



**Chevron**

December 29, 1995

**Chevron U.S.A. Products Company**

6001 Bollinger Canyon Rd., Bldg. L  
P.O. Box 5004  
San Ramon, CA 94583-0804

**Mark A. Miller**

SAR Engineer  
Phone No. 510 842-8134  
Fax No. 510 842-8252

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

**Re: Former Chevron Service Station #9-1153  
3126 Fernside Boulevard, Alameda, CA**

Dear Ms. Shin:

Enclosed is the Fourth Quarter 1995 Groundwater Monitoring Report dated November 22, 1995, prepared by our consultant Blaine Tech Services, Inc. for the above referenced site. As indicated in the report, ground water samples collected were analyzed for total petroleum hydrocarbons as gasoline (TPH-G) and BTEX. Samples were also collected from the recently installed ground water monitor wells. Benzene was detected in monitor wells MW-5, MW-6, and MW-7 at concentrations of 81, 3.9, and 260 ppb, respectively.

Separate phase hydrocarbons were detected in well C-1 at a measured thickness of 1.6 feet and removed by hand bailing. A passive skimmer has been installed in this well to remove free product. We have instructed our consultant to empty the skimmer on a weekly basis. Depth to ground water was measured at approximately 3.8 feet to 5.7 feet below grade and the direction of flow is to the east-southeast.

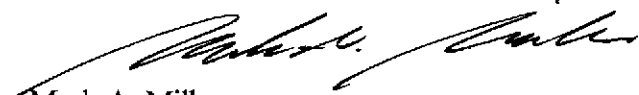
Based on the soil and ground water data obtained from newly installed wells MW-8, MW-9, and MW-10, it appears that the extent of hydrocarbon impact has been sufficiently defined. As we previously discussed, several utilities are present in the area which could represent potential preferential pathways for migration of hydrocarbons through ground water. However, we do not believe these provide significant pathways for migration as the majority of the contamination appears to be near well C-1, located on site away from utility lines. While it is true that monitor well MW-7 located down gradient of a utility line has contained detectable concentrations, this indicates that hydrocarbons have moved through ground water in the native material and were not significantly impeded by utilities. Lastly, the relatively flat ground water gradient in the area (0.007 ft/ft.) is not conducive to migration, regardless of soil type.



Ms. Juliet Shin  
December 29, 1995  
Page 2

I would like to set up a convenient time to discuss future activities at this site with your office. I will contact you by telephone during the second week of January to set up such a meeting. In the interim, we will continue to monitor and sample all wells at this site on a quarterly basis. If you have any questions or comments, please feel free to contact me at (510) 842-8134.

Sincerely,  
CHEVRON U.S.A. PRODUCTS COMPANY

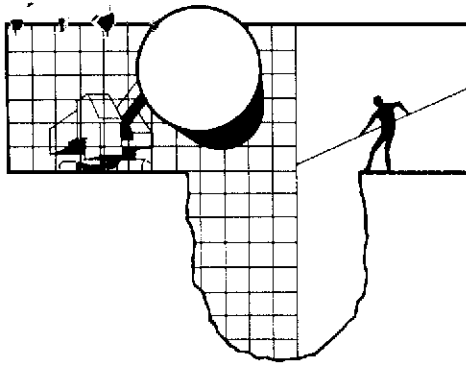


Mark A. Miller  
Site Assessment and Remediation Engineer

Enclosure

cc: Mr. Mike Cooke - Weiss Associates  
Ms. B.C. Owen

Mr. Larry Bolton  
State Farm Insurance  
2509 Santa Clara Avenue  
Alameda, CA 94501



# BLAINE TECH SERVICES INC.

985 TIMOTHY DRIVE  
SAN JOSE, CA 95133  
(408) 995-5535  
FAX (408) 293-8773

November 22, 1995

Mark Miller  
Chevron U.S.A. Products Company  
P.O. Box 5004  
San Ramon, CA 94583-0804

## 4th Quarter 1995 Monitoring at 9-1153

Fourth Quarter 1995 Groundwater Monitoring at  
Chevron Service Station Number 9-1153  
3126 Fernside Blvd.  
Alameda, CA

Monitoring Performed on October 30, 1995

Blaine Tech Services, Inc.  
985 Timothy Drive  
San Jose, CA 95133  
(408) 995-5535  
FAX (408) 293-8773

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### Groundwater Sampling Report 951030-G-1

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 Chevron's Richmond Refinery for disposal.

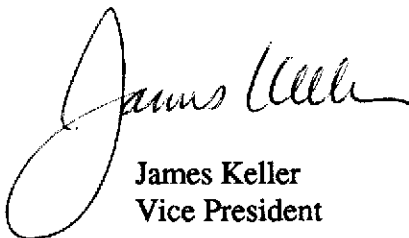
Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL DATA AND ANALYTICAL RESULTS**. The full analytical report for the most recent samples is located in the **Analytical Appendix**. The table also contains new groundwater 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,

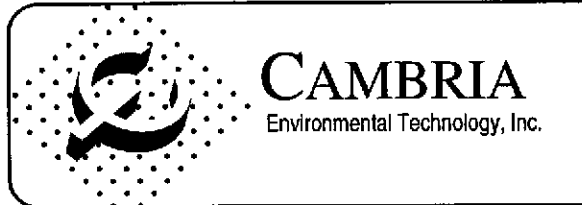
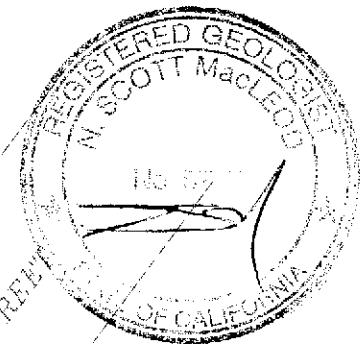
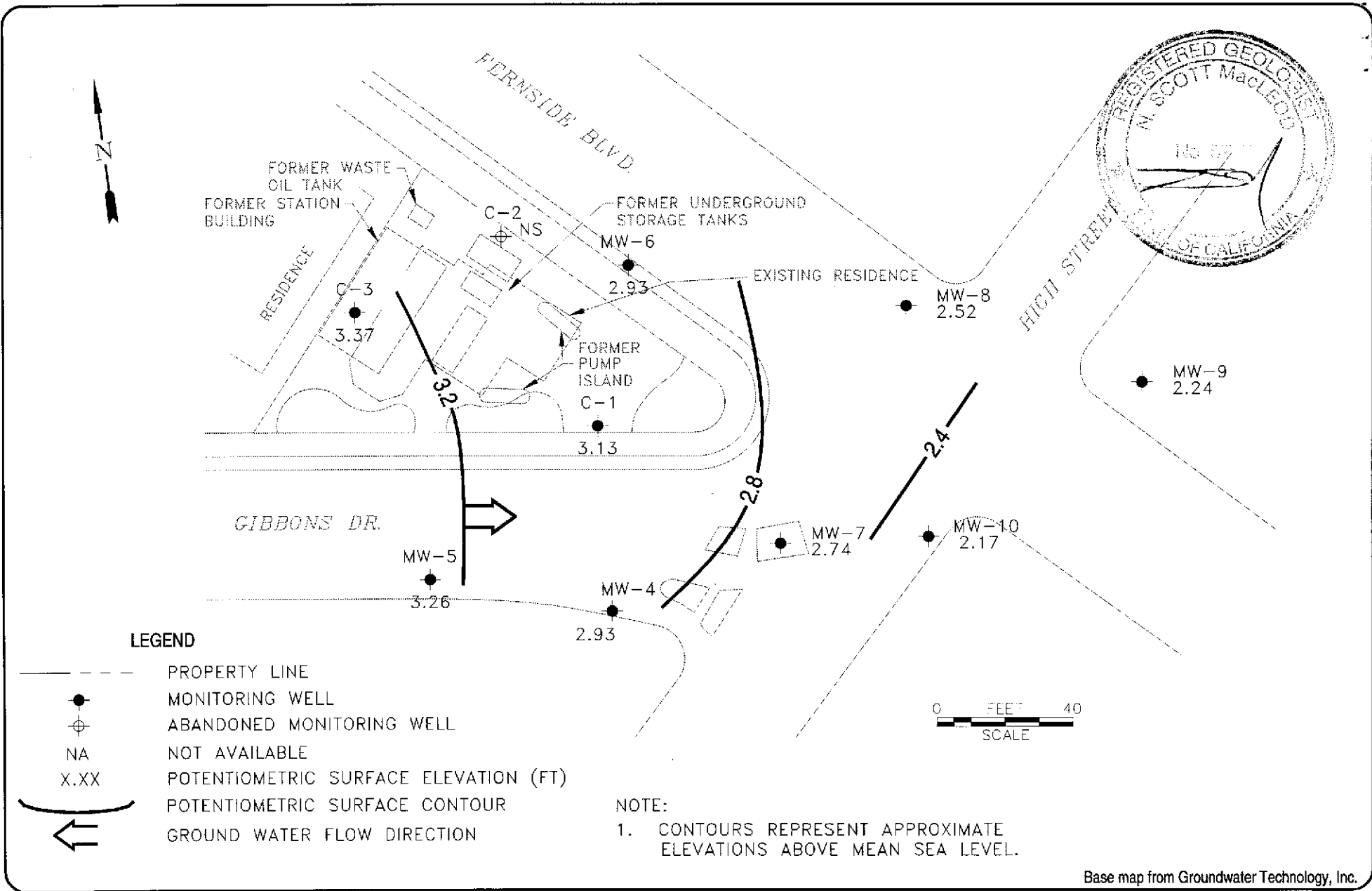


James Keller  
Vice President

JPK/dk

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

**Professional  
Engineering  
Appendix**



Former Chevron Station 9-1153  
 3126 Fernside Boulevard  
 Alameda, California

VCHEVRON9-1153\1153-QM.DWG

Ground Water Elevation  
 October 30, 1995

**FIGURE**  
**1**

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# **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			Notes	TPH- Gasoline	Benzene	Toluene	Ethyl- Benzene	Xylene	MTBE	Other
	Head Elev.	Water Elev.	To Water	SPH Thickness	SPH Removed	SPH Removed								
<b>C-1</b>														
08/18/86	--	--	4.10	--	--	--	--	--	--	--	--	--	--	--
09/04/86	--	--	--	--	--	--	--	15,000	760	820	1500	--	--	--
07/22/87	--	--	--	--	--	--	--	1100	250	7.0	40	--	--	--
05/03/89	--	--	4.46	--	--	--	--	6900	3800	190	229	--	--	--
12/04/89	--	--	4.16	--	--	--	--	17,000	8000	490	470	--	--	--
02/14/90	--	--	3.64	--	--	--	--	19,000	12,000	990	1050	--	--	--
03/07/90	--	--	3.36	--	--	--	--	--	4260	261	430	--	--	--
09/06/91	--	--	4.43	--	--	--	--	21,000	10,000	100	240	560	--	--
12/15/91	--	--	4.78	--	--	--	--	20,000	4900	43	110	330	--	--
03/03/92	--	--	2.39	--	--	--	--	13,000	5800	730	340	1200	--	--
06/04/92	4.08	0.00	4.08	--	--	--	--	34,000	9400	350	290	1200	--	--
10/13/92	4.08	-0.67	4.75	--	--	--	--	24,000	11,000	98	280	530	--	--
01/11/93	4.08	1.82	2.26	Sheen	--	--	--	7100	1500	130	150	700	--	--
04/14/93	4.08	1.18	2.90	Sheen	--	--	--	29,000	7300	4000	640	2300	--	--
07/13/93	4.08	0.11	3.97	Sheen	--	--	--	650,000	27,000	18,000	6300	29,000	--	--
10/19/93	4.08	-0.42	4.50	--	--	--	--	40,000	12,000	730	1100	3600	--	--
11/30/93	7.50	3.23	4.27	--	--	--	--	--	--	--	--	--	--	--
01/27/94	7.50	4.15	3.35	--	--	--	--	36,000	8600	220	670	1900	--	--
04/07/94	7.50	4.08	3.42	--	--	--	--	53,000	12,000	3500	480	3300	--	--
07/01/94	7.50	3.54	3.96	--	--	--	--	65,000	19,000	5900	1000	9000	--	--
10/05/94	7.50	3.11	4.39	--	--	--	--	160,000	23,000	12,000	2200	11,000	--	--
01/12/95	7.50	6.38	1.52	0.50	0.26	0.26	--	--	--	--	--	--	--	--
04/26/95	7.50	4.86	4.40	2.20	1.32	1.58	--	--	--	--	--	--	--	--
07/12/95	7.50	4.10	4.85	1.81	0.66	2.24	--	--	--	--	--	--	--	--
10/30/95	7.50	3.13	5.67	1.63	0.53	2.77	--	--	--	--	--	--	--	--
<b>C-2</b>														
08/18/86	--	--	--	--	--	--	--	--	--	--	--	--	--	--
09/04/86	--	--	--	--	--	--	--	1100	49	18	84	--	--	--
07/22/87	--	--	--	--	--	--	--	<50	1.8	<1.0	<4.0	--	--	--
05/03/89	--	--	--	--	--	--	Abandoned	--	--	--	--	--	--	--



### 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	Other
	Head Elev.	Water Elev.	To Water	SPH Thickness	SPH Removed	SPH Removed								
<b>C-3</b>														
08/18/86	--	--	4.00	--	--	--	--	--	--	--	--	--	--	--
09/04/86	--	--	--	--	--	--	--	50	3.2	5.4	5.8	--	--	--
07/22/87	--	--	--	--	--	--	--	<50	<0.5	<1.0	<4.0	--	--	--
05/03/89	--	--	4.15	--	--	--	--	<50	<0.5	<1.0	<2.0	--	--	--
12/04/89	--	--	4.24	--	--	--	--	<250	<0.5	<0.5	<0.5	--	--	--
02/14/90	--	--	3.57	--	--	--	--	<50	<0.5	<0.5	<0.5	--	--	--
03/07/90	--	--	3.31	--	--	--	--	--	<5.0	<5.0	<5.0	--	--	--
09/06/91	--	--	4.59	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/15/91	--	--	4.84	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
03/03/92	--	--	2.17	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/04/92	4.41	0.40	4.01	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
10/13/92	4.41	-0.38	4.79	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
01/11/93	4.41	2.40	2.01	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
04/14/93	4.41	1.65	2.76	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
07/13/93	4.41	0.45	3.96	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
10/19/93	4.41	-0.12	4.53	--	--	--	--	66	12	1.4	1.0	8.4	--	--
11/30/93	7.83	3.79	4.04	--	--	--	--	--	--	--	--	--	--	--
01/27/94	7.83	4.66	3.17	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
04/07/94	7.83	4.63	3.20	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
07/01/94	7.83	3.84	3.99	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
10/05/94	7.83	3.29	4.54	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
01/12/95	7.83	7.03	0.80	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
05/02/95	7.83	5.68	2.15	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
07/12/95	7.83	4.41	3.42	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
10/30/95	7.83	3.37	4.46	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Volumetric Measurements are in gallons.

Analytical results are in parts per billion (ppb)

DATE	Well	Ground	Depth	Total			Notes	TPH- Gasoline	Benzene	Toluene	Ethyl- Benzene	Xylene	MTBE	Other
	Head Elev.	Water Elev.	To Water	SPH	SPH	SPH								
				Thickness	Removed	Removed								
<b>MW-4</b>														
06/04/92	3.58	-0.05	3.63	--	--	--	--	<50	0.8	<0.5	<0.5	<0.5	--	--
10/13/92	3.58	--	--	--	--	--	--	--	--	--	--	--	--	--
01/11/93	3.58	1.69	1.89	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
04/14/93	3.58	1.38	2.20	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
07/13/93	3.58	0.07	3.51	--	--	--	--	54	2.6	1.6	<0.5	<1.5	--	--
10/19/93	3.58	-0.64	4.22	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
11/30/93	7.01	3.00	4.01	--	--	--	--	--	--	--	--	--	--	--
01/27/94	7.01	4.12	2.89	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
04/07/94	7.01	3.95	3.06	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
07/01/94	7.01	3.42	3.59	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
10/05/94	7.01	2.68	4.33	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
01/12/95	7.01	5.81	1.20	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
04/26/95	7.01	5.86	1.15	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
07/12/95	7.01	4.29	2.72	--	--	--	--	<50	6.4	<0.5	0.63	0.72	--	--
10/30/95	7.01	2.93	4.08	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Volumetric Measurements are in gallons.

Analytical results are in parts per billion (ppb)

DATE	Well	Ground	Depth	Total			Notes	TPH- Gasoline	Benzene	Toluene	Ethyl- Benzene	Xylene	MTBE	Other
	Head Elev.	Water Elev.	To Water	SPH	SPH	SPH								
				Thickness	Removed	Removed								
<b>MW-5</b>														
06/04/92	3.61	0.36	3.25	--	--	--	--	560	110	0.5	37	2.2	--	--
10/13/92	3.61	-0.59	4.20	--	--	--	--	1200	150	<2.5	84	8.6	--	--
01/11/93	3.61	2.31	1.30	--	--	--	--	1300	48	1.0	83	33	--	--
04/14/93	3.61	2.41	1.20	--	--	--	--	2600	240	6.1	250	170	--	--
07/13/93	3.61	0.46	3.15	--	--	--	--	1700	260	7.8	160	100	--	--
10/19/93	3.61	-0.21	3.82	--	--	--	--	1900	190	3.3	200	93	--	--
11/30/93	7.04	3.48	3.56	--	--	--	--	--	--	--	--	--	--	--
01/27/94	7.04	4.62	2.42	--	--	--	--	4000	100	12	210	110	--	--
04/07/94	7.04	4.71	2.33	--	--	--	--	2600	170	10	150	88	--	--
07/01/94	7.04	3.86	3.18	--	--	--	--	2300	350	9.1	110	76	--	--
10/05/94	7.04	3.06	3.98	--	--	--	--	11,000	840	150	130	340	--	--
01/12/95	7.04	6.64	0.40	--	--	--	--	2300	82	<2.5	54	20	--	--
04/26/95	7.04	6.54	0.50	--	--	--	--	1600	52	<5.0	36	61	--	--
07/12/95	7.04	4.63	2.41	--	--	--	--	2800	150	<5.0	34	38	--	--
10/30/95	7.04	3.26	3.78	--	--	--	--	1100	81	<5.0	<5.0	<5.0	35	--
<b>MW-6</b>														
06/04/92	3.85	-0.04	3.89	--	--	--	--	210	54	<0.5	1.9	2.4	--	--
10/13/92	3.85	-0.71	4.56	--	--	--	--	10,000	5300	<10	70	<10	--	--
01/11/93	3.85	1.49	2.36	--	--	--	--	100	50	<0.5	<0.5	<0.5	--	--
04/14/93	3.85	0.70	3.15	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
07/13/93	3.85	-0.09	3.94	--	--	--	--	<50	1.8	<0.5	<0.5	<1.5	--	--
10/19/93	3.85	-0.55	4.40	--	--	--	--	320	150	<0.5	0.8	<0.5	--	--
11/30/93	7.27	3.11	4.16	--	--	--	--	--	--	--	--	--	--	--
01/27/94	7.27	3.94	3.33	--	--	--	--	120	45	<0.5	<0.5	<0.5	--	--
04/07/94	7.27	3.84	3.43	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
07/01/94	7.27	3.33	3.94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
10/05/94	7.27	2.89	4.38	--	--	--	--	8300	2400	160	42	190	--	--
01/12/95	7.27	4.84	2.43	--	--	--	--	<50	12	<0.5	<0.5	<0.5	--	ND*
04/26/95	7.27	5.21	2.06	--	--	--	--	<50	5.5	0.67	<0.5	1.3	--	--
07/12/95	7.27	3.74	3.53	--	--	--	--	65	27	<0.5	<0.5	<0.5	--	--
10/30/95	7.27	2.93	4.34	--	--	--	--	<50	3.9	<0.5	<0.5	<0.5	<2.5	--

\* EPA 8010

## 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	Other
	Head Elev.	Water Elev.	To Water	SPH Thickness	SPH Removed	SPH Removed								
<b>MW-7</b>														
11/30/93	8.22	2.89	5.33	--	--	--	--	480	110	41	4.4	38	--	--
01/27/94	8.22	3.72	4.50	--	--	--	--	120	21	1.1	2.2	4.8	--	--
04/07/94	8.22	3.60	4.62	--	--	--	--	2600	630	39	56	94	--	--
07/01/94	8.22	3.09	5.13	--	--	--	--	2200	770	42	<10	92	--	--
10/05/94	8.22	2.61	5.61	--	--	--	--	15,000	3300	90	130	320	--	--
01/12/95	8.22	5.39	2.83	--	--	--	--	340	57	<1.3	18	6.4	--	--
04/26/95	8.22	5.87	2.35	--	--	--	--	15,000	3700	210	520	800	--	--
07/12/95	8.22	3.56	4.66	--	--	--	--	7700	1800	59	130	370	--	--
10/30/95	8.22	2.74	5.48	--	--	--	--	770	260	<5.0	33	48	25	--
<b>MW-8</b>														
10/17/95	6.96	2.56	4.40	--	--	--	--	--	--	--	--	--	--	--
10/30/95	6.96	2.52	4.44	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
<b>MW-9</b>														
10/17/95	7.21	2.41	4.80	--	--	--	--	--	--	--	--	--	--	--
10/30/95	7.21	2.24	4.97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
<b>MW-10</b>														
10/17/95	7.28	2.23	5.05	--	--	--	--	--	--	--	--	--	--	--
10/30/95	7.28	2.17	5.11	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	5.1	--

## 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	Other
	Head Elev.	Water Elev.	To Water	SPH Thickness	SPH Removed	SPH Removed								
<b>TMW-1</b>														
11/11/93	--	--	--	--	--	--	--	<1.0	<0.5	<0.5	<0.5	<0.5	--	--
<b>TRIP BLANK</b>														
02/14/90	--	--	--	--	--	--	--	<50	<0.5	1.1	<0.5	<0.5	--	--
09/06/91	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/15/91	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
03/03/92	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/04/92	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
10/13/92	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
01/11/93	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
04/14/93	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
07/13/93	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
10/19/93	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
01/27/94	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
04/07/94	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
07/01/94	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
10/05/94	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
01/12/95	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
04/26/95	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
07/12/95	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
10/30/95	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--

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

SPH = Separate-Phase Hydrocarbons

# **Analytical Appendix**



Blaine Technical Services  
985 Timothy Drive  
San Jose, CA 95133

Client Proj. ID: Chevron 9-1153/951030-G1  
Sample Descript: C3  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9510M08-01

Sampled: 10/30/95  
Received: 10/31/95  
Analyzed: 11/02/95  
Reported: 11/06/95

QC Batch Number: GC110295BTEX02A  
Instrument ID: GCHP02

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	97

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

**SEQUOIA ANALYTICAL** - ELAP #1210

Peggy Penner  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Chevron 9-1153/951030-G1 Sample Descript: MW4 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9510M08-02	Sampled: 10/30/95 Received: 10/31/95 Analyzed: 11/02/95 Reported: 11/06/95
Attention: Jim Keller		


QC Batch Number: GC110295BTEX02A  
Instrument ID: GCHP02

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	94

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Peggy Penner  
Project Manager







Blaine Technical Services  
985 Timothy Drive  
San Jose, CA 95133

Client Proj. ID: Chevron 9-1153/951030-G1  
Sample Descript: MW5  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9510M08-03

Sampled: 10/30/95  
Received: 10/31/95  
Analyzed: 11/02/95  
Reported: 11/06/95

QC Batch Number: GC110295BTEX02A  
Instrument ID: GCHP02

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	1100
Methyl t-Butyl Ether	25	35
Benzene	5.0	81
Toluene	5.0	N.D.
Ethyl Benzene	5.0	N.D.
Xylenes (Total)	5.0	N.D.
Chromatogram Pattern: Weathered Gas		C6-C12
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	79

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

**SEQUOIA ANALYTICAL - ELAP #1210**

Peggy Penner  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Chevron 9-1153/951030-G1 Sample Descript: MW8 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9510M08-04	Sampled: 10/30/95 Received: 10/31/95 Analyzed: 11/02/95 Reported: 11/06/95
Attention: Jim Keller		

QC Batch Number: GC110295BTEX02A  
Instrument ID: GCHP02

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	92

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Peggy Penner  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Proj. ID: Chevron 9-1153/951030-G1 Sample Descript: MW9 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9510M08-05	Sampled: 10/30/95 Received: 10/31/95 Analyzed: 11/02/95 Reported: 11/06/95
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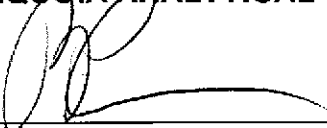
QC Batch Number: GC110295BTEX02A  
Instrument ID: GCHP02

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	96

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

**SEQUOIA ANALYTICAL** - ELAP #1210




---

Peggy Penner  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Chevron 9-1153/951030-G1 Sample Descript: MW10 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9510M08-06	Sampled: 10/30/95 Received: 10/31/95  Analyzed: 11/02/95 Reported: 11/06/95
Attention: Jim Keller		

QC Batch Number: GC110295BTEX02A  
Instrument ID: GCHP02

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
<b>Methyl t-Butyl Ether</b>	<b>2.5</b>	<b>5.1</b>
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	92

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Peggy Penner  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Chevron 9-1153/951030-G1 Sample Descript: TB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9510M08-07	Sampled: 10/30/95 Received: 10/31/95 Analyzed: 11/02/95 Reported: 11/06/95
Attention: Jim Keller		

QC Batch Number: GC110295BTEX02A  
Instrument ID: GCHP02

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	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	89

Analytes 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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Blaine Technical Services  
985 Timothy Drive  
San Jose, CA 95133  
Attention: Jim Keller

Client Proj. ID: Chevron 9-1153/951030-G1  
Lab Proj. ID: 9510M08

Received: 10/31/95  
Reported: 11/06/95

### LABORATORY NARRATIVE

TPPH Note: Sample 9510M08-03 was diluted 10-fold.

**SEQUOIA ANALYTICAL**

Peggy Penner  
Project Manager





Blaine Tech Services, Inc.  
985 Timothy Drive  
San Jose, CA 95133  
Attention: Jim Keller

Client Project ID: Chevron 9-1153/951030-G1  
Matrix: Liquid

Work Order #: 9510M08 -01-07

Reported: Nov 10, 1995

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC110295BTEX02A	GC110295BTEX02A	GC110295BTEX02A	GC110295BTEX02A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	J. Woo	J. Woo	J. Woo	J. Woo
MS/MSD #:	9511G1111	9511G1111	9511G1111	9511G1111
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	11/2/95	11/2/95	11/2/95	11/2/95
Analyzed Date:	11/2/95	11/2/95	11/2/95	11/2/95
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	11	10	10	31
MS % Recovery:	110	100	100	103
Dup. Result:	10	10	10	31
MSD % Recov.:	100	100	100	103
RPD:	9.5	0.0	0.0	0.0
RPD Limit:	0-50	0-50	0-50	0-50

LCS #:	BLK102795	BLK102795	BLK102795	BLK102795
Prepared Date:	11/2/95	11/2/95	11/2/95	11/2/95
Analyzed Date:	11/2/95	11/2/95	11/2/95	11/2/95
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	10	10	10	30
LCS % Recov.:	100	100	100	100

MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120
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**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*  
Peggy Penner  
Project Manager

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

9510M08.BLA <1>





Blaine Technical Services  
985 Timothy Drive  
San Jose, CA 95133

Client Proj. ID: Chevron 9-1153/951030-G1  
Sample Descript: C2MW6NP  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9510M09-01

Sampled: 10/30/95  
Received: 10/31/95  
Analyzed: 11/02/95  
Reported: 11/06/95

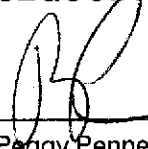
QC Batch Number: GC110295BTEX03A  
Instrument ID: GCHP03

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
<b>Benzene</b>	<b>0.50</b>	<b>1.1</b>
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	84

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Peggy Penner  
Project Manager







Blaine Technical Services  
985 Timothy Drive  
San Jose, CA 95133  
  
Attention: Jim Keller

Client Proj. ID: Chevron 9-1153/951030-G1  
Sample Descript: C2MW6PP  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9510M09-02

Sampled: 10/30/95  
Received: 10/31/95  
  
Analyzed: 11/02/95  
Reported: 11/06/95

QC Batch Number: GC110295BTEX03A  
Instrument ID: GCHP03

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
<b>Benzene</b>	<b>0.50</b>	<b>3.9</b>
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	118

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Peggy Penner  
Project Manager





Blaine Technical Services  
985 Timothy Drive  
San Jose, CA 95133

Client Proj. ID: Chevron 9-1153/951030-G1  
Sample Descript: C2MW7NP  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9510M09-03

Sampled: 10/30/95  
Received: 10/31/95  
Analyzed: 11/02/95  
Reported: 11/06/95

QC Batch Number: GC110295BTEX03A  
Instrument ID: GCHP03

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


Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	125	500
Benzene	1.2	200
Toluene	1.2	4.0
Ethyl Benzene	1.2	15
Xylenes (Total)	1.2	23
Chromatogram Pattern:		Gas

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	120

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Peggy Penner  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Chevron 9-1153/951030-G1 Sample Descript: C2MW7NPD Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9510M09-04	Sampled: 10/30/95 Received: 10/31/95  Analyzed: 11/02/95 Reported: 11/06/95
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QC Batch Number: GC110295BTEX03A  
Instrument ID: GCHP03

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

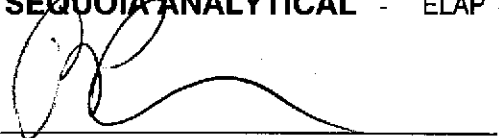
Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	610
Benzene	5.0	220
Toluene	5.0	N.D.
Ethyl Benzene	5.0	15
Xylenes (Total)	5.0	15
Chromatogram Pattern:		Gas

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	101

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

**SEQUOIA ANALYTICAL** - ELAP #1210



Peggy Penner  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Chevron 9-1153/951030-G1 Sample Descript: C2MW7PP Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9510M09-05	Sampled: 10/30/95 Received: 10/31/95  Analyzed: 11/02/95 Reported: 11/06/95
Attention: Jim Keller		

QC Batch Number: GC110295BTEX03A  
Instrument ID: GCHP03

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	770
Methyl t-Butyl Ether	25	25
Benzene	5.0	260
Toluene	5.0	N.D.
Ethyl Benzene	5.0	33
Xylenes (Total)	5.0	48
Chromatogram Pattern:		Gas

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	101

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Peggy Penner  
Project Manager





Blaine Technical Services  
985 Timothy Drive  
San Jose, CA 95133  
  
Attention: Jim Keller

Client Proj. ID: Chevron 9-1153/951030-G1  
Sample Descript: C2MW7PPD  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9510M09-06

Sampled: 10/30/95  
Received: 10/31/95  
  
Analyzed: 11/02/95  
Reported: 11/06/95

QC Batch Number: GC110295BTEX03A  
Instrument ID: GCHP03

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	990
Methyl t-Butyl Ether	25	N.D.
Benzene	5.0	300
Toluene	5.0	N.D.
Ethyl Benzene	5.0	40
Xylenes (Total)	5.0	62
Chromatogram Pattern:		Gas
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	111

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Peggy Penner  
Project Manager





Blaine Technical Services  
985 Timothy Drive  
San Jose, CA 95133  
Attention: Jim Keller

Client Proj. ID: Chevron 9-1153/951030-G1

Received: 10/31/95

Lab Proj. ID: 9510M09

Reported: 11/06/95

### LABORATORY NARRATIVE

TPPH Note: Sample 9510M09-03 was diluted 2.5-fold.  
Sample 9510M09-04 was diluted 10-fold.  
Sample 9510M09-05 was diluted 10-fold.  
Sample 9510M09-06 was diluted 10-fold.

**SEQUOIA ANALYTICAL**

Peggy Penner  
Project Manager





Blaine Tech Services, Inc.  
985 Timothy Drive  
San Jose, CA 95133  
Attention: Jim Keller

Client Project ID: Chevron 9-1153/951030-G1  
Matrix: Liquid

Work Order #: 9510M09 -01-06

Reported: Nov 7, 1995

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC110295BTEX03A	GC110295BTEX03A	GC110295BTEX03A	GC110295BTEX03A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	J. Woo	J. Woo	J. Woo	J. Woo
MS/MSD #:	9511G1111	9511G1111	9511G1111	9511G1111
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	11/2/95	11/2/95	11/2/95	11/2/95
Analyzed Date:	11/2/95	11/2/95	11/2/95	11/2/95
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	11	11	11	32
MS % Recovery:	110	110	110	107
Dup. Result:	11	11	11	32
MSD % Recov.:	110	110	110	107
RPD:	0.0	0.0	0.0	0.0
RPD Limit:	0-50	0-50	0-50	0-50

LCS #:	BLK102795	BLK102795	BLK102795	BLK102795
Prepared Date:	11/2/95	11/2/95	11/2/95	11/2/95
Analyzed Date:	11/2/95	11/2/95	11/2/95	11/2/95
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	11	11	11	33
LCS % Recov.:	110	110	110	110

MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120
---------------------------	--------	--------	--------	--------

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**

*Reggy Penner*  
Project Manager

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

9510M09.BLA <1>







Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591	Chevron Facility Number <u>9-1153</u> Facility Address <u>3126 Fernside Blvd., Alameda, CA</u>	Chevron Contact (Name) <u>Mark Miller</u> (Phone) <u>(510) 842-8134</u>
	Consultant Project Number <u>951030-6</u> Consultant Name <u>Blaine Tech Services, Inc.</u> Address <u>985 Timothy Dr., San Jose, CA 95133</u>	Laboratory Name <u>Sequoia</u> Laboratory Release Number <u>2172740</u> Samples Collected by (Name) <u>GRANT MOHR</u> Collection Date <u>10-30-95</u> Signature <u>[Signature]</u>
Project Contact (Name) <u>Jim Keller</u> (Phone) <u>908-995-5535</u> (Fax Number) <u>408-293-8773</u>		

Sample Number	Lab Sample Number	Number of Containers	Meth. S = Soil W = Water C = Chemical	Type G = Grab C = Composite D = Diagnostic	Time	Sample Preservation	Level (Yes or No)	Analysis To Be Performed											DO NOT BILL FOR TB-LB	Remarks
								TEX + TPH GAS (8020 + 8015)	TPH Distill (8015)	Oil and Grease (8020)	Purgeable Hydrocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8140)	Extractable Organics (8070)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)	MTBE				
C3		3	W	D	1330	HCl	Y	X												01 A-C
MW4		3			1140			X												02
MW5		3			1350			X												03
MW8		3			1200			X												04
MW9		3			1220			X												05
MW10		3			1110			X												06
TB		2						X												07 A,B

Relinquished By (Signature) <u>[Signature]</u> Organization <u>BTS</u> Date/Time <u>10-31-95 1440</u>	Received By (Signature) <u>SR</u> Organization <u>SEA</u> Date/Time <u>10-31-95 2:40</u>	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days 10 Days As Contracted
Relinquished By (Signature) Organization Date/Time	Received By (Signature) Organization Date/Time	
Relinquished By (Signature) Organization Date/Time	Received For Laboratory By (Signature) Date/Time	

# **Field Data Sheets**



# CHEVRON WELL MONITORING DATA SHEET

Project #: 951030-61	Station #: 9-1153
Sampler: GRANT	Start Date: 10-30
Well I.D.: C1	Well Diameter: (circle one) 2 <u>3</u> 4 6
Total Well Depth: Before _____ After _____	Depth to Water: Before 4.04 After _____
Depth to Free Product: 5.67	Thickness of Free Product (feet): 1.63
Measurements referenced to: <u>PVC</u> Grade _____ Other: _____	

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

_____ X _____	Specified Volumes	=	_____ gallons
1 Case Volume			

Purging: Bailer Disposable Bailer Middleburg Electric Submersible Extraction Pump Other _____	Sampling: Bailer <u>Disposable Bailer</u> Extraction Port Other _____
--	--

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
	EMPTIED		SKINNER	-	1000 ML	F.P.
	BAILED	F.P.		-	1000 ML	F.P.
					2000 ML	REMOVED

Did Well Dewater?  If yes, gals. \_\_\_\_\_ Gallons Actually Evacuated: \_\_\_\_\_

Sampling Time: 1045	Sampling Date: 10-30
Sample I.D.: C1	Laboratory: CHEVRON
Analyzed for: TPH-G BTEX TPH-D OTHER: <u>ID PRODUCT</u>	
Duplicate I.D.:	Cleaning Blank I.D.:
Analyzed for: TPH-G BTEX TPH-D OTHER: _____	

# CHEVRON WELL MONITORING DATA SHEET

Project #: 951030-G1	Station #: 9-1153
Sampler: GRANT	Start Date: 10-30
Well I.D.: C3	Well Diameter: (circle one) 2 <u>3</u> 4 6
Total Well Depth: Before 19.20 After	Depth to Water: Before 4.46 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to:	PVC <input checked="" type="checkbox"/> Grade <input type="checkbox"/> Other: <input type="checkbox"/>

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

<u>5.5</u>	x	<u>3</u>	=	<u>16.5</u>
1 Case Volume		Specified Volumes		gallons

Purging: Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Middleburg <input type="checkbox"/> Electric Submersible <input type="checkbox"/> Extraction Pump Other _____	Sampling: Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Extraction Port Other _____
---	--

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
	UNABLE	TD	ACCESS	UNTIL	1300	
1309	63.0	7.0	590	—	5.5	BROWN
1317	63.4	7.0	570	—	11.0	
1324	63.2	7.0	550	—	16.5	

Did Well Dewater? N If yes, gals. Gallons Actually Evacuated: 16.5

Sampling Time: 1330 Sampling Date: 10-30

Sample I.D.: C3 Laboratory: SLD

Analyzed for: TPH-G  BTEX  TPH-D  OTHER:

Duplicate I.D.: \_\_\_\_\_ Cleaning Blank I.D.: \_\_\_\_\_

Analyzed for: TPH-G  BTEX  TPH-D  OTHER:

# CHEVRON WELL MONITORING DATA SHEET

Project #: <u>951030-61</u>	Station #: <u>9-1153</u>
Sampler: <u>GRANT</u>	Start Date: <u>10-30</u>
Well I.D.: <u>MW4</u>	Well Diameter: (circle one) <u>(2)</u> 3 4 6
Total Well Depth: Before <u>13.32</u> After	Depth to Water: Before <u>4.08</u> After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <u>SWC</u>	Grade Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

<u>1.5</u>	x	<u>3</u>	=	<u>4.5</u>	gallons
1 Case Volume		Specified Volumes			

Purging: Bailer <del>Disposable Bailer</del> <del>Middleburg</del> Electric Submersible Extraction Pump Other _____	Sampling: Bailer <del>Disposable Bailer</del> Extraction Port Other _____
--	--

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1120	67.6	7.2	840	—	1.5	BAWN
1124	67.4	7.0	780	—	3.0	
1130	67.2	7.1	800	—	4.5	

Did Well Dewater? N If yes, gals. Gallons Actually Evacuated: 4.5

Sampling Time: 1140 Sampling Date: 10-30

Sample I.D.: MW4 Laboratory: S22

Analyzed for: TPH-G BTEX TPH-D OTHER:

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: TPH-G BTEX TPH-D OTHER:

# CHEVRON WELL MONITORING DATA SHEET

Project #: 951030-G1	Station #: 9-1153
Sampler: GRANT	Start Date: 10-30
Well I.D.: MW5	Well Diameter: (circle one) <u>2</u> 3 4 6
Total Well Depth: Before 13.12 After	Depth to Water: Before 3.78 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <u>PVC</u>	Grade Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

<u>1.5</u>	$\times$	<u>3</u>	$=$	<u>4.5</u>	
1 Case Volume		Specified Volumes		gallons	

Purging: Bailer <u>Disposable Bailer</u> Middleburg Electric Submersible Extraction Pump Other _____	Sampling: Bailer <u>Disposable Bailer</u> Extraction Port Other _____
---	--

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1338	70.4	6.8	720	—	1.5	GRAY
1342	70.2	6.6	710	—	3.0	
1346	70.0	6.5	700	—	4.5	

Did Well Dewater? N If yes, gals. Gallons Actually Evacuated: 4.5

Sampling Time: 1350	Sampling Date: 10-30
Sample I.D.: MW5	Laboratory: SED
Analyzed for: <u>TPH-G</u> <u>BTEX</u> TPH-D OTHER:	
Duplicate I.D.:	Cleaning Blank I.D.:
Analyzed for: TPH-G BTEX TPH-D OTHER:	

# WSPA PURGING STUDY

## WATER SAMPLE FIELD DATA SHEET

SITE #: C2 PURGED BY: GRANT WELL I.D.: MWB  
 CLIENT NAME: CHEMCON SAMPLED BY: GRANT SAMPLE I.D.: C2 MWB  
 LOCATION: 326 FERNSIDE QA SAMPLES: \_\_\_\_\_

DATE PURGED 10-30 START (2400hr) 1233 END (2400hr) 1247  
 DATE SAMPLED 10-30 SAMPLE TIME (PRE) 1230 SAMPLE TIME (POST) 1250  
 SAMPLING CONDITIONS Weather Cloudy CB Temperature 65 Other \_\_\_\_\_

CASING DIAMETER: 2"  3" \_\_\_\_\_ 4" \_\_\_\_\_ 4.5" \_\_\_\_\_ 5" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_ Other \_\_\_\_\_  
 Casing Volume Per Foot (0.17) (0.38) (0.67) (0.85) (1.02) (1.50) (2.60) ( )

DEPTH TO BOTTOM (feet) = 14.14 CASING VOLUME (gal) = 1.4  
 DEPTH TO WATER - PRE-PURGE (feet) = 4.34 CALCULATED PURGE (gal) = 4.8  
 DEPTH TO WATER - POST PURGE (feet) = 6.02 ACTUAL PURGE (gal) = 5.0

pH METER CALIBRATION CHECK - pH 7.0 SOLUTION READS AS 7.1  
 IF THE pH METER IS RE-CALIBRATED, THE RE-CALIBRATED METER pH 7.0 SOLUTION READS AS 7.0

### PURGING FIELD MEASUREMENTS

TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)	DISSOLVED OXYGEN ppm
Pre <u>1230</u>	<u>0.25</u>	<u>69.4</u>	<u>1200</u>	<u>6.8</u>	<u>—</u>	<u>12.9</u>	<u>—</u>
<u>1238</u>	<u>2.0</u>	<u>69.2</u>	<u>960</u>	<u>6.9</u>	<u>Brown/grey</u>	<u>7200</u>	<u>—</u>
<u>1244</u>	<u>4.0</u>	<u>69.0</u>	<u>950</u>	<u>6.9</u>	<u>↓</u>	<u>↓</u>	<u>—</u>
<u>1247</u>	<u>5.0</u>	<u>68.8</u>	<u>940</u>	<u>7.0</u>	<u>↓</u>	<u>↓</u>	<u>—</u>

Post Purge Sample Parameters 68.6 920 7.0 Brown/grey 7200 —

% RECHARGED WHEN SAMPLED (DTW-pre/DTW-post) 83% 8.12/9.0  
 SAMPLE VESSEL / PRESERVATIVE: UBA HCl LAB. ANALYSIS TPHG, BTEX

PURGING EQUIPMENT	MONITORING EQUIPMENT
<input type="checkbox"/> Bladder Pump <input type="checkbox"/> Centrifugal Pump <input type="checkbox"/> Submersible Pump <input type="checkbox"/> Peristaltic Pump <input checked="" type="checkbox"/> Bailer (Teflon) <u>DSP</u> <input type="checkbox"/> Bailer (PCV) <input type="checkbox"/> Bailer (Stainless Steel) <input type="checkbox"/> Vacuum Truck	Water Level Meter Mfg. by: <u>SLOPE</u> pH Meter Mfg. by: <u>HYCON</u> pH Meter Model #: <u>LPDS</u> D.O. Meter Mfg. by: _____

WELL HEAD CONDITION: GOOD  
 REMARKS: \_\_\_\_\_  
 \_\_\_\_\_  
 SIGNATURE: [Signature] Page \_\_\_\_\_ of \_\_\_\_\_ wsfds.wb1



# WSPA PURGING STUDY

## WATER SAMPLE FIELD DATA SHEET

SITE #: C2 PURGED BY: GRANT WELL I.D.: MW7  
 CLIENT NAME: CHEVON SAMPLED BY: GRANT SAMPLE I.D.: C2MW7  
 LOCATION: 5126 FERNSIDE QA SAMPLES: PUPS  
 DATE PURGED 10-30 START (2400hr) 1403 END (2400hr) 1413  
 DATE SAMPLED 10-30 SAMPLE TIME (PRE) 1400 SAMPLE TIME (POST) 1420  
 SAMPLING CONDITIONS Weather cloudy Temperature 64 Other \_\_\_\_\_

CASING DIAMETER: 2"  3" \_\_\_\_\_ 4" \_\_\_\_\_ 4.5" \_\_\_\_\_ 5" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_ Other \_\_\_\_\_  
 Casing Volume Per Foot (0.17) (0.38) (0.67) (0.83) (1.02) (1.50) (2.60) ( )

DEPTH TO BOTTOM (feet) = 14.52 CASING VOLUME (gal) = 1.4  
 DEPTH TO WATER - PRE-PURGE (feet) = 5.49 CALCULATED PURGE (gal) = 4.2  
 DEPTH TO WATER - POST PURGE (feet) = 6.91 ACTUAL PURGE (gal) = 4.5

pH METER CALIBRATION CHECK - pH 7.0 SOLUTION READS AS 7.0  
 IF THE pH METER IS RE-CALIBRATED, THE RE-CALIBRATED METER pH 7.0 SOLUTION READS AS \_\_\_\_\_

### PURGING FIELD MEASUREMENTS

TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)	DISSOLVED OXYGEN ppm
Pre <u>1400</u>	<u>0.25</u>	<u>71.0</u>	<u>740</u>	<u>6.9</u>	<u>—</u>	<u>8.8</u>	<u>—</u>
<u>1406</u>	<u>1.5</u>	<u>71.4</u>	<u>800</u>	<u>7.0</u>	<u>GREY</u>	<u>7200</u>	<u>—</u>
<u>1410</u>	<u>3.0</u>	<u>70.6</u>	<u>820</u>	<u>7.1</u>	<u>↓</u>	<u>↓</u>	<u>—</u>
<u>1413</u>	<u>4.5</u>	<u>70.6</u>	<u>810</u>	<u>7.2</u>	<u>↓</u>	<u>↓</u>	<u>—</u>

Post Purge Sample Parameters 70.8 790 7.2 Grey 7200  
 % RECHARGED WHEN SAMPLED (DTW-pre/DTW-post) 84% 7.6/9.04  
 SAMPLE VESSEL / PRESERVATIVE: JOA HCl LAB. ANALYSIS BTEX, TPHE

PURGING EQUIPMENT	MONITORING EQUIPMENT
<input type="checkbox"/> Bladder Pump <input type="checkbox"/> Centrifugal Pump <input type="checkbox"/> Submersible Pump <input type="checkbox"/> Peristaltic Pump <input checked="" type="checkbox"/> Bailer (Teflon) <u>DISP</u> <input type="checkbox"/> Bailer (PCV) <input type="checkbox"/> Bailer (Stainless Steel) <input type="checkbox"/> Vacuum Truck	Water Level Meter Mfg. by: <u>SILOE</u> pH Meter Mfg. by: <u>MYRON</u> pH Meter Model #: <u>LDS</u> D.O. Meter Mfg. by: _____

WELL HEAD CONDITION: GOOD  
 REMARKS: ODOR  
 SIGNATURE: [Signature]  
 Page \_\_\_ of \_\_\_ wsfds.wbl

Fax copy of Lab Report and COC to Chevron Contact:  Yes  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 9-1153  
 Facility Address 3126 Fernside Blvd., Alameda, CA  
 Consultant Project Number 951030-61  
 Consultant Name Blaine Tech Services, Inc.  
 Address 985 Timothy Dr., San Jose, CA 95133  
 Project Contact (Name) Jim Keller  
 (Phone) (408) 995-5535 (Fax Number) (408) 293-8773

Chevron Contact (Name) Mark Miller  
 (Phone) (510) 842-8134  
 Laboratory Name Sequoia  
 Laboratory Release Number 2172740  
 Samples Collected by (Name) GRANT MOHR  
 Collection Date 10-30-95  
 Signature [Signature]

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	Remarks								
								STEX + TPH GUS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Hydrocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)	MTBE												
C2MW6NP		3	W	D	1230	HCL	YES	X																				
C2MW6PP		3			1250			X																				
C2MW7 NP		3			1400			X																				
C2MW7 NPD		3			1400			X																				
C2MW7 PP		3			1420			X																				
C2MW7 PPD		3	↓	↓	1420	↓	↓	X																				

COC-1.DWG/03 BY/MSH

Relinquished By (Signature) <u>[Signature]</u>	Organization <u>BTS</u>	Date/Time <u>10-31-95 1440</u>	Received By (Signature) <u>SR</u>	Organization <u>SEQ</u>	Date/Time <u>10-31-95 2:40</u>
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time

Turn Around Time (Circle Choice)

24 Hrs.  **7 DAY**

48 Hrs.

5 Days

10 Days

As Contracted  **TAT**

# CHEVRON WELL MONITORING DATA SHEET

Project #: <u>951030-61</u>	Station #: <u>9-1153</u>
Sampler: <u>GRANT</u>	Start Date: <u>10-30</u>
Well I.D.: <u>MWB</u>	Well Diameter: (circle one) <u>(2)</u> 3 4 6
Total Well Depth: Before <u>9.18</u> After	Depth to Water: Before <u>4.44</u> After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <u>(PVC)</u>	Grade Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

<u>0.75</u>	<u>x</u>	<u>3</u>	<u>=</u>	<u>2.25</u>
1 Case Volume		Specified Volumes		gallons

Purging: <del>Bailer</del> <del>Disposable Bailer</del> Middleburg Electric Submersible Extraction Pump Other _____	Sampling: <del>Bailer</del> <del>Disposable Bailer</del> Extraction Port Other _____
--	---

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
<u>1147</u>	<u>72.6</u>	<u>7.0</u>	<u>600</u>	—	<u>1.0</u>	<u>BROWN</u>
<u>1150</u>	<u>72.0</u>	<u>7.1</u>	<u>610</u>	—	<u>1.5</u>	
<u>1154</u>	<u>72.0</u>	<u>7.1</u>	<u>620</u>	—	<u>2.5</u>	

Did Well Dewater? N If yes, gals. Gallons Actually Evacuated: 2.5

Sampling Time: 1200 Sampling Date: 10-30

Sample I.D.: MWB Laboratory: SEA

Analyzed for: (TPH-G) (BTEX) TPH-D OTHER:

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: TPH-G BTEX TPH-D OTHER:  
(Circle)

# CHEVRON WELL MONITORING DATA SHEET

Project #: 951030-G1	Station #: 91153
Sampler: GRANT	Start Date: 10-30
Well I.D.: MW9	Well Diameter: (circle one) <u>2</u> 3 4 6
Total Well Depth: Before 8.56 After	Depth to Water: Before 4.97 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <u>PVC</u>	Grade Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

<u>0.6</u>	$\times$	<u>3</u>	$=$	<u>1.8</u>	gallons
1 Case Volume		Specified Volumes			

Purging: Bailer <del>Disposable Bailer</del> Middleburg Electric Submersible Extraction Pump Other _____	Sampling: Bailer <del>Disposable Bailer</del> Extraction Port Other _____
---	--

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1210	71.2	7.3	1300	—	1.0	Brown
1213	71.8	7.5	1400	—	1.5	
1217	72.0	7.6	1400	—	2.0	

Did Well Dewater? N If yes, gals. Gallons Actually Evacuated: 2.0

Sampling Time: 1220 Sampling Date: 10-30

Sample I.D.: MW9 Laboratory: SP2

Analyzed for: TPH-G BTEX TPH-D OTHER:

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: TPH-G BTEX TPH-D OTHER:  
(Circle)

# CHEVRON WELL MONITORING DATA SHEET

Project #: 951030-G1	Station #: 9-1153
Sampler: GRANT	Start Date: 10-30
Well I.D.: MW10	Well Diameter: (circle one) <u>2</u> 3 4 6
Total Well Depth: Before 8.94 After	Depth to Water: Before 5.11 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to:	<u>PVC</u> Grade Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

<u>0.6</u>	x	<u>3</u>	=	<u>1.8</u>
1 Case Volume		Specified Volumes		gallons

Purging: Bailer  
Disposable Bailer  
 Middleburg  
 Electric Submersible  
 Extraction Pump  
 Other \_\_\_\_\_

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

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1052	68.2	6.9	600	—	0.75	BROWN
1059	68.6	6.9	560	—	1.5	
1104	69.0	7.0	540	—	2.0	

Did Well Dewater? N If yes, gals. Gallons Actually Evacuated: 2.0

Sampling Time: <u>1110</u>	Sampling Date: <u>10-30</u>
Sample I.D.: <u>MW10</u>	Laboratory: <u>SEQ</u>
Analyzed for: <u>TPH-G</u> <u>BTEX</u> TPH-D OTHER:	
Duplicate I.D.:	Cleaning Blank I.D.:
Analyzed for: TPH-G BTEX TPH-D OTHER:	