

RO - 370

Manmohan S. Chopra
4216 Warbler Loop
FREMONT, CA 94555

June 19, 2003

Alameda County Department of Environmental Health

ATTN: Ms. Eva Chu

1131 Harbor Bay Parkway, 2nd. floor
Alameda, Ca 94502-6577

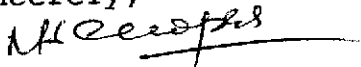
SUB: GROUNDWATER MONITORING & SAMPLING REPORT
1401 Grand Ave.
SAN LEANDRO, CA 94577

Alameda County
JUL 02 2003
Environmental Health

Dear Ms. Chu,

Attached, for your review and records, please find a copy of latest Ground Water Monitoring & sampling Report for the above site. The report is self explanatory and is in standard format. However, if you have any questions or comments, please contact the undersigned at 510-489-5696 or write at the address above.

sincerely,



Manmohan S. Chopra

ATTCH: 1. REPORT 0055. R15
2. REPORT 0055. R16

P & D ENVIRONMENTAL

A Division of Paul H. King, Inc.
4020 Panama Court
Oakland, CA 94611
(510) 658-6916

March 5, 2003
Report 0055.R15

Mr. Manmohan Chopra
4216 Warbler Loop
Fremont, CA 94555

SUBJECT: GROUNDWATER MONITORING AND SAMPLING REPORT
Former ARCO Service Station
1401 Grand Avenue
San Leandro, California

Alameda County
JUL 31 2003
Environmental Health

Dear Mr. Chopra:

P&D Environmental (P&D) is pleased to present this report documenting the results of the most recent monitoring and sampling of the eight groundwater monitoring wells at or near the subject site. This work was performed in accordance with P&D's proposal 022698.P1 dated February 26, 1998. All of the wells were monitored and sampled on January 20, 2003. A Site Location Map (Figure 1) and Site Plan (Figure 2) are attached with this report.

BACKGROUND

The site is presently used as an active gasoline station. It is P&D's understanding that on April 24, 1991 Aegis Environmental, Inc. (Aegis) personnel drilled four soil borings, designated as B-1 through B-4, to a vertical depth of approximately 40 feet at the site. The locations of the borings are shown on Figure 2. A total of nine soil samples collected from the boreholes were analyzed for total petroleum hydrocarbons as gasoline (TPH-G); benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 8260; and for total lead by EPA Method 7420. TPH-G concentrations ranged from below detection limit to 66 parts per million (ppm). Benzene concentrations ranged from not detected to 0.94 ppm. Total lead concentrations ranged from not detected to 3 ppm. Documentation of the subsurface investigation and results are presented in a report prepared by Aegis titled, "Soil Boring Results Report," dated June 10, 1991.

It is P&D's understanding that on April 14, 1992 Aegis personnel returned to the site to drill three slant borings, designated as B5 through B7, to a total vertical depth of approximately 49 feet at the site. The borings were drilled at an angle of approximately 26 to 28 degrees to collect samples from beneath the underground storage tanks. The locations of the borings are shown on Figure 2. A total of twenty-two soil samples were analyzed for TPH-G using EPA Method 5030; and for BTEX using EPA Method 8240. In addition, one of the samples was analyzed for total lead using EPA Method 7420, and several of the soil samples were analyzed for soluble lead using the California Waste Extraction Test. TPH-G concentrations ranged from not detected to 4,000 ppm. Benzene, concentrations ranged from not detected to 11 ppm. Total lead was not detected, and soluble lead concentrations ranged from not detected to 0.061 ppm. Documentation of the subsurface investigation and results are presented in a report prepared by Aegis titled, "Initial Subsurface Investigation Results Report," dated June 22, 1992.

It is P&D's understanding that between September 15 and 18, 1992 Aegis personnel returned to the site to install five groundwater monitoring wells, designated as MW1 through MW5. The wells were drilled to total depths of between 50 and 55 feet, and were constructed using four-inch diameter PVC pipe. Wells MW1 and MW2 were constructed with perforated casing between the depths of approximately 15 and 55 feet. Wells MW3, MW4 and MW5 were constructed with perforated casing between the depths of approximately 35 and 55 feet. Groundwater was reported to have been first encountered at a depth of 42 feet. The locations of the wells are shown in Figure 2.

A total of thirty-one soil samples were analyzed for TPH-G using EPA Method 5030/8015; and for BTEX using EPA Method 8020. In addition, three soil samples containing TPH-G were analyzed for total metals concentrations of cadmium, chromium, lead, and zinc using EPA Method 6010 and 7421. One soil sample was collected from each borehole from below the air-water interface and analyzed for petrophysical properties, including saturated permeability and grain size distribution.

TPH-G concentrations ranged from not detected to 39 ppm. Benzene concentrations ranged from not detected to 0.27 ppm. The total metals concentrations were all less than 10 times their respective STLC values. The subsurface materials encountered in the borings indicate that soil types vary across the site, but generally consist of silty clay, silt, clayey silt and sandy silt from the surface to a depth of between 30 and 35 feet. Below the depth of 30 to 35 feet, layers of sand and sandy silt were reported to have been encountered.

It is P&D's understanding that on September 29, 1992 Aegis personnel collected groundwater samples from wells MW1, MW2, MW4 and MW5 at the site. A sample was not collected from well MW-3 due to the reported presence of 0.02 feet of floating hydrocarbons. The measured depth to water ranged from approximately 41.5 to 44.5 feet. The samples were analyzed for TPH-G using EPA Method 5030/8015; and for BTEX using EPA Method 8020. TPH-G concentrations ranged from 0.06 to 20 ppm, and benzene concentrations ranged from 0.16 to 10 ppm. Based upon the water level measurements in the wells, the groundwater flow direction was reported to be to the northwest. The water level measurements are summarized in Table 1. The analytical results are summarized in Table 2.

It is P&D's understanding that on October 7, 1992 Aegis personnel performed rising head slug tests wells MW1, MW2, and MW4 to estimate the saturated hydraulic conductivity at the site. In addition, two short-term soil vapor extraction tests were performed on wells MW1 and MW2. Wells MW-3, MW-4, and MW-5 were used as vacuum influence monitoring points. Documentation of the monitoring well groundwater sample collection, slug test and vapor extraction tests are presented in a report prepared by Aegis titled, "Problem Assessment Report," dated December 16, 1992.

On February 18, 1994 P&D personnel monitored the five groundwater monitoring wells at the site for depth to water and the presence of free product or sheen. The depth to water was

measured using an electric water level indicator, and the presence of free product and sheen was evaluated using a transparent bailer. The measured depth to water in the wells ranged from approximately 39.8 to 42.9 feet. No evidence of free product or sheen was detected in any of the wells. Based on the measured depth to water in the wells, the groundwater flow direction was calculated to be to the north with a gradient of 0.054. In a letter dated October 19, 1995 Mr. Scott Seery of the Alameda County Department of Environmental Health requested that all of the onsite and offsite wells be monitored and sampled for the quarterly monitoring and sampling program. The measured depth to water in the wells is presented in Table 1.

On June 15 and 16, 1995 P&D installed three offsite monitoring wells, designated as MW6 through MW8. The locations of the wells are shown on Figure 2. Documentation of the well installation and sample results is presented in P&D's report 0055.R5 dated August 23, 1995.

The underground storage tanks at the subject site were replaced in the first half of 1997. Following removal of the tanks, excavation of soil was performed in the area surrounding well MW1. As a result of the excavation activities, the elevation at the top of well MW1 was altered. The present elevation for the top of well MW1 is unknown.

FIELD ACTIVITIES

On January 20, 2003 all eight of the wells in the groundwater monitoring network for the site were monitored and sampled by P&D personnel. The wells were monitored for depth to water and the presence of free product or sheen. Depth to water was measured to the nearest 0.01 foot using an electric water level indicator. The presence of sheen was evaluated using a transparent bailer. No free product or sheen was observed in any of the wells. Depth to water level measurements and monitoring well groundwater surface elevations are presented in Table 1.

Prior to sampling, the wells were purged of a minimum of three casing volumes of water. During purging operations, the field parameters of electrical conductivity, temperature and pH were monitored. Once the field parameters were observed to stabilize, and a minimum of three casing volumes had been purged, water samples were collected using a clean Teflon bailer. The water samples were transferred to 40-milliliter glass Volatile Organic Analysis (VOA) vials which were sealed with Teflon-lined screw caps. The VOA vials were overturned and tapped to assure that no air bubbles were present.

The VOA vials were then transferred to a cooler with ice, and later were transported to McCampbell Analytical, Inc. in Pacheco, California. McCampbell Analytical, Inc. is a State-certified hazardous waste testing laboratory. Chain of custody documentation accompanied the samples to the laboratory. Records of the field parameters measured during well purging are attached with this report.

HYDROGEOLOGY

The subsurface materials encountered in the borings drilled by Aegis indicate that soil types vary across the site, but generally consist of silty clay, silt, clayey silt and sandy silt from the surface to a depth of between 30 and 35 feet. Below the depth of 30 to 35 feet, layers of sand and sandy silt were reported to have been encountered. Groundwater has historically been encountered at the site at depths ranging from approximately 40 to 45 feet below grade.

Based upon the regional groundwater flow direction identified by Woodward-Clyde Consultants in a report titled, "Hydrogeology of Central San Leandro and Remedial Investigation of Regional Groundwater Contamination - San Leandro Plume - San Leandro, California - Volume I," prepared for the California Environmental Protection Agency and dated December 29, 1993 the regional groundwater flow direction to the west of the site appears to be to the southwest. However, based upon the measured depth to water in the five wells at the site on September 29, 1992 Aegis identified a northwesterly groundwater flow direction. Based upon water level measurements collected by P&D from the five wells at the site on February 18, July 5, and October 12, 1994, February 1, and May 4, 1995 the groundwater flow direction at the site was calculated to be to the north, towards San Leandro Creek. Based upon water level measurements collected in wells MW1 through MW8 by P&D personnel on June 23 and December 19, 1995, March 28 and June 21, 1996 the groundwater flow direction was calculated to be to the northwest.

The measured depth to water at or near the site on January 20, 2003 for all of the wells ranged from 36.70 to 39.77 feet. Since the previous monitoring on February 16, 1999, groundwater levels have decreased in the wells by between 3.27 and 5.18 feet. Based on the January 20, 2003 water level measurements, the groundwater flow direction on January 20, 2003 was to the northwest with a gradient ranging from 0.051 to 0.053. The calculated water level in well MW3 appears to be inconsistent with the other wells in the groundwater monitoring network.

The groundwater flow direction has shifted towards the north and the gradient has increased since the previous water level measurements were collected on February 16, 1999. The groundwater monitoring data are presented in Table 1. The groundwater flow direction at the site on January 20, 2003 is shown on Figure 2.

LABORATORY RESULTS

All of the groundwater samples collected from the monitoring wells were analyzed for TPH-G using EPA Method 5030 in conjunction with Modified EPA Method 8015 and for Volatile Organic Compounds (VOCs) and fuel oxygenates using EPA Method 8260 in accordance with a request from Ms. Eva Chu of the Alameda County Department of Environmental Health.

The laboratory analytical results for the groundwater samples showed that TPH-G and VOCs (including fuel oxygenates) were not detected in wells MW5, MW6, MW7, and MW8 except for

0.0012 ppm MTBE in well MW6. TPH- G was detected in wells MW1, MW3 and MW4 at concentrations ranging from 0.12 to 0.21 ppm. VOCs were not detected in these three wells with the exception of MTBE, which was detected at concentrations of 0.085, 0.25, and 3 ppm, respectively, and 0.0052 ppm xylenes in well MW3. In well MW2, TPH-G, benzene and MTBE were detected at concentrations of 48, 2.9 and 3.8 ppm, respectively. Additional compounds detected in well MW2 are listed in Table 2.

Since the previous sampling event, TPH-G concentrations have increased in MW2 and MW3, and decreased in MW1, MW4, and MW5. Similarly, MTBE concentrations have increased in wells MW2, MW3, MW4, and MW6, and decreased in MW1. In wells MW6 through MW8, TPH-G and MTBE concentrations have remained unchanged (not detected) since the previous sampling, except for MTBE in MW6.

The laboratory analytical results are summarized in Table 2. Copies of the laboratory analytical report and chain of custody documentation are attached with this report.

DISCUSSION AND RECOMMENDATIONS

Based on the depth to water measurements collected on January 20, 2003 from all of the monitoring wells (MW1 through MW8), the groundwater flow direction appears to be to the northwest. The highest concentrations of MTBE were detected in wells MW2, MW3 and MW4. Other VOCs were not detected in any of the wells other than well MW2 with the exception of 0.0052 ppm xylenes in well MW3. Low concentrations of chloroform detected in wells MW6, MW7 and MW8 are assumed to be the result of laboratory contamination.

P&D recommends that a quarterly groundwater monitoring and sampling program be continued at the site. P&D recommends that future groundwater samples collected from all of the wells be analyzed for TPH-G, BTEX and MTBE using EPA Method 8020, based on the absence of fuel oxygenates other than MTBE.

DISTRIBUTION

Copies of this report should be forwarded to Ms. Eva Chu at the Alameda County Department of Environmental Health and to the San Francisco Bay Regional Water Quality Control Board.

LIMITATIONS

This report was prepared solely for the use of Mr. Manmohan Chopra. The content and conclusions provided by P&D in this assessment are based on information collected during our investigation, which may include, but not be limited to, visual site inspections; interviews with the site owner, regulatory agencies and other pertinent individuals; review of available public documents; subsurface exploration and our professional judgement based on said information at the time of preparation of this document. Any subsurface sample results and observations

presented herein are considered to be representative of the area of investigation; however, geological conditions may vary between borings and pits and may not necessarily apply to the general site as a whole. If future subsurface or other conditions are revealed which vary from these findings, the newly-revealed conditions must be evaluated and may invalidate the findings of this report.

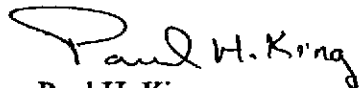
This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information contained herein is brought to the attention of the appropriate regulatory agencies, where required by law. Additionally, it is the sole responsibility of the owner to properly dispose of any hazardous materials or hazardous wastes left onsite, in accordance with existing laws and regulations.

This report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature. P&D is not responsible for the accuracy or completeness of information provided by other individuals or entities which is used in this report. This report presents our professional judgement based upon data and findings identified in this report and interpretation of such data based upon our experience and background, and no warranty, either express or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.

Should you have any questions, please do not hesitate to contact us at (510) 658-6916.

Sincerely,

P&D Environmental



Paul H. King

President

California Registered Geologist #5901

Expires: 12/31/03

PHK/wrw

0055.R15

Attachments: Tables 1 & 2
Site Location Map (Figure 1)
Site Plan (Figure 2)
Field Parameter Forms
Laboratory Analytical Reports
Chain of Custody Documentation

TABLE 1
WELL MONITORING DATA

| Well No. | Date Monitored | Top of Casing Elev. (ft.) | Depth to Water (ft.) | Water Table Elev. (ft.) |
|----------|----------------|---------------------------|----------------------|-------------------------|
| MW1 | 1/20/03 | Not Available | 38.21 | Not Available |
| | 2/16/99 | Not Available | 34.58 | Not Available |
| | 1/25/98 | Not Available | 33.70 | Not Available |
| | 7/14/97 | Not Available | 39.45 | Not Available |
| | 3/11/97 | 87.98+ | 36.90 | 51.08 |
| | 6/21/96 | | 38.56 | 49.42 |
| | 3/28/96 | | 37.10 | 50.88 |
| | 12/19/95 | | 40.16 | 47.82 |
| | 6/23/95 | | 38.54 | 49.44 |
| | 5/04/95 | 87.96++ | 37.65 | 50.33 |
| | 2/01/95 | | 38.46 | 49.52 |
| | 10/12/94 | | 42.01 | 45.97 |
| | 7/05/94 | | 41.36 | 46.62 |
| | 2/18/94 | | 41.02 | 46.96 |
| | 9/29/92 | | 42.77 | 45.21 |
| MW2 | 1/20/03 | 86.61+ | 37.04 | 49.57 |
| | 2/16/99 | | 33.51 | 53.10 |
| | 1/25/98 | | 32.80 | 53.81 |
| | 7/14/97 | | 38.46 | 48.15 |
| | 3/11/97 | | 35.71 | 50.90 |
| | 6/21/96 | | 37.30 | 49.31 |
| | 3/28/96 | | 35.97 | 50.64 |
| | 12/19/95 | | 38.80 | 47.81 |
| | 6/23/95 | | 37.40 | 49.21 |
| | 5/04/95 | 86.60++ | 36.54 | 50.07 |
| | 2/01/95 | | 37.27 | 49.34 |
| | 10/12/94 | | 40.77 | 45.84 |
| | 7/05/94 | | 40.13 | 46.48 |
| | 2/18/94 | | 39.81 | 46.80 |
| | 9/29/92 | | 41.55 | 45.06 |

NOTES:

Elevations are in feet Mean Sea Level.

ft. = Feet.

+ = Indicates survey data provided by Kier & Wright dated June 26, 1995.

++ = Indicates survey data provided by Aegis Environmental, Inc.

* = Indicates groundwater elevation corrected for the presence of free product.

TABLE 1 (Continued)
 WELL MONITORING DATA

| Well No. | Date Monitored | Top of Casing Elev. (ft.) | Depth to Water (ft.) | Water Table Elev. (ft.) | |
|----------|----------------|---------------------------|----------------------|-------------------------|-------|
| MW3 | 1/20/03 | 87.48+ | 39.81 | 47.67 | |
| | 2/16/99 | | 34.91 | 52.57 | |
| | 1/25/98 | | 33.91 | 53.57 | |
| | 7/14/97 | | 40.61 | 46.87 | |
| | 3/11/97 | | 38.71 | 48.77 | |
| | 6/21/96 | | 40.61 | 46.87 | |
| | 3/28/96 | | 38.75 | 48.73 | |
| | 12/19/95 | | 42.20 | 45.28 | |
| | 6/23/95 | | 40.65 | 46.83 | |
| | 5/04/95 | | 87.50++ | 39.61 | 47.87 |
| | 2/01/95 | | | 40.13 | 47.35 |
| | 10/12/94 | | | 43.92 | 43.56 |
| | 7/05/94 | | | 43.32 | 44.16 |
| | 2/18/94 | | 43.09 | 44.39 | |
| 9/29/92 | | 44.60 | 42.88* | | |
| MW4 | 1/20/03 | 86.21+ | 36.70 | 49.51 | |
| | 2/16/99 | | 33.43 | 52.78 | |
| | 1/25/98 | | 32.96 | 53.25 | |
| | 7/14/97 | | 38.10 | 48.11 | |
| | 3/11/97 | | 33.24 | 52.97 | |
| | 6/21/96 | | 37.12 | 49.09 | |
| | 3/28/96 | | 35.00 | 51.21 | |
| | 12/19/95 | | 38.45 | 47.76 | |
| | 6/23/95 | | 37.40 | 48.81 | |
| | 5/04/95 | | 86.20++ | 36.33 | 49.88 |
| | 2/01/95 | | | 36.96 | 49.25 |
| | 10/12/94 | | | 40.48 | 45.73 |
| | 7/05/94 | | | 39.69 | 46.52 |
| | 2/18/94 | | 39.36 | 46.85 | |
| 9/29/92 | | 44.29 | 41.92 | | |

NOTES:

Elevations are in feet Mean Sea Level.

ft. = Feet.

+ = Indicates survey data provided by Kier & Wright dated June 26, 1995.

++ = Indicates survey data provided by Aegis Environmental, Inc.

** = Indicates depth to water measurements prior to groundwater monitoring well development.

TABLE 1 (Continued)
 WELL MONITORING DATA

| Well No. | Date Monitored | Top of Casing Elev. (ft.) | Depth to Water (ft.) | Water Table Elev. (ft.) | |
|----------|----------------|---------------------------|----------------------|-------------------------|-------|
| MW5 | 1/20/03 | 89.10+ | 39.50 | 49.60 | |
| | 2/16/99 | | 35.08 | 54.02 | |
| | 1/25/98 | | 34.08 | 55.02 | |
| | 7/14/97 | | 41.20 | 47.90 | |
| | 3/11/97 | | 38.02 | 51.08 | |
| | 6/21/96 | | 40.03 | 49.07 | |
| | 3/28/96 | | 38.30 | 50.80 | |
| | 12/19/95 | | 41.79 | 47.31 | |
| | 6/23/95 | | 39.87 | 49.23 | |
| | 5/04/95 | | 89.06++ | 38.94 | 50.16 |
| | 2/01/95 | | | 39.94 | 49.16 |
| | 10/12/94 | | | 43.81 | 45.29 |
| | 7/05/94 | | | 43.08 | 46.02 |
| | 2/18/94 | | | 42.88 | 46.22 |
| | 9/29/92 | | 44.53 | 44.57 | |
| MW6 | 1/20/03 | 84.02+ | 37.21 | 46.81 | |
| | 2/16/99 | | 32.82 | 51.20 | |
| | 1/25/98 | | 31.64 | 52.38 | |
| | 7/14/97 | | 39.04 | 44.98 | |
| | 3/11/97 | | 36.32 | 47.70 | |
| | 6/21/96 | | 38.00 | 46.02 | |
| | 3/28/96 | | 36.18 | 47.84 | |
| | 12/19/95 | | 39.25 | 44.77 | |
| | 6/23/95 | | 38.17 | 45.85 | |
| | 6/21/95** | | 38.11 | 45.91 | |

NOTES:

Elevations are in feet Mean Sea Level.

ft. = Feet.

+ = Indicates survey data provided by Kier & Wright dated June 26, 1995.

++ = Indicates survey data provided by Aegis Environmental, Inc.

** = Indicates depth to water measurements prior to groundwater monitoring well development.

TABLE 1 (Continued)
WELL MONITORING DATA

| Well No. | Date Monitored | Top of Casing Elev. (ft.) | Depth to Water (ft.) | Water Table Elev. (ft.) |
|-----------|----------------|---------------------------|----------------------|-------------------------|
| MW7 | 1/20/03 | 87.11+ | 39.77 | 47.34 |
| | 2/16/99 | | 34.59 | 52.52 |
| | 1/25/98 | | 33.47 | 53.64 |
| | 7/14/97 | | 41.97 | 45.14 |
| | 3/11/97 | | 38.96 | 48.15 |
| | 6/21/96 | | 40.80 | 46.31 |
| | 3/28/96 | | 38.94 | 48.17 |
| | 12/19/95 | | 42.26 | 44.85 |
| | 6/23/95 | | 41.00 | 46.11 |
| 6/21/95** | 40.30 | 46.81 | | |
| MW8 | 1/20/03 | 89.70+ | 38.94 | 50.76 |
| | 2/16/99 | | 33.92 | 55.78 |
| | 1/25/98 | | 32.73 | 56.97 |
| | 7/14/97 | | 39.98 | 49.72 |
| | 3/11/97 | | 36.74 | 52.96 |
| | 6/21/96 | | 38.69 | 51.01 |
| | 3/28/96 | | 36.98 | 52.72 |
| | 12/19/95 | | 40.35 | 49.35 |
| | 6/23/95 | | 38.36 | 51.34 |
| 6/21/95** | 38.20 | 51.50 | | |

NOTES:

Elevations are in feet Mean Sea Level.

ft. = Feet.

+ = Indicates survey data provided by Kier & Wright dated June 26, 1995.

** = Indicates depth to water measurements prior to groundwater monitoring well development.

TABLE 2
GROUNDWATER
LABORATORY ANALYTICAL RESULTS

(Samples Collected January 20, 2003)

| Well No. | TPH-G | MTBE | Benzene | Toluene | Ethyl-benzene | Total Xylenes | Other VOCs by EPA 8260 |
|----------|-------|--------|----------|----------|---------------|---------------|---|
| MW1 | 0.17 | 0.085 | ND<0.005 | ND<0.005 | ND<0.005 | ND<0.005 | ND<0.005, except Acetone ND<0.05 2-Butanone ND<0.01 Vinyl Acetate ND<0.05 t-Butyl Alcohol ND<0.05 |
| MW2 | 48 | 3.8 | 2.9 | 3.0 | 2.0 | 11 | ND<0.05, except Acetone ND<0.5 2-Butanone ND<0.1 Vinyl Acetate ND<0.5 t-Butyl Alcohol ND<0.5 Naphthalene = 0.35 1,2,4-Trimethylbenzene = 1.4 1,3,5-Trimethylbenzene = 0.32 Isopropylbenzene = 0.069 n-propylbenzene = 0.16 |
| MW3 | 0.12 | 0.25 | ND<0.005 | ND<0.005 | ND<0.005 | 0.0052 | ND<0.005, except Acetone ND<0.05 2-Butanone ND<0.01 Vinyl Acetate ND<0.05 t-Butyl Alcohol ND<0.05 |
| MW4 | 0.21 | 3.0 | ND<0.05 | ND<0.05 | ND<0.05 | ND<0.05 | ND<0.05, except Acetone ND<0.5 2-Butanone ND<0.1 Vinyl Acetate ND<0.5 t-Butyl Alcohol ND<0.5 |
| MW5 | ND | ND | ND | ND | ND | ND | ND |
| MW6 | ND | 0.0012 | ND | ND | ND | ND | Chloroform = 0.0011 |
| MW7 | ND | ND | ND | ND | ND | ND | Chloroform = 0.00056 |
| MW8 | ND | ND | ND | ND | ND | ND | Chloroform = 0.0013 |

NOTES:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

March 5, 2003
Report 0055.R15

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MTBE = Methyl Tert Butyl Ether.

VOCs = Volatile Organic Compounds

ND = Not Detected.

Results are in parts per million (ppm), unless otherwise specified.

TABLE 2 (Continued)
GROUNDWATER
LABORATORY ANALYTICAL RESULTS

| Well No. | TPH-G | MTBE | Benzene | Toluene | Ethyl-benzene | Total Xylenes |
|----------|-------|-------|--|---------|---------------|---------------|
| | | | Samples Collected On February 16 & 17, 1999 | | | |
| MW1 | 0.97 | 0.29 | 0.067 | 0.12 | 0.0093 | 0.058 |
| MW2 | 7.3 | 0.56 | 0.42 | 1.0 | 0.38 | 1.8 |
| MW3 | ND | 0.021 | ND | ND | ND | ND |
| MW4 | 0.23 | 0.20 | 0.065 | 0.0022 | 0.0096 | 0.033 |
| MW5 | 0.17 | ND | ND | 0.00074 | ND | ND |
| MW6 | ND | ND | ND | ND | ND | ND |
| MW7 | ND | ND | ND | ND | ND | ND |
| MW8 | ND | ND | ND | ND | ND | ND |

NOTES:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

MTBE = Methyl Tert Butyl Ether.

ND = Not Detected.

Results are in parts per million (ppm), unless otherwise specified.

TABLE 2 (Continued)
 GROUNDWATER
 LABORATORY ANALYTICAL RESULTS

| Well No. | TPH-G | MTBE | Benzene | Toluene | Ethyl-benzene | Total Xylenes |
|--|-------|----------|---------|---------|---------------|---------------|
| Samples Collected On January 25, 1998 | | | | | | |
| MW1 | 0.30 | ND<0.014 | 0.021 | 0.00073 | 0.0076 | 0.0010 |
| MW2 | 24 | 2.7 | 2.7 | 4.9 | 0.70 | 4.0 |
| MW3 | 0.49 | 0.71 | 0.0079 | 0.0061 | 0.0053 | 0.029 |
| MW4 | 0.91 | 0.23 | 0.15 | 0.019 | 0.31 | 0.14 |
| MW5 | ND | ND | ND | ND | ND | ND |
| MW6 | ND | ND | ND | ND | ND | ND |
| MW7 | ND | ND | ND | ND | ND | ND |
| MW8 | ND | ND | ND | ND | ND | ND |
| Samples Collected On July 14, 1997 | | | | | | |
| MW1 | 0.20 | 0.035 | 0.020 | 0.0055 | 0.0012 | 0.0023 |
| MW2 | 43 | 1.6 | 6.2 | 8.9 | 1.5 | 7.4 |
| MW3 | 0.40 | 0.11 | 0.00093 | 0.0010 | 0.0013 | 0.00068 |
| MW4 | 0.98 | 0.40 | 0.21 | 0.0017 | 0.090 | 0.046 |
| MW5 | ND | ND | ND | ND | ND | ND |
| MW6 | ND | 0.019 | ND | ND | ND | ND |
| MW7 | ND | ND | ND | ND | ND | ND |
| MW8 | ND | ND | ND | ND | ND | ND |

NOTES:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

MTBE = Methyl Tert Butyl Ether.

ND = Not Detected.

Results are in parts per million (ppm), unless otherwise specified.

TABLE 2 (Continued)
 GROUNDWATER
 LABORATORY ANALYTICAL RESULTS

| Well No. | TPH-G | MTBE | Benzene | Toluene | Ethyl-benzene | Total Xylenes |
|--|-------|-------|---------|---------|---------------|---------------|
| Samples Collected On March 11, 1997 | | | | | | |
| MW1 | 0.60 | 0.014 | 0.053 | 0.00095 | 0.003 | 0.0015 |
| MW2 | 28 | 0.71 | 4.0 | 4.5 | 0.99 | 4.3 |
| MW3 | 1.1 | 0.68 | 0.053 | 0.013 | 0.063 | 0.017 |
| MW4 | 3.8 | 1.1 | 1.1 | 0.053 | 0.24 | 0.26 |
| MW5 | ND | ND | ND | ND | ND | 0.00077 |
| MW6 | ND | ND | ND | ND | ND | ND |
| MW7 | ND | ND | ND | ND | ND | ND |
| MW8 | ND | ND | ND | ND | ND | ND |
| Samples Collected On June 21, 1996 | | | | | | |
| MW1 | 1.4 | 0.019 | 0.30 | 0.0087 | 0.033 | 0.0098 |
| MW2 | 49 | 0.53 | 6.6 | 6.3 | 1.4 | 6.2 |
| MW3 | 1.3 | 0.3 | 0.094 | 0.0021 | 0.039 | 0.002 |
| MW4 | 11 | 1.2 | 2.4 | 0.083 | 0.53 | 0.91 |
| MW5 | ND | ND | ND | ND | ND | ND |
| MW6 | ND | ND | ND | ND | ND | ND |
| MW7 | ND | ND | ND | ND | ND | ND |
| MW8 | ND | ND | ND | ND | ND | ND |

NOTES:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

MTBE = Methyl Tert Butyl Ether.

ND = Not Detected.

Results are in parts per million (ppm), unless otherwise specified.

TABLE 2 (Continued)
 GROUNDWATER
 LABORATORY ANALYTICAL RESULTS

| Well No. | TPH-G | MTBE | Benzene | Toluene | Ethyl-benzene | Total Xylenes |
|---|-------|--------|---------|---------|---------------|---------------|
| Samples Collected On March 28, 1996 | | | | | | |
| MW1 | 1.3 | 0.022 | 0.32 | 0.0023 | 0.034 | 0.0046 |
| MW2 | 38 | 0.45 | 5.8 | 4.7 | 1.1 | 5.1 |
| MW3 | 4.6 | 1.1 | 1.4 | 0.012 | 0.17 | 0.020 |
| MW4 | 5.6 | 0.64 | 1.4 | 0.038 | 0.31 | 0.30 |
| MW5 | ND | ND | ND | ND | ND | ND |
| MW6 | ND | ND | ND | ND | ND | ND |
| MW7 | ND | ND | ND | ND | ND | ND |
| MW8 | ND | ND | ND | ND | ND | ND |
| Samples Collected On December 19, 1995 | | | | | | |
| MW1 | 0.50 | 0.0081 | 0.087 | 0.0015 | 0.011 | 0.0035 |
| MW2 | 25 | 0.45 | 5.2 | 3.8 | 0.86 | 3.8 |
| MW3 | 0.95 | 0.12 | 0.16 | 0.0023 | 0.015 | 0.0016 |
| MW4 | 2.0 | 0.21 | 0.70 | 0.029 | 0.089 | 0.15 |
| MW5 | ND | ND | ND | ND | ND | ND |
| MW6 | ND | 0.01 | ND | ND | ND | ND |
| MW7 | ND | ND | ND | ND | ND | ND |
| MW8 | ND | ND | ND | ND | ND | ND |

NOTES:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

ND = Not Detected.

Results in parts per million (ppm), unless otherwise indicated.

TABLE 2 (Continued)
GROUNDWATER
LABORATORY ANALYTICAL RESULTS

| Well No. | TPH-G | MTBE | Benzene | Toluene | Ethyl-benzene | Total Xylenes |
|--|-------|-------|---------|---------|---------------|---------------|
| Samples Collected on June 23, 1995 | | | | | | |
| MW6 | ND | 0.003 | ND | ND | ND | ND |
| MW7 | ND | ND | ND | ND | ND | ND |
| MW8 | ND | ND | ND | ND | ND | ND |
| Samples Collected On May 4, 1995 | | | | | | |
| MW1 | 2.4 | NA | 0.67 | 0.0028 | 0.076 | 0.0060 |
| MW2 | 63 | NA | 10 | 11 | 1.6 | 8.8 |
| MW3 | 7.2 | NA | 3.1 | 0.038 | 0.20 | 0.062 |
| MW4 | 3.3 | NA | 0.89 | 0.068 | 0.15 | 0.30 |
| MW5 | ND | NA | ND | ND | ND | ND |
| Samples Collected On February 1, 1995 | | | | | | |
| MW1 | 4.6 | NA | 1.8 | 0.0099 | 0.23 | 0.030 |
| MW2 | 45 | NA | 7.0 | 5.1 | 1.2 | 6.1 |
| MW3 | 11 | NA | 4.2 | 0.031 | 0.33 | 0.29 |
| MW4 | 1.4 | NA | 0.39 | 0.055 | 0.049 | 0.18 |
| MW5 | ND | NA | ND | ND | ND | ND |

NOTES:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

ND = Not Detected.

NA = Not Analyzed.

Results in parts per million (ppm), unless otherwise indicated.

TABLE 2 (Continued)
 GROUNDWATER
 LABORATORY ANALYTICAL RESULTS

| Well No. | TPH-G | MTBE | Benzene | Toluene | Ethyl-benzene | Total Xylenes |
|--|-------|------|---------|---------|---------------|---------------|
| Samples Collected On October 12, 1994 | | | | | | |
| MW1 | 2.5 | NA | 0.82 | 0.0039 | 0.10 | 0.020 |
| MW2 | 24 | NA | 4.4 | 2.8 | 0.73 | 3.5 |
| MW3 | 1.7 | NA | 0.39 | 0.00090 | 0.018 | 0.0057 |
| MW4 | 0.68 | NA | 0.14 | 0.0087 | 0.014 | 0.052 |
| MW5 | ND | NA | ND | ND | ND | ND |
| Samples Collected On July 5, 1994 | | | | | | |
| MW1 | 3.0 | NA | 1.3 | 0.0038 | 0.035 | 0.0025 |
| MW2 | 46.0 | NA | 9.1 | 7.0 | 1.4 | 7.3 |
| MW3 | 3.6 | NA | 1.6 | 0.0083 | 0.076 | 0.047 |
| MW4 | 2.6 | NA | 0.47 | 0.045 | 0.084 | 0.25 |
| MW5 | ND | NA | ND | ND | ND | 0.0010 |
| Samples Collected On September 29, 1992 | | | | | | |
| MW1 | 3.1 | NA | 0.16 | ND | ND | 0.0060 |
| MW2 | 20 | NA | 4.6 | 3.8 | 0.26 | 3.3 |
| MW3 | NA | NA | NA | NA | NA | NA |
| MW4 | 0.63 | NA | 0.17 | 0.06 | 0.0073 | 0.65 |
| MW5 | 0.06 | NA | 10 | 0.0071 | ND | 0.0069 |

NOTES:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

ND = Not Detected.

NA = Not Analyzed.

Results in parts per million (ppm), unless otherwise indicated.

P & D ENVIRONMENTAL

A Division of Paul H. King, Inc.

4020 Panama Court

Oakland, CA 94611

(510) 658-6916



Base Map from:
U.S. Geological Survey
San Leandro, Calif.
7.5 Minute Quadrangle
Photorevised 1980

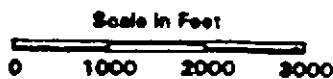


Figure 1
SITE LOCATION MAP
Former ARCO Service Station
1401 Grand Avenue
San Leandro, California



| | | |
|--|--|-----------------------------------|
| P & D Environmental 4020 Panama Court Oakland, CA 94611-4931 | Client Project ID: #0055; Former Haber Oil | Date Sampled: 01/20/03 |
| | Client Contact: Paul King | Date Received: 01/21/03 |
| | Client P.O.: | Date Extracted: 01/23/03-01/24/03 |
| | | Date Analyzed: 01/23/03-01/24/03 |

Volatiles Organics + Oxygenates by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0301259

| | |
|-----------|--------------|
| Lab ID | 0301259-001B |
| Client ID | MW1 |
| Matrix | Water |

| Compound | Concentration * | DF | Reporting Limit | Compound | Concentration * | DF | Reporting Limit |
|-----------------------------|-----------------|----|-----------------|-------------------------------|-----------------|----|-----------------|
| Acetone | ND<5.0 | 10 | 5.0 | tert-Amyl methyl ether (TAME) | ND<5.0 | 10 | 0.5 |
| Benzene | ND<5.0 | 10 | 0.5 | Bromobenzene | ND<5.0 | 10 | 0.5 |
| Bromochloromethane | ND<5.0 | 10 | 0.5 | Bromodichloromethane | ND<5.0 | 10 | 0.5 |
| Bromoform | ND<5.0 | 10 | 0.5 | Bromomethane | ND<5.0 | 10 | 0.5 |
| 2-Butanone (MEK) | ND<10 | 10 | 1.0 | t-Butyl alcohol (TBA) | ND<5.0 | 10 | 5.0 |
| n-Butyl benzene | ND<5.0 | 10 | 0.5 | sec-Butyl benzene | ND<5.0 | 10 | 0.5 |
| tert-Butyl benzene | ND<5.0 | 10 | 0.5 | Carbon Disulfide | ND<5.0 | 10 | 0.5 |
| Carbon Tetrachloride | ND<5.0 | 10 | 0.5 | Chlorobenzene | ND<5.0 | 10 | 0.5 |
| Chloroethane | ND<5.0 | 10 | 0.5 | 2-Chloroethyl Vinyl Ether | ND<5.0 | 10 | 0.5 |
| Chloroform | ND<5.0 | 10 | 0.5 | Chloromethane | ND<5.0 | 10 | 0.5 |
| 2-Chlorotoluene | ND<5.0 | 10 | 0.5 | 4-Chlorotoluene | ND<5.0 | 10 | 0.5 |
| Dibromochloromethane | ND<5.0 | 10 | 0.5 | 1,2-Dibromo-3-chloropropane | ND<5.0 | 10 | 0.5 |
| 1,2-Dibromoethane (EDB) | ND<5.0 | 10 | 0.5 | Dibromomethane | ND<5.0 | 10 | 0.5 |
| 1,2-Dichlorobenzene | ND<5.0 | 10 | 0.5 | 1,3-Dichlorobenzene | ND<5.0 | 10 | 0.5 |
| 1,4-Dichlorobenzene | ND<5.0 | 10 | 0.5 | Dichlorodifluoromethane | ND<5.0 | 10 | 0.5 |
| 1,1-Dichloroethane | ND<5.0 | 10 | 0.5 | 1,2-Dichloroethane (1,2-DCA) | ND<5.0 | 10 | 0.5 |
| 1,1-Dichloroethene | ND<5.0 | 10 | 0.5 | cis-1,2-Dichloroethene | ND<5.0 | 10 | 0.5 |
| trans-1,2-Dichloroethene | ND<5.0 | 10 | 0.5 | 1,2-Dichloropropane | ND<5.0 | 10 | 0.5 |
| 1,3-Dichloropropane | ND<5.0 | 10 | 0.5 | 2,2-Dichloropropane | ND<5.0 | 10 | 0.5 |
| 1,1-Dichloropropene | ND<5.0 | 10 | 0.5 | cis-1,3-Dichloropropene | ND<5.0 | 10 | 0.5 |
| trans-1,3-Dichloropropene | ND<5.0 | 10 | 0.5 | Diisopropyl ether (DIPE) | ND<5.0 | 10 | 0.5 |
| Ethylbenzene | ND<5.0 | 10 | 0.5 | Ethyl tert-butyl ether (ETBE) | ND<5.0 | 10 | 0.5 |
| Hexachlorobutadiene | ND<5.0 | 10 | 0.5 | 2-Hexanone | ND<5.0 | 10 | 0.5 |
| Iodomethane (Methyl iodide) | ND<5.0 | 10 | 0.5 | Isopropylbenzene | ND<5.0 | 10 | 0.5 |
| 4-Isopropyl toluene | ND<5.0 | 10 | 0.5 | Methyl-t-butyl ether (MTBE) | 85 | 10 | 0.5 |
| Methylene chloride | ND<5.0 | 10 | 0.5 | 4-Methyl-2-pentanone (MIBK) | ND<5.0 | 10 | 0.5 |
| Naphthalene | ND<5.0 | 10 | 0.5 | n-Propyl benzene | ND<5.0 | 10 | 0.5 |
| Styrene | ND<5.0 | 10 | 0.5 | 1,1,1,2-Tetrachloroethane | ND<5.0 | 10 | 0.5 |
| 1,1,2,2-Tetrachloroethane | ND<5.0 | 10 | 0.5 | Tetrachloroethene | ND<5.0 | 10 | 0.5 |
| Toluene | ND<5.0 | 10 | 0.5 | 1,2,3-Trichlorobenzene | ND<5.0 | 10 | 0.5 |
| 1,2,4-Trichlorobenzene | ND<5.0 | 10 | 0.5 | 1,1,1-Trichloroethane | ND<5.0 | 10 | 0.5 |
| 1,1,2-Trichloroethane | ND<5.0 | 10 | 0.5 | Trichloroethene | ND<5.0 | 10 | 0.5 |
| Trichlorofluoromethane | ND<5.0 | 10 | 0.5 | 1,2,3-Trichloropropane | ND<5.0 | 10 | 0.5 |
| 1,2,4-Trimethylbenzene | ND<5.0 | 10 | 0.5 | 1,3,5-Trimethylbenzene | ND<5.0 | 10 | 0.5 |
| Vinyl Acetate | ND<5.0 | 10 | 5.0 | Vinyl Chloride | ND<5.0 | 10 | 0.5 |
| Xylenes | ND<5.0 | 10 | 0.5 | | | | |

Surrogate Recoveries (%)

| | | | |
|-------|------|-------|------|
| %SS1: | 112 | %SS2: | 90.6 |
| %SS3: | 95.0 | | |

Comments:

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in µg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) sample diluted due to high organic content.



| | | |
|--|--|-----------------------------------|
| P & D Environmental 4020 Panama Court Oakland, CA 94611-4931 | Client Project ID: #0055; Former Haber Oil | Date Sampled: 01/20/03 |
| | | Date Received: 01/21/03 |
| | Client Contact: Paul King | Date Extracted: 01/23/03-01/24/03 |
| | Client P.O.: | Date Analyzed: 01/23/03-01/24/03 |

Volatiles Organics + Oxygenates by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0301259

| | |
|-----------|--------------|
| Lab ID | 0301259-002B |
| Client ID | MW2 |
| Matrix | Water |

| Compound | Concentration * | DF | Reporting Limit | Compound | Concentration * | DF | Reporting Limit |
|-----------------------------|-----------------|-----|-----------------|-------------------------------|-----------------|-----|-----------------|
| Acetone | ND<500 | 100 | 5.0 | tert-Amyl methyl ether (TAME) | ND<50 | 100 | 0.5 |
| Benzene | 2900 | 100 | 0.5 | Bromobenzene | ND<50 | 100 | 0.5 |
| Bromochloromethane | ND<50 | 100 | 0.5 | Bromodichloromethane | ND<50 | 100 | 0.5 |
| Bromoform | ND<50 | 100 | 0.5 | Bromomethane | ND<50 | 100 | 0.5 |
| 2-Butanone (MEK) | ND<100 | 100 | 1.0 | t-Butyl alcohol (TBA) | ND<500 | 100 | 5.0 |
| n-Butyl benzene | ND<50 | 100 | 0.5 | sec-Butyl benzene | ND<50 | 100 | 0.5 |
| tert-Butyl benzene | ND<50 | 100 | 0.5 | Carbon Disulfide | ND<50 | 100 | 0.5 |
| Carbon Tetrachloride | ND<50 | 100 | 0.5 | Chlorobenzene | ND<50 | 100 | 0.5 |
| Chloroethane | ND<50 | 100 | 0.5 | 2-Chloroethyl Vinyl Ether | ND<50 | 100 | 0.5 |
| Chloroform | ND<50 | 100 | 0.5 | Chloromethane | ND<50 | 100 | 0.5 |
| 2-Chlorotoluene | ND<50 | 100 | 0.5 | 4-Chlorotoluene | ND<50 | 100 | 0.5 |
| Dibromochloromethane | ND<50 | 100 | 0.5 | 1,2-Dibromo-3-chloropropane | ND<50 | 100 | 0.5 |
| 1,2-Dibromoethane (EDB) | ND<50 | 100 | 0.5 | Dibromomethane | ND<50 | 100 | 0.5 |
| 1,2-Dichlorobenzene | ND<50 | 100 | 0.5 | 1,3-Dichlorobenzene | ND<50 | 100 | 0.5 |
| 1,4-Dichlorobenzene | ND<50 | 100 | 0.5 | Dichlorodifluoromethane | ND<50 | 100 | 0.5 |
| 1,1-Dichloroethane | ND<50 | 100 | 0.5 | 1,2-Dichloroethane (1,2-DCA) | ND<50 | 100 | 0.5 |
| 1,1-Dichloroethene | ND<50 | 100 | 0.5 | cis-1,2-Dichloroethene | ND<50 | 100 | 0.5 |
| trans-1,2-Dichloroethene | ND<50 | 100 | 0.5 | 1,2-Dichloropropane | ND<50 | 100 | 0.5 |
| 1,3-Dichloropropane | ND<50 | 100 | 0.5 | 2,2-Dichloropropane | ND<50 | 100 | 0.5 |
| 1,1-Dichloropropene | ND<50 | 100 | 0.5 | cis-1,3-Dichloropropene | ND<50 | 100 | 0.5 |
| trans-1,3-Dichloropropene | ND<50 | 100 | 0.5 | Diisopropyl ether (DIPE) | ND<50 | 100 | 0.5 |
| Ethylbenzene | 2000 | 100 | 0.5 | Ethyl tert-butyl ether (ETBE) | ND<50 | 100 | 0.5 |
| Hexachlorobutadiene | ND<50 | 100 | 0.5 | 2-Hexanone | ND<50 | 100 | 0.5 |
| Iodomethane (Methyl iodide) | ND<50 | 100 | 0.5 | Isopropylbenzene | 69 | 100 | 0.5 |
| 4-Isopropyl toluene | ND<50 | 100 | 0.5 | Methyl-t-butyl ether (MTBE) | 3800 | 100 | 0.5 |
| Methylene chloride | ND<50 | 100 | 0.5 | 4-Methyl-2-pentanone (MIBK) | ND<50 | 100 | 0.5 |
| Naphthalene | 350 | 100 | 0.5 | n-Propyl benzene | 160 | 100 | 0.5 |
| Styrene | ND<50 | 100 | 0.5 | 1,1,1,2-Tetrachloroethane | ND<50 | 100 | 0.5 |
| 1,1,2,2-Tetrachloroethane | ND<50 | 100 | 0.5 | Tetrachloroethene | ND<50 | 100 | 0.5 |
| Toluene | 3000 | 100 | 0.5 | 1,2,3-Trichlorobenzene | ND<50 | 100 | 0.5 |
| 1,2,4-Trichlorobenzene | ND<50 | 100 | 0.5 | 1,1,1-Trichloroethane | ND<50 | 100 | 0.5 |
| 1,1,2-Trichloroethane | ND<50 | 100 | 0.5 | Trichloroethene | ND<50 | 100 | 0.5 |
| Trichlorofluoromethane | ND<50 | 100 | 0.5 | 1,2,3-Trichloropropane | ND<50 | 100 | 0.5 |
| 1,2,4-Trimethylbenzene | 1400 | 100 | 0.5 | 1,3,5-Trimethylbenzene | 320 | 100 | 0.5 |
| Vinyl Acetate | ND<500 | 100 | 5.0 | Vinyl Chloride | ND<50 | 100 | 0.5 |
| Xylenes | 11,000 | 100 | 0.5 | | | | |

Surrogate Recoveries (%)

| | | | |
|-------|------|-------|------|
| %SS1: | 110 | %SS2: | 92.7 |
| %SS3: | 96.8 | | |

Comments:

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in µg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) sample diluted due to high organic content.



| | | |
|--|--|-----------------------------------|
| P & D Environmental 4020 Panama Court Oakland, CA 94611-4931 | Client Project ID: #0055; Former Haber Oil | Date Sampled: 01/20/03 |
| | Client Contact: Paul King | Date Received: 01/21/03 |
| | Client P.O.: | Date Extracted: 01/23/03-01/24/03 |
| | | Date Analyzed: 01/23/03-01/24/03 |

Volatiles Organics + Oxygenates by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0301259

| | |
|-----------|--------------|
| Lab ID | 0301259-003B |
| Client ID | MW3 |
| Matrix | Water |

| Compound | Concentration * | DF | Reporting Limit | Compound | Concentration * | DF | Reporting Limit |
|-----------------------------|-----------------|----|-----------------|-------------------------------|-----------------|----|-----------------|
| Acetone | ND<5.0 | 10 | 5.0 | tert-Amyl methyl ether (TAME) | ND<5.0 | 10 | 0.5 |
| Benzene | ND<5.0 | 10 | 0.5 | Bromobenzene | ND<5.0 | 10 | 0.5 |
| Bromochloromethane | ND<5.0 | 10 | 0.5 | Bromodichloromethane | ND<5.0 | 10 | 0.5 |
| Bromoform | ND<5.0 | 10 | 0.5 | Bromomethane | ND<5.0 | 10 | 0.5 |
| 2-Butanone (MEK) | ND<10 | 10 | 1.0 | t-Butyl alcohol (TBA) | ND<5.0 | 10 | 5.0 |
| n-Butyl benzene | ND<5.0 | 10 | 0.5 | sec-Butyl benzene | ND<5.0 | 10 | 0.5 |
| tert-Butyl benzene | ND<5.0 | 10 | 0.5 | Carbon Disulfide | ND<5.0 | 10 | 0.5 |
| Carbon Tetrachloride | ND<5.0 | 10 | 0.5 | Chlorobenzene | ND<5.0 | 10 | 0.5 |
| Chloroethane | ND<5.0 | 10 | 0.5 | 2-Chloroethyl Vinyl Ether | ND<5.0 | 10 | 0.5 |
| Chloroform | ND<5.0 | 10 | 0.5 | Chloromethane | ND<5.0 | 10 | 0.5 |
| 2-Chlorotoluene | ND<5.0 | 10 | 0.5 | 4-Chlorotoluene | ND<5.0 | 10 | 0.5 |
| Dibromochloromethane | ND<5.0 | 10 | 0.5 | 1,2-Dibromo-3-chloropropane | ND<5.0 | 10 | 0.5 |
| 1,2-Dibromoethane (EDB) | ND<5.0 | 10 | 0.5 | Dibromomethane | ND<5.0 | 10 | 0.5 |
| 1,2-Dichlorobenzene | ND<5.0 | 10 | 0.5 | 1,3-Dichlorobenzene | ND<5.0 | 10 | 0.5 |
| 1,4-Dichlorobenzene | ND<5.0 | 10 | 0.5 | Dichlorodifluoromethane | ND<5.0 | 10 | 0.5 |
| 1,1-Dichloroethane | ND<5.0 | 10 | 0.5 | 1,2-Dichloroethane (1,2-DCA) | ND<5.0 | 10 | 0.5 |
| 1,1-Dichloroethene | ND<5.0 | 10 | 0.5 | cis-1,2-Dichloroethene | ND<5.0 | 10 | 0.5 |
| trans-1,2-Dichloroethene | ND<5.0 | 10 | 0.5 | 1,2-Dichloropropane | ND<5.0 | 10 | 0.5 |
| 1,3-Dichloropropane | ND<5.0 | 10 | 0.5 | 2,2-Dichloropropane | ND<5.0 | 10 | 0.5 |
| 1,1-Dichloropropene | ND<5.0 | 10 | 0.5 | cis-1,3-Dichloropropene | ND<5.0 | 10 | 0.5 |
| trans-1,3-Dichloropropene | ND<5.0 | 10 | 0.5 | Diisopropyl ether (DIPE) | ND<5.0 | 10 | 0.5 |
| Ethylbenzene | ND<5.0 | 10 | 0.5 | Ethyl tert-butyl ether (ETBE) | ND<5.0 | 10 | 0.5 |
| Hexachlorobutadiene | ND<5.0 | 10 | 0.5 | 2-Hexanone | ND<5.0 | 10 | 0.5 |
| Iodomethane (Methyl iodide) | ND<5.0 | 10 | 0.5 | Isopropylbenzene | ND<5.0 | 10 | 0.5 |
| 4-Isopropyl toluene | ND<5.0 | 10 | 0.5 | Methyl-t-butyl ether (MTBE) | 250 | 10 | 0.5 |
| Methylene chloride | ND<5.0 | 10 | 0.5 | 4-Methyl-2-pentanone (MIBK) | ND<5.0 | 10 | 0.5 |
| Naphthalene | ND<5.0 | 10 | 0.5 | n-Propyl benzene | ND<5.0 | 10 | 0.5 |
| Styrene | ND<5.0 | 10 | 0.5 | 1,1,1,2-Tetrachloroethane | ND<5.0 | 10 | 0.5 |
| 1,1,2,2-Tetrachloroethane | ND<5.0 | 10 | 0.5 | Tetrachloroethene | ND<5.0 | 10 | 0.5 |
| Toluene | ND<5.0 | 10 | 0.5 | 1,2,3-Trichlorobenzene | ND<5.0 | 10 | 0.5 |
| 1,2,4-Trichlorobenzene | ND<5.0 | 10 | 0.5 | 1,1,1-Trichloroethane | ND<5.0 | 10 | 0.5 |
| 1,1,2-Trichloroethane | ND<5.0 | 10 | 0.5 | Trichloroethene | ND<5.0 | 10 | 0.5 |
| Trichlorofluoromethane | ND<5.0 | 10 | 0.5 | 1,2,3-Trichloropropane | ND<5.0 | 10 | 0.5 |
| 1,2,4-Trimethylbenzene | ND<5.0 | 10 | 0.5 | 1,3,5-Trimethylbenzene | ND<5.0 | 10 | 0.5 |
| Vinyl Acetate | ND<5.0 | 10 | 5.0 | Vinyl Chloride | ND<5.0 | 10 | 0.5 |
| Xylenes | 5.2 | 10 | 0.5 | | | | |

Surrogate Recoveries (%)

| | | | |
|-------|------|-------|------|
| %SS1: | 114 | %SS2: | 87.8 |
| %SS3: | 94.6 | | |

Comments:

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in µg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) sample diluted due to high organic content.



| | | |
|--|--|-----------------------------------|
| P & D Environmental 4020 Panama Court Oakland, CA 94611-4931 | Client Project ID: #0055; Former Haber Oil | Date Sampled: 01/20/03 |
| | Client Contact: Paul King | Date Received: 01/21/03 |
| | Client P.O.: | Date Extracted: 01/23/03-01/24/03 |
| | | Date Analyzed: 01/23/03-01/24/03 |

Volatiles Organics + Oxygenates by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0301259

| | |
|-----------|--------------|
| Lab ID | 0301259-004B |
| Client ID | MW4 |
| Matrix | Water |

| Compound | Concentration * | DF | Reporting Limit | Compound | Concentration * | DF | Reporting Limit |
|-----------------------------|-----------------|-----|-----------------|-------------------------------|-----------------|-----|-----------------|
| Acetone | ND<500 | 100 | 5.0 | tert-Amyl methyl ether (TAME) | ND<50 | 100 | 0.5 |
| Benzene | ND<50 | 100 | 0.5 | Bromobenzene | ND<50 | 100 | 0.5 |
| Bromochloromethane | ND<50 | 100 | 0.5 | Bromodichloromethane | ND<50 | 100 | 0.5 |
| Bromoform | ND<50 | 100 | 0.5 | Bromomethane | ND<50 | 100 | 0.5 |
| 2-Butanone (MEK) | ND<100 | 100 | 1.0 | t-Butyl alcohol (TBA) | ND<500 | 100 | 5.0 |
| n-Butyl benzene | ND<50 | 100 | 0.5 | sec-Butyl benzene | ND<50 | 100 | 0.5 |
| tert-Butyl benzene | ND<50 | 100 | 0.5 | Carbon Disulfide | ND<50 | 100 | 0.5 |
| Carbon Tetrachloride | ND<50 | 100 | 0.5 | Chlorobenzene | ND<50 | 100 | 0.5 |
| Chloroethane | ND<50 | 100 | 0.5 | 2-Chloroethyl Vinyl Ether | ND<50 | 100 | 0.5 |
| Chloroform | ND<50 | 100 | 0.5 | Chloromethane | ND<50 | 100 | 0.5 |
| 2-Chlorotoluene | ND<50 | 100 | 0.5 | 4-Chlorotoluene | ND<50 | 100 | 0.5 |
| Dibromochloromethane | ND<50 | 100 | 0.5 | 1,2-Dibromo-3-chloropropane | ND<50 | 100 | 0.5 |
| 1,2-Dibromoethane (EDB) | ND<50 | 100 | 0.5 | Dibromomethane | ND<50 | 100 | 0.5 |
| 1,2-Dichlorobenzene | ND<50 | 100 | 0.5 | 1,3-Dichlorobenzene | ND<50 | 100 | 0.5 |
| 1,4-Dichlorobenzene | ND<50 | 100 | 0.5 | Dichlorodifluoromethane | ND<50 | 100 | 0.5 |
| 1,1-Dichloroethane | ND<50 | 100 | 0.5 | 1,2-Dichloroethane (1,2-DCA) | ND<50 | 100 | 0.5 |
| 1,1-Dichloroethene | ND<50 | 100 | 0.5 | cis-1,2-Dichloroethene | ND<50 | 100 | 0.5 |
| trans-1,2-Dichloroethene | ND<50 | 100 | 0.5 | 1,2-Dichloropropane | ND<50 | 100 | 0.5 |
| 1,3-Dichloropropane | ND<50 | 100 | 0.5 | 2,2-Dichloropropane | ND<50 | 100 | 0.5 |
| 1,1-Dichloropropene | ND<50 | 100 | 0.5 | cis-1,3-Dichloropropene | ND<50 | 100 | 0.5 |
| trans-1,3-Dichloropropene | ND<50 | 100 | 0.5 | Diisopropyl ether (DIPE) | ND<50 | 100 | 0.5 |
| Ethylbenzene | ND<50 | 100 | 0.5 | Ethyl tert-butyl ether (ETBE) | ND<50 | 100 | 0.5 |
| Hexachlorobutadiene | ND<50 | 100 | 0.5 | 2-Hexanone | ND<50 | 100 | 0.5 |
| Iodomethane (Methyl iodide) | ND<50 | 100 | 0.5 | Isopropylbenzene | ND<50 | 100 | 0.5 |
| 4-Isopropyl toluene | ND<50 | 100 | 0.5 | Methyl-t-butyl ether (MTBE) | 3000 | 100 | 0.5 |
| Methylene chloride | ND<50 | 100 | 0.5 | 4-Methyl-2-pentanone (MIBK) | ND<50 | 100 | 0.5 |
| Naphthalene | ND<50 | 100 | 0.5 | n-Propyl benzene | ND<50 | 100 | 0.5 |
| Styrene | ND<50 | 100 | 0.5 | 1,1,1,2-Tetrachloroethane | ND<50 | 100 | 0.5 |
| 1,1,1,2-Tetrachloroethane | ND<50 | 100 | 0.5 | Tetrachloroethene | ND<50 | 100 | 0.5 |
| Toluene | ND<50 | 100 | 0.5 | 1,2,3-Trichlorobenzene | ND<50 | 100 | 0.5 |
| 1,2,4-Trichlorobenzene | ND<50 | 100 | 0.5 | 1,1,1-Trichloroethane | ND<50 | 100 | 0.5 |
| 1,1,2-Trichloroethane | ND<50 | 100 | 0.5 | Trichloroethene | ND<50 | 100 | 0.5 |
| Trichlorofluoromethane | ND<50 | 100 | 0.5 | 1,2,3-Trichloropropane | ND<50 | 100 | 0.5 |
| 1,2,4-Trimethylbenzene | ND<50 | 100 | 0.5 | 1,3,5-Trimethylbenzene | ND<50 | 100 | 0.5 |
| Vinyl Acetate | ND<500 | 100 | 5.0 | Vinyl Chloride | ND<50 | 100 | 0.5 |
| Xylenes | ND<50 | 100 | 0.5 | | | | |

Surrogate Recoveries (%)

| | | | |
|-------|------|-------|------|
| %SS1: | 114 | %SS2: | 89.6 |
| %SS3: | 93.4 | | |

Comments:

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in µg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) sample diluted due to high organic content.



| | | |
|--|--|-----------------------------------|
| P & D Environmental 4020 Panama Court Oakland, CA 94611-4931 | Client Project ID: #0055; Former Haber Oil | Date Sampled: 01/20/03 |
| | | Date Received: 01/21/03 |
| | Client Contact: Paul King | Date Extracted: 01/23/03-01/24/03 |
| | Client P.O.: | Date Analyzed: 01/23/03-01/24/03 |

Volatiles Organics + Oxygenates by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0301259

| | |
|-----------|--------------|
| Lab ID | 0301259-005B |
| Client ID | MW5 |
| Matrix | Water |

| Compound | Concentration * | DF | Reporting Limit | Compound | Concentration * | DF | Reporting Limit |
|-----------------------------|-----------------|-----|-----------------|-------------------------------|-----------------|-----|-----------------|
| Acetone | ND | 1.0 | 5.0 | tert-Amyl methyl ether (TAME) | ND | 1.0 | 0.5 |
| Benzene | ND | 1.0 | 0.5 | Bromobenzene | ND | 1.0 | 0.5 |
| Bromochloromethane | ND | 1.0 | 0.5 | Bromodichloromethane | ND | 1.0 | 0.5 |
| Bromoform | ND | 1.0 | 0.5 | Bromomethane | ND | 1.0 | 0.5 |
| 2-Butanone (MEK) | ND | 1.0 | 1.0 | t-Butyl alcohol (TBA) | ND | 1.0 | 5.0 |
| n-Butyl benzene | ND | 1.0 | 0.5 | sec-Butyl benzene | ND | 1.0 | 0.5 |
| tert-Butyl benzene | ND | 1.0 | 0.5 | Carbon Disulfide | ND | 1.0 | 0.5 |
| Carbon Tetrachloride | ND | 1.0 | 0.5 | Chlorobenzene | ND | 1.0 | 0.5 |
| Chloroethane | ND | 1.0 | 0.5 | 2-Chloroethyl Vinyl Ether | ND | 1.0 | 0.5 |
| Chloroform | ND | 1.0 | 0.5 | Chloromethane | ND | 1.0 | 0.5 |
| 2-Chlorotoluene | ND | 1.0 | 0.5 | 4-Chlorotoluene | ND | 1.0 | 0.5 |
| Dibromochloromethane | ND | 1.0 | 0.5 | 1,2-Dibromo-3-chloropropane | ND | 1.0 | 0.5 |
| 1,2-Dibromoethane (EDB) | ND | 1.0 | 0.5 | Dibromomethane | ND | 1.0 | 0.5 |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.5 | 1,3-Dichlorobenzene | ND | 1.0 | 0.5 |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.5 | Dichlorodifluoromethane | ND | 1.0 | 0.5 |
| 1,1-Dichloroethane | ND | 1.0 | 0.5 | 1,2-Dichloroethane (1,2-DCA) | ND | 1.0 | 0.5 |
| 1,1-Dichloroethene | ND | 1.0 | 0.5 | cis-1,2-Dichloroethene | ND | 1.0 | 0.5 |
| trans-1,2-Dichloroethene | ND | 1.0 | 0.5 | 1,2-Dichloropropane | ND | 1.0 | 0.5 |
| 1,3-Dichloropropane | ND | 1.0 | 0.5 | 2,2-Dichloropropane | ND | 1.0 | 0.5 |
| 1,1-Dichloropropene | ND | 1.0 | 0.5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.5 |
| trans-1,3-Dichloropropene | ND | 1.0 | 0.5 | Diisopropyl ether (DIPE) | ND | 1.0 | 0.5 |
| Ethylbenzene | ND | 1.0 | 0.5 | Ethyl tert-butyl ether (ETBE) | ND | 1.0 | 0.5 |
| Hexachlorobutadiene | ND | 1.0 | 0.5 | 2-Hexanone | ND | 1.0 | 0.5 |
| Iodomethane (Methyl iodide) | ND | 1.0 | 0.5 | Isopropylbenzene | ND | 1.0 | 0.5 |
| 4-Isopropyl toluene | ND | 1.0 | 0.5 | Methyl-t-butyl ether (MTBE) | ND | 1.0 | 0.5 |
| Methylene chloride | ND | 1.0 | 0.5 | 4-Methyl-2-pentanone (MIBK) | ND | 1.0 | 0.5 |
| Naphthalene | ND | 1.0 | 0.5 | n-Propyl benzene | ND | 1.0 | 0.5 |
| Styrene | ND | 1.0 | 0.5 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.5 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.5 | Tetrachloroethene | ND | 1.0 | 0.5 |
| Toluene | ND | 1.0 | 0.5 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.5 |
| 1,2,4-Trichlorobenzene | ND | 1.0 | 0.5 | 1,1,1-Trichloroethane | ND | 1.0 | 0.5 |
| 1,1,2-Trichloroethane | ND | 1.0 | 0.5 | Trichloroethene | ND | 1.0 | 0.5 |
| Trichlorofluoromethane | ND | 1.0 | 0.5 | 1,2,3-Trichloropropane | ND | 1.0 | 0.5 |
| 1,2,4-Trimethylbenzene | ND | 1.0 | 0.5 | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.5 |
| Vinyl Acetate | ND | 1.0 | 5.0 | Vinyl Chloride | ND | 1.0 | 0.5 |
| Xylenes | ND | 1.0 | 0.5 | | | | |

Surrogate Recoveries (%)

| | | | |
|-------|------|-------|------|
| %SS1: | 114 | %SS2: | 90.3 |
| %SS3: | 94.0 | | |

Comments:

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in µg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) sample diluted due to high organic content.

| | | |
|--|--|-----------------------------------|
| P & D Environmental 4020 Panama Court Oakland, CA 94611-4931 | Client Project ID: #0055; Former Haber Oil | Date Sampled: 01/20/03 |
| | | Date Received: 01/21/03 |
| | Client Contact: Paul King | Date Extracted: 01/23/03-01/24/03 |
| | Client P.O.: | Date Analyzed: 01/23/03-01/24/03 |

Volatiles Organics + Oxygenates by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0301259

| | |
|-----------|--------------|
| Lab ID | 0301259-006B |
| Client ID | MW6 |
| Matrix | Water |

| Compound | Concentration * | DF | Reporting Limit | Compound | Concentration * | DF | Reporting Limit |
|-----------------------------|-----------------|-----|-----------------|-------------------------------|-----------------|-----|-----------------|
| Acetone | ND | 1.0 | 5.0 | tert-Amyl methyl ether (TAME) | ND | 1.0 | 0.5 |
| Benzene | ND | 1.0 | 0.5 | Bromobenzene | ND | 1.0 | 0.5 |
| Bromochloromethane | ND | 1.0 | 0.5 | Bromodichloromethane | ND | 1.0 | 0.5 |
| Bromoform | ND | 1.0 | 0.5 | Bromomethane | ND | 1.0 | 0.5 |
| 2-Butanone (MEK) | ND | 1.0 | 1.0 | t-Butyl alcohol (TBA) | ND | 1.0 | 5.0 |
| n-Butyl benzene | ND | 1.0 | 0.5 | sec-Butyl benzene | ND | 1.0 | 0.5 |
| tert-Butyl benzene | ND | 1.0 | 0.5 | Carbon Disulfide | ND | 1.0 | 0.5 |
| Carbon Tetrachloride | ND | 1.0 | 0.5 | Chlorobenzene | ND | 1.0 | 0.5 |
| Chloroethane | ND | 1.0 | 0.5 | 2-Chloroethyl Vinyl Ether | ND | 1.0 | 0.5 |
| Chloroform | 1.1 | 1.0 | 0.5 | Chloromethane | ND | 1.0 | 0.5 |
| 2-Chlorotoluene | ND | 1.0 | 0.5 | 4-Chlorotoluene | ND | 1.0 | 0.5 |
| Dibromochloromethane | ND | 1.0 | 0.5 | 1,2-Dibromo-3-chloropropane | ND | 1.0 | 0.5 |
| 1,2-Dibromoethane (EDB) | ND | 1.0 | 0.5 | Dibromomethane | ND | 1.0 | 0.5 |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.5 | 1,3-Dichlorobenzene | ND | 1.0 | 0.5 |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.5 | Dichlorodifluoromethane | ND | 1.0 | 0.5 |
| 1,1-Dichloroethane | ND | 1.0 | 0.5 | 1,2-Dichloroethane (1,2-DCA) | ND | 1.0 | 0.5 |
| 1,1-Dichloroethene | ND | 1.0 | 0.5 | cis-1,2-Dichloroethene | ND | 1.0 | 0.5 |
| trans-1,2-Dichloroethene | ND | 1.0 | 0.5 | 1,2-Dichloropropane | ND | 1.0 | 0.5 |
| 1,3-Dichloropropane | ND | 1.0 | 0.5 | 2,2-Dichloropropane | ND | 1.0 | 0.5 |
| 1,1-Dichloropropene | ND | 1.0 | 0.5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.5 |
| trans-1,3-Dichloropropene | ND | 1.0 | 0.5 | Diisopropyl ether (DIPE) | ND | 1.0 | 0.5 |
| Ethylbenzene | ND | 1.0 | 0.5 | Ethyl tert-butyl ether (ETBE) | ND | 1.0 | 0.5 |
| Hexachlorobutadiene | ND | 1.0 | 0.5 | 2-Hexanone | ND | 1.0 | 0.5 |
| Iodomethane (Methyl iodide) | ND | 1.0 | 0.5 | Isopropylbenzene | ND | 1.0 | 0.5 |
| 4-Isopropyl toluene | ND | 1.0 | 0.5 | Methyl-t-butyl ether (MTBE) | 1.2 | 1.0 | 0.5 |
| Methylene chloride | ND | 1.0 | 0.5 | 4-Methyl-2-pentanone (MIBK) | ND | 1.0 | 0.5 |
| Naphthalene | ND | 1.0 | 0.5 | n-Propyl benzene | ND | 1.0 | 0.5 |
| Styrene | ND | 1.0 | 0.5 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.5 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.5 | Tetrachloroethene | ND | 1.0 | 0.5 |
| Toluene | ND | 1.0 | 0.5 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.5 |
| 1,2,4-Trichlorobenzene | ND | 1.0 | 0.5 | 1,1,1-Trichloroethane | ND | 1.0 | 0.5 |
| 1,1,2-Trichloroethane | ND | 1.0 | 0.5 | Trichloroethene | ND | 1.0 | 0.5 |
| Trichlorofluoromethane | ND | 1.0 | 0.5 | 1,2,3-Trichloropropane | ND | 1.0 | 0.5 |
| 1,2,4-Trimethylbenzene | ND | 1.0 | 0.5 | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.5 |
| Vinyl Acetate | ND | 1.0 | 5.0 | Vinyl Chloride | ND | 1.0 | 0.5 |
| Xylenes | ND | 1.0 | 0.5 | | | | |

Surrogate Recoveries (%)

| | | | |
|-------|------|-------|------|
| %SS1: | 113 | %SS2: | 88.4 |
| %SS3: | 96.0 | | |

Comments:

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in µg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) sample diluted due to high organic content.



| | | |
|--|--|-----------------------------------|
| P & D Environmental 4020 Panama Court Oakland, CA 94611-4931 | Client Project ID: #0055; Former Haber Oil | Date Sampled: 01/20/03 |
| | Client Contact: Paul King | Date Received: 01/21/03 |
| | Client P.O.: | Date Extracted: 01/23/03-01/24/03 |
| | | Date Analyzed: 01/23/03-01/24/03 |

Volatiles Organics + Oxygenates by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0301259

| | |
|-----------|--------------|
| Lab ID | 0301259-007B |
| Client ID | MW7 |
| Matrix | Water |

| Compound | Concentration * | DF | Reporting Limit | Compound | Concentration * | DF | Reporting Limit |
|-----------------------------|-----------------|-----|-----------------|-------------------------------|-----------------|-----|-----------------|
| Acetone | ND | 1.0 | 5.0 | tert-Amyl methyl ether (TAME) | ND | 1.0 | 0.5 |
| Benzene | ND | 1.0 | 0.5 | Bromobenzene | ND | 1.0 | 0.5 |
| Bromochloromethane | ND | 1.0 | 0.5 | Bromodichloromethane | ND | 1.0 | 0.5 |
| Bromoform | ND | 1.0 | 0.5 | Bromomethane | ND | 1.0 | 0.5 |
| 2-Butanone (MEK) | ND | 1.0 | 1.0 | t-Butyl alcohol (TBA) | ND | 1.0 | 5.0 |
| n-Butyl benzene | ND | 1.0 | 0.5 | sec-Butyl benzene | ND | 1.0 | 0.5 |
| tert-Butyl benzene | ND | 1.0 | 0.5 | Carbon Disulfide | ND | 1.0 | 0.5 |
| Carbon Tetrachloride | ND | 1.0 | 0.5 | Chlorobenzene | ND | 1.0 | 0.5 |
| Chloroethane | ND | 1.0 | 0.5 | 2-Chloroethyl Vinyl Ether | ND | 1.0 | 0.5 |
| Chloroform | 0.56 | 1.0 | 0.5 | Chloromethane | ND | 1.0 | 0.5 |
| 2-Chlorotoluene | ND | 1.0 | 0.5 | 4-Chlorotoluene | ND | 1.0 | 0.5 |
| Dibromochloromethane | ND | 1.0 | 0.5 | 1,2-Dibromo-3-chloropropane | ND | 1.0 | 0.5 |
| 1,2-Dibromoethane (EDB) | ND | 1.0 | 0.5 | Dibromomethane | ND | 1.0 | 0.5 |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.5 | 1,3-Dichlorobenzene | ND | 1.0 | 0.5 |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.5 | Dichlorodifluoromethane | ND | 1.0 | 0.5 |
| 1,1-Dichloroethane | ND | 1.0 | 0.5 | 1,2-Dichloroethane (1,2-DCA) | ND | 1.0 | 0.5 |
| 1,1-Dichloroethene | ND | 1.0 | 0.5 | cis-1,2-Dichloroethene | ND | 1.0 | 0.5 |
| trans-1,2-Dichloroethene | ND | 1.0 | 0.5 | 1,2-Dichloropropane | ND | 1.0 | 0.5 |
| 1,3-Dichloropropane | ND | 1.0 | 0.5 | 2,2-Dichloropropane | ND | 1.0 | 0.5 |
| 1,1-Dichloropropene | ND | 1.0 | 0.5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.5 |
| trans-1,3-Dichloropropene | ND | 1.0 | 0.5 | Diisopropyl ether (DIPE) | ND | 1.0 | 0.5 |
| Ethylbenzene | ND | 1.0 | 0.5 | Ethyl tert-butyl ether (ETBE) | ND | 1.0 | 0.5 |
| Hexachlorobutadiene | ND | 1.0 | 0.5 | 2-Hexanone | ND | 1.0 | 0.5 |
| Iodomethane (Methyl iodide) | ND | 1.0 | 0.5 | Isopropylbenzene | ND | 1.0 | 0.5 |
| 4-Isopropyl toluene | ND | 1.0 | 0.5 | Methyl-t-butyl ether (MTBE) | ND | 1.0 | 0.5 |
| Methylene chloride | ND | 1.0 | 0.5 | 4-Methyl-2-pentanone (MIBK) | ND | 1.0 | 0.5 |
| Naphthalene | ND | 1.0 | 0.5 | n-Propyl benzene | ND | 1.0 | 0.5 |
| Styrene | ND | 1.0 | 0.5 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.5 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.5 | Tetrachloroethene | ND | 1.0 | 0.5 |
| Toluene | ND | 1.0 | 0.5 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.5 |
| 1,2,4-Trichlorobenzene | ND | 1.0 | 0.5 | 1,1,1-Trichloroethane | ND | 1.0 | 0.5 |
| 1,1,2-Trichloroethane | ND | 1.0 | 0.5 | Trichloroethene | ND | 1.0 | 0.5 |
| Trichlorofluoromethane | ND | 1.0 | 0.5 | 1,2,3-Trichloropropane | ND | 1.0 | 0.5 |
| 1,2,4-Trimethylbenzene | ND | 1.0 | 0.5 | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.5 |
| Vinyl Acetate | ND | 1.0 | 5.0 | Vinyl Chloride | ND | 1.0 | 0.5 |
| Xylenes | ND | 1.0 | 0.5 | | | | |

Surrogate Recoveries (%)

| | | | |
|-------|------|-------|------|
| %SS1: | 117 | %SS2: | 90.2 |
| %SS3: | 99.5 | | |

Comments:

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in µg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) sample diluted due to high organic content.



| | | |
|--|--|-----------------------------------|
| P & D Environmental 4020 Panama Court Oakland, CA 94611-4931 | Client Project ID: #0055; Former Haber Oil | Date Sampled: 01/20/03 |
| | Client Contact: Paul King | Date Received: 01/21/03 |
| | Client P.O.: | Date Extracted: 01/23/03-01/24/03 |
| | | Date Analyzed: 01/23/03-01/24/03 |

Volatiles Organics + Oxygenates by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0301259

| | |
|-----------|--------------|
| Lab ID | 0301259-008B |
| Client ID | MW8 |
| Matrix | Water |

| Compound | Concentration * | DF | Reporting Limit | Compound | Concentration * | DF | Reporting Limit |
|-----------------------------|-----------------|-----|-----------------|-------------------------------|-----------------|-----|-----------------|
| Acetone | ND | 1.0 | 5.0 | tert-Amyl methyl ether (TAME) | ND | 1.0 | 0.5 |
| Benzene | ND | 1.0 | 0.5 | Bromobenzene | ND | 1.0 | 0.5 |
| Bromochloromethane | ND | 1.0 | 0.5 | Bromodichloromethane | ND | 1.0 | 0.5 |
| Bromoform | ND | 1.0 | 0.5 | Bromomethane | ND | 1.0 | 0.5 |
| 2-Butanone (MEK) | ND | 1.0 | 1.0 | t-Butyl alcohol (TBA) | ND | 1.0 | 5.0 |
| n-Butyl benzene | ND | 1.0 | 0.5 | sec-Butyl benzene | ND | 1.0 | 0.5 |
| tert-Butyl benzene | ND | 1.0 | 0.5 | Carbon Disulfide | ND | 1.0 | 0.5 |
| Carbon Tetrachloride | ND | 1.0 | 0.5 | Chlorobenzene | ND | 1.0 | 0.5 |
| Chloroethane | ND | 1.0 | 0.5 | 2-Chloroethyl Vinyl Ether | ND | 1.0 | 0.5 |
| Chloroform | 1.3 | 1.0 | 0.5 | Chloromethane | ND | 1.0 | 0.5 |
| 2-Chlorotoluene | ND | 1.0 | 0.5 | 4-Chlorotoluene | ND | 1.0 | 0.5 |
| Dibromochloromethane | ND | 1.0 | 0.5 | 1,2-Dibromo-3-chloropropane | ND | 1.0 | 0.5 |
| 1,2-Dibromoethane (EDB) | ND | 1.0 | 0.5 | Dibromomethane | ND | 1.0 | 0.5 |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.5 | 1,3-Dichlorobenzene | ND | 1.0 | 0.5 |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.5 | Dichlorodifluoromethane | ND | 1.0 | 0.5 |
| 1,1-Dichloroethane | ND | 1.0 | 0.5 | 1,2-Dichloroethane (1,2-DCA) | ND | 1.0 | 0.5 |
| 1,1-Dichloroethene | ND | 1.0 | 0.5 | cis-1,2-Dichloroethene | ND | 1.0 | 0.5 |
| trans-1,2-Dichloroethene | ND | 1.0 | 0.5 | 1,2-Dichloropropane | ND | 1.0 | 0.5 |
| 1,3-Dichloropropane | ND | 1.0 | 0.5 | 2,2-Dichloropropane | ND | 1.0 | 0.5 |
| 1,1-Dichloropropene | ND | 1.0 | 0.5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.5 |
| trans-1,3-Dichloropropene | ND | 1.0 | 0.5 | Diisopropyl ether (DIPE) | ND | 1.0 | 0.5 |
| Ethylbenzene | ND | 1.0 | 0.5 | Ethyl tert-butyl ether (ETBE) | ND | 1.0 | 0.5 |
| Hexachlorobutadiene | ND | 1.0 | 0.5 | 2-Hexanone | ND | 1.0 | 0.5 |
| Iodomethane (Methyl iodide) | ND | 1.0 | 0.5 | Isopropylbenzene | ND | 1.0 | 0.5 |
| 4-Isopropyl toluene | ND | 1.0 | 0.5 | Methyl-t-butyl ether (MTBE) | ND | 1.0 | 0.5 |
| Methylene chloride | ND | 1.0 | 0.5 | 4-Methyl-2-pentanone (MIBK) | ND | 1.0 | 0.5 |
| Naphthalene | ND | 1.0 | 0.5 | n-Propyl benzene | ND | 1.0 | 0.5 |
| Styrene | ND | 1.0 | 0.5 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.5 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.5 | Tetrachloroethene | ND | 1.0 | 0.5 |
| Toluene | ND | 1.0 | 0.5 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.5 |
| 1,2,4-Trichlorobenzene | ND | 1.0 | 0.5 | 1,1,1-Trichloroethane | ND | 1.0 | 0.5 |
| 1,1,2-Trichloroethane | ND | 1.0 | 0.5 | Trichloroethene | ND | 1.0 | 0.5 |
| Trichlorofluoromethane | ND | 1.0 | 0.5 | 1,2,3-Trichloropropane | ND | 1.0 | 0.5 |
| 1,2,4-Trimethylbenzene | ND | 1.0 | 0.5 | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.5 |
| Vinyl Acetate | ND | 1.0 | 5.0 | Vinyl Chloride | ND | 1.0 | 0.5 |
| Xylenes | ND | 1.0 | 0.5 | | | | |

Surrogate Recoveries (%)

| | | | |
|-------|------|-------|------|
| %SS1: | 117 | %SS2: | 90.8 |
| %SS3: | 97.8 | | |

Comments:

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in µg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) sample diluted due to high organic content.



QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W

WorkOrder: 0301259

| EPA Method: SW8021B/8015Cm | | Extraction: SW5030B | | BatchID: 5693 | | | Spiked Sample ID: N/A | | | |
|----------------------------|--------|---------------------|--------|---------------|---------|--------|-----------------------|----------|-------------------------|------|
| Compound | Sample | Spiked | MS* | MSD* | MS-MSD* | LCS | LCSD | LCS-LCSD | Acceptance Criteria (%) | |
| | µg/L | µg/L | % Rec. | % Rec. | % RPD | % Rec. | % Rec. | % RPD | Low | High |
| TPH(gas) | N/A | 60 | N/A | N/A | N/A | 108 | 114 | 6.12 | 80 | 120 |
| MTBE | N/A | 10 | N/A | N/A | N/A | 97.2 | 95.1 | 2.16 | 80 | 120 |
| Benzene | N/A | 10 | N/A | N/A | N/A | 119 | 119 | 0.0533 | 80 | 120 |
| Toluene | N/A | 10 | N/A | N/A | N/A | 114 | 115 | 0.761 | 80 | 120 |
| Ethylbenzene | N/A | 10 | N/A | N/A | N/A | 118 | 115 | 2.58 | 80 | 120 |
| Xylenes | N/A | 30 | N/A | N/A | N/A | 120 | 120 | 0 | 80 | 120 |
| %SS: | N/A | 100 | N/A | N/A | N/A | 113 | 113 | 0.00994 | 80 | 120 |

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / (MS + MSD) * 2.

* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.



QC SUMMARY REPORT FOR SW8260B

Matrix: W

WorkOrder: 0301259

| EPA Method: SW8260B | | Extraction: SW5030B | | | BatchID: 5687 | | | Spiked Sample ID: N/A | | |
|-------------------------------|--------|---------------------|--------|--------|---------------|--------|--------|-----------------------|-------------------------|------|
| Compound | Sample | Spiked | MS* | MSD* | MS-MSD* | LCS | LCSD | LCS-LCSD | Acceptance Criteria (%) | |
| | µg/L | µg/L | % Rec. | % Rec. | % RPD | % Rec. | % Rec. | % RPD | Low | High |
| Benzene | N/A | 10 | N/A | N/A | N/A | 99.8 | 102 | 1.72 | 70 | 130 |
| tert-Amyl methyl ether (TAME) | N/A | 10 | N/A | N/A | N/A | 80 | 78.9 | 1.29 | 70 | 130 |
| Chlorobenzene | N/A | 10 | N/A | N/A | N/A | 106 | 105 | 0.437 | 70 | 130 |
| 1,1-Dichloroethene | N/A | 10 | N/A | N/A | N/A | 89.4 | 94.3 | 5.43 | 70 | 130 |
| Methyl-t-butyl ether (MTBE) | N/A | 10 | N/A | N/A | N/A | 79.6 | 77.9 | 2.22 | 70 | 130 |
| Toluene | N/A | 10 | N/A | N/A | N/A | 98.5 | 99.2 | 0.716 | 70 | 130 |
| Trichloroethene | N/A | 10 | N/A | N/A | N/A | 78.5 | 80.1 | 2.03 | 70 | 130 |
| Diisopropyl ether (DIPE) | N/A | 10 | N/A | N/A | N/A | 89.8 | 90.2 | 0.445 | 70 | 130 |
| Ethyl tert-butyl ether (ETBE) | N/A | 10 | N/A | N/A | N/A | 85.6 | 85.4 | 0.235 | 70 | 130 |
| %SS1: | N/A | 100 | N/A | N/A | N/A | 99.5 | 97 | 2.47 | 70 | 130 |
| %SS2: | N/A | 100 | N/A | N/A | N/A | 92.9 | 91.4 | 1.59 | 70 | 130 |
| %SS3: | N/A | 100 | N/A | N/A | N/A | 99.2 | 94.1 | 5.26 | 70 | 130 |

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / (MS + MSD) * 2.

* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

P & D ENVIRONMENTAL

A Division of Paul H. King, Inc.
4020 Panama Court
Oakland, CA 94611
(510) 658-6916

0301259
CHAIN OF CUSTODY RECORD

For Oxygenates + lead scavengers
PAGE 1 OF 1

| PROJECT NUMBER: 0055 | | PROJECT NAME: Former Haber Oil | | | NUMBER OF CONTAINERS | ANALYSIS(ES): EPA 8260- 8 8 TTH-6 | PRESERVATIVE | REMARKS | | | | | | | | | | | | |
|---|---------|-----------------------------------|--------------|---|--|--|--------------|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLED BY: (PRINTED AND SIGNATURE) Wilhelm Welzenbach <i>Wilhelm Welzenbach</i> | | | | | | | | | | | | | | | | | | | | |
| SAMPLE NUMBER | DATE | TIME | TYPE | SAMPLE LOCATION | | | | | | | | | | | | | | | | |
| MW1 | 1/20/03 | | water | | 5 | X X | ICE | Normal Turnaround Time | | | | | | | | | | | | |
| MW2 | " | | " | | " | X X | " | " " " | | | | | | | | | | | | |
| MW3 | " | | " | | " | X X | " | " " " | | | | | | | | | | | | |
| MW4 | " | | " | | " | X X | " | " " " | | | | | | | | | | | | |
| MW5 | " | | " | | " | X X | " | " " " | | | | | | | | | | | | |
| MW6 | " | | " | | " | X X | " | " " " | | | | | | | | | | | | |
| MW7 | " | | " | | " | X X | " | " " " | | | | | | | | | | | | |
| MW8 | " | | " | | " | X X | " | " " " | | | | | | | | | | | | |
| | | | | | <table border="1"> <tr> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> </table> | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ | | | | | | | | | | | | | | | | | |
| ✓ | ✓ | ✓ | ✓ | | | | | | | | | | | | | | | | | |
| ✓ | ✓ | ✓ | ✓ | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY: (SIGNATURE) <i>Wilhelm Welzenbach</i> | | DATE | TIME | RECEIVED BY: (SIGNATURE) <i>Donna 292</i> | TOTAL NO. OF SAMPLERS (THIS SHIPMENT) 8 | LABORATORY: McLampbell Analytical | | | | | | | | | | | | | | |
| RELINQUISHED BY: (SIGNATURE) <i>Donna 292</i> | | DATE 1/21/03 | TIME 1330 | RECEIVED BY: (SIGNATURE) | TOTAL NO. OF CONTAINERS (THIS SHIPMENT) 40 | LABORATORY CONTACT: Angela Rydelius LABORATORY PHONE NUMBER: (925) 798-1620 | | | | | | | | | | | | | | |
| RELINQUISHED BY: (SIGNATURE) | | DATE | TIME | RECEIVED FOR LABORATORY BY: (SIGNATURE) <i>Union V</i> | SAMPLE ANALYSIS REQUEST SHEET ATTACHED: () YES (X) NO | | | | | | | | | | | | | | | |
| REMARKS: VOAs preserved w HCl. | | | | | | | | | | | | | | | | | | | | |

(x)
x
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x
x
x
x
x