

EVIDENCE  
PROTECT

Chevron

**Chevron**

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May 27, 1998

**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

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

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

Dear Ms. Evans:

Enclosed is the Second Quarter Groundwater Monitoring report for 1998, prepared by our consultant Blaine Tech Services Inc. for the above noted facility. Ground water samples were analyzed for TPH-g, BTEX, and MtBE. Per your letter of March 16, 1998, the groundwater monitoring frequency has been changed as follows: sample well C-5 annually (1<sup>st</sup> quarter), sample well C-4 semi-annually (1<sup>st</sup> & 3<sup>rd</sup> quarters), and sample wells C-2, C-3 and C-6 quarterly.

The concentrations detected in monitoring wells C-3 and C-6 were below method detection levels for all constituents. Note that well C-3 was flooded. Well C-2 continues to detect concentrations of all constituents, with the MtBE concentration declining from the previous sampling event. This is the third straight sampling event in which the MtBE concentration has declined in well C-2.

The depth to the groundwater varied from 0.00 feet to 3.25 feet below grade with a direction of flow southerly.

Note that the top part of the casing of well C-3 was cracked and appeared to have allowed surface water to get into the well (copy of wellhead inspection checklist enclosed). This may have been the reason MtBE was detected in this well in the last sampling event. The casing has since been repaired.

May 27, 1998  
Ms. Pamela Evans  
Former Chevron Service Station #9-0329  
Page 2

If you have any questions or comments, please call me at (510) 842-9136.

Sincerely,  
**CHEVRON PRODUCTS COMPANY**



Philip R. Briggs  
Site Assessment and Remediation Project Manager

Enclosure

Cc. Mr. Chuck Headlee  
RWQCB-San Francisco Bay Region  
2101 Webster Street, Suite 500  
Oakland, CA 94612

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

Mir Ghafari & Fred Manoucheri  
Service Station  
340 Highland Avenue  
Piedmont, CA 94611

Ms. Bette Owen, Chevron

Ms. Anne Payne, Chevron, ChvPkv/V-1156

**BLAINE**  
TECH SERVICES, INC.



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

May 26, 1998

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

### **2nd Quarter 1998 Monitoring at 9-0329**

Second Quarter 1998 Groundwater Monitoring at  
Chevron Service Station Number 9-0329  
340 Highland Avenue  
Piedmont, CA

Monitoring Performed on April 15, 1998

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### **Groundwater Sampling Report 980415-M-1**

This report covers the routine 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.

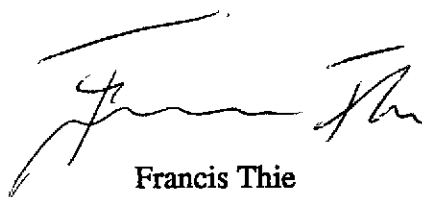
Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL DATA AND ANALYTICAL RESULTS**. The full analytical report for the most recent samples is located in the **Analytical Appendix**. The table also contains new groundwater 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 black ink, appearing to read 'Francis Thie', is written over a horizontal line.

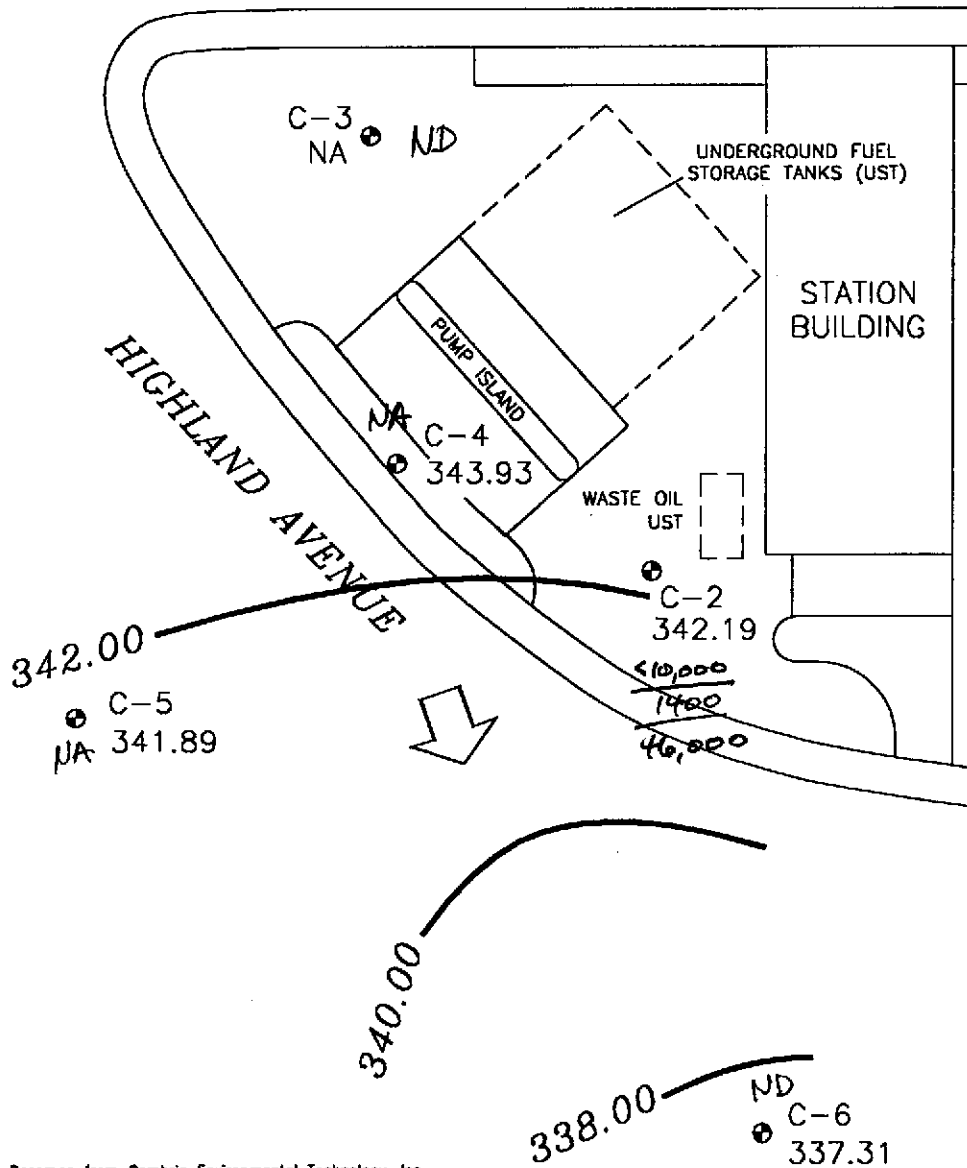
Francis Thie  
Vice President

FPT/aa

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

# **Professional Engineering Appendix**

HIGHLAND WAY



EXPLANATION

- MONITORING WELL
- 337.31 GROUNDWATER ELEVATION (FT, MSL)
- 342.00 — GROUNDWATER ELEVATION CONTOUR (FT, MSL)
- NA DATA NOT AVAILABLE
- ↓ APPROXIMATE GROUNDWATER FLOW DIRECTION;  
APPROXIMATE GRADIENT = 0.06



TPH-E  
benzene  
MTBE

Base map from Cambria Environmental Technology, Inc.

PREPARED BY

**RRM**  
engineering contracting firm

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

**GROUNDWATER ELEVATION CONTOUR MAP,**  
APRIL 15, 1998

FIGURE:  
1  
PROJECT:  
DAC04

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

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
<b>C-2</b>										
08/07/89	94.19	91.33	2.88	--	34,000	580	60	170	270	--
11/15/89	94.19	91.39	2.80	--	8100	500	36	420	180	--
02/01/91	94.19	90.41	3.75	--	6800	490	21	310	86	--
04/16/91	94.19	91.64	2.55	--	9600	810	43	550	270	--
10/16/91	94.19	90.67	3.52	--	7100	320	23	200	60	--
01/08/92	94.19	90.04	4.15	--	2400	190	9.0	83	22	--
04/10/92	94.19	91.23	2.96	--	6600	550	33	340	170	--
07/14/92	94.19	91.36	2.83	--	9000	680	330	580	690	--
10/05/92	94.19	89.81	4.38	--	5500	250	17	130	82	--
01/06/93	94.19	90.25	3.94	--	5500	190	32	41	54	--
03/29/93	94.19	92.10	2.09	--	19,000	670	40	180	370	--
07/02/93	94.19	92.10	2.09	--	8000	1100	41	420	500	--
10/11/93	94.19	91.43	2.76	--	42,000	940	34	140	87	--
01/10/94	94.19	89.37	4.82	--	12,000	770	20	220	74	--
04/06/94	94.19	91.70	2.49	--	40,000	820	33	190	110	--
07/06/94	94.19	91.72	2.47	--	8800	870	28	140	95	--
11/11/94	94.19	91.32	2.87	--	8600	460	81	180	120	--
01/06/95	94.19	91.64	2.55	--	15,000	880	48	270	140	--
04/13/95	94.19	92.13	2.06	--	56,000	2500	130	730	360	--
07/25/95	94.19	92.05	2.14	--	11,000	1000	34	540	160	--
10/05/95	94.19	91.68	2.51	--	13,000	1000	<20	160	170	--
01/02/96	94.19	91.97	2.22	--	9500	1300	<50	380	87	64,000
04/11/96	94.19	92.27	1.92	--	<10,000	1300	<100	<100	<100	74,000
07/08/96	94.19	92.14	2.05	--	<20,000	1200	<200	<200	<200	110,000
10/03/96	94.19	91.90	2.29	--	<25,000	1200	<250	<250	<250	140,000
01/23/97	343.39	341.49	1.90	--	20,000	1100	<200	460	<200	110,000
02/14/97	343.39	341.42	1.97	Confirmation run	--	--	--	--	--	150,000
04/08/97	343.39	341.12	2.27	--	<50,000	1100	<500	<500	<500	160,000
07/09/97	343.39	341.41	1.98	--	<50,000	1300	<500	<500	<500	210,000
10/08/97	343.39	341.09	2.30	--	18,000	1400	<50	300	95	160,000
01/22/98	343.39	341.71	1.68	--	10,000	860	10	140	37	70,000
04/15/98	343.39	342.19	1.20	--	<10,000	1400	<100	510	<100	46,000



## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
<b>C-3</b>										
08/07/89	97.65	93.36	4.29	--	<50	<0.5	<1.0	<1.0	<3.0	--
11/15/89	97.65	92.48	5.17	--	<500	<0.5	2.8	<0.5	1.1	--
02/01/91	97.65	91.27	6.38	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/16/91	97.65	93.93	3.72	--	<50	<0.5	<0.5	<0.5	<0.5	--
10/16/91	97.65	89.45	8.20	--	<50	<0.5	<0.5	<0.5	<0.5	--
01/08/92	97.65	90.97	6.68	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/10/92	97.65	93.15	4.50	--	<50	<0.5	<0.5	<0.5	<0.5	--
07/14/92	97.65	91.44	6.21	--	<50	<0.5	<0.5	<0.5	<0.5	--
10/05/92	97.65	88.34	9.31	--	<50	<0.5	<0.5	<0.5	<0.5	--
01/06/93	97.65	94.24	3.41	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/29/93	97.65	97.15	0.50	--	<50	<0.5	<0.5	<0.5	0.8	--
07/02/93	97.65	95.06	2.59	--	<50	4.0	3.0	<0.5	3.0	--
10/11/93	97.65	92.75	4.90	--	<50	<0.5	<0.5	<0.5	<0.5	--
01/10/94	97.65	93.26	4.39	--	<50	<0.5	1.0	<0.5	0.8	--
04/06/94	97.65	94.97	2.68	--	<50	<0.5	1.0	0.7	4.5	--
07/06/94	97.65	95.55	2.10	--	<50	2.2	4.1	<0.5	2.8	--
11/11/94	97.65	96.42	1.23	--	<50	<0.5	0.8	<0.5	<0.5	--
01/06/95	97.65	97.05	0.60	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/13/95	97.65	97.05	0.60	--	<50	<0.5	<0.5	<0.5	<0.5	--
07/25/95	97.65	96.00	1.65	--	<50	<0.5	<0.5	<0.5	<0.5	--
10/05/95	97.65	94.02	3.63	--	<50	<0.5	<0.5	<0.5	<0.5	--
01/02/96	97.65	94.53	3.12	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
04/11/96	97.65	96.83	0.82	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
07/08/96	97.65	96.15	1.50	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
10/03/96	97.65	95.17	2.48	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
01/23/97	347.08	346.87	0.21	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
04/08/97	347.08	346.33	0.75	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
07/09/97	347.08	345.61	1.47	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
10/08/97	347.08	345.04	2.04	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
01/22/98	347.08	347.08	0.00	Well flooded	<50	<0.5	<0.5	<0.5	<0.5	<2.5
04/15/98	347.08	347.08	0.00	Well flooded	<50	<0.5	<0.5	<0.5	<0.5	<2.5
05/13/98	347.20*	--	--	--	--	--	--	--	--	--

\* Well head elevation adjusted due to broken top of casing.

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
<b>C-4</b>										
08/07/89	95.60	--	--	Dry	--	--	--	--	--	Dry
11/15/89	95.60	90.65	4.95	--	1300	2.9	310	0.5	2.9	--
02/01/91	95.60	90.82	4.78	--	72	<0.5	9.0	<0.5	<0.5	--
04/16/91	95.60	95.60	4.83	--	<50	<0.5	<0.5	<0.5	<0.5	--
10/16/91	95.60	91.37	4.23	--	<50	<0.5	<0.5	<0.5	<0.5	--
01/08/92	95.60	90.79	4.81	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/10/92	95.60	91.34	4.26	--	<50	<0.5	<0.5	<0.5	<0.5	--
07/14/92	95.60	91.32	4.28	--	<50	<0.5	3.8	<0.5	<0.5	--
10/05/92	95.60	91.31	4.29	--	<50	<0.5	<0.5	<0.5	<0.5	--
01/06/93	95.60	91.31	4.29	--	<50	0.7	<0.5	<0.5	<0.5	--
03/29/93	95.60	91.30	4.30	--	<50	0.5	1.0	<0.5	2.0	--
07/02/93	95.60	91.38	4.22	--	<50	<0.5	<0.5	<0.5	<0.5	--
10/11/93	95.60	91.30	4.30	--	<50	0.6	<0.5	<0.5	<0.5	--
01/10/94	95.60	91.16	4.44	--	<50	0.7	3.0	<0.5	1.0	--
04/06/94	95.60	91.36	4.24	--	130	2.2	5.4	3.3	24	--
07/06/94	95.60	91.36	4.24	--	99	5.9	7.5	2.0	12	--
11/11/94	95.60	91.39	4.21	--	<50	<0.5	9.5	<0.5	<0.5	--
01/06/95	95.60	91.18	4.42	--	<50	0.7	1.0	<0.5	1.1	--
04/13/95	95.60	91.36	4.24	--	67	0.54	7.2	<0.5	1.1	--
07/25/95	95.60	91.36	4.24	--	390	<2.0	150	<2.0	<2.0	--
10/05/95	95.60	91.22	4.38	--	130	<0.5	66	<0.5	<0.5	--
01/02/96	95.60	91.34	4.26	--	<50	<0.5	<0.5	<0.5	<0.5	34
04/11/96	95.60	91.21	4.39	--	<50	<0.5	0.93	<0.5	<0.5	56
07/08/96	95.60	91.32	4.28	--	<50	<0.5	<0.5	<0.5	<0.5	21
10/03/96	95.60	91.38	4.22	--	80	<0.5	31	<0.5	<0.5	9.9
01/23/97	344.94	340.55	4.39	--	<50	<0.5	<0.5	<0.5	<0.5	23
04/08/97	344.94	340.69	4.25	--	87	<0.5	3.6	<0.5	1.7	7.0
07/09/97	344.94	340.73	4.21	--	93	<0.5	32	<0.5	<0.5	26
10/08/97	344.94	340.60	4.34	--	<50	<0.5	0.63	<0.5	<0.5	12
01/22/98	344.94	340.68	4.26	--	<50	<0.5	4.3	<0.5	<0.5	10
04/15/98	344.94	343.93	1.01	Sampled blannually	--	--	--	--	--	--

### Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
<b>C-5</b>										
11/25/96	--	--	3.30	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
01/23/97	345.14	343.69	1.45	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
04/08/97	345.14	342.82	2.32	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
07/09/97	345.14	342.84	2.30	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
10/08/97	345.14	342.14	3.00	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
01/22/98	345.14	344.14	1.00	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
04/15/98	345.14	341.89	3.25	Sampled annually	--	--	--	--	--	--
<b>C-6</b>										
11/25/96	--	--	2.13	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
01/23/97	338.61	--	0.00	Well flooded	<50	<0.5	<0.5	<0.5	<0.5	<2.5
04/08/97	338.61	--	0.00	Well flooded	<50	<0.5	<0.5	<0.5	<0.5	<2.5
07/09/97	338.61	335.84	2.77	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
10/08/97	338.61	337.17	1.44	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
01/22/98	338.61	337.07	1.54	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
04/15/98	338.61	337.31	1.30	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
<b>Backfill Well: A</b>										
08/07/89	--	--	2.10	--	1000	50	6.0	5.0	22	--
11/15/89	--	--	2.04	--	3700	98	2.1	4.3	55	--
02/01/91	--	--	3.05	--	36,000	1100	750	130	6100	--
04/16/91	--	--	2.01	--	8000	370	6.0	86	750	--
10/16/91	--	--	4.15	--	--	--	--	--	--	--
<b>Backfill Well: B</b>										
08/07/89	--	--	4.12	--	--	--	--	--	--	--
11/15/89	--	--	--	--	--	--	--	--	--	--
02/01/91	--	--	5.03	--	--	--	--	--	--	--
04/16/91	--	--	4.00	--	--	--	--	--	--	--
10/16/91	--	--	6.24	--	--	--	--	--	--	--

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
<b>TRIP BLANK</b>										
01/06/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/29/93	--	--	--	--	<50	<0.5	<0.5	<0.5	1.0	--
07/02/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
10/11/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
01/10/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/06/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
07/06/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
11/11/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
01/06/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/13/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
07/25/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
10/05/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
01/02/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
04/11/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
07/08/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
10/03/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
01/23/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
04/08/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
07/09/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
10/08/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
01/22/98	--	--	--	--	<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 April 13, 1995.  
 Earlier field data and analytical results provided by Sierra Environmental.  
 Survey performed on March 20, 1997 by Ron Archer, Civil Engineer Inc.

**ABBREVIATIONS:**

TPH = Total Petroleum Hydrocarbons  
 MTBE = Methyl t-butyl ether

# Analytical Appendix



Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-0329/980415-W1 Sample Descript: C-2 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9804A73-01	Sampled: 04/15/98 Received: 04/16/98 Analyzed: 04/22/98 Reported: 04/24/98
Attention: Fran Thie		

QC Batch Number: GC042298BTEX09A  
Instrument ID: GCHP9

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	10000	N.D.
Methyl t-Butyl Ether	500	46000
Benzene	100	1400
Toluene	100	N.D.
Ethyl Benzene	100	510
Xylenes (Total)	100	N.D.
Chromatogram Pattern: Discrete Peaks		....
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	102

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

**SEQUOIA ANALYTICAL** - ELAP #1271

  
Peggy Penner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-0329/980415-W1 Sample Descript: C-3 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9804A73-02	Sampled: 04/15/98 Received: 04/16/98 Analyzed: 04/22/98 Reported: 04/24/98
--	--	---

QC Batch Number: GC042298BTEX09A  
Instrument ID: GCHP9

**Total Purgeable 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	99

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

**SEQUOIA ANALYTICAL** - ELAP #1271

  
Peggy Permer  
Project Manager





Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112

Client Proj. ID: Chevron 9-0329/980415-W1  
Sample Descript: C-6  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9804A73-03

Sampled: 04/15/98  
Received: 04/16/98  
Analyzed: 04/22/98  
Reported: 04/24/98

QC Batch Number: GC042298BTEX09A  
Instrument ID: GCHP9

**Total Purgeable 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	98

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

**SEQUOIA ANALYTICAL** - ELAP #1271

  
Peggy Pender  
Project Manager







Blaine Tech Services, Inc.  
1680 Rogers Ave.  
San Jose, CA 95112  
Attention: Fran Thie

Client Project ID: Chevron 9-0329 / 980415-W1  
Matrix: Liquid

Work Order #: 9804A73 -01-03

Reported: May 7, 1998

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC042298802009A	GC042298802009A	GC042298802009A	GC042298802009A	GC042298802009A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb
MS/MSD #:	8041167	8041167	8041167	8041167	8041167
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/22/98	4/22/98	4/22/98	4/22/98	4/22/98
Analyzed Date:	4/22/98	4/22/98	4/22/98	4/22/98	4/22/98
Instrument I.D.#:	HP9	HP9	HP9	HP9	HP9
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	340 µg/L
Result:	22	23	23	72	370
MS % Recovery:	110	115	115	120	109
Dup. Result:	22	22	22	67	340
MSD % Recov.:	110	110	110	112	100
RPD:	0.0	4.4	4.4	7.2	8.5
RPD Limit:	0-20	0-20	0-20	0-20	0-50

LCS #:	LCS042298	LCS042298	LCS042298	LCS042298	LCS042298
Prepared Date:	4/22/98	4/22/98	4/22/98	4/22/98	4/22/98
Analyzed Date:	4/22/98	4/22/98	4/22/98	4/22/98	4/22/98
Instrument I.D.#:	HP9	HP9	HP9	HP9	HP9
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	340 µg/L
LCS Result:	22	22	22	66	340
LCS % Recov.:	110	110	110	110	100

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  
Elap #1271

*Fran Thie*

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

9804A73.BLA <1>





**Sequoia  
Analytical**

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600  
(510) 988-9600  
(916) 921-9600  
(707) 792-1865

FAX (650) 364-9233  
FAX (510) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

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

Client Proj. ID: Chevron 9-0329/980415-W1  
Lab Proj. ID: 9804A73

Received: 04/16/98  
Reported: 04/24/98

### LABORATORY NARRATIVE

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

TPPH Note: Sample 9804A73-01 was diluted 200-fold.

**SEQUOIA ANALYTICAL**

  
Peggy Penner  
Project Manager





# **Field Data Sheets**



## CHEVRON WELL MONITORING DATA SHEET

Project #: 980415-W1	Station #: 9-0329
Sampler: M. Wetmore	Date: 4/15/98
Well I.D.: C-6	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth: 17.42	Depth to Water: 1.30
Depth to Free Product:	Thickness of Free Product (feet):
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 <input checked="" type="checkbox"/> Middleburg Electric Submersible Extraction Pump Other: _____	Sampling Method: Bailer Disposable Bailer <input checked="" type="checkbox"/> Extraction Port Other: _____
--	---

<u>2.7</u>	x	<u>3</u>	=	<u>8.2</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
0815	73.4	7.5	330	3	
0818	74.6	6.8	440	6	
0821	75.4	7.4	460	9	

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: <u>9</u>
Sampling Time: <u>825</u>	Sampling Date: <u>4/15/98</u>
Sample I.D.: <u>C-6</u>	Laboratory: <u>Sequoia</u> GTEL N. Creek Assoc. Labs
Analyzed for: <u>TPH-G BTEX MTBE</u> TPH-D Other:	

Duplicate I.D.:	Analyzed for: TPH-G BTEX MTBE TPH-D Other:
D.O. (if req'd):	Pre-purge: <span style="margin-left: 100px;">mg/L</span> Post-purge: <span style="margin-left: 100px;">mg/L</span>
O.R.P. (if req'd):	Pre-purge: <span style="margin-left: 100px;">mV</span> Post-purge: <span style="margin-left: 100px;">mV</span>

## CHEVRON WELL MONITORING DATA SHEET

Project #: 980415 - W1	Station #: 9-0329
Sampler: M. Wetmore	Date: 4/15/98
Well I.D.: C-3	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth: 14.24	Depth to Water: 0.00
Depth to Free Product:	Thickness of Free Product (feet):
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 <input checked="" type="checkbox"/> Middleburg Electric Submersible Extraction Pump Other: _____	Sampling Method: Bailer Disposable Bailer <input checked="" type="checkbox"/> Extraction Port Other: _____
--	---

<u>2.4</u>	x	<u>3</u>	=	<u>7.2</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
830	74.6	10 <input checked="" type="checkbox"/>	420	3	
834	75.4	9.6	400	6	
838	74.3	9.5	400	8	

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: <u>8</u>
Sampling Time: <u>840</u>	Sampling Date: <u>4/15/98</u>
Sample I.D.: <u>C-3</u>	Laboratory: <u>Sequoia</u> GTEL N. Creek Assoc. Labs
Analyzed for: <u>TPH-G BTEX MTBE</u> TPH-D Other:	
Duplicate I.D.:	Analyzed for: TPH-G BTEX MTBE TPH-D Other:
D.O. (if req'd):	Pre-purge: <span style="margin-left: 100px;">mg/L</span> Post-purge: <span style="margin-left: 100px;">mg/L</span>
O.R.P. (if req'd):	Pre-purge: <span style="margin-left: 100px;">mV</span> Post-purge: <span style="margin-left: 100px;">mV</span>

# CHEVRON WELL MONITORING DATA SHEET

Project #: 980415 W1	Station #: 9-0329
Sampler: M. Wetmore	Date: 4/15/98
Well I.D.: C-2	Well Diameter: (2) 3 4 6 8
Total Well Depth: 14.75	Depth to Water: 1.20
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: \_\_\_\_\_

2.3	x	3	=	6.9	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
9:00	74.6	8.1	560	2.5	
9:02	75.8	7.8	660	5.0	"
9:04	74.9	8.0	600	7	"

Did well dewater?    Yes    No    Gallons actually evacuated: 7

Sampling Time: 906    Sampling Date: 4/15/98

Sample I.D.: C-2    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