

541



Chevron

August 11, 1998

*Soil high TPHs in wells
also detectable low*

Chevron Products Company
6001 Bollinger Canyon Road
Building L, Room 1110
PO Box 6004
San Ramon, CA 94583-0904

Philip R. Briggs
Project Manager
Site Assessment & Remediation
Phone 925 842-9136
Fax 925 842-8370

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

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

ENVIRONMENTAL
PROTECTION
98 AUG 13 PM 2:46

Dear Mr. Chan:

Enclosed is the Second Quarter Groundwater Monitoring Report for 1998 that was prepared by our consultant Blaine Tech Services Inc., for the above noted site. The groundwater samples collected were analyzed for the TPH-g, BTEX and MtBE constituents. Your letter of April 10, 1998 approved the discontinuance for the sampling of VOC's in monitoring well M-2.

The BTEX constituent was below the method detection limits in all four monitoring wells. Results from testing for TPH-g in well MW-4 indicated a chromatogram pattern of an unidentified hydrocarbon. All samples were confirmed the presence of MtBE by using EPA Method 8260, with the highest concentration detected in well MW-4.

The depth to ground water varied from 3.25 feet to 4.98 feet below grade with a direction of flow southwesterly.

The concentrations of benzene have declined to below method detection levels in all wells and the MtBE constituent appears to have stabilized in wells MW-2 and MW-3. Therefore, Chevron will continue to monitor the site quarterly to confirm the stability and possible reduction of the petroleum hydrocarbon plume.

Note for the record, that the existing service station facilities are not owned, operated or maintained by Chevron.

August 11, 1998
Mr. Barney Chan
Chevron Service Station #9-1851
Page 2

If you have any questions call me at (925) 842-9136.

Sincerely,
CHEVRON PRODUCTS COMPANY

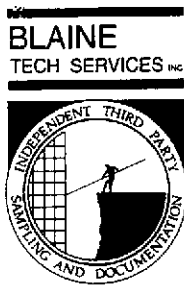
A handwritten signature in cursive script, appearing to read "Philip R. Briggs".

Philip R. Briggs
Site Assessment and Remediation Project Manager

Enclosure

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

August 3, 1998

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

2nd Quarter 1998 Monitoring at 9-1851

Second Quarter 1998 Groundwater Monitoring at
Chevron Service Station Number 9-1851
451 Hegenberger Rd.
Oakland, CA

Monitoring Performed on June 23, 1998

Groundwater Sampling Report 980623-M-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

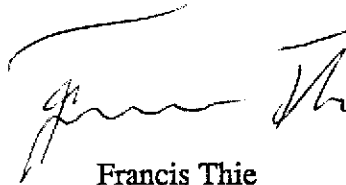
map which is located in the **Professional Engineering Appendix**.

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,

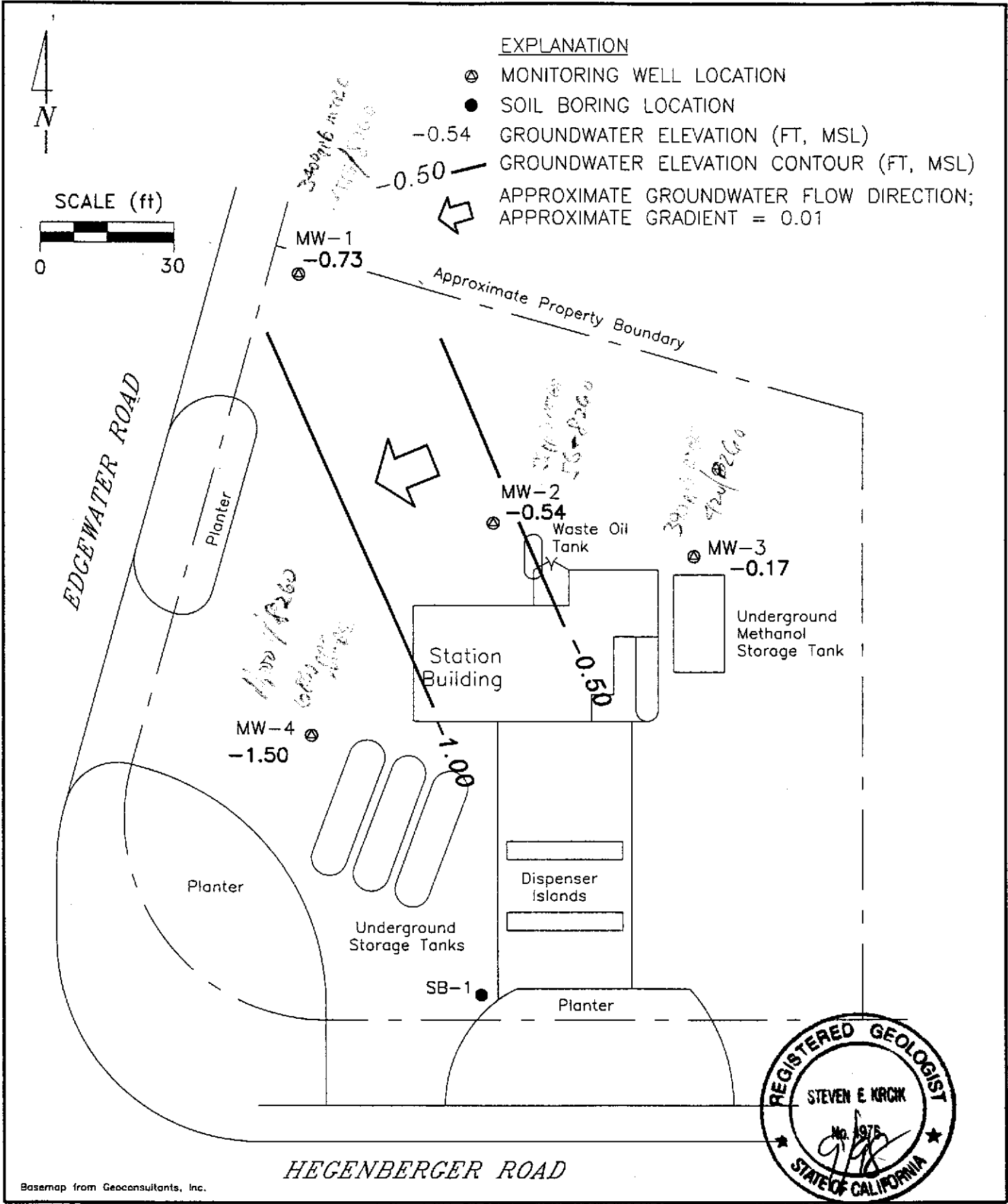
A handwritten signature in cursive script, appearing to read "Francis Thie".

Francis Thie
Vice President

FPT/dg

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

Professional Engineering Appendix



PREPARED BY

RRM
engineering contracting firm

Chevron Station 9-1851
451 Hegenberger Road
Oakland, California

GROUNDWATER ELEVATION CONTOUR MAP,
JUNE 23, 1998

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	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
09/09/97	2.61	-1.74	4.35	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	110
12/12/97	2.61	-0.39	3.00	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	27
02/19/98	2.61	0.78	1.83	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	14
06/23/98	2.61	-0.73	3.34	***	210	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	3400
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
09/09/97	3.51	-1.47	4.98	--	190	9.4	<0.5	<0.5	0.86	--	82**	11	<2.0	<2.0	<2.0	<2.0	48
12/12/97	3.51	-0.40	3.91	--	180	1.8	<0.5	<0.5	3.2	--	8500**	<2.0	<2.0	<2.0	<2.0	<2.0	34
02/19/98	3.51	0.55	2.96	--	<100	1.8	<1.0	<1.0	<1.0	--	3800**	<3.3	<3.3	<3.3	<3.3	<3.3	230
06/23/98	3.51	-0.54	4.05	***	60	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	55

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

** Chromatogram pattern indicates an unidentified hydrocarbon.

*** See Table of Additional 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	TOG	TPH-Diesel	Benzene (EPA 8240)	Xylene (EPA 8240)	1,2-DCE	Carbon Disulfide	Vinyl Chloride	MTBE
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
09/09/97	3.08	-1.11	4.19	--	76**	22	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	920
12/12/97	3.08	0.12	2.96	--	52	15	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	710
02/19/98	3.08	0.86	2.22	--	<50	6.6	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	380
06/23/98	3.08	-0.17	3.25	*	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	390
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
09/09/97	3.48	-2.02	5.50	--	460**	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	6600
12/12/97	3.48	-1.55	5.03	--	430**	120	<2.5	<2.5	<2.5	--	--	--	--	--	--	--	7800
02/19/98	3.48	0.13	3.35	--	510**	130	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	6600
06/23/98	3.48	-1.50	4.98	*	550**	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	6800

* See Table of Additional Analyses

** 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 (EPA 8240)	Benzene (EPA 8240)	Xylene (EPA 8240)	1, 2- DCE	Carbon Disulfide	Vinyl Chloride	MTBE
TRIP BLANK																	
10/17/95																	
03/29/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--
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	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	<2.5
06/20/97	--	--	--	--	<50	<2.0	<2.0	<2.0	<2.0	--	--	--	--	--	--	--	--
09/09/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	<2.5
12/12/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	<2.5
02/19/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	<2.5
06/23/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	<2.5

Cumulative Table of Well Data and Analytical Results

Method 8260

ADDITIONAL ANALYSES

Vertical Measurements are in feet.

Analytical values are in parts per billion (ppb)

DATE	Notes	Ethanol	t-Butanol	MTBE	DIPE	ETBE	TAME
MW-1							
06/23/98	--	<50000	<10000	4500	<200	<200	<200
MW-2							
06/23/98	--	<500	<100	56	<2.0	<2.0	<2.0
MW-3							
06/23/98	--	<5000	<1000	420	<20	<20	26
MW-4							
06/23/98	--	<50000	<10000	11000	<200	<200	860

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

DIPE = Di-Isopropyl Ether

ETBE = Ethyl t-Butyl Ether

TAME = t-Amyl Methyl Ether

C-1,2 DCE = Cis-1,2-Dichloroethylene

Conf. run = Confirmation run

Analytical Appendix



Sequoia Analytical

680 Chesapeake Drive
404 N. Wiget Lane
819 Striker Avenue, Suite 8
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063
Walnut Creek, CA 94598
Sacramento, CA 95834
Petaluma, CA 94954

(650) 364-9600
(925) 988-9600
(916) 921-9600
(707) 792-1865

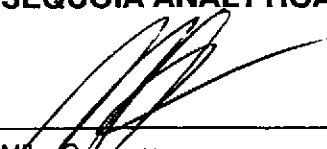
FAX (650) 364-9233
FAX (925) 988-9673
FAX (916) 921-0100
FAX (707) 792-0342

Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-1851/980623-M1 Sample Descript: MW-1 Matrix: LIQUID Analysis Method: EPA 8260 Lab Number: 9806G04-01	Sampled: 06/23/98 Received: 06/24/98 Analyzed: 07/07/98 Reported: 07/14/98
--	---	---

Analyte	Detection Limit ug/L	Sample Results ug/L
Ethanol	50000	N.D.
t-Butanol	10000	N.D.
Methyl t-Butyl Ether (MTBE)	200	4500
Di-Isopropyl Ether (DIPE)	200	N.D.
Ethyl t-Butyl Ether (ETBE)	200	N.D.
t-Amyl Methyl Ether (TAME)	200	N.D.
Surrogates	Control Limits %	% Recovery
1,2-Dichloroethane-d4	76 114	103

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

SEQUOIA ANALYTICAL - ELAP #1624



Mike Gregory
Project Manager





Sequoia Analytical

680 Chesapeake Drive
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FAX (650) 364-9233
FAX (925) 988-9673
FAX (916) 921-0100
FAX (707) 792-0342


Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112 Attention: Fran Thie	Client Proj. ID: Chevron 9-1851/980623-M1 Sample Descript: MW-1 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9806G04-01	Sampled: 06/23/98 Received: 06/24/98 Analyzed: 06/29/98 Reported: 07/14/98
--	---	---

QC Batch Number: GC062998802007A
Instrument ID: GC-7

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	210
Methyl t-Butyl Ether	25	3400
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern: Unidentified HC		C6-C12
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



Mike Gregory
Project Manager





**Sequoia
Analytical**

680 Chesapeake Drive
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FAX (925) 988-9673
FAX (916) 921-0100
FAX (707) 792-0342

Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

Attention: Fran Thie

Client Proj. ID: Chevron 9-1851/980623-M1
Sample Descript: MW-2
Matrix: LIQUID
Analysis Method: EPA 8260
Lab Number: 9806G04-02


Sampled: 06/23/98
Received: 06/24/98

Analyzed: 07/07/98
Reported: 07/14/98

Analyte	Detection Limit ug/L	Sample Results ug/L
Ethanol	500	N.D.
t-Butanol	100	N.D.
Methyl t-Butyl Ether (MTBE)	2.0	56
Di-Isopropyl Ether (DIPE)	2.0	N.D.
Ethyl t-Butyl Ether (ETBE)	2.0	N.D.
t-Amyl Methyl Ether (TAME)	2.0	N.D.
Surrogates	Control Limits %	% Recovery
1,2-Dichloroethane-d4	76 114	104

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

SEQUOIA ANALYTICAL - ELAP #1624


Mike Gregory
Project Manager





Sequoia Analytical

680 Chesapeake Drive
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(925) 988-9600 FAX (925) 988-9673
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(707) 792-1865 FAX (707) 792-0342


Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-1851/980623-M1 Sample Descript: MW-2 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9806G04-02	Sampled: 06/23/98 Received: 06/24/98 Analyzed: 06/30/98 Reported: 07/14/98
--	---	---

QC Batch Number: GC063098802007A
Instrument ID: GC-7

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	60
Methyl t-Butyl Ether	2.5	55
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern: Unidentified HC		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	93

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

SEQUOIA ANALYTICAL - ELAP #1210



 Mike Gregory
 Project Manager





Sequoia Analytical

680 Chesapeake Drive
404 N. Wiget Lane
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FAX (916) 921-0100
FAX (707) 792-0342

Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112 Attention: Fran Thie	Client Proj. ID: Chevron 9-1851/980623-M1 Sample Descript: MW-3 Matrix: LIQUID Analysis Method: EPA 8260 Lab Number: 9806G04-03	Sampled: 06/23/98 Received: 06/24/98 Analyzed: 07/07/98 Reported: 07/14/98
--	---	---

Analyte	Detection Limit ug/L	Sample Results ug/L
Ethanol	5000	N.D.
t-Butanol	1000	N.D.
Methyl t-Butyl Ether (MTBE)	20	420
Di-Isopropyl Ether (DIPE)	20	N.D.
Ethyl t-Butyl Ether (ETBE)	20	N.D.
t-Amyl Methyl Ether (TAME)	20	26
Surrogates	Control Limits %	% Recovery
1,2-Dichloroethane-d4	76	114
		126 Q

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

SEQUOIA ANALYTICAL - ELAP #1624


Mike Gregory
Project Manager





Sequoia Analytical

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FAX (707) 792-0342

Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-1851/980623-M1 Sample Descript: MW-3 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9806G04-03	Sampled: 06/23/98 Received: 06/24/98 Analyzed: 06/30/98 Reported: 07/14/98
Attention: Fran Thie		

QC Batch Number: GC063098802007A
Instrument ID: GC-7

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	390
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	87

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

SEQUOIA ANALYTICAL - ELAP #1210


Mike Gregory
Project Manager





Sequoia Analytical

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FAX (916) 921-0100
FAX (707) 792-0342

Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112 Attention: Fran Thie	Client Proj. ID: Chevron 9-1851/980623-M1 Sample Descript: MW-4 Matrix: LIQUID Analysis Method: EPA 8260 Lab Number: 9806G04-04	Sampled: 06/23/98 Received: 06/24/98 Analyzed: 07/07/98 Reported: 07/14/98
--	---	---

Analyte	Detection Limit ug/L	Sample Results ug/L
Ethanol	50000	N.D.
t-Butanol	10000	N.D.
Methyl t-Butyl Ether (MTBE)	200	11000
Di-Isopropyl Ether (DIPE)	200	N.D.
Ethyl t-Butyl Ether (ETBE)	200	N.D.
t-Amyl Methyl Ether (TAME)	200	860
Surrogates	Control Limits %	% Recovery
1,2-Dichloroethane-d4	76 114	106

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

SEQUOIA ANALYTICAL - ELAP #1624



Mike Gregory
Project Manager





Sequoia Analytical

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Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-1851/980623-M1 Sample Descript: MW-4 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9806G04-04	Sampled: 06/23/98 Received: 06/24/98 Analyzed: 06/29/98 Reported: 07/14/98
--	---	---

QC Batch Number: GC062998802007A
Instrument ID: GC-7

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	550
Methyl t-Butyl Ether	25	6800
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern: Unidentified HC		C6-C12
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



 Mike Gregory
 Project Manager





Sequoia Analytical

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FAX (916) 921-0100
FAX (707) 792-0342

Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112 Attention: Fran Thie	Client Proj. ID: Chevron 9-1851/980623-M1 Sample Descript: TB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9806G04-05	Sampled: 06/23/98 Received: 06/24/98 Analyzed: 06/29/98 Reported: 07/14/98
--	---	---

QC Batch Number: GC062998802007A
Instrument ID: GC-7

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	86

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

SEQUOIA ANALYTICAL - ELAP #1210


Mike Gregory
Project Manager





**Sequoia
Analytical**

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

Client Proj. ID: Chevron 9-1851/980623-M1

Received: 06/24/98

Lab Proj. ID: 9806G04

Reported: 07/14/98

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 14 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

#Q - Surrogate coelution was confirmed.

OXY(8260):

Sample 9806G04-01 was diluted 100-fold.

Sample 9806G04-03 was diluted 10-fold.

Sample 9806G04-04 was diluted 100-fold.

TPH-GAS/BTEX:

Sample 9806G04-04 was diluted 10-fold.

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager





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

Client Project ID: Chevron 9-1851 / 980623-M1
Matrix: Liquid

Work Order #: 9806G04 -01, 04, 05

Reported: Jul 14, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC062998802007A	GC062998802007A	GC062998802007A	GC062998802007A	GC062998802007A
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:	S.L.	S.L.	S.L.	S.L.	S.L.
MS/MSD #:	98060720	98060720	98060720	98060720	-
Sample Conc.:	86.4	N.D.	N.D.	N.D.	-
Prepared Date:	6/29/98	6/29/98	6/29/98	6/29/98	-
Analyzed Date:	6/29/98	6/29/98	6/29/98	6/29/98	-
Instrument I.D.#:	GC7	GC7	GC7	GC7	-
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	-
Result:	100.2	20.3	21.9	66.2	-
MS % Recovery:	69	102	110	110	-
Dup. Result:	97.1	20.9	22.1	67	-
MSD % Recov.:	54	105	111	112	-
RPD:	3.1	2.9	0.91	1.2	-
RPD Limit:	0-25	0-25	0-25	0-25	-

LCS #:	LCS062998	LCS062998	LCS062998	LCS062998	LCS062998
Prepared Date:	6/29/98	6/29/98	6/29/98	6/29/98	6/29/98
Analyzed Date:	6/29/98	6/29/98	6/29/98	6/29/98	6/29/98
Instrument I.D.#:	GC7	GC7	GC7	GC7	GC7
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	500 µg/L
LCS Result:	19	19.3	20.2	63.5	463
LCS % Recov.:	95	97	101	106	93

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

SEQUOIA ANALYTICAL
Elap #2142

Mike Gregory
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

9806G04.BLA <1>





Sequoia Analytical

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

Client Project ID: Chevron 9-1851/ 980623-M1
Matrix: Liquid

Work Order #: 9806G04-02, 03

Reported: Jul 14, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC063098802007A	GC063098802007A	GC063098802007A	GC063098802007A	GC063098802007A
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:	S.L.	S.L.	S.L.	S.L.	S.L.
MS/MSD #:	98060728	98060728	98060728	98060728	-
Sample Conc.:	405	608	323	140	-
Prepared Date:	6/30/98	6/30/98	6/30/98	6/30/98	-
Analyzed Date:	6/30/98	6/30/98	6/30/98	6/30/98	-
Instrument I.D.#:	GC7	GC7	GC7	GC7	-
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	-
Result:	105	591	339	192	-
MS % Recovery:	-	-	-	87	-
Dup. Result:	418	605	348	198	-
MSD % Recov.:	-	-	-	97	-
RPD:	119.7	2.3	2.6	3.1	-
RPD Limit:	0-25	0-25	0-25	0-25	-

LCS #:	LCS063098	LCS063098	LCS063098	LCS063098	LCS063098
Prepared Date:	6/30/98	6/30/98	6/30/98	6/30/98	6/30/98
Analyzed Date:	6/30/98	6/30/98	6/30/98	6/30/98	6/30/98
Instrument I.D.#:	GC7	GC7	GC7	GC7	GC7
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	500 µg/L
LCS Result:	20.4	20.5	22	66.8	476
LCS % Recov.:	102	103	110	111	95

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

SEQUOIA ANALYTICAL
Elap #2142

Mike Gregory
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

9806G04.BLA <2>





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

Client Project ID: Chevron 9-1851/ 980623-M1
Matrix: Liquid

Work Order #: 9806G04-01-04

Reported: Jul 14, 1998

QUALITY CONTROL DATA REPORT

Analyte:	MTBE
QC Batch#:	8070122
Analy. Method:	EPA 8260
Prep. Method:	N.A.

Analyst: R. Bobel
LCS/LCSD #: LCS070798
Sample Conc.: N.D.
Prepared Date: 7/7/98
Analyzed Date: 7/7/98
Instrument I.D.#: -
Conc. Spiked: 50 µg/L

Result: 45
LCS % Recovery: 90

Dup. Result: 47.5
LCSD % Recov.: 95

RPD: 5.4
RPD Limit: 0-25

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

SEQUOIA ANALYTICAL
Elap #1624

Mike Gregory
Mike Gregory
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

9806G04.BLA <3>



Field Data Sheets

CHEVRON WELL MONITORING DATA SHEET

Project #: 980623-M1	Station #: 9-1851
Sampler: <u>MW-1</u>	Date: 6/23
Well I.D.: MW-5 MW-1	Well Diameter: (2) 3 4 6 8
Total Well Depth: 14.85 14.58	Depth to Water: 4.65 3.34
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: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Middleburg <input type="checkbox"/> Electric Submersible <input type="checkbox"/> Extraction Pump Other: _____	Sampling Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Extraction Port Other: _____
--	---

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

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
1205	71.0	6-8	3800	2	
1207	71.0	6-8	3600	4	
1209	71.0	6-8	3800	6	

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: 6
Sampling Time: 1215	Sampling Date: 6/23
Sample I.D.: MW-1	Laboratory: <u>Sequoia</u> GTEL N. Creek Assoc. Labs
Analyzed for: <u>TPH-G</u> <u>BTEX</u> <u>MTBE</u> TPH-D Other: 8260	
Duplicate I.D.:	Analyzed for: TPH-G BTEX MTBE TPH-D Other:
D.O. (if req'd):	Pre-purge: <input type="text"/> mg/L Post-purge: <input type="text"/> mg/L
O.R.P. (if req'd):	Pre-purge: <input type="text"/> mV Post-purge: <input type="text"/> mV

CHEVRON WELL MONITORING DATA SHEET

Project #: <u>980623-M1</u>	Station #: <u>9-1851</u>
Sampler: <u>MW, LG</u>	Date: <u>6/23</u>
Well I.D.: <u>MW-2</u>	Well Diameter: <u>(2)</u> 3 4 6 8 _____
Total Well Depth: <u>1485</u>	Depth to Water: <u>4.05</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: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Middleburg <input type="checkbox"/> Electric Submersible <input type="checkbox"/> Extraction Pump Other: _____	Sampling Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Extraction Port Other: _____
--	---

<u>1.7</u>	x	<u>3</u>	=	<u>5.1</u> Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
<u>1220</u>	<u>70</u>	<u>7.0</u>	<u>6200</u>	<u>2</u>	<u>Sheen</u>
<u>1222</u>	<u>70.1</u>	<u>7.0</u>	<u>7600</u>	<u>4</u>	<u>"</u>
<u>1224</u>	<u>70.2</u>	<u>7.0</u>	<u>7000</u>	<u>6</u>	<u>"</u>

Did well dewater? Yes <input type="checkbox"/> <u>No</u>	Gallons actually evacuated: <u>6</u>
Sampling Time: <u>1228</u>	Sampling Date: <u>6/23</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> TPH-D Other: <u>8260</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 #: <u>980623-m1</u>	Station #: <u>9-1851</u>
Sampler: <u>MW, LG</u>	Date:
Well I.D.: MW-1 <u>MW-3</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: 14.50 <u>14.62</u>	Depth to Water: 3.34 <u>3.25</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:	Sampling Method:
Bailer Disposable Bailer <input checked="" type="checkbox"/> Middleburg Electric Submersible Extraction Pump Other: _____	Bailer Disposable Bailer <input checked="" type="checkbox"/> Extraction Port Other: _____

<u>1.7</u>	x	<u>3</u>	=	<u>5.3</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
<u>1150</u>	<u>71.8</u>	<u>7.2</u>	<u>3600</u>	<u>2</u>	
<u>1153</u>	<u>71.8</u>	<u>6.2</u>	<u>3800</u>	<u>4</u>	
<u>1156</u>	<u>72.2</u>	<u>6.2</u>	<u>3800</u>	<u>6</u>	

Did well dewater? Yes No Gallons actually evacuated: 6

Sampling Time: 1200 Sampling Date: 6/23

Sample I.D.: ~~MW-1~~ MW-3 Laboratory: Sequoia GTEL N. Creek Assoc. Labs

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Org. 8260

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 #: 980623-mj	Station #: 9-1851
Sampler: mw16	Date: 6/23
Well I.D.: MW-4	Well Diameter: (2) 3 4 6 8
Total Well Depth: 15-00	Depth to Water: 4-98
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 Middleburg Electric Submersible Extraction Pump Other: _____	Sampling Method: Bailer Disposable Bailer Extraction Port Other: _____
--	---

1.6	x	3	=	4.8	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
1230	70.0	7.0	3800	1.5	
1232	70.0	7.2	3600	3.0	
1234	70.0	7.2	4000	3.0	

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: 5.0
Sampling Time: 1235	Sampling Date: 6/23
Sample I.D.: MW-4	Laboratory: (Sequoia) GTEL N. Creek Assoc. Labs
Analyzed for: (TPH-G) (BTEX) (MTBE) TPH-D Other: 8260	
Duplicate I.D.:	Analyzed for: TPH-G BTEX MTBE TPH-D Other:
D.O. (if req'd):	Pre-purge: <input type="text"/> mg/L Post-purge: <input type="text"/> mg/L
O.R.P. (if req'd):	Pre-purge: <input type="text"/> mV Post-purge: <input type="text"/> mV