

541



Chevron

August 1, 1997

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

Chevron Products Company
6001 Bollinger Canyon Road
Building L
San Ramon, CA 94583
P.O. Box 6004
San Ramon, CA 94583-0904

Marketing - Sales West
Phone 510 842 9500

Re: **Chevron Service Station #9-1851**
451 Hegenberger Road
Oakland, California

Dear Mr. Chan:

Enclosed is the Second Quarter 1997 Groundwater Monitoring Report that was prepared by our consultant Blaine Tech Services Inc., for the above noted site. The groundwater samples collected were analyzed for TPH-g, BTEX, MtBE, TPH-d and VOC constituents, in monitoring well M-2 and analyzed for TPH-g, BTEX, and MtBE constituents for the remaining three wells.

The TPH-g and BTEX constituents for monitoring well MW-1 were below the method detection limits, while concentrations of constituents were similar in the other wells from the previous sampling events.

The depth to ground water varied from 3.86 feet to 5.68 feet below grade with a direction of flow westerly.

Our consultant Pacific Environmental Group is investigating and evaluating the potential impacts if any, of the MtBE constituent in the ground water at the site. This report is expected to be completed within the next 30 days. Based on your request, I asked our compliance group to review our records and there has been no reported spills. The compliance group also noted that the station has overflow and spill containment but were unable to confirm if the dispensers had containment. Since July 1, 1995, Chevron has had no direct responsibility of operating the station or maintaining its facilities, including the tanks/lines and dispensers.

disagree

Since ground water gradient has been determined and the dissolved hydrocarbons in the ground water appears to be stabilized for the TPH-g and BTEX constituents, Chevron requests that the sampling frequency be changed to semi-annually. If you have any questions, I can be contacted at (510) 842-9136.

Sincerely,
CHEVRON PRODUCTS COMPANY

Philip R. Briggs
Site Assessment and Remediation Project Manager

Enclosure

August 1, 1997
Mr. Barney Chan
Chevron Service Station # 9-1851
Page 2

cc. Bill Scudder, Chevron

Mr. Ben Shimek
451 Hegenberger Road
Oakland, CA 94621



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

ENVIRONMENTAL
PROTECTION
97 AUG -5 PM 2:40

July 24, 1997

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

2nd Quarter 1997 Monitoring at 9-1851

Second Quarter 1997 Groundwater Monitoring at
Chevron Service Station Number 9-1851
451 Hegenberger Rd.
Oakland, CA

Monitoring Performed on June 20, 1997

Groundwater Sampling Report 970620-M-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 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

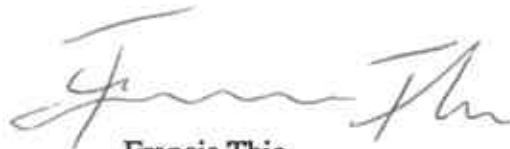
also contains new groundwater elevation calculations taken from the computer plotted gradient map which is located in the **Professional Engineering Appendix**.

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,



Francis Thie
Vice President

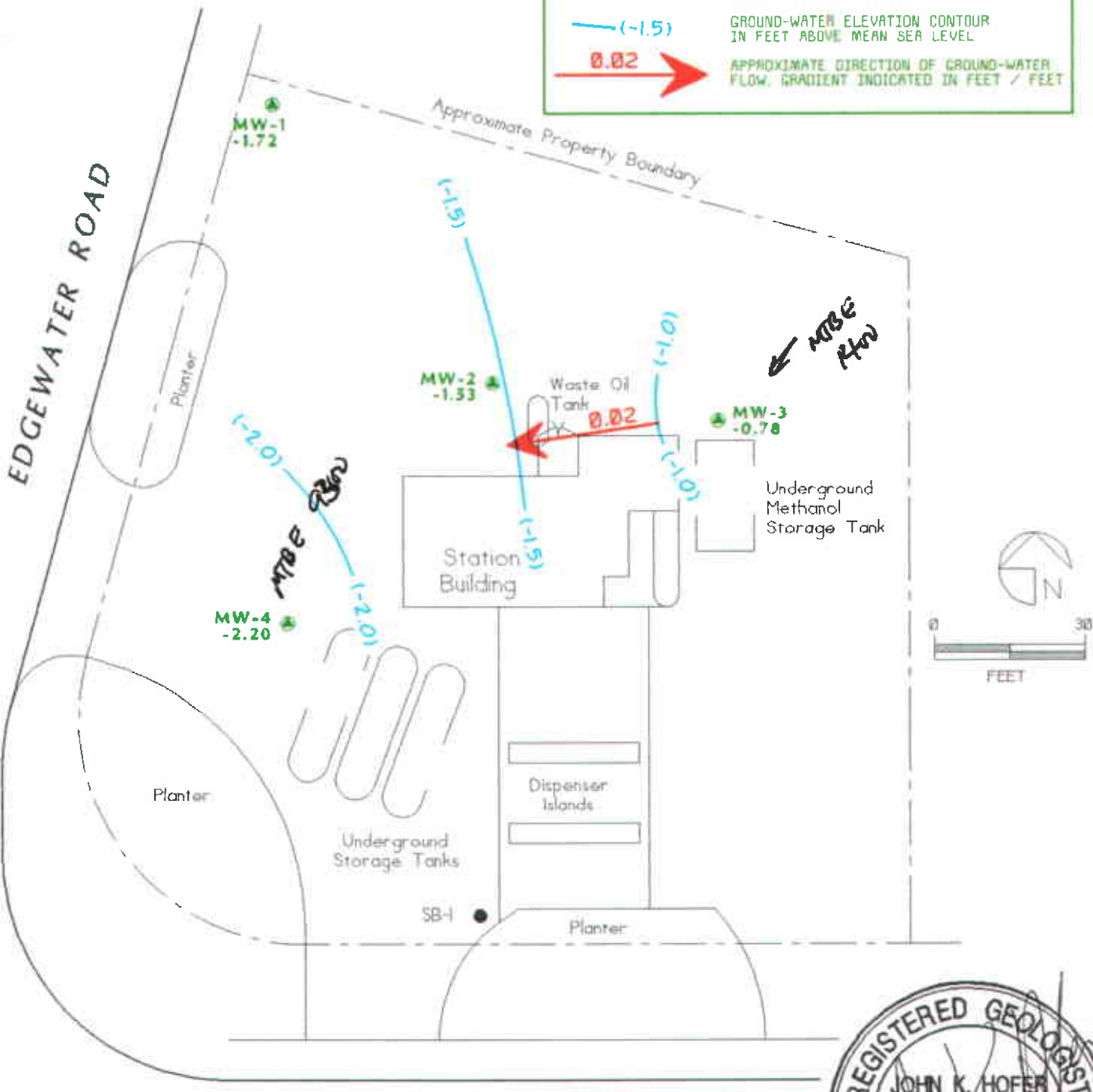
FPT/aa

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

Professional Engineering Appendix

EXPLANATION

- MW-1 ● MONITORING WELL LOCATION AND WELL NUMBER
- SB-1 ● SOIL BORING LOCATION AND BORING NUMBER
- 1.72 GROUND-WATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- (-1.5) GROUND-WATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL
- 0.02 → APPROXIMATE DIRECTION OF GROUND-WATER FLOW, GRADIENT INDICATED IN FEET / FEET



HEGENBERGER ROAD



TITLE : GROUND-WATER ELEVATION CONTOUR MAP -
JUNE 20, 1997

LOCATION : CHEVRON SERVICE STATION No.: 9-1851
 451 HEGENBERGER ROAD, OAKLAND, CALIFORNIA

SOURCE : GETTLER-RYAN INC.



GEOCONSULTANTS, INC
 SAN JOSE, CALIFORNIA
 Project No. Q758-03

Drawn by: CHEVRON-CH201514852077

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	TOG	TPH- Diesel (EPA 8240)	Benzene by (EPA 8240)	Xylene by (EPA 8240)	C-1, 2- DCE	Carbon Disulfide	Vinyl Chloride	MTBE
MW-1																	
10/17/95	2.61	-1.51	4.12	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--
03/29/96	2.61	-0.72	3.33	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	9.5
06/26/96	2.61	-1.23	3.84	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	46
09/25/96	2.61	-1.41	4.02	--	<250	<2.5	<2.5	<2.5	<2.5	--	--	--	--	--	--	--	940
12/17/96	2.61	-0.96	3.57	--	<50	0.86	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	260
03/20/97	2.61	-1.54	4.15	--	<50	<2.0	<2.0	<2.0	<2.0	--	--	--	--	--	--	--	76
06/20/97	2.61	-1.72	4.33	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	64
MW-2																	
10/17/95	3.51	-1.82	5.33	*	170	3.5	<0.5	1.0	6.1	<5000	1600**	--	--	11	--	--	--
03/29/96	3.51	-0.44	3.95	--	89	4.7	<0.5	0.64	0.74	--	3000**	11	2.5	17	--	5.4	21
06/26/96	3.51	-1.09	4.60	--	80	8.7	<0.5	1.2	1.3	--	2000**	11	<2.0	15	--	12	31
09/25/96	3.51	--	--	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--
12/17/96	3.51	-0.41	3.92	--	110	<0.5	<0.5	0.75	2.1	--	2400**	10	<2.0	2.3	--	5.5	27
03/20/97	3.51	-1.32	4.83	--	140	8.2	<2.0	<2.0	<2.0	--	3400**	--	--	<2.0	--	3.2	58
06/20/97	3.51	-1.53	5.04	--	62	7.7	<0.5	<0.5	<0.5	--	1600**	7.2	<2.0	4.6	2.2	5.2	38
MW-3																	
10/17/95	3.08	-1.34	4.42	***	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--
03/29/96	3.08	0.08	3.00	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	26
06/26/96	3.08	-0.52	3.60	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	47
09/25/96	3.08	-1.06	4.14	--	<125	<1.2	<1.2	<1.2	<1.2	--	--	--	--	--	--	--	570
12/17/96	3.08	-0.12	3.20	--	<500	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	--	--	680
03/20/97	3.08	-0.22	3.30	--	<50	<5.7	<5.7	<5.7	<5.7	--	--	--	--	--	--	--	430
06/20/97	3.08	-0.78	3.86	--	<500	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	--	--	1400

* Results of EPA 8010 test indicates that the detection of 1,1-Dichloroethane is 1.7 ppb.

** Chromatogram pattern indicates an unidentified hydrocarbon.

*** Results of EPA 8015 test indicates that levels of Methanol and Methyl ethyl ketone are respectively <1000 and <200 ppb.

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	TOG	TPH-Diesel	Benzene (EPA 8240)	Xylene (EPA 8240)	1,2-DCE	Carbon Disulfide	Vinyl Chloride	MTBE
MW-4																	
10/17/95	3.48	-1.60	5.08	--	<125	<1.2	<1.2	<1.2	<1.2	--	--	--	--	--	--	--	--
03/29/96	3.48	-1.13	4.61	--	<1000	<10	<10	<10	<10	--	--	--	--	--	--	--	6700
06/26/96	3.48	-0.82	4.30	--	<2000	<20	<20	<20	<20	--	--	--	--	--	--	--	7200
09/25/96	3.48	-1.85	5.33	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	<2.5
12/17/96	3.48	0.67	2.81	--	<2000	120	<20	<20	<20	--	--	--	--	--	--	--	11,000
03/20/97	3.48	-1.02	4.50	--	250**	<2.0	<2.0	<2.0	<2.0	--	--	--	--	--	--	--	10,000
03/20/97	3.48	-1.02	4.50	Conf. run	--	--	--	--	--	--	--	--	--	--	--	--	8600
06/20/97	3.48	-2.20	5.68	--	<2500	<25	<25	<25	<25	--	--	--	--	--	--	--	9300

↑ detection limit too high, want run GC/MS

** Chromatogram pattern indicates an unidentified hydrocarbon.

TRIP BLANK

10/17/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--
03/29/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	<2.5
06/26/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	<2.5
09/25/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	<2.5
12/17/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	<2.5
03/20/97	--	--	--	--	<50	<2.0	<2.0	<2.0	<2.0	--	--	--	--	--	--	--	--
06/20/97	--	--	--	--	<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 March 29, 1996. Earlier field data and analytical results are drawn from the December 29, 1995 Gettler-Ryan, Inc. report.

ABBREVIATIONS:

- TPH = Total Petroleum Hydrocarbons
- ND = Not detected at or above the minimum quantitation limit. See laboratory reports for minimum quantitation limits.
- TOG = Total Oil Grease
- MTBE = Methyl t-butyl ether
- C-1,2 DCE = Cis-1,2-Dichloroethylene
- Conf. run = Confirmation run

Analytical Appendix



Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

Client Proj. ID: Chevron 9-1851/970620-M3
Sample Descript: MW-1
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9706C53-01

Sampled: 06/20/97
Received: 06/23/97
Analyzed: 06/26/97
Reported: 07/02/97

QC Batch Number: GC062697BTEX21A
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	N.D.
Methyl t-Butyl Ether	2.5	64
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	103

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-1851/970620-M3 Sample Descript: MW-2 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9706C53-02	Sampled: 06/20/97 Received: 06/23/97 Analyzed: 06/27/97 Reported: 07/02/97
--	---	---

QC Batch Number: GC062797BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	62
Methyl t-Butyl Ether	2.5	38
Benzene	0.50	7.7
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern: Unidentified HC		C6-C9
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	122

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager





Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

Client Proj. ID: Chevron 9-1851/970620-M3
Sample Descript: MW-2
Matrix: LIQUID
Analysis Method: EPA 8240
Lab Number: 9706C53-02

Sampled: 06/20/97
Received: 06/23/97
Analyzed: 06/25/97
Reported: 07/02/97

Attention: Fran Thie

QC Batch Number: MS0624978240F3A
Instrument ID: F3

Volatile Organics (EPA 8240)

Analyte	Detection Limit ug/L	Sample Results ug/L
Acetone	10	N.D.
Benzene	2.0	7.2
Bromodichloromethane	2.0	N.D.
Bromoform	2.0	N.D.
Bromomethane	2.0	N.D.
2-Butanone	10	N.D.
Carbon disulfide	2.0	2.2
Carbon tetrachloride	2.0	N.D.
Chlorobenzene	2.0	N.D.
Chloroethane	2.0	N.D.
2-Chloroethyl vinyl ether	10	N.D.
Chloroform	2.0	N.D.
Chloromethane	2.0	N.D.
Dibromochloromethane	2.0	N.D.
1,1-Dichloroethane	2.0	N.D.
1,2-Dichloroethane	2.0	N.D.
1,1-Dichloroethene	2.0	N.D.
cis-1,2-Dichloroethene	2.0	4.6
trans-1,2-Dichloroethene	2.0	N.D.
1,2-Dichloropropane	2.0	N.D.
cis-1,3-Dichloropropene	2.0	N.D.
trans-1,3-Dichloropropene	2.0	N.D.
Ethylbenzene	2.0	N.D.
2-Hexanone	10	N.D.
Methylene chloride	5.0	N.D.
4-Methyl-2-pentanone	10	N.D.
Styrene	2.0	N.D.
1,1,2,2-Tetrachloroethane	2.0	N.D.
Tetrachloroethene	2.0	N.D.
Toluene	2.0	N.D.
1,1,1-Trichloroethane	2.0	N.D.
1,1,2-Trichloroethane	2.0	N.D.
Trichloroethene	2.0	N.D.
Trichlorofluoromethane	2.0	N.D.
Vinyl acetate	5.0	N.D.
Vinyl chloride	2.0	5.2





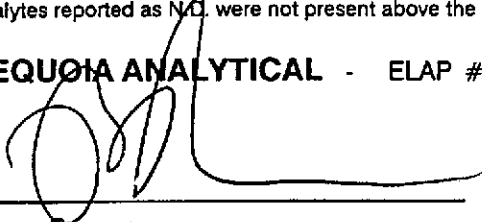
Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-1851/970620-M3 Sample Descript: MW-2 Matrix: LIQUID Analysis Method: EPA 8240 Lab Number: 9706C53-02	Sampled: 06/20/97 Received: 06/23/97 Analyzed: 06/25/97 Reported: 07/02/97
--	---	---

QC Batch Number: MS0624978240F3A
Instrument ID: F3

Analyte	Detection Limit ug/L	Sample Results ug/L
Total Xylenes	2.0	N.D.
Surrogates	Control Limits %	% Recovery
1,2-Dichloroethane-d4	76	114
Toluene-d8	88	110
4-Bromofluorobenzene	86	115

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

SEQUOIA ANALYTICAL - ELAP #1210



Peggy Penner
Project Manager





Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

Client Proj. ID: Chevron 9-1851/970620-M3
Sample Descript: MW-2
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9706C53-02

Sampled: 06/20/97
Received: 06/23/97
Extracted: 06/29/97
Analyzed: 07/01/97
Reported: 07/02/97

QC Batch Number: GC0629970HBPEXZ
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50 C9-C24	1600 Unidentified HC
Surrogates n-Pentacosane (C25)	Control Limits % 50 150	% Recovery 145

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-1851/970620-M3 Sample Descript: MW-4 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9706C53-04	Sampled: 06/20/97 Received: 06/23/97 Analyzed: 06/27/97 Reported: 07/02/97
--	---	---

QC Batch Number: GC062797BTEX02A
 Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	2500	N.D.
Methyl t-Butyl Ether	125	9300
Benzene	25	N.D.
Toluene	25	N.D.
Ethyl Benzene	25	N.D.
Xylenes (Total)	25	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	105

50x dilution

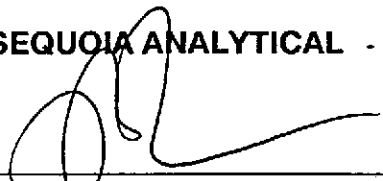
1) different dilutions

2) GCMS

9300 / 125

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

SEQUOIA ANALYTICAL - ELAP #1210


 Peggy Penner
 Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-1851/970620-M3 Sample Descript: TB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9706C53-05	Sampled: 06/20/97 Received: 06/23/97 Analyzed: 06/26/97 Reported: 07/02/97
Attention: Fran Thie		

QC Batch Number: GC062697BTEX21A
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	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	94

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager





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

Client Project ID: Chevron 9-1851/970620-M3
Matrix: Liquid

Work Order #: 9706C53 -01, 03, 05

Reported: Jul 2, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC062697BTEX21A	GC062697BTEX21A	GC062697BTEX21A	GC062697BTEX21A	GC062697BTEX21A
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:	D. Jirsa	D. Jirsa	D. Jirsa	D. Jirsa	D. Jirsa
MS/MSD #:	9706C0003	9706C0003	9706C0003	9706C0003	9706C0003
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	6/26/97	6/26/97	6/26/97	6/26/97	6/26/97
Analyzed Date:	6/26/97	6/26/97	6/26/97	6/26/97	6/26/97
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:	0.0	0.0	0.0	0.0	78
MS % Recovery:	0.0	0.0	0.0	0.0	130
Dup. Result:	9.3	9.3	9.4	29	63
MSD % Recov.:	93	93	94	97	105
RPD:	200	200	200	200	21
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK062697	BLK062697	BLK062697	BLK062697	BLK062697
Prepared Date:	6/26/97	6/26/97	6/26/97	6/26/97	6/26/97
Analyzed Date:	6/26/97	6/26/97	6/26/97	6/26/97	6/26/97
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:	8.8	8.8	8.9	27	57
LCS % Recov.:	88	88	89	90	95

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

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

Please Note:

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

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

9706C53.BLA <1>





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

Client Project ID: Chevron 9-1851/970620-M3
Matrix: Liquid

Work Order #: 9706C53-02, 04

Reported: Jul 2, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC062797BTEX02A	GC062797BTEX02A	GC062797BTEX02A	GC062797BTEX02A	GC062797BTEX02A
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 #:	9706C5807	9706C5807	9706C5807	9706C5807	9706C5807
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	6/27/97	6/27/97	6/27/97	6/27/97	6/27/97
Analyzed Date:	6/27/97	6/27/97	6/27/97	6/27/97	6/27/97
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	9.8	9.6	9.7	29	67
MS % Recovery:	98	96	97	97	112
Dup. Result:	9.5	9.4	9.5	29	60
MSD % Recov.:	95	94	95	97	100
RPD:	3.1	2.1	2.1	0.0	11
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK062797	BLK062797	BLK062797	BLK062797	BLK062797
Prepared Date:	6/27/97	6/27/97	6/27/97	6/27/97	6/27/97
Analyzed Date:	6/27/97	6/27/97	6/27/97	6/27/97	6/27/97
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	9.3	9.1	9.2	28	64
LCS % Recov.:	93	91	92	93	107

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

Please Note:

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

SEQUOIA ANALYTICAL

Reggy Penner
Project Manager

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

9706C53.BLA <2>





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

Client Project ID: Chevron 9-1851/970620-M3
Matrix: Liquid

Work Order #: 9706C53-02

Reported: Jul 2, 1997

QUALITY CONTROL DATA REPORT

Analyte: Diesel
QC Batch#: GC0629970HBPEXZ
Analy. Method: EPA 8015M
Prep. Method: EPA 3520

Analyst: B. Sullivan
MS/MSD #: 9706C4411
Sample Conc.: 45000
Prepared Date: 6/29/97
Analyzed Date: 7/1/97
Instrument I.D.#: GCHP5
Conc. Spiked: 1000 µg/L

Result: 36000
MS % Recovery: -900

Dup. Result: 11000
MSD % Recov.: -3400

RPD: 106
RPD Limit: 0-50

LCS #: BLK062997
Prepared Date: 6/29/97
Analyzed Date: 7/1/97
Instrument I.D.#: GCHP5
Conc. Spiked: 1000 µg/L

LCS Result: 730
LCS % Recov.: 73

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

SEQUOIA ANALYTICAL

Reggy Penner
Project Manager

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

9706C53.BLA <3>





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

Client Project ID: **Chevron 9-1851/970620-M3**
Matrix: **Liquid**

Work Order #: **9706C53-02**

Reported: **Jul 2, 1997**

QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloroethene	Trichloroethene	Benzene	Toluene	Chloro-benzene
QC Batch#:	MS0624978240F3A	MS0624978240F3A	MS0624978240F3A	MS0624978240F3A	MS0624978240F3A
Analy. Method:	EPA 8240	EPA 8240	EPA 8240	EPA 8240	EPA 8240
Prep. Method:	N.A.	N.A.	N.A.	N.A.	N.A.

Analyst:	L. Duong	L. Duong	L. Duong	L. Duong	L. Duong
MS/MSD #:	9706C1903	9706C1903	9706C1903	9706C1903	9706C1903
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	6/23/97	6/23/97	6/23/97	6/23/97	6/23/97
Analyzed Date:	6/24/97	6/24/97	6/24/97	6/24/97	6/24/97
Instrument I.D.#:	F3	F3	F3	F3	F3
Conc. Spiked:	500 µg/L	500 µg/L	500 µg/L	500 µg/L	500 µg/L
Result:	470	460	470	480	460
MS % Recovery:	94	92	94	96	92
Dup. Result:	450	470	470	480	460
MSD % Recov.:	90	94	94	96	92
RPD:	4.3	2.2	0.0	0.0	0.0
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	VB062597	VB062597	VB062597	VB062597	VB062597
Prepared Date:	6/25/97	6/25/97	6/25/97	6/25/97	6/23/97
Analyzed Date:	6/25/97	6/25/97	6/25/97	6/25/97	6/24/97
Instrument I.D.#:	F3	F3	F3	F3	F3
Conc. Spiked:	50 µg/L	50 µg/L	50 µg/L	50 µg/L	50 µg/L
LCS Result:	46	47	48	48	47
LCS % Recov.:	92	94	96	96	94

MS/MSD	60-140	60-140	60-140	60-140	60-140
LCS	65-135	70-130	70-130	70-130	70-130
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

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager





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

Client Proj. ID: Chevron 9-1851/970620-M3

Received: 06/23/97

Lab Proj. ID: 9706C53

Reported: 07/02/97

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 13 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

TPPH Note: Sample 9706C53-03 was diluted 10-fold.
Sample 9706C53-04 was diluted 50-fold.

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager



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

Chain-of-Custody-Record

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

Chevron Facility Number: 9-1851
Facility Address: 451 Hegenberger Rd., Oakland, CA
Consultant Project Number: 970620-M3
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: 9034738
Samples Collected by (Name): Tom Madalena
Collection Date: 6/20/97
Signature: Tom Madalena

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed											Remarks		
								STEX + TPH GAS (8020 + 8015) MT/BF	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8243)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)	970620-M3				BO NOT BILL FOR TB-LB	
MW-1	1	3	W		1325		Y	X													
MW-2	2	8	W		1355		Y	X	X							X					
MW-3	3	3	W		1440		Y	X													
MW-4	4	3	W		1515		Y	X													
TB	5	2	W				Y	X													5 23 11 35

Relinquished By (Signature) <u>Tom Madalena</u>	Organization <u>BTS</u>	Date/Time <u>6/23/97</u>	Received By (Signature) <u>[Signature]</u>	Organization <u>SEO</u>	Date/Time <u>6/23/97</u>	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. <u>6 Days</u> 10 Days As Contracted
Relinquished By (Signature) <u>[Signature]</u>	Organization <u>SEO</u>	Date/Time <u>6/23/97</u>	Received By (Signature)	Organization	Date/Time	
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)	Date/Time		

A 91/HCH

Field Data Sheets

CHEVRON WELL MONITORING DATA SHEET

Project #: <u>970620-M3</u>	Station #: <u>9-1851</u>
Sampler: <u>Tom</u>	Date: <u>6/20/97</u>
Well I.D.: <u>MW-1</u>	Well Diameter: <u>(2)</u> 3 4 6 8 _____
Total Well Depth: <u>14.55</u>	Depth to Water: <u>4.33</u>
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): YSI HACH

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

Purge Method: Bailer Sampling Method: Bailer
 Disposable Bailer X Disposable Bailer X
 Middleburg Extraction Port
 Electric Submersible Other: _____
 Extraction Pump
 Other: _____

<u>1.6</u>	x	<u>3</u>	=	<u>4.8</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
<u>13:15</u>	<u>73.0</u>	<u>7.0</u>	<u>3000</u>	<u>2.0</u>	
<u>13:17</u>	<u>73.0</u>	<u>6.9</u>	<u>2800</u>	<u>4.0</u>	
<u>13:20</u>	<u>73.0</u>	<u>6.9</u>	<u>2800</u>	<u>6.0</u>	

Did well dewater? Yes (No) Gallons actually evacuated: 6.0

Sampling Time: 13 25 Sampling Date: 6/20/97

Sample I.D.: MW-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 #: <u>970620-M3</u>	Station #: <u>9-1857</u>
Sampler: <u>Tom</u>	Date: <u>6/20/97</u>
Well I.D.: <u>MW-2</u>	Well Diameter: <u>3"</u> 3 4 6 8 _____
Total Well Depth: <u>14.84</u>	Depth to Water: <u>5.04</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

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

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

<u>1.6</u>	x	<u>3</u>	=	<u>4.8</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
<u>1345</u>	<u>69.8</u>	<u>7.0</u>	<u>10,000</u>	<u>2</u>	
<u>1347</u>	<u>68.0</u>	<u>6.9</u>	<u>10,000</u>	<u>4</u>	
<u>1350</u>	<u>68.0</u>	<u>6.9</u>	<u>10,000</u>	<u>6</u>	

Did well dewater? Yes <input type="checkbox"/> <u>No</u> <input checked="" type="checkbox"/>	Gallons actually evacuated: <u>6.0</u>
Sampling Time: <u>1355</u>	Sampling Date: <u>6/20/97</u>
Sample I.D.: <u>MW-2</u>	Laboratory: <u>Sequoia</u> GTEL N. Creek Assoc. Labs
Analyzed for: <u>TPH-G</u> <u>BTEX</u> <u>MTBE</u> <u>TPH-D</u> Other: <u>8240</u>	
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 #: 970620-M3	Station #: 9-1851
Sampler: Tom	Date: 6/20/97
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8 _____
Total Well Depth: 14.66	Depth to Water: 3.86
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 Disposable Bailer <input checked="" type="checkbox"/> Middleburg Electric Submersible Extraction Pump Other: _____	Sampling Method: Bailer Disposable Bailer <input checked="" type="checkbox"/> Extraction Port Other: _____
--	---

1.7	x	3	=	5.1	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
1430	72.8	7.0	3500	2.0	
1433	72.6	6.9	3700	4.0	
1436	72.6	7.0	3700	6.0	

Did well dewater?	Yes	(No)	Gallons actually evacuated: 6.0
Sampling Time: 1440	Sampling Date: 6/20/97		
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 #: 970620-M3	Station #: 9-1851
Sampler: Tom	Start Date: 6/20/97
Well I.D.: MW-4	Well Diameter: (circle one) <u>2</u> 3 4 6
Total Well Depth: Before 15.00 After	Depth to Water: Before 5.68 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

$$\frac{1.5}{1 \text{ Case Volume}} \times \frac{3}{\text{Specified Volumes}} = \frac{4.5}{\text{gallons}}$$

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:
1500	69.0	7.4	2800		1.5	
1503	66.4	7.2	4800		3.0	
1506	64.8	7.0	7000		4.5	
1508	64.6	7.0	9000		6.0	
1510	64.6	7.0	9200		8.0	

Did Well Dewater? No If yes, gals.

Gallons Actually Evacuated: 8.0

Sampling Time: 1515

Sampling Date: 6/20/97

Sample I.D.: MW-4

Laboratory: Sequoia

Analyzed for: TPH-G BTEX

TPH-D OTHER:

MTBE

Duplicate I.D.:

Cleaning Blank I.D.:

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

(Circle)