

20256

STIP 436

ENVIRONMENTAL PROTECTION

97 JUL 25 PM 2:37



Chevron

July 24, 1997

Ms. Susan Hugo
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 #9-1740**
8550 Moraga Avenue
Oakland, California

Dear Ms. Hugo:

Enclosed is the Second Quarter Groundwater Monitoring report for 1997, prepared by our consultant Blaine Tech Services Inc. for the above noted facility. Ground water samples were analyzed for TPH-g, BTEX, and MtBE constituents.

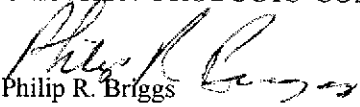
Monitoring wells C-2 and C-4 detected the presence of all constituents, with well C-2 showing an increase in the TPH-g and BTEX constituents, while C-4 showed a decrease in these same constituents from the previous sampling event. However, monitoring well C-3 was below method detection limits for all constituents.

The depth to groundwater varied from 4.59 feet to 6.51 feet below grade with a direction of flow southerly.

Chevron requests that the monitoring frequency for well C-3 be changed to annual, since the concentration of constituents have been below method detection limits for at least the last six sampling events. Chevron also requests that Oxygen Releasing Compounds (ORC) be added to wells C-2 and C-4 to assist in the natural attenuation process.

If you have any questions or comments call me at (510) 842-9136.

Sincerely,
CHEVRON PRODUCTS COMPANY


Philip R. Briggs
Site Assessment and Remediation Project Manager

Enclosure

cc. Mr. Bill Scudder, Chevron

Mr. Eddie So
RWQCB-San Francisco Bay Region, 2101 Webster Street, Suite 500, Oakland, CA 94612

BLAINE
TECH SERVICES INC.



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

ENVIRONMENTAL
PROTECTION

97 JUL 25 PM 2:37

July 21, 1997

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

2nd Quarter 1997 Monitoring at 9-1740

Second Quarter 1997 Groundwater Monitoring at
Chevron Service Station Number 9-1740
6550 Moraga Avenue
Oakland, CA

Monitoring Performed on June 23, 1997

Groundwater Sampling Report 970623-X-4

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

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

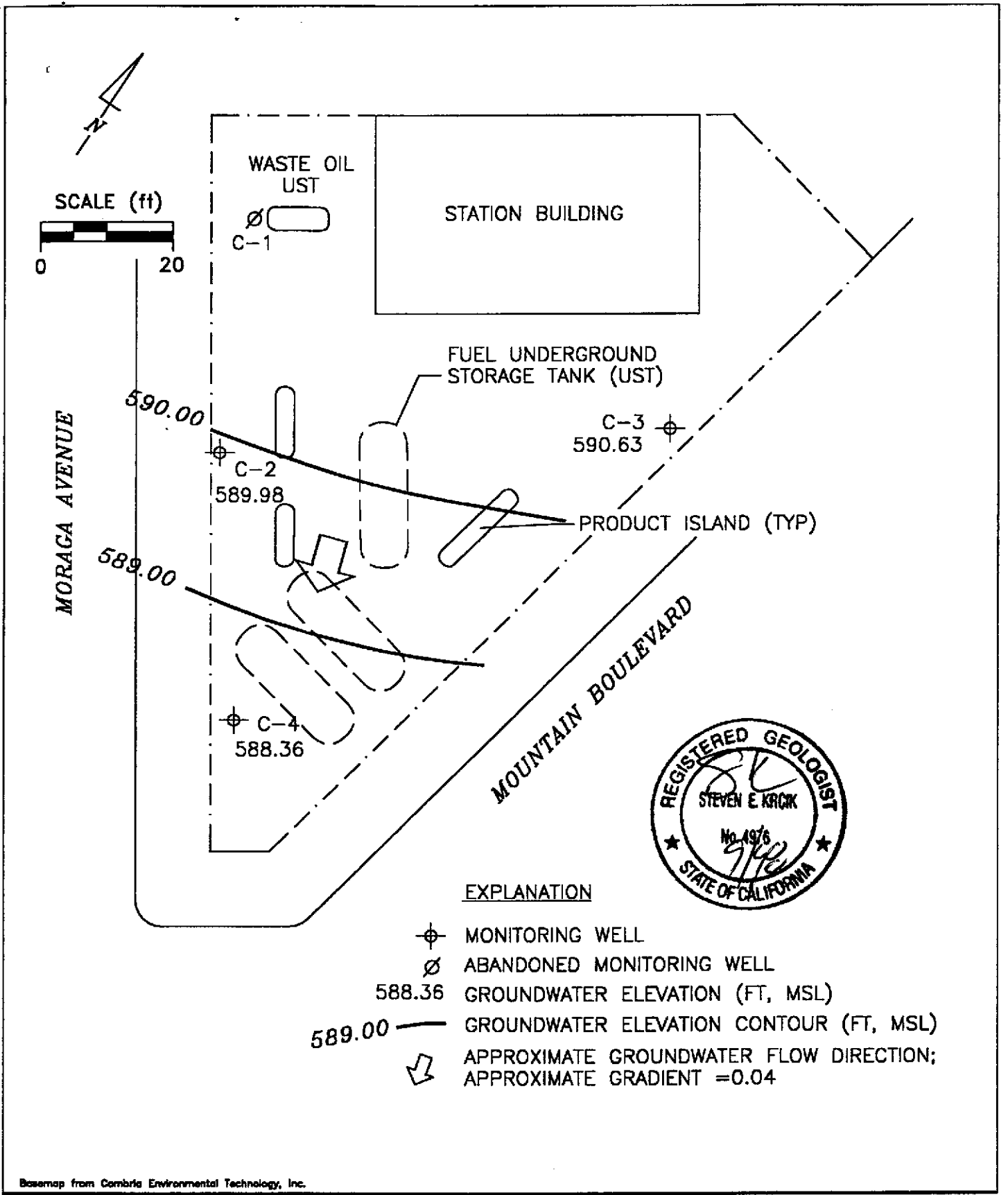
A handwritten signature in cursive script, appearing to read "Francis Thie".

Francis Thie
Vice President

FPT/cg

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 9-1740
6550 Moraga Avenue
Oakland, California

GROUNDWATER ELEVATION CONTOUR MAP,
JUNE 23, 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	MTBE
C-1										
03/25/91	595.82	592.54	3.28	--	54	0.7	<0.5	<0.5	2.0	--
07/01/91	595.82	592.39	3.43	--	730	250	3.0	16	4.8	--
09/25/91	595.82	591.67	4.15	--	160	68	1.3	6.1	1.3	--
12/23/91	595.82	592.11	3.71	--	170	70	1.6	3.5	2.4	--
03/24/92	595.82	592.80	3.02	--	60	39	4.4	3.9	9.1	--
06/23/92	595.82	592.06	3.76	--	60	19	1.1	1.1	1.0	--
09/30/92	595.82	--	--	--	--	--	--	--	--	--
C-2										
03/25/91	594.57	571.68	22.89	--	<50	1.0	<0.5	<0.5	2.0	--
07/01/91	594.57	587.20	7.37	--	660	190	2.5	28	22	--
09/25/91	594.57	587.59	6.98	--	110	200	1.9	21	1.7	--
12/23/91	594.57	589.56	5.01	--	<50	1.2	1.2	<0.5	1.8	--
03/24/92	594.57	577.30	17.27	--	100	5.9	7.9	4.0	14	--
06/23/92	594.57	590.75	3.82	--	190	45	4.5	9.5	10	--
09/30/92	594.57	580.56	14.01	--	240	99	2.3	11	6.1	--
12/16/92	594.57	580.05	14.52	--	280	160	6.2	7.4	5.0	--
03/30/93	594.57	583.49	11.08	--	110	21	<0.5	0.8	<1.5	--
06/10/93	594.57	583.08	11.49	--	180	53	2.6	8.0	5.8	--
09/02/93	594.57	580.49	14.08	--	51	18	0.8	4.4	<1.5	--
12/06/93	594.57	579.87	14.70	--	<50	20	1.3	2.7	<0.5	--
03/02/94	594.57	579.70	14.87	--	<50	9.9	1.6	<0.5	0.8	--
06/03/94	594.57	579.35	15.22	--	440	300	2.7	61	2.1	--
09/07/94	594.57	587.27	7.30	--	80	30	<0.5	1.6	<0.5	--
12/06/94	594.57	589.29	5.28	--	120	51	<0.5	4.7	<0.5	--
03/31/95	594.57	589.13	5.44	--	770	250	<5.0	74	<5.0	--
06/15/95	594.57	589.62	4.95	--	240	76	<1.0	26	<1.0	--
09/25/95	594.57	587.78	6.79	--	<50	1.2	<0.5	<0.5	<0.5	--
12/19/95	594.57	588.94	5.63	--	<250	23	<2.5	<2.5	<2.5	860
03/31/97	594.57	589.74	4.83	--	<500	48	<5.0	<5.0	<5.0	2900
06/23/97	594.57	589.98	4.59	--	1200	240	<10	<10	<10	4900

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	MTBE
C-3										
03/25/91	597.14	591.98	5.16	--	<50	<0.5	<0.5	<0.5	0.5	--
07/01/91	597.14	591.30	5.84	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/25/91	597.14	591.20	5.94	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/23/91	597.14	591.20	5.94	--	<50	1.0	<0.5	<0.5	1.5	--
03/24/92	597.14	592.37	4.77	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/23/92	597.14	591.47	5.67	--	<50	0.9	1.1	0.5	1.6	--
09/30/92	597.14	590.84	6.30	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/16/92	597.14	591.57	5.57	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/30/93	597.14	592.08	5.06	--	<50	<0.5	<0.5	<0.5	<1.5	--
06/10/93	597.14	591.85	5.29	--	<50	0.6	1.9	0.6	3.5	--
09/02/93	597.14	591.22	5.92	--	<50	<0.5	<0.5	<0.5	<1.5	--
12/06/93	597.14	591.38	5.76	--	<50	<0.5	0.6	<0.5	<0.5	--
03/02/94	597.14	591.97	5.17	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/03/94	597.14	591.74	5.40	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/07/94	597.14	591.14	6.00	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/06/94	597.14	591.95	5.19	--	<50	<0.5	0.8	<0.5	<0.5	--
03/31/95	597.14	592.04	5.10	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/15/95	597.14	591.78	5.36	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/25/95	597.14	591.04	6.10	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/19/95	597.14	591.46	5.68	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
03/31/97	597.14	590.65	6.49	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
06/23/97	597.14	590.63	6.51	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5

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	MTBE
C-4										
03/25/91	593.10	588.65	4.45	--	2700	240	16	<0.5	350	--
07/01/91	593.10	587.77	5.33	--	7900	1500	230	340	350	--
09/25/91	593.10	587.60	5.50	--	3200	850	160	150	220	--
12/23/91	593.10	588.18	4.92	--	4100	390	52	42	340	--
03/24/92	593.10	589.06	4.19	Free Product (0.19')	--	--	--	--	--	--
06/23/92	593.10	588.43	4.91	Free Product (0.30')	--	--	--	--	--	--
09/30/92	593.10	584.44	8.66	--	450	97	14	12	29	--
12/16/92	593.10	583.30	9.80	--	590	130	18	5.6	29	--
03/30/93	593.10	583.20	10.00	Free Product (0.12')	--	--	--	--	--	--
06/10/93	593.10	583.46	9.64	--	1300	290	36	17	73	--
09/02/93	593.10	583.02	10.08	--	630	97	12	6.6	21	--
12/06/93	593.10	582.85	10.25	--	1900	600	68	27	130	--
03/02/94	593.10	584.36	8.74	--	2600	1200	110	43	180	--
06/03/94	593.10	583.27	9.83	--	780	180	13	8.5	26	--
09/07/94	593.10	582.80	10.30	--	<50	14	<0.5	0.7	<0.5	--
12/06/94	593.10	583.90	9.20	--	980	270	21	12	38	--
03/31/95	593.10	582.86	10.24	--	1500	450	25	11	49	--
06/15/95	593.10	582.78	10.32	--	960	250	15	4.5	37	--
09/25/95	593.10	584.72	8.38	--	<500	18	<5.0	<5.0	<5.0	--
12/19/95	593.10	582.94	10.16	--	<500	32	<5.0	<5.0	<5.0	2400
03/31/97	593.10	588.42	4.68	--	3400	960	51	64	140	2100
06/23/97	593.10	588.36	4.74	--	1600	580	19	8.2	27	2300

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	MTBE
TRIP BLANK										
03/25/91	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
07/01/91	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/25/91	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/23/91	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/24/92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/23/92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/30/92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/16/92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/30/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
06/10/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
09/02/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
12/06/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/02/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/03/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/07/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/06/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/31/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/15/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/25/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/19/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/31/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
06/23/97	--	--	--	--	<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 31, 1995. Earlier field data and analytical results provided by Sierra Environmental.

ABBREVIATIONS:

TPH = Total Petroleum Hydrocarbons

MTBE = Methyl t-Butyl Ether

Analytical Appendix



Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-1740/970623X4 Sample Descript: C-2 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9706D11-01	Sampled: 06/23/97 Received: 06/24/97 Analyzed: 06/28/97 Reported: 06/30/97
--	---	---

QC Batch Number: GC062897BTEX07A
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	1000	1200
Methyl t-Butyl Ether	50	4900
Benzene	10	240
Toluene	10	N.D.
Ethyl Benzene	10	N.D.
Xylenes (Total)	10	N.D.
Chromatogram Pattern: Unidentified HC		C6-C8
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	95

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-1740/970623X4 Sample Descript: C-3 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9706D11-02	Sampled: 06/23/97 Received: 06/24/97 Analyzed: 06/27/97 Reported: 06/30/97
--	---	---

QC Batch Number: GC062797BTEX06A
Instrument ID: GCHP06

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	100

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 9-1740/970623X4 Sample Descript: C-4 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9706D11-03	Sampled: 06/23/97 Received: 06/24/97 Analyzed: 06/28/97 Reported: 06/30/97
--	---	---

QC Batch Number: GC062897BTEX07A
 Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	1600
Methyl t-Butyl Ether	25	2300
Benzene	5.0	580
Toluene	5.0	19
Ethyl Benzene	5.0	8.2
Xylenes (Total)	5.0	27
Chromatogram Pattern:		Gas
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	81

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

SEQUOIA ANALYTICAL - ELAP #1210


 Peggy Rehner
 Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Chevron 9-1740/970623X4 Sample Descript: TB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9706D11-04	Sampled: 06/23/97 Received: 06/24/97 Analyzed: 06/27/97 Reported: 06/30/97
Attention: Fran Thie		

QC Batch Number: GC062797BTEX06A
Instrument ID: GCHP06

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	112

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 9-1740/970623X4
Matrix: Liquid

Work Order #: 9706D11 -01, 03

Reported: Jul 7, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC062897BTEX07A	GC062897BTEX07A	GC062897BTEX07A	GC062897BTEX07A	GC062897BTEX07A
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:	J. Heider	J. Heider	J. Heider	J. Heider	J. Heider
MS/MSD #:	9706D8802	9706D8802	9706D8802	9706D8802	9706D8802
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	6/28/97	6/28/97	6/28/97	6/28/97	6/28/97
Analyzed Date:	6/28/97	6/28/97	6/28/97	6/28/97	6/28/97
Instrument I.D.#:	GCHP7	GCHP7	GCHP7	GCHP7	GCHP7
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	8.9	10	11	35	69
MS % Recovery:	89	100	110	117	115
Dup. Result:	8.9	10	11	35	61
MSD % Recov.:	89	100	110	117	102
RPD:	0.0	0.0	0.0	0.0	12
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK062897	BLK062897	BLK062897	BLK062897	BLK062897
Prepared Date:	6/28/97	6/28/97	6/28/97	6/28/97	6/28/97
Analyzed Date:	6/28/97	6/28/97	6/28/97	6/28/97	6/28/97
Instrument I.D.#:	GCHP7	GCHP7	GCHP7	GCHP7	GCHP7
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	7.2	8.4	9.2	28	56
LCS % Recov.:	72	84	92	93	93

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

9706D11.BLA <1>





Blaine Tech Services, Inc. Client Project ID: Chevron 9-1740/970623X4
 1680 Rogers Avenue Matrix: Liquid
 San Jose, CA 95112
 Attention: Fran Thie Work Order #: 9706D11-02, 04 Reported: Jul 7, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC062797BTEX06A	GC062797BTEX06A	GC062797BTEX06A	GC062797BTEX06A	GC062797BTEX06A
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. Porter	A. Porter	A. Porter	A. Porter	A. Porter
MS/MSD #:	9706D0902	9706D0902	9706D0902	9706D0902	9706D0902
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.#:	GCHP6	GCHP6	GCHP6	GCHP6	GCHP6
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	9.2	9.6	10	30	79
MS % Recovery:	92	96	100	100	132
Dup. Result:	9.2	9.6	10	29	79
MSD % Recov.:	92	96	100	97	132
RPD:	0.0	0.0	0.0	3.4	0.0
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.#:	GCHP6	GCHP6	GCHP6	GCHP6	GCHP6
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	8.4	9.5	10	30	71
LCS % Recov.:	84	95	100	100	118

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.





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

Client Proj. ID: Chevron 9-1740/970623X4

Received: 06/24/97

Lab Proj. ID: 9706D11

Reported: 06/30/97

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 7 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

TPPH Note: Sample 9706D11-01 was diluted 20-fold.
Sample 9706D11-03 was diluted 10-fold.

SEQUOIA ANALYTICAL


Peggy Penner
Project Manager



Flax copy of Lab Report and COC to Chevron Contact: 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 9-1740
Facility Address 6550 Moraga Ave., Oakland, CA
Consultant Project Number 970623X4
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 9034861
Samples Collected by (Name) KEW Weddington Field
Collection Date 2/25/97
Signature [Signature]

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)	Analytes To Be Performed											DO NOT BILL FOR TB-LB	Remarks				
								BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (9010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)									
C-2		3	W		15:22	HEC	YES	X																
C-3					14:44																			
C-4					15:25																			
TB		2	W																					

Relinquished By (Signature) <u>[Signature]</u>	Organization <u>BTB</u>	Date/Time <u>10/10 9/24/97</u>	Received By (Signature) <u>[Signature]</u>	Organization <u>SEQ</u>	Date/Time <u>10/10 9/24/97</u>	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days 10 Days As Contracted
Relinquished By (Signature) <u>[Signature]</u>	Organization <u>SEQ</u>	Date/Time <u>1/30 6/24/97</u>	Received By (Signature) <u>[Signature]</u>	Organization <u>SEQ</u>	Date/Time <u>6-24-97/1/30</u>	
Relinquished By (Signature) <u>[Signature]</u>	Organization <u>SEQ</u>	Date/Time <u>1/30 6/24/97</u>	Received For Laboratory By (Signature) <u>[Signature]</u>	Organization <u>SEQ</u>	Date/Time <u>6-24-97/1/30</u>	

Field Data Sheets

CHEVRON WELL MONITORING DATA SHEET

Project #: <u>970623X4</u>	Station #: <u>9-1740</u>
Sampler: <u>KV</u>	Date: <u>6/23</u>
Well I.D.: <u>C-2</u>	Well Diameter: <u>(2)</u> 3 4 6 8 <u> </u>
Total Well Depth: <u>2682</u>	Depth to Water: <u>4.59</u>
Depth to Free Product: <u> </u>	Thickness of Free Product (feet): <u> </u>
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>	Sampling Method: <u>Bailer</u>
<u>Disposable Bailer</u> <input checked="" type="checkbox"/>	<u>Disposable Bailer</u> <input checked="" type="checkbox"/>
<u>Middleburg</u> <input type="checkbox"/>	<u>Extraction Port</u> <input type="checkbox"/>
<u>Electric Submersible</u> <input type="checkbox"/>	Other: <u> </u>
<u>Extraction Pump</u> <input type="checkbox"/>	
Other: <u> </u>	

<u>3.5</u>	x	<u>3</u>	=	<u>10.5</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
14:50	68.6	6.4	1200	4	
14:50	68.6	6.4	1200	8	
14:55	65.4	6.4	1000	8	
15:00	66.2	6.4	1000	12	

Did well dewater? Yes <input checked="" type="checkbox"/>	Gallons actually evacuated: <u>12</u>
Sampling Time: <u>15:02</u>	Sampling Date: <u>6/23</u>
Sample I.D.: <u>C-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> </u>	
Duplicate I.D.: <u> </u>	Analyzed for: TPH-G BTEX MTBE TPH-D Other: <u> </u>
D.O. (if req'd):	Pre-purge: <u> </u> mg/L
	Post-purge: <u> </u> mg/L
O.R.P. (if req'd):	Pre-purge: <u> </u> mV
	Post-purge: <u> </u> mV

CHEVRON WELL MONITORING DATA SHEET

Project #: 970623x4	Station #: 9-1740
Sampler: KW	Date: 6/23
Well I.D.: C-3	Well Diameter: (2) 3 4 6 8
Total Well Depth: 18.63	Depth to Water: 6.51
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	radius ² * 0.163

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

Sampling Method: Bailer Disposable Bailer Extraction Port Other: _____

1.9	x	3	=	5.7	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
14:37	70.0	6.8	940	2	
14:39	68.6	6.8	1000	4	
14:43	68.0	6.8	1000	6	

Did well dewater? Yes No Gallons actually evacuated: 6

Sampling Time: 14:44 Sampling Date: 6/23

Sample I.D.: C-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 #: 9706234	Station #: 9-1740
Sampler: KW	Date: 6/23
Well I.D.: C-4	Well Diameter: (2) 3 4 6 8
Total Well Depth: 24.70	Depth to Water: 4.74
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVO) 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: _____
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31	x	3	=	93	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
15:13	67.4	6.6	1000	3.5	odor/sheen
15:19	66.4	6.6	1000	7	
15:23	64.8	6.6	1000	10	

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: 10
Sampling Time: 15:25	Sampling Date: 6/23
Sample I.D.: C-4	Laboratory: Sequoia GTEL N. Creek Assoc. Labs
Analyzed for: TPH-G <input checked="" type="checkbox"/> BTEX <input checked="" type="checkbox"/> MTBE <input checked="" type="checkbox"/> TPH-D Other:	
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