44873	50	48	96
	44874	50	48	96
	44875	50	50	100
	44876	50	48	96
	44877	50	51	102
	44878	50	48	96
	44879	50	48	96
	44880	50	48	96
	44881	50	47	94
Toluene-d8	44872	50	49	98
	44873	50	49	98
	44874	50	50	100
	44875	50	50	100
	44876	50	49	98
	44877	50	48	96
	44878	50	50	100
	44879	50	50	100
	44880	50	50	100
	44881	50	50	100
4-Bromofluorobenzene	44872	50	50	100
	44873	50	50	100
	44874	50	49	98
	44875	50	50	100
	44876	50	49	98
	44877	50	50	99
	44878	50	49	98
	44879	50	49	98
	44880	50	49	98
	44881	50	49	98

These recoveries are acceptable to E & E, Inc. guidelines.

QUALITY CONTROL FOR ACCURACY AND PRECISION:
PERCENT RECOVERY AND RELATIVE PERCENT DIFFERENCE (RPD)
OF WATER MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MSD)
(Sample # 44874)

9201.873

(ug/L)

Compound	Original Value	Amount Added	Amount Determined		Percent Recovery		RPD
			MS	MSD	MS	MSD	
1,1-Dichloroethene	ND	50	34	35	68	70	2.3
Trichloroethene	ND	50	46	44	92	88	4.4
Chlorobenzene	ND	50	48	47	96	94	2.1
Toluene	ND	50	47	47	94	94	0
Benzene	ND	50	47	47	94	94	0

ND = NOT DETECTED

QUALITY CONTROL FOR ACCURACY AND PRECISION:
 PERCENT RECOVERY AND RELATIVE PERCENT DIFFERENCE (RPD)
 OF WATER MATRIX SPIKE (MS) AND HATRIX SPIKE DUPLICATE (MSD)
 (Sample # 44876)

9201.873

(ug/L)

Compound	Original Value	Amount Added	Amount Determined		Percent Recovery		RPD
			HS	MSD	MS	HSD	
1,1-Dichloroethene	ND	50	38	46	76	92	19
Trichloroethene	ND	50	43	46	86	92	6.7
Chlorobenzene	ND	50	45	49	90	98	8.5
Toluene	ND	50	43	46	86	92	6.7
Benzene	ND	50	41	45	82	90	9.3

ND = NOT DETECTED

ECOLOGY AND ENVIRONMENT, INC.

RESULTS OF WATER ANALYSIS FOR TENTATIVELY IDENTIFIED
NAVY VOLATILE ORGANIC COMPOUNDS BY GC/MS

(all results in ug/L)

9201.873

E & E Lab. No. 92-		44888	44889	44890	44891	Quant. Limits
Compound	Sample Identity	P32W001	P32WRB01	P32WRB02	P32WRB03	
Bis (Chloromethyl) Ether		ND	ND	ND	ND	**
Dichlorodifluoromethane		ND	ND	ND	ND	≤10
1,2-Dichloropropylene		ND	ND	ND	ND	
Trichlorofluoromethane		ND	ND	ND	ND	<10
Trimethyl Benzene		ND	ND	ND	ND	<10
Acrolein		ND	ND	ND	ND	<100
Acrylonitrile		ND	ND	ND	ND	≤100
Alkylated Benzene		ND	ND	ND	ND	

ND = Not detected

B = Compound also detected in laboratory method blank.

* Compound present below quantitation limit.

** Values are approximate retention times.

*** Compound searched for, quantitation limit not determined due to unavailability of standard.

ECOLOGY AND ENVIRONMENT, INC.

RESULTS OF WATER ANALYSIS FOR TENTATIVELY IDENTIFIED
NAVY VOLATILE ORGANIC COMPOUNDS BY GC/MS

(all results in ug/L)

9201.873

E & E Lab. No. 92-		44892	44893	44894	44895	Quant. Limits
Compound	Sample Identity	P32WFB01	P32WPB01	P32WTB01	P32WTB02	
Bis (Chloromethyl) Ether		ND	ND	ND	ND	**
Dichlorodifluoromethane		ND	ND	ND	ND	≤10
1,2-Dichloropropylene		ND	ND	ND	ND	
Trichlorofluoromethane		ND	ND	ND	ND	<10
Trimethyl Benzene		ND	ND	ND	ND	<10
Acrolein		ND	ND	ND	ND	<100
Acrylonitrile		ND	ND	ND	ND	≤100
Alkylated Benzene		ND	ND	ND	ND	

ND = Not detected

B = Compound also detected in laboratory method blank.

* Compound present below quantitation limit.

** Values are approximate retention times.

*** Compound searched for, quantitation limit not determined due to unavailability of standard.

ECOLOGY AND ENVIRONMENT, INC.

RESULTS OF WATER ANALYSTS FOR TENTATIVELY IDENTIFIED
NAVY VOLATILE ORGANIC COMPOUNDS BY GC/MS

(all results in ug/L)

9201.a73

E & E Lab. No. 92-		44880	44881	44882	44883	Quant . Limits
Compound	Sample Identity	P32W065	P32W067	P32W066	P32W068	
						**
Bis (Chloromethyl) Ether		ND	ND	ND	ND	
Dichlorodifluoromethane		ND	ND	<200	ND	≤10
1,2-Dichloropropylene		ND	ND	ND	ND	
Trichlorofluoromethane		ND	ND	<200	ND	<10
Trimethyl Benzene		ND	ND	<200	ND	<10
Acrolein		ND	ND	<2000	ND	<100
Acrylonitrile		ND	ND	<2000	ND	≤100
Alkylated Benzene		ND	ND	ND	ND	

ND = Not detected

B = Compound also detected in laboratory method blank.

* Compound present below quantitation limit.

** Values are approximate retention times.

*** Compound searched for, quantitation limit not determined due to unavailability of standard.

ECOLOGY AND ENVIRONMENT, INC.

RESULTS OF WATER ANALYSIS FOR TENTATIVELY IDENTIFIED
NAVY VOLATILE ORGANIC COMPOUNDS BY GC/MS

(all results in ug/L)

9201.873

		E & E Lab. No. 92-				Quant. Limits
		44884	44885	44886	44887	
Compound	Sample Identity	P32W069	P32PCI-1	P32PCD-1	P32PCS-1	
Bis (Chloromethyl) Ether		ND	ND	ND	ND	**
Dichlorodifluoromethane		ND	ND	ND	ND	≤10
1,2-Dichloropropylene		ND	ND	ND	ND	
Trichlorofluoromethane		ND	ND	ND	ND	<10
Trimethyl Benzene		<10*	ND	ND	ND	<10
Acrolein		ND	ND	ND	ND	<100
Acrylonitrile		ND	ND	ND	ND	≤100
Alkylated Benzene		ND	ND	ND	ND	

ND = Not detected

B = Compound also detected in laboratory method blank.

* Compound present below quantitation limit.

** Values are approximate retention times.

*** Compound searched for, quantitation limit not determined due to unavailability of standard.

ECOLOGY AND ENVIRONMENT, INC.

RESULTS OF WATER ANALYSIS FOR TENTATIVELY IDENTIFIED
NAVY VOLATILE ORGANIC COMPOUNDS BY GC/MS

(all results in ug/L)

9201.873

	, E & E Lab. No. 92-	44872	44873	44874	44875	Quant . Limits
Compound	Sample Identity	P32W008	P32W008D	P32W009	P32W010	
Bis (Chloromethyl) Ether		ND	ND	ND	ND	**
Dichlorodifluoromethane		ND	ND	<20	ND	≤10
1,2-Dichloropropylene		ND	ND	ND	ND	
Trichlorofluoromethane		ND	ND	<20	ND	<10
Trimethyl Benzene		ND	ND	<20	ND	<10
Acrolein		ND	ND	<200	ND	<100
Acrylonitrile		ND	ND	<200	ND	≤100
Alkylated Benzene		ND	ND	ND	ND	

ND = Not detected

B = Compound also detected in laboratory method blank.

* Compound present below quantitation limit.

** Values are approximate retention times.

*** Compound searched for, quantitation limit not determined due to unavailability of standard.

ECOLOGY AND ENVIRONMENT, INC.

RESULTS OF WATER ANALYSIS FOR TENTATIVELY IDENTIFIED
NAVY VOLATILE ORGANIC COMPOUNDS BY GC/MS

(all results in ug/L)

9201.873

E & E Lab. No. 92-		44876	44877	44878	44879	Quant . Limits
Compound	Sample Identity	P32W010D	P32W062	P32W063	P32W064	
Bis (Chloromethyl) Ether		ND	ND	ND	ND	**
Dichlorodifluoromethane		ND	ND	ND	ND	≤10
1,2-Dichloropropylene		ND	ND	ND	ND	
Trichlorofluotomethane		ND	ND	ND	ND	<10
Trimethyl Benzene		ND	ND	ND	ND	<10
Acrolein		ND	ND	ND	ND	<100
Acrylonitrile		ND	ND	ND	ND	≤100
Alkylated Benzene		ND	ND	ND	ND	

ND = Not detected

B = Compound also detected in laboratory method blank.

* Compound present below quantitation limit.

** Values are approximate retention times.

*** Compound searched for, quantitation limit not determined due to unavailability of standard.

TEST CODE : WPURG 1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : PURGEABLES

UNITS : UG/L

SAMPLE ID LAB : METHOD BLANK 2

MATRIX : WATER

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Chloromethane	ND		10
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chloroethane	ND		10
Methylene Chloride	ND		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
Total-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloromethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromomethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	ND		10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE : WPURG 1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : PURGEABLES

UNITS : UG/L

SAMPLE ID LAB : METHOD BLANK 3

MATRIX: WATER

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIHIT</u>
Chloromethane	ND		10
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chloroethane	ND		10
Methylene Chloride	ND		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
Total-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloroethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromomethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	ND		10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY
FOR SPIKED WATER SAMPLES

9201.a73

(mg/L)

Parameter	E & E Laboratory No. 92-	Sample Result	Spiked Sample Result	Spike Amount	Percent Recovery
Chloride	44877	9.2	22	10	128
Fluoride Total	44891	ND	0.76	1.0	76
Sulfate	44887	13	34	20	106

NOTE: ALTHOUGH RESULTS ARE REPORTED AS ROUNDED VALUES, PERCENT RECOVERIES ARE CALCULATED DIRECTLY FROM THE RAW DATA.

TEST CODE : WPURG 1

JOB NUMBER : 9201.873

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : PURGEABLES

UNITS : UG/L

SAMPLE ID LAB : METHOD BLANK 1

MATRIX : WATER

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>
Chloromethane	ND		10
Bromomethane	ND		10
Vinyl Chloride	ND		10
Chloroethane	ND		10
Methylene Chloride	ND		5.0
1,1-Dichloroethene	ND		5.0
1,1-Dichloroethane	ND		5.0
Total-1,2-Dichloroethene	ND		5.0
Chloroform	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1,1-Trichloroethane	ND		5.0
Carbon Tetrachloride	ND		5.0
Bromodichloroethane	ND		5.0
1,2-Dichloropropane	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Trichloroethene	ND		5.0
Chlorodibromomethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Benzene	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
2-Chloroethylvinyl Ether	ND		10
Bromoform	ND		5.0
Tetrachloroethene	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Toluene	ND		5.0
Chlorobenzene	ND		5.0
Ethylbenzene	ND		5.0
Acetone	ND		10
Carbon Disulfide	ND		5.0
2-Butanone	ND		10
Vinyl Acetate	ND		10
4-Methyl-2-Pentanone	ND		10
2-Hexanone	ND		10
Styrene	ND		5.0
Total Xylenes	ND		5.0

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY
FOR SPIKED WATER SAMPLES

9201.848

(mg/L)

Parameter	E & E Laboratory No. 92-	Sample Result	Spiked Sample Result	Spike Amount	Percent Recovery
Chloride	44698	22	32	10	101
Sulfate	44703	4.2	24	20	96
	44697	18	39	20	104

NOTE: ALTHOUGH RESULTS ARE REPORTED AS ROUNDED VALUES, PERCENT RECOVERIES ARE CALCULATED DIRECTLY FROM THE RAW DATA.

QUALITY CONTROL FOR PRECISION
RESULTS OF ANALYSIS OF DUPLICATE
ANALYSES OF WATER SAMPLES

9201.873

(mg/L)

Parameter	E C E Laboratory No. 92-	Sample Result	Duplicate Result	Relative Percent Difference (RPD)
Chloride	44877	9.2	9.5	2.5
Cyanide- Complex	44884	0.14	0.14	4.3
Sulfate	44887	13	14	9.0

NOTE: ALTHOUGH RESULTS ARE REPORTED AS ROUNDED VALUES, RPDs
ARE CALCULATED DIRECTLY FROM THE RAW DATA.

QUALITY CONTROL FOR ACCURACY: .PERCENT RECOVERY
FOR SPIKED WATER SAMPLES

9201.848

(mg/L)

Parameter	E & E Laboratory No. 92-	Sample Result	Spiked Sample Result	Spike Amount	Percent Recovery
Chloride	44698	22	32	10	101
Sulfate	44703	4.2	24	20	96
	44697	18	39	20	104

NOTE: ALTHOUGH RESULTS ARE REPORTED AS ROUNDED VALUES, PERCENT RECOVERIES ARE CALCULATED DIRECTLY FROM THE RAW DATA.

QUALITY CONTROL FOR PRECISION
RESULTS OF ANALYSIS OF DUPLICATE
ANALYSES OF WATER SAMPLES

9201.848

(mg/L)

Parameter	E & € Laboratory No. 92-	Sample Result	Duplicate Result	Relative Percent Difference (RPD)
Chloride	44690	22	22	4.5
Cyanide- Complex	44709	0.011	0.022	67
Fluoride Total	44704	0.21	0.22	4.7
Sulfate	44703 44697	4.2 18	4.3 19	0.5 7.5

NOTE: **ALTHOUGH RESULTS ARE REPORTED AS ROUNDED VALUES, RPDs ARE CALCULATED DIRECTLY FROM THE RAW DATA.**

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY
FOR SPIKED WATER SAMPLES

9201.848

(mg/L)

Parameter	E & E Laboratory No. 92-	Sample Result	Spiked Sample Result	Spike Amount	Percent Recovery
Chloride	44698	22	32	10	101
Sulfate	44703	4.2	24	20	96
	44697	18	39	20	104

NOTE: ALTHOUGH RESULTS ARE REPORTED AS ROUNDED VALUES, PERCENT RECOVERIES ARE CALCULATED DIRECTLY FROM THE RAW DATA.

QUALITY CONTROL FOR PRECISION
RESULTS OF ANALYSIS OF DUPLICATE
ANALYSES OF WATER SAMPLES

9201.848

(ng/L)				
Parameter	E & E Laboratory No. 92-	Sample Result	Duplicate Result	Relative Percent Difference (RPD)
Chloride	44698	22	22	4.5
Cyanide- Complex	44709	0.011	0.022	67
Fluoride Total	44704	0.21	0.22	4.7
Sulfate	44703	4.2	4.3	0.5
	41697	18	19	7.5

NOTE: ALTHOUGH RESULTS ARE REPORTED AS ROUNDED VALUES, RPDs
ARE CALCULATED DIRECTLY FROM THE RAW DATA.

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY
FOR SPIKED WATER SAMPLES

9201.848

(mg/L)

Parameter	E & E Laboratory No. 92-	Sample Result	Spiked Sample Result	Spike Amount	Percent Recovery
Chloride	44698	22	32	10	101
Sulfate	44703	4.2	24	20	96
	44697	18	39	20	104

NOTE: ALTHOUGH RESULTS ARE REPORTED AS ROUNDED VALUES, PERCENT RECOVERIES ARE CALCULATED DIRECTLY FROM THE RAW DATA.

QUALITY CONTROL FOR PRECISION
RESULTS OF ANALYSIS OF DUPLICATE
ANALYSES OF WATER SAMPLES

9201.848

(mg/L)				
Parameter	E & E Laboratory No. 92-	Sample Result	Duplicate Result	Relative Percent Difference (RPD)
Chloride	44698	22	22	4.5
Cyanide- Complex	44709	0.011	0.022	67
Fluoride Total	44704	0.21	0.22	4.7
Sulfate	44703	4.2	4.3	0.5
	44697	18	19	7.5

NOTE: ALTHOUGH RESULTS ARE REPORTED AS ROUNDED VALUES, RPDs
ARE CALCULATED DIRECTLY FROM THE RAW DATA.

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY
FOR SPIKED WATER SAMPLES

9201.873

(ug/L)

Parameter	E & E Laboratory No. 92- 44891	Original Result	Spiked Sample Result	Spike Amount	Percent Recovery
Mercury		ND	1.0	1.0	102

ND = NOT DETECTED

NOTE: ALTHOUGH RESULT IS REPORTED AS A ROUNDED VALUE, PERCENT
RECOVERY IS CALCULATED DIRECTLY FROM THE RAU DATA.

**QUALITYCONTROL FOR PRECISION
RESULTS OF ANALYSIS OF DUPLICATE
ANALYSES OF WATER SAMPLES**

9201.848

(mg/L)

Parameter	E & E Laboratory No. 92-	Sample Result	Duplicate Result	Relative Percent Difference (RPD)
Chloride	44698	22	22	4.5
Cyanide- Complex	44709	0.011	0.022	67
Fluoride Total	44704	0.21	0.22	4.7
Sulfate	44703	4.2	4.3	0.5
	44697	18	19	7.5

NOTE: ALTHOUGH RESULTS ARE REPORTED AS ROUNDED VALUES, RPDs
ARE CALCULATED DIRECTLY FROM THE RAW DATA.

3200458

JOB NUMBER :9201.873
ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING
SAMPLE ID LAB : MEIHOD BLANK MATRIX: WATER

<u>PARAMETER</u>		<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>	<u>UNITS</u>
Silver	(ICP)	ND	-	10	UG/L
Arsenic	(FU)	ND		5.0	UG/L
Barium	(ICP)	ND		20	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	ND		20	UG/L
Iron	(ICP)	ND		50	UG/L
Manganese	(ICP)	ND		10	UG/L
Sodium	(ICP)	ND		500	UG/L
Nickel	(ICP)	ND		20	UG/L
Lead	(FU)	ND		5.0	UG/L
Selenium	(FU)	ND		5.0	UG/L
Vanadium	(ICP)	ND		20	UG/L
Zinc	(ICP)	ND		10	UG/L
Mercury		ND		0.20	UG/L

.....
QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED QNT. LIMIT

QUALITY CONTROL FOR PRECISION
RESULTS OF ANALYSIS OF DUPLICATE
ANALYSES OF WATER SAMPLES

9201.873

(ug/L)

Parameter	E & E Laboratory No. 92- 44891	Original Result	Duplicate Result	Relative Percent Difference (RPD)
Mercury		ND	ND	NC

ND = NOT DETECTED

NC = NOT CALCULABLE

3200460

QUALITY CONTROL FOR PRECISION
RESULTS OF ANALYSIS OF DUPLICATE
ANALYSES OF WATER SAMPLES

9201.873

(ug/L)				
Parameter	E & E Laboratory No. 92- Batch QC	Original Result	Duplicate Result	Relative Percent Difference (RPD)
Arsenic		ND	ND	NC
Barium		ND	ND	NC
Cadmium		ND	ND	NC
Chromium		ND	ND	NC
Copper		ND	ND	NC
Iron		2400	2400	1.0
Lead		7.6	ND	NC
Manganese		19	16	17
Nickel		ND	ND	NC
Selenium		ND	ND	NC
Silver		ND	ND	NC
Sodium		3200	3100	1.0
Vanadium		ND	ND	NC
Zinc		14	16	13

ND = NOT DETECTED

NC = NOT CALCULABLE

NOTE: ALTHOUGH RESULTS ARE REPORTED AS ROUNDED VALUES, RPDs
ARE CALCULATED DIRECTLY FROM THE RAW DATA.

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY
FOR SPIKED WATER SAMPLES

9201.873

(ug/L)

Parameter	E & E Laboratory No. 92- Batch QC	Original Result	Spiked Sample Result	Spike Amount	Percent Recovery
Arsenic		ND	41	40	102
Barium		20	1800	2000	93
Cadmium		ND	45	50	90
Chromium		ND	200	200	98
Copper		ND	230	250	91
Iron		2400	3300	1000	91
Lead		7.6	22	20	71
Manganese		19	480	500	93
Nickel		ND	460	500	92
Selenium		ND	10	10	101
Silver		ND	46	50	92
Vanadium		ND	420	500	83
Zinc		14	460	500	90

ND = NOT DETECTED

NOTE: ALTHOUGH RESULTS ARE REPORTED AS ROUNDED VALUES, PERCENT RECOVERIES ARE CALCULATED DIRECTLY FROM THE RAW DATA.

3200461

QUALITY CONTROL FOR PRECISION
RESULTS OF ANALYSIS OF DUPLICATE
ANALYSES OF WATER SAMPLES

9201.848

(ug/L)				
Parameter	E & E Laboratory No. 92- 44703	Original Result	Duplicate Result	Relative Percent Difference (RPD)
Arsenic		ND	ND	NC
Barium		ND	ND	NC
Cadmium		ND	ND	NC
Chromium		ND	ND	NC
Copper		ND	ND	NC
Iron		2400	2400	1.0
Lead		7.6	ND	NC
Manganese		19	16	17
Mercury	44700	ND	ND	NC
Nickel		ND	ND	NC
Selenium		ND	ND	NC
Silver		ND	ND	NC
Sodium		3200	3100	1.0
Vanadium		ND	ND	NC
Zinc		14	16	13

ND = NOT DETECTED

NC = NOT CALCULABLE

NOTE: ALTHOUGH RESULTS ARE REPORTED AS ROUNDED VALUES, RPDs
ARE CALCULATED DIRECTLY FROM THE RAW DATA.

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY
FOR SPIKED WATER SAMPLES

9201.848

(ug/L)

Parameter	E & E Laboratory No. 92- 44703	Original Result	Spiked Sample Result	Spike Amount	Percent Recovery
Arsenic		ND	41	40	102
Barium		ND	1800	2000	93
Cadmium		ND	45	50	90
Chromium		ND	200	200	98
Copper		ND	230	250	91
Iron		2400	3300	1000	91
Lead		7.6	22	20	71
Manganese		19	480	500	93
Mercury	44700	ND	1.2	1.0	119
Nickel		ND	460	500	92
Selenium		ND	10	10	101
Silver		ND	46	50	92
Vanadium		ND	420	500	83
Zinc		14	460	500	90

ND = NOT DETECTED

NOTE: ALTHOUGH RESULTS ARE REPORTED AS ROUNDED VALUES, PERCENT RECOVERIES ARE CALCULATED DIRECTLY FROM THE RAW DATA.

3200462

PROJECT NUMBER 3924020 0201
 FIELD GROUP ECOW2

PROJECT NAME ECOLOGY & ENVIRN.
 PROJECT MANAGER S.P. WOODWARD

STORET CODE:
 METHOD CODE :
 PARAMETER:
 UNITS:

1501	1502	3501	3502	9501	9502	11501	11502
R	R	R	R	R	R	R	R
ALPHA	ALPHA, CE	BETA	BETA, CE	RA226RA226, C.E.		RA 228	RA 228, CT
PC/L	+/-PC/L	PC/L	+/-PC/L	PC/L	+/-PC/L	PC/L	+/-PC/L

FLD.GRP.	#	SAMPLE ID	DATE	TIME	1501	1502	3501	3502	9501	9502	11501	11502
ECOW2	1	RB01	07/27/92	16:55	<1.0	R.7	t3.e	1.3	0.7	0.07	<1.0	0.5
ECOW2	2	RB02	07/28/92	13:45	<1.0	R.6	<3.0	1.4	1.1	0.1	<1.0	9.4
ECOW2	3	GM-10	07/28/92	10:40	<1.0	1.8	4.2	4.9	0.5	0.06	<1.0	0.4
ECOW2	4	GM-100	07/28/92	10:40	1.6	2.3	<3.0	4.8	5.4	0.2	<1.0	9.9
ECOW2	5	GM-8	07/28/92	13:00	5.0	4.0	t3.e	5.9	3.2	0.2	2.1	9.8
ECOW2	6	GM-80	07/28/92	13:00	<1.0	3.9	5.9	6.1	2.5	0.1	1.7	0.9
ECOW2	7	FB01	07/28/92	09:00	<1.0	0.5	<3.0	1.2	1.1	0.2	<1.0	0.9
ECOW2	8	UG-1	07/28/92	10:10	<1.0	1.8	<3.0	3.6	<0.1	0.2	<1.0	1.1
ECOW2	9	GM-9	07/28/92	15:50	<1.0	1.4	<3.0	3.2	0.2	0.1	<1.0	1.1
ECOW2	10	GM-67	07/28/92	16:45	<1.0	0.0	<3.0	19.3	e.4	0.1	1.2	1.1
ECOW2	11	GM-68	07/29/92	09:30	<1.0	3.5	<3.0	9.8	1.1	0.1	2.2	1.0
ECOW2	12	GM-69	07/29/92	09:45	<1.0	18.9	36.9	37.9	2.8	0.2	2.7	1.1
ECOW2	13	GM-65	07/29/92	10:45	<1.0	3.8	<3.0	7.2	1.9	0.1	<1.0	1.1
ECOYZ	14	GM-66	07/29/92	10:15	64.2	93.8	197	140	1.7	0.1	36.5	2.2
ECOW2	15	RB03	07/29/92	13:00	<1.0	0.8	<3.0	1.3	4.5	0.2	1.3	1.1
ECOW2	16	PCS-1	07/29/92	13:30	<1.0	2.9	7.6	3.5	0.2	0.2	<1.0	1.1
ECOW2	17	PCD-1	07/29/92	13:45	12.6	12.e	11.4	19.9	36.4	8.6	<1.0	0.9
ECOW2	18	PC1-1	07/29/92	14:30	16.1	22.3	32.7	42.6	1.3	9.2	<1.0	0.9
ECOW2	19	GM-62	07/29/92	15:45	0.0	5.3	8.8	7.2	2.1	0.2	<1.0	0.8
ECOW2	20	GM-63	07/29/92	16:15	28.7	11.3	27.8	13.9	5.6	0.3	<1.0	1.9
ECOW2	21	GM-64	07/29/92	17:00	<1.0	29.5	17.4	49.7	26.1	0.5	<1.0	1.0

JOB NUMBER : 9201.848

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

SAMPLE ID LAB : METHOD BLANK

MATRIX: WATER

<u>PARAMETER</u>		<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIMIT</u>	<u>UNITS</u>
Silver	(ICP)	ND	-	10	UG/L
Arsenic	(FU)	ND		5.0	UG/L
Barium	(ICP)	ND		20	UG/L
Cadmium	(ICP)	ND		5.0	UG/L
Chromium Total	(ICP)	ND		10	UG/L
Copper	(ICP)	ND		20	UG/L
Iron	(ICP)	ND		50	UG/L
Manganese	(ICP)	ND		10	UG/L
Sodium	(ICP)	ND		500	UG/L
Nickel	(ICP)	ND		20	UG/L
Lead	(FU)	ND		5.0	UG/L
Selenium	(FU)	ND		5.0	UG/L
Vanadium	(ICP)	ND		20	UG/L
Zinc	(ICP)	ND		10	UG/L
Mercury		ND		0.20	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

3200463

APPENDIX G
DATA VALIDATION **SUMMARY**

QUALITY CONTROL FOR ACCURACY: PERCENT
RECOVERY OF SURROGATE SPIKES

9201.848

Compound	E & E Laboratory No. 92-	Amount Added	Amount Determined	Percent Recovery
	(ng)			
2-Fluorophenol	44703	200	103	52
	44704	200	98	49
	Method Blank	200	120	60
Phenol-d5	44703	200	106	53
	44704	200	94	47
	Method Blank	200	105	52
2,4,6-Tribromophenol	44703	200	186	93
	44704	200	178	89
	Method Blank	200	170	85

These recoveries are acceptable to E & E, Inc. guidelines.

ECOLOGY AND ENVIRONMENT? INC.

RESULTS OF WATER ANALYSIS FOR TENTATIVELY IDENTIFIED
NAVY SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

(all results in ug/L)

9201.848

E & E Lab. No. 92-		44703	44704	Method Blank	Quantitation Limits
Compound	Sample Identity	GM-9	GM-67		
3.4-Benzofluoranthene					
Isomers (1)		ND	ND	ND	<10
1,2-Diphenylhydrazme		ND	ND	ND	<50
N-Nitrosodiphenylamide		ND	ND	ND	***
Hethyl Dihydro Indene		ND	ND	ND	
Bydroxymethyl Pentanone		<10*	<10*	<10*	<10
Hethyl Ethyl Phenol		ND	ND	ND	***
Di-Methyl Ethyl Phenol		ND	ND	ND	
Tetramethyl Butyl Phenol (Octylphenol).		<10*	<10*	ND	<10
Tetramethyl Benzene		ND	ND	ND	<10

ND = Not detected

B = Compound also detected in laboratory method blank.

* Compound present below quantitation limit.

(1) Same as Benzo(b)fluoranthene.

*** Compound searched for, detection limit not determined due to unavailability of standard.

QUALITY CONTROL FOR ACCURACY: **PERCENT**
RECOVERY OF *SURROGATE SPIKES*

9201.848

Compound	E & E Laboratory No. 92-	Amount Added	Amount Determined	Percent Recovery
(ng)				
Nitrobenzene-d5	44703	100	82	82
	44704	100	86	86
	Hethod Blank	100	95	95
2-Fluorobiphenyl	44703	100	85	85
	44704	100	81	81
	Hethod Blank	100	85	85
Terphenyl-d14	44703	100	86	86
	44704	100	76	76
	Hethod Blank	100	102	102

These recoveries are acceptable to E & E, Inc. guidelines.

3200466

TEST CODE :WBNBNA1

JOB NUMBER :9201.848

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : METHOD BLANK

MATRIX: WATER

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzo(B)Fluoranthene	ND	-	10
Benzo(K)Fluoranthene	ND	-	10
Benzo(A)Pyrene	ND	-	10
Indeno(1,2,3-cd)Pyrene	ND	-	10
Dibenzo(A,H)Anthracene	ND	-	10
Benzo(G,H,I)Perlyene	ND	-	10
Benzyl Alcohol	ND	-	10
4-Chloroaniline	ND	-	10
2-Methylnaphthalene	ND	-	10
2-Nitroaniline	ND	-	50
3-Nitroaniline	ND	-	50
Dibenzofuran	ND	-	10
4-Nitroaniline	ND	-	50

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE

B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

TEST CODE :WAPBNA1

JOB NUMBER :9201.848

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : ACID PHENOL

UNITS : UG/L

SAMPLE ID LAB : METHOD BLANK

MATRIX: WATER

<u>PARAMETER</u>	<u>RESULTS</u>	<u>Q</u>	<u>QNT. LIHIT</u>
Phenol	ND	-	10
2-Chlorophenol	ND	-	10
2-Nitrophenol	ND	-	10
2,4-Dimethylphenol	ND	-	10
2,4-Dichlorophenol	ND	-	10
4-Chloro-3-Hethylphenol	ND	-	10
2,4,6-Trichlorophenol	ND	-	10
2,4-Dinitrophenol	ND	-	50
4-Nitrophenol	ND	-	50
4,6-Dinitro-2-Methylphenol	ND	-	50
Pentachlorophenol	ND	-	50
2-Hethylphenol	ND	-	10
4-Hethylphenol	ND	-	10
Benzoic Acid	ND	-	50
2,4,5-Trichlorophenol	ND	-	50

QUALIFIERS: C = COMMENT ND = NOT DETECTED
 J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
 L = PRESENT BELOW STATED QNT. LIMIT

3200467

QUALITY CONTROL FOR ACCURACY: PERCENT
RECOVERY OF SURROGATE SPIKES

9201.873

Compound	E & E Laboratory No. 92-	Amount Added	Amount Determined	Percent Recovery
(ng)				
Nitrobenzene-d5	Method Blank 2	200	78	39
	Method Blank 3	200	120	60
	Method Blank 4	200	76	38
2-Fluorobiphenyl	Method Blank 2	200	79	40
	Method Blank 3	200	105	53
	Method Blank 4	200	92	46
Terphenyl-d14	Method Blank 2	200	129	65
	Method Blank 3	200	171	86
	Method Blank 4	200	162	81

These recoveries are acceptable to E & E, Inc. guidelines.

TEST CODE : WBNBA1

JOB NUMBER : 9201.848

ELAP ID : 10486

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-9000 NASP TWTP GW SAMPLING

TEST NAME : BASE NEUTRAL

UNITS : UG/L

SAMPLE ID LAB : METHOD BLANK

MATRIX: WATER

PARAMETER	RESULTS	Q	QNT. LIMIT
Bis(2-Chloroethyl)Ether	ND		10
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
Bis(2-Chloroisopropyl)Ether	ND		10
N-Nitrosodipropylamine	ND		10
Hexachloroethane	ND		10
Nitrobenzene	ND		10
Isophorone	ND		10
Bis(2-Chloroethoxy)Methane	ND		10
1,2,4-Trichlorobenzene	ND		10
Naphthalene	ND		10
Hexachlorobutadiene	ND		10
Hexachlorocyclopentadiene	ND		10
2-Chloronaphthalene	ND		10
Dimethyl Phthalate	ND		10
Acenaphthylene	ND		10
Fluorene	ND		10
Acenaphthene	ND		10
2,4-Dinitrotoluene	ND		10
2,6-Dinitrotoluene	ND		10
Diethyl Phthalate	ND		10
4-Chlorophenyl Phenyl Ether	ND		10
N-Nitrosodiphenylamine	ND		10
4-Bromophenyl Phenyl Ether	ND		10
Hexachlorobenzene	ND		10
Phenanthrene	ND		10
Anthracene	ND		10
Di-N-Butyl-Phthalate	ND		10
Fluoranthene	ND		10
Benzidine	ND		50
Pyrene	ND		10
Butyl Benzyl Phthalate	ND		10
3,3'-Dichlorobenzidine	ND		20
Benzo(A)Anthracene	ND		10
Bis(2-Ethylhexyl)Phthalate	ND		10
Chrysene	ND		10
Di-N-Octyl Phthalate	ND		10

QUALIFIERS: C = COMMENT

ND = NOT DETECTED

J = ESTIMATED VALUE

B = ALSO PRESENT IN BLANK

L = PRESENT BELOW STATED QNT. LIMIT

3200463

QUALITY CONTROL FOR ACCURACY: PERCENT
RECOVERY OF SURROGATE SPIKES

9201.873

Compound	E & E Laboratory No. 92-	Amount Added	Amount Determined	Percent Recovery
(ng)				
2-Fluorophenol	44872	200	78	39
	44873	200	62	31
	44875	200	82	41
	44876	200	88	44
	44877	200	77	39
	44878	200	89	45
	44879	200	66	33
	44880	200	77	39
	44882	200	94	47
	44883	200	83	42
Phenol-d5	44872	200	82	41
	44873	200	73	34
	44875	200	74	37
	44876	200	86	43
	44877	200	75	38
	44878	200	88	44
	44879	200	65	33
	44880	200	70	35
	44882	200	93	47
	44883	200	78	39
2,4,6-Tribromophenol	44872	200	136	68
	44873	200	146	73
	44875	200	126	63
	44876	200	156	88
	44877	200	125	63
	44878	200	140	70
	44879	200	102	51
	44880	200	131	66
	44882	200	166	83
	44883	200	126	63

These recoveries are acceptable to E & E, Inc. guidelines.

QUALITY CONTROL FOR ACCURACY: PERCENT
RECOVERY OF SURROGATE SPIKES

9201.873

Compound	E & E Laboratory No. 92-	Amount Added	Amount Determined	Percent Recovery
(ng)				
2-Fluorophenol	44884	200	114	57
	44885	200	74	37
	44886	200	80	40
	44887	200	126	63
	44888	200	107	54
	44889	200	105	53
	44890	200	103	52
	44891	200	118	59
	44892	200	90	45
	Method Blank 1	200	71	36
Phenol-d5	44884	200	106	53
	44885	200	77	39
	44886	200	86	43
	44887	200	109	55
	44888	200	101	51
	44889	200	90	45
	44890	200	99	50
	44891	200	106	53
	44892	200	90	45
	Method Blank 1	200	75	38
2,4,6-Tribromophenol	44884	200	209	105
	44885	200	122	61
	44886	200	128	64
	44887	200	184	92
	44888	200	169	85
	44889	200	164	82
	44890	200	162	81
	44891	200	179	90
	44892	200	155	78
	Method Blank 1	200	146	73

These recoveries are acceptable to E & E, Inc. guidelines.

3200463

recycled paper

ecology and environment

MEMORANDUM

TO : Amy Twitty
FROM : Gary Hak *in* *G. Hak*
DATE : August 26, 1992
SUBJECT: UH-9000 NASP TWTP GW Sampling Report
RE : 9201.848
CLIENT: 1616
CC: Lab File

Attached is the laboratory report of the analysis conducted on fifteen samples received at the Analytical Services Center on July 29, 1992. Analysis was performed according to the procedures set forth in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, U.S. EPA, 1986.

The chain of custody was not signed by laboratory personnel on date of receipt. The laboratory sample receipt log and computer system verify date of receipt.

Complex cyanide was indicated in RB02.

Zinc concentrations in the samples are similar to those found in the rinsate blank. The element was not found in the laboratory preparation blank. The sample values should be used with attendant care.

Uercury was found in RB02 but not in any other samples nor the laboratory preparation blank. The source of contamination is undeterminable but does not affect adversely the sample results.

Both field duplicates for all analyses showed good reproducibility.

Except for those comments noted above, the overall data quality was judged to be acceptable.

NASP TWTP GW Sampling Report
August 26, 1992
Page 2

The chain of custody form provided herein is integral to this report and must be included with the analytical results forms upon transferral to another data user.

All samples on which this report is based will be retained by E & E for a period of 30 days from the date of this report, unless otherwise instructed by the client. If additional storage of samples is requested by the client, a storage fee of \$1.00 per sample container per month will be charged for each sample, with such charges accruing until destruction of the samples is authorized by the client.

GH/jp
Enclosure

9201.848

E-E (2)

CHAIN-OF-CUSTODY RECORD

Project No.: UH9000		Project Name: IWT			Project Manager: AMY TWITTY		REMARKS * Preserved with NaOH PH > 10								
Samplers: (Signatures) <i>[Signatures]</i>					Field Team Leader: AMY TWITTY										
STATION NUMBER	DATE	TIME	SAMPLE TYPE			EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	ANALYTES						
			COMP	GRAB	AIR				Sulfate	Chloride	Fluoride				
RB01	7/27	1655		X		LOW	P32WRB01	2	X	X	X	X			
RB02	7/28	1345		X			P32WRB02	2	X	X	X	X			
GM-10		1040		X			P32W010	2	X	X	X	X			
GM-10C		1040		X			P32W010D	2	X	X	X	X			
GM-B		1300		X			P32W00B	2	X	X	X	X			
GM-00		1300		X			P32W00B D	2	X	X	X	X			
FB01		0900		X			P32W00FB01	2	X	X	X	X			
UG-1		1010		X			P32W001	2	X	X	X	X			
PB01	7/27	1730		X			P32WPB01	2	X	X	X	X			
GM-11	7/28	0820		X			P32W011	1	X	X	X	X			
GM-12		0845		X			P32W012	1	X	X	X	X			
GM-13		0915		X			P32W013	1	X	X	X	X			
GM-14		0945		X			P32W014	1	X	X	X	X			
GM-9		1550		X			P32W009	2	X	X	X	X			
Relinquished By: (Signature) <i>[Signature]</i>		Date/Time: 7/28 1900		Received By: (Signature)		Relinquished By: (Signature)		Date/Time:		Received By: (Signature)		Ship Via: Federal Express			
Relinquished By: (Signature)		Date/Time:		Received By: (Signature)		Relinquished By: (Signature)		Date/Time:		Received By: (Signature)		BL/Airbill Number: 2408272134		Date: 7/28/92	
Relinquished By: (Signature)		Date/Time:		Received For Laboratory By: (Signature)		Relinquished By: (Signature)		Date/Time:		Received For Laboratory By: (Signature)					

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Ecology and environment, inc.
 300 PLEASANTVIEW DRIVE, LANCASTER, NEW YORK 14086, TEL. 716/684 8080
 International Specialists in the Environment

CHAIN-OF-CUSTODY RECORD

Project No.: U49000			Project Name: IWTP			Project Manager: AMY TWITT			REMARKS									
Samplers: (Signatures) [Signature]			Field Team Leader: AMY TWITT			*preserved with HNO_3 pH < 2 * 8/10 * TICs												
STATION NUMBER	DATE	TIME	SAMPLE TYPE						SAMPLE INFORMATION	STATION LOCATION	NUMBER OF CONTAINERS							
			COMP	GRAB	AIR	EXPECTED COMPOUNDS (Concentration)*												
PB01	7/27	1655	X	X		low	P32WRP01	1	X	X	X							
PB02	7/28	1245	X	X			P32WRP02	1	X	X	X							
GM-10		1040	X	X			P32W010	1	X	X	X							
GM-10D		1040	X	X			P32W010D	1	X	X	X							
GM-8		1300	X	X			P32W008	1	X	X	X							
GM-8D		1300	X	X			P32W008D	1	X	X	X							
FB01		0900	X	X			P32WFB01	1	X	X	X							
UG-1	7/27	1010	X	X			P32W001	1	X	X	X							
PP01	7/27	1730	X	X			P32WPP01	1	X	X	X							
GM-9	7/28	1550	X	X			P32W009	2	X	X	X							
GM-6	7/28	1645	X	X			P32W067	2	X	X	X							
Relinquished By: (Signature) [Signature]			Date/Time: 7/28 1900			Received By: (Signature)			Date/Time:			Received By (Signature)			Ship Via: Fed X			
Relinquished By: (Signature)			Date/Time:			Received By: (Signature)			Date/Time:			Received By (Signature)			BL/Airbill Number:			
Relinquished By: (Signature)			Date/Time:			Received For Laboratory By: (Signature)			Date/Time:			Received For Laboratory By: (Signature)			Date: 7/28/92			

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files
 * See CONCENTRATION RANGE on back of form.

Ecology and Environment, Inc.
SAMPLE TRACKING REPORT

LAB SAMPLE ID	CLIENT SAMPLE ID	TEST CODE	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED
-----	-----	----	-----	-----	-----
44695.01	RB01	WCL 1	07/27/92		08/06/92
		WF 1	07/27/92		08/14/92
		WS04 1	07/27/92		08/14/92
44695.02	RB01	WCNCMP1	07/27/92		08/06/92
44695.03	RB01	WAGICP1	07/27/92	08/11/92	08/13/92
		WASFU 1	07/27/92	08/11/92	08/12/92
		WBAICP1	07/27/92	08/11/92	08/13/92
		WCDICP1	07/27/92	08/11/92	08/13/92
		WCRICP1	07/27/92	08/11/92	08/13/92
		WCUICP1	07/27/92	08/11/92	08/13/92
		WFEICP1	07/27/92	08/11/92	08/13/92
		WBGVAP1	07/27/92		08/05/92
		WMNICP1	07/27/92	08/11/92	08/13/92
		WNAICP1	07/27/92	08/11/92	08/13/92
		WNIICP1	07/27/92	08/11/92	08/13/92
		WPBFU 1	07/27/92	08/11/92	08/13/92
		WSEFU 1	07/27/92	08/11/92	08/13/92
		WVICP 1	07/27/92	08/11/92	08/13/92
		WZNICP1	07/27/92	08/11/92	08/13/92
44696.01	RB02	WCL 1	07/28/92		08/06/92
		WF 1	07/28/92		08/14/92
		US04 1	07/28/92		08/14/92
44696.02	RB02	WCNCMP1	07/28/92		08/06/92
44696.03	RB02	WAGICP1	07/28/92	08/11/92	08/13/92
		WASFU 1	07/28/92	08/11/92	08/12/92
		WBAICP1	07/28/92	08/11/92	08/13/92
		WCDICP1	07/28/92	08/11/92	08/13/92
		WCRICP1	07/28/92	08/11/92	08/13/92
		WCUICP1	07/28/92	08/11/92	08/13/92
		WFEICP1	07/28/92	08/11/92	08/13/92
		WBGVAP1	07/28/92		08/05/92
		WMNICP1	07/28/92	08/11/92	08/13/92
		WNAICP1	07/28/92	08/11/92	08/13/92
		WNIICP1	07/28/92	08/11/92	08/13/92
		WPBFU 1	07/28/92	08/11/92	08/13/92
		WSEFU 1	07/28/92	08/11/92	08/13/92
		WVICP 1	07/28/92	08/11/92	08/13/92
		WZNICP1	07/28/92	08/11/92	08/13/92
44697.01	GM-10	WCL 1	07/28/92		08/06/92
		WF 1	07/28/92		08/14/92
		WS04 1	07/28/92		08/13/92
44697.02	GM-10	WCNCMP1	07/28/92		08/06/92
44697.03	GM-10	WAGICP1	07/28/92	08/11/92	08/13/92
		WASFU 1	07/28/92	08/11/92	08/12/92
		WBAICP1	07/28/92	08/11/92	08/13/92
		WCDICP1	07/28/92	08/11/92	08/13/92
		WCRICP1	07/28/92	08/11/92	08/13/92

3200472

Ecology and Environment, Inc.
SAMPLE TRACKING REPORT

LAB SAMPLE ID -----	CLIENT SAMPLE ID -----	TEST CODE -----	DATE SAMPLED -----	DATE EXTRACTED -----	DATE ANALYZED -----
44697.03	GM-IO	WCUICP1	07/28/92	08/11/92	08/13/92
		WFEICP1	07/28/92	08/11/92	08/13/92
		WHGVAP1	07/28/92		08/05/92
		WMNICP1	07/28/92	08/11/92	08/13/92
		WNAICP1	07/28/92	08/11/92	08/13/92
		WNIICP1	07/28/92	08/11/92	08/13/92
		WPBFU 1	07/28/92	08/11/92	08/13/92
		WSEFU 1	07/28/92	08/11/92	08/13/92
		WVICP 1	07/28/92	08/11/92	08/13/92
		WZNICP1	07/28/92	08/11/92	08/13/92
44698.01	GM-10 DUP.	WCL 1	07/28/92		08/06/92
		WF 1	07/28/92		08/14/92
		WS04 1	07/28/92		08/13/92
44698.02	GM-10 DUP.	WCNCMP1	07/28/92		08/06/92
44698.03	GM-10 DUP.	WAGICP1	07/28/92	08/11/92	08/13/92
		WASFU 1	07/28/92	08/11/92	08/12/92
		WBAICP1	07/28/92	08/11/92	08/13/92
		WCDICP1	07/28/92	08/11/92	08/13/92
		WCRICP1	07/28/92	08/11/92	08/13/92
		WCUICP1	07/28/92	08/11/92	08/13/92
		WFEICP1	07/28/92	08/11/92	08/13/92
		WHGVAP1	07/28/92		08/05/92
		WMNICP1	07/28/92	08/11/92	08/13/92
		WNAICP1	07/28/92	08/11/92	08/13/92
		WNIICP1	07/28/92	08/11/92	08/13/92
		WPBFU 1	07/28/92	08/11/92	08/13/92
		WSEFU 1	07/28/92	08/11/92	08/13/92
		WVICP 1	07/28/92	08/11/92	08/13/92
		WZNICP1	07/28/92	08/11/92	08/13/92
44699.01	GM-8	WCL 1	07/28/92		08/06/92
		WF 1	07/28/92		08/14/92
		WS04 1	07/28/92		08/13/92
44699.02	GM-8	WCNCMP1	07/28/92		08/06/92
44699.03	GM-8	WAGICP1	07/28/92	08/11/92	08/13/92
		WASFU 1	07/28/92	08/11/92	08/12/92
		WBAICP1	07/28/92	08/11/92	08/13/92
		WCDICP1	07/28/92	08/11/92	08/13/92
		WCRICP1	07/28/92	08/11/92	08/13/92
		WCUICP1	07/28/92	08/11/92	08/13/92
		WFEICP1	07/28/92	08/11/92	08/13/92
		WHGVAP1	07/28/92		08/05/92
		WMNICP1	07/28/92	08/11/92	08/13/92
		WNAICP1	07/28/92	08/11/92	08/13/92
		WNIICP1	07/28/92	08/11/92	08/13/92
		WPBFU 1	07/28/92	08/11/92	08/13/92
		WSEFU 1	07/28/92	08/11/92	08/13/92
		WVICP 1	07/28/92	08/11/92	08/13/92

Ecology and Environment, Inc.
 SAMPLE TRACKING REPORT

LAB SAMPLE ID	CLIENT SAMPLE ID	TEST CODE	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED
44699.03	GM-8	WZNICP1	07/28/92	08/11/92	08/13/92
44700.01	GH-8 DUP.	WCL 1	07/28/92		08/06/92
		VF 1	07/28/92		08/14/92
		VS04 1	07/28/92		08/13/92
44700.02	GHS DUP.	WCNCMP1	07/28/92		08/07/92
44700.03	GHS DUP.	VAGICP1	07/28/92	08/11/92	08/13/92
		WASFU 1	07/28/92	08/11/92	08/12/92
		WBAICP1	07/28/92	08/11/92	08/13/92
		WCDICP1	07/28/92	08/11/92	08/13/92
		WCRICP1	07/28/92	08/11/92	08/13/92
		WCUICP1	07/28/92	08/11/92	08/13/92
		WFEICP1	07/28/92	08/11/92	08/13/92
		WHGVAP1	07/28/92		08/05/92
		WMNICP1	07/28/92	08/11/92	08/13/92
		WNAICP1	07/28/92	08/11/92	08/13/92
		WNIICP1	07/28/92	08/11/92	08/13/92
		VPBFU 1	07/28/92	08/11/92	08/13/92
		WSEFU 1	07/28/92	08/11/92	08/13/92
		WVICP 1	07/28/92	08/11/92	08/13/92
		WZNICP1	07/28/92	08/11/92	08/13/92
44701.01	FB01	WCL 1	07/28/92		08/06/92
		WF 1	07/28/92		08/14/92
		VS04 1	07/28/92		08/14/92
44701.02	FB01	WCNCMP1	07/28/92		08/07/92
44701.03	FB01	VAGICP1	07/28/92	08/11/92	08/13/92
		WASFU 1	07/28/92	08/11/92	08/12/92
		WBAICP1	07/28/92	08/11/92	08/13/92
		WCDICP1	07/28/92	08/11/92	08/13/92
		WCRICP1	07/28/92	08/11/92	08/13/92
		WCUICP1	07/28/92	08/11/92	08/13/92
		WFEICP1	07/28/92	08/11/92	08/13/92
		WHGVAP1	07/28/92		08/05/92
		WMNICP1	07/28/92	08/11/92	08/13/92
		WNAICP1	07/28/92	08/11/92	08/13/92
		WNIICP1	07/28/92	08/11/92	08/13/92
		VPBFU 1	07/28/92	08/11/92	08/13/92
		WSEFU 1	07/28/92	08/11/92	08/13/92
		WVICP 1	07/28/92	08/11/92	08/13/92
		WZNICP1	07/28/92	08/11/92	08/13/92
44702.01	UG-1	WCL 1	07/28/92		08/06/92
		WF 1	07/28/92		08/14/92
		VS04 1	07/28/92		08/13/92
44702.02	UG-1	WCNCMP1	07/28/92		08/07/92
44702.03	UG-1	VAGICP1	07/28/92	08/11/92	08/13/92
		WASFU 1	07/28/92	08/11/92	08/12/92
		WBAICP1	07/28/92	08/11/92	08/13/92
		WCDICP1	07/28/92	08/11/92	08/13/92

Ecology and Environment, Inc.
 SAMPLE TRACKING REPORT

LAB SAMPLE ID	CLIENT SAMPLE ID	TEST CODE	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED
44702.03	UG-1	WCRICP1	07/28/92	08/11/92	08/13/92
		WCUICP1	07/28/92	08/11/92	08/13/92
		WFEICP1	07/28/92	08/11/92	08/13/92
		WHGVAP1	07/28/92		08/05/92
		WMNICP1	07/28/92	08/11/92	08/13/92
		WNAICP1	07/28/92	08/11/92	08/13/92
		WNIICP1	07/28/92	08/11/92	08/13/92
		WPBFU 1	07/28/92	08/11/92	08/13/92
		WSEFU 1	07/28/92	08/11/92	08/13/92
		WVICP 1	07/28/92	08/11/92	08/13/92
		WZNICP1	07/28/92	08/11/92	08/13/92
		WCL 1	07/28/92		08/06/92
		WF 1	07/28/92		08/14/92
		WS04 1	07/28/92		08/14/92
44703.01	GM-9	WCNCMP1	07/28/92		08/07/92
		WAGICP1	07/28/92	08/11/92	08/13/92
44703.02	GH-9	WASFU 1	07/28/92	08/11/92	08/12/92
		WBAICP1	07/28/92	08/11/92	08/13/92
44703.03	GH-9	WCDICP1	07/28/92	08/11/92	08/13/92
		WCRICP1	07/28/92	08/11/92	08/13/92
		WCUICP1	07/28/92	08/11/92	08/13/92
		WFEICP1	07/28/92	08/11/92	08/13/92
		WHGVAP1	07/28/92		08/05/92
		WMNICP1	07/28/92	08/11/92	08/13/92
		WNAICP1	07/28/92	08/11/92	08/13/92
		WNIICP1	07/28/92	08/11/92	08/13/92
		WPBFU 1	07/28/92	08/11/92	08/13/92
		WSEFU 1	07/28/92	08/11/92	08/13/92
		WVICP 1	07/28/92	08/11/92	08/13/92
		WZNICP1	07/28/92	08/11/92	08/13/92
		WAPBNA1	07/28/92	08/04/92	08/10/92
		WAPTIC1	07/28/92		08/10/92
WBNBNA1	07/28/92	08/04/92	08/10/92		
WBNTIC1	07/28/92		08/10/92		
44703.04	GH-9	WCL 1	07/28/92		08/06/92
		WF 1	07/28/92		08/14/92
		US04 1	07/28/92		08/13/92
44704.01	GH-67	WCNCMP1	07/28/92		08/07/92
		WAGICP1	07/28/92	08/11/92	08/13/92
44704.02	GH-67	WASFU 1	07/28/92	08/11/92	08/12/92
		WBAICP1	07/28/92	08/11/92	08/13/92
44704.03	GM-67	WCDICP1	07/28/92	08/11/92	08/13/92
		WCRICP1	07/28/92	08/11/92	08/13/92
		WCUICP1	07/28/92	08/11/92	08/13/92
		WFEICP1	07/28/92	08/11/92	08/13/92
		WHGVAP1	07/28/92		08/05/92
		WMNICP1	07/28/92	08/11/92	08/13/92

Ecology and Environment, Inc.
SAMPLE TRACKING REPORT

LAB SAMPLE ID	CLIENT SAMPLE ID	TEST CODE	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED
44704.03	GM-67	WNAICP1	07/28/92	08/11/92	08/13/92
		WNIICP1	07/28/92	08/11/92	08/13/92
		VPBFU 1	07/28/92	08/11/92	08/13/92
		WSEFU 1	07/28/92	08/11/92	08/13/92
		WVICP 1	07/28/92	08/11/92	08/13/92
		WZNICP1	07/28/92	08/11/92	08/13/92
44704.04	GH-67	WAPBNA1	07/28/92	08/04/92	08/10/92
		WAPTIC1	07/28/92		08/10/92
		WBNBNA1	07/28/92	08/04/92	08/10/92
		WBNTIC1	07/28/92		08/10/92
44705.01	PB01	WCNCMP1	07/27/92		08/06/92
44705.02	PB01	WAGICP1	07/27/92	08/11/92	08/13/92
		WASFU 1	07/27/92	08/11/92	08/12/92
		WBAICP1	07/27/92	08/11/92	08/13/92
		WCDICP1	07/27/92	08/11/92	08/13/92
		WCRICP1	07/27/92	08/11/92	08/13/92
		WCUICP1	07/27/92	08/11/92	08/13/92
		WFEICP1	07/27/92	08/11/92	08/13/92
		WHGVAP1	07/27/92		08/05/92
		WMNICP1	07/27/92	08/11/92	08/13/92
		WNAICP1	07/27/92	08/11/92	08/13/92
		WNIICP1	07/27/92	08/11/92	08/13/92
		WPBFU 1	07/27/92	08/11/92	08/13/92
		WSEFU 1	07/27/92	08/11/92	08/13/92
		WVICP 1	07/27/92	08/11/92	08/13/92
		WZNICP1	07/27/92	08/11/92	08/13/92
44706.01	GM-11	WCNCMP1	07/28/92		08/07/92
44707.01	GH-12R	WCNCMP1	07/28/92		08/07/92
44708.01	GH-13R	WCNCMP1	07/28/92		08/07/92
44709.01	GM-14	WCNCMP1	07/28/92		08/07/92

3200474

MEMORANDUM

TO : Amy Twitty
FROM : Gary Hahn *G. Hahn/gk*
DATE : August 26, 1992
SUBJECT: UH-9000 NASP TWTP GW Sampling Report
RE : 9201.873
CLIENT: 1616
CC : Lab File

Attached is the laboratory report of the analysis conducted on twenty-four samples received at the Analytical Services Center on July 30, 1992. Analysis was performed according to the procedures set forth in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, U.S. EPA, 1986.

The chain of custody form provided herein is integral to this report and must be included with the analytical results forms upon transferral to another data user.

Complex cyanide was recorded in P32RB03 just above the quantitation limit. Samples which should be viewed with care are P32W062, -W066 and -PCS-1.

Zinc was found in the rinsate blank RB03 but not in the preparation blank. Zinc concentrations at similar concentrations in samples should be viewed with care.

Trichloroethene value for sample P32W066 exceeds the instruments' calibrated range but does fall within linear range. The result should be considered reliable.

Although not detected in the associated method blanks, acetone and di-n-butylphthalate are known to be laboratory contaminants, particularly at the levels found in the sample.

Except for those comments noted above, the overall data quality was judged to be acceptable.

All samples on which this report is based will be retained by E & E for a period of 30 days from the date of this report, unless otherwise instructed by the client. If additional storage of samples is requested by the client, a storage fee of \$1.00 per sample container per month will be charged for each sample, with such charges accruing until destruction of the samples is authorized by the client.

GH/jp
Enclosure

3200475

3200475

recycled paper

E: F 1

ecology and environment, inc.

288 PLEASANTVIEW DRIVE, LANCASTER, NEW YORK 14086, TEL. 716/684-8080
International Specialists in the Environment

CHAIN-OF-CUSTODY RECORD

Project No.: W49000		Project Name: IWTP		Project Manager: AMY TWITT		REMARKS	
Signature: (Signatures) <i>[Signatures]</i>		Field Team Leader: AMY TWITT					
STATION NUMBER	DATE	TIME	SAMPLE TYPE			STATION LOCATION	NUMBER OF CONTAINERS
			COB	GRAV	AIR		
	1992		EXPECTED COMPOUNDS (Concentration)*				
GM-68	7/29	0930	X			P32W068	3
GM-69		0945	X			P32W069	3
GM-65		1045	X			P32W065	3
GM-66		1015	X			P32W066	3
TRD3		1300	X			P32WTRD3	3
PCS-1		1330	X			P32WPCS-1	3
PRD-1		1345	X			P32WPRD-1	3
PCI-1		1430	X			P32WPCI-1	3
GM62		1545	X			P32W062	3
GM63		1615	X			P32W063	3
GM64		1700	X			P32W064	3
TRD2	✓	1700	X			P32WTRD2	3

B240 + TICS *
B270 + TICS *

Preserved w/ HCL pH < 2

Relinquished By: (Signature) <i>[Signature]</i>	Date/Time: 7/29 1700	Received By: (Signature) Fed Ex	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Ship Via: Fed X
Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	BL/Airbill Number: 2408272252
Relinquished By: (Signature) Fed Ex	Date/Time: 9:25 7/30/92	Received For Laboratory By: <i>[Signature]</i>	Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)	Date: 7/29/92

Distribution: Original Accompanies Shipment/Copy to Coordinator Field Files
*See CONCENTR/ RANGE on back of form.

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International Specialists in the Environment

E-E 3

PENSACOLA

CHAIN-OF-CUSTODY RECORD

Project No.: UH9000		Project Name: IWTP			Project Manager: AMY TWITT		REMARKS						
Signature: (Signatures)		Signature: (Signatures)			Field Team Leader: AMY TWITT								
STATION NUMBER	DATE	TIME	SAMPLE TYPE			SAMPLE INFORMATION	STATION LOCATION	NUMBER OF CONTAINERS					
			COND	GRAS	AIR								EXPECTED COMPOUNDS (Concentration)*
GM68	7/29	0930		X		low	P32W068		* Pres. with HNO ₃ PH < 2				
GM69		0945		X			P32W069						
GM65		1045		X			P32W065						
GM66		105		X			P32W066						
RD3		1300		X			P32WRD3						
TC5-1		1330		X			P32WTC5-1						
RD-1		1345		X			P32WRD-1						
PCI-1		1430		X			P32WPCI-1						
GM62		1545		X			P32W062						
GM63		1615		X			P32W063						
GM64		1700		X			P32W064						
Relinquished By: (Signature)		Date/Time:		Received By: (Signature)		Relinquished By: (Signature)		Date/Time:		Received By: (Signature)		Ship Via:	
Signature: (Signatures)		7/29 1700		Fed Ex		Signature: (Signatures)				Signature: (Signatures)		Fed X	
Relinquished By: (Signature)		Date/Time:		Received For Laboratory By: (Signature)		Relinquished By: (Signature)		Date/Time:		Received For Laboratory By: (Signature)		BL/Airbill Number:	
Signature: (Signatures)		7/30/92 925		Signature: (Signatures)		Signature: (Signatures)				Signature: (Signatures)		2408272274	
												Date: 7/29/92	

Distribution: Original Accompanies Shipment Copy to Coordinator Field Files

* See CONCENTRA RANGE on back of form.

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SAMPLE TRACKING REPORT

LAB SAMPLE ID	CLIENT SAMPLE ID	TEST CODE	DATE SAUPLIED	DATE EXTRACTED	DATE ANALYZED
44872.01	P32W008	WPGTIC1	07/28/92		08/10/92
		WPURG 1	07/28/92		08/07/92
44872.03	P32W008	WAPBNAL	07/28/92	07/31/92	08/06/92
		WAPTIC1	07/28/92		08/10/92
		WBNBNAL	07/28/92	07/31/92	08/06/92
		WBNTIC1	07/28/92		08/10/92
44873.01	P32W008D	WPGTIC1	07/28/92		08/10/92
		WPURG 1	07/28/92		08/07/92
44873.03	P32W008D	WAPBNAL	07/28/92	07/31/92	08/06/92
		WAPTIC1	07/28/92		08/10/92
		WBNBNAL	07/28/92	07/31/92	08/06/92
		WBNTIC1	07/28/92		08/10/92
44874.01	P32W009	WPGTIC1	07/28/92		08/10/92
		WPURG 1	07/28/92		08/07/92
44875.01	P32W010	WPGTIC1	07/28/92		08/10/92
		WPURG 1	07/28/92		08/07/92
44875.03	P32W010	WAPBNAL	07/28/92	08/03/92	08/06/92
		WAPTIC1	07/28/92		08/10/92
		WBNBNAL	07/28/92	08/03/92	08/06/92
		WBNTIC1	07/28/92		08/10/92
44876.01	P32W010D	WPGTIC1	07/28/92		08/10/92
		WPURG 1	07/28/92		08/10/92
44876.03	P32W010D	WAPENAL	07/28/92	08/04/92	08/06/92
		WAPTIC1	07/28/92		08/10/92
		WBNBNAL	07/28/92	08/04/92	08/06/92
		WBNTIC1	07/28/92		08/10/92
44877.01	P32W062	WPGTIC1	07/29/92		08/10/92
		WPURG 1	07/29/92		08/07/92
44877.03	P32W062	WAPBNAL	07/29/92	08/04/92	08/06/92
		WAPTIC1	07/29/92		08/10/92
		WBNBNAL	07/29/92	08/04/92	08/06/92
		WBNTIC1	07/29/92		08/10/92
44877.04	P32W062	WCL 1	07/29/92		08/06/92
		WF 1	07/29/92		08/19/92
		WS04 1	07/29/92		08/14/92
44877.05	P32W062	WCNCMP1	07/29/92		08/11/92
44877.06	P32W062	WAGICP1	07/29/92	08/11/92	08/13/92
		WASFU 1	07/29/92	08/11/92	08/13/92
		WBAICP1	07/29/92	08/11/92	08/13/92
		WCDICP1	07/29/92	08/11/92	08/13/92
		WCRICP1	07/29/92	08/11/92	08/13/92
		WCUICP1	07/29/92	08/11/92	08/13/92
		WFEICP1	07/29/92	08/11/92	08/13/92
		WHGVAP1	07/29/92		08/10/92
		WMNICP1	07/29/92	08/11/92	08/13/92
		WNAICP1	07/29/92	08/11/92	08/13/92
		WNIICP1	07/29/92	08/11/92	08/13/92

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 SAMPLE TRACKING REPORT

LAB SAMPLE ID	CLIENT SAMPLE ID	TEST CODE	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED
44877.06	P32W062	WPBFU 1	07/29/92	08/11/92	08/13/92
		WSEFU 1	07/29/92	08/11/92	08/13/92
		WVICP 1	07/29/92	08/11/92	08/13/92
		WZNICP1	07/29/92	08/11/92	08/13/92
44878.01	P32W063	WPGTIC1	07/29/92		08/10/92
		WPURG 1	07/29/92		08/07/92
44878.03	P32W063	WAPBNA1	07/29/92	08/04/92	08/07/92
		WAPTIC1	07/29/92		08/10/92
		WBNBNA1	07/29/92	08/04/92	08/07/92
		WBNTIC1	07/29/92		08/10/92
44878.04	P32W063	WCL 1	07/29/92		08/06/92
		WF 1	07/29/92		08/19/92
		WS04 1	07/29/92		08/14/92
44878.05	P32W063	WCNCMP1	07/29/92		08/11/92
44878.06	P32W063	WAGICP1	07/29/92	08/11/92	08/13/92
		WASFU 1	07/29/92	08/11/92	08/13/92
		WBAICP1	07/29/92	08/11/92	08/13/92
		WCDICP1	07/29/92	08/11/92	08/13/92
		WCRICP1	07/29/92	08/11/92	08/13/92
		WCUICP1	07/29/92	08/11/92	08/13/92
		WFEICP1	07/29/92	08/11/92	08/13/92
		WBGVAP1	07/29/92		08/10/92
		WZNICP1	07/29/92	08/11/92	08/13/92
		WNAICP1	07/29/92	08/11/92	08/13/92
		WNIICP1	07/29/92	08/11/92	08/13/92
		WPBFU 1	07/29/92	08/11/92	08/13/92
		WSEFU 1	07/29/92	08/11/92	08/13/92
		WVICP 1	07/29/92	08/11/92	08/13/92
		WZNICP1	07/29/92	08/11/92	08/13/92
44879.01	P32W064	WPGTIC1	07/29/92		08/10/92
		WPURG 1	07/29/92		08/07/92
44879.03	P32W064	WAPBNA1	07/29/92	08/04/92	08/06/92
		WAPTIC1	07/29/92		08/10/92
		WBNBNA1	07/29/92	08/04/92	08/06/92
		WBNTIC1	07/29/92		08/10/92
44879.04	P32W064	WCL 1	07/29/92		08/06/92
		WF 1	07/29/92		08/19/92
		US04 1	07/29/92		08/14/92
44879.05	P32W064	WCNCMP1	07/29/92		08/11/92
44879.06	P32W064	WAGICP1	07/29/92	08/11/92	08/13/92
		WASFU 1	07/29/92	08/11/92	08/13/92
		WBAICP1	07/29/92	08/11/92	08/13/92
		WCDICP1	07/29/92	08/11/92	08/13/92
		WCRICP1	07/29/92	08/11/92	08/13/92
		WCUICP1	07/29/92	08/11/92	08/13/92
		WFEICP1	07/29/92	08/11/92	08/13/92
		WBGVAP1	07/29/92		08/10/92

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LAB SAMPLE ID	CLIENT SAMPLE ID	TEST CODE	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED
44879.06	P32W064	WMNICP1	07/29/92	08/11/92	08/13/92
		WNAICP1	07/29/92	08/11/92	08/13/92
		WNIICP1	07/29/92	08/11/92	08/13/92
		WPBFU 1	07/29/92	08/11/92	08/13/92
		WSEFU 1	07/29/92	08/11/92	08/13/92
		WVICP 1	07/29/92	08/11/92	08/13/92
		WZNICP1	07/29/92	08/11/92	08/13/92
		WPGTIC1	07/29/92		08/10/92
44880.01	P32W065	WPURG 1	07/29/92		08/07/92
		WAPBNA1	07/29/92	08/04/92	08/06/92
44880.03	P32W065	WAPTIC1	07/29/92		08/10/92
		WBNBNA1	07/29/92	08/04/92	08/06/92
		WBNTIC1	07/29/92		08/10/92
44880.04	P32W065	WCL 1	07/29/92		08/06/92
		WF 1	07/29/92		08/19/92
		WSO4 1	07/29/92		08/14/92
		WCNCMP1	07/29/92		08/11/92
44880.05	P32W065	WAGICP1	07/29/92	08/11/92	08/13/92
		WASFU 1	07/29/92	08/11/92	08/13/92
44880.06	P32W065	WBAICP1	07/29/92	08/11/92	08/13/92
		WCDICP1	07/29/92	08/11/92	08/13/92
		WCRICP1	07/29/92	08/11/92	08/13/92
		WCUICP1	07/29/92	08/11/92	08/13/92
		WFEICP1	07/29/92	08/11/92	08/13/92
		WHGVAP1	07/29/92		08/10/92
		WMNICP1	07/29/92	08/11/92	08/13/92
		WNAICP1	07/29/92	08/11/92	08/13/92
		WNIICP1	07/29/92	08/11/92	08/13/92
		WPBFU 1	07/29/92	08/11/92	08/13/92
		WSEFU 1	07/29/92	08/11/92	08/13/92
		WVICP 1	07/29/92	08/11/92	08/13/92
		WZNICP1	07/29/92	08/11/92	08/13/92
		WPGTIC1	07/28/92		08/10/92
		WPURG 1	07/28/92		08/07/92
		44882.01	P32W066	WPGTIC1	07/29/92
WPURG 1	07/29/92				08/10/92
44882.03	P32W066	WAPBNA1	07/29/92	08/04/92	08/10/92
		WAPTIC1	07/29/92		08/10/92
		WBNBNA1	07/29/92	08/04/92	08/10/92
		WBNTIC1	07/29/92		08/10/92
44882.04	P32W066	WCL 1	07/29/92		08/06/92
		WF 1	07/29/92		08/19/92
		USO4 1	07/29/92		08/14/92
		WCNCMP1	07/29/92		08/11/92
44882.05	P32W066	WAGICP1	07/29/92	08/11/92	08/13/92
		WASFU 1	07/29/92	08/11/92	08/13/92
44882.06	P32W066	WBAICP1	07/29/92	08/11/92	08/13/92

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LAB SAMPLE ID	CLIENT SAMPLE ID	TEST CODE	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED		
44882.06	P32W066	WCDICP1	07/29/92	08/11/92	08/13/92		
		WCRICP1	07/29/92	08/11/92	08/13/92		
		WCUICP1	07/29/92	08/11/92	08/13/92		
		WFEICP1	07/29/92	08/11/92	08/13/92		
		WHGVAP1	07/29/92		08/10/92		
		WMNICP1	07/29/92	08/11/92	08/13/92		
		WNAICP1	07/29/92	08/11/92	08/13/92		
		WNIICP1	07/29/92	08/11/92	08/13/92		
		WPBFU 1	07/29/92	08/11/92	08/13/92		
		WSEFU 1	07/29/92	08/11/92	08/13/92		
		WVICP 1	07/29/92	08/11/92	08/13/92		
		WZNICP1	07/29/92	08/11/92	08/13/92		
		44883.01	P32W068	WPGTIC1	07/29/92		08/10/92
				WPURG 1	07/29/92		08/10/92
				44883.03	P32W068	WAPBNA1	07/29/92
		WAPTIC1	07/29/92				08/10/92
44883.04	P32W068	WBNBNA1	07/29/92	08/04/92	08/06/92		
		WBNTIC1	07/29/92		08/10/92		
44883.05	P32W068	WCL 1	07/29/92		08/06/92		
		WF 1	07/29/92		08/19/92		
44883.06	P32W068	WS04 1	07/29/92		08/14/92		
		WCNCMP1	07/29/92		08/11/92		
44884.01	P32W069	WAGICP1	07/29/92	08/11/92	08/13/92		
		WASFU 1	07/29/92	08/11/92	08/13/92		
		WBAICP1	07/29/92	08/11/92	08/13/92		
		WCDICP1	07/29/92	08/11/92	08/13/92		
		WCRICP1	07/29/92	08/11/92	08/13/92		
		WCUICP1	07/29/92	08/11/92	08/13/92		
		WFEICP1	07/29/92	08/11/92	08/13/92		
		WHGVAP1	07/29/92		08/10/92		
		WMNICP1	07/29/92	08/11/92	08/13/92		
		WNAICP1	07/29/92	08/11/92	08/13/92		
		WNIICP1	07/29/92	08/11/92	08/13/92		
		WPBFU 1	07/29/92	08/11/92	08/13/92		
		WSEFU 1	07/29/92	08/11/92	08/13/92		
		WVICP 1	07/29/92	08/11/92	08/13/92		
		WZNICP1	07/29/92	08/11/92	08/13/92		
		44884.03	P32W069	WPGTIC1	07/29/92		08/10/92
WPURG 1	07/29/92				08/07/92		
44884.04	P32W069			WAPBNA1	07/29/92	08/04/92	08/10/92
		WAPTIC1	07/29/92		08/10/92		
44884.05	P32W069	WBNBNA1	07/29/92	08/04/92	08/10/92		
		WBNTIC1	07/29/92		08/10/92		
44884.04	P32W069	WCL 1	07/29/92		08/06/92		
		WF 1	07/29/92		08/19/92		
44884.05	P32W069	WS04 1	07/29/92		08/14/92		
		WCNCMP1	07/29/92		08/11/92		

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SAMPLE TRACKING REPORT

LAB SAMPLE ID	CLIENT SAMPLE ID	TEST CODE	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED
44884.06	P32W069	WAGICP1	07/29/92	08/11/92	08/13/92
		WASFU 1	07/29/92	08/11/92	08/13/92
		WBAICP1	07/29/92	08/11/92	08/13/92
		WCDICP1	07/29/92	08/11/92	08/13/92
		WCRICP1	07/29/92	08/11/92	08/13/92
		WCUICP1	07/29/92	08/11/92	08/13/92
		WFEICP1	07/29/92	08/11/92	08/13/92
		WHGVAP1	07/29/92		08/10/92
		WMNICP1	07/29/92	08/11/92	08/13/92
		WNAICP1	07/29/92	08/11/92	08/13/92
		WNIICP1	07/29/92	08/11/92	08/13/92
		WPBFU 1	07/29/92	08/11/92	08/13/92
		WSEFU 1	07/29/92	08/11/92	08/13/92
		WVICP 1	07/29/92	08/11/92	08/13/92
		WZNICP1	07/29/92	08/11/92	08/13/92
44885.01	P32PCI-1	WPGTIC1	07/29/92		08/10/92
		UPURG 1	07/29/92		08/07/92
44885.03	P32PCI-1	WAPBNA1	07/29/92	08/04/92	08/06/92
		WAPTIC1	07/29/92		08/10/92
		WBNBNA1	07/29/92	08/04/92	08/06/92
		WBNTIC1	07/29/92		08/10/92
44885.04	P32PCI-1	WCL 1	07/29/92		08/06/92
		WF 1	07/29/92		08/19/92
		US04 1	07/29/92		08/14/92
44885.05	P32PCI-1	WCNCMP1	07/29/92		08/11/92
44885.06	P32PCI-1	WAGICP1	07/29/92	08/11/92	08/13/92
		WASFU 1	07/29/92	08/11/92	08/13/92
		WBAICP1	07/29/92	08/11/92	08/13/92
		WCDICP1	07/29/92	08/11/92	08/13/92
		WCRICP1	07/29/92	08/11/92	08/13/92
		WCUICP1	07/29/92	08/11/92	08/13/92
		WFEICP1	07/29/92	08/11/92	08/13/92
		WHGVAP1	07/29/92		08/10/92
		WMNICP1	07/29/92	08/11/92	08/13/92
		WNAICP1	07/29/92	08/11/92	08/13/92
		WNIICP1	07/29/92	08/11/92	08/13/92
		WPBFU 1	07/29/92	08/11/92	08/13/92
		WSEFU 1	07/29/92	08/11/92	08/13/92
		WVICP 1	07/29/92	08/11/92	08/13/92
		WZNICP1	07/29/92	08/11/92	08/13/92
44886.01	P32PCD-1	WPGTIC1	07/29/92		08/10/92
		WPURG 1	07/29/92		08/07/92
44886.03	P32PCD-1	WAPBNA1	07/29/92	08/04/92	08/06/92
		WAPTIC1	07/29/92		08/10/92
		WBNBNA1	07/29/92	08/04/92	08/06/92
		WBNTIC1	07/29/92		08/10/92
44886.04	P32PCD-1	WCL 1	07/29/92		08/06/92

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LAB SAMPLE ID	CLIENT SAMPLE ID	TEST CODE	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED
44886.04	P32PCD-1	WF 1	07/29/92		08/19/92
		WS04 1	07/29/92		08/14/92
44886.05	P32PCD-1	WCNCMP1	07/29/92		08/11/92
44886.06	P32PCD-1	WAGICP1	07/29/92	08/11/92	08/13/92
		WASFU 1	07/29/92	08/11/92	08/13/92
		WBAICP1	07/29/92	08/11/92	08/13/92
		WCDICP1	07/29/92	08/11/92	08/13/92
		WCRICP1	07/29/92	08/11/92	08/13/92
		WCUICP1	07/29/92	08/11/92	08/13/92
		WFEICP1	07/29/92	08/11/92	08/13/92
		WHGVAP1	07/29/92		08/10/92
		WMNICP1	07/29/92	08/11/92	08/13/92
		WNAICP1	07/29/92	08/11/92	08/13/92
		WNIICP1	07/29/92	08/11/92	08/13/92
		WPBFU 1	07/29/92	08/11/92	08/13/92
		WSEFU 1	07/29/92	08/11/92	08/13/92
		WVICP 1	07/29/92	08/11/92	08/13/92
		WZNICP1	07/29/92	08/11/92	08/13/92
44887.01	P32PCS-1	WPGTIC1	07/29/92		08/10/92
		WPURG 1	07/29/92		08/07/92
44887.03	P32PCS-1	WAPBNA1	07/29/92	08/04/92	08/07/92
		WAPTIC1	07/29/92		08/10/92
		WBNBNA1	07/29/92	08/04/92	08/07/92
		WBNTIC1	07/29/92		08/10/92
44887.04	P32PCS-1	WCL 1	07/29/92		08/06/92
		WF 1	07/29/92		08/19/92
		WS04 1	07/29/92		08/14/92
44887.05	P32PCS-1	WCNCMP1	07/29/92		08/11/92
44887.06	P32PCS-1	WAGICP1	07/29/92	08/11/92	08/13/92
		WASFU 1	07/29/92	08/11/92	08/13/92
		WBAICP1	07/29/92	08/11/92	08/13/92
		WCDICP1	07/29/92	08/11/92	08/13/92
		WCRICP1	07/29/92	08/11/92	08/13/92
		WCUICP1	07/29/92	08/11/92	08/13/92
		WFEICP1	07/29/92	08/11/92	08/13/92
		WHGVAP1	07/29/92		08/10/92
		WMNICP1	07/29/92	08/11/92	08/13/92
		WNAICP1	07/29/92	08/11/92	08/13/92
		WNIICP1	07/29/92	08/11/92	08/13/92
		WPBFU 1	07/29/92	08/11/92	08/13/92
		WSEFU 1	07/29/92	08/11/92	08/13/92
		WVICP 1	07/29/92	08/11/92	08/13/92
		WZNICP1	07/29/92	08/11/92	08/13/92
44888.01	P32W001	WPGTIC1	07/28/92		08/10/92
		WPURG 1	07/28/92		08/07/92
44888.03	P32W001	WAPBNA1	07/28/92	08/04/92	08/07/92
		WAPTIC1	07/28/92		08/10/92

Ecology and Environment, Inc.
SAMPLE TRACKING REPORT

LAB SAMPLE ID	CLIENT SAHPLE ID	TEST CODE	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED
44888.03	P32W001	WBNBNA1	07/28/92	08/04/92	08/07/92
		WENTIC1	07/28/92		08/10/92
44889.01	P32WRB01	WPGTIC1	07/27/92		08/10/92
		WPURG 1	07/27/92		08/10/92
44889.03	P32WRB01	WAPBNA1	07/27/92	07/31/92	08/07/92
		WAPTIC1	07/27/92		08/10/92
		WBNBNA1	07/27/92	07/31/92	08/07/92
		WENTIC1	07/27/92		08/10/92
44890.01	P32WRB02	WPGTIC1	07/28/92		08/10/92
		WPURG 1	07/28/92		08/10/92
44890.03	P32WRB02	WAPBNA1	07/28/92	08/04/92	08/07/92
		WAPTIC1	07/28/92		08/10/92
		WBNBNA1	07/28/92	08/04/92	08/07/92
		WENTIC1	07/28/92		08/10/92
44891.01	P32WRB03	WPGTIC1	07/29/92		08/10/92
		WPURG 1	07/29/92		08/10/92
44891.03	P32WRB03	WAPBNA1	07/29/92	08/04/92	08/07/92
		WAPTIC1	07/29/92		08/10/92
		WBNBNA1	07/29/92	08/04/92	08/07/92
		WENTIC1	07/29/92		08/10/92
44891.04	P32WRB03	WCL 1	07/29/92		08/06/92
		WF 1	07/29/92		08/19/92
		WS04 1	07/29/92		08/14/92
44891.05	P32WRB03	WCNCMP 1	07/29/92		08/11/92
44891.06	P32WRB03	WAGICP1	07/29/92	08/11/92	08/13/92
		WASFU 1	07/29/92	08/11/92	08/13/92
		WBAICP1	07/29/92	08/11/92	08/13/92
		WCDICP1	07/29/92	08/11/92	08/13/92
		WCRICP1	07/29/92	08/11/92	08/13/92
		WCUICP1	07/29/92	08/11/92	08/13/92
		WFEICP1	07/29/92	08/11/92	08/13/92
		WBGVAP1	07/29/92		08/10/92
		WMNICP1	07/29/92	08/11/92	08/13/92
		WNAICP1	07/29/92	08/11/92	08/13/92
		WNIICP1	07/29/92	08/11/92	08/13/92
		WPBFU 1	07/29/92	08/11/92	08/13/92
		WSEFU 1	07/29/92	08/11/92	08/13/92
		WVICP 1	07/29/92	08/11/92	08/13/92
		WZNICP1	07/29/92	08/11/92	08/13/92
44892.01	P32WFB01	WPGTIC1	07/28/92		08/10/92
		UPURG 1	07/28/92		08/10/92
44892.03	P32WFB01	WAPBNA1	07/28/92	08/04/92	08/07/92
		WAPTIC1	07/28/92		08/10/92
		WBNBNA1	07/28/92	08/04/92	08/07/92
		WBNTIC1	07/28/92		08/10/92
44893.01	P32WFB01	WPGTIC1	07/27/92		08/10/92
		WPURG 1	07/27/92		08/10/92

JOB NUMBER : 9201.873

Ecology and Environment, Inc.
SAMPLE TRACKING REPORT

LAB SAMPLE ID	CLIENT SAMPLE ID	TEST CODE	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED
44894.01	P32WTB01	WPGTIC1	07/27/92		08/10/92
		WPURG 1	07/27/92		08/10/92
44895.01	P32WTB02	WPGTIC1	07/29/92		08/10/92
		WPURG 1	07/29/92		08/10/92

SAMPLE INSPECTION AND IDENTIFICATION SHEET/OUT OF CONTROL EVENTS

Client: Ecology & Env.

ATI Lab ID # 92-1-605

PROJ NUMBER: UH 9000

PROJ NAME: IWTP

SAMPLED BY: Amy Twitty

SAMPLE SITE: N/S

SAMPLE DATE: 07/29/92

SAMPLE TIME: AM & PM

SAMPLE TYPE: GW

RUSH: Y N QC: 0 1 2 3 4

Date Received: 07/29/92

Is there a chain of custody? Y N

Was chain of custody signed? Y N

Were samples received cold? Y N

Were samples received in proper containers? Y N

SHIPPED BY: Drop Off

SAMPLE	DATE
1 <u>P32W068</u>	<u>07/29/92</u>
2 <u>P32W069</u>	
3 <u>P32W065</u>	
4 <u>P32W066</u>	
5 <u>P32WPCS-1</u>	
6 <u>P32WPCD-1</u>	
7 <u>P32WPCI-1</u>	
8 <u>P32W062</u>	
9 <u>P32W063</u>	
10 <u>P32W064</u>	
11 <u>P32WRB03</u>	<u>07/29/92</u>

Were samples preserved correctly? Y N

Headspace in volatile bottles? Y NA

Were samples within holding time? Y N

OUT OF CONTROL EVENTS: _____

SPECIAL INSTRUCTIONS: _____

ATI WILL PERFORM THE SERVICES IN ACCORDANCE WITH NORMAL PROFESSIONAL STANDARDS FOR THE INDUSTRY. THE TOTAL LIABILITY OF ATI, ANY AND ALL OFFICERS AND EMPLOYEES OR SUCCESSORS, TO CLIENTS FOR SERVICES PROVIDED, WILL NOT EXCEED THE INVOICE AMOUNT SERVICE. CLIENT ACCEPTANCE OF A PROPOSAL RELEASES ATI FROM ANY LIABILITY IN EXCESS THEREOF.

PM APPROVAL PFB/92 INSPECTED BY CM DATE INSPECTED 07/29/92
OF REPORTS _____