



1680 ROGERS AVENUE  
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January 19, 1998

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

#### 4th Quarter 1997 Monitoring at 9-0121

Fourth Quarter 1997 Groundwater Monitoring at  
Chevron Service Station Number 9-0121  
3026 Lakeshore Avenue  
Oakland, CA

Monitoring Performed on December 5, 1997

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#### Groundwater Sampling Report 971205-D-3

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

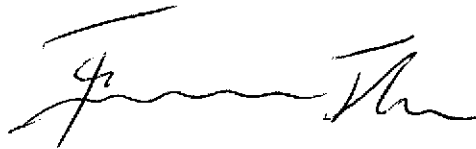
also contains new groundwater elevation calculations taken from the computer plotted gradient map which is located in the **Professional Engineering Appendix**.

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,

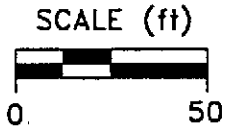
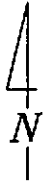
A handwritten signature in black ink, appearing to read 'Francis Thie', written in a cursive style.

Francis Thie  
Vice President

FPT/ew

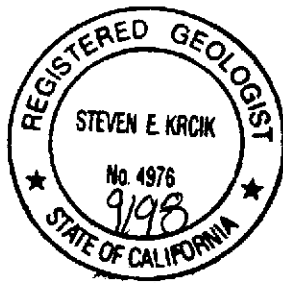
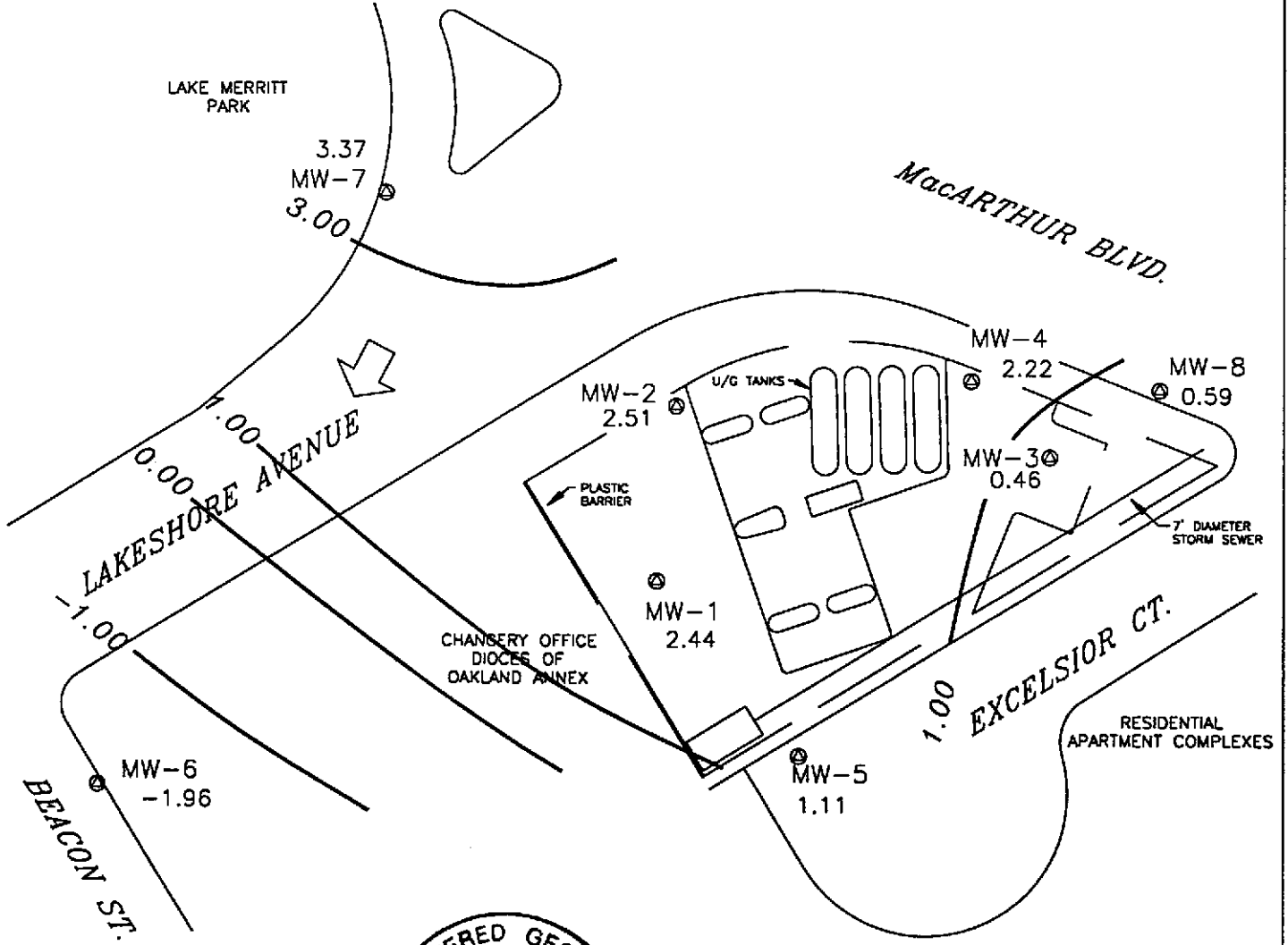
attachments: Professional Engineering Appendix  
Cumulative Table of Well Data and Analytical Results  
Analytical Appendix  
Field Data Sheets

# **Professional Engineering Appendix**



**EXPLANATION**

- ⊙ MONITORING WELL LOCATION
- 0.59 GROUNDWATER ELEVATION (FT, MSL)
- 1.00 — GROUNDWATER ELEVATION CONTOUR (FT, MSL)
- ⇨ APPROXIMATE GROUNDWATER FLOW DIRECTION;  
APPROXIMATE GRADIENT = 0.03



Basemap from Geoconsultants, Inc.

PREPARED BY



**Chevron Station 9-0121**  
3026 Lakeshore Avenue  
Oakland, California

**GROUNDWATER ELEVATION CONTOUR MAP,  
DECEMBER 5, 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	TPH-Diesel	TDS	MTBE
<b>MW-1</b>															
08/20/91	6.82	1.62	5.20	--	--	--	--	5100	1700	21	220	34	260	--	--
09/30/91	6.82	1.15	5.67	Sheen	--	--	--	--	--	--	--	--	--	--	--
10/28/91	6.82	1.50	5.30	0.03	--	--	--	--	--	--	--	--	--	--	--
01/08/92	6.82	1.67	5.15	Sheen	--	--	--	5400	770	13	95	31	4400	--	--
01/13/92	6.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--
06/23/92	6.89	1.48	5.41	--	--	--	--	7700	1500	40	230	100	2000	--	--
08/24/92	6.89	1.12	5.77	--	--	--	--	--	--	--	--	--	--	--	--
09/21/92	6.89	1.00	5.89	--	--	--	--	3500	1700	28	190	78	<50	--	--
10/26/92	6.89	0.95	5.94	--	--	--	--	--	--	--	--	--	--	--	--
12/23/92	6.89	2.18	4.71	--	--	--	--	60,000	7100	240	2000	1300	5500	--	--
01/08/93	6.89	--	--	--	--	--	--	--	--	--	--	--	--	--	--
03/25/93	6.89	2.17	4.72	--	--	--	--	530	1100	41	67	79	<10	--	--
06/11/93	6.89	5.37	5.07	--	--	--	--	7000	1900	33	120	69	--	840	9600
09/29/93	6.89	1.13	5.76	--	--	--	--	6600	1600	28	43	74	<10	--	--
12/20/93	6.89	1.74	5.15	--	--	--	--	6300	1900	36	82	65	<10	--	--
03/07/94	6.89	2.21	4.68	--	--	--	--	7700	1100	55	66	38	<10	--	12,000
06/17/94	6.89	1.83	5.06	--	--	--	--	4300	710	12	90	38	2200	--	--
09/12/94	6.89	1.24	5.65	--	--	--	--	6400	1500	<25	180	<25	2500	--	12,000
11/30/94	6.89	2.32	4.57	--	--	--	--	4900	690	26	97	60	2300*	--	3900
03/24/95	6.89	3.91	2.98	--	--	--	--	1800	160	7.3	11	14	1400**	--	1300
06/27/95	6.89	1.87	5.02	--	--	--	--	4600	1300	11	97	13	2300**	--	5100
09/28/95	6.89	1.59	5.30	--	--	--	--	6600	1500	<20	<20	<20	3900**	--	5800
12/19/95	6.89	2.21	4.68	--	--	--	--	3800	930	<10	100	<10	2600**	--	6300
02/28/96	6.89	3.27	3.62	--	--	--	--	3600	280	<5.0	18	5.5	1800**	--	2200
06/25/96	6.89	1.87	5.02	--	--	--	--	4700	1600	36	150	31	3000	--	3000
12/17/96	6.89	2.23	4.66	--	--	--	--	7800	1000	28	340	63	2700***	--	1200
03/31/97	6.89	2.01	4.88	--	--	--	--	5300	590	55	210	53	2200**	--	950
06/30/97	6.89	1.32	5.57	--	--	--	--	4400	350	<10	<10	11	2200**	--	580
09/12/97	6.89	1.56	5.33	--	--	--	--	3400	220	9.5	15	11	2300**	--	460
12/05/97	6.89	2.44	4.45	--	--	--	--	4700	870	21	120	18	1900**	--	750

\* Chromatogram pattern indicates a non-diesel mix.

\*\* Chromatogram pattern indicates an unidentified hydrocarbon.

\*\*\* Chromatogram pattern indicates an unidentified hydrocarbon and weathered diesel.

## 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	TPH-Diesel	TDS	MTBE
<b>MW-2</b>															
08/20/91	6.27	1.92	4.35	--	--	--	--								
09/30/91	6.27	1.28	4.99	--	--	--	--	9300	3700	55	530	75	600	--	--
10/28/91	6.27	1.36	4.91	--	--	--	--	3500	2600	47	440	68	--	--	--
01/08/92	6.27	1.63	4.64	Sheen	--	--	--	4600	1800	29	290	53	--	--	--
01/13/92	6.27	--	--	--	--	--	--	14,000	4300	70	<25	130	--	--	--
06/23/92	6.27	1.63	4.64	0.02	--	--	--	--	--	--	--	--	38,000	--	--
08/24/92	6.27	1.34	4.94	0.02	--	--	--	--	--	--	--	--	--	--	--
09/21/92	6.27	1.20	5.08	0.01	--	--	--	--	--	--	--	--	--	--	--
10/26/92	6.27	0.34	5.93	--	--	--	--	--	--	--	--	--	--	--	--
12/23/92	6.27	--	--	--	--	--	--	--	--	--	--	--	--	--	--
01/08/93	6.27	2.57	3.70	--	--	--	--	21,000	5400	59	1300	160	160,000	--	--
03/25/93	6.27	2.89	3.38	Sheen	--	--	--	--	--	--	--	--	--	--	--
06/11/93	6.27	2.09	4.18	--	--	--	--	5900	1100	23	240	51	--	2300	--
09/29/93	6.27	0.07	6.20	--	--	--	--	--	--	--	--	--	--	--	--
12/20/93	6.27	1.94	4.35	0.02	--	--	--	--	--	--	--	--	--	--	--
03/07/94	6.27	2.60	3.67	--	--	--	--	26,000	5700	170	1000	150	<10	--	--
06/17/94	6.27	2.25	4.02	Sheen	--	--	--	--	--	--	--	--	--	--	--
09/12/94	6.27	1.45	4.83	0.01	--	--	--	--	--	--	--	--	--	--	--
11/30/94	6.27	2.27	4.00	--	--	--	Inaccessible	--	--	--	--	--	--	--	--
03/24/95	6.27	2.73	4.01	0.59	--	--	--	--	--	--	--	--	--	--	--
06/27/95	6.27	1.71	4.96	0.50	0.013	0.013	--	--	--	--	--	--	--	--	--
09/28/95	6.27	2.62	4.25	0.75	0.013	0.026	--	--	--	--	--	--	--	--	--
12/19/95	6.27	1.99	4.76	0.60	0.010	0.036	--	--	--	--	--	--	--	--	--
02/28/96	6.27	1.99	4.58	0.38	0.008	0.044	--	--	--	--	--	--	--	--	--
06/25/96	6.27	2.36	4.29	0.47	0.030	0.074	--	--	--	--	--	--	--	--	--
12/17/96	6.27	2.22	4.16	0.14	--	0.074	--	--	--	--	--	--	--	--	--
03/31/97	6.27	2.34	4.07	0.18	0.030	0.104	--	--	--	--	--	--	--	--	--
06/30/97	6.27	2.06	4.32	0.14	0.030	0.134	--	--	--	--	--	--	--	--	--
09/12/97	6.27	2.00	4.38	0.14	--	0.134	--	--	--	--	--	--	--	--	--
12/05/97	6.27	2.51	3.78	0.02	--	0.134	--	--	--	--	--	--	--	--	--

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

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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	TPH-Diesel	TDS	MTBE
<b>MW-3</b>															
08/20/91	8.71	0.26	8.45	--	--	--	--								
09/30/91	8.71	-0.03	8.74	--	--	--	--	3100	200	13	15	12	200	--	--
10/28/91	8.71	-0.05	8.76	--	--	--	--	1000	150	8.3	13	6.7	--	--	--
01/08/92	8.71	-0.06	8.77	--	--	--	--	1200	120	6.7	11	7.5	--	--	--
01/13/92	8.71	--	--	--	--	--	--	410	120	0.9	4.1	3.4	--	--	--
06/23/92	8.71	0.03	8.68	--	--	--	--	--	--	--	--	--	220	--	--
08/24/92	8.71	-0.14	8.85	--	--	--	--	630	43	0.8	8.2	3.4	<50	--	--
09/21/92	8.71	-0.23	8.94	--	--	--	--	--	--	--	--	--	--	--	--
10/26/92	8.71	-0.36	9.07	--	--	--	--	1800	730	1.4	66	39	<50	--	--
12/23/92	8.71	--	--	--	--	--	--	--	--	--	--	--	--	--	--
01/08/93	8.71	1.02	7.69	--	--	--	--	840	270	3.4	15	4.2	850	--	--
03/25/93	8.71	0.97	7.74	--	--	--	--	--	--	--	--	--	--	--	--
06/11/93	8.71	0.19	8.52	--	--	--	--	760	270	4.0	10	5.0	<10	--	--
09/29/93	8.71	2.66	6.05	--	--	--	--	200	32	1.0	5.0	2.0	--	5600	--
12/20/93	8.71	-0.12	8.83	--	--	--	--	9300	2800	60	270	62	--	--	--
03/07/94	8.71	0.64	8.07	--	--	--	--	460	250	4.0	8.0	4.0	<10	--	--
06/17/94	8.71	0.19	8.52	--	--	--	--	2400	260	13	35	18	<10	--	--
09/12/94	8.71	-0.21	8.92	--	--	--	--	1000	200	4.0	6.6	6.7	<50	--	--
11/30/94	8.71	0.58	8.13	--	--	--	Inaccessible	360	130	3.4	4.8	3.3	<50	--	130
03/24/95	8.71	1.93	6.78	--	--	--	--	--	--	--	--	--	--	--	--
06/27/95	8.71	0.49	8.22	--	--	--	--	4100	920	<10	23	<10	1200*	--	70
09/28/95	8.71	-0.14	8.85	--	--	--	--	3100	640	16	31	<10	1000*	--	<50
12/19/95	8.71	0.69	8.02	--	--	--	--	490	78	3.4	4.4	2.4	460*	--	38
02/28/96	8.71	1.16	7.55	--	--	--	--	2600	580	<10	25	<10	650*	--	<50
06/25/96	8.71	0.34	8.37	--	--	--	--	1500	510	<5.0	9.9	<5.0	780*	--	<25
12/17/96	8.71	0.41	8.30	--	--	--	--	1300	390	7.8	14	6.5	1200*	--	31
03/31/97	8.71	0.52	8.19	--	--	--	--	760	85	<1.2	5.9	5.1	1100*	--	<6.2
06/30/97	8.71	0.00	8.71	--	--	--	--	2000	380	12	24	12	1300*	--	<25
09/12/97	8.71	1.07	7.64	--	--	--	--	1900	340	9.9	23	6.1	620*	--	<25
12/05/97	8.71	0.46	8.25	--	--	--	--	1200	200	4.6	14	4.8	400*	--	3.9
								460	72	2.7	5.2	1.7	190*	--	<5.0

\* Chromatogram pattern indicates an unidentified hydrocarbon.



## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Volumetric Measurements are in gallons.

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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	TPH-Diesel	TDS	MTBE
<b>MW-4</b>															
08/20/91	7.37	1.32	5.05	--	--	--	--	1800	870	4.0	3.0	9.0	160	--	--
09/30/91	7.37	1.70	5.67	--	--	--	--	670	830	5.5	2.7	12	--	--	--
10/28/91	7.37	1.56	5.81	--	--	--	--	2800	990	5.8	4.8	19	--	--	--
01/08/92	7.37	2.03	5.34	--	--	--	--	2900	1200	10	7.0	18	--	--	--
01/13/92	7.37	--	--	--	--	--	--	--	--	--	--	--	1000	--	--
06/23/92	7.37	2.00	5.37	--	--	--	--	1600	380	6.5	3.0	12	<50	--	--
08/24/92	7.37	1.62	5.75	--	--	--	--	--	--	--	--	--	--	--	--
09/21/92	7.37	1.42	5.95	--	--	--	--	1200	480	5.6	3.7	11	<50	--	--
10/26/92	7.37	1.41	5.96	--	--	--	--	--	--	--	--	--	--	--	--
12/23/92	7.37	--	--	--	--	--	--	1500	700	3.6	3.2	11	1800	--	--
01/08/93	7.37	2.73	4.64	--	--	--	--	--	--	--	--	--	--	--	--
03/25/93	7.37	2.95	4.42	--	--	--	--	520	160	3.0	1.0	4.0	<10	--	--
06/11/93	7.37	2.25	5.12	--	--	--	--	1200	430	5.0	6.0	11	--	2600	--
09/29/93	7.37	1.57	5.80	--	--	--	--	1300	210	8.0	2.0	14	--	--	--
12/20/93	7.37	2.27	5.10	--	--	--	--	570	230	5.0	4.0	8.0	3900	--	--
03/07/94	7.37	2.36	5.01	--	--	--	--	2200	290	18	2.5	11	2600	--	22,000
06/17/94	7.37	1.55	5.82	--	--	--	--	2100	480	11	4.3	9.5	2800	--	--
09/12/94	7.37	1.73	5.64	--	--	--	--	1700	340	6.1	2.7	9.7	3000	--	63,000
11/30/94	7.37	1.79	5.58	--	--	--	Inaccessible	--	--	--	--	--	--	--	--
03/24/95	7.37	2.42	4.95	--	--	--	--	1500	280	<5.0	<5.0	6.9	3000*	--	12,000
06/27/95	7.37	-1.42	8.79	--	--	--	--	<10,000	310	<100	<100	<100	3100*	--	32,000
09/28/95	7.37	1.52	5.85	--	--	--	--	330	64	1.1	<0.5	<0.5	6300*	--	630
12/19/95	7.37	1.87	5.50	--	--	--	--	3000	520	<25	<25	<25	3400*	--	44,000
02/28/96	7.37	2.27	5.10	--	--	--	--	<10,000	230	<100	<100	<100	4700*	--	32,000
06/25/96	7.37	1.59	5.78	--	--	--	--	<10000	160	<100	<100	<100	3100	--	31,000
12/17/96	7.37	1.42	5.95	--	--	--	--	<5000	110	<50	<50	<50	3600**	--	22,000
03/31/97	7.37	1.75	5.62	--	--	--	--	<2500	130	<25	<25	<25	2700*	--	16,000
06/30/97	7.37	1.34	6.03	--	--	--	--	<2500	130	<25	<25	<25	2700*	--	14,000
09/12/97	7.37	1.68	5.69	--	--	--	--	<5000	63	<50	<50	<50	2100*	--	15,000
12/05/97	7.37	2.22	5.15	--	--	--	--	1300	120	<5.0	<5.0	8.5	2600*	--	15,000

\* Chromatogram pattern indicates an unidentified hydrocarbon.

\*\* Chromatogram pattern indicates an unidentified hydrocarbon and weathered diesel.

## 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	TPH-Diesel	TDS	MTBE
<b>MW-5</b>															
06/23/92	14.14	1.90	12.24	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	--
08/24/92	14.14	1.85	12.29	--	--	--	--	--	--	--	--	--	--	--	--
09/21/92	14.14	1.68	12.46	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	60	--	--
10/26/92	14.14	1.62	12.52	--	--	--	--	--	--	--	--	--	--	--	--
12/23/92	14.14	3.02	11.12	--	--	--	--	--	--	--	--	--	--	--	--
01/08/93	14.14	--	--	--	--	--	--	--	--	--	--	--	--	--	--
03/25/93	14.14	4.40	9.74	--	--	--	--	<50	<0.5	<0.5	<0.5	0.9	<10	--	--
06/11/93	14.14	3.70	10.44	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	770	--
09/29/93	14.14	2.22	11.92	--	--	--	--	<50	<0.5	0.6	<0.5	0.6	<10	--	--
12/20/93	14.14	--	--	--	--	--	--	--	--	--	--	--	--	--	--
03/07/94	14.14	2.80	11.34	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<10	--	--
06/17/94	14.14	2.87	11.27	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	--
09/12/94	14.14	1.28	12.86	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	<5.0
11/30/94	14.14	2.23	11.91	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	99*	--	--
03/24/95	14.14	4.38	9.76	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	--
06/27/95	14.14	2.74	11.40	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	55**	--	--
09/28/95	14.14	2.24	11.90	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	300**	--	--
12/19/95	14.14	1.56	12.58	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	53**	--	3.1
02/28/96	14.14	2.44	11.70	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	<2.5
06/25/96	14.14	2.71	11.43	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	120**	--	36
12/17/96	14.14	2.74	11.40	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	89**	--	<2.5
03/31/97	14.14	2.04	12.10	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	150**	--	<2.5
06/30/97	14.14	1.36	12.78	--	--	--	Sampled biannually	--	--	--	--	--	--	--	--
09/12/97	14.14	0.46	13.68	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	<2.5
12/05/97	14.14	1.11	13.03	--	--	--	--	--	--	--	--	--	--	--	--

\* Chromatogram pattern indicates a non-diesel mix.

\*\* Chromatogram pattern indicates an unidentified hydrocarbon.

## 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	TPH-Diesel	TDS	MTBE
<b>MW-6</b>															
06/23/92	4.46	-0.68	5.14	--	--	--	--	<50	4.3	<0.5	0.8	0.9	120	--	--
08/24/92	4.46	-0.49	4.95	--	--	--	--	--	--	--	--	--	--	--	--
09/21/92	4.46	-0.44	4.90	--	--	--	--	<250	<2.5	<2.5	<2.5	<2.5	<50	--	--
10/26/92	4.46	-1.06	5.52	--	--	--	--	--	--	--	--	--	--	--	--
12/23/92	4.46	-0.94	5.40	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	81	--	--
01/08/93	4.46	--	--	--	--	--	--	--	--	--	--	--	--	--	--
03/25/93	4.46	-1.64	6.10	--	--	--	--	<50	<0.5	<0.5	<0.5	0.7	<10	--	--
06/11/93	4.46	-2.10	6.56	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	15,000	--
09/29/93	4.46	-0.71	5.17	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<10	--	--
12/20/93	4.46	-1.47	5.93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<10	--	--
03/07/94	4.46	-0.81	5.27	--	--	--	--	54	<0.5	<0.5	<0.5	0.6	<10	--	--
06/17/94	4.46	--	--	--	--	--	--	--	--	--	--	--	--	--	--
09/12/94	4.46	-0.64	5.10	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	<50
11/30/94	4.46	-1.12	5.58	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	800*	--	--
03/24/95	4.46	-1.87	6.33	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	490**	--	--
06/27/95	4.46	-3.74	8.20	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	300**	--	--
09/28/95	4.46	-0.19	4.65	--	--	--	--	120	1.1	<0.5	<0.5	<0.5	1200**	--	--
12/19/95	4.46	-1.58	6.04	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	820**	--	<2.5
02/28/96	4.46	-1.54	6.00	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	270**	--	<2.5
06/25/96	4.46	-1.71	6.17	--	--	--	--	97	<0.5	<0.5	<0.5	0.71	750**	--	<2.5
12/17/96	4.46	-1.67	6.13	--	--	--	--	65	<0.5	<0.5	<0.5	<0.5	540**	--	<2.5
03/31/97	4.46	-2.23	6.69	--	--	--	--	65	<0.5	<0.5	<0.5	<0.5	780**	--	<2.5
06/30/97	4.46	-2.62	7.08	--	--	--	Sampled biannually	--	--	--	--	--	--	--	--
09/12/97	4.46	-0.95	5.41	--	--	--	--	65	<0.5	<0.5	<0.5	<0.5	270**	--	<2.5
12/05/97	4.46	-1.96	6.42	--	--	--	--	--	--	--	--	--	--	--	--

\* Chromatogram pattern indicates a non-diesel mix.

\*\* Chromatogram pattern indicates an unidentified hydrocarbon.

### 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	TPH- Diesel	TDS	MTBE
<b>MW-7</b>															
06/23/92	5.26	0.88	4.38	--	--	--	--	<50	4.7	<0.5	<0.5	<0.5	<50	--	--
08/24/92	5.26	-0.29	5.55	--	--	--	--	--	--	--	--	--	--	--	--
09/21/92	5.26	-0.39	5.65	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	--
10/26/92	5.26	-0.25	5.51	--	--	--	--	--	--	--	--	--	--	--	--
12/23/92	5.26	1.31	3.95	--	--	--	--	<50	2.9	<0.5	<0.5	<0.5	60	--	--
01/08/93	5.26	--	--	--	--	--	--	--	--	--	--	--	--	--	--
03/25/93	5.26	2.76	2.50	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<10	--	--
06/11/93	5.26	1.80	3.46	--	--	--	--	<50	0.6	<0.5	<0.5	<0.5	--	2200	--
09/29/93	5.26	-0.26	5.52	--	--	--	--	<50	2.0	1.0	1.0	7.0	<10	--	--
12/20/93	5.26	0.85	4.41	--	--	--	--	<50	2.0	<0.5	<0.5	<0.5	<10	--	--
03/07/94	5.26	2.64	2.62	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<10	--	--
06/17/94	5.26	1.99	3.27	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	--
09/12/94	5.26	1.15	4.11	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	<5.0
11/30/94	5.26	2.50	2.76	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	92*	--	--
03/24/95	5.26	3.06	2.20	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	--
06/27/95	5.26	1.36	3.90	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	69**	--	--
09/28/95	5.26	0.41	4.85	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	84**	--	--
12/19/95	5.26	2.24	3.02	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	84**	--	<2.5
02/28/96	5.26	3.83	1.43	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	99**	--	<2.5
06/25/96	5.26	0.97	4.29	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	110**	--	<2.5
12/17/96	5.26	3.08	2.18	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	54**	--	<2.5
03/31/97	5.26	2.32	2.94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	100**	--	<2.5
06/30/97	5.26	1.68	3.58	--	--	--	Sampled annually	--	--	--	--	--	--	--	--
09/12/97	5.26	1.85	3.41	--	--	--	--	--	--	--	--	--	--	--	--
12/05/97	5.26	3.37	1.89	--	--	--	--	--	--	--	--	--	--	--	--

\* Chromatogram pattern indicates a non-diesel mix.  
 \*\* Chromatogram pattern indicates an unidentified hydrocarbon.

## 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	TPH-Diesel	TDS	MTBE
<b>MW-8</b>															
06/23/92	8.94	-15.20	24.14	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	--
08/24/92	8.94	0.34	8.60	--	--	--	--	--	--	--	--	--	--	--	--
09/21/92	8.94	0.55	8.39	--	--	--	--	94	<0.5	<0.5	<0.5	<0.5	<50	--	--
10/26/92	8.94	-0.18	9.12	--	--	--	--	--	--	--	--	--	--	--	--
12/23/92	8.94	0.83	8.11	--	--	--	--	<50	0.7	5.0	0.7	2.9	79	--	--
01/08/93	8.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--
03/25/93	8.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--
06/11/93	8.94	0.55	8.39	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	3500	--
09/29/93	8.94	0.69	8.25	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<10	--	--
12/20/93	8.94	0.48	8.46	--	--	--	--	<50	<0.5	0.6	<0.5	1.0	<10	--	--
03/07/94	8.94	0.28	8.66	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<10	--	--
06/17/94	8.94	0.12	8.82	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	--
09/12/94	8.94	0.11	8.83	--	--	--	--	<50	<0.5	<0.5	<0.5	0.8	<50	--	<5.0
11/30/94	8.94	0.31	8.63	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	120*	--	--
03/24/95	8.94	0.43	8.51	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	110**	--	--
06/27/95	8.94	-0.03	8.97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	67**	--	--
09/28/95	8.94	0.04	8.90	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	91**	--	--
12/19/95	8.94	0.54	8.40	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	76**	--	<2.5
02/28/96	8.94	0.50	8.44	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	<2.5
06/25/96	8.94	0.05	8.89	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	80**	--	<2.5
12/17/96	8.94	0.49	8.45	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	79**	--	<2.5
03/31/97	8.94	0.18	8.76	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	72**	--	3.6
06/30/97	8.94	-0.18	9.12	--	--	--	Sampled annually	--	--	--	--	--	--	--	--
09/12/97	8.94	0.13	8.81	--	--	--	--	--	--	--	--	--	--	--	--
12/05/97	8.94	0.59	8.35	--	--	--	--	--	--	--	--	--	--	--	--

\* Chromatogram pattern indicates a non-diesel mix.

\*\* Chromatogram pattern indicates an unidentified hydrocarbon.

## 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	TPH-Diesel	TDS	MTBE
<b>TRIP BLANK</b>															
08/24/92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
09/21/92	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
10/26/92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12/23/92	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
01/08/93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
03/25/93	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
06/11/93	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
09/29/93	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/20/93	--	--	--	--	--	--	--	<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	--	--	--
11/30/94	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	1.0	--	--	--
03/24/95	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
06/27/95	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
09/28/95	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/19/95	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
02/28/96	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
06/25/96	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/17/96	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
03/31/97	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	<2.5
06/30/97	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	<2.5
09/12/97	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	<2.5
12/05/97	--	--	--	--	--	--	--	<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 November 1, 1994.  
 Earlier field data and analytical results are drawn from the September 27, 1994 Groundwater Technology, Inc. report.

**ABBREVIATIONS:**

TPH = Total Petroleum Hydrocarbons

TDS = Total Dissolved Solids

MTBE = Methyl-tert-butyl ether

# **Analytical Appendix**



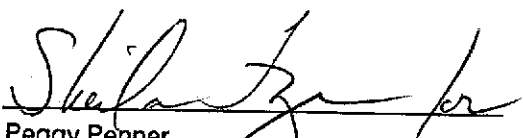
Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-0121/Oakland Sample Descript: MW-1 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9712637-01	Sampled: 12/05/97 Received: 12/08/97 Extracted: 12/12/97 Analyzed: 12/15/97 Reported: 12/22/97
QC Batch Number: GC1212970HBPEXB Instrument ID: GCHP4B		

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50 C9-C24	1900 Unidentified HC
Surrogates n-Pentacosane (C25)	Control Limits % 50                      150	% Recovery 87

Results quantitated against a diesel standard.  
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 9-0121/Oakland Sample Descript: MW-1 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9712637-01	Sampled: 12/05/97 Received: 12/08/97 Analyzed: 12/19/97 Reported: 12/22/97
Attention: Fran Thie		

QC Batch Number: GC121997BTEX21A  
Instrument ID: GCHP21

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	1000	4700
Methyl t-Butyl Ether	50	750
Benzene	10	870
Toluene	10	21
Ethyl Benzene	10	120
Xylenes (Total)	10	18
Chromatogram Pattern:		Gas
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	94

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

**SEQUOIA ANALYTICAL - ELAP #1210**

*Peggy Penner*  
Peggy Penner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-0121/Oakland Sample Descript: MW-3 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9712637-02	Sampled: 12/05/97 Received: 12/08/97 Extracted: 12/12/97 Analyzed: 12/15/97 Reported: 12/22/97
Attention: Fran Thie		

QC Batch Number: GC1212970HBPEXB  
Instrument ID: GCHP4B

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50 C9-C24	190 Unidentified HC
Surrogates n-Pentacosane (C25)	Control Limits % 50                      150	% Recovery 81

Results quantitated against a diesel standard.  
Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL - ELAP #1210**

*Peggy Penner*  
Peggy Penner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-0121/Oakland Sample Descript: MW-3 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9712637-02	Sampled: 12/05/97 Received: 12/08/97 Analyzed: 12/19/97 Reported: 12/22/97
Attention: Fran Thie		

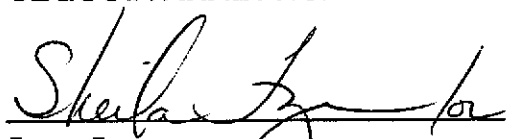
QC Batch Number: GC121997BTEX21A  
Instrument ID: GCHP21

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	100	460
Methyl t-Butyl Ether	5.0	N.D.
Benzene	1.0	72
Toluene	1.0	2.7
Ethyl Benzene	1.0	5.2
Xylenes (Total)	1.0	1.7
Chromatogram Pattern:		Gas
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	90

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 Attention: Fran Thie	Client Proj. ID: Chevron 9-0121/Oakland Sample Descript: MW-4 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9712637-03	Sampled: 12/05/97 Received: 12/08/97 Extracted: 12/12/97 Analyzed: 12/16/97 Reported: 12/22/97
--	---	--

QC Batch Number: GC1212970HBPEXB  
Instrument ID: GCHP4B

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	200 C9-C24	2600 Unidentified HC
Surrogates n-Pentacosane (C25)	Control Limits % 50                      150	% Recovery 171 Q

Results quantitated against a diesel standard.  
Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL - ELAP #1210**

*Peggy Penner*  
Peggy Penner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-0121/Oakland Sample Descript: MW-4 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9712637-03	Sampled: 12/05/97 Received: 12/08/97 Analyzed: 12/18/97 Reported: 12/22/97
Attention: Fran Thie		


QC Batch Number: GC121897BTEX03A  
Instrument ID: GCHP3

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	1300
Methyl t-Butyl Ether	500	15000
Benzene	5.0	120
Toluene	5.0	N.D.
Ethyl Benzene	5.0	N.D.
Xylenes (Total)	5.0	8.5
Chromatogram Pattern:		Gas
<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 Penner  
Project Manager





Blaine Tech Services	Client Proj. ID: Chevron 9-0121/Oakland	Sampled: 12/05/97
1680 Rogers Avenue	Sample Descript: TB	Received: 12/08/97
San Jose, CA 95112	Matrix: LIQUID	
Attention: Fran Thie	Analysis Method: 8015Mod/8020	Analyzed: 12/18/97
	Lab Number: 9712637-04	Reported: 12/22/97

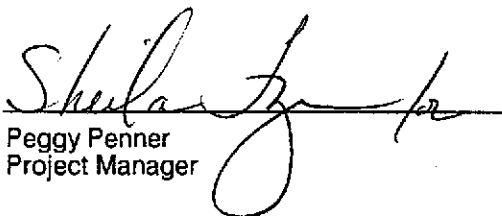
QC Batch Number: GC121897BTEX03A  
Instrument ID: GCHP3

**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:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70                      130	103

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.  
1680 Rogers Ave.  
San Jose, CA 95112  
Attention: Fran Thie

Client Project ID: Chevron 9-0121 / Oakland  
Matrix: Liquid

Work Order #: 9712637 -01-03

Reported: Dec 30, 1997

**QUALITY CONTROL DATA REPORT**

**Analyte:** Diesel

**QC Batch#:** GC1212970HBPEXB  
**Analy. Method:** EPA 8015M  
**Prep. Method:** EPA 3510

**Analyst:** A. Porter  
**MS/MSD #:** 971234603  
**Sample Conc.:** 56000  
**Prepared Date:** 12/12/97  
**Analyzed Date:** 12/16/97  
**Instrument I.D.#:** GCHP5  
**Conc. Spiked:** 1000 µg/L

**Result:** 66000\*  
**MS % Recovery:** 10

**Dup. Result:** 58000\*  
**MSD % Recov.:** 2.0

**RPD:** 13\*  
**RPD Limit:** 0-50

\*MS/MSD were diluted

**LCS #:** BLK121297

**Prepared Date:** 12/12/97  
**Analyzed Date:** 12/15/97  
**Instrument I.D.#:** GCHP4  
**Conc. Spiked:** 1000 µg/L

**LCS Result:** 750  
**LCS % Recov.:** 75

**MS/MSD** 50-150  
**LCS** 60-140  
**Control Limits**

**SEQUOIA ANALYTICAL**

Peggy Renner  
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

9712637.BLA <1>





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

Client Project ID: Chevron 9-0121 / Oakland  
Matrix: Liquid

Work Order #: 9712637-01, 02

Reported: Dec 30, 1997

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC121897BTEX21B	GC121897BTEX21B	GC121897BTEX21B	GC121897BTEX21B	GC121897BTEX21B
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:	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab
MS/MSD #:	971253601	971253601	971253601	971253601	971253601
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	12/18/97	12/18/97	12/18/97	12/18/97	12/18/97
Analyzed Date:	12/18/97	12/18/97	12/18/97	12/18/97	12/18/97
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	9.8	10	11	30	61
MS % Recovery:	98	100	110	100	102
Dup. Result:	10	10	11	32	62
MSD % Recov.:	100	100	110	107	103
RPD:	2.0	0.0	0.0	6.5	1.6
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK121897	BLK121897	BLK121897	BLK121897	BLK121897
Prepared Date:	12/18/97	12/18/97	12/18/97	12/18/97	12/18/97
Analyzed Date:	12/18/97	12/18/97	12/18/97	12/18/97	12/18/97
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	9.4	9.8	10	30	60
LCS % Recov.:	94	98	100	100	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**  
  
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

9712637.BLA <2>







Blaine Tech Services, Inc. 1680 Rogers Ave. San Jose, CA 95112 Attention: Fran Thie	Client Project ID: Chevron 9-0121 / Oakland Matrix: Liquid Work Order #: 9712637-03, 04	Reported: Dec 30, 1997
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**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC121897BTEX03A	GC121897BTEX03A	GC121897BTEX03A	GC121897BTEX03A	GC121897BTEX03A
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:	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab
MS/MSD #:	9712A0702	9712A0702	9712A0702	9712A0702	9712A0702
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	12/18/97	12/18/97	12/18/97	12/18/97	12/18/97
Analyzed Date:	12/18/97	12/18/97	12/18/97	12/18/97	12/18/97
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:	10	10	11	33	66
MS % Recovery:	100	100	110	110	110
Dup. Result:	9.8	9.9	10	31	63
MSD % Recov.:	98	99	100	103	105
RPD:	2.0	1.0	9.5	6.3	4.7
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK121897	BLK121897	BLK121897	BLK121897	BLK121897
Prepared Date:	12/18/97	12/18/97	12/18/97	12/18/97	12/18/97
Analyzed Date:	12/18/97	12/18/97	12/18/97	12/18/97	12/18/97
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:	9.3	9.5	9.9	30	61
LCS % Recov.:	93	95	99	100	102

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 9712637.BLA <3>





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

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

Client Proj. ID: Chevron 9-0121/Oakland

Received: 12/08/97

Lab Proj. ID: 9712637

Reported: 12/22/97

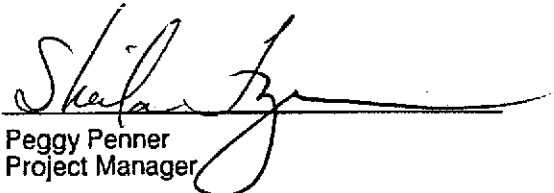
### LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 11 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

TPPH Note: Sample 9712637-01 was diluted 20-fold.  
Sample 9712637-02 was diluted 2-fold.  
Sample 9712637-03 was diluted 10-fold.

TEPH Note: Sample 9712637-03 was diluted 4-fold.

SEQUOIA ANALYTICAL

  
Peggy Penner  
Project Manager





# **Field Data Sheets**





## CHEVRON WELL MONITORING DATA SHEET

Project #: 971205-DB	Station #: 9-0121
Sampler: DV	Date: 12/5/97
Well I.D.: MW-2	Well Diameter: 2 3 4 6 8 <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">3/4</span>
Total Well Depth: -	Depth to Water: 3.78
Depth to Free Product: 3.76	Thickness of Free Product (feet): 0.02
Referenced to: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">PVC</span> 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: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Bailer</span> Disposable Bailer Middleburg Electric Submersible Extraction Pump Other: _____	Sampling Method: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Bailer</span> Disposable Bailer Extraction Port Other: _____
--	---

_____	X	_____	=	_____ Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
		Free Product			unable to remove FP

Did well dewater?	Yes	No	Gallons actually evacuated:
Sampling Time:	Sampling Date:		
Sample I.D.:	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: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;"> </span> mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;"> </span> mV

## CHEVRON WELL MONITORING DATA SHEET

Project #: 971205-D3	Station #: 9.0121
Sampler: PV	Date: 12/5/97
Well I.D.: MW-3	Well Diameter: 2 3 4 6 8 <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">3/4</span>
Total Well Depth: 17.23	Depth to Water: 8.25
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 <del>0.04</del>

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

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

<del>0.8</del> 0.2	x	3	=	<del>2.4</del> 0.6	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
13:35	61.0	6.6	8000	0.2	
13:37	59.2	6.4	>10,000	0.4	
13:39	58.6	6.4	>10,000	0.6	

Did well dewater? Yes  No  Gallons actually evacuated: 0.6

Sampling Time: 13:45 Sampling Date: 12/5

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

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

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

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



## CHEVRON WELL MONITORING DATA SHEET

Project #: 971205-D3	Station #: 9-0121
Sampler: DV	Date: 12/5/97
Well I.D.: MW-4	Well Diameter: 2 3 4 6 8 <u>3/4</u>
Total Well Depth: 15.15	Depth to Water: 5.15
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: Pin Bailer  Disposable Bailer Middleburg Electric Submersible Extraction Pump

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

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

0.2	x	3	=	0.6	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
14:40	61.8	6.7	3600	0.2	
14:45	61.6	6.7	3900	0.4	
14:49	61.6	6.8	4000	0.4	

Did well dewater? Yes  No  Gallons actually evacuated: 0.6

Sampling Time: 14:50 Sampling Date: 12/5

Sample I.D.: MW-4 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