LAW OFFICES OF
KEILEY, ENEA, PIUNTI & HAMILTON
A PROFESSIONAL CORPORATION

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222

July 31, 1995

Mr. Barney Chan
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, #260
Alameda, California 94502-6577

Re: Status of Subsurface Investigation at Pacific Dry Dock Yard II, 321 Embarcadero, Oakland, California 94606

Dear Mr. Chan:

The purpose of this letter is to follow up on the conference call we had last week with Stephen Wilson of Crowley Marine Services regarding the above referenced site. As we described during that telephone conversation, we believe that Crowley has already accomplished a significant portion of the site investigation to be conducted at Yard II. In response to the questions in your letter of June 29, 1995 we have prepared a brief chronology of the work we have done, and a description of the work remaining. That summary is enclosed.

In addition, we have the following responses to your comments, which are presented here and designated consistent with the numbered paragraphs in your letter:

1. With respect to your question regarding ownership of the underground storage tanks located at Yard II, unfortunately we are unable to prove a negative. Crowley does not own and has not operated any of the underground storage tanks located at Yard II, other than the one Crowley has already removed. Crowley has an agreement with the Port of Oakland which specifies, as to certain of the improvements and underground and above ground tanks, which party has assumed responsibility for which item. This agreement does not, however, cover all of the underground tanks, because Crowley is not willing to take responsibility for tanks it has neither owned nor operated, and the Port has also been unwilling to acknowledge legal responsibility for those tanks. Please note that Crowley is not the only tenant at the Yard, having been preceded, for example, by the United States Navy.

2. See enclosed Status Report.

Shouldn't there be verification of any other tanks? for billing purposes too.

3. As I believe you are aware, the Regional Water Quality Control Board directed Crowley to conduct a sampling program of the sediments in the estuarine portions of Yards I and II. The results of that sampling program were submitted to the Regional Board last year, and Crowley has not yet been informed whether any remediation will be required by the Board. At the present time Crowley is working with Steven Moore and Peter Otis regarding Crowley's NPDES permits and the impact of stormwater discharges and whether any remedial activities should be conducted above the high tide line to mitigate the impact of such discharges on the estuary.

We hope that these comments address your concerns. Please feel free to contact either Stephen Wilson or me if you have any further questions. We look forward to meeting with you at your offices on August 24th at 10:00 a.m.

Very truly yours,

Beth Hamilton

Beth L. Hamilton

c: R. Stephen Wilson, Crowley
Michael Holley, Versar
Michael Sellens, Versar
Dan Schoenholz, Port of Oakland
Steven Moore, RWQCB

STATUS REPORT

SITE INVESTIGATION AT PACIFIC DRY DOCK YARD II

July 31, 1995

The June 1991 Workplan for the site investigation at the Crowley Marine Services Pacific Dry Dock Yard II located at 321 Embarcadero in Oakland, California (the "Site") proposed the following scope of work:

(1) performance of a magnetometer and magnetic locator geophysical survey of the site to identify unrecorded underground storage tanks;

(2) drilling of bore holes for soil investigation;

(3) drilling and installation of groundwater monitoring wells;

(4) collection of soil and groundwater samples for laboratory analysis;

(5) analysis of soil and groundwater samples to determine accurate constituent concentrations; and

(6) reporting the results and conclusions of the site investigation.

The workplan was approved in August 1992 by the Alameda County Health Care Services Agency (ACHCSA).[1]

For ease of investigation, the site was divided into six areas of concern where distinct land use activities had occurred. These areas are shown on Figure 1 attached.

The status of the work outlined in the workplan is as follows:

---

[1] During 1992 and 1993, Crowley and its consultant Versar focused their efforts on producing workplans and sampling plans and conducting a sampling investigation related to the sediments in the estuarine portion of Crowley's leaseholds at Pacific Dry Dock Yards I and II. After the Workplan for Yard II was approved by the ACHSCA County Health Services Agency Crowley met with the Port of Oakland to negotiate an agreement respecting the responsibilities of the respective parties for investigation and remediation of the Site, since there have been tenants other than Crowley which have engaged in industrial activities at the Site.

1. Site UST Survey

As a result of a magnetic locator survey and visual observations by Crowley and Versar personnel, Crowley has acquired the following information regarding above ground and underground storage tanks at the Site:

- Area 2

In September 1994 Crowley removed an inactive underground storage tank from Area No. 2 in the central portion of the site, between the materials warehouse and the pipe shop. See Figure 1 for location of former UST. Laboratory analysis of soil samples collected from the excavated soil and the excavation walls following removal did not report any concentration of total petroleum hydrocarbons as gasoline, benzene, toluene, ethylbenzene and xylenes. The ACHCSA notified Crowley on March 2, 1995 that the site of the former UST could be closed without any further investigation.

Based on field observations during the removal of the UST described above, one other steel UST may be located directly north-west of the former location of the removed UST.

A concrete tank appears to be located near the north corner of the Power Pack Shop. This tank appears to be a case-in-place concrete unit.

- Area 3

There is one AST located in Area 3.

- Area 6

Two ASTs are located within a concrete containment structure at this portion of the Site.

There may be a UST located beneath a concrete slab between the two ASTs and the Power House, based on field observations made during a soil sampling event.

2. Borehole Installation

In May 1994 Versar installed 21 bore holes and submitted 93 soil samples and 1 grab groundwater sample for laboratory analysis. See Figure 2 attached for locations of the 1994 bore holes and the 1989 bore holes. The laboratory analytical results from the May 1994 investigation are summarized in Table 1 and also included in Figure 2. A copy of the laboratory analytical results is included as Appendix A.

Six borings were installed in Area 1 to define the lateral and vertical extent of potential impacts associated with the former location of a materials storage area.

Five borings were located in Area No. 2 to define the lateral and vertical extent of lead and halogenated VOC impacts identified during the 1989 investigation.

Three borings were located in Area No. 3 to determine if subsurface impacts were present as a result of operation of a 500 gallon above-ground diesel tank.

Two borings were located in Area No. 4 to determine whether there was any indication of petroleum hydrocarbon impacts where a workman had reported detecting an odor while installing a trench.

Three borings were located in Area No. 5 to investigate a location that had appeared discolored in an aerial photograph.

Three borings were located in Area No. 6 to determine the extent of potential impact resulting from operation of three above-ground storage tanks.

In April 1995 Crowley performed an additional subsurface soils investigation to define the lateral extent of impacted vadose soils at the site. The laboratory analytical results from the April 1995 investigation are summarized in Tables 2 and 3. A copy of the laboratory analytical results is included as Appendix A. Preliminary to this investigation, Versar reviewed historic aerial photographs to identify areas where industrial activities may have occurred. Based on the results of that review, five potential locations at the Site were identified for further investigation. Figure 3 depicts those five locations.

In addition, four other locations where potentially impacted soils had been previously identified were recommended for further investigation. The sampling conducted in those additional four locations is briefly summarized as follows:

- Soil samples were collected from two locations in Area No. 1 because earlier investigations had identified petroleum hydrocarbons, mercury, copper and lead.

- Six soil samples were collected from three locations in Area No. 2 to determine the extent of previously identified lead impacts.

- Twenty-one soil samples were collected from eighteen locations in Area No. 5 to define potential source areas of petroleum hydrocarbons and halogenated VOCs.

- Soil samples were collected from five locations in Area No. 6 in an attempt to identify a source area for petroleum hydrocarbons detected in monitoring well MW1.

3. Drilling and Installation of Six Groundwater Monitoring Wells

After the workplan was submitted, Crowley determined to conduct the groundwater monitoring well installation into two phases, so that selection of the locations of the wells could be based on the results of the site soil investigations and the survey for unregistered USTs.

In the first phase of the groundwater investigation, in July 1994 Crowley installed three 4" groundwater monitoring wells at the site. The wells were surveyed on February 7, 1995, developed on March 7, 1995 and purged and sampled on March 13, 1995 as part of the first round of a quarterly groundwater monitoring program. Details regarding the well installation and laboratory analytical results were submitted in the groundwater monitoring well installation and monitoring report transmitted to the ACHSCA by Stephen Wilson on June 22, 1995.

4. Collection of Soil and Groundwater Samples for Laboratory Analysis

Soil and groundwater samples were collected and submitted for laboratory analysis in connection with the installation of soil borings and monitoring wells described above.

5. Analyzing Soil and Groundwater Samples to Determine Accurate Constituent Concentrations

The results of laboratory analyses of soil and groundwater samples are attached hereto in Appendix A and Appendix B.

6. Preparation of Comprehensive Report

Crowley anticipates submitting a Preliminary Investigation and Evaluation Report (PIER) including details of the work described in this letter and related analytical results after the Phase 2 groundwater investigation is initiated. Crowley intends the Phase 2 groundwater investigation to consist of the following activities:

- To define the limits of impacted groundwater in Area No. 5, Crowley has installed nine temporary monitoring wells and collected grab groundwater samples for laboratory analysis. The results of laboratory analysis of these samples will be reported to the ACHSCA as soon as they are available. The wells were installed using a soil coring rig and were removed immediately following sample collection.

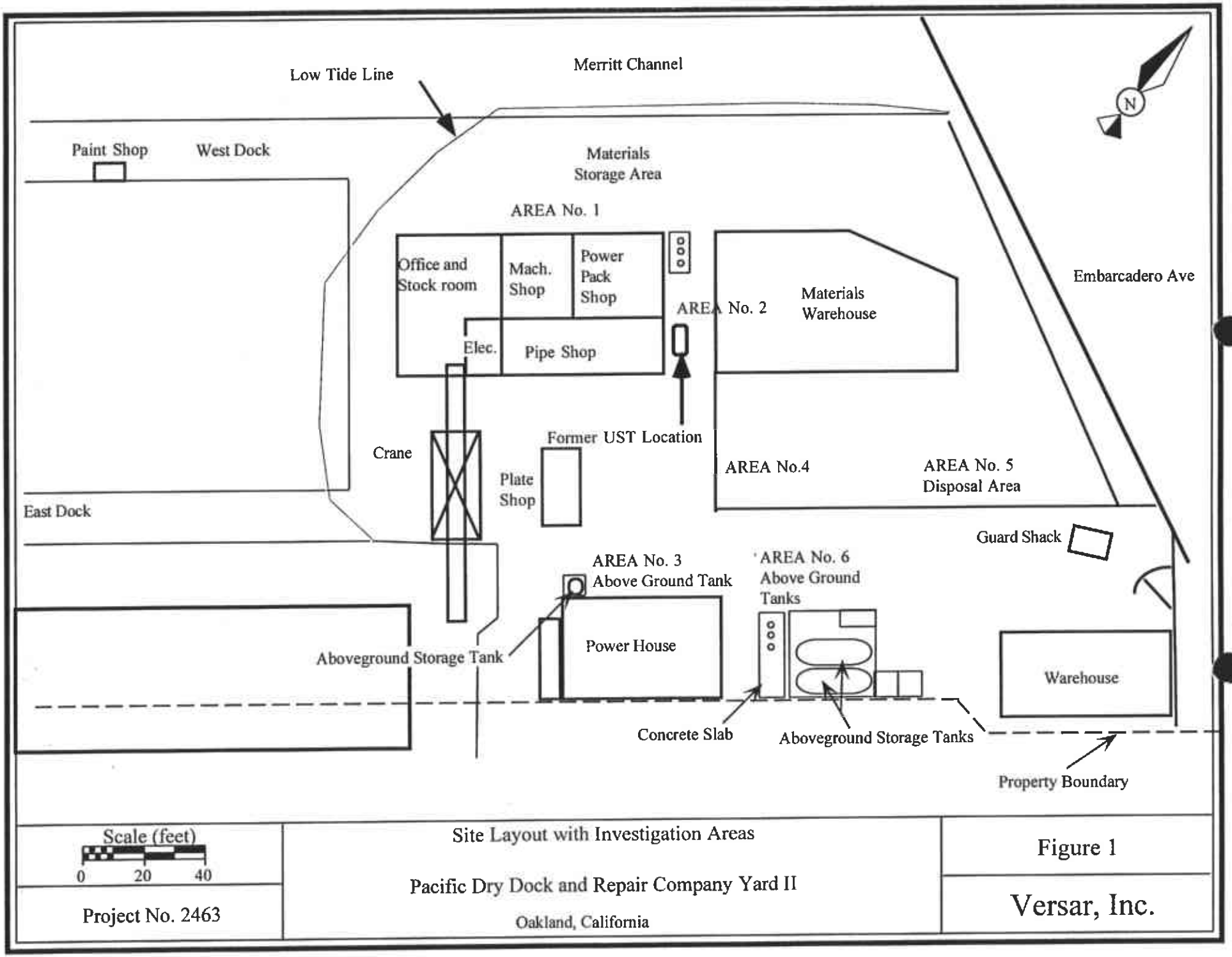
- Based on the results of the initial groundwater characterization, and after the ACHSCA has reviewed the proposed locations, Crowley will install three additional groundwater monitoring wells to define the extent of impact and to monitor the groundwater beneath the site.

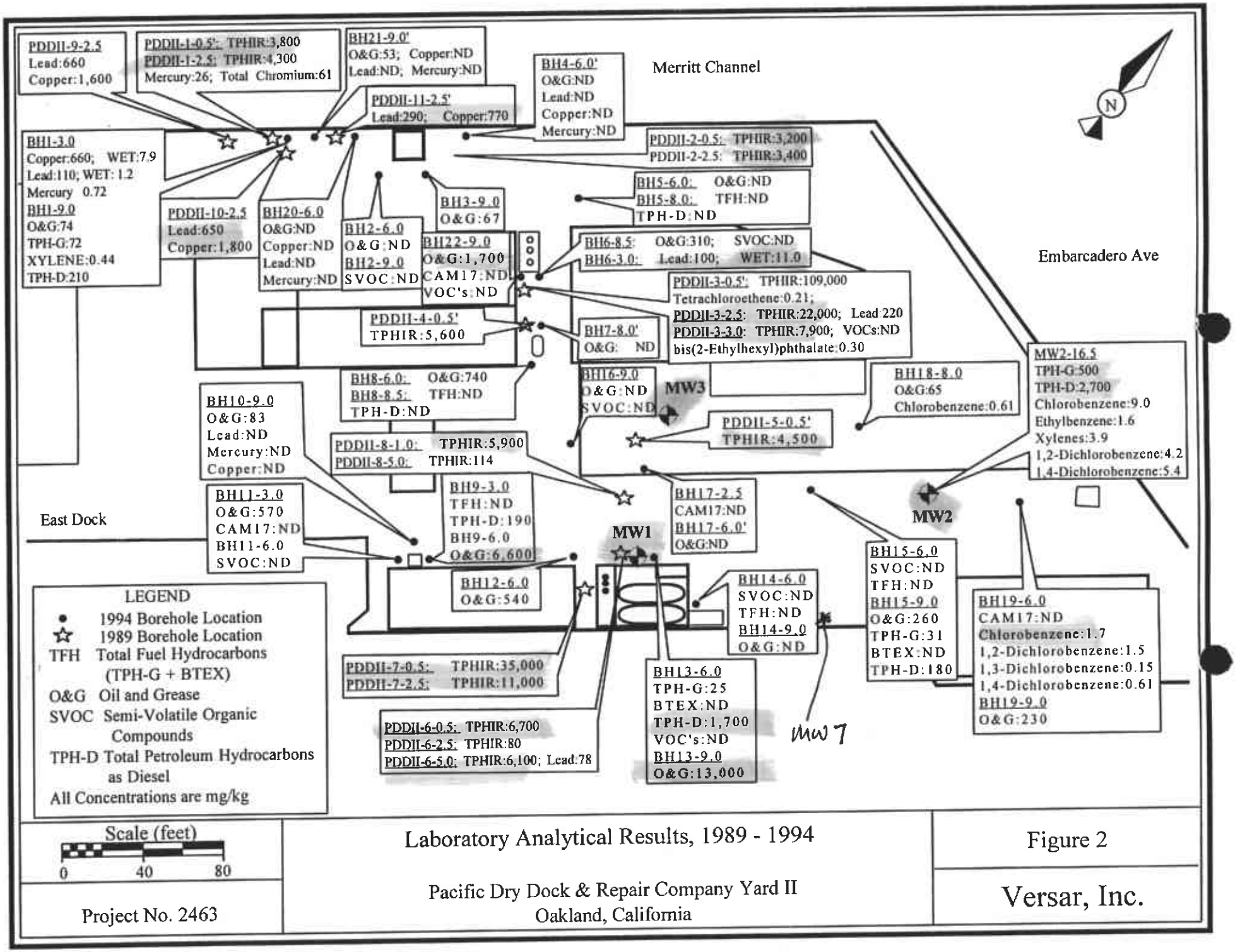
- Groundwater samples will be collected from all six monitoring wells on a quarterly basis.

The results of the entire site investigation will be presented in a PIER and submitted to the regulatory agencies. All data collected during the site investigation will be summarized in figures and tables according to the Tri-Regional Board Staff Guidance for Preliminary Investigation and Evaluation Reports of Underground Tank Sites.

The following schedule is proposed:

8/24/95	Presentation of interim findings of initial groundwater grab samples to ACHCSA
• 9/19/95	Install additional groundwater monitoring wells
11/15/95	Versar to submit Draft PIER to Crowley for review
12/12/95	Crowley to submit PIER to ACHCSA for review


Low Tide Line
Merritt Channel
N
Paint Shop
West Dock
Materials
Storage Area
AREA No. 1
Office and
Stock room
Mach.
Shop
Power
Pack
Shop
Elec.
Pipe Shop
AREA No. 2
Materials
Warehouse
Embarcadero Ave
Crane
Former UST Location
Plate
Shop
AREA No.4
AREA No. 5
Disposal Area
East Dock
Guard Shack
AREA No. 3
Above Ground Tank
AREA No. 6
Above Ground
Tanks
Power House
Aboveground Storage Tank
Warehouse
Concrete Slab
Aboveground Storage Tanks
Property Boundary
Scale (feet)
0
20
40
Site Layout with Investigation Areas
Pacific Dry Dock and Repair Company Yard II
Oakland, California
Figure 1
Project No. 2463
Versar, Inc.



Inner Harbor

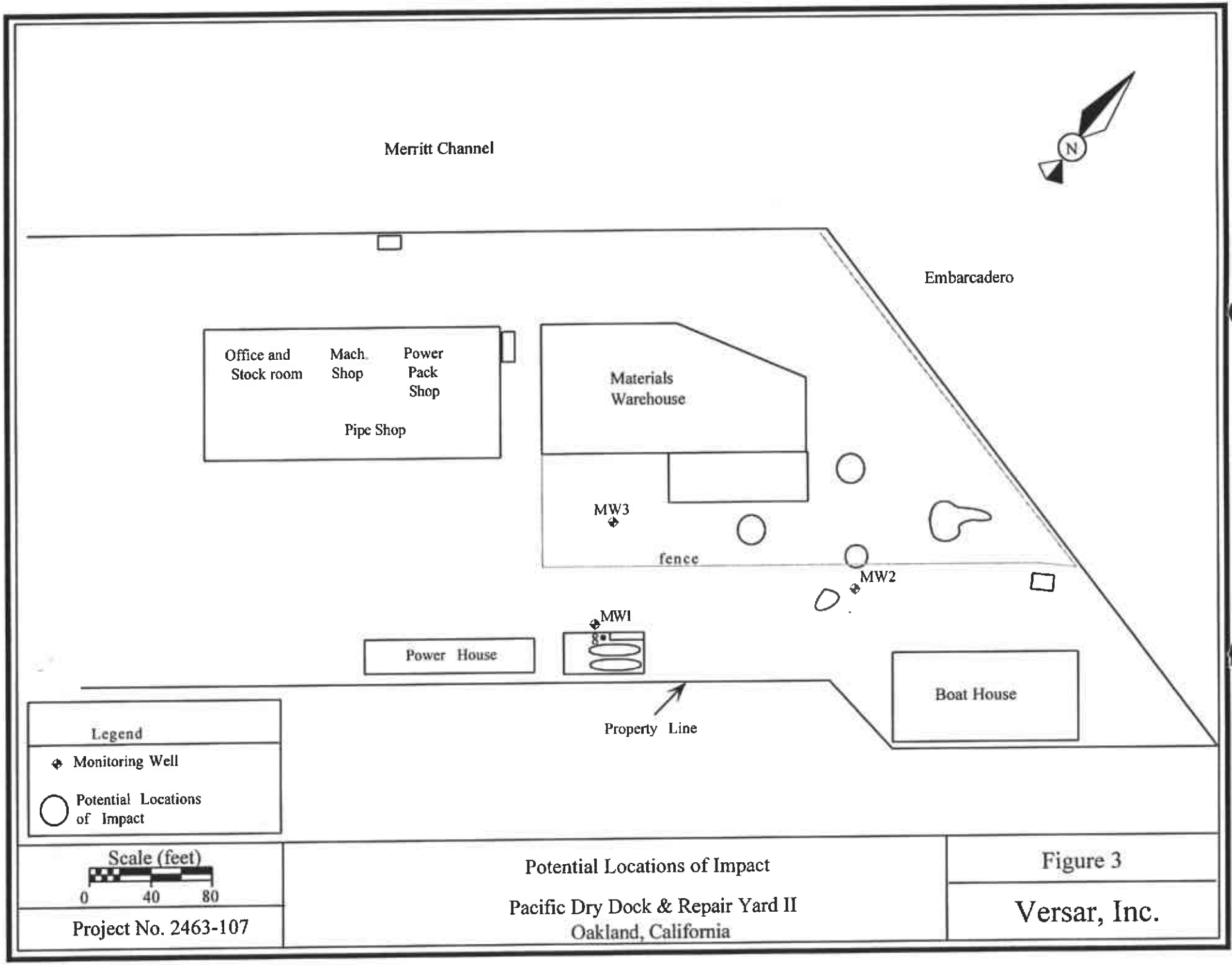

Merritt Channel
N
Embarcadero
Office and Stock room
Mach. Shop
Power Pack Shop
Pipe Shop
Materials Warehouse
MW3
fence
MW2
MW1
Power House
Boat House
Property Line
Legend
Monitoring Well
Potential Locations of Impact
Scale (feet)
0
40
80
Project No. 2463-107
Potential Locations of Impact
Pacific Dry Dock & Repair Yard II
Oakland, California
Figure 3
Versar, Inc.

Table 1

May 1994 Laboratory Analytical Results[1]

Pacific Dry Dock and Repair Company Yard II
Oakland, California

Boring No.	Depth (feet)	1,1,1-TCA[2] (µg/kg)	1,1,2-TCA[3] (µg/kg)	TCE[4] (µg/kg)	1,1-DCE[5] (µg/kg)	1,1-DCA[6] (µg/kg)
BH1	5.5	15	ND[7]	ND	ND	ND
BH1	10.5	250	ND	ND	ND	ND
BH1	15.5	90	3.9	ND	ND	ND
BH1	20.5	360	ND	ND	ND	ND
BH1	25.5	ND	ND	ND	ND	ND
BH2	5.5	5,940	ND	8.3	ND	ND
BH2	10.5	540	ND	ND	ND	ND
BH2	15.5	40	ND	ND	ND	ND
BH2	20.5	3,700	ND	ND	ND	ND
BH2	25.5	330[8]	ND	ND	ND	ND
BH3	6.5	32	ND	ND	ND	ND
BH3	10.5	58	ND	ND	ND	ND
BH3	15.5	35	ND	ND	ND	ND
BH3	20.5	930	ND	ND	ND	ND
BH3	25.5	ND	ND	ND	ND	ND
BH4	6.5	7.2	ND	ND	ND	ND
BH4	10.5	8	ND	ND	ND	ND
BH4	15.5	ND	ND	ND	ND	ND
BH4	20.5	1,940	ND	ND	ND	ND
BH4	25.5	190	ND	ND	24	43
BH5	5.5	ND	ND	ND	ND	ND
BH5	10.5	ND	ND	ND	ND	ND
BH5	16.5	6.7	ND	ND	ND	ND
BH5	20.5	ND	ND	ND	ND	ND
BH5	25.5	8.5	ND	ND	ND	ND

[1]All results are expressed in micrograms per kilogram (µg/kg) equivalent to parts per billion.
[2]1,1,1-trichloroethane.
[3]1,1,2-trichloroethane.
[4]Trichloroethene.
[5]1,1-dichloroethene.
[6]1,1-dichloroethane.
[7]ND=Not detected at or above the practical quantitation limit.
[8]Analyte detected below the practical quantitation limit at the concentration reported.

Table 2

April 1995 Laboratory Analytical Results[1]
Petroleum Hydrocarbons
Pacific Dry Dock and Repair Company Yard II
Oakland, California

Boring No.	Depth (feet)	TPH-D (µg/kg)	TPH-G (µg/kg)	BENZENE (µg/kg)	TOLUENE (µg/kg)	ETHYLBENZENE (µg/kg)	XYLENES (µg/kg)
CH1	4.0	1,300,000	73,000	580	88	ND[2]	1,500
CH1A	2.0	240,000	5,400	48	6.9	ND	140
CH1B	3.0	1,400	ND	ND	ND	ND	ND
CH1C	2.0	ND	ND	ND	ND	6.8	18
CH1C	4.5	910,000	23,000	100	ND	ND	300
CH2	1.0	18,000	4,500	ND	ND	ND	19
CH2A	2.5	8,700	16,000	2,100	ND	ND	660
CH2B	1.5	55,000	ND	ND	ND	5.3	ND
CH2C	2.5	44,000	ND	11	ND	ND	ND
CH2C	4.5	8,300	ND	ND	ND	ND	ND
CH3	4.0	ND	ND	ND	ND	9.2	22
CH3A	1.5	26,000	ND	ND	ND	ND	ND
CH3B	2.5	240,000	1,800	150	17	12	96
CH3C	2.0	ND	880	5.4	ND	ND	70
CH3D	2.0	940,000	9,600	810	ND	ND	3,600
CH3E	1.5	ND	ND	ND	ND	ND	ND
CH3E	4.0	ND	ND	ND	ND	ND	ND
CH3F	1.5	ND	ND	ND	ND	ND	ND
CH3F	4.0	ND	800	ND	ND	ND	ND
CH4	3.0	1,600	ND	ND	ND	ND	ND
CH4A	2.5	26,000	ND	ND	ND	ND	ND
CH4A	4.5	NA[3]	ND	ND	ND	ND	ND
CH5	1.5	ND	ND	ND	ND	ND	ND
CH6	2.5	5,300	ND	ND	ND	5.2	43
CH7	2.5	ND	ND	ND	ND	ND	ND
CH8	3.5	ND	ND	ND	ND	ND	ND
CH9	2.0	7,000	ND	ND	ND	ND	38
CH10	2.5	NA	NA	NA	NA	NA	NA
CH10	5.0	NA	NA	NA	NA	NA	NA
CH11	2.5	NA	NA	NA	NA	NA	NA
CH11	5.5	NA	NA	NA	NA	NA	NA
CH12	2.5	NA	NA	NA	NA	NA	NA
CH13	2.5	59,000	ND	ND	ND	ND	ND
CH14	2.5	ND	ND	ND	ND	ND	ND

[1]All results are expressed in micrograms per kilogram (µg/kg) equivalent to parts per billion.
[2]ND=Not detected at or above the practical quantitation limit.
[3]NA=Not analyzed for this constituent.

Table 3

April 1995 Laboratory Analytical Results[1]
Halogenated Volatile Organic Compounds and Metals
Pacific Dry Dock and Repair Company Yard II
Oakland, California

Boring No.	Depth (feet)	Chlorobenzene (µg/kg)	1,4-Dichlorobenzene (µg/kg)	Trichloroethene (µg/kg)	Organic Lead (µg/kg)	Total Lead (µg/kg)	Copper (µg/kg)
CH1	4.0	540	190	ND[2]	NA[3]	NA	NA
CH1A	2.0	220	ND	ND	NA	NA	NA
CH1B	3.0	34	ND	ND	NA	NA	NA
CH1C	2.0	ND	ND	ND	NA	NA	NA
CH1C	4.5	480	410	ND	NA	NA	NA
CH2	1.0	ND	ND	23	NA	NA	NA
CH2A	2.5	63	ND	ND	NA	NA	NA
CH2B	1.5	ND	ND	ND	NA	NA	NA
CH2C	2.5	ND	ND	ND	NA	NA	NA
CH2C	4.5	ND	ND	ND	NA	NA	NA
CH3	4.0	ND	ND	ND	NA	NA	NA
CH3A	1.5	ND	ND	ND	NA	NA	NA
CH3B	2.5	890	ND	ND	NA	NA	NA
CH3C	2.0	79	ND	ND	NA	NA	NA
CH3D	2.0	2,300	1,200	ND	NA	NA	NA
CH3E	1.5	ND	ND	ND	NA	NA	NA
CH3E	4.0	ND	ND	ND	NA	NA	NA
CH3F	1.5	ND	ND	ND	NA	NA	NA
CH3F	4.0	27	ND	ND	NA	NA	NA
CH4	3.0	ND[2]	ND	ND	NA[3]	NA	NA
CH4A	2.5	ND	ND	ND	NA	NA	NA
CH4A	4.5	ND	ND	ND	NA	NA	NA
CH10	2.5	NA	NA	NA	ND	5,400	NA
CH10	5.0	NA	NA	NA	ND	7,200	NA
CH11	2.5	NA	NA	NA	ND	17,000	NA
CH11	5.5	NA	NA	NA	ND	7,400	NA
CH12	2.5	NA	NA	NA	ND	38,000	NA
CH12	5.5	NA	NA	NA	ND	4,500	NA
CH13	2.5	NA	NA	NA	NA	92,000	98,000
CH14	2.5	NA	NA	NA	NA	13,000	22,000

[1]All results are expressed in micrograms per kilogram (µg/kg) equivalent to parts per billion.
[2]ND=Not detected at or above the practical quantitation limit.
[3]NA Not analyzed for this constituent.

APPENDIX A

Laboratory Analytical Results from May 1994 Investigation

Trace Analysis Laboratory, Inc.
3423 Investment Boulevard, #8 • Hayward, California 94545
Telephone (510) 783-6960
Facsimile (510) 783-1512

TAL

COPY

June 8, 1994

Mr. Lawrence Kleinecke
Versar, Inc.
5330 Primrose Drive, Suite 228
Fair Oaks, California 95628

Dear Mr. Kleinecke:

Trace Analysis Laboratory received thirty-two soil samples on May 17, 1994 for your Project No. 2463-001, Crowley Yard II (our custody log number 4419).

These samples were analyzed according to your chain of custody. Our analytical report and the completed chain of custody form are enclosed for your review.

Trace Analysis Laboratory is certified under the California Environmental Laboratory Accreditation Program. Our certification number is 1199.

If you should have any questions or require additional information, please call me.

Sincerely yours,

Scott T. Ferriman

Scott T. Ferriman
Project Specialist

Enclosures

Trace Analysis Laboratory, Inc.
3423 Investment Boulevard, #8 • Hayward, California 94545
Telephone (510) 783-6960
Facsimile (510) 783-1512

TAL

LOG NUMBER: 4419
DATE SAMPLED: 05/17/94
DATE RECEIVED: 05/17/94
DATE EXTRACTED: 05/26/94
DATE ANALYZED: 05/30/94
DATE REPORTED: 06/08/94

CUSTOMER: Versar, Inc.

REQUESTER: Lawrence Kleineke

PROJECT: No. 2463-001, Crowley Yard II

Sample Type: Soil

Method and Constituent:	Units	BH1-9.0 Concentration	BH1-9.0 Reporting Limit	BH5-8.0 Concentration	BH5-8.0 Reporting Limit	BH8-8.5 Concentration	BH8-8.5 Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Diesel	ug/kg	210,000	1,000	ND	1,000	ND	1,000

Method and Constituent:	Units	BH9-3.0 Concentration	BH9-3.0 Reporting Limit	Method Blank Concentration	Method Blank Reporting Limit
DHS Method:					
Total Petroleum Hydrocarbons as Diesel	ug/kg	190,000	1,000	ND	1,000

QC Summary:

% Recovery: 119
% RPD: 1.9

Concentrations reported as ND were not detected at or above the reporting limit.

Sample BH1-9.0 contains compounds eluting earlier than the diesel standard.

Sample BH9-3.0 contains compounds eluting later than the diesel standard.

LOG NUMBER: 4419
DATE SAMPLED: 05/17/94
DATE RECEIVED: 05/17/94
DATE EXTRACTED: 05/25/94
DATE ANALYZED: 05/26/94 and 05/27/94
DATE REPORTED: 06/08/94
PAGE: Two

Sample Type: Soil

Method and Constituent:	Units	BH1-9.0 Concentration	BH1-9.0 Reporting Limit	BH5-8.0 Concentration	BH5-8.0 Reporting Limit	BH8-8.5 Concentration	BH8-8.5 Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/kg	72,000	6,300	ND	500	ND	500
Modified EPA Method 8020 for:							
Benzene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Toluene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Ethylbenzene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Xylenes	ug/kg	440	15	ND	15	ND	15

Method and Constituent:	Units	BH9-3.0 Concentration	BH9-3.0 Reporting Limit	Method Blank Concentration	Method Blank Reporting Limit
DHS Method:					
Total Petroleum Hydrocarbons as Gasoline	ug/kg	ND	500	ND	500
Modified EPA Method 8020 for:					
Benzene	ug/kg	ND	5.0	ND	5.0
Toluene	ug/kg	ND	5.0	ND	5.0
Ethylbenzene	ug/kg	ND	5.0	ND	5.0
Xylenes	ug/kg	ND	15	ND	15

QC Summary:

% Recovery: 86
% RPD: 6.6

Concentrations reported as ND were not detected at or above the reporting limit.

Trace Analysis Laboratory, Inc.

LOG NUMBER: 4419
DATE SAMPLED: 05/17/94
DATE RECEIVED: 05/17/94
DATE EXTRACTED: 06/07/94
DATE ANALYZED: 06/08/94
DATE REPORTED: 06/08/94
PAGE: Three

Sample Type: Soil

Method and Constituent:	Units	BH1-9.0 Concentration	BH1-9.0 Reporting Limit	BH2-6.0 Concentration	BH2-6.0 Reporting Limit	BH3-9 Concentration	BH3-9 Reporting Limit
Standard Method 5520CF:							
Hydrocarbon							
Oil and Grease	ug/kg	74,000	50,000	ND	50,000	67,000	50,000

Method and Constituent:	Units	BH4-6 Concentration	BH4-6 Reporting Limit	BH5-6.0 Concentration	BH5-6.0 Reporting Limit	BH6B-8.5 Concentration	BH6B-8.5 Reporting Limit
Standard Method 5520CF:							
Hydrocarbon							
Oil and Grease	ug/kg	ND	50,000	ND	50,000	310,000	50,000

Method and Constituent:	Units	BH7-8 Concentration	BH7-8 Reporting Limit	BH8-6 Concentration	BH8-6 Reporting Limit	BH9-6.0 Concentration	BH9-6.0 Reporting Limit
Standard Method 5520CF:							
Hydrocarbon							
Oil and Grease	ug/kg	ND	50,000	740,000	50,000	6,600,000	50,000

Method and Constituent:	Units	BH10B-9.0 Concentration	BH10B-9.0 Reporting Limit	BH11-3.0 Concentration	BH11-3.0 Reporting Limit	Method Blank Concentration	Method Blank Reporting Limit
Standard Method 5520CF:							
Hydrocarbon							
Oil and Grease	ug/kg	83,000	50,000	570,000	50,000	ND	50,000

QC Summary:

% Recovery: 120
% RPD: 15

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 4419
DATE SAMPLED: 05/17/94
DATE RECEIVED: 05/17/94
DATE EXTRACTED: 05/26/94
DATE ANALYZED: 06/04/94
DATE REPORTED: 06/08/94
PAGE: Four

Sample Type: Soil

Method and Constituent:	Units	BH2-9.0 Concentration	BH2-9.0 Reporting Limit	BH6B-8.5 Concentration	BH6B-8.5 Reporting Limit	BH11-6.0 Concentration	BH11-6.0 Reporting Limit
EPA Method 8270:							
Pyridine	ug/kg	ND	3,600	ND	3,600	ND	3,600
N-Nitrosodimethylamine	ug/kg	ND	660	ND	660	ND	660
Phenol	ug/kg	ND	660	ND	660	ND	660
Bis (2-Chloroethyl) Ether	ug/kg	ND	660	ND	660	ND	660
2-Chlorophenol	ug/kg	ND	660	ND	660	ND	660
1,3-Dichlorobenzene	ug/kg	ND	660	ND	660	ND	660
1,4-Dichlorobenzene	ug/kg	ND	660	ND	660	ND	660
1,2-Dichlorobenzene	ug/kg	ND	660	ND	660	ND	660
Bis (2-Chloroisopropyl) Ether	ug/kg	ND	660	ND	660	ND	660
N-Nitroso-Di-N-Propylamine	ug/kg	ND	660	ND	660	ND	660
Acetophenone	ug/kg	ND	660	ND	660	ND	660
2-Methylphenol (O-Cresol)	ug/kg	ND	660	ND	660	ND	660
Hexachloroethane	ug/kg	ND	660	ND	660	ND	660
Nitrobenzene	ug/kg	ND	660	ND	660	ND	660
Isophorone	ug/kg	ND	660	ND	660	ND	660
2-Nitrophenol	ug/kg	ND	660	ND	660	ND	660
2,4-Dimethylphenol	ug/kg	ND	660	ND	660	ND	660
Bis(2-Chloroethoxy) Methane	ug/kg	ND	660	ND	660	ND	660
2,4-Dichlorophenol	ug/kg	ND	660	ND	660	ND	660
1,2,4-Trichlorobenzene	ug/kg	ND	660	ND	660	ND	660
Naphthalene	ug/kg	ND	660	ND	660	ND	660

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 4419
DATE SAMPLED: 05/17/94
DATE RECEIVED: 05/17/94
DATE EXTRACTED: 05/26/94
DATE ANALYZED: 06/04/94
DATE REPORTED: 06/08/94
PAGE: Five

Sample Type: Soil

Method and Constituent	Units	BH2-9.0 Concentration	BH2-9.0 Reporting Limit	BH6B-8.5 Concentration	BH6B-8.5 Reporting Limit	BH11-6.0 Concentration	BH11-6.0 Reporting Limit
EPA Method 8270 (Continued):							
Hexachlorobutadiene	ug/kg	ND	660	ND	660	ND	660
3-Methylphenol and 4-Methylphenol (m-Cresol and p-Cresol)	ug/kg	ND	1,300	ND	1,300	ND	1,300
4-Chloro-3-Methyl-phenol	ug/kg	ND	1,300	ND	1,300	ND	1,300
Hexachlorocyclo-pentadiene	ug/kg	ND	660	ND	660	ND	660
2,4,6-Trichlorophenol	ug/kg	ND	660	ND	660	ND	660
2,4,5-Trichlorophenol	ug/kg	ND	660	ND	660	ND	660
2-Chloronaphthalene	ug/kg	ND	660	ND	660	ND	660
Benzoic Acid	ug/kg	ND	3,600	ND	3,600	ND	3,600
Dimethylphthalate	ug/kg	ND	660	ND	660	ND	660
Acenaphthylene	ug/kg	ND	660	ND	660	ND	660
Acenaphthene	ug/kg	ND	660	ND	660	ND	660
2,4-Dinitrophenol	ug/kg	ND	3,600	ND	3,600	ND	3,600
4-Nitrophenol	ug/kg	ND	3,600	ND	3,600	ND	3,600
2,4-Dinitrotoluene	ug/kg	ND	660	ND	660	ND	660
2,6-Dinitrotoluene	ug/kg	ND	660	ND	660	ND	660
Diethylphthalate	ug/kg	ND	660	ND	660	ND	660
4-Chlorophenyl-phenyl-ether	ug/kg	ND	660	ND	660	ND	660
Fluorene	ug/kg	ND	660	ND	660	ND	660
N-Nitrosodiphenylamine	ug/kg	ND	660	ND	660	ND	660
4-Bromophenyl-phenyl-ether	ug/kg	ND	660	ND	660	ND	660
Hexachlorobenzene	ug/kg	ND	660	ND	660	ND	660
Pentachlorophenol	ug/kg	ND	3,600	ND	3,600	ND	3,600
Phenanthrene	ug/kg	ND	660	ND	660	ND	660
Anthracene	ug/kg	ND	660	ND	660	ND	660

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 4419
DATE SAMPLED: 05/17/94
DATE RECEIVED: 05/17/94
DATE EXTRACTED: 05/26/94
DATE ANALYZED: 06/04/94
DATE REPORTED: 06/08/94
PAGE: Six

Sample Type: Soil

Method and Constituent:	Units	BH2-9.0 Concentration	BH2-9.0 Reporting Limit	BH6B-8.5 Concentration	BH6B-8.5 Reporting Limit	BH11-6.0 Concentration	BH11-6.0 Reporting Limit
EPA Method 8270 (Continued):							
Di-N-Butylphthalate	ug/kg	ND	660	ND	660	ND	660
1,2,4,5-Tetrachlorobenzene	ug/kg	ND	660	ND	660	ND	660
4,6-Dinitro-2-Methylphenol	ug/kg	ND	660	ND	660	ND	660
Pentachloronitrobenzene	ug/kg	ND	660	ND	660	ND	660
Fluoranthene	ug/kg	ND	660	ND	660	ND	660
Benzidine	ug/kg	ND	660	ND	660	ND	660
Pyrene	ug/kg	ND	660	ND	660	ND	660
Butylbenzylphthalate	ug/kg	ND	660	ND	660	ND	660
3,3'-Dichlorobenzidine	ug/kg	ND	1,300	ND	1,300	ND	1,300
Benzo(a)Anthracene	ug/kg	ND	660	ND	660	ND	660
Bis(2-Ethylhexyl) Phthalate	ug/kg	ND	660	ND	660	ND	660
Chrysene	ug/kg	ND	660	ND	660	ND	660
Di-N-Octylphthalate	ug/kg	ND	660	ND	660	ND	660
Benzo(b)Fluoranthene	ug/kg	ND	660	ND	660	ND	660
Benzo(k)Fluoranthene	ug/kg	ND	660	ND	660	ND	660
Benzo(a)Pyrene	ug/kg	ND	660	ND	660	ND	660
3-Methylcholanthrene	ug/kg	ND	660	ND	660	ND	660
Indeno(1,2,3-cd)Pyrene	ug/kg	ND	660	ND	660	ND	660
Dibenzo(a,h)Anthracene	ug/kg	ND	660	ND	660	ND	660
Benzo(g,h,i)Perylene	ug/kg	ND	660	ND	660	ND	660
Surrogate % Recovery:							
2-Fluorophenol		111		110		119	
Phenol d6		82		86		86	
Nitrobenzene d5		51		57		60	
2-Fluorobiphenyl		122		126		136	
2,4,6-Tribromophenol		41		45		67	
p-Terphenyl d14		127		141		138	

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 4419
DATE SAMPLED: 05/17/94
DATE RECEIVED: 05/17/94
DATE EXTRACTED: 05/26/94
DATE ANALYZED: 06/04/94
DATE REPORTED: 06/08/94
PAGE: Seven

Sample Type: Soil

Method and Constituent:	Units	Method Blank Concentration	Method Blank Reporting Limit
EPA Method 8270:			
Pyridine	ug/kg	ND	3,600
N-Nitrosodimethylamine	ug/kg	ND	660
Phenol	ug/kg	ND	660
Bis (2-Chloroethyl) Ether	ug/kg	ND	660
2-Chlorophenol	ug/kg	ND	660
1,3-Dichlorobenzene	ug/kg	ND	660
1,4-Dichlorobenzene	ug/kg	ND	660
1,2-Dichlorobenzene	ug/kg	ND	660
Bis (2-Chloroisopropyl) Ether	ug/kg	ND	660
N-Nitroso-Di-N-Propylamine	ug/kg	ND	660
Acetophenone	ug/kg	ND	660
2-Methylphenol (O-Cresol)	ug/kg	ND	660
Hexachloroethane	ug/kg	ND	660
Nitrobenzene	ug/kg	ND	660
Isophorone	ug/kg	ND	660
2-Nitrophenol	ug/kg	ND	660
2,4-Dimethylphenol	ug/kg	ND	660
Bis(2-Chloroethoxy) Methane	ug/kg	ND	660
2,4-Dichlorophenol	ug/kg	ND	660
1,2,4-Trichlorobenzene	ug/kg	ND	660
Naphthalene	ug/kg	ND	660

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 4419
DATE SAMPLED: 05/17/94
DATE RECEIVED: 05/17/94
DATE EXTRACTED: 05/26/94
DATE ANALYZED: 06/04/94
DATE REPORTED: 06/08/94
PAGE: Eight

Sample Type: Soil

Method and Constituent	Units	Method Blank Concentration	Method Blank Reporting Limit
EPA Method 8270 (Continued):			
Hexachlorobutadiene	ug/kg	ND	660
3-Methylphenol and 4-Methylphenol (m-Cresol and p-Cresol)	ug/kg	ND	1,300
4-Chloro-3-Methyl-phenol	ug/kg	ND	1,300
Hexachlorocyclo-pentadiene	ug/kg	ND	660
2,4,6-Trichlorophenol	ug/kg	ND	660
2,4,5-Trichlorophenol	ug/kg	ND	660
2-Chloronaphthalene	ug/kg	ND	660
Benzoic Acid	ug/kg	ND	3,600
Dimethylphthalate	ug/kg	ND	660
Acenaphthylene	ug/kg	ND	660
Acenaphthene	ug/kg	ND	660
2,4-Dinitrophenol	ug/kg	ND	3,600
4-Nitrophenol	ug/kg	ND	3,600
2,4-Dinitrotoluene	ug/kg	ND	660
2,6-Dinitrotoluene	ug/kg	ND	660
Diethylphthalate	ug/kg	ND	660
4-Chlorophenyl-phenyl-ether	ug/kg	ND	660
Fluorene	ug/kg	ND	660
N-Nitrosodiphenylamine	ug/kg	ND	660
4-Bromophenyl-phenyl-ether	ug/kg	ND	660
Hexachlorobenzene	ug/kg	ND	660
Pentachlorophenol	ug/kg	ND	3,600
Phenanthrene	ug/kg	ND	660
Anthracene	ug/kg	ND	660

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 4419
DATE SAMPLED: 05/17/94
DATE RECEIVED: 05/17/94
DATE EXTRACTED: 05/26/94
DATE ANALYZED: 06/04/94
DATE REPORTED: 06/08/94
PAGE: Nine

Sample Type: Soil

Method and Constituent:	Units	Method Blank Concentration	Method Blank Reporting Limit
EPA Method 8270 (Continued):			
Di-N-Butylphthalate	ug/kg	ND	660
1,2,4,5-Tetrachlorobenzene	ug/kg	ND	660
4,6-Dinitro-2-Methylphenol	ug/kg	ND	660
Pentachloronitrobenzene	ug/kg	ND	660
Fluoranthene	ug/kg	ND	660
Benzidine	ug/kg	ND	660
Pyrene	ug/kg	ND	660
Butylbenzylphthalate	ug/kg	ND	660
3,3'-Dichlorobenzidine	ug/kg	ND	1,300
Benzo(a)Anthracene	ug/kg	ND	660
Bis(2-Ethylhexyl) Phthalate	ug/kg	ND	660
Chrysene	ug/kg	ND	660
Di-N-Octylphthalate	ug/kg	ND	660
Benzo(b)Fluoranthene	ug/kg	ND	660
Benzo(k)Fluoranthene	ug/kg	ND	660
Benzo(a)Pyrene	ug/kg	ND	660
3-Methylcholanthrene	ug/kg	ND	660
Indeno(1,2,3-cd)Pyrene	ug/kg	ND	660
Dibenzo(a,h)Anthracene	ug/kg	ND	660
Benzo(g,h,i)Perylene	ug/kg	ND	660

Surrogate % Recovery:	
2-Fluorophenol	100
Phenol d6	84
Nitrobenzene d5	48
2-Fluorobiphenyl	114
2,4,6-Tribromophenol	41
p-Terphenyl d14	129

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 4419
DATE SAMPLED: 05/17/94
DATE RECEIVED: 05/17/94
DATE EXTRACTED: 05/18/94 and 05/20/94
DATE ANALYZED: 05/20/94 and 05/25/94
DATE REPORTED: 06/08/94
PAGE: Ten

Sample Type: Soil

Method and Constituent:	Units	BH4-6 Concentration	BH4-6 Reporting Limit	BH6A-3.0 Concentration	BH6A-3.0 Reporting Limit	BH10A-3.0 Concentration	BH10A-3.0 Reporting Limit
EPA Method 7210:							
Copper	ug/kg	7,500	500	58,000	500	28,000	500
EPA Method 7420:							
Lead	ug/kg	3,900	3,600	100,000	3,600	8,100	3,600
EPA Method 7471:							
Mercury	ug/kg	200	120	ND	120	560	120

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 4419
DATE SAMPLED: 05/17/94
DATE RECEIVED: 05/17/94
DATE EXTRACTED: 05/18/94 and 05/20/94
DATE ANALYZED: 05/20/94 and 05/25/94
DATE REPORTED: 06/08/94
PAGE: Eleven

Sample Type: Soil

Method and Constituent:	Units	Method Blank Concentration	Method Blank Reporting Limit	QC Summary % Recovery	QC Summary % RPD
EPA Method 7210:					
Copper	ug/kg	ND	500	107	6.3
EPA Method 7420:					
Lead	ug/kg	ND	3,600	102*	2.1
EPA Method 7471:					
Mercury	ug/kg	ND	120	94	1.7

Concentrations reported as ND were not detected at or above the reporting limit.

* The Recovery is for the Laboratory Control Sample, due to interference in the spiked sample

LOG NUMBER: 4419
DATE SAMPLED: 05/17/94
DATE RECEIVED: 05/17/94
DATE EXTRACTED: 05/18/94
DATE ANALYZED: 05/20/94 and/05/25/94
DATE REPORTED: 06/08/94
PAGE: Twelve

Sample Type: Soil

Method and Constituent:	Units	BH1-3.0 Concentration	BH1-3.0 Reporting Limit	BH11-3.0 Concentration	BH11-3.0 Reporting Limit	Method Blank Concentration	Method Blank Reporting Limit
EPA Method 7040:							
Antimony	ug/kg	ND	79,000	ND	79,000	ND	79,000
EPA Method 7060:							
Arsenic	ug/kg	14,000	350	11,000	350	ND	350
EPA Method 7080:							
Barium	ug/kg	ND	50,000	ND	50,000	ND	50,000
EPA Method 7090:							
Beryllium	ug/kg	ND	120	ND	120	ND	120
EPA Method 7130:							
Cadmium	ug/kg	ND	250	ND	250	ND	250
EPA Method 7190:							
Chromium	ug/kg	12,000	1,200	1,200	1,200	ND	1,200
EPA Method 7200:							
Cobalt	ug/kg	ND	12,000	ND	12,000	ND	12,000
EPA Method 7210:							
Copper	ug/kg	660,000	500	56,000	500	ND	500
EPA Method 7420:							
Lead	ug/kg	110,000	3,600	7,900	3,600	ND	3,600

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 4419
DATE SAMPLED: 05/17/94
DATE RECEIVED: 05/17/94
DATE EXTRACTED: 05/18/94 and 05/20/94
DATE ANALYZED: 05/20/94, 05/24/94, 05/25/94, and 05/26/94
DATE REPORTED: 06/08/94
PAGE: Thirteen

Sample Type: Soil

Method and Constituent:	Units	BH1-3.0 Concentration	BH1-3.0 Reporting Limit	BH11-3.0 Concentration	BH11-3.0 Reporting Limit	Method Blank Concentration	Method Blank Reporting Limit
EPA Method 7471:							
Mercury	ug/kg	720	120	160	120	ND	120
EPA Method 7480:							
Molybdenum	ug/kg	ND	25,000	ND	25,000	ND	25,000
EPA Method 7520:							
Nickel	ug/kg	ND	7,500	ND	7,500	ND	7,500
EPA Method 7740:							
Selenium	ug/kg	300	250	ND	250	ND	250
EPA Method 7760:							
Silver	ug/kg	ND	280	ND	280	ND	280
EPA Method 7840:							
Thallium	ug/kg	ND	2,500	ND	2,500	ND	2,500
EPA Method 7910:							
Vanadium	ug/kg	24,000	5,000	44,000	5,000	ND	5,000
EPA Method 7950:							
Zinc	ug/kg	510,000	1,200	80,000	1,200	ND	1,200

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 4419
DATE SAMPLED: 05/17/94
DATE RECEIVED: 05/17/94
DATE EXTRACTED: 05/18/94
DATE ANALYZED: 05/20/94 and 05/25/94
DATE REPORTED: 06/08/94
PAGE: Fourteen

Sample Type: Soil

QC Summary

Method and Constituent:	% Recovery	% RPD
EPA Method 7040:		
Antimony	100*	3.8
EPA Method 7060:		
Arsenic	112	13
EPA Method 7080:		
Barium	61	12
EPA Method 7090:		
Beryllium	76	5.8
EPA Method 7130:		
Cadmium	94	2.6
EPA Method 7190:		
Chromium	87	3.4
EPA Method 7200:		
Cobalt	99	2.7
EPA Method 7210:		
Copper	107	6.3
EPA Method 7420:		
Lead	102*	2.1

* The Recovery is for the Laboratory Control Sample, due to interference in the spiked sample.

LOG NUMBER: 4419
DATE SAMPLED: 05/17/94
DATE RECEIVED: 05/17/94
DATE EXTRACTED: 05/18/94 and 05/20/94
DATE ANALYZED: 05/20/94, 05/24/94, 05/25/94, and 05/26/94
DATE REPORTED: 06/08/94
PAGE: Fifteen

Sample Type: Soil

QC Summary

Method and Constituent:	% Recovery	% RPD
EPA Method 7471:		
Mercury	94	1.7
EPA Method 7480:		
Molybdenum	94	2.6
EPA Method 7520:		
Nickel	93	4.7
EPA Method 7740:		
Selenium	67	3.2
EPA Method 7760:		
Silver	90*	33
EPA Method 7840:		
Thallium	92	2.2
EPA Method 7910:		
Vanadium	97	2.9
EPA Method 7950:		
Zinc	114	3.2

* The Recovery is for the Laboratory Control Sample, due to interference in the spiked sample.

Louis W. DuPuis
Quality Assurance/Quality Control Manager

Versar INC.

CHAIN OF CUSTODY RECORD

4419

PROJECT NO.	PROJECT NAME
2463-001	Crowley Yard II

SAMPLERS: (Signature) Philip M. Cox (Printed) Philip M. Cox

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	PARAMETERS: EPA 5520 E&G (Part 1 of 4)	TPH - D	Gas/BTEX	SVOCs EPA 8270	Total Pb, Cu, Hg	CAM 17	INDUSTRIAL HYGIENE SAMPLE Y	N	REMARKS
BH1-3.0	5/16/94	0855		X	Borehole 1	1						X			
BH1-6.0		0900				1									
BH1-9.0		0902				1	X	X	X						
BH2-3.0		0925			Borehole 2	1									
BH2-6.0		0933				1	X								
BH2-9.0		0937				1	X			X					NO 5520
BH3-3		1000			Borehole 3	1									
BH3-6		1010				1									
BH3-9		1015				1	X								
BH4-3		1020			Borehole 4	1									
BH4-6		1025				1	X				X				
BH4-8.5		1030				1									

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Philip M. Cox	5/17/94 1635				
(Printed) Philip M. Cox		(Printed)	(Printed)		(Printed)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Scott T. Ferraman	Date / Time 5/17/94 1635	Remarks 14 day TAT Results to Larry Kleinke	
(Printed)		(Printed) Scott T. Ferraman			

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

Versar INC.

CHAIN OF CUSTODY RECORD

4419

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE	Y / N
2463-001	Crowley Yard II		

SAMPLERS: *(Signature)* Philip M. Cox

(Printed) Philip M. Cox

PARAMETERS

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	EPA 5520 C+F 418.1 5520 E	TPH-D	Gas/BTEX	SVOCs EPA 8270	Total (Pb, Cu, Hg)	CAM 17			REMARKS
BH5-3.0	5/17/94	1055		X	Borehole 5	1									
BH5-6.0	↓	1058		↓	↓	1	X								
BH5-8.0	↓	1104		↓	↓	1		X	X						
BH6A-3.0	↓	1116		↓	Borehole 6A	1					X				
BH6B-3.0	↓	1130		↓	Borehole 6B	1									
BH6B-6.0	↓	1134		↓	↓	1									
BH6B-8.5	↓	1137		↓	↓	1	X			X					
BH7-6	↓	1255		↓	Borehole 7	1									
BH7-8	↓	1300		↓	↓	1	X								
BH8-4	↓	1320		↓	Borehole 8	1									
BH8-6	↓	1330		↓	↓	1	X								
BH8-8.5	↓	1335		↓	↓	1		X	X						

Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
Philip M. Cox	5/17/94 / 1634				
(Printed) Philip M. Cox		(Printed)	(Printed)		(Printed)

Relinquished by: *(Signature)*	Date / Time	Received for Laboratory by: *(Signature)*	Date / Time	Remarks
		Scott T. Ferriman	5/17/94 / 1634	14 day TAT Results to Larry Kleinecke
(Printed)		(Printed) Scott T. Ferriman		

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

Versar INC.

CHAIN OF CUSTODY RECORD

4419

PROJECT NO.	PROJECT NAME
2463-001	Crowley Yard II

SAMPLERS: (Signature) Philip M. Cox (Printed) Philip M. Cox

PARAMETERS

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	ETPH-SGC	TPH-D	Gas/BTEX	SVOCs EPA 8270	Total Pb, Cu, Hg	CAM 17	REMARKS
BH9-3.0	5/17/94	1355		X	Borehole 9	1		X	X				
BH9-6.0		1400				1	X						
BH9-7.5		1405				1							
BH10A-3.0		1415			Borehole 10A	1				X			
BH10B-9.0		1445			Borehole 10B	1	X						
BH11-3.0		1500			Borehole 11	1	X				X		
BH11-6.0		1502				1			X				
BH11 8.5		1507				1							

INDUSTRIAL HYGIENE SAMPLE: Y / N

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Philip M. Cox	5/17/94 1636				
(Printed) Philip M. Cox		(Printed)	(Printed)		(Printed)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Scott T. Ferriman	Date / Time 5/17/94 1636	Remarks 14 day TAT Results to Larry Kleineke	
(Printed)		(Printed) Scott T. Ferriman			

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

Trace Analysis Laboratory, Inc.
3423 Investment Boulevard, #8 • Hayward, California 94545
Telephone (510) 783-6960
Facsimile (510) 783-1512

LOG NUMBER: 4419A
DATE SAMPLED: 05/17/94
DATE RECEIVED: 05/17/94
DATE INITIATED: 06/09/94
DATE EXTRACTED: 06/10/94 and 06/12/94
DATE ANALYZED: 06/13/94
DATE REPORTED: 06/16/94

CUSTOMER: Versar, Inc.

REQUESTER: Lawrence Kleinecke

PROJECT: No. 2463-001, Crowley Yard II

Sample Type: Waste Extraction Test Extract of Soil

Method and Constituent:	Units	BH1-3.0 Concentration	BH1-3.0 Reporting Limit	BH6A-3.0 Concentration	BH6A-3.0 Reporting Limit	Method Blank Concentration	Method Blank Reporting Limit
EPA Method 7210:							
Copper	ug/l	7,900	20	2,400	20	ND	20
EPA Method 7420:							
Lead	ug/l	1,200	200	11,000	200	ND	200

Concentrations reported as ND were not detected at or above the reporting limit.

Trace Analysis Laboratory, Inc.

LOG NUMBER: 4419A
DATE SAMPLED: 05/17/94
DATE RECEIVED: 05/17/94
DATE INITIATED: 06/09/94
DATE EXTRACTED: 06/10/94 and 06/12/94
DATE ANALYZED: 06/13/94
DATE REPORTED: 06/16/94
PAGE: Two

Sample Type: Waste Wxtraction Test Extract of Soil

QC Summary

Method and Constituent:	% Recovery	% RPD
EPA Method 7210:		
Copper	110	2.3
EPA Method 7420:		
Lead	108	6.3

Louis W. DuPuis
Quality Assurance/Quality Control Manager

VERSAR INC.

CHAIN OF CUSTODY RECORD

4419A

PROJECT NO.	PROJECT NAME
2463-001	Crowley Yard II

SAMPLERS: (Signature) Philip M. Cox (Printed) Philip M. Cox

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	PARAMETERS: EPA 5520 B&F	TPH-D	Gas/BTEX	SVOCs EPA 8270	Total Pb, Cu, Hg	CAM 17	WET Pb, Cu	INDUSTRIAL HYGIENE SAMPLE Y	N	REMARKS
BH1-3.0	5/A/94	0855		X	Borehole 1	1						X	X			
BH1-6.0		0900				1										
BH1-9.0		0902				1	X	X	X							
BH2-3.0		0925			Borehole 2	1										
BH2-6.0		0933				1	X									
BH2-9.0		0937				1	X			X						NO 5520
BH3-3		1000			Borehole 3	1										
BH3-6		1010				1										
BH3-9		1015				1	X									
BH4-3		1020			Borehole 4	1										
BH4-6		1025				1	X			X						
BH4-8.5		1030				1										

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Philip M. Cox	5/17/94 1635				
(Printed) Philip M. Cox		(Printed)	(Printed)		(Printed)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Scott T. Ferraman	Date / Time 5/17/94 1635	Remarks 14 day TAT WET/Pb, Cu initiated 6/A/94 by LK on 5 Day Results to Gary Kienzle	
(Printed)		(Printed) Scott T. Ferraman			

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

TRACE ANALYSIS ☎5107831512 06/16/94 18:45 004

Versar Inc.

CHAIN OF CUSTODY RECORD

4419A

PROJECT NO.	PROJECT NAME
2463-001	Crowley Yard II

SAMPLERS: (Signature) Philip M. Cox (Printed) Philip M. Cox

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	EPA 8270 (SVOCs)	TPH - D	Gas / BTEX	SVOCs EPA 8270	Total Pb, Cu, Hg	CAM 17	WET / Pb	REMARKS
BH5-3.0	5/16/94	1055		X	Borehole 5	1								
BH5-6.0		1058				1	X							
BH5-8.0		1104				1		X	X					
BH6A-3.0		1116			Borehole 6A	1					X		X	
BH6B-3.0		1130			Borehole 6B	1								
BH6B-6.0		1134				1								
BH6B-8.5		1137				1	X			X				
BH7-6		1255			Borehole 7	1								
BH7-8		1300				1	X							
BH8-4		1320			Borehole 8	1								
BH8-6		1330				1	X							
BH8-8.5		1335				1		X	X					

INDUSTRIAL HYGIENE SAMPLE: Y / N

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Philip M. Cox	5/17/94 1634				
(Printed) Philip M. Cox		(Printed)	(Printed)		(Printed)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Scott T. Fennessy	Date / Time 5/17/94 1634	Remarks 14 day TAT; Results to Lang Kleinecke	WET/Pb initiated 6/9/94 by LK on 5 day
(Printed)		(Printed) Scott T. Fennessy			

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

(0015 TRACE ANALYSIS ☎5107831512 18:46 06/16/94

Versar INC.

CHAIN OF CUSTODY RECORD

4419A

PROJECT NO.	PROJECT NAME
2463-001	Crowley Yard II

SAMPLERS: (Signature) Philip M. Cox (Printed) Philip M. Cox

PARAMETERS

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	EPA 5520 C/F	TPH-D	Gas/BTEX	SVOCs EPA 8270	Total Pb + Cy, Hg	CAM 17	INDUSTRIAL HYGIENE SAMPLE Y / N	REMARKS
BH9-3.0	5/17/94	1355		X	Borehole 9	1		X	X					
BH9-6.0		1400				1	X							
BH9-7.5		1405				1								
BH10A-3.0		1415			Borehole 10A	1					X			
BH10B-9.0		1445			Borehole 10B	1	X							
BH11-3.0		1500			Borehole 11	1	X					X		
BH11-6.0		1502				1				X				
BH11 8.5		1507				1								

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Philip M. Cox	5/17/94 1636				
(Printed) Philip M. Cox		(Printed)	(Printed)		(Printed)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Scott T. Ferrman	Date / Time 5/17/94 1636	Remarks 14 day TAT Results to Lucy Heinecke	
(Printed)		(Printed) Scott T. Ferrman			

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

FRIEDMAN & BRUYA, INC.
ENVIRONMENTAL CHEMISTS

Andrew John Friedman
James E. Bruya, Ph.D.
(206) 285-8282

3012 16th Avenue West
Seattle, WA 98119-2029
FAX: (206) 283-5044

June 9, 1994

Lawrence Kleinecke, Senior Geohydrologist
Versar Inc.
5330 Primrose Drive, Suite 228
Fair Oaks, CA 95628

Dear Mr. Kleinecke:

Enclosed are the results from the testing of material submitted on May 27, 1994 from Project 2463-001.

The lack of *n*-alkanes for this product indicates this material is rather weathered by biodegradation. With a thin product layer (1/8"-1/4") undergoing constant water level changes in a biologically active soil, this activity is expected to go on rather rapidly. At the time this sample was taken, most of the *n*-alkanes had been degraded but the isoprenoid compounds are still abundant. This combination suggests the product has been there probably more than a year but less than a decade. If the groundwater is subject to daily rising and falling due to tidal action, the process would be accelerated even more so that a matter of a few years is probably closer.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

Kelley Wilt

Kelley Wilt
Chemist

KW/dp

Enclosures

FRIEDMAN & BRUYA, INC.
ENVIRONMENTAL CHEMISTS

Date of Report: June 9, 1994
Date Received: May 27, 1994
Project: 2463-001

RESULTS FROM THE ANALYSIS OF THE PRODUCT AND WATER SAMPLE FOR FINGERPRINT CHARACTERIZATION BY CAPILLARY GAS CHROMATOGRAPHY USING A FLAME IONIZATION DETECTOR (FID) AND ELECTRON CAPTURE DETECTOR (ECD)

Sample ID	GC Characterization
BH18	The GC trace using the flame ionization detector (FID) showed the presence of medium and high boiling compounds. The patterns displayed by these peaks are indicative of diesel fuel or heating oil and motor oil or lubricating oil. The medium boiling compounds appeared as a ragged pattern of peaks eluting from *n*-C_6 to *n*-C_{25} showing a maximum near *n*-C_{17}. An absence of *n*-alkanes was seen for this material. The medium boiling material appears to have undergone chemical/biological degradation. The high boiling compounds appeared as a broad hump eluting from *n*-C_{26} to *n*-C_{30} showing a maximum near *n*-C_{28}. The nature of the compounds present in the high boiling product makes it difficult to determine if any degradation has occurred using a GC analysis. The large peak seen near 25 minutes on the GC/FID trace is pentacosane, added as a quality assurance check for this GC analysis.

05-RDU-1
05/27/94
9:35

Versar

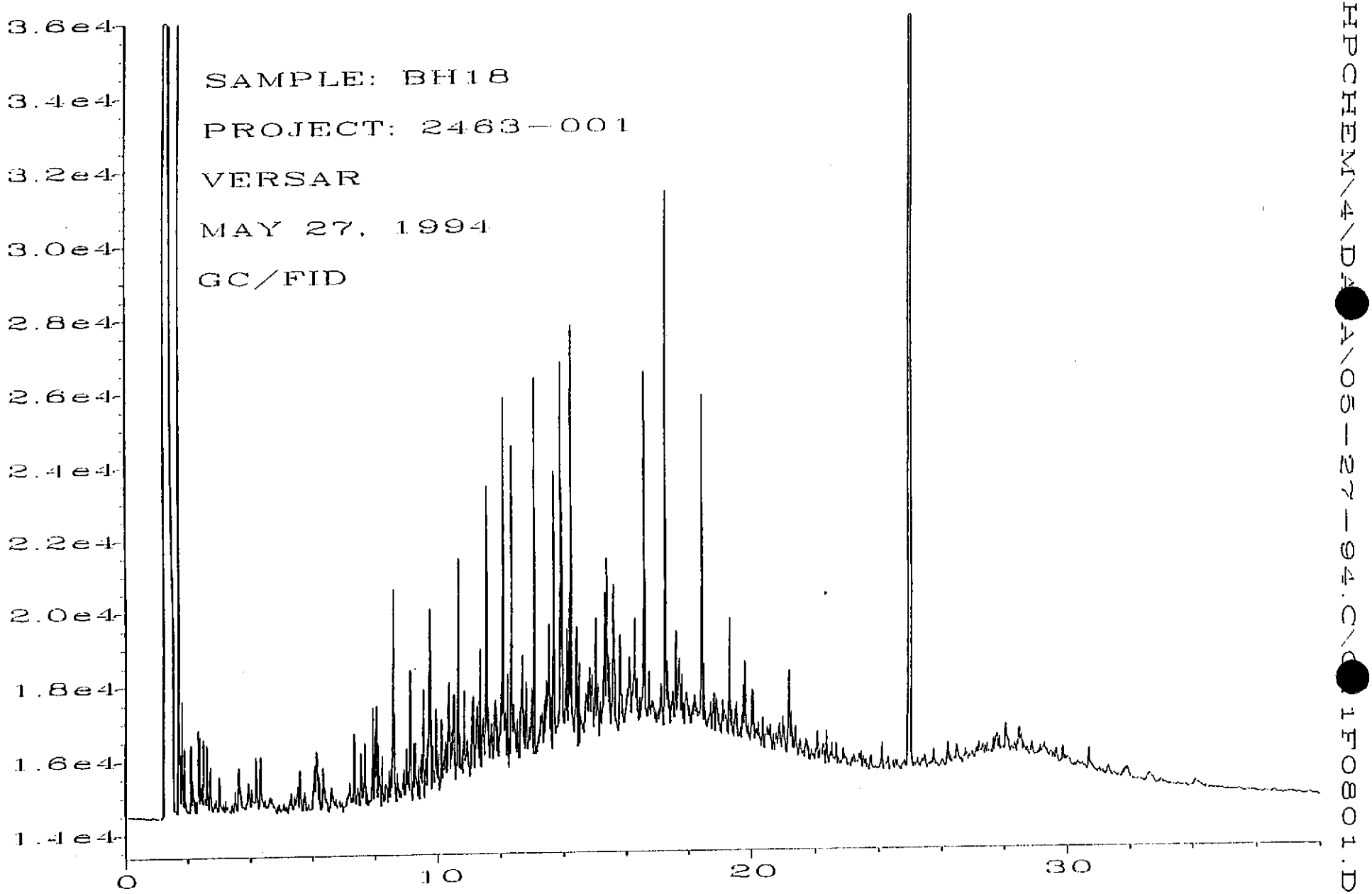
CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME
2463-001	PDII - 2463-001

SAMPLERS: (Signature) Lawrence Kleinecke (Printed) Lawrence Kleinecke

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Fuel SCAN								REMARKS
						PARAMETERS									INDUSTRIAL HYGIENE SAMPLE Y / N
BH18	5/18/94	1620		X	49951-52	2	X								USE VOA Labelled "Hot"
BH18	5/18/94	1640		X	49953	1									Less Turbid Sample

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Lawrence Kleinecke (Printed)	5/26/94 To Federal express	Kathy Miller (Printed) Kathy Miller	(Printed)		(Printed)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
(Printed)		Kathy Miller (Printed) Kathy Miller	5/27/94 9:30	Age Date material Look at Petroleum only, Not Water Normal Turnaround	


SAMPLE: BH18
PROJECT: 2463-001
VERSAR
MAY 27, 1994
GC/FID
3.6e4
3.4e4
3.2e4
3.0e4
2.8e4
2.6e4
2.4e4
2.2e4
2.0e4
1.8e4
1.6e4
1.4e4
0
10
20
30
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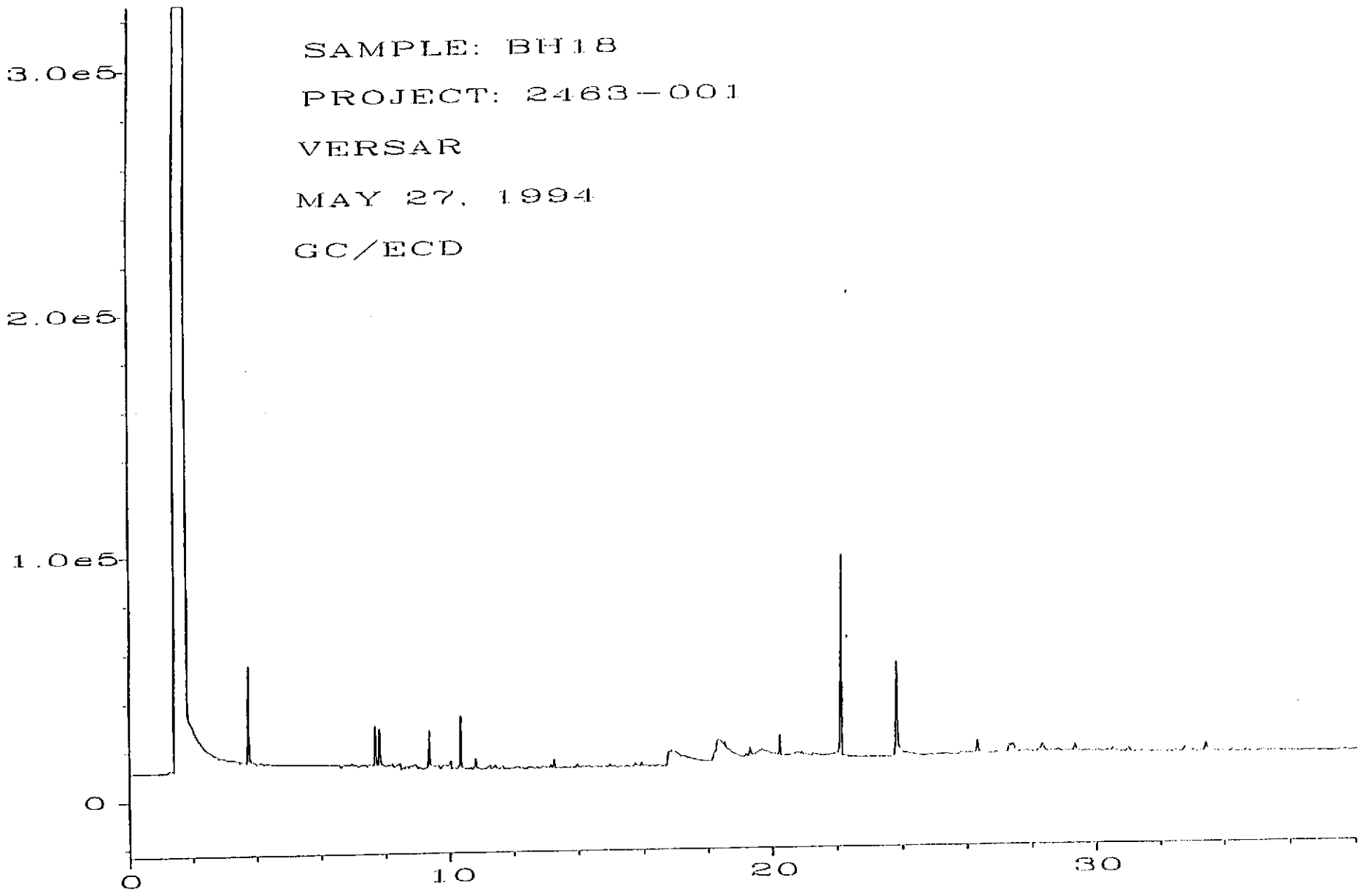
SAMPLE: BH18
PROJECT: 2463-001
VERSAR
MAY 27, 1994
GC/ECD
3.0e5
2.0e5
1.0e5
0
0
10
20
30
C:\HPCHEM\4\DATA\05-27-94.C\11R0801.D

Trace Analysis Laboratory, Inc.
3423 Investment Boulevard, #8 • Hayward, California 94545
Telephone (510) 783-6960
Facsimile (510) 783-1512

TAL

COPY

June 9, 1994

Mr. Lawrence Kleinecke
Versar, Inc.
5330 Primrose Drive, Suite 228
Fair Oaks, California 95628

Dear Mr. Kleinecke:

Trace Analysis Laboratory received thirty soil samples and one water sample on May 19, 1994 for your Project No. 2463-001, Crowley Yard II, PDD II (our custody log number 4424 and 4424A).

These samples were analyzed according to your chain of custody. Our analytical report and the completed chain of custody form are enclosed for your review.

Soil samples BH14-6.0 and BH15-6.0 were inadvertently prepared and analyzed for Total Petroleum Hydrocarbons as Gasoline, Benzene, Toluene, Ethylbenzene, and Xylenes. This delayed the analysis of samples BH13-6.0 and BH15-9.0 for the same analysis until 8 days beyond the holding time. Results for all four samples are presented.

Trace Analysis Laboratory is certified under the California Environmental Laboratory Accreditation Program. Our certification number is 1199.

If you should have any questions or require additional information, please call me.

Sincerely yours,

Scott T. Ferriman

Scott T. Ferriman
Project Specialist

Enclosures

Trace Analysis Laboratory, Inc.
3423 Investment Boulevard, #8 • Hayward, California 94545
Telephone (510) 783-6960
Facsimile (510) 783-1512

TAL

LOG NUMBER: 4424A
DATE SAMPLED: 05/18/94
DATE RECEIVED: 05/19/94
DATE ANALYZED: 05/28/94
DATE REPORTED: 06/09/94

CUSTOMER: Versar, Inc.

REQUESTER: Lawrence Kleinecke

PROJECT: No. 2463-001, Crowley Yard II, PDD II

Sample Type: Water

Method and Constituent:	Units	BH18-HOT Concentration	BH18-HOT Reporting Limit	Method Blank Concentration	Method Blank Reporting Limit
DHS Method:					
Total Petroleum Hydrocarbons as Gasoline	ug/l	2,600	480	ND	50
Modified EPA Method 8020 for:					
Benzene	ug/l	ND	9.0	ND	0.50
Toluene	ug/l	ND	11	ND	0.50
Ethylbenzene	ug/l	ND	12	ND	0.50
Xylenes	ug/l	ND	30	ND	1.5

QC Summary:

% Recovery: 108
% RPD: 3.0

Concentrations reported as ND were not detected at or above the reporting limit.

Trace Analysis Laboratory, Inc.

LOG NUMBER: 4424
DATE SAMPLED: 05/18/94
DATE RECEIVED: 05/19/94
DATE ANALYZED: 05/25/94
DATE REPORTED: 06/09/94
PAGE: Two

Sample Type: Water

Method and Constituent	Units	BH18-HOT Concentration	BH18-HOT Reporting Limit	Method Blank Concentration	Method Blank Reporting Limit
EPA Method 8010:					
Benzyl Chloride	ug/l	ND	3,000	ND	120
Bromobenzene	ug/l	ND	3,000	ND	120
Bromodichloromethane	ug/l	ND	12	ND	0.50
Bromoform	ug/l	ND	12	ND	0.50
Bromomethane	ug/l	ND	150	ND	6.0
Carbon Tetrachloride	ug/l	ND	150	ND	6.0
Chlorobenzene	ug/l	2,200	12	ND	0.50
Chloroethane	ug/l	ND	150	ND	6.0
2-Chloroethyl Vinyl Ether	ug/l	ND	150	ND	6.0
Chloroform	ug/l	ND	12	ND	0.50
Chloromethane	ug/l	ND	150	ND	6.0
Dibromochloromethane	ug/l	ND	12	ND	0.50
Dibromomethane	ug/l	ND	3,000	ND	120
1,2-Dichlorobenzene	ug/l	ND	150	ND	6.0
1,3-Dichlorobenzene	ug/l	ND	150	ND	6.0
1,4-Dichlorobenzene	ug/l	ND	150	ND	6.0
Dichlorodifluoromethane	ug/l	ND	150	ND	6.0
1,1-Dichloroethane	ug/l	ND	12	ND	0.50
1,2-Dichloroethane	ug/l	ND	12	ND	0.50
1,1-Dichloroethene	ug/l	ND	12	ND	0.50

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 4424
DATE SAMPLED: 05/18/94
DATE RECEIVED: 05/19/94
DATE ANALYZED: 05/25/94
DATE REPORTED: 06/09/94
PAGE: Three

Sample Type: Water

Method and Constituent	Units	BH18-HOT Concentration	BH18-HOT Reporting Limit	Method Blank Concentration	Method Blank Reporting Limit
EPA Method 8010 (Continued):					
cis and trans-1,2-Dichloroethene	ug/l	ND	12	ND	0.50
Dichloromethane	ug/l	ND	3,000	ND	120
1,2-Dichloropropane	ug/l	ND	12	ND	0.50
cis-1,3-Dichloropropene	ug/l	ND	12	ND	0.50
trans-1,3-Dichloropropene	ug/l	ND	12	ND	0.50
1,1,2,2-Tetrachloroethane	ug/l	ND	12	ND	0.50
1,1,1,2-Tetrachloroethane	ug/l	ND	3,000	ND	120
Tetrachloroethene	ug/l	ND	12	ND	0.50
1,1,1-Trichloroethane	ug/l	ND	12	ND	0.50
1,1,2-Trichloroethane	ug/l	ND	12	ND	0.50
Trichloroethene	ug/l	ND	12	ND	0.50
Trichlorofluoromethane	ug/l	ND	12	ND	0.50
1,2,3-Trichloropropane	ug/l	ND	3,000	ND	120
Vinyl Chloride	ug/l	ND	150	ND	6.0

QC Summary:

% Recovery: 98
% RPD: 7.0

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 4424
DATE SAMPLED: 05/18/94
DATE RECEIVED: 05/19/94
DATE EXTRACTED: 05/27/94
DATE ANALYZED: 06/01/94
DATE REPORTED: 06/09/94
PAGE: Four

Sample Type: Soil

Method and Constituent:	Units	BH13-6.0 Concentration	BH13-6.0 Reporting Limit	BH15-9.0 Concentration	BH15-9.0 Reporting Limit	Method Blank Concentration	Method Blank Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Diesel	ug/kg	1,700,000	1,000	180,000	1,000	ND	1,000

QC Summary:

% Recovery: 130
% RPD: 1.6

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 4424
DATE SAMPLED: 05/18/94
DATE RECEIVED: 05/19/94
DATE EXTRACTED: 06/08/94
DATE ANALYZED: 06/09/94
DATE REPORTED: 06/09/94
PAGE: Five

Sample Type: Soil

Method and Constituent:	Units	BH13-6.0 Concentration	BH13-6.0 Reporting Limit	BH14-6.0 Concentration	BH14-6.0 Reporting Limit	BH15-6.0 Concentration	BH15-6.0 Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/kg	25,000	500	ND	500	ND	500
Modified EPA Method 8020 for:							
Benzene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Toluene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Ethylbenzene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Xylenes	ug/kg	ND	15	ND	15	ND	15

Method and Constituent:	Units	BH15-9.0 Concentration	BH15-9.0 Reporting Limit	Method Blank Concentration	Method Blank Reporting Limit
DHS Method:					
Total Petroleum Hydrocarbons as Gasoline	ug/kg	31,000	500	ND	500
Modified EPA Method 8020 for:					
Benzene	ug/kg	ND	5.0	ND	5.0
Toluene	ug/kg	ND	5.0	ND	5.0
Ethylbenzene	ug/kg	ND	5.0	ND	5.0
Xylenes	ug/kg	ND	15	ND	15

QC Summary:

% Recovery: 96
% RPD: 15

Concentrations reported as ND were not detected at or above the reporting limit.

Samples BH13-6.0 and BH15-9.0 were analyzed 8 days beyond the 14-day holding time for this analysis.

LOG NUMBER: 4424
DATE SAMPLED: 05/18/94
DATE RECEIVED: 05/19/94
DATE EXTRACTED: 06/07/94
DATE ANALYZED: 06/08/94
DATE REPORTED: 06/09/94
PAGE: Six

Sample Type: Soil

Method and Constituent:	Units	BH12-6.0 Concentration	BH12-6.0 Reporting Limit	BH13-9.0 Concentration	BH13-9.0 Reporting Limit	BH14-9.0 Concentration	BH14-9.0 Reporting Limit
Standard Method 5520CF:							
Hydrocarbon							
Oil and Grease	ug/kg	540,000	50,000	13,000,000	50,000	ND	50,000

Method and Constituent:	Units	BH15-9.0 Concentration	BH15-9.0 Reporting Limit	BH16-9.0 Concentration	BH16-9.0 Reporting Limit	BH17-6.0 Concentration	BH17-6.0 Reporting Limit
Standard Method 5520CF:							
Hydrocarbon							
Oil and Grease	ug/kg	260,000	50,000	ND	50,000	ND	50,000

Method and Constituent:	Units	BH18-8.0 Concentration	BH18-8.0 Reporting Limit	BH19-9.0 Concentration	BH19-9.0 Reporting Limit	BH20-6.0 Concentration	BH20-6.0 Reporting Limit
Standard Method 5520CF:							
Hydrocarbon							
Oil and Grease	ug/kg	65,000	50,000	230,000	50,000	ND	50,000

Method and Constituent:	Units	BH21-9.0 Concentration	BH21-9.0 Reporting Limit	BH22-9.0 Concentration	BH22-9.0 Reporting Limit	Method Blank Concentration	Method Blank Reporting Limit
Standard Method 5520CF:							
Hydrocarbon							
Oil and Grease	ug/kg	53,000	50,000	1,700,000	50,000	ND	50,000

QC Summary:

% Recovery: 120
% RPD: 15

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 4424
DATE SAMPLED: 05/18/94
DATE RECEIVED: 05/19/94
DATE EXTRACTED: 05/27/94
DATE ANALYZED: 06/01/94
DATE REPORTED: 06/09/94
PAGE: Seven

Sample Type: Soil

Method and Constituent	Units	BH13-6.0 Concentration	BH13-6.0 Reporting Limit	BH18-8.0 Concentration	BH18-8.0 Reporting Limit	BH19-6.0 Concentration	BH19-6.0 Reporting Limit
EPA Method 8010:							
Benzyl Chloride	ug/kg	ND	1,200	ND	1;200	ND	1,200
Bromobenzene	ug/kg	ND	1,200	ND	1,200	ND	1,200
Bromodichloromethane	ug/kg	ND	20	ND	20	ND	20
Bromoform	ug/kg	ND	20	ND	20	ND	20
Bromomethane	ug/kg	ND	60	ND	60	ND	60
Carbon Tetrachloride	ug/kg	ND	60	ND	60	ND	60
Chlorobenzene	ug/kg	ND	20	610	20	1,700	20
Chloroethane	ug/kg	ND	60	ND	60	ND	60
2-Chloroethyl Vinyl Ether	ug/kg	ND	60	ND	60	ND	60
Chloroform	ug/kg	ND	20	ND	20	ND	20
Chloromethane	ug/kg	ND	60	ND	60	ND	60
Dibromochloromethane	ug/kg	ND	20	ND	20	ND	20
Dibromomethane	ug/kg	ND	1,200	ND	1,200	ND	1,200
1,2-Dichlorobenzene	ug/kg	ND	60	ND	60	1,500	60
1,3-Dichlorobenzene	ug/kg	ND	60	ND	60	150	60
1,4-Dichlorobenzene	ug/kg	ND	60	ND	60	610	60
Dichlorodifluoromethane	ug/kg	ND	60	ND	60	ND	60
1,1-Dichloroethane	ug/kg	ND	20	ND	20	ND	20
1,2-Dichloroethane	ug/kg	ND	20	ND	20	ND	20
1,1-Dichloroethene	ug/kg	ND	20	ND	20	ND	20

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 4424
DATE SAMPLED: 05/18/94
DATE RECEIVED: 05/19/94
DATE EXTRACTED: 05/27/94
DATE ANALYZED: 06/01/94
DATE REPORTED: 06/09/94
PAGE: Eight

Sample Type: Soil

Method and Constituent	Units	BH13-6.0 Concentration	BH13-6.0 Reporting Limit	BH18-8.0 Concentration	BH18-8.0 Reporting Limit	BH19-6.0 Concentration	BH19-6.0 Reporting Limit
EPA Method 8010 (Continued):							
cis and trans-1,2 Dichloroethene	ug/kg	ND	20	ND	20	ND	20
Dichloromethane	ug/kg	ND	1,200	ND	1,200	ND	1,200
1,2-Dichloropropane	ug/kg	ND	20	ND	20	ND	20
cis-1,3-Dichloropropene	ug/kg	ND	20	ND	20	ND	20
trans-1,3-Dichloropropene	ug/kg	ND	20	ND	20	ND	20
1,1,2,2-Tetrachloroethane	ug/kg	ND	20	ND	20	ND	20
1,1,1,2-Tetrachloroethane	ug/kg	ND	1,200	ND	1,200	ND	1,200
Tetrachloroethene	ug/kg	ND	20	ND	20	ND	20
1,1,1-Trichloroethane	ug/kg	ND	20	ND	20	ND	20
1,1,2-Trichloroethane	ug/kg	ND	20	ND	20	ND	20
Trichloroethene	ug/kg	ND	20	ND	20	ND	20
Trichlorofluoromethane	ug/kg	ND	20	ND	20	ND	20
1,2,3-Trichloropropane	ug/kg	ND	1,200	ND	1,200	ND	1,200
Vinyl Chloride	ug/kg	ND	60	ND	60	ND	60

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 4424
DATE SAMPLED: 05/18/94
DATE RECEIVED: 05/19/94
DATE EXTRACTED: 05/27/94
DATE ANALYZED: 06/01/94
DATE REPORTED: 06/09/94
PAGE: Nine

Sample Type: Soil

Method and Constituent	Units	BH22-9.0 Concentration	BH22-9.0 Reporting Limit	Method Blank Concentration	Method Blank Reporting Limit
EPA Method 8010:					
Benzyl Chloride	ug/kg	ND	1,200	ND	1,200
Bromobenzene	ug/kg	ND	1,200	ND	1,200
Bromodichloromethane	ug/kg	ND	20	ND	20
Bromoform	ug/kg	ND	20	ND	20
Bromomethane	ug/kg	ND	60	ND	60
Carbon Tetrachloride	ug/kg	ND	60	ND	60
Chlorobenzene	ug/kg	ND	20	ND	20
Chloroethane	ug/kg	ND	60	ND	60
2-Chloroethyl Vinyl Ether	ug/kg	ND	60	ND	60
Chloroform	ug/kg	ND	20	ND	20
Chloromethane	ug/kg	ND	60	ND	60
Dibromochloromethane	ug/kg	ND	20	ND	20
Dibromomethane	ug/kg	ND	1,200	ND	1,200
1,2-Dichlorobenzene	ug/kg	ND	60	ND	60
1,3-Dichlorobenzene	ug/kg	ND	60	ND	60
1,4-Dichlorobenzene	ug/kg	ND	60	ND	60
Dichlorodifluoromethane	ug/kg	ND	60	ND	60
1,1-Dichloroethane	ug/kg	ND	20	ND	20
1,2-Dichloroethane	ug/kg	ND	20	ND	20
1,1-Dichloroethene	ug/kg	ND	20	ND	20

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 4424
DATE SAMPLED: 05/18/94
DATE RECEIVED: 05/19/94
DATE EXTRACTED: 05/27/94
DATE ANALYZED: 06/01/94
DATE REPORTED: 06/09/94
PAGE: Ten

Sample Type: Soil

Method and Constituent	Units	BH22-9.0 Concentration	BH22-9.0 Reporting Limit	Method Blank Concentration	Method Blank Reporting Limit
EPA Method 8010 (Continued):					
cis and trans-1,2 Dichloroethene	ug/kg	ND	20	ND	20
Dichloromethane	ug/kg	ND	1,200	ND	1,200
1,2-Dichloropropane	ug/kg	ND	20	ND	20
cis-1,3-Dichloropropene	ug/kg	ND	20	ND	20
trans-1,3-Dichloropropene	ug/kg	ND	20	ND	20
1,1,2,2-Tetrachloroethane	ug/kg	ND	20	ND	20
1,1,1,2-Tetrachloroethane	ug/kg	ND	1,200	ND	1,200
Tetrachloroethene	ug/kg	ND	20	ND	20
1,1,1-Trichloroethane	ug/kg	ND	20	ND	20
1,1,2-Trichloroethane	ug/kg	ND	20	ND	20
Trichloroethene	ug/kg	ND	20	ND	20
Trichlorofluoromethane	ug/kg	ND	20	ND	20
1,2,3-Trichloropropane	ug/kg	ND	1,200	ND	1,200
Vinyl Chloride	ug/kg	ND	60	ND	60

QC Summary:

% Recovery: 81
% RPD: 0.80

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 4424
DATE SAMPLED: 05/18/94
DATE RECEIVED: 05/19/94
DATE EXTRACTED: 05/26/94
DATE ANALYZED: 06/04/94
DATE REPORTED: 06/09/94
PAGE: Eleven

Sample Type: Soil

Method and Constituent:	Units	BH14-6.0 Concentration	BH14-6.0 Reporting Limit	BH15-6.0 Concentration	BH15-6.0 Reporting Limit	BH16-9.0 Concentration	BH16-9.0 Reporting Limit
EPA Method 8270:							
Pyridine	ug/kg	ND	3,600	ND	3,600	ND	3,600
N-Nitrosodimethylamine	ug/kg	ND	660	ND	660	ND	660
Phenol	ug/kg	ND	660	ND	660	ND	660
Bis (2-Chloroethyl) Ether	ug/kg	ND	660	ND	660	ND	660
2-Chlorophenol	ug/kg	ND	660	ND	660	ND	660
1,3-Dichlorobenzene	ug/kg	ND	660	ND	660	ND	660
1,4-Dichlorobenzene	ug/kg	ND	660	ND	660	ND	660
1,2-Dichlorobenzene	ug/kg	ND	660	ND	660	ND	660
Bis (2-Chloroisopropyl) Ether	ug/kg	ND	660	ND	660	ND	660
N-Nitroso-Di-N-Propylamine	ug/kg	ND	660	ND	660	ND	660
Acetophenone	ug/kg	ND	660	ND	660	ND	660
2-Methylphenol (O-Cresol)	ug/kg	ND	660	ND	660	ND	660
Hexachloroethane	ug/kg	ND	660	ND	660	ND	660
Nitrobenzene	ug/kg	ND	660	ND	660	ND	660
Isophorone	ug/kg	ND	660	ND	660	ND	660
2-Nitrophenol	ug/kg	ND	660	ND	660	ND	660
2,4-Dimethylphenol	ug/kg	ND	660	ND	660	ND	660
Bis(2-Chloroethoxy) Methane	ug/kg	ND	660	ND	660	ND	660
2,4-Dichlorophenol	ug/kg	ND	660	ND	660	ND	660
1,2,4-Trichlorobenzene	ug/kg	ND	660	ND	660	ND	660
Naphthalene	ug/kg	ND	660	ND	660	ND	660

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 4424
DATE SAMPLED: 05/18/94
DATE RECEIVED: 05/19/94
DATE EXTRACTED: 05/26/94
DATE ANALYZED: 06/04/94
DATE REPORTED: 06/09/94
PAGE: Twelve

Sample Type: Soil

Method and Constituent	Units	BH14-6.0 Concentration	BH14-6.0 Reporting Limit	BH15-6.0 Concentration	BH15-6.0 Reporting Limit	BH16-9.0 Concentration	BH16-9.0 Reporting Limit
EPA Method 8270 (Continued):							
Hexachlorobutadiene	ug/kg	ND	660	ND	660	ND	660
3-Methylphenol and 4-Methylphenol (m-Cresol and p-Cresol)	ug/kg	ND	1,300	ND	1,300	ND	1,300
4-Chloro-3-Methyl-phenol	ug/kg	ND	1,300	ND	1,300	ND	1,300
Hexachlorocyclo-pentadiene	ug/kg	ND	660	ND	660	ND	660
2,4,6-Trichlorophenol	ug/kg	ND	660	ND	660	ND	660
2,4,5-Trichlorophenol	ug/kg	ND	660	ND	660	ND	660
2-Chloronaphthalene	ug/kg	ND	660	ND	660	ND	660
Benzoic Acid	ug/kg	ND	3,600	ND	3,600	ND	3,600
Dimethylphthalate	ug/kg	ND	660	ND	660	ND	660
Acenaphthylene	ug/kg	ND	660	ND	660	ND	660
Acenaphthene	ug/kg	ND	660	ND	660	ND	660
2,4-Dinitrophenol	ug/kg	ND	3,600	ND	3,600	ND	3,600
4-Nitrophenol	ug/kg	ND	3,600	ND	3,600	ND	3,600
2,4-Dinitrotoluene	ug/kg	ND	660	ND	660	ND	660
2,6-Dinitrotoluene	ug/kg	ND	660	ND	660	ND	660
Diethylphthalate	ug/kg	ND	660	ND	660	ND	660
4-Chlorophenyl-phenyl-ether	ug/kg	ND	660	ND	660	ND	660
Fluorene	ug/kg	ND	660	ND	660	ND	660
N-Nitrosodiphenylamine	ug/kg	ND	660	ND	660	ND	660
4-Bromophenyl-phenyl-ether	ug/kg	ND	660	ND	660	ND	660
Hexachlorobenzene	ug/kg	ND	660	ND	660	ND	660
Pentachlorophenol	ug/kg	ND	3,600	ND	3,600	ND	3,600
Phenanthrene	ug/kg	ND	660	ND	660	ND	660
Anthracene	ug/kg	ND	660	ND	660	ND	660

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 4424
DATE SAMPLED: 05/18/94
DATE RECEIVED: 05/19/94
DATE EXTRACTED: 05/26/94
DATE ANALYZED: 06/04/94
DATE REPORTED: 06/09/94
PAGE: Thirteen

Sample Type: Soil

Method and Constituent:	Units	BH14-6.0 Concentration	BH14-6.0 Reporting Limit	BH15-6.0 Concentration	BH15-6.0 Reporting Limit	BH16-9.0 Concentration	BH16-9.0 Reporting Limit
EPA Method 8270 (Continued):							
Di-N-Butylphthalate	ug/kg	ND	660	ND	660	ND	660
1,2,4,5-Tetrachlorobenzene	ug/kg	ND	660	ND	660	ND	660
4,6-Dinitro-2-Methylphenol	ug/kg	ND	660	ND	660	ND	660
Pentachloronitrobenzene	ug/kg	ND	660	ND	660	ND	660
Fluoranthene	ug/kg	ND	660	ND	660	ND	660
Benzidine	ug/kg	ND	660	ND	660	ND	660
Pyrene	ug/kg	ND	660	ND	660	ND	660
Butylbenzylphthalate	ug/kg	ND	660	ND	660	ND	660
3,3'-Dichlorobenzidine	ug/kg	ND	1,300	ND	1,300	ND	1,300
Benzo(a)Anthracene	ug/kg	ND	660	ND	660	ND	660
Bis(2-Ethylhexyl) Phthalate	ug/kg	ND	660	ND	660	ND	660
Chrysene	ug/kg	ND	660	ND	660	ND	660
Di-N-Octylphthalate	ug/kg	ND	660	ND	660	ND	660
Benzo(b)Fluoranthene	ug/kg	ND	660	ND	660	ND	660
Benzo(k)Fluoranthene	ug/kg	ND	660	ND	660	ND	660
Benzo(a)Pyrene	ug/kg	ND	660	ND	660	ND	660
3-Methylcholanthrene	ug/kg	ND	660	ND	660	ND	660
Indeno(1,2,3-cd)Pyrene	ug/kg	ND	660	ND	660	ND	660
Dibenzo(a,h)Anthracene	ug/kg	ND	660	ND	660	ND	660
Benzo(g,h,i)Perylene	ug/kg	ND	660	ND	660	ND	660
Surrogate % Recovery:							
2-Fluorophenol		121		88		114	
Phenol d6		94		69		88	
Nitrobenzene d5		56		46		54	
2-Fluorobiphenyl		136		92		131	
2,4,6-Tribromophenol		41		33		45	
p-Terphenyl d14		160		94		148	

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 4424
DATE SAMPLED: 05/18/94
DATE RECEIVED: 05/19/94
DATE EXTRACTED: 05/26/94
DATE ANALYZED: 06/04/94
DATE REPORTED: 06/09/94
PAGE: Fourteen

Sample Type: Soil

Method and Constituent:	Units	Method Blank Concentration	Method Blank Reporting Limit
EPA Method 8270:			
Pyridine	ug/kg	ND	3,600
N-Nitrosodimethylamine	ug/kg	ND	660
Phenol	ug/kg	ND	660
Bis (2-Chloroethyl) Ether	ug/kg	ND	660
2-Chlorophenol	ug/kg	ND	660
1,3-Dichlorobenzene	ug/kg	ND	660
1,4-Dichlorobenzene	ug/kg	ND	660
1,2-Dichlorobenzene	ug/kg	ND	660
Bis (2-Chloroisopropyl) Ether	ug/kg	ND	660
N-Nitroso-Di-N-Propylamine	ug/kg	ND	660
Acetophenone	ug/kg	ND	660
2-Methylphenol (O-Cresol)	ug/kg	ND	660
Hexachloroethane	ug/kg	ND	660
Nitrobenzene	ug/kg	ND	660
Isophorone	ug/kg	ND	660
2-Nitrophenol	ug/kg	ND	660
2,4-Dimethylphenol	ug/kg	ND	660
Bis(2-Chloroethoxy) Methane	ug/kg	ND	660
2,4-Dichlorophenol	ug/kg	ND	660
1,2,4-Trichlorobenzene	ug/kg	ND	660
Naphthalene	ug/kg	ND	660

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 4424
DATE SAMPLED: 05/18/94
DATE RECEIVED: 05/19/94
DATE EXTRACTED: 05/26/94
DATE ANALYZED: 06/04/94
DATE REPORTED: 06/09/94
PAGE: Fifteen

Sample Type: Soil

Method and Constituent	Units	Method Blank Concentration	Method Blank Reporting Limit
EPA Method 8270 (Continued):			
Hexachlorobutadiene	ug/kg	ND	660
3-Methylphenol and 4-Methylphenol (m-Cresol and p-Cresol)	ug/kg	ND	1,300
4-Chloro-3-Methyl-phenol	ug/kg	ND	1,300
Hexachlorocyclo-pentadiene	ug/kg	ND	660
2,4,6-Trichlorophenol	ug/kg	ND	660
2,4,5-Trichlorophenol	ug/kg	ND	660
2-Chloronaphthalene	ug/kg	ND	660
Benzoic Acid	ug/kg	ND	3,600
Dimethylphthalate	ug/kg	ND	660
Acenaphthylene	ug/kg	ND	660
Acenaphthene	ug/kg	ND	660
2,4-Dinitrophenol	ug/kg	ND	3,600
4-Nitrophenol	ug/kg	ND	3,600
2,4-Dinitrotoluene	ug/kg	ND	660
2,6-Dinitrotoluene	ug/kg	ND	660
Diethylphthalate	ug/kg	ND	660
4-Chlorophenyl-phenyl-ether	ug/kg	ND	660
Fluorene	ug/kg	ND	660
N-Nitrosodiphenylamine	ug/kg	ND	660
4-Bromophenyl-phenyl-ether	ug/kg	ND	660
Hexachlorobenzene	ug/kg	ND	660
Pentachlorophenol	ug/kg	ND	3,600
Phenanthrene	ug/kg	ND	660
Anthracene	ug/kg	ND	660

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 4424
DATE SAMPLED: 05/18/94
DATE RECEIVED: 05/19/94
DATE EXTRACTED: 05/26/94
DATE ANALYZED: 06/04/94
DATE REPORTED: 06/09/94
PAGE: Sixteen

Sample Type: Soil

Method and Constituent:	Units	Method Blank Concentration	Method Blank Reporting Limit
EPA Method 8270 (Continued):			
Di-N-Butylphthalate	ug/kg	ND	660
1,2,4,5-Tetrachlorobenzene	ug/kg	ND	660
4,6-Dinitro-2-Methylphenol	ug/kg	ND	660
Pentachloronitrobenzene	ug/kg	ND	660
Fluoranthene	ug/kg	ND	660
Benzidine	ug/kg	ND	660
Pyrene	ug/kg	ND	660
Butylbenzylphthalate	ug/kg	ND	660
3,3'-Dichlorobenzidine	ug/kg	ND	1,300
Benzo(a)Anthracene	ug/kg	ND	660
Bis(2-Ethylhexyl) Phthalate	ug/kg	ND	660
Chrysene	ug/kg	ND	660
Di-N-Octylphthalate	ug/kg	ND	660
Benzo(b)Fluoranthene	ug/kg	ND	660
Benzo(k)Fluoranthene	ug/kg	ND	660
Benzo(a)Pyrene	ug/kg	ND	660
3-Methylcholanthrene	ug/kg	ND	660
Indeno(1,2,3-cd)Pyrene	ug/kg	ND	660
Dibenzo(a,h)Anthracene	ug/kg	ND	660
Benzo(g,h,i)Perylene	ug/kg	ND	660

Surrogate % Recovery:	
2-Fluorophenol	100
Phenol d6	84
Nitrobenzene d5	48
2-Fluorobiphenyl	114
2,4,6-Tribromophenol	41
p-Terphenyl d14	129

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 4424
DATE SAMPLED: 05/18/94
DATE RECEIVED: 05/19/94
DATE EXTRACTED: 05/20/94 and 05/27/94
DATE ANALYZED: 05/20/94, 05/31/94, and 06/02/94
DATE REPORTED: 06/09/94
PAGE: Seventeen

Sample Type: Soil

Method and Constituent:	Units	BH20-6.0 Concentration	BH20-6.0 Reporting Limit	BH21-9.0 Concentration	BH21-9.0 Reporting Limit	Method Blank Concentration	Method Blank Reporting Limit
EPA Method 7210:							
Copper	ug/kg	15,000	500	43,000	500	ND	500
EPA Method 7420:							
Lead	ug/kg	8,400	3,600	22,000	3,600	ND	3,600
EPA Method 7471:							
Mercury	ug/kg	240	120	1,400	120	ND	120

Concentrations reported as ND were not detected at or above the reporting limit.

Trace Analysis Laboratory, Inc.

LOG NUMBER: 4424
DATE SAMPLED: 05/18/94
DATE RECEIVED: 05/19/94
DATE EXTRACTED: 05/20/94 and 05/27/94
DATE ANALYZED: 05/20/94, 05/31/94, and 06/01/94
DATE REPORTED: 06/09/94
PAGE: Eighteen

Sample Type: Soil

QC Summary

Method and Constituent:	% Recovery	% RPD
EPA Method 7210:		
Copper	101	10
EPA Method 7420:		
Lead	100*	4.8
EPA Method 7471:		
Mercury	94	1.7

* The Recovery is for the Laboratory Control Sample, due to interference in the spiked sample

LOG NUMBER: 4424
DATE SAMPLED: 05/18/94
DATE RECEIVED: 05/19/94
DATE EXTRACTED: 05/27/94
DATE ANALYZED: 05/29/94, 05/31/94, 06/01/94 and 06/06/94
DATE REPORTED: 06/09/94
PAGE: Nineteen

Sample Type: Soil

Method and Constituent:	Units	BH17-2.5 Concentration	BH17-2.5 Reporting Limit	BH19-6.0 Concentration	BH19-6.0 Reporting Limit	BH22-9.0 Concentration	BH22-9.0 Reporting Limit
EPA Method 7040: Antimony	ug/kg	ND	79,000	ND	79,000	ND	79,000
EPA Method 7060: Arsenic	ug/kg	15,000	180	9,500	180	11,000	180
EPA Method 7080: Barium	ug/kg	69,000	50,000	440,000	50,000	51,000	50,000
EPA Method 7090: Beryllium	ug/kg	120	120	480	120	150	120
EPA Method 7130: Cadmium	ug/kg	ND	250	ND	250	ND	250
EPA Method 7190: Chromium	ug/kg	3,800	1,200	16,000	1,200	10,000	1,200
EPA Method 7200: Cobalt	ug/kg	ND	12,000	14,000	12,000	ND	12,000
EPA Method 7210: Copper	ug/kg	26,000	500	26,000	500	20,000	500
EPA Method 7420: Lead	ug/kg	4,000	3,600	ND	3,600	8,200	3,600

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 4424
DATE SAMPLED: 05/18/94
DATE RECEIVED: 05/19/94
DATE EXTRACTED: 05/27/94
DATE ANALYZED: 05/29/94, 05/31/94, 06/01/94 and 06/06/94
DATE REPORTED: 06/09/94
PAGE: Twenty

Sample Type: Soil

Method and Constituent:	Units	Method Blank Concentration	Method Blank Reporting Limit	QC Summary % Recovery	QC Summary % RPD
EPA Method 7040:					
Antimony	ug/kg	ND	79,000	94*	25
EPA Method 7060:					
Arsenic	ug/kg	ND	180	79	2.0
EPA Method 7080:					
Barium	ug/kg	ND	50,000	98*	5.0
EPA Method 7090:					
Beryllium	ug/kg	ND	120	97	7.7
EPA Method 7130:					
Cadmium	ug/kg	ND	250	93	9.9
EPA Method 7190:					
Chromium	ug/kg	ND	1,200	95	12
EPA Method 7200:					
Cobalt	ug/kg	ND	12,000	92	11
EPA Method 7210:					
Copper	ug/kg	ND	500	101	10
EPA Method 7420:					
Lead	ug/kg	ND	3,600	100*	4.8

Concentrations reported as ND were not detected at or above the reporting limit.
*The Recovery is for the Laboratory Control Sample, due to interference in the spiked sample

LOG NUMBER: 4424
DATE SAMPLED: 05/18/94
DATE RECEIVED: 05/19/94
DATE EXTRACTED: 05/20/94 and 05/27/94
DATE ANALYZED: 05/29/94, 05/31/94, 06/01/94 and 06/06/94
DATE REPORTED: 06/09/94
PAGE: Twenty-One

Sample Type: Soil

Method and Constituent:	Units	BH17-2.5 Concentration	BH17-2.5 Reporting Limit	BH19-6.0 Concentration	BH19-6.0 Reporting Limit	BH22-9.0 Concentration	BH22-9.0 Reporting Limit
EPA Method 7471: Mercury	ug/kg	180	120	120	120	260	120
EPA Method 7480: Molybdenum	ug/kg	ND	25,000	ND	25,000	ND	25,000
EPA Method 7520: Nickel	ug/kg	ND	7,500	14,000	7,500	ND	7,500
EPA Method 7740: Selenium	ug/kg	440	250	ND	250	ND	250
EPA Method 7760: Silver	ug/kg	890	280	ND	280	ND	280
EPA Method 7840: Thallium	ug/kg	ND	2,600	ND	2,600	ND	2,600
EPA Method 7910: Vanadium	ug/kg	24,000	5,000	60,000	5,000	33,000	5,000
EPA Method 7950: Zinc	ug/kg	40,000	1,200	67,000	1,200	63,000	1,200

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 4424
DATE SAMPLED: 05/18/94
DATE RECEIVED: 05/19/94
DATE EXTRACTED: 05/20/94 and 05/27/94
DATE ANALYZED: 05/29/94, 05/31/94, 06/01/94 and 06/06/94
DATE REPORTED: 06/09/94
PAGE: Twenty-Two

Sample Type: Soil

Method and Constituent:	Units	Method Blank Concentration	Method Blank Reporting Limit	QC Summary % Recovery	QC Summary % RPD
EPA Method 7471:					
Mercury	ug/kg	ND	120	94	1.7
EPA Method 7480:					
Molybdenum	ug/kg	ND	25,000	92	5.4
EPA Method 7520:					
Nickel	ug/kg	10,000	7,500	100	20
EPA Method 7740:					
Selenium	ug/kg	ND	250	85	23
EPA Method 7760:					
Silver	ug/kg	ND	280	98*	14
EPA Method 7840:					
Thallium	ug/kg	ND	2,600	102	11
EPA Method 7910:					
Vanadium	ug/kg	ND	5,000	106	9.4
EPA Method 7950:					
Zinc	ug/kg	ND	1,200	102*	8.8

Concentrations reported as ND were not detected at or above the reporting limit.
*The Recovery is for the Laboratory Control Sample, due to interference in the spiked sample

Louis W. DuPuis
Quality Assurance/Quality Control Manager

Versar

4424

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME
2463-001	Crowley Yard II PDDII

SAMPLERS: (Signature) Philip M. Cox (Printed) Philip M. Cox

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	5520 C&F	Gas / BTEX	TPH-D	EPA 8270	TCLP (Pb, Cr, Hg)	CAM 17	EPA 8010	REMARKS
BH12-3.0	5/18/94	0830		X	Borehole 12	1								Soil
BH12-6.0		0835				1	X					XXX		No EPA 8010 Soil
BH12-7.5		0840			↓	1								Soil
BH13-3.0		0845			Borehole 13	1								Soil
BH13-6.0		0850				1		X	X			X		Soil
BH13-9.0		0855			↓	1	X							Soil
BH14-3.0		0926			Borehole 14	1								Soil
BH14-6.0		0930				1			X					Soil
BH14-9.0		0935			↓	1	X							Soil
BH15-3.0		0945			Borehole 15	1								Soil
BH15-6.0		0950				1			X					Soil
BH15-9.0	↓	0955		↓	↓	1	X	X	X					Soil

INDUSTRIAL HYGIENE SAMPLE: Y / N

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Philip M. Cox	5/19/94 12:00				
(Printed) Philip M. Cox		(Printed)	(Printed)		(Printed)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Scott T. Ferman	Date / Time 5/19/94 12:08	Remarks	14 Day TAT Send Results to Larry Kleinecke
(Printed)		(Printed) Scott T. Ferman			

Versar 4424 CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME
2463-001	Crowley Yard II PORTL

SAMPLERS: (Signature) Philip M. Cox (Printed) Philip N. Cox

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	5520 C&F	Gas/BTEX	TPH-D	EPA 8270	Total TPH Cu Hg	CAM 17	EPA 8010	REMARKS
BH16-9.0	5/18/94	1045		X	Borehole 16	1	X			X					Soil
BH17-2.5		1055			Borehole 17	1						X			Soil
BH17-6.0		1057				1	X								Soil
BH17-8.5		1103				1									Soil
BH18-2.5		1142			Borehole 18	1									Soil
BH18-6.0		1145				1									Soil
BH18-8.0		1155				1	X						X		Soil
BH19-3.0		1325			Borehole 19	1									Soil
BH19-6.0		1330				1	~~X~~					X	X	Do not do 5520	Soil
BH19-9.0		1335				1	X								Soil
						1									
						1									

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Philip M. Cox	5/19/94 12:00				
(Printed) Philip M. Cox		(Printed)	(Printed)		(Printed)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		Scott T. Ferrine	5/19/94 12:00	14 Day TAT Send Results to Larry Kleinecke	
(Printed)		(Printed) Scott T. Ferrine			

INDUSTRIAL HYGIENE SAMPLE: Y / N

Versar 4424 CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME
2463-001	Crowley Yard II PDDII

SAMPLERS: (Signature) Philip M. Cox (Printed) Philip M. Cox

PARAMETERS: NO. OF CONTAINERS; 5520 C&F; TPH-GIBTEX; TPH-D; EPA 8270; Total Cr, Hg; CAM Pt; EPA 8010

INDUSTRIAL HYGIENE SAMPLE: Y / N

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	5520 C&F	TPH-GIBTEX	TPH-D	EPA 8270	Total Cr, Hg	CAM Pt	EPA 8010	REMARKS
~~Borehole 20~~ BH20-3.0	5/18/94	1425		X	Borehole 20	1	~~X~~			~~X~~				Do not analyze Soil
BH20-6.0		1430				1	X			X				Soil
BH20-9.0		1435				1								Soil
BH21-3.0		1445			Borehole 21	1								Soil
BH21-6.0		1450				1								Soil
BH21-9.0		1500				1	X			X				Soil
BH22-3.0		1535			Borehole 22	1	~~X~~						~~X~~	Do not analyze Soil
BH22-9.0		1545				1	X				X		X	Soil
BH18		1620			Piezin BH18	~~2~~ 3							X	Analyze VOA marked water
BH18 HOT		1620				1							X	"Hot VOA". Other 2 VOA. water are back ups

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Philip M. Cox	5/19/94 12:00				
(Printed) Philip M. Cox		(Printed)	(Printed)		(Printed)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Scott Tiferman	Date / Time 5/19/94 12:00	Remarks 14 Day TAT Relinquished by Cary Kleinecke	
(Printed)		(Printed) Scott Tiferman			

Versar

4424 A CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME
2463-001	Crowley Yard II PDDII

SAMPLERS: (Signature) Philip M. Cox (Printed) Philip M. Cox

PARAMETERS: 5520 C&F; Gas/BTEX; TPH-D; EPA 8270; TCLP(Pb,Cr,Hg); CAM 17; EPA 8010

INDUSTRIAL HYGIENE SAMPLE: Y / N

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	5520 C&F	Gas/BTEX	TPH-D	EPA 8270	TCLP(Pb,Cr,Hg)	CAM 17	EPA 8010	REMARKS
BH12-3.0	5/8/94	0830		X	Borehole 12	1								
BH12-6.0		0835				1	X						X	No EPA 8010
BH12-7.5		0840				1								
BH13-3.0		0845			Borehole 13	1								
BH13-6.0		0850				1		X	X				X	
BH13-9.0		0855				1	X							
BH14-3.0		0926			Borehole 14	1								
BH14-6.0		0930				1			X					
BH14-9.0		0935				1	X							
BH15-3.0		0945			Borehole 15	1								
BH15-6.0		0950				1			X					
BH15-9.0		0955				1	X	X	X					

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Philip M. Cox	5/19/94 12:00				
(Printed) Philip M. Cox		(Printed)	(Printed)		(Printed)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Scott T. Ferman	Date / Time 5/19/94 12:02	Remarks	14 Day TAT Send Results to Larry Kleinecke
(Printed)		(Printed) Scott T. Ferman			

Versar **4424A** CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME
2463-001	Crowley Yard II PDRIT

SAMPLERS: (Signature) Philip M. Cox (Printed) Philip N. Cox

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	5520 C&F	Gas/BTEX	TPH-D	EPA 8270	Total Pb, Cu, Hg	CAM 17	EPA 8010	REMARKS
BH16-9.0	5/18/94	1045		X	Borehole 16	1	X			X				
BH17-2.5		1055			Borehole 17	1						X		
BH17-6.0		1057			↓	1	X							
BH17-8.5		1103			↓	1								
BH18-2.5		1142			Borehole 18	1								
BH18-6.0		1145			↓	1								
BH18-8.0		1155			↓	1	X					X		
BH19-3.0		1325			Borehole 19	1								
BH19-6.0		1330			↓	1	~~X~~					X		Do not do 5520
BH19-9.0		1335			↓	1	X							
						1								
	↓			↓		1								

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Philip M. Cox	5/19/94 12:00				
(Printed) Philip M. Cox		(Printed)	(Printed)		(Printed)
Relinquished by: (Signature)	**Date / Time**	**Received for Laboratory by: (Signature)** Scott T. Ferrine	**Date / Time** 5/19/94 12:00	**Remarks** 14 Day TAT Send Results to Larry Kleinecke	
(Printed)		(Printed) Scott T. Ferrine			

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

Versar 4424A CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME
2463-001	Crowley Yard II PDDI

SAMPLERS: (Signature) Philip M. Cox (Printed) Philip M. Cox

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	5520 C&F	TPH-GIBTEX	TPH-D	EPA 8270	Total Cr, Pb	CAM Pb	EPA 8010	REMARKS
~~BH20-1.0~~ Borehole 20	5/18/94	1425		X	Borehole 20	1	X				X			Do not analyze
BH20-6.0		1430			↓	1	X				X			
BH20-9.0		1435				1								
BH21-3.0		1445			Borehole 21	1								
BH21-6.0		1450			↓	1								
BH21-9.0		1500				1	X				X			
BH22-3.0		1535			Borehole 22	1	X						X	Do not analyze
BH22-9.0		1545			↓	1	X					X	X	
BH18	↓	1620		↓	Piez in BH18	3		X					X	Analyze VOA marked "Hot VOA". Other 2 VOAs are back ups
														BH18 initiated for TPH/BTEX only on 5-Day from 5/25/94 SF

INDUSTRIAL HYGIENE SAMPLE: Y / N

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Philip M. Cox	5/19/94 12:00				
(Printed) Philip M. Cox		(Printed)	(Printed)		(Printed)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Scott Tiffenman	Date / Time 5/19/94 12:00	Remarks 14 Day TAT Results to Tony Kleinecke	
(Printed)		(Printed) Scott Tiffenman			

APPENDIX B

Laboratory Analytical Results from April 1995 Investigation

Trace Analysis Laboratory, Inc.
3423 Investment Boulevard, #8 • Hayward, California 94545
Telephone (510) 783-6960
Facsimile (510) 783-1512

TAL

LOG NUMBER: 5415
DATE SAMPLED: 04/10/95 and 04/11/95
DATE RECEIVED: 04/11/95
DATE EXTRACTED: 04/20/95
DATE ANALYZED: 04/28/95 and 05/03/95
DATE REPORTED: 05/09/95

CUSTOMER: Versar, Inc.

REQUESTER: Philip Walsack

PROJECT: No. 2463-107, Crowley Yard 2

Sample Type: Soil

Method and Constituent:	Units	CH1-4.0-4.5 Concentration	CH1-4.0-4.5 Reporting Limit	CH1A-2.0-2.5 Concentration	CH1A-2.0-2.5 Reporting Limit	CH1B-3.0-3.5 Concentration	CH1B-3.0-3.5 Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Diesel	ug/kg	1,300,000	1,000	240,000	1,000	1,400	1,000

Method and Constituent:	Units	CH1C-2.0-2.5 Concentration	CH1C-2.0-2.5 Reporting Limit	CH1C-4.5-5.0 Concentration	CH1C-4.5-5.0 Reporting Limit	CH2-1.0-1.5 Concentration	CH2-1.0-1.5 Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Diesel	ug/kg	ND	1,000	910,000	1,000	18,000	1,000

Method and Constituent:	Units	CH2A-2.5-3.0 Concentration	CH2A-2.5-3.0 Reporting Limit	CH2B-1.5-2.0 Concentration	CH2B-1.5-2.0 Reporting Limit	CH2C-2.5-3.0 Concentration	CH2C-2.5-3.0 Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Diesel	ug/kg	8,700	1,000	55,000	1,000	44,000	1,000

Method and Constituent:	Units	CH2C-4.5-5.0 Concentration	CH2C-4.5-5.0 Reporting Limit	CH3-4.0-4.5 Concentration	CH3-4.0-4.5 Reporting Limit	CH3A-1.5-2.0 Concentration	CH3A-1.5-2.0 Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Diesel	ug/kg	8,300	1,000	ND	1,000	26,000	1,000

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 5415
DATE SAMPLED: 04/10/95 and 04/11/95
DATE RECEIVED: 04/11/95
DATE EXTRACTED: 04/20/95 and 04/24/95
DATE ANALYZED: 04/28/95, 05/03/95, 05/06/95, and 05/09/95
DATE REPORTED: 05/09/95
PAGE: Two

Sample Type: Soil

Method and Constituent:	Units	CH3B-2.5-3.0 Concentration	CH3B-2.5-3.0 Reporting Limit	CH3C-2.0-2.5 Concentration	CH3C-2.0-2.5 Reporting Limit	CH3D-2.0-2.5 Concentration	CH3D-2.0-2.5 Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Diesel	ug/kg	240,000	1,000	ND	1,000	940,000	1,000

Method and Constituent:	Units	CH4-3.0-3.5 Concentration	CH4-3.0-3.5 Reporting Limit	CH4A-2.5-3.0 Concentration	CH4A-2.5-3.0 Reporting Limit	CH4A-4.5-5.0 Concentration	CH4A-4.5-5.0 Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Diesel	ug/kg	1,600	1,000	26,000	1,000	4,500	1,000

Method and Constituent:	Units	CH5-1.5-2.0 Concentration	CH5-1.5-2.0 Reporting Limit	CH6-2.5-3.0 Concentration	CH6-2.5-3.0 Reporting Limit	CH7-2.5-3.0 Concentration	CH7-2.5-3.0 Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Diesel	ug/kg	ND	1,000	5,300	1,000	ND	1,000

Method and Constituent:	Units	CH8-3.5-4.0 Concentration	CH8-3.5-4.0 Reporting Limit	CH9-2.0-2.5 Concentration	CH9-2.0-2.5 Reporting Limit	CH13-2.5-3.0 Concentration	CH13-2.5-3.0 Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Diesel	ug/kg	ND	1,000	7,000	1,000	59,000	1,000

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 5415
DATE SAMPLED: 04/11/95
DATE RECEIVED: 04/11/95
DATE EXTRACTED: 04/24/95
DATE ANALYZED: 05/06/95
DATE REPORTED: 05/09/95
PAGE: Three

Sample Type: Soil

Method and Constituent:	Units	CH14-2.5-3.0 Concentration	CH14-2.5-3.0 Reporting Limit	Method Blank Concentration	Method Blank Reporting Limit
DHS Method:					
Total Petroleum Hydrocarbons as Diesel	ug/kg	ND	1,000	ND	1,000

QC Summary:

% Recovery: 112 , 128 , 101 , 95
% RPD: 8.1, 8.6, 7.9, 23

Concentrations reported as ND were not detected at or above the reporting limit.

Samples CH2B-1.5-2.0, CH2C-2.5-3.0, CH3B-2.5-3.0, CH6-2.5-3.0 contain compounds eluting later than the diesel standard.

LOG NUMBER: 5415
DATE SAMPLED: 04/10/95 and 04/11/95
DATE RECEIVED: 04/11/95
DATE EXTRACTED: 04/18/95 and 04/21/95
DATE ANALYZED: 04/19/95, 04/21/95, 04/22/95, and 04/24/95
DATE REPORTED: 05/09/95
PAGE: Four

Sample Type: Soil

Method and Constituent:	Units	CH1-4.0-4.5 Concentration	CH1-4.0-4.5 Reporting Limit	CH1A-2.0-2.5 Concentration	CH1A-2.0-2.5 Reporting Limit	CH1B-3.0-3.5 Concentration	CH1B-3.0-3.5 Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/kg	73,000	1,500	5,400	500	ND	500
Modified EPA Method 8020 for:							
Benzene	ug/kg	580	30	48	5.0	ND	5.0
Toluene	ug/kg	88	30	6.9	5.0	ND	5.0
Ethylbenzene	ug/kg	ND	30	ND	5.0	ND	5.0
Xylenes	ug/kg	1,500	90	140	15	ND	15

Method and Constituent:	Units	CH1C-2.0-2.5 Concentration	CH1C-2.0-2.5 Reporting Limit	CH1C-4.5-5.0 Concentration	CH1C-4.5-5.0 Reporting Limit	CH2-1.0-1.5 Concentration	CH2-1.0-1.5 Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/kg	ND	500	23,000	1,400	4,500	500
Modified EPA Method 8020 for:							
Benzene	ug/kg	ND	5.0	100	28	ND	5.0
Toluene	ug/kg	ND	5.0	ND	28	ND	5.0
Ethylbenzene	ug/kg	6.8	5.0	ND	28	ND	5.0
Xylenes	ug/kg	18	15	300	82	19	15

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 5415
DATE SAMPLED: 04/10/95
DATE RECEIVED: 04/11/95
DATE EXTRACTED: 04/18/95 and 04/21/95
DATE ANALYZED: 04/19/95 and 04/21/95
DATE REPORTED: 05/09/95
PAGE: Five

Sample Type: Soil

Method and Constituent:	Units	CH2A-2.5-3.0 Concentration	CH2A-2.5-3.0 Reporting Limit	CH2B-1.5-2.0 Concentration	CH2B-1.5-2.0 Reporting Limit	CH2C-2.5-3.0 Concentration	CH2C-2.5-3.0 Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/kg	16,000	3,600	ND	500	ND	500
Modified EPA Method 8020 for:							
Benzene	ug/kg	2,100	73	ND	5.0	11	5.0
Toluene	ug/kg	ND	73	ND	5.0	ND	5.0
Ethylbenzene	ug/kg	ND	73	5.3	5.0	ND	5.0
Xylenes	ug/kg	660	220	ND	15	ND	15

Method and Constituent:	Units	CH2C-4.5-5.0 Concentration	CH2C-4.5-5.0 Reporting Limit	CH3-4.0-4.5 Concentration	CH3-4.0-4.5 Reporting Limit	CH3A-1.5-2.0 Concentration	CH3A-1.5-2.0 Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/kg	ND	500	ND	500	ND	500
Modified EPA Method 8020 for:							
Benzene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Toluene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Ethylbenzene	ug/kg	ND	5.0	9.2	5.0	ND	5.0
Xylenes	ug/kg	ND	15	22	15	ND	15

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 5415
DATE SAMPLED: 04/10/95 and 04/11/95
DATE RECEIVED: 04/11/95
DATE EXTRACTED: 04/18/95 and 04/21/95
DATE ANALYZED: 04/19/95, 04/22/95, and 04/24/95
DATE REPORTED: 05/09/95
PAGE: Six

Sample Type: Soil

Method and Constituent:	Units	CH3B-2.5-3.0 Concentration	CH3B-2.5-3.0 Reporting Limit	CH3C-2.0-2.5 Concentration	CH3C-2.0-2.5 Reporting Limit	CH3D-2.0-2.5 Concentration	CH3D-2.0-2.5 Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/kg	1,800	500	880	500	9,600	7,400
Modified EPA Method 8020 for:							
Benzene	ug/kg	150	5.0	5.4	5.0	810	150
Toluene	ug/kg	17	5.0	ND	5.0	ND	150
Ethylbenzene	ug/kg	12	5.0	ND	5.0	ND	150
Xylenes	ug/kg	96	15	70	15	3,600	440

Method and Constituent:	Units	CH4-3.0-3.5 Concentration	CH4-3.0-3.5 Reporting Limit	CH4A-2.5-3.0 Concentration	CH4A-2.5-3.0 Reporting Limit	CH4A-4.5-5.0 Concentration	CH4A-4.5-5.0 Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/kg	ND	500	ND	500	ND	500
Modified EPA Method 8020 for:							
Benzene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Toluene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Ethylbenzene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Xylenes	ug/kg	ND	15	ND	15	ND	15

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 5415
DATE SAMPLED: 04/10/95 and 04/11/95
DATE RECEIVED: 04/11/95
DATE EXTRACTED: 04/18/95 and 04/21/95
DATE ANALYZED: 04/19/95 and 04/22/95
DATE REPORTED: 05/09/95
PAGE: Seven

Sample Type: Soil

Method and Constituent:	Units	CH5-1.5-2.0 Concentration	CH5-1.5-2.0 Reporting Limit	CH6-2.5-3.0 Concentration	CH6-2.5-3.0 Reporting Limit	CH7-2.5-3.0 Concentration	CH7-2.5-3.0 Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/kg	ND	500	ND	500	ND	500
Modified EPA Method 8020 for:							
Benzene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Toluene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Ethylbenzene	ug/kg	ND	5.0	5.2	5.0	ND	5.0
Xylenes	ug/kg	ND	15	43	15	ND	15

Method and Constituent:	Units	CH8-3.5-4.0 Concentration	CH8-3.5-4.0 Reporting Limit	CH9-2.0-2.5 Concentration	CH9-2.0-2.5 Reporting Limit	CH13-2.5-3.0 Concentration	CH13-2.5-3.0 Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/kg	ND	500	ND	500	ND	500
Modified EPA Method 8020 for:							
Benzene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Toluene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Ethylbenzene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Xylenes	ug/kg	ND	15	38	15	ND	15

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 5415
DATE SAMPLED: 04/11/95
DATE RECEIVED: 04/11/95
DATE EXTRACTED: 04/21/95
DATE ANALYZED: 04/22/95
DATE REPORTED: 05/09/95
PAGE: Eight

Sample Type: Soil

Method and Constituent:	Units	CH14-2.5-3.0 Concentration	CH14-2.5-3.0 Reporting Limit	Method Blank Concentration	Method Blank Reporting Limit
DHS Method:					
Total Petroleum Hydrocarbons as Gasoline	ug/kg	ND	500	ND	500
Modified EPA Method 8020 for:					
Benzene	ug/kg	ND	5.0	ND	5.0
Toluene	ug/kg	ND	5.0	ND	5.0
Ethylbenzene	ug/kg	ND	5.0	ND	5.0
Xylenes	ug/kg	ND	15	ND	15

QC Summary:

% Recovery: 91 , 82 , 111 , 107
% RPD: 4.2, 2.2, 9.7, 0.6

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 5415
DATE SAMPLED: 04/10/95
DATE RECEIVED: 04/11/95
DATE EXTRACTED: 04/21/95
DATE ANALYZED: 04/24/95
DATE REPORTED: 05/09/95
PAGE: Nine

Sample Type: Soil

Method and Constituent	Units	CH1-4.0-4.5 Concentration	CH1-4.0-4.5 Reporting Limit	CH1A-2.0-2.5 Concentration	CH1A-2.0-2.5 Reporting Limit	CH1B-3.0-3.5 Concentration	CH1B-3.0-3.5 Reporting Limit
EPA Method 8010:							
Benzyl Chloride	ug/kg	ND	1,200	ND	1,200	ND	1,200
Bromobenzene	ug/kg	ND	1,200	ND	1,200	ND	1,200
Bromodichloromethane	ug/kg	ND	20	ND	20	ND	20
Bromoform	ug/kg	ND	20	ND	20	ND	20
Bromomethane	ug/kg	ND	60	ND	60	ND	60
Carbon Tetrachloride	ug/kg	ND	60	ND	60	ND	60
Chlorobenzene	ug/kg	540	20	220	20	34	20
Chloroethane	ug/kg	ND	60	ND	60	ND	60
2-Chloroethyl Vinyl Ether	ug/kg	ND	60	ND	60	ND	60
Chloroform	ug/kg	ND	20	ND	20	ND	20
Chloromethane	ug/kg	ND	60	ND	60	ND	60
Dibromochloromethane	ug/kg	ND	20	ND	20	ND	20
Dibromomethane	ug/kg	ND	1,200	ND	1,200	ND	1,200
1,2-Dichlorobenzene	ug/kg	ND	60	ND	60	ND	60
1,3-Dichlorobenzene	ug/kg	ND	60	ND	60	ND	60
1,4-Dichlorobenzene	ug/kg	190	60	ND	60	ND	60
Dichlorodifluoromethane	ug/kg	ND	60	ND	60	ND	60
1,1-Dichloroethane	ug/kg	ND	20	ND	20	ND	20
1,2-Dichloroethane	ug/kg	ND	20	ND	20	ND	20
1,1-Dichloroethene	ug/kg	ND	20	ND	20	ND	20

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 5415
DATE SAMPLED: 04/10/95
DATE RECEIVED: 04/11/95
DATE EXTRACTED: 04/21/95
DATE ANALYZED: 04/24/95
DATE REPORTED: 05/09/95
PAGE: Ten

Sample Type: Soil

Method and Constituent	Units	CH1-4.0-4.5 Concentration	CH1-4.0-4.5 Reporting Limit	CH1A-2.0-2.5 Concentration	CH1A-2.0-2.5 Reporting Limit	CH1B-3.0-3.5 Concentration	CH1B-3.0-3.5 Reporting Limit
EPA Method 8010 (Continued):							
cis and trans-1,2 Dichloroethene	ug/kg	ND	20	ND	20	ND	20
Dichloromethane	ug/kg	ND	1,200	ND	1,200	ND	1,200
1,2-Dichloropropane	ug/kg	ND	20	ND	20	ND	20
cis-1,3-Dichloropropene	ug/kg	ND	20	ND	20	ND	20
trans-1,3-Dichloropropene	ug/kg	ND	20	ND	20	ND	20
1,1,2,2-Tetrachloroethane	ug/kg	ND	20	ND	20	ND	20
1,1,1,2-Tetrachloroethane	ug/kg	ND	1,200	ND	1,200	ND	1,200
Tetrachloroethene	ug/kg	ND	20	ND	20	ND	20
1,1,1-Trichloroethane	ug/kg	ND	20	ND	20	ND	20
1,1,2-Trichloroethane	ug/kg	ND	20	ND	20	ND	20
Trichloroethene	ug/kg	ND	20	ND	20	ND	20
Trichlorofluoromethane	ug/kg	ND	20	ND	20	ND	20
1,2,3-Trichloropropane	ug/kg	ND	1,200	ND	1,200	ND	1,200
Vinyl Chloride	ug/kg	ND	60	ND	60	ND	60

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 5415
DATE SAMPLED: 04/10/95 and 04/11/95
DATE RECEIVED: 04/11/95
DATE EXTRACTED: 04/21/95
DATE ANALYZED: 04/24/95
DATE REPORTED: 05/09/95
PAGE: Eleven

Sample Type: Soil

Method and Constituent	Units	CH1C-2.0-2.5 Concentration	CH1C-2.0-2.5 Reporting Limit	CH1C-4.5-5.0 Concentration	CH1C-4.5-5.0 Reporting Limit	CH2-1.0-1.5 Concentration	CH2-1.0-1.5 Reporting Limit
EPA Method 8010:							
Benzyl Chloride	ug/kg	ND	1,200	ND	1,200	ND	1,200
Bromobenzene	ug/kg	ND	1,200	ND	1,200	ND	1,200
Bromodichloromethane	ug/kg	ND	20	ND	20	ND	20
Bromoform	ug/kg	ND	20	ND	20	ND	20
Bromomethane	ug/kg	ND	60	ND	60	ND	60
Carbon Tetrachloride	ug/kg	ND	60	ND	60	ND	60
Chlorobenzene	ug/kg	ND	20	480	20	ND	20
Chloroethane	ug/kg	ND	60	ND	60	ND	60
2-Chloroethyl Vinyl Ether	ug/kg	ND	60	ND	60	ND	60
Chloroform	ug/kg	ND	20	ND	20	ND	20
Chloromethane	ug/kg	ND	60	ND	60	ND	60
Dibromochloromethane	ug/kg	ND	20	ND	20	ND	20
Dibromomethane	ug/kg	ND	1,200	ND	1,200	ND	1,200
1,2-Dichlorobenzene	ug/kg	ND	60	ND	60	ND	60
1,3-Dichlorobenzene	ug/kg	ND	60	ND	60	ND	60
1,4-Dichlorobenzene	ug/kg	ND	60	410	60	ND	60
Dichlorodifluoromethane	ug/kg	ND	60	ND	60	ND	60
1,1-Dichloroethane	ug/kg	ND	20	ND	20	ND	20
1,2-Dichloroethane	ug/kg	ND	20	ND	20	ND	20
1,1-Dichloroethene	ug/kg	ND	20	ND	20	ND	20

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 5415
DATE SAMPLED: 04/10/95 and 04/11/95
DATE RECEIVED: 04/11/95
DATE EXTRACTED: 04/21/95
DATE ANALYZED: 04/24/95
DATE REPORTED: 05/09/95
PAGE: Twelve

Sample Type: Soil

Method and Constituent	Units	CH1C-2.0-2.5 Concentration	CH1C-2.0-2.5 Reporting Limit	CH1C-4.5-5.0 Concentration	CH1C-4.5-5.0 Reporting Limit	CH2-1.0-1.5 Concentration	CH2-1.0-1.5 Reporting Limit
EPA Method 8010 (Continued):							
cis and trans-1,2 Dichloroethene	ug/kg	ND	20	ND	20	ND	20
Dichloromethane	ug/kg	ND	1,200	ND	1,200	ND	1,200
1,2-Dichloropropane	ug/kg	ND	20	ND	20	ND	20
cis-1,3-Dichloropropene	ug/kg	ND	20	ND	20	ND	20
trans-1,3-Dichloropropene	ug/kg	ND	20	ND	20	ND	20
1,1,2,2-Tetrachloro-ethane	ug/kg	ND	20	ND	20	ND	20
1,1,1,2-Tetrachloro-ethane	ug/kg	ND	1,200	ND	1,200	ND	1,200
Tetrachloroethene	ug/kg	ND	20	ND	20	ND	20
1,1,1-Trichloroethane	ug/kg	ND	20	ND	20	ND	20
1,1,2-Trichloroethane	ug/kg	ND	20	ND	20	ND	20
Trichloroethene	ug/kg	ND	20	ND	20	23	20
Trichlorofluoro-methane	ug/kg	ND	20	ND	20	ND	20
1,2,3-Trichloropropane	ug/kg	ND	1,200	ND	1,200	ND	1,200
Vinyl Chloride	ug/kg	ND	60	ND	60	ND	60

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 5415
DATE SAMPLED: 04/10/95
DATE RECEIVED: 04/11/95
DATE EXTRACTED: 04/21/95
DATE ANALYZED: 04/24/95
DATE REPORTED: 05/09/95
PAGE: Thirteen

Sample Type: Soil

Method and Constituent	Units	CH2A-2.5-3.0 Concentration	CH2A-2.5-3.0 Reporting Limit	CH2B-1.5-2.0 Concentration	CH2B-1.5-2.0 Reporting Limit	CH2C-2.5-3.0 Concentration	CH2C-2.5-3.0 Reporting Limit
EPA Method 8010:							
Benzyl Chloride	ug/kg	ND	1,200	ND	1,200	ND	1,200
Bromobenzene	ug/kg	ND	1,200	ND	1,200	ND	1,200
Bromodichloromethane	ug/kg	ND	20	ND	20	ND	20
Bromoform	ug/kg	ND	20	ND	20	ND	20
Bromomethane	ug/kg	ND	60	ND	60	ND	60
Carbon Tetrachloride	ug/kg	ND	60	ND	60	ND	60
Chlorobenzene	ug/kg	63	20	ND	20	ND	20
Chloroethane	ug/kg	ND	60	ND	60	ND	60
2-Chloroethyl Vinyl Ether	ug/kg	ND	60	ND	60	ND	60
Chloroform	ug/kg	ND	20	ND	20	ND	20
Chloromethane	ug/kg	ND	60	ND	60	ND	60
Dibromochloromethane	ug/kg	ND	20	ND	20	ND	20
Dibromomethane	ug/kg	ND	1,200	ND	1,200	ND	1,200
1,2-Dichlorobenzene	ug/kg	ND	60	ND	60	ND	60
1,3-Dichlorobenzene	ug/kg	ND	60	ND	60	ND	60
1,4-Dichlorobenzene	ug/kg	ND	60	ND	60	ND	60
Dichlorodifluoromethane	ug/kg	ND	60	ND	60	ND	60
1,1-Dichloroethane	ug/kg	ND	20	ND	20	ND	20
1,2-Dichloroethane	ug/kg	ND	20	ND	20	ND	20
1,1-Dichloroethene	ug/kg	ND	20	ND	20	ND	20

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 5415
DATE SAMPLED: 04/10/95
DATE RECEIVED: 04/11/95
DATE EXTRACTED: 04/21/95
DATE ANALYZED: 04/24/95
DATE REPORTED: 05/09/95
PAGE: Fourteen

Sample Type: Soil

Method and Constituent	Units	CH2A-2.5-3.0 Concentration	CH2A-2.5-3.0 Reporting Limit	CH2B-1.5-2.0 Concentration	CH2B-1.5-2.0 Reporting Limit	CH2C-2.5-3.0 Concentration	CH2C-2.5-3.0 Reporting Limit
EPA Method 8010 (Continued):							
cis and trans-1,2 Dichloroethene	ug/kg	ND	20	ND	20	ND	20
Dichloromethane	ug/kg	ND	1,200	ND	1,200	ND	1,200
1,2-Dichloropropane	ug/kg	ND	20	ND	20	ND	20
cis-1,3-Dichloropropene	ug/kg	ND	20	ND	20	ND	20
trans-1,3-Dichloropropene	ug/kg	ND	20	ND	20	ND	20
1,1,2,2-Tetrachloro-ethane	ug/kg	ND	20	ND	20	ND	20
1,1,1,2-Tetrachloro-ethane	ug/kg	ND	1,200	ND	1,200	ND	1,200
Tetrachloroethene	ug/kg	ND	20	ND	20	ND	20
1,1,1-Trichloroethane	ug/kg	ND	20	ND	20	ND	20
1,1,2-Trichloroethane	ug/kg	ND	20	ND	20	ND	20
Trichloroethene	ug/kg	ND	20	ND	20	ND	20
Trichlorofluoro-methane	ug/kg	ND	20	ND	20	ND	20
1,2,3-Trichloropropane	ug/kg	ND	1,200	ND	1,200	ND	1,200
Vinyl Chloride	ug/kg	ND	60	ND	60	ND	60

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 5415
DATE SAMPLED: 04/10/95
DATE RECEIVED: 04/11/95
DATE EXTRACTED: 04/21/95
DATE ANALYZED: 04/24/95
DATE REPORTED: 05/09/95
PAGE: Fifteen

Sample Type: Soil

Method and Constituent	Units	CH2C-4.5-5.0 Concentration	CH2C-4.5-5.0 Reporting Limit	CH3-4.0-4.5 Concentration	CH3-4.0-4.5 Reporting Limit	CH3A-1.5-2.0 Concentration	CH3A-1.5-2.0 Reporting Limit
EPA Method 8010:							
Benzyl Chloride	ug/kg	ND	1,200	ND	1,200	ND	1,200
Bromobenzene	ug/kg	ND	1,200	ND	1,200	ND	1,200
Bromodichloromethane	ug/kg	ND	20	ND	20	ND	20
Bromoform	ug/kg	ND	20	ND	20	ND	20
Bromomethane	ug/kg	ND	60	ND	60	ND	60
Carbon Tetrachloride	ug/kg	ND	60	ND	60	ND	60
Chlorobenzene	ug/kg	ND	20	ND	20	ND	20
Chloroethane	ug/kg	ND	60	ND	60	ND	60
2-Chloroethyl Vinyl Ether	ug/kg	ND	60	ND	60	ND	60
Chloroform	ug/kg	ND	20	ND	20	ND	20
Chloromethane	ug/kg	ND	60	ND	60	ND	60
Dibromochloromethane	ug/kg	ND	20	ND	20	ND	20
Dibromomethane	ug/kg	ND	1,200	ND	1,200	ND	1,200
1,2-Dichlorobenzene	ug/kg	ND	60	ND	60	ND	60
1,3-Dichlorobenzene	ug/kg	ND	60	ND	60	ND	60
1,4-Dichlorobenzene	ug/kg	ND	60	ND	60	ND	60
Dichlorodifluoromethane	ug/kg	ND	60	ND	60	ND	60
1,1-Dichloroethane	ug/kg	ND	20	ND	20	ND	20
1,2-Dichloroethane	ug/kg	ND	20	ND	20	ND	20
1,1-Dichloroethene	ug/kg	ND	20	ND	20	ND	20

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 5415
DATE SAMPLED: 04/10/95
DATE RECEIVED: 04/11/95
DATE EXTRACTED: 04/21/95
DATE ANALYZED: 04/24/95
DATE REPORTED: 05/09/95
PAGE: Sixteen

Sample Type: Soil

Method and Constituent	Units	CH2C-4.5-5.0 Concentration	CH2C-4.5-5.0 Reporting Limit	CH3-4.0-4.5 Concentration	CH3-4.0-4.5 Reporting Limit	CH3A-1.5-2.0 Concentration	CH3A-1.5-2.0 Reporting Limit
EPA Method 8010 (Continued):							
cis and trans-1,2 Dichloroethene	ug/kg	ND	20	ND	20	ND	20
Dichloromethane	ug/kg	ND	1,200	ND	1,200	ND	1,200
1,2-Dichloropropane	ug/kg	ND	20	ND	20	ND	20
cis-1,3-Dichloropropene	ug/kg	ND	20	ND	20	ND	20
trans-1,3-Dichloropropene	ug/kg	ND	20	ND	20	ND	20
1,1,2,2-Tetrachloroethane	ug/kg	ND	20	ND	20	ND	20
1,1,1,2-Tetrachloroethane	ug/kg	ND	1,200	ND	1,200	ND	1,200
Tetrachloroethene	ug/kg	ND	20	ND	20	ND	20
1,1,1-Trichloroethane	ug/kg	ND	20	ND	20	ND	20
1,1,2-Trichloroethane	ug/kg	ND	20	ND	20	ND	20
Trichloroethene	ug/kg	ND	20	ND	20	ND	20
Trichlorofluoromethane	ug/kg	ND	20	ND	20	ND	20
1,2,3-Trichloropropane	ug/kg	ND	1,200	ND	1,200	ND	1,200
Vinyl Chloride	ug/kg	ND	60	ND	60	ND	60

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 5415
DATE SAMPLED: 04/11/95
DATE RECEIVED: 04/11/95
DATE EXTRACTED: 04/21/95
DATE ANALYZED: 04/24/95
DATE REPORTED: 05/09/95
PAGE: Seventeen

Sample Type: Soil

Method and Constituent	Units	CH3B-2.5-3.0 Concentration	CH3B-2.5-3.0 Reporting Limit	CH3C-2.0-2.5 Concentration	CH3C-2.0-2.5 Reporting Limit	CH3D-2.0-2.5 Concentration	CH3D-2.0-2.5 Reporting Limit
EPA Method 8010:							
Benzyl Chloride	ug/kg	ND	1,200	ND	1,200	ND	1,200
Bromobenzene	ug/kg	ND	1,200	ND	1,200	ND	1,200
Bromodichloromethane	ug/kg	ND	20	ND	20	ND	20
Bromoform	ug/kg	ND	20	ND	20	ND	20
Bromomethane	ug/kg	ND	60	ND	60	ND	60
Carbon Tetrachloride	ug/kg	ND	60	ND	60	ND	60
Chlorobenzene	ug/kg	890	20	79	20	2,300	20
Chloroethane	ug/kg	ND	60	ND	60	ND	60
2-Chloroethyl Vinyl Ether	ug/kg	ND	60	ND	60	ND	60
Chloroform	ug/kg	ND	20	ND	20	ND	20
Chloromethane	ug/kg	ND	60	ND	60	ND	60
Dibromochloromethane	ug/kg	ND	20	ND	20	ND	20
Dibromomethane	ug/kg	ND	1,200	ND	1,200	ND	1,200
1,2-Dichlorobenzene	ug/kg	ND	60	ND	60	ND	60
1,3-Dichlorobenzene	ug/kg	ND	60	ND	60	68	60
1,4-Dichlorobenzene	ug/kg	ND	60	ND	60	1,200	60
Dichlorodifluoromethane	ug/kg	ND	60	ND	60	ND	60
1,1-Dichloroethane	ug/kg	ND	20	ND	20	ND	20
1,2-Dichloroethane	ug/kg	ND	20	ND	20	ND	20
1,1-Dichloroethene	ug/kg	ND	20	ND	20	ND	20

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 5415
DATE SAMPLED: 04/11/95
DATE RECEIVED: 04/11/95
DATE EXTRACTED: 04/21/95
DATE ANALYZED: 04/24/95
DATE REPORTED: 05/09/95
PAGE: Eighteen

Sample Type: Soil

Method and Constituent	Units	CH3B-2.5-3.0 Concentration	CH3B-2.5-3.0 Reporting Limit	CH3C-2.0-2.5 Concentration	CH3C-2.0-2.5 Reporting Limit	CH3D-2.0-2.5 Concentration	CH3D-2.0-2.5 Reporting Limit
EPA Method 8010 (Continued):							
cis and trans-1,2 Dichloroethene	ug/kg	31	20	ND	20	ND	20
Dichloromethane	ug/kg	ND	1,200	ND	1,200	ND	1,200
1,2-Dichloropropane	ug/kg	ND	20	ND	20	ND	20
cis-1,3-Dichloropropene	ug/kg	ND	20	ND	20	ND	20
trans-1,3-Dichloropropene	ug/kg	ND	20	ND	20	ND	20
1,1,2,2-Tetrachloroethane	ug/kg	ND	20	ND	20	ND	20
1,1,1,2-Tetrachloroethane	ug/kg	ND	1,200	ND	1,200	ND	1,200
Tetrachloroethene	ug/kg	ND	20	ND	20	ND	20
1,1,1-Trichloroethane	ug/kg	ND	20	ND	20	ND	20
1,1,2-Trichloroethane	ug/kg	ND	20	ND	20	ND	20
Trichloroethene	ug/kg	ND	20	ND	20	ND	20
Trichlorofluoromethane	ug/kg	ND	20	ND	20	ND	20
1,2,3-Trichloropropane	ug/kg	ND	1,200	ND	1,200	ND	1,200
Vinyl Chloride	ug/kg	ND	60	ND	60	ND	60

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 5415
DATE SAMPLED: 04/10/95 and 04/11/95
DATE RECEIVED: 04/11/95
DATE EXTRACTED: 04/21/95
DATE ANALYZED: 04/24/95
DATE REPORTED: 05/09/95
PAGE: Nineteen

Sample Type: Soil

Method and Constituent	Units	CH4-3.0-3.5 Concentration	CH4-3.0-3.5 Reporting Limit	CH4A-2.5-3.0 Concentration	CH4A-2.5-3.0 Reporting Limit	CH4A-4.5-5.0 Concentration	CH4A-4.5-5.0 Reporting Limit
EPA Method 8010:							
Benzyl Chloride	ug/kg	ND	1,200	ND	1,200	ND	1,200
Bromobenzene	ug/kg	ND	1,200	ND	1,200	ND	1,200
Bromodichloromethane	ug/kg	ND	20	ND	20	ND	20
Bromoform	ug/kg	ND	20	ND	20	ND	20
Bromomethane	ug/kg	ND	60	ND	60	ND	60
Carbon Tetrachloride	ug/kg	ND	60	ND	60	ND	60
Chlorobenzene	ug/kg	ND	20	ND	20	ND	20
Chloroethane	ug/kg	ND	60	ND	60	ND	60
2-Chloroethyl Vinyl Ether	ug/kg	ND	60	ND	60	ND	60
Chloroform	ug/kg	ND	20	ND	20	ND	20
Chloromethane	ug/kg	ND	60	ND	60	ND	60
Dibromochloromethane	ug/kg	ND	20	ND	20	ND	20
Dibromomethane	ug/kg	ND	1,200	ND	1,200	ND	1,200
1,2-Dichlorobenzene	ug/kg	ND	60	ND	60	ND	60
1,3-Dichlorobenzene	ug/kg	ND	60	ND	60	ND	60
1,4-Dichlorobenzene	ug/kg	ND	60	ND	60	ND	60
Dichlorodifluoromethane	ug/kg	ND	60	ND	60	ND	60
1,1-Dichloroethane	ug/kg	ND	20	ND	20	ND	20
1,2-Dichloroethane	ug/kg	ND	20	ND	20	ND	20
1,1-Dichloroethene	ug/kg	ND	20	ND	20	ND	20

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 5415
DATE SAMPLED: 04/10/95 and 04/11/95
DATE RECEIVED: 04/11/95
DATE EXTRACTED: 04/21/95
DATE ANALYZED: 04/24/95
DATE REPORTED: 05/09/95
PAGE: Twenty

Sample Type: Soil

Method and Constituent	Units	CH4-3.0-3.5 Concentration	CH4-3.0-3.5 Reporting Limit	CH4A-2.5-3.0 Concentration	CH4A-2.5-3.0 Reporting Limit	CH4A-4.5-5.0 Concentration	CH4A-4.5-5.0 Reporting Limit
EPA Method 8010 (Continued):							
cis and trans-1,2 Dichloroethene	ug/kg	ND	20	ND	20	ND	20
Dichloromethane	ug/kg	ND	1,200	ND	1,200	ND	1,200
1,2-Dichloropropane	ug/kg	ND	20	ND	20	ND	20
cis-1,3-Dichloropropene	ug/kg	ND	20	ND	20	ND	20
trans-1,3-Dichloropropene	ug/kg	ND	20	ND	20	ND	20
1,1,2,2-Tetrachloroethane	ug/kg	ND	20	ND	20	ND	20
1,1,1,2-Tetrachloroethane	ug/kg	ND	1,200	ND	1,200	ND	1,200
Tetrachloroethene	ug/kg	ND	20	ND	20	ND	20
1,1,1-Trichloroethane	ug/kg	ND	20	ND	20	ND	20
1,1,2-Trichloroethane	ug/kg	ND	20	ND	20	ND	20
Trichloroethene	ug/kg	ND	20	ND	20	ND	20
Trichlorofluoromethane	ug/kg	ND	20	ND	20	ND	20
1,2,3-Trichloropropane	ug/kg	ND	1,200	ND	1,200	ND	1,200
Vinyl Chloride	ug/kg	ND	60	ND	60	ND	60

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 5415
DATE SAMPLED: 04/10/95 and 04/11/95
DATE RECEIVED: 04/11/95
DATE EXTRACTED: 04/21/95
DATE ANALYZED: 04/24/95
DATE REPORTED: 05/09/95
PAGE: Twenty-one

Sample Type: Soil

Method and Constituent	Units	Method Blank Concentration	Method Blank Reporting Limit
EPA Method 8010:			
Benzyl Chloride	ug/kg	ND	1,200
Bromobenzene	ug/kg	ND	1,200
Bromodichloromethane	ug/kg	ND	20
Bromoform	ug/kg	ND	20
Bromomethane	ug/kg	ND	60
Carbon Tetrachloride	ug/kg	ND	60
Chlorobenzene	ug/kg	ND	20
Chloroethane	ug/kg	ND	60
2-Chloroethyl Vinyl Ether	ug/kg	ND	60
Chloroform	ug/kg	ND	20
Chloromethane	ug/kg	ND	60
Dibromochloromethane	ug/kg	ND	20
Dibromomethane	ug/kg	ND	1,200
1,2-Dichlorobenzene	ug/kg	ND	60
1,3-Dichlorobenzene	ug/kg	ND	60
1,4-Dichlorobenzene	ug/kg	ND	60
Dichlorodifluoromethane	ug/kg	ND	60
1,1-Dichloroethane	ug/kg	ND	20
1,2-Dichloroethane	ug/kg	ND	20
1,1-Dichloroethene	ug/kg	ND	20

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 5415
DATE SAMPLED: 04/10/95 and 04/11/95
DATE RECEIVED: 04/11/95
DATE EXTRACTED: 04/21/95
DATE ANALYZED: 04/24/95
DATE REPORTED: 05/09/95
PAGE: Twenty-two

Sample Type: Soil

Method and Constituent	Units	Method Blank Concentration	Method Blank Reporting Limit
EPA Method 8010 (Continued):			
cis and trans-1,2 Dichloroethene	ug/kg	ND	20
Dichloromethane	ug/kg	ND	1,200
1,2-Dichloropropane	ug/kg	ND	20
cis-1,3-Dichloropropene	ug/kg	ND	20
trans-1,3-Dichloropropene	ug/kg	ND	20
1,1,2,2-Tetrachloroethane	ug/kg	ND	20
1,1,1,2-Tetrachloroethane	ug/kg	ND	1,200
Tetrachloroethane	ug/kg	ND	20
1,1,1-Trichloroethane	ug/kg	ND	20
1,1,2-Trichloroethane	ug/kg	ND	20
Trichloroethene	ug/kg	ND	20
Trichlorofluoromethane	ug/kg	ND	20
1,2,3-Trichloropropane	ug/kg	ND	1,200
Vinyl Chloride	ug/kg	ND	60

QC Summary:

% Recovery: 92
% RPD: 4.3

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 5415
DATE SAMPLED: 04/10/95
DATE RECEIVED: 04/11/95
DATE EXTRACTED: 04/17/95
DATE ANALYZED: 04/18/95
DATE REPORTED: 05/09/95
PAGE: Twenty-three

Sample Type: Soil

Method and Constituent:	Units	CH10-2.5-3.0 Concentration	CH10-2.5-3.0 Reporting Limit	CH10-5.0-5.5 Concentration	CH10-5.0-5.5 Reporting Limit	CH11-2.5-3.0 Concentration	CH11-2.5-3.0 Reporting Limit
DHS Method:							
Organic Lead	ug/kg	ND	1,700	ND	1,700	ND	1,700

Method and Constituent:	Units	CH11-5.5-6.0 Concentration	CH11-5.5-6.0 Reporting Limit	CH12-2.5-3.0 Concentration	CH12-2.5-3.0 Reporting Limit	CH12-5.5-6.0 Concentration	CH12-5.5-6.0 Reporting Limit
DHS Method:							
Organic Lead	ug/kg	ND	1,700	ND	1,700	ND	1,700

Method and Constituent:	Units	Method Blank Concentration	Method Blank Reporting Limit
DHS Method:			
Organic Lead	ug/kg	ND	1,700

QC Summary:

% Recovery: 103
% RPD: 2.8

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 5415
DATE SAMPLED: 04/10/95 and 04/11/95
DATE RECEIVED: 04/11/95
DATE EXTRACTED: 05/01/95
DATE ANALYZED: 05/02/95
DATE REPORTED: 05/09/95
PAGE: Twenty-four

Sample Type: Soil

Method and Constituent:	Units	CH10-2.5-3.0 Concentration	CH10-2.5-3.0 Reporting Limit	CH10-5.0-5.5 Concentration	CH10-5.0-5.5 Reporting Limit	CH11-2.5-3.0 Concentration	CH11-2.5-3.0 Reporting Limit
EPA Method 7420:							
Lead	ug/kg	5,400	3,600	7,200	3,600	17,000	3,600

Method and Constituent:	Units	CH11-5.5-6.0 Concentration	CH11-5.5-6.0 Reporting Limit	CH12-2.5-3.0 Concentration	CH12-2.5-3.0 Reporting Limit	CH12-5.5-6.0 Concentration	CH12-5.5-6.0 Reporting Limit
EPA Method 7420:							
Lead	ug/kg	7,400	3,600	38,000	3,600	4,500	3,600

Method and Constituent:	Units	CH13-2.5-3.0 Concentration	CH13-2.5-3.0 Reporting Limit	CH14-2.5-3.0 Concentration	CH14-2.5-3.0 Reporting Limit	Method Blank Concentration	Method Blank Reporting Limit
EPA Method 7420:							
Lead	ug/kg	92,000	3,600	13,000	3,600	ND	3,600

QC Summary:

% Recovery: 79
% RPD: 0.8

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 5415
DATE SAMPLED: 04/11/95
DATE RECEIVED: 04/11/95
DATE EXTRACTED: 05/01/95
DATE ANALYZED: 05/03/95
DATE REPORTED: 05/09/95
PAGE: Twenty-five

Sample Type: Soil

Method and Constituent:	Units	CH13-2.5-3.0 Concentration	CH13-2.5-3.0 Reporting Limit	CH14-2.5-3.0 Concentration	CH14-2.5-3.0 Reporting Limit	Method Blank Concentration	Method Blank Reporting Limit
EPA Method 7210:							
Copper	ug/kg	98,000	500	22,000	500	ND	500

QC Summary:

% Recovery: 87
% RPD: 4.4

Concentrations reported as ND were not detected at or above the reporting limit.

Louis W. DuPuis
Quality Assurance/Quality Control Manager

Versar INC.

5415

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME
2463-07	Crowley Yard II

SAMPLERS: (Signature) Phil Walsack (Printed) Philip Walsack

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	TRH-G/BTEX	TPH-D	HVOC 8010	Total Lead	Organic Lead			REMARKS
C11A-4.0-4.5	4/10			X	Area 5	1								Hold
C11B-3.0-3.5				X	"	1	X	X	X					
C12A-2.5-3.0		1525		X	"	1	X	X	X					
C12A-4.0-4.5		1535		X	Area 5	1								Hold
C17-2.5-3.0		1540		X	Area 6	1	X	X						
C17-4.0-4.5		1550		X	Area 6	1								HOLD
C110-2.5-3.0	4/10	1645		X	Area #2					X	X			
C110-5.0-5.5		1650		X	"					X	X			
C111-2.5-3.0		1705		X	"					X	X			
C111-5.5-6.0		1715		X	"					X	X			
C112-2.5-3.0		1745		X	"					X	X			
C112-5.5-6.0		1750		X	Area #2					X	X			

INDUSTRIAL HYGIENE SAMPLE: Y / N

Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Phil Walsack	4/10/95 1535	
(Printed) Phil Walsack		(Printed)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Scott T. Ferriman
(Printed)		(Printed) Scott T. Ferriman

Relinquished by: (Signature)	Date / Time	Received by: (Signature)
(Printed)		(Printed)
Date / Time: 4/11/95 1535	Remarks: Reg TAT	

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

1 of 5

CH3A 1.5-2.0	4/11	1240		X	"	1	X	X	X										
CH3B-2.5-3.0		0815		X	"	1	X	X	X										
CH3B-4.0-4.5		0825		X	"	1													Hold
CH3C-2.0-2.5		0835		X	"	1	X	X	X										
CH3C-4.5-5.0		0840		X	"	1													Hold
CH3D-2.0-2.5		1000		X	"	1	X	X	X										
CH3D-4.5-5.0		1010		X	"	1													Hold
CH4A-2.5-3.0		0850		X	Area 5	1	X	X	X										

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
(Printed) Phil Wallick	4/11/25 1535	(Printed)	(Printed)		(Printed)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Scott T. Ferrin	Date / Time 4/11/25 1535	Remarks Reg TAT	
(Printed)		(Printed) Scott T. Ferrin			

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

5415

Versar

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	PARAMETERS	INDUSTRIAL HYGIENE SAMPLE Y / N
2463-107	Clowdy Yard II		

SAMPLERS: (Signature) Phil Walsack (Printed) Phil Walsack

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	TPH-G/BTEX	TPH-D	HVOC-8240	Total Lead	Total Copper	REMARKS
CHA-4.5-5.0	4/11	0855		X	Area 5	1	X	X	X			
CHB-2.0-2.5		0905		X	"	1						Held
CHB-4.5-5.0		0910		X	"	1						Held
CH5-3.5-4.0		1300		X	Area 6 (concrete cored NST)	1	X	X				
CH5-5.5-6.0		1315		X	"	1						Held
CH9-2.0-2.5		1130		X	" (Between NST PIT)	1	X	X				
CH9-3.0-3.5		1230		X	"	1						Hold
CH13-2.5-3.0		1345		X	* Area 1	1	X	X		X	X	
CH13-4.5-5.0		1355		X	* Area 1	1						Held
CH14-2.5-3.0		1410		X	"	1	X	X		X	X	
CH14-5.5-6.0		1415		X	Area 1	1						Held
CH16-2.0-2.5	V	1515		X	Area 5	1	X	X	X			

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Phil Walsack	4/11/95 1535				
(Printed) Phil Walsack		(Printed)	(Printed)		(Printed)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Scott T. Ferriman	Date / Time 4/11/95 1535	Remarks Rpt TAT	
(Printed)		(Printed) Scott T. Ferriman			

4 of 5

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

5415

Versar

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME
2463-107	Crowley Yard II

SAMPLERS: (Signature) Phil Walsack (Printed) Phil Walsack

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	PARAMETERS: TPH-G/BTEX	PARAMETERS: TPHD	PARAMETERS: HVOC-8010	INDUSTRIAL HYGIENE SAMPLE (Y/N)	REMARKS
CHC-4.5.50	4/11/95	1520		X	Area 5	1	X	X	X		Hold Analyze AN 3 per Phil Cox 4/12/95 SM

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Phil Walsack	4/11/95 1535				
(Printed) Phil Walsack		(Printed)	(Printed)		(Printed)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Scott T. Ferriman	Date / Time 4/14/95 1535	Remarks Reg TAT	
(Printed)		(Printed) Scott T Ferriman			

Trace Analysis Laboratory, Inc.
3423 Investment Boulevard, #8 • Hayward, California 94545
Telephone (510) 783-6960
Facsimile (510) 783-1512

TAL

May 9, 1995

Mr. Philip Walsack
Versar, Inc.
7844 Madison Avenue, Suite 167
Fair Oaks, California 95628

Dear Mr. Walsack:

Trace Analysis Laboratory received four soil samples on April 13, 1995 for your Project No. 2463-107, Crowley Yard 2 (our custody log number 5424).

These samples were analyzed for Total Petroleum Hydrocarbons as Diesel, Gasoline, Benzene, Toluene, Ethylbenzene, Xylenes, and by EPA 8010. Our analytical report and the completed chain of custody form are enclosed for your review.

Trace Analysis Laboratory is certified under the California Environmental Laboratory Accreditation Program. Our certification number is 1199.

If you should have any questions or require additional information, please call me.

Sincerely yours,

Scott T. Ferriman

Scott T. Ferriman
Project Specialist

Enclosures

Trace Analysis Laboratory, Inc.
3423 Investment Boulevard, #8 • Hayward, California 94545
Telephone (510) 783-6960
Facsimile (510) 783-1512

TAL

LOG NUMBER: 5424
DATE SAMPLED: 04/11/95
DATE RECEIVED: 04/13/95
DATE EXTRACTED: 04/24/95
DATE ANALYZED: 05/06/95 and 05/09/95
DATE REPORTED: 05/09/95

CUSTOMER: Versar, Inc.

REQUESTER: Philip Walsack

PROJECT: No. 2463-107, Crowley Yard 2

Sample Type: Soil

Method and Constituent:	Units	CH3E-1.5-2.0 Concentration	CH3E-1.5-2.0 Reporting Limit	CH3E-4.0-4.5 Concentration	CH3E-4.0-4.5 Reporting Limit	CH3F-1.5-2.0 Concentration	CH3F-1.5-2.0 Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Diesel	ug/kg	ND	1,000	ND	1,000	ND	1,000

Method and Constituent:	Units	CH3F-4.0-4.5 Concentration	CH3F-4.0-4.5 Reporting Limit	Method Blank Concentration	Method Blank Reporting Limit
DHS Method:					
Total Petroleum Hydrocarbons as Diesel	ug/kg	9,200	1,000	ND	1,000

QC Summary:

% Recovery: 101 , 95
% RPD: 7.9, 23

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 5424
DATE SAMPLED: 04/11/95
DATE RECEIVED: 04/13/95
DATE EXTRACTED: 04/21/95
DATE ANALYZED: 04/22/95 and 04/24/95
DATE REPORTED: 05/09/95
PAGE: Two

Sample Type: Soil

Method and Constituent:	Units	CH3E-1.5-2.0 Concentration	CH3E-1.5-2.0 Reporting Limit	CH3E-4.0-4.5 Concentration	CH3E-4.0-4.5 Reporting Limit	CH3F-1.5-2.0 Concentration	CH3F-1.5-2.0 Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/kg	ND	500	ND	500	ND	500
Modified EPA Method 8020 for:							
Benzene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Toluene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Ethylbenzene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Xylenes	ug/kg	ND	15	ND	15	ND	15

Method and Constituent:	Units	CH3F-4.0-4.5 Concentration	CH3F-4.0-4.5 Reporting Limit	Method Blank Concentration	Method Blank Reporting Limit
DHS Method:					
Total Petroleum Hydrocarbons as Gasoline	ug/kg	800	500	ND	500
Modified EPA Method 8020 for:					
Benzene	ug/kg	ND	5.0	ND	5.0
Toluene	ug/kg	ND	5.0	ND	5.0
Ethylbenzene	ug/kg	ND	5.0	ND	5.0
Xylenes	ug/kg	ND	15	ND	15

QC Summary:

% Recovery: 111, 107
% RPD: 9.7, 0.6

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 5424
DATE SAMPLED: 04/11/95
DATE RECEIVED: 04/13/95
DATE EXTRACTED: 04/21/95
DATE ANALYZED: 04/24/95
DATE REPORTED: 05/09/95
PAGE: Three

Sample Type: Soil

Method and Constituent	Units	CH3E-1.5-2.0 Concentration	CH3E-1.5-2.0 Reporting Limit	CH3E-4.0-4.5 Concentration	CH3E-4.0-4.5 Reporting Limit	CH3F-1.5-2.0 Concentration	CH3F-1.5-2.0 Reporting Limit
EPA Method 8010:							
Benzyl Chloride	ug/kg	ND	1,200	ND	1,200	ND	1,200
Bromobenzene	ug/kg	ND	1,200	ND	1,200	ND	1,200
Bromodichloromethane	ug/kg	ND	20	ND	20	ND	20
Bromoform	ug/kg	ND	20	ND	20	ND	20
Bromomethane	ug/kg	ND	60	ND	60	ND	60
Carbon Tetrachloride	ug/kg	ND	60	ND	60	ND	60
Chlorobenzene	ug/kg	ND	20	ND	20	ND	20
Chloroethane	ug/kg	ND	60	ND	60	ND	60
2-Chloroethyl Vinyl Ether	ug/kg	ND	60	ND	60	ND	60
Chloroform	ug/kg	ND	20	ND	20	ND	20
Chloromethane	ug/kg	ND	60	ND	60	ND	60
Dibromochloromethane	ug/kg	ND	20	ND	20	ND	20
Dibromomethane	ug/kg	ND	1,200	ND	1,200	ND	1,200
1,2-Dichlorobenzene	ug/kg	ND	60	ND	60	ND	60
1,3-Dichlorobenzene	ug/kg	ND	60	ND	60	ND	60
1,4-Dichlorobenzene	ug/kg	ND	60	ND	60	ND	60
Dichlorodifluoromethane	ug/kg	ND	60	ND	60	ND	60
1,1-Dichloroethane	ug/kg	ND	20	ND	20	ND	20
1,2-Dichloroethane	ug/kg	ND	20	ND	20	ND	20
1,1-Dichloroethene	ug/kg	ND	20	ND	20	ND	20

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 5424
DATE SAMPLED: 04/11/95
DATE RECEIVED: 04/13/95
DATE EXTRACTED: 04/21/95
DATE ANALYZED: 04/24/95
DATE REPORTED: 05/09/95
PAGE: Four

Sample Type: Soil

Method and Constituent	Units	CH3E-1.5-2.0 Concentration	CH3E-1.5-2.0 Reporting Limit	CH3E-4.0-4.5 Concentration	CH3E-4.0-4.5 Reporting Limit	CH3F-1.5-2.0 Concentration	CH3F-1.5-2.0 Reporting Limit
EPA Method 8010 (Continued):							
cis and trans-1,2 Dichloroethene	ug/kg	ND	20	ND	20	ND	20
Dichloromethane	ug/kg	ND	1,200	ND	1,200	ND	1,200
1,2-Dichloropropane	ug/kg	ND	20	ND	20	ND	20
cis-1,3-Dichloropropene	ug/kg	ND	20	ND	20	ND	20
trans-1,3-Dichloropropene	ug/kg	ND	20	ND	20	ND	20
1,1,2,2-Tetrachloro-ethane	ug/kg	ND	20	ND	20	ND	20
1,1,1,2-Tetrachloro-ethane	ug/kg	ND	1,200	ND	1,200	ND	1,200
Tetrachloroethene	ug/kg	ND	20	ND	20	ND	20
1,1,1-Trichloroethane	ug/kg	ND	20	ND	20	ND	20
1,1,2-Trichloroethane	ug/kg	ND	20	ND	20	ND	20
Trichloroethene	ug/kg	ND	20	ND	20	ND	20
Trichlorofluoro-methane	ug/kg	ND	20	ND	20	ND	20
1,2,3-Trichloropropane	ug/kg	ND	1,200	ND	1,200	ND	1,200
Vinyl Chloride	ug/kg	ND	60	ND	60	ND	60

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 5424
DATE SAMPLED: 04/11/95
DATE RECEIVED: 04/13/95
DATE EXTRACTED: 04/21/95
DATE ANALYZED: 04/24/95
DATE REPORTED: 05/09/95
PAGE: Five

Sample Type: Soil

Method and Constituent	Units	CH3F-4.0-4.5 Concentration	CH3F-4.0-4.5 Reporting Limit	Method Blank Concentration	Method Blank Reporting Limit
EPA Method 8010:					
Benzyl Chloride	ug/kg	ND	1,200	ND	1,200
Bromobenzene	ug/kg	ND	1,200	ND	1,200
Bromodichloromethane	ug/kg	ND	20	ND	20
Bromoform	ug/kg	ND	20	ND	20
Bromomethane	ug/kg	ND	60	ND	60
Carbon Tetrachloride	ug/kg	ND	60	ND	60
Chlorobenzene	ug/kg	27	20	ND	20
Chloroethane	ug/kg	ND	60	ND	60
2-Chloroethyl Vinyl Ether	ug/kg	ND	60	ND	60
Chloroform	ug/kg	ND	20	ND	20
Chloromethane	ug/kg	ND	60	ND	60
Dibromochloromethane	ug/kg	ND	20	ND	20
Dibromomethane	ug/kg	ND	1,200	ND	1,200
1,2-Dichlorobenzene	ug/kg	ND	60	ND	60
1,3-Dichlorobenzene	ug/kg	ND	60	ND	60
1,4-Dichlorobenzene	ug/kg	ND	60	ND	60
Dichlorodifluoromethane	ug/kg	ND	60	ND	60
1,1-Dichloroethane	ug/kg	ND	20	ND	20
1,2-Dichloroethane	ug/kg	ND	20	ND	20
1,1-Dichloroethene	ug/kg	ND	20	ND	20

Concentrations reported as ND were not detected at or above the reporting limit.

LOG NUMBER: 5424
DATE SAMPLED: 04/11/95
DATE RECEIVED: 04/13/95
DATE EXTRACTED: 04/21/95
DATE ANALYZED: 04/24/95
DATE REPORTED: 05/09/95
PAGE: Six

Sample Type: Soil

Method and Constituent	Units	CH3F-4.0-4.5 Concentration	CH3F-4.0-4.5 Reporting Limit	Method Blank Concentration	Method Blank Reporting Limit
EPA Method 8010 (Continued):					
cis and trans-1,2 Dichloroethene	ug/kg	ND	20	ND	20
Dichloromethane	ug/kg	ND	1,200	ND	1,200
1,2-Dichloropropane	ug/kg	ND	20	ND	20
cis-1,3-Dichloropropene	ug/kg	ND	20	ND	20
trans-1,3-Dichloropropene	ug/kg	ND	20	ND	20
1,1,2,2-Tetrachloroethane	ug/kg	ND	20	ND	20
1,1,1,2-Tetrachloroethane	ug/kg	ND	1,200	ND	1,200
Tetrachloroethene	ug/kg	ND	20	ND	20
1,1,1-Trichloroethane	ug/kg	ND	20	ND	20
1,1,2-Trichloroethane	ug/kg	ND	20	ND	20
Trichloroethene	ug/kg	ND	20	ND	20
Trichlorofluoromethane	ug/kg	ND	20	ND	20
1,2,3-Trichloropropane	ug/kg	ND	1,200	ND	1,200
Vinyl Chloride	ug/kg	ND	60	ND	60

QC Summary:

% Recovery: 92
% RPD: 4.3

Concentrations reported as ND were not detected at or above the reporting limit.

Louis W. DuPuis
Quality Assurance Quality Control Manager

5424

VERSAR

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME
2463-107	Crowley Yard II

SAMPLERS: (Signature) Phil Walsack (Printed) Phil Walsack

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	PARAMETERS: TPH-G/BTEX	PARAMETERS: TPH-D	PARAMETERS: HVOC 8010	REMARKS
C113E-1.5-2.0	4/11/95	1615		X	Area S	1	X	X	X	
C113E-4.0-4.5		1625		X	"	1	X	X	X	
C113F-1.5-2.0		1540		X	"	1	X	X	X	
C113F-4.0-4.5		1550		X	Area S	1	X	X	X	

INDUSTRIAL HYGIENE SAMPLE: Y X

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Philip M. Cox	4/12/95 1200hr	FED EX	Fed Ex	4/13/95 11:42	
(Printed) Philip M. Cox	Versar	(Printed)	(Printed)		(Printed)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Scott T. Ferriman	Date / Time 4/13/95 11:42	Remarks: Regular TAT	
(Printed)		(Printed) Scott T. Ferriman			

Trace Analysis Laboratory, Inc.
3423 Investment Boulevard, #8 • Hayward, California 94545
Telephone (510) 783-6960
Facsimile (510) 783-1512

COPY

TAL

May 22, 1995

RECEIVED

Mr. Philip Walsack
Versar, Inc.
7844 Madison Avenue, Suite 167
Fair Oaks, California 95628

Dear Mr. Walsack:

Trace Analysis Laboratory received forty-nine soil samples on April 11, 1995 for your Project No. 2463-107, Crowley Yard 2 (our custody log number 5415A).

One of these samples was subjected to a Waste Extraction Test and analyzed for Total Lead. Our analytical report and the completed chain of custody form are enclosed for your review.

Trace Analysis Laboratory is certified under the California Environmental Laboratory Accreditation Program. Our certification number is 1199.

If you should have any questions or require additional information, please call me.

Sincerely yours,

Scott T. Ferriman
Project Specialist

Enclosures

Trace Analysis Laboratory, Inc.
3423 Investment Boulevard, #8 • Hayward, California 94545
Telephone (510) 783-6960
Facsimile (510) 783-1512

TAL

LOG NUMBER: 5415A
DATE SAMPLED: 04/11/95
DATE RECEIVED: 04/11/95
DATE INITIATED: 05/15/95
DATE EXTRACTED: 05/15/95 and 05/17/95
DATE ANALYZED: 05/19/95
DATE REPORTED: 05/22/95

CUSTOMER: Versar, Inc.

REQUESTER: Philip Walsack

PROJECT: No. 2463-107, Crowley Yard 2

Sample Type: Waste Extraction Test Extract of Soil

Method and Constituent:	Units	CH13-2.5-3.0 Concentration	CH13-2.5-3.0 Reporting Limit	Method Blank Concentration	Method Blank Reporting Limit
EPA Method 7420:					
Lead	ug/l	2,400	100	ND	100

QC Summary:

% Recovery: 96
% RPD: 7.6

Concentrations reported as ND were not detected at or above the reporting limit.

Louis W. DuPuis
Quality Assurance/Quality Control Manager

Versar INC. **5415A** CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME
2463-107	Crowley Yard II

SAMPLERS: (Signature) Phil Walsack (Printed) Philip Walsack

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	TPH-G/BTEX	TPH-D	HVOC 8010	Total Lead	Organic Lead			REMARKS
C111A-4.0-4.5	4/10			X	Area 5	1								Hold
C111B-3.0-3.5				X	"	1	X	X	X					
C112A-2.5-3.0		1525		X	"	1	X	X	X					
C112A-4.0-4.5		1535		X	Area 5	1								Hold
C117-2.5-3.0		1540		X	Area 6	1	X	X						
C117-4.0-4.5		1550		X	Area 6	1								HOLD
C1110-2.5-3.0	4/10	1645		X	Area #2				X	X				
C1110-5.0-5.5		1650		X	"				X	X				
C1111-2.5-3.0		1705		X	"				X	X				
C1111-5.5-6.0		1715		X	"				X	X				
C1112-2.5-3.0		1745		X	"				X	X				
C1112-5.5-6.0	↓	1750		X	Area #2				X	X				

PARAMETERS

INDUSTRIAL HYGIENE SAMPLE: Y / N

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Phil Walsack	4/11/95 1535				
(Printed) Phil Walsack		(Printed)	(Printed)		(Printed)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Scott T. Ferriman	Date / Time 4/11/95 1535	Remarks Res TAT	
(Printed)		(Printed) Scott T. Ferriman			

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

1 - of 5

P/U Soil 1-DT each, on ice Y-2 Res TAT

Versar INC. 5415A CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME
2463-107	Crosby Yard II

SAMPLERS: (Signature) Phil Walsack (Printed) Phil Walsack

PARAMETERS: NO. OF CONTAINERS | TPH-G/BTEX | TPH-D | HVOC 8010

INDUSTRIAL HYGIENE SAMPLE: Y / N

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	TPH-G/BTEX	TPH-D	HVOC 8010	REMARKS
C111-4.0-4.5	4/10/95	0930		X	Area 5	1	[redacted]	X	X	~~Hold~~ Analyze for All 3 per Phil Cox 4/12/95 jm
C112-1.0-1.5		1005		X	"	1	X	X	X	
C112-2.5-3.0		1020		X	"	1	—			Hold
C112-5.5-6.0		1035		X	"	1	—			Hold
C113-4.0-4.5		1105		X	"	1	X	X	X	
C114-3.0-3.5		1145		X	"	1	X	X	X	
C114-5.0-5.5		1150		X	"	1	—			Hold
C115-3.5-4.0		1440		X	Area 6	1	—			HOLD
C115-1.5-2.0		1430		X	"	1	X	X		
C116-2.5-3.0		1510		X	"	1	X	X		
C116-4.5-5.0		1520		X	"	1	—			HOLD
C11DA-2.0-2.5	↓			X	Area 5	1	X	X	X	

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Phil Walsack	4/11/95 1535				
(Printed) Phil Walsack		(Printed)	(Printed)		(Printed)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Scott T. Ferriman	Date / Time 4/11/95 1535	Remarks: Rush TAT	
(Printed)		(Printed) Scott T. Ferriman			

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

5415A

Versar

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME
2463-107	Crowley Yard II

SAMPLERS: (Signature) P.R. Walsack (Printed) Phil Walsack

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	TPH-G/BTEX	TPH-D	HVOC-8010	REMARKS
CH2B-1.5-2.0	4/10	1600		X	Area S	1	X	X	X	
CH2B-2.5-3.0		1610		X	"	1				Hold
CH2C-2.5-3.0		1650		X	"	1	X	X	X	
CH2C-4.5-5.0		1705		X	"	1	X	X	X	
CH3A-1.5-2.0		1240		X	"	1	X	X	X	
CH3B-2.5-3.0	4/11	0815		X	"	1	X	X	X	
CH3B-4.0-4.5		0825		X	"	1	—			Hold
CH3C-2.0-2.5		0985		X	"	1	X	X	X	
CH3C-4.5-5.0		0940		X	"	1	—			Hold
CH3D-2.0-2.5		1000		X	"	1	X	X	X	
CH3D-4.5-5.0		1010		X	"	1	—			Hold
CH4A-2.5-3.0		0850		X	Area S	1	X	X	X	

Relinquished by: (Signature)	Date / Time	Received by: (Signature)
P.R. Walsack	4/11/95 1535	
(Printed) Phil Walsack		(Printed)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Scott T. Ferrin
(Printed)		(Printed) Scott T. Ferrin

Relinquished by: (Signature)	Date / Time	Received by: (Signature)
(Printed)		(Printed)
Date / Time: 4/11/95 1535	Remarks: Reg TAT	

INDUSTRIAL HYGIENE SAMPLE: Y / N

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

5415A

Versar

CHAIN OF CUSTODY RECORD

PROJECT NO. 2463-107

PROJECT NAME Clowdy Yard II

SAMPLERS: (Signature) Phil Walsack

(Printed) Phil Walsack

PARAMETERS

INDUSTRIAL HYGIENE SAMPLE Y / N

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	BTEX/EPA-602	TPH-J	HVOC-8010	Total Lead	Total Copper	WET/Pb 5 STLC/4/95	REMARKS
CH9A-4.5-5.0	4/11	0855		X	Area 5	1	X	X	X				
CH9B-2.0-2.5		0905		X	"	1							Held
CH9B-4.5-5.0		0910		X	"	1							Held
CH8-3.5-4.0		1300		X	Area 6 (Concrete Cored HST)	1	X	X					
CH8-5.5-6.0		1315		X	"	1							Held
CH9-2.0-2.5		1130		X	" (Between PITS HST)	1	X	X					
CH9-3.0-3.5		1230		X	"	1							Held
CH13-2.5-3.0		1345		X	Area 1	1	X	X		X	X	X	
CH13-4.5-5.0		1355		X	Area 1	1	X	X					Held
CH14-2.5-3.0		1410		X	"	1	X	X		X	X		
CH14-5.5-6.0		1415		X	Area 1	1							Held
CH16-2.0-2.5		1515		X	Area 5	1	X	X	X				

Relinquished by: (Signature) Phil Walsack	Date / Time 4/11/95 1535	Received by: (Signature)	Relinquished by: (Signature)
(Printed) Phil Walsack		(Printed)	(Printed)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Scott T. Ferriman	Date / Time 4/11/95 1535
(Printed)		(Printed) Scott T. Ferriman	

Date / Time

Received by: (Signature)

(Printed)

Remarks: Reg TAT

4 of 5

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

5915A

Versar

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME
2463-107	Crowley Yard II

SAMPLERS: (Signature) Phil Walsack (Printed) Phil Walsack

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	PARAMETERS: TPH-G/BTEX	PARAMETERS: TPHD	PARAMETERS: HVOC-8010	INDUSTRIAL HYGIENE SAMPLE (Y / N)	REMARKS
C111C-4.5.50	4/11/95	1520		X	Area S	1	X	X	X		Hold Analyze if 3 per Phil Cox 4/12/95 SM

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Phil Walsack	4/11/95 1535				
(Printed) Phil Walsack		(Printed)	(Printed)		(Printed)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Scott T. Farriman	Date / Time 4/14/95 1535	Remarks Rg TAT	
(Printed)		(Printed) Scott T Farriman			

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink)

Trace Analysis Laboratory, Inc.
3423 Investment Boulevard, #8 • Hayward, California 94545
Telephone (510) 783-6960
Facsimile (510) 783-1512

COPY

TAL

May 9, 1995

Mr. Philip Walsack
Versar, Inc.
7844 Madison Avenue, Suite 167
Fair Oaks, California 95628

Dear Mr. Walsack:

Trace Analysis Laboratory received forty-nine soil samples on April 11, 1995 for your Project No. 2463-107, Crowley Yard 2 (our custody log number 5415).

Twenty-five of these samples were analyzed according to your chain of custody. Our analytical report and the completed chain of custody form are enclosed for your review.

Trace Analysis Laboratory is certified under the California Environmental Laboratory Accreditation Program. Our certification number is 1199.

If you should have any questions or require additional information, please call me.

Sincerely yours,

Scott T. Ferriman

Scott T. Ferriman
Project Specialist

Enclosures

2-1 2-4

5415A

Versar

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME
2463-107	Crowley Yard II

SAMPLERS: (Signature) Phil Walsack (Printed) Phil Walsack

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	TPH-G/BTEX	TPH-D	HVOC-8010	REMARKS
CH2B-1.5-2.0	4/10	1600		X	Area S	1	X	X	X	
CH2B-2.5-3.0		1610		X	"	1	—	—	—	Hold
CH2C-2.5-3.0		1650		X	"	1	X	X	X	
CH2C-4.5-5.0		1705		X	"	1	X	X	X	
CH3A-1.5-2.0		1240		X	"	1	X	X	X	
CH3B-2.5-3.0	4/11	0815		X	"	1	X	X	X	
CH3B-4.0-4.5		0825		X	"	1	—	—	—	Hold
CH3C-2.0-2.5		0935		X	"	1	X	X	X	
CH3C-4.5-5.0		0940		X	"	1	—	—	—	Hold
CH3D-2.0-2.5		1000		X	"	1	X	X	X	
CH3D-4.5-5.0		1010		X	"	1	—	—	—	Hold
EH4A-2.5-3.0		0850		X	Area S	1	X	X	X	

INDUSTRIAL HYGIENE SAMPLE: Y / N

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Phil Walsack	4/11/95 1535				
(Printed) Phil Walsack		(Printed)	(Printed)		(Printed)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Scott T. Ferrin	Date / Time 4/11/95 1536	Remarks Reg TAT	
(Printed)		(Printed) Scott T. Ferrin			

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

Versar INC. 5415A CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
2463-107	Crowley Yard II	Y / N

SAMPLERS: (Signature) Phil Walsack (Printed) Phil Walsack

PARAMETERS: NO. OF CONTAINERS; TPH-G/BTEX; TPH-D; HVOC 8010

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	TPH-G/BTEX	TPH-D	HVOC 8010	REMARKS
CH1-4.0-4.5	4/10/95	0930		X	Area 5	1	X	X	X	Hold Analyze for All 3 per Phil Cox 4/12/95
CH2-1.0-1.5		1005		X	"	1	X	X	X	
CH2-2.5-3.0		1020		X	"	1	—	—	—	Hold
CH2-5.5-6.0		1035		X	"	1	—	—	—	Hold
CH3-4.0-4.5		1105		X	"	1	X	X	X	
CH4-3.0-3.5		1145		X	"	1	X	X	X	
CH4-5.0-5.5		1150		X	"	1	—	—	—	Hold
CH5-3.5-4.0		1440		X	Area 6	1	—	—	—	HOLD
CH5-1.5-2.0		1430		X	"	1	X	X		
CH6-2.5-3.0		1510		X	"	1	X	X		
CH6-4.5-5.0		1520		X	"	1	—	—	—	HOLD
CH1A-2.0-2.5	↓			X	Area 5	1	X	X	X	

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Phil Walsack	4/11/95 1535				
(Printed) Phil Walsack		(Printed)	(Printed)		(Printed)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Scott T. Ferriman	Date / Time 4/11/95 1535	Remarks Reg TAT	
(Printed)		(Printed) Scott T. Ferriman			

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

Versar INC. **5415A** CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME
2463-167	Crowley Yard II

SAMPLERS: (Signature) Phil Walsack (Printed) Philip Walsack

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	PARAMETERS: TPH-G/BTEX	TPH-D	HVOC 8010	Total Lead	Organic Lead				REMARKS
CH1A-4.0-4.5	4/10			X	Area 5	1									Hold
CH1B-3.0-3.5				X	"	1	X	X	X						
CH2A-2.5-3.0		1525		X	"	1	X	X	X						
CH2A-4.0-4.5		1535		X	Area 5	1									Hold
CH7-2.5-3.0		1540		X	Area 6	1	X	X							
CH7-4.0-4.5		1550		X	Area 6	1									HOLD
CH10-2.5-3.0	4/10	1645		X	Area 2					X	X				
CH10-5.0-5.5		1650		X	"					X	X				
CH11-2.5-3.0		1705		X	"					X	X				
CH11-5.5-6.0		1715		X	"					X	X				
CH12-2.5-3.0		1745		X	"					X	X				
CH12-5.5-6.0		1750		X	Area 2					X	X				

INDUSTRIAL HYGIENE SAMPLE: Y / N

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Phil Walsack	4/10/95 1535				
(Printed) Phil Walsack		(Printed)	(Printed)		(Printed)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Scott T. Ferriman	Date / Time 4/11/95 1535	Remarks: Reg TAT	
(Printed)		(Printed) Scott T. Ferriman			

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

1 of 5

P/4 Soil 1-DT each, on ice Y-2 Reg TAT

5415A

Versar

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME
2463-107	Crowley Yard #

SAMPLERS: (Signature) Phil Walsack (Printed) Phil Walsack

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	PARAMETERS: TPA-G/BTEX	TPH-D	HVOC-8010	Total Lead	Total Cadmium	WET/Pb on 5-Day STLC Recipe	INDUSTRIAL HYGIENE SAMPLE Y/N	REMARKS
CH4A-4.5-5.0	4/11	0855		X	Area 5	1	X	X	X					
CH4B-2.0-2.5		0905		X	"	1								Hold
CH4B-4.5-5.0		0910		X	"	1								Hold
CH8-3.5-4.0		1300		X	Area 6 (Concrete Core AST)	1	X	X						
CH8-5.5-6.0		1315		X	"	1								Hold
CH9-2.0-2.5		1130		X	" (Between AST PH 5)	1	X	X						
CH9-3.0-3.5		1230		X	"	1								Hold
CH13-2.5-3.0		1345		X	Area 1	1	X	X		X	X		X	
CH13-4.5-5.0		1355		X	Area 1	1	~~X~~	~~X~~						Hold
CH14-2.5-3.0		1410		X	"	1	X	X		X	X			
CH14-5.5-6.0		1415		X	Area 1	1								Hold
CH16-2.0-2.5	↓	1515		X	Area 5	1	X	X	X					

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Phil Walsack	4/11/95 1535				
(Printed) Phil Walsack		(Printed)	(Printed)		(Printed)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Scott T. Ferriman	Date / Time 4/11/95 1535	Remarks By TAT	
(Printed)		(Printed) Scott T. Ferriman			

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

4 of 5

5415A

Versar

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME	INDUSTRIAL HYGIENE SAMPLE
2463-107	Crowley Yard II	Y / N

SAMPLERS: (Signature) Phil Walsack (Printed) Phil Walsack

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	PARAMETERS: TPH-G/BTEX	PARAMETERS: TPHD	PARAMETERS: HVOC-8010	REMARKS
CH1C-4.5.50	4/11/95	1520		X	Area 5	1	X	X	X	~~Hold~~ Analyze AA 3 per Phil Cox 4/12/95 SM

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Phil Walsack	4/11/95 1535				
(Printed) Phil Walsack		(Printed)	(Printed)		(Printed)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Scott T. Farriman	Date / Time 4/4/95 1535	Remarks: By TAT	
(Printed)		(Printed) Scott T Farriman			

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

Trace Analysis Laboratory, Inc.
3423 Investment Boulevard, #8 • Hayward, California 94545
Telephone (510) 783-6960
Facsimile (510) 783-1512

FILE

TAL

May 22, 1995

Mr. Philip Walsack
Versar, Inc.
7844 Madison Avenue, Suite 167
Fair Oaks, California 95628

Dear Mr. Walsack:

Trace Analysis Laboratory received forty-nine soil samples on April 11, 1995 for your Project No. 2463-107, Crowley Yard 2 (our custody log number 5415A).

One of these samples was subjected to a Waste Extraction Test and analyzed for Total Lead. Our analytical report and the completed chain of custody form are enclosed for your review.

Trace Analysis Laboratory is certified under the California Environmental Laboratory Accreditation Program. Our certification number is 1199.

If you should have any questions or require additional information, please call me.

Sincerely yours,

Scott T. Ferriman

Scott T. Ferriman
Project Specialist

Enclosures

Trace Analysis Laboratory, Inc.
3423 Investment Boulevard, #8 • Hayward, California 94545
Telephone (510) 783-6960
Facsimile (510) 783-1512

TAL

LOG NUMBER: 5415A
DATE SAMPLED: 04/11/95
DATE RECEIVED: 04/11/95
DATE INITIATED: 05/15/95
DATE EXTRACTED: 05/15/95 and 05/17/95
DATE ANALYZED: 05/19/95
DATE REPORTED: 05/22/95

CUSTOMER: Versar, Inc.

REQUESTER: Philip Walsack

PROJECT: No. 2463-107, Crowley Yard 2

		Sample Type:		Waste Extraction Test Extract of Soil	
		CH13-2.5-3.0		Method Blank	
Method and Constituent:	Units	Concentration	Reporting Limit	Concentration	Reporting Limit
EPA Method 7420:					
Lead	ug/l	2,400	100	ND	100

QC Summary:

% Recovery: 96
% RPD: 7.6

Concentrations reported as ND were not detected at or above the reporting limit.

Louis W. DuPuis
Quality Assurance/Quality Control Manager