

LSOS



Chevron

August 10, 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 Second Quarter 1995 Groundwater Monitoring report dated July 14, 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 9.9 to 11.4 feet below grade and the direction of flow is to the west-southwest.

Quarterly monitoring of well MW-6 has been discontinued as indicated in Chevron's letter of May 13, 1994. We will continue quarterly monitoring and sampling activities for all other wells. We will move forward with the Gettler-Ryan work plan of July 21, 1995, per your approval letter of August 8, 1995.

If you have any questions or comments, please feel free to contact me at (510) 842-8134.

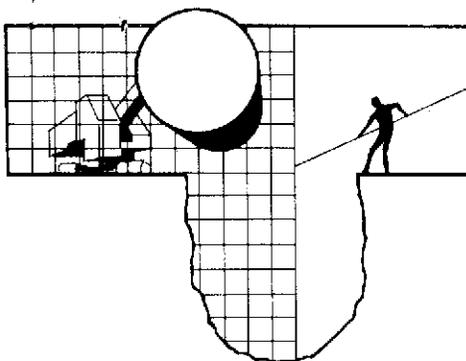
Sincerely,
CHEVRON U.S.A. PRODUCTS COMPANY

Mark A. Miller
Site Assessment and Remediation Engineer

Enclosure

cc: Mr. J.H. Ough

95 AUG 15 PM 12:39
ENVIRONMENTAL



BLAINE TECH SERVICES INC.

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

July 14, 1995

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

2nd Quarter 1995 Monitoring at 9-6991

Second Quarter 1995 Groundwater Monitoring at
Chevron Service Station Number 9-6991
2920 Castro Valley Blvd.
Castro Valley, CA

Monitoring Performed on June 6, 1995

Groundwater Sampling Report 950606-M-4

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.

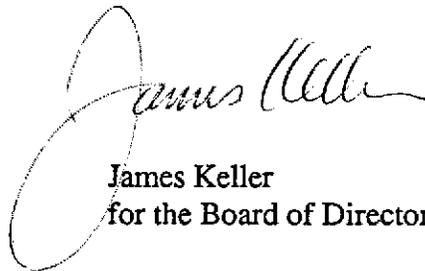
Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL DATA AND ANALYTICAL RESULTS**. The full analytical report for the most recent samples is located in the **Analytical Appendix**. The table also contains new groundwater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

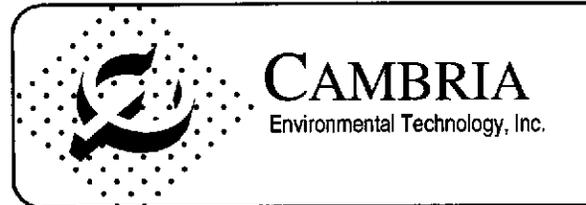
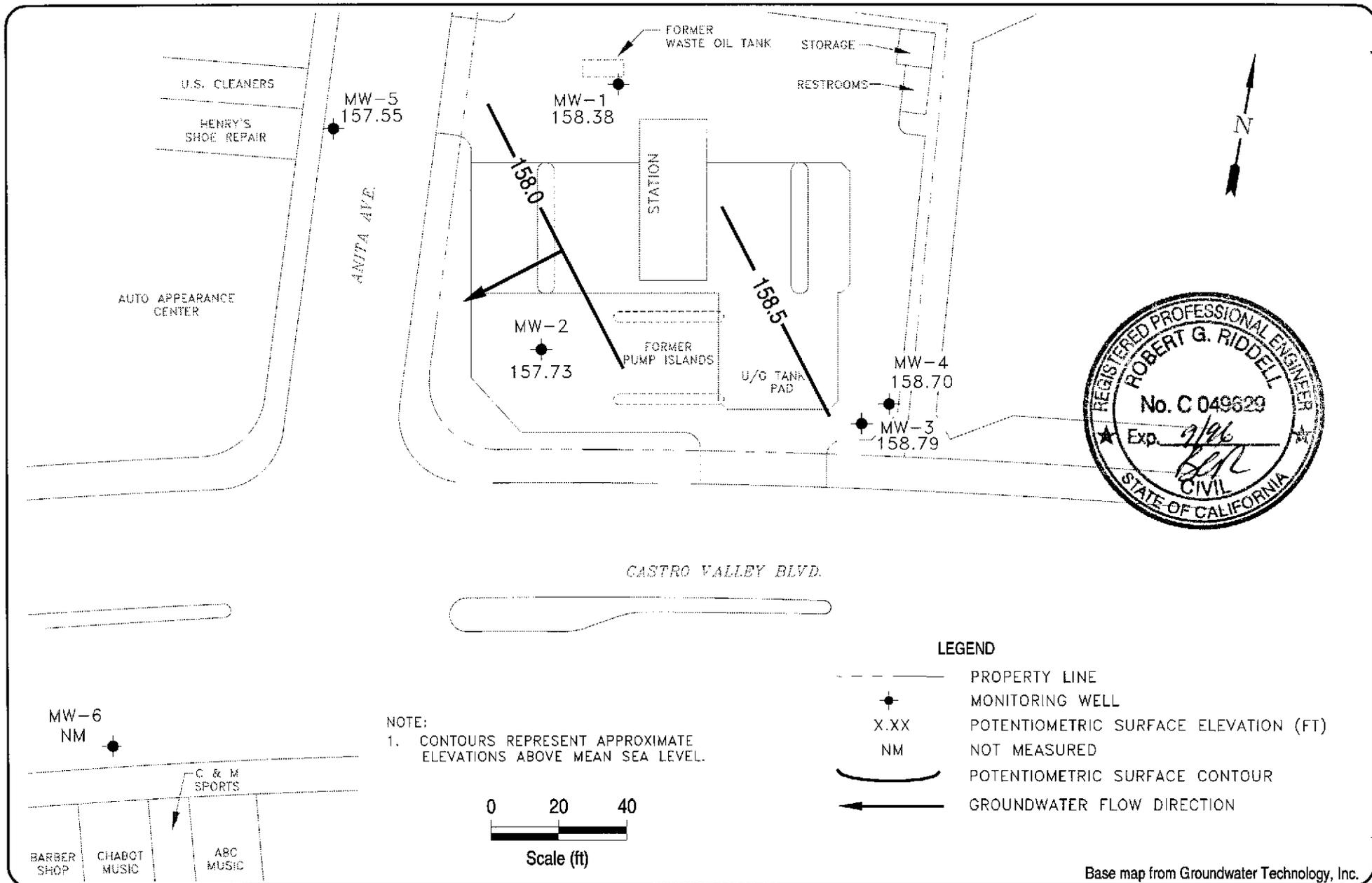
A handwritten signature in cursive script that reads "James Keller". The signature is written in black ink and is positioned above the printed name and title.

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



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

VCHEVRON\9-6991\6991-QM.DWG

Ground Water Elevation
 June 6, 1995

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
MW-1											
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*	--
03/30/95	169.30	158.60	10.70	--	<50	<0.5	<0.5	<0.5	<0.5	110**	--
06/06/95	169.30	158.38	10.92	--	81	15	<0.5	<0.5	<0.5	570**	--

* 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.

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
MW-2											
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*	--
03/30/95	169.15	158.25	10.90	--	91	4.5	<0.5	3.8	<0.5	430**	--
06/06/95	169.15	157.73	11.42	--	<50	<0.5	<0.5	<0.5	<0.5	410**	--

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

** Chromatogram pattern indicates an unidentified hydrocarbon.

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
MW-3											
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	--
11/30/94	169.11	160.19	8.92	Inaccessible	--	--	--	--	--	--	--
03/30/95	169.11	160.01	9.10	--	<50	<0.5	<0.5	<0.5	<0.5	290*	--
06/06/95	169.11	158.79	10.32	--	<50	<0.5	<0.5	<0.5	<0.5	150*	--

* Chromatogram pattern indicates an unidentified hydrocarbon.

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
MW-4											
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	--
11/30/94	169.18	160.08	9.10	--	<50	<0.5	<0.5	<0.5	<0.5	58*	--
03/30/95	169.18	160.66	8.52	--	<50	<0.5	<0.5	<0.5	<0.5	61**	--
06/06/95	169.18	158.70	10.48	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--

* 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.

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
MW-5											
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	--
11/30/94	167.41	157.73	9.68	--	<50	<0.5	<0.5	<0.5	<0.5	79*	--
03/30/95	167.41	157.79	9.62	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--
06/06/95	167.41	157.55	9.86	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--
MW-6											
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	--	--	--	--	--	--	--	--
11/30/94	166.46	156.58	9.88	--	320	49	0.58	1.4	1.2	150*	--

NO LONGER MONITORED OR SAMPLED.

* 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
TRIP BLANK											
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	--	--
11/30/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
03/30/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/06/95	--	--	--	--	<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

TOG = Total Oil and Grease

Analytical Appendix



Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Chevron 9-6991/ 950606-M4 Sample Descript: MW-1 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9506455-01	Sampled: 06/06/95 Received: 06/07/95 Extracted: 06/09/95 Analyzed: 06/11/95 Reported: **/**/**
--	--	--

QC Batch Number: GC0609950HBPEXA
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	570
Chromatogram Pattern: Unidentified HC		C9-C24
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	127

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	Client Proj. ID: Chevron 9-6991 / 950606-M4	Sampled: 06/06/95
985 Timothy Drive	Sample Descript: MW-1	Received: 06/07/95
San Jose, CA 95133	Matrix: LIQUID	
Attention: Jim Keller	Analysis Method: 8015Mod/8020	Analyzed: 06/10/95
	Lab Number: 9506455-01	Reported: **/**/**

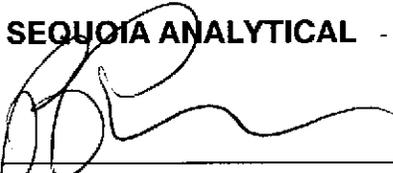
QC Batch Number: GC060995BTEX03B
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	61
Benzene	0.50	15
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		Gas
Unidentified HC		< C8
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	106

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	Client Proj. ID: Chevron 9-6991 / 950606-M4	Sampled: 06/06/95
985 Timothy Drive	Sample Descript: MW-2	Received: 06/07/95
San Jose, CA 95133	Matrix: LIQUID	Extracted: 06/09/95
Attention: Jim Keller	Analysis Method: EPA 8015 Mod	Analyzed: 06/11/95
	Lab Number: 9506455-02	Reported: **/**/**

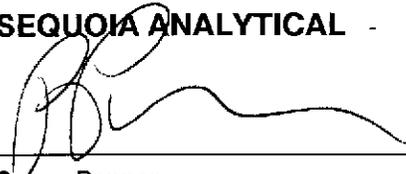
QC Batch Number: GC0609950HBPEXA
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	410
Chromatogram Pattern:		
Unidentified HC		C9-C24
Discrete Peaks		...
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	100

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 9-6991 / 950606-M4 Sample Descript: MW-2 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9506455-02	Sampled: 06/06/95 Received: 06/07/95 Analyzed: 06/10/95 Reported: **/**/**
--	---	---

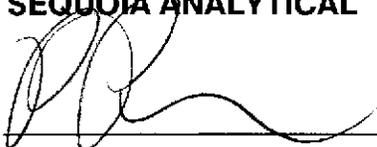
QC Batch Number: GC060995BTEX03B
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
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	100

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	Client Proj. ID: Chevron 9-6991 / 950606-M4	Sampled: 06/06/95
985 Timothy Drive	Sample Descript: MW-3	Received: 06/07/95
San Jose, CA 95133	Matrix: LIQUID	Extracted: 06/09/95
Attention: Jim Keller	Analysis Method: EPA 8015 Mod	Analyzed: 06/11/95
	Lab Number: 9506455-03	Reported: **/**/**

QC Batch Number: GC0609950HBPEXA
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	150
Chromatogram Pattern:		
Unidentified HC		C9-C24
Discrete Peaks		...
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	88

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	Client Proj. ID: Chevron 9-6991 / 950606-M4	Sampled: 06/06/95
985 Timothy Drive	Sample Descript: MW-3	Received: 06/07/95
San Jose, CA 95133	Matrix: LIQUID	
Attention: Jim Keller	Analysis Method: 8015Mod/8020	Analyzed: 06/10/95
	Lab Number: 9506455-03	Reported: **/**/**

QC Batch Number: GC060995BTEX03B
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.
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	100

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	Client Proj. ID: Chevron 9-6991 / 950606-M4	Sampled: 06/06/95
985 Timothy Drive	Sample Descript: MW-4	Received: 06/07/95
San Jose, CA 95133	Matrix: LIQUID	Extracted: 06/09/95
Attention: Jim Keller	Analysis Method: EPA 8015 Mod	Analyzed: 06/11/95
	Lab Number: 9506455-04	Reported: **/**/**

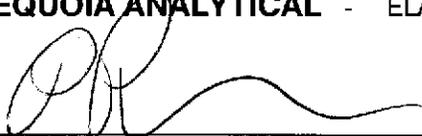
QC Batch Number: GC0609950HBPEXA
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50	N.D.
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	93

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 9-6991 / 950606-M4 Sample Descript: MW-4 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9506455-04	Sampled: 06/06/95 Received: 06/07/95 Analyzed: 06/10/95 Reported: **/**/**
Attention: Jim Keller		

QC Batch Number: GC060995BTEX02B
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	77

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 9-6991 / 950606-M4 Sample Descript: MW-5 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9506455-05	Sampled: 06/06/95 Received: 06/07/95 Extracted: 06/09/95 Analyzed: 06/11/95 Reported: **/**/**
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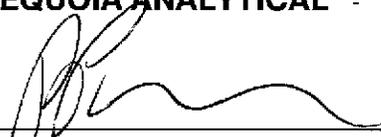
QC Batch Number: GC0609950HBPEXA
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50	N.D.
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	89

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 9-6991 / 950606-M4 Sample Descript: MW-5 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9506455-05	Sampled: 06/06/95 Received: 06/07/95 Analyzed: 06/10/95 Reported: **/**/**
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QC Batch Number: GC060995BTEX02B
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	81

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 9-6991/ 950606-M4 Sample Descript: TB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9506455-06	Sampled: 06/06/95 Received: 06/07/95 Analyzed: 06/10/95 Reported: **/**/**
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QC Batch Number: GC060995BTEX03B
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.
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	89

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.
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Client Project ID: Chevron 9-6991, 950606-M4
Matrix: Liquid

Work Order #: 9506455 -01-03, 06

Reported: Jun 16, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC060995BTEX03B	GC060995BTEX03B	GC060995BTEX03B	GC060995BTEX03B
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:	950621301	950621301	950621301	950621301
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	6/9/95	6/9/95	6/9/95	6/9/95
Analyzed Date:	6/9/95	6/9/95	6/9/95	6/9/95
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.9	11	9.1	28
MS % Recovery:	99	110	91	93
Dup. Result:	9.3	6.3	6.0	25
MSD % Recov.:	93	63	60	83
RPD:	6.3	54	41	11
RPD Limit:	0-50	0-50	0-50	0-50

LCS #:	BLK060995	BLK060995	BLK060995	BLK060995
Prepared Date:	6/9/95	6/9/95	6/9/95	6/9/95
Analyzed Date:	6/9/95	6/9/95	6/9/95	6/9/95
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	9.7	9.8	10	30
LCS % Recov.:	97	98	100	100

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





Blaine Tech Services, Inc. 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Project ID: Chevron 9-6991, 950606-M4 Matrix: Liquid Work Order #: 9506455-04-05	Reported: Jun 16, 1995
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QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC060995BTEX02B	GC060995BTEX02B	GC060995BTEX02B	GC060995BTEX02B
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:	950621303	950621303	950621303	950621303
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	6/9/95	6/9/95	6/9/95	6/9/95
Analyzed Date:	6/9/95	6/9/95	6/9/95	6/9/95
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.1	9.1	9.1	27
MS % Recovery:	91	91	91	90
Dup. Result:	9.1	8.4	8.2	27
MSD % Recov.:	91	84	82	90
RPD:	0.0	8.0	10	0.0
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				

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.





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

Client Project ID: Chevron 9-6991, 950606-M4
 Matrix: Liquid

Work Order #: 9506455-01-05

Reported: Jun 16, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC0609950HBPEXA
Analy. Method:	EPA 8015 M
Prep. Method:	EPA 3510

Analyst: T. Olive
MS/MSD #: BLK060995
Sample Conc.: N.D.
Prepared Date: 6/9/95
Analyzed Date: 6/9/95
Instrument I.D.#: GCHP19
Conc. Spiked: 1000 µg/L

Result: 960
MS % Recovery: 96

Dup. Result: 980
MSD % Recov.: 98

RPD: 2.1
RPD Limit: 0-50

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

MS/MSD	38-122
LCS	
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

9506455.BLA <3>



Field Data Sheets

CHEVRON WELL MONITORING DATA SHEET

Project #: <u>750606-mw</u>	Station #: <u>9-6991</u>
Sampler: <u>MW</u>	Start Date: <u>6-6</u>
Well I.D.: <u>MW-1</u>	Well Diameter: (circle one) 2 3 4 6 <u>3/4</u>
Total Well Depth: <u>17.14</u>	Depth to Water: <u>16.92</u>
Before After	Before After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <u>(FVC)</u>	Grade Other:

Well Diameter <u>.0225</u>	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>.14</u>	x	<u>4</u>	=	<u>.56</u>
1 Case Volume		Specified Volumes		gallons

Purging: <u>Bailer</u> Disposable Bailer Middleburg Electric Submersible Extraction Pump Other _____	Sampling: <u>Bailer</u> Disposable Bailer Extraction Port Other _____
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TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
14:00	<u>68.6</u>	<u>7.0</u>	<u>2200</u>	—	<u>.2</u>	<u>DRK BLW</u>
14:02	<u>68.2</u>	<u>7.0</u>	<u>2100</u>	—	<u>.3</u>	
14:05	<u>68.6</u>	<u>7.0</u>	<u>2100</u>	—	<u>.5</u>	
14:08	<u>68.0</u>	<u>7.0</u>	<u>2100</u>	—	<u>.6</u>	
14:10						

Did Well Dewater? No If yes, gals. Gallons Actually Evacuated: .6

Sampling Time: 14:16 Sampling Date: 6-6

Sample I.D.: MW-1 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:

CHEVRON WELL MONITORING DATA SHEET

Project #: <u>95060e-mj</u>	Station #: <u>9-6991</u>
Sampler: <u>mm</u>	Start Date: <u>6-6</u>
Well I.D.: <u>MW-2</u>	Well Diameter: (circle one) 2 3 4 6 <u>54</u>
Total Well Depth: <u>19.48</u>	Depth to Water: <u>11.42</u>
Before	After
Before	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>1.8</u>	x	<u>9</u>	=	<u>.72</u>
1 Case Volume		Specified Volumes		gallons

Purging: <u>Bailer</u> Disposable Bailer Middleburg Electric Submersible Extraction Pump Other _____	Sampling: <u>Bailer</u> Disposable Bailer Extraction Port Other _____
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TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
<u>14:50</u>	<u>68.2</u>	<u>7.1</u>	<u>2000</u>	<u>—</u>	<u>.2</u>	<u>GWY</u>
<u>14:55</u>	<u>67.8</u>	<u>7.0</u>	<u>2000</u>	<u>—</u>	<u>.4</u>	<u>SUNNY ODD</u>
<u>15:00</u>	<u>67.8</u>	<u>6.9</u>	<u>2000</u>	<u>—</u>	<u>.6</u>	
<u>15:04</u>	<u>68.0</u>	<u>6.9</u>	<u>2000</u>	<u>—</u>	<u>.8</u>	

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: .8

Sampling Time: 15:05 Sampling Date: 6-6

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

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>950666-m4</u>	Station #: <u>9-6991</u>
Sampler: <u>MN</u>	Start Date: <u>6-6</u>
Well I.D.: <u>MW-3</u>	Well Diameter: (circle one) 2 3 4 6 <u>34</u>
Total Well Depth: <u>19.55</u>	Depth to Water: <u>10.32</u>
Before After	Before 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>.2</u>	x	<u>4</u>	=	<u>.8</u>
1 Case Volume		Specified Volumes		gallons

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

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
<u>14:30</u>	<u>68.2</u>	<u>7.1</u>	<u>2200</u>	—	<u>.2</u>	
<u>14:38</u>	<u>68.8</u>	<u>7.0</u>	<u>2000</u>	—	<u>.4</u>	
<u>14:41</u>	<u>68.8</u>	<u>7.0</u>	<u>2000</u>	—	<u>.4</u>	
<u>14:44</u>	<u>67.2</u>	<u>7.0</u>	<u>2000</u>	—	<u>.8</u>	

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: .8

Sampling Time: 14:45 Sampling Date: 6-6

Sample I.D.: MW-3 Laboratory: JKR

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>950600-M4</u>		Station #: <u>9-6991</u>	
Sampler: <u>am</u>		Start Date: <u>6-6</u>	
Well I.D.: <u>MW-4</u>		Well Diameter: (circle one) <u>3</u> 4 6	
Total Well Depth: <u>19.76</u>		Depth to Water: <u>10.48</u>	
Before	After	Before	After
Depth to Free Product:		Thickness of Free Product (feet):	
Measurements referenced to: <u>FVC</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>1.6</u>	x	<u>4</u>	=	<u>6.4</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:
<u>13:38</u>	<u>69.4</u>	<u>7.0</u>	<u>1400</u>	<u>—</u>	<u>1.5</u>	
<u>13:46</u>	<u>68.4</u>	<u>7.0</u>	<u>1200</u>	<u>—</u>	<u>3.0</u>	
<u>13:41</u>	<u>68.2</u>	<u>7.0</u>	<u>1200</u>	<u>—</u>	<u>4.5</u>	
<u>13:43</u>	<u>68.0</u>	<u>7.0</u>	<u>1200</u>	<u>—</u>	<u>6.5</u>	

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 6.5

Sampling Time: 13:45 Sampling Date: 6-6

Sample I.D.: MW-4 Laboratory: SLL

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>950606 m4</u>		Station #: <u>9-6991</u>	
Sampler: <u>mm</u>		Start Date: <u>6-6</u>	
Well I.D.: <u>MW-5</u>		Well Diameter: (circle one) <u>3</u> 4 6	
Total Well Depth: <u>19.52</u>		Depth to Water: <u>9.86</u>	
Before	After	Before	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>1.6</u>	x	<u>4</u>	=	<u>6.4</u>	gallons
1 Case Volume Specified Volumes					

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:
<u>13:20</u>	<u>70.8</u>	<u>7.9</u>	<u>1800</u>	<u>—</u>	<u>2</u>	
<u>13:22</u>	<u>70.4</u>	<u>7.1</u>	<u>1600</u>	<u>—</u>	<u>3.5</u>	
<u>13:24</u>	<u>69.0</u>	<u>7.0</u>	<u>1400</u>	<u>—</u>	<u>5.5</u>	
<u>13:26</u>	<u>68.8</u>	<u>7.0</u>	<u>1400</u>	<u>—</u>	<u>7.0</u>	

Did Well Dewater? no If yes, gals. Gallons Actually Evacuated: 7

Sampling Time: 13:30 Sampling Date: 6-6

Sample I.D.: MW-5 Laboratory: SLB

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

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

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