ENVIRONMENTAL PROTECTION

97 - 3 PM 3: 25



Building L

March 31, 1997

Ms. Jennifer Eberle Alameda County Health Care Services Department of Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 P.O. Box 6004 San Ramon, CA 94583-8904 Marketing – Sales West

San Ramon, CA 94583

Phone 510 842-9500

Chevron Products Company

6001 Bollinger Canyon Road

Re:

Former Signal Service Station #S0800 800 Center Street Oakland, California

Dear Ms. Eberle:

Enclosed is a copy of the First Quarter Groundwater Monitoring report for 1997, that was prepared by our consultant Blaine Tech Services, Inc. for the above noted facility. Groundwater samples were analyzed for TPH-g, BTEX and MtBE constituents.

The results from sampling monitoring wells MW-2 and MW-7 were below method detection limits for all constituents, while monitoring well MW-4 was below method detection limits for benzene, toluene and ethyl benzene constituents. The TPH-g and BTEX constituents for monitoring wells MW-1 and MW-3 dropped dramatically from the previous sampling event, which occurred in October 1996 with wells MW-1 and MW-3 detecting a concentration of benzene at 870 ppb and 56 ppb from a previous concentration of 19,000 ppb and 11,000 ppb respectively. Conversely, monitoring well MW-6 detected the presence of TPH-g and BTEX constituents in this sampling event, while the previous sampling event in January 1997 had these same constituents at below method detection limits. Well MW-5 was inaccessible for sampling as a vehicle was parked over it.

The depth to ground water varied from 6.28 feet to 7.50 feet below grade with a direction of flow to the south southwest.

Chevron has no explanation for the dramatic drop in the TPH-g and BTEX constituents as noted above, these results could be an anomaly either way; however, additional sampling should resolve this question. Chevron has set this site up to monitor and sample on a quarterly basis at this time.

I have asked our consultant Pacific Environmental Group Inc. to analyze different approaches/methods to remediate this site and expect to receive this information this week. After review of the data, I would like to set up a meeting with you to discuss the approach/methods that Chevron would propose, prior to submittal of a work plan, so that we are in tentative agreement in remediating the site.

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



March 31, 1997 Ms. Jennifer Eberle Former Signal Service Station S800 Page 2

Sincerely,

CHEVRON PRODUCTS COMPANY

Philip R. Briggs

Site Assessment and Remediation Project Manager

Enclosure

cc: Ms. B. C. Owen, Chevron

Mr. J. N. Robbins, Chevron

Mr. Terrell A. Sadler 618 Brooklyn Avenue Oakland, CA. 94606

Mr. James Scott BPH, Inc. 580 Market Street, Suite 400 San Francisco, CA. 94104

Ms. Sandi Nichols Washburn, Briscoe & McCarthy 55 Francisco Street, Suite 600 San Francisco, CA. 94133

Mr. Hollis Rodgers c/o Victor E. Brown, Esq. 580 Grand Avenue Oakland, CA 94610



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

ENVIRONISENTAL PROTECTION

97 APR -3 PM 3: 26

March 28, 1997

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

1st Quarter 1997 Monitoring at S-800

First Quarter 1997 Groundwater Monitoring at Chevron Service Station Number S-800 800 Center St. Oakland, CA

Monitoring Performed on February 20, 1997

Groundwater Sampling Report 970220-C-1

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

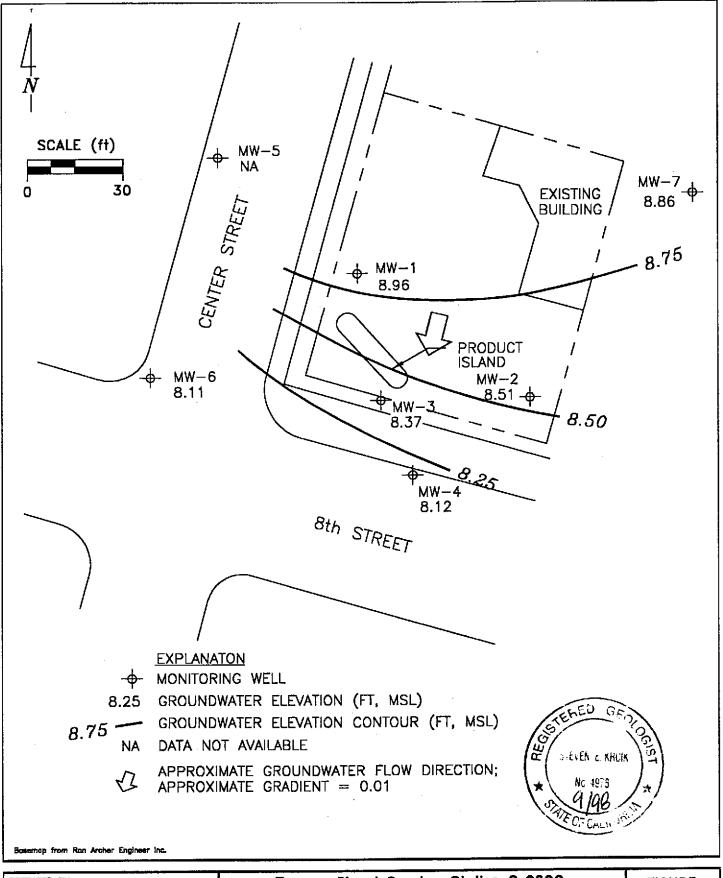
FPT/cg

attachments: Professional Engineering Appendix

Cumulative Table of Well Data and Analytical Results

Analytical Appendix Field Data Sheets

Professional Engineering Appendix





Former Signal Service Station S-0800 800 Center Street Oakland, California

GROUNDWATER ELEVATION CONTOUR MAP, FEBRUARY 20, 1997

FIGURE:

1
PROJECT:

DACO4

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
MW-1 🗸										
10/27/95	15.69	5.15	10.54		170,000	19,000	34,000	4800	26,000	
02/20/97/	15.64	8.96	6.68		18,000		3500⊬	470 ∽	2100 ∽	<250 ∽
•					4	\uparrow				
MW-2 🗸	/									
10/27/95	15.77	10,60	5.17	••	<50	<0.5	<0.5	<0.5	<0.5	
02/20/97		8.51	7.21		<50-	<0.5	<0.5	~ <0.5 .	<i>~</i> <0.5 <i>y</i> ⋅	<2.5
MW-3 /										
10/27/95	15.46	10.37	5.09	••	33,000	11,000	1700	2300	4200	
02/20/97 ~		8.37	7.05	••	260 ~	56 /	<1.0	7.6	5.9	<5.0 °
					1	\downarrow				
MW-4										
10/27/95	14.45	9.37	5.08	••	66	6.8	<0.5	<0.5	<0.5	
02/20/97 ~		8.12	6.28		54	<0.5 ~	<0.5≅	<0.5∞	7.4	39~
MW-5										
01/03/97				7.0	<50	<0.5	<0.5	<0.5	<0.5	
02/20/97	15.03	••		Inaccessible		**				
MW-6 ~										
					<50	<0.5	<0.5	<0.5	<0.5	
01/03/97 02/20/97	14.73	 8.11	6.62						28 ~	<12 ′
olievi J i	17.70	V.11	V.VL		800	310				
MW-7 -	~				·	-				
01/03/97	••				<50	<0.5	<0.5	<0.5	<0.5	
02/20/97	16.36	8.86	7.50	**	<50	<0.5	<0.5	<i>⊸</i> <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	мтве
TRIP E	BLANK 				<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 February 20, 1997. Earlier field data and analytical results are drawn from the January 24, 1997 Groundwater Technology, Inc. report.

ABBREVIATIONS:

TPH = Total Petroleum Hydrocarbons

MTBE = Methyl t-Butyl Ether

ND = Not detected at or above the minimum quantitation limit. See laboratory reports for minimum quantitation limits.

Analytical Appendix



680 Chesapeake Drive 404 N. Wiget Lane 819 Striker Avenue, Suite 8 Sacramento, CA 95834

Redwood City, CA 94063 Walnut Creek, CA 94598

(415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112

Attention: Fran Thie

laine Tech Services Client Proj. ID: Chevron S-800/970220-C1

Sample Descript: MW-1

Matrix: LIQUID

Analysis Method: 8015Mod/8020

Lab Number: 9702B57-01

Sampled: 02/20/97 Received: 02/21/97

Analyzed: 02/26/97 Reported: 02/27/97

QC Batch Number: GC022697BTEX06A

Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L			Sample Results ug/L	
TPPH as Gas Methyl t-Butyl Ether		5000 250		18000 N.D.	
Benzene		50		870	
Toluene		50		3500	
Ethyl Benzene		50		470	
Xylenes (Total)		50		2100	
Chromatogram Pattern:		,		Gas	
Surrogates	Con	trol Limits %	% R	ecovery	
Trifluorotoluene	70	13	30	8 6	

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner Project Manager

Page:



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

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Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112

Client Proj. ID: Chevron S-800/970220-C1

Sample Descript: MW-2

Matrix: LIQUID

Analysis Method: 8015Mod/8020

Lab Number: 9702B57-02

Sampled: 02/20/97 Received: 02/21/97

Analyzed: 02/25/97 Reported: 02/27/97

QC Batch Number: GC022597BTEX22A

Instrument ID: GCHP22

Attention: Fran Thie

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L	
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	50 2.5 0.50 0.50 0.50 0.50	N.D. N.D. N.D. N.D. N.D. N.D.	
Surrogates Trifluorotoluene	Control Limits % 70 130	% Recovery 112	

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

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Peggy Penner Project Manager

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Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112

Attention: Fran Thie

Client Proj. ID: Chevron S-800/970220-C1

Sample Descript: MW-3

Matrix: LIQUID

Analysis Method: 8015Mod/8020

Lab Number: 9702B57-03

Sampled: 02/20/97 Received: 02/21/97

Analyzed: 02/26/97 Reported: 02/27/97

QC Batch Number: GC022697BTEX06A

Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Dete	ection Limit ug/L	Sam	ple Results ug/L
TPPH as Gas Methyl t-Butyl Ether		100 5.0		260 N.D.
Benzene Toluene	*************	1.0		56 N.D.
Ethyl Benzene		1.0 1.0		7.6 5.9
Xylenes (Total) Chromatogram Pattern:				Gas
Surrogates	Cont	trol Limits %	% Re	covery
Trifluorotoluene	70	130		88

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

SEQUOIA ANALYTICAL -

ELAP #1210

Peggy Penner Project Manager

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680 Chesapeake Drive 404 N. Wiget Lane 819 Striker Avenue, Suite 8 Sacramento, CA 95834

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1680 Rogers Avenue San Jose, CA 95112

Attention: Fran Thie

Blaine Tech Services Client Proj. ID: Chevron S-800/970220-C1 Sampled: 02/20/97

Sample Descript: MW-4

Matrix: LIQUID

Analysis Method: 8015Mod/8020

Lab Number: 9702B57-04

Received: 02/21/97

Analyzed: 02/26/97

Reported: 02/27/97

QC Batch Number: GC022697BTEX07A

Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L			nple Results ug/L
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:		2.5		54 39 N.D. N.D. N.D. 7.4 Gas
Surrogates Trifluorotoluene	Con 70	trol Limits % 130		ecovery 108

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

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ELAP #1210

Peggy Penner Project Manager

Page:



680 Chesapeake Drive 404 N. Wiget Lane 819 Striker Avenue, Suite 8 Sacramento, CA 95834

Redwood City, CA 94063 Walnut Creek, CA 94598

(415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112

Attention: Fran Thie

Chevron S-800/970220-C1 Client Proj. ID:

Sample Descript: MW-6

Matrix: LIQUID

Analysis Method: 8015Mod/8020

Lab Number: 9702B57-05

thevron S-800/970220-C1 Sampled: 02/20/97 Received: 02/21/97

> Analyzed: 02/27/97 Reported: 02/27/97

QC Batch Number: GC022797BTEX06A

Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detecti ug	Sample Results ug/L	
TPPH as Gas Methyl t-Butyl Ether	1:	250 2_	N.D.
Benzene Toluene	2	1.5 1.5	23
Ethyl Benzene Xylenes (Total)		2.5 2.5	28
Chromatogram Pattern:			Gas
Surrogates Trifluorotoluene	Control 70	Limits % 130	% Recovery 97

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

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ELAP #1210

Peggy Penner Project Manager

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680 Chesapeake Drive 404 N, Wiget Lane 819 Striker Avenue, Suite 8 Sacramento, CA 95834

Redwood City, CA 94063 Walnut Creek, CA 94598

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1680 Rogers Avenue San Jose, CA 95112

Attention: Fran Thie

Blaine Tech Services Client Proj. ID: Chevron S-800/970220-C1

Sample Descript: MW-7

Matrix: LIQUID

Analysis Method: 8015Mod/8020

Lab Number: 9702B57-06

Sampled: 02/20/97 Received: 02/21/97

Analyzed: 02/25/97 Reported: 02/27/97

QC Batch Number: GC022597BTEX22A

Instrument ID: GCHP22

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L	
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	50 2.5 0.50 0.50 0.50 0.50	N.D. N.D. N.D. N.D. N.D. N.D.	
Surrogates Trifluorotoluene	Control Limits % 70 130	% Recovery 115	

Analytes reported as Non-were not present above the stated limit of detection.

SEQUOTA ANALYTICAL -

ELAP #1210

Peggy Pehner Project Manager

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

(415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112

Client Proj. ID: Chevron S-800/970220-C1

Sample Descript: TB

Matrix: LIQUID

Analysis Method: 8015Mod/8020 Lab Number: 9702B57-07

Sampled: 02/20/97 Received: 02/21/97

Analyzed: 02/25/97 Reported: 02/27/97

QC Batch Number: GC022597BTEX22A

Instrument ID: GCHP22

Attention: Fran Thie

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	50 2.5 0.50 0.50 0.50 0.50	N.D. N.D. N.D. N.D. N.D. N.D.
Surrogates Trifluorotoluene	Control Limits % 130	% Recovery 108

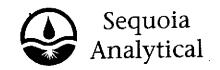
Analytes reported as N.D. Vere not present above the stated limit of detection.

SEQUOIA ANALYTICAL -

ELAP #1210

Peggy Penner Project Manager

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Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

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

ine Tech Services Client Proj. ID: Chevron S-800/970220-C1

Received: 02/21/97

Lab Proj. ID: 9702B57

Reported: 02/27/97

LABORATORY NARRATIVE

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

TPPH Note:

Sample 9702B57-01 was diluted 100-fold. Sample 9702B57-03 was diluted 2-fold.

Sample 9702B57-05 was diluted 5-fold.

SEQUOIA ANALYTICAL

Peggy Penner Project Manager

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Blaine Tech Services, Inc.

1680 Rogers Avenue San Jose, CA 95112 Attention: Fran Thie Client Project ID: Chevron S-800/970220-C1

Matrix: Liquid

Work Order #: 9702B57 01,03

Reported: Ma

Mar 4, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl	Xytenes	
_			Benzene		
QC Batch#:	GC022697BTEX06A	GC022697BTEX06A	GC022697BTEX06A	GC022697BTEX06A	
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	
Analyst:	A. Porter	A. Porter	A. Porter	A. Porter	
MS/MSD #:		GW9702871004	W9702871004	GW9702871004	
Sample Conc.:		N.D.	N.D.	N.D.	
Prepared Date:		2/26/97	2/26/97	2/26/97	
Analyzed Date:		2/26/97	2/26/97	2/26/97	
Instrument I.D.#:		GCHP-06	GCHP-06	GCHP-06	
Conc. Spiked:	10 µg/L	10 μg/L	10 μg/L	30 μg/L	
Result:	10	10	10	30	
MS % Recovery:	100	100	100	100	
Dup. Result:	9.8	9.7	9.9	29	
MSD % Recov.:		97	99	97	
RPD:	2.0	3.0	1.0	3.4	
RPD Limit:	0-25	0-25	0-25	0-25	

LCS #:	BLK022697	BLK022697	BLK022697	BLK022697
Prepared Date:	2/26/97	2/26/97	2/26/97	2/26/97
Analyzed Date:	2/26/97	2/26/97	2/26/97	2/26/97
Instrument I.D.#:	GCHP-06	GCHP-06	GCHP-06	GCHP-06
Conc. Spiked:	10 μg/L	10 μg/L	10 μg/L	30 μg/L
LCS Result:	9.9	9.9	10	30
LCS % Recov.:	99	99	100	100
MS/MSD	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130

EQUOIA ANALYTICAL

Reggy 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



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Blaine Tech Services, Inc.

Client Project ID: Chevron S-800/970220-C1

1680 Rogers Avenue

Matrix: Liquid

San Jose, CA 95112 Attention: Fran Thie

Work Order #: 9702B57 02,06,07

Reported: Mar 4, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	
	GC022597BTEX22A	GC022597BTEX22A		GC022597BTEX22A	
Analy. Method:		EPA 8020	EPA 8020	EPA 8020	
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	
Analyst:	A. Porter	A. Porter	A. Porter	A. Porter	
MS/MSD #:	GW9702871003	GW9702871003	W9702871003	GW9702871003	
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	
Prepared Date:	2/25/97	2/25/97	2/25/97	2/25/97	
Analyzed Date:	2/25/97	2/25/97	2/25/ 9 7	2/25/97	
Instrument I.D.#:	GCHP-22	GCHP-22	GCHP-22	GCHP-22	
Conc. Spiked:	10 μg/L	10 μg/L	10 μg/L	30 μg/L	
Resuit:	9.3	9.0	9.0	26	
MS % Recovery:	93	90	90	87	
Dup. Result:	9.4	9.1	9.2	27	
MSD % Recov.:	94	91	92	90	
RPD:	1.1	1.1	2.2	3.8	
RPD Limit:	0-25	0-25	0-25	0-25	

LCS #:	BLK022597	BLK022597	BLK022597	BLK02259 7
Prepared Date:	2/25/97	2/25/97	2/25/97	2/25/97
Analyzed Date:	2/25/97	2/25/97	2/25/97	2/25/97
Instrument I.D.#:	GCHP-22	GCHP-22	GCHP-22	GCHP-22
Conc. Spiked:	10 μg/L	10 µg/L	10 μg/L	30 μg/L
LCS Result:	9.0	8.8	8.8	26
LCS % Recov.:	90	88	88	87

MS/MSD	60-140	60-140	60-140	60-140	
LCS	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

9702B57.BLA <2>



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

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Blaine Tech Services, Inc. 1680 Rogers Avenue

Client Project ID: Chevron S-800/970220-C1

05

Liquid

San Jose, CA 95112 Attention: Fran Thie

Matrix:

Work Order #: 9702B57 Reported:

Mar 4, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl	Xylenes	
•			Benzene		
QC Batch#:	GC022797BTEX06A	GC022797BTEX06A	GC022797BTEX06A	GC022797BTEX06A	
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	
Prep. Method:		EPA 5030	EPA 5030	EPA 5030	
Analyst:	A, Porter	A. Porter	A. Porter	A. Porter	
MS/MSD #:	GW970287105	GW970287105	GW970287105	GW970287105	
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	
Prepared Date:	2/27/97	2/27/97	2/27/97	2/27/97	
Analyzed Date:		2/27/97	2/27/97	2/27/97	
Instrument I.D.#:	GCHP-06	GCHP-06	GCHP-06	GCHP-06	
Conc. Spiked:	10 μg/L	10 μg/L	10 μg/L	30 μg/ L	
Result:	9.8	9.3	10	30	
MS % Recovery:	93	93	100	100	
Dup, Result:	13	13	13	37	
MSD % Recov.:	130	130	130	123	
RPD:	28	33	26	21	
RPD Limit:	0-25	0-25	0-25	0-25	

LCS #:	BLK022797BSA	BLK022797B\$A	LK022797BSA	BLK022797BSA	
Prepared Date:	2/27/97	2/27/97	2/27/97	2/27/97	
Analyzed Date:	2/27/97	2/27/97	2/27/97	2/27/97	
Instrument I.D.#:	GCHP-06	GCHP-06	GCHP-06	GCHP-06	
Conc. Spiked:	10 µg/L	10 μg/L	10 μg/ L	30 μg/L	
LCS Result:	9.7	9.8	9.9	29	
LCS % Recov.:	97	98	99	97	
MS/MSD	60-140	60-140	60-140	60-140	
LCS	70-130	70-130	70-130	70-130	
Control Limits	70-130	70-130	70-100		

SEQUO)Á 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 allquot 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

9702B57.BLA <4>





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

(415) 364-9600 (510) 988-9600 (916) 921-9600

FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

Blaine Tech Services, Inc. 1680 Rogers Avenue

Client Project ID: Chevron S-800/970220-C1

Matrix:

Liquid

San Jose, CA 95112 Attention: Fran Thie

Work Order #:

9702B57 04 Reported:

Mar 4, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl	Xylenes	
			Benzene		
QC Batch#:	GC022697BTEX07A	GC022697BTEX07A	GC022697BTEX07A	GC022697BTEX07A	
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	
Analyst:	A. Porter	A. Porter	A. Porter	A. Porter	
MS/MSD #:	GW9702871004	GW9702871004	GW9702871004	GW9702871004	
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	
Prepared Date:	2/26/97	2/26/97	2/26/97	2/26/97	
Analyzed Date:	2/26/97	2/26/97	2/26/97	2/26/97	
Instrument I.D.#:	GCHP-07	GCHP-07	GCHP-07	GCHP-07	
Conc. Spiked:	10 μg/L	10 μg/L	10 μg/L	30 μg/L	
Result:	9.5	9.6	9.8	30	
MS % Recovery:	95	96	9 8	100	
Dup. Result:	9.2	9.2	9.5	28	
MSD % Recov.:	95	92	95	93	
RPD:	3.2	4.3	3.1	6.9	
RPD Limit:	0-25	0-25	0-25	0-25	

LCS #:	BLK022697	BLK022697	BLK022697	BLK022697
Prepared Date:	2/26/97	2/26/97	2/26/97	2/26/97
Analyzed Date:	2/26/97	2/26/97	2/26/97	2/26/97
Instrument I.D.#:	GCHP-07	GCHP-07	GCHP-07	GCHP-07
Conc. Spiked:	10 μg/L	10 μg/L	10 μg/L	30 μ g /L
LCS Result:	9.2	9.1	9.4	28
LCS % Recov.:	92	91	94	93

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

EQUOIA ANALYTICAL

ęgġý 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

9702B57.BLA <3>



						·		J				J				 		~~~~~~	
Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842—9591	Consulte Consulte	Consultant Name Blaine Tech Services. Inc. Address 1680 Rogers Ave., San Jose, CA 95112 Project Contact (Name) Fran Thie (Phone) 408-573-0555 (Fox Number) 408-573-7771									- 1 - 1	Chevron Contact (Name) Phil Briggs (Phone) (510) 842-9136 Laboratory Name Sequoia Laboratory Release Number 9013363 Samples Collected by (Name) Crisis Carlination Collection Date 62-20-55							
Semple Number Lob Sample Number	Number of Cont	\ <u>×</u>	Type G # Grab C # Composite D # Discrete	Time (euro	Semple Preservetion	leed (fee or No)		(8015)		1	Purg ecbie Ammedica (8020)		• To Be					FO	NOT BILL R TB-LB
mw1 1 mw-2 2 nw-3 3 mw-4 4 mw-6 5 mw-7 6 TB 7	3 3 3	ω ω ω ω ω		12:07 11:23 11:40 10:30	Hec Hec Hec Hec Hec Hec	<i>y y y y y y y y y y</i>	XXXXXX								× × × × × × ×				<u>₩</u> 4 10 50
telinquiehed Dy (Signature) telinquiehed Dy (Signature) telinquiehed Dy (Signature)		Organ	alzotlon 75 alzotlon 660 alzotlon	<i>i</i>	Date/time /UDS Date/Time 2/21/47 Date/Time	Reg	olvod D	y (Sign by (Sigh	alure)	Dy (Signer		Organizat SE O Organizat) 	2/2 Dote	/!lme //2; /!lme	Turn	Around	1 Time (C 24 Hrs. 48 Hrs. 5 Doys 10 Doys Contrac	2

Field Data Sheets

WELL GAUGING DATA

Project # 970220-01 Date 02-20-97 Client Cherron site 800 center 6+ ba Oakland Car Depth to Immiscible Liquid (feet) Volume of Immiscibles Thickness Depth to Water (feet) Depth to Survey Point: Well Bottom TOB or TOC (feet) of Immiscible Liquid (ft.) Well I.D. Removed Sheen/ Odor (m1) 6.68 13.75 Toc mw-1 2 7.21 13.90 mwz 2 4.05 14.25 mw-3 6.78 13.40 MW-4 Inaccessible mw.5 19.71 6.62 mw-6 7.50 18.58 mw-7

Project #:	9702	20-01		Station #: _ シー	800				
Sampler:	K.C			Date: 07-20-97					
Well I.D.:	mw-l			Well Diameter: (2) 3 4 6 8					
Total Wel	l Depth:	13.75		Depth to Water	6.68				
Depth to F	ree Produ	ct:		Thickness of Fr	ee Product (feet	t):			
Reference	d to:	(FVC)	Grade	D.O. Meter (if	req'd):	YSI I	HACH		
	Well Diamete 2" 3" 4"	().16).37	5" 1.02 6" 1.47 Other radius ² *	0.163				
Purge Method	Di Elec E:	Bailer sposable Baile Middleburg ctric Submersi xtraction Pum	ble	Sampling Method: Other:	Bailer Disposable Bailer Extraction Port		 7		
	1 Case Vol	ume (Gals.)	x Specified V	=	33 Gals.				
Time	Temp (°F)	pН	Cond.	Gals. Removed	Observations				
17:20	60.2	7.6	600	600					
12:21	61.0	17.4	440	7_					
17:27	,	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		3.5		·			
		· · · · · · · · · · · · · · · · · · ·							
Did well	lewater?	Yes	M	Gallons actuall	y evacuated:	3.5			
Sampling	Time:	12:30		Sampling Date:	02-20-	97			
Sample I.	D.: //	mw-1		Laboratory:	Sequera	GTEL			
Analyzed		BYEX	MTBE TPH-D	Other:					
D.O. (if re	eq'd):		Pre-purge:	^{rng} / _L	Post-purge:		^{mg} /⊥		
O.R.P. (if	req'd):	,	Pre-purge:	mV	Post-purge:		mV		

Project #	: 9702	20-C1		Station #:	5-800		
Sampler:	K.C			Date: OZ-Z	20-97		
Well I.D.	: mw	· Z_		Well Diamete		4 6 8	
Total We	ll Depth:	/3.5	90	Depth to Wate	r: 7.21		-
Depth to	Free Produ			Thickness of F	Free Product (f	eet):	
Referenc	ed to:	V C	Grade	D.O. Meter (if	req'd):	YSI	НАСН
	Well Diame: 2" 3" 4"	. (<u>fulliblier W</u> 0.16 0.37 0.65	5° 1.0 6° 1.4			
Purge Metho	Elec E:	Bailer isposable Baik Midóleburg tric Submersi xtraction Pum	ble	Sampling Method: Other:	: Bailer Disposable Baile Extraction Port	,	
	1 Case Vol) ume (Gals.)	X Specified V	=	3, 0 Gals alculated Volume	•	
Time	Temp (°F)	pН	Cond.	Gals, Removed	Observations		
9:52	632	7.2	1000	1.0	Diery	Brown	
9:53	60.6	73	590	7.0		7	
9:54	60,4	7.4	4800	3.0	<i>(</i>	y -	
Did well o	lewater?	Yes	<u>No</u>	Gallons actually	y evacuated:	3.0	
Sampling	Time:	10:02		Sampling Date:	07-20-	94	,
Sample I.I	D.: ///	W-Z		Laboratory:	Seouoja	GTEL	
Analyzed	for: TPHE	B(EX)	MTBE TPH-D	Other:	· · ·		
D.O: (if re	q'd):		Pre-purge:	™8/L	Post-purge	:	, , , , , , , , , , , , , , , , , , ,
O.R.P. (if	reo'd):		Pre-purge:	mV	Post-purge		mV

Project #	: 970	220-C1		Station #:	5-800			•
Sampler:	K.C			Date: Z-	20-94		·	
Well I.D.	: mw	}		Well Diamete	r: 🕭 3 🗸	6	8	
Total We	ll Depth:	14.25		Depth to Water	er: 7.05			
Depth to	Free Produ	ict:	 	Thickness of F	Free Product (fe	et):		
Reference	ed to:	PVO	Grade	D.O. Meter (if	req'd):	YSI	HA	ACH
	Well Diame 2" 3" 4"	der .	Multiplier Y 0.16 0.37 0.65	5° 1.0 6° 1.4				
Purge Metho	D Ele	Bailer isposable Bai Middleburg curic Submers xuraction Pun	ible	Sampling Method Other:	Bailer Disposable Bailer Extraction Port	y -		
	1 Case Vol	ume (Gals.)	X		3. 3 Gals. alculated Volume			
Time	Temp (°F)	PΗ	Cond.	Gals, Removed	Observations			
11:56	63.2	7.8	860	1.0				
11:57	64.0	7.0	840	.5.0				
. 11:58	64.4	7.0	840	3.5				
Did well d	lewater?	Yes	₹N ₀	Gallons actually	y evacuated:	3.	5	
Sampling '	Time:	12:07		Sampling Date:	7-20-97	· 		
Sample I.I	D.: M	W-3		Laboratory:	Sequoia	GTEL		
Analyzed:	for: TPH-C	RIEN	MIBE TPH-D	Other:				
D.O:.(if re	q'd):		Pre-purge:	™\$/ _L	Post-purge:			™g/1_
O.R.P. (if	req'd):		Pre-purge:	mV	Post-purge:		·	mΫ

Project #	: 97	0220-0	21	Station #:	5-800		
Sampler:	K.C	•		Date: z-zc	1-97		
Well I.D.	: mu	1-4		Well Diamete	r: Ø 3 4	1 6 8	3
Total We	ell Depth:	13.40	3	Depth to Wate	:: 6.28		
Depth to	Free Produ	:		Thickness of F	ree Product (fe	eet):	
Referenc	ed to:	(VC)	Grade	D.O. Meter (if	req'd):	YSI	НАСН
	Well Disme 2" 5" 4"		<u>Vohiplier</u> <u>V</u> 0.16 0.37 0.65	5° 1.0 6° 1.4			
Purge Metho	D Ele E	Bailer isposable Bail Middleburg ctric Submers xtraction Pur	ible p	Sampling Method: Other:	: Bailer Disposable Bailer Extraction Port	- -	
	1 Case Vol	ume (Gals.)	X Specified V	=	33 Gals. alculated Volume		
Time	Temp (°F)	рН	Cond.	Gals. Removed	Observations		
//:/3	61.8	7.4	600	1.0			
11:15	62.2	7.0	600	Z. 5			
-11:16	67.2	6.4	580	3,5			
Did well o	dewater?	Yes	<u>(V9)</u>	Gallons actually	y evacuated:	3.5	
Sampling	Time:	11:25		Sampling Date:	02-20-9	1	
Sample I.l	D.: /	W-Y		Laboratory:	Sequoiz	GTEL	
Analyzed	for: Text C	BUEX	MTBE) TPH-D	Other:	·		
D.O: (if re	:q'd):		Pre-purge:	#e/L	Post-purge:		™8/1_
O.R.P. (if	req'd):		Pre-purge:	mV	Post-purge:		mV

Project #	#: 9702	220-01	, 	Station #:	5-800			
Sampler: K.C				Station #: 5-800 Date: 02-70-91				
Well I.D.: nw-5				Well Diamete	er: 🕏 3	4 6	8	
Total Well Depth:				Depth to Water:				
Depth to Free Product:				Thickness of Free Product (feet):				
Referenc	ed to:	PVC	Grade	D.O. Meter (i	f req'd):	YSI	НАСН	
Purge Meth	Well Disme 2" 3" 4"		<u>Multiplier N</u> 0.15 0.27 0.65	5° 1.	fuliplier 002 47 ?* 0.163 : Bailer			
	Elec E:	isposable Bai Middleburg ctric Submers xtraction Pun	ible np	•	Disposable Baile Extraction Port			
	1 Case Vol	ume (Gals.)	XSpecified \	= Yolumes C	Gals.			
Time	Temp (°F)	pН	Cond.	Gals. Removed	Observations			
	IN AC	cessible	Car pa	rhed ov	ir well			
	Vecl (a	12:	30 pm 0	2-20-97 2-21-97 2-21-97				
Did well	dewater?	Yes	No	Gallons actuall	y evacuated:			
Sampling	Time:			Sampling Date:				
Sample I.	D.:			Laboratory:	Sequoia	GTEL		
Analyzed	for: TPH-G	BTEX	мтве трн-d	Other:				
D.O: (if req'd): Pre-			Pre-purge:	^{™8} /∟	Post-purge:			
O.R.P. (if req'd):		Pre-purge:	mV	Post-purge:		mV		

Project #: 970220-C1					5-800	· .	•		
Sampler: K.C.				Date: Z-Z	097				
Well I.D.: nw-6				Well Diamete	er: 躗 3 4	4 6	8		
Total Well Depth: 1971				Depth to Wate	Depth to Water: 662				
Depth to Free Product:				Thickness of Free Product (feet):					
Reference	ed to:	(VC)	Grade	D.O. Meter (i	f req'd):	YŞI	НАСН		
	Well Dismos 2" 3" 4"	•	<u>Muhiphier</u> <u>V</u> 0.16 0.37 0.65	5" 1.4 6" 1.4	<u>fuliplier</u> 02 47 ? • 0.163				
Purge Method: Disposable Bailer Middleburg Electric Submersible Extraction Pump Other:				Sampling Method: Bailer Disposable Bailer Extraction Port Other:					
	7. 0 1 Case Voli	ome (Gals.)	X Specified \	rolumes C	G-O Gals. Calculated Volume				
Time	Temp (°F)	pН	Cond.	Gals. Removed	Observations				
10:47	62.8	7.4	570	2.0					
10:49	63,0	7.3	540	4.0					
10:51	63,4	<i>7.</i> Z	540	6.0		-			
Did well d	lewater?	Yes	(No)	Gallons actuall	y evacuated:	6	,Ò		
Sampling '	Time:	1:00		Sampling Date:	02-20-	91			
Sample I.I	D.: <u>m</u>	W-6		Laboratory:	Sequoiz	GTEL			
Analyzed i	for: PHD	BTEN :	MTBD TPH-D	Other:					
D.O: (if req'd): Pre-purge:			™8/ ₁ _	Post-purge:		εT			
O.R.P. (if req'd): Pre-purge:			mV	Post-purge:		mV			

Project #: 970770-01				Station #: 5-800				
Sampler: K.C				Date: 2-20-91				
Well I.D.: mw-M				Well Diameter: ② 3 4 6 8				
Total We	ell Depth:	18.58	3	Depth to Water: 7.50				
Depth to	Free Produ	ict:		Thickness of Free Product (feet):				
Referenc	Referenced to: PVC Grade			D.O. Meter (if req'd): YSI HACH				
	Well Diamo 2" 3" 4"		Multiplier 9 0.16 0.37 0.65	5" 1. 6' 1.	fultiplier 02 47 ² • 0.163			
Purge Method: Disposable Bailer Middleburg Electric Submersible Extraction Pump Other:				Sampling Method: Bailer Disposable Bailer Extraction Port Other:				
	<u> </u>	1. 7 ume (Gals.)	X Specified '	= Volumes C	S./ Gals.			
Time	Temp (°F)	pН	Cond.	Gals. Removed	Observations			
10:24	58.0	7.4	560	1.5				
10:26	586	7.4	500	3.5		<u> </u>		
16:28	59,0	7.3	490	5.5				
Did well d	iewater?	Yes	(%)	Gallons actuall	y evacuated:	5.3	,	
Sampling '	Time:	10:35		Sampling Date:	Z-ZU-9~	7		
Sample I.D.: nw-M			Laboratory:	Sequoia	GTEL			
Analyzed:	for: (PH-C	BIER	MIBE TPH-D	Other:				
D.O: (if req'd): Pre-purge:			^{™g} /L	Post-purge:		™\$/ <u>1</u>		
O.R.P. (if req'd): Pre-pt			Pre-purge:	mV	Post-purge:		mV	