Chevron

December 19, 1997

#4249

Chevron Products Company
6001 Bollinger Canyon Road
Building L
San Ramon, CA 94583
P.O. Box 5004
San Ramon, CA 94583-0804

~~**Marketing – Northwest Region**~~
~~Phone 510 842-9500~~

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

Re: Former Chevron Service Station # 9-4612
3616 San Leandro Street
Oakland, California

Dear Mr. Chan:

Enclosed is the Fourth Quarter Groundwater Monitoring report for 1997 that was prepared by Blaine Tech Services, Inc. for the above noted site. As noted in the reports, the groundwater samples were analyzed for TPH-g, BTEX and MtBE constituents. Monitoring well MW-3 was also analyzed for the TPH-d constituent.

The benzene constituents in monitoring wells VH-1, MW-2, MW-3 and MW-4 increased from the previous sampling event. The concentration of TPH-d detected in monitoring well MW-3 showed a chromatogram pattern as an unidentified hydrocarbon.

Depth to ground water varied from 10.72 feet to 11.58 feet below grade with the direction of flow southwesterly.

Chevron will continue to sample quarterly. If you have any questions, call me at (510) 842-9136.

Sincerely,
CHEVRON PRODUCTS COMPANY

Philip R. Briggs
Site Assessment and Remediation Project Manager

Enclosure

cc. Mr. Jack Ratto
PO Box 6032
Oakland, CA. 94603

Mr. Terry McIlraith
407 Castello Road
Lafayette, CA 94549

Ms. Bette Owen, Chevron

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

December 12, 1997

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

4th Quarter 1997 Monitoring at 9-4612

Fourth Quarter 1997 Groundwater Monitoring at
Former Chevron Service Station Number 9-4612
3616 San Leandro Street
Oakland, CA

Monitoring Performed on November 3, 1997

Groundwater Sampling Report **971103-H-1**

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

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

Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL DATA AND ANALYTICAL RESULTS.** The full analytical report for the most recent samples is located in the **Analytical Appendix.** The table also contains new groundwater elevation calculations taken from the computer plotted gradient map which is located in the **Professional Engineering Appendix.**

At a minimum, Blaine Tech Services, Inc. field personnel are certified upon completion of a forty-hour Hazardous Materials and Emergency Response training course per 29 CFR 1910.120. Field personnel are also enrolled in annual eight hour refresher courses.

Blaine Tech Services, Inc. conducts sampling and documentation assignments of this type as an independent third party. In order to avoid compromising the objectivity necessary for the proper and disinterested performance of this work, Blaine Tech Services, Inc. concentrates on objective data collection and does not participate in the interpretation of analytical results, the definition of geological or hydrological conditions, the formulation of recommendations, or the marketing of remedial systems.

Please call if you have any questions.

Yours truly,

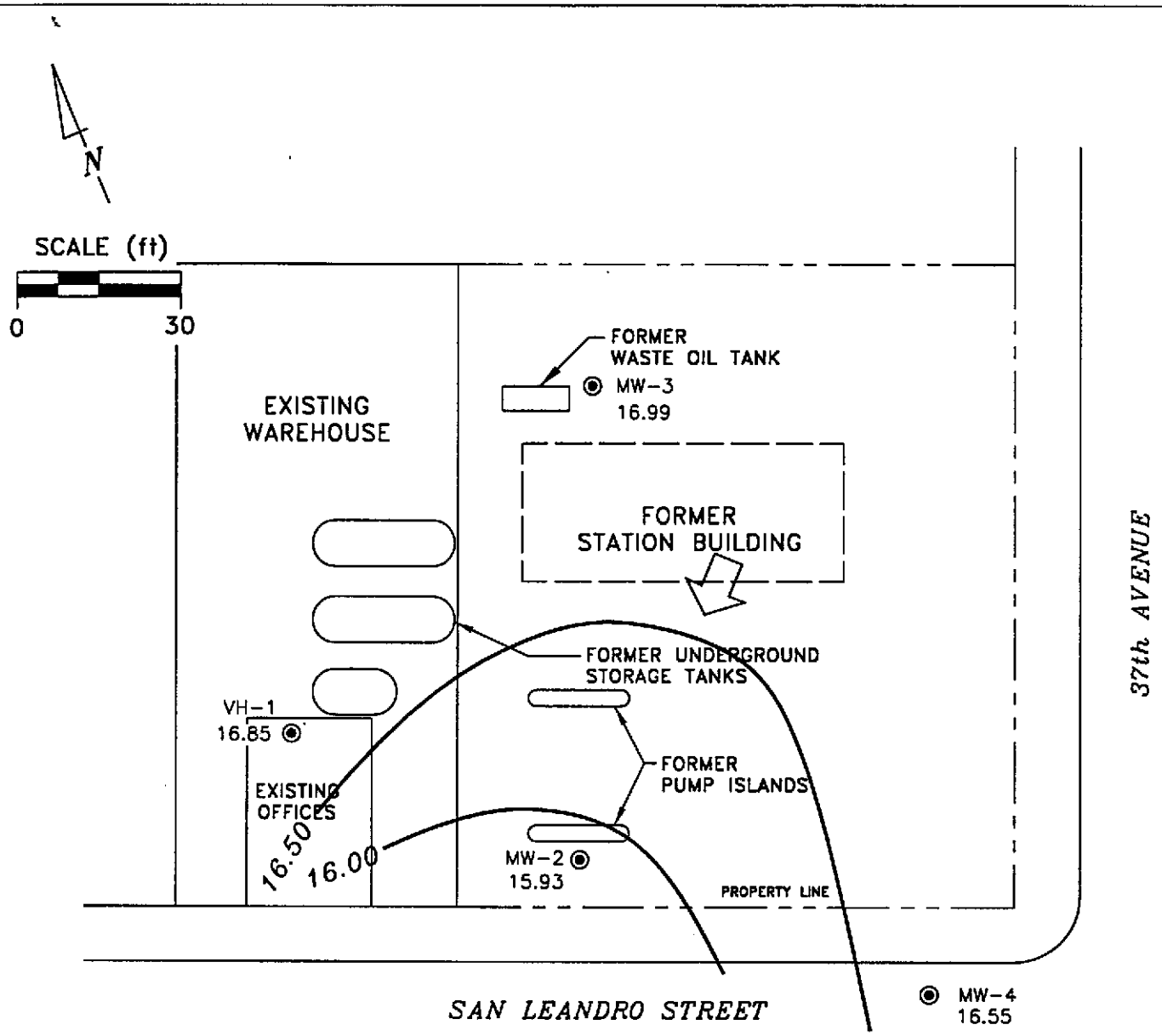
for:

Francis Thie
Vice President

FPT/ew

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

Professional Engineering Appendix



EXPLANATION

◉	MONITORING WELL
16.85	GROUNDWATER ELEVATION (FT, MSL)
16.50 —	GROUNDWATER ELEVATION CONTOUR (FT, MSL)
⇩	APPROXIMATE GROUNDWATER FLOW DIRECTION; APPROXIMATE GRADIENT = 0.01

REGISTERED GEOLOGIST
STEVEN E. KRCIK
No. 4975
9/98
STATE OF CALIFORNIA

Basemap from Cambria Environmental Technology, Inc.

PREPARED BY
RRM
engineering contracting firm

Chevron Station 9-4612
3616 San Leandro Street
Oakland, California

GROUNDWATER ELEVATION CONTOUR MAP, NOVEMBER 3, 1997

FIGURE:
1
PROJECT:
DAC04

Table of
Well Data and
Analytical Results

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet. 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	HVOC	MTBE
VH-1													
08/10/88	--	--	13.00	--	11,000	3300	200	520	540	--	--	--	--
06/01/89	--	--	10.32	--	15,000	2200	120	540	310	--	--	--	--
09/15/89	--	--	15.69	--	5600	1900	90	350	160	--	--	--	--
12/08/89	--	--	14.77	--	11,000	1900	69	270	99	--	--	--	--
03/07/91	--	--	11.26	--	4500	820	39	120	77	--	--	--	--
09/24/91	--	--	12.98	--	3300	520	19	39	27	--	--	--	--
01/08/92	--	--	13.77	--	5000	600	34	81	76	--	--	--	--
04/20/92	--	--	8.18	--	7400	670	60	110	140	--	--	--	--
03/26/93	27.85	21.14	6.71	--	4900	600	40	72	94	--	--	--	--
05/27/93	27.85	19.27	8.58	--	13,000	1600	120	230	220	--	--	--	--
08/18/93	27.85	17.39	10.46	--	2700	210	10	8.1	18	--	--	--	--
11/03/93	27.85	15.28	12.57	--	4600	680	42	35	68	--	--	--	--
02/10/94	27.85	18.77	9.08	--	1900	260	19	22	29	--	--	--	--
05/12/94	27.85	19.76	8.09	--	2000	390	28	3.9	29	--	--	--	--
08/26/94	27.85	17.10	10.75	--	4900	500	<5.0	23	31	--	--	--	--
11/14/94	27.85	18.40	9.45	--	760	69	<2.0	<2.0	2.2	300	--	--	--
02/01/95	27.85	21.88	5.97	--	1300	120	5.9	<0.5	13	--	--	--	--
05/12/95	27.85	20.14	7.71	--	4400	460	31	45	49	--	--	--	--
08/22/95	27.85	18.59	9.26	--	2900	310	15	28	32	--	--	--	--
12/19/95	27.85	19.05	8.80	--	930	53	<2.5	<2.5	<2.5	--	--	--	39
01/31/96	27.85	22.35	5.50	--	3700	320	<10	41	40	--	--	--	180
04/30/96	27.85	19.81	8.04	--	3900	270	<20	<20	<20	--	--	--	120
08/01/96	27.85	18.67	9.18	--	2700	140	11	18	28	--	--	--	200
10/30/96	27.85	18.67	10.76	--	2700	140	<12	<12	<12	--	--	--	280
02/07/97	27.85	19.75	8.10	--	220	13	0.6	<0.5	1.6	--	--	--	15
05/07/97	27.85	18.33	9.52	--	5200	33	12	21	26	--	--	--	330
07/22/97	27.85	17.43	10.42	--	4200	80	<10	16	24	--	--	--	400
11/03/97	27.85	16.85	11.00	--	2400	150	6.8	6.5	9.5	--	--	--	510

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	HVOC	MTBE
MW-2													
02/16/93	27.51	--	--	--	9200	720	110	250	170	--	--	--	--
03/26/93	27.51	19.89	7.62	--	--	--	--	--	--	--	--	--	--
05/27/93	27.51	18.04	9.47	--	360	5.3	2.1	1.8	2.5	--	--	--	--
08/18/93	27.51	16.46	11.05	--	9400	1100	76	110	100	--	--	--	--
11/03/93	27.51	14.56	12.95	--	8600	390	20	2.7	120	--	--	--	--
02/10/94	27.51	17.72	9.79	--	2700	370	38	44	41	--	--	--	--
05/12/94	27.51	18.59	8.92	--	3800	650	76	15	62	--	--	--	--
08/26/94	27.51	16.14	11.37	--	16,000	1300	270	28	120	--	--	--	--
11/14/94	27.51	17.48	10.03	--	5100	390	10	43	27	--	--	--	--
02/01/95	27.51	20.47	7.04	--	6900	520	82	170	110	--	--	--	--
05/12/95	27.51	18.76	8.75	--	7700	510	83	110	100	--	--	--	--
08/22/95	27.51	17.35	10.16	--	4500	220	16	61	47	--	--	--	--
12/19/95	27.51	18.05	9.46	--	2900	240	<10	19	18	--	--	--	220
01/31/96	27.51	21.91	5.60	--	3900	320	18	72	39	--	--	--	<25
04/30/96	27.51	18.68	8.83	--	5600	200	36	55	47	--	--	--	170
08/01/96	27.51	17.25	10.26	--	6200	190	15	62	59	--	--	--	220
10/30/96	27.51	17.25	11.48	--	5700	190	<25	67	36	--	--	--	260
02/07/97	27.51	18.11	9.40	--	8300	210	34	70	59	--	--	--	330
05/07/97	27.51	17.57	9.94	--	6900	190	12	38	37	--	--	--	530
07/22/97	27.51	16.36	11.15	--	10,000	18	25	62	41	--	--	--	630
11/03/97	27.51	15.93	11.58	--	6500	260	8.5	26	14	--	--	--	590
11/03/97	27.51	15.93	11.58	Confirmation run	--	--	--	--	--	--	--	--	96

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	HVOC	MTBE
MW-3													
02/16/93	28.50	--	--	--	3500	<0.5	8.1	4.6	7.7	--	--	--	--
03/26/93	28.50	21.32	7.18	--	--	--	--	--	--	--	--	--	--
05/27/93	28.50	19.17	9.33	--	4200	580	84	150	100	--	--	--	--
08/18/93	28.50	16.50	12.00	--	910	12	3.7	6.2	3.8	1400	<5000	ND	--
11/03/93	28.50	15.21	13.29	--	5300	29	1.9	0.6	27	--	--	--	--
02/10/94	28.50	18.87	9.63	--	63	<0.5	0.7	<0.5	<0.5	<50	--	--	--
05/12/94	28.50	19.73	8.77	--	<50	<0.5	0.5	<0.5	<0.5	84	--	--	--
08/26/94	28.50	17.08	11.42	--	2100	12	<0.5	5.0	0.5	--	--	--	--
11/14/94	28.50	18.43	10.07	--	140	0.78	<0.5	<0.5	<0.5	--	--	--	--
02/01/95	28.50	22.21	6.29	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	--	--
05/12/95	28.50	20.43	8.07	--	330	13	1.1	1.9	0.69	540*	--	--	--
08/22/95	28.50	18.55	9.95	--	980	32	<1.0	<1.0	<1.0	550*	--	--	--
12/19/95	28.50	19.10	9.40	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	--	<2.5
01/31/96	28.50	23.45	5.05	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	--	<2.5
04/30/96	28.50	20.10	8.40	--	320	2.4	<0.5	0.75	<0.5	240*	--	--	7.8
08/01/96	28.50	18.70	9.80	--	980	9.6	<0.5	0.98	2.2	470*	--	--	54
10/30/96	28.50	18.70	11.48	--	2000	14	<10	<10	<10	760*	--	--	140
02/07/97	28.50	19.90	8.60	--	200*	<0.5	<0.5	<0.5	<0.5	61*	--	--	8.9
05/07/97	28.50	19.49	9.01	--	3500	14	3.9	3.6	8.0	550*	--	--	160
07/22/97	28.50	17.38	11.12	--	3500	55	<10	<10	<10	800*	--	--	150
11/03/97	28.50	16.99	11.51	--	4100	140	<5.0	<5.0	<5.0	910*	--	--	380

* 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	HVOC	MTBE
MW-4													
08/22/95	27.27	18.16	9.11	--	9600	100	<10	<10	<10	--	--	--	--
12/19/95	27.27	18.97	8.30	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	<2.5
01/31/96	27.27	21.67	5.60	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	<2.5
04/30/96	27.27	20.27	7.00	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	<2.5
08/01/96	27.27	18.12	9.15	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	<2.5
10/30/96	27.27	18.12	10.74	--	110	<0.5	<0.5	<0.5	<0.5	--	--	--	--
02/07/97	27.27	19.47	7.80	--	80	<0.5	<0.5	<0.5	<0.5	--	--	--	<2.5
05/07/97	27.27	21.42	5.85	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	4.1
07/22/97	27.27	17.22	10.05	--	150	<0.5	<0.5	<0.5	<0.5	--	--	--	<2.5
11/03/97	27.27	16.55	10.72	--	52	0.90	<0.5	<0.5	<0.5	--	--	--	*

* No value for MTBE could be determined; see lab report for analyses.

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	HVOC	MTBE
TRIP BLANK													
05/27/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--	--	--
08/18/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	1400	<5000	ND	--
11/03/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
02/10/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<50	--	--	--
05/12/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	84	--	--	--
08/26/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
11/14/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
02/01/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
05/12/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
08/22/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
12/19/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	<2.5
01/31/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	<2.5
04/30/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	<2.5
08/01/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	<2.5
10/30/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	<2.5
02/07/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	<2.5
05/07/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	<2.5
07/22/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	<2.5

Note: Blaine Tech Services, Inc. began routine monitoring of the groundwater wells at this site on November 1, 1994.
Earlier field data and analytical results are drawn from the September 27, 1994 Groundwater Technology, Inc. report.

ABBREVIATIONS:
TPH = Total Petroleum Hydrocarbons
TOG = Total Oil & Grease
HVOC = Halogenated Volatile Organic Compounds
MTBE = Methyl t-Butyl Ether

Analytical Appendix

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services	Client Proj. ID: Chevron 9-4612/971103-H1	Sampled: 11/03/97
1680 Rogers Avenue	Sample Descript: VH-1	Received: 11/04/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 11/17/97
Attention: Fran Thie	Lab Number: 9711133-01	Reported: 11/21/97

QC Batch Number: GC111797BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**125**	**2400**
Methyl t-Butyl Ether	**6.2**	**510**
Benzene	**1.2**	**150**
Toluene	**1.2**	**6.8**
Ethyl Benzene	**1.2**	**6.5**
Xylenes (Total)	**1.2**	**9.5**
Chromatogram Pattern:		**Gas**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	121

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services	Client Proj. ID: Chevron 9-4612/971103-H1	Sampled: 11/03/97
1680 Rogers Avenue	Sample Descript: MW-2	Received: 11/04/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 11/17/97
Attention: Fran Thie	Lab Number: 9711133-02	Reported: 11/21/97

QC Batch Number: GC111797BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	6500
Methyl t-Butyl Ether	25	590
Benzene	5.0	260
Toluene	5.0	8.5
Ethyl Benzene	5.0	26
Xylenes (Total)	5.0	14
Chromatogram Pattern:		Gas

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	119

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services	Client Proj. ID: Chevron 9-4612/971103-H1	Sampled: 11/03/97
1680 Rogers Avenue	Sample Descript: MW-2	Received: 11/04/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: EPA 8260	Analyzed: 11/20/97
Attention: Fran Thie	Lab Number: 9711133-02	Reported: 11/21/97

QC Batch Number: MS111897MTBEF3A
Instrument ID: F3

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	12	96

Surrogates	Control Limits %		% Recovery
1,2-Dichloroethane-d4	76	114	96

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services	Client Proj. ID: Chevron 9-4612/971103-H1	Sampled: 11/03/97
1680 Rogers Avenue	Sample Descript: MW-3	Received: 11/04/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 11/17/97
Attention: Fran Thie	Lab Number: 9711133-03	Reported: 11/21/97

QC Batch Number: GC111797BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**500**	**4100**
Methyl t-Butyl Ether	**25**	**380**
Benzene	**5.0**	**140**
Toluene	5.0	N.D.
Ethyl Benzene	5.0	N.D.
Xylenes (Total)	5.0	N.D.
Chromatogram Pattern:		
Gas & Unidentified HC		**C6-C12**

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

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services	Client Proj. ID: Chevron 9-4612/971103-H1	Sampled: 11/03/97
1680 Rogers Avenue	Sample Descript: MW-3	Received: 11/04/97
San Jose, CA 95112	Matrix: LIQUID	Extracted: 11/10/97
	Analysis Method: EPA 8015 Mod	Analyzed: 11/12/97
Attention: Fran Thie	Lab Number: 9711133-03	Reported: 11/21/97

QC Batch Number: GC111097OHBPEXY
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	**50**	**910**
Chromatogram Pattern:	**C9-C24**	**Unid-HC**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	79

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Pennel
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services	Client Proj. ID: Chevron 9-4612/971103-H1	Sampled: 11/03/97
1680 Rogers Avenue	Sample Descript: MW-4	Received: 11/04/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 11/17/97
Attention: Fran Thie	Lab Number: 9711133-04	Reported: 11/21/97

QC Batch Number: GC111797BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**50**	**52**
Methyl t-Butyl Ether	**2.5**	**-**
Benzene	**0.50**	**0.90**
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
Unidentified HC		**C6-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

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

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

Client Project ID: Chevron 9-4612 / 971103-H1
Matrix: Liquid
Work Order #: 9711133 -01-05
Reported: Nov 21, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC111797BTEX21A	GC111797BTEX21A	GC111797BTEX21A	GC111797BTEX21A	GC111797BTEX21A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab
MS/MSD #:	971161104	971161104	971161104	971161104	971161104
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	11/17/97	11/17/97	11/17/97	11/17/97	11/17/97
Analyzed Date:	11/17/97	11/17/97	11/17/97	11/17/97	11/17/97
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	10	10	10	30	53
MS % Recovery:	100	100	100	100	88
Dup. Result:	10	10	10	30	57
MSD % Recov.:	100	100	100	100	95
RPD:	0.0	0.0	0.0	0.0	7.3
RPD Limit:	0-25	0-25	0-25	0-25	0-25
LCS #:	BLK111797	BLK111797	BLK111797	BLK111797	BLK111797
Prepared Date:	11/17/97	11/17/97	11/17/97	11/17/97	11/17/97
Analyzed Date:	11/17/97	11/17/97	11/17/97	11/17/97	11/17/97
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	10	10	10	29	51
LCS % Recov.:	100	100	100	97	85
MS/MSD Control Limits	60-140	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130	70-130

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

Sequoia Analytical

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Blaine Tech Services, Inc.	Client Project ID:	Chevron 9-4612 / 971103-H1	
1680 Rogers Ave.	Matrix:	Liquid	
San Jose, CA 95112			
Attention: Fran Thie	Work Order #:	9711133-03	Reported: Nov 21, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC1110970HBPEXY
Analy. Method:	EPA 8015M
Prep. Method:	EPA 3520
Analyst:	D. Lockhart
MS/MSD #:	9710J1901
Sample Conc.:	N.D.
Prepared Date:	11/10/97
Analyzed Date:	11/12/97
Instrument I.D.#:	GCHP5
Conc. Spiked:	1000 µg/L
Result:	900
MS % Recovery:	90
Dup. Result:	880
MSD % Recov.:	88
RPD:	2.2
RPD Limit:	0-50

LCS #:	BLK111097
Prepared Date:	11/10/97
Analyzed Date:	11/12/97
Instrument I.D.#:	GCHP5
Conc. Spiked:	1000 µg/L
LCS Result:	900
LCS % Recov.:	90

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

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services, Inc.	Client Project ID:	Chevron 9-4612 / 971103-H1	
1680 Rogers Ave.	Matrix:	Liquid	
San Jose, CA 95112			
Attention: Fran Thie	Work Order #:	9711133-02	Reported: Nov 21, 1997

QUALITY CONTROL DATA REPORT

Analyte:	MTBE
QC Batch#:	MS111897MTBEF3A
Analy. Method:	EPA 8260
Prep. Method:	N.A.
Analyst:	L. Duong
MS/MSD #:	971147201
Sample Conc.:	N.D.
Prepared Date:	11/18/97
Analyzed Date:	11/18/97
Instrument I.D.#:	F3
Conc. Spiked:	50 µg/L
Result:	53
MS % Recovery:	106
Dup. Result:	53
MSD % Recov.:	106
RPD:	0.0
RPD Limit:	0-25

LCS #:	LCS112097
Prepared Date:	11/20/97
Analyzed Date:	11/20/97
Instrument I.D.#:	F3
Conc. Spiked:	50 µg/L
LCS Result:	38
LCS % Recov.:	76

MS/MSD	60-140
LCS	70-130
Control Limits	

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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

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

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services	Client Proj. ID: Chevron 9-4612/971103-H1	Received: 11/04/97
1680 Rogers Avenue		
San Jose, CA 95112	Lab Proj. ID: 9711133	Reported: 11/21/97
Attention: Fran Thie		

LABORATORY NARRATIVE

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

TPPH Note: Sample 9711133-01 was diluted 2.5-fold.
Sample 9711133-02 was diluted 10-fold.
Sample 9711133-03 was diluted 10-fold.
Sample 9711133-05 was diluted 10-fold.

MTBE Note: No MTBE result could be determained by EPA 8020 for sample 9711133-04 due to co-elution with early eluting compounds.

MTBE6W Note: A good spectrum match for mtbe was not possible for sample 9711133-02 (MW-2) because of high level of 3-methyl pentane coeluting with mtbe, however the mtbe quantitation was not affected.

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

see revised COC

Fax copy of Lab Report and COC to Chevron Contact: ☐ Yes ☐ No

Chain-of-Custody-Recor

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number: 9-4612
Facility Address: 3616 San Leandro St., Oakland, CA
Consultant Project Number: 971103-H1
Consultant Name: Blaine Tech Services, Inc.
Address: 1680 Rogers Ave., San Jose, CA 95112
Project Contact (Name): Fran Thie
(Phone) (408)573-0555 (Fax Number) (408)573-7771

Chevron Contact (Name): Phil Briggs
(Phone) (510) 842-9136
Laboratory Name: Sequoia
Laboratory Release Number: 9034818
Samples Collected by (Name): Morgan Hengrave
Collection Date: 11-3-97
Signature:

Analyses To Be Performed: 971133

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)	BTEX + TPH GAS + (8020 + 8015) MTBE	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)	DO NOT BILL FOR TB-LB
VH-1	1	3	W	D	1420		Y	X								
MW-2	2	3	"	"	1500		"	"								
MW-3	3	5	"	"	1530		"	"	X							
MW-4	4	3	"	"	1255		"	"								
DUP	5	3	"	"	—		"	"								

Remarks

2 4 1 02

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	BTS	11/4/97 11:40		Sequoia	11/4/97 11:40
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
		11/4/97			
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time
					11/4/97

Turn Around Time (Circle Choice)

24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted

revised COC

Fax copy of Lab Report and COC to Chevron Contact: ☐ Yes ☐ No

Chain-of-Custody-Recor

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P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number: 9-4612
Facility Address: 3616 San Leandro St., Oakland, CA
Consultant Project Number: 971103-H1
Consultant Name: Blaine Tech Services, Inc.
Address: 1680 Rogers Ave., San Jose, CA 95112
Project Contact (Name): Fran Thie
(Phone) (408)573-0555 (Fax Number) (408)573-7771

Chevron Contact (Name): Phil Briggs
(Phone): (510) 842-9136
Laboratory Name: Sequoia
Laboratory Release Number: 9034818
Samples Collected by (Name): Morgan Hargrave
Collection Date: 11-3-97
Signature: [signature]

Analyses To Be Performed

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	BTEX + TPH GAS + (8020 + 8015)/MTBE	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)	CONFIRM MTBE 8260					Remarks
VH-1		3	W	D	1420		Y	X													DO NOT BILL FOR TB-LB
MW-2		3	|	|	1500		|	|								X					
MW-3		5	|	|	1530		|	|	X												
MW-4		3	|	|	1255		|	|													
~~DUP~~		~~3~~	~~|~~	~~|~~	~~—~~		~~|~~	~~|~~	ELW												

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
[signature]	BTS	11/4/97 11:40	[signature]	Sequoia	11/4/97 11:40
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.
48 Hrs.
5 Days
10 Days
As Contracted (circled)

WELL GAUGING DATA

Project # 971103-H1 Date 10/3/97 Client Chevron

Site 3616 San Leandro Oakland

Well I.D.	Well Size (in.)	Sheen/ Odor	Depth to Immiscible Liquid (feet)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to Water (feet)	Depth to Well Bottom (feet)	Survey Point: TOB or TOC
VH-1	4					11.00	28.44	TOC
MW-2	2					11.58	19.82	
MW-3	2					11.51	19.27	
MW-4	2					10.72	19.00	

CHEVRON WELL MONITORING DATA SHEET

Project #: 971103-H1	Station #: 9-4612
Sampler: MH	Date: 11/3
Well I.D.: VH-1	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth: 28.44	Depth to Water: 11.00
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius^2 * 0.163

Purge Method:
- Bailer
- x Disposable Bailer
- Middleburg
- Electric Submersible
- Extraction Pump
- Other: _____

Sampling Method:
- Bailer
- x Disposable Bailer
- Extraction Port
- Other: _____

11.3	x	3	=	33.9 Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
1329	67.2	7.2	850	11.5	
1351	68.4	7.3	950	23	
1412	68.6	7.2	960	34.5	

Did well dewater? Yes (No)		Gallons actually evacuated: 34.5	
Sampling Time: 1420		Sampling Date: 11/3	
Sample I.D.: ~~[illegible]~~ VH-1		Laboratory: (Sequoia) GTEL N. Creek Assoc. Labs	
Analyzed for: (TPH-G BTEX MTBE) TPH-D		Other:	
Duplicate I.D.:	Analyzed for: TPH-G BTEX MTBE TPH-D	Other:	
D.O. (if req'd):	Pre-purge: ___ mg/L	Post-purge: ___ mg/L	
O.R.P. (if req'd):	Pre-purge: ___ mV	Post-purge: ___ mV	

CHEVRON WELL MONITORING DATA SHEET

Project #: 971103-H1	Station #: 9-4612
Sampler: MH	Date: 11/3
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 19.82	Depth to Water: 11.58
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius^2 * 0.163

Purge Method:
- Bailer
- x Disposable Bailer
- Middleburg
- Electric Submersible
- Extraction Pump
- Other: _____

Sampling Method:
- Bailer
- x Disposable Bailer
- Extraction Port
- Other: _____

1.3	x	3	=	3.9	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
1440	72.0	7.1	940	1.5	
1449	71.6	7.2	930	3.0	
1455	71.8	7.2	930	4.5	

Did well dewater? Yes (No)		Gallons actually evacuated: 4.5	
Sampling Time: 1500		Sampling Date: 11/3	
Sample I.D.: MW-2		Laboratory: (Sequoia) GTEL N. Creek Assoc. Labs	
Analyzed for: (TPH-G) (BTEX) (MTBE) TPH-D	Other:		
Duplicate I.D.: DUP	Analyzed for: (TPH-G) (BTEX) (MTBE) TPH-D	Other:	
D.O. (if req'd):	Pre-purge:	mg/L	Post-purge: mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge: mV

CHEVRON WELL MONITORING DATA SHEET

Project #: 971003-H1	Station #: 9-4612
Sampler: MH	Date: 11-3
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 19.27	Depth to Water: 11.51
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Purge Method:
- Bailer
- x Disposable Bailer
- Middleburg
- Electric Submersible
- Extraction Pump
- Other: _____

Sampling Method:
- Bailer
- x Disposable Bailer
- Extraction Port
- Other: _____

1.3 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 3.9 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
1516	70.6	7.2	980	1.5	
1520	70.8	7.2	960	3.0	
1524	70.6	7.2	960	4.5	

Did well dewater? Yes (No)		Gallons actually evacuated: 4.5	
Sampling Time: ~~MW-3~~ 1530		Sampling Date: 11/3	
Sample I.D.: MW-3		Laboratory: (Sequoia) GTEL N. Creek Assoc. Labs	
Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D)		Other:	
Duplicate I.D.:	Analyzed for: TPH-G BTEX MTBE TPH-D	Other:	
D.O. (if req'd):	Pre-purge: mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge: mV	Post-purge:	mV

CHEVRON WELL MONITORING DATA SHEET

Project #: 971103-H1	Station #: 9-4612
Sampler: MH	Date: 11-3
Well I.D.: MW-4	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 19.00	Depth to Water: 10.72
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius^2 * 0.163

Purge Method:
- Bailer
- x Disposable Bailer
- Middleburg
- Electric Submersible
- Extraction Pump
- Other: _____

Sampling Method:
- Bailer
- x Disposable Bailer
- Extraction Port
- Other: _____

1.3	x	3	=	3.9	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
1243	73.2	8.3	640	1.5	
1249	72.2	7.8	580	3.0	
1251	72.4	7.6	600	4.5	

Did well dewater? Yes (No)	Gallons actually evacuated: 4.5		
Sampling Time: 1255	Sampling Date: 11/3		
Sample I.D.: MW-4	Laboratory: (Sequoia) GTEL N. Creek Assoc. Labs		
Analyzed for: (TPH-G BTEX MTBE) TPH-D	Other:		
Duplicate I.D.:	Analyzed for: TPH-G BTEX MTBE TPH-D	Other:	
D.O. (if req'd): Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd): Pre-purge:	mV	Post-purge:	mV