

ERAS
Environmental, Inc.

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TECHNICAL SUMMARY REPORT
Former Precision Cast
1549 32nd Street
Oakland, California
Project Number 02-006-01

Prepared for:

Mr. Francis Rush
Rush Property Group
2200 Adeline Street, #350
Oakland, CA 94607

Prepared by:

ERAS Environmental
October 9, 2002

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Mr. Francis Rush
Rush Property Group
2200 Adeline Street, #350
Oakland, CA 94607

Alameda County

OCT 14 2002

Environmental Health

Subject: **Technical Summary Report**
1549 32nd Street
Oakland, California
ERAS Project Number 02-006-01

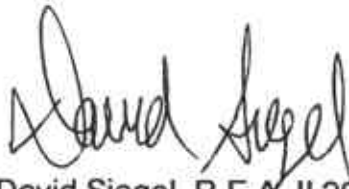
Dear Mr. Rush,

ERAS Environmental, Inc. (ERAS) is pleased to present the Technical Summary Report for the above referenced site (the "Property"). The Property was last occupied by Precision Cast and was used for the manufacture of steel products.

ERAS performed a soil investigation at the Property on March 27, 2002. Additional investigations were performed by Environmental Restoration Services (Enrest) on April 26 and May 21, 2002. This report summarizes historical and the results of the environmental investigations conducted on the Property.

Please call if you have any questions regarding the information presented in this report.

Respectfully,
ERAS Environmental, Inc.



David Siegel, R.E.A. II 20200
Project Manager



Gail Jones, R.G. 5725
Senior Geologist

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Introduction

This report summarizes information gathered to date from various sources pertaining to the environmental conditions at the former Precision Cast building at 1549 32nd Street, Oakland, California (the Property). This summary includes historical land use and hazardous materials information, as well as the results of recent soil and groundwater sampling investigations. The location of the Property is shown on **Figure 1**, Site Location Map. The current layout of the Property is shown on **Figure 2**.

Purpose and Scope

The purpose of this report is to summarize the known information pertaining to the Property regarding environmental conditions present. The information can be used by the local regulatory agency to determine if additional investigation and remediation is required prior to redevelopment of the Property. The current owner of the Property is planning to renovate the current building for occupancy as live/work residential space. Therefore, the analytical results for soil and groundwater samples discussed in this report are compared to the Risk-Based Screening Levels (RBSLs) for residential properties promulgated by the California Regional Water Quality Control Board (RWQCB) in December 2001.

Historical Information

Phase 1 ESA report

A Phase I Environmental Site Assessment (ESA) was prepared by Lumina Technologies (Lumina), dated January 4, 2001. At the time of the site inspection by Lumina, the building was vacant. Lumina noted poor maintenance and housekeeping in most areas. Lumina noted the spillage of dry materials associated with former foundry operations, and the storage of isopropyl alcohol on the Property. Lumina also noted the presence of a 500-gallon underground tank on the west side of the property under the sidewalk which was abandoned for at least 20 years.

Former uses of the Property were identified as a foundry and by Lindbergh Heating. Lumina indicated that the Property was developed with the current building in 1946. The Regional Water Quality Control Board (RWQCB), County of Alameda Environmental Health Department (EHD) and Department of Toxic Substance Control (DTSC) were contacted for file reviews. The RWQCB files indicated that no leaks or spills have occurred on the subject site. The EHD was contacted concerning spills of hazardous materials at the subject site, and no records were found which indicated that the subject site was involved in such a spill. Lumina indicated that the DTSC found no records that indicated any usage or storage of hazardous materials on the subject site.

Lumina concluded that there is evidence of potential environmental impairment of the site from prior site operations, and recommended subsurface sampling to test for heavy metals and total petroleum hydrocarbons.

City of Oakland Records

ERAS reviewed the file for the Property at the City of Oakland Fire Department Emergency Services Division on March 12, 2002. The file for the Property contained a Hazardous Materials Business Plan (HMBP), dated July 18, 1997. The HMBP listed eight items that included a total of 990 gallons of liquid, 24,650 pounds of solid, and 275 cubic feet of gas.

The hazardous materials inventory form listed the following:

- chromium, 2 containers @ 4,000 pounds
- copper, 55 gallon container ~500 pounds
- manganese, 55 gallon container ~500 pounds
- nickel, two 55 gallon container ~1,000 pounds
- urethane, 55 gallons
- isopropyl alcohol, 55 gallons
- acetylene
- liquid petroleum gas
- oxygen

Inspection forms on file indicated the Property contained a steel foundry since 1983. An inspection dated October 15, 1996 indicated some resin on the ground in the drum storage area. The fire department did not indicate this was a serious problem and did not require any investigation or further action. No other violations were noted in the file other than minor compliance issues such as posting proper signs and labeling containers. The latest information, dated November 21, 2000, was another HMBP for Precision Cast that listed the same hazardous materials and no hazardous waste.

The file also contained an Analytical Request from the Alameda County Health Care Services Agency (ACHCSA) for analysis of a sample of the waste foundry sand that was stockpiled outside on the sidewalk along the Hannah Street side of the building. The sample was collected in response to a report by a concerned citizen, dated April 27, 1992, of the possibility of mishandling of hazardous waste and potentially discharging waste on the adjacent properties of others. ACHCSA collected a sand sample the same day and submitted it for analysis of heavy metals. The sample was found to contain metals well below the Total Threshold Limit Concentration (TTL) that would deem the waste hazardous. A copy of the laboratory report is included in Appendix A.

Appendix A also includes the results of analysis of soil samples collected from four soil borings drilled on the Property in 1988 by Property Contamination Control, Inc. Although the report did not include information regarding the location of these borings, the results indicated concentrations of methanol in soil ranging from 0.68 milligrams per kilogram (mg/Kg) to 1.2 mg/Kg. Ethanol was detected in one sample at a concentration of 0.68 mg/Kg. Metals were detected at concentrations below TTLs. Analysis for solvents indicated the presence of 1,1-dichloroethene (1,1-DCE) at concentrations ranging from 0.0076 mg/Kg to 0.1849 mg/Kg.

The concentration of 1,1-DCE detected in one of the borings (B-4, samples at 5 feet and 10 feet) is above the Regional Water Quality Control Board (RWQCB) Risk Based Screening Level (RBSL) for 1,1-DCE for residential land use of 0.028 mg/Kg (RWQCB, Table B, December 2001).

Summary of Subsurface Investigations in 2002

GGTR

A 700-gallon underground storage tank located along the Hannah Street side of the building was removed by Golden Gate Tank Removal (GGTR) on February 1, 2002 under permit requirements of the City of Oakland Fire Department (OFD). Evidence of staining was observed. Soil sample CTR collected at the base of the excavation was found to contain 7.95 mg/Kg TPH-g. GGTR performed additional excavation and a sample collected from the bottom of the excavation was found to contain less than 1 mg/Kg TPH-g. The OFD agreed that no further action was required and provided an underground storage tank case closure letter dated April 15, 2002. *MTSE ?*

ERAS

ERAS Environmental, Inc. (ERAS) performed a limited Phase 2 soil investigation at the Property on March 27, 2002. Four soil borings were dug to about 3 feet bgs using a hand auger. The results of laboratory analysis of soil samples collected by ERAS from the base of each boring indicated elevated concentrations of total recoverable petroleum hydrocarbons (TRPH) in three of the samples (SB-1, SB-3 and SB-4). The sample collected in the southwest portion of the Property was not found to contain detectable TRPH or TPH-g concentrations. The concentrations of chemicals detected in the soil samples are summarized in **Table 1** below. The locations of the soil borings are shown on **Figure 2**.

The concentrations of TRPH were above the RBSLs for TRPH of 500 milligrams per kilogram (mg/Kg) in the samples collected from the northern, central, and south central portions of the site. The concentrations of total petroleum hydrocarbons as gasoline (TPH-g) and benzene, toluene, ethyl benzene, and xylenes (BTEX) were below the RBSLs for those respective constituents. During the investigation, a 4-inch diameter well pipe was observed near the location of SB-3. The well pipe was assumed to access an underground storage tank (UST). ERAS recommended the UST be removed. *Source ?*

Enrest

Environmental Restoration Services (Enrest) was contracted by the owner to remove the UST and initiated excavation activities on April 15, 2002. During this work, Enrest found that the well pipe was actually a waste percolation well. The well extended to 7 feet bgs and was perforated at the bottom 18 inches. The base of the well was encased in drain rock that extended from 5 to 10 feet bgs. A representative of the Oakland Fire Department (OFD) requested that further soil be removed in the vicinity of the percolation well. On April 26, 2002, Enrest demolished the concrete lining of Pit B and excavated soil to 12 feet bgs. An excavation sidewall soil sample (SS-N) was collected near the top of groundwater at 10 feet bgs. This sample was found to contain 3,300 mg/Kg total petroleum hydrocarbons as motor oil (TPH-mo) but no detectable BTEX. An oil sheen was noted on groundwater collected in the excavation. Enrest also excavated casting sand backfill from Pit A and Pit C and collected sand samples. The locations of excavations and soil samples are shown on **Figures 2**.

+Fig 3

The owner requested that Enrest drill additional borings to further evaluate the extent and type of contaminants that might be present in the subsurface soil. Enrest drilled seven borings (SB-1 through SB-6 and P/A, **Figure 2**) using a Geoprobe rig on April 26, 2002. A soil sample was collected from boring P/A at 8 feet bgs and analyzed for VOCs. No detectable BTEX was detected in the soil sample SS-P/A.

Groundwater samples were collected from samples SB-1 through SB-5. The concentrations of chemicals detected in the soil samples are summarized in **Table 1** below. The boring locations are shown on **Figure 3**.

Boring SB-6, was found to contain free-floating oil. Analysis of the oil indicated concentrations of benzene, toluene, xylenes (BTX), 1,2-dichlorobenzene (1,2-DCB) and naphthalene above the RBSLs for these constituents in soil. The oil sample was also analyzed for PCBs, but the previous reports did not contain a copy of the results of that analysis. Analysis of groundwater samples collected from borings (SB-1 through SB-5) indicated the concentrations of 1,2-DCB, BTX and naphthalene were below detection limits.

During this work in April 2002, Enrest noticed another 4-inch diameter well pipe near the southeast corner of the building.

Enrest recommended that the extent of product oil in the subsurface should be further investigated. In addition, Enrest recommended the City of Oakland review the results prior to performing additional investigation or remediation. On May 21, 2002, soil was excavated in the area of boring SB-6 and around the 4-inch pipe. Three soil borings, SP-1, SP-2, SP-3, were drilled for the collection of groundwater samples in locations north, west, and south, respectively, of the boring SB-6.

The 4-inch pipe was found to be another waste percolation well constructed the same as the one near Pit B. A sidewall soil sample (Source Pt) was collected at 7 feet bgs, near the top of groundwater, from the south wall of the excavation around the waste percolation well. This sample contained elevated concentrations of TPH-mo (20,800 mg/Kg) but no detectable concentrations of BTEX. Free-floating oil accumulated to a thickness of about 3/8-inch and was removed using a wet-vacuum prior to the collection of a sample of the standing groundwater. This sample was analyzed for VOCs only, and was found to contain only low concentrations of some compounds. However, because the top of groundwater in an open pit was subjected to a vacuum immediately prior to sample collection, which may have aerated the top of the groundwater, the usefulness of analysis of this sample for volatile compounds is uncertain.

Groundwater samples from SP-1, SP-2 and SP-3, and one designated Source, all within the estimated area of floating oil, contained high levels of TPH-mo (up to 5,780,000 ug/L). Concentrations of BTEX and solvents were much lower and below the RBSLs except for the sample from SP-3 which was found to contain benzene, xylenes, 1,2-dichlorobenzene, and naphthalene above the RBSLs.

The results of the analyses of soil samples collected by GGTR, ERAS and Enrest are summarized in **Table 1** below. The laboratory reports and chain-of-custody forms are included in **Appendices B, C and D**.

TABLE 1 - Soil Sample Analytical Results (milligrams per kilogram)

Consultant	Sample Number	Date	TRPH/ TPH-mo	TPH- g	Ben- zene	Tol- uene	Ethyl Ben- zene	Xy- lenes	Other VOCs
ERAS	SB-1-2.5	3/27/02	8,300	11	0.053	0.065	0.046	0.17	NA
ERAS	SB-2-2.5	3/27/02	<50	<1	<0.005	<0.005	<0.005	<0.005	NA
ERAS	SB-3-3	3/27/02	<50	17	<0.005	<0.005	<0.005	<0.005	NA
ERAS	SB-4-3	3/27/02	2,100	5.3	<0.005	0.0071	<0.005	0.020	NA
Enrest	SS-N (10')	4/26/02	3,300	NA	<0.005	<0.005	<0.005	<0.015	Note 1
Enrest	SS-P/A (8')	4/26/02	NA	NA	<0.005	<0.005	<0.005	<0.015	Note 2
Enrest	Source Pt @7'	5/21/02	20,800	NA	<0.005	<0.005	<0.005	<0.015	Note 3
RBSLs			500	400	0.18	8.4	24	1.0	Various

Notes:

- RBSL Risk Based Screening Level (RWQCB Table B, Residential Land Use, December 2001)
- ND Not detected at or above laboratory detection limits
- NA Not Analyzed
- 1 Sample contained 1,2-Dichlorobenzene 0.013 mg/Kg (RBSL 1.0), Napthalene 0.025 (RBSL 4.9)
- 2 Sample contained 1,2-Dichlorobenzene 0.014 mg/Kg (RBSL 1.0)
- 3 Sample contained gasoline constituents

The results of the analyses of the oil and pit backfill sample collected by Enrest are summarized in **Table 2** below. The laboratory reports and chain-of-custody forms are included in **Appendices C and D**.

TABLE 2 – Oil and Pit Backfill Analytical Results (milligrams per kilogram)

Consultant	Sample Number	Date	TRPH/TPH-mo	TPH-g	Benzene	Toluene	Ethyl Benzene	Xylenes	Other VOCs
Enrest	Pit A	4/26/02	NA	NA	<0.020	<0.020	<0.020	<0.060	Note 1
Enrest	Oil	4/26/02	NA	NA	5.81	3.62	<2.5	10.74	Note 2
RBSLs			500	400	0.18	8.4	24	1.0	Various

Notes:

- RBSL Risk Based Screening Level (RWQCB Table B, Residential Land Use, December 2001)
- ND Not detected at or above laboratory detection limits
- NA Not Analyzed
- 1 Sample contained Napthalene 0.682 mg/Kg (RBSL 4.9), gasoline constituents, see text
- 2 Sample contained 1,2-Dichlorobenzene 7.27 mg/Kg (RBSL 1.0), Napthalene 20.3 mg/Kg (RBSL 4.9), gasoline constituents, see text

The results of the analyses of groundwater samples collected by Enrest are summarized in Table 3 below. The laboratory reports and chain-of-custody forms are included in Appendices C and D.

TABLE 3 - Groundwater Sample Analytical Results (micrograms per liter)

Sample Number	Date	TPH-mo	TPH-g	Benzene	Toluene	Ethyl Benzene	Xylenes	Other VOCs
SB-1	4/26/02	<500	NA	NA	NA	NA	NA	NA
SB-2	4/26/02	<500	NA	NA	NA	NA	NA	NA
SB-3	4/26/02	<500	NA	NA	NA	NA	NA	NA
SB-4	4/26/02	<500	NA	<1	<1	<1	<2	ND
SB-5	4/26/02	NA	NA	<1	<1	<1	2	Note 1
SP-1	5/21/02	77,000	NA	<1	<1	<1	<1	Note 2
SP-2	5/21/02	74,000	NA	<1	<1	2	3	Note 3
SP-3	5/21/02	5.78x10 ⁶	NA	87	94	9	82	Note 4
Source	5/21/02	NA	NA	<1	<1	1	2	Note 5
RBSLs		640	500	46	130	290	13	Various

Notes:

RBSL =	Risk Based Screening Levels from Regional Water Quality Control Board, Table B, December 2001
ND	Not detected at or above laboratory detection limits
NA	Not Analyzed
1	Sample contained chloroform 15 µg/L
2	Sample contained chloroform 3 µg/L
3	Sample contained acetone 375 µg/L (RBSL 1,500), 1,2-dichlorobenzene 6 µg/L (RBSL, 14)
4	Sample contained 1,2-dichlorobenzene 17 µg/L (RBSL, 14), naphthalene 139 µg/L, (RBSL, 24), gasoline constituents
5	Sample contained 1,2-dichlorobenzene 2 µg/L (RBSL, 14), naphthalene 2 µg/L (RBSL, 24), gasoline constituents

Some of the samples of soil (SS-P/A, Pit A, Source Pt. @7') and groundwater (SP-1, SP-2, SP-3 and Source) contained a number of solvents that are normal constituents of gasoline. These do not have separately listed RBSLs and are as follows.

1,2,4 Trimethylbenzene

1,3,5 Trimethylbenzene

sec-butylbenzene

n-butyl benzene

n-propyl benzene

SUR-dibromofluoromethane

SUR-Toluene-d8

SUR-4-bromofluorobenzene

Surrogates

Note the presence of these solvents is not unexpected since gasoline hydrocarbons were detected in the shallow soil samples collected by ERAS. In addition, several of the samples including the oil collected from boring SB-6 contained concentrations of other gasoline constituents (BTX).

Subsurface Conditions

According to information presented on boring logs for SP-1 through SP-3 prepared by Enrest, subsurface sediments beneath the concrete floor and underlying baserock consisted of high plasticity clay and silty clay to a depth of approximately 7 feet. These sediments were underlain by silty sand to the base of the borings at 11 feet bgs. Groundwater was reported to be encountered at depths of approximately 7 to 10 feet in the excavations produced by Enrest. Observations on the boring logs SP-1, SP-2 and SP-3 indicated groundwater was very slow entering the borings (more than 12 hours).

Summary and Conclusions

The Property was formerly occupied by Precision Cast and operated as a steel product foundry. Information existing prior to 2002 indicated there were no liquid hazardous materials used at the facility. Analysis of used casting sand indicated it was a non-

hazardous material. Soil samples collected from soil borings at the Property indicated only 1,1-dichloroethene at concentrations above the current RBSL. However, the locations of these borings is unknown.

A 700-gallon UST was removed from the sidewalk along Hannah Street in February 2002. A soil sample collected from the base of the final excavation was found to contain less than 1 mg/Kg TPH-g.

Soil samples collected at 2.5-3 feet from hand auger borings drilled on the Property in March 2002 indicated concentrations of TRPH at concentrations above the current RBSL. A 4-inch well pipe found in the central area of the building was later determined during excavation to be a waste percolation well. Subsequent excavations were performed investigate the subsurface and to remove used casting sand. Soil borings were drilled and soil and groundwater samples collected for analysis in April 2002. In May 2002, additional excavation was performed and additional borings drilled.

During these investigations, three areas of contamination have been identified.

1. The northern portion of the building, TRPH contamination in the shallow soil of unknown impact to the deeper soil or groundwater.
2. Around the waste percolation well in the central portion of the building, TPH-mo contamination in the soil and floating oil sheen on groundwater was demonstrated to be of limited impact to the groundwater.
3. Around the waste percolation well near the southeast corner of the building, an area of significant thickness of free-floating oil on the groundwater with TPH-mo contamination in the soil and TPH-mo and VOC contamination in the groundwater above RBSLs.

Northern Area

Soil sample SB-1 comprised of green hydrocarbon-stained clay at 2.5 feet bgs was found to contain 8,300 mg/Kg TRPH, well above the RBSL of 1,000 mg/Kg. The impact to groundwater, if any, or the horizontal and vertical extent of soil contamination is unknown.

Central Area

In the excavation around the central waste percolation well, floating oil sheen was observed on the groundwater and TPH-mo of 3,300 mg/Kg in soil remained on the south sidewall of the excavation. However, groundwater samples SB-1 through SB-4 demonstrate that the horizontal extent of free-floating oil, and groundwater contamination is contained within a radius of roughly 12 to 15 feet around the waste percolation well.

Southeast Area

A significant thickness floating oil encountered in boring SB-6 and in the excavation around the waste percolation well near the south corner of the building. A sidewall sample from the excavation (Source Pt) was found to contain a very high concentration of TPH-mo (20,800 mg/Kg). The TRPH detected in the shallow soil at boring SB-4 located west of Pit A may be a result of contamination from the source near the southeast corner of the

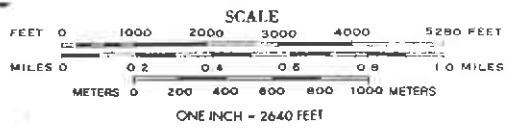
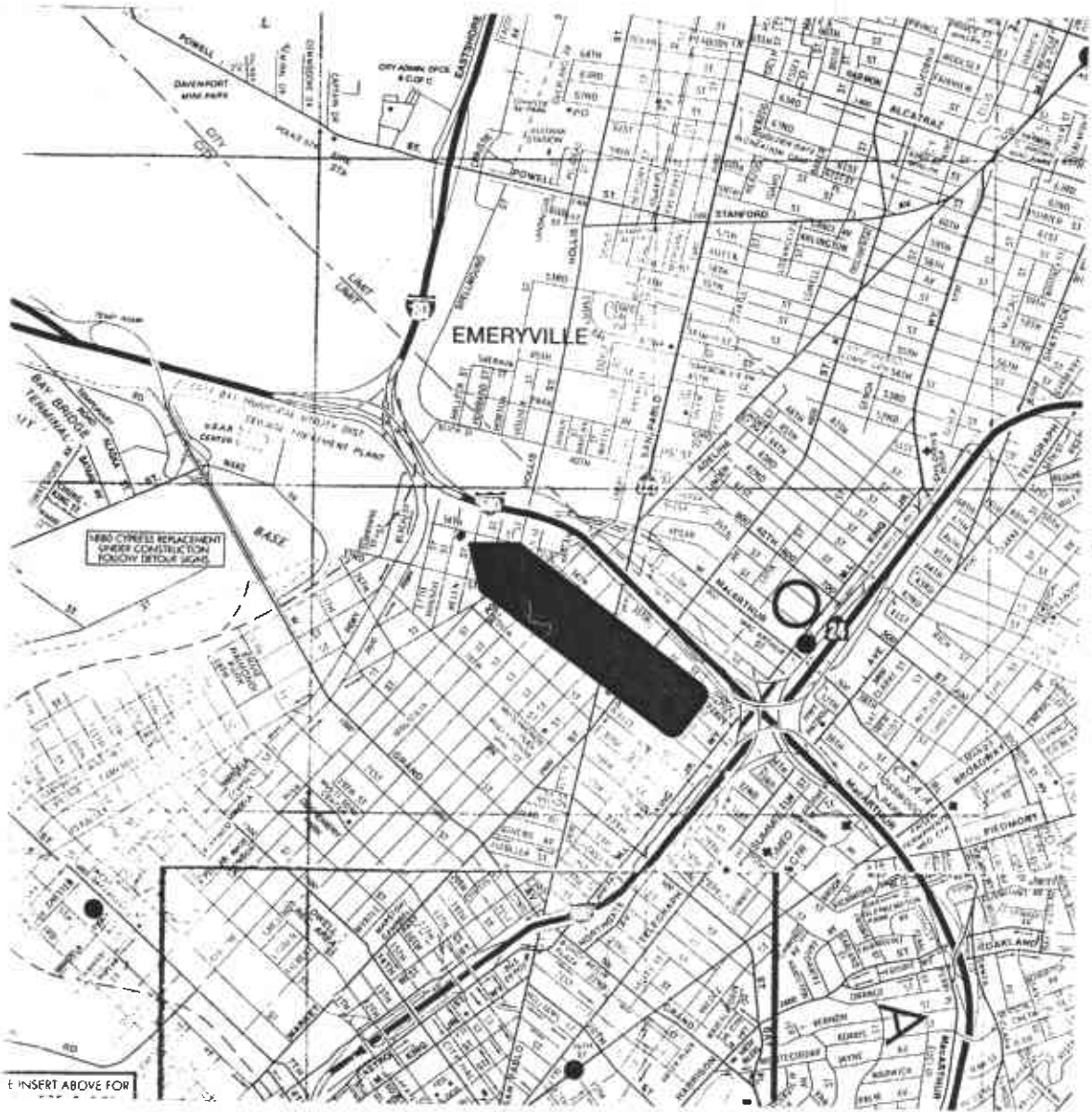
building. If so, the shallow soil sample SB-2, located southwest of SB-4 may indicate that soil contamination does not extend more than 35 feet west of soil sample SB-4.

Elevated concentrations of TPH-mo was detected in the groundwater samples from borings SP-1 and SP-2 located north and west of the waste percolation well. However, the groundwater samples SB-2 and SB-3, in which TPH-mo concentrations were not detected, indicate that groundwater contamination associated with the southeast source does not extend more than roughly 10 to 20 feet north of locations SP-1 and SP-2.

The soil in boring SP-3 below 7 feet bgs was described as stained green with a hydrocarbon odor. Also, the analytical result of 5,780,000 µg/L TPH-mo indicated that separate-phase oil was included in the groundwater sample. Therefore, free-floating oil and groundwater contaminant (TPH-mo and VOCs) plume extends to the southern wall of the building. ~~The horizontal extent of floating oil and groundwater contamination to the south and east has not been delineated.~~

Limitations

This report has been prepared by ERAS according to the State and local agency suggested guidance documents for these investigations and in general accordance with the accepted standard of practice which exists in Northern California at the time the investigation was performed. The interpretations, conclusions and recommendations made herein are based upon the data and analysis for the soil and water samples collected on-site. ERAS is not responsible for errors in laboratory analysis and reporting, or for information withheld during the course of the study. The purpose of this study is to screen for the presence of contamination that may affect the use or value of the Property. As such, the evaluation of the geologic and environmental conditions on this site are made with very limited data. Judgements leading to conclusions are generally made with an incomplete knowledge of the conditions present. Additional conditions and materials could exist at the site that were not encountered during this investigation. No warranty or guarantee is expressed or implied therein.



Base Map: AAA Street Map Oakland, CA

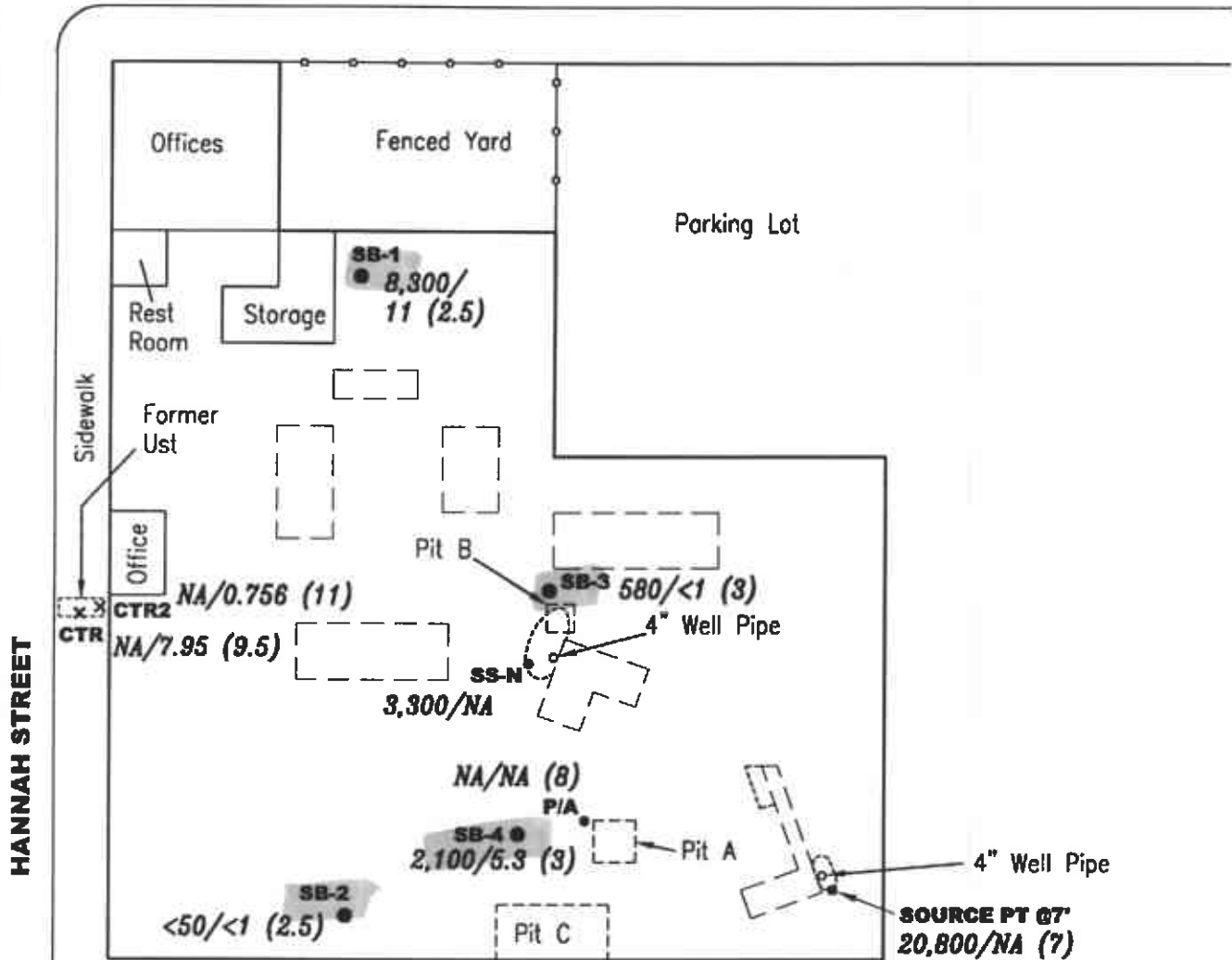
SITE LOCATION MAP

DATE
10/02
REVIEWED BY
DS

FORMER PRECISION CAST
1549 32nd Street
Oakland, California

JOB NUMBER
02-006-01
FIGURE
1

32ND STREET

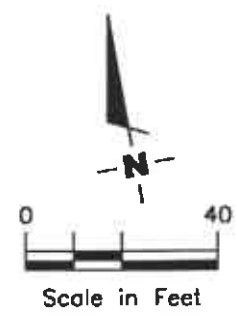


HANNAH STREET

EXPLANATION

- UG Vaults (Filled & Capped)
 - Excavations
 - Concrete Lined Pit
 - Soil Sample by Enrest
 - Soil Boring ERAS Environmental
 - Soil Sample GGTR
- 500** Concentrations of TRPH or TPH-mo/
TPH-g (depth bgs) in mg/Kg
- NA** Not analyzed

Outside Yard



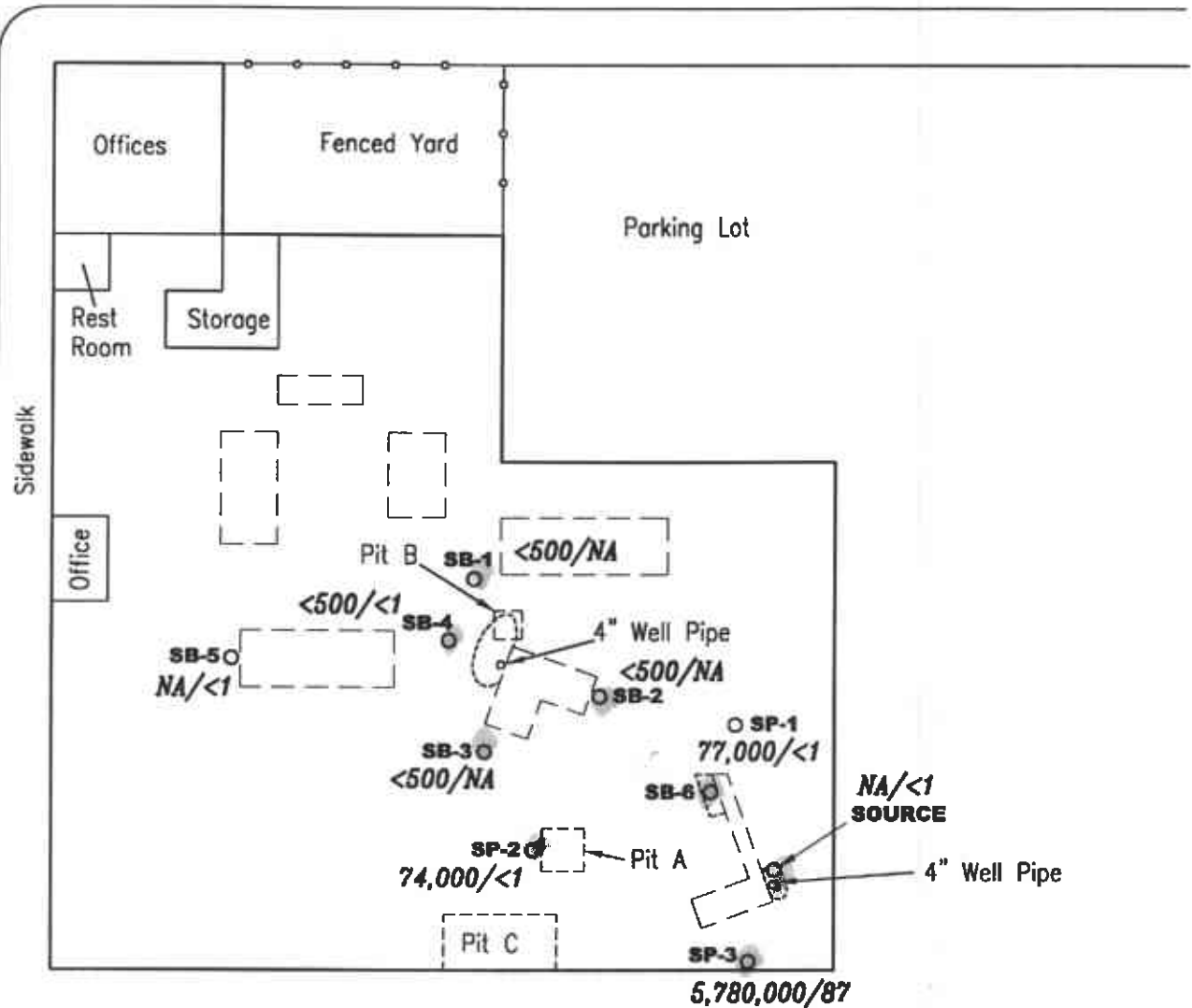
Base Map: Enrest, Fig. 2, dated 5/22/02

SOIL SAMPLE ANALYTICAL RESULTS

DATE 10/02 REVIEWED BY DS	FORMER PRECISION CAST 1549 32nd Street Oakland, California	JOB NUMBER 02-006-01 FIGURE 2
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32ND STREET

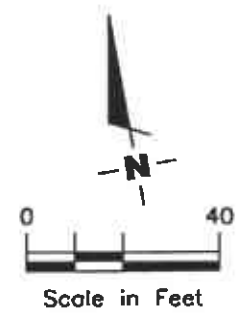
HANNAH STREET



EXPLANATION

- UG Vaults (Filled & Capped)
- Excavations
- Concrete Lined Pit
- ~~Groundwater Sample by Ernest~~
- 500** Concentrations of TPH-mo/
benzene in ug/L
- NA** Not analyzed

Outside Yard



Base Map: Ernest, Fig. 2, dated 5/22/02

GROUNDWATER SAMPLE ANALYTICAL RESULTS

DATE
10/02
REVIEWED BY
DS

FORMER PRECISION CAST
1549 32nd Street
Oakland, California

JOB NUMBER
02-006-01
FIGURE
3

Appendix A

Fire Department File Review Information

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
ENVIRONMENTAL HEALTH LABORATORY

ANALYTICAL REQUEST

Laboratory No. 92-049

Sample Identification Precision Casting, 1549 32nd.

Analyses Requested by: Brian Oliva

Date Collected: 4/27/92 (2:45pm)

Collected by: Brian Oliva

Date Received: 4/28/92

Received by: Darcy Wong

Analyses Requested Heavy Metals: Ni, Cu, Cr, Cd, Mo, Zn, Pb.

Background Information 1 sample labeled: 42792BPO-1, containing approximately 100ml of a water/soil mixture.

ANALYTICAL RESULTS

Parameter		Observation or Result
<u>Sample#</u>	<u>Lab#</u>	See attached sheet for results.
42792BPO-1	92-049	

Conclusions: Sample# 42792BPO-1 is well below the TTC limits for the metals analyzed in the sample.

Date Analyses Completed: 5/5/92

Chemist: N. Leung

Approved: [Signature]

Distribution: Brian Oliva, Rafat Shahid, Tak Shirasawa.

ANALYTICAL RESULTS

CAM METALS

Lab No.: 92-049		STLC	TFLC
Sample I.D.: 42792BPO-1		mg/L	mg/kg wet wt.
Parameter	92-049	Concentration in ppm (TFLC)	
Antimony		15	500
Arsenic		5.0	500
Barium		100	10,000
Beryllium		0.75	75
Cadmium	0.5	1.0	100
Chromium VI		5	500
Chromium	8.3	500	2,500
Cobalt		80	8,000
Copper	33	25	2,500
Lead	8	5.0	1,000
Mercury		0.2	20
Molybdenum	10	550	3,500
Nickel	13.5	20	2,000
Selenium		1.0	100
Silver		5	500
Thallium		7.0	700
Vanadium		24	2,400
Zinc	27	250	5,000

Note: Since the STLC limits are based on an extract of 50g. diluted to 500ml. the total metal concentration must exceed ten times the STLC limit before the extract need be analyzed.

PCC Property Contamination Control, Inc.

2220 LIVINGSTON STREET, SUITE 208

OAKLAND, CALIFORNIA 94606

(415) 532-2442

Precision Cast Products, Inc.
P.O. Box 23884
Oakland, CA. 94623

Mr. Donald L. Torkington

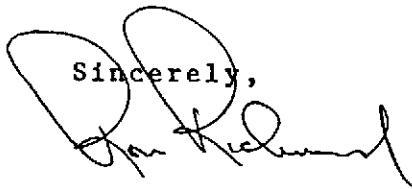
Dear Mr. Torkington;

Attached you will find Bore log details with soils data and analytical results from the sampling at 2868 Hannah St. Oakland, CA.

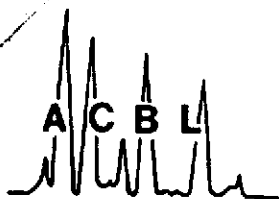
Of the many properties we have tested in West Oakland the Hannah St. property is one of the cleanest we have tested. As tested your results are well below Federal and State action levels for soil. The results are also below State of California Total Threshold Limit Concentrations for those compounds tested.

The 1985 cleanup addressed a surface soil contamination problem. We have not reviewed the 1985 final analytical result, however our testing has confirmed the validity of the States final letter which indicates that no further remediation is required on the property.

Sincerely,



Ron Richmond
Property Contamination Control, Inc.



ALPHA CHEMICAL & BIOMEDICAL LABORATORIES

Joe E. Hodgkins, Ph.D.
Director

December 2, 1988

PROPERTY CONTAMINATION CONTROL
Attn: Ron Richmond
2220 Livingston Street - Suite #208
Oakland, CA 94606

REPORT
RE: PRECISION CAST PRODUCTS

Sample Identification:

Project : Precision Cast Products, Hannah Street,
Oakland, CA.
ACBL Sample # 6135 : Soil sample B-1, 5'.
6136 : Soil sample B-1, 10'.
6137 : Soil sample B-2, 5'.
6138 : Soil sample B-2, 10'.
6139 : Soil sample B-3, 5'.
6140 : Soil sample B-3, 10'.
6141 : Soil sample B-4, 5'.
6142 : Soil sample B-4, 10'.

Date Sampled : 11/17/88, by Aqua Science Engineers.

Received in Lab : 11/18/88, 4:55 pm.

Analysis:

Alcohol Scan by GC, modified EPA Method 8015, 11/29-30/88.
California Total Toxic Metals (TTLC) digestion with scan by ICP,
EPA Method 6010, 11/28-29/88.
Halogenated Volatile Organics, EPA Method 8010, 12/1/88.
Aromatic Volatile Organics, EPA Method 8020, 12/1/88.

Results:

<u>ACBL Sample No.</u>	<u>Alcohol Scan, mg/kg</u>	<u>Detection Limit, mg/kg</u>
6135	Methanol = ND	0.55
	Ethanol = ND	0.73
	Isopropanol = ND	0.40
6136	Methanol = 1.20	0.55
	Ethanol = ND	0.73
	Isopropanol = ND	0.40
6137	Methanol = 0.79	0.55
	Ethanol = ND	0.73
	Isopropanol = ND	0.40
6138	Methanol = 0.92	0.55
	Ethanol = 0.78	0.73
	Isopropanol = ND	0.40
6139	Methanol = 0.95	0.55
	Ethanol = ND	0.73
	Isopropanol = ND	0.40
6140	Methanol = 0.68	0.55
	Ethanol = ND	0.73
	Isopropanol = ND	0.40
6141	Methanol = ND	0.55
	Ethanol = ND	0.73
	Isopropanol = ND	0.40
6142	Methanol = ND	0.55
	Ethanol = ND	0.73
	Isopropanol = ND	0.40

Property Contamination Control, Inc.
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ACBL Sample # 6136

Metal scan by ICP, EPA Method 6010.

<u>Metal</u>	<u>----Results, mg/kg----</u> <u># 6136</u>	<u>CA TTLC</u> <u>mg/kg</u>	<u>Detection Limit</u> <u>mg/kg</u>
Ag	0.27 #	500	0.19
As	ND	500	3.9
Ba	139	10,000	0.19
Be	0.65	75	0.19
Cd	3.53	100	0.098
Co	7.86	8,000	0.39
Cr	35.2	2,500	0.39
Cu	27.1	2,500	0.19
Fe	27,000		0.98
Hg	ND	20	0.98
Mn	328		0.098
Mo	ND	3,500	0.39
Ni	66.1	2,000	0.98
Pb	1.4 #	1,000	0.98
Sb	ND	500	9.8
Se	ND	100	3.9
Tl	ND	700	3.9
V	19.9	2,400	0.39
Zn	45.1	5,000	0.19

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RE: Precision Cast Products
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ACBL Sample # 6138

Metal scan by ICP, EPA Method 6010.

<u>Metal</u>	<u>-----Results, mg/kg----- # 6138</u>	<u>CA TTLC mg/kg</u>	<u>Detection Limit mg/kg</u>
Ag	ND	500	0.20
As	ND	500	3.9
Ba	108	10,000	0.20
Be	0.62 #	75	0.20
Cd	4.42	100	0.099
Co	10.1	8,000	0.39
Cr	36.0	2,500	0.39
Cu	27.8	2,500	0.20
Fe	28,000		0.99
Hg	ND	20	0.99
Mn	398		0.099
Mo	1.0 #	3,500	0.39
Ni	56.0	2,000	0.99
Pb	4.9	1,000	0.99
Sb	ND	500	9.9
Se	ND	100	3.9
Tl	ND	700	3.9
V	30.9	2,400	0.39
Zn	53.3	5,000	0.20

Property Contamination Control, Inc.
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ACBL Sample # 6140

Metal scan by ICP, EPA Method 6010.

<u>Metal</u>	<u>----Results, mg/kg----</u> <u># 6140</u>	<u>CA TTLC</u> <u>mg/kg</u>	<u>Detection Limit</u> <u>mg/kg</u>
Ag	0.23 #	500	0.19
As	4.0 #	500	3.9
Ba	92.7	10,000	0.19
Be	0.66	75	0.19
Cd	4.63	100	0.097
Co	8.86	8,000	0.39
Cr	36.6	2,500	0.39
Cu	27.2	2,500	0.19
Fe	23,900		0.97
Hg	ND	20	0.97
Mn	383		0.097
Mo	0.72 #	3,500	0.39
Ni	57.5	2,000	0.97
Pb	5.9	1,000	0.97
Sb	ND	500	9.7
Se	ND	100	3.9
Tl	ND	700	3.9
V	36.6	2,400	0.39
Zn	49.2	5,000	0.19

Property Contamination Control, Inc.
 RE: Precision Cast Products
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ACBL Sample # 6142

Metal scan by ICP, EPA Method 6010.

<u>Metal</u>	<u>----Results, mg/kg----</u> <u># 6142</u>	<u>CA TTLC</u> <u>mg/kg</u>	<u>Detection Limit</u> <u>mg/kg</u>
Ag	0.21 #	500	0.20
As	ND	500	3.9
Ba	92.7	10,000	0.20
Be	0.55 #	75	0.20
Cd	3.91	100	0.098
Co	7.70	8,000	0.39
Cr	33.4	2,500	0.39
Cu	22.5	2,500	0.20
Fe	20,100		0.98
Hg	ND	20	0.98
Mn	278		0.098
Mo	0.85 #	3,500	0.39
Ni	47.1	2,000	0.98
Pb	ND	1,000	0.98
Sb	ND	500	9.8
Se	ND	100	3.9
Tl	ND	700	3.9
V	27.3	2,400	0.39
Zn	43.7	5,000	0.20

TTLC = Total Threshold Limit Concentration.

ND = None Detected

= Detected below accurate method quantitation limit
 (below 3.3x Detection limit).

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Halogenated Volatile Organics, EPA Method 8010.

ACBL Sample No. 6135

B-1 S'

<u>Compound</u>	<u>----Results, ug/kg----</u> <u># 6135</u>	<u>Detection</u> <u>Limit, ug/kg</u>
Dichlorodifluoromethane	ND	5.0
Chloromethane	ND	5.0
Vinyl Chloride	ND	5.0
Bromomethane	ND	5.0
Chloroethane	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
Chloroform	ND	5.0
1,1,1-Trichloroethane (TCA)	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Trichloroethene (TCE)	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
2-Chloroethylvinyl ether	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
Chlorobenzene	ND	5.0
Bromoform	ND	5.0
1,1,2,2,-Tetrachloroethane	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0

Property Contamination Control, Inc.
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Halogenated Volatile Organics, EPA Method 8010.

ACBL Sample No. 6136

B-1 10'

<u>Compound</u>	<u>----Results, ug/kg----</u> <u># 6136</u>	<u>Detection</u> <u>Limit, ug/kg</u>
Dichlorodifluoromethane	ND	5.0
Chloromethane	ND	5.0
Vinyl Chloride	ND	5.0
Bromomethane	ND	5.0
Chloroethane	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
Chloroform	ND	5.0
1,1,1-Trichloroethane (TCA)	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Trichloroethene (TCE)	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
2-Chloroethylvinyl ether	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
Chlorobenzene	ND	5.0
Bromoform	ND	5.0
1,1,2,2,-Tetrachloroethane	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0

Property Contamination Control, Inc.
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Halogenated Volatile Organics, EPA Method 8010.

ACBL Sample No. 6137

B-25'

<u>Compound</u>	<u>----Results, ug/kg----</u> <u># 6137</u>	<u>Detection</u> <u>Limit, ug/kg</u>
Dichlorodifluoromethane	ND	5.0
Chloromethane	ND	5.0
Vinyl Chloride	ND	5.0
Bromomethane	ND	5.0
Chloroethane	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
Chloroform	ND	5.0
1,1,1-Trichloroethane (TCA)	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Trichloroethene (TCE)	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
2-Chloroethylvinyl ether	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
Chlorobenzene	ND	5.0
Bromoform	ND	5.0
1,1,2,2,-Tetrachloroethane	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0

Property Contamination Control, Inc.
 RE: Precision Cast Products
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Halogenated Volatile Organics, EPA Method 8010.

ACBL Sample No. 6138

B-2 10'

<u>Compound</u>	<u>----Results, ug/kg----</u> <u># 6138</u>	<u>Detection</u> <u>Limit, ug/kg</u>
Dichlorodifluoromethane	ND	5.0
Chloromethane	ND	5.0
Vinyl Chloride	ND	5.0
Bromomethane	ND	5.0
Chloroethane	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	21.6	5.0
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
Chloroform	ND	5.0
1,1,1-Trichloroethane (TCA)	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Trichloroethene (TCE)	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
2-Chloroethylvinyl ether	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
Chlorobenzene	ND	5.0
Bromoform	ND	5.0
1,1,2,2,-Tetrachloroethane	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0

Property Contamination Control, Inc.
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Halogenated Volatile Organics, EPA Method 8010.

ACBL Sample No. 6139

B-3 S'

<u>Compound</u>	<u>----Results, ug/kg----</u> <u># 6139</u>	<u>Detection</u> <u>Limit, ug/kg</u>
Dichlorodifluoromethane	ND	5.0
Chloromethane	ND	5.0
Vinyl Chloride	ND	5.0
Bromomethane	ND	5.0
Chloroethane	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	7.6	5.0
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
Chloroform	ND	5.0
1,1,1-Trichloroethane (TCA)	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Trichloroethene (TCE)	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
2-Chloroethylvinyl ether	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
Chlorobenzene	ND	5.0
Bromoform	ND	5.0
1,1,2,2,-Tetrachloroethane	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0

Property Contamination Control, Inc.
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Halogenated Volatile Organics, EPA Method 8010.

ACBL Sample No. 6140

B-3 10'

<u>Compound</u>	<u>----Results, ug/kg----</u> <u># 6140</u>	<u>Detection</u> <u>Limit, ug/kg</u>
Dichlorodifluoromethane	ND	5.0
Chloromethane	ND	5.0
Vinyl Chloride	ND	5.0
Bromomethane	ND	5.0
Chloroethane	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	22.5	5.0
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
Chloroform	ND	5.0
1,1,1-Trichloroethane (TCA)	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Trichloroethene (TCE)	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
2-Chloroethylvinyl ether	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
Chlorobenzene	ND	5.0
Bromoform	ND	5.0
1,1,2,2,-Tetrachloroethane	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0

Halogenated Volatile Organics, EPA Method 8010.

ACBL Sample No. 6141

B-4 S'

<u>Compound</u>	<u>----Results, ug/kg----</u> <u># 6141</u>	<u>Detection</u> <u>Limit, ug/kg</u>
Dichlorodifluoromethane	ND	5.0
Chloromethane	ND	5.0
Vinyl Chloride	ND	5.0
Bromomethane	ND	5.0
Chloroethane	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	90.9	5.0
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
Chloroform	11.8	5.0
1,1,1-Trichloroethane (TCA)	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Trichloroethene (TCE)	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
2-Chloroethylvinyl ether	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
Chlorobenzene	ND	5.0
Bromoform	ND	5.0
1,1,2,2,-Tetrachloroethane	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0

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Halogenated Volatile Organics, EPA Method 8010.

ACBL Sample No. 6142

B-4 10'

<u>Compound</u>	<u>----Results, ug/kg----</u> <u># 6142</u>	<u>Detection</u> <u>Limit, ug/kg</u>
Dichlorodifluoromethane	ND	5.0
Chloromethane	ND	5.0
Vinyl Chloride	ND	5.0
Bromomethane	ND	5.0
Chloroethane	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	184.9	5.0
Methylene Chloride	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
Chloroform	ND	5.0
1,1,1-Trichloroethane (TCA)	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Trichloroethene (TCE)	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
2-Chloroethylvinyl ether	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
Chlorobenzene	ND	5.0
Bromoform	ND	5.0
1,1,2,2,-Tetrachloroethane	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0

Property Contamination Control, Inc.
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Aromatic Volatile Organics, EPA Method 8020.

ACBL Sample No. 6135

B-1 S'

<u>Compound</u>	<u>----Results, ug/kg----</u> <u># 6135</u>	<u>Detection Limit</u> <u>ug/kg</u>
Benzene	ND	5.0
Chlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
Ethyl Benzene	ND	5.0
Toluene	ND	5.0
Xylenes	ND	5.0

Property Contamination Control, Inc.
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Aromatic Volatile Organics, EPA Method 8020.

ACBL Sample No. 6136

B-1 10'

<u>Compound</u>	<u>----Results, ug/kg----</u> <u># 6136</u>	<u>Detection Limit</u> <u>ug/kg</u>
Benzene	ND	5.0
Chlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
Ethyl Benzene	ND	5.0
Toluene	ND	5.0
Xylenes	ND	5.0

Property Contamination Control, Inc.
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Aromatic Volatile Organics, EPA Method 8020.

ACBL Sample No. 6137

B-2 ~~10~~ 5'

<u>Compound</u>	<u>-----Results, ug/kg----- # 6137</u>	<u>Detection Limit ug/kg</u>
Benzene	ND	5.0
Chlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
Ethyl Benzene	ND	5.0
Toluene	ND	5.0
Xylenes	ND	5.0

Property Contamination Control, Inc.
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Aromatic Volatile Organics, EPA Method 8020.

ACBL Sample No. 6138

B-2 S 10'

<u>Compound</u>	<u>-----Results, ug/kg----- # 6138</u>	<u>Detection Limit ug/kg</u>
Benzene	ND	5.0
Chlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
Ethyl Benzene	ND	5.0
Toluene	ND	5.0
Xylenes	ND	5.0

Property Contamination Control, Inc.
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Aromatic Volatile Organics, EPA Method 8020.

ACBL Sample No. 6139

B-3 S'

<u>Compound</u>	<u>-----Results, ug/kg----- # 6139</u>	<u>Detection Limit ug/kg</u>
Benzene	ND	5.0
Chlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
Ethyl Benzene	ND	5.0
Toluene	ND	5.0
Xylenes	ND	5.0

Property Contamination Control, Inc.
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Aromatic Volatile Organics, EPA Method 8020.

ACBL Sample No. 6140

B-3 10'

<u>Compound</u>	<u>----Results, ug/kg----</u> <u># 6140</u>	<u>Detection Limit</u> <u>ug/kg</u>
Benzene	ND	5.0
Chlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
Ethyl Benzene	ND	5.0
Toluene	ND	5.0
Xylenes	ND	5.0

erty Contamination Control, Inc.

Precision Cast Products

September 2, 1988

Page 21

Aromatic Volatile Organics, EPA Method 8020.

ACBL Sample No. 6141

B-4 S'

<u>Compound</u>	<u>-----Results, ug/kg----- # 6141</u>	<u>Detection Limit ug/kg</u>
Benzene	ND	5.0
Chlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
Ethyl Benzene	ND	5.0
Toluene	ND	5.0
Xylenes	ND	5.0

Property Contamination Control, Inc.
RE: Precision Cast Products
December 2, 1988
Page 22

Aromatic Volatile Organics, EPA Method 8020.

ACBL Sample No. 6142 *B-4 10'*

<u>Compound</u>	<u>-----Results, ug/kg----- # 6142</u>	<u>Detection Limit ug/kg</u>
Benzene	ND	5.0
Chlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
Ethyl Benzene	ND	5.0
Toluene	ND	5.0
Xylenes	ND	5.0

Joe E. Hodgkins
Joe E. Hodgkins, Ph.D., C.T.
Laboratory Director

Appendix B

ERAS Investigation Laboratory Analytical Reports



Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (925) 988-9673
www.sequoialabs.com

17 April, 2002

David Siegel
ERAS Environmental, Inc.
20861 Wilbeam Ave. #4
Castro Valley, CA 94546

RE: All Projects
Sequoia Report: W203490

Enclosed are the results of analyses for samples received by the laboratory on 28-Mar-02 16:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Dimple Sharma
Project Manager

CA ELAP Certificate #1271





ERAS Environmental, Inc.
20861 Wilbeam Ave. #4
Castro Valley CA, 94546

Project: All Projects
Project Number: 1549 32ND St., Oakland
Project Manager: David Siegel

Reported:
17-Apr-02 07:30

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-1-2.5	W203490-01	Soil	27-Mar-02 08:40	28-Mar-02 16:30
SB-2-2.5	W203490-02	Soil	27-Mar-02 09:15	28-Mar-02 16:30
SB-3-3	W203490-03	Soil	27-Mar-02 10:25	28-Mar-02 16:30
SB-4-3	W203490-04	Soil	27-Mar-02 09:50	28-Mar-02 16:30

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Dimple Sharma, Project Manager





ERAS Environmental, Inc.
20861 Wilbeam Ave. #4
Castro Valley CA, 94546

Project: All Projects
Project Number: 1549 32ND St., Oakland
Project Manager: David Siegel

Reported:
17-Apr-02 07:30

BTEX by DHS LUFT Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-1-2.5 (W203490-01) Soil Sampled: 27-Mar-02 08:40 Received: 28-Mar-02 16:30									
Purgeable Hydrocarbons (C6-C12)	11	1.0	mg/kg	20	2D05004	05-Apr-02	06-Apr-02	DHS LUFT	HC-12
Benzene	0.053	0.0050	"	"	"	"	"	"	"
Toluene	0.065	0.0050	"	"	"	"	"	"	"
Ethylbenzene	0.046	0.0050	"	"	"	"	"	"	"
Xylenes (total)	0.17	0.0050	"	"	"	"	"	"	"
Surrogate: a,a,a-Trifluorotoluene		89 %	40-140		"	"	"	"	"
SB-2-2.5 (W203490-02) Soil Sampled: 27-Mar-02 09:15 Received: 28-Mar-02 16:30									
Purgeable Hydrocarbons (C6-C12)	ND	1.0	mg/kg	20	2D05004	05-Apr-02	06-Apr-02	DHS LUFT	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.010	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		89 %	40-140		"	"	"	"	
SB-3-3 (W203490-03) Soil Sampled: 27-Mar-02 10:25 Received: 28-Mar-02 16:30									
Purgeable Hydrocarbons (C6-C12)	ND	1.0	mg/kg	20	2D05004	05-Apr-02	06-Apr-02	DHS LUFT	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		102 %	40-140		"	"	"	"	
SB-4-3 (W203490-04) Soil Sampled: 27-Mar-02 09:50 Received: 28-Mar-02 16:30									
Purgeable Hydrocarbons (C6-C12)	5.3	1.0	mg/kg	20	2D05004	05-Apr-02	06-Apr-02	DHS LUFT	HC-12
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	0.0071	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.020	0.0050	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		98 %	40-140		"	"	"	"	





ERAS Environmental, Inc.
20861 Wilbeam Ave. #4
Castro Valley CA, 94546

Project: All Projects
Project Number: 1549 32ND St., Oakland
Project Manager: David Siegel

Reported:
17-Apr-02 07:30

**Total Metals by EPA 6000/7000 Series Methods
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-1-2.5 (W203490-01) Soil Sampled: 27-Mar-02 08:40 Received: 28-Mar-02 16:30									
Chromium	32	0.50	mg/kg	1	2D03007	03-Apr-02	12-Apr-02	EPA 6010B	
Copper	20	0.50	"	"	"	"	"	"	
Manganese	130	0.25	"	"	"	"	"	"	
Nickel	25	1.0	"	"	"	"	"	"	
SB-2-2.5 (W203490-02) Soil Sampled: 27-Mar-02 09:15 Received: 28-Mar-02 16:30									
Chromium	23	0.50	mg/kg	1	2D03007	03-Apr-02	12-Apr-02	EPA 6010B	
Copper	17	0.50	"	"	"	"	"	"	
Manganese	1700	0.25	"	"	"	"	"	"	
Nickel	21	1.0	"	"	"	"	"	"	
SB-3-3 (W203490-03) Soil Sampled: 27-Mar-02 10:25 Received: 28-Mar-02 16:30									
Chromium	28	0.50	mg/kg	1	2D03007	03-Apr-02	12-Apr-02	EPA 6010B	
Copper	17	0.50	"	"	"	"	"	"	
Manganese	120	0.25	"	"	"	"	"	"	
Nickel	28	1.0	"	"	"	"	"	"	
SB-4-3 (W203490-04) Soil Sampled: 27-Mar-02 09:50 Received: 28-Mar-02 16:30									
Chromium	24	0.50	mg/kg	1	2D03007	03-Apr-02	12-Apr-02	EPA 6010B	
Copper	14	0.50	"	"	"	"	"	"	
Manganese	120	0.25	"	"	"	"	"	"	
Nickel	25	1.0	"	"	"	"	"	"	





ERAS Environmental, Inc.
20861 Wilbeam Ave. #4
Castro Valley CA, 94546

Project: All Projects
Project Number: 1549 32ND St., Oakland
Project Manager: David Siegel

Reported:
17-Apr-02 07:30

**Conventional Chemistry Parameters by APHA/EPA Methods
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-1-2.5 (W203490-01) Soil	Sampled: 27-Mar-02 08:40		Received: 28-Mar-02 16:30						
TRPH	8300	1000	mg/kg	20	2D05009	11-Apr-02	11-Apr-02	EPA 418.1	
SB-2-2.5 (W203490-02) Soil	Sampled: 27-Mar-02 09:15		Received: 28-Mar-02 16:30						
TRPH	ND	50	mg/kg	1	2D05009	11-Apr-02	11-Apr-02	EPA 418.1	
SB-3-3 (W203490-03) Soil	Sampled: 27-Mar-02 10:25		Received: 28-Mar-02 16:30						
TRPH	580	50	mg/kg	1	2D05009	11-Apr-02	11-Apr-02	EPA 418.1	
SB-4-3 (W203490-04) Soil	Sampled: 27-Mar-02 09:50		Received: 28-Mar-02 16:30						
TRPH	2100	100	mg/kg	2	2D05009	11-Apr-02	11-Apr-02	EPA 418.1	





ERAS Environmental, Inc.
20861 Wilbeam Ave. #4
Castro Valley CA, 94546

Project: All Projects
Project Number: 1549 32ND St., Oakland
Project Manager: David Siegel

Reported:
17-Apr-02 07:30

BTEX by DHS LUFT - Quality Control
Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2D05004 - EPA 5030B MeOH

Blank (2D05004-BLK1)

Prepared: 05-Apr-02 Analyzed: 06-Apr-02

Benzene	ND	0.0050	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Surrogate: a,a,a-Trifluorotoluene	0.592		"	0.600		99	40-140			

LCS (2D05004-BS1)

Prepared: 05-Apr-02 Analyzed: 06-Apr-02

Benzene	0.498	0.0050	mg/kg	0.800		62	50-150			
Toluene	0.490	0.0050	"	0.800		61	50-150			
Ethylbenzene	0.494	0.0050	"	0.800		62	50-150			
Xylenes (total)	1.54	0.0050	"	2.40		64	50-150			
Surrogate: a,a,a-Trifluorotoluene	0.732		"	0.600		122	40-140			

Matrix Spike (2D05004-MS1)

Source: W203490-03

Prepared: 05-Apr-02 Analyzed: 08-Apr-02

Benzene	0.548	0.0050	mg/kg	0.800	ND	68	50-150			
Toluene	0.550	0.0050	"	0.800	ND	69	50-150			
Ethylbenzene	0.554	0.0050	"	0.800	ND	69	50-150			
Xylenes (total)	1.72	0.0050	"	2.40	ND	72	50-150			
Surrogate: a,a,a-Trifluorotoluene	0.628		"	0.600		105	40-140			

Matrix Spike Dup (2D05004-MSD1)

Source: W203490-03

Prepared: 05-Apr-02 Analyzed: 08-Apr-02

Benzene	0.564	0.0050	mg/kg	0.800	ND	70	50-150	3	20	
Toluene	0.568	0.0050	"	0.800	ND	71	50-150	3	20	
Ethylbenzene	0.576	0.0050	"	0.800	ND	72	50-150	4	20	
Xylenes (total)	1.77	0.0050	"	2.40	ND	74	50-150	3	20	
Surrogate: a,a,a-Trifluorotoluene	0.646		"	0.600		108	40-140			





ERAS Environmental, Inc.
20861 Wilbeam Ave. #4
Castro Valley CA, 94546

Project: All Projects
Project Number: 1549 32ND St., Oakland
Project Manager: David Siegel

Reported:
17-Apr-02 07:30

Total Metals by EPA 6000/7000 Series Methods - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2D03007 - EPA 3050B

Blank (2D03007-BLK2)

Prepared: 05-Apr-02 Analyzed: 12-Apr-02

Chromium	ND	0.50	mg/kg							
Copper	ND	0.50	"							
Manganese	ND	0.25	"							
Nickel	ND	1.0	"							

LCS (2D03007-BS2)

Prepared: 05-Apr-02 Analyzed: 12-Apr-02

Chromium	50.4	0.50	mg/kg	50.0		101	80-120			
Copper	48.3	0.50	"	50.0		97	80-120			
Manganese	49.8	0.25	"	50.0		100	80-120			
Nickel	51.1	1.0	"	50.0		102	80-120			

LCS Dup (2D03007-BSD2)

Prepared: 05-Apr-02 Analyzed: 12-Apr-02

Chromium	49.7	0.50	mg/kg	50.0		99	80-120	1	20	
Copper	47.5	0.50	"	50.0		95	80-120	2	20	
Manganese	49.1	0.25	"	50.0		98	80-120	1	20	
Nickel	50.9	1.0	"	50.0		102	80-120	0.4	20	

Matrix Spike (2D03007-MS1)

Source: W203490-04

Prepared: 03-Apr-02 Analyzed: 07-Apr-02

Chromium	77.6	0.50	mg/kg	50.0	24	107	80-120			
Copper	60.0	0.50	"	50.0	14	92	80-120			
Manganese	215	0.25	"	50.0	120	190	80-120			QM-07
Nickel	75.0	1.0	"	50.0	25	100	80-120			

Matrix Spike Dup (2D03007-MSD1)

Source: W203490-04

Prepared: 03-Apr-02 Analyzed: 07-Apr-02

Chromium	75.0	0.50	mg/kg	50.0	24	102	80-120	3	20	
Copper	60.0	0.50	"	50.0	14	92	80-120	0	20	
Manganese	390	0.25	"	50.0	120	540	80-120	58	20	QM-07
Nickel	80.0	1.0	"	50.0	25	110	80-120	6	20	





ERAS Environmental, Inc.
20861 Wilbeam Ave. #4
Castro Valley CA, 94546

Project: All Projects
Project Number: 1549 32ND St., Oakland
Project Manager: David Siegel

Reported:
17-Apr-02 07:30

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2D05009 - EPA 3550A Sonicate										
Blank (2D05009-BLK1)				Prepared & Analyzed: 05-Apr-02						
TRPH	ND	50	mg/kg							
Blank (2D05009-BLK2)				Prepared & Analyzed: 11-Apr-02						
TRPH	ND	50	mg/kg							
LCS (2D05009-BS1)				Prepared & Analyzed: 05-Apr-02						
TRPH	492	50	mg/kg	500		98	70-130			
LCS (2D05009-BS2)				Prepared & Analyzed: 11-Apr-02						
TRPH	485	50	mg/kg	500		97	70-130			
LCS Dup (2D05009-BSD1)				Prepared & Analyzed: 05-Apr-02						
TRPH	492	50	mg/kg	500		98	70-130	0	30	
Matrix Spike (2D05009-MS1)				Source: W203485-04		Prepared & Analyzed: 05-Apr-02				
TRPH	1090	50	mg/kg	500	280	162	60-140			QM-06
Matrix Spike Dup (2D05009-MSD1)				Source: W203485-04		Prepared & Analyzed: 05-Apr-02				
TRPH	1050	50	mg/kg	500	280	154	60-140	4	30	QM-06





ERAS Environmental, Inc.
20861 Wilbeam Ave. #4
Castro Valley CA, 94546

Project: All Projects
Project Number: 1549 32ND St., Oakland
Project Manager: David Siegel

Reported:
17-Apr-02 07:30

Notes and Definitions

- HC-12 Hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel.
- QM-06 Due to noted non-homogeneity of the QC sample matrix, the MS/MSD did not provide reliable results for accuracy and precision. Sample results for the QC batch were accepted based on LCS/LCSD percent recoveries and RPD values.
- QM-07 The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference





SEQUOIA ANALYTICAL CHAIN OF CUSTODY

- 865 Jarvis Drive • Morgan Hill, CA 95037 • (408) 776-9600 • FAX (408) 782-6308
- 1455 McDowell Blvd, Suite D. • Petaluma, CA 94954 • (707) 792-1865 • FAX (707) 792-0342
- 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 • FAX (916) 921-0100
- 1551 Industrial Road • San Carlos, CA 94070 • (650) 232-9600 • FAX (650) 232-9612
- 404 N. Wiget Lane • Walnut Creek, CA 94598 • (925) 988-9600 • FAX (925) 988-9673

Company Name: ELAS Environmental, Inc. Project: 154A 32nd Street, Oakland
 Mailing Address: 20861 Wilblom Avenue, #4 Billing Address (if different):
 City: Castro Valley State: CA Zip Code: 94546
 Telephone: 510 241-9885 Fax #: 510 886-5399 P.O. #:
 Report To: David Siegel E-mail Address: elas1@mindspring.com QC Data: Level II (standard) Level III Level IV
 Sampler: Skip McIntosh Date / Time Results Required: Sequoia's Work Order # W203490

Turnaround Time: 10-15 Working Days (Standard TAT)
 7 Working Days
 5 Working Days

72 Hours
 48 Hours
 24 Hours
 2-8 Hours

- MANDATORY:**
- SDWA (Drinking Water)
 - CWA (Waste Water)
 - RCRA (Hazardous Waste)
 - Other

ANALYSES REQUESTED (Please provide method)

Client Sample I.D.	Date / Time Sampled	Matrix Desc.	# of Cont.	Container Type	Sequoia's Sample #	ANALYSES REQUESTED (Please provide method)						Comments/ Temp. (If required)
						Total Chromium	Total Copper	Total Manganese	Total Nickel	TRPH	TRPH-1BTEX	
1. SB-1-2.5	3/27/02 9:40	Soil	1	brss	-01A	X	X	X	X	X	X	
2. SB-2-2.5	9:15		1	brss	-02A	X	X	X	X	X	X	
3. SB-3-3	10:25		1	brss	-03A	X	X	X	X	X	X	
SB-4-3	9:50		1	brss	-04A	X	X	X	X	X	X	
5.												
6.												
7.												
8.												
9.												
10.												

Relinquished By: [Signature] Received By: [Signature] Date / Time: 3/27/02 16:19
 Relinquished By: [Signature] Received By: [Signature] Date / Time: 3/28/02 11:25
 Relinquished By: [Signature] Received By: [Signature] Date / Time: 3/28
 Relinquished By: [Signature] Received By: [Signature] Date / Time: 3/28/02 16:30

Were Samples Received in Good Condition? Yes No Samples on Ice? Yes No Method of Shipment: Client Page 1 of 1

White: Sequoia

Yellow: Sequoia

Pink: Client

Appendix C

**Enrest April 26, 2002 Investigation Laboratory
Analytical Reports**



North State Environmental Laboratory

CA ELAP# 1753

90 South Spruce Avenue, Suite V • South San Francisco, CA 94080 • (650) 266-4563 • FAX (650) 266-4560

C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 02-0566
 Client: Env. Restoration Services
 Project:

Date Reported: 05/06/2002

Volatile Organic Hydrocarbons by Method 8260 GC/MS
 Motor Oil Range Organics by Method CATFH

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 02-0566-01 Client ID: SB-1				04/26/2002	W
Motor Oils	CATFH	ND<0.5	MG/L		04/30/2002
Sample: 02-0566-02 Client ID: SB-2				04/26/2002	W
Motor Oils	CATFH	ND<0.5	MG/L		04/30/2002
Sample: 02-0566-03 Client ID: SB-3				04/26/2002	W
Motor Oils	CATFH	ND<0.5	MG/L		04/30/2002
Sample: 02-0566-04 Client ID: SB-4				04/26/2002	W
Motor Oils	CATFH	ND<0.5	MG/L		
Sample: 02-0566-06 Client ID: SS-N				04/26/2002	SO
Motor Oils	CATFH	3300	MG/KG		05/01/2002



North State Environmental Laboratory

CA ELAP#1753

90 South Spruce Avenue, Suite V • South San Francisco, CA 94080 • (650) 266-4563 • FAX (650) 266-4560

C E R T I F I C A T E O F A N A L Y S I S

Quality Control/Quality Assurance

Lab Number: 02-0566
Client: Env. Restoration Services
Project:

Date Reported: 05/06/2002
Volatile Organic Hydrocarbons by Method 8260 GC/MS
Motor Oil Range Organics by Method CATFH

Analyte	Method	Reporting Limit	Unit	Blank	Avg MS/MSD Recovery	RPD
Motor Oils	CATFH	0.5	MG/L	ND	100/112	11
Motor Oils	CATFH	10	MG/KG	ND	66/80	19

ELAP Certificate NO:1753

Reviewed and Approved

John A. Murphy Laboratory Director



North State Environmental Laboratory

CA ELAP# 1753

90 South Spruce Avenue, Suite V • South San Francisco, CA 94080 • (650) 266-4563 • FAX (650) 266-4560

C E R T I F I C A T E O F A N A L Y S I S

Job Number: 02-0566
 Client : Env. Restoration Services
 Project :

Date Sampled : 04/26/2002
 Date Analyzed: 05/02/2002
 Date Reported: 05/06/2002

Volatile Organics by GC/MS Method 8260

Laboratory Number	02-0566-04	02-0566-05
Client ID	SB-4	SB-5
Matrix	W	W
Analyte	UG/L	UG/L
Bromochloromethane	ND<5	ND<5
Dichlorodifluoromethane	ND<5	ND<5
Chloromethane	ND<10	ND<10
Vinyl chloride	ND<5	ND<5
Bromomethane	ND<5	ND<5
Chloroethane	ND<5	ND<5
Trichlorofluoromethane	ND<5	ND<5
1,1-Dichloroethene	ND<1	ND<1
Acetone	ND<50	ND<50
Methylene chloride	ND<100	ND<100
trans-1,2-Dichloroethene	ND<1	ND<1
Methyl-tert-butyl ether	ND<1	ND<1
1,1-Dichloroethane	ND<1	ND<1
2,2-Dichloropropane	ND<1	ND<1
cis-1,2 Dichloroethene	ND<1	ND<1
2-Butanone	ND<10	ND<10
Chloroform	ND<1	15
Carbon tetrachloride	ND<1	ND<1
1,1-Dichloropropene	ND<1	ND<1
Benzene	ND<1	ND<1
1,2-Dichloroethane	ND<1	ND<1
Trichloroethene	ND<2	ND<2
1,2-Dichloropropane	ND<1	ND<1
Dibromomethane	ND<1	ND<1
Bromodichloromethane	ND<1	ND<1
trans-1,3-Dichloropropene	ND<1	ND<1
4-Methyl-2-pentanone	ND<10	ND<10
Toluene	ND<1	21
cis-1,3-Dichloropropene	ND<1	ND<1
1,1,2-trichloroethane	ND<1	ND<1
Tetrachloroethene	ND<1	ND<1
1,3-Dichloropropane	ND<1	ND<1
2-Hexanone	ND<10	ND<10
Dibromochloromethane	ND<1	ND<1
1,2-Dibromoethane	ND<1	ND<1



North State Environmental Laboratory

CA ELAP#1753

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C E R T I F I C A T E O F A N A L Y S I S

Job Number: 02-0566

Date Sampled : 04/26/2002

Client : Env. Restoration Services

Date Analyzed: 05/02/2002

Project :

Date Reported: 05/06/2002

Volatile Organics by GC/MS Method 8260

Laboratory Number	02-0566-04	02-0566-05
Client ID	SB-4	SB-5
Matrix	W	W
Analyte	UG/L	UG/L
Chlorobenzene	ND<2	ND<2
1,1,1,2-Tetrachloroethane	ND<1	ND<1
Ethylbenzene	ND<1	ND<1
Xylene, Isomers m & p	ND<2	2
o-Xylene	ND<1	ND<1
Styrene	ND<1	ND<1
Bromoform	ND<1	ND<1
Isopropylbenzene	ND<1	ND<1
Bromobenzene	ND<1	ND<1
1,1,1,2,2-Pentachloroethane	ND<1	ND<1
n-Propylbenzene	ND<1	ND<1
2-Chlorotoluene	ND<1	ND<1
4-Chlorotoluene	ND<1	ND<1
1,3,5-Trimethylbenzene	ND<1	ND<1
tert-Butylbenzene	ND<1	ND<1
1,2,4-Trimethylbenzene	ND<1	ND<1
1,3-Dichlorobenzene	ND<1	ND<1
1,4-Dichlorobenzene	ND<1	ND<1
sec-Butylbenzene	ND<1	ND<1
1,2-Dichlorobenzene	ND<1	ND<1
n-Butylbenzene	ND<1	ND<1
Naphthalene	ND<2	ND<2
1,2,4-Trichlorobenzene	ND<1	ND<1
Hexachlorobutadiene	ND<1	ND<1
1,2,3-Trichlorobenzene	ND<1	ND<1
1,2,3-Trichloropropane	ND<1	ND<1
Acetonitrile	ND<50	ND<50
Acrylonitrile	ND<50	ND<50
Isobutanol	ND<50	ND<50
1,1,1-Trichloroethane	ND<0.5	ND<0.5
SUR-Dibromofluoromethane	96	101
SUR-Toluene-d8	107	108
SUR-4-Bromofluorobenzene	111	112



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C E R T I F I C A T E O F A N A L Y S I S

Job Number: 02-0566
 Client : Env. Restoration Services
 Project :

Date Sampled : 04/26/2002
 Date Analyzed: 05/02/2002
 Date Reported: 05/06/2002

Volatile Organics by GC/MS Method 8260 Quality Control/Quality Assurance Summary

Laboratory Number	C2-0566	MS/MSD	RPD	Recovery	RPD
Client ID	Blank	Recovery		Limit	Limit
Matrix	W	W			
Analyte	Results UG/L	%Recoveries			
Bromochloromethane	ND<5				
Dichlorodifluoromethane	ND<5				
Chloromethane	ND<10				
Vinyl chloride	ND<1				
Bromomethane	ND<5				
Chloroethane	ND<5				
Trichlorofluoromethane	ND<5				
1,1-Dichloroethane	ND<1	72/70	3	61-121	25
Acetone	ND<50				
Methylene chloride	ND<50				
trans-1,2-Dichloroethane	ND<1				
Methyl-tert-butyl ether	ND<1				
1,1-Dichloroethane	ND<1				
2,2-Dichloropropane	ND<1				
cis-1,2-Dichloroethane	ND<1				
2-Butanone	ND<10				
Chloroform	ND<1				
Carbon tetrachloride	ND<1				
1,1-Dichloropropane	ND<1				
Benzene	ND<1	124/118	5	74-135	21
1,2-Dichloroethane	ND<1				
Trichloroethene	ND<2	98/92	6	69-125	20
1,2-Dichloropropane	ND<1				
Dibromomethane	ND<1				
Bromodichloromethane	ND<1				
trans-1,3-Dichloropropane	ND<1				
4-Methyl-2-pentanone	ND<10				
Toluene	ND<1	126/118	7	61-141	19
cis-1,3-Dichloropropane	ND<1				
1,1,2-Trichloroethane	ND<1				
Tetrachloroethene	ND<1				
1,3-Dichloropropane	ND<1				
2-Hexanone	ND<10				
Dibromochloromethane	ND<1				
1,2-Dibromoethane	ND<1				
Chlorobenzene	ND<2	114/110	4	70-139	19
1,1,1,2-Tetrachloroethane	ND<1				
Ethylbenzene	ND<1				
Xylene, Isomers m & p	ND<2				
o-Xylene	ND<1				
Styrene	ND<1				



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C E R T I F I C A T E O F A N A L Y S I S

Job Number: 02-0566

Date Sampled : 04/26/2002

Client : Env. Restoration Services

Date Analyzed: 05/02/2002

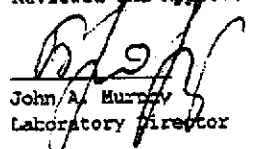
Project :

Date Reported: 05/06/2002

Volatile Organics by GC/MS Method 8260 Quality Control/Quality Assurance Summary

Laboratory Number	J2-0566	MS/MSD	RPD	Recovery	RPD
Client ID	Blank	Recovery		Limit	Limit
Matrix	N	K			
Analyte	Results UG/L	%Recoveries			
Bromoform	ND<1				
Isopropylbenzene	ND<1				
Bromobenzene	ND<1				
1,1,2,2-Tetrachloroethane	ND<1				
n-Propylbenzene	ND<1				
2-Chlorotoluene	ND<1				
4-Chlorotoluene	ND<1				
1,3,5-Trimethylbenzene	ND<1				
tert-Butylbenzene	ND<1				
1,2,4-Trimethylbenzene	ND<1				
1,3-Dichlorobenzene	ND<1				
1,4-Dichlorobenzene	ND<1				
sec-Butylbenzene	ND<1				
1,2-Dichlorobenzene	ND<1				
n-Butylbenzene	ND<1				
Naphthalene	ND<2				
1,2,4-Trichlorobenzene	ND<1				
Hexachlorobutadiene	ND<1				
1,2,3-Trichlorobenzene	ND<1				
1,2,3-Trichloropropane	ND<1				
Acetonitrile	ND<50				
Acrylonitrile	ND<50				
Isobutanol	ND<50				
1,1,1-Trichloroethane	ND<0.5				
SUR-Dibromofluoromethane	97	99/98	1	67-129	21
SUR-Toluene-d8	104	109/109	0	72-119	16
SUR-4-Bromofluorobenzene	108	111/112	1	78-121	19

Reviewed and Approved



John A. Murray
Laboratory Director



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C E R T I F I C A T E O F A N A L Y S I S

Job Number: 02-0566
 Client : Env. Restoration Services
 Project :

Date Sampled : 04/26/2002
 Date Analyzed: 05/03/2002
 Date Reported: 05/06/2002

Volatile Organics by GC/MS Method 8260

Laboratory Number	02-0566-06
Client ID	SS-N
Matrix	SO
Analyte	UG/KG
Bromochloromethane	ND<25
Dichlorodifluoromethane	ND<25
Chloromethane	ND<50
Vinyl chloride	ND<25
Bromomethane	ND<25
Chloroethane	ND<25
Trichlorofluoromethane	ND<25
1,1-Dichloroethene	ND<5
Acetone	ND<250
Methylene chloride	ND<500
trans-1,2-Dichloroethene	ND<5
Methyl-tert-butyl ether	ND<5
1,1-Dichloroethane	ND<5
2,2-Dichloropropane	ND<5
cis-1,2 Dichloroethane	ND<5
2-Butanone	ND<50
Chloroform	ND<5
Carbon tetrachloride	ND<5
1,1-Dichloropropene	ND<5
Benzene	ND<5
1,2-Dichloroethane	ND<5
Trichloroethane	ND<5
1,2-Dichloropropane	ND<5
Dibromomethane	ND<5
Bromodichloromethane	ND<5
trans-1,3-Dichloropropene	ND<5
4-Methyl-2-pentanone	ND<50
Toluene	ND<5
cis-1,3-Dichloropropene	ND<5
1,1,2-Trichloroethane	ND<5
Tetrachloroethane	ND<5
1,3-Dichloropropane	ND<5
2-Hexanone	ND<50
Dibromochloromethane	ND<5
1,2-Dibromoethane	ND<5



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C E R T I F I C A T E O F A N A L Y S I S

Job Number: 02-0566
 Client : Env. Restoration Services
 Project :

Date Sampled : 04/26/2002
 Date Analyzed: 05/03/2002
 Date Reported: 05/06/2002

Volatile Organics by GC/MS Method 8260

Laboratory Number	02-0566-06
Client ID	SS-N
Matrix	SO
Analyte	UG/KG
Chlorobenzene	ND<10
1,1,1,2-Tetrachloroethane	ND<5
Ethylbenzene	ND<5
Xylene, Isomers m & p	ND<10
o-Xylene	ND<5
Styrene	ND<5
Bromoform	ND<5
Isopropylbenzene	ND<5
Bromobenzene	ND<5
1,1,2,2-Tetrachloroethane	ND<5
n-Propylbenzene	ND<5
2-Chlorotoluene	ND<5
4-Chlorotoluene	ND<5
1,3,5-Trimethylbenzene	ND<5
tert-Butylbenzene	ND<5
1,2,4-Trimethylbenzene	ND<5
1,3-Dichlorobenzene	ND<5
1,4-Dichlorobenzene	ND<5
sec-Butylbenzene	ND<5
1,2-Dichlorobenzene	13
n-Butylbenzene	ND<5
Naphthalene	25
1,2,4-Trichlorobenzene	ND<5
Hexachlorobutadiene	ND<5
1,2,3-Trichlorobenzene	ND<5
1,2,3-Trichloropropane	ND<5
Acetonitrile	ND<250
Acrylonitrile	ND<250
Isobutanol	ND<250
1,1,1-Trichloroethane	ND<5
SUR-Dibromofluoromethane	119
SUR-Toluene-d8	105
SUR-4-Bromofluorobenzene	92



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C E R T I F I C A T E O F A N A L Y S I S

Job Number: 02-0566
 Client : Env. Restoration Services
 Project :

Date Sampled : 04/26/2002
 Date Analyzed: 05/03/2002
 Date Reported: 05/06/2002

Volatile Organics by GC/MS Method 8260
 Quality Control/Quality Assurance Summary

Laboratory Number	02-3566	MS/MSD	RPD	Recovery	RPD
Client ID	Blank	Recovery		Limit	Limit
Matrix	SO	SO			
Analyte	Results UG/KG	%Recoveries			
Bromochloromethane	ND<25				
Dichlorodifluoromethane	ND<25				
Chloromethane	ND<50				
Vinyl chloride	ND<5				
Bromomethane	ND<25				
Chloroethane	NE<25				
Trichlorofluoromethane	ND<25				
1,1-Dichloroethene	ND<5	117/115	2	54-155	27
Acetone	ND<250				
Methylene chloride	NE<250				
trans-1,2-Dichloroethene	ND<5				
Methyl-tert-butyl ether	ND<5				
1,1-Dichloroethane	ND<5				
2,2-Dichloropropene	ND<5				
cis-1,2-Dichloroethene	ND<5				
2-Butanone	ND<50				
Chloroform	ND<5				
Carbon tetrachloride	ND<5				
1,1-Dichloropropene	ND<5	113/122	3	72-122	22
Benzene	ND<5				
1,2-Dichloroethane	ND<5	87/91	4	68-122	20
Trichloroethene	ND<5				
1,2-Dichloropropane	ND<5				
Dibromomethane	ND<5				
Bromodichloromethane	ND<5				
trans-1,3 Dichloropropene	ND<5				
4-Methyl-2-pentanone	ND<50				
Toluene	ND<5	115/122	6	73-125	21
cis-1,3-Dichloropropene	ND<5				
1,1,2-Trichloroethane	ND<5				
Tetrachloroethene	ND<5				
1,3-Dichloropropane	NE<5				
2-Hexanone	ND<50				
Dibromochloromethane	ND<5				
1,2-Dibromoethane	ND<5	93/105	7	68-122	21
Chlorobenzene	ND<10				
1,1,1,2-Tetrachloroethane	ND<5				
Ethylbenzene	ND<5				
Xylene, Isomers m & p	ND<10				
o-Xylene	ND<5				
Styrene	ND<5				



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CA CLAP# 1753

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CERTIFICATE OF ANALYSIS

Job Number: 02-0566
 Client : Env. Restoration Services
 Project :

Date Sampled : 04/26/2002
 Date Analyzed: 05/03/2002
 Date Reported: 05/06/2002

Volatile Organics by GC/MS Method 8260
 Quality Control/Quality Assurance Summary

Laboratory Number	02-0566	MS/MSD	RPD	Recovery Limit	RPD Limit
Client ID	Blank	Recovery			
Matrix	SO	SO			
Analyte	Results JG/KG	%Recoveries			
Bromoform	ND<5				
Isopropylbenzene	ND<5				
Bromobenzene	ND<5				
1,1,2,2-Tetrachloroethane	ND<5				
n-Propylbenzene	ND<5				
2-Chlorotoluene	ND<5				
4-Chlorotoluene	ND<5				
1,3,5-Trimethylbenzene	ND<5				
tert-Butylbenzene	ND<5				
1,2,4-Trimethylbenzene	ND<5				
1,3-Dichlorobenzene	ND<5				
1,4-Dichlorobenzene	ND<5				
sec-Butylbenzene	ND<5				
1,2-Dichlorobenzene	ND<5				
n-Butylbenzene	ND<5				
Naphthalene	ND<10				
1,2,4-Trichlorobenzene	ND<5				
Hexachlorobutadiene	ND<5				
1,2,3-Trichlorobenzene	ND<5				
1,2,3-Trichloropropane	ND<5				
Acetonitrile	ND<250				
Acrylonitrile	ND<250				
Isobutanol	ND<5				
1,1,1-Trichloroethane	110	117/119	2	54-145	23
SUR-4-bromofluoromethane	107	109/104	5	81-108	14
SUR-Toluene-d8	85	93/94	1	82-118	18
SUR-4-bromofluorobenzene					

Reviewed and Approved

 John A. Murphy
 Laboratory Director



North State Environmental Laboratory

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C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 02-0566
 Client: Env. Restoration Services
 Project:

Date Reported: 05/08/2002

Metals by EPA Method 6010B ICAP and 7471 AA Spectroscopy

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 02-0566-06 Client ID: SS-N				04/26/2002	SO
Lead	7420	7	MG/KG		05/07/2002
Antimony	SW6010B	ND<5	MG/KG		05/07/2002
Arsenic	SW6010B	ND<1	MG/KG		05/07/2002
Barium	SW6010B	111	MG/KG		05/07/2002
Beryllium	SW6010B	ND<1	MG/KG		05/07/2002
Cadmium	SW6010B	ND<2	MG/KG		05/07/2002
Chromium	SW6010B	35	MG/KG		05/07/2002
Cobalt	SW6010B	11	MG/KG		05/07/2002
Copper	SW6010B	23	MG/KG		05/07/2002
Molybdenum	SW6010B	ND<1	MG/KG		05/07/2002
Nickel	SW6010B	50	MG/KG		05/07/2002
Selenium	SW6010B	ND<5	MG/KG		05/07/2002
Silver	SW6010B	ND<1	MG/KG		05/07/2002
Thallium	SW6010B	ND<5	MG/KG		05/07/2002
Vanadium	SW6010B	29	MG/KG		05/07/2002
Zinc	SW6010B	60	MG/KG		05/07/2002
Mercury	SW7471A	ND<0.05	MG/KG		05/06/2002



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CERTIFICATE OF ANALYSIS

Quality Control/Quality Assurance

Lab Number: 02-0566
 Client: Env. Restoration Services
 Project:

Date Reported: 05/08/200

Analyte	Method	Reporting Limit	Unit	Blank	MS/MSD Recovery	RPD
Antimony	SW6010B	5	MG/KG	ND<5	98/98	0
Arsenic	SW6010B	1	MG/KG	ND<1	100/96	4
Barium	SW6010B	1	MG/KG	ND<1	100/100	0
Beryllium	SW6010B	1	MG/KG	ND<1	92/92	0
Cadmium	SW6010B	2	MG/KG	ND<2	108/108	0
Chromium	SW6010B	1	MG/KG	ND<1	100/98	2
Cobalt	SW6010B	1	MG/KG	ND<1	96/94	2
Copper	SW6010B	1	MG/KG	ND<1	100/100	0
Lead	7420	1	MG/KG	ND<1	105/97	9
Mercury	SW7471A	0.05	MG/KG	ND<0.05	81/88	8
Molybdenum	SW6010B	1	MG/KG	ND<1	100/100	0
Nickel	SW6010B	1	MG/KG	ND<1	96/96	0
Selenium	SW6010B	5	MG/KG	ND<5	92/90	2
Silver	SW6010B	1	MG/KG	ND<1	102/100	2
Thallium	SW6010B	5	MG/KG	ND<5	76/80	5
Vanadium	SW6010B	1	MG/KG	ND<1	100/98	2
Zinc	SW6010B	1	MG/KG	ND<1	104/102	2

ELAP Certificate NO:1753

Reviewed and Approved

John A. Murphy, Laboratory Director

Page 2 of 2



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E0434

02-0566

Chain of Custody / Request for Analysis
Lab Job No.: _____ Page ___ of ___

Client: <u>Environmental Restoration</u>	Report to: <u>ERS</u>	Phone: <u>650-325-3266</u>	Turnaround Time <u>Normal</u>
Mailing Address: <u>500 Santa Cruz Minto Park, Ca 94025</u>	Billing to: <u>ERS</u>	Fax: <u>650-327-2974</u>	
		email:	Date: <u>4-26-02</u>
		PO#	Sampler: <u>B. Halsted</u>

Project / Site Address / Global ID:					Analysis Requested		EDF <input type="checkbox"/>		Field Point ID
Sample ID	Sample Type	Container No. / Type	Pres.	Sampling Date / Time	8260 TPH 8260 Motor Oil	Lead 17 metals			
1 SB-1	water	(3) 4oz Vol 1 liter	HCI	4/26/02 30		X			
2 SB-2		"		159		X			
3 SB-3		"		250	X	X	X		
4 SB-4		"		314	X				
5 SB-5	↓	(2) 4oz Vol		325	X	X	X		
6 SS-N	soil	(1) 24 liter		↓	X	X	X		

NOTE USE SB-4 14
EDL CHL 17 + TPH-MO

Relinquished by: <u>[Signature]</u>	Date: <u>4/26/02</u> Time: <u>16³⁰</u>	Received by: <u>[Signature]</u>
Relinquished by:	Date: _____ Time: _____	Received by:
Relinquished by:	Date: _____ Time: _____	Received by:

Lab Comments/
Hazards



North State Environmental Laboratory

CA ELAP#1753

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C E R T I F I C A T E O F A N A L Y S I S

Job Number: 02-0567

Date Sampled : 04/26/2002

Client : Env. Restoration Services

Date Analyzed: 05/03/2002

Project :

Date Reported: 05/06/2002

Volatile Organics by GC/MS Method 8260

Laboratory Number	02-0567-01	02-0567-02
Client ID	SS-P/A	PIT A
Matrix	SO	SL
Analyte	UG/KG	UG/KG
Bromochloromethane	ND<25	ND<100
Dichlorodifluoromethane	ND<25	ND<100
Chloromethane	ND<50	ND<200
Vinyl chloride	ND<25	ND<100
Bromomethane	ND<25	ND<100
Chloroethane	ND<25	ND<100
Trichlorofluoromethane	ND<25	ND<100
1,1-Dichloroethane	ND<5	ND<20
Acetone	ND<250	ND<1000
Methylene chloride	ND<500	ND<2000
trans-1,2-Dichloroethene	ND<5	ND<20
Methyl-tert-butyl ether	ND<5	ND<20
1,1-Dichloroethane	ND<5	ND<20
2,2-Dichloropropane	ND<5	ND<20
cis-1,2-Dichloroethene	ND<5	ND<20
2-Butanone	ND<50	ND<200
Chloroform	ND<5	ND<20
Carbon tetrachloride	ND<5	ND<20
1,1-Dichloropropene	ND<5	ND<20
Benzene	ND<5	ND<20
1,2-Dichloroethane	ND<5	ND<20
Trichloroethene	ND<5	ND<20
1,2-Dichloropropane	ND<5	ND<20
Dibromomethane	ND<5	ND<20
Bromodichloromethane	ND<5	ND<20
trans-1,3-Dichloropropene	ND<5	ND<20
4-Methyl 2 pentanone	ND<50	ND<200
Toluene	ND<5	ND<20
cis-1,3-Dichloropropene	ND<5	ND<20
1,1,2-Trichloroethane	ND<5	ND<20
Tetrachloroethane	ND<5	ND<20
1,3-Dichloropropane	ND<5	ND<20
2-Hexanone	ND<50	ND<200
Dibromochloromethane	ND<5	ND<20
1,2-Dibromoethane	ND<5	ND<20



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CA ELAP# 1733

C E R T I F I C A T E O F A N A L Y S I S

Job Number: 02-0567
 Client : Env. Restoration Services
 Project :

Date Sampled : 04/26/2002
 Date Analyzed: 05/03/2002
 Date Reported: 05/06/2002

Volatile Organics by GC/MS Method 8260

Laboratory Number	02-0567-01	02-0567-02
Client ID	SS-P/A	PIT A
Matrix	SG	SL
Analyte	UG/KG	UG/KG
Chlorobenzene	ND<10	ND<40
1,1,1,2-Tetrachloroethane	ND<5	ND<20
Ethylbenzene	ND<5	ND<20
Xylene, Isomers m & p	ND<10	ND<40
o-Xylene	ND<5	ND<20
Styrene	ND<5	ND<20
Bromoform	ND<5	ND<20
Isopropylbenzene	ND<5	ND<20
Bromobenzene	ND<5	ND<20
1,1,2,2-Tetrachloroethane	ND<5	ND<20
n-Propylbenzene	ND<5	ND<20
2-Chlorotoluene	ND<5	ND<20
4-Chlorotoluene	ND<5	ND<20
1,3,5-Trimethylbenzene	ND<5	ND<20
tert-Butylbenzene	ND<5	ND<20
1,2,4-Trimethylbenzene	ND<5	553
1,3-Dichlorobenzene	ND<5	ND<20
1,4-Dichlorobenzene	ND<5	ND<20
sec-Butylbenzene	ND<5	101
1,2-Dichlorobenzene	14	ND<20
n-Butylbenzene	ND<5	5140
Naphthalene	ND<10	682
1,2,4-Trichlorobenzene	ND<5	ND<20
Hexachlorobutadiene	ND<5	ND<20
1,2,3-Trichlorobenzene	ND<5	ND<20
1,2,3-Trichloropropane	ND<5	ND<20
Acetonitrile	ND<250	ND<1000
Acrylonitrile	ND<250	ND<1000
Isobutanol	ND<250	ND<1000
1,1,1-Trichloroethane	ND<5	ND<20
SJR-Dibromofluoromethane	117	121
SJR-Toluene-d8	107	108
SJR-4-Bromofluorobenzene	91	85



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CA ELAP # 1753

C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 02-0567
 Client: Env. Restoration Services
 Project:

Date Reported: 05/08/2002

Metals by EPA Method 6010B ICAP and 7471 AA Spectroscopy

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 02-0567-03 Client ID:	PIT C			04/26/2002	SO
Lead	7420	7	MG/KG		05/08/2002
Antimony	SW6010B	ND<5	MG/KG		05/07/2002
Arsenic	SW6C10B	ND<1	MG/KG		05/07/2002
Barium	SW6010B	73	MG/KG		05/07/2002
Beryllium	SW6010B	ND<1	MG/KG		05/07/2002
Cadmium	SW6010B	ND<2	MG/KG		05/07/2002
Chromium	SW6010B	7	MG/KG		05/07/2002
Cobalt	SW6010B	ND<1	MG/KG		05/07/2002
Copper	SW6010B	51	MG/KG		05/07/2002
Molybdenum	SW6010B	ND<1	MG/KG		05/07/2002
Nickel	SW6010B	26.42	MG/KG		05/07/2002
Selenium	SW6010B	ND<5	MG/KG		05/07/2002
Silver	SW6010B	ND<1	MG/KG		05/07/2002
Thallium	SW6010B	ND<5	MG/KG		05/07/2002
Tanadium	SW6010B	4	MG/KG		05/07/2002
Zinc	SW6010B	54	MG/KG		05/07/2002
Mercury	SW7471A	ND<0.05	MG/KG		05/06/2002



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CA ELAP#1753

CERTIFICATE OF ANALYSIS

Quality Control/Quality Assurance

Lab Number: 02-0567
 Client: Env. Restoration Services
 Project:

Date Reported: 05/08/200

Analyte	Method	Reporting Limit	Unit	Blank	MS/MSD Recovery	RPD
Antimony	SW6010B	5	MG/KG	ND<5	98/98	0
Arsenic	SW6010B	1	MG/KG	ND<1	100/96	4
Barium	SW6010B	1	MG/KG	ND<1	100/100	0
Beryllium	SW6010B	1	MG/KG	ND<1	92/92	0
Cadmium	SW6010B	2	MG/KG	ND<2	108/108	0
Chromium	SW6010B	1	MG/KG	ND<1	100/98	2
Cobalt	SW6010B	1	MG/KG	ND<1	96/94	2
Copper	SW6010B	1	MG/KG	ND<1	100/100	0
Lead	7420	1	MG/KG	ND<1	98/105	0
Mercury	SW7471A	0.05	MG/KG	ND<0.05	81/88	0
Molybdenum	SW6010B	1	MG/KG	ND<1	100/100	0
Nickel	SW6010B	1	MG/KG	ND<1	96/96	0
Selenium	SW6010B	5	MG/KG	ND<5	92/90	2
Silver	SW6010B	1	MG/KG	ND<1	102/100	2
Thallium	SW6010B	5	MG/KG	ND<5	76/80	5
Vanadium	SW6010B	1	MG/KG	ND<1	100/98	2
Zinc	SW6010B	1	MG/KG	ND<1	104/102	2

ELAP Certificate NO:1753

Reviewed and Approved

John A. Murphy, Laboratory Director



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02-05608

Chain of Custody / Request for Analysis
 Lab Job No.: _____ Page 1 of 1

Client: <u>Environmental Restoration Service</u>					Report to: <u>ERS</u>			Phone: <u>650-325-3214</u>		Turnaround Time		
Mailing Address: <u>500 Santa Cruz Ave Menlo Park Ca 94025</u>					Billing to: <u>ERS</u>			Fax: <u>650-327-2984</u>		Normal		
Project / Site Address / Global ID:								email:		Date: <u>4/26/02</u>		
Analysis Requested								PO#		Sampler: <u>B. Hester</u>		
					PCBs 7260						EDF <input type="checkbox"/>	
Sample ID	Sample Type	Container No. / Type	Pres.	Sampling Date / Time								Field Point ID
<u>oil</u>	<u>oil</u>	<u>1 Amber</u>		<u>4/26/02 / 2:14</u>	<u>X</u>	<u>X</u>						
Relinquished by: <u>[Signature]</u>				Date: <u>4-26-02</u> Time: <u>1630</u>		Received by: <u>[Signature]</u>				Lab Comments/ Hazards <u>Oil/SAMPLE WILL NOT DETECTED</u>		
Relinquished by:				Date:		Time:		Received by:				
Relinquished by:				Date:		Time:		Received by:				

MAY 08 02 09:13A



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C E R T I F I C A T E O F A N A L Y S I S

Job Number: 02-0568
 Client : Env. Restoration Services
 Project :

Date Sampled : 04/25/2002
 Date Analyzed: 05/03/2002
 Date Reported: 05/06/2002

Volatile Organics by GC/MS Method 8260

Laboratory Number	02-0568-01
Client ID	OIL
Matrix	OIL
Analyte	UG/KG
Bromochloromethane	ND<12500
Dichlorodifluoromethane	ND<12500
Chloromethane	ND<25000
Vinyl chloride	ND<12500
Bromomethane	ND<12500
Chloroethane	ND<12500
Trichlorofluoromethane	ND<12500
1,1-Dichloroethane	ND<2500
Acetone	ND<125000
Methylene chloride	ND<250000
trans-1,2-Dichloroethene	ND<2500
Methyl-tert-butyl ether	ND<2500
1,1-Dichloroethane	ND<2500
2,2-Dichloropropane	ND<2500
cis-1,2-Dichloroethene	ND<2500
2-Butanone	ND<25000
Chloroform	ND<2500
Carbon tetrachloride	ND<2500
1,1-Dichloropropene	ND<2500
Benzene	5810
1,2-Dichloroethane	ND<2500
Trichloroethene	ND<2500
1,2-Dichloropropane	ND<2500
Dibromomethane	ND<2500
Bromodichloromethane	ND<2500
trans-1,3-Dichloropropene	ND<2500
4-Methyl-2-pentanone	ND<25000
Toluene	3620
cis-1,3-Dichloropropene	ND<2500
1,1,2-Trichloroethane	ND<2500
Tetrachloroethene	ND<2500
1,3-Dichloropropane	ND<2500
2-Hexanone	ND<25000
Dibromochloromethane	ND<2500
1,2-Dibromoethane	ND<2500



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C E R T I F I C A T E O F A N A L Y S I S

Job Number: 02-0568
 Client : Env. Restoration Services
 Project :

Date Sampled : 04/26/2002
 Date Analyzed: 05/03/2002
 Date Reported: 05/06/2002

Volatile Organics by GC/MS Method 8260

Laboratory Number	02-0568-01
Client ID	OIL
Matrix	OIL
Analyte	UG/KG
Chlorobenzene	ND<5000
1,1,1,2-Tetrachloroethane	ND<2500
Ethylbenzene	ND<2500
Xylene, Isomers m & p	6720
o-Xylene	4020
Styrene	ND<2500
Bromoform	ND<2500
Isopropylbenzene	ND<2500
Bromobenzene	ND<2500
1,1,2,2 Tetrachloroethane	ND<2500
n-Propylbenzene	2580
2-Chlorotoluene	ND<2500
4-Chlorotoluene	ND<2500
1,3,5-Trimethylbenzene	3620
tert-Butylbenzene	ND<2500
1,2,4-Trimethylbenzene	9570
1,3-Dichlorobenzene	ND<2500
1,4-Dichlorobenzene	ND<2500
sec-Butylbenzene	ND<2500
1,2-Dichlorobenzene	7270
n-Butylbenzene	8390
Naphthalene	20300
1,2,4-Trichlorobenzene	ND<2500
Hexachlorobutadiene	ND<2500
1,2,3-Trichlorobenzene	ND<2500
1,2,3-Trichloropropane	ND<2500
Acetonitrile	ND<125000
Acrylonitrile	ND<125000
Isobutanol	ND<125000
1,1,1-Trichloroethane	ND<2500
SUR-Dibromofluoromethane	112
SUR-Toluene-d8	111
SUR-4-Bromofluorobenzene	99



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C E R T I F I C A T E O F A N A L Y S I S

Job Number: 02-0568
 Client : Env. Restoration Services
 Project :

Date Sampled : 04/26/2002
 Date Analyzed: 05/03/2002
 Date Reported: 05/06/2002

Volatile Organics by GC/MS Method 8260 Quality Control/Quality Assurance Summary

Laboratory Number	02-0568	MS/MSE	RPD	Recovery	RPD
Client ID	Blank	Recovery		Limit	Limit
Matrix	OIL	OIL			
Analyte	Results UG/KG	%Recoveries			
Bromochloromethane	ND<25				
Dichlorodifluoromethane	ND<25				
Chloromethane	ND<50				
Vinyl chloride	ND<5				
Bromomethane	ND<25				
Chloroethane	ND<25				
Trichlorofluoromethane	ND<25				
1,1-Dichloroethane	ND<5	117/115	2	54-155	27
Acetone	ND<250				
Methylene chloride	ND<250				
trans-1,2-Dichloroethane	ND<5				
Methyl-tert-butyl ether	ND<5				
1,1-Dichloroethane	ND<5				
2,2-Dichloropropane	ND<5				
cis-1,2-Dichloroethane	ND<5				
2-Butanone	ND<50				
Chloroform	ND<5				
Carbon tetrachloride	ND<5				
1,1-Dichloropropene	ND<5				
Benzene	ND<5	113/122	8	72-122	22
1,2-Dichloroethane	ND<5				
Trichloroethene	ND<5	87/91	4	68-122	20
1,2-Dichloropropane	ND<5				
Dibromomethane	ND<5				
Bromodichloromethane	ND<5				
trans-1,3-Dichloropropene	ND<5				
4-Methyl-2-pentanone	ND<50				
Toluene	ND<5	115/122	6	73-125	21
cis-1,3-Dichloropropene	ND<5				
1,1,2-Trichloroethane	ND<5				
Tetrachloroethane	ND<5				
1,3-Dichloropropane	ND<5				
2-Hexanone	ND<50				
Dibromochloromethane	ND<5				
1,2-Dibromoethane	ND<5				
Chlorobenzene	ND<10	98/105	7	68-122	21
1,1,1,2-Tetrachloroethane	ND<5				
Ethylbenzene	ND<5				
Xylene, Isomers m & p	ND<10				
o-Xylene	ND<5				
Styrene	ND<5				



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CA ELAP#1753

C E R T I F I C A T E O F A N A L Y S I S

Job Number: 02-0568
Client : Env. Restoration Services
Project :

Date Sampled : 04/26/2002
Date Analyzed: 05/03/2002
Date Reported: 05/06/2002

Volatile Organics by GC/MS Method 8260 Quality Control/Quality Assurance Summary

Laboratory Number	02-0568	MS/MSD	RPD	Recovery	RPD
Client ID	Blank	Recovery		Limit	Limit
Matrix	OIL	OIL			
Analyte	Results UG/KG	%Recoveries			
Bromoform	ND<5				
Isopropylbenzene	ND<5				
Bromobenzene	ND<5				
1,1,2,2-Tetrachloroethane	ND<5				
n-Propylbenzene	ND<5				
2-Chlorotoluene	ND<5				
4-Chlorotoluene	ND<5				
1,3,5-Trimethylbenzene	ND<5				
tert-Butylbenzene	ND<5				
1,2,4-Trimethylbenzene	ND<5				
1,3-Dichlorobenzene	ND<5				
1,4-Dichlorobenzene	ND<5				
sec-Butylbenzene	ND<5				
1,2-Dichlorobenzene	ND<5				
n-Butylbenzene	ND<5				
Naphthalene	ND<10				
1,2,4-Trichlorobenzene	ND<5				
Hexachlorobutadiene	ND<5				
1,2,3-Trichlorobenzene	ND<5				
1,2,3-Trichloropropane	ND<5				
Acetonitrile	ND<250				
Acrylonitrile	ND<250				
Isobutanol	ND<250				
1,1,1-Trichloroethane	ND<5				
SUR-Dibromofluoromethane	110	117/113	2	54-145	23
SUR-Toluene-d8	107	109/104	5	61-108	14
SUR-4-Bromofluorobenzene	85	93/94	1	82-118	18

Reviewed and Approved

[Signature]
John A. Murphy
Laboratory Director



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02-0567

Chain of Custody / Request for Analysis
 Lab Job No.: _____ Page 1 of 1

Client: <u>Environmental Restoration Serv.</u>	Report to: <u>ERS</u>	Phone: <u>650-325-3266</u>	Turnaround Time <u>Normal</u>
Mailing Address: <u>500 Santa Cruz Menlo Park Ca 94025</u>	Billing to: <u>ERS</u>	Fax: <u>650-327-2954</u>	
		email:	Date: <u>4/24/02</u>
		PO#	Sampler: <u>B. Halstead</u>

Project / Site Address / Global ID:					Analysis Requested								EDF <input type="checkbox"/>
Sample ID	Sample Type	Container No. / Type	Pres.	Sampling Date / Time	BZ60	CAM 17							Field Point ID
<u>SS-P/A</u>	<u>soil</u>	<u>1/2x6</u>		<u>4/24/02-8:22</u>	X								
<u>Pit A</u>	<u>sludge</u>	<u>↓</u>		<u>"-8:36</u>	X	<u>No</u>							
<u>Pit C</u>	<u>soil</u>	<u>↓</u>		<u>"-9:41</u>		X							
<u>SS-N</u>	<u>"</u>	<u>↓</u>		<u>"-10:09</u>	X	X							

Relinquished by: <u>[Signature]</u>	Date: <u>4/24/02</u>	Time: <u>16:30</u>	Received by: <u>[Signature]</u>	Lab Comments/ Hazards
Relinquished by:	Date:	Time:	Received by:	
Relinquished by:	Date:	Time:	Received by:	

Appendix D

**Enrest May 21, 2002 Investigation Laboratory
Analytical Report**



C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 02-0703
Client: Env. Restoration Services
Project: 2868 HANNAH OAKLAND

Date Reported: 06/03/2003

Motor Oil Range Organics by Method CATFH

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 02-0703-01 Client ID:	SP1/GW			05/21/2002	W
Motor Oils	CATFH	77	MG/L		05/30/2002
Sample: 02-0703-02 Client ID:	SP2/GW			05/21/2002	W
Motor Oils	CATFH	74	MG/L		05/30/2002
Sample: 02-0703-03 Client ID:	SP3/GW			05/21/2002	W
Motor Oils	CATFH	5780	MG/L		05/30/2002
Sample: 02-0703-05 Client ID:	SOURCE PT@7'			05/21/2002	SO
Motor Oils	CATFH	20800	MG/KG		05/30/2002



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CA ELAP# 1753

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C E R T I F I C A T E O F A N A L Y S I S

Quality Control/Quality Assurance

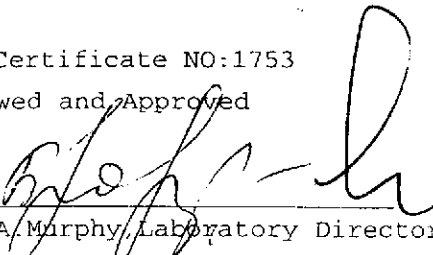
Lab Number: 02-0703
 Client: Env. Restoration Services
 Project: 2868 HANNAH OAKLAND

Date Reported: 06/03/2003
 Motor Oil Range Organics by Method CATFH

Analyte	Method	Reporting Limit	Unit	Blank	Avg MS/MSD Recovery	RPD
Diesel Fuel #2	CATFH	1	MG/KG	ND	76/66	14
Diesel Fuel #2	CATFH	0.05	MG/L	ND	86/94	9

ELAP Certificate NO:1753

Reviewed and Approved



John A. Murphy, Laboratory Director



C E R T I F I C A T E O F A N A L Y S I S

Job Number: 02-0703

Date Sampled : 05/21/2002

Client : Env. Restoration Services

Date Analyzed: 05/30/2002

Project : 2868 HANNAH OAKLAND

Date Reported: 06/03/2003

Volatile Organics by GC/MS Method 8260

Laboratory Number	02-0703-01	02-0703-02	02-0703-03	02-0703-04
Client ID	SP1/GW	SP2/GW	SP3/GW	SOURCE
Matrix	W	W	W	W
Analyte	UG/L	UG/L	UG/L	UG/L
Bromochloromethane	ND<5	ND<5	ND<25	ND<5
Dichlorodifluoromethane	ND<5	ND<5	ND<25	ND<5
Chloromethane	ND<10	ND<10	ND<10	ND<5
Vinyl chloride	ND<5	ND<5	ND<25	ND<5
Bromomethane	ND<5	ND<5	ND<25	ND<5
Chloroethane	ND<5	ND<5	ND<25	ND<5
Trichlorofluoromethane	ND<5	ND<5	ND<25	ND<5
1,1-Dichloroethene	ND<1	ND<1	ND<5	ND<1
Acetone	ND<50	ND<50	3/5	ND<50
Methylene chloride	ND<100	ND<100	ND<500	ND<100
trans-1,2-Dichloroethene	ND<1	ND<1	ND<5	ND<1
Methyl-tert-butyl ether	ND<1	ND<1	ND<5	ND<1
1,1-Dichloroethane	ND<1	ND<1	ND<5	ND<1
2,2-Dichloropropane	ND<1	ND<1	ND<5	ND<1
cis-1,2-Dichloroethene	ND<1	ND<1	ND<5	ND<1
2-Butanone	ND<10	ND<10	ND<50	ND<10
Chloroform	3	ND<1	ND<5	ND<1
Carbon tetrachloride	ND<1	ND<1	ND<5	ND<1
1,1-Dichloropropene	ND<1	ND<1	ND<5	ND<1
Benzene	ND<1	ND<1	87	ND<1
1,2-Dichloroethane	ND<1	ND<1	ND<5	ND<1
Trichloroethene	ND<2	ND<2	ND<10	ND<2
1,2-Dichloropropane	ND<1	ND<1	ND<5	ND<1
Dibromomethane	ND<1	ND<1	ND<5	ND<1
Bromodichloromethane	ND<1	ND<1	ND<5	ND<1
trans-1,3-Dichloropropene	ND<1	ND<1	ND<5	ND<1
4-Methyl-2-pentanone	ND<10	ND<10	ND<50	ND<10
Toluene	ND<1	ND<1	94	ND<1
cis-1,3-Dichloropropene	ND<1	ND<1	ND<5	ND<1
1,1,2-Trichloroethane	ND<1	ND<1	ND<5	ND<1
Tetrachloroethene	ND<1	ND<1	ND<5	ND<1
1,3-Dichloropropane	ND<1	ND<1	ND<5	ND<1
2-Hexanone	ND<10	ND<10	ND<50	ND<10
Dibromochloromethane	ND<1	ND<1	ND<5	ND<1
1,2-Dibromoethane	ND<1	ND<1	ND<5	ND<1



C E R T I F I C A T E O F A N A L Y S I S

Job Number: 02-0703

Date Sampled : 05/21/2002

Client : Env. Restoration Services

Date Analyzed: 05/30/2002

Project : 2868 HANNAH OAKLAND

Date Reported: 06/03/2003

Volatile Organics by GC/MS Method 8260

Laboratory Number	02-0703-01	02-0703-02	02-0703-03	02-0703-04
Client ID	SP1/GW	SP2/GW	SP3/GW	SOURCE
Matrix	W	W	W	W
Analyte	UG/L	UG/L	UG/L	UG/L
Chlorobenzene	ND<2	ND<2	ND<10	ND<2
1,1,1,2-Tetrachloroethane	ND<1	ND<1	ND<5	ND<1
Ethylbenzene	ND<1	2	9	1
Xylene, Isomers m & p	ND<2	ND<2	61	ND<2
o-Xylene	ND<1	3	21	2
Styrene	ND<1	ND<1	ND<5	ND<1
Bromoform	ND<1	ND<1	ND<5	ND<1
Isopropylbenzene	ND<1	ND<1	ND<5	ND<1
Bromobenzene	ND<1	ND<1	ND<5	ND<1
1,1,2,2-Tetrachloroethane	ND<1	ND<1	ND<5	ND<1
n-Propylbenzene	ND<1	ND<1	ND<5	ND<1
2-Chlorotoluene	ND<1	ND<1	ND<5	ND<1
4-Chlorotoluene	ND<1	ND<1	ND<5	ND<1
1,3,5-Trimethylbenzene	ND<1	ND<1	77	1
tert-Butylbenzene	ND<1	ND<1	ND<5	ND<1
1,2,4-Trimethylbenzene	ND<1	ND<1	20	ND<1
1,3-Dichlorobenzene	ND<1	ND<1	ND<5	ND<1
1,4-Dichlorobenzene	ND<1	ND<1	ND<5	ND<1
sec-Butylbenzene	ND<1	ND<1	ND<5	ND<1
1,2-Dichlorobenzene	ND<1	6	17	2
n-Butylbenzene	ND<1	ND<1	164	1
Naphthalene	ND<2	ND<2	139	2
1,2,4-Trichlorobenzene	ND<1	ND<1	ND<5	ND<1
Hexachlorobutadiene	ND<1	ND<1	ND<5	ND<1
1,2,3-Trichlorobenzene	ND<1	ND<1	ND<5	ND<1
1,2,3-Trichloropropane	ND<1	ND<1	ND<5	ND<1
Acetonitrile	ND<50	ND<50	ND<250	ND<50
Acrylonitrile	ND<50	ND<50	ND<250	ND<50
Isobutanol	ND<50	ND<50	ND<250	ND<50
1,1,1-Trichloroethane	ND<0.5	ND<0.5	ND<2.5	ND<0.5
SUR-Dibromofluoromethane	104	102	103	105
SUR-Toluene-d8	110	105	110	110
SUR-4 Bromofluorobenzene	116	119	120	119



C E R T I F I C A T E O F A N A L Y S I S

Job Number: 02-0703
Client : Env. Restoration Services
Project : 2868 HANNAH OAKLAND

Date Sampled : 05/21/2002
Date Analyzed: 05/30/2002
Date Reported: 06/03/2003

Volatile Organics by GC/MS Method 8260
Quality Control/Quality Assurance Summary

Table with columns: Laboratory Number, Client ID, Matrix, Analyte, Results UG/L, %Recoveries, RPD, Recovery Limit, RPD Limit. Lists various chemical analytes and their corresponding results and recovery percentages.



C E R T I F I C A T E O F A N A L Y S I S

Job Number: 02-0703

Date Sampled : 05/21/2002

Client : Env. Restoration Services

Date Analyzed: 05/30/2002

Project : 2868 HANNAH OAKLAND

Date Reported: 06/03/2003

Volatile Organics by GC/MS Method 8260
Quality Control/Quality Assurance Summary

Table with 6 columns: Laboratory Number, Client ID, Matrix, MS/MSD Recovery, RPD, Recovery Limit, RPD Limit.

Table with 2 columns: Analyte, Results UG/L, %Recoveries

Main data table listing analytes such as Bromoform, Isopropylbenzene, Bromobenzene, etc., with their results and recovery percentages.

Reviewed and Approved

John A. Murphy
Laboratory Director



C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 02-0703
Client: Env. Restoration Services
Project: 2868 HANNAH OAKLAND

Date Reported: 06/04/2003

Metals by EPA Method 6010B ICAP and 7471 AA Spectroscopy

Table with 6 columns: Analyte, Method, Result, Unit, Date Sampled, Date Analyzed. Lists various metals like Antimony, Arsenic, Barium, etc., with their respective test results and dates.



CERTIFICATE OF ANALYSIS

Quality Control/Quality Assurance

Lab Number: 02-0703
Client: Env. Restoration Services
Project: 2868 HANNAH OAKLAND

Date Reported:06/04/200

Table with 7 columns: Analyte, Method, Reporting Limit, Unit, Blank, MS/MSD Recovery, RPD. Lists various elements like Antimony, Arsenic, Barium, etc., with their respective methods and recovery rates.

ELAP Certificate NO:1753

Reviewed and Approved

John A. Murphy, Laboratory Director



C E R T I F I C A T E O F A N A L Y S I S

Job Number: 02-0703
Client : Env. Restoration Services
Project : 2868 HANNAH OAKLAND

Date Sampled : 05/21/2002
Date Analyzed: 05/30/2002
Date Reported: 06/03/2003

Volatile Organics by GC/MS Method 8260

Laboratory Number 02-0703-05
Client ID SOURCE PT@7
Matrix SO

Analyte UG/KG

Bromochloromethane ND<25
Dichlorodifluoromethane ND<25
Chloromethane ND<50
Vinyl chloride ND<25
Bromomethane ND<25
Chloroethane ND<25
Trichlorofluoromethane ND<25
1,1 Dichloroethene ND<5
Acetone ND<250
Methylene chloride ND<500
trans-1,2-Dichloroethene ND<5
Methyl tert-butyl ether ND<5
1,1-Dichloroethane ND<5
2,2-Dichloropropane ND<5
cis-1,2 Dichloroethene ND<5
2-Butanone ND<50
Chloroform ND<5
Carbon tetrachloride ND<5
1,1-Dichloropropene ND<5
Benzene ND<5
1,2 Dichloroethane ND<5
Trichloroethane ND<5
1,2 Dichloropropane ND<5
Dibromomethane ND<5
Bromodichloromethane ND<5
trans-1,3-Dichloropropene ND<5
4-Methyl-2-pentanone ND<50
Toluene ND<5
cis-1,3-Dichloropropene ND<5
1,1,2-Trichloroethane ND<5
Tetrachloroethene ND<5
1,3-Dichloropropane ND<5
2-Hexanone ND<50
Dibromochloromethane ND<5
1,2-Dibromoethane ND<5



North State Environmental Laboratory

CA ELAP#1753

90 South Spruce Avenue, Suite V • South San Francisco, CA 94080 • (650) 266-4563 • FAX (650) 266-4560

C E R T I F I C A T E O F A N A L Y S I S

Job Number: 02-0703

Date Sampled : 05/21/2002

Client : Env. Restoration Services

Date Analyzed: 05/30/2002

Project : 2868 HANNAH OAKLAND

Date Reported: 06/03/2003

Volatile Organics by GC/MS Method 8260

Laboratory Number	02-0703-05
Client ID	SOURCE PT#7
Matrix	SO
Analyte	UG/KG
Chlorobenzene	ND<10
1,1,1,2-Tetrachloroethane	ND<5
Ethylbenzene	ND<5
Xylene, Isomers m & p	ND<10
o-Xylene	ND<5
Styrene	ND<5
Bromoform	ND<5
Isopropylbenzene	ND<5
Bromobenzene	ND<5
1,1,1,2-Tetrachloroethane	ND<5
n-Propylbenzene	ND<5
2-Chlorotoluene	ND<5
4-Chlorotoluene	ND<5
1,3,5-Trimethylbenzene	14
tert-Butylbenzene	ND<5
1,2,4-Trimethylbenzene	7
1,3-Dichlorobenzene	ND<5
1,4-Dichlorobenzene	ND<5
sec-Butylbenzene	ND<5
1,2-Dichlorobenzene	8
n-Butylbenzene	35
Naphthalene	ND<10
1,2,4-Trichlorobenzene	ND<5
Hexachlorobutadiene	ND<5
1,2,3-Trichlorobenzene	ND<5
1,2,3-Trichloropropane	ND<5
Acetonitrile	ND<250
Acrylonitrile	ND<250
Isobutanol	ND<250
1,1,1-Trichloroethane	ND<5
SUR-Dibromofluoromethane	127
SUR-Toluene-d8	110
SUR-4-Bromofluorobenzene	84



C E R T I F I C A T E O F A N A L Y S I S

Job Number: 02-0703 Date Sampled : 05/21/2002
Client : Env. Restoration Services Date Analyzed: 05/30/2002
Project : 2868 HANNAH OAKLAND Date Reported: 06/03/2003

Volatile Organics by GC/MS Method 8260
Quality Control/Quality Assurance Summary

Laboratory Number 02-0703 MS/MSD RPD Recovery RPD
Client ID Blank Recovery Limit Limit
Matrix SO SO

Table with columns: Analyte, Results UG/KG, %Recoveries, RPD, Recovery Limit, RPD Limit. Lists various chemical analytes and their corresponding results and recovery data.



C E R T I F I C A T E O F A N A L Y S I S

Job Number: 02-0703

Date Sampled : 05/21/2002

Client : Env. Restoration Services

Date Analyzed: 05/30/2002

Project : 2868 HANNAH OAKLAND

Date Reported: 06/03/2003

Volatile Organics by GC/MS Method 8260
Quality Control/Quality Assurance Summary

Table with 6 columns: Laboratory Number, Client ID, Matrix, MS/MSD Recovery, RPD, Recovery Limit, RPD Limit. Row 1: 02-0703, Blank, SO, SO, 50, 23.

Analyte Results UG/KG %Recoveries

Table with 6 columns: Analyte, Results UG/KG, %Recoveries, RPD, Recovery Limit, RPD Limit. Lists various organic compounds and their detection results.

Reviewed and Approved

John A. Murphy
Laboratory Director



North State Labs

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02-0703

Chain of Custody / Request for Analysis
Lab Job No.: _____ Page 1 of 1

Client: <u>ERS</u>	Report to: <u>ERS</u>	Phone: <u>650-325-3266</u>	Turnaround Time <u>5 day</u>	
Mailing Address: <u>500 Santa Cruz Ave Mundo Park, Ca 94025</u>	Billing to: <u>ERS</u>	Fax: <u>650-327-2984</u>		Date: <u>5/21/07</u>
		email:		Sampler: <u>B. Husted</u>
PO#				

Project / Site Address / Global ID: <u>2868 Hannah, Oakland</u>					Analysis Requested							EDF <input type="checkbox"/>
Sample ID	Sample Type	Container No. / Type	Pres.	Sampling Date / Time	8260	TPH motor oil	CCW 17					Field Point ID
<u>SP1/GW</u>	<u>water</u>	<u>(2) amber 40m VOA</u>	<u>ice</u>	<u>5/21/07/10²⁰</u>	X	X						
<u>SP2/GW</u>		<u>"</u>		<u>10⁵⁰</u>	X	X						
<u>SP3/GW</u>		<u>"</u>		<u>11¹⁶</u>	X	X						
<u>Source Pt. / GW</u>	<u>↓</u>	<u>(2) Amber VOA</u>		<u>11⁴⁹</u>	X							
<u>Source Pt @ 7'</u>	<u>soil</u>	<u>2x6 Brass</u>		<u>12¹⁶</u>	X	X	X					

Relinquished by: <u>[Signature]</u>	Date: <u>5/22/07</u> Time: <u>3⁵⁰</u>	Received by: <u>[Signature]</u>	Lab Comments/ Hazards
Relinquished by:	Date: Time:	Received by:	
Relinquished by:	Date: Time:	Received by:	

Appendix E

**LIST OF KNOWN REPORTS FOR
1549 32ND STREET, OAKLAND**