

ENVIRONMENTAL  
PROTECTION



**Chevron**

97 JUL 28 PM 4:27  
July 25, 1997

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

**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: **Former Chevron Service Station # 9-4587**  
609 Oak Street site ID#  
Oakland, California 94607 4037

Dear Ms. Eberle:

Enclosed is a copy of the Second Quarter Groundwater Monitoring Report for 1997, prepared by our consultant Blaine Tech Services, Inc. for the above noted site. Ground water samples were collected and analyzed for TPH-g, BTEX and MtBE constituents.

According to Terra Vac's Management Plan, monitoring wells C-1, C-2, C-5 and CR-1 will continued to be sampled quarterly until the end of 1997, after which monitoring will be reduced to an annual event for two more years. Monitoring wells C-3, C-4, C-6 and C-7 will be sampled annually (as per your concurrence), and for the next three years (per the Management Plan). This sampling event will occur in the first quarter of each year. If at the end of the three years, the petroleum hydrocarbons show a decreasing pattern, a request will be made to abandon the wells and close the site.

The concentration of the benzene constituent increased in monitoring well C-1 to 6.1 ppb, while well CR-1 was below method detection limits for all BTEX constituents. Monitoring wells C-2 and C-5 were below method detection limits for all constituents. Well C-7 continues to be inaccessible due to construction activity in the area.

Depth to ground water varied from 8.21 feet to 9.92 feet below grade with a direction of flow to the south southwest.

As noted in previous correspondence, it appears that natural attenuation is occurring and this is a low risk site. However, Chevron will continue to monitor the site in accordance to the schedule outlined above and until any changes or adjustments or made when Terra Vac's Management Plan is finalized. 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

July 25, 1997  
Ms. Jennifer Eberle  
Former Chevron Service Station # 9-4587  
Page 2

cc. Ms. Bette Owen, Chevron

Mr. J. N. Robbins, Chevron

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

Mr. James M. Kimberlin  
1100 Howe Avenue Apt. #421  
Sacramento, CA 95825-3436

Mr. William Kimberlin  
51 Eureka Street  
Kensington, CA 94707

**BLAINE**  
TECH SERVICES INC.



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

ENVIRONMENTAL  
PROTECTION

97 JUL 28 PM 4: 27

July 21, 1997

Phil Briggs  
Chevron U.S.A. Products Company  
P.O. Box 6004  
San Ramon, CA 94583-0904

### 2nd Quarter 1997 Monitoring at 9-4587

Second Quarter 1997 Groundwater Monitoring at  
Chevron Service Station Number 9-4587  
609 Oak Street  
Oakland, CA

Monitoring Performed on June 23, 1997

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### Groundwater Sampling Report 970623-X-3

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. Purgewater 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,

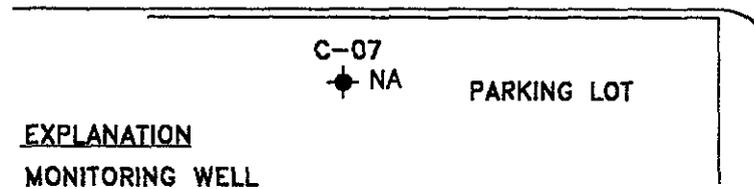
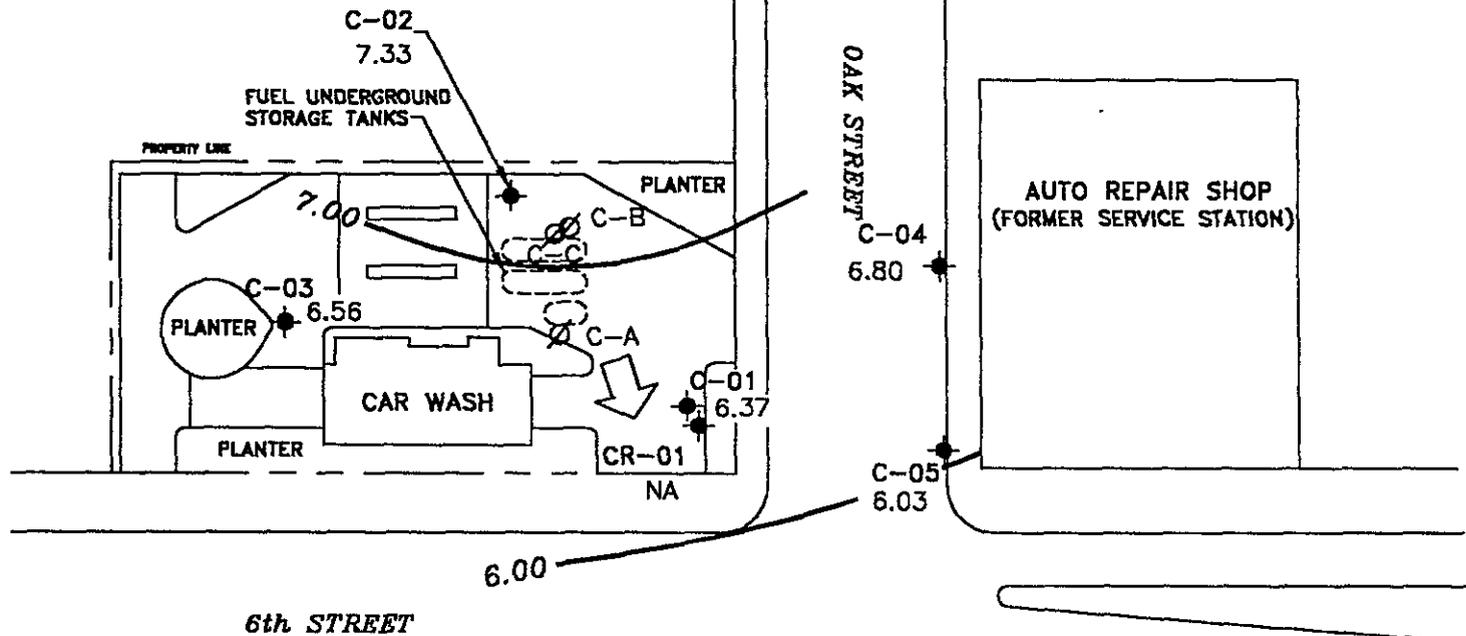
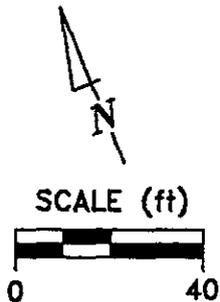
A handwritten signature in cursive script that reads "Francis Thie for:".

Francis Thie  
Vice President

FPT/aa

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

# **Professional Engineering Appendix**



C-06 5.66



**EXPLANATION**



MONITORING WELL



DESTROYED WELL

5.66

GROUNDWATER ELEVATION (FT, MSL)

7.00

GROUNDWATER ELEVATION CONTOUR (FT, MSL)

NA

DATA NOT AVAILABLE



APPROXIMATE GROUNDWATER FLOW DIRECTION;  
APPROXIMATE GRADIENT = 0.02

Basemap from Cambria Environmental Technology, Inc.

PREPARED BY

**RRM**  
engineering contracting firm

**Chevron Station 9-4587**  
609 Oak Street  
Oakland, California

**GROUNDWATER ELEVATION  
CONTOUR MAP, JUNE 23, 1997**

**FIGURE:  
1  
PROJECT:  
DAC04**

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

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Volumetric Measurements are in gallons.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
<b>C-A</b>													
12/06/89	--	--	--	--	--	--	--	44,000	20,000	66	1600	2220	--
10/30/90	--	--	11.20	--	--	--	Sheen	31,000	23,000	110	1100	160	--
10/30/90	--	--	11.20	--	--	--	Sheen	30,000	23,000	150	1000	180	--
01/14/91	--	--	11.25	--	--	--	--	12,000	30,000	540	1400	560	--
04/03/91	--	--	9.82	--	--	--	--	59,000	33,000	2400	2200	3100	--
07/17/91	--	--	10.93	--	--	--	--	52,000	38,000	380	1300	500	--
10/07/91	--	--	--	--	--	--	--	--	--	--	--	--	--
06/25/92	--	--	--	--	--	--	--	--	--	--	--	--	--
09/17/92	--	--	--	--	--	--	--	--	--	--	--	--	--
12/16/92	--	--	--	--	--	--	--	--	--	--	--	--	--
03/18/93	--	--	--	--	--	--	--	--	--	--	--	--	--
06/11/93	--	--	--	--	--	--	--	--	--	--	--	--	--
09/08/93	--	--	--	--	--	--	--	--	--	--	--	--	--
09/17/93	--	--	10.02	--	--	--	--	--	--	--	--	--	--
12/23/93	--	--	--	--	--	--	--	--	--	--	--	--	--
03/07/94	--	--	--	--	--	--	--	--	--	--	--	--	--
06/17/94	--	--	10.05	--	--	--	--	77,000	32,000	3600	3200	14,000	--
09/12/94	--	--	11.75	--	--	--	--	270	170	1.0	13	24	--
06/29/95	--	--	--	--	--	--	Destroyed	--	--	--	--	--	--

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Volumetric Measurements are in gallons.

Analytical results are in parts per billion (ppb)

DATE	Well	Ground	Depth	Volumetric Measurements			Notes	Analytical results					
	Head Elev.	Water Elev.	To Water	SPH Thickness	SPH Removed	Total SPH Removed		TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
<b>C-B</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	0.70	--	--	--	--	--	--	--	--	--
09/08/93	--	--	--	--	--	--	--	--	--	--	--	--	--
09/17/93	--	--	9.85	0.52	--	--	--	--	--	--	--	--	--
12/23/93	--	--	9.37	0.20	--	--	--	--	--	--	--	--	--
03/07/94	--	--	9.24	0.85	--	--	--	--	--	--	--	--	--
06/17/94	--	--	9.38	0.02	--	--	--	--	--	--	--	--	--
09/12/94	--	--	11.13	0.49	--	--	--	--	--	--	--	--	--
06/29/95	--	--	--	--	--	--	Destroyed	--	--	--	--	--	--

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Volumetric Measurements are in gallons.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
<b>C-C</b>													
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	0.13	--	--	--	--	--	--	--	--	--
09/08/93	--	--	--	--	--	--	--	--	--	--	--	--	--
09/17/93	--	--	9.83	--	--	--	Sheen	--	--	--	--	--	--
12/23/93	--	--	9.66	0.07	--	--	--	--	--	--	--	--	--
03/07/94	--	--	8.93	0.28	--	--	--	--	--	--	--	--	--
06/17/94	--	--	10.13	0.03	--	--	--	--	--	--	--	--	--
09/12/94	--	--	11.20	0.13	--	--	--	--	--	--	--	--	--
06/29/95	--	--	--	--	--	--	Destroyed	--	--	--	--	--	--

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Volumetric Measurements are in gallons.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Total			Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
				SPH Thickness	SPH Removed	SPH Removed							
<b>C-1</b>													
12/06/89	16.07	--	--	0.20	--	--	--	--	--	--	--	--	--
10/30/90	16.07	5.30	10.79	0.02	--	--	--	--	--	--	--	--	--
01/14/91	16.07	4.70	11.39	0.02	--	--	--	--	--	--	--	--	--
04/03/91	16.07	6.66	9.43	0.02	--	--	--	--	--	--	--	--	--
07/17/91	16.07	5.64	10.46	0.04	--	--	--	--	--	--	--	--	--
10/07/91	16.07	5.36	10.74	0.04	--	--	--	--	--	--	--	--	--
02/04/92	16.07	5.71	10.37	0.01	--	--	--	--	--	--	--	--	--
03/06/92	16.07	6.87	9.20	--	--	--	--	--	--	--	--	--	--
04/01/92	16.07	6.79	9.28	--	--	--	--	--	--	--	--	--	--
06/25/92	16.07	6.10	9.98	0.01	--	--	--	100,000	8800	7000	2800	19,000	--
09/17/92	16.07	5.56	10.51	--	--	--	Sheen	--	--	--	--	--	--
12/16/92	16.07	6.26	9.81	--	--	--	Sheen	--	--	--	--	--	--
03/18/93	16.07	7.19	8.88	--	--	--	Sheen	--	--	--	--	--	--
06/11/93	16.07	6.78	9.31	0.02	--	--	--	--	--	--	--	--	--
09/08/93	16.07	--	--	--	--	--	--	--	--	--	--	--	--
09/17/93	16.07	6.37	9.72	0.02	--	--	--	--	--	--	--	--	--
12/23/93	16.07	6.58	9.49	--	--	--	--	41,000	5400	590	710	5600	--
03/07/94	16.07	7.32	8.96	0.26	--	--	--	--	--	--	--	--	--
06/17/94	16.07	6.39	9.70	0.02	--	--	--	--	--	--	--	--	--
09/12/94	16.07	3.66	12.42	0.01	--	--	--	--	--	--	--	--	--
06/29/95	16.07	7.29	8.78	--	--	--	--	220,000	11,000	3600	3500	19,000	--
09/13/95	16.07	6.54	9.56	0.04	0.21	0.21	--	--	--	--	--	--	--
12/19/95	16.07	6.76	9.31	--	--	0.21	--	14,000	180	81	240	2200	440
03/26/96	16.07	7.14	8.93	--	--	0.21	--	790	22	5.3	21	96	<12
06/10/96	16.07	7.84	8.23	--	--	0.21	Insufficient water	--	--	--	--	--	--
09/13/96	16.07	6.55	9.52	--	--	0.21	--	110	0.85	<0.5	0.95	1.9	3.6
12/19/96	16.07	7.36	8.71	--	--	0.21	--	51	<0.5	<0.5	0.69	1.3	<2.5
03/18/97	16.07	7.42	8.65	--	--	0.21	--	<50	<0.5	<0.5	<0.5	0.57	<2.5
06/23/97	16.07	6.37	9.70	--	--	0.21	--	210	6.1	<0.5	<0.5	6.5	2.6

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Volumetric Measurements are in gallons.

Analytical results are in parts per billion (ppb)

DATE	Well	Ground	Depth	Total			Notes	TPH- Gasoline	Benzene	Toluene	Ethyl- Benzene	Xylene	MTBE
	Head Elev.	Water Elev.	To Water	SPH	SPH Removed	SPH Removed							
<b>C-2</b>													
12/06/89	16.84	--	--	--	--	--	--	16,000	250	1200	550	1400	--
10/30/90	16.84	5.68	11.16	--	--	--	--	28,000	3700	1900	1200	4300	--
01/14/91	16.84	5.73	11.11	--	--	--	--	24,000	3300	1200	1100	4100	--
01/14/91	16.84	5.73	11.11	--	--	--	--	30,000	3900	1500	1500	5000	--
04/03/91	16.84	7.31	9.53	--	--	--	--	12,000	1100	840	650	1800	--
04/03/91	16.84	7.31	9.53	--	--	--	--	14,000	1100	990	680	1800	--
07/17/91	16.84	6.16	10.68	--	--	--	--	13,000	1700	560	650	1700	--
07/17/91	16.84	6.16	10.68	--	--	--	--	14,000	1700	640	720	1900	--
10/07/91	16.84	5.82	11.02	--	--	--	--	25,000	3700	1300	1400	3800	--
02/04/92	16.84	6.24	10.60	--	--	--	--	16,000	2600	300	880	1900	--
04/01/92	16.84	7.54	9.30	--	--	--	--	15,000	1900	300	700	1500	--
06/25/92	16.84	6.39	10.45	--	--	--	--	23,000	3400	740	1300	3400	--
09/17/92	16.84	6.06	10.78	--	--	--	--	18,000	3500	550	1400	3900	--
12/16/92	16.84	6.90	9.94	--	--	--	--	12,000	1200	120	460	1100	--
03/18/93	16.84	8.04	8.80	--	--	--	--	5200	990	130	290	430	--
06/11/93	16.84	7.41	9.43	--	--	--	--	34,000	8200	910	2400	6600	--
09/08/93	16.84	--	--	--	--	--	--	3400	690	26	190	330	--
09/17/93	16.84	6.93	9.91	--	--	--	--	--	--	--	--	--	--
12/23/93	16.84	7.15	9.69	--	--	--	--	2500	830	26	130	260	--
03/07/94	16.84	7.87	8.97	--	--	--	--	1100	420	6.5	110	69	--
06/17/94	16.84	6.98	9.86	--	--	--	--	1400	290	8.6	60	63	--
09/12/94	16.84	5.74	11.10	--	--	--	--	370	96	1.3	9.4	16	--
06/29/95	16.84	7.84	9.00	--	--	--	--	4100	400	96	250	500	--
09/13/95	16.84	7.10	9.74	--	--	--	--	3500	200	50	57	290	--
12/19/95	16.84	7.74	9.10	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
03/26/96	16.84	9.46	7.38	--	--	--	Insufficient water	--	--	--	--	--	--
06/10/96	16.84	9.00	7.84	--	--	--	Insufficient water	--	--	--	--	--	--
09/13/96	16.84	8.44	8.40	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
12/19/96	16.84	8.46	8.38	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
03/18/97	16.84	8.44	8.40	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
06/23/97	16.84	7.33	9.51	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Volumetric Measurements are in gallons.

Analytical results are in parts per billion (ppb)

DATE	Well	Ground	Depth	Volumetric Measurements			Notes	Analytical results					
	Head Elev.	Water Elev.	To Water	SPH Thickness	SPH Removed	Total SPH Removed		TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
<b>C-3</b>													
12/06/89	16.48	--	--	--	--	--	--	<500	<0.5	<0.5	<0.5	0.74	--
10/30/90	16.48	6.04	10.44	--	--	--	--	410	4.0	4.0	2.0	9.0	--
01/14/91	16.48	6.14	10.34	--	--	--	--	80	<0.5	<0.5	<0.5	1.0	--
04/03/91	16.48	7.47	9.01	--	--	--	--	53	<0.5	<0.5	<0.5	2.0	--
07/17/91	16.48	6.48	10.00	--	--	--	--	<50	5.9	<0.5	<0.5	<0.5	--
10/07/91	16.48	6.10	10.38	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
02/04/92	16.48	6.48	10.00	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/01/92	16.48	7.65	8.83	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/25/92	16.48	6.63	9.85	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/17/92	16.48	6.28	10.20	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/16/92	16.48	7.08	9.40	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/18/93	16.48	8.36	8.12	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
06/11/93	16.48	7.89	8.59	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/08/93	16.48	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
09/17/93	16.48	7.48	9.00	--	--	--	--	--	--	--	--	--	--
12/23/93	16.48	7.65	8.83	--	--	--	--	<50	<0.5	0.8	<0.5	2.9	--
03/07/94	16.48	8.29	8.19	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/17/94	16.48	7.43	9.05	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/12/94	16.48	--	--	--	--	--	Inaccessible	--	--	--	--	--	--
06/29/95	16.48	8.18	8.30	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/13/95	16.48	7.64	8.84	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/19/95	16.48	8.02	8.46	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
03/26/96	16.48	9.01	7.47	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
06/10/96	16.48	8.23	8.25	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
09/13/96	16.48	7.46	9.02	--	--	--	Sampled annually	--	--	--	--	--	--
12/19/96	16.48	8.44	8.04	--	--	--	--	--	--	--	--	--	--
03/18/97	16.48	8.71	7.77	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
06/23/97	16.48	6.56	9.92	--	--	--	--	--	--	--	--	--	--

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Volumetric Measurements are in gallons.

Analytical results are in parts per billion (ppb)

DATE	Well	Ground	Depth	Volumetric Measurements			Notes	Analytical results					
	Head Elev.	Water Elev.	To Water	SPH Thickness	SPH Removed	Total SPH Removed		TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
<b>C-4</b>													
12/06/89	16.53	--	--	--	--	--	--	--	--	--	--	--	--
10/30/90	16.53	4.97	11.56	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
01/14/91	16.53	5.09	11.44	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/03/91	16.53	6.53	10.00	--	--	--	--	150	3.0	<0.5	12	9.0	--
07/17/91	16.53	5.37	11.16	--	--	--	--	290	2.3	0.4	52	0.4	--
10/07/91	16.53	5.14	11.39	--	--	--	--	<50	<0.5	<0.5	4.6	<0.5	--
02/04/92	16.53	5.51	11.02	--	--	--	--	<50	<0.5	<0.5	2.8	<0.5	--
02/04/92	16.53	5.51	11.02	--	--	--	--	<50	<0.5	<0.5	2.5	0.5	--
04/01/92	16.53	6.70	9.83	--	--	--	--	480	4.9	<0.5	64	4.3	--
06/25/92	16.53	5.65	10.88	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/17/92	16.53	5.29	11.24	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/16/92	16.53	6.13	10.40	--	--	--	--	56	<0.5	<0.5	1.0	<0.5	--
03/18/93	16.53	7.05	9.48	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
06/11/93	16.53	6.92	9.61	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
09/08/93	16.53	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
09/17/93	16.53	6.46	10.07	--	--	--	--	--	--	--	--	--	--
12/23/93	16.53	6.70	9.83	--	--	--	--	<50	1.2	1.5	<0.5	3.2	--
03/07/94	16.53	7.33	9.20	--	--	--	--	60	0.7	1.1	6.7	1.8	--
06/17/94	16.53	6.56	9.97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/12/94	16.53	5.32	11.21	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/29/95	16.53	7.18	9.35	--	--	--	--	<50	<0.5	<0.5	1.4	<0.5	--
09/13/95	16.53	6.60	9.93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/19/95	16.53	6.98	9.55	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
03/26/96	16.53	7.99	8.54	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
06/10/96	16.53	7.23	9.30	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	4.1
09/13/96	16.53	6.71	9.82	--	--	--	Sampled annually	--	--	--	--	--	--
12/19/96	16.53	7.50	9.03	--	--	--	--	--	--	--	--	--	--
03/18/97	16.53	7.53	9.00	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
06/23/97	16.53	6.80	9.73	--	--	--	--	--	--	--	--	--	--

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Volumetric Measurements are in gallons.

Analytical results are in parts per billion (ppb)

DATE	Well	Ground	Depth	Total			Notes	TPH- Gasoline	Benzene	Toluene	Ethyl- Benzene	Xylene	MTBE
	Head Elev.	Water Elev.	To Water	SPH	SPH Removed	SPH Removed							
<b>C-5</b>													
12/06/89	14.70	4.73	9.97	--	--	--	--	--	--	--	--	--	--
10/30/90	14.70	--	--	--	--	--	--	<50	0.8	<0.5	<0.5	0.5	--
01/14/91	14.70	4.83	9.87	--	--	--	--	54	<0.5	<0.5	<0.5	<0.5	--
04/03/91	14.70	5.98	8.72	--	--	--	--	1800	330	200	52	170	--
07/17/91	14.70	5.07	9.63	--	--	--	--	170	120	5.3	12	20	--
10/07/91	14.70	4.87	9.83	--	--	--	--	<50	1.1	<0.5	<0.5	<0.5	--
02/04/92	14.70	5.17	9.53	--	--	--	--	91	16	<0.5	2.4	2.0	--
04/01/92	14.70	6.13	8.57	--	--	--	--	960	200	5.4	21	33	--
06/25/92	14.70	5.26	9.44	--	--	--	--	800	2.5	<0.5	1.3	7.3	--
09/17/92	14.70	4.98	9.72	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/16/92	14.70	5.63	9.07	--	--	--	--	81	5.4	1.2	1.5	4.3	--
03/18/93	14.70	6.26	8.44	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
06/11/93	14.70	6.17	8.53	--	--	--	--	<50	1.6	<0.5	<0.5	<1.5	--
09/08/93	14.70	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
09/17/93	14.70	5.81	8.89	--	--	--	--	--	--	--	--	--	--
12/23/93	14.70	6.02	8.68	--	--	--	--	<50	5.5	1.3	0.7	4.0	--
03/07/94	14.70	6.52	8.18	--	--	--	--	460	180	21	27	70	--
06/17/94	14.70	5.89	8.81	--	--	--	--	<50	10	0.5	1.4	3.3	--
09/12/94	14.70	4.83	9.87	--	--	--	--	<50	6.4	<0.5	<0.5	<0.5	--
06/29/95	14.70	6.33	8.37	--	--	--	--	65	10	<0.5	2.3	9.1	--
09/13/95	14.70	5.90	8.80	--	--	--	--	370	41	0.76	17	50	--
12/19/95	14.70	6.22	8.48	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
03/26/96	14.70	6.97	7.73	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
06/10/96	14.70	6.40	8.30	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	3.9
09/13/96	14.70	5.95	8.75	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
12/19/96	14.70	6.65	8.05	--	--	--	--	<50	4.2	<0.5	<0.5	<0.5	<2.5
03/18/97	14.70	6.67	8.03	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
06/23/97	14.70	6.03	8.67	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Volumetric Measurements are in gallons.

Analytical results are in parts per billion (ppb)

DATE	Well	Ground	Depth	Total			Notes	Analytical results are in parts per billion (ppb)					
	Head Elev.	Water Elev.	To Water	SPH Thickness	SPH Removed	SPH Removed		TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
<b>C-6</b>													
12/06/89	13.87	--	--	--	--	--	--	--	--	--	--	--	--
10/30/90	13.87	4.44	9.43	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
01/14/91	13.87	4.46	9.41	--	--	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
04/03/91	13.87	5.21	8.66	--	--	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
07/17/91	13.87	4.62	9.25	--	--	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
10/07/91	13.87	4.53	9.34	--	--	--	--	67	<0.5	0.6	<0.5	0.6	--
02/04/92	13.87	4.71	9.16	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
04/01/92	13.87	5.28	8.59	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/25/92	13.87	4.76	9.11	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/17/92	13.87	4.59	9.28	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/16/92	13.87	4.99	8.88	--	--	--	--	120	9.3	1.9	2.7	7.4	--
03/18/93	13.87	5.52	8.35	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<0.5
06/11/93	13.87	5.66	8.21	--	--	--	--	<50	<0.5	0.7	<0.5	<1.5	<0.5
09/08/93	13.87	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<0.5
09/17/93	13.87	5.50	8.37	--	--	--	--	--	--	--	--	--	--
12/23/93	13.87	5.58	8.29	--	--	--	--	<50	1.4	1.0	<0.5	3.5	<0.5
03/07/94	13.87	5.87	8.00	--	--	--	--	<50	0.8	<0.5	<0.5	<0.5	<0.5
06/17/94	13.87	5.46	8.41	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/12/94	13.87	4.99	8.88	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/29/95	13.87	5.79	8.08	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/13/95	13.87	5.56	8.31	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/19/95	13.87	5.75	8.12	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/26/96	13.87	6.19	7.68	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
06/10/96	13.87	5.69	8.18	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
09/13/96	13.87	5.01	8.86	--	--	--	Sampled annually	--	--	--	--	--	--
12/19/96	13.87	6.04	7.83	--	--	--	--	--	--	--	--	--	--
03/18/97	13.87	6.05	7.82	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
06/23/97	13.87	5.66	8.21	--	--	--	--	--	--	--	--	--	--

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Volumetric Measurements are in gallons.

Analytical results are in parts per billion (ppb)

DATE	Well	Ground	Depth	Volumetric Measurements			Notes	Analytical results						
	Head Elev.	Water Elev.	To Water	SPH Thickness	SPH Removed	Total SPH Removed		TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE	
<b>C-7</b>														
02/07/91	15.78	5.90	9.88	--	--	--	--	<50	<0.5	0.8	<0.5	<0.5	<0.5	--
04/03/91	15.78	6.74	9.04	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
07/17/91	15.78	5.92	9.86	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
10/07/91	15.78	5.68	10.10	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
02/04/92	15.78	6.04	9.74	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
04/01/92	15.78	6.82	8.96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
06/25/92	15.78	6.16	9.62	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/17/92	15.78	6.03	9.75	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
12/16/92	15.78	6.37	9.41	--	--	--	--	--	--	--	--	--	--	--
03/18/93	15.78	7.33	8.45	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<1.5	--
06/11/93	15.78	7.07	8.71	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<1.5	--
09/08/93	15.78	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<1.5	--
09/17/93	15.78	6.73	9.05	--	--	--	--	--	--	--	--	--	--	--
12/23/93	15.78	6.93	8.85	--	--	--	--	<50	1.9	1.4	<0.5	3.6	<0.5	--
03/07/94	15.78	7.35	8.43	--	--	--	--	<50	2.4	1.3	<0.5	0.6	<0.5	--
06/17/94	15.78	6.71	9.07	--	--	--	--	<50	<0.5	<0.5	<0.5	1.2	<0.5	--
09/12/94	15.78	5.98	9.80	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
06/29/95	15.78	7.14	8.64	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/13/95	15.78	6.86	8.92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
12/19/95	15.78	7.06	8.72	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5
03/26/96	15.78	7.86	7.92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5
06/10/96	15.78	7.26	8.52	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5
09/13/96	15.78	6.66	9.12	--	--	--	Sampled annually	--	--	--	--	--	--	--
12/19/96	15.78	7.39	8.39	--	--	--	--	--	--	--	--	--	--	--
03/18/97	15.78	--	--	--	--	--	Inaccessible	--	--	--	--	--	--	--
06/23/97	15.78	--	--	--	--	--	Inaccessible	--	--	--	--	--	--	--

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Volumetric Measurements are in gallons.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
<b>CR-1</b>													
10/30/90	--	--	10.51	--	--	--	--	9600	7100	65	610	190	--
01/14/91	--	--	10.29	--	--	--	--	1500	3200	52	190	77	--
07/17/91	--	--	10.19	--	--	--	--	15,000	9300	220	680	530	--
10/07/91	--	--	10.46	--	--	--	--	17,000	7600	50	440	68	--
10/07/91	--	--	10.46	--	--	--	--	14,000	9400	52	430	110	--
02/04/92	--	--	10.12	--	--	--	--	19,000	6100	32	350	100	--
04/01/92	--	--	9.24	--	--	--	--	29,000	5300	820	380	1200	--
06/25/92	--	--	10.03	--	--	--	--	12,000	3300	280	210	460	--
09/17/92	--	--	10.30	--	--	--	--	--	--	--	--	--	--
12/16/92	--	--	9.59	--	--	--	Sheen	--	--	--	--	--	--
03/18/93	--	--	8.82	0.05	--	--	--	--	--	--	--	--	--
06/11/93	--	--	9.58	0.87	--	--	--	--	--	--	--	--	--
09/08/93	--	--	--	--	--	--	--	--	--	--	--	--	--
09/17/93	--	--	--	--	--	--	--	--	--	--	--	--	--
12/23/93	--	--	9.02	0.02	--	--	--	--	--	--	--	--	--
03/07/94	--	--	8.41	0.04	--	--	--	--	--	--	--	--	--
06/17/94	--	--	--	--	--	--	--	--	--	--	--	--	--
09/12/94	--	--	15.32	0.02	--	--	--	--	--	--	--	--	--
06/29/95	--	--	8.67	--	--	--	--	49,000	9400	310	2400	7200	--
09/13/95	--	--	9.93	0.03	0.13	0.13	--	--	--	--	--	--	--
12/19/95	--	--	8.75	--	--	0.13	--	19,000	880	48	1600	3100	4000
03/26/96	--	--	7.50	--	--	0.13	--	60	2.6	<0.5	0.86	6.3	67
06/10/96	--	--	8.15	--	--	0.13	--	1100	38	30	9.7	190	54
09/13/96	--	--	9.27	--	--	0.13	--	77	1.1	<0.5	<0.5	<0.5	33
12/19/96	--	--	7.96	--	--	0.13	--	<50	0.86	<0.5	<0.5	0.62	<2.5
03/18/97	--	--	7.90	--	--	0.13	--	220	2.0	<0.5	<0.5	1.5	5.9
06/23/97	--	--	8.41	--	--	0.13	--	99	<0.5	<0.5	<0.5	<0.5	11

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Volumetric Measurements are in gallons.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
<b>TRIP BLANK</b>													
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	--
06/11/93	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/08/93	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
09/17/93	--	--	--	--	--	--	--	--	--	--	--	--	--
12/23/93	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/07/94	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/17/94	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/12/94	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/29/95	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/13/95	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/19/95	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/26/96	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
06/10/96	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
09/13/96	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
12/19/96	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
03/18/97	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
06/23/97	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5

Note: Blaine Tech Services, Inc. began routine monitoring of the groundwater wells at this site on June 29, 1995.  
 Earlier field data and analytical results are drawn from the October 14, 1994 Groundwater Technology, Inc. report.

**ABBREVIATIONS:**

TPH = Total Petroleum Hydrocarbons  
 SPH = Separate Phase Hydrocarbons  
 MTBE = Methyl t-Butyl Ether

# **Analytical Appendix**



Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-4587/970623X3 Sample Descript: C-1 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9706D21-01	Sampled: 06/23/97 Received: 06/24/97 Analyzed: 06/30/97 Reported: 07/02/97
Attention: Fran Thie		

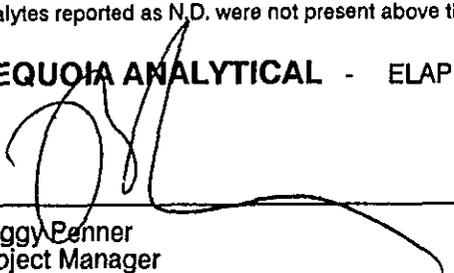
QC Batch Number: GC063097BTEX03A  
Instrument ID: GCHP03

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	210
Methyl t-Butyl Ether	2.5	2.6
Benzene	0.50	6.1
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	6.5
Chromatogram Pattern:		Gas
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	104

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Peggy Penner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-4587/970623X3 Sample Descript: C-2 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9706D21-02	Sampled: 06/23/97 Received: 06/24/97  Analyzed: 06/27/97 Reported: 07/02/97
Attention: Fran Thie		

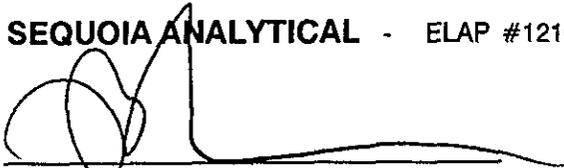
QC Batch Number: GC062797BTEX02A  
Instrument ID: GCHP02

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

Analyte	Detection Limit ug/L	Sample Results 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:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70                      130	100

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

**SEQUOIA ANALYTICAL - ELAP #1210**



Peggy Penner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-4587/970623X3 Sample Descript: C-5 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9706D21-03	Sampled: 06/23/97 Received: 06/24/97 Analyzed: 06/27/97 Reported: 07/02/97
--	---	---

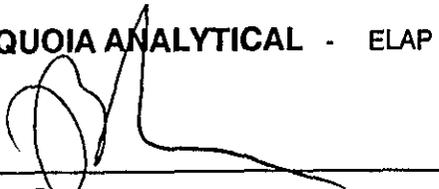
QC Batch Number: GC062797BTEX02A  
Instrument ID: GCHP02

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

Analyte	Detection Limit ug/L	Sample Results 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:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	97

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Peggy Perner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-4587/970623X3 Sample Descript: CR-1 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9706D21-04	Sampled: 06/23/97 Received: 06/24/97 Analyzed: 06/27/97 Reported: 07/02/97
--	--	---

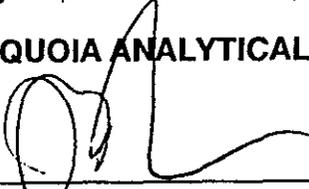
QC Batch Number: GC062797BTEX02A  
Instrument ID: GCHP02

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	99
Methyl t-Butyl Ether	2.5	11
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern: Unidentified HC		C6-C12
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	107

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Peggy Penner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-4587/970623X3 Sample Descript: TB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9706D21-05	Sampled: 06/23/97 Received: 06/24/97 Analyzed: 06/27/97 Reported: 07/02/97
Attention: Fran Thie		

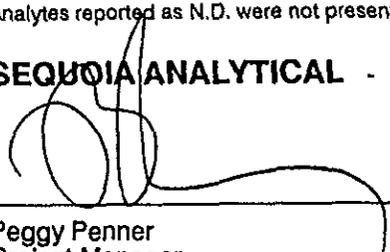
QC Batch Number: GC062797BTEX02A  
Instrument ID: GCHP02

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

Analyte	Detection Limit ug/L	Sample Results 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:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	86

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Peggy Penner  
Project Manager





Blaine Tech Services, Inc. Client Project ID: Chevron 9-4587/970623X3  
 1680 Rogers Avenue Matrix: Liquid  
 San Jose, CA 95112  
 Attention: Fran Thle Work Order #: 9706D21 -01 Reported: Jul 7, 1997

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC063097BTEX03A	GC063097BTEX03A	GC063097BTEX03A	GC063097BTEX03A	GC063097BTEX03A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030				

Analyst:	D. Jirsa				
MS/MSD #:	9706D1607	9706D1607	9706D1607	9706D1607	9706D1607
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	6/30/97	6/30/97	6/30/97	6/30/97	6/30/97
Analyzed Date:	6/30/97	6/30/97	6/30/97	6/30/97	6/30/97
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	9.5	9.5	9.5	27	46
MS % Recovery:	95	95	95	90	77
Dup. Result:	8.5	8.4	8.3	23	40
MSD % Recov.:	85	84	83	77	67
RPD:	11	12	13	16	14
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK063097	BLK063097	BLK063097	BLK063097	BLK063097
Prepared Date:	6/30/97	6/30/97	6/30/97	6/30/97	6/30/97
Analyzed Date:	6/30/97	6/30/97	6/30/97	6/30/97	6/30/97
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	9.0	9.0	9.0	26	44
LCS % Recov.:	90	90	90	87	73

MS/MSD	60-140	60-140	60-140	60-140	60-140
LCS	70-130	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.





Blaine Tech Services, Inc. Client Project ID: Chevron 9-4587/970623X3  
 1680 Rogers Avenue Matrix: Liquid  
 San Jose, CA 95112  
 Attention: Fran Thie Work Order #: 9706D21-02-05 Reported: Jul 7, 1997

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC062797BTEX02A	GC062797BTEX02A	GC062797BTEX02A	GC062797BTEX02A	GC062797BTEX02A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030				

Analyst:	A. Miraftab				
MS/MSD #:	9706C5807	9706C5807	9706C5807	9706C5807	9706C5807
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	6/27/97	6/27/97	6/27/97	6/27/97	6/27/97
Analyzed Date:	6/27/97	6/27/97	6/27/97	6/27/97	6/27/97
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	9.8	9.6	9.7	29	67
MS % Recovery:	98	96	97	97	112
Dup. Result:	9.5	9.4	9.5	29	60
MSD % Recov.:	95	94	95	97	100
RPD:	3.1	2.1	2.1	0.0	11
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK062797	BLK062797	BLK062797	BLK062797	BLK062797
Prepared Date:	6/27/97	6/27/97	6/27/97	6/27/97	6/27/97
Analyzed Date:	6/27/97	6/27/97	6/27/97	6/27/97	6/27/97
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	9.3	9.1	9.2	28	64
LCS % Recov.:	93	91	92	93	107

MS/MSD	60-140	60-140	60-140	60-140	60-140
LCS	70-130	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.

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

9706D21.BLA <2>





Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112  
Attention: Fran Thie

Client Proj. ID: Chevron 9-4587/970623X3

Received: 06/24/97

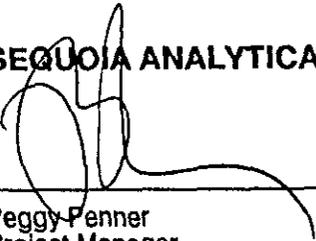
Lab Proj. ID: 9706D21

Reported: 07/02/97

### LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 8 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

SEQUOIA ANALYTICAL



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Peggy Fenner  
Project Manager





# **Field Data Sheets**



# CHEVRON WELL MONITORING DATA SHEET

Project #: <u>970623X3</u>	Station #: <del>9706</del> <u>9-4587</u>
Sampler: <u>KW</u>	Date: <u>6/23</u>
Well I.D.: <u>C-1</u>	Well Diameter: 2 <u>3</u> 4 6 8 <u>    </u>
Total Well Depth: <u>1593</u>	Depth to Water: <u>970</u>
Depth to Free Product: <u>    </u>	Thickness of Free Product (feet): <u>    </u>
Referenced to: <u>PVC</u> 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:     

<u>23</u>	x	<u>3</u>	=	<u>69</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
<u>13:40</u>	<u>68.0</u>	<u>7.0</u>	<u>1000</u>	<u>3</u>	<u>odor</u>
<u>13:44</u>	<u>67.8</u>	<u>7.0</u>	<u>1000</u>	<u>6</u>	<u>  </u>
<u>13:48</u>	<u>66.8</u>	<u>7.0</u>	<u>1000</u>	<u>8</u>	<u>  </u>

Did well dewater? Yes   No      Gallons actually evacuated: 8

Sampling Time: 13:50      Sampling Date: 6/23

Sample I.D.: C-1      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 #: 970623x3	Station #: 9-4587
Sampler: KW	Date: 6/23
Well I.D.: CR-1	Well Diameter: 2 3 4 <u>6</u> 8
Total Well Depth: 27.26	Depth to Water: 8.41
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVO</u> 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	Sampling Method: Bailer
Disposable Bailer	Disposable Bailer <input checked="" type="checkbox"/>
Middleburg	Extraction Port
Electric Submersible <input checked="" type="checkbox"/>	Other: _____
Extraction Pump	
Other: _____	

27.7	x	3	=	83.1	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
13:20	67.0	7.6	800	32	odor
13:24	66.8	7.4	720	64	"
13:28	66.4	7.4	680	96	"

Did well dewater? Yes  No  Gallons actually evacuated: 96

Sampling Time: 13:30 Sampling Date: 6/23

Sample I.D.: CR-1 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
--------------------	------------	----	-------------	----