



Chevron

93 AUG 31 PM 3: 11

August 26, 1993

Chevron U.S.A. Products Company
2410 Camino Ramon
San Ramon, CA 94583

Marketing Department
Phone 510 842 9500

Ms. Jennifer Eberle
Alameda County Health Care Services
Department of Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621

**Re: Chevron Service Station #9-4587
609 Oak Street, Oakland, CA**

Dear Ms. Eberle:

Enclosed is the Groundwater Monitoring and Sampling Activities report dated July 19, 1993, prepared by our consultant Groundwater Technology, Inc. for the above referenced site. As indicated in the report, ground water samples collected were analyzed for total petroleum hydrocarbons as gasoline and BTEX. Benzene was detected in monitor wells C-2 and C-5 at concentrations of 8200 and 1.6 ppb, respectively. ~~Separate phase hydrocarbons~~ were detected in monitor wells C-1 and CR-1, and tank pit backfill wells C-B and C-C at measured thicknesses of 0.02, 0.87, 0.7, and 0.13 feet, respectively. Depth to ground water was measured at approximately 8.2 to 9.6 feet below grade and the ~~direction of flow is to the southeast.~~

~~Currently the groundwater extraction system has been installed and we are awaiting approval from East Bay Municipal Utilities District to start the system. I will contact your office when the system becomes operational.~~

If you have any questions or comments, please do not hesitate to contact me at (510) 842-8134.

Sincerely,
CHEVRON U.S.A. PRODUCTS COMPANY

Mark A. Miller
Site Assessment and Remediation Engineer

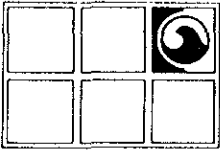
Enclosure

cc: Mr. Rich Hiatt, RWQCB - Bay Area
Mr. Kent O'Brien, Geraghty & Miller - Richmond
Ms. B.C. Owen
File (9-4587 QM2)

Mr. Dewey Barjockey
The Paris Company
8520 Pardee
Oakland, CA 94621

Mr. James Kimberlin
1100 Howe Avenue #415
Sacramento, CA 94825

Mr. William Kimberlin
51 Eureka Street
Kensington, CA 94707



GROUNDWATER TECHNOLOGY, INC.

4057 Port Chicago Highway, Concord, CA 94520 (415) 671-2387

FAX: (415) 685-9148

July 19, 1993

Project No. 020204111

Mr. Mark Miller
Chevron U.S.A. Products Company
2410 Camino Ramon
San Ramon, CA 94583-0804

SUBJECT: Groundwater Monitoring and Sampling Activities
Chevron Service Station No. 9-4587
609 Oak Street, Oakland, California

Dear Mr. Miller:

Groundwater Technology, Inc. presents the attached quarterly groundwater monitoring and sampling data collected on June 11, 1993. Ten of the 11 groundwater monitoring wells at this site were gauged to measure depth to groundwater (DTW) and to check for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were detected in the monitoring wells C-B, C-C, C-1, and CR-1 at a thickness of 0.70, 0.13, 0.02 and 0.87, respectively. Monitoring well C-A was not gauged or sampled because the well could not be located. A potentiometric surface map (Figure 1) and a summary of groundwater monitoring data (Table 1) are presented in Attachments 1 and 2, respectively. After the DTW was measured, each monitoring well, except monitoring wells C-A, C-B, C-C, C-1, and CR-1, was purged and sampled. The collected groundwater samples were analyzed for benzene, toluene, ethylbenzene, and xylenes, and for total petroleum hydrocarbons-as-gasoline. Results of the chemical analyses are summarized in Table 1. The laboratory report and chain-of-custody record are included in Attachment 3. Monitoring-well purge water was transported by Groundwater Technology to the Chevron Terminal in Richmond, California, for recycling.

Groundwater Technology is pleased to assist Chevron on this project. If you have any questions or comments, please contact our Concord office at (510) 671-2387.

Sincerely,
Groundwater Technology, Inc.
Written/Submitted by

Tim Watchers

Tim Watchers
Project Geologist

PR *SA*

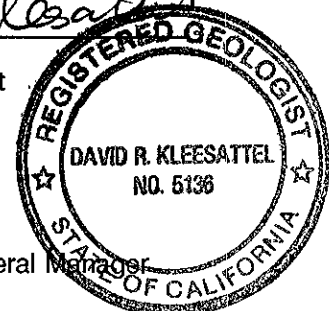
Attachment 1 Figure
Attachment 2 Table
Attachment 3 Laboratory Report

Groundwater Technology, Inc.
Reviewed/Approved by

David R. Kleesattel

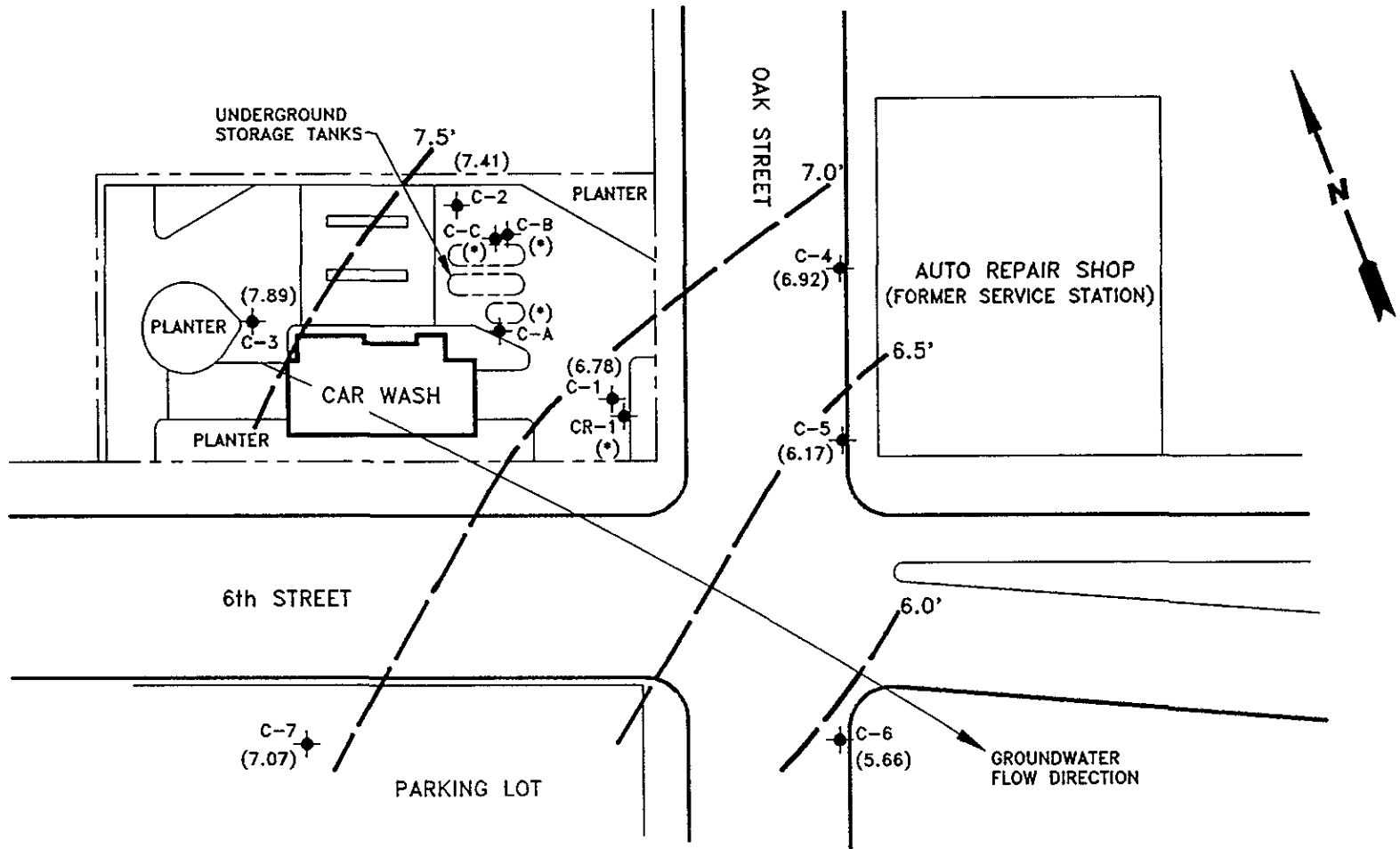
David R. Kleesattel
Registered Geologist
No. 5136

For:
John S. Gaines
Vice President, General Manager
West Region



ATTACHMENT 1

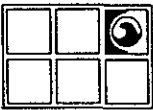
Figure



LEGEND

- ◆ MONITORING WELL
- () POTENTIOMETRIC SURFACE ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- POTENTIOMETRIC SURFACE CONTOUR
- (*) TOP OF CASING ELEVATION NOT KNOWN



| | | | |
|---|-------------------|---|------------------------|
|  GROUNDWATER TECHNOLOGY 4057 PORT CHICAGO HWY CONCORD, CA 94520 (510) 671-2387 | | POTENTIOMETRIC SURFACE MAP (6/11/93) | |
| CLIENT: CHEVRON U.S.A. PRODUCTS CO. SERVICE STATION No. 9-4587 | | LOCATION: 609 OAK STREET OAKLAND, CALIFORNIA | |
| | | REV. NO.: 0 | DATE: 7/19/93 |
| PM: <i>JAW</i> | PE/RG: <i>TRK</i> | DESIGNED: TW | DETAILED: ML |
| | | ACAD FILE: PSM61193/SP793 | PROJECT NO.: 020204084 |
| | | FIGURE: I | |

ATTACHMENT 2

Table

TABLE 1
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA
Chevron Service Station No. 9-4587
609 Oak Street, Oakland, California

| Well ID/ Elevation | Sample Date | TPH-G | Benzene | Toluene | Ethyl- benzene | Xylenes | DTW (ft) | SPT (ft) | WTE (ft) |
|-----------------------|----------------|--------|---------|---------|-------------------|---------|-------------|-------------|-------------|
| C-A | 12/06/89 | 44,000 | 20,000 | 66 | 1,600 | 2,220 | — | 0.00 | — |
| | 10/30/90 | 31,000 | 23,000 | 110 | 1,100 | 160 | 11.20 | Sheen | — |
| | 10/30/90 | 30,000 | 23,000 | 150 | 1,000 | 180 | 11.20 | Sheen | — |
| | 01/14/91 | 12,000 | 30,000 | 540 | 1,400 | 560 | 11.25 | 0.00 | — |
| | 04/03/91 | 59,000 | 33,000 | 2,400 | 2,200 | 3,100 | 9.82 | 0.00 | — |
| | 07/17/91 | 52,000 | 38,000 | 380 | 1,300 | 500 | 10.93 | 0.00 | — |
| | 10/07/91 | — | — | — | — | — | — | — | — |
| | 06/25/92 | — | — | — | — | — | — | — | — |
| | 09/17/92 | — | — | — | — | — | — | — | — |
| | 12/16/92 | — | — | — | — | — | — | — | — |
| | 03/18/93 | — | — | — | — | — | — | — | — |
| | 06/11/93 | — | — | — | — | — | — | — | — |
| | 06/11/93 | — | — | — | — | — | — | — | — |
| | 06/11/93 | — | — | — | — | — | — | — | — |
| C-B | 12/06/89 | — | — | — | — | — | — | 0.01 | — |
| | 10/30/90 | — | — | — | — | — | 11.19 | 0.01 | — |
| | 01/14/91 | — | — | — | — | — | 11.40 | 0.01 | — |
| | 04/03/91 | — | — | — | — | — | 9.55 | 1.00 | — |
| | 04/04/91 | — | — | — | — | — | 10.54 | 1.06 | — |
| | 07/17/91 | — | — | — | — | — | 10.84 | 0.03 | — |
| | 10/07/91 | — | — | — | — | — | 11.10 | 0.04 | — |
| | 02/04/92 | — | — | — | — | — | 10.78 | 0.01 | — |
| | 03/06/92 | — | — | — | — | — | — | — | — |
| | 04/01/92 | — | — | — | — | — | 10.33 | 1.02 | — |
| | 06/25/92 | — | — | — | — | — | 11.20 | 0.68 | — |
| | 09/17/92 | — | — | — | — | — | 11.07 | 0.13 | — |
| | 12/16/92 | — | — | — | — | — | 10.41 | 0.38 | — |
| | 03/18/93 | — | — | — | — | — | 9.19 | 0.05 | — |
| 06/11/93 | — | — | — | — | — | 9.54 | — | — | |
| C-C | 12/06/89 | — | — | — | — | — | — | 0.15 | — |
| | 10/30/90 | — | — | — | — | — | 10.84 | 0.03 | — |
| | 01/14/91 | — | — | — | — | — | 11.01 | 0.11 | — |
| | 04/03/91 | — | — | — | — | — | 9.19 | 0.02 | — |
| | 07/17/91 | — | — | — | — | — | 10.53 | 0.03 | — |
| | 10/07/91 | — | — | — | — | — | 10.98 | 0.08 | — |
| | 02/04/92 | — | — | — | — | — | 10.45 | 0.09 | — |
| | 03/06/92 | — | — | — | — | — | 8.83 | 0.09 | — |
| | 04/01/92 | — | — | — | — | — | 9.23 | 0.16 | — |
| | 06/25/92 | — | — | — | — | — | 10.40 | 0.12 | — |
| | 09/17/92 | — | — | — | — | — | 10.84 | 0.12 | — |
| | 12/16/92 | — | — | — | — | — | 10.02 | 0.12 | — |
| | 03/18/93 | — | — | — | — | — | 8.70 | 0.15 | — |
| | 06/11/93 | — | — | — | — | — | 9.25 | — | — |

TABLE 1
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA
Chevron Service Station No. 9-4587
609 Oak Street, Oakland, California

| Well ID/ Elevation | Sample Date | TPH-G | Benzene | Toluene | Ethyl- benzene | Xylenes | DTW (ft) | SPT (ft) | WTE (ft) |
|-----------------------|----------------|----------|---------|---------|-------------------|---------|-------------|-------------|-------------|
| C-1 | 12/06/89 | --- | --- | --- | --- | --- | --- | 0.20 | --- |
| | 10/30/90 | --- | --- | --- | --- | --- | 10.79 | 0.02 | 5.30 |
| | 01/14/91 | --- | --- | --- | --- | --- | 11.39 | 0.02 | 4.70 |
| | 04/03/91 | --- | --- | --- | --- | --- | 9.43 | 0.02 | 6.66 |
| | 07/17/91 | --- | --- | --- | --- | --- | 10.46 | 0.04 | 5.64 |
| | 10/07/91 | --- | --- | --- | --- | --- | 10.74 | 0.04 | 5.36 |
| | 02/04/92 | --- | --- | --- | --- | --- | 10.37 | 0.01 | 5.71 |
| | 03/06/92 | --- | --- | --- | --- | --- | 9.20 | 0.00 | 6.87 |
| | 04/01/92 | --- | --- | --- | --- | --- | 9.28 | 0.00 | 6.79 |
| | 06/25/92 | 100,000 | 8,800 | 7,000 | 2,800 | 19,000 | 9.98 | 0.01 | 6.10 |
| | 09/17/92 | --- | --- | --- | --- | --- | 10.51 | Sheen | 5.56 |
| | 12/16/92 | --- | --- | --- | --- | --- | 9.81 | Sheen | 6.26 |
| | 03/18/93 | --- | --- | --- | --- | --- | 8.88 | Sheen | 7.19 |
| | 06/11/93 | --- | --- | --- | --- | --- | 9.31 | --- | 6.78 |
| | C-2 | 12/06/89 | 16,000 | 250 | 1,200 | 550 | 1,400 | --- | 0.00 |
| 10/30/90 | | 28,000 | 3,700 | 1,900 | 1,200 | 4,300 | 11.16 | 0.00 | 5.68 |
| 01/14/91 | | 24,000 | 3,300 | 1,200 | 1,100 | 4,100 | 11.11 | 0.00 | 5.73 |
| 01/14/91 | | 30,000 | 3,900 | 1,500 | 1,500 | 5,000 | 11.11 | 0.00 | 5.73 |
| 04/03/91 | | 12,000 | 1,100 | 840 | 650 | 1,800 | 9.53 | 0.00 | 7.31 |
| 04/03/91 | | 14,000 | 1,100 | 990 | 680 | 1,800 | 9.53 | 0.00 | 7.31 |
| 07/17/91 | | 13,000 | 1,700 | 560 | 650 | 1,700 | 10.68 | 0.00 | 6.16 |
| 07/17/91 | | 14,000 | 1,700 | 640 | 720 | 1,900 | 10.68 | 0.00 | 6.16 |
| 10/07/91 | | 25,000 | 3,700 | 1,300 | 1,400 | 3,800 | 11.02 | 0.00 | 5.82 |
| 02/04/92 | | 16,000 | 2,600 | 300 | 880 | 1,900 | 10.60 | 0.00 | 6.24 |
| 04/01/92 | | 15,000 | 1,900 | 300 | 700 | 1,500 | 9.30 | 0.00 | 7.54 |
| 06/25/92 | | 23,000 | 3,400 | 740 | 1,300 | 3,400 | 10.45 | 0.00 | 6.39 |
| 09/17/92 | | 18,000 | 3,500 | 550 | 1,400 | 3,900 | 10.78 | 0.00 | 6.06 |
| 12/16/92 | | 12,000 | 1,200 | 120 | 460 | 1,100 | 9.94 | 0.00 | 6.90 |
| 03/18/93 | | 5,200 | 990 | 130 | 290 | 430 | 8.80 | 0.00 | 8.04 |
| 06/11/93 | 35,000 | 6,200 | 910 | 2,400 | 6,600 | 9.43 | 0.00 | 7.41 | |
| C-3 | 12/06/89 | <500 | <0.5 | <0.5 | <0.5 | 0.74 | --- | 0.00 | --- |
| | 10/30/90 | 410 | 4 | 4 | 2 | 9 | 10.44 | 0.00 | 6.04 |
| | 01/14/91 | 80 | <0.5 | <0.5 | <0.5 | 1 | 10.34 | 0.00 | 6.14 |
| | 04/03/91 | 53 | <0.5 | <0.5 | <0.5 | 2 | 9.01 | 0.00 | 7.47 |
| | 07/17/91 | <50 | 5.9 | <0.5 | <0.5 | <0.5 | 10.00 | 0.00 | 6.48 |
| | 10/07/91 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 10.38 | 0.00 | 6.10 |
| | 02/04/92 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 10.00 | 0.00 | 6.48 |
| | 04/01/92 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 8.83 | 0.00 | 7.65 |
| | 06/25/92 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 9.85 | 0.00 | 6.63 |
| | 09/17/92 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 10.20 | 0.00 | 6.28 |
| | 12/16/92 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 9.40 | 0.00 | 7.08 |
| | 03/18/93 | <50 | <0.5 | <0.5 | <0.5 | <1.5 | 8.12 | 0.00 | 8.36 |
| 06/11/93 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 8.59 | 0.00 | 7.89 | |

TABLE 1
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA
Chevron Service Station No. 9-4587
609 Oak Street, Oakland, California

| Well ID/ Elevation | Sample Date | TPH-G | Benzene | Toluene | Ethyl- benzene | Xylenes | DTW (ft) | SPT (ft) | WTE (ft) | |
|-----------------------|----------------|----------|---------|---------|-------------------|---------|-------------|-------------|-------------|------|
| C-4 | 12/06/89 | — | — | — | — | — | — | 0.00 | — | |
| | 10/30/90 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 11.56 | 0.00 | 4.97 | |
| | 01/14/91 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 11.44 | 0.00 | 5.09 | |
| | 04/03/91 | 150 | 3 | <0.5 | 12 | 9 | 10.00 | 0.00 | 6.53 | |
| | 07/17/91 | 290 | 2.3 | 0.4 | 52 | 0.4 | 11.16 | 0.00 | 5.37 | |
| | 10/07/91 | <50 | <0.5 | <0.5 | 4.6 | <0.5 | 11.39 | 0.00 | 5.14 | |
| | 02/04/92 | <50 | <0.5 | <0.5 | 2.8 | <0.5 | 11.02 | 0.00 | 5.51 | |
| | 02/04/92 | <50 | <0.5 | <0.5 | 2.5 | 0.5 | 11.02 | 0.00 | 5.51 | |
| | 04/01/92 | 480 | 4.9 | <0.5 | 64 | 4.3 | 9.83 | 0.00 | 6.70 | |
| | 06/25/92 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 10.88 | 0.00 | 5.65 | |
| | 09/17/92 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 11.24 | 0.00 | 5.29 | |
| | 12/16/92 | 56 | <0.5 | <0.5 | 1.0 | <0.5 | 10.40 | 0.00 | 6.13 | |
| | 03/18/93 | <50 | <0.5 | <0.5 | <0.5 | <1.5 | 9.48 | 0.00 | 7.05 | |
| | | | <50 | <0.5 | <0.5 | <0.5 | 9.61 | 0.00 | 6.92 | |
| C-5 | 12/06/89 | — | — | — | — | — | 9.97 | 0.00 | 4.73 | |
| | 10/30/90 | <50 | 0.8 | <0.5 | <0.5 | 0.5 | — | 0.00 | — | |
| | 01/14/91 | 54 | <0.5 | <0.5 | <0.5 | <0.5 | 9.87 | 0.00 | 4.83 | |
| | 04/03/91 | 1,800 | 330 | 200 | 52 | 170 | 8.72 | 0.00 | 5.98 | |
| | 07/17/91 | 170 | 120 | 5.3 | 12 | 20 | 9.63 | 0.00 | 5.07 | |
| | 10/07/91 | <50 | 1.1 | <0.5 | <0.5 | <0.5 | 9.83 | 0.00 | 4.87 | |
| | 02/04/92 | 91 | 16 | <0.5 | 2.4 | 2.0 | 9.53 | 0.00 | 5.17 | |
| | 04/01/92 | 960 | 200 | 5.4 | 21 | 33 | 8.57 | 0.00 | 6.13 | |
| | 06/25/92 | 800 | 2.5 | <0.5 | 1.3 | 7.3 | 9.44 | 0.00 | 5.26 | |
| | 09/17/92 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 9.72 | 0.00 | 4.98 | |
| | 12/16/92 | 81 | 5.4 | 1.2 | 1.5 | 4.3 | 9.07 | 0.00 | 5.63 | |
| | 03/18/93 | <50 | <0.5 | <0.5 | <0.5 | <1.5 | 8.44 | 0.00 | 6.28 | |
| | | | <50 | <0.5 | <0.5 | <0.5 | 8.53 | 0.00 | 6.17 | |
| | C-6 | 12/06/89 | — | — | — | — | — | — | 0.00 | — |
| 10/30/90 | | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 9.43 | 0.00 | 4.44 | |
| 01/14/91 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 9.41 | 0.00 | 4.46 | |
| 04/03/91 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 8.66 | 0.00 | 5.21 | |
| 07/17/91 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 9.25 | 0.00 | 4.62 | |
| 10/07/91 | | 67 | <0.5 | 0.6 | <0.5 | 0.6 | 9.34 | 0.00 | 4.53 | |
| 02/04/92 | | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 9.16 | 0.00 | 4.71 | |
| 04/01/92 | | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 8.59 | 0.00 | 5.28 | |
| 06/25/92 | | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 9.11 | 0.00 | 4.76 | |
| 09/17/92 | | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 9.28 | 0.00 | 4.59 | |
| 12/16/92 | | 120 | 9.3 | 1.9 | 2.7 | 7.4 | 8.88 | 0.00 | 4.99 | |
| 03/18/93 | | <50 | <0.5 | <0.5 | <0.5 | <1.5 | 8.35 | 0.00 | 5.52 | |
| | | | <50 | <0.5 | 0.7 | <0.5 | <1.5 | 8.21 | 0.00 | 5.66 |

TABLE 1
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA
Chevron Service Station No. 9-4587
609 Oak Street, Oakland, California

| Well ID/ Elevation | Sample Date | TPH-G | Benzene | Toluene | Ethyl- benzene | Xylenes | DTW (ft) | SPT (ft) | WTE (ft) | |
|-----------------------|---------------------|----------|---------|---------|-------------------|---------|-------------|-----------------|-------------|---|
| C-7 | 02/07/91 | <50 | <0.5 | 0.8 | <0.5 | <0.5 | 9.88 | 0.00 | 5.90 | |
| | 04/03/91 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 9.04 | 0.00 | 6.74 | |
| | 07/17/91 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 9.86 | 0.00 | 5.92 | |
| | 10/07/91 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 10.10 | 0.00 | 5.68 | |
| | 02/04/92 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 9.74 | 0.00 | 6.04 | |
| | 04/01/92 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 8.96 | 0.00 | 6.82 | |
| | 06/25/92 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 9.62 | 0.00 | 6.16 | |
| | 09/17/92 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 9.75 | 0.00 | 6.03 | |
| | 12/16/92 | — | — | — | — | — | 9.41 | 0.00 | 6.37 | |
| | 03/18/93 | <50 | <0.5 | <0.5 | <0.5 | <1.5 | 8.45 | 0.00 | 7.33 | |
| | 06/14/93 | <50 | <0.5 | <0.5 | <0.5 | <1.5 | 8.71 | 0.00 | 7.07 | |
| | CR-1 | 10/30/90 | 9,600 | 7,100 | 65 | 610 | 190 | 10.51 | 0.00 | — |
| | | 01/14/91 | 1,500 | 3,200 | 52 | 190 | 77 | 10.29 | 0.00 | — |
| 07/17/91 | | 15,000 | 9,300 | 220 | 680 | 530 | 10.19 | 0.00 | — | |
| 10/07/91 | | 17,000 | 7,600 | 50 | 440 | 68 | 10.46 | 0.00 | — | |
| 10/07/91 | | 14,000 | 9,400 | 52 | 430 | 110 | 10.46 | 0.00 | — | |
| 02/04/92 | | 19,000 | 6,100 | 32 | 350 | 100 | 10.12 | 0.00 | — | |
| 04/01/92 | | 29,000 | 5,300 | 820 | 380 | 1,200 | 9.24 | 0.00 | — | |
| 06/25/92 | | 12,000 | 3,300 | 280 | 210 | 460 | 10.03 | 0.00 | — | |
| 09/17/92 | | — | — | — | — | — | 10.30 | 0.00 | — | |
| 12/16/92 | | — | — | — | — | — | 9.59 | Sheen | — | |
| 03/18/93 | | — | — | — | — | — | 8.82 | 0.05 | — | |
| 06/14/93 | | — | — | — | — | — | 9.58 | 0.00 | — | |
| Trip Blank | | 10/30/90 | — | — | — | — | — | — | — | — |
| | 01/14/91 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | — | — | — | |
| | 02/07/91 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | — | — | — | |
| | 04/03/91 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | — | — | — | |
| | 07/17/91 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | — | — | — | |
| | 10/07/91 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | — | — | — | |
| | 02/04/92 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | — | — | — | |
| | 04/01/92 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | — | — | — | |
| | 06/25/92 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | — | — | — | |
| | 09/17/92 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | — | — | — | |
| | 12/16/92 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | — | — | — | |
| | 03/18/93 | <50 | <0.5 | <0.5 | <0.5 | <1.5 | — | — | — | |
| | 06/14/93 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | — | — | — | |

TABLE 1
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA
Chevron Service Station No. 9-4587
609 Oak Street, Oakland, California

| Well ID/ Elevation | Sample Date | TPH-G | Benzene | Toluene | Ethyl- benzene | Xylenes | DTW (ft) | SPT (ft) | WTE (ft) |
|-----------------------|----------------|-------|---------|---------|-------------------|---------|-------------|-------------|-------------|
| Rinsate | 10/30/90 | <50 | <0.5 | 0.6 | <0.5 | <0.5 | — | — | — |
| | 10/07/91 | <50 | <0.5 | 0.5 | <0.5 | <0.5 | — | — | — |
| | 02/04/92 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | — | — | — |
| | 04/01/92 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | — | — | — |
| | 06/25/92 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | — | — | — |
| | 09/17/92 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | — | — | — |
| | 12/16/92 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | — | — | — |
| | 06/11/93 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | — | — | — |

TPH-G = Total petroleum hydrocarbons-as-gasoline
DTW = Depth to water
SPT = Separate-phase hydrocarbon thickness
WTE = Water table elevation
— = Not applicable, not sampled, not measured

Concentrations in parts per billion
Data from December 6, 1989, to December 16, 1992, are from Aiton GeoSciences report dated January 26, 1993.

ATTACHMENT 3

Laboratory Report



Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

GROUNDWATER TECHNOLOGY, INC.
Attn: Nicole Merchant

Project 020204111
Reported 06/21/93

TOTAL PETROLEUM HYDROCARBONS

| Lab # | Sample Identification | Sampled | Analyzed Matrix |
|----------|-----------------------|----------|-----------------|
| 88906- 1 | TB-LB | 06/11/93 | 06/17/93 Water |
| 88906- 3 | C3 | 06/11/93 | 06/17/93 Water |
| 88906- 5 | C7 | 06/11/93 | 06/18/93 Water |
| 88906- 7 | C4 | 06/11/93 | 06/17/93 Water |
| 88906- 9 | C5 | 06/11/93 | 06/18/93 Water |
| 88906-11 | C6 | 06/11/93 | 06/18/93 Water |
| 88906-13 | C2 | 06/11/93 | 06/21/93 Water |

RESULTS OF ANALYSIS

Laboratory Number: 88906- 1 88906- 3 88906- 5 88906- 7 88906- 9

| | | | | | |
|----------------|--------|--------|--------|--------|--------|
| Gasoline: | ND<50 | ND<50 | ND<50 | ND<50 | ND<50 |
| Benzene: | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | 1.6 |
| Toluene: | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 |
| Ethyl Benzene: | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 |
| Xylenes: | ND<1.5 | ND<1.5 | ND<1.5 | ND<1.5 | ND<1.5 |
| Concentration: | ug/L | ug/L | ug/L | ug/L | ug/L |

Laboratory Number: 88906-11 88906-13

| | | |
|----------------|--------|-------|
| Gasoline: | ND<50 | 34000 |
| Benzene: | ND<0.5 | 8200 |
| Toluene: | 0.7 | 910 |
| Ethyl Benzene: | ND<0.5 | 2400 |
| Xylenes: | ND<1.5 | 6600 |
| Concentration: | ug/L | ug/L |



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

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

Page 2 of 2
QA/QC INFORMATION
SET: 88906

NA = ANALYSIS NOT REQUESTED
ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT
ug/L = parts per billion (ppb)

OIL AND GREASE ANALYSIS By Standard Methods Method 5520F:
Minimum Detection Limit in Water: 5000ug/L

Modified EPA SW-846 Method 8015 for Extractable Hydrocarbons:
Minimum Quantitation Limit for Diesel in Water: 50ug/L

EPA SW-846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:
Minimum Quantitation Limit for Gasoline in Water: 50ug/L

EPA SW-846 Method 8020/BTXE
Minimum Quantitation Limit in Water: 0.5ug/L

| ANALYTE | MS/MSD RECOVERY | RPD | CONTROL LIMIT |
|----------------|-----------------|-----|---------------|
| Gasoline: | 100/97 | 3% | 70-130 |
| Benzene: | 92/89 | 3% | 70-130 |
| Toluene: | 98/96 | 2% | 70-130 |
| Ethyl Benzene: | 100/97 | 3% | 70-130 |
| Xylenes: | 92/89 | 3% | 70-130 |

Richard Srna, Ph.D.

Delomina P. Tranquillo (for)
Laboratory Director

