

ENVIRONMENTAL  
PROTECTION



**Chevron**

97 JAN 22 PM 3:31

January 17, 1997

Ms. Susan Hugo  
Alameda County Health Care Services  
Department of Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

ST 1D 1143

**Chevron Products Company**  
6001 Bollinger Canyon Road  
Building L  
San Ramon, CA 94583  
P.O. Box 6004  
San Ramon, CA 94583-0904

**Marketing - Sales West**  
Phone 510 842-9500

**Re:** **Chevron Service Station #9-0329**  
**340 Highland Avenue**  
**Piedmont, California**

Dear Ms. Hugo:

Enclosed is the Fourth Quarter Groundwater Monitoring report for 1996, prepared by our consultant Blaine Tech Services Inc. for the above noted facility. Ground water samples were analyzed for TPH-g, BTEX, and MtBE.

The results from sampling monitoring well C-3 were below method detection levels for the TPH-g, MtBE and BTEX constituents, while monitoring well C-3 was below method detection limits for benzene, ethylbenzene, and xylene constituents. The MtBE constituent continues to show at a high level in monitoring well C-2, while it has declined in well C-4 to 9.9ppb. As we have stated in previous correspondence, Chevron has no explanation for these mixed results; we have also noted that Chevron has not owned or operated this station since about 1990, and therefore have no control over its operations or maintenance.

The depth to the groundwater in the fourth quarter varied from 2.29 to 4.22 feet below grade, with a direction of flow to the southwest.

The results from the additional site investigation has been completed and the report will be submitted under separate cover. Chevron will continue to monitor the site quarterly. If you have any questions or comments call me at (510) 842-9136.

Sincerely,  
CHEVRON PRODUCTS COMPANY

Philip R. Briggs  
Site Assessment and Remediation Project Manager

Enclosure

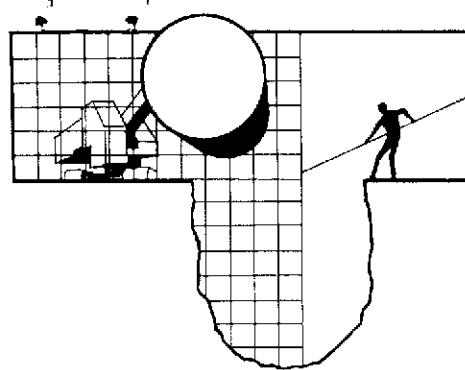
January 17, 1997  
Ms. Susan Hugo  
Chevron Service Station # 9-0329  
Page 2

cc. Ms. Bette Owen, Chevron

Mr. Kevin Graves  
RWQCB-San Francisco Bay Region  
2101 Webster Street, Suite 500  
Oakland, CA 94612

Mr. Frank Hoffman  
Hoffman Investment Company  
1760 Willow Road  
Hillsborough, CA 94010

Mir Ghafari  
Chevron Service Station  
340 Highland Avenue  
Piedmont, CA 94611



# **BLAINE TECH SERVICES** INC.

985 TIMOTHY DRIVE  
SAN JOSE, CA 95133  
(408) 995-5535  
FAX (408) 293-8773

November 1, 1996

Phil Briggs  
Chevron U.S.A. Products Company  
P.O. Box 5004  
San Ramon, CA 94583-0804

### **4th Quarter 1996 Monitoring at 9-0329**

Fourth Quarter 1996 Groundwater Monitoring at  
Chevron Service Station Number 9-0329  
340 Highland Avenue  
Piedmont, CA

Monitoring Performed on October 3, 1996

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### **Groundwater Sampling Report 961003-C-2**

This report covers the routine quarterly monitoring of groundwater wells at this Chevron facility. Blaine Tech Services, Inc.'s work at the site includes inspection, gauging, evacuation, purgewater containment, sample collection and sample handling in accordance with standard procedures that conform to Regional Water Quality Control Board requirements.

Routine field data collection includes depth to water, total well depth, thickness of any separate immiscible layer, water column volume, calculated volume of a three-case volume purge, elapsed evacuation time, total volume of water removed, and standard water parameter instrument readings. Sample material is collected, contained, stored, and transported to the laboratory in conformance with EPA standards. Purge water is, likewise, collected and transported to McKittrick Waste Treatment Site for disposal.

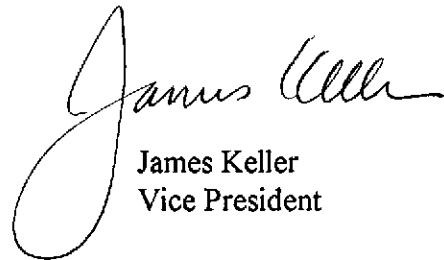
Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL DATA AND ANALYTICAL RESULTS**. The full analytical report for the most recent samples is located in the **Analytical Appendix**. The table also contains new groundwater elevation calculations taken from the computer plotted gradient map which is located in the **Professional Engineering Appendix**.

At a minimum, Blaine Tech Services, Inc. field personnel are certified upon completion of a forty-hour Hazardous Materials and Emergency Response training course per 29 CFR 1910.120. Field personnel are also enrolled in annual eight hour refresher courses.

Blaine Tech Services, Inc. conducts sampling and documentation assignments of this type as an independent third party. In order to avoid compromising the objectivity necessary for the proper and disinterested performance of this work, Blaine Tech Services, Inc. concentrates on objective data collection and does not participate in the interpretation of analytical results, the definition of geological or hydrological conditions, the formulation of recommendations, or the marketing of remedial systems.

Please call if you have any questions.

Yours truly,



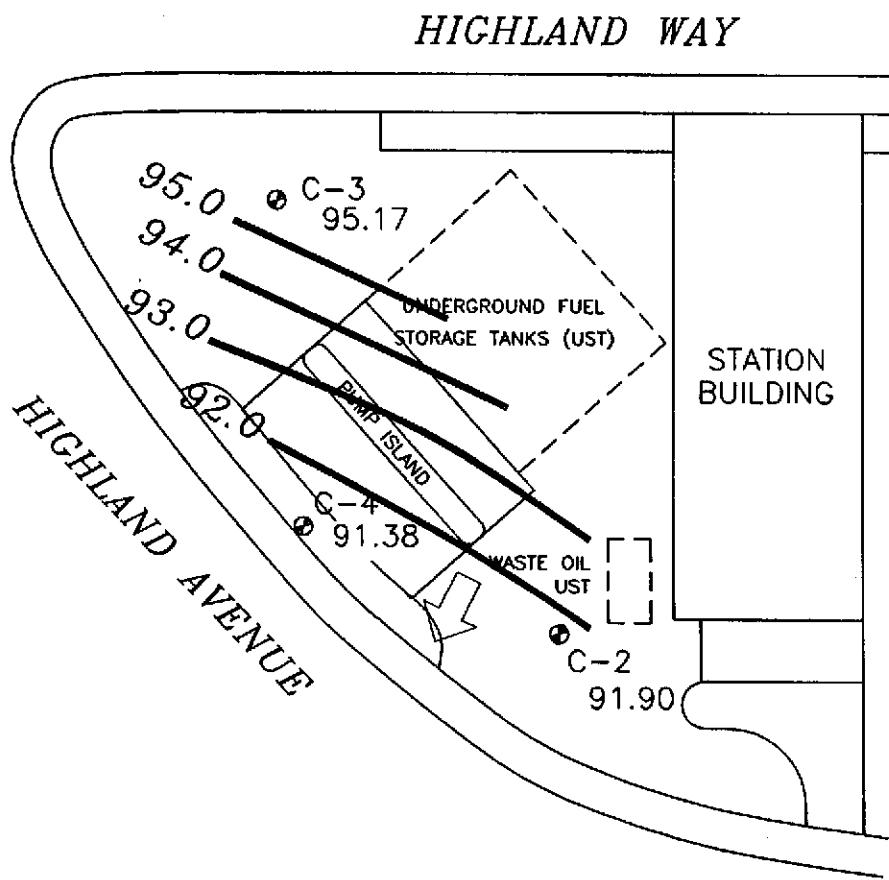
The image shows a handwritten signature in black ink, which appears to read "James Keller". Below the signature, there is printed text identifying the person.

James Keller  
Vice President

JPK/cg

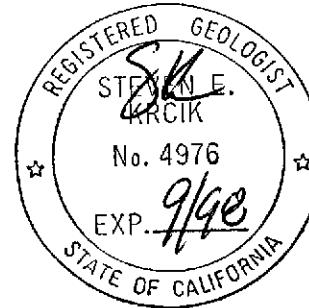
attachments: Professional Engineering Appendix  
Cumulative Table of Well Data and Analytical Results  
Analytical Appendix  
Field Data Sheets

# **Professional Engineering Appendix**



SCALE (FT)

0 30



EXPLANATION

- MONITORING WELL
- 91.90 GROUNDWATER ELEVATION (FT, MSL)
- 95.0 — GROUNDWATER ELEVATION CONTOUR (FT, MSL)
- APPROXIMATE GROUNDWATER FLOW DIRECTION;  
APPROXIMATE GRADIENT = 0.08

Basemap from Cambria Environmental Technology, Inc.

PREPARED BY

**RRM**  
INC.

**Chevron Station 9-0329**  
340 Highland Avenue  
Piedmont, California

**GROUNDWATER ELEVATION  
CONTOUR MAP, OCTOBER 3, 1996**

**FIGURE:  
1  
PROJECT:  
DAC04**

# **Table of Well Data and Analytical Results**

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

| DATE       | Well Head Elev. | Ground Water Elev. | Depth To Water | Notes | TPH-Gasoline | Benzene | Toluene | Ethyl-Benzene | Xylene | MTBE |
|------------|-----------------|--------------------|----------------|-------|--------------|---------|---------|---------------|--------|------|
| <b>C-3</b> |                 |                    |                |       |              |         |         |               |        |      |
| 08/07/89   | 97.65           | 93.36              | 4.29           | --    | <50          | <0.5    | <1.0    | <1.0          | <3.0   | --   |
| 11/15/89   | 97.65           | 92.48              | 5.17           | --    | <500         | <0.5    | 2.8     | <0.5          | 1.1    | --   |
| 02/01/91   | 97.65           | 91.27              | 6.38           | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 04/16/91   | 97.65           | 93.93              | 3.72           | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 10/16/91   | 97.65           | 89.45              | 8.20           | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 01/08/92   | 97.65           | 90.97              | 6.68           | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 04/10/92   | 97.65           | 93.15              | 4.50           | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 07/14/92   | 97.65           | 91.44              | 6.21           | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 10/05/92   | 97.65           | 88.34              | 9.31           | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 01/06/93   | 97.65           | 94.24              | 3.41           | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 03/29/93   | 97.65           | 97.15              | 0.50           | --    | <50          | <0.5    | <0.5    | <0.5          | 0.8    | --   |
| 07/02/93   | 97.65           | 95.06              | 2.59           | --    | <50          | 4.0     | 3.0     | <0.5          | 3.0    | --   |
| 10/11/93   | 97.65           | 92.75              | 4.90           | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 01/10/94   | 97.65           | 93.26              | 4.39           | --    | <50          | <0.5    | 1.0     | <0.5          | 0.8    | --   |
| 04/06/94   | 97.65           | 94.97              | 2.68           | --    | <50          | <0.5    | 1.0     | 0.7           | 4.5    | --   |
| 07/06/94   | 97.65           | 95.55              | 2.10           | --    | <50          | 2.2     | 4.1     | <0.5          | 2.8    | --   |
| 11/11/94   | 97.65           | 96.42              | 1.23           | --    | <50          | <0.5    | 0.8     | <0.5          | <0.5   | --   |
| 01/06/95   | 97.65           | 97.05              | 0.60           | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 04/13/95   | 97.65           | 97.05              | 0.60           | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 07/25/95   | 97.65           | 96.00              | 1.65           | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 10/05/95   | 97.65           | 94.02              | 3.63           | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 01/02/96   | 97.65           | 94.53              | 3.12           | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | <2.5 |
| 04/11/96   | 97.65           | 96.83              | 0.82           | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | <2.5 |
| 07/08/96   | 97.65           | 96.15              | 1.50           | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | <2.5 |
| 10/03/96   | 97.65           | 95.17              | 2.48           | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | <2.5 |

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

| DATE       | Well Head Elev. | Ground Water Elev. | Depth To Water | Notes | TPH-Gasoline | Benzene | Toluene | Ethyl-Benzene | Xylene | MTBE |
|------------|-----------------|--------------------|----------------|-------|--------------|---------|---------|---------------|--------|------|
| <b>C-4</b> |                 |                    |                |       |              |         |         |               |        |      |
| 08/07/89   | 95.60           | --                 | --             | Dry   | --           | --      | --      | --            | --     | Dry  |
| 11/15/89   | 95.60           | 90.65              | 4.95           | --    | 1300         | 2.9     | 310     | 0.5           | 2.9    | --   |
| 02/01/91   | 95.60           | 90.82              | 4.78           | --    | 72           | <0.5    | 9.0     | <0.5          | <0.5   | --   |
| 04/16/91   | 95.60           | 95.60              | 4.83           | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 10/16/91   | 95.60           | 91.37              | 4.23           | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 01/08/92   | 95.60           | 90.79              | 4.81           | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 04/10/92   | 95.60           | 91.34              | 4.26           | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 07/14/92   | 95.60           | 91.32              | 4.28           | --    | <50          | <0.5    | 3.8     | <0.5          | <0.5   | --   |
| 10/05/92   | 95.60           | 91.31              | 4.29           | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 01/06/93   | 95.60           | 91.31              | 4.29           | --    | <50          | 0.7     | <0.5    | <0.5          | <0.5   | --   |
| 03/29/93   | 95.60           | 91.30              | 4.30           | --    | <50          | 0.5     | 1.0     | <0.5          | 2.0    | --   |
| 07/02/93   | 95.60           | 91.38              | 4.22           | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 10/11/93   | 95.60           | 91.30              | 4.30           | --    | <50          | 0.6     | <0.5    | <0.5          | <0.5   | --   |
| 01/10/94   | 95.60           | 91.16              | 4.44           | --    | <50          | 0.7     | 3.0     | <0.5          | 1.0    | --   |
| 04/06/94   | 95.60           | 91.36              | 4.24           | --    | 130          | 2.2     | 5.4     | 3.3           | 24     | --   |
| 07/06/94   | 95.60           | 91.36              | 4.24           | --    | 99           | 5.9     | 7.5     | 2.0           | 12     | --   |
| 11/11/94   | 95.60           | 91.39              | 4.21           | --    | <50          | <0.5    | 9.5     | <0.5          | <0.5   | --   |
| 01/06/95   | 95.60           | 91.18              | 4.42           | --    | <50          | 0.7     | 1.0     | <0.5          | 1.1    | --   |
| 04/13/95   | 95.60           | 91.36              | 4.24           | --    | 67           | 0.54    | 7.2     | <0.5          | 1.1    | --   |
| 07/25/95   | 95.60           | 91.36              | 4.24           | --    | 390          | <2.0    | 150     | <2.0          | <2.0   | --   |
| 10/05/95   | 95.60           | 91.22              | 4.38           | --    | 130          | <0.5    | 66      | <0.5          | <0.5   | --   |
| 01/02/96   | 95.60           | 91.34              | 4.26           | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | 34   |
| 04/11/96   | 95.60           | 91.21              | 4.39           | --    | <50          | <0.5    | 0.93    | <0.5          | <0.5   | 56   |
| 07/08/96   | 95.60           | 91.32              | 4.28           | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | 21   |
| 10/03/96   | 95.60           | 91.38              | 4.22           | --    | 80           | <0.5    | 31      | <0.5          | <0.5   | 9.9  |

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

| DATE              | Well Head<br>Elev. | Ground Water<br>Elev. | Depth To<br>Water | Notes | TPH-Gasoline | Benzene | Toluene | Ethyl-Benzene | Xylene | MTBE |
|-------------------|--------------------|-----------------------|-------------------|-------|--------------|---------|---------|---------------|--------|------|
| <b>TRIP BLANK</b> |                    |                       |                   |       |              |         |         |               |        |      |
| 01/06/93          | --                 | --                    | --                | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 03/29/93          | --                 | --                    | --                | --    | <50          | <0.5    | <0.5    | <0.5          | 1.0    | --   |
| 07/02/93          | --                 | --                    | --                | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 10/11/93          | --                 | --                    | --                | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 01/10/94          | --                 | --                    | --                | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 04/06/94          | --                 | --                    | --                | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 07/06/94          | --                 | --                    | --                | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 11/11/94          | --                 | --                    | --                | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 01/06/95          | --                 | --                    | --                | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 04/13/95          | --                 | --                    | --                | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 07/25/95          | --                 | --                    | --                | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 10/05/95          | --                 | --                    | --                | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |
| 01/02/96          | --                 | --                    | --                | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | <2.5 |
| 04/11/96          | --                 | --                    | --                | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | <2.5 |
| 07/08/96          | --                 | --                    | --                | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | <2.5 |
| 10/03/96          | --                 | --                    | --                | --    | <50          | <0.5    | <0.5    | <0.5          | <0.5   | --   |

Note: Blaine Tech Services, Inc. began routine monitoring of the groundwater wells at this site on April 13, 1995.

Earlier field data and analytical results provided by Sierra Environmental.

### ABBREVIATIONS:

TPH = Total Petroleum Hydrocarbons

MTBE = Methyl t-butyl ether

# **Analytical Appendix**



**Sequoia  
Analytical**

680 Chesapeake Drive      Redwood City, CA 94063      (415) 364-9600      FAX (415) 364-9233  
404 N. Wiget Lane      Walnut Creek, CA 94598      (510) 988-9600      FAX (510) 988-9673  
819 Striker Avenue, Suite 8      Sacramento, CA 95834      (916) 921-9600      FAX (916) 921-0100

Blaine Technical Services  
985 Timothy Drive  
San Jose, CA 95133  
  
Attention: Jim Keller

Client Proj. ID: Chevron 9-0329/961003-C2  
Sample Descript: C-2  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9610333-01

Sampled: 10/03/96  
Received: 10/04/96  
  
Analyzed: 10/09/96  
Reported: 10/14/96

QC Batch Number: GC100996BTEX20A  
Instrument ID: GCHP20

### Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

| Analyte               | Detection Limit<br>ug/L | Sample Results<br>ug/L |
|-----------------------|-------------------------|------------------------|
| TPPH as Gas           | 25000                   | N.D.                   |
| Methyl t-Butyl Ether  | 1250                    | 140000                 |
| Benzene               | 250                     | 1200                   |
| Toluene               | 250                     | N.D.                   |
| Ethyl Benzene         | 250                     | N.D.                   |
| Xylenes (Total)       | 250                     | N.D.                   |
| Chromatogram Pattern: |                         |                        |
| <br><b>Surrogates</b> |                         |                        |
| Trifluorotoluene      | Control Limits %<br>70  | % Recovery<br>130      |

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL - ELAP #1210**

Peggy Penner  
Project Manager

Page:

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Sequoia  
Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834

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(510) 988-9600  
(916) 921-9600

FAX (415) 364-9233  
FAX (510) 988-9673  
FAX (916) 921-0100

Blaine Technical Services  
985 Timothy Drive  
San Jose, CA 95133  
  
Attention: Jim Keller

Client Proj. ID: Chevron 9-0329/961003-C2  
Sample Descript: C-3  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9610333-02

Sampled: 10/03/96  
Received: 10/04/96  
  
Analyzed: 10/08/96  
Reported: 10/14/96

QC Batch Number: GC100996BTEX20A  
Instrument ID: GCHP20

### Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

| Analyte               | Detection Limit<br>ug/L | Sample Results<br>ug/L |
|-----------------------|-------------------------|------------------------|
| TPPH as Gas           | 50                      | N.D.                   |
| Methyl t-Butyl Ether  | 2.5                     | N.D.                   |
| Benzene               | 0.50                    | N.D.                   |
| Toluene               | 0.50                    | N.D.                   |
| Ethyl Benzene         | 0.50                    | N.D.                   |
| Xylenes (Total)       | 0.50                    | N.D.                   |
| Chromatogram Pattern: |                         |                        |
| <br><b>Surrogates</b> |                         |                        |
| Trifluorotoluene      | 70                      | 130                    |
|                       | Control Limits %        | % Recovery             |
|                       |                         | 95                     |

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

Peggy Penner  
Project Manager

Page:

2



**Sequoia  
Analytical**

680 Chesapeake Drive      Redwood City, CA 94063  
404 N. Wiget Lane      Walnut Creek, CA 94598  
819 Striker Avenue, Suite 8      Sacramento, CA 95834

(415) 364-9600      FAX (415) 364-9233  
(510) 988-9600      FAX (510) 988-9673  
(916) 921-9600      FAX (916) 921-0100

Blaine Technical Services  
985 Timothy Drive  
San Jose, CA 95133  
  
Attention: Jim Keller

Client Proj. ID: Chevron 9-0329/961003-C2  
Sample Descript: TB  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9610333-04

Sampled: 10/03/96  
Received: 10/04/96  
  
Analyzed: 10/08/96  
Reported: 10/14/96

QC Batch Number: GC100896BTEX21A  
Instrument ID: GCHP21

### Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

| Analyte               | Detection Limit<br>ug/L | Sample Results<br>ug/L |
|-----------------------|-------------------------|------------------------|
| TPPH as Gas           | 50                      | N.D.                   |
| Benzene               | 0.50                    | N.D.                   |
| Toluene               | 0.50                    | N.D.                   |
| Ethyl Benzene         | 0.50                    | N.D.                   |
| Xylenes (Total)       | 0.50                    | N.D.                   |
| Chromatogram Pattern: |                         |                        |
| <b>Surrogates</b>     |                         |                        |
| Trifluorotoluene      | Control Limits %<br>70  | % Recovery<br>130      |
|                       |                         | 99                     |

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL - ELAP #1210**

Peggy Penner  
Project Manager

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**Sequoia  
Analytical**

680 Chesapeake Drive      Redwood City, CA 94063  
404 N. Wiget Lane      Walnut Creek, CA 94598  
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(916) 921-9600      FAX (916) 921-0100

Blaine Technical Services  
985 Timothy Drive  
San Jose, CA 95133  
Attention: Jim Keller

Client Proj. ID: Chevron 9-0329/961003-C2  
Lab Proj. ID: 9610333

Received: 10/04/96  
Reported: 10/14/96

## LABORATORY NARRATIVE

TPPH Note: Sample 9610333-01 was diluted 500-fold.

**SEQUOIA ANALYTICAL**

Peggy Perner  
Project Manager





# Sequoia Analytical

680 Chesapeake Drive Redwood City, CA 94063 (415) 364-9600 FAX (415) 364-9233  
 404 N. Wiget Lane Walnut Creek, CA 94598 (510) 988-9600 FAX (510) 988-9673  
 819 Striker Avenue, Suite 8 Sacramento, CA 95834 (916) 921-9600 FAX (916) 921-0100

Blaine Tech Services, Inc.  
 985 Timothy Drive  
 San Jose, CA 95133  
 Attention: Jim Keller

Client Project ID: Chevron 9-0329 / 961003-C2  
 Matrix: Liquid

Work Order #: 9610333 -01-03

Reported: Oct 15, 1996

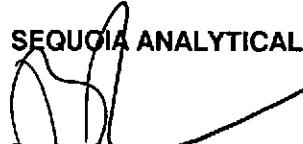
## QUALITY CONTROL DATA REPORT

| Analyte:       | Benzene         | Toluene         | Ethyl Benzene   | Xylenes         |
|----------------|-----------------|-----------------|-----------------|-----------------|
| QC Batch#:     | GC100996BTEX20A | GC100996BTEX20A | GC100996BTEX20A | GC100996BTEX20A |
| Analy. Method: | EPA 8020        | EPA 8020        | EPA 8020        | EPA 8020        |
| Prep. Method:  | EPA 5030        | EPA 5030        | EPA 5030        | EPA 5030        |

|                    |           |           |           |           |
|--------------------|-----------|-----------|-----------|-----------|
| Analyst:           | G. Fish   | G. Fish   | G. Fish   | G. Fish   |
| MS/MSD #:          | 9609H4606 | 9609H4606 | 9609H4606 | 9609H4606 |
| Sample Conc.:      | N.D.      | N.D.      | N.D.      | N.D.      |
| Prepared Date:     | 10/9/96   | 10/9/96   | 10/9/96   | 10/9/96   |
| Analyzed Date:     | 10/9/96   | 10/9/96   | 10/9/96   | 10/9/96   |
| Instrument I.D. #: | GCHP20    | GCHP20    | GCHP20    | GCHP20    |
| Conc. Spiked:      | 10 µg/L   | 10 µg/L   | 10 µg/L   | 30 µg/L   |
| <br>               | <br>      | <br>      | <br>      | <br>      |
| Result:            | 12        | 9.7       | 8.9       | 28        |
| MS % Recovery:     | 120       | 97        | 89        | 93        |
| <br>               | <br>      | <br>      | <br>      | <br>      |
| Dup. Result:       | 12        | 9.9       | 9.0       | 28        |
| MSD % Recov.:      | 120       | 99        | 90        | 93        |
| <br>               | <br>      | <br>      | <br>      | <br>      |
| RPD:               | 0.0       | 2.0       | 1.1       | 0.0       |
| RPD Limit:         | 0-25      | 0-25      | 0-25      | 0-25      |

|                    |           |           |           |           |
|--------------------|-----------|-----------|-----------|-----------|
| LCS #:             | BLK100996 | BLK100996 | BLK100996 | BLK100996 |
| Prepared Date:     | 10/9/96   | 10/9/96   | 10/9/96   | 10/9/96   |
| Analyzed Date:     | 10/9/96   | 10/9/96   | 10/9/96   | 10/9/96   |
| Instrument I.D. #: | GCHP20    | GCHP20    | GCHP20    | GCHP20    |
| Conc. Spiked:      | 10 µg/L   | 10 µg/L   | 10 µg/L   | 30 µg/L   |
| <br>               | <br>      | <br>      | <br>      | <br>      |
| LCS Result:        | 11        | 9.4       | 8.7       | 28        |
| LCS % Recov.:      | 110       | 94        | 87        | 93        |

|                |        |        |        |        |
|----------------|--------|--------|--------|--------|
| MS/MSD         | 60-140 | 60-140 | 60-140 | 60-140 |
| LCS            | 70-130 | 70-130 | 70-130 | 70-130 |
| Control Limits |        |        |        |        |

SEQUOIA ANALYTICAL  
  
 Peggy Penner  
 Project Manager

Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.



**Sequoia  
Analytical**

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FAX (916) 921-0100

Blaine Tech Services, Inc.  
985 Timothy Drive  
San Jose, CA 95133  
Attention: Jim Keller

Client Project ID: Chevron 9-0329 / 961003-C2  
Matrix: Liquid  
Work Order #: 9610333-04

Reported: Oct 15, 1996

## QUALITY CONTROL DATA REPORT

| Analyte:       | Benzene         | Toluene         | Ethyl Benzene   | Xylenes         |
|----------------|-----------------|-----------------|-----------------|-----------------|
| QC Batch#:     | GC100896BTEX21A | GC100896BTEX21A | GC100896BTEX21A | GC100896BTEX21A |
| Analy. Method: | EPA 8020        | EPA 8020        | EPA 8020        | EPA 8020        |
| Prep. Method:  | EPA 5030        | EPA 5030        | EPA 5030        | EPA 5030        |

|                    |           |           |           |           |
|--------------------|-----------|-----------|-----------|-----------|
| Analyst:           | G. Fish   | G. Fish   | G. Fish   | G. Fish   |
| MS/MSD #:          | 9609H4602 | 9609H4602 | 9609H4602 | 9609H4602 |
| Sample Conc.:      | N.D.      | N.D.      | N.D.      | N.D.      |
| Prepared Date:     | 10/8/96   | 10/8/96   | 10/8/96   | 10/8/96   |
| Analyzed Date:     | 10/8/96   | 10/8/96   | 10/8/96   | 10/8/96   |
| Instrument I.D. #: | GCHP21    | GCHP21    | GCHP21    | GCHP21    |
| Conc. Spiked:      | 10 µg/L   | 10 µg/L   | 10 µg/L   | 30 µg/L   |
| <br>               |           |           |           |           |
| Result:            | 11        | 10        | 10        | 31        |
| MS % Recovery:     | 110       | 100       | 100       | 103       |
| <br>               |           |           |           |           |
| Dup. Result:       | 11        | 10        | 10        | 31        |
| MSD % Recov.:      | 110       | 100       | 100       | 103       |
| <br>               |           |           |           |           |
| RPD:               | 0.0       | 0.0       | 0.0       | 0.0       |
| RPD Limit:         | 0-25      | 0-25      | 0-25      | 0-25      |

|                    |           |           |           |           |
|--------------------|-----------|-----------|-----------|-----------|
| LCS #:             | BLK100896 | BLK100896 | BLK100896 | BLK100896 |
| Prepared Date:     | 10/8/96   | 10/8/96   | 10/8/96   | 10/8/96   |
| Analyzed Date:     | 10/8/96   | 10/8/96   | 10/8/96   | 10/8/96   |
| Instrument I.D. #: | GCHP21    | GCHP21    | GCHP21    | GCHP21    |
| Conc. Spiked:      | 10 µg/L   | 10 µg/L   | 10 µg/L   | 30 µg/L   |
| <br>               |           |           |           |           |
| LCS Result:        | 11        | 10        | 10        | 31        |
| LCS % Recov.:      | 110       | 100       | 100       | 103       |

|                    |        |        |        |        |
|--------------------|--------|--------|--------|--------|
| MS/MSD             | 60-140 | 60-140 | 60-140 | 60-140 |
| LCS Control Limits | 70-130 | 70-130 | 70-130 | 70-130 |

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Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

\*\* MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

9610333.BLA <2>

Fax copy of Lab Report and COC to Chevron Contact:  Yes  
 No

# Chain-of-Custody-Record

|  |                           |                                     |                             |               |
|--|---------------------------|-------------------------------------|-----------------------------|---------------|
| Chevron U.S.A. Inc.<br>P.O. BOX 5004<br>San Ramon, CA 94583<br>FAX (415)842-9591 | Chevron Facility Number   | 9-0329                              | Chevron Contact (Name)      | Phil Briggs   |
|  | Facility Address          | 340 Highland Ave., Piedmont, CA     | (Phone)                     | (510)842-9136 |
|  | Consultant Project Number | 961003-CZ                           | Laboratory Name             | Sequoia       |
|  | Consultant Name           | Blaine Tech Services, Inc.          | Laboratory Release Number   | 2768231       |
|  | Address                   | 985 Timothy Dr., San Jose, CA 95133 | Samples Collected by (Name) | Doug Sanders  |
|  | Project Contact (Name)    | Jim Keller                          | Collection Date             | 10-3-76       |
| (Phone)  | (408) 995-5535            | Signature                           | <i>Doug Sanders</i>         |               |
| (Fax Number)   | 293-8773                  |                                     |                             |               |

| Sample Number | Lab Sample Number | Number of Containers | Matrix<br>S = Soil<br>W = Water | A = Air<br>C = Charcoal | Type<br>G = Composite<br>D = Discrete | Time | Sample Preservation | Iced (Yes or No) | Analyses To Be Performed        |                      |                          |                                 |                               |                              |                                | DO NOT BILL<br>FOR TB-LB.                   | Remarks |      |
|---------------|-------------------|----------------------|---------------------------------|-------------------------|---------------------------------------|------|---------------------|------------------|---------------------------------|----------------------|--------------------------|---------------------------------|-------------------------------|------------------------------|--------------------------------|---|---------|------|
|               |                   |                      |                                 |                         |                                       |      |                     |                  | BTEX + TPH GAS<br>(8020 + 8015) | TPH Diesel<br>(8015) | Oil and Grease<br>(5520) | Purgeable Halocarbons<br>(8010) | Purgeable Aromatics<br>(8020) | Purgeable Organics<br>(8240) | Extractable Organics<br>(8270) | Metals<br>Cd, Cr, Pb, Zn, Ni<br>(ICP or AA) |         |      |
| C-2           | 1 A-c             | 3                    | W                               | D                       | 12:10                                 | H21  | Y                   | X                |                                 |                      |                          |                                 |                               |                              |                                |   | X X     | MTBE |
| C-3           | 1                 | 3                    | W                               | D                       | 1130                                  |      | Y                   | X X              |                                 |                      |                          |                                 |                               |                              |                                |   | X X     |      |
| C-4           | 3 ↓               | 3                    | W                               | D                       | 1145                                  |      | Y                   | X X              |                                 |                      |                          |                                 |                               |                              |                                |   | X       |      |
| TB            | 4 A-d             | 2                    | W                               | D                       |                                       |      | Y                   | X X              |                                 |                      |                          |                                 |                               |                              |                                |   |         |      |
|               |                   |                      |                                 |                         |                                       |      |                     |                  |                                 |                      |                          |                                 |                               |                              |                                |   |         |      |
|               |                   |                      |                                 |                         |                                       |      |                     |                  |                                 |                      |                          |                                 |                               |                              |                                |   |         |      |
|               |                   |                      |                                 |                         |                                       |      |                     |                  |                                 |                      |                          |                                 |                               |                              |                                |   |         |      |
|               |                   |                      |                                 |                         |                                       |      |                     |                  |                                 |                      |                          |                                 |                               |                              |                                |   |         |      |
|               |                   |                      |                                 |                         |                                       |      |                     |                  |                                 |                      |                          |                                 |                               |                              |                                |   |         |      |
|               |                   |                      |                                 |                         |                                       |      |                     |                  |                                 |                      |                          |                                 |                               |                              |                                |   |         |      |
|               |                   |                      |                                 |                         |                                       |      |                     |                  |                                 |                      |                          |                                 |                               |                              |                                |   |         |      |
|               |                   |                      |                                 |                         |                                       |      |                     |                  |                                 |                      |                          |                                 |                               |                              |                                |   |         |      |
|               |                   |                      |                                 |                         |                                       |      |                     |                  |                                 |                      |                          |                                 |                               |                              |                                |   |         |      |
|               |                   |                      |                                 |                         |                                       |      |                     |                  |                                 |                      |                          |                                 |                               |                              |                                |   |         |      |
|               |                   |                      |                                 |                         |                                       |      |                     |                  |                                 |                      |                          |                                 |                               |                              |                                |   |         |      |

|                           |              |           |  |              |           |                                  |
|---------------------------|--------------|-----------|--|--------------|-----------|----------------------------------|
| Rerelished By (Signature) | Organization | Date/Time | Received By (Signature)                | Organization | Date/Time | Turn Around Time (Circle Choice) |
| <i>Wright</i>             | BTB          | 10/14/96  | <i>All Wright</i>                      | SCR          | 10/14/96  | 24 Hrs.                          |
| Qualified By (Signature)  | Organization | Date/Time | Received By (Signature)                | Organization | Date/Time | 48 Hrs.                          |
| <i>Wright</i>             | SCR          | 10/14/96  |  |              |           | 5 Days                           |
| By (Signature)            | Organization | Date/Time | Received For Laboratory By (Signature) | Organization | Date/Time | 10 Days                          |
| <i>Wright</i>             |              | 10/14/96  | <i>Wright</i>                          |              |           | As Contracted                    |

# **Field Data Sheets**



# CHEVRON WELL MONITORING DATA SHEET

|                         |                                   |                            |      |
|-------------------------|-----------------------------------|----------------------------|------|
| Project #: 961003-C2    | Station #: 9-0329                 |                            |      |
| Sampler: DOOR           | Date: 10-3-96                     |                            |      |
| Well I.D.: C-2          | Well Diameter: (2) 3 4 6 8        |                            |      |
| Total Well Depth: 15.75 | Depth to Water: 2.29              |                            |      |
| Depth to Free Product:  | Thickness of Free Product (feet): |                            |      |
| Referenced to: PVC      | Grade                             | D.O. Meter (if req'd): YSI | HACH |

| Well Diameter | Multiplier | Well Diameter | Multiplier                  |
|---------------|------------|---------------|-----------------------------|
| 2"            | 0.16       | 5"            | 1.02                        |
| 3"            | 0.37       | 6"            | 1.47                        |
| 4"            | 0.65       | Other         | radius <sup>2</sup> * 0.163 |

Purge Method: Bailer  
 Disposable Bailer  
 Middleburg  
 Electric Submersible  
 Extraction Pump  
 Other: \_\_\_\_\_

Sampling Method: Bailer  
 Disposable Bailer  
 Extraction Port  
 Other: \_\_\_\_\_

$$\begin{array}{r}
 2.2 \\
 \times \quad 3 \\
 \hline
 \end{array} = 6.5 \text{ Gals.}$$

1 Case Volume (Gals.)      Specified Volumes      Calculated Volume

| Time  | Temp (°F) | pH  | Cond. | Gals. Removed | Observations    |
|-------|-----------|-----|-------|---------------|-----------------|
| 11:56 | 75.0      | 7.3 | 800   | 2             | * ODOR & SHEEN  |
| 11:59 | 73.6      | 7.3 | 780   | 4             | * BLOBS OF FREE |
| 12:03 | 73.0      | 7.2 | 760   | 6.5           | PRODUCT         |
|       |           |     |       |               |                 |
|       |           |     |       |               |                 |

Did well dewater? Yes  No Gallons actually evacuated: 6.5

Sampling Time: 12:10 Sampling Date: 10-3-96

Sample I.D.: C-2 Laboratory:  Sequoia  GTEL

Analyzed for:  TPH-G  BJEX  MTBE  TPH-D Other:

|                    |            |      |             |      |
|--------------------|------------|------|-------------|------|
| D.O. (if req'd):   | Pre-purge: | mg/L | Post-purge: | mg/L |
| O.R.P. (if req'd): | Pre-purge: | mV   | Post-purge: | mV   |

# CHEVRON WELL MONITORING DATA SHEET

|                         |                                   |                            |      |
|-------------------------|-----------------------------------|----------------------------|------|
| Project #: 961003-CZ    | Station #: 9-0329                 |                            |      |
| Sampler: DOUG           | Date: 10-3-96                     |                            |      |
| Well I.D.: C-3          | Well Diameter: (2) 3 4 6 8        |                            |      |
| Total Well Depth: 14.87 | Depth to Water: 2.48              |                            |      |
| Depth to Free Product:  | Thickness of Free Product (feet): |                            |      |
| Referenced to: PVC      | Grade                             | D.O. Meter (if req'd): YSI | HACH |

| Well Diameter | Multipier | Well Diameter | Multipier                   |
|---------------|-----------|---------------|-----------------------------|
| 2"            | 0.16      | 5"            | 1.02                        |
| 3"            | 0.37      | 6"            | 1.47                        |
| 4"            | 0.65      | Other         | radius <sup>2</sup> * 0.163 |

Purge Method: Bailer

Disposable Bailer  
Middleburg  
Electric Submersible  
Extraction Pump

Sampling Method: Bailer

Disposable Bailer  
Extraction Port

Other: \_\_\_\_\_

$$\begin{array}{r}
 2.0 \\
 \times \quad 3 \\
 \hline
 5.9 \quad \text{Gals.}
 \end{array}
 \begin{array}{l}
 \text{1 Case Volume (Gals.)} \\
 \text{Specified Volumes} \\
 \text{Calculated Volume}
 \end{array}$$

| Time  | Temp (°F) | pH  | Cond. | Gals. Removed | Observations |
|-------|-----------|-----|-------|---------------|--------------|
| 11:19 | 77.8      | 7.8 | 320   | 2             |              |
| 11:23 | 75.6      | 7.4 | 340   | 4             |              |
| 11:26 |           | 7.4 | 340   | 6             |              |
|       |           |     |       |               |              |
|       |           |     |       |               |              |

Did well dewater? Yes  No Gallons actually evacuated: 6.0

Sampling Time: 11:30 Sampling Date: 10-3-96

Sample I.D.: C-3 Laboratory: Sequoia GTEL N. Creek Assoc. Labs

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

Duplicate I.D.: Analyzed for: TPH-G BTEX MTBE TPH-D Other:

|                    |            |      |             |      |
|--------------------|------------|------|-------------|------|
| D.O. (if req'd):   | Pre-purge: | mg/L | Post-purge: | mg/L |
| O.R.P. (if req'd): | Pre-purge: | mV   | Post-purge: | mV   |

# CHEVRON WELL MONITORING DATA SHEET

|                         |                                   |                            |      |
|-------------------------|-----------------------------------|----------------------------|------|
| Project #: 961003-C2    | Station #: 9-0329                 |                            |      |
| Sampler: DOUG           | Date: 10-3-96                     |                            |      |
| Well I.D.: C-4          | Well Diameter: <u>2</u> 3 4 6 8   |                            |      |
| Total Well Depth: 10.14 | Depth to Water: 4.22              |                            |      |
| Depth to Free Product:  | Thickness of Free Product (feet): |                            |      |
| Referenced to: PVC      | Grade                             | D.O. Meter (if req'd): YSI | HACH |

| Well Diameter | Multipier | Well Diameter | Multipier                   |
|---------------|-----------|---------------|-----------------------------|
| 2"            | 0.16      | 3"            | 1.02                        |
| 3"            | 0.37      | 5"            | 1.47                        |
| 4"            | 0.65      | Other         | radius <sup>2</sup> * 0.163 |

Purge Method: Bailer  
 Disposable Bailer  
 Middleburg  
 Electric Submersible  
 Extraction Pump  
 Other: \_\_\_\_\_

Sampling Method: Bailer  
 Disposable Bailer  
 Extraction Port  
 Other: \_\_\_\_\_

$$0.9 \quad \times \quad 3 = \quad 2.8 \quad \text{Gals.}$$

1 Case Volume (Gals.)      Specified Volumes      Calculated Volume

| Time  | Temp (°F) | pH  | Cond. | Gals. Removed | Observations |
|-------|-----------|-----|-------|---------------|--------------|
| 11:38 | 70.6      | 7.4 | 430   | 1             |              |
| 11:40 | 70.2      | 7.4 | 450   | 2             |              |
| 11:42 | 70.2      | 7.4 | 450   | 3             |              |
|       |           |     |       |               |              |
|       |           |     |       |               |              |

Did well dewater? Yes  No Gallons actually evacuated: 3.0

Sampling Time: 11:45 Sampling Date: 10-3-96

Sample I.D.: C-4 Laboratory:  Sequoia GTEL

Analyzed for:  TPH-G  BTEX  MTBE TPH-D Other:

|                    |            |      |             |      |
|--------------------|------------|------|-------------|------|
| D.O. (if req'd):   | Pre-purge: | mg/L | Post-purge: | mg/L |
| O.R.P. (if req'd): | Pre-purge: | mV   | Post-purge: | mV   |