UH8018 T0354

32501.009
03.04.09.0004

N00204.AR.000445
NAS PENSACOLA
5090.3a

CONTAMINATION ASSESSMENT/ REMEDIAL ACTIVITIES INVESTIGATION NAVY YARD DISPOSAL AREA (SITE 9) NAVAL AIR STATION PENSACOLA PENSACOLA, FLORIDA

INTERIM DATA REPORT

November 1992

Contract N62467-88-C-0200

Prepared by:

Ecology and Environment, Inc.
316 South Baylen Street, Suite 670
Pensacola, Florida

Prepared for:

Southern Division Naval Facilities
Engineering Command, P.O. Box 10068
Charleston, South Carolina 29411-0068
Linda Martin

DISTRIBUTION

SOUTH NAVPACENGCOH--SUZANNE SANBORN (2)
NAS PENSACOLA--RON JOYNER (6)
PDER--ERIC NUZIE (2)
EPA--ALLISON DREW (4)
TRC HEHBERS (7)

1a REPORT SECURITY CLASSIFICATION Unclassified	1b RESTRICTIVE MARKINGS N/A
2a SECURITY CLASSIFICATION AUTHORITY N/A	3 DISTRIBUTION/ AVAILABILITY OF REPORT See Distribution List Page
2b DECLASSIFICATION/ DOWNGRADING SCHEDULE N/A	
4. PERFORMING ORGANIZATION REPORT NUMBER(S) UH8018:T0354	5 MONITORING ORGANIZATION REPORT NUMBER(S) N/A
6a. NAME OF PERFORMING ORGANIZATION Ecology and Environment, Inc 6b OFFICE SYMBOL (If applicable) E & E	7a. NAME OF MONITORING ORGANIZATION Naval Air Station Pensacola
6c. ADDRESS (City, State, and ZIP Code) 316 South Baylen Street Pensacola, Florida 32501	7b ADDRESS (City, State, and ZIP Code) Pensacola, Florida
8a. NAME OF FUNDING/ SPONSORING ORGANIZATION SouthDivNavFacEngCom 8b OFFICE SYMBOL (If applicable) N/A	9 PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER N62467-88-C-0200, Mod. No. 9, Amend. No.!;
8c. ADDRESS (City, State, and ZIP Code) 2155 Eagle Drive P.O. Box 10068 Charleston, South Carolina 29411	10 SOURCE OF FUNDING NUMBERS PROGRAM ELEMENT NO / PROJECT NO / TASK NO / WORK UNIT ACCESSION NO

11 TITLE (Include Security Classification)
Contamination Assessment/Remedial Activities Investigation, Navy Yard Disposal Area (Site 9). Naval Air Station Pensacola, Pensacola, Florida. Interim Data Report

12. PERSONAL AUTHOR(S)
Richard J. Rudy, P.G. #97, Florida, Expiration Date July 31, 1992; and J. Fugitt

13a TYPE OF REPORT	13b TIME COVERED	14 DATE OF REPORT (Year, Month, Day)	15 PAGE COUNT
Final	FROM 4/91 TO 11/92	November 1992	70

16 SUPPLEMENTARY NOTATION
N/A

17 COSATI CODES			18 SUBJECT TERMS (Continue on reverse if necessary and identify by block number)
FIELD	GROUP	SUB-GROUP	
			N/A

19 ABSTRACT (Continue on reverse if necessary and identify by block number)

This interim data report contains the results of Phase I of the Contamination Assessment/Remedial Activities Investigation conducted at the Navy Yard Disposal Area (Site 9) located on the Naval Air Station in Pensacola, Florida. The objective of the Phase I investigation at Site 9 was to identify principal areas and primary contaminants of concern at the site and to provide recommendations for subsequent phases of investigation. This investigation was the first step in the completion of a Remedial Investigation/Feasibility Study for the site. Site 9 is located at the southwestern corner of Chevalier Field. The west-southwest area of Site 9 includes Murray and Industrial roads and the intersection of Moffett Road and Ellyson Avenue and conveys heavy through-traffic. Site 9 was used for the disposal of trash between 1917 and the early 1930s. The results of this investigation indicate that soil and groundwater contamination are present on and in the vicinity of Site 9. Metals, total recoverable petroleum hydro-

20 DISTRIBUTION/ AVAILABILITY OF ABSTRACT ☐ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT ☐ DTIC USERS	21 ABSTRACT SECURITY CLASSIFICATION N/A
22a NAME OF RESPONSIBLE INDIVIDUAL Glenn C Bradley	22b TELEPHONE (Include Area Code) 803-743-0582 22c OFFICE SYMBOL 182

S/N 0102-LF-014-6603

TABLE OF CONTENTS

Section		Page
	RECORD OF DOCUMENT CHANGES	[xii]
	EXECUTIVE SUMMARY	1
1	INTRODUCTION	1-1
2	INVESTIGATION METHODOLOGY	2-1
	2.1 AERIAL PHOTOGRAPH AND EXISTING DATA ANALYSIS	2-1
	2.2 SITE RECONNAISSANCE	2-1
	2.3 OVA SURFACE EHISSIONS SURVEY AND PARTICULATE AIR SCREENING	2-3
	2.4 RADIATION SURVEY	2-3
	2.5 SURVEY GRID	2-3
	2.6 UTILITIES SURVEY	2-4
	2.7 DATA ANALYSIS	2-4
	2.8 SOIL BORINGS AND TEMPORARY MONITORING WELL INSTALLATION	2-6
	2.9 SOIL SAMPLING	2-9
	2.10 GROUNDWATER SAMPLING	2-9
	2.10.1 Temporary Monitoring Wells	2-9
	2.10.2 Existing Permanent Monitoring Wells	2-9
	2.11 HYDROLOGIC ASSESSMENT	2-11
	2.12 FIELD QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)	2-11
	2.12.1 Field QA/QC Samples	2-11
	2.12.2 Decontamination Procedures	2-12
	2.13 INVESTIGATION-DERIVED WASTE MANAGEMENT	2-12

[Bold items enclosed in brackets denote changes to last version of document]

Table of Contents (Cont.)

Appendix		Page
C	SOIL SAMPLING ANALYTICAL SCREENING RESULTS	C-1
D	TEMPORARY MONITORING WELL GROUNDWATER SAMPLING ANALYTICAL SCREENING RESULTS	D-1
E	EXISTING PERMANENT MONITORING WELL GROUNDWATER SAMPLING ANALYTICAL RESULTS	E-1

(Bold items enclosed in brackets denote changes to last version of documents]

LIST OF TABLES

Table		Page
2-1	Photographs and Maps Used in the Aerial Photograph Analysis, NAS Pensacola Site 9	2-2
2-2	Sampling and Analytical Summary, NAS Pensacola Site 9	2-10
3-1	Temporary and Permanent Monitoring Well Construction Information and Water Level Elevations, NAS Pensacola Site 9	3-7
3-2	Summary Analytical Screening Results for Soil Samples, NAS Pensacola Site 9	3-12
3-3	Groundwater Field Parameters, NAS Pensacola Site 9	3-[18]
3-4	Summary Analytical Screening Results for Groundwater Samples (from Temporary Monitoring Wells), NAS Pensacola Site 9	3-19
3-5	Summary TAL/TCL Analytical Results for Groundwater and Field QA/QC Samples (from Permanent Monitoring Wells), NAS Pensacola Site 9	3-22

[Bold items enclosed in brackets denote
hanges to last version of document]

LIST OF ILLUSTRATIONS

Figure		Page
1-1	Location Map--NAS Pensacola Site 9	1-2
1-2	Site Vicinity Map--NAS Pensacola Sites 9, 10, 23, 29, 34, and 36	1-3
1-3	Site Plan Map--NAS Pensacola Site 9	1-5
2-1	Survey Grid Map--NAS Pensacola Site 9	2-5
2-2	Soil Boring and Temporary Monitoring Well Locations--NAS Pensacola Sites 9, 10, 23, 29, 34, and 36	2-7
2-3	Soil Boring and Temporary Monitoring Well Locations --NAS Pensacola Site 9	2-8
3-1	Radiation and Surface Emissions Survey Map--NAS Pensacola Site 9	3-[5]
3-2	Surficial Zone Water Level Elevations, Temporary Monitoring Wells--NAS Pensacola Site 9	3-8
3-3	Surficial Zone Water Level Elevations, Temporary Monitoring Wells--NAS Pensacola Sites 9, 10, 23, 29, and 34	3-9
3-4	Surficial Zone Water Level Elevations, Permanent Monitoring Wells--NAS Pensacola Sites 9, 10, 23, 29, and 34	3-[11]
3-5	Lead and Total Metals (Excluding Lead) Concentrations Detected 'in Soil Samples--NAS Pensacola Site 9	3-[15]
3-6	TRPH and PAH Concentrations Detected in Soil Samples--NAS Pensacola Site 9	3-16
3-7	Lead and Total Metals (Excluding Lead) Concentrations Detected in Groundwater Samples-NAS Pensacola Site 9	3-20

[bold items enclosed in brackets denote changes to last version of document]

RECORD OF DOCUMENT CHANGES

Revisions to this document were made based on comments received from the U.S. Environmental Protection Agency, Florida Department of Environmental Regulation, Florida Department of Natural Resources, and National Oceanic and Atmospheric Administration. All revisions are in bold and enclosed in brackets to denote changes to the last version of this document.

[Bold item *enclosed* in brackets denote **changes** to **last** version of **document**]

EXECUTIVE SUMMARY

As part of the U.S. Navy's Installation Restoration Program, Phase I of the Contamination Assessment/Remedial Activities Investigation was conducted for the Navy Yard Disposal Area (Site 9), located on the Naval Air Station in Pensacola, Florida. This work was performed by Ecology and Environment, Inc., under contract to the U.S. Navy, Southern Division, Naval Facilities Engineering Command.

Site 9 is located at the southwestern corner of Chevalier Field. The southwestern portion of the site includes Murray Road, Industrial Road, and the intersection of Hurray and Moffett roads with Ellyson Avenue, and conveys heavy through-traffic. The east portion of the site contains a section of an extensive concrete apron (Chevalier Field concrete apron). The north-central portion of the site is an asphalt-paved parking area. The remaining site area is unpaved and grass covered.

Site 9 was used for the disposal of trash between 1917 and the early 1930s. The site has been labelled the "Navy Yard Dump" or the "Warrington Village Dump" on several maps (Naval Energy and Environmental Support Activity 1983). A complete site description and history are presented in the Group F work plan.

The purpose of the Phase I investigation was to identify principal areas and primary contaminants of concern at the site and to provide recommendations for subsequent phases of investigation. The Phase I fieldwork included a site reconnaissance, surface emissions survey and particulate air screening, radiation survey, utilities survey, the collection and analysis of soil and groundwater samples, and a hydrologic assessment.

[Bold items enclosed in brackets denote changes to last version of document)

9. PAHs are present only at a single location but at twice the detection limit. Stained soil and strong petroleum odors at this location indicate a local contaminant source.

Groundwater contamination at Site 9 primarily consists of metals. Elevated lead concentrations detected exceed the Florida Primary Drinking Water Standard for lead, and may reflect that turbid groundwater samples were not filtered prior to acid preservation. However, the scattered distribution of elevated lead concentrations may also indicate localized contaminant sources in the saturated zone, extensive redistribution of Site 9 soils during frequent construction and associated earthmoving activities, and/or possibly the industrial waste sewer line.

[Bold items enclosed in brackets denote changes to last version of document)

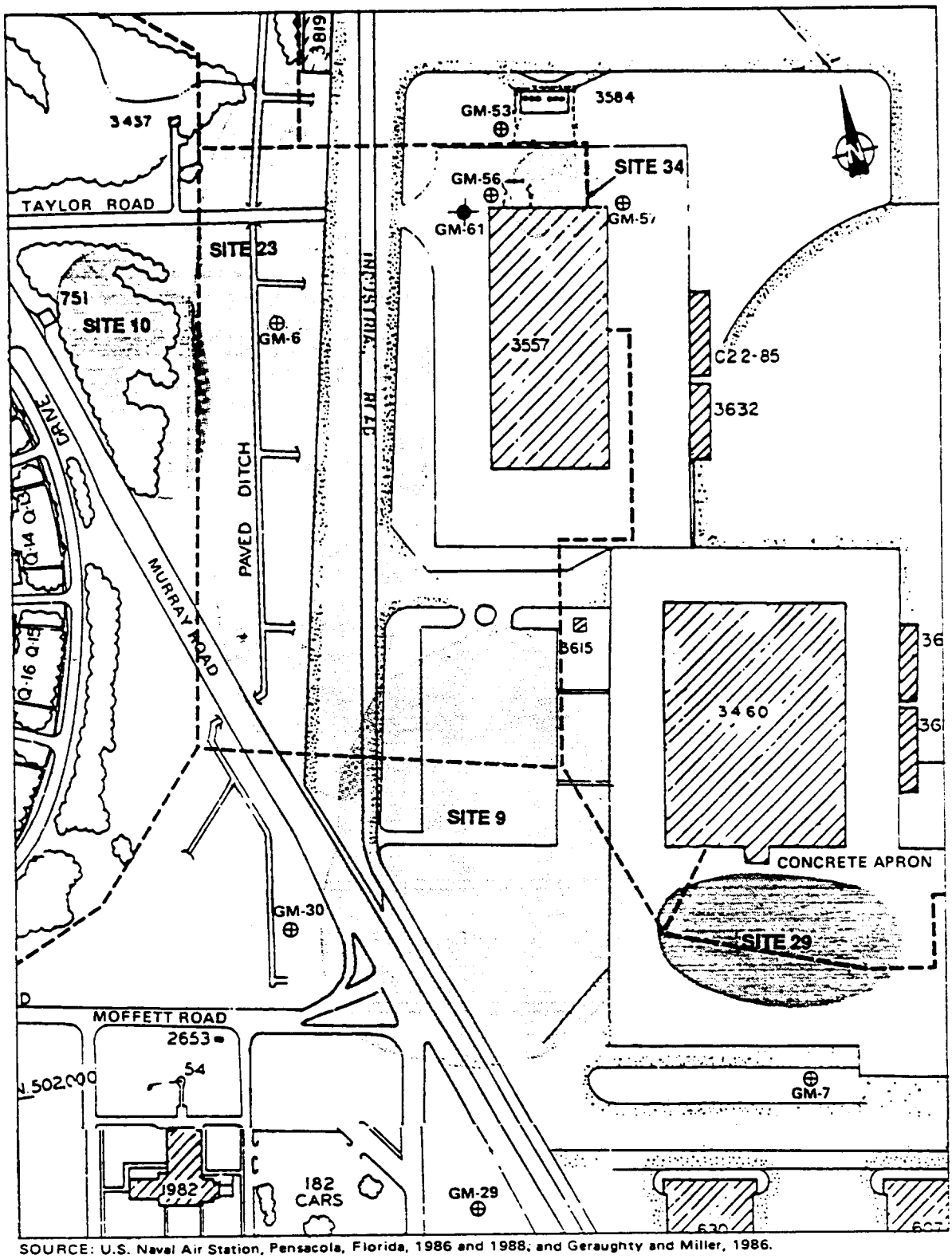
1. INTRODUCTION

This Interim Data Report presents the findings of the Phase I investigation activities performed for Site 9, Navy Yard Disposal Area, located at the Naval Air Station (NAS) 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 Phase I fieldwork conducted on the site from April 1991 to July 1991. Because of the proximity of the other four Group F sites (Site 10, Commodore's Pond; Site 23, Chevalier Field Pipe Leak Area; Site 29, Soil South of Building 3460; and Site 34, Solvent North of Building 3557) and part of Group N Site 36, Industrial Waste Sewer, to Site 9, any information gathered during the corresponding Phase I investigations of these sites that is relevant to understanding Site 9 conditions has been included in this Site 9 interim data report.

The Phase I investigation of Site 9 was conducted in accordance with the administrative documents prepared by E & E for this project, which include the June 1990 Project Management Plan, June 1990 Site Management Plan, July 1990 Generic Quality Assurance Project Plan (GQAPP), July 1990 General Health and Safety Plan, and June 1990 Contamination Assessment/Remedial Activities Investigation Work Plan--Group F with appended Site-Specific Health and Safety Plan and Site-Specific Quality Assurance Plan. All references to these documents in this report apply only to the 1990 versions.

Site 9 is located at the southwestern corner of Chevalier Field (see figures 1-1 and 1-2). The southwestern portion of the site includes Murray Road, Industrial Road, and the intersection of Murray

[Bold items enclosed in brackets denote changes to last version of document]



SOURCE: U.S. Naval Air Station, Pensacola, Florida, 1986 and 1988; and Geraughty and Miller, 1986.

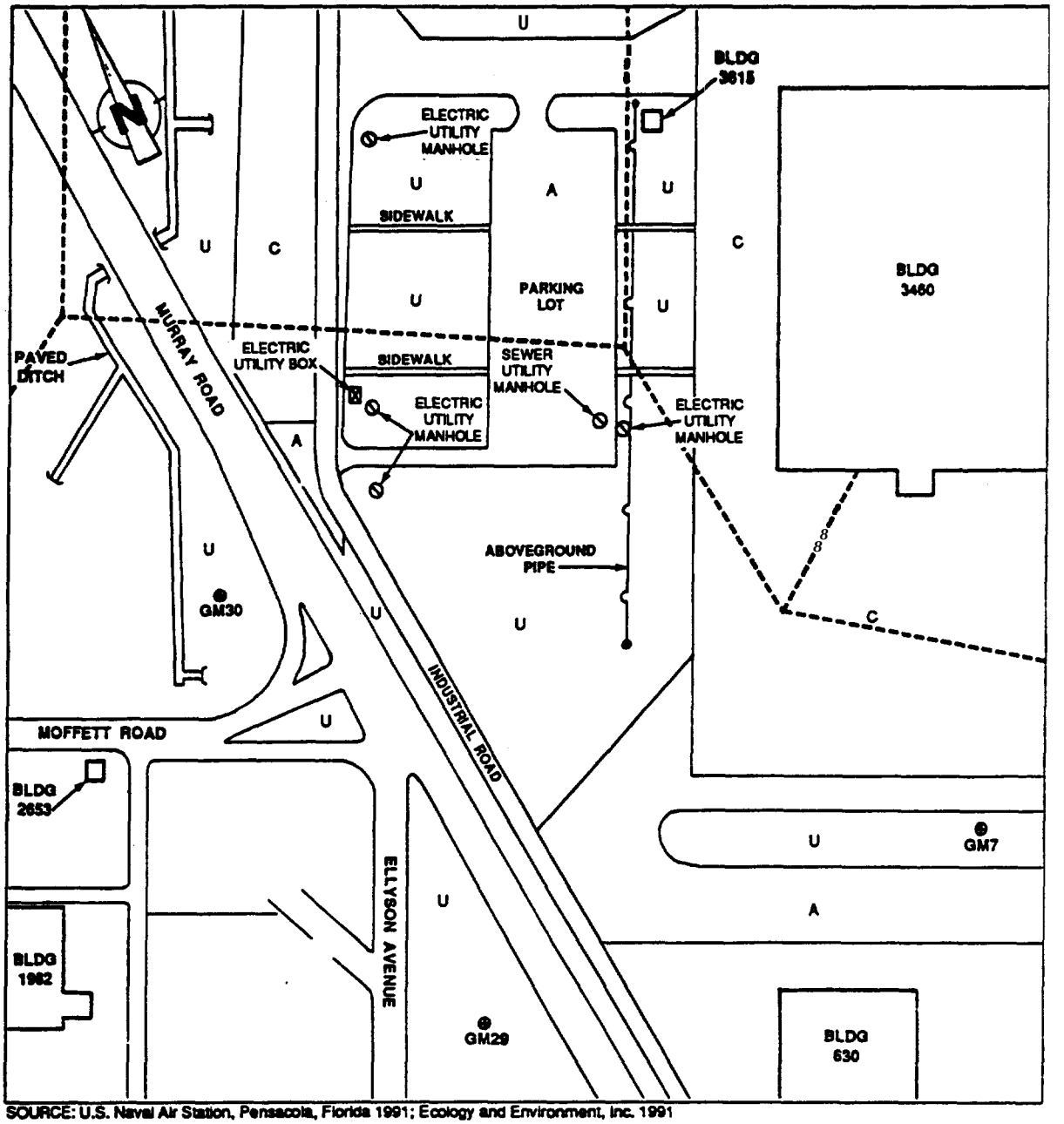
SCALE

0 200 400 600 800 FEET

KEY:

- Existing Permanent Shallow Monitoring Well
- Existing Permanent Deep Monitoring Well
- Industrial Waste Sewer Line
- Building

Figure 1-2 SITE VICINITY MAP — NAS PENSACOLA SITES 9, 10, 23, 29, 34, AND 36



SOURCE: U.S. Naval Air Station, Pensacola, Florida 1991; Ecology and Environment, Inc. 1991

0 200 400 FEET
SCALE

KEY:

⊕	Existing Permanent Shallow Monitoring Well	C	Concrete Paved
BLDG 3460	Building	U	Unpaved
A	Asphalt Paved	- - - - - - -	Industrial Waste Sewer Line (Site 36)

Figure 1-3
SITE PLAN MAP — NAS PENSACOIA SITE 9

2. INVESTIGATION METHODOLOGY

2.1 AERIAL PHOTOGRAPH AND EXISTING DATA ANALYSIS

Prior to the initiation of fieldwork, E & E personnel examined all available aerial photographs of NAS Pensacola for past and present conditions, features, and developments that might have had direct relevance to the fieldwork methodology. The aerial photograph analysis task involved assembling and stereoscopically analyzing historical photographic imagery and topographic maps available for the site area. Photographs were scaled to allow analysis of past and present surface conditions, drainage, and land use. The aerial photographs used in the analysis are listed in Table 2-1. The photographs were analyzed to obtain information regarding the evolution of site features that might have affected hydrologic conditions and to aid in the performance of such tasks as field reconnaissance and monitoring well placement.

2.2 SITE RECONNAISSANCE

A field reconnaissance survey was conducted on and around the site. Available aerial photographs and maps were used as guides in locating surface features. Visual inspections were made of surface conditions, vegetation, and surface drainage patterns. These observations of surface conditions on the site were used to update the site map. During the reconnaissance survey, the field team identified areas which presented the most suitable conditions for the establishment of survey grid baselines. The use of a grid system as part of the Phase I field investigation is discussed in the following sections.

The reconnaissance survey team utilized radiation and air monitoring equipment during walkovers of site areas, in accordance with Section 6.1.1 of the GQAPP. Areas with readings above background were located, flagged, and identified on a site map for future reference.

All findings of the physical reconnaissance vere mapped in detail and recorded in the field logbook.

2.3 OVA SURFACE EMISSIONS SURVEY AND PARTICULATE AIR SCREENING

Following the establishment of the survey grid network (discussed in Section 2.5), a surface emissions survey was conducted using organic vapor analyzer (OVA) air monitoring equipment. The survey vas conducted in accordance with Section 6.1.1 of the GQAPP. Measurements were made at each established grid point, and readings were recorded in the field logbook. In addition, preliminary air screening was conducted with a particulate monitor to determine if the site represents a source of particulates in the air. The air screening was conducted in accordance with Section 6.1.1 of the GQAPP.

2.4 RADIATION SURVEY

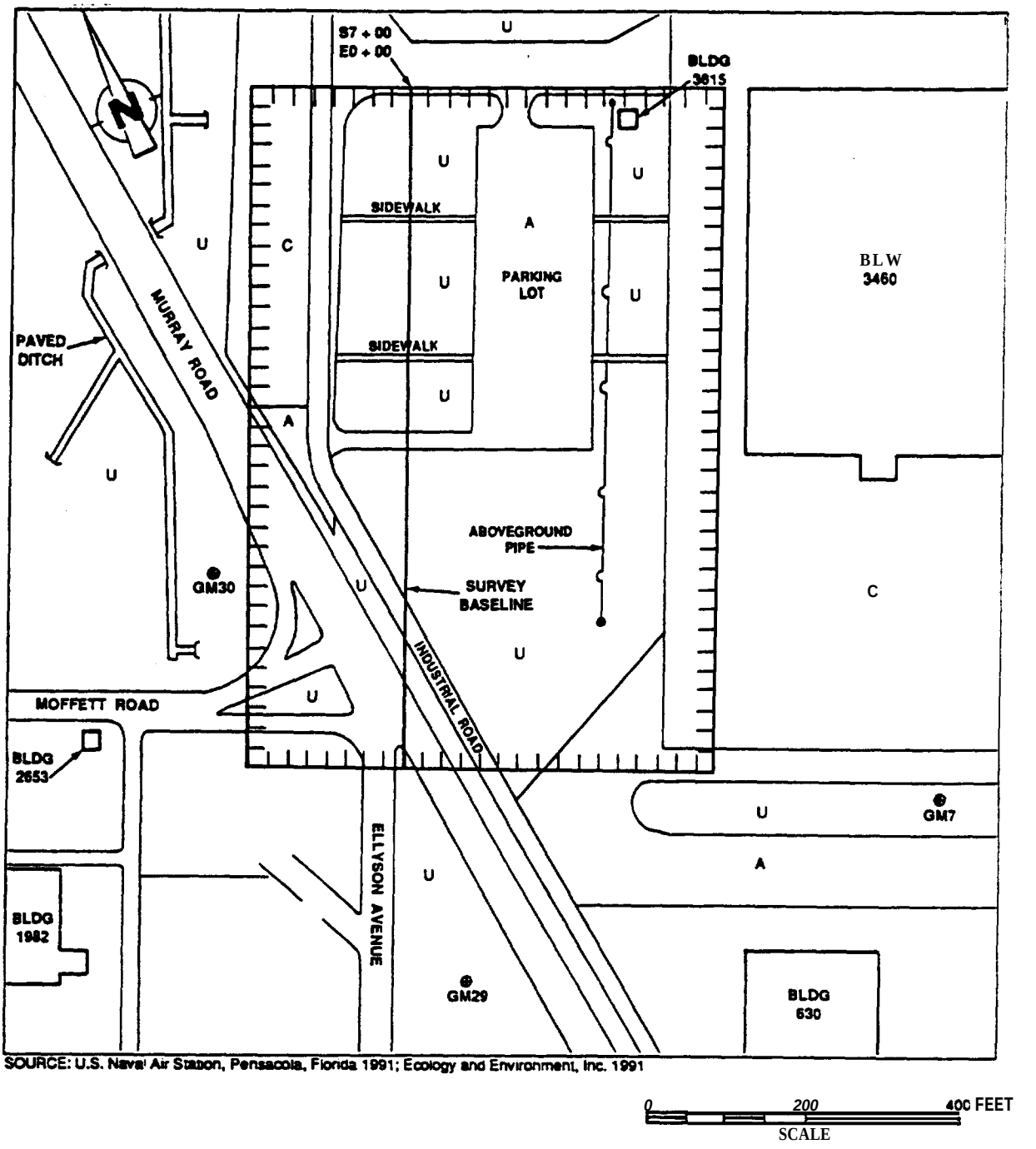
Following the establishment of the survey grid network (discussed in Section 2.5), a radiation survey vas conducted using Eberline ESP-2 Gamma Scintillator and a Bicron G2 2-inch sodium iodine (NaI) probe. The survey was conducted in accordance with Section 6.3.6 of the GQAPP. Measurements were made at each established grid point, and readings were recorded in the field logbook.

2.5 SURVEY GRID

The survey effort required the initial establishment of a grid system over the study area. To construct the grid, a baseline vas established along the existing roads. The area was then gridded with spacings based on 100-foot centers. Baseline transects were established using a transit survey instrument and flagged at 50-foot intervals; however, measurements recorded during surveys were taken at 25-foot intervals. The grid system was completed relative to an arbitrarily established origin point using a brunton compass and tape measure. The origin point was established on Site 23, located north of Site 9. Grid points were flagged and numbered as follows:

Grid X, S n_1 + yy, E (or V) n_2 + zz,

[Bold items enclosed in brackets denote changes to last version of document]

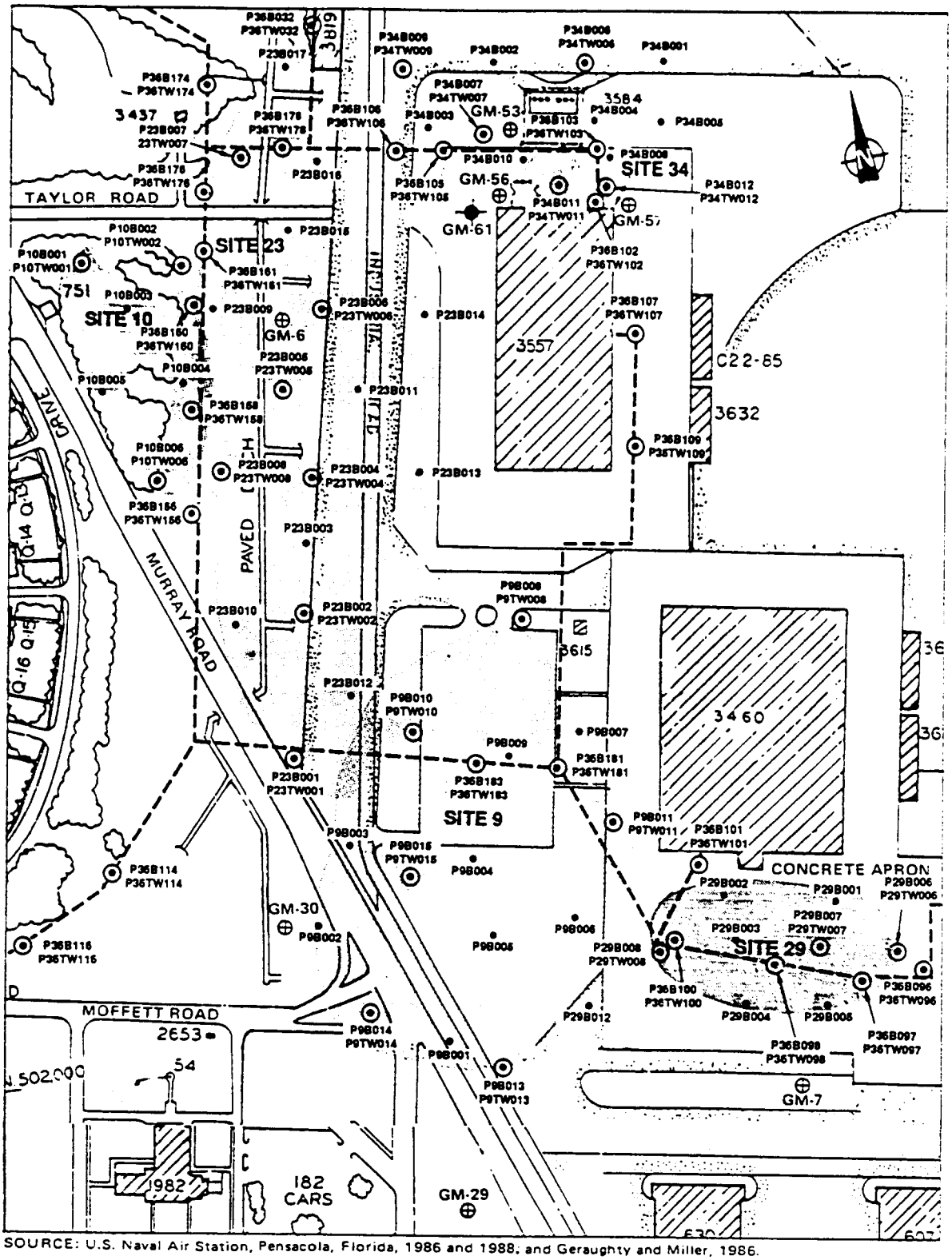


SOURCE: U.S. Naval Air Station, Pensacola, Florida 1991; Ecology and Environment, Inc. 1991

KEY:

⊕	Existing Permanent Shallow Monitoring Well	C	Concrete Paved
BLDG 3460	Building	U	Unpaved
A	Asphalt Paved		Survey Grid Boundary

Figure 2-1
SURVEY GRID MAP — NAS PENSACOLA SITE 9



SOURCE: U.S. Naval Air Station, Pensacola, Florida, 1986 and 1988; and Geraughty and Miller, 1986.

SCALE

0 200 400 600 800 FEET

KEY:

- ⊕ Permanent Shallow Monitoring Well
- Permanent Deep Monitoring Well
- Building
- Industrial Waste Sewer Line
- • Soil Boring
- ○ Temporary Monitoring Well
- P10B001 Soil Boring Number
- P10TW001 Temporary Monitoring Well Number

Figure 2-2 SOIL BORING AND TEMPORARY MONITORING WELL LOCATIONS — NAS PENSACOLA SITES 9, 10, 23, 29, 34, AND 36

2.9 SOIL SAMPLING

Fifteen soil samples, plus one duplicate sample, were collected as described in Section 2.12 of this report. All soil samples were shipped to E & E's Analytical Services Center (ASC) and analyzed for the screening parameters listed in Table 2-2.

2.10 GROUNDWATER SAMPLING

2.10.1 Temporary Monitoring Wells

Six groundwater samples, plus one duplicate sample, were collected from the six temporary monitoring wells shown on figures 2-2 and 2-3. Weather conditions; water levels; purge volumes; and groundwater pH, specific conductance, and temperature were recorded in the field logbook prior to sampling. In addition, prior to purging, each well was checked for the presence of floating and/or sinking immiscible hydrocarbons using a Solinst of Canada oil/water interface probe. Each groundwater sample vas collected immediately following well purging. All well purging and sampling activities were performed in accordance with sections 6.8 and 6.11 of the GQAPP. Equipment decontamination was performed in accordance with Section 6.10 of the GQAPP. All groundwater samples collected from the temporary monitoring wells were shipped to E & E's ASC and analyzed for the screening parameters listed in Table 2-2.

2.10.2 Existing Permanent Monitoring Wells

Two groundwater samples, plus one duplicate sample, were collected from the two existing permanent monitoring vells located on or in close proximity to the site (see figures 2-2 and 2-3). Weather conditions; vater levels; purge volumes; and groundwater pH, specific conductance, and temperature were recorded in the field logbook prior to sampling. Each groundwater sample was collected immediately following well purging. All well purging and sampling activities were performed in accordance with sections 6.8 and 6.11 of the GQAPP. Equipment decontamination was performed in accordance with Section 6.10 of the GQAPP. All groundwater samples collected from the existing wells were

analyzed according to U.S. Environmental Protection Agency (EPA) Contract Laboratory Program (CLP) protocol for the Target Analyte List (TAL), Target Compound List (TCL), and other parameters.

2.11 HYDROLOGIC ASSESSMENT

The hydrologic assessment of the site and surrounding areas included determination of water level elevations in both the existing permanent monitoring wells and the temporary monitoring wells.

Wellhead top-of-casing (TOC) elevations for the temporary monitoring wells were measured relative to the top of a driven reference stake located adjacent to each well using a spirit level and tape measure. Following groundwater sampling and removal of the temporary monitoring wells, the elevations of the driven reference stakes were surveyed using a transit with reference to the benchmark established at permanent monitoring well GM61 (on Site 34), elevation 8.91 feet above mean sea level (MSL; G & M 1986).

Wellhead TOC elevations and static water levels measured in each existing permanent well were referenced directly to permanent monitoring well GM61. Static water levels in the permanent monitoring wells were measured on May 2, 1991, over a 2-hour period. These water levels were used to determine the shallow aquifer water table elevation, shallow groundwater flow direction, and horizontal hydraulic gradient in the site vicinity.

In conjunction with the wellhead survey, the elevations of other nearby features (e.g., ponds, streams, and leachate seeps) were established.

2.12 FIELD QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

All field tasks performed during the investigation were documented in the field logbooks according to the procedures specified in Section 7.2 of the GQAPP.

2.12.1 Field QA/QC Samples

Field QA/QC samples were prepared for all samples collected at the site during the Phase I investigation according to the procedures described in Section 6.12 of the GQAPP. Chain-of-custody was maintained

3. RESULTS

3.1 *AERIAL* PHOTOGRAPH AND EXISTING DATA ANALYSIS

The review of aerial photographs from 1951 to 1989 indicated that activities and surface features on and in the vicinity of Site 9 evolved considerably during this period. The concrete apron and pavement on the southwest corner of Chevalier Field were removed or resurfaced, and new sections of Hurray Road and Industrial Road and the intersection of Moffett Road and Ellyson Avenue were constructed. An industrial waste sewer line was installed across the site (part of Site 36--Industrial Waste Sewer), and an aboveground pipe line, a parking area, and a picnic shelter were also constructed on site.

Review of the January 22, 1951, aerial photograph indicated that the site was almost entirely paved and included portions of two of the Chevalier Field runways and the southwest concrete apron. Aircraft were observed parked on the Chevalier Field concrete apron. A former portion of Hurray Road was apparent west of Chevalier Field, approximately 300 feet west of the present (1991) location. The western perimeter of the site, located west of the concrete apron, was apparently unpaved with a sandy soil surface. In this photograph, the site area appears flat; however, surface drainage was apparently westward and off the site toward an extensive, paved drainage ditch system.

No significant changes were observed on the site during the review of the January 3, 1958, to March 25, 1968, aerial photographs; however, aircraft were not observed on Chevalier Field or the concrete apron on aerial photographs subsequent to the October 12, 1961, aerial photograph.

Trenching for the installation of the industrial vaste sewer line is evident in the April 6, 1970, aerial photograph, where the paved surface is apparently disturbed and there appears to be a brightly

Building 3460 and extending west and southwest to encompass the intersections of Murray Road with Hoffett Road and Ellyson Avenue (see figures 1-2 and 1-3).

Building 3615, the only structure on Site 9, is a picnic shelter located in the northeast portion of the site. An aboveground pipe line originates near this shelter and crosses the eastern portion of the site, northeast to southwest, where it re-enters the ground.

An asphalt parking area is also located in the northeast area of Site 9. Two concrete sidewalks extend from the parking lot, one east toward Building 3460 and the other west toward Industrial Road.

The northwest and south portions of the site are mostly unpaved areas with sandy soil and mowed grass. The east perimeter of the site encompasses a portion of the concrete pavement surrounding Building 3460, while the west and southwest portions of the site encompass Industrial Road, Murray Road, and the intersections of Moffett Road with Hurray Road and Ellyson Avenue, all of which are asphalt paved (see figures 1-2 and 1-3). The west and southwest areas convey heavy through-traffic.

Surface drainage is apparently to the west, toward the paved drainage ditch system west of Site 9. This drainage ditch system also serves sites 10, 23, and 29 (Commodore's Pond, Chevalier Field Pipe Leak area, Soil South of Building 3460) by draining north into the south arm of Bayou Grande. However, two small areas in the northwest portion of Site 9, between Industrial Road and the parking lot, are low enough to retain standing water following rainfall.

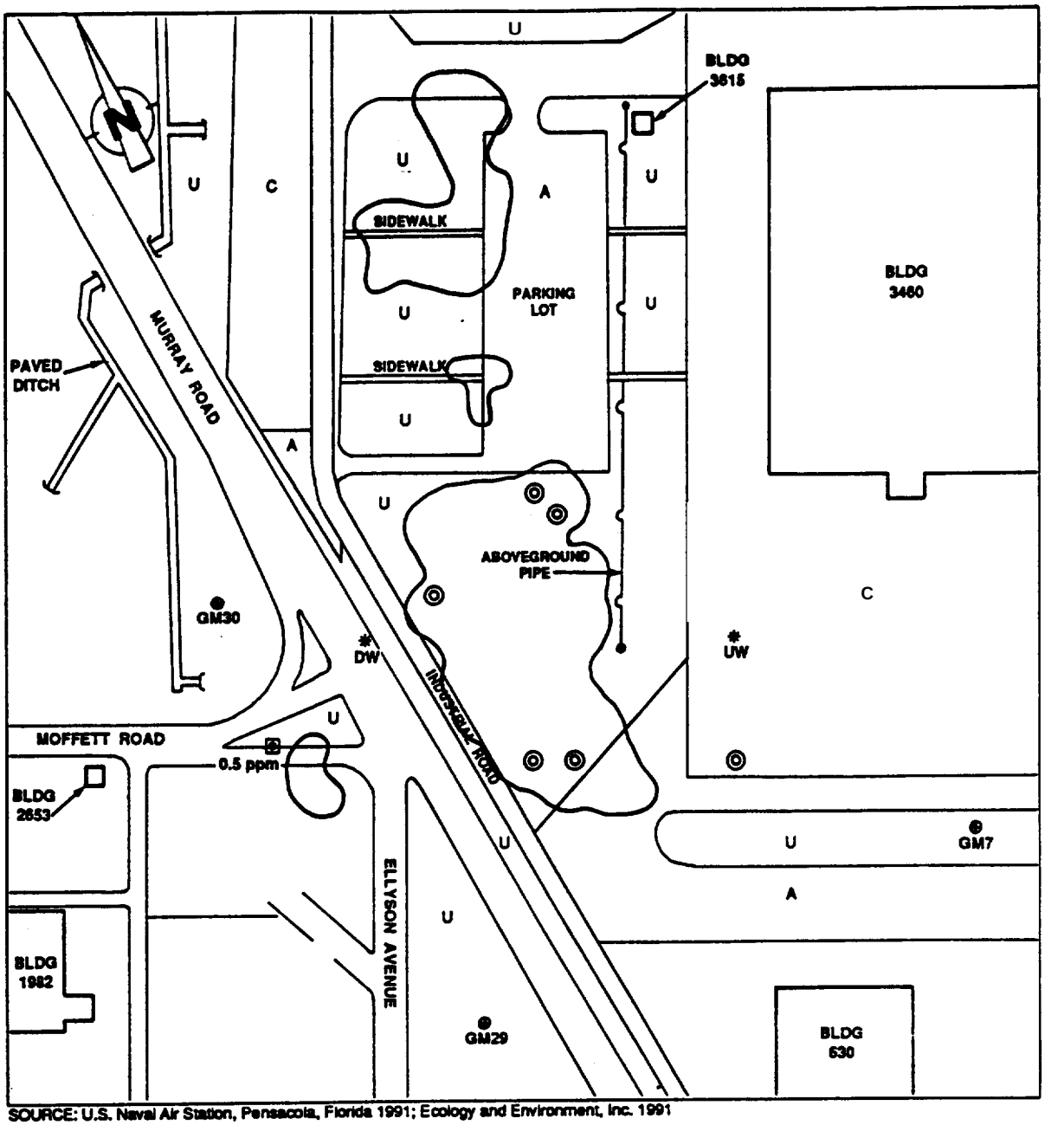
Several electrical utility manholes, an electrical utility box, and a sanitary sewer manhole were observed on Site 9 (see figures 1-2 and 1-3).

(Site 9 consists of a paved parking area and a closely **moved unpaved area.** Given that the site is heavily utilized and the surrounding area is also highly developed, a habitat and biota survey **vas** not conducted **.]**

3.3 SURFACE **EMISSIONS** SURVEY **AND** PARTICULATE **AIR SCREENING**

An OVA was used to monitor surface emissions across the site. One organic vapor reading above background was obtained, approximately **60**

[Bold items enclosed in brackets denote changes to last version of document]



SOURCE: U.S. Naval Air Station, Pensacola, Florida 1991; Ecology and Environment, Inc. 1991

0 200 400 FEET
SCALE

KEY:

⊕	Existing Permanent Shallow Monitoring Well	✱	Particulate Air Screening Location
BLDG 3460	Building	DW/UW	Downwind/Upwind
A	Asphalt Paved	⊞	OVA Concentration Above Background
C	Concrete Paved	◎	Radiation Reading Above 1.8x Background
U	Unpaved		Area with Radiation Readings Above Background

Figure 3-1
RADIATION AND SURFACE EMISSIONS SURVEY MAP
NAS PENSACOLA SITE 9

Table 3-1

TEMPORARY AND PERMANENT MONITORING WELL CONSTRUCTION INFORMATION AND WATER LEVEL ELEVATIONS NAS PENSACOLA SITE 9

Well Number	Total Depth (BLS)	Depth to Water (BLS)	Depth to Water BTOC	TOC Elovation	Water Level Elevation	Date Measured
TW008[a]	7.20	2.73	5.49	9.37	3.88	6/25/91
TW010	6.10	2.05	5.74	9.42	3.68	6/25/91
TW011	8.20	3.89	5.67	9.78	4.11	6/25/91
TW013	7.23	2.93	5.51	9.47	3.96	6/25/91
TW014	5.91	2.33	5.59	9.18	3.59	6/25/91
TW015	6.78	2.41	5.51	9.22	3.71	6/25/91
GM29[b]	11.77	2.55	3.46	7.92	4.46	5/2/91
GM30	11.73	2.59	3.63	6.25	2.62	5/2/91

14[NASP]UH8018:T0354/601/22

Notes:

All depths are in feot; a11 elevations are in feot referoncod to mean sea level (MSL); all temporary wells were conrtructod of 2-inch diameter stainless steel with 5 feot of 0.01-inch screen; and all permanent wells were constructed of 2-inch diameter PVC, with 2.5 feot of 0.01-inch screen.

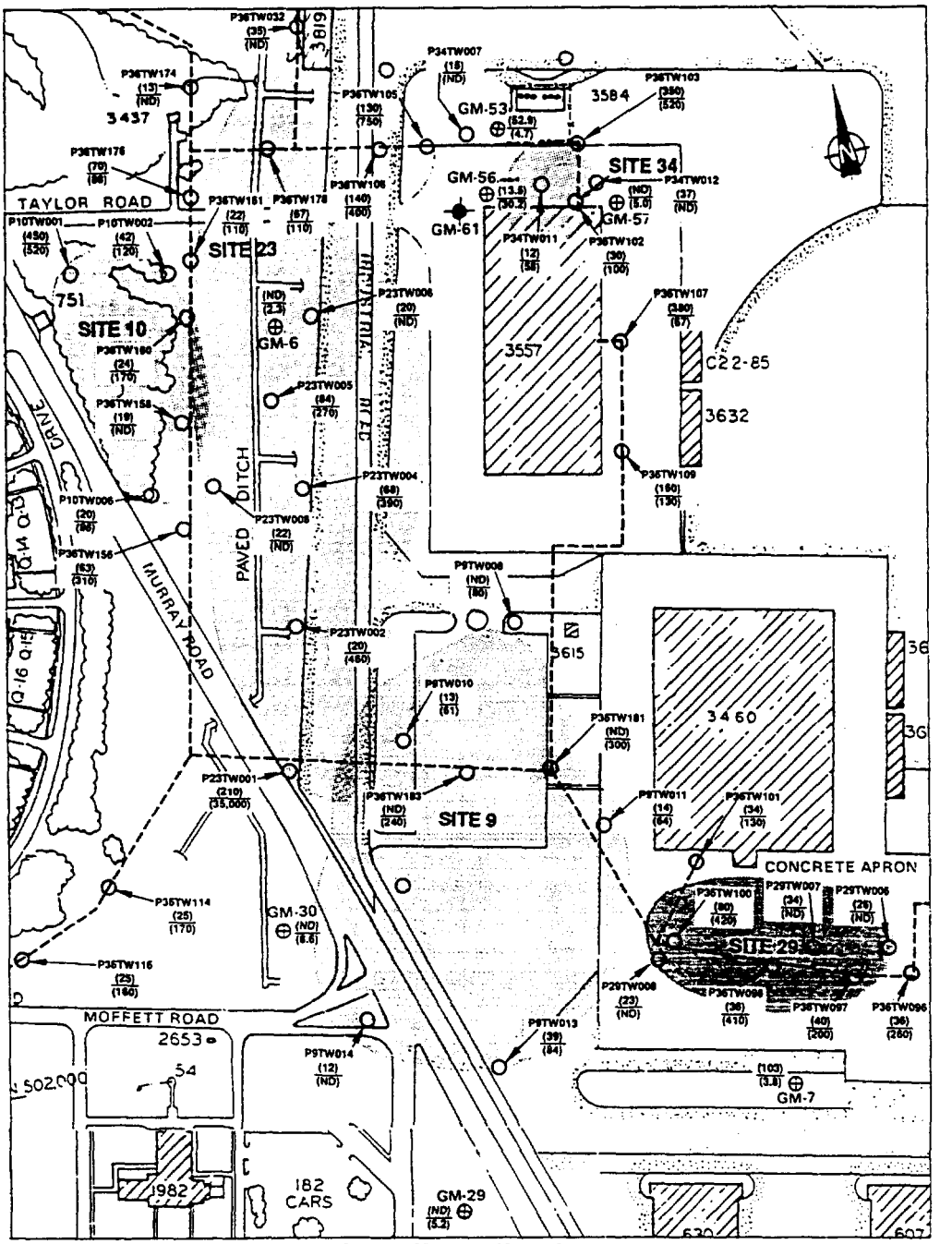
Key:

BLS = Below land surface.
TOC = Top of casing.
BTOC = Below top of caring.

[a]TW signifies temporary monitoring well.
[b]GM signifies pormanont monitoring well. Both pormanont aonitoring wells are shallow.

Source: Ecology and Environment, Inc., 1992.

[Bold items enclosed in brackets denote changes to last version of document]



SOURCE: U.S. Naval Air Station, Pensacola, Florida, 1986 and 1988; and Geraughty and Miller, 1986.

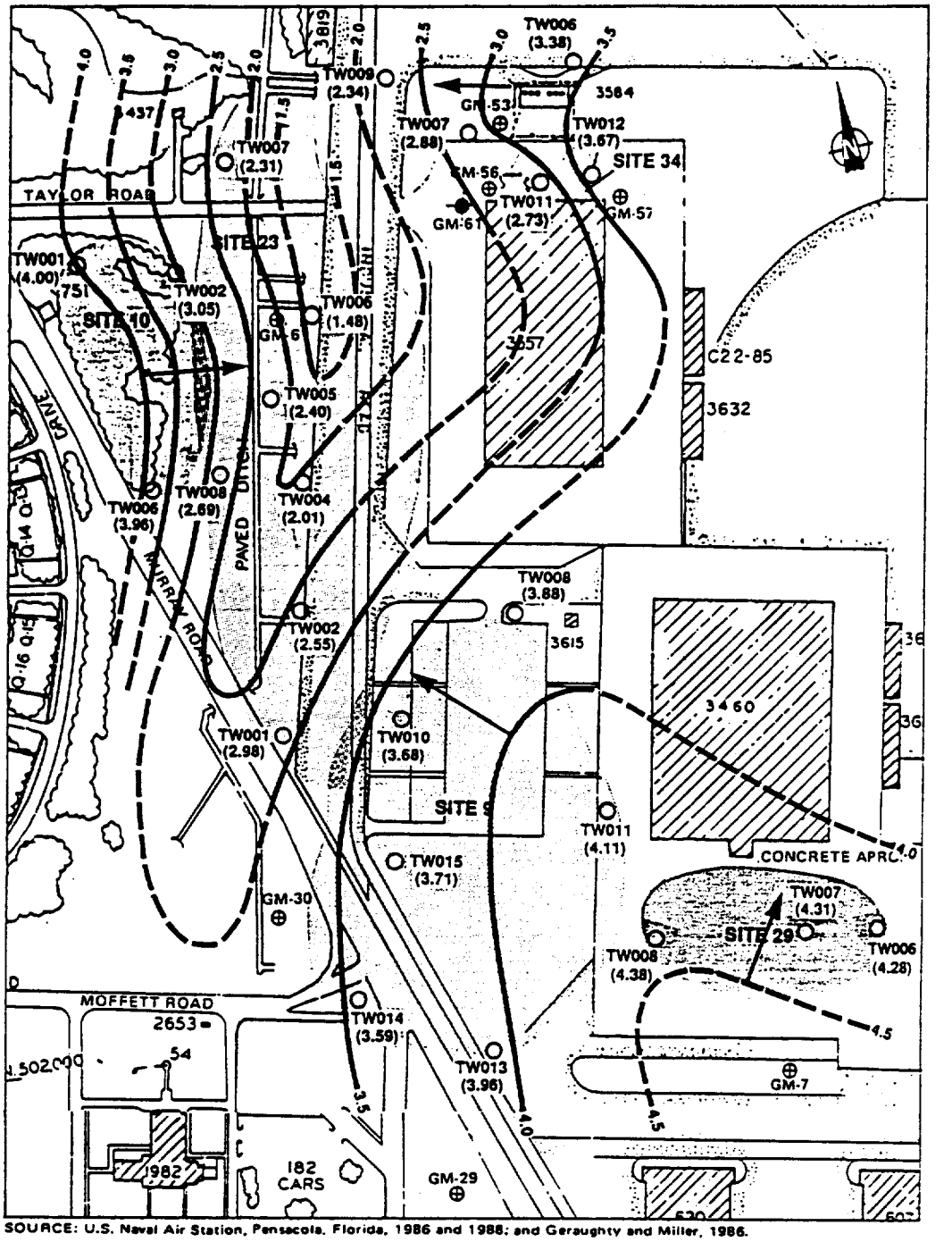
SCALE

0 200 400 600 800 FEET

KEY:

- Existing Permanent Shallow Monitoring Well
- Existing Permanent Deep Monitoring Well
- Building
- Temporary Monitoring Well
- (39) Chromium Concentration (ug/L)
- (84) Lead Concentration (ug/L)
- Industrial Waste Sewer Line

Figure 3-8 CHROMIUM AND LEAD CONCENTRATIONS WHERE DETECTED IN GROUNDWATER SAMPLES — NAS PENSACOLA SITES 9, 10, 23, 29, 34, AND 36



SOURCE: U.S. Naval Air Station, Pensacola, Florida, 1986 and 1988; and Geraughty and Miller, 1986.

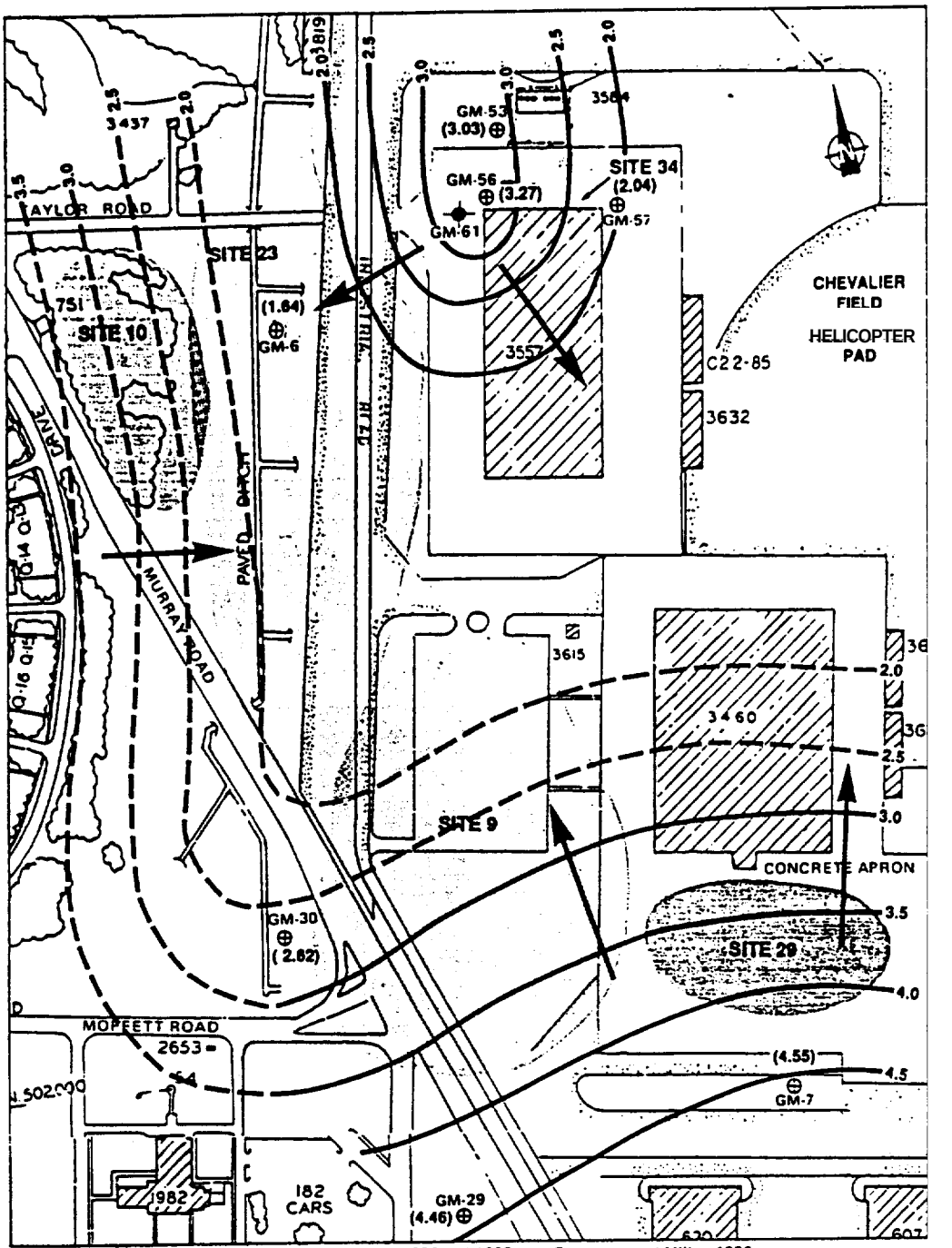
SCALE

0 200 400 600 800 FEET

KEY:

- ⊕ Existing Permanent Shallow Monitoring Well
- Existing Permanent Deep Monitoring Well
- Building
- Q-12 Residential Quarters
- O Temporary Monitoring Well
- (3.71) Water Level Elevations (feet above MSL)
- 3.5 Water Level Elevation Isopleth (feet above MSL; dashed where inferred) (Isopleth interval = 0.5 foot)
- Groundwater Flow Direction

Figure 3-3
SURFICIAL ZONE WATER LEVEL ELEVATIONS, TEMPORARY MONITORING WELLS NAS PENSACOLA SITES 9, 10, 23, 29, AND 34



SOURCE: U.S. Naval Air Station, Pensacola, Florida, 1986 and 1988; and Geraughty and Miller, 1986.

SCALE

0 200 400 600 800 FEET

KEY:

- ⊕ Existing Permanent Shallow Monitoring Well
- ✦ Existing Permanent Deep Monitoring Well
- BLDG 3557 Building
- Q-12 Residential Quarters
- (3.03) Water Level Elevations (feel above MSL)
- 3.5 —— Water Level Elevation Isopleth (leer above MSL) (Dashed Where Inferred)
- → Groundwater Flow Direction

Figure 3-4
SURFICIAL ZONE WATER LEVEL ELEVATIONS, PERMANENT MONITORING WELLS — NAS PENSACOLA SITES 9, 10, 23, 29, AND 34

Table 3-2 (Cont.)

Parameter	Dotoction Limit	Sample Number (Location and Depth Interval) P9S008A (B008A)	P9S009A (B009A)	P9S010A (B010A)	P9S011A (B011A)	P9S012A (B012A)	P9S013A (B013A)	P9S014A (B014A)	P9S015A (B015A)	[RCRA] PCAL
Arsonic	6	--	7.1	--	--	--	--	--	--	80
Chromium	1		1.7	4.1	--	3.4	--	--	--	400[b]
Zinc	2	9.4	3.3	--	4.0	9.2	--	3.5	--	16,000
Load	4	75	6.7	6.4	--	18	--	--	6.6	
cadmium	0.5	--	--	--	--	--	--	--	--	40
Nickel	4	--	--	--	--	--	--	--	--	2,000
Copper	2.5	--	--	--	4.9	2.7	--	--	--	2,500
TRPHs	5	59	14	--	9.3	63	--	11	--	
Total PAHs as Benzo-a-pyrene (µg/kg)	1,000	--	--	--	--	--	--	--	--	

14[NASP]UH8018:T0354/587/0

Key:

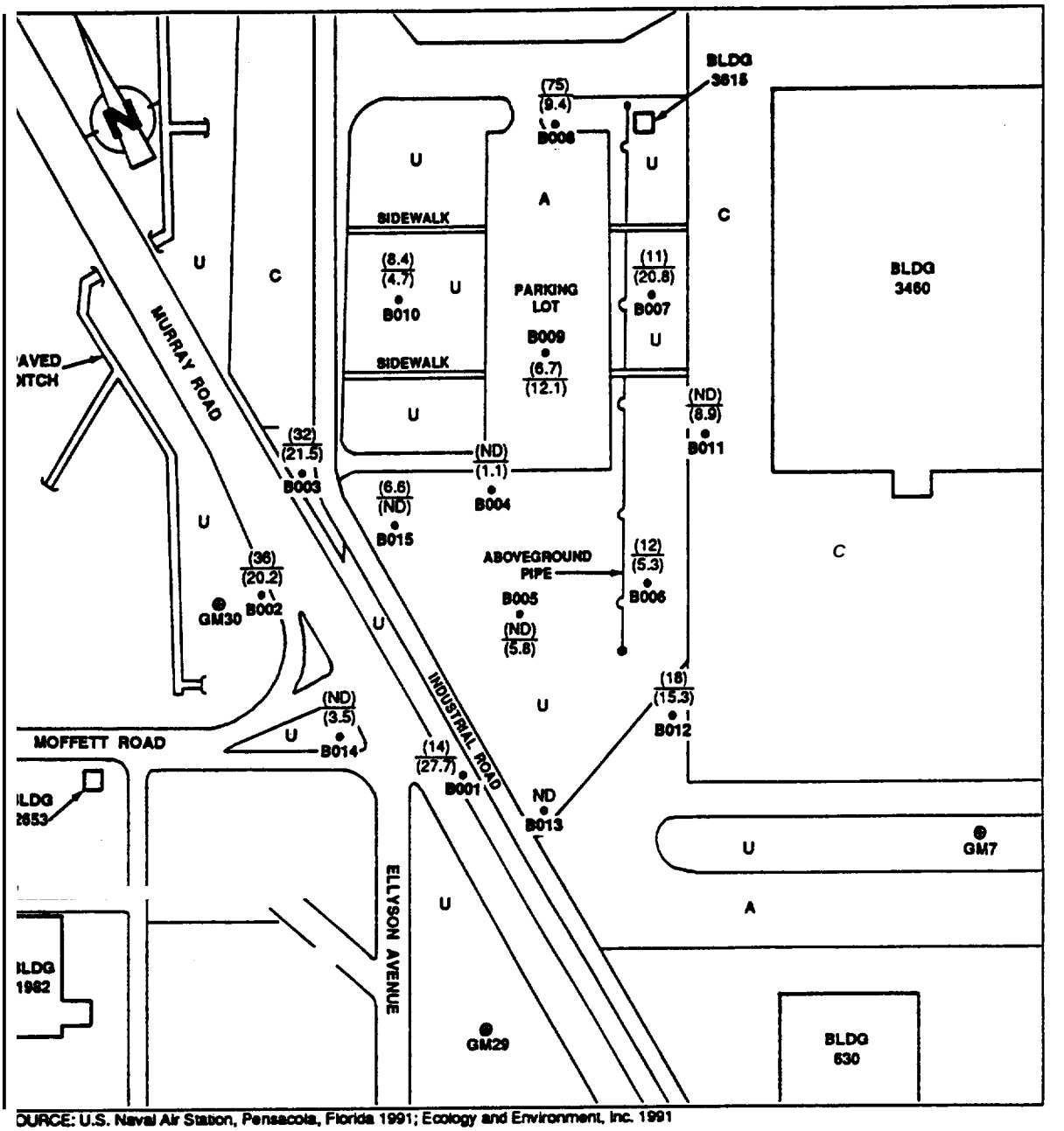
RCRA PCAL = Resource Conservation and Recovery Act Proposed Corrective Action Levels.

[a] Duplicate of sample P9S002A.
[b] This PCAL is Cor hexavalent chromium.

Dash (--) indicates compound not detected.

Source: Ecology and Environment, Inc., 1992.

[bold items enclosed in brackets denote changes to last version of document]



SOURCE: U.S. Naval Air Station, Pensacola, Florida 1991; Ecology and Environment, Inc. 1991

0 200 400 FEET
SCALE

KEY:

⊕	Existing Permanent Shallow Monitoring Well	•	Soil Boring
BLDG 3460	Building	(75)/(9.4)	Lead Concentration (mg/kg) / Total Metals Concentration (mg/kg)
A	Asphalt Paved	ND	Not Detected
C	Concrete Paved		
U	Unpaved		

Figure 3-5
LEAD AND TOTAL METALS (EXCLUDING LEAD) CONCENTRATIONS DETECTED IN SOIL SAMPLES — NAS PENSACOLA SITE 9

3.6.2 Groundvater

Field Parameters

Table 3-3 lists the groundwater temperature, pH, and specific conductance values measured for the groundwater samples collected from the six temporary and two permanent monitoring wells at Site 9. The field parameter (conductivity and pH) measurements for these wells are within the reported range of values for ambient groundwater in Escambia County (Clemens ~~et al~~. 1989). No floating or sinking immiscible hydrocarbons were observed or indicated by the oil/water interface probe in any of the wells. Appendix B presents the temporary monitoring well information including field parameters and groundwater elevation data.

Analytical Screening Parameters

Table 3-4 summarizes the analytical screening results for the groundwater samples collected from the six temporary monitoring wells installed at Site 9. Figures 2-2 and 2-3 show the temporary monitoring well locations at Site 9. The complete analytical screening results for the groundwater samples are presented in Appendix D. In general, one to four metals vere detected in each groundwater sample. However, as will be discussed in Section 3.9, many of the elevated metal concentrations detected may reflect acid preservation leaching/dissolution of aquifer matrix sediments entrained in these unfiltered samples, rather than actual groundwater contamination. TRPHs, VOCs, PAHs, pesticides, and PCBs were not detected in any of the groundwater samples.

Figure 3-7 presents the total lead concentrations and total metals (excluding lead) concentrations in the temporary and permanent well groundwater samples collected at Site 9. Elevated lead concentrations were detected in three of the wells (TW008, TW010, and TW011) in the north portion of the site and in one well (TW013) located in the south portion of the site. The lead concentrations ranged from 57 to 84 µg/L, all of which exceed the Florida Primary Drinking Water Standard (FPDWS) for lead of 50 µg/L (FDER 1991).

Zinc was detected in all the temporary well groundwater samples at Site 9, although the concentrations (50 to 180 µg/L) are all below the Florida Secondary Drinking Water Standard (FSDWS) for zinc of 5,000 µg/L. Copper was detected in only two groundwater samples, and the

Table 3-4

SUMMARY ANALYTICAL SCREENING RESULTS FOR GROUNDWATER SAMPLES
(FROM TEMPORARY MONITORING WELLS)
NAS PENSACOLA SITE 9
(All results in µg/L, unless noted)

		Sample Number (Well Number)							
Parameter	Detection Lirit	P9GW008 (TW008)	P9GW010 (TW010)	P9GW011 (TW011)	P9GW011D[a] (TW011)	P9GW013 (TW013)	P9GW014 (TW014)	P9GW015 (TW015)	FPDWS/ FSDWS
Chromium	lo	--	13	--	14	39	12	--	50
Zinc	20	130	100	110	180	85	50	90	5,000
Lead	40	*80*	61	64	*51*	a4	--	--	50
Copper	25	--	--	110	98	38	--	--	1,000

14[NASP]UH8018:T0354/588/5

Key:

FPDWS = Florida Primary Drinking Water Standard.
FSDWS = Florida Secondary Drinking Water Standard.

[a]Duplicate of sample P9GW011.

Dash (--) indicates compound not detected.

Source: Ecology and Environment, Inc., 1992.

(Bold items enclosed in brackets denote changes to last version of document)

concentrations (110 µg/L and 38 µg/L) are below the FSDWS for copper of 1,000 µg/L (FDER 1991). Interestingly, the highest zinc and copper concentrations are present in the groundwater samples collected from well TW011 in the northeast portion of the site, whereas the highest chromium and lead concentrations were detected in southernmost well TW013 (see Table 3-4 and Figure 3-7).

TAL/TCL Parameters

Table 3-5 summarizes the analytical results for the groundwater samples collected from the permanent monitoring wells on Site 9. These samples were analyzed for the TAL/TCL parameter group, TRPHs, total alkalinity, total hardness, and total organic carbon. Figures 2-2 and 2-3 show the existing permanent monitoring well locations at Site 11. The complete TAL/TCL analytical results for these groundwater samples are presented in Appendix E.

In general, a variety of metals were detected, and the majority of the total metals concentrations were higher than the filtered (dissolved) metals concentrations. TRPHs, VOCs, one base/neutral and acid extractable (BNA), and some tentatively identified compounds (TICs) were also detected. However, several of these compounds were also present in the trip, field, rinsate, and preservative blanks, as well as in the associated laboratory method blanks (see Table 3-5; for further discussion see Section 3.10). Cyanide, pesticides, and PCBs were not detected in any of the groundwater samples from the permanent wells.

Metals. Table 3-5 summarizes the analytical results for TAL metals in the permanent monitoring well groundwater samples. Figure 3-7 presents a distribution of total lead concentrations and total metals concentrations (excluding lead) in the temporary and permanent monitoring well groundwater samples collected at Site 9.

None of the detected metals (except iron) concentrations exceeds the applicable, if any, HPDWS or FSDWS. Both total and dissolved iron were detected in the GM30 groundwater sample at concentrations (1,860 µg/L and 1,080 µg/L, respectively) exceeding the FSDWS of 300 µg/L.

Other metals with no established Florida drinking water standards are present in the permanent well groundwater samples, W029/W029D and

Table 3-5 (Coat.)

Parameter	Detection Limit	P09W030 (GM30)	P09W029 (GM29)	P09W029D[a] (GM29)	P09WTB05[b] (Trip Blank)	P09WFB05 (Field Blank)	P09WRB05[c] (Rinsate Blank)	P09WPB05[d] (Preservative Blank)	FPDWS/ FSDWS
		sample Number (Well Number/Type)							
Selenium	2.0	--(N)*	--(W,N)*	--(W,N)*	NA	--(N)*	--(N)*	NA	
Sodium	74	5,280(E)	4,710(B,E)	5,110(E)	NA	421(B,E)	265(B,E	NA	160,000
Vanadium	4.0	7.6(B)	7.7(B)	7.9(B)	NA	7.8(B)	8.5(B)	NA	
Zinc	3.0	11.6(B)	11.0(B)	9.6(B)	NA	3.3(B)	3.3(B)	NA	5,000
TRPHs (mg/L)	1.0	--	1.0	1.2	NA	--	--	--	
Chloromethane	10	--	7(J)	--	--	--	--	--	
Methylene Chloride	5.0	2 B[a],J	3(B[a],J)	2(B[a],J)	2(B[a],J)	18,000 B[a])[e]	3(B[a],J)	2(B[a],J)	
Acetone	10	--	3(B[a],J)	--	--	760 B[a],J)[e]	32(B[a])	18(B[a])	
Bis(2-Ethylhexyl) Phthalate	10	9 B[a],J	3(B[a],J)	3(B[a],J)	NA	3 B[a],J)[e]	1(B[a],J)		
Tentatively Identified Compounds**									
Bis(dimethylethyl) phenol Isomer		10(J)	6(J)	6(J)	--	4(J)	--	--	
Unknown Hydrocarbon		(3)38(J)	17(J)	11(J)	--	33(J)	--	--	
Unknown Oxy-Hydrocarbon		--	--	--	5(J)	--	--	--	
Unknown Compound		30(B[a],J)	17(B[a],J)	--	--	71(B[a],J)	17IB[a],J	--	
Unknown Compound		(6)63(J)	--	(3 29(J)	--	(3)729(J)	8(J)	--	
Total Alkalinity (mg/L as $CaCO_3$)	1.0	21	80	80	NA	1.0	NA	NA	
Total Hardness (mg/L as $CaCO_3$)	1.0	12	NA	110	NA	--	2.0	--	
Total Organic Carbon (mg/L)	1.0	2.6	4.0	4.2	NA	--	NA	NA	

14[NASP]UH8018:T0354/693/0

Key at end of table.

[Bold items enclosed in brackets denote changes to last version of document]

W030, and include aluminum (145 µg/L and 634 µg/L), cobalt (12.4 µg/L and 9.7 µg/L), and vanadium (7.1 µg/L and 6.5 µg/L).

Total (unfiltered) metals concentrations in the permanent wells were generally higher than the respective dissolved (filtered) concentrations (see Table 3-5). Furthermore, it should be noted that the total metals concentrations in the temporary monitoring well samples were generally much higher than the total metals concentrations in the permanent monitoring well samples (see tables 3-4 and 3-5). As will be discussed further in Section 3.9.2, the relationship between total metals concentrations in temporary well samples and total metals concentrations in permanent well samples, evaluated in combination with the relationship between total metals and dissolved metals concentrations in permanent well samples (discussed in the preceding paragraphs), supports the probability that total metals concentrations in groundwater are being impacted by acid preservative leaching/dissolution of aquifer matrix sediments entrained in the groundwater samples.

TRPHs. TRPHs were present only in permanent well GM29 groundwater and duplicate samples at 1.0 mg/L and 1.2 mg/L, respectively (see Table 3-5).

VOCs. Acetone (3 µg/L) and chloromethane (7 µg/L) were detected only in the southernmost permanent monitoring well GM29. Methylene chloride, hovever, was detected in both permanent monitoring wells (in GM30 at 2 µg/L and in GM29 at 3 µg/L). All of these concentrations are below the respective Florida Groundwater Guidance Concentrations (FGWGCs; Florida Department of Environmental Regulation [FDER] 1989). Acetone and methylene chloride were detected in the associated laboratory method blanks and are therefore attributable to laboratory-derived contamination.

BNAs. Bis(2-ethylhexyl)phthalate was detected in both permanent well groundwater samples (in W029 at 3 µg/L and in W030 at 90 µg/L); however, bis(2-ethylhexyl)phthalate was also detected in the associated laboratory method blanks and is therefore attributable to laboratory-derived contamination.

Similarly to other areas in the Chevalier Field vicinity, including all lands adjacent to Site 9 (e.g., sites 23 and 29), the land now occupied by Site 9 has been considerably altered by construction and associated earthmoving activities over recent years (1951 to 1989; see Section 3.1). Large portions of the site have been graded, filled, paved, demolished, and resurfaced. Road beds and parking areas have been constructed and later relocated. Utilities, such as the industrial waste sewer line, electric cables, and aviation fuel lines, have been installed involving excavation, trenching, and backfilling. These construction and associated earthmoving activities have most likely also altered surface drainage patterns.

The repeated disturbance of soils and other alterations to Site 9 surfaces over the years since 1951 is of concern as it has most likely affected the distribution of any contaminants introduced onto the site prior to or during this time (e.g., the land now occupied by Site 9 reportedly was a waste disposal area during the early 1900s). Any localized "hot spots"/contaminant sources may have been scattered, relocated, or removed.

In the following sections, the sampled media (soil and groundwater) are discussed separately regarding the nature, distribution, and potential source(s) of contamination.

3.7.1 Soil

Concentrations of metals, TRPHs, and PAHs were present in one or more of the soil samples at Site 9. The metals (arsenic, cadmium, chromium, copper, lead, nickel, and zinc) exhibited a scattered distribution across the site. In addition, ambient background sources may be at least partially contributing to the low concentrations observed. The highest metal concentration present in the unsaturated zone, above the detection limit, was a lead concentration of 75 mg/kg, detected in a boring in the northeast portion of the site.

High TRPH concentrations and the single PAH concentration correspond with concentrations of elevated metals observed in soil samples collected along the northeast (borings B007 and B008) and west boundaries (borings B002 and B003) of Site 9. The highest TRPH

[Bold items enclosed in brackets denote changes to last version of document]

lead in groundwater corresponds with the highest soil lead concentration (75 mg/kg) in soil sample S008A and, therefore, may indicate a local source of Contamination.

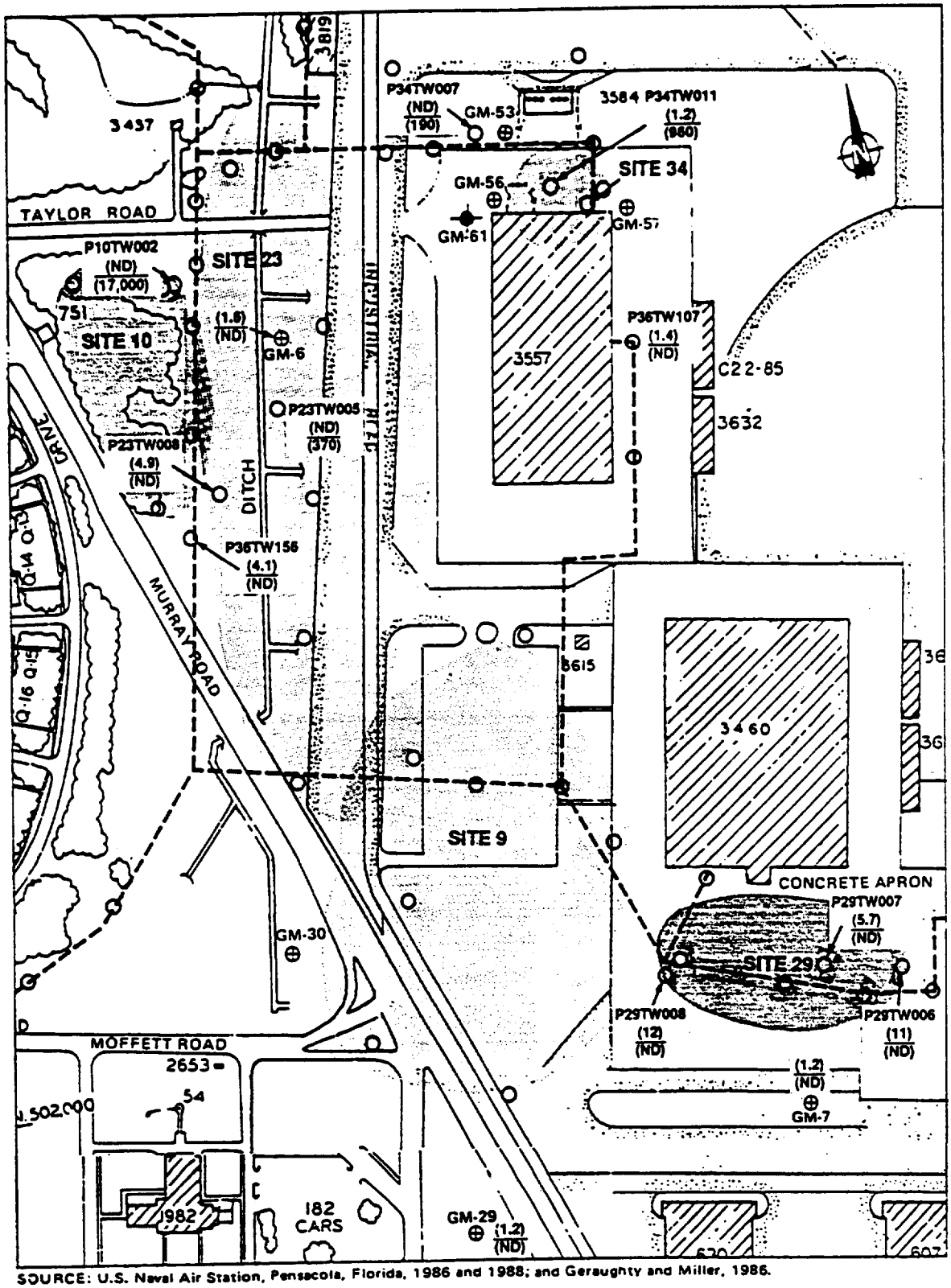
Groundwater samples P36GW181 and P36GW183, collected from Site 36 Phase I temporary monitoring wells located on Site 9 exhibited higher concentrations of lead (300 and 240 µg/L, respectively) than corresponding Site 9 groundwater samples, and also high, relative to Site 9 groundwater samples, concentrations of zinc (110 and 210 µg/L, respectively) and copper (not detected and 82 µg/L). However, the corresponding Site 36 soil samples from these boring locations exhibited only low levels of chromium or zinc. Therefore, the industrial waste sewer line represents at least a potential source of lead contamination in soil and groundwater on Site 9.

Figure 3-8 presents chromium and lead concentrations where detected in groundvater samples collected on sites 9, 10, 23, 29, and 34, and adjacent portions of Site 36. Lead and chromium are widely distributed in the groundwater over this area and may be of concern as many of the Concentrations detected in the Phase I groundwater samples exceed the respective FPDWSs of 50 µg/L.

The presence of low total metals and lead concentrations in the two permanent wells, one located hydraulically upgradient and the other downgradient of the site, indicates that metal contamination in groundwater extends beyond Site 9 and that off-site sources may be contributing to Site 9 metals contamination. Although chromium, copper, and zinc were all detected at concentrations below the Florida standards, their presence may indicate potential isolated/localized contaminant sources at Site 9. Given the reported presence of a former landfill at Site 9, the widespread metals distribution may be related to leaching of contaminated soils in some areas of the site.

TRPHs were detected only in the permanent well GH29 groundwater and duplicate samples. The widespread distribution of TRPHs in the soil samples, but not in the corresponding temporary well samples may be a result of a lower solubility of TRPHs in water. The presence of TRPHs in the single groundwater sample may be related to a localized on-site source or to an ambient upgradient source of TRPH contamination. Figure 3-9 presents TRPH and phenol concentrations detected in groundwater

[Bold items enclosed in brackets denote changes to last version of document]



SOURCE: U.S. Naval Air Station, Pensacola, Florida, 1986 and 1988; and Geraughty and Miller, 1986.

SCALE

0 200 400 600 800 FEET

KEY:

- Existing Permanent Shallow Monitoring Well
- Existing Permanent Deep Monitoring Well
- Building
- Temporary Monitoring Well
- (1.2) / (960) — TRPH Concentration (mg/L) / Phenol Concentration (ug/L)
- Industrial Waste Sewer Line

Figure 3-9 TRPH AND PHENOL CONCENTRATIONS WHERE DETECTED IN GROUNDWATER SAMPLES — NAS PENSACOLA SITES 9, 10, 23, 29, 34, AND 36

4. CONCLUSIONS

Soil and groundwater contamination are present at Site 9. The primary contaminants include metals, TRPHs, and PAHs. Low levels of radiation (1.80 to 1.88 above background) are also present at Site 9. However, the nature of the source material(s) and the extent of the potential contamination are presently unknown.

As has occurred at other areas in the Chevalier Field vicinity, including all lands adjacent to Site 9 (e.g., sites 23 and 29), the land now occupied by Site 9 has been considerably altered by construction and associated earthmoving activities over recent years (1951 to 1989; see Section 3.1). Large portions of the site have been graded, filled, paved, demolished, and resurfaced. Road beds and parking areas have been constructed and later relocated. Utilities, such as the industrial waste sewer line, electric cables, and aviation fuel lines, have been installed involving excavation, trenching, and backfilling. These activities have most likely also altered surface drainage patterns.

The repeated disturbance of soils and other alterations to Site 9 surfaces since 1951 is of concern as it has most likely affected the distribution of any contaminants introduced onto the site prior to or during this time. The land now occupied by Site 9 reportedly was a vaste disposal area during the early 1900s. Any localized "hot spots"/contaminant sources may have been scattered, relocated, or removed.

Low concentrations of metals are widespread in soils across Site 9. The highest single metal concentration was lead, present in the northeast and west portions of the site. Other metals, including arsenic, were also present in varying amounts above the detection limits. The widespread distribution of metals in the unsaturated zone is likely attributable to localized sources of contamination, extensive

5. REFERENCES

Barraclough, J. T., and O. T. Harsh, 1962, Aquifers and Quality of Ground Water along the Gulf Coast of Western Florida: Florida Bureau of Geology, Report of Investigations No. 29.

Barraclough, J. T., 1967, Ground-water Features in Escambia and Santa Rosa Counties, Florida: Florida Geological Survey, Hap Series No. 26.

Brooks, H. K., 1981, Physiographic Divisions of Florida: Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, Gainesville, Florida.

Carlisle, V. W., 1960, Soil Survey of Escambia County, Florida: Series 1955, No. 8, U.S. Department of Agriculture, Washington, D.C.

Coe, C. J., 1979, Geology of the Plio-Pleistocene Sediments in Escambia and Santa Rosa Counties, Florida: Florida State University, Masters Thesis.

Clemens, L., J. B. Dalton, and R. D. Fendick, 1989, Ambient Groundwater Quality in Northwest Florida: Northwest Florida Water Management District Water Resources Special Report 87-1; Revised Edition October, 1989.

Coffin, J. E., 1982, Summary of Ground-water and Surface-water Data for City of Pensacola and Escambia County, Florida: U.S. Geological Survey Open-file Report 82-361.

Cooke, C. W., 1939, Scenery of Florida Interpreted by a Geologist: Florida Geological Survey, Bulletin No. 17.

_____, 1945, Geology of Florida: Florida Geological Survey, Bulletin No. 29.

Cooley, N. R., 1978, An Inventory of Estuarine Fauna in the Vicinity of Pensacola, Florida: Florida Marine Research Publications No. 31, Florida Department of Natural Resources, Marine Research Laboratory, St. Petersburg, Florida.

Driscoll, F. G., 1986, Groundwater and Wells, Second Edition: Johnson Division, St. Paul, Minnesota.

[Bold items enclosed in brackets denote **changes** to last version of document]

Geraghty and Hiller, Inc. (G & M), 1984, Verification Study, Assessment of Potential Ground-water Pollution at Naval Air Station, Pensacola, Florida.

_____, 1986, Characterization Study, Assessment of Potential Ground-water Pollution at Naval Air Station, Pensacola, Florida.

_____, 1987a, Quarterly Report, Corrective Action Program, Wastewater Treatment Plant, NAS Pensacola, Florida.

_____, 1987b, Lithologic Logs, NAS Pensacola Wastewater Treatment Facility, Pensacola, Florida.

_____, 1988, Semi-Annual Report, Corrective-Action and Compliance-Monitoring Programs, Surge Pond Operation Permit, Wastewater Treatment Facility, Naval Air Station, Pensacola, Florida.

Green, K. Michael, 1989, personal communication, Navy EIC.

Heil, D. C., 1989, personal communication, Florida Department of Natural Resources, Tallahassee, Florida.

Jacob, C. E., and H. H. Cooper, Jr., 1940, Report on the Ground-water Resources of the Pensacola Area in Escambia County, Florida: U.S. Geological Survey, Open-file Report 400001.

Kennedy, L. R., 1982, Rainfall Summary for the Northwest Florida Water Management District: Water Resources Special Report 82-3.

Ketchen, H. G., and R. C. Staley, 1979, A Hydrographic Survey in Pensacola Bay: Florida State University, Department of Oceanography, Tallahassee, Florida.

Lohman, S. W., 1972, Ground-Water Hydraulics: U.S. Geological Survey Professional Paper 708, Washington, D.C.

Luckenbach, H. W., R. J. Diay, and L. C. Schaffner, 1988, Scientific Consultation and Analytical Services: Benthic Assessment Procedures, Project 5, Virginia Water Control Board, Gloucester Point, Virginia.

Harsh, O. T., 1966, Geology of Escambia and Santa Rosa Counties, Western Florida Panhandle: Florida Geological Survey, Bulletin 46.

Musgrove, R. H., J. T. Barraclough, and O. T. Marsh, 1961, Interim Report on the Water Resources of Escambia and Santa Rosa Counties, Florida: Florida Geological Survey, Information Circular No. 30.

Musgrove, R. H., J. T. Barraclough, and R. G. Grantham, 1965, Water Resources of Escambia and Santa Rosa Counties, Florida: Florida Geological Survey, Report of Investigations No. 40.

[Bold items enclosed in brackets denote changes to last version of document]

U.S. Environmental Protection Agency, 1984, Standard Operating Safety Guidelines.

_____, 1985, Guidance on Remedial Investigations under CERCLA: EPA, OSWER, HUERL; EPA Report #540/6-85/002; NTIS ref #PB-85-268616; OSWER Directive 9355.0-06B, U.S. EPA, Cincinnati, Ohio.

_____, 1985, Guidance on Feasibility Studies under CERCLA: EPA, OSWER, OUPE, EPA report #540/G-85/003; NTIS ref #PB-85-238-590; OSWER Directive 9355.0-05c, U.S. EPA, Washington, D.C.

_____, 1987a, Data Quality Objectives for Remedial Response Activities: OSUER Directive 9335.0-7B, U.S. EPA, Washington D.C.

_____, 1987b, Compendium of Superfund Field Operations Methods: OSWER Directive 9355.0-14, EPA/540/P-87/00/a.

_____, 1988a, CERCLA Compliance with Other Laws Manual, Draft: OSWER Directive 9234.1-01, U.S. EPA, Washington, D.C.

_____, 1988b, Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA, Draft: OSWER Directive 9355.3-01 OERR # 68-01-7090 and 68-W8-0098, U.S. EPA, Washington, D.C.

_____, 1990, Corrective Action for Solid Waste Management Units at Hazardous Waste Management Facilities; Proposed Rule, 40 CFR Parts 264, 265, 270, and 271.

U.S. Fish and Wildlife Service, 1987, Long Range Fish and Wildlife Section, Naval Air Station Pensacola and Outlying Field Bronson, Pensacola, Florida: USFWS Field Office, Panama City, Florida.

U.S. Geological Survey, 1970a, 7 1/2 Minute Topographic Map, Fort Barrancas, Florida, Quadrangle.

_____, 1970b, 7-1/2 Minute Topographic Map, West Pensacola, Florida, Quadrangle, Photorevised 1987.

U.S. Navy, 1986, U.S. Navy Gulf Coast Strategic Homeporting Environmental Impact Statement, Appendix IV, Pensacola, Florida: Southern Division, Naval Facilities Engineering Command, Charleston, South Carolina.

_____, 1987, General Development Map Nos. 1276829 to 1276839, U.S. Naval Air Station, Pensacola, Florida: Southern Division Naval Facilities Engineering Command, Charleston, South Carolina.

Wagner, J. R., 1982, Hydrogeology of the Northwest Florida Water Management District: in Ground Water in Florida - Proceedings of the First Annual Symposium on Florida Rydrogeology: Northwest Florida Water Management District, Public Information Bulletin 82-2.

6. FLORIDA PROFESSIONAL GEOLOGIST SEAL

I hereby affix my seal to the Interim Data Report for the Navy Yard Disposal Area (Site 9), located at the Naval Air Station in Pensacola, Escambia County, Florida, in accordance with Chapter 492 of the Florida Statutes and applicable rules and regulations developed pursuant thereto:

Name:	Richard J. Rudy
License Number:	P.G. No. 97
State:	Florida
Expiration Date:	July 31, 1994

Richard J. Rudy

11-11-92

Date

[Bold item enclosed in brackets denote changes to last version of document)

A

APPENDIX A

RADIATION AND SURFACE EMISSIONS DATA

B

APPENDIX B

TEMPORARY MONITORING WELL, SOIL BORING, AND LITHOLOGIC INFORMTION

SOIL BORING/TEMPORARY MONITORING WELL INFORMATION

1) Site no.: 09
2) Boring no./Well no.: P09B001
3) Drilling firm: Griner Drilling Service
4) Drilling method: HA
5) Date drilled/installed: 06/24/91
6) Geologist: JOE FUGITT
7) Depth of boring (BLS): 3
8) Depth to water in borehole (BLS): 3
9) Highest open-borehole OVA/HNu reading (ppm): 0
10) Depth of well (BLS): NA
11) Length of well screen: NA
12) Length of casing (BLS): NA
13) Approx. height of casing above land surface: NA
14) Depth to water in well (BTOC): NA
15) Elevation of TOC: NA
16) Water level elevation: NA
17) Date groundwater sampled:
18) pH (units): NA
19) Temperature (degrees C): NA
20) Specific conductance (umhos/cm): NA
21) Borehole/Well abandonment method: Backfilled with cuttings.
22) Comments:

BOREHOLE LITHOLOGIC LOG

Sample Depth (BLS)	Sample Description
0- 0.5	Dark brown silty sand, fine to medium grained.
0.5- 3.0	White sand, fine to medium grained. Wet at 3 ft.

Notes: All depths, lengths, height?, and elevations are measured in feet. All boreholes are 4 inches in diameter. All well casings and screens are 2-inch-diameter; well screen slot sizes are .010 inches. No annular material (i.e. filter pack, seal or grout) was used in well installation. Unless otherwise noted, all sand grains are quartz.

NA = not applicable
SSA = solid stem auger
HA = hand auger

BLS = below land surface
TOC = top of casing
BTOC = below top of casing

SOIL BORING/TEMPORARY MONITORING WELL INPORHATION

1) Site no.: 09
2) Boring no./Well no.: P09B002
3) Drilling firm: Griner Drilling Service
4) Drilling method: HA
5) Date drilled/installed: 06/24/91
6) Geologist: JOE FUGITT
7) Depth of boring (BLS): 3
8) Depth to water in borehole (BLS): 3
9) Highest open-borehole OVA/HNu reading (ppm): 128.2
10) Depth of well (BLS): NA
11) Length of well screen: NA
12) Length of casing (BLS): NA
13) Approx. height of casing above land surface: NA
14) Depth to water in well (BTOC): NA
15) Elevation of TOC: NA
16) Water level elevation: NA
17) Date groundwater sampled:
18) pH (units): NA
19) Temperature (degrees C): NA
20) Specific conductance (umhos/cm): NA
21) Borehole/Well abandonment method: Backfilled with cuttings.
22) Comments: Petroleum odor noted in borehole.

BOREHOLE LITHOLOGIC LOG

Sample Depth (BLS)	Sample Description
0- 0.5	Dark brown silty sand, fine to medium grained.
0.5- 2.0	Light brown to tan sand, fine to medium grained.
2.0- 2.5	White sand, fine to medium grained.
2.5- 3.0	Grey stained sand, fine to medium grained. Petroleum odor noted. Water at 3 ft.

Notes: All depths, lengths, heights, and elevations are measured in feet. All boreholes are 4 inches in diameter. All well casings and screens are 2-inch-diametef; well screen slot sizes are .010 inches. No annular material (i.e. filter pack, seal or grout) was used in well installation. Unless otherwise noted, all sand grains are quartz.

NA = not applicable
SSA = solid stem auger
HA = hand auger

BLS = below land surface
TOC = top of casing
BTOC = below top of casing

SOIL BORING/TEMPORARY MONITORING WELL INFORHATION

1) Site no.: 09
2) Boring no./Well no.: P09B003
3) Drilling firm: Griner Drilling Service
4) Drilling method: HA
5) Date drilled/installed: 06/24/91
6) Geologist: JOE FUGITT
7) Depth of boring (BLS): 2.75
8) Depth to water in borehole (BLS): 2.75
9) Highest open-borehole OVA/HNu reading (ppm): 0
10) Depth of well (BLS): NA
11) Length of well screen: NA
12) Length of casing (BLS): NA
13) Approx. height of casing above land surface: NA
14) Depth to water in well (BTOC): NA
15) Elevation of TOC: NA
16) Water level elevation: NA
17) Date groundwater sampled:
18) pH (units): NA
19) Temperature (degrees C): NA
20) Specific conductance (umhos/cm): NA
21) Borehole/Well abandonment method: Backfilled with cuttings.
22) Comments:

BOREHOLE LITHOLOGIC LOG

Sample Depth (BLS)	Sample Description
0- 0.5	Dark brown silty sand, fine to medium grained. One inch of red clayey sand at 0.5 ft.
0.5- 1.5	Tan to white to black sand.
1.5- 2.0	Grey sandy clay.
2.0- 2.75	Grey sand fine to medium grained with some dark brown to black fill, plant and roots detritus. Water at 2.75 ft., no odors.

Notes: All depths, lengths, heights, and elevations are measured in feet. All boreholes are 4 inches in diameter. All well casings and screens are 2-inch-diameter; well screen slot sizes are .010 inches. No annular material (i.e. filter pack, seal or grout) was used in well installation. Unless otherwise noted, all sand grains are quartz.

NA = not applicable
SSA = solid stem auger
HA = hand auger

BLS = below land surface
TOC = top of casing
BTOC = below top of casing

SOIL BORING/TEMPORARY MONITORING WELL INFORHATION

1) Site no.: 09
2) Boring no./Well no.: P09B004
3) Drilling firm: Griner Drilling Service
4) Drilling method: HA
5) Date drilled/installed: 06/24/91
6) Geologist: JOE FUGITT
7) Depth of boring (BLS): 3.5
8) Depth to water in borehole (BLS): 3.5
9) Highest open-borehole OVA/HNu reading (ppm): 0
10) Depth of well (BLS): NA
11) Length of well screen: NA
12) Length of casing (BLS): NA
13) Approx. height of casing above land surface: NA
14) Depth to water in well (BTOC): NA
15) Elevation of TOC: NA
16) Water level elevation: NA
17) Date groundvater sampled:
18) pH (units): NA
19) Temperature (degrees C): NA
20) Specific conductance (umhos/cm): NA
21) Borehole/Well abandonment method: Backfilled with cuttings.
22) Comments:

BOREHOLE LITHOLOGIC LOG

Sample Depth (BLS)	Sample Description
0- 0.5	Dark brown silty sand with 3 inches of slighty clayey reddish brown sand.
0.5- 1.0	Orange to white sand, fine to medium grained.
1.0- 3.5	White sand, fine to medium grained. Water at 3.5 ft.

Notes: All depths, lengths, heights, and elevations are measured in feet. All boreholes are 4 inches in diameter. All well casings and screens are 2-inch-diameter; well screen slot sizes are .010 inches. No annular material (i.e. filter pack, seal or grout) was used in well installation. Unless otherwise noted, all sand grains are quartz.

NA = not applicable
SSA = solid stem auger
HA = hand auger

BLS = below land surface
TOC = top of casing
BTOC = below top of casing

SOIL BORING/TEMPORARY MONITORING WELL INFORMATION

1) Site no.: 09
2) Boring no./Well no.: P09B005
3) Drilling firm: Griner Drilling Service
4) Drilling method: HA
5) Date drilled/installed: 06/24/91
6) Geologist: JOE FUGITT
7) Depth of boring (BLS): 3
8) Depth to water in borehole (BLS): 3
9) Highest open-borehole OVA/HNu reading (ppm): 0
10) Depth of well (BLS): NA
11) Length of well screen: NA
12) Length of casing (BLS): NA
13) Approx. height of casing above land surface: NA
14) Depth to water in well (BTOC): NA
15) Elevation of TOC: NA
16) Water level elevation: NA
17) Date groundwater sampled:
18) pH (units): NA
19) Temperature (degrees C): NA
20) Specific conductance (umhos/cm): NA
21) Borehole/Well abandonment method: Backfilled with cuttings.
22) Comments:

BOREHOLE LITHOLOGIC LOG

Sample Depth (BLS)	Sample Description
0- 0.75	Brown silty sand, fine to medium grained.
0.75- 3.0	White sand, fine to medium grained. Wet at 3 ft.

Notes: All depths, lengths, heights, and elevations are measured in feet. All boreholes are 4 inches in diameter. All well casings and screens are 2-inch-diameter; well screen slot sizes are .010 inches. No annular material (i.e. filter pack, seal or grout) was used in well installation. Unless otherwise noted, all sand grains are quartz.

NA = not applicable
SSA = solid stem auger
HA = hand auger

BLS = below land surface
TOC = top of casing
BTOC = below top of casing

SOIL BORING/TEMPORARY MONITORING WELL INFORHATION

1) Site no.: 09
2) Boring no./Well no.: P09B006
3) Drilling firm: Griner Drilling Service
4) Drilling method: HA
5) Date drilled/installed: 06/24/91
6) Geologist: JOE FUGITT
7) Depth of boring (BLS): 3.5
8) Depth to water in borehole (BLS): 3
9) Highest open-borehole OVA/HNu reading (ppm): 0
10) Depth of well (BLS): NA
11) Length of well screen: NA
12) Length of casing (BLS): NA
13) Approx. height of casing above land surface: NA
14) Depth to water in well (BTOC): NA
15) Elevation of TOC: NA
16) Water level elevation: NA
17) Date groundwater sampled:
18) pH (units): NA
19) Temperature (degrees C): NA
20) Specific conductance (umhos/cm): NA
21) Borehole/Well abandonment method: Backfilled with cuttings.
22) Comments:

BOREHOLE LITHOLOGIC LOG

Sample Depth (BLS)	Sample Description
0- 1.0	Brown silty sand, fine to medium grained.
1.0- 3.5	White sand, fine to medium grained. Wet at 3 ft.

Notes: All depths, lengths, heights, and elevations are measured in feet. All boreholes are 4 inches in diameter. All well casings and screens are 2-inch-diameter; well screen slot sizes are .010 inches. No annular material (i.e. filter pack, seal or grout) was used in well installation. Unless otherwise noted, all sand grains are quartz.

NA = not applicable
SSA = solid stem auger
HA = hand auger

BLS = below land surface
TOC = top of casing
BTOC = below top of casing

SOIL BORING/TEMPORARY MONITORING WELL INFORMATION

1) Site no.: 09
2) Boring no./Well no.: P09B007
3) Drilling firm: Griner Drilling Service
4) Drilling method: HA
5) Date drilled/installed: 06/24/91
6) Geologist: JOE FUGITT
7) Depth of boring (BLS): 4
8) Depth to water in borehole (BLS): 4
9) Highest open-borehole OVA/HNu reading (ppm): 0
10) Depth of well (BLS): NA
11) Length of well screen: NA
12) Length of casing (BLS): NA
13) Approx. height of casing above land surface: NA
14) Depth to water in well (BTOC): NA
15) Elevation of TOC: NA
16) Water level elevation: NA
17) Date groundwater sampled:
18) pH (units): NA
19) Temperature (degrees C): NA
20) Specific conductance (umhos/cm): NA
21) Borehole/Well abandonment method: Backfilled with cuttings.
22) Comments:

BOREHOLE LITHOLOGIC LOG

Sample Depth (BLS)	Sample Description
0- 0.5	Light grey to brown sand, fine to medium grained.
0.5- 1.0	Reddish brown silty sand, fine to medium grained.
1.0- 2.0	White-tan sand, fine to medium grained.
2.0- 4.0	Tan sand, fine to medium grained. Water at 4 ft.

Notes: All depths, lengths, heights, and elevations are measured in feet. All boreholes are 4 inches in diameter. All well casings and screens are 2-inch-diameter; well screen slot sizes are .010 inches. No annular material (i.e. filter pack, seal or grout) was used in well installation. Unless otherwise noted, all sand grains are quartz.

NA = not applicable
SSA = solid stem auger
HA = hand auger

BLS = below land surface
TOC = top of casing
BTOC = below top of casing

SOIL BORING/TEMPORARY MONITORING WELL INPORHATION

1) Site no.: 09
2) Boring no./Well no.: P09B008/P09TW008
3) Drilling firm: Griner Drilling Service
4) Drilling method: SSA
5) Date drilled/installed: 06/24/91
6) Geologist: JOE FUGITT
7) Depth of boring (BLS): 8
8) Depth to water in borehole (BLS): 3
9) Highest open-borehole OVA/HNu reading (ppm): 0
10) Depth of well (BLS): 7.2
11) Length of well screen: 5
12) Length of casing (BLS): 2.2
13) Approx. height of casing above land surface: 2.76
14) Depth to water in well (BTOC): 5.49
15) Elevation of TOC: 9.37
16) Water level elevation: 3.88
17) Date groundwater sampled: 06/25/91
18) pH (units): 6.5
19) Temperature (degrees C): 27
20) Specific conductance (umhos/cm): 290
21) Borehole/Well abandonment method: Backfilled with cuttings.
22) Comments:

BOREHOLE LITHOLOGIC LOG

Sample Depth (BLS)	Sample Description
0- 0.5	Brown silty sand, fine to medium grained.
0.5- 8.0	White sand, fine to medium grained. Wet at 3 ft.

Notes: All depths, lengths, heights, and elevations are measured in feet. All boreholes are 4 inches in diameter. All well casings and screens are 2-inch-diameter; well screen slot sizes are .010 inches. No annular material (i.e. filter pack, seal or grout) was used in well installation. Unless otherwise noted, all sand grains are quartz.

NA = not applicable
SSA = solid stem auger
HA = hand auger

BLS = below land surface
TOC = top of casing
BTOC = below top of casing

SOIL BORING/TEMPORARY MONITORING WELL INFORMATION

1) Site no.: 09
2) Boring no./Well no.: P09B009
3) Drilling firm: Griner Drilling Service
4) Drilling method: SSA
5) Date drilled/installed: 06/24/91
6) Geologist: JOE FUGITT
7) Depth of boring (BLS): 5
8) Depth to water in borehole (BLS): 4
9) Highest open-borehole OVA/HNu reading (ppm): 0
10) Depth of well (BLS): NA
11) Length of well screen: NA
12) Length of casing (BLS): NA
13) Approx. height of casing above land surface: NA
14) Depth to water in well (BTOC): NA
15) Elevation of TOC: NA
16) Water level elevation: NA
17) Date groundwater sampled:
18) pH (units): NA
19) Temperature (degrees C): NA
20) Specific conductance (umhos/cm): NA
21) Borehole/Well abandonment method: Backfilled with cuttings.
22) Comments:

BOREHOLE LITHOLOGIC LOG

Sample Depth (BLS)	Sample Description
0- 0.2	Asphalt.
0.2- 2.0	Brown to tan silty sand, fine to medium grained.
2.0- 3.0	White sand, fine to medium grained.
3.0- 5.0	Grey sand, fine to medium grained. Water at 4 ft.

Notes: All depths, lengths, heights, and elevations are measured in feet. All boreholes are 4 inches in diameter. All well casings and screens are 2-inch-diameter; well screen slot sizes are .010 inches. No annular material (i.e. filter pack, seal or grout) was used in well installation. Unless otherwise noted, all sand grains are quartz.

NA = not applicable
SSA = solid stem auger
EA = hand auger

BLS = below land surface
TOC = top of casing
BTOC = below top of casing

SOIL BORING/TEMPORARY MONITORING WELL INFORMATION

1) Site no.: 09
2) Boring no./Well no.: P09B010/P09TW010
3) Drilling firm: Griner Drilling Service
4) Drilling method: SSA
5) Date drilled/installed: 06/24/91
6) Geologist: JOE FUGITT
7) Depth of boring (BLS): 9
8) Depth to water in borehole (BLS): 4
9) Highest open-borehole OVA/HNu reading (ppm): 0
10) Depth of well (BLS): 6.1
11) Length of well screen: 5
12) Length of casing (BLS): 1.1
13) Approx. height of casing above land surface: 3.69
14) Depth to water in well (BTOC): 5.74
15) Elevation of TOC: 9.42
16) Water level elevation: 3.68
17) Date groundwater sampled: 06/25/91
18) pH (units): 6.0
19) Temperature (degrees C): 22
20) Specific conductance (umhos/cm): 90
21) Borehole/Well abandonment method: Backfilled with cuttings.
22) Comments:

BOREHOLE LITXOLOGIC LOG

Sample Depth (BLS)	Sample Description
0- 0.25	Dark brown silty sand, fine grained.
0.25- 1.0	Tan sand, fine to medium grained.
1.0- 2.0	Light grey sand, fine to medium grained.
2.0- 9.0	White sand, fine to medium grained. Wet at 4 ft.

Notes: All depths, lengths, heights, and elevations are measured in feet. All boreholes are 4 inches in diameter. All well casings and screens are 2-inch-diameter; well screen slot sizes are .010 inches. No annular material (i.e. filter pack, seal or grout) was used in well installation. Unless otherwise noted, all sand grains are quartz.

NA = not applicable
SSA = solid stem auger
HA = hand auger

BLS = below land surface
TOC = top of casing
BTOC = below top of casing

SOIL BORING/TEMPORARY MONITORING WELL INFORMATION

1) Site no. : 09
2) Boring no./Well no.: P09B011/P09TW011
3) Drilling firm: Griner Drilling Service
4) Drilling method: SSA
5) Date drilled/installed: 06/25/91
6) Geologist: JOE FUGITT
7) Depth of boring (BLS): 9
8) Depth to water in borehole (BLS): 4
9) Highest open-borehole OVA/HNu reading (ppm): 0
10) Depth of well (BLS): 8.2
11) Length of well screen: 5
12) Length of casing (BLS): 3.2
13) Approx. height of casing above land surface: 1.78
14) Depth to water in well (BTOC): 5.67
15) Elevation of TOC: 9.78
16) Water level elevation: 4.11
17) Date groundwater sampled: 06/25/91
18) pH (units): 8.6
19) Temperature (degrees C): 31
20) Specific conductance (umhos/cm): 210
21) Borehole/Well abandonment method: Backfilled with cuttings.
22) Comments:

BOREHOLE LITHOLOGIC LOG

Sample Depth (BLS)	Sample Description
0- 1.0	Concrete.
1.0- 1.5	Brown silty sand, fine to medium grained.
1.5- 3.0	Tan slightly sand, fine to medium grained.
3.0- 9.0	White sand, fine to medium grained. Wet at 4 ft.

Notes: All depths, lengths, heights, and elevations are measured in feet. All boreholes are 4 inches in diameter. All well casings and screens are 2-inch-diameter; well screen slot sizes are .010 inches. No annular material (i.e. filter pack, seal or grout) was used in well installation. Unless otherwise noted, all sand grains are quartz.

NA = not applicable
SSA = solid stem auger
HA = hand auger

BLS = below land surface
TOC = top of casing
BTOC = below top of casing

SOIL BORING/TEMPORARY MONITORING WELL INFORMATION

1) Site no.: 09
2) Boring no./Well no.: P09B012
3) Drilling firm: Griner Drilling Service
4) Drilling method: SSA
5) Date drilled/installed: 06/25/91
6) Geologist: JOE FUGITT
7) Depth of boring (BLS): 4
8) Depth to water in borehole (BLS): 3.5
9) Highest open-borehole OVA/HNu reading (ppm): 0
10) Depth of well (BLS): NA
11) Length of well screen: NA
12) Length of casing (BLS): NA
13) Approx. height of casing above land surface: NA
14) Depth to water in well (BTOC): NA
15) Elevation of TOC: NA
16) Water level elevation: NA
17) Date groundwater sampled:
18) pH (units): NA
19) Temperature (degrees C): NA
20) Specific conductance (umhos/cm): NA
21) Borehole/Well abandonment method: Backfilled with cuttings.
22) Comments:

BOREHOLE LITHOLOGIC LOG

Sample Depth (BLS)	Sample Description
0- 0.25	Asphalt.
0.25- 2.0	Brown silty sand, fine to medium grained with small pebbles.
2.0- 4.0	White sand, fine to medium grained. Water at 3.5 ft.

Notes: All depths, lengths, heights, and elevations are measured in feet. All boreholes are 4 inches in diameter. All well casings and screens are 2-inch-diameter; well screen slot sizes are .010 inches. No annular material (i.e. filter pack, seal or grout) was used in well installation. Unless otherwise noted, all sand grains are quartz.

NA = not applicable
SSA = solid stem auger
HA = hand auger

BLS = below land surface
TOC = top of casing
BTOC = below top of casing

..-

SOIL BORING/TEMPORARY MONITORING WELL INFORHATION

1) Site no.: 09
2) Boring no./Well no.: PO9BO13/PO9TWO13
3) Drilling firm: Griner Drilling Service
4) Drilling method: SSA
5) Date drilled/installed: 06/25/91
6) Geologist: JOE FUGITT
7) Depth of boring (BLS): 9
8) Depth to water in borehole (BLS): 4
9) Highest open-borehole OVA/HNu reading (ppm): 0
10) Depth of well (BLS): 7.23
11) Length of well screen: 5
12) Length of casing (BLS): 2.23
13) Approx. height of casing above land surface: 2.58
14) Depth to water in well (BTOC): 5.51
15) Elevation of TOC: 9.47
16) Water level elevation: 3.96
17) Date groundwater sampled: 06/25/91
18) pH (units): 6.0
19) Temperature (degrees C): 29
20) Specific conductance (umhos/cm): 100
21) Borehole/Well abandonment method: Backfilled with cuttings.
22) Comments:

BOREHOLE LITHOLOGIC LOG

Sample Depth (BLS)	Sample Description
0- 0.5	Brown silty sand, fine to medium grained.
0.5- 1.5	Tan sand, fine to medium grained.
1.5- 9.0	White sand, fine to medium grained. Wet at 4 ft.

Notes: All depths, lengths, heights, and elevations are measured in feet. All boreholes are 4 inches in diameter. All well casings and screens are 2-inch-diameter; well screen slot sizes are .010 inches. No annular material (i.e. filter pack, seal or grout) was used in well installation. Unless otherwise noted, all sand grains are quartz.

NA = not applicable
SSA = solid stem auger
EA = hand auger

BLS = below land surface
TOC = top of casing
BTOC = below top of casing

SOIL BORING/TEMPORARY MONITORING WELL INFORMATION

1) Site no.: 09
2) Boring no./Well no.: P09B014/P09TW014
3) Drilling firm: Griner Drilling Service
4) Drilling method: SSA
5) Date drilled/installed: 06/25/91
6) Geologist: JOE FUGITT
7) Depth of boring (BLS): 8.5
8) Depth to water in borehole (BLS): 3.5
9) Highest open-borehole OVA/HNu reading (ppm): 0
10) Depth of well (BLS): 5.91
11) Length of well screen: 5
12) Length of casing (BLS): 0.91
13) Approx. height of casing above land surface: 3.26
14) Depth to water in well (BTOC): 5.59
15) Elevation of TOC: 9.18
16) Water level elevation: 3.59
17) Date groundwater sampled: 06/25/91
18) pH (units): 6.2
19) Temperature (degrees C): 30
20) Specific conductance (umhos/cm): 200
21) Borehole/Well abandonment method: Backfilled with cuttings.
22) Comments:

BOREHOLE LITHOLOGIC LOG

Sample Depth (BLS)	Sample Description
0- 0.5	Brown silty sand, fine to medium grained.
0.5- 8.5	White sand, fine to medium grained. Wet at 3.5 ft.

Notes: All depths, lengths, heights, and elevations are measured in feet. All boreholes are 4 inches in diameter. All well casings and screens are 2-inch-diameter; well screen slot sizes are .010 inches. No annular material (i.e. filter pack, seal or grout) was used in well installation. Unless otherwise noted, all sand grains are quartz.

NA = not applicable
SSA = solid stem auger
HA = hand auger

BLS = below land surface
TOC = top of casing
BTOC = below top of casing

SOIL BORING/TEMPORARY MONITORING WELL INFORMATION

1) Site no.: 09
2) Boring no./Well no.: P09B015/P09TW015
3) Drilling firm: Griner Drilling Service
4) Drilling method: SSA
5) Date drilled/installed: 06/25/91
6) Geologist: JOB FUGITT
7) Depth of boring (BLS): 8.5
8) Depth to water in borehole (BLS): 3.5
9) Highest open-borehole OVA/HNu reading (ppm): 0
10) Depth of well (BLS): 6.78
11) Length of well screen: 5
12) Length of casing (BLS): 1.78
13) Approx. height of casing above land surface: 3.10
14) Depth to water in well (BTOC): 5.51
15) Elevation of TOC: 9.23
16) Water level elevation: 3.72
17) Date groundwater sampled: 06/25/91
18) pH (units): 5.9
19) Temperature (degrees C): 27
20) Specific conductance (umhos/cm): 70
21) Borehole/Well abandonment method: Backfilled with cuttings.
22) Comments:

BOREHOLE LITHOLOGIC LOG

Sample Depth (BLS)	Sample Description
0- 0.5	Dark brown silty sand, fine to medium grained.
0.5- 8.5	White sand, fine to medium grained. Water at 3.5 ft.

Notes: All depths, lengths, heights, and elevations are measured in feet. All boreholes are 4 inches in diameter. All well casings and screens are 2-inch-diameter; well screen slot sizes are .010 inches. No annular material (i.e. filter pack, seal or grout) was used in well installation. Unless otherwise noted, all sand grains are quartz.

NA = not applicable
SSA = solid stem auger
HA = hand auger

BLS = below land surface
TOC = top of casing
BTOC = below top of casing

C

APPENDIX C

SOIL SAMPLING
ANALYTICAL SCREENING RESULTS

MEMORANDUM

TO: John Barksdale

FROM: Gary Hahn Gary Hahn/kr

DATE: July 9, 1991

SUBJECT: UH-8000 Pensacola Report

RE: 9101.494

CC: Lab File

Attached is the laboratory report of the analysis conducted on eleven samples received at the Analytical Services Center on June 25, 1991. Analysis was performed according to the screening procedures set forth in "Generic Quality Assurance Project Plan, Contamination Assessments and Remedial Activities, Naval Air Station Pensacola, Pensacola, Florida," July 1990.

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/kr
Enclosure

MEMORANDUM

TO: John Barksdale

FROM: Gary Hahn

DATE: July 18, 1991

SUBJECT: UH-8000 Pensacola Report

RE: 9101.509

CC: Lab File

Attached is the laboratory report of the analysis conducted on tvelve samples received at the Analytical Services Center on June 26, 1991. Analysis vas performed according to the screening procedures set forth in "Generic Quality Assurance Project Plan, Contamination Assessments and Remedial Activities, Naval Air Station Pensacola, Pensacola, Florida," July 1990.

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 othervise 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, vith such charges accruing until destruction of the samples is authorized by the client.

GH/kr
Enclosure

0000762

Job # 9101. 494
Sample Range → 14352 → 14362

ecology and environment, inc.
PLEASANTVIEW DRIVE, LANCASTER, NEW YORK 14086, TEL. 716/684-8060
International Specialists in the Environment

CHAIN-OF-CUSTODY RECORD

Project No.: UH 8010
Project Name: NASP Phase I Group F.
Project Manager: John Barksdale
Samplers: (Signatures) Joseph Fugitt, Daniel Gassaki
Field Team Leader: Joe Fugitt

STATION NUMBER	DATE 1991	TIME	SAMPLE TYPE COMP	GRAB	AIR	SAMPLE INFORMATION EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	SCREENING VOCs	SCREEN - PAHs	SCREEN - Phenols	SCREEN - Pesticides & PCBs	SCREEN - TRPHs	SCREEN - Metals	REMARKS
S001A	6/24	0845	X			LOW	SITE 9 BORING 1	3	X	X	X	X	X	X	
S002A		0920					2								Samples preserved on ice at 4° C
S002AD		0920					2								
S003A		1005					3								
S004A		1027					4								
S005A		1111					5								
S006A		1138					6								QA/QC
S007A		1430					7								VOAs Lot # 1123033
S008A		1454					8								QC # 10353C
S009A		1520					9								8oz jars Lot # X0331013
S010A		1550					10								QC # X0942C

Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Ship Via
J.F. Fugitt	6/24/91 1750	FedEx				FEDERAL EXPRESS
Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	BL/Airbill Number: 0776544094
Relinquished By: (Signature) FedEx	Date/Time: 0930 6.25.91	Received For Laboratory By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)	Date: 6/24/91

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

234055

Job # 9101.509

Sampl RANGE 14509 – 14520

ecology and environment, inc.

388 PLEASANTVIEW DRIVE, LANCASTER, NEW YORK 14086, TEL. 716/684-8060
International Specialists in the Environment

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project No.	Project Name	Project Manager
UH8010	NASP PHASE I Gp. F Sites	John Barksdale

Sampler(s) (Signatures): Daniel Carsolia

Field Team Leader: Joe Fugitt

STATION NUMBER	DATE 1991	TIME	SAMPLE TYPE COMP	GRAB	AIR	SAMPLE INFORMATION EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	Screening VOCs	Screening metals	Screening PAHs	Screening Phenols	Screening Pesticides and PCBs	TRPHs	EM m c
S011A	6/25	0755	X			Low	Site 9 Boring 11	3	X	X	X	X	X	X	
S012A		0836					Site 9 12								Samples preserved on ice to 4° C.
S013A		0912					Site 9 13								
S014A		0954					Site 9 14								
S015A		1328					Site 9 15								Sample jars QA/QC #s
S001A		1430					Site 23 1								
S001AD		1430					Site 23 1 dup								VOAs: Lot # 1123063
S002A		1535					Site 23 2								QC# 10355C
S003A		1616					Site 23 3								8 oz jars: Lot# 1091051
															QC# 10242C

Separate Job

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Ship Via
Joseph F. Fugitt	6/25/91 1730	Fed Ex				FEDERAL EXPRESS
Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	BL/Airbill Number: 0776546142
Relinquished By: (Signature)	Date/Time: 6/26	Received For Laboratory By: (Signature)	Relinquished By: (Signature)	Date/Time	Received For Laboratory By: (Signature)	Date: 6/25/91
Fed Ex	6-26-91					

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

*See CONCENTRATION RANGE on back of form.

234055

00000003

JOB NUMBER : 9101.494

Ecology and Environment, Inc.
SAMPLE TRACKING REPORT

LAB SAMPLE ID	CLIENT SAHPLE ID	TEST CODE	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED
14352.01	P09-S001A	SPNPRGl	06/24/91		06/26/91
14352.02	P09-S001A	SPNTPHl	06/24/91		06/26/91
14352.03	P09-S001A	SPNMET1	06/24/91		06/27/91
		SPNP&P1	06/24/91		06/28/91
		SPNPAH1	06/24/91		06/29/91
		SPNPHL1	06/24/91		06/29/91
14353.01	P09-S002A	SPNPRGl	06/24/91		06/26/91
14353.02	P09-S002A	SPNTPHl	06/24/91		06/26/91
14353.03	P09-S002A	SPNMET1	06/24/91		06/27/91
		SPNP&P1	06/24/91		06/28/91
		SPNPAHl	06/24/91		06/29/91
		SPNPHLl	06/24/91		06/29/91
14354.01	P09-S002AD	SPNPRGl	06/24/91		06/26/91
14354.02	P09-S002AD	SPNTPH1	06/24/91		06/27/91
14354.03	P09-S002AD	SPNMETl	06/24/91		06/27/91
		SPNP&P1	06/24/91		06/28/91
		SPNPAH1	06/24/91		06/29/91
		SPNPHL1	06/24/91		06/29/91
14355.01	P09-S003A	SPNPRGl	06/24/91		06/26/91
14355.02	P09-S003A	SPNTPHl	06/24/91		06/27/91
14355.03	P09-S003A	SPNMETl	06/24/91		06/27/91
		SPNP&P1	06/24/91		06/28/91
		SPNPAH1	06/24/91		06/29/91
		SPNPHL1	06/24/91		06/30/91
14356.01	P09-S004A	SPNPRGl	06/24/91		06/26/91
14356.02	P09-S004A	SPNTPHl	06/24/91		06/27/91
14356.03	P09-S004A	SPNMETl	06/24/91		06/27/91
		SPNP&P1	06/24/91		06/28/91
		SPNPAHl	06/24/91		06/29/91
		SPNPHLl	06/24/91		06/30/91
14357.01	P09-S005A	SPNPRGl	06/24/91		06/26/91
14357.02	P09-S005A	SPNTPHl	06/24/91		06/27/91
14357.03	P09-S005A	SPNMETl	06/24/91		06/27/91
		SPNP&P1	06/24/91		06/28/91
		SPNPAHl	06/24/91		06/29/91
		SPNPHLl	06/24/91		06/30/91
14358.01	P09-S006A	SPNPRGl	06/24/91		06/26/91
14358.02	P09-S006A	SPNTPHl	06/24/91		06/27/91
14358.03	P09-S006A	SPNMET1	06/24/91		06/27/91
		SPNP&P1	06/24/91		06/28/91
		SPNPAH1	06/24/91		06/29/91
		SPNPHLl	06/24/91		07/01/91
14359.01	P09-S007A	SPNPRGl	06/24/91		06/26/91
14359.02	P09-S007A	SPNTPHl	06/24/91		06/27/91
14359.03	P09-S007A	SPNMET1	06/24/91		06/27/91
		SPNP&P1	06/24/91		06/28/91
		SPNPAHl	06/24/91		06/29/91

JOB NUMBER : 9101.494

Ecology and Environment, Inc.
SAMPLE TRACKING REPORT

LAB SAMPLE ID	CLIENT SAMPLE ID	TEST CODE	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED
14359.03	P09-S007A	SPNPHL1	06/24/91		07/01/91
14360.01	P09-S008A	SPNPRG1	06/24/91		06/27/91
14360.02	P09-S008A	SPNTPH1	06/24/91		06/27/91
14360.03	P09-S008A	SPNMET1	06/24/91		06/27/91
		SPNP&P1	06/24/91		06/28/91
		SPNPAH1	06/24/91		06/29/91
		SPNPHL1	06/24/91		07/01/91
14361.01	P09-S009A	SPNPRG1	06/24/91		06/27/91
14361.02	P09-S009A	SPNTPH1	06/24/91		06/27/91
14361.03	P09-S009A	SPNMET1	06/24/91		06/27/91
		SPNP&P1	06/24/91		06/28/91
		SPNPAH1	06/24/91		06/29/91
		SPNPHL1	06/24/91		07/01/91
14362.01	P09-S010A	SPNPRG1	06/24/91		06/27/91
14362.02	P09-S010A	SPNTPH1	06/24/91		06/27/91
14362.03	P09-S010A	SPNMET1	06/24/91		06/27/91
		SPNP&P1	06/24/91		06/28/91
		SPNPAH1	06/24/91		06/29/91
		SPNPHL1	06/24/91		07/01/91

0000764

JOB NUMBER : 9101.509

Ecology and Environment, Inc.
SAHPLE TRACKING REPORT

LAB SAMPLE ID	CLIENT SAMPLE ID	TEST CODE	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED
14509.01	P09-GW008	WPNPRG1	06/25/91		06/28/91
14509.03	P09-GW008	WPNP&P1	06/25/91		07/04/91
		WPNPAH1	06/25/91		07/10/91
		WPNPHL1	06/25/91		07/05/91
14509.04	P09-GW008	WPNTPH1	06/25/91		06/27/91
14509.05	P09-GW008	WPNMET1	06/25/91		06/28/91
14510.01	P09-GW010	WPNPRG1	06/25/91		06/28/91
14510.03	P09-GW010	WPNP&P1	06/25/91		07/04/91
		WPNPAH1	06/25/91		07/10/91
		VPNPHL1	06/25/91		07/05/91
14510.04	P09-GW010	WPNTPH1	06/25/91		06/27/91
14510.05	P09-GW010	VPNMET1	06/25/91		06/28/91
14511.01	P09-GW011	WPNPRG1	06/25/91		07/01/91
14511.03	P09-GW011	WPNP&P1	06/25/91		07/04/91
		WPNPAH1	06/25/91		07/10/91
		WPNPHL1	06/25/91		07/05/91
14511.04	P09-GW011	WPNTPH1	06/25/91		06/27/91
14511.05	P09-GW011	WPNMET1	06/25/91		06/28/91
14512.01	P09-GW011D	WPNPRG1	06/25/91		07/01/91
14512.03	P09-GW011D	WPNP&P1	06/25/91		07/04/91
		WPNPAH1	06/25/91		07/10/91
		WPNPHL1	06/25/91		07/05/91
14512.04	P09-GW011D	WPNTPH1	06/25/91		06/27/91
14512.05	P09-GW011D	WPNMET1	06/25/91		06/28/91
14513.01	P09-GW013	WPNPRG1	06/25/91		07/01/91
14513.03	P09-GW013	WPNPLP1	06/25/91		07/04/91
		WPNPAH1	06/25/91		07/10/91
		WPNPHL1	06/25/91		07/05/91
14513.04	P09-GW013	WPNTPH1	06/25/91		06/27/91
14513.05	P09-GW013	WPNMET1	06/25/91		06/28/91
14514.01	P09-GW014	WPNPRG1	06/25/91		07/01/91
14514.03	P09-GW014	WPNP&P1	06/25/91		07/04/91
		WPNPAH1	06/25/91		07/10/91
		WPNPHL1	06/25/91		07/05/91
14514.04	P09-GW014	WPNTPH1	06/25/91		06/27/91
14514.05	P09-GW014	WPNMET1	06/25/91		06/28/91
14515.01	P09-GW015	WPNPRG1	06/25/91		07/01/91
14515.03	P09-GW015	WPNP&P1	06/25/91		07/04/91
		WPNPAH1	06/25/91		07/10/91
		WPNPHL1	06/25/91		07/05/91
14515.04	P09-GW015	WPNTPH1	06/25/91		06/27/91
14515.05	P09-GW015	WPNMET1	06/25/91		06/28/91
14516.01	P09-S011A	SPNPRG1	06/25/91		07/01/91
14516.02	P09-S011A	SPNTPH1	06/25/91		06/28/91
14516.03	P09-S011A	SPNMET1	06/25/91		06/28/91
		SPNPLP1	06/25/91		07/02/91
		SPNPAH1	06/25/91		07/08/91

JOB NUMBER : 9101.509

Ecology and Environment, Inc.
SAMPLE TRACKING REPORT

LAB SAMPLE ID	CLIENT SAMPLE ID	TEST CODE	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED
14516.03	P09-S011A	SPNPHL1	06/25/91		07/04/91
14517.01	P09-S012A	SPNPRGl	06/25/91		07/02/91
14517.02	P09-S012A	SPNTPH1	06/25/91		06/28/91
14517.03	P09-S012A	SPNMET1	06/25/91		06/28/91
		SPNP&P1	06/25/91		07/02/91
		SPNPAH1	06/25/91		07/08/91
		SPNPHLl	06/25/91		07/04/91
14518.01	P09-S013A	SPNPRGl	06/25/91		07/02/91
14518.02	P09-S013A	SPNTPH1	06/25/91		06/28/91
14518.03	P09-S013A	SPNMET1	06/25/91		06/28/91
		SPNP&P1	06/25/91		07/02/91
		SPNPAH1	06/25/91		07/08/91
		SPNPHLl	06/25/91		07/04/91
14519.01	P09-S014A	SPNPRGl	06/25/91		07/02/91
14519.02	P09-S014A	SPNTPH1	06/25/91		06/28/91
14519.03	P09-S014A	SPNMET1	06/25/91		06/28/91
		SPNP&P1	06/25/91		07/02/91
		SPNPAH1	06/25/91		07/09/91
		SPNPHLl	06/25/91		07/04/91
14520.01	P09-S015A	SPNPRGl	06/25/91		07/02/91
14520.02	P09-S015A	SPNTPH1	06/25/91		06/28/91
14520.03	P09-S015A	SPNMET1	06/25/91		06/28/91
		SPNP&P1	06/25/91		07/02/91
		SPNPAH1	06/25/91		07/09/91
		SPNPHLl	06/25/91		07/04/91

recycled paper

ecology and environment

JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN WET WEIGHT
SAMPLE ID LAB : €E-91-14352 MATRIX: SOLID
SAMPLE ID CLIENT: P09-S001A

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
Arsenic	8.6		6.0	MG/KG
Chromium	1.8		1.0	MG/KG
Zinc	4.3		2.0	MG/KG
Lead	14		4.0	MG/KG
Cadmium	ND		0.50	MG/KG
Nickel	13		4.0	MG/KG
Copper	ND		2.5	MG/KG
Silver	ND		1.0	MG/KG

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

JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN WET WEIGHT
SAMPLE ID LAB : EE-91-14353 MATRIX: SOLID
SAMPLE ID CLIENT: P09-S002A

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
Arsenic	ND		6.0	MG/KG
Chromium	1.2		1.0	MG/KG
Zinc	13		2.0	MG/KG
Lead	32		4.0	MG/KG
Cadmium	0.62		0.50	MG/KG
Nickel	ND		4.0	MG/KG
Copper	2.9		2.5	MG/KG
Silver	ND		1.0	MG/KG

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

0000766

JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WIGHT
SAMPLE ID LAB : EE-91-14354 MATRIX: SOLID
SAMPLE ID CLIENT: P09-S002AD

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
Arsenic	ND		6.0	MG/KG
Chromium	1.9		1.0	MG/KG
Zinc	14		2.0	MG/KG
Lead	36		4.0	MG/KG
Cadmium	ND		0.50	MG/KG
Nickel	ND		4.0	MG/KG
Copper	4.3		2.5	MG/KG
Silver	ND		1.0	MG/KG

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

JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET VEIGET
SAHPLE ID LAB : EE-91-14355 MATRIX: SOLID
SAHPLE ID CLIENT: P09-S003A

PARAMETER	RBSULTS	Q	QNT. LIMIT	UNITS
Arsenic	ND		6.0	MG/KG
Chromium	2.9		1.0	MG/KG
Zinc	16		2.0	MG/KG
Lead	32		4.0	MG/KG
Cadmium	ND		0.50	MG/KG
Nickel	ND		4.0	MG/KG
Copper	2.6		2.5	MG/KG
Silver	ND		1.0	MG/KG

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

0000767

JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN WET WEIGHT
SAMPLE ID LAB : EE-91-14356 MATRIX: SOLID
SAMPLE ID CLIENT: P09-S004A

PARAMETER	RESULTS	a	QNT. LIMIT	UNITS
Arsenic	ND		6.0	MG/KG
Chromium	1.1		1.0	MG/KG
Zinc	ND		2.0	MG/KG
Lead	ND		4.0	MG/KG
Cadmium	ND		0.50	MG/KG
Nickel	ND		4.0	MG/KG
Copper	ND		2.5	MG/KG
Silver	ND		1.0	MG/KG

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

JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN VET WEIGHT
SMPLE ID LAB : EE-91-14357 MATRIX: SOLID
SAMPLE ID CLIENT: P09-S005A

PARAMETER	RESULTS	a	QNT. LIMIT	UNITS
Arsenic	ND		6.0	MG/KG
Chromium	3.6		1.0	MG/KG
Zinc	2.2		2.0	MG/KG
Lead	ND		4.0	MG/KG
Cadmium	ND		0.50	MG/KG
Nickel	ND		4.0	MG/KG
Copper	ND		2.5	MG/KG
Silver	ND		1.0	MG/KG

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

0000768

JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
SAMPLE ID LAB : EE-91-14358 MATRIX: SOLID
SAMPLE ID CLIENT: P09-S006A

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
Arsenic	ND		6.0	MG/KG
Chromium	2.3		1.0	MG/KG
Zinc	3.0		2.0	MG/KG
Lead	12		4.0	MG/KG
Cadmium	ND		0.50	MG/KG
Nickel	ND		4.0	MG/KG
Copper	ND		2.5	MG/KG
Silver	ND		1.0	MG/KG

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

JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN VET WEIGHT
SAHPLE ID LAB : EE-91-14359 MATRIX: SOLID
SAHPLE ID CLIENT: P09-S007A

PARAMETER	RESULTS	Q	QNT. LIHIT	UNITS
Arsenic	ND		6.0	MG/KG
Chromium	5.2		1.0	MG/KG
Zinc	11		2.0	MG/KG
Lead	11		4.0	MG/KG
Cadmium	ND		0.50	MG/KG
Nickel	ND		4.0	MG/KG
Copper	4.6		2.5	MG/KG
Silver	ND		1.0	MG/KG

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

0000763

JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
SAMPLE ID LAB : EE-91-14360 MATRIX: SOLID
SAMPLE ID CLIENT: P09-S008A

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
Arsenic	ND		6.0	MG/KG
Chromium	ND		1.0	MG/KG
Zinc	9.4		2.0	MG/KG
Lead	75		4.0	MG/KG
Cadmium	ND		0.50	MG/KG
Nickel	ND		4.0	MG/KG
Copper	ND		2.5	MG/KG
Silver	ND		1.0	MG/KG

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

JOB NUMBER r9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN VET WEIGHT
SAMPLE ID LAB : EE-91-14361 MATRIX: SOLID
SAMPLE ID CLIENT: P09-S009A

PARAMETER	RESULTS	Q	QNT. LIHIT	UNITS
Arsenic	7.1		6.0	MG/KG
Chromium	1.7		1.0	MG/KG
Zinc	3.3		2.0	MG/KG
Lead	6.7		4.0	MG/KG
Cadmium	ND		0.50	MG/KG
Nickel	ND		4.0	MG/KG
Copper	ND		2.5	MG/KG
Silver	ND		1.0	MG/KG

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

0000770

JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
SAHPLE ID LAB : EE-91-14362 MATRIX: SOLID
SAMPLE ID CLIENT: P09-S010A

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
Arsenic	ND		6.0	MG/KG
Chromium	4.7		1.0	MG/KG
Zinc	ND		2.0	MG/KG
Lead	8.4		4.0	MG/KG
Cadmium	ND		0.50	MG/KG
Nickel	ND		4.0	MG/KG
Copper	ND		2.5	MG/KG
Silver	ND		1.0	MG/KG

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

JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN WET WEIGHT
SAMPLE ID LAB : EE-91-14516 MATRIX: SOLID
SAMPLE ID CLIENT: P09-S011A

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
Arsenic	ND		6.0	MG/KG
Chromium	ND		1.0	MG/KG
Zinc	4.0		2.0	MG/KG
&ad	ND		4.0	MG/KG
Cadmium	ND		0.50	MG/KG
Nickel	ND		4.0	MG/KG
Copper	4.9		2.5	MG/KG
Silver	ND		1.0	MG/KG

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

0000771

JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
SAMPLE ID LAB : EE-91-14517 MATRIX: SOLID
SAMPLE ID CLIENT: P09-S012A

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
Arsenic	ND		6.0	MG/KG
Chromium	3.4		1.0	MG/KG
Zinc	9.2		2.0	MG/KG
Lead	18		4.0	MG/KG
Cadmium	ND		0.50	MG/KG
Nickel	ND		4.0	MG/KG
Copper	2.7		2.5	MG/KG
Silver	ND		1.0	MG/KG

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

JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN VET WEIGHT
SAXPLE ID LAB : EE-91-14518 MATRIX: SOLID
SAMPLE ID CLIENT: P09-S013A

PARAMETER	RESULTS	Q	QNT. LIXIT	UNITS
Arsenic	ND		6.0	MG/KG
Chromium	ND		1.0	MG/KG
Zinc	ND		2.0	MG/KG
Lead	ND		4.0	MG/KG
Cadmium	ND		0.50	MG/KG
Nickel	ND		4.0	MG/KG
Copper	ND		2.5	MG/KG
Silver	ND		1.0	MG/KG

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

0000772

JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCE 2
RESULTS IN WET WEIGHT
SAMPLE ID LAB : EE-91-14519 MATRIX: SOLID
SAMPLE ID CLIENT: P09-S014A

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
Arsenic	ND		6.0	MG/KG
Chromium	ND		1.0	MG/KG
Zinc	3.5		2.0	MG/KG
Lead	ND		4.0	MG/KG
Cadmium	ND		0.50	MG/KG
Nickel	ND		4.0	MG/KG
Copper	ND		2.5	MG/KG
Silver	ND		1.0	MG/KG

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

JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
SAUPLE ID LAB : EE-91-14520 MATRIX: SOLID
SAMPLE ID CLIENT: P09-S015A

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
Arsenic	ND		6.0	MG/KG
Chromium	ND		1.0	MG/KG
Zinc	ND		2.0	MG/KG
Lead	6.6		4.0	MG/KG
Cadmium	ND		0.50	MG/KG
Nickel	ND		4.0	MG/KG
Copper	ND		2.5	MG/KG
Silver	ND		1.0	MG/KG

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

0000773

QUALITY CONTROL FOR PRECISION
RESULTS OF ANALYSIS OF REPLICATE
ANALYSES OF SOLID SAHPLES

9101.509

(mg/kg)

Parameter	E & E Laboratory No. 91-14518	Original Analysis	Replicate Analysis	Relative Percent Difference (RPD)
Arsenic		ND	ND	NC
Chromium		ND	1.4	NC
Zinc		ND	ND	NC
Lead		ND	4.7	NC
Cadmium		ND	ND	NC
Nickel		ND	ND	NC
Copper		ND	ND	NC
Silver		ND	ND	NC

ND = NOT DETECTED

NC = NOT CALCULABLE

NOTE: ALTHOUGH RESULTS ARE REPORTED AS ROUNDED VALUES, RPD's ARE CALCULATED DIRECTLY FROM THE RAW DATA.

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY
FOR SPIKED SOLID SAMPLES

9101.509

(mg/kg)

Parameter	E & E Laboratory No. 91-14518	Original Value	Amount Added	Amount Determined	Percent Recovery
Arsenic		ND	200	200	99
Chromium		ND	20	22	111
Zinc		ND	50	49	97
Lead		ND	50	50	101
Cadmium		ND	5.0	4.8	96
Nickel		ND	50	48	96
Copper		ND	25	25	100
Silver		ND	5.0	4.9	97

ND = NOT DETECTED

** = RECOVERY NOT DETERMINED BECAUSE SAMPLE MOUNT IS FOUR OR MORE TIMES GREATER THAN SPIKE AMOUNT.

NOTE: ALTAOUGB RESULTS ARE REPORTED AS ROUNDED VALUES, PERCENT RECOVERIES ARE CALCULATED DIRECTLY FROM THE RAW DATA.

0000774

JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
SAMPLE ID LAB : METHOD BLANK MATRIX: SOLID

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
Arsenic	ND		6.0	MG/KG
Chromium	ND		1.0	MG/KG
Zinc	ND		2.0	MG/KG
Lead	4.9		4.0	MG/KG
Cadmium	ND		0.50	MG/KG
Nickel	ND		4.0	MG/KG
Copper	ND		2.5	MG/KG
Silver	ND		1.0	MG/KG

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

JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN WET WEIGHT
SAMPLE ID LAB : METHOD BLANK MATRIX: SOLID

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
Arsenic	ND		6.0	MG/KG
Chromium	ND		1.0	MG/KG
Zinc	ND		2.0	MG/KG
Lead	ND		4.0	MG/KG
Cadmium	ND		0.50	MG/KG
Nickel	ND		4.0	MG/KG
Copper	ND		2.5	MG/KG
Silver	ND		1.0	MG/KG

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

0000775

recycled paper

JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
SAMPLE ID LAB :EE-91-14352 MATRIX: SOLID
SAMPLE ID CLIENT: P09-S001A

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
TRPH	72		5.0	MG/KG

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

JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
SAHPLE ID LAB :EE-91-14353 MATRIX: SOLID
SAHPLE ID CLIENT: P09-S002A

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
TRPH	10		5.0	MG/KG

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

0000776

JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PRASE I BATCH 2
SAMPLE ID LAB :EE-91-14354 MATRIX: SOLID
SAMPLE ID CLIENT: P09-S002AD

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
TRPH	41		5.0	MG/KG

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

JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
SAMPLE ID LAB :EE-91-14355 MATRIX: SOLID
SAMPLE ID CLIENT: P09-S003A

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
TRPH	180		5.0	MG/KG

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

0000777

JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCE 2
SAMPLE ID LAB :EE-91-14356 MATRIX: SOLID
SAMPLE ID CLIENT: P09-S004A

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
TRPH	5.3		5.0	MG/KG

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

JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
SAMPLE ID LAB :EE-91-14357 MATRIX: SOLID
SAMPLE ID CLIENT: P09-S005A

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
TRPH	ND		5.0	MG/KG

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

0000778

JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
SAXPLE ID LAB :EE-91-14358 MATRIX: SOLID
SAMPLE ID CLIENT: P09-S006A

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
TRPH	ND		5.0	MG/KG

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

JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
SAMPLE ID LAB :EE-91-14359 MTRIX: SOLID
SAMPLE ID CLIENT: P09-S007A

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
TRPH	98		5.0	MG/KG

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

0000779

JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
SAHPLE ID LAB :EE-91-14360 MATRIX: SOLID
SAMPLE ID CLIENT: P09-S008A

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
TRPH	59		5.0	MG/KG

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

JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
SAMPLE ID LAB :EE-91-14361 MATRIX: SOLID
SAMPLE ID CLIENT: P09-S009A

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
TRPH	14		5.0	MG/KG

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

0000780

JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
SAMPLE ID LAB :EE-91-14362 MATRIX: SOLID
SAMPLE ID CLIENT: P09-S010A

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
TRPH	ND		5.0	MG/KG

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

JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
SAMPLE ID LAB :EE-91-14516 MATRIX: SOLID
SMPLE ID CLIENT: P09-S011A

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
TRPH	9.3		5.0	MG/KG

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

0000731

JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
SAMPLE ID LAB :EE-91-14517 MATRIX: SOLID
SAMPLE ID CLIENT: P09-S012A

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
TRPH	63		5.0	MG/KG

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

JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASB I BATCB 2
SAMPLE ID LAB :EE-91-14518 MATRIX: SOLID
SAMPLE ID CLIENT: P09-S013A

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
TRPH	ND		5.0	MG/KG

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

0000782

JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PMSE I BATCH 2
SAMPLE ID LAB :EE-91-14519 MATRIX: SOLID
SAMPLE ID CLIENT: P09-S014A

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
TRPH	11		5.0	MG/KG

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

JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UR-8000 NASP - PHASE I BATCH 2
SAMPLE ID LAB :EE-91-14520 MATRIX: SOLID
SAMPLE ID CLIENT: P09-S015A

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
TRPH	ND		5.0	MG/KG

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

0000733

QUALITY CONTROL FOR PRECISION RESULTS OF ANALYSIS OF REPLICATE ANALYSES OF SOLID SAMPLES

9101.494

(mg/kg)

Parameter	E & E Laboratory No. 91-	Original Analysis	Replicate Analysis	Relative Percent Difference (RPD)
T. Recoverable Petroleum Eydrocarbons				
	14362	ND	ND	NC

ND = NOT DETECTED

NOTE: ALTHOUGH RESULTS *ARE* REPORTED AS ROUNDED VALUES, RPD's ARE CALCULATED DIRECTLY FROM THE RAW DATA.

QUALITY CONTROL FOR PRECISION
RBSULTS OF ANALYSIS OF REPLICATE
ANALYSES OF SOLID SAMPLES

9101.509

(mg/kg)

Parameter	E & E Laboratory No. 91-	Original Analysis	Replicate Analysis	Relative Percent Difference (RPD)
T. Recoverable Petroleum Eydrocarbons				
	14517	63	71	11.0
	Batch QC	16	27	53.1

ND = NOT DETECTED

NC = NOT CALCULABLE

NOTE: ALTHOUGH RESULTS ARE REPORTED AS ROUNDED VALUES, RPD's ARE CALCULATED DIRECTLY FROM THE RAW DATA.

000078

recycled paper

ecology and environment

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY
FOR SPIKED SOLID SAMPLES

9101.494

(mg/kg)

Parameter	E & E Laboratory No. 91-	Original Value	Amount Added	Amount Determined	Percent Recovery
T. Recoverable Petroleum Eydrocarbons					
	Batch QC	ND	120	100	*80.4*
	Batch QC	ND	130	140	101

ND = NOT DETECTED

NOTE: ALTHOUGH RESULTS ARE REPORTED AS ROUNDED VALUES, PERCENT RECOVERIES ARE CALCULATED DIRECTLY FROM TEE RAW DATA.

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY FOR SPIKBD SOLID SAMPLES

9101.509

(mg/kg)

Parameter	E & E Laboratory No. 91-	Original Value	Amount Added	Amount Determined	Percent Recovery
T. Recoverable Petroleum Hydrocarbons					
	Batch QC	ND	130	120	93.0
	Batch QC	16	130	140	88.7

ND = NOT DETECTED

** = RECOVERY NOT DETERMINED BECAUSE SAMPLE AMOUNT IS FOUR OR MORE TIMES GREATER THAN SPIKE AMOUNT.

NOTE: ALTHOUGH RESULTS *ARE* REPORTED AS ROUNDED VALUES, PERCENT RECOVERIES ARE CALCULATED DIRECTLY FROM TEE RAV DATA.

TEST CODE :SPNPRG1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PURGABLES- GC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14352 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S001A

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzene	ND		1000
Toluene	ND		1000
Ethylbenzene	ND		1000
Total Xylenes	ND		1000
1,2 - Dichlorobenzene	ND		1000
1,3 - Dichlorobenzene	ND		1000
1,4 - Dichlorobenzene	ND		1000
1,1 - dichloroethene	ND		1000
Methylene Chloride	ND		1000
Trans-1,2, - Dichloroethene	ND		1000
1,1 - dichloroethanc	ND		1000
1,1,1 - Trichloroethane	ND		1000
1,2 - Dichloroethane	ND		1000
Trichloroethene	ND		1000
Tetrachloroethene	ND		1000
chlorobenzene	ND		1000

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

TEST CODE :SPNPRG1 JOB NUMBER t9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PURGABLES- GC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14353 MATRIX : SOLID
SAMPLB ID CLIENT: P09-S002A

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzene	ND		1000
Toluene	ND		1000
Ethylbenzene	ND		1000
Total Xylenes	ND		1000
1,2 - Dichlorobenzene	ND		1000
1,3 - Dichlorobenzene	ND		1000
1,4 - Dichlorobenzene	ND		1000
1,1 - dichloroethene	ND		1000
Methylene Chloride	ND		1000
Trans-1,2, - Dichloroethene	ND		1000
1,1 - dichloroethane	ND		1000
1,1,1 - Trichloroethane	ND		1000
1,2 - Dichloroethane	ND		1000
Trichloroethene	ND		1000
Tetrachlorocthene	ND		1000
chlorobenzene	ND		1000

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

0000786

TEST CODE :SPNPRG1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PURGABLES- GC UNITS : UG/KG
SAMPU ID LAB : EE-91-14354 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S002AD

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzene	ND		1000
Toluene	ND		1000
Ethylbenzene	ND		1000
Total Xylenes	ND		1000
1,2 - Dichlorobenzene	ND		1000
1,3 - Dichlorobenzene	ND		1000
1,4 - Dichlorobenzene	ND		1000
1,1 - dichloroethenc	ND		1000
Methylene Chloride	ND		1000
Trans-1,2, - Dichloroethene	ND		1000
1,1 - dichloroethane	ND		1000
1,1,1 - Trichloroethane	ND		1000
1,2 - Dichloroethane	ND		1000
Trichloroethene	ND		1000
Tetrachloroethene	ND		1000
chlorobenzene	ND		1000

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

TEST CODE :SPNPRG1 JOB NUMBER r9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PURGABLES- GC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14355 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S003A

PARAMETER	RESULTS	a	QNT. LIMIT
Benzene	ND		1000
Toluene	ND		1000
Ethylbenzcnc	ND		1000
Total Xylenes	ND		1000
1,2 - Dichlorobenzene	ND		1000
1,3 - Dichlorobenzene	ND		1000
1,4 - Dichlorobenzene	ND		1000
1,1 - dichloroethene	ND		1000
Methylene Chloride	ND		1000
Trans-1,2, - Dichloroethene	ND		1000
1,1 - dichloroethane	ND		1000
1,1,1 - Trichloroethane	ND		1000
1,2 - Dichloroethane	ND		1000
Trichloroethene	ND		1000
Tetrachloroethene	ND		1000
chlorobenzene	ND		1000

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

TEST CODE :SPNPRG1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PURGABLES- GC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14356 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S004A

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzene	ND		1000
Toluene	ND		1000
Ethylbenzene	ND		1000
Total Xylenes	ND		1000
1,2 - Dichlorobenzene	ND		1000
1,3 - Dichlorobenzene	ND		1000
1,4 - Dichlorobenzene	ND		1000
1,1 - dichloroethene	ND		1000
Methylene Chloride	ND		1000
Trans-1,2, - Dichloroethene	ND		1000
1,1 - dichloroethane	ND		1000
1,1,1 - Trichloroethane	ND		1000
1,2 - Dichloroethane	ND		1000
Trichloroethene	ND		1000
Tetrachloroethene	ND		1000
chlorobenzene	ND		1000

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

TEST CODE :SPNPRG1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN VET WEIGHT
TEST NAME : PNC PURGABLES- GC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14357 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S005A

PARAMETER	RESULTS	Q	QNT. LIHIT
Benzene	ND		1000
Toluene	ND		1000
Ethylbenzene	ND		1000
Total Xylenes	ND		1000
1,2 - Dichlorobenzene	ND		1000
1,3 - Dichlorobenzene	ND		1000
1,4 - Dichlorobenzene	ND		1000
1,1 - dichloroethene	ND		1000
Methylene Chloride	ND		1000
Trans-1,2, - Dichloroethene	ND		1000
1,1 - dichloroethane	ND		1000
1,1,1 - Trichloroethane	ND		1000
1,2 - Dichloroethane	ND		1000
Trichloroethene	ND		1000
Tetrachloroethcne	ND		1000
chlorobenzene	ND		1000

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

0000788

recycled paper

TEST CODB :SPNPRG1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PURGABLES- GC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14358 MATRIX : SOLID
SAXPLE ID CLIENT: P09-S006A

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzene	ND		1000
Toluene	ND		1000
Ethylbenzene	ND		1000
Total Xylenes	ND		1000
1,2 - Dichlorobenzene	ND		1000
1,3 - Dichlorobenzene	ND		1000
1,4 - Dichlorobenzene	ND		1000
1,1 - dichloroethene	ND		1000
Methylene Chloride	ND		1000
Trans-1,2, - Dichloroethene	ND		1000
1,1 - dichloroethane	ND		1000
1,1,1 - Trichloroethane	ND		1000
1,2 - Dichloroethane	ND		1000
Trichloroethene	ND		1000
Tetrachloroethene	ND		1000
chlorobenzene	ND		1000

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BUNK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :SPNPRG1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN VET WEIGHT
TEST NAME : PNC PURGABLES- GC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14359 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S007A

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzene	ND		1000
Toluene	ND		1000
Ethylbenzene	ND		1000
Total Xylenes	ND		1000
1,2 - Dichlorobenzene	ND		1000
1,3 - Dichlorobenzene	ND		1000
1,4 - Dichlorobenzene	ND		1000
1,1 - dichloroathene	ND		1000
Methylene Chloride	ND		1000
Trans-1.2, - Dichloroethene	ND		1000
1,1 - dichloroethane	ND		1000
1,1,1 - Trichloroethane	ND		1000
1,2 - Dichloroethane	ND		1000
Trichloroethene	ND		1000
Tetrachloroethene	ND		1000
chlorobenzene	ND		1000

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

TEST CODE :SPNPRG1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PURGABLES- GC UNITS : UG/KG
SAXPLE ID LAB : EE-91-14360 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S008A

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzene	ND		1000
Toluene	ND		1000
Ethylbenzene	ND		1000
Total Xylenes	ND		1000
1,2 - Dichlorobenzene	ND		1000
1,3 - Dichlorobenzene	ND		1000
1,4 - Dichlorobenzene	ND		1000
1,1 - dichloroethene	ND		1000
Methylene Chloride	ND		1000
Trans-1,2, - Dichloroethene	ND		1000
1,1 - dichloroethane	ND		1000
1,1,1 - Trichloroethane	ND		1000
1,2 - Dichloroethane	ND		1000
Trichloroethene	ND		1000
Tetrachloroethene	ND		1000
chlorobenzene	ND		1000

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

TEST CODE :SPNPRG1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PURGABLES- GC UNITS : UG/KG
SAMPLE ID LAB : BE-91-14361 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S009A

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzene	ND		1000
Toluene	ND		1000
Ethylbenzene	ND		1000
Total Xylenes	ND		1000
1,2 - Dichlorobenzene	ND		1000
1,3 - Dichlorobenzene	ND		1000
1,4 - Dichlorobenzene	N D .		1000
1,1 - dichlorocthene	ND		1000
Methylene Chloride	ND		1000
Trans-1.2, - Dichloroethene	ND		1000
1,1 - dichloroethane	ND		1000
1,1,1 - Trichloroethane	ND		1000
1,2 - Dichloroethane	ND		1000
Trichloroethenc	ND		1000
Tetrachloroethene	ND		1000
chlorobenzene	ND		1000

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

TEST CODE :SPNPRG1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PURGABLES- GC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14362 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S010A

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzene	ND		1000
Toluene	ND		1000
Ethylbenzene	ND		1000
Total Xylenes	ND		1000
1,2 - Dichlorobenzene	ND		1000
1,3 - Dichlorobenzene	ND		1000
1,4 - Dichlorobenzene	ND		1000
1,1 - dichloroethene	ND		1000
Methylene Chloride	ND		1000
Trans-1,2, - Dichloroethene	ND		1000
1,1 - dichloroethane	ND		1000
1,1,1 - Trichloroethane	ND		1000
1,2 - Dichloroethane	ND		1000
Trichloroethene	ND		1000
Tetrachloroethene	ND		1000
chlorobenzene	ND		1000

.....

QUALIFIERS: C = COMHENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

TEST CODE :SPNPRG1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PURGABLES- GC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14516 MATRIX : SOLID
SAHPLE ID CLIENT: P09-S011A

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzene	ND		1000
Toluene	ND		1000
Ethylbenzene	ND		1000
Total Xylenes	ND		1000
1,2 - Dichlorobenzene	ND		1000
1,3 - Dichlorobenzene	ND		1000
1,4 - Dichlorobenzene	ND		1000
1,1 - dichloroethene	ND		1000
Methylene Chloride	ND		1000
Trans-1,2, - Dichloroethene	ND		1000
1,1 - dichloroethane	ND		1000
1,1,1 - Trichlorocthane	ND		1000
1,2 - Dichloroethane	ND		1000
Trichloroethene	ND		1000
Tetrachloroethene	ND		1000
chlorobenzene	ND		1000

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

TEST CODE :SPNPRG1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PURGABLES- GC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14517 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S012A

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzene	ND		1000
Toluene	ND		1000
Ethylbenzene	ND		1000
Total Xylenes	ND		1000
1,2 - Dichlorobenzene	ND		1000
1,3 - Dichlorobenzene	ND		1000
1,4 - Dichlorobenzene	ND		1000
1,1 - dichloroethene	ND		1000
Methylene Chloride	ND		1000
Trans-1,2, - Dichloroethene	ND		1000
1,1 - dichloroethane	ND		1000
1,1,1 - Trichloroethane	ND		1000
1,2 - Dichloroethane	ND		1000
Trichloroethene	ND		1000
Tetrachloroethene	ND		1000
chlorobenzene	ND		1000

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

TEST CODE :SPNPRG1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PURGABLES- GC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14518 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S013A

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzene	ND		1000
Toluene	ND		1000
Ethylbenzene	ND		1000
Total Xylenes	ND		1000
1,2 - Dichlorobenzene	ND		1000
1,3 - Dichlorobenzene	ND		1000
1,4 - Dichlorobenzene	ND		1000
1,1 - dichloroethene	ND		1000
Methylene Chloride	ND		1000
Trans-1,2, - Dichloroethene	ND		1000
1,1 - dichloroethane	ND		1000
1,1,1 - Trichloroethane	ND		1000
1,2 - Dichloroethane	ND		1000
Trichloroethene	ND		1000
Tetrachloroethene	ND		1000
chlorobenzene	ND		1000

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

TEST CODE :SPNPRG1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PURGABLES- GC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14519 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S014A

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzene	ND		1000
Toluene	ND		1000
Ethylbenzene	ND		1000
Total Xylenes	ND		1000
1,2 - Dichlorobenzene	ND		1000
1,3 - Dichlorobenzene	ND		1000
1,4 - Dichlorobenzene	ND		1000
1,1 - dichloroethene	ND		1000
Methylene Chloride	ND		1000
Trans-1,2, - Dichloroethene	ND		1000
1,1 - dichloroethane	ND		1000
1,1,1 - Trichloroethane	ND		1000
1,2 - Dichloroethane	ND		1000
Trichloroethene	ND		1000
Tetrachloroethene	ND		1000
chlorobenzene	ND		1000

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

TEST CODE :SPNPRG1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAHE : PNC PURGABLES- GC UNITS : UG/KG
SAHPLE ID LAB : EE-91-14520 MATRIX : SOLID
SAHPLE ID CLIENT: P09-S015A

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzene	ND		1000
Toluene	ND		1000
Ethylbenzene	ND		1000
Total Xylenes	ND		1000
1,2 - Dichlorobenzene	ND		1000
1,3 - Dichlorobenzene	ND		1000
1,4 - Dichlorobenzene	ND		1000
1,1 - dichloroethene	ND		1000
Methylene Chloride	ND		1000
Trans-1,2, - Dichloroethene	ND		1000
1,1 - dichloroethane	ND		1000
1,1,1 - Trichloroethane	ND		1000
1,2 - Dichloroethane	ND		1000
Trichloroethene	ND		1000
Tetrachloroethene	ND		1000
chlorobenzene	ND		1000

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

0000793

QUALITY CONTROL FOR ACCURACY AND PRECISION:
PERCENT RECOVERY AND RELATIVE PERCENT DIFFERENCE (RPD)
OF SOIL MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MSD)
(Sample # 14362)

9101.494

(ug/kg)

Parameter	Original Value	Amount Added		Amount Determined		Percent Recovery		
		MS	MSD	MS	MSD	MS	MSD	RPD
Benzene	ND	2500	2500	2400	2600	96	104	8.0
Toluene	ND	2500	2500	2700	2900	108	116	7.1
Ethyl Benzene	ND	2500	2500	2500	2700	100	108	7.7
1.2-Dichlorobenzene	ND	2500	2500	2400	2500	96	100	4.1
1,3-Dichlorobenzene	ND	2500	2500	2400	2500	96	100	4.1
1,4-Dichlorobenzene	ND	2500	2500	2500	2500	100	100	0
1,1-Dichloroethene	ND	2500	2500	1100	1200	44	48	8.7
Methylene Chloride	ND	2500	2500	1900	2100	76	84	10
Trans-1,2-Dichloroethene	ND	2500	2500	1900	2100	76	84	10
1,1-Dichloroethane	ND	2500	2500	2900	2900	116	116	0
1,1,1-Trichloroethane	ND	2500	2500	2400	2600	96	104	8.0
1,2-Dichloroethane	ND	2500	2500	2400	2500	96	100	4.1
Trichloroethene	ND	2500	2500	2100	2400	84	96	13
Tetrachloroethene	ND	2500.	2500	2100	2200	84	88	4.7

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

ND = NOT DETECTED

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY OF SURROGATE SPIKES

9101.494

Compound	E & E Laboratory No. 91-	Percent Recovery
Trifluorotoluene	14352	102
	14353	99
	14354	108
	14355	99
	14356	90
	14357	58
	14358	101
	14359	93
	14360	96
	14361	86
	14362	91
	Method Blank	100
1,4-Dichlorobutane	14352	134
	14353	126
	14354	127
	14355	113
	14356	107
	14357	127
	14358	109
	14359	85
	14360	105
	14361	101
	14362	110
	Method Blank	100

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY OF SURROGATE SPIKES

9101.509

Compound	E & E Laboratory No. 91-	Percent Recovery
Trifluorotoluene	14516	66
	14517	85
	14518	90
	14519	84
	14520	87
	Method Blank	100
1,4-Dichlorobutane	14516	97
	14517	99
	14518	94
	14519	94
	14520	100
	Method Blank	100

TEST CODE :SPNPRG1 JOB NUMBER :9101.494

Ecology and Bnvironment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PURGABLES- GC UNITS : UG/KG
SAMPLE ID LAB : METHOD BLANK MATRIX :SOLID

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzene	ND		1000
Toluene	ND		1000
Ethylbenzene	ND		1000
Total Xylenes	ND		1000
1,2 - Dichlorobenzene	ND		1000
1,3 - Dichlorobenzene	ND		1000
1,4 - Dichlorobenzene	ND		1000
1,1 - dichloroethene	ND		1000
Hethylene Chloride	ND		1000
Trans-1,2, - Dichloroethenc	ND		1000
1,1 - dichloroethane	ND		1000
1,1,1 - Trichloroethane	ND		1000
1,2 - Dichloroethane	ND		1000
Trichloroethene	ND		1000
Tctrachlorocthene	ND		1000
chlorobenzene	ND		1000

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

TEST CODE :SPNPRG1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PURGAELES- GC UNITS : UG/KG
SAMPLE ID LAB : METHOD BLANK MATRIX : SOLID

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzene	ND		1000
Toluene	ND		1000
Ethylbenzene	ND		1000
Total Xylenes	ND		1000
1,2 - Dichlorobenzene	ND		1000
1,3 - Dichlorobenzene	ND		1000
1,4 - Dichlorobenzene	ND		1000
1,1 - dichloroethene	ND		1000
Methylene Chloride	ND		1000
Trans-1,2, - Dichloroethene	ND		1000
1,1 - dichloroethane	ND		1000
1,1,1 - Trichloroethane	ND		1000
1,2 - Dichloroethane	ND		1000
Trichloroethene	ND		1000
Tetrachloroethene	ND		1000
chlorobenzene	ND		1000

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

TEST CODE : SPNPAH1 JOB NUMBER : 9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PAH - LC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14352 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S001A

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Benzo-a-pyrene	ND		1000

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

TEST CODE : SPNPAH1 JOB NUMBER : 9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PAH - LC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14353 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S002A

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Benzo-a-pyrene	1400		1000

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

TEST CODE :SPNPAH1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCB 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PAH - LC UNITS : UG/KG
SAMPLE ID LAB : BE-91-14354 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S002AD

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Benzo-a-pyrene	2000		1000

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

0000797

TEST CODE : SPNPAH1 JOB NUMBER : 9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PAH - LC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14355 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S003A

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Benzo-a-pyrene	ND		1000

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

TEST CODE : SPNPAH1 JOB NUMBER : 9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PAE - LC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14356 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S004A

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Benzo-a-pyrene	ND		1000

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

TEST CODE : SPNPAH1 JOB NUMBER : 9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PAH - LC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14357 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S005A

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Benzo-a-pyrene	ND		1000

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

TEST CODE : SPNPAH1 JOB NUMBER : 9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN VET WEIGHT
TEST NAME : PNC PAH - LC UNITS : UG/KG
SAHPLE ID LAB : EE-91-14358 MATRIX : SOLID
SAMPLE ID CLIENT: **P09-S006A**

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Benzo-a-pyrene	ND		1000

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

TEST CODE :SPNPAH1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGET
TEST NAME : PNC PAR - LC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14359 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S007A

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Benzo-a-pyrene	ND		1000

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

TEST CODE :SPNPAH1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAHE : PNC PAH - LC UNITS : UG/KG
SAMPLE ID LAB : BE-91-14360 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S008A

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Benzo-a-pyrene	ND		1000

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

0000800

TEST CODE : SPNPAH1 JOB NUMBER : 9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PAH - LC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14361 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S009A

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Benzo-a-pyrene	ND		1000

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

TEST CODE :SPNPAH1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PAH - LC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14362 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S010A

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Benzo-a-pyrene	ND		1000

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

0000801

TEST CODE :SPNPAH1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAHE : PNC PAH - LC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14516 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S011A

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Benzo-a-pyrene	ND		1000

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

TEST CODE :SPNPAH1 JOB NUMBER :9101.509

Ecology and environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PAH - LC UNITS : UG/KG
SAMPLE ID LAB : E€-91-14517 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S012A

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Benzo-a-pyrene	ND		1000

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

0000802

TEST CODE :SPNPAH1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PAR - LC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14518 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S013A

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Benzo-a-pyrene	ND		1000

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

TEST CODE : SPNPAH1 JOB NUMBER : 9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PAR - LC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14519 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S014A

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Benzo-a-pyrene	ND		1000

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

0000803

TEST CODE : SPNPAH1 JOB NUMBER : 9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UE-8000 NASP - PHASE I BATCE 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PAH - LC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14520 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S015A

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Benzo-a-pyrene	ND		1000

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

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY FOR SPIKED SOIL SAMPLES

9101.494

(ug)

Parameter	E & E Laboratory No. 91-	Original Value	Amount Added	Amount Determined	Percent Recovery
Benzo(a)pyrene	14362 HS	ND	50	43	86

ND = NOT DETECTED

0000804

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY FOR SPIKED SOIL SAMPLES

9101.509

(ug)

Parameter	E & E Laboratory No. 91-	Original Value	Amount Added	Amount Determined	Percent Recovery
Benzo(a)pyrene	14517 MS	ND	50	49	98
	Batch QC	ND	50	40	96

ND = NOT DETECTED

TEST CODB :SPNPAH1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PAH - LC UNITS : UG/KG
SAMPLE ID LAB : HETHOD BLANK MATRIX : SOLID

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Benzo-a-pyrene	ND	-	1000

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LMIT

TEST CODE :SPNPAH1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PAH - LC UNITS : UG/KG
SAMPLE ID LAB : METHOD BLANK #1 MATRIX : SOLID

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Benzo-a-pyrene	ND		1000

.....

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

TEST CODE : SPNPAH1 JOB NUMBER : 9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN VET WEIGHT
TEST NAME : PNC PA6 - LC UNITS : UG/KG
SAMPLE ID LAB : METHOD BLANK #2 MATRIX : SOLID

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Benzo-a-pyrene	ND		1000

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

0000806

TEST CODE : SPNPHL1 JOB NUMBER : 9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PHENOL - LC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14352 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S001A

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Trichlorophenol	ND		2000

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

TEST CODE : SPNPHL1 JOB NUMBER : 9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET VEIGHT
TEST NAME : PNC PHENOL - LC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14353 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S002A

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Trichlorophenol	ND		2000

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

0000807

TEST CODE :SPNPHL1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PHENOL - LC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14354 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S002AD

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Trichlorophenol	ND		2000

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

TEST CODE :SPNPHL1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PHENOL - LC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14355 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S003A

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Trichlorophenol	ND		2000

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

0000808

TEST CODE : SPNPHL1 JOB NUMBER : 9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAHE : PNC PHENOL - LC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14356 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S004A

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Trichlorophenol	ND		2000

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

TEST CODE :SPNPHL1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PHENOL - LC UNITS : UG/KG
SAHPLE ID LAB : EE-91-14357 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S005A

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Trichlorophenol	ND		2000

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

TEST CODE : SPNPHL1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PHENOL - LC UNITS : UG/KG
SAXPLE ID LAB : EE-91-14358 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S006A

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Trichlorophenol	ND		2000

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

TEST CODE :SPNPHL1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NME : PNC PHENOL - LC UNITS : UG/KG
SMPLE ID LAB : EE-91-14359 MATRIX :SOLID
SAMPLE ID CLIENT: P09-S007A

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Trichlorophenol	ND		2000

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

0000810

recycled paper ecology and environment

TEST CODB : SPNPHL1 JOB NUMBER : 9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PHENOL - LC UNITS : UG/KG
SMPLE ID LAB : EE-91-14360 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S008A

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Trichlorophenol	ND		2000

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

TEST CODE :SPNPHL1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PEBNOL - LC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14361 XATRIX : SOLID
SAMPLE ID CLIENT: P09-S009A

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Trichlorophenol	ND		2000

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

0000011

TEST CODE :SPNPHL1 . JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN VET WEIGHT
TEST NAME : PNC PHENOL - LC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14362 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S010A

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Trichlorophenol	ND		2000

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

TEST CODE :SPNPHL1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCE 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PHENOL - LC UNITS : UG/KG
SAMPLE ID LAB : BE-91-14516 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S011A

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Trichlorophenol	ND		2000

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

0000812

TEST CODE :SPNPHL1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PHENOL - LC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14517 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S012A

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Trichlorophenol	ND		2000

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

TEST CODE : SPNPHL1 **JOB NUMBER** : 9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PHENOL - LC UNITS : UG/KG
SAMPLE ID **LAB** : EE-91-14518 **MATRIX** : SOLID
SAMPLE ID CLIENT: P09-S013A

PARAMETER	**RESULTS**	**Q**	**QNT. LIMIT**
Total as Trichlorophenol	**ND**		**2000**

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

TEST CODE :SPNPHL1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PHENOL - LC UNITS : UG/KG
SAMPLE ID LAB : EE-91-14519 MATRIX : SOLID
SAXPLE ID CLIENT: P09-S014A

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Trichlorophenol	ND		2000

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

TEST CODE :SPNPHL1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PHENOL - LC UNITS : UG/KG
SAHPLE ID LAB : EE-91-14520 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S015A

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Trichlorophenol	ND		2000

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

0000814

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY
FOR SPIKED SOIL SAMPLES

9101.494

(ug)

Parameter	E & E Laboratory No. 91- Blank #1	Original Value	Amount Added	Amount Determined	Percent Recovery
2,4,6-Trichlorophenol		ND	100	85	85

ND = NOT DETECTED

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY
FOR SPIKED SOIL SAMPLES

9101.494

(ug)

Parameter	E & E Laboratory No. 91-Blank #2	Original Value	Amount Added	Amount Determined	Percent Recovery
2,4,6-Trichlorophenol		ND	100	87	87

ND = NOT DETECTED

0000815

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY
FOR SPIKED SOIL SAMPLES

9101.509

(ug)

Parameter	E & E Laboratory No. 91- Blank Spike	Original Value	Amount Added	Amount Determined	Percent Recovery
2,4,6-Trichlorophenol		ND	200	190	95

ND = NOT DETECTED

TEST CODE :SPNPHL1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN VET WEIGHT
TEST NAME : PNC PHENOL - LC UNITS : UG/KG
SAMPLE ID LAB : METHOD BLANK #1 MATRIX : SOLID

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Trichlorophenol	ND		2000

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

0000816

TEST CODE : SPNPHL1 JOB NUMBER : 9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PHENOL - LC UNITS : UG/KG
SAHPLE ID LAB : METHOD BLANK #2 MATRIX : SOLID

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Trichlorophenol	ND		2000

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

TEST CODE :SPNPHL1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PHENOL - LC UNITS : UG/KG
SAMPLE ID LAB : METHOD BLANK MATRIX : SOLID

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Trichlorophenol	ND		2000

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

0000917

TEST CODE : SPNP&P1 JOB NUMBER : 9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UA-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PEST./PCB UNITS : UG/KG
SAMPLE ID LAB : EE-91-14352 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S001A

PARAMETER	RESULTS	Q	QNT. LIMIT
Heptachlor	ND		1000
Lindane	ND		1000
Aldrin	ND		1000
4,4 - DDT	ND		1000
Dieldrin	ND		1000
Endrin	ND		1000
Chlordane	ND		1000
4,4-DDE	ND		1000
Total PCBs	ND		5000

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

TEST CODE :SPNP&P1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASB I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PEST./PCB UNITS : UG/KG
SAMPLE ID LAB : BE-91-14353 HATRIX : SOLID
SAMPLE ID CLIENT: P09-S002A

PARAMETER	RESULTS	Q	QNT. LIMIT
Heptachlor	ND		1000
Lindane	ND		1000
Aldrin	ND		1000
4,4 - DDT	ND		1000
Dieldrin	ND		1000
Endrin	ND		1000
Chlordane	ND		1000
4,4-DDE	ND		1000
Total PCBs	ND		5000

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

0000818

TEST CODE :SPNP&P1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PEST./PCB UNITS : UG/KG
SAMPLE ID LAB : EE-91-14354 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S002AD

PARAMETER	RESULTS	Q	QNT. LIMIT
Heptachlor	ND		1000
Lindane	ND		1000
Aldrin	ND		1000
4,4 - DDT	ND		1000
Dieldrin	ND		1000
Endrin	ND		1000
Chlordane	ND		1000
4,4-DDE	ND		1000
Total PCBs	ND		5000

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

TEST CODE :SPNP&P1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN VET WEIGHT
TEST NAME : PNC PEST./PCB UNITS : UG/KG
SAMPLE ID LAB : BE-91-14355 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S003A

PARAMETER	RESULTS	Q	QNT. LIMIT
Heptachlor	ND		1000
Lindane	ND		1000
Aldrin	ND		1000
4,4 - DDT	ND		1000
Dieldrin	ND		1000
Endrin	ND		1000
Chlordane	ND		1000
4,4-DDE	ND		1000
Total PCBs	ND		5000

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

0000810

TEST CODE :SPNP&P1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PEST./PCB UNITS : UG/KG
SAMPLE ID LAB : EE-91-14356 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S004A

PARAMETER	RESULTS	Q	QNT. LIMIT
Eeptachlor	ND		1000
Lindane	ND		1000
Aldrin	ND		1000
4,4 - DDT	ND		1000
Dieldrin	ND		1000
Endrin	ND		1000
Chlordane	ND		1000
4,4-DDE	ND		1000
Total PCBs	ND		5000

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

TEST CODE :SPNP&P1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PEST./PCB UNITS : UG/KG
SAMPLE ID LAB : BE-91-14357 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S005A

PARAMETER	RESULTS	Q	QNT. LIHIT
Eeptachlor	ND		1000
Lindane	ND		1000
Aldrin	ND		1000
4,4 - DDT	ND		1000
Dicldrin	ND		1000
Endrin	ND		1000
Chlordane	ND		1000
4,4-DDE	ND		1000
Total PCBs	ND		5000

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

TEST CODE :SPNP&P1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT. : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PEST./PCB UNITS : UG/KG
SAMPLE ID LAB : EE-91-14358 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S006A

PARAMETER	RESULTS	Q	QNT. LIMIT
Heptachlor	ND		1000
Lindane	ND		1000
Aldrin	ND		1000
4,4 - DDT	ND		1000
Dieldrin	ND		1000
Endrin	ND		1000
Chlordane	ND		1000
4,4-DDE	ND		1000
Total PCBs	ND		5000

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

TEST CODE :SPNP&P1 JOB NUMBER :9101.494

Bcology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PEST./PCB UNITS : UG/KG
SAMPLE ID LAB : EE-91-14359 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S007A

PARAMETER	RESULTS	Q	QNT. LIMIT
Heptachlor	ND		1000
Lindane	ND		1000
Aldrin	ND		1000
4,4 - DDT	ND		1000
Dieldrin	ND		1000
Endrin	ND		1000
Chlordane	ND		1000
4,4-DDE	ND		1000
Total PCBs	ND		5000

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

0000821

TEST CODE :SPNP&P1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PEST./PCB UNITS : UG/KG
SAHPLE ID LAB : EE-91-14360 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S008A

PARAMETER	RESULTS	Q	QNT. LIMIT
Heptachlor	ND		1000
Lindane	ND		1000
Aldrin	ND		1000
4,4 - DDT	ND		1000
Dieldrin	ND		1000
Endrin	ND		1000
Chlordane	ND		1000
4,4-DDE	ND		1000
Total PCBs	ND		5000

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

TEST CODE :SPNP&P1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PEST./PCB UNITS : UG/KG
SAMPLE ID LAB : EE-91-14361 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S009A

PARAMETER	RESULTS	Q	QNT. LIMIT
Heptachlor	ND		1000
Lindane	ND		1000
Aldrin	ND		1000
4,4 - DDT	ND		1000
Dieldrin	ND		1000
Endrin	ND		1000
Chlordane	ND		1000
4,4-DDE	ND		1000
Total PCBs	ND		5000

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

0000822

TEST CODE : SPNP&P1 JOB NUMBER : 9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PEST./PCB UNITS : UG/KG
SMPLE ID LAB : EE-91-14362 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S010A

PARAMETER	RESULTS	Q	QNT. LIMIT
Heptachlor	ND		1000
Lindane	ND		1000
Aldrin	ND		1000
4,4 - DDT	ND		1000
Dieldrin	ND		1000
Endrin	ND		1000
Chlordane	ND		1000
4,4-DDE	ND		1000
Total PCBs	ND		5000

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

TEST CODE : SPNP&P1 JOB NUMBER : 9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NME : PNC PEST./PCB UNITS : UG/KG
SMPLE ID LAB : EE-91-14516 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S011A

PARAMETER	RESULTS	Q	QNT. LIMIT
Heptachlor	ND		1000
Lindane	ND		1000
Aldrin	ND		1000
4,4 - DDT	ND		1000
Dieldrin	ND		1000
Endrin	ND		1000
Chlordane	ND		1000
4,4-DDE	ND		1000
Total PCBs	ND		5000

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

0000520

TEST CODE : SPNP&P1 JOB NUMBER : 9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WIGHT
TEST NAME : PNC PEST./PCB UNITS : UG/KG
SAHPLE ID LAB : EE-91-14517 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S012A

PARAMETER	RESULTS	Q	QNT. LIMIT
Heptachlor	ND		1000
Lindane	ND		1000
Aldrin	ND		1000
4,4 - DDT	ND		1000
Dieldrin	ND		1000
Endrin	ND		1000
Chlordane	ND		1000
4,4-DDE	ND		1000
Total PCBs	ND		5000

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

TEST CODE :SPNP&P1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN VET WEIGHT
TEST NAME : PNC PEST./PCB UNITS : UG/KG
SAMPLE ID LAB : EE-91-14518 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S013A

PARAMETER	RESULTS	Q	QNT. LIMIT
Heptachlor	ND		1000
Lindane	ND		1000
Aldrin	ND		1000
4,4 - DDT	ND		1000
Dieldrin	ND		1000
Endrin	ND		1000
Chlordane	ND		1000
4,4-DDE	ND		1000
Total PCBs	ND		5000

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

00CC824

TEST CODE :SPNP&P1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PEST./PCB UNITS : UG/KG
SAMPLE ID LAB : EE-91-14519 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S014A

PARAMETER	RESULTS	Q	QNT. LIMIT
Heptachlor	ND		1000
Lindane	ND		1000
Aldrin	ND		1000
4,4 - DDT	ND		1000
Dieldrin	ND		1000
Endrin	ND		1000
Chlordane	ND		1000
4,4-DDE	ND		1000
Total PCBs	ND		5000

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

TEST CODE :SPNP&P1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PEST./PCB UNITS : UG/KG
SAMPLE ID LAB : EE-91-14520 MATRIX : SOLID
SAMPLE ID CLIENT: P09-S015A

PARAMETER	RESULTS	Q	QNT. LIMIT
Heptachlor	ND		1000
Lindane	ND		1000
Aldrin	ND		1000
4,4 - DDT	ND		1000
Dieldrin	ND		1000
Endrin	ND		1000
Chlordane	ND		1000
4,4-DDE	ND		1000
Total PCBs	ND		5000

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

0000925

QUALITY CONTROL FOR ACCURACY:
PERCENT RECOVERY OF SOIL MATRIX SPIKE
(Sample # 14360)

9101.494

Compound	Original Result	Amount Added	Amount Determined	Percent Recovery
		(ug/kg)		
Heptachlor	ND	400	461	115
Lindane	ND	400	460	115
Aldrin	ND	400	507	127
4,4'-DDT	ND	1000	1169	117
Dieldrin	ND	1000	1227	123
Endrin	ND	1000	1209	121
Chlordane	ND	- -	- -	NA
4,4'-DDE	ND	- -	- -	NA
PCB-1254	ND	5000	6355	128

ND = NOT DETECTED

NA = NOT APPLICABLE

QUALITY CONTROL FOR ACCURACY:
PERCENT RECOVERY OF SOIL MATRIX SPIKE
(Sample # 14517)

9101.509

Compound	Original Result	Amount Added	Amount Determined	Percent Recovery
		(ug/kg)		
Heptachlor	ND	400	418	104
Lindane	ND	400	407	102
Aldrin	ND	400	444	111
4,4'-DDT	ND	1000	1149	115
Dieldrin	ND	1000	1126	113
Endrin	ND	1000	1240	124
PCB-1254	ND	5000	6093	122

ND = NOT DETECTED

NA = NOT APPLICABLE

TEST CODE :SPNP&P1 JOB NUMBER :9101.494

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PEST./PCB UNITS : UG/KG
SAMPLE ID LAB : METHOD BLANK MATRIX : SOLID

PARAMETER	RESULTS	0	ONT. LIMIT
Heptachlor	ND		1000
Lindane	ND		1000
Aldrin	ND		1000
4,4 - DDT	ND		1000
Dieldrin	ND		1000
Endrin	ND		1000
Chlordane	ND		1000
4,4-DDE	ND		1000
Total PCBs	ND		5000

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

TEST CODE :SPNP&P1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
RESULTS IN WET WEIGHT
TEST NAME : PNC PEST./PCB UNITS : UG/KG
SAMPLE ID LAB : METHOD BLANK MATRIX : SOLID

PARAMETER	RESULTS	Q	QNT. LIMIT
Eeptachlor	ND		1000
Lindane	ND		1000
Aldrin	ND		1000
4,4 - DDT	ND		1000
Dieldrin	ND		1000
Endrin	ND		1000
Chlordane	ND		1000
4,4-DDE	ND		1000
Total PCBs	ND		5000

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

0000827

D

APPENDIX D

TEMPORARY MONITORING WELL GROUNDWATER SAMPLING ANALYTICAL SCREENING RESULTS

MEMORANDUM

TO: John Barksdale

FROM: Gary Hahn

DATE: July 18, 1991

SUBJECT: UH-8000 Pensacola Report

RE: 9101.509

CC: Lab File

Attached is the laboratory report of the analysis conducted on twelve samples received at the Analytical Services Center on June 26, 1991. Analysis was performed according to the screening procedures set forth in "Generic Quality Assurance Project Plan, Contamination Assessments and Remedial Activities, Naval Air Station Pensacola, Pensacola, Florida," July 1990.

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/kr
Enclosure

Analysis per site QAPP

See Miller

ecology and environment, inc.

368 PLEASANTVIEW DRIVE, LANCASTER, NEW YORK 14086, TEL. 716/684-8060
International Specialists in the Environment

CHAIN-OF-CUSTODY RECORD

Project No.: 1H8000
Project Name: NAS Pensacola
Project Manager: John Barksdale
Samplers: (Signatures)
Field Team Leader: Arnold C. Lamb

STATION NUMBER	DATE	TIME	SAMPLE TYPE COMP	GRAB	AIR	SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	Screening Metals	Screening Pesticides	Screening PAH's/Pest./PCB's	Screening VOC's	TRPH	REMARKS
TW011	6/25/91	0825		X		Low	TW011 site 9	5	X	X	X	X	X	VOA Lot # 1123033
TW011D	6/25/91	0825		X		↓	TW011 site 9	5	↓	↓	↓	↓	↓	QC# 10353C
TW010	6/25/91	1000		X			TW010 site 9	5						Liter poly Lot# 1092021
TW008	6/25/91	0755		X		↓ Sequential Line Station Bias	TW008 site 29	5						QC# 10230C
														Liter Amber Lot# 1109012
														QC# 10320C
														1/2 gal Amber Lot# 1094012
														QC# 10278C
						Preservative:								VOA's preserved with HCL <2
						HCL Mallinckrodt Lot# 5587KEGP								Metals preserved with HNO_3 <2
						HNO_3 Mallinckrodt Lot# 6623KCG								TRPH preserved with H_2SO_4 <2
						H_2SO_4 Mallinckrodt Lot# 6843KCBG								All samples packed in ICE <4°C

Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By (Signature)	Ship Via:
	6/25/91 1700	Fed Ex				FEDERAL EXPRESS
Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By (Signature)	BL/Airbill Number: 0776546116
Relinquished By: (Signature)	Date/Time: 0930 6-26-91	Received For Laboratory By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received For Laboratory By (Signature)	Date: 6/25/91

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

*See CONCENTRATION RANGE on back of form.

234055

Analysis as per site wrk?? See Jack Miller

ecology and environment, inc.

68 PLEASANTVIEW DRIVE, LANCASTER, NEW YORK 14086, TEL. 716/684-8060
International Specialists in the Environment

Page 1 of 1

CHAIN-OF-CUSTODY RECORD

Project Name:	NAS Pensacola Site 9 Gap F
Project Manager:	John Barksdale
Field Team Leader:	Arnold C. Lamb
(Signatures)	

DATE	TIME	SAMPLE TYPE COMP	GRAB	AIR	SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	Screening metals	Screening VOCs	Screening Phenols	Screening PAHs, Pest/PCBs	TRPH	REMARKS
6/25/91	1630		X		LW	TW014	5	X	X	X	X	X	VOA Lot# 1123033 QC# 10353C
6/25/91	1535		X			TW013	5						
6/25/91	1405		X			TW015	5						Liter poly Lot# 1092021 QC# 10230C
6/25/91	1325		X			TW008	5						Liter Amber Lot# 1109012 QC# 10320C
													1/2 gal Amber Lot# 1094012 QC# 10278C
					Preservative:								VOA's preserved with HCL <2
					HCL Mallinckrodt Lot# 5587 KEGP								metals preserved with HNO_3 <2
					HNO_3 Mallinckrodt Lot# 6623 KCG								TRPH preserved with H_2SO_4 <2
					H_2SO_4 Mallinckrodt Lot# 6843 KCBG								All Samples packed in ICE <4°c

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Ship Via	
	6/25/91 1700	Fed Ex				FEDERAL EXPRESS	
Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	BL/Airbill Number	Date
						0776546153	6/25/91
Relinquished By: (Signature)	Date/Time 0930 6-26-91	Received For Laboratory By: (Signature)	Relinquished By: (Signature)	Date/Time	Received For Laboratory By (Signature)		

234066

-2-

JOB NUMBER : 9101.509

Ecology and Environment, Inc.
SAMPLE TRACKING REPORT

LAB SAMPLE ID	CLIENT SAMPLE ID	TEST CODE	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED
14509.01	P09-GW008	WPNPRGl	06/25/91		06/28/91
14509.03	P09-GW008	WPNP&P1	06/25/91		07/04/91
		WPNPAH1	06/25/91		07/10/91
		WPNPHL1	06/25/91		07/05/91
14509.04	P09-GW008	WPNTPH1	06/25/91		06/27/91
14509.05	P09-GW008	WPNMET1	06/25/91		06/28/91
14510.01	P09-GW010	WPNPRGl	06/25/91		06/28/91
14510.03	P09-GW010	WPNP&P1	06/25/91		07/04/91
		WPNPAH1	06/25/91		07/10/91
		WPNPHL1	06/25/91		07/05/91
14510.04	P09-GW010	WPNTPH1	06/25/91		06/27/91
14510.05	P09-GW010	WPNMET1	06/25/91		06/28/91
14511.01	P09-GW011	WPNPRGl	06/25/91		07/01/91
14511.03	P09-GW011	WPNP&P1	06/25/91		07/04/91
		WPNPAH1	06/25/91		07/10/91
		WPNPHL1	06/25/91		07/05/91
14511.04	P09-GW011	WPNTPH1	06/25/91		06/27/91
14511.05	P09-GW011	WPNMET1	06/25/91		06/28/91
14512.01	P09-GW011D	WPNPRGl	06/25/91		07/01/91
14512.03	P09-GW011D	WPNP&P1	06/25/91		07/04/91
		WPNPAH1	06/25/91		07/10/91
		WPNPHL1	06/25/91		07/05/91
14512.04	P09-GW011D	WPNTPH1	06/25/91		06/27/91
14512.05	P09-GW011D	WPNMET1	06/25/91		06/28/91
14513.01	P09-GW013	WPNPRG1	06/25/91		07/01/91
14513.03	P09-GW013	WPNP&P1	06/25/91		07/04/91
		WPNPAH1	06/25/91		07/10/91
		WPNPHL1	06/25/91		07/05/91
14513.04	P09-GW013	WPNTPH1	06/25/91		06/27/91
14513.05	P09-GW013	WPNMET1	06/25/91		06/28/91
14514.01	P09-GW014	WPNPRG1	06/25/91		07/01/91
14514.03	P09-GW014	WPNP&P1	06/25/91		07/04/91
		WPNPAH1	06/25/91		07/10/91
		WPNPHL1	06/25/91		07/05/91
14514.04	P09-GW014	WPNTPH1	06/25/91		06/27/91
14514.05	P09-GW014	WPNMET1	06/25/91		06/28/91
14515.01	P09-GW015	WPNPRG1	06/25/91		07/01/91
14515.03	P09-GW015	WPNP&P1	06/25/91		07/04/91
		WPNPAH1	06/25/91		07/10/91
		WPNPHL1	06/25/91		07/05/91
14515.04	P09-GW015	WPNTPH1	06/25/91		06/27/91
14515.05	P09-GW015	WPNMET1	06/25/91		06/28/91
14516.01	P09-S011A	SPNPRG1	06/25/91		07/01/91
14516.02.	P09-S011A	SPNTPH1	06/25/91		06/28/91
14516.03	P09-S011A	SPNMET1	06/25/91		06/28/91
		SPNP&P1	06/25/91		07/02/91
		SPNPAH1	06/25/91		07/08/91

JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
SAMPLE ID LAB :EE-91-14509 MATRIX: WATER
SAMPLE ID CLIENT: P09-GW008

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
Arsenic	ND		60	UG/L
Chromium	ND		10	UG/L
Zinc	130		20	UG/L
Lead	80		40	UG/L
Cadmium	ND		5.0	UG/L
Nickel	ND		40	UG/L
Copper	ND		25	UG/L
Silver	ND		10	UG/L

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

JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
SAHPLE ID LAB :EE-91-14510 MATRIX : WATER
SAHPLE ID CLIENT: P09-GW010

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
Arsenic	ND		60	UG/L
Chromium	13		10	UG/L
Zinc	100		20	UG/L
Lead	61		40	UG/L
Cadmium	ND		5.0	UG/L
Nickel	ND		40	UG/L
Copper	ND		25	UG/L
Silver	ND		10	UG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIHATED VALUE B = *ALSO* PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIHIT
NA = NOT APPLICABLE

JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
SAMPLE ID LAB :EE-91-14511 MATRIX: WATER
SAMPLE ID CLIENT: P09-GW011

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
Arsenic	ND		60	UG/L
Chromium	ND		10	UG/L
Zinc	110		20	UG/L
Lead	64		40	UG/L
Cadmium	ND		5.0	UG/L
Nickel	ND		40	UG/L
Copper	110		25	UG/L
Silver	ND		10	UG/L

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

JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
SAMPLE ID LAB :EE-91-14512 MATRIX: WATER
SAMPLE ID CLIENT: P09-GW011D

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
Arsenic	ND		60	UG/L
Chromium	14		10	UG/L
Zinc	180		20	UG/L
Lead	57		40	UG/L
Cadmium	ND		5.0	UG/L
Nickel	ND		40	UG/L
Copper	98		25	UG/L
Silver	ND		10	UG/L

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

0000832

JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
SAHPLE ID LAB :EE-91-14513 . MATRIX: WATER
SAMPLE ID CLIENT: P09-GW013

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
Arsenic	ND		60	UG/L
Chromium	39		10	UG/L
Zinc	85		20	UG/L
Lead	84		40	UG/L
Cadmium	ND		5.0	UG/L
Nickel	ND		40	UG/L
Copper	38		25	UG/L
Silver	ND		10	UG/L

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

JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
SAMPLE ID LAB :EE-91-14514 MATRIX: WATER
SAMPLE ID CLIENT: P09-GW014

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
Arsenic	ND		60	UG/L
Chromium	12		10	UG/L
Zinc	50		20	UG/L
Lead	ND		40	UG/L
Cadmium	ND		5.0	UG/L
Nickel	ND		40	UG/L
Copper	ND		25	UG/L
Silver	ND		10	UG/L

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

0000933

recycled paper

ecology and environment

JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
SAMPLE ID LAB :EE-91-14515 MATRIX: WATER
SAMPLE ID CLIENT: P09-GW015

PARAMETER	RESULTS	Q	ONT. LIMIT	UNITS
Arsenic	ND		60	UG/L
Chromium	ND		10	UG/L
Zinc	90		20	UG/L
Lead	ND		40	UG/L
Cadmium	ND		5.0	UG/L
Nickel	ND		40	UG/L
Copper	ND		25	UG/L
Silver	ND		10	UG/L

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

QUALITY CONTROL FOR PRBCISION RESULTS OF ANALYSIS OF REPLICATE ANALYSES OF WATER SAMPLES

9101.509

(ug/L)

Parameter	E & E Laboratory No. 91-14511	Original Analysis	Replicate Analysis	Relative Percent Difference (RPD)
Arsenic		ND	ND	NC
Chromium		ND	12	NC
Zinc		110	120	1.9
Lead		64	65	1.8
Cadmium		ND	ND	NC
Nickel		ND	ND	NC
Copper		110	110	1.2
Silver		ND	ND	NC

ND = NOT DETECTED

NC = NOT CALCULABLE

NOTE: ALTHOUGH RESULTS ARE REPORTED AS ROUNDED VALUES, RPD's ARE CALCULATED DIRECTLY FROM THE RAW DATA.

0000834

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY FOR SPIKED WATER SAMPLES

9101.509

(ug/L)

Parameter	E & E Laboratory No. 91-14511	Original Value	Amount Added	Amount Determined	Percent Recovery
Arsenic		ND	2000	2000	101
Chromium		ND	200	210	104
Zinc		110	500	610	98
Lead		64	500	470	a2
Cadmium		ND	50	49	98
Nickel		ND	500	480	95
Copper		110	250	350	96
Silver		ND	50	51	102

ND = NOT DETECTED

** = RECOVERY NOT DETERMINED BECAUSE SAMPLE AMOUNT IS FOUR OR MORE TIHES GREATER THAN SPIKE AMOUNT.

NOTE: ALTHOUGH RESULTS ARE REPORTED AS ROUNDED VALUES, PERCENT RECOVERIES ARE CALCULATED DIRECTLY FROM THE RAW DATA.

JOB NUMBER 39101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
SAMPLE ID LAB : METHOD BLANK MATRIX: WATER

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
Arsenic	ND		60	UG/L
Chromium	ND		10	UG/L
Zinc	ND		20	UG/L
Lead	ND		40	UG/L
Cadmium	ND		5.0	UG/L
Nickel	ND		40	UG/L
Copper	ND		25	UG/L
Silver	ND		10	UG/L

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

0000835

JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
SAMPLE ID LAB :EE-91-14509 MATRIX: WATER
SAMPLE ID CLIENT: P09-GW008

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
TRPH	ND		1.0	MG/L

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

JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
SAIIPLE ID LAB :EE-91-14510 MATRIX: WATER
SAIIPLE ID CLIENT: P09-GW010

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
TRPH	ND		1.0	MG/L

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

0000936

JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCE 2
SAMPLE ID LAB :EE-91-14511 MATRIX: WATER
SAMPLE ID CLIENT: P09-GW011

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
TRPH	ND		1.0	MG/L

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

JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
SAMPLE ID LAB :EE-91-14512 MATRIX: WATER
SAMPLE ID CLIENT: P09-GW011D

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
TRPH	ND		1.0	MG/L

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

0000837

JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
SAMPLE ID LAB :EE-91-14513 MATRIX: WATER
SAMPLE ID CLIENT: P09-GW013

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
TRPH	ND		1.0	MG/L

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

JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
SAHPLE ID LAB :EE-91-14514 MATRIX: WATER
SAHPLE ID CLIENT: P09-GW014

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
TRPH	ND		1.0	MG/L

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = *ALSO* PRESENT IN BLANK
L = PRESENT BELOV STATED DETECTION LIMIT
NA = NOT APPLICABLE

JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
SAMPLE ID LAB :EE-91-14515 MATRIX: WATER
SAMPLE ID CLIENT: P09-GW015

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
TRPH	ND		1.0	MG/L

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

JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
SAMPLE ID LAB : METHOD BLANK MATRIX: WATER

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
TRPH	ND		1.0	MG/L

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

0000939

recycled paper

TEST CODE :WPNPRG1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
TEST NAME : PNC PURGABLES- GC UNITS : UG/L
SAMPLE ID LAB : EE-91-14509 MATRIX: WATER
SAMPLE ID CLIENT: P09-GW008

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzene	ND		lo
Toluene	ND		10
Ethylbenzene	ND		10
Total Xylenes	ND		10
1,2 - Dichlorobenzene	ND		10
1,3 - Dichlorobenzene	ND		10
1,4 - Dichlorobenzene	ND		10
1,1 - Dichloroethene	ND		10
Methylene Chloride	ND		10
Trans - 1,2 - Dichloroethene	ND		10
1,1 - Dichloroethane	ND		10
1,1,1 - Trichloroethane	ND		10
1,2 - Dichloroethane	ND		10
Trichloroethene	ND		10
Tetrachloroethene	ND		10
Chlorobenzene	ND		10

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

TEST CODE :WPNPRG1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
TEST NAME : PNC PURGABLES- GC UNITS : UG/L
SAHPLE ID LAB : EE-91-14510 MATRIX: WATER
SAMPLE ID CLIENT: P09-GW010

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzene	ND		lo
Toluene	ND		10
Ethylbenzene	ND		10
Total Xylenes	ND		10
1,2 - Dichlorobenzene	ND		10
1,3 - Dichlorobenzene	ND		10
1,4 - Dichlorobenzene	ND		10
1,1 - Dichloroethene	ND		10
Methylene Chloride	ND		10
Trans - 1,2 - Dichloroethene	ND		10
1,1 - Dichloroethane	ND		10
1,1,1 - Trichloroethane	ND		10
1,2 - Dichloroethane	ND		10
Trichloroethene	ND		10
Tetrachloroethene	ND		10
Chlorobenzene	ND		10

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

0000540

TEST CODE :WPNPRG1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
TEST NAME : PNC PURGABLES- GC UNITS : UG/L
SANPLE ID LAB : EE-91-14511 MATRIX : WATER
SAMPLE ID CLIENT: P09-GW011

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzene	ND		10
Toluene	ND		10
Ethylbenzene	ND		10
Total Xylenes	ND		10
1,2 - Dichlorobenzene	ND		10
1,3 - Dichlorobenzene	ND		10
1,4 - Dichlorobenzene	ND		10
1,1 - Dichloroethene	ND		10
Methylene Chloride	ND		10
Trans - 1,2 - Dichloroethene	ND		10
1,1 - Dichloroethane	ND		10
1,1,1 - Trichloroethane	ND		10
1,2 - Dichloroethane	ND		10
Trichloroethene	ND		10
Tetrachloroethene	ND		10
Chlorobenzene	ND		10

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

TEST CODE :WPNPRG1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
TEST NAME : PNC PURGABLES- GC UNITS : UG/L
SAJIPLE ID LAB : EE-91-14512 MATRIX: WATER
SAMPLE ID CLIENT: P09-GW011D

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzene	ND		10
Toluene	ND		10
Ethylbenzene	ND		10
Total Xylenes	ND		10
1,2 - Dichlorobenzene	ND		10
1,3 - Dichlorobenzene	ND		10
1,4 - Dichlorobenzene	ND		10
1,1 - Dichloroethene	ND		10
Methylene Chloride	ND		10
Trans - 1,2 - Dichloroethene	ND		10
1,1 - Dichloroethane	ND		10
1,1,1 - Trichloroethane	ND		10
1,2 - Dichloroethane	ND		10
Trichloroethene	ND		10
Tetrachloroethene	ND		10
Chlorobenzene	ND		10

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

0000941

TEST CODE :WPNPRG1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
TEST NAME : PNC PURGABLES- GC UNITS : UG/L
SAMPLE ID LAB : EE-91-14513 MATRIX: WATER
SAMPLE ID CLIENT: P09-GW013

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzene	ND		lo
Toluene	ND		10
Ethylbenzene	ND		10
Total Xylenes	ND		10
1,2 - Dichlorobenzene	ND		10
1,3 - Dichlorobenzene	ND		10
1,4 - Dichlorobenzene	ND		10
1,1 - Dichloroethene	ND		10
Methylene Chloride	ND		10
Trans - 1,2 - Dichloroethene	ND		10
1,1 - Dichloroethane	ND		10
1,1,1 - Trichloroethane	ND		10
1,2 - Dichloroethane	ND		10
Trichloroethene	ND		10
Tetrachloroethene	ND		10
Chlorobenzene	ND		10

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

TEST CODE :WPNPRG1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
TEST NAME : PNC PURGABLES- GC UNITS : UG/L
SAMPLE ID LAB : EE-91-14514 MATRIX: WATER
SAMPLE ID CLIENT: P09-GW014

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzene	ND		lo
Toluene	ND		10
Ethylbenzene	ND		10
Total Xylenes	ND		10
1,2 - Dichlorobenzene	ND		10
1,3 - Dichlorobenzene	ND		10
1,4 - Dichlorobenzene	ND		10
1,1 - Dichloroethene	ND		10
Methylene Chloride	ND		10
Trans - 1,2 - Dichloroethene	ND		10
1,1 - Dichloroethane	ND		10
1,1,1 - Trichloroethane	ND		10
1,2 - Dichloroethane	ND		10
Trichloroethene	ND		10
Tetrachloroethene	ND		10
Chlorobenzene	ND		10

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

0000842

TEST CODE :WPNPRG1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
TEST NAME : PNC PURGABLES- GC UNITS : UG/L
SAMPLE ID LAB : EE-91-14515 MATRIX: WATER
SAHPLE ID CLIENT: P09-GW015

PARAMETER	RESULTS	Q	QNT. LIMIT
Benzene	ND		lo
Toluene	ND		10
Ethylbenzene	ND		10
Total Xylenes	ND		10
1,2 - Dichlorobenzene	ND		10
1,3 - Dichlorobenzene	ND		10
1,4 - Dichlorobenzene	ND		10
1,1 - Dichloroethene	ND		10
Methylene Chloride	ND		10
Trans - 1,2 - Dichloroethene	ND		10
1,1 - Dichloroethane	ND		10
1,1,1 - Trichloroethane	ND		10
1,2 - Dichloroethane	ND		10
Trichloroethene	ND		10
Tetrachloroethene	ND		10
Chlorobenzene	ND		10

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

QUALITY CONTROL FOR ACCURACY *AND* PRECISION:
PERCENT RECOVERY AND RELATIVE PERCENT DIFFERENCE (RPD)
OF WATER MATRIX SPIKE (MS) *AND* MATRIX SPIKE DUPLICATE (MSD)
(Sample # 14511)

9101.509

(ug/L)

Parameter	Original Value	Amount Added		Aaount Determined		Percent Recovery		
		MS	MSD	MS	HSD	HS	MSD	RPD
Benzene	ND	20	20	18	20	90	100	11
Toluene	ND	20	20	18	20	90	100	11
Ethyl Benzene	ND	20	20	18	20	90	100	11
1,2-Dichlorobenzene	ND	40	40	36	40	90	100	11
1,3-Dichlorobenzene	ND	40	40	36	40	90	100	11
1,4-Dichlorobenzene	ND	40	40	35	40	88	100	13
1,1-Dichloroethene	ND	20	20	20	21	100	105	4.9
Methylene Chloride	ND	20	20	19	20	95	100	5.1
Trans-1,2-Dichloroethene	ND	20	20	19	20	95	100	5.1
1,1-Dichloroethane	ND	20	20	19	20	95	100	5.1
1,1,1-Trichloroethane	ND	20	20	19	20	95	100	5.1
1,2-Dichloroethane	ND	20	20	22	22	110	110	0
Trichloroethene	ND	20	20	20	22	100	110	9.5
Tetrachloroethene	ND	20	20	18	19	90	95	5.4

These recoveries and RPDs are within E & E, Inc. lirits.

ND = NOT DETECTED

0000843

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY OF SURROGATE SPIKES

9101.509

Compound	E & E Laboratory No. 91-	Percent Recovery
Trifluorotoluene	14509	81
	14510	81
	14511	62
	14512	57
	14513	52
	14514	50
	14515	52
	Method Blank #1	63
	Method Blank #2	100
1,4-Dichlorobutane	14509	85
	14510	57
	14511	120
	14512	140
	14513	120
	14514	110
	14515	120
	Method Blank #1	120
	Method Blank #2	100

TEST CODE :WPNPRG1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
TEST NAME : PNC PURGABLES- GC UNITS : UG/L
SAMPLE ID LAB : METHOD BLANK #1 MATRIX: WATER

PARAMETER	RESULTS	Q	QNT. LIHIT
Benzene	ND		10
Toluene	ND		10
Ethylbenzene	ND		10
Total Xylenes	ND		10
1,2 - Dichlorobenzene	ND		10
1,3 - Dichlorobenzene	ND		10
1,4 - Dichlorobenzene	ND		10
1,1 - Dichloroethene	ND		10
Hethylene Chloride	ND		10
Trans - 1,2 - Dichloroethene	ND		10
1,1 - Dichloroethane	ND		10
1,1,1 - Trichloroethane	ND		10
1,2 - Dichloroethane	ND		10
Trichloroethene	ND		10
Tetrachloroethene	ND		10
Chlorobenzene	ND		10

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

0000844

TEST CODE :WPNPRG1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
TEST NAME : PNC PURGABLES- GC UNITS : UG/L
SAMPLE ID LAB : METHOD BLANK #2 MATRIX: WATER

PARAMETER	RESULTS	Q	QNT. LIXIT
Benzene	ND		10
Toluene	ND		10
Ethylbenzene	ND		10
Total Xylenes	ND		10
1,2 - Dichlorobenzene	ND		10
1,3 - Dichlorobenzene	ND		10
1,4 - Dichlorobenzene	ND		10
1,1 - Dichloroethene	ND		10
Methylene Chloride	ND		10
Trans - 1,2 - Dichloroethene	ND		10
1,1 - Dichloroethane	ND		10
1,1,1 - Trichloroethane	ND		10
1,2 - Dichloroethane	ND		10
Trichloroethene	ND		10
Tetrachloroethene	ND		10
Chlorobenzene	ND		10

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

TEST CODE :WPNPAH1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
TEST NAME : PNC PAH - LC UNITS : UG/L
SAMPLE ID LAB : EE-91-14509 MATRIX: WATER
SAMPLE ID CLIENT: P09-GW008

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Benzo-a-pyrene	ND		100

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

0000845

TEST CODE :WPNPAH1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
TEST NAME : PNC PAH - LC UNITS : UG/L
SAMPLE ID LAB : EE-91-14510 MATRIX: WATER
SAMPLE ID CLIENT: P09-GW010

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Benzo-a-pyrene	ND		100

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

TEST CODE :VPNPAH1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
TEST NAME : PNC PAH - LC UNITS : UG/L
SAMPLE ID LAB : EE-91-14511 MATRIX: WATER
SAMPLE ID CLIENT: P09-GW011

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Benzo-a-pyrene	ND		100

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

0000846

TEST CODE :WPNPAH1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
TEST NAME : PNC PAH - LC UNITS : UG/L
SAMPLE ID LAB : EE-91-14512 MATRIX: WATER
SAMPLE ID CLIENT: P09-GW011D

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Benzo-a-pyrene	ND		100

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

TEST CODE :WPNPAH1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
TEST NAXE : PNC PAH - LC UNITS : UG/L
SAMPLE ID LAB : EE-91-14513 MATRIX: VATER
SAMPLE ID CLIENT: P09-GW013

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Benzo-a-pyrene	ND		100

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

TEST CODE : WPNPAB1 JOB NUMBER : 9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
TEST NAME : PNC PAH - LC UNITS : UG/L
SAMPLE ID LAB : EE-91-14514 MATRIX: WATER
SAMPLE ID CLIENT: P09-GW014

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Benzo-a-pyrene	ND		100

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

TEST CODE :WPNPAH1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
TEST NAME : PNC PAH - LC UNITS : UG/L
SAHPLE ID LAB : EE-91-14515 MATRIX: WATER
SAHPLE ID CLIENT: P09-GW015

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Benzo-a-pyrene	ND		100

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

0000848

QUALITY CONTROL POR ACCURACY: PERCENT RECOVERY
FOR SPIKED WATER SAMPLES

9101.509

(ug)

Parameter	E & E Laboratory No. 91- Blank Spike	Original Value	Amount Added	Amount Determined	Percent Recovery
Benzo(a)pyrene		ND	100	118	118

ND = NOT DETECTED

TEST CODE :WPNPAH1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
TEST NAME : PNC PAH - LC UNITS : UG/L
SAMPLE ID LAB : METHOD BLANK MATRIX: VATER

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Benzo-a-pyrene	ND		100

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

0000840

TEST CODE :WPNPEL1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : OH-8000 NASP - PHASE I BATCH 2
TEST NAHE : PNC PHENOL - LC UNITS : UG/L
SAMPLE ID LAB : EE-91-14509 MATRIX: WATER
SAMPLE ID CLIENT: P09-GW008

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Trichlorophenol	ND		100

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

TEST CODE :WPNPHL1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
TEST NAHE : PNC PHENOL - LC UNITS : UG/L
SAMPLE ID LAB : EE-91-14510 MATRIX: VATER
SAMPLE ID CLIENT: P09-GW010

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Trichlorophenol	ND		100

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

0000850

TEST CODE :WPNPHL1 JOB **NUMBER** :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH **2**
TEST NAME : PNC PHENOL - LC UNITS : UG/L
SAMPLE ID LAB : EE-91-14511 MATRIX : WATER
SAMPLE ID CLIENT: P09-GW011

PARAMETER	**RESULTS**	**Q**	**QNT. LIMIT**
Total as Trichlorophenol	**ND**		**100**

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

TEST CODE :WPNPHL1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
TEST NAXE : PNC PEENOL - LC UNITS : UG/L
SAMPLE ID LAB : EE-91-14512 MATRIX: WATER
SAHPLE ID CLIENT: P09-GW011D

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Trichlorophenol	ND		100

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOV STATED DETECTION LIHIT

0000851

TEST CODE :WPNPHL1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
TEST NAME : PNC PHENOL - LC UNITS : UG/L
SAMPLE ID LAB : EE-91-14513 MATRIX: WATER
SAMPLE ID CLIENT: P09-GW013

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Trichlorophenol	ND		100

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

TEST CODE :WPNPHL1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
TEST NAME : PNC PHENOL - LC UNITS : UG/L
SAMPLE ID LAB : EE-91-14514 MATRIX: WATER
SAMPLE ID CLIENT: P09-GW014

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Trichlorophenol	ND		100

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

0000852

TEST CODE :WPNPHL1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
TEST NAHE : PNC PBENOL - LC UNITS : UG/L
SAMPLE ID LAB : EE-91-14515 MATRIX: WATER
SAMPLE ID CLIENT: P09-GW015

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Trichlorophenol	ND		100

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

QUALITY CONTROL FOR ACCURACY: PERCENT RECOVERY FOR SPIKED WATER SAMPLES

9101.509

(ug)

Parameter	E & E Laboratory No. 91- Blank	Spike	Original Value	Amount Added	Amount Determined	Percent Recovery
2,4,6-Trichlorophenol			ND	100	111	111

ND = NOT DETECTED

0000953

TEST CODE :WPNPHL1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
TEST NAME : PNC PHENOL - LC UNITS : UG/L
SAMPLE ID LAB : METHOD BLANK MATRIX: WATER

PARAMETER	RESULTS	Q	QNT. LIMIT
Total as Trichlorophenol	ND		100

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

TEST CODE :WPNP&P1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
TEST NAHE : PNC PEST./PCB UNITS : UG/L
SAHPLE ID LAB : EE-91-14509 MATRIX: WATER
SAMPLE ID CLIENT: P09-GW008

PARAMETER	RESULTS	Q	QNT. LIMIT
Heptachlor	ND		5.0
Lindane	ND		5.0
Aldrin	ND		5.0
4,4 - DDT	ND		5.0
Dieldrin	ND		5.0
Endrin	ND		5.0
Chlordane	ND		5.0
4,4-DDE	ND		5.0
Total PCBs	ND		10

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

0000954

TEST CODE :WPNP&P1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
TEST NAME : PNC PEST./PCB UNITS : UG/L
SAMPLE ID LAB : EE-91-14510 MATRIX: WATER
SAMPLE ID CLIENT: P09-GW010

PARAMETER	RESULTS	Q	QNT. LIHIT
Eeptachlor	ND		5.0
Lindane	ND		5.0
Aldrin	ND		5.0
4,4 - DDT	ND		5.0
Dieldrin	ND		5.0
Endrin	ND		5.0
Chlordane	ND		5.0
4,4-DDE	ND		5.0
Total PCBs	ND		10

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

TEST CODE :WPNP&P1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
TEST NAME : PNC PEST./PCB UNITS : UG/L
SAMPLE ID LAB : EE-91-14511 MATRIX: VATER
SAMPLE ID CLIENT: P09-GW011

PARAMETER	RESULTS	Q	QNT. LIMIT
Heptachlor	ND		5.0
Lindane	ND		5.0
Aldrin	ND		5.0
494 - DDT	ND		5.0
Dieldrin	ND		5.0
Endrin	ND		5.0
Chlordane	ND		5.0
4,4-DDE	ND		5.0
Total PCBs	ND		10

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

0000955

TEST CODE :WPNP&P1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCE 2
TEST NAME : PNC PEST./PCB UNITS : UG/L
SAHPLE ID LAB : EE-91-14512 MATRIX: UATER
SAMPLE ID CLIENT: P09-GW011D

PARAMETER	RESULTS	Q	QNT. LIMIT
Heptachlor	ND		5.0
Lindane	ND		5.0
Aldrin	ND		5.0
4,4 - DDT	ND		5.0
Dieldrin	ND		5.0
Endrin	ND		5.0
Chlordane	ND		5.0
4,4-DDE	ND		5.0
Total PCBs	ND		10

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

TEST CODE :WPNP&P1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
TEST NAME : PNC PEST./PCB UNITS : UG/L
SAHPLE ID LAB : EE-91-14513 MATRIX: WATER
SAMPLE ID CLIENT: P09-GW013

PARAMETER	RESULTS	Q	am. LIMIT
Heptachlor	ND		5.0
Lindane	ND		5.0
Aldrin	ND		5.0
4,4 - DDT	ND		5.0
Dieldrin	ND		5.0
Endrin	ND		5.0
Chlordane	ND		5.0
4,4-DDE	ND		5.0
Total PCBs	ND		10

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

0000956

TEST CODE :WPNP&P1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
TEST NAHE : PNC PEST./PCB UNITS : UG/L
SAMPLE ID LAB : EE-91-14514 MATRIX: WATER
SAMPLE ID CLIENT: P09-GW014

PARAMETER	RESULTS	Q	QNT. LIMIT
Heptachlor	ND		5.0
Lindane	ND		5.0
Aldrin	ND		5.0
4,4 - DDT	ND		5.0
Dieldrin	ND		5.0
Endrin	ND		5.0
Chlordane	ND		5.0
4,4-DDE	ND		5.0
Total PCBs	ND		10

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

TEST CODE :WPNP&P1 **JOB NUMBER** :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
TEST NAME : PNC PEST./PCB UNITS : UG/L
SAMPLE ID LAB : EE-91-14515 MATRIX: VATER
SAMPLE ID CLIENT: P09-GW015

PARAMETER	RESULTS	Q	QNT. LIHIT
Heptachlor	ND		5.0
Lindane	ND		5.0
Aldrin	ND		5.0
4,4 - DDT	ND		5.0
Dieldrin	ND		5.0
Endrin	ND		5.0
Chlordane	ND		5.0
4,4-DDE	ND		5.0
Total PCBs	ND		10

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

0000957

TEST CODE :WPNP&P1 JOB NUMBER :9101.509

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
TEST NAME : PNC PEST./PCB UNITS : UG/L
SAMPLE ID LAB : METHOD BLANK MATRIX: WATER

PARAMETER	RESULTS	Q	QNT. LIMIT
Heptachlor	ND		5.0
Lindane	ND		5.0
Aldrin	ND		5.0
4,4 - DDT	ND		5.0
Dieldrin	ND		5.0
Endrin	ND		5.0
Chlordane	ND		5.0
4,4-DDE	ND		5.0
Total PCBs	ND		10

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

E

APPENDIX E

EXISTING PERMANENT HONITORING WELL
GROUNDWATER SAMPLING
ANALYTICAL RESULTS

MEMORANDUM

TO: John Barksdale

FROM: Gary Hahn G. Hahn / TB

DATE: June 12, 1991

SUBJECT: NASP Well Resampling

REF: **9101.041**

CC: Lab File

Attached is the laboratory report of the analysis conducted on seven sample received at the Analytical Services Center on May 03, 1991. Analysis was performed according to the "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, Third Edition, U.S.EPA,1986. USEPA Contract Laboratory Program, Statement of Work for Organic Analysis, 2/88 and Statement of Work for Inorganic Analysis, 7/88.

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 othervise 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/bjh
enclosure

Based on the amount of mass spectral information available, the GC/MS computer is not always able to supply three matches for the unknown.

Volatile surrogate recovery criterion vas not met for samples W029, W029RE, WPB05, WTB05, WTB05RE, and WPB05MS. A matrix effect was substantiated for all samples.

Sample WFB05 was analyzed for volatile organics at a hundred fold dilution due to the level of methylene chloride detected in the sample.

% D criterion was not met for 1,2-dichloropropane in the volatile continuing calibration standard D2371 analyzed on 05/09/91. Since this compound was not detected in any of the associated samples, data validity has not been affected.

Carryover vas evident in the EVALB pesticide standard analyzed at 17:23 on 05/22/91. This standard was immediately reanalyzed. "MSB1" denotes a spiked method blank.

Sample W029 was consumed prior to analysis for hardness.

Sample W029 was spiked with twice the amount of mercury required by the Statement of Work.

All sodium values have been flagged "E" based on the result of the serial dilution analysis. At 50 times the instrument detection limit, sodium serial dilution results still fall below the contract required detection limit. Therefore, we believe the results reflect normal variance for the concentrations detected and not necessarily a matrix interference.

Continuing calibration blank criterion was not met for chromium on the 05/09/91 ICP analysis. All samples were reanalyzed for chromium en 05/14/91.

Cyanide analysis was not performed in the sequence dictated by the Statement of Work. This has no effect on the technical quality of the data.

I certify that this data package is in compliance vith the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the folloving signature.

Gary Hahn
Manager - Analytical Services Center

Date 0000960

GH/bjh

E & E JOB NUMBER: 9101.041

CLIENT SAMPLE ID	LAB SAMPLE ID	ID USED IN REPORT
P-09-W029	9891	W029
P-09-W029D	9892	W029D
P-09-W030	9893	W030
P-09-WFB05	9894	WFBOS
P-09-WRB05	9895	WRB05
P-09-WPB05	9896	WPBOS'
P-09-WTB05	9897	WTBOS
P-09-W029-DISS	9898	W029 DISS
P-09-W029D-DISS	9899	W029D DISS
P-09-W030-DISS	9900	W030 DISS
P-09-WFBOS-DISS	9901	WFB05 DISS
P-09-WRB05-DISS	9902	WRB05 DISS

ALL ANALYSES FOLLOW CLP PROTOCOL

ecology and environment, inc.

[illegible] PLEASANTVIEW DRIVE, LANCASTER, NEW YORK 14086, TEL. 716/684-8060
International Specialists in the Environment

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project No.: WHS
Project Name: NASC WELL RESAMPLING
Project Manager: JOHN BARKSDALE
Samplers: (Signatures) Vicki Scoon, [illegible]
Field Team Leader: Vicki A. Scoon

STATION NUMBER	DATE 1991	TIME	SAMPLE TYPE COMP	GRAB	AIR	SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	TRPHS	TCL 624 VOAS	TCL PESTICIDES + PCBs	TCL TOTAL METALS	TCL DISSOLVED METALS	CYANIDE	TOC	ALKALINITY	REMARKS
P09W029	5/2	16:00		X		LOW LEVELS	SITE 9 WELL GM-29	9	X	X	X	X	X	X	X	X	
P09W029D	5/2	16:00		X		" "	" " " " "	9	X	X	X	X	X	X	X	X	

Relinquished By (Signature)	Date/Time	Received By (Signature)	Relinquished By (Signature)	Date/Time	Received By (Signature)	Ship Via
Vicki A. Scoon	5/2/91 11:45	Fed Ex				Fed. Express
Relinquished By (Signature)	Date/Time	Received By (Signature)	Relinquished By (Signature)	Date/Time	Received By (Signature)	
Relinquished By (Signature)	Date/Time	Received For Laboratory By (Signature)	Relinquished By (Signature)	Date/Time	Received For Laboratory By (Signature)	BL/Airbill Number: 9659244814
Fed Ex	5-3-91 0258	[illegible]				Date: 5/2/91

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

recycled paper

ALL ANALYSES FOLLOW CLP PROTOCOL

ecology and environment, inc.
300 PLEASANTVIEW DRIVE, LANCASTER, NEW YORK 14086, TEL. 716/684 8060
International Specialists in the Environment

CHAIN-OF-CUSTODY RECORD

Project No.: UH8
Project Name: NASP WELL RESAMPLING
Project Manager: JOHN BARKSDALE
Samplers (Signatures): Vic A. Spooner, D. Kelly
Field Team Leader: Vic A. Spooner

STATION NUMBER	DATE 1991	TIME	SAMPLE TYPE COMP	GRAB	AIR	SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	TRPH	TCL PESTICIDES + PCBs	TCL VOLATILES	TCL TOTAL METALS	TCL DISSOLVED METALS	CYANIDE	TOC	ALKALINITY, HARDNESS	TCL VOCs + Xylenes	REMARKS
P09WFB05	5/2	16:00		X		LOW LEVELS	Field Blank	11	X	X	X	X	X	X	X	X	X	
P09WRB05	5/2	16:00		X		" "	Rinsate	9	X	X	X	X	X	X			X	
P09W029	5/2	16:10		X		" "	Site 9 well GM-29	2									X	
P09W029D	5/2	16:10		X		" "	" " " " "	2									X	
P09W030	5/2	16:25		X		" "	" " well GM-30	2									X	
P09WPB05	5/1	10:00		X		" "	Pres. Blank	2									X	

Relinquished By (Signature)	Date/Time	Received By (Signature)	Relinquished By (Signature)	Date/Time	Received By (Signature)	Ship Via
Vic A. Spooner	5/2/9 1:45	FedEx				Fed. Express
Relinquished By (Signature)	Date/Time	Received By (Signature)	Relinquished By (Signature)	Date/Time	Received By (Signature)	BL/Airbill Number: 9659244814
Relinquished By (Signature): FedEx	Date/Time: 5.3.91 0930	Received For Laboratory By (Signature): [illegible]	Relinquished By (Signature)	Date/Time	Received For Laboratory By (Signature)	Date: 5/2/91

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

recycled paper

4

0000862

ALL ANALYSES FOLLOW CLP PROTOCOL

ecology and environment, inc.
300 PLEASANTVIEW DRIVE, LANCASTER, NEW YORK 14086, TEL. 716/684 8060
International Specialists in the Environment

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project No. UHR
Project Name: NASP WELL RESAMPLING
Project Manager: JOHN FARESDALE
Samplers (Signature): Vick Secora, DK Kelly
Field Team Leader: Vick Secora

STATION NUMBER	DATE 1991	TIME	SAMPLE TYPE COMP	GRAB	AIR	SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	TRPH	TCL PNAs	TCL PESTICIDES + PCBs	TCL TOTAL METALS + HARDNESS	TCL DISSOLVED METALS	CYANIDE	TOC	ALKALINITY	REMARKS
P09W030	5/2	16:10		X		LOW LEVELS	SITE 9 WELL GM-30	9	X	X	X	X	X	X	X	X	

Relinquished By (Signature)	Date/Time	Received By (Signature)	Relinquished By (Signature)	Date/Time	Received By (Signature)
Vick Secora	5/2/91	Fed Ex			
Relinquished By (Signature)	Date/Time	Received By (Signature)	Relinquished By (Signature)	Date/Time	Received By (Signature)
Relinquished By (Signature) Fed Ex	Date/Time 5/2/91	Received For Laboratory By (Signature) Brian Jensen	Relinquished By (Signature)	Date/Time	Received For Laboratory By (Signature)

Ship Via: Fed. Express
BL/Airbill Number: 9659244814
Date: 5/2/91

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

recvd 5/6/91

5

ALL ANALYSES FOLLOW CLP PROTOCOL

ecology and environment, inc.
388 PLEASANTVIEW DRIVE LANCASTER, NEW YORK 14086 TEL 716/684 8060
International Specialists in the Environment

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project No: U48
Project Name: NASP WELL RESAMPLING
Project Manager: JOHN BARESDALE
Samplers (Signatures): Vic A. Scoon, DK Kelly
Field Team Leader: Vic A. Scoon

STATION NUMBER	DATE 1991	TIME	SAMPLE TYPE COMP	GRAB	AIR	SAMPLE INFORMATION ~~EXPECTED COMPOUNDS (Concentration)~~	CONCENTRATION ~~STATION LOCATION~~	NUMBER OF CONTAINERS	TRPH	TCL TOTAL METALS + HARDNESS	CYANIDE				REMARKS
P23WFB03	5/1	08:10		X		Site 23 Pres. Blank	LOW LEVELS	3	X	X	X				
P29WFB04	5/1	08:55		X		Site 29 Pres. Blank	" "	3	X	X	X				
P09WFB05	5/1	08:45		X		Site 09 Pres. Blank	" "	3	X	X	X				

Relinquished By (Signature)	Date/Time	Received By (Signature)	Relinquished By (Signature)	Date/Time	Received By (Signature)	Ship Via
Vic A. Scoon	5/3/91	FedEx				Fed. Express
Relinquished By (Signature)	Date/Time	Received By (Signature)	Relinquished By (Signature)	Date/Time	Received By (Signature)	BL/Airbill Number: 9659244803
Relinquished By (Signature)	Date/Time 0931 5-3-91	Received For Laboratory By (Signature)	Relinquished By (Signature)	Date/Time	Received For Laboratory By (Signature)	Date: 5/3/91

Distribution: Original Accompanies Shipment, Copy to Coordinator Field Files

*See CONCENTRATION RANGE on back of form.

recycled paper

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

W029

Lab Name: ECOLOGY-AND-ENVIRONMENT — Contract: _____

Lab Code: EANDE_ Case No.:9101.041 SAS No.: _____ SDG No.: WFB05_

Matrix (soil/water): WATER Lab Sample ID: 9891_____

Level (low/med): LOW__ Date Received: 05/03/91

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
17429-90-5	Aluminum_	145	B		P_
17440-36-0	Antimony_	33.0	U		P_
17440-38-2	Arsenic__	2.0	U		F_
7440-39-3	Barium___	38.2	B		P_
7440-41-7	Beryllium	1.0	U		P_
17440-43-9	Cadmium —	3.0	U		P_
17440-70-2	Calcium_	46500	_		P_
7440-47-3	Chromium_	9.0	U		P_
17440-48-4	Cobalt___	10.7	B		P_
17440-50-8	Copper___	4.4	B		P_
17439-89-6	Iron____	188			P_
7439-92-1	Lead____	5.2	_		F_
17439-95-4	Magnesium	1910	B		P_
17439-96-5	Manganese	26.3	_		P_
17439-97-6	Mercury__	0.21	_	N*	CV
17440-02-0	Nickel___	8.0	U		P_
7440-09-7	Potassium	1490	B		P_
7782-49-2	Selenium_	2.0	U	WN*	F_
7440-22-4	Silver___	3.0	VI		P_
7440-23-5	Sodium___	4450	B	E	P_
7440-28-0	Thallium_	2.0	U	W	F_
17440-62-2	Vanadium_	6.8	B		P_
17440-66-6	Zinc____	11.9	B		P_
	Cyanide__	10.0	U		AS

folor Before: CL_____ Clarity Before: C_____ Texture: _____

Color After: CL_____ Clarity After: C_____ Artifacts: _____

Comments:

FORM I - IN

0000963

7/88

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

W029 DISSOLVED

Lab Name: ECOLOGY-AND_ENVIRONMENT Contract: _____

Lab Code: EANDE_ Case No.:9101.041 SAS No.: _____ SDG No.: WFB05_

Matrix (soil/water): WATER Lab Sample ID: 9898_____

Level (low/med): LOW — Date Received: 05/03/91

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS NO.	Analyte	Concentration	C	Q	M
17429-90-5	Aluminum	110	B		P
17440-36-0	Antimony	33.0	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	40.4	B		P
7440-41-7	Beryllium	1.0	U		P
17440-43-9	Cadmium	3.0	U		P
17440-70-2	Calcium	48600			P
17440-47-3	Chromium	9.0	U		P
17440-48-4	Cobalt	11.0	B		P
17440-50-8	Copper	3.8	B		P
17439-89-6	Iron	65.5	B		P
7439-92-1	Lead	1.6	B		F
17439-95-4	Magnesium	1920	B		P
17439-96-5	Manganese	20.5			P
17439-97-6	Mercury	0.20	U		CV
17440-02-0	Nickel	8.0	U		P
17440-09-7	Potassium	1550	B		P
17782-49-2	Selenium	2.0	U	WN*	F
17440-22-4	Silver	3.0	U		P
17440-23-5	Sodium	4710	B	E	P
17440-28-0	Thallium	2.0	U		F
7440-62-2	Vanadium	7.7	B		P
7440-66-6	Zinc	11.0	B		P
	Cyanide				NR

Color Before: CL_____ Clarity Before: C_____ Texture: _____

Color After: CL_____ Clarity After: C_____ Artifacts: _____

Comments:

FORM I - IN

7/88

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

W029D

Lab Name: ECOLOGY-AND-ENVIRONMENT — Contract: _____

Lab Code: EANDE_ Case No.:9101.041 SAS No.: _____ SDG No.: WFB05_

Matrix (soil/water): WATER Lab Sample ID: 9892_____

Level (low/med): LOW__ Date Received: 05/03/91

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
17429-90-5	Aluminum_	109	B		P_
17440-36-0	Antimony_	33.0	U		P_
7440-38-2	Arsenic__	2.0	U		F_
17440-39-3	Barium —	35.1	B		P_
7440-41-7	Beryllium	1.0	U		P_
17440-43-9	Cadmium__	3.0	U		P_
17440-70-2	Calcium__	46200	_		P_
17440-47-3	(Chromium_	9.0	U		P_
17440-48-4	Cobalt__	12.4	B		P_
7440-50-8	Copper___	3.3	B		P_
17439-89-6	Iron_____	221	_		P_
7439-92-1	Lead_____	4.7	_		F_
17439-95-4	(Magnesium(	1800	B		P_
17439-96-5	Manganese	31.7	_		P_
17439-97-6	Mercury__	0.20	U	N*	CV
17440-02-0	Nickel —	8.0	U		P_
17440-09-7	Potassium	1580	B		P_
17782-49-2	Selenium_	2.0	U	WN*	F_
7440-22-4	Silver___	3.0	U		P_
7440-23-5	Sodium___	4640	B	E	P_
7440-28-0	Thallium_	2.0	U		F_
17440-62-2	Vanadium_	7.1	B		P_
7440-66-6	Zinc_____	11.7	B		P_
_____	(Cyanide__	10.0	U		AS

6/11/91

folor Before: CL_____ Clarity Before: C_____ Texture: _____

Color After: CL_____ Clarity After: C_____ Artifacts: _____

Comments:

0000864

FORM I - IN

7/88

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

W029D
DISSOLVED

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.:9101.041 SAS No.: _____ SDG No.: WFB05_

Matrix (soil/water): WATER Lab Sample ID: 9899_____

Level (low/med): LOW__ Date Received: 05/03/91

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
17429-90-5	Aluminum	120	B		P
17440-36-0	Antimony:	33.0	U		P
17440-38-2	Arsenic__	2.0	U		F
17440-39-3	Barium___	41.3	B		P
17440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium__	3.0	U		P
17440-70-2	Calcium__	49200			P
7440-47-3	Chromium-	9.0	U		P
7440-48-4	Cobalt___	13.0	B		P
17440-50-8	Copper___	7.5	B		P
17439-89-6	Iron____	56.5	B		P
17439-92-1					F
17439-95-4					P
17439-96-5					P
7439-97-6					CV
17440-02-0					P
7440-09-7					P
7782-49-2					F
17440-22-4					P
17440-23-5					P
17440-28-0					F
17440-62-2					P
7440-66-6					P
					NR

Color Before: CL_____ Clarity Before: C_____ Texture: _____

Color After: CL_____ Clarity After: C_____ Artifacts: _____

Comments:

FORM I - IN

7/88

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

W030

Lab Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.:9101.041 SAS No.: _____ SDG No.: WFB05

Hatrix (soil/water) : WATER Lab Sample ID: 9893

Level (low/med) : LOW Date Received: 05/03/91

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS NO.	Analyte	Concentration	C	Q	M
17429-90-5	Aluminum	634			P
7440-36-0	Antimony	33.0	U		P
17440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	5.0	U		P
7440-41-7	Beryllium	1.0	U		P
17440-43-9	Cadmium	3.0	U		P
17440-70-2	Calcium	3590	B		P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	9.7	B		P
7440-50-8	Copper	2.0	U		P
17439-89-6	Iron	1860			P
7439-92-1	Lead	8.6			F
7439-95-4	Magnesium	2580	B		P
7439-96-5	Manganese	35.7			P
17439-97-6	Mercury	0.20	U	N*	CV
7440-02-0	Nickel	8.0	U		P
7440-09-7	Potassium	1880	B		P
7782-49-2	Selenium	2.0	U	WN*	F
17440-22-4	Silver	3.3	B		P
7440-23-5	Sodium	5060		E	P
17440-28-0	Thallium	2.0	U		F
7440-62-2	Vanadium	6.5	B		P
7440-66-6	Zinc	18.5	B		P
	Cyanide	10.0	U		AS

6/11/91

Color Before: CL Clarity Before: CL Texture: _____

Color After: CL Clarity After: C Artifacts: _____

Comments:

0000865

FORM I - IN

7/80

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

W030
DISSOLVED

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.:9101.041 SAS No.: _____ SDG No.: WFB05_

Matrix (soil/water): WATER Lab Sample ID: 9900_____

Level (low/med): LOW__ Date Received: 05/03/91

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
17429-90-5	Aluminum_	92.6	B		P_
7440-36-0	Antimony_	33.0	U		P_
7440-38-2	Arsenic__	2.0	U		F_
7440-39-3	Barium___	5.0	U		P_
17440-41-7	Beryllium	1.0	U		P_
17440-43-9	Cadmium —	3.0	U		P_
17440-70-2	Calcium__	3560	B		P_
17440-47-3	Chromium_	9.0	U		P_
7440-48-4	Cobalt___	10.9	B		P_
17440-50-8	Copper___	2.2	B		P_
17439-89-6	Iron____	1080	_		P_
17439-92-1	Lead____	1.2	B		F_
17439-95-4	Magnesium	2520	B		P_
17439-96-5	Manganese	32.8	_		P_
7439-97-6	Mercury__	0.20	U	N*	CV
17440-02-0	Nickel —	8.0	U		P_
7440-09-7	Potassium	2030	B		P_
17782-49-2	Selenium_	2.0	U	N*	F_
17440-22-4	Silver —	3.0	U		P_
17440-23-5	Sodium___	5280	_	E	P_
7440-28-0	Thallium_	2.0	U		F_
7440-62-2	Vanadium_	7.6	B		P_
7440-66-6	Zinc____	11.6	B		P_
	Cyanide__		_		NR

6/11/91

Color Before: CL_____ Clarity Before: C_____ Texture: _____

Color After: CL_____ Clarity After: C_____ Artifacts: _____

Comments:

FORM I - IN

7/88

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

WFB05

Lab Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.: 9101.041 SAS No.: _____ SDG No.: WFB05

Matrix (soil/water): WATER Lab Sample ID: 9894

Level (low/med): Low Date Received: 05/03/91

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	78.7	B		P
17440-36-0	Antimony	33.0	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	5.0	U		P
17440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
17440-70-2	Calcium	165	B		P
17440-47-3	Chromium	10.4			P
17440-48-4	Cobalt	7.8	B		P
17440-50-8	Copper	2.0	U		P
17439-89-6	Iron	68.0	B		P
17439-92-1	Lead	3.4			F
7439-95-4	Magnesium	108	U		P
7439-96-5	Manganese	2.3	B	N*	P
17439-97-6	Mercury	0.20	U		CV
17440-02-0	Nickel	8.0	U		P
7440-09-7	Potassium	263	U		P
17782-49-2	Selenium	2.0	U	N*	F
17440-22-4	Silver	3.0	U		P
7440-23-5	(Sodium	426	B	E	P
17440-28-0	Thallium	2.0	U		F
7440-62-2	Vanadium	5.6	B		P
17440-66-6	Zinc	6.4	B		P
	Cyanide	10.0	U		AS

Color Before: CL_____ Clarity Before: C_____ Texture: _____

Color After: CL_____ Clarity After: C_____ Artifacts: _____

Comments:

0000966

FORM I - IN

7/88

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

WFB05
DISSOLVED

La, Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.:9101.041 SAS No.: _____ SDG No. : WFB05_

Matrix (soil/water) : WATER Lab Sample ID: 9901_____

Level (low/med) : LOW — Date Received: 05/03/91

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	61.4	B		P_
7440-36-0	Antimony_	33.0	U		P_
7440-38-2	Arsenic__	2.0	U		F_
17440-39-3	Barium___	5.0	U		P_
7440-41-7	Beryllium	1.0	U		P_
17440-43-9	Cadmium__	3.0	U		P_
17440-70-2	Calcium__	147	B		P_
7440-47-3	Chromium_	9.0	U		P_
17440-48-4	Cobalt___	11.3	B		P_
7440-50-8	Copper___	2.0	U		P_
7439-89-6	Iron____	45.4	B		P_
7439-92-1	Lead____	1.2	B		F_
17439-95-4	Magnesium	108	U		P_
17439-96-5	Manganese	3.8	B		P_
17439-97-6	Mercury__	0.20	U	N*	CV
17440-02-0	Nickel___	8.0	U		P_
7440-09-7	Potassium	263	U		P_
17782-49-2	Selenium_	2.0	U	N*	F_
7440-22-4	Silver___	3.0	U		P_
17440-23-5	Sodium___	421	B	E	P_
17440-28-0	Thallium_	2.0	U		F_
17440-62-2	Vanadium_	7.8	B		P_
17440-66-6	Zinc____	3.3	B		P_
	Cyanide__				NR

BJK 6/11/91

Color Before: CL_____ Clarity Before: C_____ Texture: _____

Color After: CL_____ Clarity After: C_____ Artifacts: _____

Comments :

FORM I - IN

7/88

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

WRB05

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.:9101.041 SAS No.: _____ SDG No.: WFB05_

Matrix (soil/water): WATER Lab Sample ID: 9895_____

Level (low/med): LOW__ Date Received: 05/03/91

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	32.9	B		P_
7440-36-0	Antimony_	33.0	U		P_
7440-38-2	Arsenic__	2.0	U		F_
17440-39-3	Barium___	5.0	U		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	3.0	U		P_
17440-70-2	Calcium__	95.0	U		P_
17440-47-3	Chromium-	9.0	U		P_
7440-48-4	Cobalt___	6.7	B		P_
17440-50-8	Copper___	2.0	U		P_
17439-89-6	Iron____	53.3	B		P_
17439-92-1	Lead____	2.2	B		F_
17439-95-4	Magnesium	108	U		P_
17439-96-5	Manganese	2.8	B		P_
7439-97-6	Mercury__	0.20	U	N*	CV
17440-02-0	Nickel___	8.0	U		P_
17440-09-7	Potassium	355	B		P_
17782-49-2	(Selenium_	2.0	U	N*	F_
7440-22-4	Silver___	3.0	U		P_
7440-23-5	(Sodium__	159	B	E	P_
17440-28-0	Thallium_	2.0	U		F_
7440-62-2	Vanadium_	5.4	B		P_
7440-66-6	Zinc____	5.6	B		P_
	Cyanide__	10.0	U		AS

Color Before: CL_____ Clarity Before: C_____ Texture: _____

Color After: CL_____ Clarity After: C_____ Artifacts: _____

Comments:

00008S7

FORM I - IN

7/88

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

WRB05

~~DISSOLVED~~

Lab Name: ECOLOGY AND ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.: 9101.041 SAS No.: _____ SDG No.: WFB05

Matrix (soil/water): WATER Lab Sample ID: 9902

Level (low/med): LOW Date Received: 05/03/91

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
17429-90-5	Aluminum	57.0	B		P
7440-36-0	Antimony	33.0	U		P
17440-38-2	Arsenic	2.0	U		F
17440-39-3	Barium	5.0	U		P
17440-41-7	Beryllium	1.0	U		P
17440-43-9	Cadmium	3.0	U		P
17440-70-2	Calcium	109	B		P
17440-47-3	Chromium	9.0	U		P
17440-48-4	Cobalt	12.5	B		P
7440-50-8	Copper	2.0	U		P
17439-89-6	Iron	79.7	B		P
17439-92-1	Lead	1.0	U		F
17439-95-4	Magnesium	108	U		P
17439-96-5	Manganese	4.71	B		P
7439-97-6	Mercury	0.20	U		CV
17440-02-0	Nickel	8.01	U		P
17440-09-7	Potassium	263	U		P
17782-49-2	Selenium	2.01	U	N*	F
17440-22-4	Silver	3.01	U		P
17440-23-5	Sodium	265	B	E	P
17440-28-0	Thallium	2.01	U		F
17440-62-2	Vanadium	8.51	B		P
17440-66-6	Zinc	3.3	B		P
	Cyanide —				NR

Color Before: CL Clarity Before: C Texture: _____

Color After: CL Clarity After: C Artifacts: _____

Comments:

FORM I - IN

7/88

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

WPB05

Lab Name: ECOLOGY-AND-ENVIRONMENT Contract: _____

Lab Code: EANDE Case No.:9101.041 SAS No.: _____ SDG No.: WFB05

Matrix (soil/water): WATER Lab Sample ID: 9896

Level (low/med): LOW Date Received: 05/03/91

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
17429-90-5	Aluminum	64.4	B		P
7440-36-0	Antimony	33.0	U		P
17440-38-2	Arsenic	2.0	U		F
17440-39-3	Barium	5.0	U		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
17440-70-2	calcium	115	B		P
7440-47-3	Chromium	9.0	U		P
17440-48-4	Cobalt	7.3	B		P
7440-50-8	Copper	2.0	U		P
7439-89-6	Iron	62.4	B		P
17439-92-1	Lead	1.3	B		F
17439-95-4	Magnesium	108	U		P
17439-96-5	Manganese	2.1	B		P
17439-97-6	Mercury	0.20	U	N*	CV
7440-02-0	Nickel	8.0	U		P
17440-09-7	Potassium	263	U		P
17782-49-2	Selenium	2.0	U	N*	F
7440-22-4	Silver	3.0	U		P
17440-23-5	sodium	151	B	E	P
7440-28-0	Thallium	2.0	U		F
7440-62-2	Vanadium	6.0	B		P
7440-66-6	Zinc	3.0	U		P
	Cyanide	10.0	U		AS

6/11/91

Color Before: CL Clarity Before: C Texture: _____

Color After: CL Clarity After: C Artifacts: _____

Comments:

0000968

FORM I - IN

7/88

JOB NUMBER :9101.041

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UB-8000 NASP - PHASE I BATCH 2
SAHPLE ID LAB :EE-91-09891 MATRIX: WATER
SAMPLE ID CLIENT: P09-W029

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
Total Alkalinity	80		1.0	MG/L CACO3
Total Hardness	--	C	1.0	MG/L CACO3
Petroleum Hydrocarbons	1.0		1.0	MG/L
TOC	4.0		1.0	MG/L

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

JOB NUMBER :9101.041

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
SAMPLE ID LAB :EE-91-09892 MATRIX: WATER
SAMPLE ID CLIENT: P09-W029D

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
Total Alkalinity	80		1.0	MG/L CACO3
Total Hardness	110		1.0	MG/L CACO3
Petroleum Hydrocarbons	1.2		1.0	MG/L
TOC	4.2		1.0	MG/L

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

0000969

JOB NUMBER :9101.041

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
SAMPLE ID LAB :EE-91-09893 MATRIX: WATER
SAMPLE ID CLIENT: P09-W030

PARAMETER	RESULTS	Q	QNT. LIHIT	UNITS
Total Alkalinity	21		1.0	MG/L CACO3
Total Hardness	12		1.0	MG/L CACO3
Petroleum Hydrocarbons	ND		1.0	MG/L
TOC	2.6		1.0	MG/L

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

JOB NUMBER :9101.041

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
SAMPLE ID LAB :EE-91-09894 MATRIX: WATER
SAMPLE ID CLIENT: P09-WFB05

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
Total Alkalinity	1.0		1.0	MG/L CACO3
Total Hardness	ND		1.0	MG/L CACO3
Petroleum Hydrocarbons	ND		1.0	MG/L
TOC	ND		1.0	MG/L

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

0000870

JOB NUMBER :9101.041

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
SAMPLE ID LAB :E€-91-09895 MATRIX : WATER
SAMPLE ID CLIENT: P09-WRB05

PARAMETER	RESULTS	a	QNT. LIMIT	UNITS
Total Hardness	2.0		1.0	MG/L CACO3
Petroleum Hydrocarbons	ND		1.0	MG/L

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

JOB NUHBER :9101.041

Ecology and Environment, **Inc.**
Analytical Services Center

CLIENT : UH-8000 NASP - PEASE I BATCH 2
SAHPLE ID LAB :EE-91-09896 MATRIX: VATER
SAMPLE ID CLIENT: P09-WPB05

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
Total Eardness	ND		1.0	MG/L CACO3
Petroleum Hydrocarbons	ND		1.0	MG/L

QUALIFIERS: C = COHHENT ND = **NOT** DETECTED
J = ESTIHATED VALUE **B** = ALSO PRESENT IN **BLANK**
L = PRESENT BELOW STATED DETECTION LIMIT
NA = NOT APPLICABLE

0000871

JOB NUMBER :9101.041

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : UH-8000 NASP - PHASE I BATCH 2
LAB SAMPLE ID. :METHOD BLANK MATRIX: WATER

PARAMETER	RESULTS	Q	QNT. LIMIT	UNITS
Total Hardness	ND		1.0	MG/L CACO3
Petroleum Hydrocarbons	ND		1.0	MG/L

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W029

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101_041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9391

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2291

Level: (low/med) LOW Date Received: 05/03/91

% Moisture: not dsc. Date Analyzed: 05/06/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	7	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	EJ
67-64-1	Acetone	3	EJ
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

W029

Lab Name: E & E INC. Contract:

Lab Code: EANOE Case No.: 9101-041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9891

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 02291

Level: (low/med) LOW Date Received: 05/03/91

% Moisture: not dec. Date Analyzed: 05/06/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W029D

Lab Name: E & E INC. Contract:

Lab Coder EANDE Case No.: 9101_041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9892

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 02344

Level: (low/med) LOW Date Received: 05/03/91

% Moisture: not dec. Date Analyzed: 05/08/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

0000873

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

W029D

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101-041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab, Sample ID: 9892

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 02344

Level: (low/med) LOW Date Received: 05/03/91

% Moisture: not dec. Date Analyzed: 05/08/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W029RE

Lab Name: E & E INC. Contract:

Lab Code: EANDE **Case No.:** 9101-041 **SAS No.:** **SDG No.:**

Matrix: (soil/water) WATER Lab Sample ID: 9891RE

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 02302

Level: (low/med) LOW **Date Received:** 05/03/91

% Moisture: not dec. Date Analyzed: 05/07/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	3	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

0000974

1E

VOLATILE ORGANICS ANHLYSIS OATH SHEET
TENTATIVELY IDENTIFIED COMPUUNDS

EPA SAMPLE NO.

W029RE

Lab Name: E & E INC. Contract:

Lab Code: EANOE Case No.: 9101-041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9891RE

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2302

Level: (low/med) LOW Date Received: 05/03/91

% Moisture: not dec. Oate Analyzed: 05/07/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	25.08	5.0	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W030

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101_041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9893

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 02345

Level: (low/med) LOW Date Received: 05/03/91

% Moisture: not dec. Date Analyzed: 05/08/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	BJ
67-64-1	Acetone	13	U
75-15-0	Carbon Disulfide	E	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

W030

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101_041 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 9893

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 02345

Level: (low/med) LOW Date Received: 05/03/91

% Moisture: *not* dec. Date Analyzed: 05/08/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	25.09	7.0	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WTB05

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101_041 SAS No.: SOG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9897

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2350

Level: (low/med) LOW Date Received: 05/03/91

% Moisture: not dec. Date Analyzed: 05/08/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

WTB05

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101_041 SAS No.: SDG No.:

Fatrix: (soil/'water) WATER Lab Sample It): 9897

'Sample wt/vol: 5.0 (g/mL) ML Lab Fiie ID: 02350

Lave1: (low/med) LOW Date Received: 05/03/91

% Moisture: not dec. Date Analyzed: 05/08/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN OXY HYDROCARBON	29.267	5.01	J

6/10/91 BMS

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WTB05RE

Lab Name: E & E INC. Contract:

Lab Code: EANOE Case No.: 9101_041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9897RE

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 02354

Level: (low/med) LOW Date Received: 05/03/91

% Moisture: not dec. Date Analyzed: 05/08/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	7	B
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

recycled paper

ecology and environment

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIER COMPOUNDS

EPA SAMPLE NO.

WTB05RE

Lab Name: E & E INC. Contract :

Lab Code: EANDE Case No.: 9101_041 SAS No.: SRG No. :

Matrix: (soil/water) WATER tab Sample ID: 9897RE

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 02354

Level: (low/med) LOW Gate Received: 05/03/91

% Moisture: not dec. Date Analyzed: 05/08/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WFB05

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101_041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9894

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2373

Level: (low/med) LOW Date Received: 05/03/91

% Moisture: not dec. Date Analyzed: 05/09/91

Column: (pack/cap) CAP Dilution Factor: 100

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	1000	U
74-83-9	Bromomethane	1000	U
75-01-4	Vinyl Chloride	1000	U
75-00-3	Chloroethane	1000	U
75-09-2	Methylene Chloride	18000	B
67-64-1	Acetone	760	BJ
75-15-0	Carbon Disulfide	500	U
75-35-4	1,1-Dichloroethene	500	U
75-34-3	1,1-Dichloroethane	500	U
540-59-0	1,2-Dichloroethene (total)	500	U
67-66-3	Chloroform	500	U
107-06-2	1,2-Dichloroethane	500	U
78-93-3	2-Butanone	1000	U
71-55-6	1,1,1-Trichloroethane	500	U
56-23-5	Carbon Tetrachloride	500	U
108-05-4	Vinyl Acetate	1000	U
75-27-4	Bromodichloromethane	500	U
78-87-5	1,2-Dichloropropane	500	U
10061-01-5	cis-1,3-Dichloropropene	500	U
79-01-6	Trichloroethene	500	U
124-48-1	Dibromochloromethane	500	U
79-00-5	1,1,2-Trichloroethane	500	U
71-43-2	Benzene	500	U
10061-02-6	trans-1,3-Dichloropropene	500	U
75-25-2	Bromoform	500	U
108-10-1	4-Methyl-2-Pentanone	1000	U
591-78-6	2-Hexanone	1000	U
127-18-4	Tetrachloroethene	500	U
79-34-5	1,1,2,2-Tetrachloroethane	500	U
108-88-3	Toluene	500	U
108-90-7	Chlorobenzene	500	U
100-41-4	Ethylbenzene	500	U
100-42-5	Styrene	500	U
1330-20-7	Xylene (total)	500	U

0000878

FORM I VOA 1/87 Rev.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

WFB05

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101-041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9894

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 02373

Level: (low/med) LOW Date Received: 05/03/91

% Moisture: not dec. Date Analyzed: 05/09/91

Column (pack/cap) CAP Dilution Factor: 100

Number TICs Found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.33	700	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WRBOS

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101_041 SAS No. : SDG No. :

Matrix: (soil/water) WATER Lab Sample I@: 9895

Sample wt/vol: 5.0 (g/mL) ML Lab File I@: 02346

Level: (low/med) LOW Date Received: 05/03/91

% Moisture: not dec. Date Analyzed: 05/08/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	7	BJ
67-64-1	Acetone	32	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	E	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

0000879

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

WRB05

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101_041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9895

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2346

Level: (low/med) LOW Date Received: 05/03/91

% Moisture: not dec. Date Analyzed: 05/08/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WPB05

Lab Name: E 6 E INC. Contract:

Lab Code: EANDE Case No.: 9101-041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9896

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 02351

Level: (low/med) LOW Date Received: 05/03/91

% Moisture: no: dec. Date Analyzed: 05/08/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	BJ
67-64-1	Acetone	18	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

0000550

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

WPB05

Lab Name: E & E INC. Contract:

Lub Code: EANDE Case No.: 9101_041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9896

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2351

Leue1: (low/med) LOW Date Received: 05/03??"

% Moisture: not dec. Date Analyzed: 05/08/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TiCs found: 0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101_041 SAS No.: SDG No. :

	EPA SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	53 (DCE)#	OTHER	TOT OUT
01	W029	82 *	76 *	31	0	2
02	W029D	93	89	94	0	0
03	W029RE	84 +	86	97	0	1
04	W030	91	86	94	0	0
05	WFB05	89	89	89	0	0
06	WPB05	87 *	37	92	0	1
07	WRB05	90	86	94	0	0
08	WTB05	92	84 *	96	0	1
09	WTB05RE	31 *	86	93	0	1
10	WPB05MS	90	85 *	91	0	1
11	WPB05MSD	93	87	97	0	0
12	VBLKW1	103	100	99	0	0
13	VBLKW2	97	89	95	0	0
14	VBLKW3	95	88	$3	0	0
15	VBLKW4	92	86	89	0	0

		QC LIMITS
S1 (TOL)	= Toluene-d8	(88-110)
S2 (BFB)	= Bromofluorobenzene	(86-115)
S3 (DCE)	= 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

0 Surrogates diluted out

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:.-E & E INC. Contract:

Lab Code: EANDE Case No.: 9101-041 SAS No.: SDG No. :

Matrix Spike - EPA Sample No.: WPB05

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.0	0	34.9	69	61-145
Trichloroethene	50.0	0	41.6	83	71-120
Benzene	50.0	0	39.2	78	76-127
Toluene	50.0	0	42.1	84	76-125
Chlorobenzene	50.0	0	43.8	88	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.0	35.8	72	[illegible]	14	61-145
Trichloroethene	50.0	40.9	82	1	14	71-120
Benzene	40.0	39.6	79	-1	11	76-127
Toluene	50.0	41.7	83	1	13	76-125
Chlorobenzene	50.0	44.3	89	-1	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS :

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101-041 SAS No.: SDG No.:

Lab File ID: D2283 Lab Sample ID: VBLKW1

Date Analyzed: 05/06/91 Time Analyzed: 1837

Matrix: (soil/water) WATER Leue1: (low/med) LOW

Instrument ID: 70010

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TINE ANALYZED
01	W029	9891	02291	2338

COMMENTS:

0000882

FORM IV VOA 1/87 Reu.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKW1

Name: E & E INC. Contract:

Code: EANDE Case No.: 9101-041 SAS No.: SOG No.:

Matrix: (soil/water) WATER Lab Sample ID: VBLKW1

Sample wt/vol: 5.0 (g/mL) ML Lab File I@: D2283

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 05/06/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	[illegible]	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKW1

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101-041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: VBLKW1

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 02283

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 05/06/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

0000583

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101-041 SAS No.: SDG No.:

Lab File ID: 02294 Lab Sample ID: VBLKW2

Date Analyzed: 05/07/91 Time Analyzed: 0217

Matrix: (soil/water) WATER Level: (low/med) LOW

Instrument ID: 70010

THIS METHOD BLANK AFPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	W029RE	9891RE	D2302	0722

COMMENTS:

FORM IV VOA 1/87 Rev.

1A
VOLATILE ORGANICS ANFILYSIS DATA SHEET

EPA SAMPLE NO.

VBLKW2

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101-041 SAS No. : SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: VBLKW2

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2294

Level: (low/med) LOW Date Received:

% Moisture: not dec. Oate Analyzed: 05/07/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	IU
74-83-9	Bromomethane	10	IU
75-01-4	Vinyl Chloride	10	IU
75-00-3	Chloroethane	10	IC
75-09-2	Methylene Chloride	2	IJ
67-64-1	Acetone	10	IU
75-15-0	Carbon Disulfide	5	IU
75-35-4	1,1-Dichloroethene	5	IU
75-34-3	1,1-Dichloroethane	5	IU
540-59-0	1,2-Dichloroethene (total)	5	IU
67-66-3	Chloroform	5	IU
107-06-2	1,2-Dichloroethane	5	IU
78-93-3	2-Butanone	10	IU
71-55-6	1,1,1-Trichloroethane	5	IU
56-23-5	Carbon Tetrachloride	5	IU
108-05-4	Vinyl Acetate	10	IU
75-27-4	Bromodichloromethane	5	IU
78-87-5	1,2-Dichloropropane	5	IU
10061-01-5	cis-1,3-Dichloropropene	5	IU
79-01-6	Trichloroethene	5	IU
124-48-1	Dibromochloromethane	5	IU
79-00-5	1,1,2-Trichloroethane	5	IU
71-43-2	Benzene	5	IU
10061-02-6	trans-1,3-Dichloropropene	5	IU
75-25-2	Bromoform	5	IU
108-10-1	4-Methyl-2-Pentanone	10	IU
591-78-6	2-Hexanone	10	IU
127-18-4	Tetrachloroethene	5	IU
79-34-5	1,1,2,2-Tetrachloroethane	5	IU
108-88-3	Toluene	5	IU
108-90-7	Chlorobenzene	5	IU
100-41-4	Ethylbenzene	5	IU
100-42-5	Styrene	5	IU
1330-20-7	Xylene (total)	5	IU

a000584

ecology and environment

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IOENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKW2

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101-041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: VBLKW2

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2294

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 05/07/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

4A
VOLATILE METHOO BLANK SUMMARY

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101-041 SAS No.: SDG No.:

Lab File ID: D2342 Lab Sample ID: VBLKW3

Date Analyzed: 05/08/91 Time Analyzed: 1455

Matrix: (soil/water) WATER Level: (low/med) LOW

Instrument ID: 70010

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	W029D	9892	D2344	1624
02	W030	9893	D2345	1701
03	WPB05	9896	D2351	2049
04	WRB05	9895	D2346	1737
05	WTB05	9897	D2350	2002
06	WTB05RE	9897RE	D2354	2241
07	WPB05MS	9896MS	D2348	1849
08	WPB05MSD	9896MSD	D2349	1926

COMMENTS:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKW3

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101_041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: VBLKW3

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 02342

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 05/08/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	J
67-64-1	Acetone	12	
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	0	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	tu
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKW3

Lab Name: E & E INC. Contract :

Lab Code: EANDE Case No.: 9101—041 SAS No. : SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: VBLKW3

Sample wt/vol : 5.0 (g/mL) ML Lab File ID: 02342

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyred : 05/08/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	PT	EST. CONC.	Q

0000986

FORM I VOA-TIC 1/87 Rev.

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name:.-E & E INC. Contract:

Lab Code: EANDE Case No.: 9101-041 SAS No.: SDG No.:

Lab File ID: D2372 Lab Sample I@: VBLKW4

Date Analyzed: 05/09/91 Time Analyzed: 1550

Matrix: (soil/water) WATER Leue1:(low/med) LOW

Instrument I@: 7001D

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LA6 FILE ID	TIME ANALYZED
01	IWFB05	9894	D2373	1649

COMMENTS:

FORM IV VOA 1/87 Reu.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKW4

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101-041 SAS No. : SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: VBLKW4

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 02372

Leue1: (low/med) LOW Date Received:

% moisture: not dec. Cats Analyzed: 05/09/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	G
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	8	J
67-64-1	Acetone	3	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

0000987

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKW4

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101_041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: VBLKW4

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2372

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 05/09/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 76131	Freon-113	2.56	7.0	J

SEMIUOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W029

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101-041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9891

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E5201

Level: (low/med) LOW Date Received: 05/03/91

% Moisture: not dec. dec. Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/09/91

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NU.

W029

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101-041 SAS No.: SDG No.:

Matrix: (soil/water) WRTER Lab Sample ID: 9891

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E5201

Level: (low/med) LOW Date Received: 05/03/91

% Moisture: not dec. dec. Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/09/91

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NU.	COMPOUND	CQNCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	3	IBJ
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

W029

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101-041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9891

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E5201

Level: (low/med) LOW Date Received: 05/03/91

% Moisture: not dec. dec. Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/09/91

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

Number TICs found 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	8.42	17	BJ
2.	Bis(dimethylethyl)phenol iso	18.69	6.0	J
3.	UNKNOWN HYDROCARBON	26.12	17	J

0000989

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W029D

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101_041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9892

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E5202

Level: (low/med) LOW Date Received: 05/03/91

% Moisture: not dec. dec. Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/09/91

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W029D

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101_041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9892

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E5202

Level: (low/med) LOW Date Received: 05/03/91

% Moisture: not dec. dec. Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/09/91

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	3	BJ
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

0000590

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

W029D

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101_041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9892

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E5202

Level: (low/med) LOW Date Received: 05/03/91

% Moisture: not dec. dec. Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/09/91

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

Number TICs found: 5

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Bis(dimethylethyl)phenol Iso	18.69	6.0	J
2.	UNKNOWN HYDROCARBON	26.11	11	J
3.	UNKNOWN	30.99	6.0	J
4.	UNKNOWN	32.94	9.0	J
5.	UNKNOWN	42.35	14	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W030

Lab Name: E 8 E INC. Conttact:

Lab Code: EANDE Case No.: 9101-041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9893

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E5203

Level: (low/med) LOW Oats Received: 05/03/91

% Moisture: not dec. dec. Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/09/91

GPC Cleanup: (Y/N) N pH: Dilution factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	IU
111-44-4	bis(2-Chloroethyl)Ether	10	IU
95-57-8	2-Chlorophenol	10	IU
541-73-1	1,3-Dichlorobenzene	10	IU
106-46-7	1,4-Dichlorobenzene	13	IU
100-51-6	Benzyl Alcohol	10	IU
95-50-1	1,2-Dichlorobenzene	10	IU
95-48-7	2-Methylphenol	10	IU
39638-32-9	bis(2-Chloroisopropyl)Ether	10	IU
106-44-5	4-Methylphenol	10	IU
621-64-7	N-Nitroso-Di-n-Propylamine	10	IU
67-72-1	Hexachloroethane	10	IU
98-95-3	Nitrobenzene	10	IU
78-59-1	Isophorone	10	IU
88-75-5	2-Nitrophenol	10	IU
105-67-9	2,4-Dimethylphenol	10	IU
65-85-0	Benzoic Acid	50	IU
111-91-1	bis(2-Chloroethoxy)Methane	10	IU
120-83-2	2,4-Dichlorophenol	10	IU
120-82-1	1,2,4-Trichlorobenzene	10	IU
91-20-3	Naphthalene	10	IU
106-47-8	4-Chloroaniline	10	IU
87-68-3	Hexachlorobutadiene	10	IU
59-50-7	4-Chloro-3-Methylphenol	10	IU
91-57-6	2-Methylnaphthalene	10	IU
77-47-4	Hexachlorocyclopentadiene	10	IU
88-06-2	2,4,6-Trichlorophenol	10	IU
95-95-4	2,4,5-Trichlorophenol	50	IU
91-58-7	2-Chloronaphthalene	10	IU
88-74-4	2-Nitroaniline	50	IU
131-11-3	Dimethyl Phthalate	10	IU
208-96-8	Acenaphthylene	10	IU
606-20-2	2,6-Dinitrotoluene	10	IU

0000991

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W030

b Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101_041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9893

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E5203

Level: (low/med) LOW Date Received: 05/03/91

% Moisture: not dec. dec. Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/09/91

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	9	BJ
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

W030

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101-041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9593

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E5203

Level: (low/med) LOW Date Received: 05/03/91

% Moisture: not dec. dec. Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/09/91

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

Plumber TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	8.49	30	BJ
2.	Bis(dimethylethyl)phenol Iso	18.69	10	J
3.	UNKNOWN HYDROCARBON	26.11	29	J
4.	UNKNOWN HYDROCARBON	28.19	4.0	J
5.	UNKNOWN HYDROCARBON	29.28	5.0	J
6.	UNKNOWN	31.00	8.0	J
7.	UNKNOWN	32.83	6.0	J
8.	UNKNOWN	32.93	12	J
9.	UNKNOWN	40.05	8.0	J
10.	UNKNOWN	42.37	22	J

0000992

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WFB05

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101_041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9894

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E5204

Level: (low/med) LOW Date Received: 05/03/91

% Moisture: not dec. dec. Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/09/91

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WFB05

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101-041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9894

Sample wt/vol: 1000 (g/mL) ML Lab File I@: E5204

Level: (low/med) LOW Date Received: 05/03/81

% Moisture: not dec. dec. Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 35/09/91

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTPATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	IU
83-32-9	Acenaphthene	10	IU
51-28-5	2,4-Dinitrophenol	50	IU
100-02-7	4-Nitrophenol	EO	IU
132-64-9	Dibenzofuran	10	IU
121-14-2	2,4-Dinitrotoluene	10	IU
84-66-2	Diethylphthalate	10	IU
7005-72-3	4-Chlorophenyl-phenylether	10	IU
86-73-7	Fluorene	10	IU
100-10-6	4-Nitroaniline	EO	IU
534-52-1	4,6-Dinitro-2-Methylphenol	50	IU
86-30-6	N-Nitrosodiphenylamine (1)	10	IU
101-55-3	4-Bromophenyl-phenylether	10	IU
118-74-1	Hexachlorobenzene	10	IU
87-86-5	Pentachlorophenol	50	IU
85-01-8	Phenanthrene	10	IU
120-12-7	Anthracene	10	IU
84-74-2	Di-n-Butylphthalate	10	IU
206-44-0	Fluoranthene	10	IU
129-00-0	Pyrene	10	IU
85-68-7	Butylbenzylphthalate	10	IU
91-94-1	3,3'-Dichlorobenzidine	20	IU
56-55-3	Benzo(a)Anthracene	10	IU
218-01-9	Chrysene	10	IU
117-81-7	bis(2-Ethylhexyl)Phthalate	3	IBJ
117-84-0	Di-n-Octyl Phthalate	10	IU
205-99-2	Benzo(b)Fluoranthene	10	IU
207-08-9	Benzo(k)Fluoranthene	10	IU
50-32-8	Benzo(a)Pyrene	10	IU
193-39-5	Indeno(1,2,3-cd)Pyrene	10	IU
53-70-3	Dibenz(a,h)Anthracene	10	IU
191-24-2	Benzo(g,h,i)Perylene	10	IU

(1) - Cannot be separated from Diphenylamine

0000993

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

WFB05

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101-041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9894

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E5204

Level: (low/med) LOW Date Receiued: 05/03/91

% Moisture: not dec. dec. Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/09/91

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

Number TICs found: 5

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	8.60	71	BJ
2.	Bis(dimethylethyl)phenol Iso	18.70	4.0	J
3.	UNKNOWN HYDROCARBON	26.11	33	J
4.	UNKNOWN	36.72	10	J
5.	UNKNOWN	40.15	19	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WRB05

Lab Name: E & E INC. Contract:

Lab Code: EANOE Case No.: 9101-041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9895

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E5205

Level: (low/med) LOW Date Received: 05/03/91

% Moisture: not dec. dec. Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

0000894

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WRB05

3 Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101_041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9895

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E5205

Level: (low/med) LOW Date Received: 05/03/91

% Moisture: not dec. dec. Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1	BJ
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101_041 SAS No. : SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 9895

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E5205

Level: (low/med) LOW Date Received: 05/03/91

% Moisture: not dec. dec. Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/10/91

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

Number TICs found: 2

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	8.40	17	BJ
2.	UNKNOWN	36.73	8.0	J

0000095

2C

WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Names-E & E INC. Contract:

Lab Code: EANDE Case No.: 9101_041 SAS No.: SDG No.:

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
01	W029	80	72	83	33	56	92	0	0
02	W029D	70	71	72	34	50	90	0	0
03	W030	78	65	70	29	48	88	0	0
04	WFB05	72	69	80	33	54	104	0	0
05	WRB05	70	72	86	30	52	92	0	0
06	SBLKW1	71	61	68	30	54	88	0	0

		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(35-114)
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)
S3 (TPH)	= Terphenyl	(33-141)
S4 (PHL)	= Phenol-d5	(10-94)
S5 (2FP)	= 2-Fluorophenol	(21-100)
S6 (TBP)	= 2,4,6-Tribromophenol	(10-123)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

FORM II SU-1 1/87 Rcw.

SEMIVOLATILE METHOD ELANK SUMMARY

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101-041 SAS No.: SDG No.:

Lsb File ID: E5199 Lab Sample ID: SBLKW1

Date Extracted: 05/06/91 Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 05/07/91 Time Analyzed: 1341

Matrix: (soil/water) WATER Level: (low/med) LOW

Instrument ID: 7002E

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	W029	9891	E5201	05/09/91
02	W029D	9892	E5202	05/09/91
03	W030	9893	E5203	05/09/91
04	WF305	9894	E5204	05/09/91
05	WRB05	9895	E5205	05/10/91

COMMENTS:

0000896

FORM IV SV 1/87 Rev.

recycled paper ecology and environment

1B

SEMIVOLATILE **ORGANICS** ANALYSIS DATA SHEET

EPA **SAMPLE** NO.

SBLKW1

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101_041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: SBLKW1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E5199

Level: (low/med) LOW Date Received:

% Moisture: not dec. dec. Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/09/91

GPC Cleanup: (Y/N) N pH: Dilution factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	13	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	1.0	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIUOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKW1

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101-041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: SBLKW1

Sample wt/vol: 1000 (g/mL) ML Lab File I@: E5199

Level: (low/med) LOW Date Received:

% Moisture: not dec. dec. Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/09/91

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	13	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	2	J
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

0000997

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLKW1

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 9101_041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: SBLKW1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E5199

Level: (low/med) LOW Date Received:

% Moisture: not dec. dec. Date Extracted: 05/06/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/09/91

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	8.40	6.0	J

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W029

Lab Name: E & E INS. Contract:

Lao Code: EANDE Case ho.: 041 SAS No.: SGG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9891

Samp 1e wt/vo 1: 1000 (g/mL) ML Lab File ID:

Leve I: (low/med) LOW Date Received: 05/03/91

% Moisture: not aec. dec. Date Extracted: 05/07/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/21/91

CPC Cleanup: (Y/N) N pH: Oilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	kroclor-1254	1.0	U
11096-82-5	Aroc 1or-1260	1.0	U

0000998

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W029D

L Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9892

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

Level: (low/med) LOW Gate Received: 05/03/91

% Moisture: not dec. dec. Date Extracted: 05/07/91

Extraction: (SepF/Cont/Sonc) SEPF Date knalyzed: 05/21/91

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W030

Lab Name: E 8 E INC. Contract:

Lab Code: EANDE Case ho.: 041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lao Sample ID: 9893

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

Level: (low/med) LOW Date Received: 05/03/31

% Moisture: not dec. dec. Date Extracted: 05/07/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/21/91

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Gicldrin	0.10	U
72-55-9	4,4'-DOE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulf8ta	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-I242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

0000S00

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WFB05

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9894

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

Level: (low/med) LOW Date Received: 05/03/91

% Moisture: not dec. dec. Date Extracted: 05/07/91

Extraction: (SepF/Cont/Sonc). SEPF Date Analyzed: 05/21/91

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WRB05

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 041 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9895

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

Level: (low/med) LOW Date Received: 05/03/91

% Moisture: not dec. dec. Date Extracted: 05/07/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/22/91

CPC Cleanup: (Y/N) N pH: Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1Old	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	kroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	kroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

2E
WATER PESTICIDE SURROGATE RECOVERY

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 041 SAS No.: SDG No.:

	EPA SAMPLE NO.	S1 (DBC)#	OTHER
01	PBLKW2	62	0
~~02~~	~~PBLKW3~~	~~115~~	~~0~~
03	MSB1	122	0
04	W029	38	0
05	W029D	55	0
06	W030	31	0
07	WFB05	15 *	0
08	WRB05	175 *	0

BK 6/12/91

ADVISORY QC LIMITS

S1 (DBC) = Gibutlychlorendate (24-154)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

4C

PESTICIDE METHOD BLANK SUMMARY

Lab Name: E & E INC. Contract:

Lao Code: EANDE Case No.: 041 SAS No. : SDG No.:

Lab Sample 10: 01_632-2 Lab File ID:

Matrix:(soil/water) WATER Level:(low/med) LOW

Date Extracted: 05/07/91 Extraction:(SepF/Cont/Sonc) SEPF

Date Analyzed (1): 05/21/91 Date Analyzed (2): 05/24/91

Time Analyzed (1): 1155 Time Analyzed (2): 2008

instrument IG (1): 6000_2A Instrument ID (2): 6000_2B

GC Column ID (1): OV-1 GC Coiumn ID (2): MIXED

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 21
01	MSB1	3121_632-2	05/21/91	
02	W029	9891	05/21/91	
03	W029D	9892	05/21/91	
04	W030	9893	05/21/91	
05	WFB05	9894	05/21/91	
06	WRB05	9895	05/22/91	

COMMENTS:

0000901

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKW2

Lab Name: E & E INC. Contract:

Lab Code: EANDE Case No.: 041 SAS No : SDG No :

Matrix: (soil/water) WATER Lab Sample ID: 01_032-2

Sample wt/vol: 1000 (g/ml) ML Lab File ID:

Level: (low/med) LOW Date Received:

% Moisture: not dec dec Date Extracted: 05/07/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/21/91

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U