



**Chevron**

January 18, 1995

**Chevron U.S.A. Products Company**  
6001 Bollinger Canyon Rd., Bldg. L  
P.O. Box 5004  
San Ramon, CA 94583-0804

**Site Assessment & Remediation Group**  
Phone (510) 842-9500

Mr. Scott Seery  
Alameda County Health Care Services  
Department of Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

**Re: Chevron Service Station #9-6991**  
**2920 Castro Valley Boulevard, Castro Valley, CA**

Dear Mr. Seery:

Enclosed is the Fourth Quarter 1994 Groundwater Monitoring report dated January 11, 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, total petroleum hydrocarbons as diesel, and BTEX. Dissolved concentrations of these constituents were consistent with previous measurements at the site. Depth to ground water was measured at 8.9 feet to 10.7 feet below grade and the direction of flow is to the west.

A sample was not collected from MW-3 due to an object blocking the well. I have instructed our consultant to correct this condition and continue sampling this well on a quarterly basis. Quarterly monitoring of well MW-6 has been discontinued as discussed in Chevron's letter of May 13, 1994. We will continue quarterly monitoring and sampling activities for all other wells.

We look forward to discussing this site and our Comprehensive Site Review and Proposed Further Action Plan with you on January 26, 1995. If you have any questions or comments, please do not hesitate to contact me at (510) 842-8134.

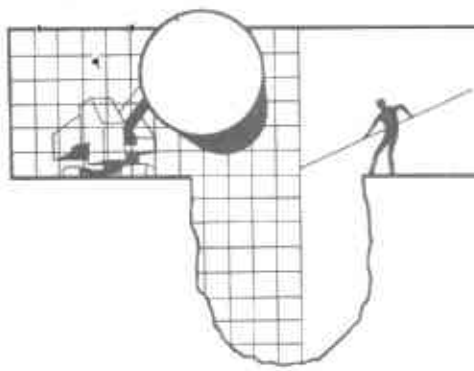
Sincerely,  
CHEVRON U.S.A. PRODUCTS COMPANY

  
Mark A. Miller  
Site Assessment and Remediation Engineer

Enclosure

cc: Mr. W.T. Scudder

File: 9-6991 QM9



# BLAINE TECH SERVICES INC.

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

January 11, 1995

Mark Miller  
Chevron U.S.A. Products Company  
2410 Camino Ramon  
San Ramon, CA 94583-0804

## 4th Quarter 1994 Monitoring at 9-6991

Fourth Quarter 1994 Groundwater Monitoring at  
Chevron Service Station Number 9-6991  
2920 Castro Valley Blvd.  
Castro Valley, CA

Monitoring Performed on November 30, 1994

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### Groundwater Sampling Report 941130-G-3

This report covers the routine quarterly monitoring of groundwater wells at this Chevron facility. Blaine Tech Services, Inc.'s work at the site includes inspection, gauging, evacuation, purgewater containment, sample collection and sample handling in accordance with standard procedures that conform to Regional Water Quality Control Board requirements.

Routine field data collection includes depth to water, total well depth, thickness of any separate immiscible layer, water column volume, calculated volume of a three-case volume purge, elapsed evacuation time, total volume of water removed, and standard water parameter instrument readings. Sample material is collected, contained, stored, and transported to the laboratory in conformance with EPA standards. Purgewater is, likewise, collected and transported to Chevron's Richmond Refinery for disposal.

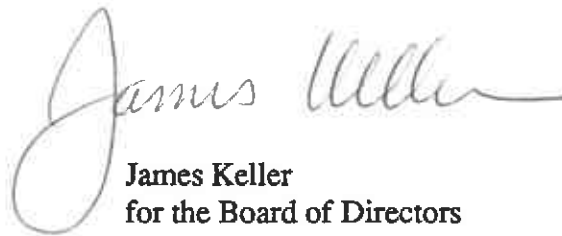
Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL DATA AND ANALYTICAL RESULTS**. The full analytical report for the most recent samples is located in the **Analytical Appendix**. The table also contains new groundwater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

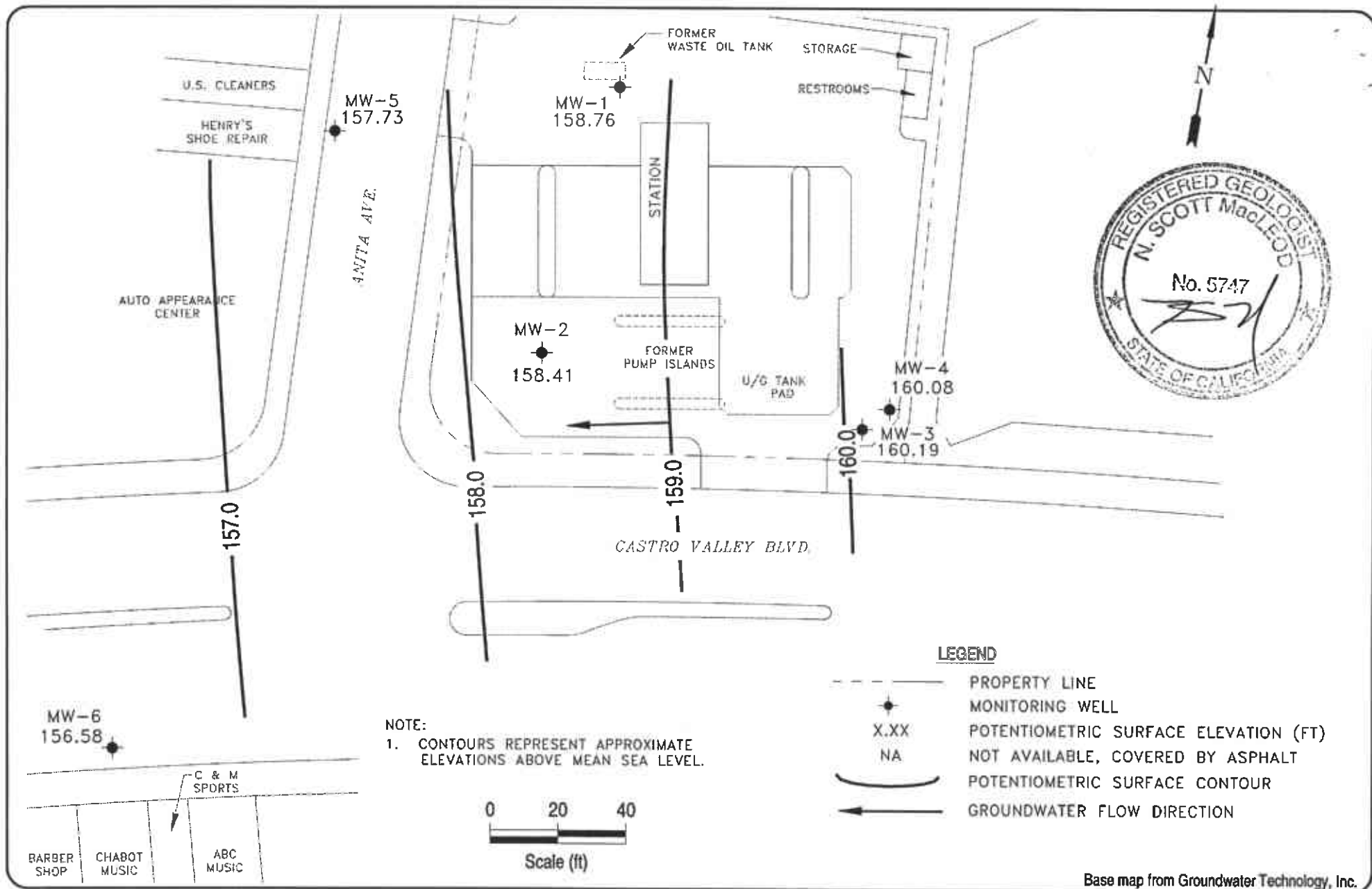
A handwritten signature in cursive script that reads "James Keller". The signature is written in dark ink and is positioned above the printed name and title.

James Keller  
for the Board of Directors

JPK/dk

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

# **Professional Engineering Appendix**



Base map from Groundwater Technology, Inc.



Chevron Station 9-6991  
 2920 Castro Valley Boulevard  
 Castro Valley, California

\\CHEVRON\9-6991\6991-QM(4094).DWG

Ground Water Elevation  
 November 30, 1994

**FIGURE**  
**1**

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

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TPH-Diesel	TOG
<b>MW-1</b>											
10/08/91	169.30	158.20	11.10	--	230	45	<0.5	0.9	9.1	--	<5000
11/04/91	169.30	158.27	11.03	--	340	120	<0.5	<0.5	6.1	--	--
12/04/91	169.30	158.25	11.05	--	<50	3.9	<0.5	<0.5	<0.5	170	<5000
06/05/92	169.30	158.26	11.04	--	100	26	0.6	0.5	1.0	<50	--
10/27/92	169.30	158.20	11.10	--	<50	11	<0.5	<0.5	<0.5	54	--
12/30/92	169.30	--	--	--	<50	24	<0.5	<0.5	<0.5	170	--
01/27/93	169.30	158.67	10.63	--	--	--	--	--	--	--	--
03/05/93	169.30	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--
03/17/93	169.30	158.59	10.71	--	--	--	--	--	--	--	--
06/18/93	169.30	158.29	11.01	--	<50	0.6	<0.5	<0.5	<1.5	<50	--
09/28/93	169.30	157.35	11.95	--	<50	0.8	<0.5	<0.5	<1.5	<50	--
12/30/93	169.30	158.34	10.96	--	<50	8.5	<0.5	<0.5	<0.5	<50	--
04/07/94	169.30	158.49	10.81	--	<50	<0.5	<0.5	<0.5	<0.5	<10	--
05/31/94	169.30	158.38	10.92	--	<50	1.0	<0.5	<0.5	<0.5	<50	--
09/23/94	169.30	158.40	10.90	--	<50	1.3	<0.5	<0.5	<0.5	<50	--
11/30/94	169.30	158.76	10.54	--	<50	8.9	<0.5	<0.5	<0.5	570*	--

\* Chromatogram pattern indicates a non-diesel mix.

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TPH-Diesel	TOG
<b>MW-2</b>											
10/08/91	169.15	157.20	11.95	--	110	5.1	1.1	0.8	26	--	--
11/19/91	169.15	157.40	11.75	--	120	11	1.1	<0.5	17	--	--
12/04/91	169.15	157.35	11.80	--	440	30	2.5	<0.5	52	130	--
06/05/92	169.15	157.35	11.80	--	80	13	<0.5	<0.5	1.0	130	--
10/27/92	169.15	157.15	12.00	--	54	13	<0.5	<0.5	<0.5	110	--
12/30/92	169.15	--	--	--	180	30	<0.5	<0.5	1.0	92	--
01/27/93	169.15	158.24	10.91	--	--	--	--	--	--	--	--
03/05/93	169.15	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--
03/17/93	169.15	158.26	10.89	--	--	--	--	--	--	--	--
06/18/93	169.15	157.41	11.74	--	<50	1.4	<0.5	<0.5	<1.5	<50	--
09/28/93	169.15	157.97	11.18	--	<50	0.6	<0.5	<0.5	<1.5	<50	--
12/30/93	169.15	158.34	21.00	--	<50	0.9	<0.5	<0.5	<0.5	<50	--
04/07/94	169.15	158.40	10.75	--	<50	<0.5	<0.5	<0.5	<0.5	<10	--
05/31/94	169.15	158.35	10.80	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--
09/23/94	169.15	157.50	11.65	--	<50	0.7	<0.5	<0.5	<0.5	120	--
11/30/94	169.15	158.41	10.74	--	55	2.9	<0.5	1.4	0.94	570*	--

\* Chromatogram pattern indicates a non-diesel mix + discrete peaks.



## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TPH-Diesel	TOG
<b>MW-3</b>											
10/08/91	169.11	160.84	8.27	--	81	1.9	0.7	0.8	2.4	--	--
11/04/91	169.11	158.26	10.85	--	60	<0.5	<0.5	<0.5	<0.5	--	--
12/04/91	169.11	158.06	11.05	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--
06/05/92	169.11	157.96	11.15	--	<50	<0.5	<0.5	<0.5	<0.5	170	--
10/27/92	169.11	157.51	11.60	--	<50	<0.5	<0.5	<0.5	<0.5	120	--
12/30/92	169.11	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	170	--
01/27/93	169.11	160.00	9.11	--	--	--	--	--	--	--	--
03/05/93	169.11	--	--	--	--	--	--	--	--	--	--
03/17/93	169.11	159.16	9.95	--	--	--	--	--	--	--	--
06/18/93	169.11	158.22	10.89	--	<50	<0.5	<0.5	<0.5	<1.5	<50	--
09/28/93	169.11	159.49	9.62	--	<50	<0.5	<0.5	<0.5	<1.5	<50	--
12/30/93	169.11	159.80	9.31	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--
04/07/94	169.11	160.30	8.81	--	<50	<0.5	<0.5	<0.5	<0.5	<10	--
05/31/94	169.11	160.21	8.90	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--
09/23/94	169.11	158.48	10.63	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--
12/15/94	169.11	160.19	8.92	Inaccessible	--	--	--	--	--	--	--
<b>MW-4</b>											
10/27/92	169.18	157.79	11.39	--	<50	<0.5	0.6	0.5	4.3	<50	--
12/30/92	169.18	159.05	10.13	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--
01/27/93	169.18	160.09	9.09	--	--	--	--	--	--	--	--
03/05/93	169.18	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--
03/17/93	169.18	159.28	9.90	--	--	--	--	--	--	--	--
06/18/93	169.18	158.50	10.68	--	<50	<0.5	<0.5	<0.5	<1.5	<50	--
09/28/93	169.18	159.82	9.36	--	<50	<0.5	<0.5	<0.5	<1.5	<50	--
12/30/93	169.18	159.91	9.27	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--
04/07/94	169.18	160.37	8.81	--	<50	<0.5	<0.5	<0.5	<0.5	<10	--
05/31/94	169.18	160.27	8.91	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--
09/23/94	169.18	158.79	10.39	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--
12/13/94	169.18	160.08	9.10	--	<50	<0.5	<0.5	<0.5	<0.5	58*	--

\* Chromatogram pattern indicates a non-diesel mix.

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TPH-Diesel	TOG
<b>MW-5</b>											
10/27/92	167.41	157.46	9.95	--	74	<0.5	<0.5	0.6	7.1	<50	--
12/30/92	167.41	158.21	9.20	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--
01/27/93	167.41	157.80	9.61	--	--	--	--	--	--	--	--
03/05/93	167.41	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--
03/17/93	167.41	157.90	9.51	--	--	--	--	--	--	--	--
06/18/93	167.41	157.56	9.85	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--
09/28/93	167.41	157.55	9.86	--	<50	<0.5	<0.5	<0.5	<1.5	<50	--
12/30/93	167.41	157.08	10.33	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--
04/07/94	167.41	157.69	9.72	--	<50	<0.5	<0.5	<0.5	<0.5	<10	--
05/31/94	167.41	157.68	9.73	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--
09/23/94	167.41	157.56	9.85	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--
12/13/94	167.41	157.73	9.68	--	<50	<0.5	<0.5	<0.5	<0.5	79*	--
<b>MW-6</b>											
10/27/92	166.46	153.92	12.54	--	600	22	22	24	130	<50	--
12/30/92	166.46	156.26	10.20	--	1700	170	16	46	160	470	--
01/27/93	166.46	156.44	10.02	--	--	--	--	--	--	--	--
03/05/93	166.46	--	--	--	480	76	0.9	3.1	7.1	150	--
03/17/93	166.46	155.79	10.67	--	--	--	--	--	--	--	--
06/18/93	166.46	154.63	11.83	--	240	37	3.4	2.9	18	51	--
09/28/93	166.46	154.90	11.56	--	150	11	1.2	1.3	4.3	120	--
12/30/93	166.46	154.81	11.65	--	680	77	5.1	5.5	13	290	--
04/07/94	166.46	155.34	11.12	--	190	24	2.9	1.9	8.0	<10	--
05/31/94	166.46	--	--	--	--	--	--	--	--	--	--
09/23/94	166.46	155.05	11.41	--	--	--	--	--	--	--	--
12/13/94	166.46	156.58	9.88	--	320	49	0.58	1.4	1.2	150*	--

\* Chromatogram pattern indicates a non-diesel mix.

## Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TPH-Diesel	TOG
<b>TRIP BLANK</b>											
10/08/91	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
11/04/91	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/04/91	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--
06/05/92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/30/92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
01/27/93	--	--	--	--	--	--	--	--	--	<50	--
03/05/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
03/17/93	--	--	--	--	--	--	--	--	--	--	--
06/18/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
09/28/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/30/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
04/07/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
05/31/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
09/23/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/13/94	--	--	--	--	<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

TOG = Total Oil and Grease



Blaine Technical Services 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Proj. ID: 941130-G3, Chevron 9-6991 Sample Descript: MW-4 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9412056-01	Sampled: 11/30/94 Received: 12/01/94 Extracted: 12/08/94 Analyzed: 12/10/94 Reported: 12/13/94
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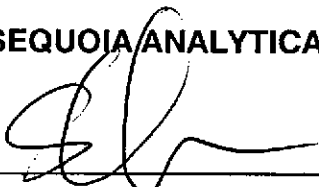
QC Batch Number: GC120894OHBPEXZ  
Instrument ID: GCHP4A

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern: Non Diesel Mix	50	58  C18-C24
<b>Surrogates</b> n-Pentacosane (C25)	<b>Control Limits %</b> 50                      150	<b>% Recovery</b> 99

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

**SEQUOIA ANALYTICAL - ELAP #1210**




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Suzanne Chin  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Proj. ID: 941130-G3, Chevron 9-6991 Sample Descript: MW-4 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9412056-01	Sampled: 11/30/94 Received: 12/01/94 Analyzed: 12/06/94 Reported: 12/13/94
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QC Batch Number: GC120694BTEX02A  
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:		

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70                      130	95

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

**SEQUOIA ANALYTICAL** - ELAP #1210

Suzanne Chin  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Proj. ID: 941130-G3, Chevron 9-6991 Sample Descript: MW-5 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9412056-02	Sampled: 11/30/94 Received: 12/01/94 Extracted: 12/08/94 Analyzed: 12/10/94 Reported: 12/13/94
---	--	--

QC Batch Number: GC120894OHBPEXZ  
Instrument ID: GCHP4A

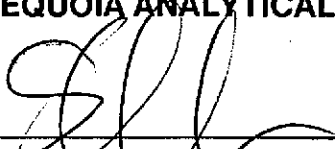
**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern: Non Diesel Mix	50	79  C18-C24

Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	99

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

**SEQUOIA ANALYTICAL - ELAP #1210**




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Suzanne Chlo  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Proj. ID: 941130-G3, Chevron 9-6991 Sample Descript: MW-5 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9412056-02	Sampled: 11/30/94 Received: 12/01/94 Analyzed: 12/06/94 Reported: 12/13/94
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QC Batch Number: GC120694BTEX02A  
Instrument ID: GCHP02

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

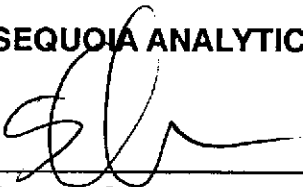
Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70                      130	99

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
\_\_\_\_\_  
Suzanne Chin  
Project Manager





Blaine Technical Services	Client Proj. ID: 941130-G3, Chevron 9-6991	Sampled: 11/30/94
985 Timothy Drive	Sample Descript: MW-6	Received: 12/01/94
San Jose, CA 95133	Matrix: LIQUID	Extracted: 12/08/94
Attention: Jim Keller	Analysis Method: EPA 8015 Mod	Analyzed: 12/10/94
	Lab Number: 9412056-03	Reported: 12/13/94

QC Batch Number: GC120894OHBPEXA  
Instrument ID: GCHP4A

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	150
Chromatogram Pattern: Non Diesel Mix		C9-C24
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
n-Pentacosane (C25)	50 150	105

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

**SEQUOIA ANALYTICAL - ELAP #1210**

Suzanne Chin  
Project Manager







Blaine Technical Services 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Proj. ID: 941130-G3, Chevron 9-6991 Sample Descript: MW-6 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9412056-03	Sampled: 11/30/94 Received: 12/01/94 Analyzed: 12/06/94 Reported: 12/13/94
---	--	---

QC Batch Number: GC120694BTEX02A  
 Instrument ID: GCHP02

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	320
Benzene	0.50	49
Toluene	0.50	0.58
Ethyl Benzene	0.50	1.4
Xylenes (Total)	0.50	1.2
Chromatogram Pattern:		Gas

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	104

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

**SEQUOIA ANALYTICAL** - ELAP #1210

Suzanne Chin  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: 941130-G3, Chevron 9-6991 Sample Descript: TB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9412056-04	Sampled: 11/30/94 Received: 12/01/94  Analyzed: 12/06/94 Reported: 12/13/94
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QC Batch Number: GC120694BTEX02A  
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:		

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70                      130	99

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

**SEQUOIA ANALYTICAL** - ELAP #1210



Suzanne Chin  
Project Manager





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

Client Project ID: 941130-G3, Chevron 9-6991  
Matrix: Liquid

Work Order #: 9412056 01-03

Reported: Dec 13, 1994

**QUALITY CONTROL DATA REPORT**

<b>Analyte:</b>	Diesel
<b>QC Batch#:</b>	GC1208940HBPEXZ
<b>Analy. Method:</b>	EPA 8015 Mod
<b>Prep. Method:</b>	EPA 3520

**Analyst:** N. Herrera  
**MS/MSD #:** 941206104  
**Sample Conc.:** 98  
**Prepared Date:** 12/8/94  
**Analyzed Date:** 12/10/94  
**Instrument I.D.#:** GCHP4  
**Conc. Spiked:** 600 µg/L

**Result:** 390  
**MS % Recovery:** 49

**Dup. Result:** 400  
**MSD % Recov.:** 50

**RPD:** 2.5  
**RPD Limit:** 0-50

**LCS #:** BLK120894  
**Prepared Date:** 12/8/94  
**Analyzed Date:** 12/10/94  
**Instrument I.D.#:** GCHP4  
**Conc. Spiked:** 600 µg/L  
**LCS Result:** 430  
**LCS % Recov.:** 72

<b>MS/MSD</b>	
<b>LCS</b>	38-122
<b>Control Limits</b>	

**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**

  
Suzanne Chin  
Project Manager

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

9412056.BLA <1>





Blaine Tech Services, Inc. 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Project ID: 941130-G3, Chevron 9-6991 Matrix: Liquid	Work Order #: 9412056 01-04	Reported: Dec 13, 1994
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**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC120694BTEX02A	GC120694BTEX02A	GC120694BTEX02A	GC120694BTEX02A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	N.A.	N.A.	N.A.	N.A.

Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:	941204310	941204310	941204310	941204310
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	N.A.	N.A.	N.A.	N.A.
Analyzed Date:	12/6/94	12/6/94	12/6/94	12/6/94
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	10	10	31
MS % Recovery:	100	100	100	103
Dup. Result:	10	10	10	30
MSD % Recov.:	100	100	100	100
RPD:	0.0	0.0	0.0	3.3
RPD Limit:	0-50	0-50	0-50	0-50

LCS #:	-	-	-	-
Prepared Date:	-	-	-	-
Analyzed Date:	-	-	-	-
Instrument I.D.#:	-	-	-	-
Conc. Spiked:	-	-	-	-
LCS Result:	-	-	-	-
LCS % Recov.:	-	-	-	-

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

**Please Note:**  
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

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

9412056.BLA <2>

**SEQUOIA ANALYTICAL**

*Suzanne Chin*  
Suzanne Chin  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Proj. ID: 941215-G4, Chevron 9-6991 Sample Descript: MW1 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9412B31-01	Sampled: 12/15/94 Received: 12/16/94 Extracted: 12/28/94 Analyzed: 12/30/94 Reported: 01/03/95
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QC Batch Number: GC122894OHBPEXZ  
Instrument ID: GCHP4A

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	570
Chromatogram Pattern: Non Diesel Mix		C9-C24

Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50      150	120

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
\_\_\_\_\_  
Suzanne Chin  
Project Manager





Blaine Technical Services	Client Proj. ID: 941215-G4, Chevron 9-6991	Sampled: 12/15/94
985 Timothy Drive	Sample Descript: MW1	Received: 12/16/94
San Jose, CA 95133	Matrix: LIQUID	
Attention: Jim Keller	Analysis Method: 8015Mod/8020	Analyzed: 12/21/94
	Lab Number: 9412B31-01	Reported: 01/03/95

QC Batch Number: GC122094BTEX02A  
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	8.9
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.

Chromatogram Pattern:

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70                      130	93

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

**SEQUOIA ANALYTICAL - ELAP #1210**



\_\_\_\_\_  
Suzanne Chin  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Proj. ID: 941215-G4, Chevron 9-6991 Sample Descript: MW2 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9412B31-02	Sampled: 12/15/94 Received: 12/16/94 Extracted: 12/28/94 Analyzed: 12/30/94 Reported: 01/03/95
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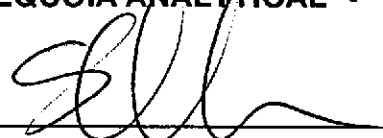
QC Batch Number: GC122894OHBPEXZ  
 Instrument ID: GCHP4A

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern: Non Diesel Mix Discrete Peaks	50	570 C9-C24
<b>Surrogates</b> n-Pentacosane (C25)	<b>Control Limits %</b> 50 150	<b>% Recovery</b> 124

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
 Suzanne Chin  
 Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Proj. ID: 941215-G4, Chevron 9-6991 Sample Descript: MW2 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9412B31-02	Sampled: 12/15/94 Received: 12/16/94 Analyzed: 12/20/94 Reported: 01/03/95
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QC Batch Number: GC122094BTEX02A  
Instrument ID: GCHP02

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	55
Benzene	0.50	2.9
Toluene	0.50	N.D.
Ethyl Benzene	0.50	1.4
Xylenes (Total)	0.50	0.94
Chromatogram Pattern:		Gas

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70      130	91

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Suzanne Chin  
Project Manager







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

Client Project ID: 941215-G4, Chevron 9-6991  
Matrix: Liquid

Work Order #: 9412B31 -01-02

Reported: Jan 3, 1995

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel
QC Batch#:	GC122094BTEX02A	GC122094BTEX02A	GC122094BTEX02A	GC122094BTEX02A	GC1228940HBPEXZ
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	N/A	N/A	N/A	N/A	EPA 3520

Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel	B. Ali
MS/MSD #:	941297001	941297001	941297001	941297001	9412B3005
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	72
Prepared Date:	N/A	N/A	N/A	N/A	12/28/94
Analyzed Date:	12/20/94	12/20/94	12/20/94	12/20/94	12/30/94
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2	GCHP5
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	600 µg/L
Result:	10	10	10	30	400
MS % Recovery:	100	100	100	100	55
Dup. Result:	10	10	11	31	430
MSD % Recov.:	100	100	110	103	60
RPD:	0.0	0.0	9.5	3.3	7.2
RPD Limit:	0-50	0-50	0-50	0-50	0-50

LCS #:	-	-	-	-	BLK122894
Prepared Date:	-	-	-	-	12/28/94
Analyzed Date:	-	-	-	-	12/30/94
Instrument I.D.#:	-	-	-	-	GCHP5
Conc. Spiked:	-	-	-	-	600 µg/L
LCS Result:	-	-	-	-	440
LCS % Recov.:	-	-	-	-	73

MS/MSD					
LCS	71-133	72-128	72-130	71-120	38-122
Control Limits					

**Please Note:**

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

**SEQUOIA ANALYTICAL**  
  
Suzanne Chin  
Project Manager

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

9412B31.BLA <1>







# **Field Data Sheets**



# CHEVRON WELL MONITORING DATA SHEET

Project #: 941215-G4	Station # 9-6991
Sampler: G.M.	Date Sampled: 12-15
Well I.D.: MW-01	Well Diameter: (circle one) 2 3 4 6 <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">3</span>
Total Well Depth: Before 17.40 After	Depth to Water: Before 10.41 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">PVC</span>	Grade      Other --

<u>0.1</u>	x	<u>3</u>	=	<u>0.3</u>
1 Case Volume		Specified Volumes		gallons

Purging: Bailer   
 Middleburg  
 Electric Submersible  
 Suction Pump  
 Type of Installed Pump \_\_\_\_\_

Sampling: Bailer   
 Middleburg  
 Electric Submersible  
 Suction Pump  
 Installed Pump \_\_\_\_\_

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
16:02	64.0	7.2	2200	—	0.1	ODOR
16:05	64.8	7.2	2300	—	0.2	SHEEN
16:07	65.4	7.0	2400	—	0.3	

Did Well Dewater? NO If yes, gals.      Gallons Actually Evacuated: 0.3

Sampling Time: 16:12

Sample I.D.: MW-01

Laboratory: SEQ.

Analyzed for: TPH, BTEX, TPHD

Duplicate I.D.:

Cleaning Blank I.D.:

Analyzed for:

Shipping Notations:

Additional Notations:

# CHEVRON WELL MONITORING DATA SHEET

Project #: 941215-64	Station # 9- 6991
Sampler: G.M. / JEAN	Date Sampled: 12/15/94
Well I.D.: MW-2	Well Diameter: (circle one) 2 3 4 6 <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">3</span>
Total Well Depth: Before 20.22 After	Depth to Water: Before 10.40 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">PVC</span>	Grade Other --

0.2	x	3	=	0.6
1 Case Volume		Specified Volumes		gallons

Purging: Bailer   
 Middleburg  
 Electric Submersible  
 Suction Pump  
 Type of Installed Pump \_\_\_\_\_

Sampling: Bailer   
 Middleburg  
 Electric Submersible  
 Suction Pump  
 Installed Pump \_\_\_\_\_

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
16:49	66.8	7.3	1200	—	0.2	
16:54	66.2	7.2	1200	—	0.4	
17:00	66.4	7.2	1200	—	0.6	

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 0.6

Sampling Time: 17:06

Sample I.D.: MW-2 Laboratory: SEA

Analyzed for: TPHG, BTEX, TPHD

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

Analyzed for:

Shipping Notations:

Additional Notations:

# CHEVRON WELL MONITORING DATA SHEET

Project #: 941130-63	Station # 9-6991
Sampler: SWANN/GANT	Date Sampled: 11/30/94
Well I.D.: MW-3	Well Diameter: (circle one) 2 3 4 <u>60.5</u>
Total Well Depth: Before 19.53 After	Depth to Water: Before 8.92 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <u>PVC</u> Grade Other --	

<u>.10</u>	x	<u>3</u>	=	<u>.32 GAL</u>
1 Case Volume		Specified Volumes		gallons

Purging: Bailer Middleburg Electric Submersible Suction Pump Type of Installed Pump _____	Sampling: Bailer Middleburg Electric Submersible Suction Pump Installed Pump _____
---	--

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
						SAMPLE NOT TAKEN; WELL INACCESSIBLE;
						TUBE BLOCKING PIPE

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

Sampling Time:

Sample I.D.:      Laboratory:

Analyzed for:

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

Analyzed for:

Shipping Notations:

Additional Notations:



# CHEVRON WELL MONITORING DATA SHEET

Project #: 941130-63	Station #: 9-6991
Sampler: SHAWH/GRANT	Date Sampled: 11/30/94
Well I.D.: MW-4	Well Diameter: (circle one) (2) 3 4 6
Total Well Depth: .	Depth to Water: .
Before 19.75 After	Before 9.10 After
Depth to Free Product: .	Thickness of Free Product (feet): .
Measurements referenced to: (PVC)	Grade Other --

1.70	x	3	=	5.1
1 Case Volume		Specified Volumes		gallons

Purging: Bailer ~~X~~ DISR  
 Middleburg  
 Electric Submersible  
 Suction Pump  
 Type of Installed Pump \_\_\_\_\_

Sampling: Bailer ~~X~~ DISR  
 Middleburg  
 Electric Submersible  
 Suction Pump  
 Installed Pump \_\_\_\_\_

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1440	68.9	7.2	740	—	2.0	
1445	69.1	7.1	700	—	4.0	
1450	69.0	7.1	720	—	5.5	

Did Well Dewater? NO If yes, gals.

Gallons Actually Evacuated: 5.5

Sampling Time: 1500

Sample I.D.: MW4

Laboratory: SEQ

Analyzed for: TPHG, BTEX, TPHD

Duplicate I.D.:

Cleaning Blank I.D.:

Analyzed for:

Shipping Notations:

Additional Notations:

# CHEVRON WELL MONITORING DATA SHEET

Project #: 941130-63	Station # 9-6991
Sampler: SHAWN/GRANT	Date Sampled: 11-30
Well I.D.: MWS	Well Diameter: (circle one) ② 3 4 6
Total Well Depth: Before 19.62 After	Depth to Water: Before 9.60 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: PVC	Grade      Other --

1.0	x	3	=	4.0
1 Case Volume		Specified Volumes		gallons

Purging: Bailer  CHEVRON DISP  
 Middleburg  
 Electric Submersible  
 Suction Pump  
 Type of Installed Pump \_\_\_\_\_

Sampling: Bailer  CHEVRON DISP  
 Middleburg  
 Electric Submersible  
 Suction Pump  
 Installed Pump \_\_\_\_\_

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1521	68.8	7.1	650	—	2.0	
1526	68.9	7.1	640	—	4.0	
1528	68.9	7.1	640	—	5.0	

Did Well Dewater? NO If yes, gals.

Gallons Actually Evacuated: 5.0

Sampling Time: 1530

Sample I.D.: MWS

Laboratory: SEQ

Analyzed for: TPHG, BTEX, TPHD

Duplicate I.D.:

Cleaning Blank I.D.:

Analyzed for:

Shipping Notations:

Additional Notations:

# CHEVRON WELL MONITORING DATA SHEET

Project #: 941130-63	Station #: 9-699.1
Sampler: GRANT/SHAWN	Date Sampled: 11/30/94
Well I.D.: MW6	Well Diameter: (circle one) <u>(2)</u> 3 4 6
Total Well Depth: Before 23.34 After	Depth to Water: Before 9.86 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <u>(PVC)</u> Grade Other --	

2.1	x	3	=	6.3
1 Case Volume		Specified Volumes		gallons

Purging: Bailer DISP.  
 Middleburg  
 Electric Submersible  
 Suction Pump  
 Type of Installed Pump \_\_\_\_\_

Sampling: Bailer DISP.  
 Middleburg  
 Electric Submersible  
 Suction Pump  
 Installed Pump \_\_\_\_\_

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1540	68.6	7.2	720	—	3.0	
1545	68.8	7.1	700	—	5.0	
1549	68.9	7.0	710	—	6.5	

Did Well Dewater? NO If yes, gals.

Gallons Actually Evacuated: 65

Sampling Time: 1600

Sample I.D.: MW6

Laboratory: SEQR

Analyzed for: TPAG, BTEX, TPHD

Duplicate I.D.:

Cleaning Blank I.D.:

Analyzed for:

Shipping Notations:

Additional Notations: