



97 FEB 32 AM 9:30

February 27, 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  
Oakland, California**

Dear Ms. Eberle:

Enclosed is a copy of the Fourth Quarter Groundwater Monitoring Report for 1996, 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, CR-1 and C-5 will continue 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). If at the end of that time, 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 decreased to 0.86 ppb in CR-1, and the concentration of the benzene constituent decreased in C-1 below method detection limits. was 0.85 ppb. Monitoring well C-2 was below method detection limits for all constituents. The benzene constituent was detected in well C-5 for the first time in five sampling events and this may be an anomaly, and future monitoring may clarify this.

Depth to ground water varied from 7.83 feet to 9.03 feet below grade with a direction of flow to the south southeast.

Chevron will continue to monitor the site in accordance to the schedule outlined above. 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

Ms. Jennifer Eberle  
February 27, 1997  
Former Chevron Service Station # 9-4587  
Page 2

cc. Ms. Bette Owen, Chevron

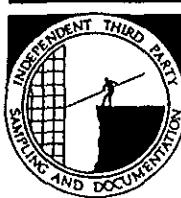
Mr. J. N. Robbins, Chevron

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

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

Mr. William Kimberlin  
51 Eureka Street  
Kensington, CA 94707

**BLAINE**  
TECH SERVICES



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

**ENVIRONMENTAL  
PROTECTION**

97 FEB 32 AM 9:30

January 21, 1997

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

#### 4th Quarter 1996 Monitoring at 9-4587

Fourth Quarter 1996 Groundwater Monitoring at  
Chevron Service Station Number 9-4587  
609 Oak Street  
Oakland, CA

Monitoring Performed on December 19, 1996

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#### Groundwater Sampling Report 961219-S-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. 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**.

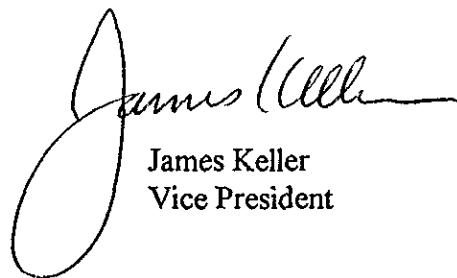
also contains new groundwater elevation calculations taken from the computer plotted gradient map which is located in the **Professional Engineering Appendix**.

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,

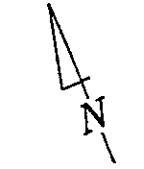


James Keller  
Vice President

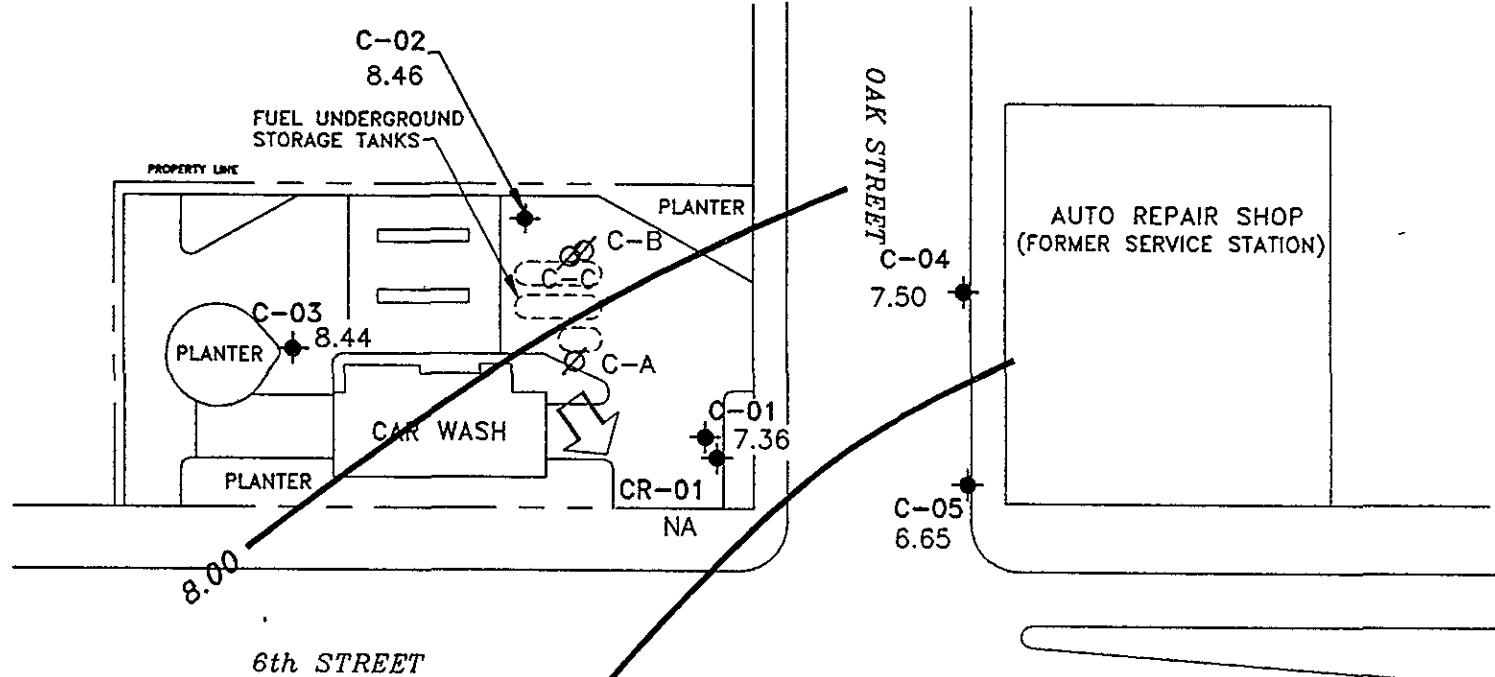
JPK/cg

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

# **Professional Engineering Appendix**



SCALE (ft)  
0 40



EXPLANATION

MONITORING WELL

DESTROYED WELL

6.04

GROUNDWATER ELEVATION (FT, MSL)

7.00

GROUNDWATER ELEVATION CONTOUR (FT, MSL)

DATA NOT AVAILABLE

APPROXIMATE GROUNDWATER FLOW DIRECTION;  
APPROXIMATE GRADIENT = 0.02

Basemap from Cambria Environmental Technology, Inc.

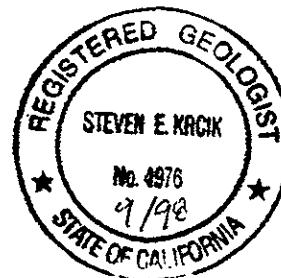
REARED BY

**RRM**

Chevron Station 9-4587  
609 Oak Street  
Oakland, California

GROUNDWATER ELEVATION  
CONTOUR MAP, DECEMBER 19, 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.				Volumetric Measurements are in gallons.				Analytical results are in parts per billion (ppb)					
DATE	Well	Ground	Depth	Total				TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
	Head	Water	To Water	SPH	SPH	Thickness	Removed						
<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	Total				TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
	Head	Water	To Water	SPH	SPH	Thickness	Removed						
<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	Ground	Depth	Total				Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
	Head Elev.	Water Elev.	To Water	SPH Thickness	SPH Removed	SPH Removed								
<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	Ground	Depth	Total				TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
	Head	Water	To Water	SPH	SPH	Thickness 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

# 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				TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
	Head	Water	To Water	SPH	SPH	Thickness	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

# 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				TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
	Head Elev.	Water Elev.	To Water	SPH Thickness	SPH Removed	SPH Removed	Notes						
<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	--	--	--	--	--	--	--	--	--	--

# 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				TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
	Head Elev.	Water Elev.	To Water	SPH Thickness	SPH Removed	SPH Removed	Notes						
<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	--	--	--	--	--	--	--	--	--	--

# 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				TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
	Head	Water	To Water	SPH	SPH Thickness	SPH Removed	Notes						
C-5													
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

**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				TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
	Head	Water	To Water	SPH	SPH	Thickness	Removed						
<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	--
01/14/91	13.87	4.46	9.41	--	--	--	--	<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	--
07/17/91	13.87	4.62	9.25	--	--	--	--	<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	--
04/01/92	13.87	5.28	8.59	--	--	--	--	<50	<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	--
09/17/92	13.87	4.59	9.28	--	--	--	--	<50	<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	--
06/11/93	13.87	5.66	8.21	--	--	--	--	<50	<0.5	0.7	<0.5	<1.5	--
09/08/93	13.87	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
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	--
03/07/94	13.87	5.87	8.00	--	--	--	--	<50	0.8	<0.5	<0.5	<0.5	--
06/17/94	13.87	5.46	8.41	--	--	--	--	<50	<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	--
06/29/95	13.87	5.79	8.08	--	--	--	--	<50	<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	--
12/19/95	13.87	5.75	8.12	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
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	--	--	--	--	--	--	--	--	--	--

# 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				TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
	Head Elev.	Water Elev.	To Water	SPH Thickness	SPH Removed	SPH Removed	Notes						
<b>C-7</b>													
02/07/91	15.78	5.90	9.88	--	--	--	--	<50	<0.5	0.8	<0.5	<0.5	--
04/03/91	15.78	6.74	9.04	--	--	--	--	<50	<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	--
10/07/91	15.78	5.68	10.10	--	--	--	--	<50	<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	--
04/01/92	15.78	6.82	8.96	--	--	--	--	<50	<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	--
09/17/92	15.78	6.03	9.75	--	--	--	--	<50	<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	--
06/11/93	15.78	7.07	8.71	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
09/08/93	15.78	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<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	--
03/07/94	15.78	7.35	8.43	--	--	--	--	<50	2.4	1.3	<0.5	0.6	--
06/17/94	15.78	6.71	9.07	--	--	--	--	<50	<0.5	<0.5	<0.5	1.2	--
09/12/94	15.78	5.98	9.80	--	--	--	--	<50	<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	--
09/13/95	15.78	6.86	8.92	--	--	--	--	<50	<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	<2.5
03/26/96	15.78	7.86	7.92	--	--	--	--	<50	<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	<2.5
09/13/96	15.78	6.66	9.12	--	--	--	Sampled annually	--	--	--	--	--	--
12/19/96	15.78	7.39	8.39	--	--	--	--	--	--	--	--	--	--

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				TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
	Head Elev.	Water Elev.	To Water	SPH Thickness	SPH Removed	SPH Removed	Notes						
<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
06/10/96	--	--	8.15	--	--	0.13	--	--	1100	38	30	9.7	190
09/13/96	--	--	9.27	--	--	0.13	--	--	77	1.1	<0.5	<0.5	33
12/19/96	--	--	7.96	--	--	0.13	--	--	<50	0.86	<0.5	<0.5	0.62
													<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	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
	Head	Water	To Water	SPH	SPH	SPH							
	Well	Ground	Depth	SPH	SPH	SPH	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

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**



**Sequoia  
Analytical**

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Redwood City, CA 94063  
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(916) 921-9600

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

Blaine Technical Services  
1680 Rogers Avenue  
San Jose, CA 95112  
Attention: Jim Keller

Client Proj. ID: Chevron 9-4587/961219-S2  
Sample Descript: C-1  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9612C48-01

Sampled: 12/19/96  
Received: 12/20/96  
Analyzed: 12/26/96  
Reported: 01/03/97

QC Batch Number: GC122696BTEX02A  
Instrument ID: GCHP2

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	.....	51
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	0.69
Xylenes (Total)	0.50	1.3
Chromatogram Pattern:	.....	Gas
Surrogates		Control Limits %
Trifluorotoluene	70	130
		% Recovery
		94

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

**SEQUOIA ANALYTICAL - ELAP #1210**

Peggy Penner  
Project Manager



Sequoia  
Analytical

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FAX (510) 988-9673  
FAX (916) 921-0100

Blaine Technical Services  
1680 Rogers Avenue  
San Jose, CA 95112

Attention: Jim Keller

Client Proj. ID: Chevron 9-4587/961219-S2  
Sample Descript: C-2  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9612C48-02

Sampled: 12/19/96  
Received: 12/20/96  
Analyzed: 12/23/96  
Reported: 01/03/97

GC Batch Number: GC122396BTEX03A  
Instrument ID: GCHP3

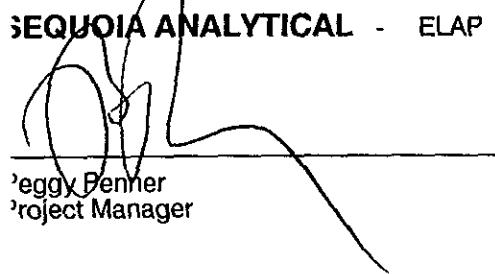
### Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

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:		

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	102

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

SEQUOIA ANALYTICAL - ELAP #1210





**Sequoia  
Analytical**

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FAX (916) 921-0100

Blaine Technical Services  
1680 Rogers Avenue  
San Jose, CA 95112  
Attention: Jim Keller

Client Proj. ID: Chevron 9-4587/961219-S2  
Sample Descript: C-5  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9612C48-03

Sampled: 12/19/96  
Received: 12/20/96  
Analyzed: 12/23/96  
Reported: 01/03/97

QC Batch Number: GC122396BTEX03A  
Instrument ID: GCHP3

### 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	4.2
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	105

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

**SEQUOIA ANALYTICAL - ELAP #1210**

Peggy Penner  
Project Manager



**Sequoia  
Analytical**

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Blaine Technical Services  
1680 Rogers Avenue  
San Jose, CA 95112

Attention: Jim Keller

QC Batch Number: GC122396BTEX03A  
Instrument ID: GCHP3

Client Proj. ID: Chevron 9-4587/961219-S2  
Sample Descript: CR-1  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9612C48-04

Sampled: 12/19/96  
Received: 12/20/96  
Analyzed: 12/23/96  
Reported: 01/03/97

### 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	0.86
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	0.62
Chromatogram Pattern:		

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70      130	100

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

**SEQUOIA ANALYTICAL - ELAP #1210**

Peggy Reiner  
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 Technical Services  
1680 Rogers Avenue  
San Jose, CA 95112

Attention: Jim Keller

QC Batch Number: GC122396BTEX03A  
Instrument ID: GCHP3

Client Proj. ID: Chevron 9-4587/961219-S2  
Sample Descript: TB  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9612C48-05

Sampled: 12/19/96  
Received: 12/20/96  
Analyzed: 12/23/96  
Reported: 01/03/97

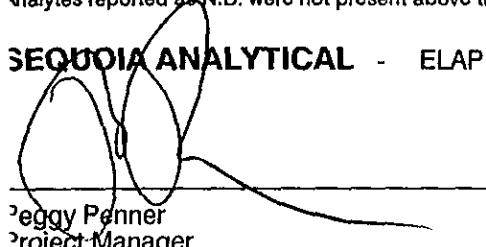
### Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

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:		

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70      130	102

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Peggy Penner  
Project Manager



Sequoia  
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819 Striker Avenue, Suite 8      Sacramento, CA 95834      (916) 921-9600      FAX (916) 921-0100

Blaine Technical Services  
1680 Rogers Avenue  
San Jose, CA 95112  
Attention: Jim Keller

Client Proj. ID: Chevron 9-4587/961219-S2

Received: 12/20/96

Lab Proj. ID: 9612C48

Reported: 01/03/97

## LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 6 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

SEQUOIA ANALYTICAL

Peggy Penner  
Project Manager



**Sequoia  
Analytical**

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FAX (510) 988-9673  
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Blaine Tech Services, Inc.  
1680 Rogers Avenue  
San Jose, CA 95112  
Attention: Jim Keller

Client Project ID: Chevron 9-4587/961219-S2  
Matrix: Liquid

Work Order #: 9612C48 -01

Reported: Jan 7, 1997

## QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC122696BTEX02A	GC122696BTEX02A	GC122696BTEX02A	GC122696BTEX02A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

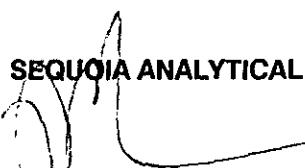
Analyst:	G. Fish	G. Fish	G. Fish	G. Fish
MS/MSD #:	961292705	961292705	961292705	961292705
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	12/23/96	12/23/96	12/23/96	12/23/96
Analyzed Date:	12/23/96	12/23/96	12/23/96	12/23/96
Instrument I.D. #:	GCHP03	GCHP03	GCHP03	GCHP03
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	10	10	32
MS % Recovery:	100	100	100	107
Dup. Result:	10	10	11	32
MSD % Recov.:	100	100	110	107
RPD:	0.0	0.0	9.5	0.0
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK122396	BLK122396	BLK122396	BLK122396
Prepared Date:	12/23/96	12/23/96	12/23/96	12/23/96
Analyzed Date:	12/23/96	12/23/96	12/23/96	12/23/96
Instrument I.D. #:	GCHP03	GCHP03	GCHP03	GCHP03
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	10	10	11	32
LCS % Recov.:	100	100	110	107

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

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**  
  
Peggy Penner  
Project Manager



**Sequoia  
Analytical**

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--	--	--	--

Blaine Tech Services, Inc.  
1680 Rogers Avenue  
San Jose, CA 95112  
Attention: Jim Keller

Client Project ID: Chevron 9-4587/961219-S2  
Matrix: Liquid

Work Order #: 9612C48-02-05

Reported: Jan 7, 1997

## QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC122396BTEX03A	GC122396BTEX03A	GC122396BTEX03A	GC122396BTEX03A
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 #:	961268309	961268309	961268309	961268309
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	12/23/	12/23/	12/23/	12/23/
Analyzed Date:	12/26/96	12/26/96	12/26/96	12/26/96
Instrument I.D. #:	GCHP02	GCHP02	GCHP02	GCHP02
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	8.6	8.7	8.9	29
MS % Recovery:	86	87	89	97
Dup. Result:	8.7	8.8	9.1	29
MSD % Recov.:	87	88	91	97
RPD:	1.2	1.1	2.2	0.0
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK122696	BLK122696	BLK122696	BLK122696
Prepared Date:	12/26/96	12/26/96	12/26/96	12/26/96
Analyzed Date:	12/26/96	12/26/96	12/26/96	12/26/96
Instrument I.D. #:	GCHP02	GCHP02	GCHP02	GCHP02
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	8.8	8.9	9.2	30
LCS % Recov.:	88	89	92	100

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.

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

9612C48.BLA <2>

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

# Chain-of-Custody-Record

Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591	Chevron Facility Number <u>9-4587</u> Facility Address <u>609 Oak St., Oakland, CA</u> Consultant Project Number <u>961219-52</u> Consultant Name <u>Elaine Tech Services, Inc.</u> Address <u>985 Timothy Dr., San Jose, CA 95133</u> Project Contact (Name) <u>Jim Keller</u> (Phone) <u>408 995-5535</u> (Fax Number) <u>408 293-8773</u>							Chevron Contact (Name) <u>Phil Briggs</u> (Phone) <u>(510) 842-9136</u> Laboratory Name <u>SEQUOIA</u> Laboratory Release Number <u>2172490</u> Samples Collected by (Name) <u>DOUG SANDERS</u> Collection Date <u>12-19-96</u> Signature <u>[Signature]</u>			
--	--	--	--	--	--	--	--	--	--	--	--

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water	A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed							DO NOT BILL FOR TB-LB	
									BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (8520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cu, Cr, Pb, Zn, Ni (ICAP or AA)	
C-1	1	3	W	D	12:30	HCl	Y	X								X	
C-2	2	3	W	D	1210		Y	X								X	
C-5	3	3	W	D	1155		Y	X								X	
CR-1	4	3	W	D	1250		Y	X								X	
TB	5	2	W	D		↓	Y	X								X	

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Turn Around Time (Circle Choice)
<u>J. Keller</u>	BTS	12/20/96	<u>A. Wright</u>	SER	12/20/96	24 Hrs.
Inquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	48 Hrs.
<u>A. Wright</u>	SER	12/20/96	<u>R. Ross</u>		12/20/96	5 Days
Released By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)	Organization	Date/Time	10 Days
			<u>R. Ross</u>		12/20/96	As Contracted

# **Field Data Sheets**

## WELL GAUGING DATA

Project # 961219-S2

Date 1-25-96

Client Chev. 9-4587

site 609 Oak St, Oakland, CA

\* Double Checked

# CHEVRON WELL MONITORING DATA SHEET

Project #: 961219-S2	Station #: 9-4587
Sampler: DOUG	Date: 12-19-96
Well I.D.: C-1	Well Diameter: 2 (3) 4 6 8
Total Well Depth: 16.46	Depth to Water: 8.71
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC	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

Sampling Method:

Bailer

Disposable Bailer

Disposable Bailer

Middleburg

Extraction Port

Electric Submersible

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

Extraction Pump

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

$$\begin{array}{r}
 2.9 \\
 \times \quad 3 \\
 \hline
 1 \text{ Case Volume (Gals.)} \quad \text{Specified Volumes} \quad = \quad 8.6 \quad \text{Gals.} \\
 \end{array}
 \quad \text{Calculated Volume}$$

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
12:18	68.2	7.3	540	3	
12:21	68.0	7.3	600	6	
12:24	68.0	7.3	600	9	

Did well dewater? Yes No Gallons actually evacuated: 9.0

Sampling Time: 12:30 Sampling Date: 12-19-96

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 #: 961219-52	Station #: 9-45B7		
Sampler: DOUG	Date: 12-19-96		
Well I.D.: C-Z	Well Diameter: 2 (3) 4 6 8		
Total Well Depth: 12.71	Depth to Water: 8.38		
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: \_\_\_\_\_

$$\frac{1.6}{\text{1 Case Volume (Gals.)}} \times \frac{3}{\text{Specified Volumes}} = \frac{4.8}{\text{Calculated Volume}} \text{ Gals.}$$

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
12:03	67.2	7.4	330	1.5	
12:05	67.0	7.5	300	3.0	
12:07	67.2	7.5	290	5.0	

Did well dewater? Yes  No Gallons actually evacuated: 5.0

Sampling Time: 12:10 Sampling Date: 12-19-96

Sample I.D.: C-Z 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 #: 961219-SZ	Station #: 9-4587
Sampler: DOUG	Date: 12-19-96
Well I.D.: C-5	Well Diameter: (2) 3 4 6 8
Total Well Depth: 28.76	Depth to Water: 8.05
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC	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

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

Sampling Method:

Bailer  
 Disposable Bailer  
 Extraction Port

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

<u>3.3</u>	<u>x</u>	<u>3</u>	<u>=</u>	<u>9.9</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
11:40	71.2	7.6	740	3.5	
11:45	70.4	7.6	720	7.0	
11:49	70.6	7.6	730	10.0	

Did well dewater? Yes  No Gallons actually evacuated: 10.0

Sampling Time: 11:55 Sampling Date: 12-19-96

Sample I.D.: C-5 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 #: 961219-52	Station #: 9-4587
Sampler: DOUG	Date: 12-19-96
Well I.D.: CR-01	Well Diameter: 2 3 4 <b>6</b> 8
Total Well Depth: 27.20	Depth to Water: 7.96
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC	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: \_\_\_\_\_

$$28.3 \times 3 = 84.8 \text{ Gals.}$$

1 Case Volume (Gals.)      Specified Volumes      Calculated Volume

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
12:42	68.4	7.2	690	29	
12:45	68.8	7.3	680	58	
12:48	68.6	7.2	700	85	

Did well dewater? Yes  No Gallons actually evacuated: 85.0

Sampling Time: 12:50 Sampling Date: 12-19-96

Sample I.D.: CR-1 Laboratory: Sequoia GTEL N. Creek Assoc. Labs

Analyzed for: TPH-G BTEX MTBE TPH-D Other: 5

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