enviros

ALCO
HAZMAT

94 AUG 22 PM 4:02

August 16, 1994

**Mr. Lynn Walker**
Shell Oil Company
P.O. Box 4023
Concord, California 94524

**RE: Site Investigation**
Former Shell Service Station
461 Eighth Street
Oakland, California
WIC 204-5508-6205

Dear Mr. Walker:

This report presents the results of the soil investigation conducted by Enviros, Inc. (Enviros) at the former Shell Oil Company Service Station located at 461 Eighth Street in Oakland, California (Plates 1 and 2). The purpose of this investigation was to evaluate the presence of petroleum hydrocarbons in soils and groundwater beneath the subject site. Specific work tasks included the collection of representative soil samples for chemical analysis in the vicinity of the former underground storage tanks (USTs), adjacent to the former waste oil tank, beneath the former dispenser islands and along former product distribution lines.

Due to subsurface conditions encountered during the field investigation, groundwater samples were not obtained. At the nine locations selected for groundwater sampling, probe refusal occurred at depths ranging from 9.0 to 20.5 feet below grade (fbg). It is surmised that as probes were driven into the fine-grained sands and silty sands beneath the former service station property, these materials became compacted, resulting in refusal.

Field activities performed during this site investigation were performed to comply with Regional Water Quality Control Board (RWQCB) and Alameda County Health Care Services Agency (ACHCSA) guidelines.

Specific work tasks that were to be performed by Enviros were presented in the Work Plan dated November 2, 1994. All tasks were completed with the exception of collecting and analyzing groundwater samples.

## 1.0 SITE DESCRIPTION

The subject property is located on the southwest corner of the intersection of Broadway and Eighth Street in Oakland, California (Plate 2).

In 1981, monitoring wells S-1, S-2 and S-3 were installed on the Shell property. Well S-1 was installed in the northwest corner of the property, well S-2 in the northeast corner of the property and well S-3 in the southwest corner of the

property. Well S-4 was installed across the street (Broadway), adjacent to the BART tunnel. Wells S-5 and S-6 were installed southwest of the site near a reported BART tunnel leak. A recovery well and groundwater extraction system were installed adjacent to well S-6. Well S-7 was installed at the intersection of Washington Street and 5th Street on the southwest side of Highway 880. The observed groundwater leak was sealed by BART in approximately 1981.

Contaminated groundwater was recovered by the extraction system from February 1982 to August 1982. Well S-7 and the recovery well adjacent to well S-6 were destroyed in 1985. Wells S-1, S-2 and S-3 were destroyed in 1987.

In June 1993, GeoStrategies, Inc. performed a Preliminary Site Assessment (PSA) of the subject property. Research performed during the PSA identified the existence of seven sites with known UST leaks within a quarter-mile radius of the subject property. Based on the location of the subject property with respect to these seven sites, four of the sites with leaking USTs have the potential to impact soils and groundwater conditions beneath the former Shell service station property.

Quarterly groundwater monitoring of wells S-4, S-5 and S-6 began in October 1988. Separate-phase hydrocarbons have periodically been detected in wells S-5 and S-6. Product has subsequently been removed from these two wells by bailing and by using a vacuum truck. Product is removed from Well S-5 on a monthly basis.

The subject site is currently being used as a parking lot operated by City Services Parking.

## 2.0 FIELD PROCEDURES

### 2.1 Exploratory Soil Probes

A total of nine exploratory soil probes (B-1 through B-9) were driven and sampled using a mobile air hammer. These probe locations were lithologically logged by an Enviros geologist using the Unified Soils Classification System and Munsell Color chart. The locations of these soil probes are presented on Plate 2. Boring B-9 was continuously cored between depths of 5.0 and 14.0 feet. A planned second continuous core was not performed due to encountered drilling conditions.

Soil samples were collected for lithologic description, head-space analysis and chemical analysis at five-foot intervals.

Each sampling interval was screened for the presence of organic vapors using a photo ionization detector (PID) OVM. PID readings are shown on each exploratory boring log. Encountered lithology is described on the exploratory boring logs presented in Appendix A.

Retrieved soil probe tubes selected for chemical analysis were covered with teflon tape and capped. The samples were labeled, entered onto a Chain-of-Custody record and stored in a cooler with ice. The samples were transported to National

Environmental Testing, Inc. (NET) of Santa Rosa, California, a state-certified environmental laboratory.

Borings B-1 through B-9 were sealed to grade with cement grout after completion of sampling and logging activities.

Selected soil samples collected from the nine probe locations were analyzed for Total Petroleum Hydrocarbons calculated as Gasoline and Diesel (TPH-G and TPH-D) according to EPA Method 8015 (Modified) and benzene, toluene, ethylbenzene and xylenes (BTEX) according to EPA Method 8020. Soil samples retrieved adjacent to the former waste oil tank were also analyzed for Total Oil and Grease according to Method 5520 E&F, halogenated volatile organics according to EPA Method 8010 and ICAP 5 Metals (Cadmium, Chromium, Lead, Zinc and Nickel).

Decontamination Procedures

Decontamination of probe and sampling equipment was not required. New probe piping and drive points were utilized at each probe location.

Soil Stockpile

The use of soil probes does not generate any excess soil cuttings. Therefore, no soils were generated or stockpiled on site as a result of this investigation.

### 2.2 Groundwater Sampling

Groundwater was not encountered during this investigation. The compaction of fine-grained sands during the driving of the soil probes resulted in refusal before groundwater was encountered at all nine probe locations. Therefore, groundwater sampling and analysis did not occur as part of this investigation.

## 3.0 FINDINGS

### 3.1 Geology and Hydrogeology

Lithology encountered during the advancement of soil probes beneath the subject property consists primarily of a fine grained sands (SP) to a depth of 20 feet below grade. Silt was identified in these sands ranging from a trace up to approximately 30% in composition.

The encountered sands appeared to increase in compaction below a depth of five feet as witnessed by the inability of the drive hammer to advance probes at depths as shallow as 9.0 feet (probe location B-8). The deepest penetration of the subsurface using soil probes was 20.5 feet at probe location B-2.

Boring B-9 was continuously cored between depths of 5.0 to 14 feet. Evaluation of this core shows soils to consist of fine grained sands with minimal quantities of interspersed silts between these depths.

It is believed that the sands encountered beneath the subject property are part of the Merritt Sands.

Groundwater was not encountered in any of the boring locations, to a maximum depth of 20.5 fbg. Groundwater flow direction is assumed to be to the southwest, but could not be determined based on the results of this investigation.

## 3.2 Soil Analytical Data

Soil hydrocarbon chemical analytical data are presented on Table 1. The distribution of petroleum hydrocarbons in soils is shown on Plate 3.

Laboratory certified analytical reports for soils are contained in Appendix B.

A summary of chemical analytical results for soils for the areas investigated is presented below.

### 3.2.1 Former Dispenser Islands

Probes B-1, B-4, B-6 and B-7 were driven in the location of the former dispenser islands (Plate 2). Low levels of TPH-G exist in soils in the areas of the former dispenser islands (probes B-4 and B-7) at detected concentrations ranging from 14 to 15 ppm at 10.0 feet below grade. TPH-D was detected in B-1, B-4 and B-7 at concentrations ranging from 13 to 410 ppm from 5.0 and 10.0 foot intervals. Benzene in soils from the former dispenser islands area ranged from ND to 0.24 ppm.

Sampling depths greater than 10.5 feet at B-1, B-4 and B-7 could not be achieved due to probe refusal.

### 3.2.2 Former Gasoline Underground Storage Tanks

Probe B-3 was driven into the former UST location (Plate 2). TPH-G was not detected in the 10.0 and 15.0 foot samples submitted to the laboratory for chemical analysis. TPH-D was detected in the 10.0 foot sample at a concentration of 50 ppm. Benzene was ND (Not Detected) in the 10.0 and 15.0 foot samples. Soil analytical data are presented in Table 1 and on Plate 3.

Although the soil probe was driven to a depth of 19.5 feet at this location, a soil sample was not obtainable at total depth due to compacted sand conditions.

Due to the compacted sand drilling conditions, a second probe was not advanced in the former UST location.

3.2.3 Assumed Upgradient and Downgradient Areas

Soils analyzed from probe locations B-8 (upgradient) and B-9 (downgradient) did not contain any detectable levels of TPH-G, TPH-D or BTEX compounds (Plate 3).

Probe refusal at these locations was encountered at 9.0 and 14.5 feet below grade respectively.

3.2.4 Former Waste Oil Tank

Soil samples collected from probe location B-5, adjacent to the former waste oil tank, contained detectable Oil & Grease concentrations at 5.0 feet of 54 ppm. TPH-G, TPH-D and BTEX compounds were ND to the total explored depth at this location (10.25 feet).

No halogenated volatile organic compounds were detected in soils analyzed from probe location B-5. Cadmium, Chromium, Lead, and Nickel detected in soils in the vicinity of the former waste oil tank are considered to be representative of background levels. Zinc was detected at concentrations of 140 ppm in the 5.0 foot sample interval, and 980 ppm in the 9.75 foot sample interval.

## 4.0 CONCLUSIONS

In the vicinity of the former dispenser islands, TPH-G was identified in soils at concentrations of 14 to 15 ppm. TPH-D was identified at concentrations ranging from ND to 410 ppm. Benzene was identified in only one soil sample from these areas, at a concentration of 0.24 ppm. The soil data from beneath the former dispenser islands is limited to a maximum depth of 18.5 feet, at location B-6.

TPH-D was detected at a concentration of 50 ppm in the former UST location at a depth of 10.0 feet. Samples were ND for TPH-G and benzene.

Total Oil & Grease was detected in soil adjacent to the former waste oil tank at a concentration of 54 ppm (5.0 foot depth interval). The soil sample beneath this depth (9.75 feet) was ND for Oil & Grease.

No halogenated volatile organics were detected in soils adjacent to the former waste oil tank. Zinc was detected at levels of 140 ppm and 980 ppm at the 5.0 and 9.75 depth intervals respectively.

If you have any questions regarding the contents of this document, please call.

Sincerely,

Enviros, Inc.

Jeffrey L. Peterson
Hydrogeologist

Diane M. Lundquist, P.E.
Senior Engineer
C46725


Attachments

Table 1. Soil Analytical Data

Plate 1. Vicinity Map
Plate 2. Site Plan
Plate 3. Soil Analytical Map

Appendix A: Exploratory Boring Logs
Appendix B: NET Laboratory Reports & Chain-of Custody Records

cc: Mr. Richard Hiett, Regional Water Quality Control Board
Ms. Jennifer Eberlee, Alameda County Health Care Services Agency
Mr. Jim Matthews, Shell Oil Company
Mr. Steven Schulman, Wells Fargo Bank

# TABLE 1
# SOIL ANALYTICAL DATA
**Former Shell Service Station**
**461 Eighth Street**
**Oakland, California**
**WIC 204-5508-6205**

| SAMPLE DATE | SAMPLE NO. | DEPTH (FT.) | TPH-G (PPM) | TPH-D (PPM) | BENZENE (PPM) | TOLUENE (PPM) | ETHYL BENZENE (PPM) | XYLENES (PPM) | OIL & GREASE (PPM) |
|---|---|---|---|---|---|---|---|---|---|
| 7/6/94 | **B1-5.0** | 5.0 | <1 | 28a | <0.0025 | <0.0025 | <0.0025 | <0.0025 | --- |
| 7/6/94 | **B1-10.0** | 10.0 | <1 | <2 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | --- |
| 7/6/94 | **B2-5.0** | 5.0 | <1 | <2 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | --- |
| 7/6/94 | **B2-15.0** | 15.0 | <1 | <2 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | --- |
| 7/6/94 | **B2-20.0** | 20.0 | <1 | <2 | <0.0025 | 0.0028b | <0.0025 | 0.003b | --- |
| 7/6/94 | **B3-10.0** | 10.0 | <1 | 50a | <0.0025 | <0.0025 | <0.0025 | <0.0025 | --- |
| 7/6/94 | **B3-15.0** | 15.0 | <1 | 4.1 | <0.0025 | <0.0025 | <0.0025 | 0.025 | --- |
| 7/6/94 | **B4-5.0** | 5.0 | <1 | <2 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | --- |
| 7/6/94 | **B4-10.0** | 10.0 | 15 | 13c | <0.0025 | 0.037 | 0.027 | 0.21 | --- |
| 7/7/94 | **B5-5.0** | 5.0 | <1 | <2 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | 54 |
| 7/7/94 | **B5-9.75** | 9.75 | <1 | <2 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | <50 |
| 7/7/94 | **B6-5.0** | 5.0 | <1 | <2 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | --- |
| 7/7/94 | **B6-18.5** | 18.5 | <1 | <2 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | --- |
| 7/7/94 | **B7-5.0** | 5.0 | <1 | 31a | <0.0025 | <0.0025 | <0.0025 | <0.0025 | --- |
| 7/7/94 | **B7-10.0** | 10.0 | 14 | 410c | 0.24 | 0.89 | 0.31 | 2.0 | --- |
| 7/7/94 | **B8-5.0** | 5.0 | <1 | <2 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | --- |
| 7/7/94 | **B8-9.0** | 9.0 | <1 | <4 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | --- |
| 7/7/94 | **B9-5.0** | 5.0 | <1 | <1 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | --- |
| 7/7/94 | **B9-14.5** | 14.5 | <1 | <2 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | --- |

+ 68 TOG (non-polar)
" + 58 TOG

B5-9.75' also had
ND Cd
51 Cr
4.6 Pb
35 Ni
980 Zn
ND 8010

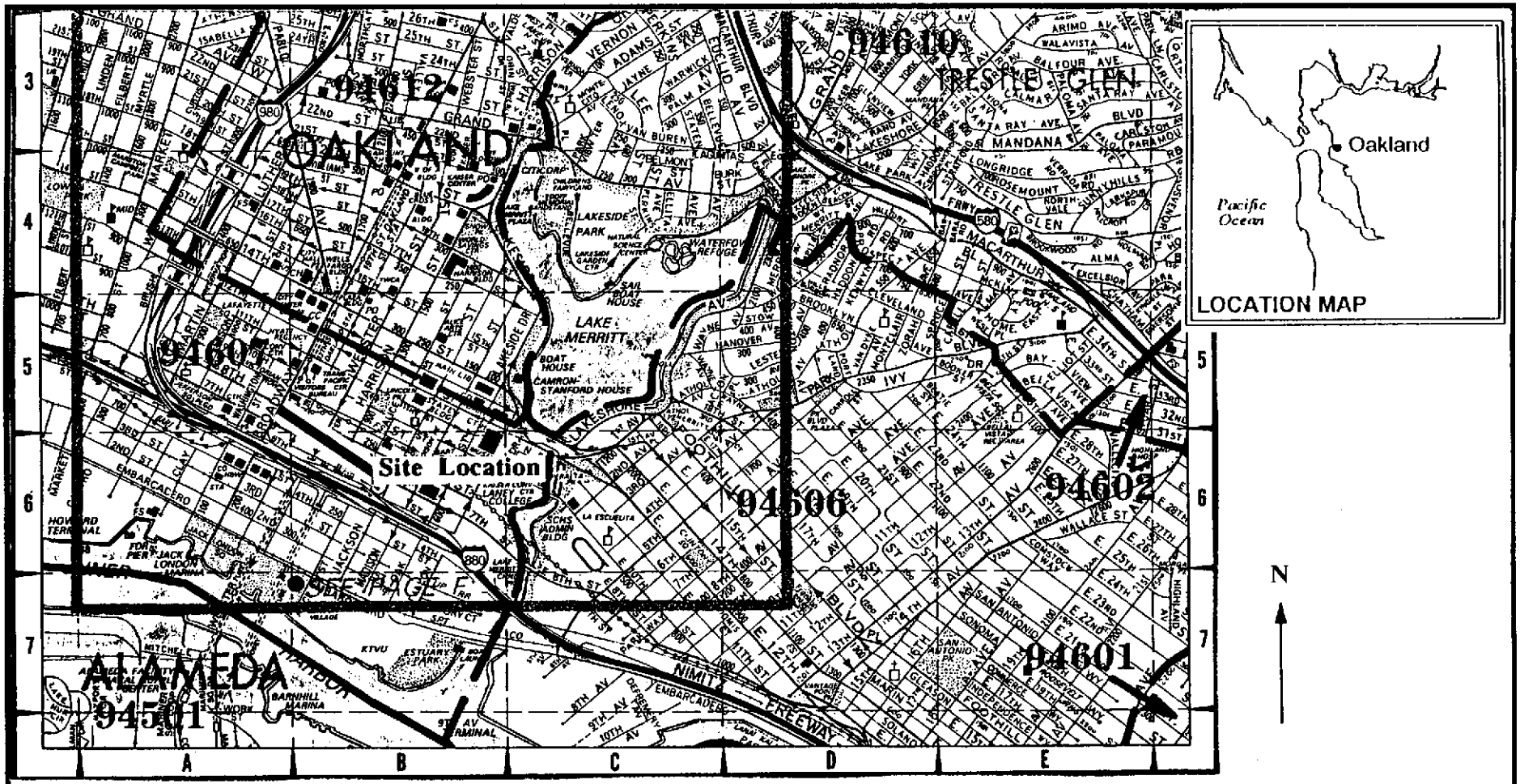
B5-5' also had
ND Cd
34 Cr
4.0 Pb
18 Ni
140 Zn
ND 8010

Abbreviations:

| | |
|---|---|
| TPH-G | = Total Petroleum Hydrocarbons calculated as Gasoline. |
| TPH-D | = Total Petroleum Hydrocarbons calculated as Diesel. |
| PPM | = Parts Per Million. |
| <x | = Not Detected at detection limit of x |
| --- | = Not Analyzed |

Notes:

| | |
|---|---|
| a | = The politive result appears to be a heavier hydrocarbon than Diesel. |
| b | = Positive result confirmed by secondary column or GC/MS analysis. |
| c | = The positive result appears to be a lighter hydrocarbon than Diesel. |




Base Map: 1993 Thomas Guide

**PLATE**

**1**

**VICINITY MAP**
Former Shell Service Station
461 Eighth Street
Oakland, California

***enviros*®**
E49307216

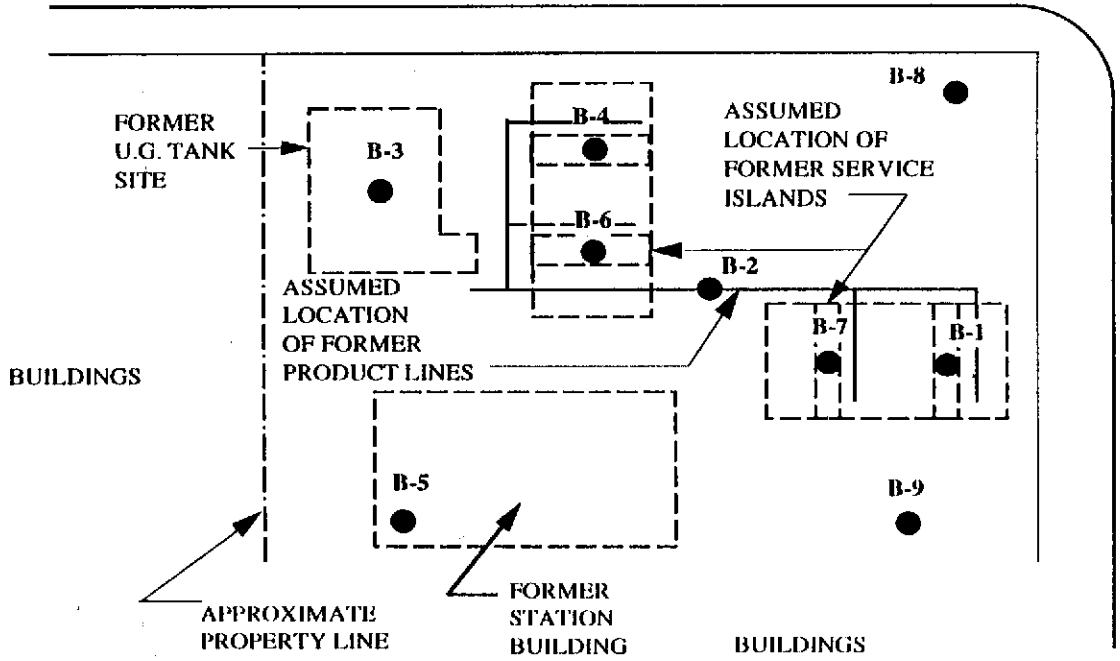
Drawn By: CJG Date: 12/6/93

Approved By: _____ Date: 8-11-94

## EXPLANATION

● Exploratory Soil Boring

Note: Soil probes driven on 7-6-94 and 7-7-94.





0 40

Scale in Feet

Base Map: GeoStrategies, Inc. Site Plan 9/93

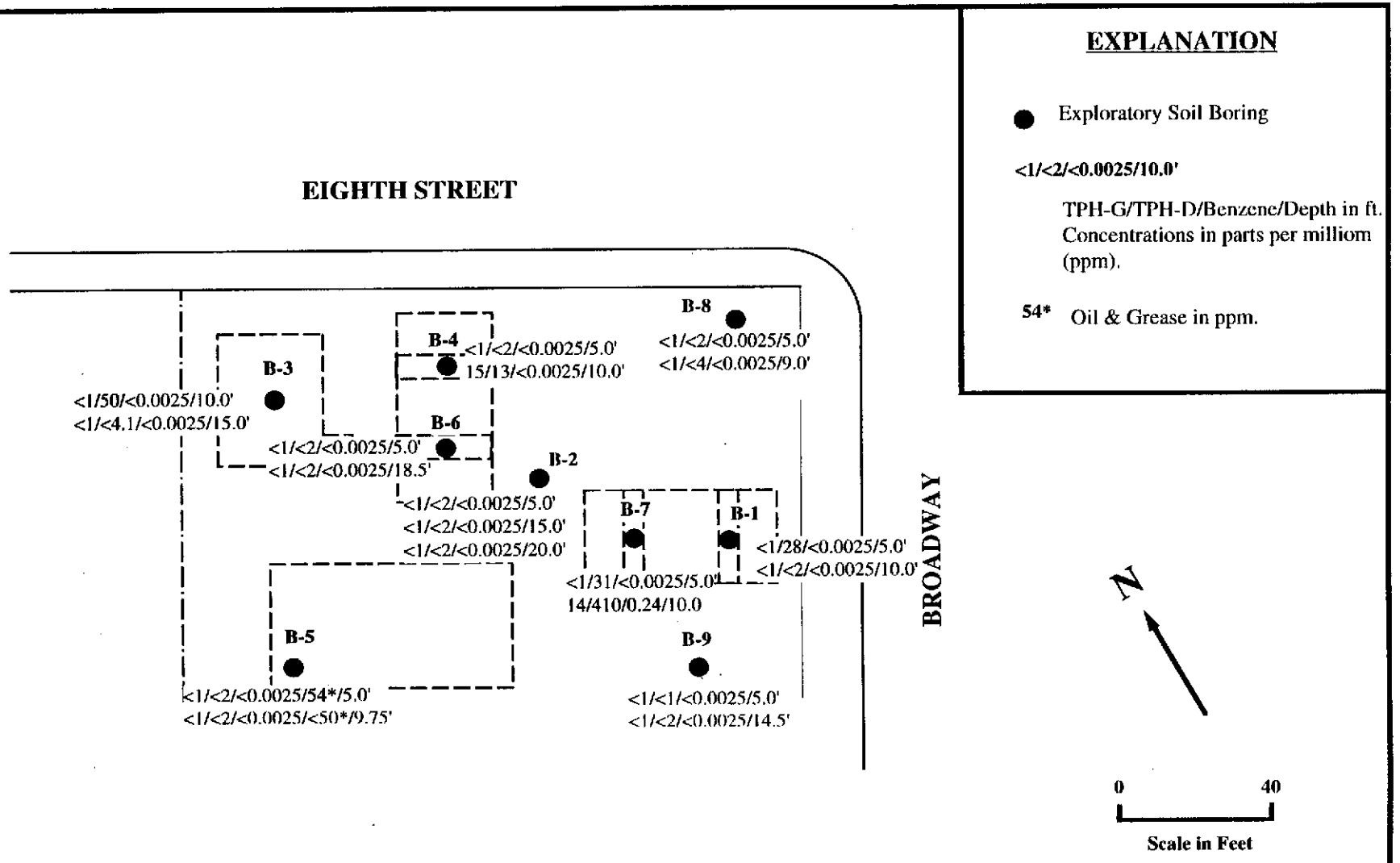
**PLATE** 2

**SITE PLAN**
Former Shell Service Station
461 Eighth Street
Oakland, California

*enviros*®
E493216

Drawn By: DML/JLP Date: 8-4-94

Approved By: _____ Date: 8-5-94




## EXPLANATION

● Exploratory Soil Boring

**<1/<2/<0.0025/10.0'**

TPH-G/TPH-D/Benzene/Depth in ft. Concentrations in parts per milliom (ppm).

**54*** Oil & Grease in ppm.

Base Map: GeoStrategies, Inc. Site Plan 9/93

PLATE **3**

**SOIL ANALYTICAL MAP**
Former Shell Service Station
461 Eighth Street
Oakland, California

***enviros***®
E493216

Drawn By: DML/JLP Date: 8-4-94

Approved By: _____ Date: 8.15 99

# Appendix A

# Exploratory Boring Logs

# Field Exploratory Boring Log B-1

| OVM (ppm) | Blows/6" | Sample Number | Depth (ft) | Soil Group (USCS) | Materials Description |
|---|---|---|---|---|---|
| | | | | | Asphalt |
| | | | | | Baserock |
| | | | | | Sand (SP) |
| | | | | | Dark brown (7.5YR 3/2); loose, dry to damp, sand fine grained. |
| 0 | | B1 @ 5' | 5 | | |
| | | | | | Very hard driving probe at approximately 8.5 ft. |
| 0 | | B1 @10.0' | 10 | | Color change to yellowish brown (10Yr 5/4). Refusal at 10.0 ft. due to hard, compacted sands. |
| | | | | | Total depth of boring = 10.5 ft. |
| | | | 15 | | |
| | | | 20 | | |
| | | | 25 | | |
| | | | 30 | | |

**BORING**
**B-1**

**SHELL OIL COMPANY**
Former Shell Service Station
461 Eighth Street
Oakland, California

| | |
|---|---|
| Borehole Diameter: | 1 inch |
| Logged by: | JLP |
| Driller: | ECA |
| Date Started: | 7-6-94 |
| Date Completed: | 7-6-94 |

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**E493216**

# Field Exploratory Boring Log B-2

| OVM (ppm) | Blows/6" | Sample Number | Depth (ft) | Soil Group (USCS) | Materials Description |
|---|---|---|---|---|---|
| | | | | | Asphalt |
| | | | | | Baserock |
| | | | | | Sand (SP)<br>Dark brown (7.5YR 3/2); loose, dry to damp, sand fine grained. |
| 0 | | B2 @ 5' | 5 | | |
| 0 | | B2 @10.0' | 10 | | Color change to brown (7.5YR 4/4); trace silt<br>Sands very hard at 11.0 ft. Slow penetration with probe. |
| | | | | | Silty Sand (SM)<br>Light olive brown (2.5Y 5/4); silts 20-25%, sand fine grained |
| 0 | | B2 @15.0' | 15 | | |
| | | | | | Sand (SP)<br>Light olive brown (2.5Y 5/4); dense, moist, fine to medium grained sands, limonitc staining, trace silt. |
| 0 | | B2 @20.0' | 20 | | Refusal at 20.5 ft.<br>Total depth of boring = 20.5 ft. |
| | | | 25 | | |
| | | | 30 | | |

**BORING**
**B-2**

**SHELL OIL COMPANY**
Former Shell Service Station
461 Eighth Street
Oakland, California

| | |
|---|---|
| Borehole Diameter: | 1 inch |
| Logged by: | JLP |
| Driller: | ECA |
| Date Started: | 7-6--94 |
| Date Completed: | 7-6-94 |

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E493216

# Field Exploratory Boring Log B-3

| OVM (ppm) | Blows/6" | Sample Number | Depth (ft) | Soil Group (USCS) | Materials Description |
|---|---|---|---|---|---|
| | | | | | Asphalt |
| | | | | | Baserock |
| | | | | | Sand (SP) |
| | | | | | Reddish brown (5TR 4/4); medium dense, dry, fine to medium grained sands, trace fine gravel. |
| 0 | | B3 @ 5' | 5 | | |
| 0 | | B3 @10.0' | 10 | | Color change to dark reddish brown (5Y 3/2); 10% silt, petroleum odor. |
| 0 | | B3 @15.0' | 15 | | Color change to grayish brown (2.5Y 5/2); ,5% silt. |
| NA | | B3 @20.0' | 20 | | Refusal at 19.5 ft. Total depth of boring = 19.5 ft. |
| | | | 25 | | |
| | | | 30 | | |

**BORING**
**B-3**

**SHELL OIL COMPANY**
Former Shell Service Station
461 Eighth Street
Oakland, California

| | |
|---|---|
| Borehole Diameter: | 1 inch |
| Logged by: | JLP |
| Driller: | ECA |
| Date Started: | 7-6--94 |
| Date Completed: | 7-6-94 |

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E493216

# Field Exploratory Boring Log B-4

| OVM (ppm) | Blows/6" | Sample Number | Depth (ft) | Soil Group (USCS) | Materials Description |
|---|---|---|---|---|---|
| | | | | | Asphalt |
| | | | | | Baserock |
| | | | | | Sand (SP) |
| | | | | | Dark Brown (10YR 4/3); dense, dry to moist, sands fine grained, silts <5%. |
| 0 | | B4 @ 5' | 5 | | |
| | | | | | Very hard driving probe at approximately 9.0 ft. |
| 38.4 | | B4 @10.0' | 10 | | Color change to dark gray (5Y4/1); very dense, dry to moist, |
| | | | | | Refusal at 10.5 ft. |
| | | | | | Total depth of boring = 10.5 ft. |
| | | | 15 | | |
| | | | 20 | | |
| | | | 25 | | |
| | | | 30 | | |

**BORING**
**B-4**

**SHELL OIL COMPANY**
Former Shell Service Station
461 Eighth Street
Oakland, California

| | |
|---|---|
| Borehole Diameter: | 1 inch |
| Logged by: | JLP |
| Driller: | ECA |
| Date Started: | 7-6-94 |
| Date Completed: | 7-6-94 |

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E493216

# Field Exploratory Boring Log B-5

| OVM (ppm) | Blows/6" | Sample Number | Depth (ft) | Soil Group (USCS) | Materials Description |
|---|---|---|---|---|---|
| | | | | | Asphalt |
| | | | | | Baserock |
| | | | | | Sand (SP) |
| | | | | | Dark Brown (2.5YR 3/2); medium dense, dry to moist, sand fine grained. |
| 0 | | B5 @ 5' | 5 | | |
| | | | 10 | | Very hard driving probe at approximately 9.5 ft. |
| 0 | | B5 @10.0' | | | |
| | | | | | Refusal at 10.25 ft. |
| | | | | | Total depth of boring = 10.25 ft. |
| | | | 15 | | |
| | | | 20 | | |
| | | | 25 | | |
| | | | 30 | | |

**BORING**
**B-5**

**SHELL OIL COMPANY**
Former Shell Service Station
461 Eighth Street
Oakland, California

| | |
|---|---|
| Borehole Diameter: | 1 inch |
| Logged by: | JLP |
| Driller: | ECA |
| Date Started: | 7-6-94 |
| Date Completed: | 7-6-94 |

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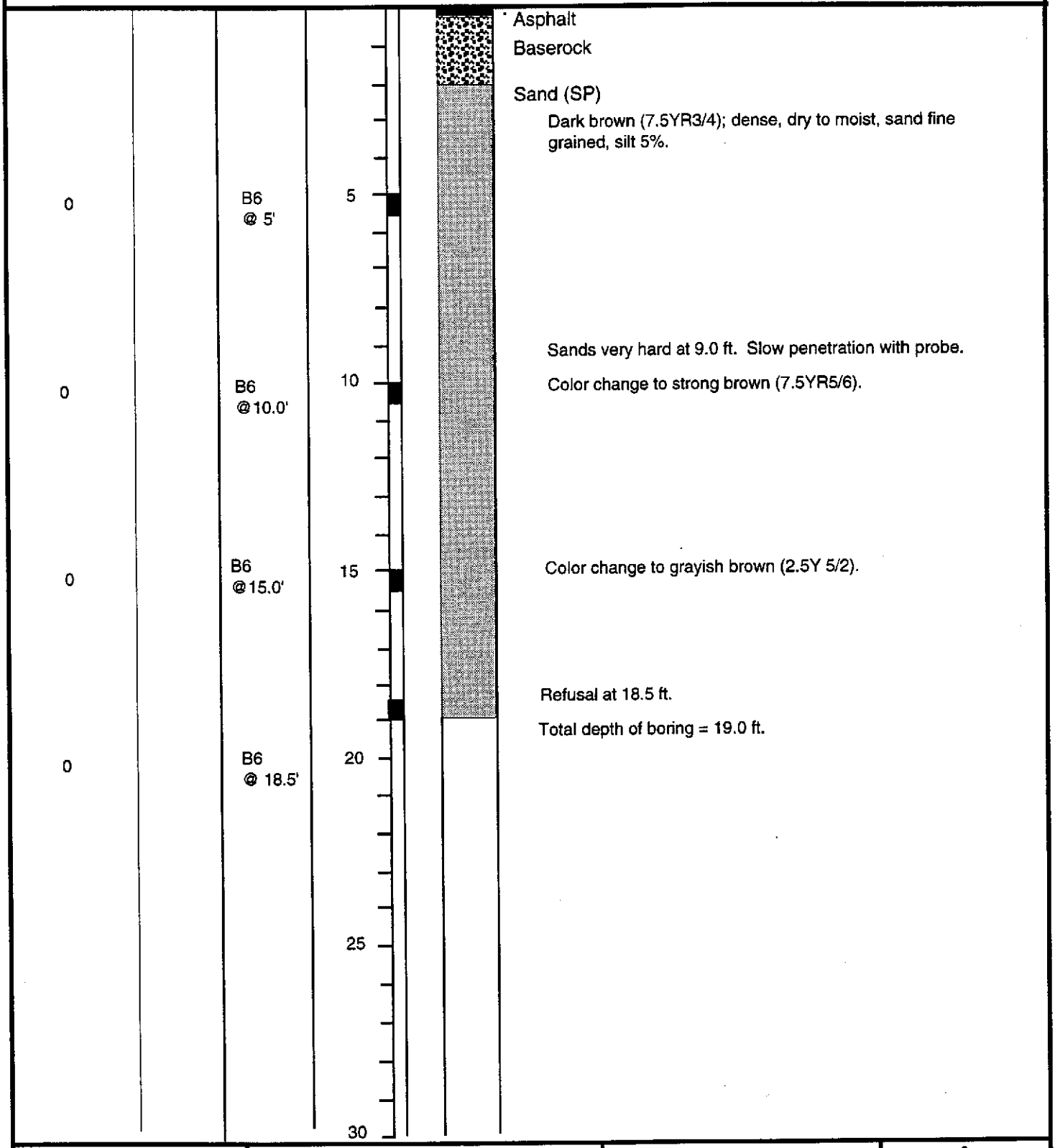
E493216

# Field Exploratory Boring Log B-6




| BORING | | | |
|---|---|---|---|
| **B-6** | **SHELL OIL COMPANY**<br>Former Shell Service Station<br>461 Eighth Street<br>Oakland, California | Borehole Diameter: 1 inch<br>Logged by: JLP<br>Driller: ECA<br>Date Started: 7-7-94<br>Date Completed: 7-7-94 | *enviros* ®<br>**E493216** |

# Field Exploratory Boring Log B-7

| OVM (ppm) | Blows/6" | Sample Number | Depth (ft) | Soil Group (USCS) | Materials Description |
|---|---|---|---|---|---|
| | | | | | Asphalt |
| | | | | | Baserock |
| | | | | | Sand (SP) |
| | | | | | Dark Brown (7.5YR 3/4); dense, dry to moist, sand fine grained, <5% silt. |
| 6.6 | | B7 @ 5' | 5 | | |
| | | | | | Very hard driving probe at approximately 8.0 ft. |
| 39.3 | | B7 @10.0' | 10 | | Color change to strong brown (7.5YR 5/6). |
| | | | | | Refusal at 10.5 ft. |
| | | | | | Total depth of boring = 10.5 ft. |
| | | | 15 | | |
| | | | 20 | | |
| | | | 25 | | |
| | | | 30 | | |

**BORING**
**B-7**

**SHELL OIL COMPANY**
Former Shell Service Station
461 Eighth Street
Oakland, California

| | |
|---|---|
| Borehole Diameter: | 1 inch |
| Logged by: | JLP |
| Driller: | ECA |
| Date Started: | 7-7-94 |
| Date Completed: | 7-7-94 |

*enviros* ®
E493216

# Field Exploratory Boring Log B-8

| OVM (ppm) | Blows/6" | Sample Number | Depth (ft) | Soil Group (USCS) | Materials Description |
|---|---|---|---|---|---|
| | | | | | Asphalt |
| | | | | | Baserock |
| | | | | | Sand (SP) |
| | | | | | Brown (7.YR 4/4); dense, dry to moist, sand fine grained, silt <5%. |
| 0 | | B8 @ 5' | 5 | | |
| | | | | | Very hard driving probe at approximately 8.0 ft. |
| | | | | | Refusal at 9.0 ft. |
| | | | | | Total depth of boring = 9.5 ft. |
| NA | | B8 @ 9.0' | 10 | | |
| | | | 15 | | |
| | | | 20 | | |
| | | | 25 | | |
| | | | 30 | | |

**BORING**
**B-8**

**SHELL OIL COMPANY**
Former Shell Service Station
461 Eighth Street
Oakland, California

| | |
|---|---|
| Borehole Diameter: | 1 inch |
| Logged by: | JLP |
| Driller: | ECA |
| Date Started: | 7-7-94 |
| Date Completed: | 7-7-94 |

*enviros* ®
**E493216**

# Field Exploratory Boring Log B-9

| OVM (ppm) | Blows/6" | Sample Number | Depth (ft) | Soil Group (USCS) | Materials Description |
|---|---|---|---|---|---|
| | | | | | Asphalt |
| | | | | | Baserock |
| | | | | | Sand (SP) |
| | | | | | Dark brown (7.5YR 4/4); loose to medium dense, dry to moist, fine grained sands, <5% silt. |
| 0 | | B9 @ 5' | 5 | | |
| | | | | | Color change to yellowish brown (10YR 5/4) |
| 0 | | B9 @10.0' | 10 | | Color change to dark brown (7.5YR 4/4) |
| | | | | | Sands very hard at 11.0 ft. Slow penetration with probe. Color change to strong brown (7.5YR 4/6) |
| | | | | | Color change to yellowish brown (10YR 5/6). |
| | | | | | Refusal at 14.5 ft. |
| 0 | | B9 @14.5' | 15 | | Total depth of boring = 14.5 ft. |
| | | | 20 | | |
| | | | 25 | | |
| | | | 30 | | |

■ Continuous Core

| BORING | | | |
|---|---|---|---|
| **B-9** | **SHELL OIL COMPANY**<br>Former Shell Service Station<br>461 Eighth Street<br>Oakland, California | Borehole Diameter: 1 inch<br>Logged by: JLP<br>Driller: ECA<br>Date Started: 7-7-94<br>Date Completed: 7-7-94 | *enviros*®<br>**E493216** |

# Appendix B

## NET Laboratory Reports
## &
## Chain-of-Custody Records

NATIONAL ENVIRONMENTAL TESTING, INC.

Santa Rosa Division
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

Diane Lundquist
Enviros
PO Box 259
19411 Riverside Dr.
Sonoma, CA 95476-0259

Date: 07/25/1994
NET Client Acct. No: 1826
NET Pacific Job No: 94.02912
Received: 07/08/1994

RECEIVED
JUL 24 1994

Client Reference Information

SHELL, 461 8th St., Oakland

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

Judy Ridley
Project Coordinator

Jim Hoch
Operations Manager

Enclosure(s)

Ref: SHELL, 461 8th St., Oakland

SAMPLE DESCRIPTION: B1-5.0
Date Taken: 07/06/1994
Time Taken:
NET Sample No: 199510

| Parameter | Results | Flags | Reporting Limit | Units | Method | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| TPH (Gas/BTXE,Solid) | | | | | | | |
| METHOD 5030/M8015 | -- | | | | | | 07/19/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/19/1994 |
| as Gasoline | ND | | 1 | mg/kg | 5030 | | 07/19/1994 |
| Carbon Range: | -- | | | | | | 07/19/1994 |
| METHOD 8020 (GC,Solid) | -- | | | | | | 07/19/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/19/1994 |
| Benzene | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Toluene | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Ethylbenzene | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Xylenes (Total) | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| SURROGATE RESULTS | -- | | | | | | 07/19/1994 |
| Bromofluorobenzene (SURR) | 82 | | | % Rec. | 5030 | | 07/19/1994 |
| METHOD M8015 (EXT., Solid) | | | | | | 07/14/1994 | |
| DILUTION FACTOR* | 1 | | | | | | 07/20/1994 |
| as Diesel | 28 | DH | 1 | mg/kg | 3550 | | 07/20/1994 |
| Carbon Range: | C16-C28 | | | | | | 07/20/1994 |

DH : The positive result appears to be a heavier hydrocarbon than Diesel.

Ref: SHELL, 461 8th St., Oakland

SAMPLE DESCRIPTION: B1-10.0
Date Taken: 07/06/1994
Time Taken:
NET Sample No: 199511

| Parameter | Results | Flags | Reporting Limit | Units | Method | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| TPH (Gas/BTXE,Solid) | | | | | | | |
| METHOD 5030/M8015 | -- | | | | | | 07/19/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/19/1994 |
| as Gasoline | ND | | 1 | mg/kg | 5030 | | 07/19/1994 |
| Carbon Range: | -- | | | | | | 07/19/1994 |
| METHOD 8020 (GC,Solid) | -- | | | | | | 07/19/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/19/1994 |
| Benzene | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Toluene | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Ethylbenzene | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Xylenes (Total) | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| SURROGATE RESULTS | -- | | | | | | 07/19/1994 |
| Bromofluorobenzene (SURR) | 96 | | | % Rec. | 5030 | | 07/19/1994 |
| METHOD M8015 (EXT., Solid) | | | | | | 07/14/1994 | |
| DILUTION FACTOR* | 2 | | | | | | 07/20/1994 |
| as Diesel | ND | | 2 | mg/kg | 3550 | | 07/20/1994 |
| Carbon Range: | -- | | | | | | 07/20/1994 |

Ref: SHELL, 461 8th St., Oakland

SAMPLE DESCRIPTION: B2-15.0
Date Taken: 07/06/1994
Time Taken:
NET Sample No: 199513

| Parameter | Results | Flags | Reporting Limit | Units | Method | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| TPH (Gas/BTXE,Solid) | | | | | | | |
| METHOD 5030/M8015 | -- | | | | | | 07/19/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/19/1994 |
| as Gasoline | ND | | 1 | mg/kg | 5030 | | 07/19/1994 |
| Carbon Range: | -- | | | | | | 07/19/1994 |
| METHOD 8020 (GC,Solid) | -- | | | | | | 07/19/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/19/1994 |
| Benzene | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Toluene | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Ethylbenzene | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Xylenes (Total) | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| SURROGATE RESULTS | -- | | | | | | 07/19/1994 |
| Bromofluorobenzene (SURR) | 101 | | | % Rec. | 5030 | | 07/19/1994 |
| METHOD M8015 (EXT., Solid) | | | | | | 07/14/1994 | |
| DILUTION FACTOR* | 2 | | | | | | 07/20/1994 |
| as Diesel | ND | | 2 | mg/kg | 3550 | | 07/20/1994 |
| Carbon Range: | -- | | | | | | 07/20/1994 |

Ref: SHELL, 461 8th St., Oakland

SAMPLE DESCRIPTION: B2-5.0
Date Taken: 07/06/1994
Time Taken:
NET Sample No: 199512

| Parameter | Results | Flags | Reporting Limit | Units | Method | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| TPH (Gas/BTXE,Solid) | | | | | | | |
| METHOD 5030/M8015 | -- | | | | | | 07/19/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/19/1994 |
| as Gasoline | ND | | 1 | mg/kg | 5030 | | 07/19/1994 |
| Carbon Range: | -- | | | | | | 07/19/1994 |
| METHOD 8020 (GC,Solid) | -- | | | | | | 07/19/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/19/1994 |
| Benzene | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Toluene | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Ethylbenzene | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Xylenes (Total) | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| SURROGATE RESULTS | -- | | | | | | 07/19/1994 |
| Bromofluorobenzene (SURR) | 95 | | | % Rec. | 5030 | | 07/19/1994 |
| METHOD M8015 (EXT., Solid) | | | | | | 07/14/1994 | |
| DILUTION FACTOR* | 2 | | | | | | 07/20/1994 |
| as Diesel | ND | | 2 | mg/kg | 3550 | | 07/20/1994 |
| Carbon Range: | -- | | | | | | 07/20/1994 |

Ref: SHELL, 461 8th St., Oakland

SAMPLE DESCRIPTION: B2-20.0
Date Taken: 07/06/1994
Time Taken:
NET Sample No: 199514

| Parameter | Results | Flags | Reporting Limit | Units | Method | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| TPH (Gas/BTXE,Solid) | | | | | | | |
| METHOD 5030/M8015 | -- | | | | | | 07/20/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/20/1994 |
| as Gasoline | ND | | 1 | mg/kg | 5030 | | 07/20/1994 |
| Carbon Range: | -- | | | | | | 07/20/1994 |
| METHOD 8020 (GC,Solid) | -- | | | | | | 07/20/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/20/1994 |
| Benzene | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| Toluene | 0.0028 | C | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| Ethylbenzene | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| Xylenes (Total) | 0.0030 | C | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| SURROGATE RESULTS | -- | | | | | | 07/20/1994 |
| Bromofluorobenzene (SURR) | 93 | | | % Rec. | 5030 | | 07/20/1994 |
| METHOD M8015 (EXT., Solid) | | | | | | 07/14/1994 | |
| DILUTION FACTOR* | 2 | | | | | | 07/20/1994 |
| as Diesel | ND | | 2 | mg/kg | 3550 | | 07/20/1994 |
| Carbon Range: | -- | | | | | | 07/20/1994 |

C : Positive result confirmed by secondary column or GC/MS analysis.

Ref: SHELL, 461 8th St., Oakland

SAMPLE DESCRIPTION: B3-10.0
Date Taken: 07/06/1994
Time Taken:
NET Sample No: 199515

| Parameter | Results | Flags | Reporting Limit | Units | Method | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| TPH (Gas/BTXE,Solid) | | | | | | | |
| METHOD 5030/M8015 | -- | | | | | | 07/20/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/20/1994 |
| as Gasoline | ND | | 1 | mg/kg | 5030 | | 07/20/1994 |
| Carbon Range: | -- | | | | | | 07/20/1994 |
| METHOD 8020 (GC,Solid) | -- | | | | | | 07/20/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/20/1994 |
| Benzene | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| Toluene | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| Ethylbenzene | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| Xylenes (Total) | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| SURROGATE RESULTS | -- | | | | | | 07/20/1994 |
| Bromofluorobenzene (SURR) | 84 | | | % Rec. | 5030 | | 07/20/1994 |
| METHOD M8015 (EXT., Solid) | | | | | | 07/14/1994 | |
| DILUTION FACTOR* | 2 | | | | | | 07/20/1994 |
| as Diesel | 50 | DH | 2 | mg/kg | 3550 | | 07/20/1994 |
| Carbon Range: | C10-C28 | | | | | | 07/20/1994 |

DH : The positive result appears to be a heavier hydrocarbon than Diesel.

Ref: SHELL, 461 8th St., Oakland

SAMPLE DESCRIPTION: B3-15.0
Date Taken: 07/06/1994
Time Taken:
NET Sample No: 199516

| Parameter | Results | Flags | Reporting Limit | Units | Method | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| TPH (Gas/BTXE,Solid) | | | | | | | |
| METHOD 5030/M8015 | -- | | | | | | 07/19/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/19/1994 |
| as Gasoline | ND | | 1 | mg/kg | 5030 | | 07/19/1994 |
| Carbon Range: | -- | | | | | | 07/19/1994 |
| METHOD 8020 (GC,Solid) | -- | | | | | | 07/19/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/19/1994 |
| Benzene | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Toluene | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Ethylbenzene | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Xylenes (Total) | 0.025 | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| SURROGATE RESULTS | -- | | | | | | 07/19/1994 |
| Bromofluorobenzene (SURR) | 101 | | | % Rec. | 5030 | | 07/19/1994 |
| METHOD M8015 (EXT., Solid) | | | | | | 07/14/1994 | |
| DILUTION FACTOR* | 2 | | | | | | 07/20/1994 |
| as Diesel | 4.1 | | 2 | mg/kg | 3550 | | 07/20/1994 |
| Carbon Range: | C10-C16 | | | | | | 07/20/1994 |

Ref: SHELL, 461 8th St., Oakland

SAMPLE DESCRIPTION: B4-5.0
Date Taken: 07/06/1994
Time Taken:
NET Sample No: 199517

| Parameter | Results | Flags | Reporting Limit | Units | Method | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| TPH (Gas/BTXE,Solid) | | | | | | | |
| METHOD 5030/M8015 | -- | | | | | | 07/19/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/19/1994 |
| as Gasoline | ND | | 1 | mg/kg | 5030 | | 07/19/1994 |
| Carbon Range: | -- | | | | | | 07/19/1994 |
| METHOD 8020 (GC,Solid) | -- | | | | | | 07/19/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/19/1994 |
| Benzene | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Toluene | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Ethylbenzene | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Xylenes (Total) | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| SURROGATE RESULTS | -- | | | | | | 07/19/1994 |
| Bromofluorobenzene (SURR) | 87 | | | % Rec. | 5030 | | 07/19/1994 |
| METHOD M8015 (EXT., Solid) | | | | | | 07/14/1994 | |
| DILUTION FACTOR* | 2 | | | | | | 07/20/1994 |
| as Diesel | ND | | 2 | mg/kg | 3550 | | 07/20/1994 |
| Carbon Range: | -- | | | | | | 07/20/1994 |

Ref: SHELL, 461 8th St., Oakland

SAMPLE DESCRIPTION: B4-10.0
Date Taken: 07/06/1994
Time Taken:
NET Sample No: 199518

| Parameter | Results | Flags | Reporting Limit | Units | Method | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| TPH (Gas/BTXE,Solid) | | | | | | | |
| METHOD 5030/M8015 | -- | | | | | | 07/19/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/19/1994 |
| as Gasoline | 15 | | 1 | mg/kg | 5030 | | 07/19/1994 |
| Carbon Range: | C5-C14 | | | | | | 07/19/1994 |
| METHOD 8020 (GC,Solid) | -- | | | | | | 07/19/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/19/1994 |
| Benzene | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Toluene | 0.037 | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Ethylbenzene | 0.027 | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Xylenes (Total) | 0.21 | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| SURROGATE RESULTS | -- | | | | | | 07/19/1994 |
| Bromofluorobenzene (SURR) | 111 | | | % Rec. | 5030 | | 07/19/1994 |
| METHOD M8015 (EXT., Solid) | | | | | | 07/14/1994 | |
| DILUTION FACTOR* | 2 | | | | | | 07/20/1994 |
| as Diesel | 13 | DL | 2 | mg/kg | 3550 | | 07/20/1994 |
| Carbon Range: | C8-C16 | | | | | | 07/20/1994 |

DL : The positive result appears to be a lighter hydrocarbon than Diesel.

Ref: SHELL, 461 8th St., Oakland

SAMPLE DESCRIPTION: B9-5.0
Date Taken: 07/07/1994
Time Taken:
NET Sample No: 199519

| Parameter | Results | Flags | Reporting Limit | Units | Method | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| TPH (Gas/BTXE,Solid) | | | | | | | |
| METHOD 5030/M8015 | -- | | | | | | 07/19/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/19/1994 |
| as Gasoline | ND | | 1 | mg/kg | 5030 | | 07/19/1994 |
| Carbon Range: | -- | | | | | | 07/19/1994 |
| METHOD 8020 (GC,Solid) | -- | | | | | | 07/19/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/19/1994 |
| Benzene | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Toluene | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Ethylbenzene | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Xylenes (Total) | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| SURROGATE RESULTS | -- | | | | | | 07/19/1994 |
| Bromofluorobenzene (SURR) | 86 | | | % Rec. | 5030 | | 07/19/1994 |
| METHOD M8015 (EXT., Solid) | | | | | | 07/14/1994 | |
| DILUTION FACTOR* | 1 | | | | | | 07/20/1994 |
| as Diesel | ND | | 1 | mg/kg | 3550 | | 07/20/1994 |
| Carbon Range: | -- | | | | | | 07/20/1994 |

Ref: SHELL, 461 8th St., Oakland

SAMPLE DESCRIPTION: B9-14.5
Date Taken: 07/07/1994
Time Taken:
NET Sample No: 199520

| Parameter | Results | Flags | Reporting Limit | Units | Method | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| TPH (Gas/BTXE,Solid) | | | | | | | |
| METHOD 5030/M8015 | -- | | | | | | 07/19/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/19/1994 |
| as Gasoline | ND | | 1 | mg/kg | 5030 | | 07/19/1994 |
| Carbon Range: | -- | | | | | | 07/19/1994 |
| METHOD 8020 (GC,Solid) | -- | | | | | | 07/19/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/19/1994 |
| Benzene | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Toluene | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Ethylbenzene | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Xylenes (Total) | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| SURROGATE RESULTS | -- | | | | | | 07/19/1994 |
| Bromofluorobenzene (SURR) | 88 | | | % Rec. | 5030 | | 07/19/1994 |
| METHOD M8015 (EXT., Solid) | | | | | | 07/14/1994 | |
| DILUTION FACTOR* | 2 | | | | | | 07/20/1994 |
| as Diesel | ND | | 2 | mg/kg | 3550 | | 07/20/1994 |
| Carbon Range: | -- | | | | | | 07/20/1994 |

Ref: SHELL, 461 8th St., Oakland

SAMPLE DESCRIPTION: B8-5.0
Date Taken: 07/07/1994
Time Taken:
NET Sample No: 199521

| Parameter | Results | Flags | Reporting Limit | Units | Method | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| TPH (Gas/BTXE,Solid) | | | | | | | |
| METHOD 5030/M8015 | -- | | | | | | 07/19/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/19/1994 |
| as Gasoline | ND | | 1 | mg/kg | 5030 | | 07/19/1994 |
| Carbon Range: | -- | | | | | | 07/19/1994 |
| METHOD 8020 (GC,Solid) | -- | | | | | | 07/19/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/19/1994 |
| Benzene | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Toluene | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Ethylbenzene | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| Xylenes (Total) | ND | | 0.0025 | mg/kg | 8020 | | 07/19/1994 |
| SURROGATE RESULTS | -- | | | | | | 07/19/1994 |
| Bromofluorobenzene (SURR) | 71 | | | % Rec. | 5030 | | 07/19/1994 |
| METHOD M8015 (EXT., Solid) | | | | | | 07/14/1994 | |
| DILUTION FACTOR* | 2 | | | | | | 07/20/1994 |
| as Diesel | ND | | 2 | mg/kg | 3550 | | 07/20/1994 |
| Carbon Range: | -- | | | | | | 07/20/1994 |

Ref: SHELL, 461 8th St., Oakland

SAMPLE DESCRIPTION: B8-9.0
Date Taken: 07/07/1994
Time Taken:
NET Sample No: 199522

| Parameter | Results | Flags | Reporting Limit | Units | Method | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| TPH (Gas/BTXE,Solid) | | | | | | | |
| METHOD 5030/M8015 | -- | | | | | | 07/20/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/20/1994 |
| as Gasoline | ND | | 1 | mg/kg | 5030 | | 07/20/1994 |
| Carbon Range: | -- | | | | | | 07/20/1994 |
| METHOD 8020 (GC,Solid) | -- | | | | | | 07/20/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/20/1994 |
| Benzene | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| Toluene | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| Ethylbenzene | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| Xylenes (Total) | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| SURROGATE RESULTS | -- | | | | | | 07/20/1994 |
| Bromofluorobenzene (SURR) | 88 | | | % Rec. | 5030 | | 07/20/1994 |
| METHOD M8015 (EXT., Solid) | | | | | | 07/14/1994 | |
| DILUTION FACTOR* | 4 | | | | | | 07/20/1994 |
| as Diesel | ND | | 4 | mg/kg | 3550 | | 07/20/1994 |
| Carbon Range: | -- | | | | | | 07/20/1994 |

Ref: SHELL, 461 8th St., Oakland

SAMPLE DESCRIPTION: B7-5.0
Date Taken: 07/07/1994
Time Taken:
NET Sample No: 199523

| Parameter | Results | Flags | Reporting Limit | Units | Method | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| TPH (Gas/BTXE,Solid) | | | | | | | |
| METHOD 5030/M8015 | -- | | | | | | 07/20/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/20/1994 |
| as Gasoline | ND | | 1 | mg/kg | 5030 | | 07/20/1994 |
| Carbon Range: | -- | | | | | | 07/20/1994 |
| METHOD 8020 (GC,Solid) | -- | | | | | | 07/20/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/20/1994 |
| Benzene | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| Toluene | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| Ethylbenzene | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| Xylenes (Total) | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| SURROGATE RESULTS | -- | | | | | | 07/20/1994 |
| Bromofluorobenzene (SURR) | 83 | | | % Rec. | 5030 | | 07/20/1994 |
| METHOD M8015 (EXT., Solid) | | | | | | 07/14/1994 | |
| DILUTION FACTOR* | 2 | | | | | | 07/20/1994 |
| as Diesel | 31 | DH | 2 | mg/kg | 3550 | | 07/20/1994 |
| Carbon Range: | C14-C28 | | | | | | 07/20/1994 |

DH : The positive result appears to be a heavier hydrocarbon than Diesel.

Ref: SHELL, 461 8th St., Oakland

SAMPLE DESCRIPTION: B7-10.0
Date Taken: 07/07/1994
Time Taken:
NET Sample No: 199524

| Parameter | Results | Flags | Reporting Limit | Units | Method | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| TPH (Gas/BTXE,Solid) | | | | | | | |
| METHOD 5030/M8015 | -- | | | | | | 07/20/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/20/1994 |
| as Gasoline | 14 | | 1 | mg/kg | 5030 | | 07/20/1994 |
| Carbon Range: | C5-C14 | | | | | | 07/20/1994 |
| METHOD 8020 (GC,Solid) | -- | | | | | | 07/20/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/20/1994 |
| Benzene | 0.24 | FC | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| Toluene | 0.89 | FC | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| Ethylbenzene | 0.31 | FC | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| Xylenes (Total) | 2.0 | FC | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| SURROGATE RESULTS | -- | | | | | | 07/20/1994 |
| Bromofluorobenzene (SURR) | 208 | MI | | % Rec. | 5030 | | 07/20/1994 |
| METHOD M8015 (EXT., Solid) | | | | | | 07/14/1994 | |
| DILUTION FACTOR* | 20 | | | | | | 07/20/1994 |
| as Diesel | 410 | DL | 20 | mg/kg | 3550 | | 07/20/1994 |
| Carbon Range: | C8-C16 | | | | | | 07/20/1994 |

DL : The positive result appears to be a lighter hydrocarbon than Diesel.
FC : Compound quantitated at a 10X dilution factor.
MI : Matrix Interference Suspected

Ref: SHELL, 461 8th St., Oakland

SAMPLE DESCRIPTION: B6-5.0
Date Taken: 07/07/1994
Time Taken:
NET Sample No: 199525

| Parameter | Results | Flags | Reporting Limit | Units | Method | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| TPH (Gas/BTXE,Solid) | | | | | | | |
| METHOD 5030/M8015 | -- | | | | | | 07/20/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/20/1994 |
| as Gasoline | ND | | 1 | mg/kg | 5030 | | 07/20/1994 |
| Carbon Range: | -- | | | | | | 07/20/1994 |
| METHOD 8020 (GC,Solid) | -- | | | | | | 07/20/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/20/1994 |
| Benzene | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| Toluene | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| Ethylbenzene | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| Xylenes (Total) | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| SURROGATE RESULTS | -- | | | | | | 07/20/1994 |
| Bromofluorobenzene (SURR) | 91 | | | % Rec. | 5030 | | 07/20/1994 |
| METHOD M8015 (EXT., Solid) | | | | | | 07/14/1994 | |
| DILUTION FACTOR* | 2 | | | | | | 07/20/1994 |
| as Diesel | ND | | 2 | mg/kg | 3550 | | 07/20/1994 |
| Carbon Range: | -- | | | | | | 07/20/1994 |

Ref: SHELL, 461 8th St., Oakland

SAMPLE DESCRIPTION: B6-18.5
Date Taken: 07/07/1994
Time Taken:
NET Sample No: 199526

| Parameter | Results | Flags | Reporting Limit | Units | Method | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| TPH (Gas/BTXE,Solid) | | | | | | | |
| METHOD 5030/M8015 | -- | | | | | | 07/20/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/20/1994 |
| as Gasoline | ND | | 1 | mg/kg | 5030 | | 07/20/1994 |
| Carbon Range: | -- | | | | | | 07/20/1994 |
| METHOD 8020 (GC,Solid) | -- | | | | | | 07/20/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/20/1994 |
| Benzene | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| Toluene | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| Ethylbenzene | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| Xylenes (Total) | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| SURROGATE RESULTS | -- | | | | | | 07/20/1994 |
| Bromofluorobenzene (SURR) | 97 | | | % Rec. | 5030 | | 07/20/1994 |
| METHOD M8015 (EXT., Solid) | | | | | | 07/14/1994 | |
| DILUTION FACTOR* | 2 | | | | | | 07/20/1994 |
| as Diesel | ND | | 2 | mg/kg | 3550 | | 07/20/1994 |
| Carbon Range: | -- | | | | | | 07/20/1994 |

Ref: SHELL, 461 8th St., Oakland

SAMPLE DESCRIPTION: B5-5.0
Date Taken: 07/07/1994
Time Taken:
NET Sample No: 199527

| Parameter | Results | Flags | Reporting Limit | Units | Method | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| Oil & Grease (Total) | 68 | | 50 | mg/kg | 5520E | | 07/16/1994 |
| Oil & Grease (Non-Polar) | 54 | | 50 | mg/kg | 5520E/F | | 07/16/1994 |
| ICP METALS SOLID | | | | | | | 07/15/1994 |
| Cadmium (ICP) | ND | | 2.0 | mg/kg | EPA 6010 | 07/15/1994 | 07/15/1994 |
| Chromium (ICP) | 34 | | 2.0 | mg/kg | EPA 6010 | 07/15/1994 | 07/15/1994 |
| Lead (GFAA) | 4.0 | | 0.2 | mg/kg | EPA 7421 | 07/14/1994 | 07/18/1994 |
| Nickel (ICP) | 18 | | 5.0 | mg/kg | EPA 6010 | 07/15/1994 | 07/15/1994 |
| Zinc (ICP) | 140 | | 5.0 | mg/kg | EPA 6010 | 07/15/1994 | 07/15/1994 |
| TPH (Gas/BTXE,Solid) | | | | | | | |
| METHOD 5030/M8015 | -- | | | | | | 07/20/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/20/1994 |
| as Gasoline | ND | | 1 | mg/kg | 5030 | | 07/20/1994 |
| Carbon Range: | -- | | | | | | 07/20/1994 |
| METHOD 8020 (GC,Solid) | -- | | | | | | 07/20/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/20/1994 |
| Benzene | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| Toluene | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| Ethylbenzene | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| Xylenes (Total) | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| SURROGATE RESULTS | -- | | | | | | 07/20/1994 |
| Bromofluorobenzene (SURR) | 72 | | | % Rec. | 5030 | | 07/20/1994 |
| METHOD M8015 (EXT., Solid) | | | | | | 07/14/1994 | |
| DILUTION FACTOR* | 2 | | | | | | 07/20/1994 |
| as Diesel | ND | | 2 | mg/kg | 3550 | | 07/20/1994 |
| Carbon Range: | -- | | | | | | 07/20/1994 |

Ref: SHELL, 461 8th St., Oakland

SAMPLE DESCRIPTION: B5-5.0
Date Taken: 07/07/1994
Time Taken:
NET Sample No: 199527

| Parameter | Results | Flags | Reporting Limit | Units | Method | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| METHOD 8010 (GC,Solid) | | | | | | | |
| DILUTION FACTOR* | 1 | | | | | | 07/12/1994 |
| Bromodichloromethane | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| Bromoform | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| Bromomethane | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| Carbon tetrachloride | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| Chlorobenzene | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| Chloroethane | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| 2-Chloroethylvinyl ether | ND | | 0.005 | mg/kg | 8010 | | 07/12/1994 |
| Chloroform | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| Chloromethane | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| Dibromochloromethane | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| 1,2-Dichlorobenzene | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| 1,3-Dichlorobenzene | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| 1,4-Dichlorobenzene | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| Dichlorodifluoromethane | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| 1,1-Dichloroethane | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| 1,2-Dichloroethane | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| 1,1-Dichloroethene | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| trans-1,2-Dichloroethene | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| 1,2-Dichloropropane | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| cis-1,3-Dichloropropene | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| trans-1,3-Dichloropropene | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| Methylene chloride | ND | | 0.050 | mg/kg | 8010 | | 07/12/1994 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| Tetrachloroethene | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| 1,1,1-Trichloroethane | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| 1,1,2-Trichloroethane | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| Trichloroethene | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| Trichlorofluoromethane | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| Vinyl chloride | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| SURROGATE RESULTS | -- | | | | | | 07/12/1994 |
| 1,4-Difluorobenzene (SURR) | 68 | | | % Rec. | | | 07/12/1994 |
| 1,4-Dichlorobutane (SURR) | 74 | | | % Rec. | | | 07/12/1994 |

Ref: SHELL, 461 8th St., Oakland

SAMPLE DESCRIPTION: B5-9.75
Date Taken: 07/07/1994
Time Taken:
NET Sample No: 199528

| Parameter | Results | Flags | Reporting Limit | Units | Method | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| Oil & Grease (Total) | 58 | | 50 | mg/kg | 5520E | | 07/16/1994 |
| Oil & Grease (Non-Polar) | ND | | 50 | mg/kg | 5520E/F | | 07/16/1994 |
| ICP METALS SOLID | -- | | | | | | 07/15/1994 |
| Cadmium (ICP) | ND | | 2.0 | mg/kg | EPA 6010 | 07/15/1994 | 07/15/1994 |
| Chromium (ICP) | 51 | | 2.0 | mg/kg | EPA 6010 | 07/15/1994 | 07/15/1994 |
| Lead (GFAA) | 4.6 | | 0.2 | mg/kg | EPA 7421 | 07/14/1994 | 07/18/1994 |
| Nickel (ICP) | 35 | | 5.0 | mg/kg | EPA 6010 | 07/15/1994 | 07/15/1994 |
| Zinc (ICP) | 980 | | 5.0 | mg/kg | EPA 6010 | 07/15/1994 | 07/15/1994 |
| TPH (Gas/BTXE,Solid) | | | | | | | |
| METHOD 5030/M8015 | -- | | | | | | 07/20/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/20/1994 |
| as Gasoline | ND | | 1 | mg/kg | 5030 | | 07/20/1994 |
| Carbon Range: | -- | | | | | | 07/20/1994 |
| METHOD 8020 (GC,Solid) | -- | | | | | | 07/20/1994 |
| DILUTION FACTOR* | 1 | | | | | | 07/20/1994 |
| Benzene | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| Toluene | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| Ethylbenzene | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| Xylenes (Total) | ND | | 0.0025 | mg/kg | 8020 | | 07/20/1994 |
| SURROGATE RESULTS | -- | | | | | | 07/20/1994 |
| Bromofluorobenzene (SURR) | 82 | | | % Rec. | 5030 | | 07/20/1994 |
| METHOD M8015 (EXT., Solid) | | | | | | 07/14/1994 | |
| DILUTION FACTOR* | 2 | | | | | | 07/20/1994 |
| as Diesel | ND | | 2 | mg/kg | 3550 | | 07/20/1994 |
| Carbon Range: | -- | | | | | | 07/20/1994 |

Ref: SHELL, 461 8th St., Oakland

SAMPLE DESCRIPTION: B5-9.75
Date Taken: 07/07/1994
Time Taken:
NET Sample No: 199528

| Parameter | Results | Flags | Reporting Limit | Units | Method | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| METHOD 8010 (GC,Solid) | | | | | | | |
| DILUTION FACTOR* | 1 | | | | | | 07/12/1994 |
| Bromodichloromethane | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| Bromoform | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| Bromomethane | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| Carbon tetrachloride | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| Chlorobenzene | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| Chloroethane | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| 2-Chloroethylvinyl ether | ND | | 0.005 | mg/kg | 8010 | | 07/12/1994 |
| Chloroform | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| Chloromethane | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| Dibromochloromethane | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| 1,2-Dichlorobenzene | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| 1,3-Dichlorobenzene | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| 1,4-Dichlorobenzene | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| Dichlorodifluoromethane | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| 1,1-Dichloroethane | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| 1,2-Dichloroethane | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| 1,1-Dichloroethene | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| trans-1,2-Dichloroethene | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| 1,2-Dichloropropane | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| cis-1,3-Dichloropropene | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| trans-1,3-Dichloropropene | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| Methylene chloride | ND | | 0.050 | mg/kg | 8010 | | 07/12/1994 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| Tetrachloroethene | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| 1,1,1-Trichloroethane | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| 1,1,2-Trichloroethane | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| Trichloroethene | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| Trichlorofluoromethane | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| Vinyl chloride | ND | | 0.002 | mg/kg | 8010 | | 07/12/1994 |
| SURROGATE RESULTS | -- | | | | | | 07/12/1994 |
| 1,4-Difluorobenzene (SURR) | 69 | | | % Rec. | | | 07/12/1994 |
| 1,4-Dichlorobutane (SURR) | 72 | | | % Rec. | | | 07/12/1994 |

Ref: SHELL, 461 8th St., Oakland

# CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

| Parameter | CCV Standard % Recovery | CCV Standard Amount Found | CCV Standard Amount Expected | Units | Date Analyzed | Analyst Initials |
|---|---|---|---|---|---|---|
| Cadmium (ICP) | 100.5 | 1.005 | 1.00 | mg/L | 07/15/1994 | jeo |
| Chromium (ICP) | 102.4 | 1.024 | 1.00 | mg/L | 07/15/1994 | jeo |
| Lead (GFAA) | 104.8 | 0.0262 | 0.0250 | mg/L | 07/18/1994 | djm |
| Nickel (ICP) | 101.1 | 1.011 | 1.00 | mg/L | 07/15/1994 | jeo |
| Zinc (ICP) | 98.2 | 0.982 | 1.00 | mg/L | 07/15/1994 | jeo |
| TPH (Gas/BTXE,Solid) | | | | | | |
| as Gasoline | 86.0 | 4.30 | 5.00 | mg/kg | 07/19/1994 | pbg |
| Benzene | 92.0 | 23.0 | 25.0 | ug/kg | 07/19/1994 | pbg |
| Toluene | 87.6 | 21.9 | 25.0 | ug/kg | 07/19/1994 | pbg |
| Ethylbenzene | 87.2 | 21.8 | 25.0 | ug/kg | 07/19/1994 | pbg |
| Xylenes (Total) | 92.3 | 69.2 | 75.0 | ug/kg | 07/19/1994 | pbg |
| Bromofluorobenzene (SURR) | 83.0 | 83 | 100 | % Rec. | 07/19/1994 | pbg |
| TPH (Gas/BTXE,Solid) | | | | | | |
| as Gasoline | 87.4 | 4.37 | 5.00 | mg/kg | 07/20/1994 | jmh |
| Benzene | 96.0 | 24.0 | 25.0 | ug/kg | 07/20/1994 | jmh |
| Toluene | 100.8 | 25.2 | 25.0 | ug/kg | 07/20/1994 | jmh |
| Ethylbenzene | 93.2 | 23.3 | 25.0 | ug/kg | 07/20/1994 | jmh |
| Xylenes (Total) | 101.7 | 76.3 | 75.0 | ug/kg | 07/20/1994 | jmh |
| Bromofluorobenzene (SURR) | 99.0 | 99 | 100 | % Rec. | 07/20/1994 | jmh |
| TPH (Gas/BTXE,Solid) | | | | | | |
| as Gasoline | 114.2 | 5.71 | 5.00 | mg/kg | 07/20/1994 | pbg |
| Benzene | 84.8 | 21.2 | 25.0 | ug/kg | 07/20/1994 | pbg |
| Toluene | 91.6 | 22.9 | 25.0 | ug/kg | 07/20/1994 | pbg |
| Ethylbenzene | 94.0 | 23.5 | 25.0 | ug/kg | 07/20/1994 | pbg |
| Xylenes (Total) | 95.3 | 71.5 | 75.0 | ug/kg | 07/20/1994 | pbg |
| Bromofluorobenzene (SURR) | 97.0 | 97 | 100 | % Rec. | 07/20/1994 | pbg |
| TPH (Gas/BTXE,Solid) | | | | | | |
| as Gasoline | 89.0 | 4.45 | 5.00 | mg/kg | 07/21/1994 | jmh |
| Benzene | 100.0 | 25.0 | 25.0 | ug/kg | 07/21/1994 | jmh |
| Toluene | 99.6 | 24.9 | 25.0 | ug/kg | 07/21/1994 | jmh |
| Ethylbenzene | 86.8 | 21.7 | 25.0 | ug/kg | 07/21/1994 | jmh |
| Xylenes (Total) | 110.5 | 82.9 | 75.0 | ug/kg | 07/21/1994 | jmh |
| Bromofluorobenzene (SURR) | 99.0 | 99 | 100 | % Rec. | 07/21/1994 | jmh |
| METHOD M8015 (EXT., Solid) | | | | | | |
| as Diesel | 86.2 | 0.862 | 1.0 | mg/kg | 07/19/1994 | tts |

Ref: SHELL, 461 8th St., Oakland

# CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

| Parameter | CCV Standard % Recovery | CCV Standard Amount Found | CCV Standard Amount Expected | Units | Date Analyzed | Analyst Initials |
|---|---|---|---|---|---|---|
| METHOD 8010 (GC,Solid) | | | | | | |
| Bromodichloromethane | 104.5 | 20.9 | 20.0 | ug/kg | 07/12/1994 | nds |
| Bromoform | 101.0 | 20.2 | 20.0 | ug/kg | 07/12/1994 | nds |
| Bromomethane | 101.5 | 20.3 | 20.0 | ug/kg | 07/12/1994 | nds |
| Carbon tetrachloride | 106.0 | 21.2 | 20.0 | ug/kg | 07/12/1994 | nds |
| Chlorobenzene | 109.5 | 21.9 | 20.0 | ug/kg | 07/12/1994 | nds |
| Chloroethane | 98.5 | 19.7 | 20.0 | ug/kg | 07/12/1994 | nds |
| 2-Chloroethylvinyl ether | 89.0 | 17.8 | 20.0 | ug/kg | 07/12/1994 | nds |
| Chloroform | 105.5 | 21.1 | 20.0 | ug/kg | 07/12/1994 | nds |
| Chloromethane | 105.0 | 21.0 | 20.0 | ug/kg | 07/12/1994 | nds |
| Dibromochloromethane | 102.0 | 20.4 | 20.0 | ug/kg | 07/12/1994 | nds |
| 1,2-Dichlorobenzene | 100.0 | 20.0 | 20.0 | ug/kg | 07/12/1994 | nds |
| 1,3-Dichlorobenzene | 134.5 | 26.9 | 20.0 | ug/kg | 07/12/1994 | nds |
| 1,4-Dichlorobenzene | 134.0 | 26.8 | 20.0 | ug/kg | 07/12/1994 | nds |
| Dichlorodifluoromethane | 102.0 | 20.4 | 20.0 | ug/kg | 07/12/1994 | nds |
| 1,1-Dichloroethane | 99.0 | 19.8 | 20.0 | ug/kg | 07/12/1994 | nds |
| 1,2-Dichloroethane | 106.5 | 21.3 | 20.0 | ug/kg | 07/12/1994 | nds |
| 1,1-Dichloroethene | 104.0 | 20.8 | 20.0 | ug/kg | 07/12/1994 | nds |
| trans-1,2-Dichloroethene | 101.0 | 20.2 | 20.0 | ug/kg | 07/12/1994 | nds |
| 1,2-Dichloropropane | 106.5 | 21.3 | 20.0 | ug/kg | 07/12/1994 | nds |
| cis-1,3-Dichloropropene | 104.5 | 20.9 | 20.0 | ug/kg | 07/12/1994 | nds |
| trans-1,3-Dichloropropene | 103.0 | 20.6 | 20.0 | ug/kg | 07/12/1994 | nds |
| Methylene chloride | 123.0 | 24.6 | 20.0 | ug/kg | 07/12/1994 | nds |
| 1,1,2,2-Tetrachloroethane | 101.0 | 20.2 | 20.0 | ug/kg | 07/12/1994 | nds |
| Tetrachloroethene | 106.5 | 21.3 | 20.0 | ug/kg | 07/12/1994 | nds |
| 1,1,1-Trichloroethane | 105.5 | 21.1 | 20.0 | ug/kg | 07/12/1994 | nds |
| 1,1,2-Trichloroethane | 106.0 | 21.2 | 20.0 | ug/kg | 07/12/1994 | nds |
| Trichloroethene | 106.5 | 21.3 | 20.0 | ug/kg | 07/12/1994 | nds |
| Trichlorofluoromethane | 104.0 | 20.8 | 20.0 | ug/kg | 07/12/1994 | nds |
| Vinyl chloride | 103.5 | 20.7 | 20.0 | ug/kg | 07/12/1994 | nds |
| 1,4-Difluorobenzene (SURR) | 106.0 | 106 | 100 | % Rec. | 07/12/1994 | nds |
| 1,4-Dichlorobutane (SURR) | 103.0 | 103 | 100 | % Rec. | 07/12/1994 | nds |

Ref: SHELL, 461 9th St., Oakland

# METHOD BLANK REPORT

| Parameter | Method Blank Amount Found | Reporting Limit | Units | Date Analyzed | Analyst Initials |
|---|---|---|---|---|---|
| Oil & Grease (Total) | ND | 50 | mg/kg | 07/16/1994 | bbh |
| Oil & Grease (Non-Polar) | ND | 50 | mg/kg | 07/16/1994 | bbh |
| Cadmium (ICP) | ND | 2.0 | mg/kg | 07/15/1994 | jeo |
| Chromium (ICP) | ND | 2.0 | mg/kg | 07/15/1994 | jeo |
| Lead (GFAA) | ND | 0.2 | mg/kg | 07/18/1994 | djm |
| Nickel (ICP) | ND | 5.0 | mg/kg | 07/15/1994 | jeo |
| Zinc (ICP) | ND | 5.0 | mg/kg | 07/15/1994 | jeo |
| TPH (Gas/BTXE,Solid) | | | | | |
| as Gasoline | ND | 1 | mg/kg | 07/19/1994 | pbg |
| Benzene | ND | 2.5 | ug/kg | 07/19/1994 | pbg |
| Toluene | ND | 2.5 | ug/kg | 07/19/1994 | pbg |
| Ethylbenzene | ND | 2.5 | ug/kg | 07/19/1994 | pbg |
| Xylenes (Total) | ND | 2.5 | ug/kg | 07/19/1994 | pbg |
| Bromofluorobenzene (SURR) | 90 | | % Rec. | 07/19/1994 | pbg |
| TPH (Gas/BTXE,Solid) | | | | | |
| as Gasoline | ND | 1 | mg/kg | 07/20/1994 | jmh |
| Benzene | ND | 2.5 | ug/kg | 07/20/1994 | jmh |
| Toluene | ND | 2.5 | ug/kg | 07/20/1994 | jmh |
| Ethylbenzene | ND | 2.5 | ug/kg | 07/20/1994 | jmh |
| Xylenes (Total) | ND | 2.5 | ug/kg | 07/20/1994 | jmh |
| Bromofluorobenzene (SURR) | 91 | | % Rec. | 07/20/1994 | jmh |
| TPH (Gas/BTXE,Solid) | | | | | |
| as Gasoline | ND | 1 | mg/kg | 07/20/1994 | pbg |
| Benzene | ND | 2.5 | ug/kg | 07/20/1994 | pbg |
| Toluene | ND | 2.5 | ug/kg | 07/20/1994 | pbg |
| Ethylbenzene | ND | 2.5 | ug/kg | 07/20/1994 | pbg |
| Xylenes (Total) | ND | 2.5 | ug/kg | 07/20/1994 | pbg |
| Bromofluorobenzene (SURR) | 95 | | % Rec. | 07/20/1994 | pbg |
| TPH (Gas/BTXE,Solid) | | | | | |
| as Gasoline | ND | 1 | mg/kg | 07/21/1994 | jmh |
| Benzene | ND | 2.5 | ug/kg | 07/21/1994 | jmh |
| Toluene | ND | 2.5 | ug/kg | 07/21/1994 | jmh |
| Ethylbenzene | ND | 2.5 | ug/kg | 07/21/1994 | jmh |
| Xylenes (Total) | ND | 2.5 | ug/kg | 07/21/1994 | jmh |
| Bromofluorobenzene (SURR) | 95 | | % Rec. | 07/21/1994 | jmh |
| METHOD M8015 (EXT., Solid) | | | | | |
| as Diesel | ND | 1 | mg/kg | 07/19/1994 | tts |

Ref: SHELL, 461 8th St., Oakland

# METHOD BLANK REPORT

| Parameter | Method Blank Amount Found | Reporting Limit | Units | Date Analyzed | Analyst Initials |
|---|---|---|---|---|---|
| METHOD 8010 (GC,Solid) | | | | | |
| Bromodichloromethane | ND | 2.0 | ug/kg | 07/12/1994 | nds |
| Bromoform | ND | 2.0 | ug/kg | 07/12/1994 | nds |
| Bromomethane | ND | 2.0 | ug/kg | 07/12/1994 | nds |
| Carbon tetrachloride | ND | 2.0 | ug/kg | 07/12/1994 | nds |
| Chlorobenzene | ND | 2.0 | ug/kg | 07/12/1994 | nds |
| Chloroethane | ND | 2.0 | ug/kg | 07/12/1994 | nds |
| 2-Chloroethylvinyl ether | ND | 5.0 | ug/kg | 07/12/1994 | nds |
| Chloroform | ND | 2.0 | ug/kg | 07/12/1994 | nds |
| Chloromethane | ND | 2.0 | ug/kg | 07/12/1994 | nds |
| Dibromochloromethane | ND | 2.0 | ug/kg | 07/12/1994 | nds |
| 1,2-Dichlorobenzene | ND | 2.0 | ug/kg | 07/12/1994 | nds |
| 1,3-Dichlorobenzene | ND | 2.0 | ug/kg | 07/12/1994 | nds |
| 1,4-Dichlorobenzene | ND | 2.0 | ug/kg | 07/12/1994 | nds |
| Dichlorodifluoromethane | ND | 2.0 | ug/kg | 07/12/1994 | nds |
| 1,1-Dichloroethane | ND | 2.0 | ug/kg | 07/12/1994 | nds |
| 1,2-Dichloroethane | ND | 2.0 | ug/kg | 07/12/1994 | nds |
| 1,1-Dichloroethene | ND | 2.0 | ug/kg | 07/12/1994 | nds |
| trans-1,2-Dichloroethene | ND | 2.0 | ug/kg | 07/12/1994 | nds |
| 1,2-Dichloropropane | ND | 2.0 | ug/kg | 07/12/1994 | nds |
| cis-1,3-Dichloropropene | ND | 2.0 | ug/kg | 07/12/1994 | nds |
| trans-1,3-Dichloropropene | ND | 2.0 | ug/kg | 07/12/1994 | nds |
| Methylene chloride | ND | 50 | ug/kg | 07/12/1994 | nds |
| 1,1,2,2-Tetrachloroethane | ND | 2.0 | ug/kg | 07/12/1994 | nds |
| Tetrachloroethene | ND | 2.0 | ug/kg | 07/12/1994 | nds |
| 1,1,1-Trichloroethane | ND | 2.0 | ug/kg | 07/12/1994 | nds |
| 1,1,2-Trichloroethane | ND | 2.0 | ug/kg | 07/12/1994 | nds |
| Trichloroethene | ND | 2.0 | ug/kg | 07/12/1994 | nds |
| Trichlorofluoromethane | ND | 2.0 | ug/kg | 07/12/1994 | nds |
| Vinyl chloride | ND | 2.0 | ug/kg | 07/12/1994 | nds |
| 1,4-Difluorobenzene (SURR) | 104 | | % Rec. | 07/12/1994 | nds |
| 1,4-Dichlorobutane (SURR) | 88 | | % Rec. | 07/12/1994 | nds |

Ref: SHELL, 461 8th St., Oakland

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE

| Parameter | Matrix Spike % Rec. | Matrix Spike Dup % Rec. | RPD | Spike Amount | Sample Conc. | Matrix Spike Conc. | Matrix Spike Dup. Conc. | Units | Date Analyzed | Analyst Initials |
|---|---|---|---|---|---|---|---|---|---|---|
| Oil & Grease (Total) | 110.7 | 123.9 | 11.3 | 2,471 | 3,200 | 5,935 | 6,422 | mg/kg | 07/16/1994 | bbh |
| Oil & Grease (Non-Polar) | 111.8 | 125 | 11.1 | 2,471 | 2,300 | | | mg/kg | 07/16/1994 | bbh |
| ICP METALS SOLID | | | | | | | | | | |
| Cadmium (ICP) | 95.6 | 95.2 | 0.4 | 59.81 | ND | 57.20 | 68.75 | mg/kg | 07/15/1994 | jeo |
| Chromium (ICP) | 107.3 | 102.8 | 4.3 | 59.81 | 2.8 | 66.99 | 77.09 | mg/kg | 07/15/1994 | jeo |
| Lead (GFAA) | N/A | N/A | 92.00 | 0 | 65 | 0 | 0 | mg/kg dw | 07/18/1994 | djm |
| Nickel (ICP) | 95.0 | 95.3 | 0.3 | 59.81 | 3.1 | 59.90 | 71.94 | mg/kg | 07/15/1994 | jeo |
| Zinc (ICP) | 93.3 | 93.3 | 0.0 | 59.81 | 15 | 70.83 | 82.42 | mg/kg | 07/15/1994 | jeo |
| TPH (Gas/BTXE,Solid) | | | | | | | | | | |
| as Gasoline | 93.0 | 79.2 | 16.0 | 5.00 | ND | 4.65 | 3.96 | mg/kg | 07/19/1994 | pbg |
| Benzene | 94.2 | 90.8 | 3.7 | 172 | ND | 162 | 21.8 | ug/kg | 07/19/1994 | pbg |
| Toluene | 81.2 | 95.1 | 15.8 | 467 | ND | 379 | 444 | ug/kg | 07/19/1994 | pbg |
| TPH (Gas/BTXE,Solid) | | | | | | | | | | |
| as Gasoline | 86.8 | 73.0 | 17.3 | 5.00 | ND | 4.34 | 3.65 | mg/kg | 07/20/1994 | jmh |
| Benzene | 102.8 | 90.3 | 12.8 | 176 | ND | 181 | 159 | ug/kg | 07/20/1994 | jmh |
| Toluene | 102.0 | 93.7 | 8.4 | 396 | ND | 404 | 371 | ug/kg | 07/20/1994 | jmh |
| TPH (Gas/BTXE,Solid) | | | | | | | | | | |
| as Gasoline | 117.2 | 112.0 | 4.5 | 5.00 | ND | 5.86 | 5.60 | mg/kg | 07/20/1994 | pbg |
| Benzene | 103.2 | 94.1 | 9.1 | 187 | ND | 193 | 176 | ug/kg | 07/20/1994 | pbg |
| Toluene | 101.1 | 95.2 | 5.9 | 357 | ND | 361 | 340 | ug/kg | 07/20/1994 | pbg |
| TPH (Gas/BTXE,Solid) | | | | | | | | | | |
| as Gasoline | 108.6 | 82.4 | 27.3 | 5.00 | ND | 5.43 | 4.12 | mg/kg | 07/21/1994 | jmh |
| Benzene | 82.7 | 95.0 | 13.8 | 179 | ND | 148 | 170 | ug/kg | 07/21/1994 | jmh |
| Toluene | 88.3 | 96.5 | 8.9 | 401 | ND | 354 | 387 | ug/kg | 07/21/1994 | jmh |

NOTE: Insufficient sample to analyze MS/MSD for Diesel.

Ref: SHELL, 461 8th St., Oakland

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE

| Parameter | Matrix Spike % Rec. | Matrix Spike Dup % Rec. | RPD | Spike Amount | Sample Conc. | Matrix Spike Conc. | Matrix Spike Dup. Conc. | Units | Date Analyzed | Analyst Initials |
|---|---|---|---|---|---|---|---|---|---|---|
| METHOD 8010 (GC,Solid) | | | | | | | | | | |
| Chlorobenzene | 93.1 | 98.0 | 5.1 | 105 | ND | 97.5 | 103 | ug/kg dw | 07/12/1994 | nds |
| 1,1-Dichloroethene | 86.4 | 97.0 | 11.6 | 105 | ND | 90.5 | 102 | ug/kg dw | 07/12/1994 | nds |
| Trichloroethene | 90.8 | 97.2 | 6.8 | 105 | ND | 95.1 | 102 | ug/kg dw | 07/12/1994 | nds |

Ref: SHELL, 461 8th St., Oakland

# LABORATORY CONTROL SAMPLE REPORT

| Parameter | LCS % Recovery | RPD | LCS Amount Found | LCS Amount Expected | Units | Date Analyzed | Analyst Initials |
|---|---|---|---|---|---|---|---|
| Oil & Grease (Total) | 101.2 | | 2,602 | 2,570 | mg/kg | 07/16/1994 | bbh |
| Oil & Grease (Non-Polar) | 97.4 | | 2,504 | 2,570 | mg/kg | 07/16/1994 | bbh |
| Cadmium (ICP) | 104.3 | | 168.6 | 161.6 | mg/kg | 07/15/1994 | jeo |
| Chromium (ICP) | 106.1 | | 152.9 | 144.1 | mg/kg | 07/15/1994 | jeo |
| Lead (GFAA) | 105.0 | | 52.8 | 50.3 | mg/kg | 07/18/1994 | djm |
| Nickel (ICP) | 100.2 | | 221.4 | 221 | mg/kg | 07/15/1994 | jeo |
| Zinc (ICP) | 102.0 | | 181.7 | 178.2 | mg/kg | 07/15/1994 | jeo |
| METHOD M8015 (EXT., Solid) as Diesel | 100.0 | | 16.7 | 16.7 | mg/kg | 07/20/1994 | tts |
| METHOD M8015 (EXT., Solid) as Diesel | 102.4 | 2.0 | 17.1 | 16.7 | mg/kg | 07/20/1994 | tts |

NET®

## KEY TO ABBREVIATIONS and METHOD REFERENCES

| | | |
|---|---|---|
| < | : | Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit. |
| * | : | Reporting Limits are a function of the dilution factor for any given sample. Actual reporting limits and results have been multiplied by the listed dilution factor. Do not multiply the reporting limits or reported values by the dilution factor. |
| dw | : | Result expressed as dry weight. |
| mean | : | Average; sum of measurements divided by number of measurements. |
| mg/Kg (ppm) | : | Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million). |
| mg/L | : | Concentration in units of milligrams of analyte per liter of sample. |
| mL/L/hr | : | Milliliters per liter per hour. |
| MPN/100 mL | : | Most probable number of bacteria per one hundred milliliters of sample. |
| N/A | : | Not applicable. |
| NA | : | Not analyzed. |
| ND | : | Not detected; the analyte concentration is less than the applicable listed reporting limit. |
| NTU | : | Nephelometric turbidity units. |
| RPD | : | Relative percent difference, 100 [Value 1 - Value 2]/mean value. |
| SNA | : | Standard not available. |
| ug/Kg (ppb) | : | Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion). |
| ug/L | : | Concentration in units of micrograms of analyte per liter of sample. |
| umhos/cm | : | Micromhos per centimeter. |

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, Rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, Rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986., Rev. 1, December 1987.

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

Revised September, 1993
abb.93

# SHELL OIL COMPANY
## RETAIL ENVIRONMENTAL ENGINEERING - WEST

## CHAIN OF CUSTODY RECORD
Serial No: 1252

Date: 7/6/94
Page 1 of 3

Site Address: 461 8th St., Oakland, Ca.

WIC#: 204-5508-6205

Shell Engineer: Lynn Walker
Phone No.: (510)675-6169
Fax #: 675-6172

Consultant Name & Address: Enviros, Inc.

Consultant Contact: Diane Lundquist
Phone No.: 707-935-4850
Fax #: 935-4855

Comments:

Sampled by: JLP

Printed Name: Jeff Peterson

LAB: NET

| Sample ID | Date | Sludge | Soil | Water | Air | No. of conts. | TPH (EPA 8015 Mod. Gas) | TPH (EPA 8015 Mod. Diesel) | BTEX (EPA 8020/602) | Volatile Organics (EPA 8240) | Test for Disposal | Combination TPH 8015 & BTEX 8020 | | | Asbestos | Container Size | Preparation Used | Composite Y/N | MATERIAL DESCRIPTION | SAMPLE CONDITION/ COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B1-5.0 | 7/6/94 | | X | | | 1 | | X | | | | X | | | | | | | | |
| B1-10.0 | | | X | | | 1 | | X | | | | X | | | | | | | | |
| B2-5.0 | | | X | | | 1 | | X | | | | X | | | | | | | | |
| B2-10.0 | | | X | | | 1 | | | | | | | | | | | | | Hold | |
| B2-15.0 | | | X | | | 1 | | X | | | | X | | | | | | | | |
| B2-20.0 | | | X | | | 1 | | X | | | | X | | | | | | | | |
| B3-5.0 | | | X | | | 1 | | | | | | | | | | | | | Hold | |
| B3-10.0 | | | X | | | 1 | | X | | | | X | | | | | | | | |

CHECK ONE (1) BOX ONLY | CT/DT | TURN AROUND TIME

- G.W. Monitoring ☐ 4441
- Site Investigation ☒ 4441
- Soil Classify/Disposal ☐ 4442
- Water Classify/Disposal ☐ 4443
- Soil/Air Rem. or Sys. O & M ☐ 4452
- Water Rem. or Sys. O & M ☐ 4453
- Other ☐

TURN AROUND TIME: 24 hours ☐ | 48 hours ☐ | 15 days ☒ (Normal) | Other ☐ ____

NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.

UST AGENCY: ____

| | | | | | |
|---|---|---|---|---|---|
| Relinquished By (signature): | Printed Name: JEFF PETERSON | Date: 7/6/94 Time: 11:10 | Received (signature): Refrigerator | Printed Name: REFRIGERATOR | Date: 7/6/94 Time: 11:10 |
| Relinquished By (signature): | Printed Name: DIANE LUNDQUIST | Date: 7/6/94 Time: 1345 | Received (signature): M. Dowling | Printed Name: M. Dowling | Date: 7/8/94 Time: 1345 |
| Relinquished By (signature): M. Dowling | Printed Name: M. Dowling | Date: 7/8/94 Time: 1444 | Received (signature): Anny Lope | Printed Name: Anny Lope | Date: 7/8/94 Time: 1444 |

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN-OF-CUSTODY WITH INVOICE AND RESULTS

Rev. 1/93/M1

Shell Oil Chn of Custody

cooler temp. 0-6°C

# SHELL OIL COMPANY
## RETAIL ENVIRONMENTAL ENGINEERING - WEST

## CHAIN OF CUSTODY RECORD
Serial No: 1252

Date: 7/6/94


Site Address: 461 8th Street, Oakland, Ca.

WIC#: 204-5508-6205

Shell Engineer: Lynn Walker
Phone No.: 510-675-6169
Fax #: 675-6172

Consultant Name & Address: Enviros, Inc.

Consultant Contact: Deane Lundquist
Phone No.: 935-4850
Fax #: 935-4855

Comments:

Sampled by: JLP

Printed Name: Jeff Peterson

LAB: NET

| CHECK ONE (1) BOX ONLY | CT/DT | TURN AROUND TIME |
|---|---|---|
| G.W. Monitoring | ☐ 4461 | 24 hours ☐ |
| Site Investigation | ☒ 4441 | 48 hours ☐ |
| Soil Classify/Disposal | ☐ 4442 | 15 days ☒ (Normal) |
| Water Classify/Disposal | ☐ 4443 | Other ☐ ____ |
| Soil/Air Rem. or Sys. O & M | ☐ 4462 | NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT. |
| Water Rem. or Sys. O & M | ☐ 4463 | |
| Other | ☐ | |

UST AGENCY: ____

Analysis Required

| Sample ID | Date | Sludge | Soil | Water | Air | No. of conts. | TPH (EPA 8015 Mod. Gas) | TPH (EPA 8015 Mod. Diesel) | BTEX (EPA 8020/602) | Volatile Organics (EPA 8240) | Test for Disposal | Combination TPH 8015 & BTEX 8020 | EPA 8010 | Oil & Grease 5520 E&F | Asbestos | Container Size | Preparation Used | Composite Y/N | MATERIAL DESCRIPTION | SAMPLE CONDITION/ COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B3-15.0 | 7/6/94 | | X | | | 1 | | X | | | | X | | | | | | | | |
| B4-5.0 | | | X | | | 1 | | X | | | | X | | | | | | | | |
| B4-10.0 | | | X | | | 1 | | X | | | | X | | | | | | | | |
| B5-5.0 | | | X | | | 1 | | X | | | | X | X | X | X | | | | | |
| B5-9.75 | | | X | | | 1 | | X | | | | X | X | X | X | | | | Hold B5-10.0 I.D. on core SO with the 9.75 on 10 | |
| B9-5.0 | 7/7/94 | | X | | | 1 | | X | | | | X | | | | | | | | |
| B9-10.0 | | | X | | | 1 | | | | | | | | | | | | | Hold | per Jo 7/11/94 |
| B9-14.5 | | | X | | | 1 | | X | | | | X | | | | | | | | |

ICAP METALS

| | | | | | |
|---|---|---|---|---|---|
| Relinquished By (signature): | Printed Name: JEFF PETERSON | Date: 7/7/94 Time: 11:00 | Received (signature): | Printed Name: REFRIGERATOR | Date: 7/8/94 Time: 9:00 |
| Relinquished By (signature): | Printed Name: DEANE LUNDQUIST | Date: 7/8/94 Time: 1345 | Received (signature): | Printed Name: M Dowling | Date: 7/8/94 Time: 1345 |
| Relinquished By (signature): | Printed Name: | Date: 7/8/94 Time: 1444 | Received (signature): | Printed Name: Anny Lope | Date: 7/8/94 Time: 1444 |

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN-OF-CUSTODY WITH INVOICE AND RESULTS

cooler temp - 0.6°C

# SHELL OIL COMPANY
## RETAIL ENVIRONMENTAL ENGINEERING - WEST

## CHAIN OF CUSTODY RECORD
Serial No: 1252

Date: 7/7/94


Site Address: 4618th St., Oakland, Ca.

WIC#: 204-5508-6205

Shell Engineer: Lynn Walker — Phone No.: 510-675-6169, Fax #: 675-6172

Consultant Name & Address: Enviros, Inc.

Consultant Contact: Diane Lundquist — Phone No.: 707-935-4850, Fax #: 935-4855

Comments:

Sampled by: JP

Printed Name: Jeff Peterson

LAB: NET

CHECK ONE (1) BOX ONLY | CT/DT
- G.W. Monitoring ☐ 4461
- Site Investigation ☒ 4441
- Soil Classify/Disposal ☐ 4442
- Water Classify/Disposal ☐ 4443
- Soil/Air Rem. or Sys. O & M ☐ 4452
- Water Rem. or Sys. O & M ☐ 4453
- Other ☐

TURN AROUND TIME
- 24 hours ☐
- 48 hours ☐
- 15 days ☒ (Normal)
- Other ☐ ____

NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.

UST AGENCY: ____

Analysis Required

| Sample ID | Date | Sludge | Soil | Water | Air | No. of conts. | TPH (EPA 8015 Mod. Gas) | TPH (EPA 8015 Mod. Diesel) | BTEX (EPA 8020/602) | Volatile Organics (EPA 8240) | Test for Disposal | Combination TPH 8015 & BTEX 8020 | | | Asbestos | Container Size | Preparation Used | Composite Y/N | MATERIAL DESCRIPTION | SAMPLE CONDITION/ COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B8-5.0 | 7/7/94 | | X | | | 1 | | X | | | | X | | | | | | | | |
| B8-9.0 | | | X | | | 1 | | X | | | | X | | | | | | | | |
| B7-5.0 | | | X | | | 1 | | X | | | | X | | | | | | | | |
| B7-10.0 | | | X | | | 1 | | X | | | | X | | | | | | | | |
| B6-5.0 | | | X | | | 1 | | X | | | | X | | | | | | | | |
| B6-10.0 | | | X | | | 1 | | | | | | | | | | | | | 46d | |
| B6-18.5 | | | X | | | 1 | | X | | | | X | | | | | | | | |
| B6-15.0 | | | X | | | 1 | | | | | | | | | | | | | 46d | |

| | | | | | |
|---|---|---|---|---|---|
| Relinquished By (signature): | Printed Name: JEFF PETERSON | Date: 7/7/94 Time: 17:00 | Received (signature): | Printed Name: COURIER | Date: 7/7/94 Time: 17:10 |
| Relinquished By (signature): | Printed Name: DIANE LUNDQUIST | Date: 7/8 Time: 7-8-9 | Received (signature): | Printed Name: M Downing | Date: 7/8/94 Time: 7:45 |
| Relinquished By (signature): | Printed Name: | Date: 7/8/94 Time: 1444 | Received (signature): | Printed Name: Anny Lopez | Date: 7/8/94 Time: 1444 |

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN-OF-CUSTODY WITH INVOICE AND RESULTS

Shell Oil Chain of Custody

cooler temp. 0.6°C

# COOLER RECEIPT FORM

oject: Shell 461 8th st. Oakland Log No: 1252
oler received on: 7/8/94 and checked on 7/8/94 by A Lope
A Lope
(signature)

re custody papers present?..... YES NO
re custody papers properly filled out?..... YES NO
re the custody papers signed?..... YES NO
s sufficient ice used?..... YES NO 0.6°C
d all bottles arrive in good condition (unbroken)?..... YES NO
d bottle labels match COC?..... YES NO
re proper bottles used for analysis indicated?..... YES NO
rrect preservatives used?..... YES NO
A vials checked for headspace bubbles?..... YES NO N/A
Note which voas (if any) had bubbles:*

| mple descriptor: | Number of vials: |
|---|---|
| | |

ll VOAs with headspace bubbles have been set aside so they will not be sed for analysis..... YES NO

st here all other jobs received in the same cooler:

| ient Job # | NET log # |
|---|---|
| | |

(coolerrec)