Harding Lawson Associates

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January 14, 1991

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Mrs. Cathy Waldron
CAM Properties
18250 - 68 Avenue South
Kent, Washington 98032

Dear Mrs. Waldron:

Phase II Investigation Report
CAM Properties
18250 - 68 Avenue South
Kent, Washington

INTRODUCTION

This letter presents the findings of a Phase II investigation performed by Harding Lawson Associates (HLA) for CAM Properties at 18250 - 68 Avenue South in Kent, Washington. This investigation was performed in accordance with HLA's recommendations in our letter dated October 25, 1990. HLA previously completed a preliminary hazardous materials site assessment of the subject property, and the results are presented in our report dated November 1, 1990.

The objective of the Phase II investigation was to further evaluate the potential impact of two previous fuel underground storage tanks (USTs) removed in 1987, and the stained soil near the blast room and wet scrubber associated with the existing manufacturing facility on the property. The Phase II investigation was authorized by Mrs. Cathy Waldon of CAM Properties on November 9, 1990. HLA's scope of services included the following tasks:

- Drill and sample two borings at the previous location of the diesel and gasoline underground storage tanks. Collect one soil sample from each boring, and analyze for total petroleum hydrocarbons (TPH), and benzene, toluene, ethylbenzene, and xylene (BTEX).
- Collect soil samples at the surface and at depths up to 1 foot deep at three locations within the stained-soil area adjacent to the wet scrubber and blast room. Analyze soil samples for heavy metals and volatile organic compounds.
- Evaluate the data and prepare this report.

FIELD INVESTIGATION

Two soil borings (B1 and B2) were drilled to approximately 11.5 feet in depth, and sampled on November 15, 1990. In addition, soils were hand sampled at three locations (CAM 1 through CAM 3) adjacent to the blast room and wet scrubber. Boring and hand sampling locations are shown on Figure 1. The borings were drilled by HLA's subcontractor, Pacific Testing Laboratories (Seattle, Washington) with truck-mounted drilling equipment using 8-inch outside-diameter hollow-stem augers.

An HLA geologist observed the drilling and hand sampling activities, logged the soils encountered, and collected soil samples. Prior to drilling the two boreholes, the location of the previous fuel USTs and utility clearance was provided by Mr. Dale Pack of CAM Industries (tenant). Soil samples in each of the borings were collected at approximately 5-foot intervals using a split-barrel sampler. Soil from the sampler was observed for visible signs of petroleum contamination (e.g. discoloration, odor) and a representative portion was selected for chemical analysis. The selected soil sample (10- to 11.5-foot interval) was immediately placed in laboratory provided sample jars, sealed, labeled, and placed on ice in a field cooler. All sampling equipment (augers, split spoon) was steam cleaned between sample intervals and borings.

Hand sampling in the stained-soil area was performed using stainless steel trowels and scoops. Surface samples (0 to 3 inches) were collected first, and placed in laboratory provided jars, sealed, labeled, and placed immediately on ice in a field cooler. Deeper soil samples (6 to 9 inches) were obtained by excavating to a depth of 6 inches with a stainless steel scoop or shovel as appropriate. Observations of the depth of soil discoloration were noted during excavation. Soil samples from the deeper interval were collected and handled similar to the surface samples.

Upon completion of drilling, the boreholes were backfilled with bentonite chips, and capped with concrete. Cuttings from the boreholes were placed in drums provided by the facility, and left onsite pending disposal.

SUBSURFACE CONDITIONS

Soils encountered during drilling consisted of medium brown fine sand with occasional gravel, from the ground surface to approximately 6 feet below ground surface (bgs). Gray-brown silty clay/clayey silts extend from approximately 6 to 10 feet. Soils beneath the silty clay/clayey silt consisted of fine sand.

Groundwater was encountered in both borings at 7.5 feet bgs. Observations of the soils encountered did not reveal indications of visual staining, and petroleum odors were not

observed. Soils were screened with an organic vapor meter, and results did not indicate the presence of organic vapors from the soils or within the open borehole.

Surface soils in the area of the wet scrubber consisted of sandy gravel with minor amounts of silt that extended from the surface to a depth of approximately 6 inches. This gravel was underlain by light gray brown silty sand with some gravel. Observations during sampling indicated that the surficial gravel was stained a reddish-orange to a depth of 6 inches. The underlying sand was not observed to be stained. The areal extent of the discolored soil is shown on Figure 1.

A dense, solidified layer of black material was encountered at 2 to 3 inches bgs at the CAM 1 sampling location, and pieces of a similar material were encountered at the CAM 2 sampling site at the same depth.

LABORATORY ANALYSIS

The two soil samples from the borings (B1, B2) and the six soil samples from the hand sampling locations (CAM 1, CAM 2, and CAM 3) were submitted under chain-of-custody protocol to Pacific Northwest Environmental Laboratory, Inc. (PNEL) of Redmond, Washington for chemical analyses. The two samples from the borings were analyzed for TPH and BTEX. The six samples from the stained-soil area were analyzed for heavy metals and volatile organic compounds. The results of these chemical analyses are summarized in Table 1. A complete copy of the laboratory analytical report which includes the analytical methods utilized, and quality control data, is provided as Attachment A to this report.

Table 1 also provides proposed soil cleanup levels for industrial sites as presented in the July 18, 1990, proposed amendments to the Model Toxics Control Act Cleanup Regulation (MTCA).

DISCUSSION OF RESULTS

A discussion of the results of the Phase II investigation is presented in the following paragraphs.

Previous Fuel USTs

Analytical results for soil samples obtained in the previous location of fuel USTs located at the site indicate a very low concentration (7 parts per billion [ppb]) of total xylenes in sample B1, with all other constituents below method detection limits. Sample B2 was found to contain TPH (as motor oil) at a concentration of 580 parts per million (ppm). As shown in Table 1, the

concentration of total xylenes is significantly below the proposed MTCA cleanup level; however, the TPH concentration found in sample B2 is above the MTCA cleanup level of 200 ppm. Soil samples and cuttings from both borings did not contain visual indications (e.g. soil discoloration) of petroleum contamination nor were there noticeable petroleum odors during drilling and sampling. Based on these observations and the fact that sample B1 did not contain detectable concentrations of TPH, the extent of TPH found in soil sample B2 appears to be limited.

Wet Scrubber and Blast Room

Results of the soil samples obtained in the stained soil adjacent to the wet scrubber and blast room indicate the presence of toluene and total xylenes in the surface samples (0 to 3 inches bgs) at concentrations ranging from 6 to 18 ppb, and 6 to 17 ppb, respectively. Soil samples obtained from the 6- to 9-inch bgs interval did not contain any constituent above method detection limits. However, results also indicate the presence of volatile organic compounds (VOCs) in both the surface and deeper soil samples at trace levels including methylene chloride, acetone, chloroform, 2-butanone, benzene, ethylbenzene, toluene, and xylenes. In all cases, these VOCs were detected at below the method quantification limit, and are estimated concentrations. Acetone was also found in the laboratory blanks indicating that the presence of this compound is likely attributed to laboratory procedures. The detected concentrations of toluene and xylenes are significantly below the proposed MTCA cleanup levels shown in Table 1.

Except for cadmium, all other heavy metals analyzed were detected in both the surface and deeper soil samples. As shown in Table 1, the concentrations of the heavy metals decrease significantly with depth; in many cases, this decrease is up to an order of magnitude or greater. The exception to the trend of decreasing concentration with depth is the concentration of zinc in samples CAM-3S and CAM-3D, where concentration at depth is greater than that found in the surface sample.

Concentrations of chromium and lead in samples CAM-1S, CAM-2S, and CAM-3S exceed the proposed MTCA cleanup levels. The concentrations of these two compounds are below the proposed cleanup levels in the deeper soil samples (i.e., CAM-1D, CAM-2D, and CAM-3D).

Currently, cleanup standards do not exist for barium, copper, nickel, and zinc in soils. A previous draft (March 8, 1990) of the proposed MTCA cleanup regulation provided cleanup levels for copper and zinc of 500 ppm each. If these cleanup values were to be used, then samples CAM-1S, CAM-2S, CAM-3S, and CAM-3D would exceed the 500 ppm limit.

Based on the visual observations made during sampling, and the analytical results, it appears that the soils exceeding proposed cleanup levels for selected heavy metals are contained within the upper 6 inches of soil. Also, there appears to be a moderate correlation between the depth

of visual staining and depth at which soils contain metal concentrations exceeding cleanup levels.

Closure

We believe that this report provides you the information you require at this time. If you have any questions regarding this report, please do not hesitate to call.

Yours very truly,

HARDING LAWSON ASSOCIATES

Susan C. Walker
Staff Geologist

Daniel A. Balbiani, P.E.
Managing Principal Engineer

SCW/DAB:mlm\waldron2.ltr

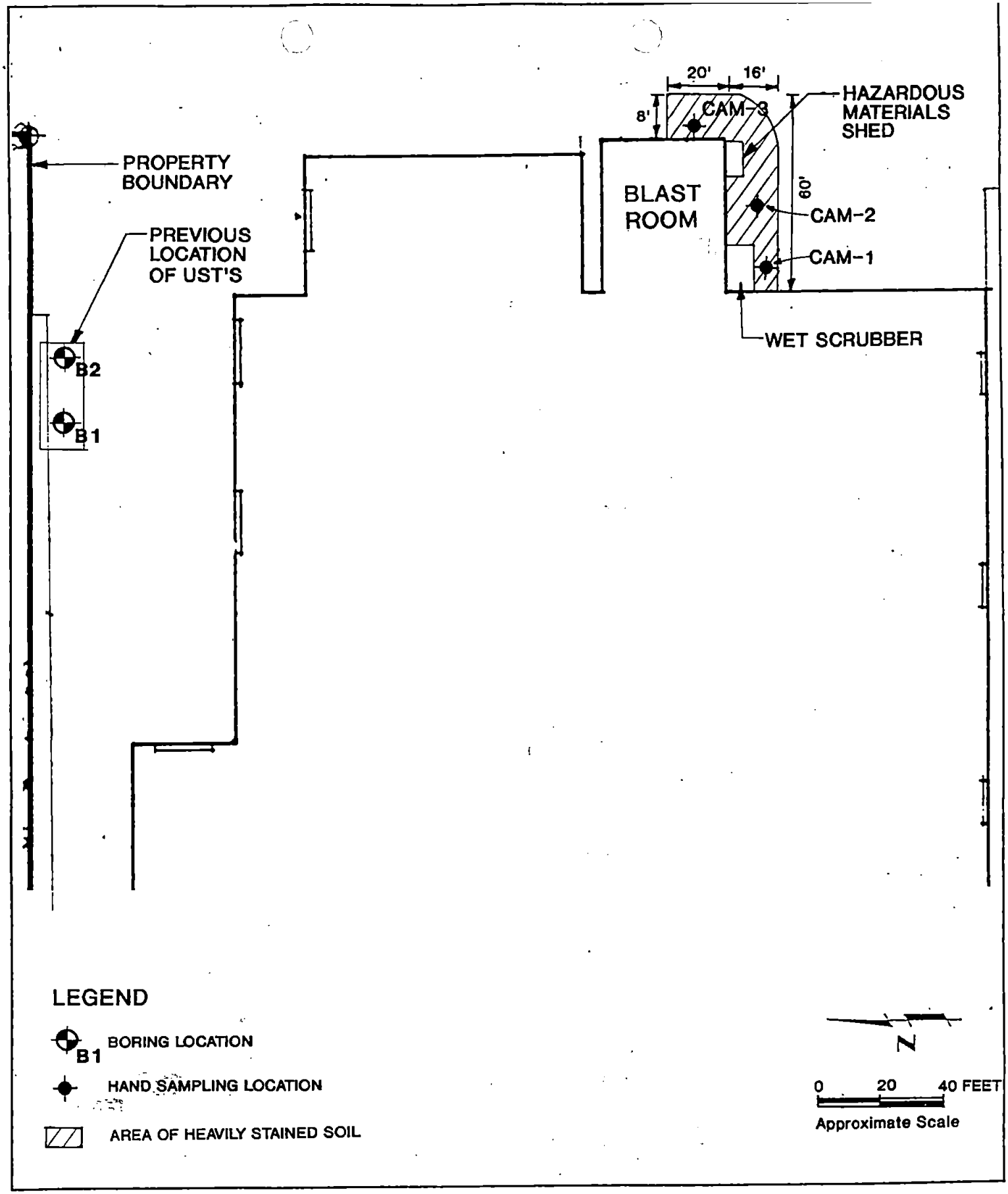
Attachment: A--Analytical Laboratory Report

TABLE 1 - SUMMARY OF ANALYTICAL RESULTS

ANALYTE	UNITS	CAM-1S (0-3")	CAM-1D (6-9")	CAM-2S (0-3")	CAM-2D (6-9")	CAM-3S (0-3")	CAM-3D (6-9")	B1 (10-11.5')	B2 (10-11.5')	Proposed MTCA Clean up Level for Industrial Sites
Methylene Chloride	ppb	3J	ND	4J	1J	ND	ND	NA	NA	500
Acetone	ppb	6BJ	4JB	5JB	ND	8JB	11B	NA	NA	--
Chloroform	ppb	ND	ND	ND	5J	ND	ND	NA	NA	--
Butanone	ppb	ND	ND	ND	ND	ND	2J	NA	NA	--
Benzene	ppb	3J	ND	1J	ND	2J	ND	ND	ND	500
Ethylbenzene	ppb	ND	ND	ND	ND	1J	ND	ND	ND	20,000
Toluene	ppb	18	3J	6	3J	3J	4J	5J	ND	40,000
Xylenes (total)	ppb	17	4J	5J	3J	6	5J	7	ND	20,000
Barium	ppm	4720	45.1	1,650	245	370	259	NA	NA	--
Cadmium	ppm	ND	ND	ND	ND	ND	ND	NA	NA	10
Chromium	ppm	1,640	61.6	1,280	223	1,170	39.3	NA	NA	500
Copper	ppm	1,000	122	615	213	746	667	NA	NA	--
Lead	ppm	4,160	73.7	3,210	680	1,000	686	NA	NA	1,000
Nickel	ppm	567	48.3	482	116	935	32.7	NA	NA	--
Zinc	ppm	19,700	241	14,700	1,550	446	2,260	NA	NA	--
TPH	ppm	NA	NA	NA	NA	NA	NA	ND	580	200

Notes:

ppb - parts per billion (ug/kg)
ppm - parts per million (mg/kg)
B - Indicates compound was found in the associated laboratory blank as well as the sample.
J - Indicates estimated value. Presence of compound meets laboratory identification criteria but is less than the sample quantitation limit but greater than zero.
NA - Compund not analyzed.
ND - Not detected.
-- - Proposed MTCA clean up level not available.



Harding Lawson Associates
Engineering and Environmental Services

Figure 1

BORING LOCATION PLAN

18250 68TH AVENUE SOUTH
KENT, WASHINGTON

ONAL EXPRESS LABORATORIES, INC.

NATEX

Pacific Northwest Environmental Laboratory, Inc.
3820 159th Avenue, N.E.
Redmond, WA 98052
(206) 885-0083
FAX (206) 867-2214

November 28, 1990

Dan Balbiani
Harding Lawson Associates
1325 Fourth Avenue, Suite 1800
Seattle WA 98101

NARRATIVE FOR PNEL 2773

Enclosed are data summary sheets and supporting documentation for the samples received on November 15, 1990. The samples were received as follows:

FIELD ID	LAB ID	DATE COLLECTED
CAM 1S	2773-01	11-15-90
CAM 2S	2773-02	11-15-90
CAM 3S	2773-03	11-15-90
CAM 1D	2773-04	11-15-90
CAM 2D	2773-05	11-15-90
CAM 3D	2773-06	11-15-90
B1	2773-07	11-15-90
B2	2773-08	11-15-90
Trip Blank	2773-09	11-15-90

Listed below are anomalies and narratives associated with the receipt and/or analysis of the samples.

Sample Receiving

There were no anomalies associated with the receipt of these samples.

Volatiles; BETX Analyses

The samples were analyzed according to the low level procedure. Sample 2773-01 showed a high recovery of d_8-toluene. Matrix spikes, also run on sample 2773-01, showed similar results, suggesting that the phenomenon may be attributed to the sample matrix. Samples 2773-07 and 2773-08 for BTEX analysis (by Method 8020) were also analyzed according to Method 8240.

TPH-GC Analysis

No anomalies to report with this case.

Metals Analysis

The following anomalies occurred in the analyses of these samples:

The matrix spike sample percent recoveries of Barium, Cadmium, Copper, and Nickel were outside of the established control limits of 75-125% for sample 2773-05.

- The duplicate sample relative percent differences of Barium, Chromium, Copper, Lead, Nickel, and Zinc were outside the warning control limits of +/-20%, but was within +/-50% for sample 2773-05.

Inorganic Quality Control/Quality Assurance

Blank Analysis - a method blank is prepared with each batch of samples digested or extracted. The method blank defines the level of background (laboratory) contamination.

Duplicate Analysis - selected samples are prepared and analyzed in duplicate to define the precision of the results. These results have been summarized in the QC section of this report.

Matrix Spike Analysis - each of the analytes of interest are added to the selected samples prior to sample preparation. The results of matrix spike analyses define the accuracy of the results. These results have been summarized in the QC section of this report.

The ICP was calibrated on a blank and a standard for all parameters analyzed by this method. Calibration verification is conducted every two hours or every ten samples, whichever is more frequent.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designee, as verified by the following signature.

Sincerely,

Randal G. Jenkins

\NAR-0504.773
Enclosures

PACIFIC NORTHWEST ENVIRONMENTAL LABORATORY

METHOD REFERENCE

Gas Chromatograph/Mass Spectrometry for Volatile Organics	Method 8240, Test Methods for Evaluating Solid Waste, United States Environmental Protection Agency, SW-846, 3rd Ed., 1986.
Total Petroleum Hydrocarbons (Gas Chromatography)	Extraction as per the California State Water Resources Control Board "Leaking Underground Fuel Tank (LUFT) Field Manual", April 1989 revision, followed by GC analysis, Modified Method 8015, Test Methods for Evaluating Solid Waste, United States Environmental Protection Agency, SW-846, 3rd Ed., 1986.
Acid Digestion of Sediments, Sludges and Solids	Method 3050, Test Methods for Evaluating Solid Waste, United States Environmental Protection Agency, SW-846, 3rd Ed., 1986.
Inductively Coupled Plasma Method	Method 6010, Test Methods for Evaluating Solid Waste, United States Environmental Protection Agency, SW-846, 3rd Ed., 1986.

NATIONAL EXPRESS LABORATORIES, INC.
NEX
Pacific Northwest Environmental Laboratory, Inc.
3820 159th Avenue, N.E.
Redmond, WA 98052
(206) 885-0083
FAX (206) 867-2214

DATA REPORTING QUALIFIERS

Some of these qualifiers may appear in this analytical data report. Soil samples are analyzed and reported on a dry weight basis unless otherwise noted.

ORGANICS QUALIFIERS

A - This flag indicates that a TIC is a suspected aldol-condensation product.

B - Indicates compound was found in the associated blank as well as in the sample.

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a target compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero...

M - Indicates value is taken from a medium level analysis.

ND- Not detected. Detection limit shown in parentheses.

NQ- Not quantitated as...

U - Indicates compound was analyzed for but not detected at the given detection limit. The sample quantitation limit was corrected for dilution and for percent moisture, when applicable.

X - Other specific flags and footnotes may be required to properly define the results. If more than two qualifiers are required for a sample result, the "X" flag combines several flags, as needed. For instance, the "X" flag might combine the "A," "B," and "D" flags for some sample.

* - Indicates spiked compounds used for MS/MSD analysis.

INORGANICS QUALIFIERS

NA- Relative percent difference calculation is not applicable to analytes when not detected.

NC- Not calculated when analyte is not detected.

NS- Not calculated when sample concentration of analyte exceeds spike level by a factor of four or more.

U - Indicates that analyte was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

INORGANICS METHOD QUALIFIERS

CV- Manual Cold Vapor AA

F - FURNACE AA

P - ICP

PACIFIC NORTHWEST ENVIRONMENTAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET

Client No.:	68-900504	Client Sample ID:	CAM 1S
PNEL Sample ID:	2773-01	Date Sample Received:	11-15-90
Sample Matrix:	Soil	Date Sample Analyzed:	11-19-90
Sample Vol.:	5.0 g	Dilution Factor:	1.0
Level:	Low	Lab File ID:	B5248
Column:	Cap.	% Moisture:	24

CAS No.	Compound	Concentration Units: µg/kg	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	3	J
67-64-1	Acetone	6	BJ
75-15-0	Carbon Disulfide	7	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	13	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
10051-01-5	cis-1,3-Dichloropropene	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
78-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	3	J
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	7	U
78-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	18	
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	3	J
100-42-5	Styrene	7	U
1330-20-7	Xylenes (total)	17	

PACIFIC NORTHWEST ENVIRONMENTAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET

Client No.:	68-900504	Client Sample ID:	CAM 2S
PNEL Sample ID:	2773-02	Date Sample Received:	11-15-90
Sample Matrix:	Soil	Date Sample Analyzed:	11-20-90
Sample Vol.:	5.0 g	Dilution Factor:	1.0
Level:	Low	Lab File ID:	B5259
Column:	Cap.	% Moisture:	18

CAS No.	Compound	Concentration Units: µg/kg	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	4	J
67-64-1	Acetone	5	JB
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10051-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
78-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	1	J
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
78-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylenes (total)	5	J

PACIFIC NORTHWEST ENVIRONMENTAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET

Client No.:	68-900504	Client Sample ID:	CAM 3S
PNEL Sample ID:	2773-03	Date Sample Received:	11-15-90
Sample Matrix:	Soil	Date Sample Analyzed:	11-19-90
Sample Vol.:	5.0 g	Dilution Factor:	1.0
Level:	Low	Lab File ID:	B5253
Column:	Cap.	% Moisture:	7

CAS No.	Compound	Concentration Units: µg/kg	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	8	JB
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10051-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
78-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	2	J
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	5	U
78-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	3	J
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	1	J
100-42-5	Styrene	5	U
1330-20-7	Xylenes (total)	6	

PACIFIC NORTHWEST ENVIRONMENTAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET

Client No.:	68-900504	Client Sample ID:	CAM 1D
PNEL Sample ID:	2773-04	Date Sample Received:	11-15-90
Sample Matrix:	Soil	Date Sample Analyzed:	11-19-90
Sample Vol.:	5.0 g	Dilution Factor:	1.0
Level:	Low	Lab File ID:	B5250
Column:	Cap.	% Moisture:	11

CAS No.	Compound	Concentration Units: µg/kg	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	4	JB
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10051-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
78-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
78-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	3	J
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylenes (total)	4	J

PACIFIC NORTHWEST ENVIRONMENTAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET

Client No.:	68-900504	Client Sample ID:	CAM 2D
PNEL Sample ID:	2773-05	Date Sample Received:	11-15-90
Sample Matrix:	Soil	Date Sample Analyzed:	11-19-90
Sample Vol.:	5.0 g	Dilution Factor:	1.0
Level:	Low	Lab File ID:	B5251
Column:	Cap.	% Moisture:	11

CAS No.	Compound	Concentration Units: µg/kg	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	1	J
67-64-1	Acetone	11	U
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	5	J
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10051-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
78-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
78-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	3	J
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylenes (total)	3	J

PACIFIC NORTHWEST
ENVIRONMENTAL
LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET

Client No.:	68-900504	Client Sample ID:	CAM 3D
PNEL Sample ID:	2773-06	Date Sample Received:	11-15-90
Sample Matrix:	Soil	Date Sample Analyzed:	11-19-90
Sample Vol.:	5.0 g	Dilution Factor:	1.0
Level:	Low	Lab File ID:	B5252
Column:	Cap.	% Moisture:	10

CAS No.	Compound	Concentration Units: µg/kg	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	11	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	2	J
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10051-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
78-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
78-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	4	J
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylenes (total)	5	J

PACIFIC NORTHWEST ENVIRONMENTAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET

Client No.:	68-900504	Client Sample ID:	Method Blank 1
PNEL Sample ID:	VBLKBL	Date Sample Received:	NA
Sample Matrix:	Soil	Date Sample Analyzed:	11-19-90
Sample Vol.:	5.0 g	Dilution Factor:	1.0
Level:	Low	Lab File ID:	B5247
Column:	Cap.	% Moisture:	NA

CAS No.	Compound	Concentration Units: µg/kg	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	5	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10051-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
78-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
78-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylenes (total)	5	U

PACIFIC NORTHWEST ENVIRONMENTAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET

Client No.:	68-900504	Client Sample ID:	Method Blank 2
PNEL Sample ID:	VBLKBM	Date Sample Received:	NA
Sample Matrix:	Soil	Date Sample Analyzed:	11-20-90
Sample Vol.:	5.0 g	Dilution Factor:	1.0
Level:	Low	Lab File ID:	B5257
Column:	Cap.	% Moisture:	NA

CAS No.	Compound	Concentration Units: µg/kg	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	6	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	3	J
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10051-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
78-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
78-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylenes (total)	5	U

PACIFIC NORTHWEST ENVIRONMENTAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET

Client No.:	68-900504	Client Sample ID:	Method Blank 3
PNEL Sample ID:	VBLKBN	Date Sample Received:	NA
Sample Matrix:	Soil	Date Sample Analyzed:	11-21-90
Sample Vol.:	5.0 g	Dilution Factor:	1.0
Level:	Low	Lab File ID:	B5275
Column:	Cap.	% Moisture:	NA

CAS No.	Compound	Concentration Units: µg/kg	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	3	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10051-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
78-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
78-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylenes (total)	5	U

PACIFIC NORTHWE
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VOLATILE SURROGATE RECOVERY REPORT

Level: Low

Matrix: Soil

	LAB SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#		TOT OUT
01	2773-01	125 *	80	100		1
02	2773-02	109	79	97		0
03	2773-03	105	100	106		0
04	2773-04	102	98	99		0
05	2773-05	105	100	102		0
06	2773-06	102	98	103		0
07	2773-01MS	127 *	80	108		1
08	2773-01MSD	128 *	80	113		1
09	VBLKBL	102	106	102		0
10	VBLKBM	94	94	92		0
11	VBLKBN	103	101	101		0
12	2773-07	101	93	96		0
13	2773-08	93	97	101		0
14	VBLKBP	99	99	97		0
15						
16						
17						
18						
19						
20						
21						

	Soil QC Limits	Water QC Limits
S1 (TOL) = Toluene-d8	(81-117)	(88-110)
S2 (BFB) = Bromofluorobenzene	(74-121)	(86-115)
S3 (DCE) = 1,2-Dichloroethane-d4	(70-121)	(76-114)

\# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

V2-0504.733

PACIFIC NORTHWEST ENVIRONMENTAL LABORATORY

VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

PNEL Sample ID.:	2773-01	**Client No.:**	68-900504
Client Sample ID.:	CAM 1S	**Sample Matrix:**	Soil
Date Sample Received:	11-15-90	**Date Sample Analyzed:**	11-19/21-90
Level:	Low		

Compound	*SPIKE ADDED (µg/kg)*	*SAMPLE CONC. (µg/kg)*	*MS CONC. (µg/kg)*	*MS % REC#*	*SOIL QC LIMITS REC*	*WATER QC LIMITS REC*
1,1-Dichloroethene	64.9	ND	58.7	90	59-172	61-145
Trichloroethene	64.9	ND	50.1	77	62-137	71-120
Benzene	64.9	2.8	64.7	95	66-142	76-127
Toluene	64.9	18.1	74.1	86	59-139	76-125
Chlorobenzene	64.9	ND	58.6	90	60-133	75-130

Compound	*SPIKE ADDED (µg/kg)*	*MSD CONC. (µg/kg)*	*MSD % REC#*	*% RPD#*	*SOIL QC LIMITS RPD*	*SOIL QC LIMITS REC*	*WATER QC LIMITS RPD*	*WATER QC LIMITS REC*
1,1-Dichloroethene	64.9	60.3	93	3	22	59-172	14	61-145
Trichloroethene	64.9	48.9	75	3	24	62-137	14	71-120
Benzene	64.9	64.7	95	0	21	66-142	11	76-127
Toluene	64.9	73.1	85	1	21	59-139	13	76-125
Chlorobenzene	34.9	57.9	89	1	21	60-133	13	75-130

\# Column to be used to flag recovery and RPD values with an asterisk.

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

\V3-0504.733

PACIFIC NORTHWEST ENVIRONMENTAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET

Client No.:	68-900504	Client Sample ID:	B1
PNEL Sample ID:	2773-07	Date Sample Received:	11-15-90
Sample Matrix:	Soil	Date Sample Analyzed:	11-27-90
Sample Vol.:	5.0 g	Dilution Factor:	1.0
Level:	Low	Lab File ID:	B5288
Column:	Cap.	% Moisture:	26

CAS No.	Compound	Concentration Units: µg/kg	Q
71-43-2	Benzene	7	U
108-88-3	Toluene	5	J
100-41-4	Ethylbenzene	7	U
1330-20-7	Xylenes (total)	7	

PACIFIC NORTHWEST ENVIRONMENTAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET

Client No.:	68-900504	Client Sample ID:	B2
PNEL Sample ID:	2773-08	Date Sample Received:	11-15-90
Sample Matrix:	Soil	Date Sample Analyzed:	11-27-90
Sample Vol.:	5.0 g	Dilution Factor:	1.0
Level:	Low	Lab File ID:	B5289
Column:	Cap.	% Moisture:	27

CAS No.	Compound	Concentration Units: µg/kg	Q
71-43-2	Benzene	7	U
108-88-3	Toluene	7	U
100-41-4	Ethylbenzene	7	U
1330-20-7	Xylenes (total)	7	U

PACIFIC NORTHWEST ENVIRONMENTAL LABORATORY

VOLATILE ORGANICS ANALYSIS DATA SHEET

Client No.:	68-900504	Client Sample ID:	Method Blank 4
PNEL Sample ID:	VBLKBP	Date Sample Received:	NA
Sample Matrix:	Soil	Date Sample Analyzed:	11-27-90
Sample Vol.:	5.0 g	Dilution Factor:	1.0
Level:	Low	Lab File ID:	B5287
Column:	Cap.	% Moisture:	NA

CAS No.	Compound	Concentration Units: µg/kg	Q
71-43-2	Benzene	5	U
108-88-3	Toluene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylenes (total)	5	U

PACIFIC NORTHWEST
ENVIRONMENTAL
LABORATORY

Client No: 68-900504

ORGANIC ANALYSIS REPORT

Client Sample ID	B1	B2	Blank
PNEL Sample ID	2773-07	2773-08	2773-MB
Matrix	Soil	Soil	Soil
Date Received	11-15-90	11-15-90	NA
Date Extracted	11-19-90	11-19-90	11-19-90
Date Analyzed	11-21-90	11-21-90	11-21-90
Units of Measure	µg/kg	µg/kg	µg/kg
Compound			
Total Petroleum Hydrocarbons			
As: Gasoline	11000 U	11000 U	8300 U
As: Diesel	11000 U	11000 U	8300 U
As: Motor Oil	22000 U	580000	8300 U

\TPH-0504.773

PACIFIC NORTHWEST
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INORGANIC ANALYSIS DATA SHEET

PNEL Sample ID.:	2773-01	Client No.:	68-900504
Client Sample ID.:	CAM 1S	Sample Matrix:	Soil
Date Sample Received:	11-15-90	% Solids Content:	79.8

Analyte		mg/kg Concentration		Laboratory Method Blank mg/kg Concentration		M
Barium	(Ba)	4720		3.0	U	P
Cadmium	(Cd)	12.6	U	1.0	U	P
Chromium	(Cr)	1640		2.0	U	P
Copper	(Cu)	1000		1.0	U	P
Lead	(Pb)	4160		6.0	U	P
Nickel	(Ni)	567		4.0	U	P
Zinc	(Zn)	19700		1.6	U	P

\IAD2-0504.773

PACIFIC NORTHWEST ENVIRONMENTAL LABORATORY

INORGANIC ANALYSIS DATA SHEET

PNEL Sample ID.:	2773-02	Client No.:	68-900504
Client Sample ID.:	CAM 2S	Sample Matrix:	Soil
Date Sample Received:	11-15-90	% Solids Content:	83.5

Analyte		mg/kg Concentration		Laboratory Method Blank mg/kg Concentration		M
Barium	(Ba)	1650		3.0	U	P
Cadmium	(Cd)	12.2	U	1.0	U	P
Chromium	(Cr)	1280		2.0	U	P
Copper	(Cu)	615		1.0	U	P
Lead	(Pb)	3210		6.0	U	P
Nickel	(Ni)	482		4.0	U	P
Zinc	(Zn)	14700		1.6	U	P

\IAD2-0504.773

PACIFIC NORTHWEST
ENVIRONMENTAL
LABORATORY

INORGANIC ANALYSIS DATA SHEET

PNEL Sample ID.:	2773-03	Client No.:	68-900504
Client Sample ID.:	CAM 3S	Sample Matrix:	Soil
Date Sample Received:	11-15-90	% Solids Content:	92.6

Analyte		mg/kg Concentration		Laboratory Method Blank mg/kg Concentration		M
Barium	(Ba)	370		3.0	U	P
Cadmium	(Cd)	9.4	U	1.0	U	P
Chromium	(Cr)	1170		2.0	U	P
Copper	(Cu)	746		1.0	U	P
Lead	(Pb)	1000		6.0	U	P
Nickel	(Ni)	935		4.0	U	P
Zinc	(Zn)	446		1.6	U	P

\IAD2-0504.773

PACIFIC NORTHWEST
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INORGANIC ANALYSIS DATA SHEET

PNEL Sample ID.:	2773-04	Client No.:	68-900504
Client Sample ID.:	CAM 1D	Sample Matrix:	Soil
Date Sample Received:	11-15-90	% Solids Content:	88.4

Analyte		mg/kg Concentration		Laboratory Method Blank mg/kg Concentration		M
Barium	(Ba)	45.1		3.0	U	P
Cadmium	(Cd)	1.1	U	1.0	U	P
Chromium	(Cr)	61.6		2.0	U	P
Copper	(Cu)	122		1.0	U	P
Lead	(Pb)	73.7		6.0	U	P
Nickel	(Ni)	48.3		4.0	U	P
Zinc	(Zn)	241		1.6	U	P

\IAD2-0504.773

PACIFIC NORTHWEST
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LABORATORY

INORGANIC ANALYSIS DATA SHEET

PNEL Sample ID.:	2773-05	Client No.:	68-900504
Client Sample ID.:	CAM 2D	Sample Matrix:	Soil
Date Sample Received:	11-15-90	% Solids Content:	89.1

Analyte		mg/kg Concentration		*Laboratory Method Blank* mg/kg Concentration		M
Barium	(Ba)	245		3.0	U	P
Cadmium	(Cd)	1.2	U	1.0	U	P
Chromium	(Cr)	223		2.0	U	P
Copper	(Cu)	213		1.0	U	P
Lead	(Pb)	680		6.0	U	P
Nickel	(Ni)	116		4.0	U	P
Zinc	(Zn)	1550		1.6	U	P

\IAD2-0504.773

PACIFIC NORTHWEST ENVIRONMENTAL LABORATORY

INORGANIC ANALYSIS DATA SHEET

PNEL Sample ID.:	2773-06	Client No.:	68-900504
Client Sample ID.:	CAM 3D	Sample Matrix:	Soil
Date Sample Received:	11-15-90	% Solids Content:	90.2

Analyte		mg/kg Concentration		Laboratory Method Blank mg/kg Concentration		M
Barium	(Ba)	259		3.0	U	P
Cadmium	(Cd)	1.1	U	1.0	U	P
Chromium	(Cr)	39.3		2.0	U	P
Copper	(Cu)	667		1.0	U	P
Lead	(Pb)	686		6.0	U	P
Nickel	(Ni)	32.7		4.0	U	P
Zinc	(Zn)	2260		1.6	U	P

\IAD2-0504.773

PACIFIC NORTHWEST
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LABORATORY

INORGANIC DUPLICATE ANALYSIS DATA SHEET

PNEL Sample ID.: 2773-05
Client Sample ID.: CAM 2D
Date Sample Received: 11-15-90

Client No.: 68-900504
Sample Matrix: Soil

Analyte		mg/kg Duplicate Sample Concentration		mg/kg Original Sample Concentration		Relative Percent Difference
Barium	(Ba)	106		245		79.2
Cadmium	(Cd)	1.2	U	1.2	U	NC
Chromium	(Cr)	120		223		60.1
Copper	(Cu)	174		213		20.2
Lead	(Pb)	279		680		83.6
Nickel	(Ni)	55.7		116		70.2
Zinc	(Zn)	781		1550		66.0

\IAD2-0504.733

PACIFIC NORTHWEST ENVIRONMENTAL LABORATORY

INORGANIC MATRIX SPIKE ANALYSIS DATA SHEET

PNEL Sample ID.:	2773-05	**Client No.:**	68-900504
Client Sample ID.:	CAM 2D	**Sample Matrix:**	Soil
Date Sample Received:	11-15-90		

Analyte		*mg/kg Spike Sample Concentration*	*mg/kg Original Sample Concentration*		*mg/kg Spike Level*	*Percent Recovery*
Barium	(Ba)	541	245		482	61.4
Cadmium	(Cd)	1.7	1.2	U	12.0	14.2
Chromium	(Cr)	167	223		48.2	NS
Copper	(Cu)	232	213		60.2	31.6
Lead	(Pb)	471	680		120	NS
Nickel	(Ni)	165	116		120	40.8
Zinc	(Zn)	922	1550		120	NS

\IAD2-0504.733

NATIONAL EXPRESS LABORATORIES, INC.

NATEX

Pacific Northwest Environmental Laboratory, Inc.

CHAIN-OF-CUSTODY / REQUEST FOR ANALYSIS

Laboratory Contact: Susan Walker (Winter) or Dan Balbiani (SW)

Send Lab Report To: Dan Balbiani

Client Name: Harding Lawson Assoc. (HLA)

Client Number:

Bill To: HLA

1325 4th Avenue, Suite 1800

Seattle, WA. 98101

PO No.:

Carrier No.:

Date Report Required: 2 week TAT (15 calender days)

Client Contact: Susan Walker or Dan Balbiani

Client Contact Phone: 206-622-0812

PNEL #2773

	Sample Number	Sample Location and Description	Date Collected	Time Collected	Sample Matrix	Number of Containers	Analysis and Container: VOA's 8240	Heavy Metals Ba, Cd, Cr, Pb, Ni, Zn	TEPH 8015	BETX 8020			Comments
01	CAM 1S	surface, near scrubber	11/15/90	0930	soil	2	X	X					
02	CAM 2S	surface, edge scrubber	11/15/90	0940	"	2	X	X					
03	CAM 3S	surface, near blast room	"	0950	"	2	X	X					
04	CAM 1D	6 in. deep, nr scrubber	"	1030	"	2	X	X					
05	CAM 2D	6 in. deep, edge scrubber	"	1045	"	2	X	X					
06	CAM 3D	6 in. deep, nr blast room	"	1100	"	2	X	X					
07	B1	WEST END EXCAVATION	"	1000	"	2			X	X			
08	B2	EAST END EXCAVATION	11/15/90	1100	soil	2			X	X			
09	Trip Blank				H2O	2							

Special Instructions: Two week TAT

Possible Hazards: petroleum, VOAs, heavy metals

Was Preservative Used? No ☒ Yes ☐ What Kind? What Analysis?

1.	Relinquished By: Susan C. Walker	Date: 11/15/90	Time: 1400	Received By:	Date:	Time:
2.	Relinquished By: Michele Baker	Date: 11/15/90	Time: 1650	Received By: Regina Cook/PNEL	Date: 11/15/90	Time: 16-50
3.	Relinquished By:	Date:	Time:	Received By:	Date:	Time:
4.	Relinquished By:	Date:	Time:	Received By:	Date:	Time: