CAMBRIA

February 15, 2001

Mr. Barney Chan
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

# 3646

Re: **Offsite Subsurface Investigation Report**
Shell-branded Service Station
540 Hegenberger Road
Oakland, California
Incident #98995752
Cambria Project #243-0414-006

Dear Mr. Chan:

Cambria Environmental Technology, Inc. (Cambria), on behalf of Equiva Services LLC (Equiva), is submitting the results of the offsite subsurface investigation conducted on August 29, and September 5, 2000 at the referenced site. The objective of this investigation was to define the lateral and vertical extent of methyl tertiary-butyl ether (MTBE) in soil and groundwater. The investigation was conducted in accordance with our May 8, 2000 *Subsurface Investigation Work Plan* and June 19, 2000 *Investigation Work Plan Addendum* which were approved in a June 29, 2000 Alameda County Health Care Services Agency (ACHCSA) letter to Equiva. Presented below are summaries of the site background, investigation procedures, investigation results, conclusions, and recommendations.

## BACKGROUND

***Site Description:*** The site is located at the southeast intersection of Hegenberger Road and Edes Avenue in a commercially-zoned area of Oakland, California. Highway 880 runs approximately 1500 feet south of the site. The site is an active Shell-branded service station with three gasoline underground storage tanks (USTs) and one diesel UST (Figure 1).

***August 1996 Piping Repair:*** On August 8, 1996, Cambria collected one soil sample beneath the piping at Dispenser 1, which was being repaired (Figure 1). In this sample, 3,400 milligrams per kilogram (mg/kg) of total petroleum hydrocarbons as gasoline (TPHg) were detected, 17 mg/kg of benzene were detected, and 720 mg/kg of MTBE were reported by EPA Method 8020.

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Sonoma, CA
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***1998 Station Upgrade:*** In January and February 1998, Paradiso Mechanical of San Leandro, California added secondary containment beneath the existing dispensers and submersible turbine pumps. Cambria collected soil samples beneath the dispensers. The maximum concentrations of hydrocarbons reported in soil were 340 mg/kg TPHg and 3.7 mg/kg benzene beneath the western dispenser-island. During the line tightness test on February 6, 1998, a leak in the piping between the USTs and the western dispenser-island was discovered and repaired on the same day. No separate-phase hydrocarbons (SPH) were observed during Cambria's February 7, 1998 site visit. Based on Cambria's February 6, 1998 telephone conversation with Barney Chan of the ACHCSA, additional sampling in the area of the repaired piping was not required due to a planned soil and groundwater investigation at the site.

***1998 Soil Borings:*** On March 6, 1998, Cambria advanced five onsite soil borings, SB-1 through SB-5 (Figure 1). Boring depths ranged from 12 to 20 feet below grade (fbg). The maximum TPHg, benzene, and MTBE concentrations in soil were reported 6 fbg in boring SB-5, at 3,400 mg/kg, 39 mg/kg, and 170 mg/kg, respectively. The maximum TPHg, benzene, and MTBE concentrations in groundwater were also reported in boring SB-5, at 200,000 micrograms per liter (µg/L), 11,000 µg/L, and 1,300,000 µg/L, respectively.

***1998 Groundwater Monitoring Well Installation:*** On July 14 and 15, 1998, Cambria installed three groundwater monitoring wells and advanced one soil boring at the site (Figure 1). MW-1 was installed to 25 fbg in boring SB-A. MW-2 and MW-3 were installed to 20 fbg in borings SB-B and SB-C, respectively. SB-D was advanced to 16 fbg. The maximum concentrations of hydrocarbons reported in soil were 460 mg/kg TPHg, 4.7 mg/kg benzene, and 240 mg/kg MTBE in boring SB-D at a depth of 5.5 fbg. The maximum concentrations of hydrocarbons reported in groundwater were 190 µg/L benzene in well MW-3, and 31,000 µg/L MTBE by EPA Method 8020 in the southwestern tank backfill well. No TPHg was detected in any of the groundwater samples. Groundwater has been monitored onsite since August, 1998.

***1999-2000 Interim Remediation Efforts:*** Beginning July 1999, Cambria coordinated weekly groundwater extraction events from selected site wells using a vacuum truck. In June of 2000, vacuum truck operations were optimized to include extraction and treatment of soil vapors in addition to dissolved-phase hydrocarbons (dual-phase vacuum extraction). Soil and groundwater purge data and hydrocarbon mass removal calculations are presented in Tables 1 and 2. [redacted] mod[redacted] indicate that the site poses a low [redacted] and hum[redacted]

## INVESTIGATION PROCEDURES

For this investigation, Cambria positioned the soil borings and monitoring well to define the lateral and vertical extent of MTBE in soil and groundwater. Three borings were initially advanced along Edes Avenue, adjacent to the site (borings SB-E, SB-F and SB-G). The analytical results of the soil boring samples were reviewed before positioning monitoring well MW-4 across the street from the site, on Edes Avenue approximately 40 feet from the northwest corner of Edes Avenue and Enterprise Way (Figure 1).

The procedures for this subsurface investigation, described in Cambria's approved work plan, are summarized below. Analytical results for groundwater and soil samples collected from the soil borings and monitoring wells are summarized in Table 3 and 4 respectively and are presented in attachment A. Soil boring and monitoring well logs, and Cambria's standard field procedures for soil borings and monitoring wells are presented in Attachments B and C, respectively.

| | |
|---|---|
| ***Personnel Present:*** | James Loetterle, Staff Geologist, Cambria.<br>Shannon Couch, Staff Geologist, Cambria.<br>Gene Numes, Luis Menjiuar, and Don Pearson, Gregg Drilling and Testing Inc.<br>James Woo, Engineer-Scientist, Water Resources Division of County of Alameda Public Works Agency. |
| ***Permits:*** | County of Alameda Public Works Agency, Drilling Permits – W00-540, and W00-541.<br>City of Oakland Encroachment Permit # 200158167<br>City of Oakland Construction Permit # X001394<br>Copies of the permits are included as Attachment D. |
| ***Drilling Company:*** | Gregg Drilling and Testing Inc. of Martinez, California (C-57 License #485165). |
| ***Drilling Dates:*** | August 29 and September 5, 2000. |
| ***Drilling Method:*** | Eight- and ten-inch diameter hollow-stem augers with split-spoon samplers. |
| ***Number of Borings:*** | Four borings (SB-E, SB-F, SB-G, and MW-4) (Figure 1). MW-4 was converted into a groundwater monitoring well. |

***Boring Depths:*** SB-E, SB-F, SB-G, and MW-4 were advanced to 26.5, 11.5, 11.5, and 19.5 fbg, respectively (Attachment B).

***Sediment Lithology:*** One-and-a-half feet of asphalt were encountered on the west side of Edes Avenue, while four inches of asphalt were encountered on the east side of the street. Damp, sandy fill lies beneath the asphalt to an approximate depth of 4.5 to 6.5 fbg. In SB-E and SB-F, damp, clayey silt underlies the fill to 26.5 fbg. In SB-G and MW-4, moist, silty sand underlies the fill to the depth of 16 fbg in MW-4. Wet, silty clay underlies the silty sand to 19.5 fbg in MW-4 (Attachment B).

***Monitoring Well Specifications:*** MW-4 was installed to 19.5 fbg. MW-4 is constructed of four-inch diameter PVC with 0.010-inch slotted screen, and is screened from 5 to 19.5 fbg (Attachment B).

***Monitoring Well Elevation:*** The top of casing elevation at well MW-4 was surveyed on September 21, 2000 by Virgil Chavez Land Surveying of Vallejo, California (Attachment E).

***Monitoring Well Development:*** Monitoring well MW-4 has been developed and sampled by Blaine Tech Services (Blaine) of San Jose, California. Sample results from the December 15, 2000 sampling event are shown on Figure 1. Analytical results are included as Attachment A.

***Groundwater Depth:*** Groundwater was encountered between 7 and 9.5 fbg. Historically groundwater flow direction has ranged from north-northeast to east.

***Chemical Analyses:*** Selected soil samples and all groundwater samples from each boring and well were analyzed as follows:

- TPHg by modified EPA Method 8015;
- MTBE and benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8020; and
- Samples with reported MTBE concentrations were re-analyzed using EPA Method 8260.

***Physical Analyses:*** Selected soil samples from each boring and well were analyzed as follows:

- Total organic carbon by potassium dichromate/sulfuric acid digestion;

- Percent moisture by ASTM method D 2974;
- Bulk density by ASTM method D 2937; and
- Porosity as pore volume by ASTM method D 854.

To characterize stockpiled soil for disposal, 4 brass tubes of soil were collected from the stockpiled soil, and composited by the analytical laboratory. The composite samples were analyzed as follows:

- TPHg by DHS GC-FID modified EPA Method 8015;
- BTEX by EPA Method 8020; and
- TTLC lead.

***Soil Handling:*** Soil cuttings produced from the borings were profiled and disposed of at Forward Landfill in Manteca, California on October 10, 2000 (Attachment F).

## INVESTIGATION RESULTS

***Analytical Results for Soil Samples:*** The maximum concentration of TPHg in soil was reported in sample SB-G-10.5' at 468 mg/kg. The maximum concentration of total petroleum hydrocarbons as diesel (TPHd) in soil was reported in sample SB-G-10.5' at 108 mg/kg. The maximum concentration of MTBE in soil reported by EPA Method 8260 was in sample SB-E-15.5 at 0.481 mg/kg. No benzene was reported in any of the soil samples from borings SB-E, SB-F, SB-G, or MW-4. Soil analytical data is summarized in Table 4 and the certified analytical reports are presented in Attachment A.

***Analytical Results for Groundwater Samples:*** [redacted]. Groundwater analytical data is summarized in Table 3 and the certified laboratory analytical reports are presented in Attachment A.

Newly-installed MW-4 was sampled on December 15, 2000. Concentrations of TPHg, BTEX and MTBE were reported below method detection limits. [redacted]

***Soil Physical Properties:*** Soil samples were analyzed for physical properties from the capillary fringe zone at depths of 6.0 to 11.0 fbg. Results of these analyses are presented in Table 5, and the certified analytical reports are presented in Attachment A.

## SITE CONCEPTUAL MODEL

Cambria has prepared a tabulated SCM for the site (Attachment G). [redacted]

## SENSITIVE RECEPTOR SURVEY

Cambria performed a ½-mile radius sensitive receptor survey for the site in October 1999. Department of Water Resources records were reviewed to identify water wells. Topographic maps were reviewed to identify surface bodies of water. No domestic water well receptors were identified within a ½-mile radius of the site. Wells identified within the ½-mile search area are shown on Figure 2 and described in Table 6.

## CONCLUSIONS AND RECOMMENDATIONS

The maximum concentrations of TPHg in both soil and groundwater occurred in boring SB-G at 468 mg/kg and 51,100 µg/L respectively. The only detection of benzene in groundwater was from sample SB-G-W1 at 2,080 µg/L. Although the maximum concentration of MTBE in soil was found in SB-E, the maximum concentration of MTBE found in groundwater by EPA Method 8260 was in SB-G at a concentration of 76,400 µg/L. After observing that the highest concentrations of hydrocarbons were located at the eastern side of the site, Cambria decided to install MW-4 across the street from SB-G and slightly to the north of the soil boring (Figure 1).

Data from this investigation completes the specific elements of the SCM that were requested by the ACHCSA in the November 19, 1999 letter to Equiva:

- ***Evaluate the source and timing of an apparent MTBE release.*** The source of a MTBE release appears to be the leak in the piping between the USTs and the western dispenser island that was discovered during the line tightness test on February 6, 1998. Soil samples

collected in March, 1998 from the closest soil boring to the leak contained 170 mg/kg MTBE. Groundwater samples collected in July, 1998 from the closest monitoring well to the leak contained 653,000 µg/L MTBE. Thus it appears that by July, 1998, MTBE was already in the groundwater and travelling away from the source.

- ***Explain the absence of TPHg and BTEX.*** It appears that the bulk of contaminated soil was removed in the February 1998 over-excavation efforts subsequent to the line tightness test. Due to the solubility of MTBE in groundwater, higher concentrations of MTBE can be expected to appear downgradient of the source.

MTBE originating from the site is not likely impacting the Arco Service Station to the north for the following reasons:

- MTBE concentrations in well MW-2 have never exceeded 14,000 µg/L (the believed concentration of MTBE in MW-1 at the ARCO site). The grab groundwater sample collected from boring SB-E contained 17,900 µg/L MTBE. However, this concentration is likely an order of magnitude greater than expected and may not accurately reflect groundwater conditions to the north of the Shell site.
- The rose diagram presented on Figure 1 indicates that the mean groundwater gradient direction is northeast, as opposed to north where the Arco station is located.
- Based on MTBE distribution observed in boring SB-E, SB-F and SB-G, MTBE concentrations appear to have migrated east rather than north towards the ARCO site.

In conclusion, Cambria recommends continuing quarterly monitoring to further assess MTBE concentration trends and groundwater flow direction. [redacted] disagree

## CLOSING

We appreciate your continued assistance with this project. Please call Stephan Bork at (510) 420-3344 if you have any questions or comments.

Sincerely,
**Cambria Environmental Technology, Inc.**

James Loetterle
Staff Geologist

Diane M. Lundquist, P.E.
Principal Engineer


Figures:
1 - Underground Utility Map with Monitoring Well and Soil Boring Locations
2 - Area Well Survey

Tables:
1 - Groundwater Extraction Mass Removal Data
2 - Vapor Extraction Mass Removal Data
3 - Groundwater Chemical Analytical Data
4 - Soil Chemical Analytical Data
5 - Soil Physical Analytical Data
6 - Well Survey Results

Attachments:
A - Analytical Reports for Groundwater, Soil, Soil Physical Properties, and Soil Stockpile Samples
B - Soil Boring Logs
C - Standard Field Procedures for Soil Borings and Monitoring Wells
D - Permits
E - Survey Data
F - Soil Disposal Confirmation
G - Site Conceptual Model

cc: Karen Petryna, Equiva Services LLC, P.O. Box 7869, Burbank, CA 91510-7869

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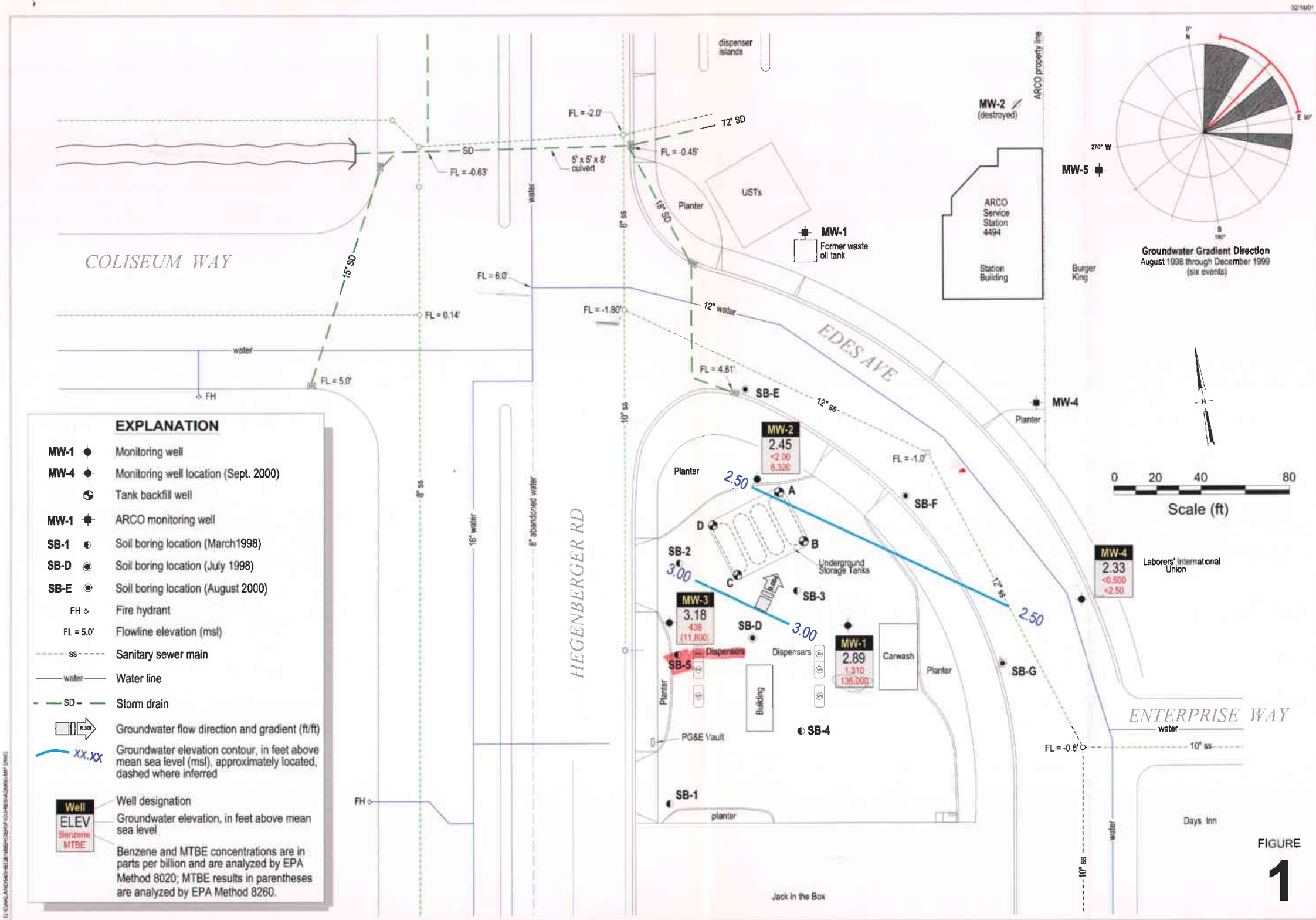
# Underground Utility Map with Monitoring Well and Soil Boring Locations and Groundwater Sampling Results for

December 15, 2000




**Groundwater Gradient Direction**
August 1998 through December 1999
(six events)

## EXPLANATION

- MW-1 — Monitoring well
- MW-4 — Monitoring well location (Sept. 2000)
- Tank backfill well
- MW-1 — ARCO monitoring well
- SB-1 — Soil boring location (March1998)
- SB-D — Soil boring location (July 1998)
- SB-E — Soil boring location (August 2000)
- FH — Fire hydrant
- FL = 5.0' — Flowline elevation (msl)
- ss — Sanitary sewer main
- water — Water line
- SD — Storm drain
- Groundwater flow direction and gradient (ft/ft)
- XX.XX — Groundwater elevation contour, in feet above mean sea level (msl), approximately located, dashed where inferred

Well
ELEV
Benzene
MTBE

- Well designation
- Groundwater elevation, in feet above mean sea level
- Benzene and MTBE concentrations are in parts per billion and are analyzed by EPA Method 8020; MTBE results in parentheses are analyzed by EPA Method 8260.

**Shell-branded Service Station**
540 Hegenberger Road
Oakland, California
Incident #98995752

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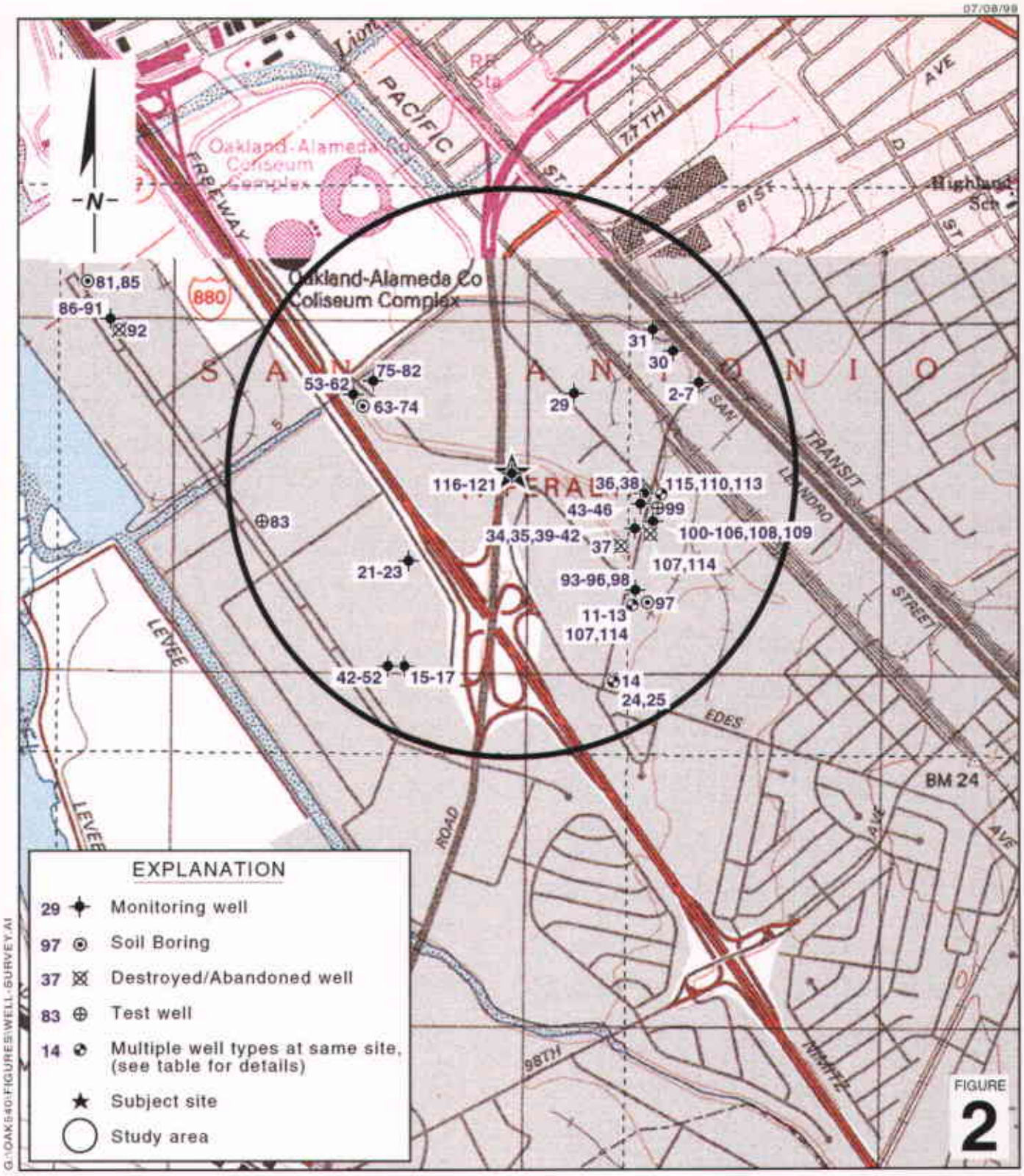
FIGURE
**1**




0 1/8 1/4 1/2 1

SCALE 1:1/4 MILES

**Shell-branded Service Station**
540 Hegenberger Road
Oakland, California
Incident #98995752

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**Area Well Survey**

(1/2-Mile Radius)

**Table 1: Groundwater Extraction - Mass Removal Data** - Shell-branded Service Station, Incident #98995752, 540 Hegenberger Road, Oakland, California

| | | | | | TPPH | | | Benzene | | | MTBE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date Purged | Well ID | Volume Pumped (gal) | Cumulative Volume Pumped (gal) | Date Sampled | TPPH Concentration (ppb) | TPPH Removed (pounds) | TPPH Removed To Date (pounds) | Benzene Concentration (ppb) | Benzene Removed (pounds) | Benzene Removed To Date (pounds) | MTBE Concentration (ppb) | MTBE Removed (pounds) | MTBE Removed To Date (pounds) |
| 07/29/99 | BW-A | 400 | 400 | 06/22/99 | 318 | 0.00106 | 0.00106 | < 0.50 | < 0.00000 | < 0.00000 | 4,470 | 0.01492 | 0.01492 |
| 08/04/99 | BW-A | 2,000 | 2,400 | 06/22/99 | 318 | 0.00531 | 0.00637 | < 0.50 | < 0.00001 | < 0.00001 | 4,470 | 0.07460 | 0.08952 |
| 08/11/99 | BW-A | 2,437 | 4,837 | 06/22/99 | 318 | 0.00647 | 0.01284 | < 0.50 | < 0.00001 | < 0.00002 | 4,470 | 0.09090 | 0.18042 |
| 08/20/99 | BW-A | 1,213 | 6,050 | 06/22/99 | 318 | 0.00322 | 0.01605 | < 0.50 | < 0.00001 | < 0.00003 | 4,470 | 0.04524 | 0.22566 |
| 08/30/99 | BW-A | 2,673 | 8,723 | 06/22/99 | 318 | 0.00709 | 0.02315 | < 0.50 | < 0.00001 | < 0.00004 | 4,470 | 0.09970 | 0.32536 |
| 09/03/99* | BW-A | 325 | 9,048 | 06/22/99 | 318 | 0.00086 | 0.02401 | < 0.50 | < 0.00000 | < 0.00004 | 4,470 | 0.01212 | 0.33748 |
| 09/10/99* | BW-A | 425 | 9,148 | 06/22/99 | 318 | 0.00113 | 0.02514 | < 0.50 | < 0.00000 | < 0.00004 | 4,470 | 0.01585 | 0.35334 |
| 09/23/99 | BW-A | 615 | 9,763 | 06/22/99 | 318 | 0.00163 | 0.02677 | < 0.50 | < 0.00000 | < 0.00004 | 4,470 | 0.02294 | 0.37628 |
| 09/29/99 | BW-A | 800 | 10,563 | 06/22/99 | 318 | 0.00212 | 0.02889 | < 0.50 | < 0.00000 | < 0.00005 | 4,470 | 0.02984 | 0.40611 |
| 11/05/99 | BW-A | 675 | 11,238 | 06/22/99 | 318 | 0.00179 | 0.03068 | < 0.50 | < 0.00000 | < 0.00005 | 4,470 | 0.02518 | 0.43129 |
| 07/29/99 | BW-B | 1,000 | 1,000 | 06/22/99 | < 250 | < 0.00209 | < 0.00209 | < 2.5 | < 0.00002 | < 0.00002 | 8,600 | 0.07176 | 0.07176 |
| 08/04/99 | BW-B | 800 | 1,800 | 06/22/99 | < 250 | < 0.00167 | < 0.00375 | < 2.5 | < 0.00002 | < 0.00210 | 8,600 | 0.05741 | 0.12917 |
| 08/11/99 | BW-B | 2,213 | 4,013 | 06/22/99 | < 250 | < 0.00462 | < 0.00837 | < 2.5 | < 0.00005 | < 0.00380 | 8,600 | 0.15881 | 0.28798 |
| 08/20/99 | BW-B | 1,213 | 5,226 | 06/22/99 | < 250 | < 0.00253 | < 0.01090 | < 2.5 | < 0.00003 | < 0.00840 | 8,600 | 0.08705 | 0.37503 |
| 08/30/99 | BW-B | 877 | 6,103 | 06/22/99 | < 250 | < 0.00183 | < 0.01273 | < 2.5 | < 0.00002 | < 0.01092 | 8,600 | 0.06293 | 0.43796 |
| 09/03/99* | BW-B | 325 | 6,428 | 06/22/99 | < 250 | < 0.00068 | < 0.01341 | < 2.5 | < 0.00001 | < 0.01274 | 8,600 | 0.02332 | 0.46128 |
| 09/10/99* | BW-B | 425 | 6,853 | 06/22/99 | < 250 | < 0.00089 | < 0.01430 | < 2.5 | < 0.00001 | < 0.01342 | 8,600 | 0.03050 | 0.49178 |
| 09/23/99 | BW-B | 750 | 7,603 | 06/22/99 | < 250 | < 0.00156 | < 0.01586 | < 2.5 | < 0.00002 | < 0.01431 | 8,600 | 0.05382 | 0.54560 |
| 09/29/99 | BW-B | 600 | 8,203 | 06/22/99 | < 250 | < 0.00125 | < 0.01711 | < 2.5 | < 0.00001 | < 0.01587 | 8,600 | 0.04306 | 0.58866 |
| 11/05/99 | BW-B | 650 | 8,853 | 06/22/99 | < 250 | < 0.00136 | < 0.01847 | < 2.5 | < 0.00001 | < 0.01713 | 8,600 | 0.04664 | 0.63530 |
| 07/29/99 | BW-C | 300 | 300 | 06/22/99 | < 50 | < 0.00013 | < 0.00013 | < 0.50 | < 0.00000 | < 0.00000 | 11,000 | 0.02754 | 0.02754 |
| 08/04/99 | BW-C | 700 | 1,000 | 06/22/99 | < 50 | < 0.00029 | < 0.00042 | < 0.50 | < 0.00000 | < 0.00000 | 11,000 | 0.06425 | 0.09179 |
| 08/11/99 | BW-C | 0 | 1,000 | 06/22/99 | < 50 | < 0.00000 | < 0.00042 | < 0.50 | < 0.00000 | < 0.00000 | 11,000 | 0.00000 | 0.09179 |
| 08/20/99 | BW-C | 1,013 | 2,013 | 06/22/99 | < 50 | < 0.00042 | < 0.00084 | < 0.50 | < 0.00000 | < 0.00001 | 11,000 | 0.09298 | 0.18477 |
| 08/30/99 | BW-C | 375 | 2,388 | 06/22/99 | < 50 | < 0.00016 | < 0.00100 | < 0.50 | < 0.00000 | < 0.00001 | 11,000 | 0.03442 | 0.21919 |
| 09/03/99* | BW-C | 325 | 2,713 | 06/22/99 | < 50 | < 0.00014 | < 0.00113 | < 0.50 | < 0.00000 | < 0.00001 | 11,000 | 0.02983 | 0.24902 |
| 09/10/99* | BW-C | 425 | 3,138 | 06/22/99 | < 50 | < 0.00018 | < 0.00131 | < 0.50 | < 0.00000 | < 0.00001 | 11,000 | 0.03901 | 0.28803 |

**Table 1: Groundwater Extraction - Mass Removal Data** - Shell-branded Service Station, Incident #98995752, 540 Hegenberger Road, Oakland, California

| Date Purged | Well ID | Volume Pumped (gal) | Cumulative Volume Pumped (gal) | Date Sampled | TPPH Concentration (ppb) | TPPH Removed (pounds) | TPPH Removed To Date (pounds) | Benzene Concentration (ppb) | Benzene Removed (pounds) | Benzene Removed To Date (pounds) | MTBE Concentration (ppb) | MTBE Removed (pounds) | MTBE Removed To Date (pounds) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **TPPH** | | | **Benzene** | | | **MTBE** | | |
| 09/23/99 | BW-C | 750 | 3,888 | 06/22/99 | < 50 | < 0.00031 | < 0.00162 | < 0.50 | < 0.00000 | < 0.00002 | 11,000 | 0.06884 | 0.35687 |
| 09/29/99 | BW-C | 700 | 4,588 | 06/22/99 | < 50 | < 0.00029 | < 0.00191 | < 0.50 | < 0.00000 | < 0.00002 | 11,000 | 0.06425 | 0.42112 |
| 11/05/99 | BW-C | 550 | 5,138 | 06/22/99 | < 50 | < 0.00023 | < 0.00214 | < 0.50 | < 0.00000 | < 0.00002 | 11,000 | 0.05048 | 0.47161 |
| 06/06/00 | BW-C | 926 | 6,064 | 06/22/99 | < 50 | < 0.00039 | < 0.00253 | < 0.50 | < 0.00000 | < 0.00003 | 11,000 | 0.08500 | 0.55660 |
| 09/07/00 | BW-C | 1,000 | 7,064 | 06/22/99 | < 50 | < 0.00042 | < 0.00295 | < 0.50 | < 0.00000 | < 0.00003 | 11,000 | 0.09179 | 0.64839 |
| 07/29/99 | BW-D | 1,500 | 1,500 | 06/22/99 | < 50 | < 0.00063 | < 0.00063 | < 0.500 | < 0.00001 | < 0.00001 | 2,190 | 0.02741 | 0.02741 |
| 08/04/99 | BW-D | 250 | 1,750 | 06/22/99 | < 50 | < 0.00010 | < 0.00073 | < 0.500 | < 0.00000 | < 0.00001 | 2,190 | 0.00457 | 0.03198 |
| 08/11/99 | BW-D | 0 | 1,750 | 06/22/99 | < 50 | < 0.00000 | < 0.00073 | < 0.500 | < 0.00000 | < 0.00001 | 2,190 | 0.00000 | 0.03198 |
| 08/20/99 | BW-D | 1,213 | 2,963 | 06/22/99 | < 50 | < 0.00051 | < 0.00124 | < 0.500 | < 0.00001 | < 0.00001 | 2,190 | 0.02217 | 0.05415 |
| 08/30/99 | BW-D | 280 | 3,243 | 06/22/99 | < 50 | < 0.00012 | < 0.00135 | < 0.500 | < 0.00000 | < 0.00001 | 2,190 | 0.00512 | 0.05926 |
| 09/03/99* | BW-D | 325 | 3,568 | 06/22/99 | < 50 | < 0.00014 | < 0.00149 | < 0.500 | < 0.00000 | < 0.00001 | 2,190 | 0.00594 | 0.06520 |
| 09/10/99* | BW-D | 425 | 3,993 | 06/22/99 | < 50 | < 0.00018 | < 0.00167 | < 0.500 | < 0.00000 | < 0.00002 | 2,190 | 0.00777 | 0.07297 |
| 09/23/99 | BW-D | 750 | 4,743 | 06/22/99 | < 50 | < 0.00031 | < 0.00198 | < 0.500 | < 0.00000 | < 0.00002 | 2,190 | 0.01371 | 0.08667 |
| 09/29/99 | BW-D | 700 | 5,443 | 06/22/99 | < 50 | < 0.00029 | < 0.00227 | < 0.500 | < 0.00000 | < 0.00002 | 2,190 | 0.01279 | 0.09947 |
| 11/05/99 | BW-D | 625 | 6,068 | 06/22/99 | < 50 | < 0.00026 | < 0.00253 | < 0.500 | < 0.00000 | < 0.00003 | 2,190 | 0.01142 | 0.11089 |
| 07/29/99 | MW-1 | 150 | 150 | 06/22/99 | 20,000 | 0.02503 | 0.02503 | 100 | 0.00013 | 0.00013 | 150,000 | 0.18775 | 0.18775 |
| 08/04/99 | MW-1 | 150 | 300 | 06/22/99 | 20,000 | 0.02503 | 0.05007 | 100 | 0.00013 | 0.00025 | 150,000 | 0.18775 | 0.37550 |
| 08/11/99 | MW-1 | 15 | 315 | 06/22/99 | 20,000 | 0.00250 | 0.05257 | 100 | 0.00001 | 0.00026 | 150,000 | 0.01877 | 0.39427 |
| 08/20/99 | MW-1 | 44 | 359 | 06/22/99 | 20,000 | 0.00734 | 0.05991 | 100 | 0.00004 | 0.00030 | 150,000 | 0.05507 | 0.44934 |
| 08/30/99 | MW-1 | 218 | 577 | 06/22/99 | 20,000 | 0.03638 | 0.09629 | 100 | 0.00018 | 0.00048 | 150,000 | 0.27286 | 0.72220 |
| 09/03/99* | MW-1 | 125 | 702 | 06/22/99 | 20,000 | 0.02086 | 0.11715 | 100 | 0.00010 | 0.00059 | 150,000 | 0.15646 | 0.87866 |
| 09/10/99* | MW-1 | 75 | 777 | 06/22/99 | 20,000 | 0.01252 | 0.12967 | 100 | 0.00006 | 0.00065 | 150,000 | 0.09387 | 0.97253 |
| 09/23/99 | MW-1 | 175 | 952 | 06/22/99 | 20,000 | 0.02921 | 0.15888 | 100 | 0.00015 | 0.00079 | 150,000 | 0.21904 | 1.19157 |
| 09/29/99 | MW-1 | 50 | 1,002 | 06/22/99 | 20,000 | 0.00834 | 0.16722 | 100 | 0.00004 | 0.00084 | 150,000 | 0.06258 | 1.25416 |
| 11/05/99 | MW-1 | 50 | 1,052 | 09/30/99 | < 2,500 | < 0.00104 | < 0.16826 | < 25.0 | < 0.00001 | < 0.00085 | 30,900 | 0.01289 | 1.26705 |
| 11/19/99 | MW-1 | 22.5 | 1,075 | 09/30/99 | < 2,500 | < 0.00047 | < 0.16873 | < 25.0 | < 0.00000 | < 0.00085 | 30,900 | 0.00580 | 1.27285 |
| 11/24/99 | MW-1 | 25 | 1,100 | 09/30/99 | < 2,500 | < 0.00052 | < 0.16925 | < 25.0 | < 0.00001 | < 0.00086 | 30,900 | 0.00645 | 1.27930 |

**Table 1: Groundwater Extraction - Mass Removal Data** - Shell-branded Service Station, Incident #98995752, 540 Hegenberger Road, Oakland, California

| | | | | | TPPH | | | Benzene | | | MTBE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date Purged | Well ID | Volume Pumped (gal) | Cumulative Volume Pumped (gal) | Date Sampled | TPPH Concentration (ppb) | TPPH Removed (pounds) | TPPH Removed To Date (pounds) | Benzene Concentration (ppb) | Benzene Removed (pounds) | Benzene Removed To Date (pounds) | MTBE Concentration (ppb) | MTBE Removed (pounds) | MTBE Removed To Date (pounds) |
| 12/02/99 | MW-1 | 25 | 1,125 | 09/30/99 | < 2,500 | < 0.00052 | < 0.16978 | < 25.0 | < 0.00001 | < 0.00086 | 30,900 | 0.00645 | 1.28574 |
| 12/17/99 | MW-1 | 25 | 1,150 | 12/10/99 | < 50.0 | < 0.00001 | < 0.16979 | 29.7 | 0.00001 | < 0.00087 | 76,300 | 0.01592 | 1.30166 |
| 01/03/00 | MW-1 | 40 | 1,190 | 12/10/99 | < 50.0 | < 0.00002 | < 0.16980 | 29.7 | 0.00001 | < 0.00088 | 76,300 | 0.02547 | 1.32713 |
| 01/07/00 | MW-1 | 0 | 1,190 | 12/10/99 | < 50.0 | < 0.00000 | < 0.16980 | 29.7 | 0.00000 | < 0.00088 | 76,300 | 0.00000 | 1.32713 |
| 01/13/00 | MW-1 | 45 | 1,235 | 12/10/99 | < 50.0 | < 0.00002 | < 0.16982 | 29.7 | 0.00001 | < 0.00089 | 76,300 | 0.02865 | 1.35578 |
| 01/12/00 | MW-1 | 35 | 1,270 | 12/10/99 | < 50.0 | < 0.00001 | < 0.16984 | 29.7 | 0.00001 | < 0.00090 | 76,300 | 0.02228 | 1.37806 |
| 01/25/00 | MW-1 | 35 | 1,305 | 12/10/99 | < 50.0 | < 0.00001 | < 0.16985 | 29.7 | 0.00001 | < 0.00091 | 76,300 | 0.02228 | 1.40034 |
| 02/01/00 | MW-1 | 22 | 1,327 | 12/10/99 | < 50.0 | < 0.00001 | < 0.16986 | 29.7 | 0.00001 | < 0.00091 | 76,300 | 0.01401 | 1.41435 |
| 02/11/00 | MW-1 | 28 | 1,355 | 12/10/99 | < 50.0 | < 0.00001 | < 0.16987 | 29.7 | 0.00001 | < 0.00092 | 76,300 | 0.01783 | 1.43218 |
| 02/15/00 | MW-1 | 25 | 1,380 | 12/10/99 | < 50.0 | < 0.00001 | < 0.16988 | 29.7 | 0.00001 | < 0.00092 | 76,300 | 0.01592 | 1.44809 |
| 02/23/00 | MW-1 | 20 | 1,400 | 12/10/99 | < 50.0 | < 0.00001 | < 0.16989 | 29.7 | 0.00000 | < 0.00093 | 76,300 | 0.01273 | 1.46083 |
| 03/02/00 | MW-1 | 7.5 | 1,407 | 03/02/00 | < 2,500 | < 0.00016 | < 0.17005 | < 25.0 | < 0.00000 | < 0.00093 | 27,600 | 0.00173 | 1.46255 |
| 03/10/00 | MW-1 | 40 | 1,447 | 03/02/00 | < 2,500 | < 0.00083 | < 0.17088 | < 25.0 | < 0.00001 | < 0.00094 | 27,600 | 0.00921 | 1.47177 |
| 03/15/00 | MW-1 | 25 | 1,472 | 03/02/00 | < 2,500 | < 0.00052 | < 0.17140 | < 25.0 | < 0.00001 | < 0.00094 | 27,600 | 0.00576 | 1.47752 |
| 03/21/00 | MW-1 | 25 | 1,497 | 03/02/00 | < 2,500 | < 0.00052 | < 0.17193 | < 25.0 | < 0.00001 | < 0.00095 | 27,600 | 0.00576 | 1.48328 |
| 03/27/00 | MW-1 | 30 | 1,527 | 03/02/00 | < 2,500 | < 0.00063 | < 0.17255 | < 25.0 | < 0.00001 | < 0.00096 | 27,600 | 0.00691 | 1.49019 |
| 04/07/00 | MW-1 | 45 | 1,572 | 03/02/00 | < 2,500 | < 0.00094 | < 0.17349 | < 25.0 | < 0.00001 | < 0.00097 | 27,600 | 0.01036 | 1.50056 |
| 04/13/00 | MW-1 | 30 | 1,602 | 03/02/00 | < 2,500 | < 0.00063 | < 0.17412 | < 25.0 | < 0.00001 | < 0.00097 | 27,600 | 0.00691 | 1.50746 |
| 04/20/00 | MW-1 | 25 | 1,627 | 03/02/00 | < 2,500 | < 0.00052 | < 0.17464 | < 25.0 | < 0.00001 | < 0.00098 | 27,600 | 0.00576 | 1.51322 |
| 04/26/00 | MW-1 | 25 | 1,652 | 03/02/00 | < 2,500 | < 0.00052 | < 0.17516 | < 25.0 | < 0.00001 | < 0.00098 | 27,600 | 0.00576 | 1.51898 |
| 05/04/00 | MW-1 | 28 | 1,680 | 03/02/00 | < 2,500 | < 0.00058 | < 0.17574 | < 25.0 | < 0.00001 | < 0.00099 | 27,600 | 0.00645 | 1.52543 |
| 05/09/00 | MW-1 | 45 | 1,725 | 03/02/00 | < 2,500 | < 0.00094 | < 0.17668 | < 25.0 | < 0.00001 | < 0.00100 | 27,600 | 0.01036 | 1.53579 |
| 05/17/00 | MW-1 | 27 | 1,752 | 03/02/00 | < 2,500 | < 0.00056 | < 0.17724 | < 25.0 | < 0.00001 | < 0.00100 | 27,600 | 0.00622 | 1.54201 |
| 05/22/00 | MW-1 | 25 | 1,777 | 03/02/00 | < 2,500 | < 0.00052 | < 0.17777 | < 25.0 | < 0.00001 | < 0.00101 | 27,600 | 0.00576 | 1.54777 |
| 06/01/00 | MW-1 | 25 | 1,802 | 03/02/00 | < 2,500 | < 0.00052 | < 0.17829 | < 25.0 | < 0.00001 | < 0.00101 | 27,600 | 0.00576 | 1.55353 |
| 06/06/00 | MW-1 | 175 | 1,977 | 03/02/00 | < 2,500 | < 0.00365 | < 0.18194 | < 25.0 | < 0.00004 | < 0.00105 | 27,600 | 0.04030 | 1.59383 |
| 06/08/00 | MW-1 | 43 | 2,020 | 03/02/00 | < 2,500 | < 0.00090 | < 0.18284 | < 25.0 | < 0.00001 | < 0.00106 | 27,600 | 0.00990 | 1.60373 |
| 06/15/00 | MW-1 | 29 | 2,049 | 06/08/00 | < 2,000 | < 0.00048 | < 0.18332 | < 20.0 | < 0.00000 | < 0.00106 | **67,600** | 0.01636 | 1.62009 |
| 07/10/00 | MW-1 | 169 | 2,218 | 06/08/00 | < 2,000 | < 0.00282 | < 0.18614 | < 20.0 | < 0.00003 | < 0.00109 | **67,600** | 0.09533 | 1.71542 |

**Table 1: Groundwater Extraction - Mass Removal Data** - Shell-branded Service Station, Incident #98995752, 540 Hegenberger Road, Oakland, California

| | | | | | TPPH | | | Benzene | | | MTBE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date Purged | Well ID | Volume Pumped (gal) | Cumulative Volume Pumped (gal) | Date Sampled | TPPH Concentration (ppb) | TPPH Removed (pounds) | TPPH Removed To Date (pounds) | Benzene Concentration (ppb) | Benzene Removed (pounds) | Benzene Removed To Date (pounds) | MTBE Concentration (ppb) | MTBE Removed (pounds) | MTBE Removed To Date (pounds) |
| 09/07/00 | MW-1 | 100 | 2,318 | 09/05/00 | < 10,000 | < 0.00834 | < 0.19448 | 411 | 0.00034 | < 0.00144 | **115,000** | 0.09596 | 1.81138 |
| 10/23/00* | MW-1 | 100 | 2,418 | 09/05/00 | < 10,000 | < 0.00834 | < 0.20283 | 411 | 0.00034 | < 0.00178 | 71,100 | 0.05933 | 1.87071 |
| 11/30/00 | MW-1 | 160 | 2,578 | 09/05/00 | < 10,000 | < 0.01335 | < 0.21618 | 411 | 0.00055 | < 0.00233 | 71,100 | 0.09493 | 1.96563 |
| 12/21/00 | MW-1 | 125 | 2,703 | 09/05/00 | < 10,000 | < 0.01043 | < 0.22661 | 411 | 0.00043 | < 0.00276 | 71,100 | 0.07416 | 2.03979 |
| 07/29/99 | MW-3 | 100 | 100 | 06/22/99 | 58,000 | 0.04840 | 0.04840 | 6,600 | 0.00551 | 0.00551 | **653,000** | 0.54489 | 0.54489 |
| 08/04/99 | MW-3 | 100 | 200 | 06/22/99 | 58,000 | 0.04840 | 0.09679 | 6,600 | 0.00551 | 0.01101 | **653,000** | 0.54489 | 1.08977 |
| 08/11/99 | MW-3 | 45 | 245 | 06/22/99 | 58,000 | 0.02178 | 0.11857 | 6,600 | 0.00248 | 0.01349 | **653,000** | 0.24520 | 1.33497 |
| 08/20/99 | MW-3 | 55 | 300 | 06/22/99 | 58,000 | 0.02662 | 0.14519 | 6,600 | 0.00303 | 0.01652 | **653,000** | 0.29969 | 1.63466 |
| 08/30/99 | MW-3 | 77 | 377 | 06/22/99 | 58,000 | 0.03727 | 0.18246 | 6,600 | 0.00424 | 0.02076 | **653,000** | 0.41956 | 2.05422 |
| 09/03/99* | MW-3 | 50 | 427 | 06/22/99 | 58,000 | 0.02420 | 0.20666 | 6,600 | 0.00275 | 0.02352 | **653,000** | 0.27244 | 2.32667 |
| 09/10/99* | MW-3 | 40 | 467 | 06/22/99 | 58,000 | 0.01936 | 0.22602 | 6,600 | 0.00220 | 0.02572 | **653,000** | 0.21795 | 2.54462 |
| 09/23/99 | MW-3 | 10 | 477 | 06/22/99 | 58,000 | 0.00484 | 0.23085 | 6,600 | 0.00055 | 0.02627 | **653,000** | 0.05449 | 2.59911 |
| 09/29/99 | MW-3 | 50 | 527 | 06/22/99 | 58,000 | 0.02420 | 0.25505 | 6,600 | 0.00275 | 0.02902 | **653,000** | 0.27244 | 2.87155 |
| 11/05/99 | MW-3 | 50 | 577 | 09/30/99 | 4,360 | 0.00182 | 0.25687 | 121 | 0.00005 | 0.02907 | **35,600** | 0.01485 | 2.88640 |
| 11/19/99 | MW-3 | 22.5 | 600 | 09/30/99 | 4,360 | 0.00082 | 0.25769 | 121 | 0.00002 | 0.02910 | **35,600** | 0.00668 | 2.89309 |
| 11/24/99 | MW-3 | 28 | 628 | 09/30/99 | 4,360 | 0.00102 | 0.25871 | 121 | 0.00003 | 0.02912 | **35,600** | 0.00832 | 2.90141 |
| 12/02/99 | MW-3 | 25 | 653 | 09/30/99 | 4,360 | 0.00091 | 0.25962 | 121 | 0.00003 | 0.02915 | **35,600** | 0.00743 | 2.90883 |
| 12/17/99 | MW-3 | 35 | 688 | 12/10/99 | 4,220 | 0.00123 | 0.26085 | 973 | 0.00028 | 0.02943 | **88,200** | 0.02576 | 2.93459 |
| 01/03/00 | MW-3 | 40 | 728 | 12/10/99 | 4,220 | 0.00141 | 0.26226 | 973 | 0.00032 | 0.02976 | **88,200** | 0.02944 | 2.96403 |
| 01/07/00 | MW-3 | 0 | 728 | 12/10/99 | 4,220 | 0.00000 | 0.26226 | 973 | 0.00000 | 0.02976 | **88,200** | 0.00000 | 2.96403 |
| 01/13/00 | MW-3 | 45 | 773 | 12/10/99 | 4,220 | 0.00158 | 0.26385 | 973 | 0.00037 | 0.03012 | **88,200** | 0.03312 | 2.99715 |
| 01/21/00 | MW-3 | 35 | 808 | 12/10/99 | 4,220 | 0.00123 | 0.26508 | 973 | 0.00028 | 0.03041 | **88,200** | 0.02576 | 3.02291 |
| 01/25/00 | MW-3 | 38 | 846 | 12/10/99 | 4,220 | 0.00134 | 0.26642 | 973 | 0.00031 | 0.03072 | **88,200** | 0.02797 | 3.05088 |
| 02/01/00 | MW-3 | 23 | 869 | 12/10/99 | 4,220 | 0.00081 | 0.26723 | 973 | 0.00019 | 0.03090 | **88,200** | 0.01693 | 3.06780 |
| 02/11/00 | MW-3 | 22 | 891 | 12/10/99 | 4,220 | 0.00077 | 0.26800 | 973 | 0.00018 | 0.03108 | **88,200** | 0.01619 | 3.08399 |
| 02/15/00 | MW-3 | 22 | 913 | 12/10/99 | 4,220 | 0.00077 | 0.26877 | 973 | 0.00018 | 0.03126 | **88,200** | 0.01619 | 3.10019 |
| 02/23/00 | MW-3 | 30 | 943 | 12/10/99 | 4,220 | 0.00106 | 0.26983 | 973 | 0.00024 | 0.03150 | **88,200** | 0.02208 | 3.12226 |
| 03/02/00 | MW-3 | 7 | 950 | 03/02/00 | 65,300 | 0.00381 | 0.27365 | 5,210 | 0.00030 | 0.03181 | **59,800** | 0.00349 | 3.12576 |

**Table 1: Groundwater Extraction - Mass Removal Data** - Shell-branded Service Station, Incident #98995752, 540 Hegenberger Road, Oakland, California

| | | | | | TPPH | | | Benzene | | | MTBE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date Purged | Well ID | Volume Pumped (gal) | Cumulative Volume Pumped (gal) | Date Sampled | TPPH Concentration (ppb) | TPPH Removed (pounds) | TPPH Removed To Date (pounds) | Benzene Concentration (ppb) | Benzene Removed (pounds) | Benzene Removed To Date (pounds) | MTBE Concentration (ppb) | MTBE Removed (pounds) | MTBE Removed To Date (pounds) |
| 03/10/00 | MW-3 | 42 | 992 | 03/02/00 | 65,300 | 0.02289 | 0.29653 | 5,210 | 0.00183 | 0.03363 | **59,800** | 0.02096 | 3.14672 |
| 03/15/00 | MW-3 | 20 | 1,012 | 03/02/00 | 65,300 | 0.01090 | 0.30743 | 5,210 | 0.00087 | 0.03450 | **59,800** | 0.00998 | 3.15670 |
| 03/21/00 | MW-3 | 25 | 1,037 | 03/02/00 | 65,300 | 0.01362 | 0.32105 | 5,210 | 0.00109 | 0.03559 | **59,800** | 0.01247 | 3.16917 |
| 03/27/00 | MW-3 | 40 | 1,077 | 03/02/00 | 65,300 | 0.02180 | 0.34285 | 5,210 | 0.00174 | 0.03733 | **59,800** | 0.01996 | 3.18913 |
| 04/07/00 | MW-3 | 45 | 1,122 | 03/02/00 | 65,300 | 0.02452 | 0.36737 | 5,210 | 0.00196 | 0.03929 | **59,800** | 0.02245 | 3.21158 |
| 04/13/00 | MW-3 | 30 | 1,152 | 03/02/00 | 65,300 | 0.01635 | 0.38371 | 5,210 | 0.00130 | 0.04059 | **59,800** | 0.01497 | 3.22655 |
| 04/20/00 | MW-3 | 25 | 1,177 | 03/02/00 | 65,300 | 0.01362 | 0.39733 | 5,210 | 0.00109 | 0.04168 | **59,800** | 0.01247 | 3.23903 |
| 04/26/00 | MW-3 | 30 | 1,207 | 03/02/00 | 65,300 | 0.01635 | 0.41368 | 5,210 | 0.00130 | 0.04298 | **59,800** | 0.01497 | 3.25400 |
| 05/04/00 | MW-3 | 26 | 1,233 | 03/02/00 | 65,300 | 0.01417 | 0.42785 | 5,210 | 0.00113 | 0.04411 | **59,800** | 0.01297 | 3.26697 |
| 05/09/00 | MW-3 | 45 | 1,278 | 03/02/00 | 65,300 | 0.02452 | 0.45237 | 5,210 | 0.00196 | 0.04607 | **59,800** | 0.02245 | 3.28943 |
| 05/17/00 | MW-3 | 27 | 1,305 | 03/02/00 | 65,300 | 0.01471 | 0.46708 | 5,210 | 0.00117 | 0.04724 | **59,800** | 0.01347 | 3.30290 |
| 05/22/00 | MW-3 | 25 | 1,330 | 03/02/00 | 65,300 | 0.01362 | 0.48070 | 5,210 | 0.00109 | 0.04833 | **59,800** | 0.01247 | 3.31537 |
| 06/01/00 | MW-3 | 25 | 1,355 | 03/02/00 | 65,300 | 0.01362 | 0.49432 | 5,210 | 0.00109 | 0.04942 | **59,800** | 0.01247 | 3.32785 |
| 06/06/00 | MW-3 | 240 | 1,595 | 03/02/00 | 65,300 | 0.13077 | 0.62510 | 5,210 | 0.01043 | 0.05985 | **59,800** | 0.11976 | 3.44761 |
| 06/08/00 | MW-3 | 42 | 1,637 | 03/02/00 | 65,300 | 0.02289 | 0.64798 | 5,210 | 0.00183 | 0.06168 | **59,800** | 0.02096 | 3.46857 |
| 06/15/00 | MW-3 | 29 | 1,666 | 06/08/00 | 72,700 | 0.01759 | 0.66557 | 3,570 | 0.00086 | 0.06254 | 44,400 | 0.01074 | 3.47931 |
| 07/10/00 | MW-3 | 101 | 1,767 | 06/08/00 | 72,700 | 0.06127 | # 0.72684 | 3,570 | 0.00301 | 0.06555 | 44,400 | 0.03742 | 3.51673 |
| 09/07/00 | MW-3 | 265 | 2,032 | 09/05/00 | 26,100 | 0.05771 | # 0.78456 | 959 | 0.00212 | 0.06767 | 24,000 | 0.05307 | 3.56980 |
| 10/23/00* | MW-3 | 250 | 2,282 | 09/05/00 | 26,100 | 0.05445 | # 0.83901 | 959 | 0.00200 | 0.06967 | 24,000 | 0.05007 | 3.61987 |
| 11/30/00 | MW-3 | 210 | 2,492 | 09/05/00 | 26,100 | 0.04574 | # 0.88474 | 959 | 0.00168 | 0.07135 | 24,000 | 0.04206 | 3.66192 |
| 12/21/00 | MW-3 | 150 | 2,642 | 09/05/00 | 26,100 | 0.03267 | # 0.91741 | 959 | 0.00120 | 0.07255 | 24,000 | 0.03004 | 3.69196 |
| **Total Gallons Extracted:** | | **38,893** | | | **Total Pounds Removed:** | | **< 1.19865** | | | **< 0.07559** | | | **7.55763** |
| | | | | | **Total Gallons Removed:** | | **< 0.19650** | | | **< 0.01036** | | | **1.21897** |

**Table 1: Groundwater Extraction - Mass Removal Data** - Shell-branded Service Station, Incident #98995752, 540 Hegenberger Road, Oakland, California

| | | | | | TPPH | | | Benzene | | | MTBE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date Purged | Well ID | Volume Pumped (gal) | Cumulative Volume Pumped (gal) | Date Sampled | TPPH Concentration (ppb) | TPPH Removed (pounds) | TPPH Removed To Date (pounds) | Benzene Concentration (ppb) | Benzene Removed (pounds) | Benzene Removed To Date (pounds) | MTBE Concentration (ppb) | MTBE Removed (pounds) | MTBE Removed To Date (pounds) |

**Abbreviations & Notes:**

TPPH = Total purgeable hydrocarbons as gasoline
MtBE = Methyl tert-butyl ether
µg/L = Micrograms per liter
ppb = Parts per billion, equivalent to µg/L
L = Liter
gal = Gallon
g = Gram
* = Ground water extracted per well estimated; subcontractor did not report individual well volumes
Mass removed based on the formula: volume extracted (gal) x Concentration (µg/L) x ($g/10^6 \mu g$) x (pound/453.6g) x (3.785 L/gal)
Volume removal data based on the formula: density (in gms/cc) x 9.339 (ccxlbs/gmsxgals)
TPPH, benzene analyzed by EPA Method 8015/8020
MTBE analyzed by EPA Method 8260 in bold font, all other MTBE analyzed by EPA Method 8020
Concentrations based on most recent groundwater monitoring results
Groundwater extracted by vacuum trucks provided by ACTI. Water disposed of at a Martinez Refinery.

**Table 2: Vapor Extraction - Mass Removal Data** - Shell-branded Service Station, Incident #98995752, 540 Hegenberger Road, Oakland, California

| Date | Well ID | Interval Hours of Operation (hours) | System Flow Rate (CFM) | Hydrocarbon Concentrations (Concentrations in ppmv) TPHg | Benzene | MTBE | TPHg TPHg Removal Rate (#/hour) | TPHg Cumulative TPHg Removed (#) | Benzene Benzene Removal Rate (#/hour) | Benzene Cumulative Benzene Removed (#) | MTBE MTBE Removal Rate (#/hour) | MTBE Cumulative MTBE Removed (#) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06/06/00 | MW-1 | 3.63 | 12.76 | 4.4 | 0.192 | 20.7 | 0.001 | 0.003 | 0.000 | 0.000 | 0.004 | 0.013 |
| 07/10/00 | MW-1 | 3.00 | 11 | < 28 | < 0.31 | 30 | < 0.004 | < 0.015 | < 0.000 | < 0.000 | 0.005 | 0.027 |
| 09/07/00 | MW-1 | 2.00 | 2.4 | 25.4 | 2.51 | 138 | 0.001 | < 0.017 | 0.000 | < 0.000 | 0.005 | 0.036 |
| 10/23/00 | MW-1 | 2.62 | 0.7 | 1,650 | 61.6 | 392 | 0.015 | < 0.057 | 0.001 | < 0.002 | 0.004 | 0.046 |
| 11/30/00 | MW-1 | 4.00 | 7.0 | 561 | < 1.57 | 62.8 | 0.052 | < 0.267 | 0.000 | < 0.002 | 0.006 | 0.070 |
| 12/21/00 | MW-1 | 2.00 | 2.1 | < 2.838 | < 0.031 | < 0.277 | 0.000 | < 0.267 | 0.000 | < 0.002 | 0.000 | 0.070 |
| 06/06/00 | MW-3 | 5.67 | 9.35 | 1,371 | 27.6 | 32 | 0.171 | 0.972 | 0.003 | 0.018 | 0.004 | 0.023 |
| 07/10/00 | MW-3 | 2.00 | 11 | 564 | 8.9 | 76 | 0.083 | 1.137 | 0.001 | 0.020 | 0.011 | 0.046 |
| 09/07/00 | MW-3 | 3.92 | 4.7 | 2,832 | 109 | 244 | 0.178 | 1.835 | 0.006 | 0.044 | 0.016 | 0.108 |
| 10/23/00 | MW-3 | 3.62 | 1.4 | 3,040 | 45.6 | 323 | 0.057 | 2.041 | 0.001 | 0.047 | 0.006 | 0.130 |
| 11/30/00 | MW-3 | 2.00 | 2.5 | 23,800 | 59.9 | 974 | 0.795 | 3.632 | 0.002 | 0.051 | 0.033 | 0.197 |
| 12/21/00 | MW-3 | 4.50 | 3.0 | < 2.838 | < 0.031 | < 0.277 | 0.000 | 3.632 | 0.000 | 0.051 | 0.000 | 0.197 |
| **Total Pounds Removed:** | | | | | | | **TPHg = < 3.900** | | **Benzene = < 0.053** | | **MTBE = 0.266** | |

**Abbreviations and Notes:**

CFM = Cubic feet per minute

TPHg = Total petroleum hydrocarbons as gasoline (C6-C12) by modified EPA Method 8015 in 1 liter tedlar bag samples

ppmv = Parts per million by volume

# = Pounds

TPHG, Benzene, and MTBE analyzed by EPA Method 8015/8020 in 1 liter tedlar bag samples

TPHg / Benzene / MTBE removal rate = Rate based on Bay Area Air Quality Management District's Manual of Procedures for Soil Vapor Extraction dated July 17, 1991.
(Rate = Concentration (ppmv) x system flow rate (cfm) x (1lb-mole/386ft3) x molecular weight (86 lb/lb-mole for TPHg, 78 lb/lb-mole for benzene, 88 lb/lb-mole for MTBE) x 60 min/hour x 1/1,000,000)

Cumulative TPHg / Benzene / MTBE removal = Previous removal rate multiplied by the hour-interval of operation plus the previous total

**Table 3. Groundwater Chemical Analytical Data** - Shell-branded Service Station Incident # 98995752, 540 Hegenberger Road, Oakland, California

| Sample ID | Date | TPHg | TPHd | Benzene | Toluene | Ethylbenzene | Xylenes | MTBE by EPA 8020M | MTBE by EPA 8260B |
|---|---|---|---|---|---|---|---|---|---|
| | | ← (Concentrations in µg/L) → | | | | | | → | |
| SB-E-W1 | 8/29/00 | <5000 | **353** | <50.0 | <50.0 | <50.0 | <50.0 | **13700** | **17900** |
| SB-F-W1 | 8/29/00 | <50.0 | **64.6** | <0.500 | <0.500 | <0.500 | <0.500 | **68.3** | **85.3** |
| SB-G-W1 | 8/29/00 | **51100** | **5780** | **2080** | **2390** | **2980** | **14100** | **58400** | **76400** |

**Abbreviations and Notes:**

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015
TPHd = Total petroleum hydrpcarbons as diesel by modified EPA Method 8015 with silica gel clean-up
Benzene, toluene, ethylbenzene, and total xylenes by EPA Method 8020
MTBE = Methyl tertiary butyl ether by EPA method 8020 and 8260B
µg/L = Micrograms per liter
<**n** = Below detection limit of **n** µg/L

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**Table 4. Soil Chemical Analytical Data** - Shell-branded Service Station Incident # 98995752, 540 Hegenberger Road, Oakland, California

| Sample ID | Date | TPHg | TPHd | Benzene | Toluene | Ethylbenzene | Xylenes | MTBE EPA 8020 | MTBE EPA 8260 |
|---|---|---|---|---|---|---|---|---|---|
| | | ← (Concentrations in mg/kg) → | | | | | | | |
| SB-E-5.5 | 8/29/00 | <1.00 | <5.00 | <0.00500 | <0.00500 | <0.00500 | <0.00500 | **0.441** | **0.481** |
| SB-E-10.5 | 8/29/00 | <1.00 | <5.00 | <0.00500 | <0.00500 | <0.00500 | <0.00500 | **0.248** | **0.0971** |
| SB-E-15.5 | 8/29/00 | <5.00 | <5.00 | <0.0250 | <0.0250 | <0.0250 | <0.0250 | **1.83** | **1.86** |
| SB-E-20.5 | 8/29/00 | <1.00 | <5.00 | <0.00500 | <0.00500 | <0.00500 | <0.00500 | <0.0500 | |
| SB-E-25.5 | 8/29/00 | <1.00 | <5.00 | <0.00500 | <0.00500 | <0.00500 | <0.00500 | <0.0500 | |
| SB-F-5.5 | 8/29/00 | <1.00 | <5.00 | <0.00500 | <0.00500 | <0.00500 | <0.00500 | **0.0727** | * |
| SB-F-10.5 | 8/29/00 | <1.00 | <5.00 | <0.00500 | <0.00500 | <0.00500 | <0.00500 | **0.0551** | <0.00500 |
| SG-G-5.5 | 8/29/00 | **2.19** | <5.00 | <0.00500 | <0.00500 | **0.132** | **0.258** | **0.141** | **0.0505** |
| SG-G-10.5 | 8/29/00 | **468** | **108 d** | <0.250 | **1.88** | **7.05** | **26.9** | <2.50 | |
| MW-4-5.5 | 9/5/00 | <1.00 | **31.7** | <0.00500 | <0.00500 | <0.00500 | <0.00500 | <0.0500 | |
| MW-4-10.5 | 9/5/00 | <1.00 | <5.00 | <0.00500 | <0.00500 | <0.00500 | <0.00500 | <0.0500 | |
| MW-4-15.5 | 9/5/00 | <1.00 | <5.00 | <0.00500 | <0.00500 | <0.00500 | <0.00500 | <0.0500 | |
| MW-4-19.0 | 9/5/00 | <1.00 | <5.00 | <0.00500 | <0.00500 | <0.00500 | <0.00500 | <0.0500 | |

**Abbreviations and Notes:**

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015
TPHd = Total petroleum hydrocarbons as diesel by modified EPA Method 8015 with silica gel clean-up
Benzene, toluene, ethylbenzene, and total xylenes by EPA Method 8020
MTBE = Methyl tertiary butyl ether by modified EPA Method 8020 and 8260B
mg/kg = milligrams per kilogram
<**n** = Below detection limit of **n** mg/kg
* = MTBE not confirmed due to lab error.
d = Results in the diesel organics are elevated due to overlap from higher boiling point hydrocarbons

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**Table 5. Soil Physical Analytical Data** - Shell -branded service station, Incident # 98995752, 540 Hegenberger Road, Oakland, Cal

| Sample ID | Date | Total Organic Carbon (mg/kg) | Percent Moisture (%) | Bulk Density (lbs/cuft) | Total Porosity (%) |
|---|---|---|---|---|---|
| SBP-F-6.0 | 8/29/00 | **842** | **16.76** | **94.8** | **36.7** |
| SBP-G-6.0 | 8/29/00 | **13263** | **25.31** | **85.4** | **50.6** |
| MW-4P-11.0 | 9/5/00 | **3105** | **22.70** | **86.5** | **NA** |

**Abbreviations and Notes:**

Fraction organic carbon by EPA Method 415.1
Percent Moisture by EPA Method 160.3
Bulk Density by API RP-40
Total porosity by API RP-40
NA = Not Analyzed

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**Table 6. Well Survey** - Shell-branded Service Station - Incident# 98995752, 540 Hegenberger Road, Oakland, California

| Well # | Well ID (Soil Boring ID) | Installation Date | Owner | Use | Completed Depth (feet) | Screened Interval | Sealed Interval |
|---|---|---|---|---|---|---|---|
| 1 | 2S/3W 22N | 02/06/91 | Edes Avenue Senior Housing | UNK | 15 | N/A | N/A |
| 2 | 2S/3W 22E7 | 12/14/89 | Carolyn Ratcliff | MONIT | 15 | 5- 14.5 | 0- 4 |
| 3 | 2S/3W 22E7 | 12/13/89 | Carolyn Ratcliff | MONIT | 20 | 10- 19.5 | 0- 8 |
| 4 | 2S/3W 22E7 | 12/15/89 | Carolyn Ratcliff | MONIT | 18 | 8- 17.5 | 0- 6 |
| 5 | 2S/3W 22E7 | 12/14/89 | Carolyn Ratcliff | MONIT | 18 | 8- 17.5 | 0- 6 |
| 6 | 2S/3W 22E7 | 12/13/89 | Carolyn Ratcliff | MONIT | 19.5 | 10- 19 | 0- 8 |
| 7 | 2S/3W 22E7 | 12/14/89 | Carolyn Ratcliff | MONIT | 19.5 | 10- 19 | 0- 8 |
| 8 | 2S/3W 21Q08 | 09/13/92 | Union Bank | MONIT | 20 | 4- 19 | 0- 4 |
| 9 | 2S/3W 21Q09 | 09/13/92 | Union Bank | MONIT | 16.5 | 4- 14 | 0- 4 |
| 10 | 2S/3W 21Q10 | 09/13/92 | Union Bank | MONIT | 20 | 5- 20 | 0- 4 |
| 11 | 2S/3W 21R2 | 04/25/88 | IMO Delaval, Inc. | MONIT | 28 | 12-26.5 | 0- 10 |
| 21 | 2S/3W 21R16 | 03/11/89 | IMO Delaval, Inc. | MONIT | 26.5 | 15-25 | 0.5-15 |
| 13 | 2S/3W 21R17 | 03/12/89 | IMO Delaval, Inc. | MONIT | 27 | 15-25 | 0.5-15 |
| 14 | 2S/3W21 | 10/29/52 | General Metals Corporation | IND | 600 | 200-584 | N/A |
| 15 | 2S/3W21L05 | 09/10/92 | Ryder Truck Rental Inc. | MONIT | 13.5 | 3.5-13.0 | 0-3.5 |
| 16 | 2S/3W21L06 | 09/10/92 | Ryder Truck Rental Inc. | MONIT | 13.5 | 3.5-13.0 | 0-3.5 |
| 17 | 2S/3W21L07 | 09/14/92 | Ryder Truck Rental Inc. | MONIT | 13.5 | 3.5-13.0 | 0-3.5 |
| 18 | 2S/3W21M1 | 07/06/91 | BOC Group | MONIT | 21 | 7-17 | 0-7 |
| 19 | 2S/3W21K1 | 04/25/90 | Motel 6 | MONIT | 30 | 5-30 | 0-5 |
| 20 | 2S/3W21L1 | 01/17/91 | IMO Delaval, Inc. | N/A | 32 | 2-30 | 0-20 |
| 21 | 2S/3W21L2 | 11/09/92 | Superior Tile Company | MONIT | 19 | 4-19 | 0.5-4 |
| 22 | 2S/3W21L3 | 11/09/92 | Superior Tile Company | MONIT | 15 | 4-14 | 0.5-4 |
| 23 | 2S/3W21L4 | 11/09/92 | Superior Tile Company | MONIT | 14 | 4-14 | 0.5-4 |
| 24 | 2S/3W21L4 | 11/09/92 | Motel 6 | MONIT | 11.5 | N/A | 0-11.5 |
| 25 | 2S/3W21L4 | 11/09/92 | Motel 6 | MONIT | 21.5 | N/A | 0-21.5 |

**Table 6. Well Survey** - Shell-branded Service Station - Incident# 98995752, 540 Hegenberger Road, Oakland, California

| Well # | Well ID (Soil Boring ID) | Installation Date | Owner | Use | Completed Depth (feet) | Screened Interval | Sealed Interval |
|---|---|---|---|---|---|---|---|
| 26 | 2S/3W21D1 | 08/16/90 | Port of Oakland | MONIT | 16 | 4-15 | 0-4 |
| 27 | 2S/3W21E1 | 08/16/90 | Port of Oakland | MONIT | 16 | 4-15 | 0-4 |
| 28 | 2S/3W21E2 | 08/16/90 | Port of Oakland | MONIT | 16 | 4-15 | 0-4 |
| 29 | 2S/3W21B1 | 09/30/93 | Morris Properties | MONIT | 20 | 5-20 | 0-5 |
| 30 | 2S/3W21A1 | 09/19/89 | Monterey Mechanical | MONIT | 25 | 9-25 | 0-9 |
| 31 | 2S/3W21A2 | 06/24/93 | Mr. Nissan Saidan | MONIT | 15 | 3-15 | 0-3 |
| 32 | 2S/3W21R | N/A | Stonehurst Nursery | REM | 17 | 7-17 | 0-7 |
| 33 | 2S/3W21H11 | 02/19/92 | Stephen Block | MONIT | 17 | 7-17 | 0-7 |
| 34 | 2S/3W21H9 | 04/25/91 | West Coast Wire Rope | MONIT | 17.5 | 3-17.5 | 0-3 |
| 35 | 2S/3W21H10 | 04/25/91 | West Coast Wire Rope | MONIT | 20 | 3-20 | 0-3 |
| 36 | 2S/3W21H7 | 07/07/89 | Ran Rob, Inc. | MONIT | 16.5 | 5-16 | 0-5 |
| 37 | 2S/3W21H5 | 07/07/89* | Ran Rob, Inc. | DEST | 36 | N/A | N/A |
| 38 | 2S/3W21H6 | 07/17/89 | Ran Rob, Inc. | MONIT | 36 | 26-36 | 0-26 |
| 39 | 2S/3W21G17 | 07/09/92 | ARCO Products Company | MONIT | 16.5 | 8-16.5 | 0-8 |
| 40 | 2S/3W21G15 | 07/10/92 | ARCO Products Company | MONIT | 15 | 9-15 | 0-9 |
| 41 | 2S/3W21G1 | 10/30/89 | ARCO Products Company | MONIT | 23 | 13-23 | 0-13 |
| 42 | 2S/3W21G2 | 06/07/89 | ARCO Products Company | MONIT | 21.5 | 14-18 | 0-14 |
| 43 | 2S/3W21H1 | 07/22/88 | Lincoln Property co. | MONIT | 16 | 6-16 | 0-6 |
| 44 | 2S/3W21H2 | 07/22/88 | Lincoln Property co. | MONIT | 13 | 5-10.5 | 0-4 & 10.5-13 |
| 45 | 2S/3W21H3 | 07/22/88 | Lincoln Property co. | MONIT | 16 | 6-16 | 0-5 |
| 46 | 2S/3W21H5 | 07/22/88 | Lincoln Property co. | MONIT | 18 | 8-18 | 0-6 |
| 47 | 2S/3W21D2 | 03/12/92 | Ryder Truck Rental Inc. | MONIT | 15 | 5-15 | 0-5 |
| 48 | 2S/3W21D3 | 03/13/92 | Ryder Truck Rental Inc. | MONIT | 14 | 4.5-14 | 0-4.5 |
| 49 | 2S/3W21D4 | 03/13/92 | Ryder Truck Rental Inc. | MONIT | 14.5 | 4.5-14.5 | 0-4.5 |
| 50 | 2S/3W21D5 | 04/28/92 | Ryder Truck Rental Inc. | MONIT | 15 | 5-15 | 0-5 |

**Table 6. Well Survey** - Shell-branded Service Station - Incident# 98995752, 540 Hegenberger Road, Oakland, California

| Well # | Well ID (Soil Boring ID) | Installation Date | Owner | Use | Completed Depth (feet) | Screened Interval | Sealed Interval |
|---|---|---|---|---|---|---|---|
| 51 | 2S/3W21D6 | 04/28/92 | Ryder Truck Rental Inc. | MONIT | 15 | 5-15 | 0-5 |
| 52 | 2S/3W21D7 | 04/28/92 | Ryder Truck Rental Inc. | MONIT | 15 | 5-15 | 0-5 |
| 53 | 2S/3W21C2 | 09/21/89 | Malibu Fun Center | MONIT | 20 | 4-15 | 0-4 |
| 54 | 2S/3W21C4 | 09/20/89 | Malibu Fun Center | MONIT | 15 | 4-19 | 0-4 |
| 55 | 2S/3W21C3 | 09/20/89 | Malibu Fun Center | MONIT | 17 | 5-15 | 0-5 & 15-17 |
| 56 | 2S/3W21C1 | 09/20/89 | Malibu Fun Center | MONIT | 10.5 | 5-10.5 | 0-5 |
| 57 | 2S/3W21C5 | 06/12/90 | Malibu Fun Center | MONIT | 19.5 | 5-19.5 | 0-5 |
| 58 | 2S/3W21C6 | 06/12/90 | Malibu Fun Center | MONIT | 19 | 4-19 | 0-4 |
| 59 | 2S/3W21C7 | 06/12/90 | Malibu Fun Center | MONIT | 19.5 | 4.5-19.5 | 0-4.5 |
| 60 | 2S/3W21C8 | 06/13/90 | Malibu Fun Center | MONIT | 19.5 | 4.5-19.5 | 0-4.5 |
| 61 | 2S/3W21C9 | 06/13/90 | Malibu Fun Center | MONIT | 10 | 4.5-10 | 0-4.5 |
| 62 | 2S/3W21C10 | 06/13/90 | Malibu Fun Center | MONIT | 19 | 4-19 | 0-4 |
| 63 | 2S/3W21C (B6) | 06/12/90 | Malibu Fun Center | SB | 10 | N/A | 0-10 |
| 64 | 2S/3W21C (B7) | 06/12/90 | Malibu Fun Center | SB | 10 | N/A | 0-10 |
| 65 | 2S/3W21C (B8) | 06/12/90 | Malibu Fun Center | SB | 10 | N/A | 0-10 |
| 66 | 2S/3W21C (B9) | 06/12/90 | Malibu Fun Center | SB | 10 | N/A | 0-10 |
| 67 | 2S/3W21C (B10) | 06/13/90 | Malibu Fun Center | SB | 5 | N/A | 0-7 |
| 68 | 2S/3W21C (B11) | 06/13/90 | Malibu Fun Center | SB | 7 | N/A | 0-7 |
| 69 | 2S/3W21C (B12) | 06/13/90 | Malibu Fun Center | SB | 7 | N/A | 0-7 |
| 70 | 2S/3W21C (B13) | 06/13/90 | Malibu Fun Center | SB | 7 | N/A | 0-7 |
| 71 | 2S/3W21C (B14) | 06/13/90 | Malibu Fun Center | SB | 7 | N/A | 0-7 |
| 72 | 2S/3W21C (B15) | 06/13/90 | Malibu Fun Center | SB | 7 | N/A | 0-7 |
| 73 | 2S/3W21C (B16) | 06/13/90 | Malibu Fun Center | SB | 7 | N/A | 0-7 |
| 74 | 2S/3W21C (B17) | 06/13/90 | Malibu Fun Center | SB | 7 | N/A | 0-7 |
| 75 | 2S/3W21C11 | 08/28/91 | Malibu Fun Center | MONIT | 14 | 3.5-14 | 0-3.5 |

**Table 6. Well Survey** - Shell-branded Service Station - Incident# 98995752, 540 Hegenberger Road, Oakland, California

| Well # | Well ID (Soil Boring ID) | Installation Date | Owner | Use | Completed Depth (feet) | Screened Interval | Sealed Interval |
|---|---|---|---|---|---|---|---|
| 76 | 2S/3W21C12 | 08/28/91 | Malibu Fun Center | MONIT | 21.5 | 4.5-20 | 0-4.5 & 20-21.5 |
| 77 | 2S/3W21C13 | 08/28/91 | Malibu Fun Center | MONIT | 20 | 5-20 | 0-5 |
| 78 | 2S/3W21C14 | 08/27/91 | Malibu Fun Center | MONIT | 20 | 4-20 | 0-4 |
| 79 | 2S/3W21C15 | 08/29/91 | Malibu Fun Center | MONIT | 19 | 4-19 | 0-4 |
| 80 | 2S/3W21C16 | 08/29/91 | Malibu Fun Center | MONIT | 18.5 | 3.5-18.5 | 0-3.5 |
| 81 | 2S/3W21C17 | 08/30/91 | Malibu Fun Center | MONIT | 18.5 | 3.5-18.5 | 0-3.5 |
| 82 | 2S/3W21C18 | 08/29/91 | Malibu Fun Center | MONIT | 21 | 6-21 | 0-6 |
| 83 | 2S/3W21E3 | 04/02/91 | Travelers Companies | TEST | 12.5 | 4-12.5 | 0-4 |
| 84 | 2S/3W21E (B1) | N/A | City of Oakland | SB | 36.5 | N/A | N/A |
| 85 | 2S/3W21E (B2) | N/A | City of Oakland | SB | 32.5 | N/A | N/A |
| 86 | 2S/3W21D9 | 02/12/92 | Grand Auto Distribution Center | MONIT | 18.5 | 4-18 | 0-4 |
| 87 | 2S/3W21D10 | 02/12/92 | Grand Auto Distribution Center | MONIT | 18.5 | 4-18 | 0-4 |
| 88 | 2S/3W21D11 | 02/13/92 | Grand Auto Distribution Center | MONIT | 19.5 | 5-19 | 0-5 |
| 89 | 2S/3W21D12 | 02/11/92 | Grand Auto Distribution Center | MONIT | 20 | 5.5-19.5 | 0-5.5 |
| 90 | 2S/3W21D13 | 02/14/92 | Grand Auto Distribution Center | MONIT | 34.5 | 20-34 | 0-20 |
| 91 | 2S/3W21D14 | 02/11/92 | Grand Auto Distribution Center | MONIT | 18.5 | 4-18 | 0-4 |
| 92 | 2S/3W21D8 | 02/13/92* | Grand Auto Distribution Center | DEST | N/A | N/A | N/A |
| 93 | 2S/3W21J3 | 01/27/88 | IMO Delaval | MONIT | 23 | 8-23 | 0-8 |
| 94 | 2S/3W21J4 | 01/26/88 | IMO Delaval | MONIT | 30 | 15-30 | 0-15 |
| 95 | 2S/3W21J5 | 01/25/88 | IMO Delaval | MONIT | 36 | 26-36 | 0-26 |
| 96 | 2S/3W21J6 | 01/25/88 | IMO Delaval | MONIT | 30 | 20-30 | 0-20 |
| 97 | 2S/3W21J (SB1a) | N/A | IMO Delaval | SB | 26.5 | N/A | 0-26.5 |
| 98 | 2S/3W21J35 | 11/19/89 | IMO Delaval | MONIT | 55 | 45-55 | 0-45 |
| 99 | 2S/3W21J20 | 04/21/89 | IMO Delaval | TEST | 27.5 | 22.5-27.5 | 0-22.5 |
| 100 | 2S/3W21J21 | 04/21/89 | IMO Delaval | MONIT | 39 | 14-39 | 0-14 |

**Table 6. Well Survey** - Shell-branded Service Station - Incident# 98995752, 540 Hegenberger Road, Oakland, California

| Well # | Well ID (Soil Boring ID) | Installation Date | Owner | Use | Completed Depth (feet) | Screened Interval | Sealed Interval |
|---|---|---|---|---|---|---|---|
| 101 | 2S/3W21J22 | 04/22/89 | IMO Delaval | MONIT | 23 | 13-23 | 0-13 |
| 102 | 2S/3W21J16 | 04/17/89 | IMO Delaval | MONIT | 22 | 12-22 | 0-12 |
| 103 | 2S/3W21J17 | 04/17/89 | IMO Delaval | MONIT | 24 | 14-24 | 14-Mar |
| 104 | 2S/3W21J18 | 04/18/89 | IMO Delaval | MONIT | 32 | 12-32 | 12-Mar |
| 105 | 2S/3W21J19 | 04/18/89 | IMO Delaval | MONIT | 21.5 | 12.5-17.5 | 2.5-12.5 & 17.5-21.5 |
| 106 | 2S/3W21J7 | 04/20/89 | IMO Delaval | MONIT | 30.5 | 15-30.5 | 0-15 |
| 107 | 2S/3W21J8 | 04/21/89* | IMO Delaval | DEST | 34 | N/A | N/A |
| 108 | 2S/3W21J9 | 04/21/89 | IMO Delaval | MONIT | 32 | 17-32 | 0-17 |
| 109 | 2S/3W21J10 | 04/25/89 | IMO Delaval | MONIT | 34 | 19-34 | 0-19 |
| 110 | 2S/3W21N1 | 11/16/89 | IMO Delaval | N/A | 30 | 20-30 | 0-20 |
| 111 | 2S/3W21P2 | 11/16/89 | IMO Delaval | N/A | 29.5 | 19.5-29.5 | 19.5 |
| 112 | 2S/3W21Q1 | 11/20/89 | IMO Delaval | N/A | 46.5 | 43.5-46.5 | 0-43.5 |
| 113 | 2S/3W21H8 | 04/18/91 | IMO Delaval | N/A | 20 | 3-20 | 0-3 |
| 114 | 2S/3W21J1 | 08/14/79* | IMO Delaval | DEST | 250 | N/A | N/A |
| 115 | 2S/3W21J2 | 06/16/76 | Delaval Tirbine, Inc. | IND | 430 | 130-240 | 0-130 & 240-430 |
| 116 | 2S/3W21Q2 | 02/05/91 | Unocal Corporation | MONIT | 13 | 2-13 | 0-2 |
| 117 | 2S/3W21Q3 | 02/05/91 | Unocal Corporation | MONIT | 15 | 3-15 | 0-3 |
| 118 | 2S/3W21Q4 | 02/05/91 | Unocal Corporation | MONIT | 14 | 2-14 | 0-2 |
| 119 | 2S/3W21Q5 | 08/21/92 | Unocal Corporation | MONIT | 13.5 | 2.5-13.5 | 0-2.5 |
| 120 | 2S/3W21Q6 | 08/21/92 | Unocal Corporation | MONIT | 13.5 | 2.5-13.5 | 0-2.5 |
| 121 | 2S/3W21Q7 | 08/21/92 | Unocal Corporation | MONIT | 13.5 | 2.5-13.5 | 0-2.5 |

**Table 6. Well Survey** - Shell-branded Service Station - Incident# 98995752, 540 Hegenberger Road, Oakland, California

| Well # | Well ID (Soil Boring ID) | Installation Date | Owner | Use | Completed Depth (feet) | Screened Interval | Sealed Interval |
|---|---|---|---|---|---|---|---|

**Abbreviations:**

UNK = Unknown
MONIT = Monitoring Well
IND = Industrial well
REM = Remediation
DEST = Destroyed well
SB = Soil Borings
DOM = Domestic well
IRR = Irrigation well
TEST = Test well
MUNI = Municipal supply well
* = Well destruction date
N/A = Not available

**Notes:**

All well data was supplied by the California Department of Water Resources
Wells 26, 27, and 28 are not located on the half-mile well vicinity map
Wells 1 & 32: addresses unknown

**Table 6. Well Survey** - Shell-branded Service Station - Incident# 98995752, 540 Hegenberger Road, Oakland, California

| Well # | Well ID (Soil Boring ID) | Installation Date | Owner | Use | Completed Depth (feet) | Screened Interval | Sealed Interval |
|---|---|---|---|---|---|---|---|
| 26 | 2S/3W21D1 | 08/16/90 | Port of Oakland | MONIT | 16 | 4-15 | 0-4 |
| 27 | 2S/3W21E1 | 08/16/90 | Port of Oakland | MONIT | 16 | 4-15 | 0-4 |
| 28 | 2S/3W21E2 | 08/16/90 | Port of Oakland | MONIT | 16 | 4-15 | 0-4 |
| 29 | 2S/3W21B1 | 09/30/93 | Morris Properties | MONIT | 20 | 5-20 | 0-5 |
| 30 | 2S/3W21A1 | 09/19/89 | Monterey Mechanical | MONIT | 25 | 9-25 | 0-9 |
| 31 | 2S/3W21A2 | 06/24/93 | Mr. Nissan Saidan | MONIT | 15 | 3-15 | 0-3 |
| 32 | 2S/3W21R | N/A | Stonehurst Nursery | REM | 17 | 7-17 | 0-7 |
| 33 | 2S/3W21H11 | 02/19/92 | Stephen Block | MONIT | 17 | 7-17 | 0-7 |
| 34 | 2S/3W21H9 | 04/25/91 | West Coast Wire Rope | MONIT | 17.5 | 3-17.5 | 0-3 |
| 35 | 2S/3W21H10 | 04/25/91 | West Coast Wire Rope | MONIT | 20 | 3-20 | 0-3 |
| 36 | 2S/3W21H7 | 07/07/89 | Ran Rob, Inc. | MONIT | 16.5 | 5-16 | 0-5 |
| 37 | 2S/3W21H5 | 07/07/89* | Ran Rob, Inc. | DEST | 36 | N/A | N/A |
| 38 | 2S/3W21H6 | 07/17/89 | Ran Rob, Inc. | MONIT | 36 | 26-36 | 0-26 |
| 39 | 2S/3W21G17 | 07/09/92 | ARCO Products Company | MONIT | 16.5 | 8-16.5 | 0-8 |
| 40 | 2S/3W21G15 | 07/10/92 | ARCO Products Company | MONIT | 15 | 9-15 | 0-9 |
| 41 | 2S/3W21G1 | 10/30/89 | ARCO Products Company | MONIT | 23 | 13-23 | 0-13 |
| 42 | 2S/3W21G2 | 06/07/89 | ARCO Products Company | MONIT | 21.5 | 14-18 | 0-14 |
| 43 | 2S/3W21H1 | 07/22/88 | Lincoln Property co. | MONIT | 16 | 6-16 | 0-6 |
| 44 | 2S/3W21H2 | 07/22/88 | Lincoln Property co. | MONIT | 13 | 5-10.5 | 0-4 & 10.5-13 |
| 45 | 2S/3W21H3 | 07/22/88 | Lincoln Property co. | MONIT | 16 | 6-16 | 0-5 |
| 46 | 2S/3W21H5 | 07/22/88 | Lincoln Property co. | MONIT | 18 | 8-18 | 0-6 |
| 47 | 2S/3W21D2 | 03/12/92 | Ryder Truck Rental Inc. | MONIT | 15 | 5-15 | 0-5 |
| 48 | 2S/3W21D3 | 03/13/92 | Ryder Truck Rental Inc. | MONIT | 14 | 4.5-14 | 0-4.5 |
| 49 | 2S/3W21D4 | 03/13/92 | Ryder Truck Rental Inc. | MONIT | 14.5 | 4.5-14.5 | 0-4.5 |
| 50 | 2S/3W21D5 | 04/28/92 | Ryder Truck Rental Inc. | MONIT | 15 | 5-15 | 0-5 |

**Table 6. Well Survey** - Shell-branded Service Station - Incident# 98995752, 540 Hegenberger Road, Oakland, California

| Well # | Well ID (Soil Boring ID) | Installation Date | Owner | Use | Completed Depth (feet) | Screened Interval | Sealed Interval |
|---|---|---|---|---|---|---|---|
| 51 | 2S/3W21D6 | 04/28/92 | Ryder Truck Rental Inc. | MONIT | 15 | 5-15 | 0-5 |
| 52 | 2S/3W21D7 | 04/28/92 | Ryder Truck Rental Inc. | MONIT | 15 | 5-15 | 0-5 |
| 53 | 2S/3W21C2 | 09/21/89 | Malibu Fun Center | MONIT | 20 | 4-15 | 0-4 |
| 54 | 2S/3W21C4 | 09/20/89 | Malibu Fun Center | MONIT | 15 | 4-19 | 0-4 |
| 55 | 2S/3W21C3 | 09/20/89 | Malibu Fun Center | MONIT | 17 | 5-15 | 0-5 & 15-17 |
| 56 | 2S/3W21C1 | 09/20/89 | Malibu Fun Center | MONIT | 10.5 | 5-10.5 | 0-5 |
| 57 | 2S/3W21C5 | 06/12/90 | Malibu Fun Center | MONIT | 19.5 | 5-19.5 | 0-5 |
| 58 | 2S/3W21C6 | 06/12/90 | Malibu Fun Center | MONIT | 19 | 4-19 | 0-4 |
| 59 | 2S/3W21C7 | 06/12/90 | Malibu Fun Center | MONIT | 19.5 | 4.5-19.5 | 0-4.5 |
| 60 | 2S/3W21C8 | 06/13/90 | Malibu Fun Center | MONIT | 19.5 | 4.5-19.5 | 0-4.5 |
| 61 | 2S/3W21C9 | 06/13/90 | Malibu Fun Center | MONIT | 10 | 4.5-10 | 0-4.5 |
| 62 | 2S/3W21C10 | 06/13/90 | Malibu Fun Center | MONIT | 19 | 4-19 | 0-4 |
| 63 | 2S/3W21C (B6) | 06/12/90 | Malibu Fun Center | SB | 10 | N/A | 0-10 |
| 64 | 2S/3W21C (B7) | 06/12/90 | Malibu Fun Center | SB | 10 | N/A | 0-10 |
| 65 | 2S/3W21C (B8) | 06/12/90 | Malibu Fun Center | SB | 10 | N/A | 0-10 |
| 66 | 2S/3W21C (B9) | 06/12/90 | Malibu Fun Center | SB | 10 | N/A | 0-10 |
| 67 | 2S/3W21C (B10) | 06/13/90 | Malibu Fun Center | SB | 5 | N/A | 0-7 |
| 68 | 2S/3W21C (B11) | 06/13/90 | Malibu Fun Center | SB | 7 | N/A | 0-7 |
| 69 | 2S/3W21C (B12) | 06/13/90 | Malibu Fun Center | SB | 7 | N/A | 0-7 |
| 70 | 2S/3W21C (B13) | 06/13/90 | Malibu Fun Center | SB | 7 | N/A | 0-7 |
| 71 | 2S/3W21C (B14) | 06/13/90 | Malibu Fun Center | SB | 7 | N/A | 0-7 |
| 72 | 2S/3W21C (B15) | 06/13/90 | Malibu Fun Center | SB | 7 | N/A | 0-7 |
| 73 | 2S/3W21C (B16) | 06/13/90 | Malibu Fun Center | SB | 7 | N/A | 0-7 |
| 74 | 2S/3W21C (B17) | 06/13/90 | Malibu Fun Center | SB | 7 | N/A | 0-7 |
| 75 | 2S/3W21C11 | 08/28/91 | Malibu Fun Center | MONIT | 14 | 3.5-14 | 0-3.5 |

**Table 6. Well Survey** - Shell-branded Service Station - Incident# 98995752, 540 Hegenberger Road, Oakland, California

| Well # | Well ID (Soil Boring ID) | Installation Date | Owner | Use | Completed Depth (feet) | Screened Interval | Sealed Interval |
|---|---|---|---|---|---|---|---|
| 76 | 2S/3W21C12 | 08/28/91 | Malibu Fun Center | MONIT | 21.5 | 4.5-20 | 0-4.5 & 20-21.5 |
| 77 | 2S/3W21C13 | 08/28/91 | Malibu Fun Center | MONIT | 20 | 5-20 | 0-5 |
| 78 | 2S/3W21C14 | 08/27/91 | Malibu Fun Center | MONIT | 20 | 4-20 | 0-4 |
| 79 | 2S/3W21C15 | 08/29/91 | Malibu Fun Center | MONIT | 19 | 4-19 | 0-4 |
| 80 | 2S/3W21C16 | 08/29/91 | Malibu Fun Center | MONIT | 18.5 | 3.5-18.5 | 0-3.5 |
| 81 | 2S/3W21C17 | 08/30/91 | Malibu Fun Center | MONIT | 18.5 | 3.5-18.5 | 0-3.5 |
| 82 | 2S/3W21C18 | 08/29/91 | Malibu Fun Center | MONIT | 21 | 6-21 | 0-6 |
| 83 | 2S/3W21E3 | 04/02/91 | Travelers Companies | TEST | 12.5 | 4-12.5 | 0-4 |
| 84 | 2S/3W21E (B1) | N/A | City of Oakland | SB | 36.5 | N/A | N/A |
| 85 | 2S/3W21E (B2) | N/A | City of Oakland | SB | 32.5 | N/A | N/A |
| 86 | 2S/3W21D9 | 02/12/92 | Grand Auto Distribution Center | MONIT | 18.5 | 4-18 | 0-4 |
| 87 | 2S/3W21D10 | 02/12/92 | Grand Auto Distribution Center | MONIT | 18.5 | 4-18 | 0-4 |
| 88 | 2S/3W21D11 | 02/13/92 | Grand Auto Distribution Center | MONIT | 19.5 | 5-19 | 0-5 |
| 89 | 2S/3W21D12 | 02/11/92 | Grand Auto Distribution Center | MONIT | 20 | 5.5-19.5 | 0-5.5 |
| 90 | 2S/3W21D13 | 02/14/92 | Grand Auto Distribution Center | MONIT | 34.5 | 20-34 | 0-20 |
| 91 | 2S/3W21D14 | 02/11/92 | Grand Auto Distribution Center | MONIT | 18.5 | 4-18 | 0-4 |
| 92 | 2S/3W21D8 | 02/13/92* | Grand Auto Distribution Center | DEST | N/A | N/A | N/A |
| 93 | 2S/3W21J3 | 01/27/88 | IMO Delaval | MONIT | 23 | 8-23 | 0-8 |
| 94 | 2S/3W21J4 | 01/26/88 | IMO Delaval | MONIT | 30 | 15-30 | 0-15 |
| 95 | 2S/3W21J5 | 01/25/88 | IMO Delaval | MONIT | 36 | 26-36 | 0-26 |
| 96 | 2S/3W21J6 | 01/25/88 | IMO Delaval | MONIT | 30 | 20-30 | 0-20 |
| 97 | 2S/3W21J (SB1a) | N/A | IMO Delaval | SB | 26.5 | N/A | 0-26.5 |
| 98 | 2S/3W21J35 | 11/19/89 | IMO Delaval | MONIT | 55 | 45-55 | 0-45 |
| 99 | 2S/3W21J20 | 04/21/89 | IMO Delaval | TEST | 27.5 | 22.5-27.5 | 0-22.5 |
| 100 | 2S/3W21J21 | 04/21/89 | IMO Delaval | MONIT | 39 | 14-39 | 0-14 |

**Table 6. Well Survey** - Shell-branded Service Station - Incident# 98995752, 540 Hegenberger Road, Oakland, California

| Well # | Well ID (Soil Boring ID) | Installation Date | Owner | Use | Completed Depth (feet) | Screened Interval | Sealed Interval |
|---|---|---|---|---|---|---|---|
| 101 | 2S/3W21J22 | 04/22/89 | IMO Delaval | MONIT | 23 | 13-23 | 0-13 |
| 102 | 2S/3W21J16 | 04/17/89 | IMO Delaval | MONIT | 22 | 12-22 | 0-12 |
| 103 | 2S/3W21J17 | 04/17/89 | IMO Delaval | MONIT | 24 | 14-24 | 14-Mar |
| 104 | 2S/3W21J18 | 04/18/89 | IMO Delaval | MONIT | 32 | 12-32 | 12-Mar |
| 105 | 2S/3W21J19 | 04/18/89 | IMO Delaval | MONIT | 21.5 | 12.5-17.5 | 2.5-12.5 & 17.5-21.5 |
| 106 | 2S/3W21J7 | 04/20/89 | IMO Delaval | MONIT | 30.5 | 15-30.5 | 0-15 |
| 107 | 2S/3W21J8 | 04/21/89* | IMO Delaval | DEST | 34 | N/A | N/A |
| 108 | 2S/3W21J9 | 04/21/89 | IMO Delaval | MONIT | 32 | 17-32 | 0-17 |
| 109 | 2S/3W21J10 | 04/25/89 | IMO Delaval | MONIT | 34 | 19-34 | 0-19 |
| 110 | 2S/3W21N1 | 11/16/89 | IMO Delaval | N/A | 30 | 20-30 | 0-20 |
| 111 | 2S/3W21P2 | 11/16/89 | IMO Delaval | N/A | 29.5 | 19.5-29.5 | 19.5 |
| 112 | 2S/3W21Q1 | 11/20/89 | IMO Delaval | N/A | 46.5 | 43.5-46.5 | 0-43.5 |
| 113 | 2S/3W21H8 | 04/18/91 | IMO Delaval | N/A | 20 | 3-20 | 0-3 |
| 114 | 2S/3W21J1 | 08/14/79* | IMO Delaval | DEST | 250 | N/A | N/A |
| 115 | 2S/3W21J2 | 06/16/76 | Delaval Tirbine, Inc. | IND | 430 | 130-240 | 0-130 & 240-430 |
| 116 | 2S/3W21Q2 | 02/05/91 | Unocal Corporation | MONIT | 13 | 2-13 | 0-2 |
| 117 | 2S/3W21Q3 | 02/05/91 | Unocal Corporation | MONIT | 15 | 3-15 | 0-3 |
| 118 | 2S/3W21Q4 | 02/05/91 | Unocal Corporation | MONIT | 14 | 2-14 | 0-2 |
| 119 | 2S/3W21Q5 | 08/21/92 | Unocal Corporation | MONIT | 13.5 | 2.5-13.5 | 0-2.5 |
| 120 | 2S/3W21Q6 | 08/21/92 | Unocal Corporation | MONIT | 13.5 | 2.5-13.5 | 0-2.5 |
| 121 | 2S/3W21Q7 | 08/21/92 | Unocal Corporation | MONIT | 13.5 | 2.5-13.5 | 0-2.5 |

**Table 6. Well Survey** - Shell-branded Service Station - Incident# 98995752, 540 Hegenberger Road, Oakland, California

| Well # | Well ID (Soil Boring ID) | Installation Date | Owner | Use | Completed Depth (feet) | Screened Interval | Sealed Interval |
|---|---|---|---|---|---|---|---|

**Abbreviations:**

UNK = Unknown
MONIT = Monitoring Well
IND = Industrial well
REM = Remediation
DEST = Destroyed well
SB = Soil Borings
DOM = Domestic well
IRR = Irrigation well
TEST = Test well
MUNI = Municipal supply well
* = Well destruction date
N/A = Not available

**Notes:**

All well data was supplied by the California Department of Water Resources
Wells 26, 27, and 28 are not located on the half-mile well vicinity map
Wells 1 & 32: addresses unknown

# ATTACHMENT A

Analytical Reports for Groundwater, Soil,
Soil Physical Properties, and Soil Stockpile Samples

Sequoia Analytical

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08 September 2000

Darryk Ataide
Cambria Environmental - Oakland
1144 65th St., Suite C
Oakland, CA 94608

RE: Equiva Enterprises LLC

Enclosed are the results of analyses for samples received by the laboratory on 30-Aug-00 14:40. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Richard Stover
Project Manager

Sequoia Analytical

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| | | |
|---|---|---|
| Cambria Environmental - Oakland | Project: Equiva Enterprises LLC | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 08-Sep-00 17:04 |

## ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| SB-E-W1 | P008657-01 | Water | 29-Aug-00 00:00 | 30-Aug-00 14:40 |
| SB-F-W1 | P008657-02 | Water | 29-Aug-00 00:00 | 30-Aug-00 14:40 |
| SB-G-W1 | P008657-03 | Water | 29-Aug-00 00:00 | 30-Aug-00 14:40 |





Richard Stover, Project Manager

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| | | |
|---|---|---|
| Cambria Environmental - Oakland | Project: Equiva Enterprises LLC | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 08-Sep-00 17:04 |

## Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M
## Sequoia Analytical - Petaluma

| Analyte | Result | MDL | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **SB-E-W1 (P008657-01) Water** | **Sampled: 29-Aug-00 00:00** | | **Received: 30-Aug-00 14:40** | | | | | | | |
| Gasoline | ND | | 5000 | ug/l | 100 | 0080680 | 30-Aug-00 | 30-Aug-00 | EPA 8015M/8020M | |
| Benzene | ND | | 50.0 | " | " | " | " | " | " | |
| Toluene | ND | | 50.0 | " | " | " | " | " | " | |
| Ethylbenzene | ND | | 50.0 | " | " | " | " | " | " | |
| Xylenes (total) | ND | | 50.0 | " | " | " | " | " | " | |
| **Methyl tert-butyl ether** | **13700** | | 250 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *106 %* | *65-135* | | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *89.0 %* | *65-135* | | | " | " | " | " | |
| **SB-F-W1 (P008657-02) Water** | **Sampled: 29-Aug-00 00:00** | | **Received: 30-Aug-00 14:40** | | | | | | | |
| Gasoline | ND | | 50.0 | ug/l | 1 | 0080680 | 30-Aug-00 | 30-Aug-00 | EPA 8015M/8020M | |
| Benzene | ND | | 0.500 | " | " | " | " | " | " | |
| Toluene | ND | | 0.500 | " | " | " | " | " | " | |
| Ethylbenzene | ND | | 0.500 | " | " | " | " | " | " | |
| Xylenes (total) | ND | | 0.500 | " | " | " | " | " | " | |
| **Methyl tert-butyl ether** | **68.3** | | 2.50 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *107 %* | *65-135* | | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *89.7 %* | *65-135* | | | " | " | " | " | |
| **SB-G-W1 (P008657-03) Water** | **Sampled: 29-Aug-00 00:00** | | **Received: 30-Aug-00 14:40** | | | | | | | |
| **Gasoline** | **51100** | | 10000 | ug/l | 200 | 0080680 | 30-Aug-00 | 30-Aug-00 | EPA 8015M/8020M | |
| **Benzene** | **2080** | | 100 | " | " | " | " | " | " | |
| **Toluene** | **2390** | | 100 | " | " | " | " | " | " | |
| **Ethylbenzene** | **2980** | | 100 | " | " | " | " | " | " | |
| **Xylenes (total)** | **14100** | | 100 | " | " | " | " | " | " | |
| **Methyl tert-butyl ether** | **58400** | | 500 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *107 %* | *65-135* | | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *90.3 %* | *65-135* | | | " | " | " | " | |

Sequoia Analytical - Petaluma

*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.*

Richard Stover, Project Manager

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|---|---|---|
| Cambria Environmental - Oakland | Project: Equiva Enterprises LLC | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 08-Sep-00 17:04 |

## Total Petroleum Hydrocarbons as Diesel & others by EPA 8015M w/ S.G. Clean-up
## Sequoia Analytical - Petaluma

| Analyte | Result | MDL | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **SB-E-W1 (P008657-01) Water** | **Sampled: 29-Aug-00 00:00** | | **Received: 30-Aug-00 14:40** | | | | | | | |
| **Diesel (C10-C24)** | **353** | | 50.0 | ug/l | 1 | 0080712 | 31-Aug-00 | 01-Sep-00 | EPA 8015M-SVOA | |
| *Surrogate: o-Terphenyl* | | *79.9 %* | *50-150* | | | " | " | " | " | |
| **SB-F-W1 (P008657-02) Water** | **Sampled: 29-Aug-00 00:00** | | **Received: 30-Aug-00 14:40** | | | | | | | |
| **Diesel (C10-C24)** | **64.6** | | 50.0 | ug/l | 1 | 0080712 | 31-Aug-00 | 01-Sep-00 | EPA 8015M-SVOA | |
| *Surrogate: o-Terphenyl* | | *86.9 %* | *50-150* | | | " | " | " | " | |
| **SB-G-W1 (P008657-03) Water** | **Sampled: 29-Aug-00 00:00** | | **Received: 30-Aug-00 14:40** | | | | | | | |
| **Diesel (C10-C24)** | **5780** | | 50.0 | ug/l | 1 | 0080712 | 31-Aug-00 | 01-Sep-00 | EPA 8015M-SVOA | D-08 |
| *Surrogate: o-Terphenyl* | | *77.7 %* | *50-150* | | | " | " | " | " | |





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|---|---|---|
| Cambria Environmental - Oakland | Project: Equiva Enterprises LLC | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 08-Sep-00 17:04 |

## Volatile Organic Compounds by EPA Method 8260B
## Sequoia Analytical - Petaluma

| Analyte | Result | MDL | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **SB-E-W1 (P008657-01) Water** | **Sampled: 29-Aug-00 00:00** | | **Received: 30-Aug-00 14:40** | | | | | | | |
| **Methyl tert-butyl ether** | **17900** | | 250 | ug/l | 500 | 0090097 | 06-Sep-00 | 07-Sep-00 | EPA 8260B | |
| *Surrogate: Dibromofluoromethane* | | *108 %* | *88-118* | | | " | " | " | " | |
| **SB-F-W1 (P008657-02) Water** | **Sampled: 29-Aug-00 00:00** | | **Received: 30-Aug-00 14:40** | | | | | | | |
| **Methyl tert-butyl ether** | **85.3** | | 2.00 | ug/l | 4 | 0090097 | 06-Sep-00 | 07-Sep-00 | EPA 8260B | |
| *Surrogate: Dibromofluoromethane* | | *110 %* | *88-118* | | | " | " | " | " | |
| **SB-G-W1 (P008657-03) Water** | **Sampled: 29-Aug-00 00:00** | | **Received: 30-Aug-00 14:40** | | | | | | | |
| **Methyl tert-butyl ether** | **76400** | | 1250 | ug/l | 2500 | 0090097 | 06-Sep-00 | 07-Sep-00 | EPA 8260B | |
| *Surrogate: Dibromofluoromethane* | | *107 %* | *88-118* | | | " | " | " | " | |





Richard Stover, Project Manager

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|---|---|---|
| Cambria Environmental - Oakland | Project: Equiva Enterprises LLC | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 08-Sep-00 17:04 |

## Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M - Quality Control

## Sequoia Analytical - Petaluma

| Analyte | Result | MDL | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 0080680 - EPA 5030 waters** | | | | | | | | | | | |
| **Blank (0080680-BLK1)** | | | | Prepared & Analyzed: 30-Aug-00 | | | | | | | |
| Gasoline | ND | | 50.0 | ug/l | | | | | | | |
| Benzene | ND | | 0.500 | " | | | | | | | |
| Toluene | ND | | 0.500 | " | | | | | | | |
| Ethylbenzene | ND | | 0.500 | " | | | | | | | |
| Xylenes (total) | ND | | 0.500 | " | | | | | | | |
| Methyl tert-butyl ether | ND | | 2.50 | " | | | | | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *339* | | | " | *300* | | *113* | *65-135* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *284* | | | " | *300* | | *94.7* | *65-135* | | | |
| **Blank (0080680-BLK2)** | | | | Prepared & Analyzed: 31-Aug-00 | | | | | | | |
| Gasoline | ND | | 50.0 | ug/l | | | | | | | |
| Benzene | ND | | 0.500 | " | | | | | | | |
| Toluene | ND | | 0.500 | " | | | | | | | |
| Ethylbenzene | ND | | 0.500 | " | | | | | | | |
| Xylenes (total) | ND | | 0.500 | " | | | | | | | |
| Methyl tert-butyl ether | ND | | 2.50 | " | | | | | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *340* | | | " | *300* | | *113* | *65-135* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *278* | | | " | *300* | | *92.7* | *65-135* | | | |
| **LCS (0080680-BS1)** | | | | Prepared & Analyzed: 30-Aug-00 | | | | | | | |
| Benzene | 87.1 | | 0.500 | ug/l | 100 | | 87.1 | 65-135 | | | |
| Toluene | 88.9 | | 0.500 | " | 100 | | 88.9 | 65-135 | | | |
| Ethylbenzene | 97.9 | | 0.500 | " | 100 | | 97.9 | 65-135 | | | |
| Xylenes (total) | 284 | | 0.500 | " | 300 | | 94.7 | 65-135 | | | |
| Methyl tert-butyl ether | 84.9 | | 2.50 | " | 100 | | 84.9 | 65-135 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *321* | | | " | *300* | | *107* | *65-135* | | | |
| **LCS (0080680-BS2)** | | | | Prepared & Analyzed: 31-Aug-00 | | | | | | | |
| Benzene | 89.6 | | 0.500 | ug/l | 100 | | 89.6 | 65-135 | | | |
| Toluene | 91.1 | | 0.500 | " | 100 | | 91.1 | 65-135 | | | |
| Ethylbenzene | 101 | | 0.500 | " | 100 | | 101 | 65-135 | | | |
| Xylenes (total) | 295 | | 0.500 | " | 300 | | 98.3 | 65-135 | | | |
| Methyl tert-butyl ether | 92.0 | | 2.50 | " | 100 | | 92.0 | 65-135 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *327* | | | " | *300* | | *109* | *65-135* | | | |





Richard Stover, Project Manager

Sequoia Analytical

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| | | |
|---|---|---|
| Cambria Environmental - Oakland | Project: Equiva Enterprises LLC | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 08-Sep-00 17:04 |

## Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M - Quality Control

## Sequoia Analytical - Petaluma

| Analyte | Result | MDL | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 0080680 - EPA 5030 waters** | | | | | | | | | | | |
| **Matrix Spike (0080680-MS1)** | | **Source: P008610-01** | | | Prepared & Analyzed: 30-Aug-00 | | | | | | |
| Benzene | 90.6 | | 0.500 | ug/l | 100 | ND | 90.6 | 65-135 | | | |
| Toluene | 92.1 | | 0.500 | " | 100 | ND | 92.1 | 65-135 | | | |
| Ethylbenzene | 102 | | 0.500 | " | 100 | ND | 102 | 65-135 | | | |
| Xylenes (total) | 296 | | 0.500 | " | 300 | ND | 98.7 | 65-135 | | | |
| Methyl tert-butyl ether | 90.8 | | 2.50 | " | 100 | ND | 90.1 | 65-135 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *323* | | | " | *300* | | *108* | *65-135* | | | |
| **Matrix Spike Dup (0080680-MSD1)** | | **Source: P008610-01** | | | Prepared & Analyzed: 30-Aug-00 | | | | | | |
| Benzene | 88.1 | | 0.500 | ug/l | 100 | ND | 88.1 | 65-135 | 2.80 | 20 | |
| Toluene | 89.9 | | 0.500 | " | 100 | ND | 89.9 | 65-135 | 2.42 | 20 | |
| Ethylbenzene | 99.4 | | 0.500 | " | 100 | ND | 99.4 | 65-135 | 2.58 | 20 | |
| Xylenes (total) | 288 | | 0.500 | " | 300 | ND | 96.0 | 65-135 | 2.74 | 20 | |
| Methyl tert-butyl ether | 91.6 | | 2.50 | " | 100 | ND | 90.9 | 65-135 | 0.877 | 20 | |
| *Surrogate: a,a,a-Trifluorotoluene* | *314* | | | " | *300* | | *105* | *65-135* | | | |





Richard Stover, Project Manager

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| | | |
|---|---|---|
| Cambria Environmental - Oakland | Project: Equiva Enterprises LLC | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 08-Sep-00 17:04 |

## Total Petroleum Hydrocarbons as Diesel & others by EPA 8015M w/ S.G. Clean-up - Quality Control

## Sequoia Analytical - Petaluma

| Analyte | Result | MDL | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 0080712 - EPA 3510B** | | | | | | | | | | | |
| **Blank (0080712-BLK1)** | | | | | Prepared: 31-Aug-00 Analyzed: 01-Sep-00 | | | | | | |
| Diesel (C10-C24) | ND | | 50.0 | ug/l | | | | | | | |
| *Surrogate: o-Terphenyl* | *86.0* | | | *"* | *100* | | *86.0* | *50-150* | | | |
| **LCS (0080712-BS1)** | | | | | Prepared: 31-Aug-00 Analyzed: 01-Sep-00 | | | | | | |
| Diesel (C10-C24) | 717 | | 50.0 | ug/l | 1000 | | 71.7 | 50-150 | | | |
| *Surrogate: o-Terphenyl* | *82.4* | | | *"* | *100* | | *82.4* | *50-150* | | | |
| **LCS Dup (0080712-BSD1)** | | | | | Prepared: 31-Aug-00 Analyzed: 01-Sep-00 | | | | | | |
| Diesel (C10-C24) | 732 | | 50.0 | ug/l | 1000 | | 73.2 | 50-150 | 2.07 | 20 | |
| *Surrogate: o-Terphenyl* | *84.4* | | | *"* | *100* | | *84.4* | *50-150* | | | |





Richard Stover, Project Manager

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| | | |
|---|---|---|
| Cambria Environmental - Oakland | Project: Equiva Enterprises LLC | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 08-Sep-00 17:04 |

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

## Sequoia Analytical - Petaluma

| Analyte | Result | MDL | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 0090097 - EPA 5030 waters** | | | | | | | | | | | |
| **Blank (0090097-BLK1)** | | | | | Prepared & Analyzed: 06-Sep-00 | | | | | | |
| Methyl tert-butyl ether | ND | | 0.500 | ug/l | | | | | | | |
| *Surrogate: Dibromofluoromethane* | *5.07* | | | " | *5.00* | | *101* | *88-118* | | | |
| **LCS (0090097-BS1)** | | | | | Prepared & Analyzed: 06-Sep-00 | | | | | | |
| Methyl tert-butyl ether | 5.00 | | 0.500 | ug/l | 5.00 | | 100 | 72.7-119 | | | |
| *Surrogate: Dibromofluoromethane* | *5.25* | | | " | *5.00* | | *105* | *88-118* | | | |
| **Matrix Spike (0090097-MS1)** | | **Source: P009072-06** | | | Prepared & Analyzed: 06-Sep-00 | | | | | | |
| Methyl tert-butyl ether | 5.64 | | 0.500 | ug/l | 5.00 | 0.690 | 99.0 | 72.7-119 | | | |
| *Surrogate: Dibromofluoromethane* | *5.33* | | | " | *5.00* | | *107* | *88-118* | | | |
| **Matrix Spike Dup (0090097-MSD1)** | | **Source: P009072-06** | | | Prepared & Analyzed: 06-Sep-00 | | | | | | |
| Methyl tert-butyl ether | 5.68 | | 0.500 | ug/l | 5.00 | 0.690 | 99.8 | 72.7-119 | 0.707 | 20 | |
| *Surrogate: Dibromofluoromethane* | *5.23* | | | " | *5.00* | | *105* | *88-118* | | | |





Richard Stover, Project Manager

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| | | |
|---|---|---|
| Cambria Environmental - Oakland | Project: Equiva Enterprises LLC | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 08-Sep-00 17:04 |

## Notes and Definitions

| | |
|---|---|
| D-08 | Results in the diesel organics range are elevated due to overlap from lower boiling point hydrocarbons. |
| 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 |





Richard Stover, Project Manager

# SEQUOIA ANALYTICAL
# CHAIN OF CUSTODY


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


| | |
|---|---|
| Company Name: Equiva Services LLC | Project Name: 540 Hegenberger |
| Mailing Address: P.O Box 7869 | Billing Address (if different): |
| City: Burbank State: CA Zip Code: 91510-7869 | |
| Telephone: (510) 420-3339 FAX #: (510) 420-9170 | P.O. #: 242-0414 |
| Report To: Darryk Ataide Sampler: James Loetterle | QC Data: ☐ Level D (Standard) ☐ Level C ☐ Level B ☐ Level A |

Turnaround Time: ☐ 10 Working Days ☐ 7 Working Days ☐ 5 Working Days ☐ 3 Working Days ☐ 2 Working Days ☑ 24 Hours ☐ 2 - 8 Hours

☐ Drinking Water ☐ Waste Water ☐ Other

| Client Sample I.D. | Date/Time Sampled | Matrix Desc. | # of Cont. | Cont. Type | Sequoia's Sample # | TPHg by EPA 8015 | BTEX + MTBE by EPA 8020 | MTBE by EPA 8260 all detections to be confirmed | TPHd by EPA 8015 | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. SB-E-W1 | 29 AUG 00 11:33 | WATER | 5 | VOA/ AMBER | 008657201 | X | X | X | X | For diesel samples use Silica gel cleanup |
| 2. SB-F-W1 | AUG 29 00 12:11 | ↓ | ↓ | ↓ | 02 | ↓ | ↓ | ↓ | ↓ | |
| 3. SB-G-W1 | 29 AUG 00 1:15 | ↓ | ↓ | ↓ | 03 | ↓ | ↓ | ↓ | ↓ | |
| 4. | | | | | | | | | | |
| 5. | | | | | | | | | | |
| 6. | | | | | | | | | | |
| 7. | | | | | | | | | | |
| 8. | | | | | | | | | | |
| 9. | | | | | | | | | | |
| 10. | | | | | | | | | | |

Analyses Requested

COOLER CUSTODY SEALS INTACT ☐ NOT INTACT ☐ N/A

COOLER TEMPERATURE 0 °C

| | | | | | |
|---|---|---|---|---|---|
| Relinquished By: | Date: 8/29/00 | Time: 17:00 | Received By: | Date: 8.29 | Time: 1700 |
| Relinquished By: | Date: 8.29 | Time: 1800 | Received By: | Date: 8/30 | Time: 11:14 |
| Relinquished By: | Date: 8/30 | Time: | Received By Lab: | Date: 8/30/00 | Time: 1440 |

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment: DLT

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August 31, 2000

Darryk Ataide
Cambria Environmental - Oakland
1144 65th St., Suite C
Oakland, CA 94608

RE: Equiva Enterprises LLC/P008657

Dear Darryk Ataide

Enclosed are the results of analyses for sample(s) received by the laboratory on August 30, 2000. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Richard Stover
Project Manager

CA ELAP Certificate Number 2374

Preliminary Results for the TPH-G/BTEX/MTBE

Sequoia Analytical

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| | | | |
|---|---|---|---|
| Cambria Environmental - Oakland | Project: | Equiva Enterprises LLC | Sampled: 8/29/00 |
| 1144 65th St., Suite C | Project Number: | 540 Hegenberger | Received: 8/30/00 |
| Oakland, CA 94608 | Project Manager: | Darryk Ataide | Reported: 8/31/00 |

## ANALYTICAL REPORT FOR P008657

| Sample Description | Laboratory Sample Number | Sample Matrix | Date Sampled |
|---|---|---|---|
| SB-E-W1 | P008657-01 | Water | 8/29/00 |
| SB-F-W1 | P008657-02 | Water | 8/29/00 |
| SB-G-W1 | P008657-03 | Water | 8/29/00 |

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| | | | | | |
|---|---|---|---|---|---|
| Cambria Environmental - Oakland | Project: | Equiva Enterprises LLC | Sampled: | 8/29/00 |
| 1144 65th St., Suite C | Project Number: | 540 Hegenberger | Received: | 8/30/00 |
| Oakland, CA 94608 | Project Manager: | Darryk Ataide | Reported: | 8/31/00 |

## Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M
## Sequoia Analytical - Petaluma

| Analyte | Batch Number | Date Prepared | Date Analyzed | Surrogate Limits | Reporting Limit | Result | Units | Notes* |
|---|---|---|---|---|---|---|---|---|
| **SB-E-W1** | | | **P008657-01** | | | | **Water** | |
| Gasoline | 0080680 | 8/30/00 | 8/30/00 | | 5000 | ND | ug/l | |
| Benzene | " | " | " | | 50.0 | ND | " | |
| Toluene | " | " | " | | 50.0 | ND | " | |
| Ethylbenzene | " | " | " | | 50.0 | ND | " | |
| Xylenes (total) | " | " | " | | 50.0 | ND | " | |
| Methyl tert-butyl ether | " | " | " | | 250 | 13700 | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | " | " | " | *65.0-135* | | *106* | % | |
| *Surrogate: 4-Bromofluorobenzene* | " | " | " | *65.0-135* | | *89.0* | " | |
| **SB-F-W1** | | | **P008657-02** | | | | **Water** | |
| Gasoline | 0080680 | 8/30/00 | 8/30/00 | | 50.0 | ND | ug/l | |
| Benzene | " | " | " | | 0.500 | ND | " | |
| Toluene | " | " | " | | 0.500 | ND | " | |
| Ethylbenzene | " | " | " | | 0.500 | ND | " | |
| Xylenes (total) | " | " | " | | 0.500 | ND | " | |
| Methyl tert-butyl ether | " | " | " | | 2.50 | 68.3 | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | " | " | " | *65.0-135* | | *107* | % | |
| *Surrogate: 4-Bromofluorobenzene* | " | " | " | *65.0-135* | | *89.7* | " | |
| **SB-G-W1** | | | **P008657-03** | | | | **Water** | |
| **Gasoline** | 0080680 | 8/30/00 | 8/30/00 | | 10000 | **51100** | ug/l | |
| **Benzene** | " | " | " | | 100 | **2080** | " | |
| **Toluene** | " | " | " | | 100 | **2390** | " | |
| **Ethylbenzene** | " | " | " | | 100 | **2980** | " | |
| **Xylenes (total)** | " | " | " | | 100 | **14100** | " | |
| **Methyl tert-butyl ether** | " | " | " | | 500 | **58400** | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | " | " | " | *65.0-135* | | *107* | % | |
| *Surrogate: 4-Bromofluorobenzene* | " | " | " | *65.0-135* | | *90.3* | " | |

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| | | | |
|---|---|---|---|
| Cambria Environmental - Oakland | Project: | Equiva Enterprises LLC | Sampled: 8/29/00 |
| 1144 65th St., Suite C | Project Number: | 540 Hegenberger | Received: 8/30/00 |
| Oakland, CA 94608 | Project Manager: | Darryk Ataide | Reported: 8/31/00 |

## Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M/Quality Control
## Sequoia Analytical - Petaluma

| Analyte | Date Analyzed | Spike Level | Sample Result | QC Result | Units | Reporting Limit / Recov. Limits | Recov. % | RPD Limit | RPD % | Notes* |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: 0080680** | **Date Prepared: 8/30/00** | | | | | **Extraction Method: EPA 5030 waters** | | | | |
| **Blank** | **0080680-BLK1** | | | | | | | | | |
| Gasoline | 8/30/00 | | | ND | ug/l | 50.0 | | | | |
| Benzene | " | | | ND | " | 0.500 | | | | |
| Toluene | " | | | ND | " | 0.500 | | | | |
| Ethylbenzene | " | | | ND | " | 0.500 | | | | |
| Xylenes (total) | " | | | ND | " | 0.500 | | | | |
| Methyl tert-butyl ether | " | | | ND | " | 2.50 | | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | " | *300* | | *339* | " | *65.0-135* | *113* | | | |
| *Surrogate: 4-Bromofluorobenzene* | " | *300* | | *284* | " | *65.0-135* | *94.7* | | | |
| **LCS** | **0080680-BS1** | | | | | | | | | |
| Benzene | 8/30/00 | 100 | | 87.1 | ug/l | 65.0-135 | 87.1 | | | |
| Toluene | " | 100 | | 88.9 | " | 65.0-135 | 88.9 | | | |
| Ethylbenzene | " | 100 | | 97.9 | " | 65.0-135 | 97.9 | | | |
| Xylenes (total) | " | 300 | | 284 | " | 65.0-135 | 94.7 | | | |
| Methyl tert-butyl ether | " | 100 | | 84.9 | " | 65.0-135 | 84.9 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | " | *300* | | *321* | " | *65.0-135* | *107* | | | |
| **Matrix Spike** | **0080680-MS1** | | **P008610-01** | | | | | | | |
| Benzene | 8/30/00 | 100 | ND | 90.6 | ug/l | 65.0-135 | 90.6 | | | |
| Toluene | " | 100 | ND | 92.1 | " | 65.0-135 | 92.1 | | | |
| Ethylbenzene | " | 100 | ND | 102 | " | 65.0-135 | 102 | | | |
| Xylenes (total) | " | 300 | ND | 296 | " | 65.0-135 | 98.7 | | | |
| Methyl tert-butyl ether | " | 100 | ND | 90.8 | " | 65.0-135 | 90.8 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | " | *300* | | *323* | " | *65.0-135* | *108* | | | |
| **Matrix Spike Dup** | **0080680-MSD1** | | **P008610-01** | | | | | | | |
| Benzene | 8/30/00 | 100 | ND | 88.1 | ug/l | 65.0-135 | 88.1 | 20.0 | 2.80 | |
| Toluene | " | 100 | ND | 89.9 | " | 65.0-135 | 89.9 | 20.0 | 2.42 | |
| Ethylbenzene | " | 100 | ND | 99.4 | " | 65.0-135 | 99.4 | 20.0 | 2.58 | |
| Xylenes (total) | " | 300 | ND | 288 | " | 65.0-135 | 96.0 | 20.0 | 2.77 | |
| Methyl tert-butyl ether | " | 100 | ND | 91.6 | " | 65.0-135 | 91.6 | 20.0 | 0.877 | |
| *Surrogate: a,a,a-Trifluorotoluene* | " | *300* | | *314* | " | *65.0-135* | *105* | | | |

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| | | | |
|---|---|---|---|
| Cambria Environmental - Oakland | Project: | Equiva Enterprises LLC | Sampled: 8/29/00 |
| 1144 65th St., Suite C | Project Number: | 540 Hegenberger | Received: 8/30/00 |
| Oakland, CA 94608 | Project Manager: | Darryle Ataide | Reported: 8/31/00 |

## Notes and Definitions

| # | Note |
|---|---|
| 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 |
| Recov. | Recovery |
| RPD | Relative Percent Difference |

Sequoia Analytical

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September 19 , 2000

Darryk Ataide
Cambria Environmental - Oakland
1144 65th St., Suite C
Oakland, CA 94608
RE: Equiva Enterprises LLC

Enclosed are the results of analyses for samples received by the laboratory on 08/30/00 14:40. The results for the soil properties are included as a separate report at the end of the Sequoia Labs report. At the final review of this report we found that one of the samples (SB-F-5.5) was not confirmed for MTBE by 8260. The sample was past hold time when this was discovered. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Richard Stover
Project Manager

CA ELAP Certificate Number 2374

Sequoia Analytical

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| | | |
|---|---|---|
| Cambria Environmental - Oakland | Project: Equiva Enterprises LLC | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 09/19/00 12:11 |

**ANALYTICAL REPORT FOR SAMPLES**

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| SB-E-5.5 | P008659-01 | Soil | 08/29/00 00:00 | 08/30/00 14:40 |
| SB-E-10.5 | P008659-02 | Soil | 08/29/00 00:00 | 08/30/00 14:40 |
| SB-E-15.5 | P008659-03 | Soil | 08/29/00 00:00 | 08/30/00 14:40 |
| SB-E-20.5 | P008659-04 | Soil | 08/29/00 00:00 | 08/30/00 14:40 |
| SB-E-25.5 | P008659-05 | Soil | 08/29/00 00:00 | 08/30/00 14:40 |
| SB-F-5.5 | P008659-06 | Soil | 08/29/00 00:00 | 08/30/00 14:40 |
| SB-F-10.5 | P008659-07 | Soil | 08/29/00 00:00 | 08/30/00 14:40 |
| SB-G-5.5 | P008659-08 | Soil | 08/29/00 00:00 | 08/30/00 14:40 |
| SB-G-10.5 | P008659-09 | Soil | 08/29/00 00:00 | 08/30/00 14:40 |

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|---|---|---|
| Cambria Environmental - Oakland | Project: Equiva Enterprises LLC | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 09/19/00 12:11 |

## Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M

### Sequoia Analytical - Petaluma

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **SB-E-5.5 (P008659-01) Soil Sampled: 08/29/00 00:00 Received: 08/30/00 14:40** | | | | | | | | | |
| Gasoline | ND | 1.00 | mg/kg | 1 | 0080703 | 08/30/00 | 08/30/00 | EPA 8015M/8020M | |
| Benzene | ND | 0.00500 | " | " | " | " | " | " | |
| Toluene | ND | 0.00500 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.00500 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.00500 | " | " | " | " | " | " | |
| **Methyl tert-butyl ether** | **0.441** | 0.0500 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *112 %* | *65-135* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *82.3 %* | *65-135* | | " | " | " | " | |
| **SB-E-10.5 (P008659-02) Soil Sampled: 08/29/00 00:00 Received: 08/30/00 14:40** | | | | | | | | | |
| Gasoline | ND | 1.00 | mg/kg | 1 | 0080703 | 08/30/00 | 08/30/00 | EPA 8015M/8020M | |
| Benzene | ND | 0.00500 | " | " | " | " | " | " | |
| Toluene | ND | 0.00500 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.00500 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.00500 | " | " | " | " | " | " | |
| **Methyl tert-butyl ether** | **0.248** | 0.0500 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *108 %* | *65-135* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *85.7 %* | *65-135* | | " | " | " | " | |
| **SB-E-15.5 (P008659-03) Soil Sampled: 08/29/00 00:00 Received: 08/30/00 14:40** | | | | | | | | | |
| Gasoline | ND | 5.00 | mg/kg | 5 | 0080703 | 08/30/00 | 08/30/00 | EPA 8015M/8020M | |
| Benzene | ND | 0.0250 | " | " | " | " | " | " | |
| Toluene | ND | 0.0250 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0250 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.0250 | " | " | " | " | " | " | |
| **Methyl tert-butyl ether** | **1.83** | 0.250 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *105 %* | *65-135* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *89.3 %* | *65-135* | | " | " | " | " | |

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|---|---|---|
| Cambria Environmental - Oakland | Project: Equiva Enterprises LLC | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 09/19/00 12:11 |

## Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M

## Sequoia Analytical - Petaluma

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **SB-E-20.5 (P008659-04) Soil Sampled: 08/29/00 00:00 Received: 08/30/00 14:40** | | | | | | | | | |
| Gasoline | ND | 1.00 | mg/kg | 1 | 0080703 | 08/30/00 | 08/30/00 | EPA 8015M/8020M | |
| Benzene | ND | 0.00500 | " | " | " | " | " | " | |
| Toluene | ND | 0.00500 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.00500 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.00500 | " | " | " | " | " | " | |
| Methyl tert-butyl ether | ND | 0.0500 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *113 %* | *65-135* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *81.5 %* | *65-135* | | " | " | " | " | |
| **SB-E-25.5 (P008659-05) Soil Sampled: 08/29/00 00:00 Received: 08/30/00 14:40** | | | | | | | | | |
| Gasoline | ND | 1.00 | mg/kg | 1 | 0080703 | 08/30/00 | 08/30/00 | EPA 8015M/8020M | |
| Benzene | ND | 0.00500 | " | " | " | " | " | " | |
| Toluene | ND | 0.00500 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.00500 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.00500 | " | " | " | " | " | " | |
| Methyl tert-butyl ether | ND | 0.0500 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *109 %* | *65-135* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *81.2 %* | *65-135* | | " | " | " | " | |
| **SB-F-5.5 (P008659-06) Soil Sampled: 08/29/00 00:00 Received: 08/30/00 14:40** | | | | | | | | | |
| Gasoline | ND | 1.00 | mg/kg | 1 | 0080703 | 08/30/00 | 08/30/00 | EPA 8015M/8020M | |
| Benzene | ND | 0.00500 | " | " | " | " | " | " | |
| Toluene | ND | 0.00500 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.00500 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.00500 | " | " | " | " | " | " | |
| **Methyl tert-butyl ether** | **0.0727** | 0.0500 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *120 %* | *65-135* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *51.5 %* | *65-135* | | " | " | " | " | *S-LOW* |

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| Cambria Environmental - Oakland | Project: Equiva Enterprises LLC | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 09/19/00 12:11 |

## Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M

### Sequoia Analytical - Petaluma

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **SB-F-10.5 (P008659-07) Soil Sampled: 08/29/00 00:00 Received: 08/30/00 14:40** | | | | | | | | | |
| Gasoline | ND | 1.00 | mg/kg | 1 | 0080703 | 08/30/00 | 08/30/00 | EPA 8015M/8020M | |
| Benzene | ND | 0.00500 | " | " | " | " | " | " | |
| Toluene | ND | 0.00500 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.00500 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.00500 | " | " | " | " | " | " | |
| **Methyl tert-butyl ether** | **0.0551** | 0.0500 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *117 %* | *65-135* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *66.0 %* | *65-135* | | " | " | " | " | |
| **SB-G-5.5 (P008659-08) Soil Sampled: 08/29/00 00:00 Received: 08/30/00 14:40** | | | | | | | | | |
| **Gasoline** | **2.19** | 1.00 | mg/kg | 1 | 0080703 | 08/30/00 | 08/30/00 | EPA 8015M/8020M | |
| Benzene | ND | 0.00500 | " | " | " | " | " | " | |
| Toluene | ND | 0.00500 | " | " | " | " | " | " | |
| **Ethylbenzene** | **0.132** | 0.00500 | " | " | " | " | " | " | |
| **Xylenes (total)** | **0.258** | 0.00500 | " | " | " | " | " | " | |
| **Methyl tert-butyl ether** | **0.141** | 0.0500 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *109 %* | *65-135* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *74.7 %* | *65-135* | | " | " | " | " | |
| **SB-G-10.5 (P008659-09) Soil Sampled: 08/29/00 00:00 Received: 08/30/00 14:40** | | | | | | | | | |
| **Gasoline** | **468** | 50.0 | mg/kg | 50 | 0080704 | 08/30/00 | 08/30/00 | EPA 8015M/8020M | |
| Benzene | ND | 0.250 | " | " | " | " | " | " | |
| **Toluene** | **1.88** | 0.250 | " | " | " | " | " | " | QR-04 |
| **Ethylbenzene** | **7.05** | 0.250 | " | " | " | " | " | " | |
| **Xylenes (total)** | **26.9** | 0.250 | " | " | " | " | " | " | |
| Methyl tert-butyl ether | ND | 2.50 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *94.3 %* | *65-135* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *100 %* | *65-135* | | " | " | " | " | |

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|---|---|---|
| Cambria Environmental - Oakland | Project: Equiva Enterprises LLC | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 09/19/00 12:11 |

## Total Petroleum Hydrocarbons as Diesel & others by EPA 8015M w/ S.G. Clean-up

### Sequoia Analytical - Petaluma

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **SB-E-5.5 (P008659-01) Soil Sampled: 08/29/00 00:00 Received: 08/30/00 14:40** | | | | | | | | | |
| Diesel (C10-C24) | ND | 5.00 | mg/kg | 1 | 0080708 | 09/05/00 | 09/07/00 | EPA 8015M-SVOA | |
| *Surrogate: o-Terphenyl* | | *79.6 %* | *50-150* | | " | " | " | " | |
| **SB-E-10.5 (P008659-02) Soil Sampled: 08/29/00 00:00 Received: 08/30/00 14:40** | | | | | | | | | |
| Diesel (C10-C24) | ND | 5.00 | mg/kg | 1 | 0080708 | 09/05/00 | 09/07/00 | EPA 8015M-SVOA | |
| *Surrogate: o-Terphenyl* | | *80.5 %* | *50-150* | | " | " | " | " | |
| **SB-E-15.5 (P008659-03) Soil Sampled: 08/29/00 00:00 Received: 08/30/00 14:40** | | | | | | | | | |
| Diesel (C10-C24) | ND | 5.00 | mg/kg | 1 | 0080708 | 09/05/00 | 09/07/00 | EPA 8015M-SVOA | |
| *Surrogate: o-Terphenyl* | | *61.0 %* | *50-150* | | " | " | " | " | |
| **SB-E-20.5 (P008659-04) Soil Sampled: 08/29/00 00:00 Received: 08/30/00 14:40** | | | | | | | | | |
| Diesel (C10-C24) | ND | 5.00 | mg/kg | 1 | 0080708 | 09/05/00 | 09/07/00 | EPA 8015M-SVOA | |
| *Surrogate: o-Terphenyl* | | *87.1 %* | *50-150* | | " | " | " | " | |
| **SB-E-25.5 (P008659-05) Soil Sampled: 08/29/00 00:00 Received: 08/30/00 14:40** | | | | | | | | | |
| Diesel (C10-C24) | ND | 5.00 | mg/kg | 1 | 0080708 | 09/05/00 | 09/07/00 | EPA 8015M-SVOA | |
| *Surrogate: o-Terphenyl* | | *87.4 %* | *50-150* | | " | " | " | " | |
| **SB-F-5.5 (P008659-06) Soil Sampled: 08/29/00 00:00 Received: 08/30/00 14:40** | | | | | | | | | |
| Diesel (C10-C24) | ND | 5.00 | mg/kg | 1 | 0080708 | 09/05/00 | 09/07/00 | EPA 8015M-SVOA | |
| *Surrogate: o-Terphenyl* | | *81.1 %* | *50-150* | | " | " | " | " | |
| **SB-F-10.5 (P008659-07) Soil Sampled: 08/29/00 00:00 Received: 08/30/00 14:40** | | | | | | | | | |
| Diesel (C10-C24) | ND | 5.00 | mg/kg | 1 | 0080708 | 09/05/00 | 09/07/00 | EPA 8015M-SVOA | |
| *Surrogate: o-Terphenyl* | | *80.8 %* | *50-150* | | " | " | " | " | |

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| Cambria Environmental - Oakland | Project: Equiva Enterprises LLC | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 09/19/00 12:11 |

## Total Petroleum Hydrocarbons as Diesel & others by EPA 8015M w/ S.G. Clean-up

### Sequoia Analytical - Petaluma

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **SB-G-5.5 (P008659-08) Soil Sampled: 08/29/00 00:00 Received: 08/30/00 14:40** | | | | | | | | | |
| Diesel (C10-C24) | ND | 5.00 | mg/kg | 1 | 0080708 | 09/05/00 | 09/07/00 | EPA 8015M-SVOA | |
| *Surrogate: o-Terphenyl* | | *93.4 %* | | *50-150* | " | " | " | " | |
| **SB-G-10.5 (P008659-09) Soil Sampled: 08/29/00 00:00 Received: 08/30/00 14:40** | | | | | | | | | |
| **Diesel (C10-C24)** | **108** | 5.00 | mg/kg | 1 | 0080708 | 09/05/00 | 09/07/00 | EPA 8015M-SVOA | D-09 |
| *Surrogate: o-Terphenyl* | | *94.6 %* | | *50-150* | " | " | " | " | |

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| Cambria Environmental - Oakland | Project: Equiva Enterprises LLC | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 09/19/00 12:11 |

## Volatile Organic Compounds by EPA Method 8260B

## Sequoia Analytical - Petaluma

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **SB-E-5.5 (P008659-01) Soil Sampled: 08/29/00 00:00 Received: 08/30/00 14:40** | | | | | | | | | |
| **Methyl tert-butyl ether** | **0.481** | 0.0100 | mg/kg | 2 | 0090083 | 09/08/00 | 09/08/00 | EPA 8260B | |
| *Surrogate: Dibromofluoromethane* | | *99.2 %* | | *80-120* | | " | " | " | " |
| **SB-E-10.5 (P008659-02) Soil Sampled: 08/29/00 00:00 Received: 08/30/00 14:40** | | | | | | | | | |
| **Methyl tert-butyl ether** | **0.0971** | 0.00500 | mg/kg | 1 | 0090083 | 09/08/00 | 09/08/00 | EPA 8260B | |
| *Surrogate: Dibromofluoromethane* | | *100 %* | | *80-120* | | " | " | " | " |
| **SB-E-15.5 (P008659-03) Soil Sampled: 08/29/00 00:00 Received: 08/30/00 14:40** | | | | | | | | | |
| **Methyl tert-butyl ether** | **1.86** | 0.500 | mg/kg | 100 | 0090143 | 09/08/00 | 09/11/00 | EPA 8260B | |
| *Surrogate: Dibromofluoromethane* | | *96.5 %* | | *80-120* | | " | " | " | " |
| **SB-F-10.5 (P008659-07) Soil Sampled: 08/29/00 00:00 Received: 08/30/00 14:40** | | | | | | | | | |
| Methyl tert-butyl ether | ND | 0.00500 | mg/kg | 1 | 0090083 | 09/08/00 | 09/08/00 | EPA 8260B | |
| *Surrogate: Dibromofluoromethane* | | *97.6 %* | | *80-120* | | " | " | " | " |
| **SB-G-5.5 (P008659-08) Soil Sampled: 08/29/00 00:00 Received: 08/30/00 14:40** | | | | | | | | | |
| **Methyl tert-butyl ether** | **0.0505** | 0.0100 | mg/kg | 2 | 0090083 | 09/08/00 | 09/08/00 | EPA 8260B | |
| *Surrogate: Dibromofluoromethane* | | *100 %* | | *80-120* | | " | " | " | " |

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| Cambria Environmental - Oakland | Project: Equiva Enterprises LLC | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 09/19/00 12:11 |

## Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M - Quality Control
## Sequoia Analytical - Petaluma

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 0080703 - EPA 5030 soils** | | | | | | | | | | |
| **Blank (0080703-BLK1)** | | | | Prepared & Analyzed: 08/30/00 | | | | | | |
| Gasoline | ND | 1.00 | mg/kg | | | | | | | |
| Benzene | ND | 0.00500 | " | | | | | | | |
| Toluene | ND | 0.00500 | " | | | | | | | |
| Ethylbenzene | ND | 0.00500 | " | | | | | | | |
| Xylenes (total) | ND | 0.00500 | " | | | | | | | |
| Methyl tert-butyl ether | ND | 0.0500 | " | | | | | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *0.637* | | " | *0.600* | | *106* | *65-135* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *0.564* | | " | *0.600* | | *94.0* | *65-135* | | | |
| **LCS (0080703-BS1)** | | | | Prepared & Analyzed: 08/30/00 | | | | | | |
| Benzene | 0.200 | 0.00500 | mg/kg | 0.200 | | 100 | 65-135 | | | |
| Toluene | 0.199 | 0.00500 | " | 0.200 | | 99.5 | 65-135 | | | |
| Ethylbenzene | 0.199 | 0.00500 | " | 0.200 | | 99.5 | 65-135 | | | |
| Xylenes (total) | 0.589 | 0.00500 | " | 0.600 | | 98.2 | 65-135 | | | |
| Methyl tert-butyl ether | 0.182 | 0.0500 | " | 0.200 | | 91.0 | 65-135 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *0.619* | | " | *0.600* | | *103* | *65-135* | | | |
| **Matrix Spike (0080703-MS1)** | | **Source: P008659-04** | | Prepared & Analyzed: 08/30/00 | | | | | | |
| Benzene | 0.208 | 0.00500 | mg/kg | 0.200 | ND | 104 | 65-135 | | | |
| Toluene | 0.206 | 0.00500 | " | 0.200 | ND | 103 | 65-135 | | | |
| Ethylbenzene | 0.204 | 0.00500 | " | 0.200 | ND | 102 | 65-135 | | | |
| Xylenes (total) | 0.602 | 0.00500 | " | 0.600 | ND | 100 | 65-135 | | | |
| Methyl tert-butyl ether | 0.195 | 0.0500 | " | 0.200 | ND | 95.0 | 65-135 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *0.644* | | " | *0.600* | | *107* | *65-135* | | | |
| **Matrix Spike Dup (0080703-MSD1)** | | **Source: P008659-04** | | Prepared & Analyzed: 08/30/00 | | | | | | |
| Benzene | 0.212 | 0.00500 | mg/kg | 0.200 | ND | 106 | 65-135 | 1.90 | 20 | |
| Toluene | 0.210 | 0.00500 | " | 0.200 | ND | 105 | 65-135 | 1.92 | 20 | |
| Ethylbenzene | 0.209 | 0.00500 | " | 0.200 | ND | 105 | 65-135 | 2.42 | 20 | |
| Xylenes (total) | 0.615 | 0.00500 | " | 0.600 | ND | 102 | 65-135 | 2.14 | 20 | |
| Methyl tert-butyl ether | 0.189 | 0.0500 | " | 0.200 | ND | 92.0 | 65-135 | 3.12 | 20 | |
| *Surrogate: a,a,a-Trifluorotoluene* | *0.658* | | " | *0.600* | | *110* | *65-135* | | | |

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| Cambria Environmental - Oakland | Project: Equiva Enterprises LLC | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 09/19/00 12:11 |

## Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M - Quality Control

## Sequoia Analytical - Petaluma

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 0080704 - EPA 5030 soils MeOH** | | | | | | | | | | |
| **Blank (0080704-BLK1)** | | | | Prepared & Analyzed: 08/30/00 | | | | | | |
| Gasoline | ND | 50.0 | mg/kg | | | | | | | |
| Benzene | ND | 0.250 | " | | | | | | | |
| Toluene | ND | 0.250 | " | | | | | | | |
| Ethylbenzene | ND | 0.250 | " | | | | | | | |
| Xylenes (total) | ND | 0.250 | " | | | | | | | |
| Methyl tert-butyl ether | ND | 2.50 | " | | | | | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *29.3* | | " | *30.0* | | *97.7* | *65-135* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *28.0* | | " | *30.0* | | *93.3* | *65-135* | | | |
| **Blank (0080704-BLK2)** | | | | Prepared: 08/31/00 Analyzed: 09/01/00 | | | | | | |
| Gasoline | ND | 50.0 | mg/kg | | | | | | | |
| Benzene | ND | 0.250 | " | | | | | | | |
| Toluene | ND | 0.250 | " | | | | | | | |
| Ethylbenzene | ND | 0.250 | " | | | | | | | |
| Xylenes (total) | ND | 0.250 | " | | | | | | | |
| Methyl tert-butyl ether | ND | 2.50 | " | | | | | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *27.8* | | " | *30.0* | | *92.7* | *65-135* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *28.7* | | " | *30.0* | | *95.7* | *65-135* | | | |
| **Blank (0080704-BLK3)** | | | | Prepared & Analyzed: 09/05/00 | | | | | | |
| Gasoline | ND | 50.0 | mg/kg | | | | | | | |
| Benzene | ND | 0.250 | " | | | | | | | |
| Toluene | ND | 0.250 | " | | | | | | | |
| Ethylbenzene | ND | 0.250 | " | | | | | | | |
| Xylenes (total) | ND | 0.250 | " | | | | | | | |
| Methyl tert-butyl ether | ND | 2.50 | " | | | | | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *28.1* | | " | *30.0* | | *93.7* | *65-135* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *27.8* | | " | *30.0* | | *92.7* | *65-135* | | | |

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| | | |
|---|---|---|
| Cambria Environmental - Oakland | Project: Equiva Enterprises LLC | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 09/19/00 12:11 |

## Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M - Quality Control

## Sequoia Analytical - Petaluma

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 0080704 - EPA 5030 soils MeOH** | | | | | | | | | | |
| **LCS (0080704-BS1)** | | | | Prepared & Analyzed: 08/30/00 | | | | | | |
| Benzene | 9.59 | 0.250 | mg/kg | 10.0 | | 95.9 | 65-135 | | | |
| Toluene | 9.43 | 0.250 | " | 10.0 | | 94.3 | 65-135 | | | |
| Ethylbenzene | 9.18 | 0.250 | " | 10.0 | | 91.8 | 65-135 | | | |
| Xylenes (total) | 30.7 | 0.250 | " | 30.0 | | 102 | 65-135 | | | |
| Methyl tert-butyl ether | 8.22 | 2.50 | " | 10.0 | | 82.2 | 65-135 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *29.8* | | " | *30.0* | | *99.3* | *65-135* | | | |
| **LCS (0080704-BS2)** | | | | Prepared: 08/31/00 Analyzed: 09/01/00 | | | | | | |
| Benzene | 9.67 | 0.250 | mg/kg | 10.0 | | 96.7 | 65-135 | | | |
| Toluene | 9.42 | 0.250 | " | 10.0 | | 94.2 | 65-135 | | | |
| Ethylbenzene | 9.18 | 0.250 | " | 10.0 | | 91.8 | 65-135 | | | |
| Xylenes (total) | 30.8 | 0.250 | " | 30.0 | | 103 | 65-135 | | | |
| Methyl tert-butyl ether | 8.10 | 2.50 | " | 10.0 | | 81.0 | 65-135 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *28.8* | | " | *30.0* | | *96.0* | *65-135* | | | |
| **LCS (0080704-BS3)** | | | | Prepared & Analyzed: 09/05/00 | | | | | | |
| Benzene | 9.46 | 0.250 | mg/kg | 10.0 | | 94.6 | 65-135 | | | |
| Toluene | 9.25 | 0.250 | " | 10.0 | | 92.5 | 65-135 | | | |
| Ethylbenzene | 9.04 | 0.250 | " | 10.0 | | 90.4 | 65-135 | | | |
| Xylenes (total) | 30.3 | 0.250 | " | 30.0 | | 101 | 65-135 | | | |
| Methyl tert-butyl ether | 7.90 | 2.50 | " | 10.0 | | 79.0 | 65-135 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *29.4* | | " | *30.0* | | *98.0* | *65-135* | | | |
| **LCS Dup (0080704-BSD2)** | | | | Prepared: 08/31/00 Analyzed: 09/01/00 | | | | | | |
| Benzene | 9.74 | 0.250 | mg/kg | 10.0 | | 97.4 | 65-135 | 0.721 | 20 | |
| Toluene | 9.48 | 0.250 | " | 10.0 | | 94.8 | 65-135 | 0.635 | 20 | |
| Ethylbenzene | 9.20 | 0.250 | " | 10.0 | | 92.0 | 65-135 | 0.218 | 20 | |
| Xylenes (total) | 30.8 | 0.250 | " | 30.0 | | 103 | 65-135 | 0 | 20 | |
| Methyl tert-butyl ether | 7.78 | 2.50 | " | 10.0 | | 77.8 | 65-135 | 4.03 | 20 | |
| *Surrogate: a,a,a-Trifluorotoluene* | *28.9* | | " | *30.0* | | *96.3* | *65-135* | | | |

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|---|---|---|
| Cambria Environmental - Oakland | Project: Equiva Enterprises LLC | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 09/19/00 12:11 |

## Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M - Quality Control

## Sequoia Analytical - Petaluma

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 0080704 - EPA 5030 soils MeOH** | | | | | | | | | | |
| **LCS Dup (0080704-BSD3)** | | | | Prepared & Analyzed: 09/05/00 | | | | | | |
| Benzene | 9.62 | 0.250 | mg/kg | 10.0 | | 96.2 | 65-135 | 1.68 | 20 | |
| Toluene | 9.42 | 0.250 | " | 10.0 | | 94.2 | 65-135 | 1.82 | 20 | |
| Ethylbenzene | 9.19 | 0.250 | " | 10.0 | | 91.9 | 65-135 | 1.65 | 20 | |
| Xylenes (total) | 30.8 | 0.250 | " | 30.0 | | 103 | 65-135 | 1.64 | 20 | |
| Methyl tert-butyl ether | 8.16 | 2.50 | " | 10.0 | | 81.6 | 65-135 | 3.24 | 20 | |
| *Surrogate: a,a,a-Trifluorotoluene* | *29.0* | | " | *30.0* | | *96.7* | *65-135* | | | |
| **Matrix Spike (0080704-MS1)** | | **Source: P008659-09** | | Prepared & Analyzed: 08/30/00 | | | | | | **QM-07** |
| Benzene | 8.99 | 0.250 | mg/kg | 10.0 | ND | 88.6 | 65-135 | | | |
| Toluene | 16.3 | 0.250 | " | 10.0 | 1.88 | 144 | 65-135 | | | |
| Ethylbenzene | 20.7 | 0.250 | " | 10.0 | 7.05 | 137 | 65-135 | | | |
| Xylenes (total) | 88.9 | 0.250 | " | 30.0 | 26.9 | 207 | 65-135 | | | |
| Methyl tert-butyl ether | 8.09 | 2.50 | " | 10.0 | ND | 70.5 | 65-135 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *28.5* | | " | *30.0* | | *95.0* | *65-135* | | | |
| **Matrix Spike Dup (0080704-MSD1)** | | **Source: P008659-09** | | Prepared & Analyzed: 08/30/00 | | | | | | **QM-07** |
| Benzene | 9.21 | 0.250 | mg/kg | 10.0 | ND | 90.9 | 65-135 | 2.42 | 20 | |
| Toluene | 11.8 | 0.250 | " | 10.0 | 1.88 | 99.2 | 65-135 | 32.0 | 20 | |
| Ethylbenzene | 13.3 | 0.250 | " | 10.0 | 7.05 | 62.5 | 65-135 | 43.5 | 20 | |
| Xylenes (total) | 53.1 | 0.250 | " | 30.0 | 26.9 | 87.3 | 65-135 | 50.4 | 20 | |
| Methyl tert-butyl ether | 7.61 | 2.50 | " | 10.0 | ND | 65.7 | 65-135 | 6.11 | 20 | |
| *Surrogate: a,a,a-Trifluorotoluene* | *28.9* | | " | *30.0* | | *96.3* | *65-135* | | | |

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|---|---|---|
| Cambria Environmental - Oakland | Project: Equiva Enterprises LLC | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 09/19/00 12:11 |

## Total Petroleum Hydrocarbons as Diesel & others by EPA 8015M w/ S.G. Clean-up - Quality Control

## Sequoia Analytical - Petaluma

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 0080708 - CA LUFT - orb shaker** | | | | | | | | | | |
| **Blank (0080708-BLK1)** | | | | Prepared: 09/05/00 Analyzed: 09/06/00 | | | | | | |
| Diesel (C10-C24) | ND | 5.00 | mg/kg | | | | | | | |
| *Surrogate: o-Terphenyl* | *2.95* | | " | *3.33* | | *88.6* | *50-150* | | | |
| **LCS (0080708-BS1)** | | | | Prepared: 09/05/00 Analyzed: 09/06/00 | | | | | | |
| Diesel (C10-C24) | 33.1 | 5.00 | mg/kg | 33.3 | | 99.4 | 50-150 | | | |
| *Surrogate: o-Terphenyl* | *3.22* | | " | *3.33* | | *96.7* | *50-150* | | | |
| **Matrix Spike (0080708-MS1)** | | **Source: P008659-08** | | Prepared: 09/05/00 Analyzed: 09/07/00 | | | | | | |
| Diesel (C10-C24) | 35.8 | 5.00 | mg/kg | 33.3 | ND | 96.4 | 50-150 | | | |
| *Surrogate: o-Terphenyl* | *3.28* | | " | *3.33* | | *98.5* | *50-150* | | | |
| **Matrix Spike Dup (0080708-MSD1)** | | **Source: P008659-08** | | Prepared: 09/05/00 Analyzed: 09/07/00 | | | | | | |
| Diesel (C10-C24) | 37.4 | 5.00 | mg/kg | 33.3 | ND | 101 | 50-150 | 4.37 | 35 | |
| *Surrogate: o-Terphenyl* | *3.36* | | " | *3.33* | | *101* | *50-150* | | | |

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|---|---|---|
| Cambria Environmental - Oakland | Project: Equiva Enterprises LLC | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 09/19/00 12:11 |

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

## Sequoia Analytical - Petaluma

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 0090083 - EPA 5030 soils** | | | | | | | | | | |
| **Blank (0090083-BLK1)** | | | | Prepared & Analyzed: 09/06/00 | | | | | | |
| Methyl tert-butyl ether | ND | 0.00500 | mg/kg | | | | | | | |
| *Surrogate: Dibromofluoromethane* | *0.0525* | | " | *0.0500* | | *105* | *80-120* | | | |
| **Blank (0090083-BLK2)** | | | | Prepared & Analyzed: 09/08/00 | | | | | | |
| Methyl tert-butyl ether | ND | 0.00500 | mg/kg | | | | | | | |
| *Surrogate: Dibromofluoromethane* | *0.0484* | | " | *0.0500* | | *96.8* | *80-120* | | | |
| **LCS (0090083-BS1)** | | | | Prepared & Analyzed: 09/06/00 | | | | | | |
| Methyl tert-butyl ether | 0.0514 | 0.00500 | mg/kg | 0.0500 | | 103 | 75.8-124 | | | |
| *Surrogate: Dibromofluoromethane* | *0.0493* | | " | *0.0500* | | *98.6* | *80-120* | | | |
| **LCS (0090083-BS2)** | | | | Prepared & Analyzed: 09/08/00 | | | | | | |
| Methyl tert-butyl ether | 0.0530 | 0.00500 | mg/kg | 0.0500 | | 106 | 75.8-124 | | | |
| *Surrogate: Dibromofluoromethane* | *0.0533* | | " | *0.0500* | | *107* | *80-120* | | | |
| **Matrix Spike (0090083-MS1)** | | **Source: P008669-18** | | Prepared & Analyzed: 09/06/00 | | | | | | |
| Methyl tert-butyl ether | 0.123 | 0.00500 | mg/kg | 0.125 | ND | 98.4 | 75.8-124 | | | |
| *Surrogate: Dibromofluoromethane* | *0.123* | | " | *0.125* | | *98.4* | *80-120* | | | |
| **Matrix Spike Dup (0090083-MSD1)** | | **Source: P008669-18** | | Prepared & Analyzed: 09/06/00 | | | | | | |
| Methyl tert-butyl ether | 0.124 | 0.00500 | mg/kg | 0.125 | ND | 99.2 | 75.8-124 | 0.810 | 35 | |
| *Surrogate: Dibromofluoromethane* | *0.120* | | " | *0.125* | | *96.0* | *80-120* | | | |
| **Batch 0090143 - EPA 5030 soils MeOH** | | | | | | | | | | |
| **Blank (0090143-BLK1)** | | | | Prepared: 09/08/00 Analyzed: 09/11/00 | | | | | | |
| Methyl tert-butyl ether | ND | 0.500 | mg/kg | | | | | | | |
| *Surrogate: Dibromofluoromethane* | *2.02* | | " | *2.00* | | *101* | *80-120* | | | |

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|---|---|---|
| Cambria Environmental - Oakland | Project: Equiva Enterprises LLC | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 09/19/00 12:11 |

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

## Sequoia Analytical - Petaluma

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 0090143 - EPA 5030 soils MeOH** | | | | | | | | | | |
| **LCS (0090143-BS1)** | | | | Prepared: 09/08/00 Analyzed: 09/11/00 | | | | | | |
| Methyl tert-butyl ether | 1.97 | 0.500 | mg/kg | 2.00 | | 98.5 | 75.8-124 | | | |
| *Surrogate: Dibromofluoromethane* | *2.00* | | " | *2.00* | | *100* | *80-120* | | | |
| **Matrix Spike (0090143-MS1)** | **Source: P008659-03** | | | Prepared: 09/08/00 Analyzed: 09/11/00 | | | | | | |
| Methyl tert-butyl ether | 3.89 | 0.500 | mg/kg | 2.00 | 1.86 | 102 | 75.8-124 | | | |
| *Surrogate: Dibromofluoromethane* | *1.95* | | " | *2.00* | | *97.5* | *80-120* | | | |
| **Matrix Spike Dup (0090143-MSD1)** | **Source: P008659-03** | | | Prepared: 09/08/00 Analyzed: 09/11/00 | | | | | | |
| Methyl tert-butyl ether | 3.55 | 0.500 | mg/kg | 2.00 | 1.86 | 84.5 | 75.8-124 | 9.14 | 35 | |
| *Surrogate: Dibromofluoromethane* | *1.91* | | " | *2.00* | | *95.5* | *80-120* | | | |

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|---|---|---|
| Cambria Environmental - Oakland | Project: Equiva Enterprises LLC | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 09/19/00 12:11 |

**Notes and Definitions**

| | |
|---|---|
| D-09 | Results in the diesel organics range are elevated due to overlap from higher boiling point hydrocarbons. |
| QM-07 | The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery. |
| QR-04 | Results between the primary and confirmation columns varied by greater than 40% RPD. |
| S-LOW | Low surrogate recovery confirmed as a matrix effect by a second analysis. |
| 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 |

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# PHYSICAL PROPERTIES SOIL REPORT

**To:** Richard Stover
Sequoia Analytical
1455 N. McDowell Blvd., Suite D
Petaluma, CA 94954

**Samples of:** soil/sediment

**Date:** September 15, 2000
**Lab #:** 00-08-0481 & 00-08-0482
**Received:** August 31, 2000
**Tech(s):** S. Theodore/S. Banwait
**Lab Supervisor:** D. Jacobson
**Lab Director:** G.S. Conrad, Ph.D.
**Sample ID(s):** 8659-10 & 8659-11

**Site Location:** @ 540 Hegenberger Road, Oakland, California.

## RESULTS

| SAMPLE ID | MOISTURE | BULK DENSITY | POROSITY | T O C |
|---|---|---|---|---|
| 8659-10 | **16.76%** | **94.8 lbs/cuft** | **36.7%** | **842 mg/kg** |
| 8659-11 | **25.31%** | **85.4 lbs/cuft** | **50.6%** | **13,263 mg/kg** |

## COMMENTS

One sample was more of a loamy (silt & clay) sand material (8659-10), while the other was more of a loamy or silty clay (8659-11). Both have relatively low bulk densities consistent with surface or near surface materials (i.e., uncompacted). Moisture percentages are very consistent with the significant difference in texture between these two samples. In addition, the organic content seems to be more or less consistent with textures of these materials as well. Sandy materials typically have TOCs in the range of 500-2500 ppm; while clayey materials generally would be anywhere in the fairly broad range of 5,000-25,000 ppm. Indeed, both samples fall within these respective ranges. Porosities also fit with loamy sand and clayey materials. The one rather significant difference would be that the hydraulic conductivity (or transmissivity) of the sand sediment should be vastly greater than that of the clayey sediment. In other words, despite the somewhat greater porosity (i.e., pore volume) of the clay sediment, its permeability should far far below that of the sand sediment.

**NOTES:**
These tests were done in accordance with ASTM standards as follows: Porosity (as pore volume) - ASTM D 854; Moisture - ASTM D 2974; Density - ASTM D 2937; and Total Organic Carbon by potassium dichromate/sulfuric acid digestion (Walkley-Black).

# SEQUOIA ANALYTICAL
# CHAIN OF CUSTODY


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☐ 1551 Industrial Road • San Carlos, CA 94070 • (650) 232-9600 FAX (650) 232-9612


| | |
|---|---|
| Company Name: Equiva Services LLC | Project Name: 540 Hegenberger |
| Mailing Address: P.O. Box 7869 | Billing Address (if different): |
| City: Burbank State: CA Zip Code: 91510-7869 | |
| Telephone: (510) 420-3339 FAX #(510) 420-9170 | P.O. #: 242-0414 |
| Report To: Darryk Ataide Sampler: James Loetterle | QC Data: ☐ Level D (Standard) ☐ Level C ☐ Level B ☐ Level A |

**Turnaround Time:** ☐ 10 Working Days ☐ 7 Working Days ☐ 5 Working Days ☐ 3 Working Days ☐ 2 Working Days (☑) 24 Hours ☐ 2 - 8 Hours

☐ Drinking Water ☐ Waste Water ☐ Other

Analyses Requested: (SOIL PHYSICAL PROPERTIES (TOC, MOISTURE CONTENT, DRY BULK DENSITY, POROSITY))

| Client Sample I.D. | Date/Time Sampled | Matrix Desc. | # of Cont. | Cont. Type | Sequoia's Sample # | Comments |
|---|---|---|---|---|---|---|
| 1. SB-GP-6.0 | AUG 29 00 1:00 | SOIL | 1 | BRASS RING | P008659-10 | |
| 2. SB-FP-6.0 | AUG 29 00 12:00 | ↓ | ↓ | ↓ | -11 | |
| 3. | | | | | | |
| 4. | | | | | 11 | |
| 5. | | | | | | |
| 6. | | | | | | |
| 7. | | | | | | COOLER CUSTODY SEALS INTACT ☐ |
| 8. | | | | | | NOT INTACT ☐ |
| 9. | | | | | | COOLER TEMPERATURE 6 |
| 10. | | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Relinquished By: Darryk Ataide | Date: 8/29/00 | Time: 17:00 | Received By: Mark Coll. | Date: 8.29 | Time: 1700 |
| Relinquished By: Mark Coll. | Date: 8.29 | Time: 1800 | Received By: | Date: 8/30 | Time: 1115 |
| Relinquished By: | Date: 8/30 | Time: | Received By Lab: Sarah Aguilar | Date: 8/30/00 | Time: 1440 |

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment

PE 7 Page

# SEQUOIA ANALYTICAL
# CHAIN OF CUSTODY


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☐ 1455 McDowell Blvd. North, Suite D • Petaluma, CA 94954 • (707) 792-1865 FAX (707) 792-0342
☐ 1551 Industrial Road • San Carlos, CA 94070 • (650) 232-9600 FAX (650) 232-9612


| | |
|---|---|
| Company Name: Equiva Services LLC | Project Name: 540 Hegenberger |
| Mailing Address: P.O. Box 7869 | Billing Address (if different): |
| City: Burbank State: CA Zip Code: 91510-7869 | |
| Telephone: (510) 420-3339 FAX #: (510) 420-9170 | P.O. #: 242-0414 |
| Report To: Darryk Ataide Sampler: James Loetterle | QC Data: ☐ Level D (Standard) detections to be confirmed ☐ Level C ☐ Level B ☐ Level A |

**Turnaround Time:** ☐ 10 Working Days ☐ 7 Working Days ☐ 5 Working Days ☐ 3 Working Days ☐ 2 Working Days ☑ 24 Hours ☐ 2 - 8 Hours

☐ Drinking Water ☐ Waste Water ☐ Other

**Analyses Requested**

| Client Sample I.D. | Date/Time Sampled | Matrix Desc. | # of Cont. | Cont. Type | Sequoia's Sample # | TPH-g by EPA 8015 | BTEX & MTBE by EPA 8020 | MTBE by EPA 8260 | TPH-d by EPA 8015 | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. SB-E-5.5 | 29 AUG 00 10:06 | SOIL | 1 | BRASS TUBE | 008659-01 | X | X | X | X | for diesel samples use Silicagel for clean-up |
| 2. SB-E-10.5 | 29 AUG 00 10:08 | | | | -02 | | | | | |
| 3. SB-E-15.5 | 29 AUG 00 10:11 | | | | -03 | | | | | |
| 4. SB-E 20.5 | 29 AUG 00 10:16 | | | | -04 | | | | | |
| 5. SB-E-25.5 | 29 AUG 00 10:25 | | | | -05 | | | | | |
| 6. SB-F-5.5 | 29 AUG 00 11:58 | | | | -06 | | | | | |
| 7. SB-F-10.5 | 29 AUG 00 12:04 | | | | -07 | | | | | |
| 8. SB-G-5.5 | 29 AUG 00 1:00 | | | | -08 | | | | | |
| 9. SB-G-10.5 | 29 AUG 00 1:00 | | | | -09 | | | | | |
| 10. | | | | | | | | | | |

COOLER CUSTODY SEALS INTACT ☐ N/A
NOT INTACT ☐
COOLER TEMPERATURE 6 °C

| | | | | | |
|---|---|---|---|---|---|
| Relinquished By: | Date: 8/29/00 | Time: 17:00 | Received By: | Date: 8.29 | Time: 1700 |
| Relinquished By: | Date: 8.29 | Time: 1800 | Received By: | Date: 8 30 | Time: 11:15 |
| Relinquished By: | Date: 8/30 | Time: | Received By Lab: | Date: 8/30/00 | Time: 1440 |

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment Page of

Pink - Client
Yellow - Sequoia
White - Sequoia

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September 28 , 2000

Darryk Ataide
Cambria Environmental - Oakland
1144 65th St., Suite C
Oakland, CA 94608
RE: Equiva

Enclosed are the results of analyses for samples received by the laboratory on 09/11/00 13:20. The soils properties report is attached at the end of the Sequoia report. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Richard Stover
Project Manager

CA ELAP Certificate Number 2374

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| | | |
|---|---|---|
| Cambria Environmental - Oakland | Project: Equiva | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger Rd., Oakland | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 09/28/00 15:28 |

**ANALYTICAL REPORT FOR SAMPLES**

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| MW-4-5.5 | P009242-01 | Soil | 09/05/00 08:50 | 09/11/00 13:20 |
| MW-4-10.5 | P009242-02 | Soil | 09/05/00 08:53 | 09/11/00 13:20 |
| MW-4-15.5 | P009242-03 | Soil | 09/05/00 09:00 | 09/11/00 13:20 |

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| | | |
|---|---|---|
| Cambria Environmental - Oakland | Project: Equiva | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger Rd., Oakland | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 09/28/00 15:28 |

## Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M

### Sequoia Analytical - Petaluma

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-4-5.5 (P009242-01) Soil Sampled: 09/05/00 08:50 Received: 09/11/00 13:20** | | | | | | | | | |
| Gasoline | ND | 1000 | ug/kg | 1 | 0090196 | 09/14/00 | 09/14/00 | EPA 8015M/8020M | |
| Benzene | ND | 5.00 | " | " | " | " | " | " | |
| Toluene | ND | 5.00 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 5.00 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 5.00 | " | " | " | " | " | " | |
| Methyl tert-butyl ether | ND | 50.0 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *164 %* | *65-135* | | " | " | " | " | *S-04* |
| *Surrogate: 4-Bromofluorobenzene* | | *23.2 %* | *65-135* | | " | " | " | " | *S-04* |
| **MW-4-10.5 (P009242-02) Soil Sampled: 09/05/00 08:53 Received: 09/11/00 13:20** | | | | | | | | | |
| Gasoline | ND | 1000 | ug/kg | 1 | 0090196 | 09/14/00 | 09/14/00 | EPA 8015M/8020M | |
| Benzene | ND | 5.00 | " | " | " | " | " | " | |
| Toluene | ND | 5.00 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 5.00 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 5.00 | " | " | " | " | " | " | |
| Methyl tert-butyl ether | ND | 50.0 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *97.8 %* | *65-135* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *83.3 %* | *65-135* | | " | " | " | " | |
| **MW-4-15.5 (P009242-03) Soil Sampled: 09/05/00 09:00 Received: 09/11/00 13:20** | | | | | | | | | |
| Gasoline | ND | 1000 | ug/kg | 1 | 0090196 | 09/14/00 | 09/14/00 | EPA 8015M/8020M | |
| Benzene | ND | 5.00 | " | " | " | " | " | " | |
| Toluene | ND | 5.00 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 5.00 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 5.00 | " | " | " | " | " | " | |
| Methyl tert-butyl ether | ND | 50.0 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *97.2 %* | *65-135* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *90.7 %* | *65-135* | | " | " | " | " | |

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| | | |
|---|---|---|
| Cambria Environmental - Oakland | Project: Equiva | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger Rd., Oakland | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 09/28/00 15:28 |

## Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M

## Sequoia Analytical - Petaluma

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-4-19.0 (P009242-04) Soil Sampled: 09/05/00 09:04 Received: 09/11/00 13:20** | | | | | | | | | |
| Gasoline | ND | 1000 | ug/kg | 1 | 0090196 | 09/14/00 | 09/14/00 | EPA 8015M/8020M | |
| Benzene | ND | 5.00 | " | " | " | " | " | " | |
| Toluene | ND | 5.00 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 5.00 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 5.00 | " | " | " | " | " | " | |
| Methyl tert-butyl ether | ND | 50.0 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *98.7 %* | | *65-135* | | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *78.8 %* | | *65-135* | | " | " | " | |

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| | | |
|---|---|---|
| Cambria Environmental - Oakland | Project: Equiva | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger Rd., Oakland | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 09/28/00 15:28 |

## Total Petroleum Hydrocarbons as Diesel & others by EPA 8015M w/ S.G. Clean-up

### Sequoia Analytical - Petaluma

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-4-5.5 (P009242-01) Soil Sampled: 09/05/00 08:50 Received: 09/11/00 13:20** | | | | | | | | | |
| **Diesel (C10-C24)** | 31.7 | 5.00 | mg/kg | 1 | 0090261 | 09/14/00 | 09/18/00 | EPA 8015M-SVOA | HC-12 |
| *Surrogate: o-Terphenyl* | | *81.1 %* | *50-150* | | " | " | " | " | |
| **MW-4-10.5 (P009242-02) Soil Sampled: 09/05/00 08:53 Received: 09/11/00 13:20** | | | | | | | | | |
| Diesel (C10-C24) | ND | 5.00 | mg/kg | 1 | 0090261 | 09/14/00 | 09/19/00 | EPA 8015M-SVOA | |
| *Surrogate: o-Terphenyl* | | *52.0 %* | *50-150* | | " | " | " | " | |
| **MW-4-15.5 (P009242-03) Soil Sampled: 09/05/00 09:00 Received: 09/11/00 13:20** | | | | | | | | | |
| Diesel (C10-C24) | ND | 5.00 | mg/kg | 1 | 0090261 | 09/14/00 | 09/18/00 | EPA 8015M-SVOA | |
| *Surrogate: o-Terphenyl* | | *72.1 %* | *50-150* | | " | " | " | " | |
| **MW-4-19.0 (P009242-04) Soil Sampled: 09/05/00 09:04 Received: 09/11/00 13:20** | | | | | | | | | |
| Diesel (C10-C24) | ND | 5.00 | mg/kg | 1 | 0090261 | 09/14/00 | 09/18/00 | EPA 8015M-SVOA | |
| *Surrogate: o-Terphenyl* | | *74.8 %* | *50-150* | | " | " | " | " | |

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| | | |
|---|---|---|
| Cambria Environmental - Oakland | Project: Equiva | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger Rd., Oakland | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 09/28/00 15:28 |

## Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M - Quality Control
## Sequoia Analytical - Petaluma

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 0090196 - EPA 5030 soils** | | | | | | | | | | |
| **Blank (0090196-BLK3)** | | | | Prepared & Analyzed: 09/14/00 | | | | | | |
| Gasoline | ND | 1000 | ug/kg | | | | | | | |
| Benzene | ND | 5.00 | " | | | | | | | |
| Toluene | ND | 5.00 | " | | | | | | | |
| Ethylbenzene | ND | 5.00 | " | | | | | | | |
| Xylenes (total) | ND | 5.00 | " | | | | | | | |
| Methyl tert-butyl ether | ND | 50.0 | " | | | | | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *498* | | " | *600* | | *83.0* | *65-135* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *516* | | " | *600* | | *86.0* | *65-135* | | | |
| **LCS (0090196-BS3)** | | | | Prepared & Analyzed: 09/14/00 | | | | | | |
| Gasoline | 1920 | 1000 | ug/kg | 2000 | | 96.0 | 65-135 | | | |
| *Surrogate: 4-Bromofluorobenzene* | *585* | | " | *600* | | *97.5* | *65-135* | | | |

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| | | |
|---|---|---|
| Cambria Environmental - Oakland | Project: Equiva | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger Rd., Oakland | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 09/28/00 15:28 |

## Total Petroleum Hydrocarbons as Diesel & others by EPA 8015M w/ S.G. Clean-up - Quality Control

## Sequoia Analytical - Petaluma

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 0090261 - CA LUFT - orb shaker** | | | | | | | | | | |
| **Blank (0090261-BLK1)** | | | | Prepared: 09/14/00 Analyzed: 09/18/00 | | | | | | |
| Diesel (C10-C24) | ND | 5.00 | mg/kg | | | | | | | |
| *Surrogate: o-Terphenyl* | *2.62* | | " | *3.33* | | *78.7* | *50-150* | | | |
| **LCS (0090261-BS1)** | | | | Prepared: 09/14/00 Analyzed: 09/18/00 | | | | | | |
| Diesel (C10-C24) | 32.9 | 5.00 | mg/kg | 33.3 | | 98.8 | 50-150 | | | |
| *Surrogate: o-Terphenyl* | *5.94* | | " | *6.67* | | *89.1* | *50-150* | | | |
| **Matrix Spike (0090261-MS1)** | **Source: P009081-09** | | | Prepared: 09/14/00 Analyzed: 09/18/00 | | | | | | |
| Diesel (C10-C24) | 30.8 | 5.00 | mg/kg | 33.3 | ND | 84.1 | 50-150 | | | |
| *Surrogate: o-Terphenyl* | *2.24* | | " | *3.33* | | *67.3* | *50-150* | | | |
| **Matrix Spike Dup (0090261-MSD1)** | **Source: P009081-09** | | | Prepared: 09/14/00 Analyzed: 09/18/00 | | | | | | |
| Diesel (C10-C24) | 33.3 | 5.00 | mg/kg | 33.3 | ND | 91.6 | 50-150 | 7.80 | 35 | |
| *Surrogate: o-Terphenyl* | *2.57* | | " | *3.33* | | *77.2* | *50-150* | | | |

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| | | |
|---|---|---|
| Cambria Environmental - Oakland | Project: Equiva | |
| 1144 65th St., Suite C | Project Number: 540 Hegenberger Rd., Oakland | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Ataide | 09/28/00 15:28 |

**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. |
| S-04 | The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect. |
| 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 |

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# PHYSICAL PROPERTIES SOIL REPORT

**To:** Richard Stover
Sequoia Analytical
1455 N. McDowell Blvd., Suite D
Petaluma, CA 94954

**Samples of:** soil/sediment
(MW-4P-11.0)

**Date:** September 26, 2000
**Lab #:** 00-09-0222
**Received:** September 15, 2000
**Tech(s):** S. Theodore/S. Banwait
**Lab Supervisor:** D. Jacobson
**Lab Director:** G.S. Conrad, Ph.D.
**Sample ID(s):** 9242-05

**Site Location:** @ 540 Hegenberger Road, Oakland, California.

## RESULTS

| SAMPLE ID | MOISTURE | BULK DENSITY | T O C |
|---|---|---|---|
| 9242-05 | **22.70%** | **86.5 lbs/cuft** | **3105 mg/kg** |

RECEIVED
SEP 28 2000

## COMMENTS

The sample appeared to be a silty clay with sand and has values that are a little on the low side for a clayey material, but not unusually low depending on location characteristics and depth. Moisture content reported above is given in a consistent way with the previous two analyzed samples (8659-10 & 8659-11). That is, percent moisture is reported as percent of total mass (i.e., as percent of the "as received" weight). Moisture on an oven dried basis would be higher (in this case 29.36% as an example). In any event, bulk density is similar to the previously analyzed heavier soil; and moisture is not too different either. But notice that TOC is much lower which suggests significant differences in location properties and/or depth.

**NOTES:**
These tests were done in accordance with ASTM standards as follows: Porosity (as pore volume) - ASTM D 854; Moisture - ASTM D 2974; Density - ASTM D 2937; and Total Organic Carbon by potassium dichromate/sulfuric acid digestion (Walkley-Black).

# SEQUOIA ANALYTICAL
# CHAIN OF CUSTODY


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☐ 404 N. Wiget Lane • Walnut Creek, CA 94598 • (925) 988-9600 FAX (925) 988-9673
☐ 1455 McDowell Blvd. North, Suite D • Petaluma, CA 94954 • (707) 792-1865 FAX (707) 792-0342
☐ 1551 Industrial Road • San Carlos, CA 94070 • (650) 232-9600 FAX (650) 232-9612


| | |
|---|---|
| Company Name: Equiva Services LLC | Project Name: 540 Nagenberger Rd. Oakland CA |
| Mailing Address: PO Box 7869 | Billing Address (if different): Equiva Engineer - Karen Petryna |
| City: Burbank State: CA Zip Code: 91510-7869 | Incident # 98995752 (559)645-9306 |
| Telephone: (510)420-3339 FAX #: (510)420-9170 | ~~P.O. #:~~ P.O # 242-0414 |
| Report To: Danyk Ataide Sampler: James Lathrop | QC Data: ☐ Level D (Standard) ☐ Level C ☐ Level B ☐ Level A |

Turnaround Time: ☒ 10 Working Days ☐ 3 Working Days ☐ 2 - 8 Hours ☐ 7 Working Days ☐ 2 Working Days ☐ 5 Working Days ☐ 24 Hours

☐ Drinking Water ☐ Waste Water ☐ Other

Analyses Requested

| Client Sample I.D. | Date/Time Sampled | Matrix Desc. | # of Cont. | Cont. Type | Sequoia's Sample # | TPH-g by EPA 8015 | BTEX & MTBE by EPA 8020 | TPH-g, BTEX, MTBE & all ~~[illegible]~~ to be confirmed by 8260 | Diesel TPH-d by EPA 8015 - Silica gel clean up | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. MW-4-5.5 | 9/5/00 8:50 | Soil | 1 | Brass Tube | | X | X | X | X | P0092420 |
| 2. MW-4-10.5 | 9/5/00 8:53 | " | " | " | | " | " | " | " | -02 |
| 3. MW-4-15.5 | 9/5/00 9:00 | " | " | " | | " | " | " | " | -03 |
| 4. MW-4-19.0 | 9/5/00 9:04 | " | " | " | | " | " | " | " | -04 |
| 5. | | | | | | | | | | |
| 6. | | | | | | | | | | |
| 7. | | | | | | | | | | |
| 8. | | | | | | | | | | |
| 9. | | | | | | | | | | |
| 10. | | | | | | | | | | |

COOLER CUSTODY SEALS INTACT ☐ NOT INTACT ☐

COOLER TEMPERATURE 5 °C

| | | | | | |
|---|---|---|---|---|---|
| Relinquished By: | Date: 9-6-00 | Time: 10:04 | Received By: Scott Stellmacher | Date: 9/11/00 | Time: 1320 |
| Relinquished By: | Date: | Time: | Received By: | Date: | Time: |
| Relinquished By: | Date: | Time: | Received By Lab: | Date: | Time: |

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment

# SEQUOIA ANALYTICAL
# CHAIN OF CUSTODY


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☐ 1551 Industrial Road • San Carlos, CA 94070 • (650) 232-9600 FAX (650) 232-9612


| | |
|---|---|
| Company Name: Equiva Services LLC | Project Name: 540 Hegenberger |
| Mailing Address: P.O Box 7869 | Billing Address (if different): Equiva Engineer - Karen Petryna |
| City: Burbank State: CA Zip Code: 91510-7869 | Incident # 98995782 (559) 645-9306 |
| Telephone: (510) 420-3339 FAX #(510) 420-9170 | P.O. #: 242-0414 |
| Report To: Darryk Ataide Sampler: James Loetterle | QC Data: ☐ Level D (Standard) ☐ Level C ☐ Level B ☐ Level A |

Turnaround Time: ☒ 10 Working Days ☐ 7 Working Days ☐ 5 Working Days ☐ 3 Working Days ☐ 2 Working Days ☒ 24 Hours ☐ 2 - 8 Hours

☐ Drinking Water ☐ Waste Water ☐ Other

Analyses Requested: Physical Properties (TOC, moisture content, Dry Bulk density)

| | Client Sample I.D. | Date/Time Sampled | Matrix Desc. | # of Cont. | Cont. Type | Sequoia's Sample # | Comments |
|---|---|---|---|---|---|---|---|
| X | 1. MW-4P-11.0 | 9/5/00 | Soil | 1 | Brass Tube | | PO092205 |
| | 2. | | | | | | |
| | 3. | | | | | | |
| | 4. | | | | | | |
| | 5. | | | | | | |
| | 6. | | | | | | |
| | 7. | | | | | | |
| | 8. | | | | | | |
| | 9. | | | | | | |
| | 10. | | | | | | |

COOLER CUSTODY SEALS INTACT ☐

COOLER TEMPERATURE 5 °C

| | | | | | |
|---|---|---|---|---|---|
| Relinquished By: | Date: 9/6/00 | Time: 10:07 | Received By: Scott Stevenson | Date: 9/11/00 | Time: 1320 |
| Relinquished By: | Date: | Time: | Received By: | Date: | Time: |
| Relinquished By: | Date: | Time: | Received By Lab: | Date: | Time: |

Received In Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment

Sequoia
Analytical

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Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308
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26 September, 2000

Darryk Attaide
Cambria - Oakland
1144 65th St, Suite B
Oakland, CA 94608

RE: -
Sequoia Report: MJI0071

Enclosed are the results of analyses for samples received by the laboratory on 09/05/00 19:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

for Jeff Smyly
Project Manager

CA ELAP Certificate #1210

Sequoia Analytical

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Morgan Hill, CA 95037
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FAX (408) 782-6308
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| | | |
|---|---|---|
| Cambria - Oakland | Project: - | |
| 1144 65th St, Suite B | Project Number: - | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Attaide | 09/26/00 18:00 |

## ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| SBSP-1 | MJI0071-01 | Soil | 08/29/00 14:30 | 09/05/00 19:00 |
| SBSP-2 | MJI0071-02 | Soil | 08/29/00 14:30 | 09/05/00 19:00 |
| SBSP-3 | MJI0071-03 | Soil | 08/29/00 14:30 | 09/05/00 19:00 |
| SBSP-4 | MJI0071-04 | Soil | 08/29/00 14:30 | 09/05/00 19:00 |
| SBSP-(1-4) | MJI0071-05 | Soil | 08/29/00 14:30 | 09/05/00 19:00 |

Sequoia Analytical - Morgan Hill

*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.*

for

Jeff Smyly, Project Manager

Sequoia Analytical

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(408) 776-9600
FAX (408) 782-6308
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| | | |
|---|---|---|
| Cambria - Oakland | Project: - | |
| 1144 65th St, Suite B | Project Number: - | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Attaide | 09/26/00 18:00 |

## Total Purgeable Hydrocarbons by DHS LUFT

### Sequoia Analytical - Morgan Hill

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **SBSP-1 (MJI0071-01) Soil Sampled: 08/29/00 14:30 Received: 09/05/00 19:00** | | | | | | | | | |
| Purgeable Hydrocarbons | ND | 1.00 | mg/kg | 1 | 0111001 | 09/11/00 | 09/11/00 | DHS LUFT | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *97.0 %* | *70-130* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *71.0 %* | *60-140* | | " | " | " | " | |
| **SBSP-2 (MJI0071-02) Soil Sampled: 08/29/00 14:30 Received: 09/05/00 19:00** | | | | | | | | | |
| Purgeable Hydrocarbons | ND | 1.00 | mg/kg | 1 | 0111001 | 09/11/00 | 09/11/00 | DHS LUFT | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *100 %* | *70-130* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *70.0 %* | *60-140* | | " | " | " | " | |
| **SBSP-3 (MJI0071-03) Soil Sampled: 08/29/00 14:30 Received: 09/05/00 19:00** | | | | | | | | | |
| Purgeable Hydrocarbons | ND | 1.00 | mg/kg | 1 | 0111001 | 09/11/00 | 09/11/00 | DHS LUFT | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *98.5 %* | *70-130* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *78.5 %* | *60-140* | | " | " | " | " | |
| **SBSP-4 (MJI0071-04) Soil Sampled: 08/29/00 14:30 Received: 09/05/00 19:00** | | | | | | | | | |
| **Purgeable Hydrocarbons** | **13.7** | 1.00 | mg/kg | 1 | 0111001 | 09/11/00 | 09/11/00 | DHS LUFT | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *117 %* | *70-130* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *96.5 %* | *60-140* | | " | " | " | " | |

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|---|---|---|
| Cambria - Oakland | Project: - | |
| 1144 65th St, Suite B | Project Number: - | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Attaide | 09/26/00 18:00 |

## Diesel Hydrocarbons (C9-C24) by DHS LUFT

## Sequoia Analytical - Morgan Hill

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **SBSP-1 (MJI0071-01) Soil Sampled: 08/29/00 14:30 Received: 09/05/00 19:00** | | | | | | | | | |
| **Diesel Range Hydrocarbons** | **4.10** | 4.00 | mg/kg | 4 | 0I11007 | 09/11/00 | 09/12/00 | DHS LUFT | D-15 |
| *Surrogate: n-Pentacosane* | | *41.9 %* | *50-150* | | " | " | " | " | *S-01* |
| **SBSP-2 (MJI0071-02) Soil Sampled: 08/29/00 14:30 Received: 09/05/00 19:00** | | | | | | | | | |
| **Diesel Range Hydrocarbons** | **7.40** | 4.00 | mg/kg | 4 | 0I11007 | 09/11/00 | 09/12/00 | DHS LUFT | D-15 |
| *Surrogate: n-Pentacosane* | | *59.9 %* | *50-150* | | " | " | " | " | |
| **SBSP-3 (MJI0071-03) Soil Sampled: 08/29/00 14:30 Received: 09/05/00 19:00** | | | | | | | | | |
| **Diesel Range Hydrocarbons** | **2.20** | 1.00 | mg/kg | 1 | 0I11007 | 09/11/00 | 09/14/00 | DHS LUFT | D-15 |
| *Surrogate: n-Pentacosane* | | *108 %* | *50-150* | | " | " | " | " | |
| **SBSP-4 (MJI0071-04) Soil Sampled: 08/29/00 14:30 Received: 09/05/00 19:00** | | | | | | | | | |
| **Diesel Range Hydrocarbons** | **171** | 5.00 | mg/kg | 1 | 0I11007 | 09/11/00 | 09/14/00 | DHS LUFT | D-15 |
| *Surrogate: n-Pentacosane* | | *820 %* | *50-150* | | " | " | " | " | *S-01* |

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| Cambria - Oakland | Project: - | |
| 1144 65th St, Suite B | Project Number: - | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Attaide | 09/26/00 18:00 |

## MTBE by DHS LUFT

## Sequoia Analytical - Morgan Hill

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **SBSP-(1-4) (MJI0071-05) Soil Sampled: 08/29/00 14:30 Received: 09/05/00 19:00** | | | | | | | | | |
| **Methyl tert-butyl ether** | **0.184** | 0.0500 | mg/kg | 1 | 0I11001 | 09/11/00 | 09/11/00 | EPA 8020A | |
| Benzene | ND | 0.00500 | " | " | " | " | " | " | |
| **Toluene** | **0.0368** | 0.00500 | " | " | " | " | " | " | |
| **Ethylbenzene** | **0.0604** | 0.00500 | " | " | " | " | " | " | |
| **Xylenes (total)** | **0.163** | 0.00500 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *116 %* | *70-130* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *79.0 %* | *60-140* | | " | " | " | " | |

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| Cambria - Oakland | Project: - | |
| 1144 65th St, Suite B | Project Number: - | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Attaide | 09/26/00 18:00 |

## Total Metals by EPA 6000/7000 Series Methods

## Sequoia Analytical - Morgan Hill

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **SBSP-(1-4) (MJI0071-05) Soil Sampled: 08/29/00 14:30 Received: 09/05/00 19:00** | | | | | | | | | |
| Lead | ND | 10.0 | mg/kg | 1 | 0I14009 | 09/13/00 | 09/15/00 | EPA 6010A | |

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| Cambria - Oakland | Project: - | |
| 1144 65th St, Suite B | Project Number: - | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Attaide | 09/26/00 18:00 |

## STLC CAM Metals by EPA 6000/7000 Series Methods

## Sequoia Analytical - Morgan Hill

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **SBSP-(1-4) (MJI0071-05) Soil Sampled: 08/29/00 14:30 Received: 09/05/00 19:00** | | | | | | | | | |
| **Lead** | **0.269** | 0.200 | mg/l | 1 | 0I20024 | 09/20/00 | 09/20/00 | EPA 6010A | |

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| Cambria - Oakland | Project: - | |
| 1144 65th St, Suite B | Project Number: - | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Attaide | 09/26/00 18:00 |

## METALS

### Del Mar Analytical, Colton

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **SBSP-(1-4) (MJI0071-05) Soil Sampled: 08/29/00 14:30 Received: 09/05/00 19:00** | | | | | | | | | |
| **Organic Lead** | **8.9** | 1.0 | mg/kg | 1 | C0I1114 | 09/11/00 | 09/12/00 | Title 22 Ap. XI | |

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|---|---|---|
| Cambria - Oakland | Project: - | |
| 1144 65th St, Suite B | Project Number: - | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Attaide | 09/26/00 18:00 |

## Total Purgeable Hydrocarbons by DHS LUFT - Quality Control

## Sequoia Analytical - Morgan Hill

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 0I11001 - EPA 5030B [P/T]** | | | | | | | | | | |
| **Blank (0I11001-BLK1)** | | | | Prepared & Analyzed: 09/11/00 | | | | | | |
| Purgeable Hydrocarbons | ND | 1.00 | mg/kg | | | | | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *0.191* | | " | *0.200* | | *95.5* | *70-130* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *0.168* | | " | *0.200* | | *84.0* | *60-140* | | | |
| **LCS (0I11001-BS1)** | | | | Prepared & Analyzed: 09/11/00 | | | | | | |
| Purgeable Hydrocarbons | 5.70 | 1.00 | mg/kg | 5.00 | | 114 | 70-130 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *0.275* | | " | *0.200* | | *138* | *70-130* | | | *S-02* |
| *Surrogate: 4-Bromofluorobenzene* | *0.152* | | " | *0.200* | | *76.0* | *60-140* | | | |
| **Matrix Spike (0I11001-MS1)** | **Source: MJH0959-01** | | | Prepared & Analyzed: 09/11/00 | | | | | | |
| Purgeable Hydrocarbons | 7.16 | 1.00 | mg/kg | 5.00 | 2.57 | 91.8 | 60-140 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *0.293* | | " | *0.200* | | *147* | *70-130* | | | *S-02* |
| *Surrogate: 4-Bromofluorobenzene* | *0.195* | | " | *0.200* | | *97.5* | *60-140* | | | |
| **Matrix Spike Dup (0I11001-MSD1)** | **Source: MJH0959-01** | | | Prepared & Analyzed: 09/11/00 | | | | | | |
| Purgeable Hydrocarbons | 6.87 | 1.00 | mg/kg | 5.00 | 2.57 | 86.0 | 60-140 | 4.13 | 25 | |
| *Surrogate: a,a,a-Trifluorotoluene* | *0.313* | | " | *0.200* | | *156* | *70-130* | | | *S-02* |
| *Surrogate: 4-Bromofluorobenzene* | *0.178* | | " | *0.200* | | *89.0* | *60-140* | | | |

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|---|---|---|
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| 1144 65th St, Suite B | Project Number: - | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Attaide | 09/26/00 18:00 |

## Diesel Hydrocarbons (C9-C24) by DHS LUFT - Quality Control

## Sequoia Analytical - Morgan Hill

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 0I11007 - EPA 3580A** | | | | | | | | | | |
| **Blank (0I11007-BLK1)** | | | | Prepared: 09/11/00 Analyzed: 09/12/00 | | | | | | |
| Diesel Range Hydrocarbons | ND | 1.00 | mg/kg | | | | | | | |
| *Surrogate: n-Pentacosane* | *1.60* | | " | *1.67* | | *95.8* | *50-150* | | | |
| **LCS (0I11007-BS1)** | | | | Prepared: 09/11/00 Analyzed: 09/12/00 | | | | | | |
| Diesel Range Hydrocarbons | 19.3 | 1.00 | mg/kg | 16.7 | | 116 | 60-140 | | | |
| *Surrogate: n-Pentacosane* | *1.80* | | " | *1.67* | | *108* | *50-150* | | | |
| **Matrix Spike (0I11007-MS1)** | | **Source: MJI0071-03** | | Prepared: 09/11/00 Analyzed: 09/12/00 | | | | | | |
| Diesel Range Hydrocarbons | 4.70 | 1.00 | mg/kg | 16.7 | 2.20 | 15.0 | 50-150 | | | Q-01 |
| *Surrogate: n-Pentacosane* | *0.400* | | " | *1.67* | | *24.0* | *50-150* | | | *S-03* |
| **Matrix Spike Dup (0I11007-MSD1)** | | **Source: MJI0071-03** | | Prepared: 09/11/00 Analyzed: 09/12/00 | | | | | | |
| Diesel Range Hydrocarbons | 6.10 | 1.00 | mg/kg | 16.7 | 2.20 | 23.4 | 50-150 | 25.9 | 50 | Q-01 |
| *Surrogate: n-Pentacosane* | *0.500* | | " | *1.67* | | *29.9* | *50-150* | | | *S-03* |

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| Cambria - Oakland | Project: - | |
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| Oakland CA, 94608 | Project Manager: Darryk Attaide | 09/26/00 18:00 |

## MTBE by DHS LUFT - Quality Control
## Sequoia Analytical - Morgan Hill

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 0I11001 - EPA 5030B [P/T]** | | | | | | | | | | |
| **Blank (0I11001-BLK1)** | | | | Prepared & Analyzed: 09/11/00 | | | | | | |
| Methyl tert-butyl ether | ND | 0.0250 | mg/kg | | | | | | | |
| Benzene | ND | 0.00500 | " | | | | | | | |
| Toluene | ND | 0.00500 | " | | | | | | | |
| Ethylbenzene | ND | 0.00500 | " | | | | | | | |
| Xylenes (total) | ND | 0.00500 | " | | | | | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *0.191* | | " | *0.200* | | *95.5* | *70-130* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *0.168* | | " | *0.200* | | *84.0* | *60-140* | | | |
| **LCS (0I11001-BS2)** | | | | Prepared & Analyzed: 09/11/00 | | | | | | |
| Benzene | 0.220 | 0.00500 | mg/kg | 0.200 | | 110 | 70-130 | | | |
| Toluene | 0.226 | 0.00500 | " | 0.200 | | 113 | 70-130 | | | |
| Ethylbenzene | 0.217 | 0.00500 | " | 0.200 | | 108 | 70-130 | | | |
| Xylenes (total) | 0.636 | 0.00500 | " | 0.600 | | 106 | 70-130 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *0.180* | | " | *0.200* | | *90.0* | *70-130* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *0.162* | | " | *0.200* | | *81.0* | *60-140* | | | |
| **Matrix Spike (0I11001-MS1)** | | **Source: MJH0959-01** | | Prepared: 09/11/00 Analyzed: 09/15/00 | | | | | | |
| *Surrogate: 4-Bromofluorobenzene* | *0* | | *mg/kg* | *0.200* | | | *60-140* | | | |
| **Matrix Spike (0I11001-MS2)** | | **Source: MJI0071-01** | | Prepared & Analyzed: 09/11/00 | | | | | | |
| Benzene | 0.198 | 0.00500 | mg/kg | 0.200 | ND | 99.0 | 60-140 | | | |
| Toluene | 0.203 | 0.00500 | " | 0.200 | 0.00870 | 97.1 | 60-140 | | | |
| Ethylbenzene | 0.201 | 0.00500 | " | 0.200 | ND | 101 | 60-140 | | | |
| Xylenes (total) | 0.629 | 0.00500 | " | 0.600 | 0.0115 | 103 | 60-140 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *0.181* | | " | *0.200* | | *90.5* | *70-130* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *0.148* | | " | *0.200* | | *74.0* | *60-140* | | | |
| **Matrix Spike Dup (0I11001-MSD2)** | | **Source: MJI0071-01** | | Prepared & Analyzed: 09/11/00 | | | | | | |
| Benzene | 0.201 | 0.00500 | mg/kg | 0.200 | ND | 101 | 60-140 | 1.50 | 25 | |
| Toluene | 0.207 | 0.00500 | " | 0.200 | 0.00870 | 99.1 | 60-140 | 1.95 | 25 | |
| Ethylbenzene | 0.207 | 0.00500 | " | 0.200 | ND | 103 | 60-140 | 2.94 | 25 | |
| Xylenes (total) | 0.636 | 0.00500 | " | 0.600 | 0.0115 | 104 | 60-140 | 1.11 | 25 | |
| *Surrogate: a,a,a-Trifluorotoluene* | *0.192* | | " | *0.200* | | *96.0* | *70-130* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *0.144* | | " | *0.200* | | *72.0* | *60-140* | | | |

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|---|---|---|
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| Oakland CA, 94608 | Project Manager: Darryk Attaide | 09/26/00 18:00 |

## Total Metals by EPA 6000/7000 Series Methods - Quality Control

## Sequoia Analytical - Morgan Hill

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 0I14009 - EPA 3050B** | | | | | | | | | | |
| **Blank (0I14009-BLK1)** | | | | Prepared: 09/13/00 Analyzed: 09/15/00 | | | | | | |
| Lead | ND | 10.0 | mg/kg | | | | | | | |
| **LCS (0I14009-BS1)** | | | | Prepared: 09/13/00 Analyzed: 09/15/00 | | | | | | |
| Lead | 92.3 | 10.0 | mg/kg | 100 | | 92.3 | 80-120 | | | |
| **Matrix Spike (0I14009-MS1)** | **Source:** | | | Prepared: 09/13/00 Analyzed: 09/15/00 | | | | | | |
| Lead | 157 | 10.0 | mg/kg | 100 | 82.1 | 74.9 | 80-120 | | | Q-01 |
| **Matrix Spike Dup (0I14009-MSD1)** | **Source:** | | | Prepared: 09/13/00 Analyzed: 09/15/00 | | | | | | |
| Lead | 157 | 10.0 | mg/kg | 100 | 82.1 | 74.9 | 80-120 | 0 | 20 | Q-01 |

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|---|---|---|
| Cambria - Oakland | Project: - | |
| 1144 65th St, Suite B | Project Number: - | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Attaide | 09/26/00 18:00 |

## STLC CAM Metals by EPA 6000/7000 Series Methods - Quality Control

## Sequoia Analytical - Morgan Hill

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 0I20024 - Title 22-STLC** | | | | | | | | | | |
| **Blank (0I20024-BLK1)** | | | | Prepared: 09/05/00 Analyzed: 09/20/00 | | | | | | |
| Lead | ND | 0.200 | mg/l | | | | | | | |
| **Blank (0I20024-BLK2)** | | | | Prepared: 09/05/00 Analyzed: 09/20/00 | | | | | | |
| Lead | ND | 0.200 | mg/l | | | | | | | |
| **LCS (0I20024-BS1)** | | | | Prepared: 09/05/00 Analyzed: 09/20/00 | | | | | | |
| Lead | 1.94 | 0.200 | mg/l | 2.00 | | 97.0 | 80-120 | | | |
| **Matrix Spike (0I20024-MS1)** | | **Source: MJH0810-05** | | Prepared: 09/05/00 Analyzed: 09/20/00 | | | | | | |
| Lead | 3.06 | 0.200 | mg/l | 2.00 | 1.28 | 89.0 | 80-120 | | | |
| **Matrix Spike Dup (0I20024-MSD1)** | | **Source: MJH0810-05** | | Prepared: 09/05/00 Analyzed: 09/20/00 | | | | | | |
| Lead | 3.10 | 0.200 | mg/l | 2.00 | 1.28 | 91.0 | 80-120 | 1.30 | 20 | |

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|---|---|---|
| Cambria - Oakland | Project: - | |
| 1144 65th St, Suite B | Project Number: - | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Attaide | 09/26/00 18:00 |

## METALS - Quality Control
## Del Mar Analytical, Colton

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch C0I1114 - Org Pb** | | | | | | | | | | |
| **Blank (C0I1114-BLK1)** | | | | Prepared: 09/11/00 Analyzed: 09/12/00 | | | | | | |
| Organic Lead | ND | 1.0 | mg/kg | | | | | | | |
| **LCS (C0I1114-BS1)** | | | | Prepared: 09/11/00 Analyzed: 09/12/00 | | | | | | |
| Organic Lead | 10.9 | 1.0 | mg/kg | 10.0 | | 109 | 70-115 | | | |
| **Matrix Spike (C0I1114-MS1)** | | **Source: CJI0065-01** | | Prepared: 09/11/00 Analyzed: 09/12/00 | | | | | | |
| Organic Lead | 15.7 | 1.0 | mg/kg | 10.0 | 5.8 | 99.0 | 70-115 | | | |
| **Matrix Spike Dup (C0I1114-MSD1)** | | **Source: CJI0065-01** | | Prepared: 09/11/00 Analyzed: 09/12/00 | | | | | | |
| Organic Lead | 14.9 | 1.0 | mg/kg | 10.0 | 5.8 | 91.0 | 70-115 | 5.23 | 20 | |

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|---|---|---|
| Cambria - Oakland | Project: - | |
| 1144 65th St, Suite B | Project Number: - | **Reported:** |
| Oakland CA, 94608 | Project Manager: Darryk Attaide | 09/26/00 18:00 |

## Notes and Definitions

| | |
|---|---|
| D-15 | Chromatogram Pattern: Unidentified Hydrocarbons C9-C24 |
| Q-01 | The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch. |
| S-01 | The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interferences. |
| S-02 | The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample. |
| S-03 | The surrogate recovery for this sample is outside of established control limits. Review of associated QC indicates the recovery for this surrogate does not represent an out-of-control condition. |
| 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


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


| | |
|---|---|
| Company Name: Equiva Services LLC | Project Name: 540 Hegenberger Oakland CA |
| Mailing Address: P.O. Box 7869 | Billing Address (if different): Equiva Engineer - Karen Petryna |
| City: Burbank State: CA Zip Code: 91510-7869 | Incident # 98995752 (559) 645-9306 |
| Telephone: (510) 420-3339 FAX #(510) 420-9170 | P.O. #: 242-0414 |
| Report To: Darryk Ataide Sampler: James Loetterle | QC Data: ☐ Level D (Standard) ☐ Level C ☐ Level B ☐ Level A |

Turnaround Time: ☒ 10 Working Days ☐ 7 Working Days ☐ 5 Working Days ☐ 3 Working Days ☐ 2 Working Days ☐ 24 Hours ☐ 2 - 8 Hours

☐ Drinking Water ☐ Waste Water ☐ Other

MJI0071

Analyses Requested

| Client Sample I.D. | Date/Time Sampled | Matrix Desc. | # of Cont. | Cont. Type | Sequoia's Sample # | TPH g by DHS GC FID Mod 8015 | BTEX + MTBE by 8020 | CAM Metals see attached sheet | Comments |
|---|---|---|---|---|---|---|---|---|---|
| 1. SBSP | 8-29-00 / 2:30 pm | Soil | 4 | Brass Tube | | X | X | X | See attached Sheet! |
| 2. | | | | | | | | | |
| 3. | | | | | | | | | |
| 4. | | | | | | | | | |
| 5. | | | | | | | | | |
| 6. | | | | | | | | | |
| 7. | | | | | | | | | |
| 8. | | | | | | | | | |
| 9. | | | | | | | | | |
| 10. | | | | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Relinquished By: | Date: 9-1-00 | Time: 11:09 AM | Received By: | Date: 11:00 | Time: 9-5-00 |
| Relinquished By: | Date: 9-5 | Time: 14:30 | Received By: | Date: 9/5 | Time: 14:05 |
| Relinquished By: | Date: 9/5 | Time: | Received By Lab: | Date: 9/5 | Time: 1900 |

Samples on Ice? ☐ Yes ☐ No Method of Shipment

Page of

Pink - Client
Yellow - Sequoia
White - Sequoia

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308
www.sequoialabs.com

11 January, 2001

Nick Sudano
Blaine Tech Services (Shell)
1680 Rogers Avenue
San Jose, CA 95112

RE: 540 Hegenberger Rd.
Sequoia Report: MJL0580

Enclosed are the results of analyses for samples received by the laboratory on 12/15/00 11:37. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Wayne Stevenson
Client Services Manager

CA ELAP Certificate #1210

Sequoia Analytical

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Morgan Hill, CA 95037
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FAX (408) 782-6308
www.sequoialabs.com

| | | |
|---|---|---|
| Blaine Tech Services (Shell)<br>1680 Rogers Avenue<br>San Jose CA, 95112 | Project: 540 Hegenberger Rd.<br>Project Number: 540 Hegenberger Rd., Oakland CA<br>Project Manager: Nick Sudano | **Reported:**<br>01/11/01 11:56 |

## ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| MW-4 | MJL0580-01 | Water | 12/15/00 13:06 | 12/15/00 11:37 |
| MW-2 | MJL0580-02 | Water | 12/15/00 13:45 | 12/15/00 11:37 |
| MW-3 | MJL0580-03 | Water | 12/15/00 14:45 | 12/15/00 11:37 |
| MW-1 | MJL0580-04 | Water | 12/15/00 14:15 | 12/15/00 11:37 |





Wayne Stevenson, Client Services Manager

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
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| | | |
|---|---|---|
| Blaine Tech Services (Shell)<br>1680 Rogers Avenue<br>San Jose CA, 95112 | Project: 540 Hegenberger Rd.<br>Project Number: 540 Hegenberger Rd., Oakland CA<br>Project Manager: Nick Sudano | **Reported:**<br>01/11/01 11:56 |

## Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

### Sequoia Analytical - Morgan Hill

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-4 (MJL0580-01) Water Sampled: 12/15/00 13:06 Received: 12/15/00 11:37** | | | | | | | | | |
| Purgeable Hydrocarbons | ND | 50.0 | ug/l | 1 | 0L20003 | 12/20/00 | 12/20/00 | DHS LUFT | |
| Benzene | ND | 0.500 | " | " | " | " | " | " | |
| Toluene | ND | 0.500 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.500 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.500 | " | " | " | " | " | " | |
| Methyl tert-butyl ether | ND | 2.50 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *70.2 %* | | *70-130* | | " | " | " | |
| **MW-2 (MJL0580-02) Water Sampled: 12/15/00 13:45 Received: 12/15/00 11:37** | | | | | | | | | |
| Purgeable Hydrocarbons | ND | 200 | ug/l | 4 | 0L21004 | 12/21/00 | 12/21/00 | DHS LUFT | |
| Benzene | ND | 2.00 | " | " | " | " | " | " | |
| Toluene | ND | 2.00 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 2.00 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 2.00 | " | " | " | " | " | " | |
| **Methyl tert-butyl ether** | 6320 | 125 | " | 50 | " | " | 12/21/00 | " | M-03 |
| *Surrogate: a,a,a-Trifluorotoluene* | | *94.7 %* | | *70-130* | | " | *12/21/00* | " | |
| **MW-3 (MJL0580-03) Water Sampled: 12/15/00 14:45 Received: 12/15/00 11:37** | | | | | | | | | |
| **Purgeable Hydrocarbons** | 5190 | 500 | ug/l | 10 | 0L22002 | 12/22/00 | " | DHS LUFT | |
| **Benzene** | 438 | 5.00 | " | " | " | " | " | " | |
| **Toluene** | 8.39 | 5.00 | " | " | " | " | " | " | |
| **Ethylbenzene** | 483 | 5.00 | " | " | " | " | " | " | |
| **Xylenes (total)** | 530 | 5.00 | " | " | " | " | " | " | |
| **Methyl tert-butyl ether** | 19100 | 250 | " | 100 | " | " | 12/21/00 | " | A-01a,M-03 |
| *Surrogate: a,a,a-Trifluorotoluene* | | *115 %* | | *70-130* | | " | *12/22/00* | " | |

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
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FAX (408) 782-6308
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| | | |
|---|---|---|
| Blaine Tech Services (Shell)<br>1680 Rogers Avenue<br>San Jose CA, 95112 | Project: 540 Hegenberger Rd.<br>Project Number: 540 Hegenberger Rd., Oakland CA<br>Project Manager: Nick Sudano | **Reported:**<br>01/11/01 11:56 |

## Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

### Sequoia Analytical - Morgan Hill

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-1 (MJL0580-04) Water Sampled: 12/15/00 14:15 Received: 12/15/00 11:37** | | | | | | | | | |
| **Purgeable Hydrocarbons** | 35600 | 5000 | ug/l | 100 | 0L22002 | 12/22/00 | 12/22/00 | DHS LUFT | |
| **Benzene** | 1310 | 50.0 | " | " | " | " | " | " | |
| Toluene | ND | 50.0 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 50.0 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 50.0 | " | " | " | " | " | " | |
| **Methyl tert-butyl ether** | 136000 | 2500 | " | 1000 | " | " | 12/20/00 | " | A-01,M-03 |
| *Surrogate: a,a,a-Trifluorotoluene* | | *104 %* | | *70-130* | " | " | *12/22/00* | " | |

Sequoia Analytical

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| | | |
|---|---|---|
| Blaine Tech Services (Shell)<br>1680 Rogers Avenue<br>San Jose CA, 95112 | Project: 540 Hegenberger Rd.<br>Project Number: 540 Hegenberger Rd., Oakland CA<br>Project Manager: Nick Sudano | **Reported:**<br>01/11/01 11:56 |

## MTBE Confirmation by EPA Method 8260A

### Sequoia Analytical - Morgan Hill

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-3 (MJL0580-03) Water Sampled: 12/15/00 14:45 Received: 12/15/00 11:37** | | | | | | | | | |
| Methyl tert-butyl ether | 11800 | 500 | ug/l | 500 | 1A02016 | 12/29/00 | 12/29/00 | EPA 8260A | |
| *Surrogate: 1,2-Dichloroethane-d4* | | *101 %* | | *70-130* | | " | " | " | |

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308
www.sequoialabs.com

| | | |
|---|---|---|
| Blaine Tech Services (Shell)<br>1680 Rogers Avenue<br>San Jose CA, 95112 | Project: 540 Hegenberger Rd.<br>Project Number: 540 Hegenberger Rd., Oakland CA<br>Project Manager: Nick Sudano | **Reported:**<br>01/11/01 11:56 |

## Notes and Definitions

| | |
|---|---|
| A-01 | MTBE was prepared on 10/20/00 |
| A-01a | MTBE was prepared on 12/20/00 |
| M-03 | Sample was analyzed at a second dilution. |
| 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 |

# BLAINE
TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

P. 008

TEL: 408 573 7771

BLAINE TECH SERVICES, INC

JAN. -12' 01 (FRI) 10:04

CHAIN OF CUSTODY 00125 RZ

CLIENT: Equiva - Karen Petryna

SITE: 540 Hegenberger Road
Oakland, CA

CONDUCT ANALYSIS TO DETECT

LAB: SEQUOIA

DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND
☐ EPA ☐ RWQCB REGION _____
☐ LIA
☐ OTHER 98995752

SPECIAL INSTRUCTIONS
MTL0580
Send invoice to Equiva
Incident # 98995752
Send report to Blaine Tech Services, Inc.
ATTN: Nick Sudano

| | DATE | TIME | MATRIX S=SOIL W=$H_2O$ | CONTAINERS TOTAL | | C = COMPOSITE ALL CONTAINERS | TPH - gas, BTEX | MTBE by 8020 | MTBE by 8260 | TPH - diesel | Oxygenates by 8260 | ADDL INFORMATION | STATUS | CONDITION | LAB SAMPLE # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW 4 | 12/15/00 | 1306 | W | 3 | Acid VOA | 01 | X | X | | | | | | | |
| MW 2 | " | 1345 | W | 3 | " | 02 | X | X | | | | Confirm high | | | |
| MW 3 | " | 1445 | " | 3 | " | 03 | X | X | | | | MTBE by 8260 | | | |
| MW 1 | " | 1415 | " | 3 | " | 04 | X | X | | | | | | | |

SAMPLING COMPLETED: DATE 12/15/00 TIME 1500

SAMPLING PERFORMED BY: Jared Rowe

RESULTS NEEDED NO LATER THAN: 5td.

| | DATE | TIME | | DATE | TIME |
|---|---|---|---|---|---|
| RELEASED BY: Jared Rowe | 12/18 | 8:33 | RECEIVED BY: Thomas M | 12/18/00 | 8:33 |
| RELEASED BY: JM | 12/18/00 | 11:37 | RECEIVED BY: [illegible] | 12/18/00 | 1137 |
| RELEASED BY | | | RECEIVED BY | | |

| SHIPPED VIA | DATE SENT | TIME SENT | COOLER # | |
|---|---|---|---|---|
| | | | | |

**ATTACHMENT B**

Soil Boring Logs

Cambria Environmental Technology, Inc.
1144 - 65th St.
Oakland, CA 94608
Telephone: (510) 420-0700
Fax: (510) 420-9170

# BORING/WELL LOG

| | | | |
|---|---|---|---|
| **CLIENT NAME** | Equiva Services LLC | **BORING/WELL NAME** | SB-E |
| **JOB/SITE NAME** | oakl540 | **DRILLING STARTED** | 29-Aug-00 |
| **LOCATION** | 540 Hegenburger Road | **DRILLING COMPLETED** | 29-Aug-00 |
| **PROJECT NUMBER** | 242-0414 | **WELL DEVELOPMENT DATE (YIELD)** | NA |
| **DRILLER** | Gregg Drilling | **GROUND SURFACE ELEVATION** | Not Surveyed |
| **DRILLING METHOD** | Hollow-stem auger | **TOP OF CASING ELEVATION** | Not Surveyed |
| **BORING DIAMETER** | 7" | **SCREENED INTERVAL** | NA |
| **LOGGED BY** | J. Loetterle | **DEPTH TO WATER (First Encountered)** | 7.0 ft (29-Aug-00) ▽ |
| **REVIEWED BY** | S. Bork, RG# 5626 | **DEPTH TO WATER (Static)** | NA ▼ |

**REMARKS** Hand Augered to 5'. Located on the south side of Edes Ave. approximately 35' from the southeast corner.

| PID (ppm) | BLOW COUNTS | SAMPLE ID | EXTENT | DEPTH (ft bgs) | U.S.C.S. | GRAPHIC LOG | LITHOLOGIC DESCRIPTION | CONTACT DEPTH (ft bgs) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **ASPHALT** | 1.5 | |
| | | | | | | | **FILL** black; damp; 3% clay, 37% silt, 60% sand; no plasticity; moderate estimated permeability. | 4.5 | |
| | 5<br>6<br>8 | SB-E- 5.5 | | 5 | | | **Clayey SILT** (ML) black; stiff; damp; 35% clay, 45% silt, 20% sand; medium plasticity; low estimated permeability. ▽<br>@ 7' - organics; fine sand. | | |
| | 7<br>8<br>8 | SB-E-<br>10.5 | | 10 | | | @ 10' - light brown; very stiff; damp; 40% clay, 50% silt; 10% sand; high plasticity; very low estimated permeability. | | Portland Type I/II |
| | 5<br>7<br>8 | SB-E-<br>15.5 | | 15 | ML | | @ 15' - light brown/dark brown; stiff; wet; 35% clay, 50% silt, 15% sand; low estimated permeability. | | |
| | 8<br>10<br>12 | SB-E-<br>20.5 | | 20 | | | @ 20' - grey/brown; very stiff; wet; 25% clay, 40% silt, 35% sand; medium plasticity. | | |
| | | SB-E-<br>25.5 | | 25 | SM | | **Silty SAND** (SM) 5% clay, 30% silt, 65% sand; no plasticity; moderate estimated permeability. | 25.0<br>26.5 | Bottom of Boring @ 26.5 ft |

WELL LOG (PID) G:\OA3890-1\GINT\GINT.GPJ DEFAULT.GDT 10/10/00

Cambria Environmental Technology, Inc.
1144 - 65th St.
Oakland, CA 94608
Telephone: (510) 420-0700
Fax: (510) 420-9170

# BORING/WELL LOG

| | | | |
|---|---|---|---|
| **CLIENT NAME** | Equiva Services LLC | **BORING/WELL NAME** | SB-F |
| **JOB/SITE NAME** | oakl540 | **DRILLING STARTED** | 29-Aug-00 |
| **LOCATION** | 540 Hegenburger Road | **DRILLING COMPLETED** | 29-Aug-00 |
| **PROJECT NUMBER** | 242-0414 | **WELL DEVELOPMENT DATE (YIELD)** | NA |
| **DRILLER** | Gregg Drilling | **GROUND SURFACE ELEVATION** | Not Surveyed |
| **DRILLING METHOD** | Hollow-stem auger | **TOP OF CASING ELEVATION** | Not Surveyed |
| **BORING DIAMETER** | 7" | **SCREENED INTERVAL** | NA |
| **LOGGED BY** | J. Loetterle | **DEPTH TO WATER (First Encountered)** | 7.0 ft (29-Aug-00) ▽ |
| **REVIEWED BY** | S. Bork, RG# 5626 | **DEPTH TO WATER (Static)** | NA ▼ |

**REMARKS** Hand Augered to 5'. Located on the south side of Edes Ave. approximately 120' from the southeast corner.

| PID (ppm) | BLOW COUNTS | SAMPLE ID | EXTENT | DEPTH (ft bgs) | U.S.C.S. | GRAPHIC LOG | LITHOLOGIC DESCRIPTION | CONTACT DEPTH (ft bgs) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **ASPHALT** | 1.5 | |
| | | | | | | | **FILL** black; damp; 3% clay, 37% silt, 60% sand; no plasticity; moderate estimated permeability;contains gravel sized pieces of brick, cobbles, and steel. | 5.0 | |
| | 4<br>3<br>6 | SB-F-5.50<br>SBP-F-6.0 | | 5 | SM | | **Silty SAND** black; stiff; moist; 3% clay, 37% silt, 60% sand; no plasticity; moderate permeability; fine sand. ▽ | 10.0 | Portland Type I/II |
| | 7<br>10<br>12 | SB-F-10.5 | | 10 | ML | | **Clayey SILT** greyish brown; very stiff; damp; 40% clay, 50% silt, 10% sand; high plasticity; low estimated permeability. | 11.5 | Bottom of Boring @ 11.5 ft |

WELL LOG (PID) G:\OA389C~1\GINT\GINT.GPJ DEFAULT.GDT 10/10/00

Cambria Environmental Technology, Inc.
1144 - 65th St.
Oakland, CA 94608
Telephone: (510) 420-0700
Fax: (510) 420-9170

# BORING/WELL LOG

| | | | |
|---|---|---|---|
| **CLIENT NAME** | Equiva Services LLC | **BORING/WELL NAME** | SB-G |
| **JOB/SITE NAME** | oakl540 | **DRILLING STARTED** | 29-Aug-00 |
| **LOCATION** | 540 Hegenburger Road | **DRILLING COMPLETED** | 29-Aug-00 |
| **PROJECT NUMBER** | 242-0414 | **WELL DEVELOPMENT DATE (YIELD)** | NA |
| **DRILLER** | Gregg Drilling | **GROUND SURFACE ELEVATION** | Not Surveyed |
| **DRILLING METHOD** | Hollow-stem auger | **TOP OF CASING ELEVATION** | Not Surveyed |
| **BORING DIAMETER** | 7" | **SCREENED INTERVAL** | NA |
| **LOGGED BY** | J. Loetterle | **DEPTH TO WATER (First Encountered)** | 9.5 ft (29-Aug-00) ▽ |
| **REVIEWED BY** | S. Bork, RG# 5626 | **DEPTH TO WATER (Static)** | NA ▼ |

**REMARKS** Hand Augered to 5'. Located on the south side of Edes Ave., adjacent to the car wash, four feet away from the curb.

| PID (ppm) | BLOW COUNTS | SAMPLE ID | EXTENT | DEPTH (ft bgs) | U.S.C.S. | GRAPHIC LOG | LITHOLOGIC DESCRIPTION | CONTACT DEPTH (ft bgs) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **ASPHALT** | 1.5 | |
| | | | | | | | **FILL** olive-grey; moist; 15% silt, 85% fine sand; no plasticity; high estimated permeability. | | |
| | 8<br>7<br>6 | SB-G- 5.5<br>SB-GP<br>-6.0 | | 5 | | | @ 5' - stiff. | 6.5 | Portland Type I/II |
| | | | | | SM | | **Silty SAND** (SM) ▽ | | |
| | 7<br>10<br>17 | SB-G-<br>10.5 | | 10 | | | @ 10' - olive-grey/brown; very stiff; moist; 3% clay, 37% silt, 60% fine sand; low plasticity; moderate estimated permeability. | 11.5 | Bottom of Boring @ 11.5 ft |

WELL LOG (PID) G:\OA3899C-1\GINTXGINT.GPJ DEFAULT.GDT 10/10/00

Cambria Environmental Technology, Inc.
1144 - 65th St.
Oakland, CA 94608
Telephone: (510) 420-0700
Fax: (510) 420-9170

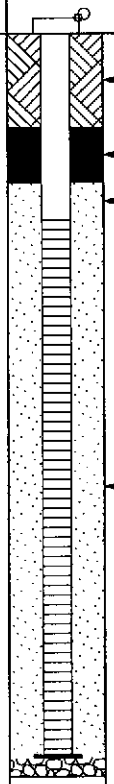
# BORING/WELL LOG

| | | | |
|---|---|---|---|
| **CLIENT NAME** | Equiva Services LLC | **BORING/WELL NAME** | MW-4 |
| **JOB/SITE NAME** | oakl540 | **DRILLING STARTED** | 05-Sep-00 |
| **LOCATION** | 540 Hegenburger Road | **DRILLING COMPLETED** | 05-Sep-00 |
| **PROJECT NUMBER** | 242-0414 | **WELL DEVELOPMENT DATE (YIELD)** | NA |
| **DRILLER** | Gregg Drilling | **GROUND SURFACE ELEVATION** | Not Surveyed |
| **DRILLING METHOD** | Hollow-stem auger | **TOP OF CASING ELEVATION** | Not Surveyed |
| **BORING DIAMETER** | 10" | **SCREENED INTERVAL** | 5 to 19.4 ft bgs |
| **LOGGED BY** | J. Loetterle | **DEPTH TO WATER (First Encountered)** | NA |
| **REVIEWED BY** | S. Bork, RG# 5626 | **DEPTH TO WATER (Static)** | NA |

**REMARKS** Hand augered to 5 fbg. Located on the east side of Edes Ave., approximately 63 feet from the corner of Edes Ave. and Enterprise

| PID (ppm) | BLOW COUNTS | SAMPLE ID | EXTENT | DEPTH (ft bgs) | U.S.C.S. | GRAPHIC LOG | LITHOLOGIC DESCRIPTION | CONTACT DEPTH (ft bgs) |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | **ASPHALT** | 0.3 |
| | | | | | | | **FILL** black/brown; damp; 2% clay, 13% silt, 80% fine-coarse sand, 5% fine gravel; low plasticity; high estimated permeability. | |
| | 4<br>7<br>11 | MW-4-5.5 | | 5 | | | @ 5' - very stiff; 2% clay, 23% silt, 70% sand, 5% gravel; low plasticity; moderate estimated permeability. | 6.0 |
| | | | | | | | **Sandy SILT** (ML) black/brown; moist; 10% clay, 60% silt, 30% fine-medium sand; medium plasticity; moderate estimated permeability; contains organics. | |
| | 3<br>5<br>5 | MW-4-10.5<br>MW-4P-11.0 | | 10 | ML | | @10' - dark olive/brown; stiff; 20% clay, 50% silt, 30% fine sand; low estimated permeability; contains rootlets | |
| | | | | 15 | | | | 15.0 |
| | 5<br>7<br>7 | MW-4-15.5 | | | SP | | **SAND** (SP) olive/tan; wet; 7% clay, 3% silt, 90% fine sand; low plasticity; moderate estimated permeability. | 16.0 |
| | | | | | CL | | **Silty CLAY** (CL) light olive/tan; wet; 70% clay, 20% silt, 10% sand; high plasticity; low estimated permeability. | |
| | 5<br>7<br>8 | MW-4-19.0 | | 20 | | | | 20.0 |

WELL DIAGRAM




WELL LOG (PID) G:\DA389C~1\GINT\GINT.GPJ DEFAULT.GDT 10/10/00

# ATTACHMENT C

Standard Field Procedures for Soil Borings and Monitoring Wells

# CAMBRIA

## STANDARD FIELD PROCEDURES FOR MONITORING WELLS

This document describes Cambria Environmental Technology's standard field methods for drilling, installing, developing and sampling groundwater monitoring wells. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

### Well Construction and Surveying

Groundwater monitoring wells are installed in soil borings to monitor groundwater quality and determine the groundwater elevation, flow direction and gradient. Well depths and screen lengths are based on groundwater depth, occurrence of hydrocarbons or other compounds in the borehole, stratigraphy and State and local regulatory guidelines. Well screens typically extend 10 to 15 feet below and 5 feet above the static water level at the time of drilling. However, the well screen will generally not extend into or through a clay layer that is at least three feet thick.

Well casing and screen are flush-threaded, Schedule 40 PVC. Screen slot size varies according to the sediments screened, but slots are generally 0.010 or 0.020 inches wide. A rinsed and graded sand occupies the annular space between the boring and the well screen to about one to two ft above the well screen. A two feet thick hydrated bentonite seal separates the sand from the overlying sanitary surface seal composed of Portland type I,II cement.

Well-heads are secured by locking well-caps inside traffic-rated vaults finished flush with the ground surface. A stovepipe may be installed between the well-head and the vault cap for additional security. The well top-of-casing elevation is surveyed with respect to mean sea level and the well is surveyed for horizontal location with respect to an onsite or nearby offsite landmark.

### Well Development

Wells are generally developed using a combination of groundwater surging and extraction. Surging agitates the groundwater and dislodges fine sediments from the sand pack. After about ten minutes of surging, groundwater is extracted from the well using bailing, pumping and/or reverse air-lifting through an eductor pipe to remove the sediments from the well. Surging and extraction continue until at least ten well-casing volumes of groundwater are extracted and the sediment volume in the groundwater is negligible. This process usually occurs prior to installing the sanitary surface seal to ensure sand pack stabilization. If development occurs after surface seal installation, then development occurs 24 to 72 hours after seal installation to ensure that the Portland cement has set up correctly.

All equipment is steam-cleaned prior to use and air used for air-lifting is filtered to prevent oil entrained in the compressed air from entering the well. Wells that are developed using air-lift evacuation are not sampled until at least 24 hours after they are developed.

### Groundwater Sampling

Depending on local regulatory guidelines, three to four well-casing volumes of groundwater are purged prior to sampling. Purging continues until groundwater pH, conductivity, and temperature have stabilized. Groundwater samples are collected using bailers or pumps and are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory. Laboratory-supplied trip blanks accompany the samples and are analyzed to check for cross-contamination. An equipment blank may be analyzed if non-dedicated sampling equipment is used.

# CAMBRIA

## STANDARD FIELD PROCEDURES FOR SOIL BORINGS

This document describes Cambria Environmental Technology's standard field methods for drilling and sampling soil borings. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

### Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor odor or staining, estimate ground water depth and quality and to submit samples for chemical analysis.

### Soil Classification/Logging

All soil samples are classified according to the Unified Soil Classification System by a trained geologist or engineer working under the supervision of a California Registered Geologist (RG) or a Certified Engineering Geologist (CEG). The following soil properties are noted for each soil sample:

- Principal and secondary grain size category (i.e. sand, silt, clay or gravel)
- Approximate percentage of each grain size category,
- Color,
- Approximate water or product saturation percentage,
- Observed odor and/or discoloration,
- Other significant observations (i.e. cementation, presence of marker horizons, mineralogy), and
- Estimated permeability.

### Soil Boring and Sampling

Soil borings are typically drilled using hollow-stem augers or hydraulic push technologies. At least one and one half ft of the soil column is collected for every five ft of drilled depth. Additional soil samples are collected near the water table and at lithologic changes. Samples are collected using lined split-barrel or equivalent samplers driven into undisturbed sediments beyond the bottom of the borehole. The vertical location of each soil sample is determined by measuring the distance from the middle of the soil sample tube to the end of the drive rod used to advance the split barrel sampler. All sample depths use the ground surface immediately adjacent to the boring as a datum. The horizontal location of each boring is measured in the field from an onsite permanent reference using a measuring wheel or tape measure.

Drilling and sampling equipment is steam-cleaned prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

### Sample Storage, Handling and Transport

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon tape and plastic end caps. Soil samples are labeled and stored at or below 4°C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

### Field Screening

One of the remaining tubes is partially emptied leaving about one-third of the soil in the tube. The tube is capped with plastic end caps and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable photoionization detector (PID) measures volatile hydrocarbon vapor concentrations in the tube headspace, extracting the vapor through a slit in the cap. PID measurements are used along with the field observations, odors, stratigraphy and ground water depth to select soil samples for analysis.

### Water Sampling

Water samples, if they are collected from the boring, are either collected using a driven Hydropunch type sampler or are collected from the open borehole using bailers. The ground water samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory.

### Duplicates and Blanks

Blind duplicate water samples are collected usually collected only for monitoring well sampling programs, at a rate of one blind sample for every 10 wells sampled. Laboratory-supplied trip blanks accompany samples collected for all sampling programs to check for cross-contamination caused by sample handling and transport. These trip blanks are analyzed if the internal laboratory QA/QC blanks contain the suspected field contaminants. An equipment blank may also be analyzed if non-dedicated sampling equipment is used.

### Grouting

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

### Waste Handling and Disposal

Soil cuttings from drilling activities are usually stockpiled onsite on top of and covered by plastic sheeting. At least four individual soil samples are collected from the stockpiles for later compositing at the analytic laboratory. The composite sample is analyzed for the same constituents analyzed in the borehole samples. Soil cuttings are transported by licenced waste haulers and disposed in secure, licenced facilities based on the composite analytic results.

Ground water removed during sampling and/or rinsate generated during decontamination procedures are stored onsite in sealed 55 gallon drums. Each drum is labeled with the drum number, date of generation, suspected contents, generator identification and consultant contact. Disposal of the water is based on the analytic results for the well samples. The water is either pumped out using a vacuum truck for transport to a licenced waste treatment/disposal facility or the individual drums are picked up and transported to the waste facility where the drum contents are removed and appropriately disposed.

# ATTACHMENT D

Permits

# ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-5554 MARLON MAGALLANES/FRANK CODD (510) 670-5783
FAX (510)782-1939

## DRILLING PERMIT APPLICATION

**FOR APPLICANT TO COMPLETE**

LOCATION OF PROJECT 540 Hegenberger Rd. Oakland CA.

APN 42-4323-1-7

CLIENT
Name Equiva Services LLC
Address P.O. Box 7869 Phone (559) 645-9306
City Burbank CA Zip 91510-7869

APPLICANT
Name Cambria Environmental Technology Inc.
James Loetterle Fax (510) 420-9170
Address 1144 65th St, Suite B Phone (510) 420-3336
City Oakland CA Zip 94608

TYPE OF PROJECT

| Well Construction | | Geotechnical Investigation | |
|---|---|---|---|
| Cathodic Protection | ( ) | General | ( ) |
| Water Supply | ( ) | Contamination | ( ) |
| Monitoring | (X) | Well Destruction | ( ) |

PROPOSED WATER SUPPLY WELL USE

| | | | |
|---|---|---|---|
| New Domestic | ( ) | Replacement Domestic | ( ) |
| Municipal | ( ) | Irrigation | ( ) |
| Industrial | ( ) | Other monitoring | (X) |

DRILLING METHOD:

| | | | | | |
|---|---|---|---|---|---|
| Mud Rotary | ( ) | Air Rotary | ( ) | Auger | (X) |
| Cable | ( ) | Other | ( ) | | |

DRILLER'S NAME Gregg Drilling and Testing Inc.

DRILLER'S LICENSE NO. C57 # 485165

Monitoring Well Permit

WELL PROJECTS
Drill Hole Diameter 10 in. Maximum
Casing Diameter 4 in. Depth 20 ft.
Surface Seal Depth ____ ft. Owner's Well Number MW-4

GEOTECHNICAL PROJECTS
Number of Borings 3 Maximum
Hole Diameter 7 in. Depth 25 ft.

ESTIMATED STARTING DATE 8-29-00
ESTIMATED COMPLETION DATE 9-1-00

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE [signature] DATE 8-30-00

PLEASE PRINT NAME James Loetterle

Rev.6 -5-00

**FOR OFFICE USE**

PERMIT NUMBER W00-540
WELL NUMBER
APN

**PERMIT CONDITIONS**
Circled Permit Requirements Apply

(A.) GENERAL.
1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources-Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

(C.) GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

E. CATHODIC
Fill hole anode zone with concrete placed by tremie.

F. WELL DESTRUCTION
See attached requirements for destruction of shallow wells. Send a map of work site. A different permit application is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

"After the Fact"

APPROVED [signature] DATE 9-5-00

# ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-5554 MARLON MAGALLANES/FRANK CODD (510) 670-6783
FAX (510)782-1939

## DRILLING PERMIT APPLICATION

**FOR APPLICANT TO COMPLETE**

LOCATION OF PROJECT 540 Hegenberger Rd. Oakland CA.

APN 42-4323-1-7

CLIENT
Name Equiva Services LLC
Address P.O. Box 7869 Phone (559) 645-9306
City Burbank CA Zip 91510-7869

APPLICANT
Name Cambria Environmental Technology Inc.
James Loetterle Fax (510) 420-9170
Address 1144 65th St Suite B Phone (510) 420-3336
City Oakland CA Zip 94608

TYPE OF PROJECT

| | | | |
|---|---|---|---|
| Well Construction | | Geotechnical Investigation | |
| Cathodic Protection | [ ] | General | [ ] |
| Water Supply | [ ] | Contamination | [ ] |
| Monitoring | [X] | Well Destruction | [ ] |

PROPOSED WATER SUPPLY WELL USE

| | | | |
|---|---|---|---|
| New Domestic | [ ] | Replacement Domestic | [ ] |
| Municipal | [ ] | Irrigation | [ ] |
| Industrial | [ ] | Other monitoring | [X] |

DRILLING METHOD:

| | | | | | |
|---|---|---|---|---|---|
| Mud Rotary | [ ] | Air Rotary | [ ] | Auger | [X] |
| Cable | [ ] | Other | [ ] | | |

DRILLER'S NAME Gregg Drilling and Testing Inc.

DRILLER'S LICENSE NO. 657 # 485165

WELL PROJECTS
Drill Hole Diameter 10 in. Maximum
Casing Diameter 4 in. Depth 20 ft.
Surface Seal Depth ____ ft. Owner's Well Number MW-4

GEOTECHNICAL PROJECTS
Number of Borings 3 Maximum
Hole Diameter 7 in. Depth 25 ft.

Soil Boring Permit "After the fact"

ESTIMATED STARTING DATE 8-29-00
ESTIMATED COMPLETION DATE 9-1-00

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE [signature] DATE 8-30-00

PLEASE PRINT NAME James Loetterle

**FOR OFFICE USE**

PERMIT NUMBER WO0-541
WELL NUMBER
APN

**PERMIT CONDITIONS**
Circled Permit Requirements Apply

(A) GENERAL.
1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources-Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

(D.) GEOTECHNICAL
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

E. CATHODIC
Fill hole anode zone with concrete placed by tremie.

F. WELL DESTRUCTION
See attached requirements for destruction of shallow wells. Send a map of work site. A different permit application is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

APPROVED [signature] DATE 8-5-00

Rev.6 -5-00

Recording Requested by:
CITY OF OAKLAND

When Recorded Mail to:
City of Oakland
Community & Economic Development Agency
Building Services Division,
Engineering Information
250 Frank H. Ogawa Plaza, 2nd Floor
Oakland, CA 94612

2000158167
OFFICIAL RECORDS OF
ALAMEDA COUNTY
PATRICK O'CONNELL
05/25/2000 11:08 AM
RECORDING FEE: 28.00
8 PGS

TAX ROLL PARCEL NUMBER
(ASSESSOR'S REFERENCE NUMBER)

| 042 | 4323 | 001 | 07 |
|---|---|---|---|
| MAP | BLOCK | PARCEL | SUB |

Address: 540 Hegenberger Road, Oakland, California

*Space Above for Recorder's Use Only*

## MINOR ENCROACHMENT PERMIT AND AGREEMENT

Equilon Enterprises LLC, a general partnership, the owners of certain real property described in the Grant Deed number 98-252223, dated July 17, 1998, commonly known as 540 Hegenberger Road, Oakland, Alameda County, California is hereby granted a Conditional Revocable Permit to encroach into the public right-of-way of Edes Avenue in Oakland with one monitoring well. The location of said encroachment shall be as delineated in Exhibit 'A' attached hereto and made a part hereof.

The permittees agree to comply with and be bound by the conditions for granting an Encroachment Permit attached hereto and made a part hereof.

This agreement shall be binding upon the undersigned, the present owners of the property described above, and their successors in interest thereof.

In witness whereof, I, Matt Gaffney, have set my signature this 27 day of April, 2000.

Equilon Enterprises, LLC

Matt J. Gaffney
MATT GAFFNEY, Owner Representative

Dated: 5-11-2000

By: Calvin N. Wong
CALVIN N. WONG
Director of Building Services

For:
WILLIAM E. CLAGGETT
Executive Director, Community & Economic Development Agency

# CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of Calif

County of Alameda

On April 27, 2000 (Date) before me, Dierdre R. Chin, Notary Public (Name and Title of Officer (e.g., "Jane Doe, Notary Public"))

personally appeared Matt Gaffney (Name(s) of Signer(s))

☐ personally known to me – OR – ☒ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

MGC1 DIERDRE R. CHIN Comm #1149346 NOTARY PUBLIC CALIFORNIA ALAMEDA COUNTY Comm. Exp. July 31 2001

WITNESS my hand and official seal.

Dierdre R. Chin
Signature of Notary Public

## OPTIONAL

*Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.*

### Description of Attached Document

Title or Type of Document: MINOR ENCROACHMENT PERMIT & AGREEMENT

Document Date: APRIL 27, 2000 Number of Pages: 6

Signer(s) Other Than Named Above: _____

### Capacity(ies) Claimed by Signer(s)

Signer's Name: MATT GAFFNEY

☐ Individual
☐ Corporate Officer
Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Attorney-in-Fact
☐ Trustee
☐ Guardian or Conservator
☒ Other: Representative

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

Signer Is Representing:
Equilon Enterprises LLC

Signer's Name: _____

☐ Individual
☐ Corporate Officer
Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Attorney-in-Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: _____

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

Signer Is Representing:

# CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of Alameda

On May 11, 2000 (Date) before me, Marlene Labat (Name and Title of Officer (e.g., "Jane Doe, Notary Public"))

personally ~~appeared~~ CALVIN N. WONG (Name(s) of Signer(s))

☒ personally known to me – ~~OR~~ – ☐ ~~proved to me on the basis of satisfactory evidence~~ to be the person(~~s~~) whose name(~~s~~) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(~~ies~~), and that by his/~~her/their~~ signature(~~s~~) on the instrument the person(~~s~~), or the entity upon behalf of which the person(s) acted, executed the instrument.

MARLENE LABAT
COMM. #1106192
NOTARY PUBLIC-CALIFORNIA
COUNTY OF ALAMEDA
My Comm. Expires JULY 17, 2000

WITNESS my hand and official seal.

Marlene Labat
Signature of Notary Public

## OPTIONAL

*Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.*

### Description of Attached Document

Title or Type of Document: Minor Encroachment Permit & Agreement/540 Hegenberger Rd.

Document Date: 4/27/2000 Number of Pages: _____

Signer(s) Other Than Named Above: _____

### Capacity(ies) Claimed by Signer(s)

Signer's Name: Calvin N. Wong

☐ Individual
☒ Corporate Officer
Title(s): Director of Building Services
☐ Partner — ☐ Limited ☐ General
☐ Attorney-in-Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: _____

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

Signer Is Representing:
City of Oakland

Signer's Name: _____

☐ Individual
☐ Corporate Officer
Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Attorney-in-Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: _____

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

Signer Is Representing:

CITY OF OAKLAND
Office of Planning and Building

# EXCAVATION PERMIT

## TO EXCAVATE IN STREETS OR OTHER SPECIFIED WORK

CIVIL ENGINEERING



| PERMIT NUMBER | | SITE ADDRESS/LOCATION |
|---|---|---|
| X000 1394 | | 540 Hegenberger Rd |
| APPROX. START DATE | APPROX. END DATE | 24-HOUR EMERGENCY PHONE NUMBER (Permit not valid without 24-Hour number) |
| CONTRACTOR'S LICENSE # AND CLASS: 485165 | | CITY BUSINESS TAX # |

ATTENTION:

1) State law requires that the contractor/owner call *Underground Service Alert (USA)* two working days before excavating. This permit is not valid unless applicant has secured an inquiry identification number issued by USA. The USA telephone number is 1 (800) 642-2444. UNDERGROUND SERVICE ALERT (USA) #: 247-917

2) **48 hours prior to starting work, YOU MUST CALL (510) 238-3651 TO SCHEDULE AN INSPECTION.**

OWNER/BUILDER

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5 Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License law Chapter 9 (commencing with Sec. 7000) of Division 3 of the Business and Professions Code, or that he is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than $500):

☐ I, as an owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale).

☐ I, as owner of the property, am exempt from the sale requirements of the above due to: (1) I am improving my principal place of residence or appurtenances thereto, (2) the work will be performed prior to sale, (3) I have resided in the residence for the 12 months prior to completion of the work, and (4) I have not claimed exemption on this subdivision on more than two structures more than once during any three-year period. (Sec. 7044 Business and Professions Code).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project, (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License law).

☐ I am exempt under Sec. _____, B&PC for this reason _____.

WORKER'S COMPENSATION

☐ I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Worker's Compensation Insurance, or a certified copy thereof (Sec. 3700, Labor Code).

Policy # _____ Company Name _____

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of California (not required for work valued at one hundred dollars ($100) or less).

NOTICE TO APPLICANT: If, after making this Certificate of Exemption, you should become subject to the Worker's Compensation provisions of the Labor Code, you must forthwith comply with such provisions or this permit shall be deemed revoked. This permit is issued pursuant to all provisions of Title 12 Chapter 12.12 of the Oakland Municipal Code. It is granted upon the express condition that the permittee shall be responsible for all claims and liabilities arising out of work performed under the permit or arising out of permittee's failure to perform the obligations with respect to street maintenance. The permittee shall, and by acceptance of the permit agrees to defend, indemnify, save and hold harmless the City, its officers and employees, from and against any and all suits, claims, or actions brought by any person for or on account of any bodily injuries, disease or illness or damage to persons and/or property sustained or arising in the construction of the work performed under the permit or in consequence of permittee's failure to perform the obligations with respect to street maintenance. This permit is void 90 days from the date of issuance unless an extension is granted by the Director of the Office of Planning and Building.

I hereby affirm that I am licensed under provisions of Chapter 9 of Division 3 of the Business and Professions Code and my license is in full force and effect (if contractor), that I have read this permit and agree to its requirements, and that the above information is true and correct under penalty of law.

Signature of Permittee ☐ Agent for ☒ Contractor ☐ Owner Date 8-24-00

| DATE STREET LAST RESURFACED | SPECIAL PAVING DETAIL REQUIRED? ☐ YES ☒ NO | HOLIDAY RESTRICTION? (NOV 1 - JAN 1) ☐ YES ☒ NO | LIMITED OPERATION AREA? (7AM-9AM & 4PM-6PM) ☐ YES ☒ NO |
|---|---|---|---|
| ISSUED BY | | DATE ISSUED 8-24-00 | |

**ATTACHMENT E**

Survey Data

**Virgil Chavez Land Surveying**
312 Georgia Street, Suite 225
Vallejo, California 94590-5907
(707) 553-2476 • Fax (707) 553-8698

September 26, 2000
Project No. 1603-22

James Loetterle
Cambria Environmental
1144 65th Street, Suite C
Oakland, Ca. 94608

Subject: Monitoring Well Survey
Shell Service Station
540 Hegenberger Road
Oakland, Ca.

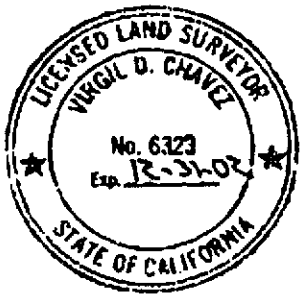
Dear James:

This is to confirm that we have proceeded at your request to survey the ground water monitoring wells located at the above referenced location. The survey was performed on September 21, 2000. The benchmark for the survey was a PK nail & shiner in the median island on Hegenberger opposite the site. The station and offset data are relative to the back of sidewalk on Hegenberger, beginning at the approximate southerly property line.
Benchmark Elev. = 10.76 Ft., MSL.

| Well No. | Rim Elevation | TOC Elevation | Station | Offset |
|---|---|---|---|---|
| MW - 1 | 11.08' | 10.54' | 0+97.23 | 98.70(Rt) |
| MW - 2 | 9.82' | 9.21' | 1+78.92 | 45.26(Rt) |
| MW - 3 | 9.71' | 9.45' | 1+02.83 | 7.89(Rt) |
| MW - 4 | 10.24' | 9.88' | 1+21.53 | 196.56(Rt) |

Measurements taken at approximate north side of top of box, top of casings were marked at location of measurements.

Sincerely,




Virgil D. Chavez, PLS 6323

# ATTACHMENT F

Soil Disposal Confirmation

# DISPOSAL CONFIRMATION

| | |
|---|---|
| Consultant | CAMBRIA |
| Contact | JAMES LOETTERLE |
| Phone \ Fax | 510-420-3336/510-420-9170 |
| Client | SHELL OIL |
| Station # \ Wic# | CRMT# CHD000060, INCIDENT# 98995752 |
| Site Address | 540 HEGENBERGER RD. |
| City \ State | OAKLAND, CA. |
| Estimated Tons | 5 YARDS |
| Actual Tons | 1.37 TONS |
| Disposal Date | 10-12-00 |
| Disposal Facility | FORWARD LANDFILL |
| Contact | BRAD BONNER |
| Phone | 800-204-4242 |
| Transporter | MANLEY & SONS TRUCKING |
| Contact | TIM MANLEY |
| Phone \ Fax | 916-381-6864 \ 381-1573 |
| | |
| | |
| Date \ Time | 10-23-00 |
| Invoice# | 10995 |


**NORTHERN CALIFORNIA SALES OFFICE • SPECIAL WASTE**

Forward • Keller Canyon • Newby Island • Ox Mountain

ALLIED WASTE COMPANIES

October 10, 2000

Cambria Environmental
1144 65th Street, Suite C
Oakland, CA 94608

Attn: Mr. Ataide

Re: Approval No. 995800/CRMT# CHD000060
Gasoline Contaminated Soil
540 Hegenberger Road

Dear Mr. Ataide:

***FORWARD INC.*** is pleased to inform you that the approximately 5 tons of Gasoline Contaminated Soil from the referenced site has been approved for acceptance at our Manteca, California Landfill as a Class 2 waste. This approval has been based on the information provided in the waste profile and associated materials submitted on behalf of Equilon Enterprises LLC (Generator). Acceptance of the waste is subject to regulatory requirements, and is also subject to the "Terms and Conditions" agreed to and signed by Generator in the waste profile.

Your approval number for this project will be 995800. This number should be used in all scheduling and correspondence with ***FORWARD, INC.*** regarding this waste profile.

This profile shall remain in effect until October 10, 2001, or until any significant changes in the waste stream occur. At that time, ***FORWARD, INC.*** will re-evaluate the profile, and current analytical data and requirements will be reviewed.

Please schedule all waste shipments with the Landfill (209-982-4298) at least 24 hours in advance. The landfills hours of operation are Monday through Friday 6:00 am to 6:00 pm for soil, 6:00 am to 3:00 pm for asbestos, 6:00 am to 5:00 pm for all other waste types.

Thank you for the opportunity to be of service. Should you have any questions, please do not hesitate to contact me or our Customer Service at (800) 204-4242.

Sincerely,

***Allied Waste Industries***

Brad Bonner/dc

Brad J. Bonner
Special Waste Sales Manager
Northern, CA

BJB/dc

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# ATTACHMENT G

Site Conceptual Model

**SITE CONCEPTUAL MODEL**

**Date**: December 13, 2000

**Cambria Environmental Technology, Inc.**

| | | | |
|---|---|---|---|
| **Site Address:** | 540 Hegenberger Road | **Incident Number:** | 98995752 |
| **City:** | Oakland | **Regulator:** | Alameda County Department of Environmental Health |

| Item | Evaluation Criteria | Comments/Discussion |
|---|---|---|
| 1 | **Hydrocarbon Source** | |
| 1.1 | Identify/Describe Release Source and Volume (if known) | During the line tightness test on February 6, 1998, a leak in the piping between the USTs and the western dispenser-island was discovered and repaired on the same day. Groundwater samples collected on March 6, 1998 at location SB-5 approximately 25 feet away from the leak contained 200,000 ppb TPHg, and 1,300,000 ppb MTBE respectively. The volume of release is unknown. |
| 1.2 | Discuss Steps Taken to Stop Release | The leak in the piping discovered on February 6, 1998 was repaired by Paradiso Mechanical on the same day. |
| 2 | **Site Characterization** | |
| 2.1 | Current Site Use/Status | The site is an active Shell-branded service station with three underground storage tanks (USTs) onsite. |
| 2.2 | Soil Definition Status | Defined. TPHg distribution in soil is defined by non-detection in soil samples from MW-2 downgradient to the north, MW-4 downgradient to the east, SB-4 crossgradient to the south, and 2.4 ppm TPHg in the sample from SB-1 upgradient to the southwest. Benzene distribution in soil is defined by non-detection in soil samples from MW-2, MW-4, 0.0057 ppm benzene in the sample from SB-4, and 0.094 ppm benzene in the sample from SB-1. MTBE distribution in soil is defined by non-detection in soil samples from MW-2, MW-4, 0.34 ppm MTBE in the soil sample from SB-4, and 0.40 ppm in the soil sample from SB-1. |
| 2.3 | Separate-Phase Hydrocarbon Definition Status | SPH has never been encountered at the site. |
| 2.4 | Groundwater Definition Status (BTEX) | Undefined. BTEX has been delineated in groundwater to the north by less than 20 ppb in well MW-2, to the east by less than 1 ppb in well MW-1, and to the south by non-detection in samples from borings SB-4 and SB-1. The groundwater sample from boring SB-G to the southeast contained 2080 ppb benzene. |
| 2.5 | BTEX Plume Stability and Concentration Trends | Unstable. BTEX concentrations decreased in MW-3 between the first and fourth quarters of 2000 from 5,210 ppb of benzene to 438 ppb of benzene. However, in well MW-1, benzene increased from <20.0 ppb to 1,310 ppb. MW-2 BTEX concentrations have remained stable over time. |
| 2.6 | Groundwater Definition Status (MTBE) | Undefined. MTBE is not detected upgradient in borings SB-1 and SB-4. MTBE has been detected downgradient in borings SB-E, SB-F, and SB-G. |
| 2.7 | MTBE Plume Stability and Concentration Trends | Unstable. MTBE concentrations have declined since weekly vacuum operations began in July 1999. |

| Item | Evaluation Criteria | Comments/Discussion |
|---|---|---|
| 2.8 | Groundwater Flow Direction, Depth Trends and Gradient Trends | The depth to groundwater ranges between 5 and 9 fbg. Groundwater flow direction ranges toward the north to the east. The hydraulic gradient is approximately 0.02. |
| 2.9 | Stratigraphy and Hydrogeology | The site is underlain by silty clay and clayey silt to an explored depth of 26.5 fbg. A discontinuous bed of silty sand covers the silty clay underneath SB-G and MW-4 to a depth of 16 fbg. |
| 2.10 | Preferential Pathways Analysis | A 12-inch diameter sewer main is located on Edes Avenue, downgradient of the site. The sewer main is buried approximately one foot below mean sea level (msl), or approximately 10 fbg. The sewer conduit is graded to flow to the south. An 18-inch diameter storm drain conduit was also identified beneath Edes Avenue. This storm drain is graded to flow to the north across Edes Avenue and then to the south across Hegenberger Road. The storm drain ends at an unlined drainage ditch that parallels South Coliseum Way (Figure 1). Depth to groundwater at the site has ranged from approximately 5 to 12 fbg. Thus the groundwater table may have infiltrated the sewer and storm drain trenches and flowed preferentially within porous backfill. An eight-inch water main also runs beneath Edes Avenus in the site vicinity. Water mains however, are typically buried at shallow depths (less than five fbg), and are not likely to serve as potential conduits at the site. |
| 2.11 | Other Pertinent Issues | Groundwater sampling from undeveloped well MW-4 to the east should define BTEX and MTBE plumes. The groundwater plume from the site is likely not impacting the ARCO site accross Edes Avenue. The MTBE concentration in the well closest to the ARCO site, MW-2 has never been over 14,000 ppb. The closest groundwater sample to the ARCO site, SB-E-W1 contained 17,900 ppb MTBE by EPA Method 8260. SB-E-W1 is a grab groundwater sample and the actual concentration is probably an order of magnitude less. |
| 3 | **Remediation Status** | |
| 3.1 | Remedial Actions Taken | Cambria initiated weekly high vacuum groundwater extraction from the four tank backfill wells (BW-A through BW-D) and monitoring wells MW-1 and MW-3 on July 29, 1999. Groundwater extraction from the tank backfill wells stopped in November 1999, but has continued in monitoring wells MW-1 and MW-3. Beginning in June 2000, vacuum truck operations were optimized to include extraction and treatment of soil vapors in addition to dissolved-phase hydrocarbons. Monthly dual-vacuum extraction events have continued in monitoring wells MW-1 and MW-3 since June 2000. |
| 3.2 | Area Remediated | The area surrounding the USTs and dispenser islands. |
| 3.3 | Remediation Effectiveness | Approximately 38,893 gallons of groundwater have been extracted from site wells since purging began. Approximately 7.56 pounds or 1.22 gallons of MTBE, less than 0.07 pounds or less than 0.01 gallons of benzene, and less than 1.20 pounds or less than 0.20 gallons of total purgeable hydrocarbons as gasoline (TPPH) have been removed. MTBE concentrations analyzed by EPA Method 8260 in MW-3 and MW-1 have decreased from 653,000 ppb and 150,000 ppb in July 1999 to 24,000 ppb 71,100 ppb in September 2000 respectively. |

| Item | | Evaluation Criteria | Comments/Discussion |
|---|---|---|---|
| 4 | | **Well and Sensitive Receptor Survey** | |
| | 4.1 | Shallow Groundwater Use | There is no known use for shallow groundwater. |
| | 4.2 | Deep Groundwater Use | Deep groundwater use in the area is unknown. |
| | 4.3 | Well Survey Results | Cambria performed a ½ mile radius sensitive receptor survey for the site in October 1999. Department of Water Resources records were reviewed to identify water wells. Topographic maps were reviewed to identify surface bodies of water. No receptors were identified as domestic water wells within a ½-mile radius of the site. Barney Chan with the ACHSCA, indicated to Cambria that there are two production well fields near the Oakland Coliseum known as the Fitchburg Well Field and the Damon Group Well Field. Current operations of these well fields are not known. However, both well fields are located greater than a ½ mile upgradient of the subject site, and are therefore not considered a sensitive receptor to contaminants originating from the Shell-branded service station. |
| | 4.4 | Likelihood of Impact to Wells | Unlikely. |
| | 4.5 | Likelihood of Impact to Surface Water | The closest surface body of water is an unlined drainage ditch, located approximately 225 feet crossgradient to the north/northwest of the USTs. Groundwater from the site is unlikely to impact surface water. |
| 5 | | **Risk Assessment** | |
| | 5.1 | Site Conceptual Exposure Model (current and future uses) | The site is currently an active Shell-branded service station. Impacted shallow groundwater exists near wells MW-1, MW-2 and MW-3, but likely does not extend downgradient to the north side of Edes Avenue. No enclosed buildings exist over the groundwater plume. The primary chemicals of concern are BTEX and MTBE. |
| | 5.2 | Potential Exposure Pathways | 1) Inhalation of vapors in outdoor air from impacted soil and groundwater.<br>2) Dermal contact and ingestion by construction workers. |
| | 5.3 | Risk Assessment Status | No formal risk assessment has been performed. |
| | 5.4 | Identified Human Exceedances | None identified or evaluated. |
| | 5.5 | Identified Ecological Exceedances | None identified or evaluated. |
| 6 | | **Additional Recommended Data or Tasks** | |
| | 6.1 | Continue groundwater monitoring | Cambria discontinued monthly DVE Vac Ops at the end of 2000, and then discontinuing Vac Ops, and is continuing groundwater monitoring. |

Attached: Groundwater Analytical Summary Table
Soil Boring Logs