



Chevron U.S.A. Products Company

2410 Camino Ramon, San Ramon, California • Phone (510) 842-9500
Mail Address: P.O. Box 5004, San Ramon, CA 94583-0804

June 22, 1993

Mr. Scott Seery
Alameda County Environmental Health
80 Swan Way, Suite 200
Oakland, CA 94621

Re: Chevron Service Station No. 9-8139
16304 Foothill Rd., San Leandro, California

Dear Mr. Seery :

Enclosed is the quarterly monitoring and sampling report dated June 8, 1993 from Sierra Environmental Services.

Briefly, monitoring wells MW-3, MW-8, and MW-9 have detectable levels of dissolved hydrocarbons. The remaining wells with the exception of wells MW-2, MW-10 and MW-11 which had not detected any dissolved hydrocarbons contained traces of xylenes. Wells MW-2, MW-8, and MW-9 contained surfactants.

Please refer to the report for additional information. If you have any questions or comments, please feel free to call me at (510) 842-8752.

Sincerely,

Chevron U.S.A. Products Co.

Kenneth Kan
Engineer

LKAN
MacFile 9-8139R78

cc: Mr. Tom Berry, Weiss Associates
5500 Shellmound Street, Emeryville, CA 94608

Ms. Eileen Hughes, Department of Toxic Substance Control
700 Heinz Ave., Building F, Suite 200, Berkeley, CA 94710

Mr. Steve Willer
Chevron U.S.A. Products Co.



JUN 21 '93 J.M.M.,



June 8, 1993

Mr. Ken Kan
Chevron USA
P.O. Box 5004
San Ramon, CA 94583

Re: Chevron Service Station #9-8139
16304 Foothill Boulevard
San Leandro, California
SES Project #1-289-04

Dear Mr. Kan:

This report presents the results of the quarterly water sampling at Chevron Service Station #9-8139, located at 16304 Foothill Boulevard in San Leandro, California. Nine wells, MW-1 through MW-3 and MW-6 through MW-11 were sampled (Figure 1).

On April 30, 1993, SES personnel visited the site. Water level measurements were collected in all site wells and all wells were checked for the presence of free-phase hydrocarbons. Free-phase hydrocarbons were not present in any of the site wells. Water level data are shown in Table 1 and ground water elevation contours are included on Figure 1.

The ground water samples were collected on April 30, 1993 in accordance with SES Standard Operating Procedure - Ground Water Sampling (attached). All analyses were performed by GTEL of Concord, California. Analytic results for ground water are presented in Table 2. The chain of custody document and laboratory analytic reports are attached. SES is not responsible for laboratory omissions or errors.

Thank you for allowing us to provide services to Chevron. Please call if you have any questions.



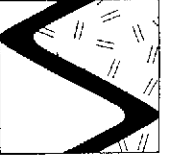
Sincerely,
Sierra Environmental Services

Argy Meria
Staff Geologist

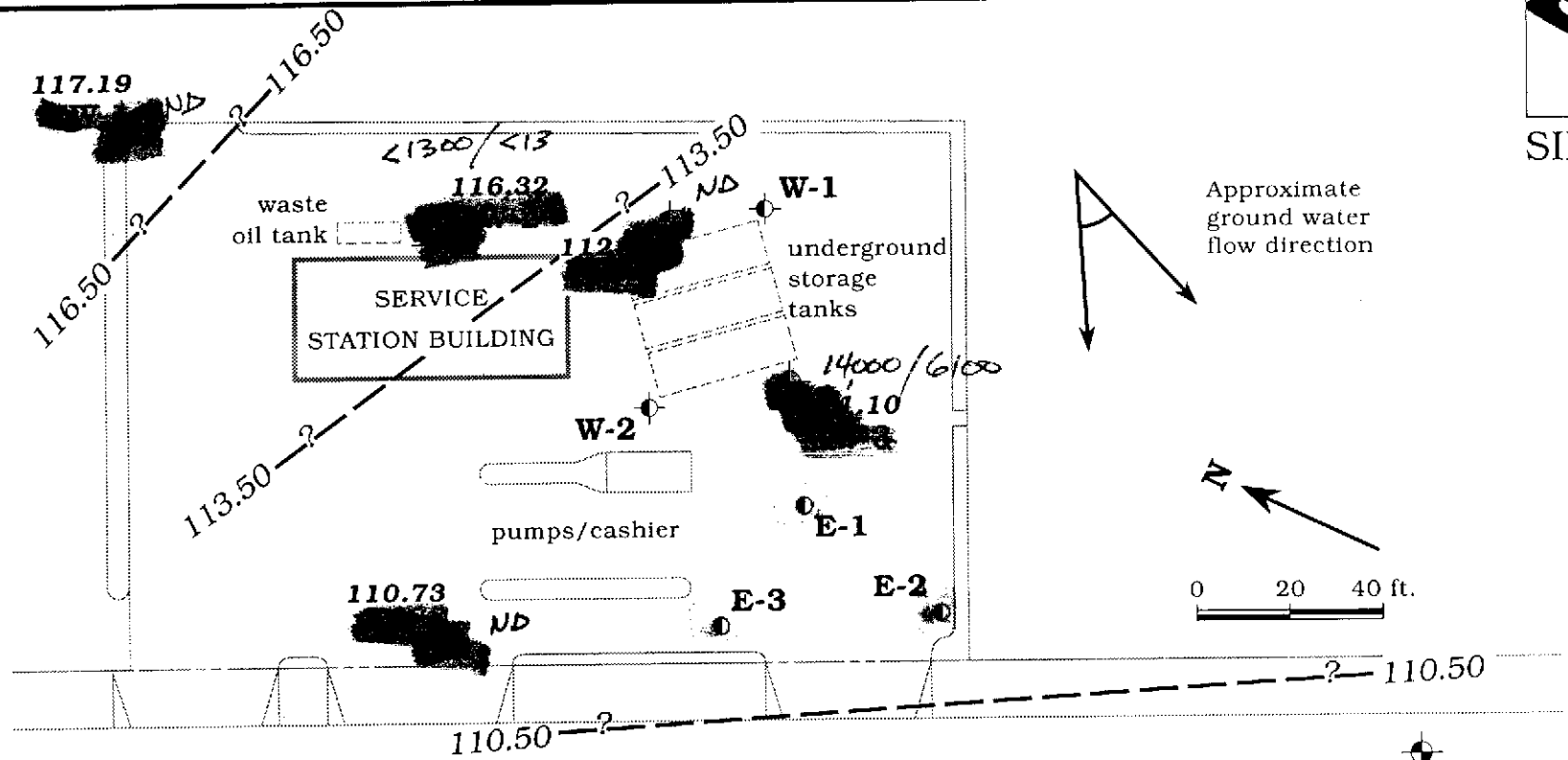
Chris J. Bramer
Professional Engineer #C48846

AJM/CJB/ajm
28904QM.JN3

- Attachments
- Figure
 - Tables
 - SES Standard Operating Procedure
 - Chain of Custody Document and Laboratory Analytic Reports



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EXPLANATION	
	MW-11 Monitoring well
	E-3 Extraction well
	W-2 Observation well
110.15	Ground water elevation, in feet
- 113.50	Ground water elevation contour, dashed where inferred, queried where uncertain

FOOTHILL BOULEVARD

110.35
MW-10

1600/<13

110.20

ND

median

dirt sidewalk

TPH-G / benzene (ppb)

Figure 1. Monitoring Well Locations and Ground Water Elevation Contour Map - April 30, 1993 - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California



Table 1. Water Level Data and Well Construction Details - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California

Well ID	Date Measured	DTW (ft)	TOC (ft)	GWE (msl)	Product Thickness* (ft)	Screen Interval	Sand Pack Interval	Bentonite/Grout Interval
						<-----feet below grade----->		
MW-1	3/23/90	12.92	127.09	114.17	0	25 - 30	22 - 30	20.5 - 22
	9/6/90	14.68		112.41	0			
	9/25/90	15.01		112.08	0			
	11/29/90	14.82		112.27	0			
	2/20/91	14.29		112.80	0			
	4/19/91	12.16		114.93	0			
	5/22/91	13.69		113.40	0			
	8/22/91	15.38		111.71	0			
	11/13/91	15.80		111.29	0			
	1/30/92	14.71		112.38	0			
	4/23/92	12.22		114.87	0			
	7/27/92	14.30		112.79	0			
	10/26/92	15.90		111.19	0			
	1/29/93	10.51		116.58	0			
4/30/93	9.90	117.19	0					
MW-2	3/23/90	12.40	125.98	113.58	0	25 - 30	23 - 31.5	21.5 - 23
	9/6/90	14.85		111.13	0			
	9/25/90	14.80		111.18	0			
	11/29/90	14.40		111.58	0			
	2/20/91	14.09		111.89	0			
	4/19/91	12.62		113.36	0			
	5/22/91	12.98		113.00	0			
	8/22/91	14.93		111.05	0			
	11/13/91	15.42		110.56	0			
	1/30/92	14.70		111.28	0			
	4/23/92	13.83		112.15	0			
	7/27/92	15.30		110.68	0			
	10/26/92	15.62		110.36	0			
	1/29/93	9.26		116.72	0			
4/30/93	9.66	116.32	0					
MW-3	3/23/90	17.50	127.84	110.34	0	15.5 - 25.5	12.5 - 25.5	10.5 - 12.5
	9/6/90	18.72	126.77	108.05	0			
	9/25/90	18.40	108.37	0				
	11/29/90	18.97	107.80	0				



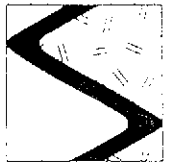
Table 1. Water Level Data and Well Construction Details - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California (continued)

Well ID	Date Measured	DTW (ft)	TOC (ft)	GWE (msl)	Product Thickness* (ft)	Screen Interval	Sand Pack Interval	Bentonite/Grout Interval
MV-3 (cont)	2/20/91	19.20		107.57	0			
	4/19/91	17.81		108.96	0			
	5/22/91	17.88		108.89	0			
	8/1/91	19.23		107.54	0			
	8/22/91	20.17		106.60	0			
	11/13/91	19.95		106.82	0			
	1/30/92	19.14		107.63	0			
	4/23/92	17.75		109.02	0			
	7/27/92	19.00		107.77	0			
	10/26/92	19.62		107.15	0			
	1/29/93	15.95		110.82	0			
	4/30/93	15.67		111.10	0			
MW-4	3/23/90	16.02	125.22	109.20	0	14 - 22	11 - 23	10 - 11
	9/6/90	17.35		107.87	0			
	9/25/90	17.48		107.74	0			
	11/29/90	17.61		107.61	0			
	2/20/91	17.81		107.41	0			
	4/19/91	15.80		109.42	0			
	5/22/91 ²	16.68		108.54	0			
MW-5	3/23/90	16.89	125.85	108.96	0	14.5 - 24	13 - 25.5	11 - 13
	9/7/90	18.46		107.42 ¹	0.04			
	11/29/90	18.87		107.54 ¹	0.71			
	2/20/91	18.91		107.31 ¹	0.47			
	4/19/91	16.99		109.24 ¹	0.48			
	9/25/90	19.30		107.58 ¹	1.3			
	5/22/91 ²	17.69		108.42 ¹	0.33			
MW-6	3/23/90	18.51	124.18	105.67	0	24.5 - 29.5	23 - 34	21 - 23
	9/7/90	16.18		108.00	0			
	9/25/90	16.42		107.76	0			
	11/29/90	16.11		108.07	0			
	2/20/91	16.09		108.09	0			
	4/19/91	15.15		109.03	0			
	5/22/91	15.41		108.77	0			



Table 1. Water Level Data and Well Construction Details - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California (continued)

Well ID	Date Measured	DTW (ft)	TOC (ft)	GWE (msl)	Product Thickness* (ft)	Screen Interval	Sand Pack Interval	Bentonite/Grout Interval
						<-----feet below grade----->		
MV-6 (cont)	8/23/91	17.80		106.38	0			
	11/14/91	16.52		107.66	0			
	1/30/92	16.48		107.70	0			
	4/23/92	16.20		107.98	0			
	7/27/92	16.52		107.66	0			
	10/26/92	17.12		107.06	0			
	1/29/93	13.13		111.05	0			
	4/30/93	14.86		109.32	0			
MW-7	3/23/90	21.40	126.86	105.46	0	21.5 - 27	20.5 - 26.5	18.5 - 20.5
	9/7/90	18.38		108.48	0			
	9/25/90	19.25		107.61	0			
	11/29/90	18.55		108.31	0			
	2/20/91	18.55		108.31	0			
	4/19/91	17.33		109.53	0			
	5/22/91	17.42		109.44	0			
	8/22/91	19.05		107.81	0			
	11/13/91	21.84		105.02	0			
	1/30/92	22.42		104.44	0			
	4/23/92	22.04		104.82	0			
	7/27/92	22.24		104.62	0			
	10/26/92	22.11		104.75	0			
	1/29/93	17.07		109.79	0			
MW-8	9/7/90	16.07	123.61	107.54	0	22 - 30.5	20.5 - 31.5	17.5 - 20.5
	9/25/90	16.20		107.41	0			
	11/29/90	16.30		107.31	0			
	2/20/91	16.32		107.29	0			
	4/19/91	14.71		108.90	0			
	5/22/91	15.42		108.19	0			
	8/22/91	17.15		106.46	0			
	11/14/91	16.99		106.62	0			
	1/30/92	16.30		107.31	0			
	4/23/92	15.05		108.56	0			
	7/27/92	16.08		107.53	0			
10/26/92	16.72		106.89	0				



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Table 1. Water Level Data and Well Construction Details - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California (continued)

Well ID	Date Measured	DTW (ft)	TOC (ft)	GWE (msl)	Product Thickness* (ft)	Screen Interval	Sand Pack Interval	Bentonite/Grout Interval
						-----feet below grade----->		
MV-8	1/29/93	12.82		110.79	0			
(cont)	4/30/93	13.54		110.07	0			
MW-9	8/22/91	17.60	124.20	106.60	0	17 - 27	15 - 27	13 - 15
	11/14/91	17.48		106.72	0			
	1/30/92	16.71		107.49	0			
	4/23/92	15.23		108.97	0			
	7/27/92	16.72		107.48	0			
	10/26/92	17.22		106.98	0			
	1/29/93	13.39		110.81	0			
	4/30/93	14.00		110.20	0			
MW-10	7/27/92	17.52	125.03	107.51	0	14.5 - 30	12 - 30	9 - 12
	10/27/92	18.06		106.97	0			
	1/29/93	14.15		110.88	0			
	4/30/93	14.68		110.35	0			
MW-11	7/27/92	15.38	122.92	107.54	0	14.5 - 30	11 - 30	8 - 11
	10/26/92	15.97		106.95	0			
	1/29/93	12.24		110.68	0			
	4/30/93	12.77		110.15	0			
EW-1	8/1/91	17.54	124.95	107.41	0	18 - 26.5	17 - 27	15 - 17
EW-2	8/1/91	18.07	125.79	107.72	0	12.5 - 22.5	11.5 - 28	10.5 - 11.5
EW-3	8/1/91	17.49	125.22	107.73	0	12.5 - 22.5	10.5 - 28	10.5 - 11.5



Table 1. Water Level Data and Well Construction Details - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California (continued)

EXPLANATION:

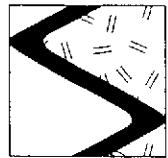
DTW = Depth to water
TOC = Top of casing elevation
GWE = Ground water elevation
msl = Measurements referenced relative to mean sea level
--- = Not applicable/Not measured

NOTES:

All top of casing elevations compiled from Quarterly Ground Water Monitoring Report prepared for Chevron by Burlington Environmental Inc., December 3, 1992.

Well construction details were compiled from Burlington Environmental, Inc. boring logs dated November 1989, December 1989, May 1990, August 1990, June 1991 and April 1992.

- * Product thickness was measured on and after January 29, 1993 with an MMC flexi-dip interface probe.
 - ¹ Ground water elevation level corrected for the presence of free-phase hydrocarbons using assumed density of 0.79. Compiled from the Quarterly Ground Water Monitoring Report prepared for Chevron by Burlington Environmental Inc., December 3, 1992.
 - ² Monitoring well was converted to a ground water extraction well on June 10, 1991.
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Table 2. Analytic Results for Ground Water - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California

Well ID	Date Sampled	Analytic Lab	Analytic Method	TPPH(C)	B	T	E	X	EDB
				-----ppb-----					
MW-1	12/5/89	UNK	8015/8020/413/504 ^{1,2}	<500	<0.5	<0.5	<0.5	<0.5	<0.5
	5/24/90	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	9/6/90	SAL	8015/8020/504	<50	<0.5	0.8	<0.5	0.5	<0.5
	11/29/90	SAL	8015/8020	<50	0.7	0.9	<0.5	1	---
	2/20/91	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/22/91	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/22/91	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/13/91	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/31/92	SPA	8015/8020	<50	0.5	<0.5	<0.5	0.5	---
	4/23/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/27/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/26/92	SPA	8015/8020	<50	0.6	<0.5	<0.5	<0.5	---
	1/29/93	GTEL	8015/8020	<50	3	3	0.7	3	---
	4/30/93	GTEL	8015/8020	<50	<0.5	0.7	<0.5	1	---
	MW-2	12/5/89	UNK	8015/8020/413/504 ^{1,2}	<500	<0.5	<0.5	<0.5	0.9
5/24/90		SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
9/6/90		SAL	8015/8020/504	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/29/90		SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
2/20/91		SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
5/22/91		SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
8/22/91		SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
11/13/91		SAL	8015/8020	58	<0.5	0.5	0.7	2.3	---
1/31/92		SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
4/23/92		SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
7/27/92		SPA	8015/8020	<50	<0.5	<0.5	<0.5	1.1	---
10/26/92		SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
1/29/93		GTEL	8015/8020	<50	3	8	1	5	---
4/30/93^{3,5}		GTEL	8015/8020	<1,300	<13	<13	<13	<13	---
MW-3 (d)		12/5/89	UNK	8015/8020/504	24,000	2,400	1,800	360	2,600
	12/5/89	UNK	8015/8020/413/504 ²	24,000	2,500	1,900	390	2,600	<0.5
	5/24/90	SAL	8015/8020	9,000	2,600	1,700	250	1,500	---



Table 2. Analytic Results for Ground Water - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California
(continued)

Well ID	Date Sampled	Analytic Lab	Analytic Method	TPPH(G)	B	T	-----ppb-----		
							E	X	EDB
MW-3 (d) (cont) (d)	5/24/90	SAL	8015/8020	10,000	2,600	1,800	260	1,600	---
	9/6/90	SAL	8015/8020/504	3,500	900	550	110	460	<0.5
	11/29/90	SAL	8015/8020	9,200	1,100	1,100	210	1,100	---
	2/20/91	SAL	8015/8020	8,800	960	780	200	920	---
	5/22/91	SAL	8015/8020	28,000	5,800	1,200	460	2,300	---
	8/22/91	SAL	8015/8020	21,000	3,100	2,000	480	2,000	---
	8/22/91	SAL	8015/8020	19,000	2,700	1,800	420	1,700	---
	11/13/91	SAL	8015/8020	18,000	2,400	1,200	450	2,200	---
	1/31/92	SPA	8015/8020	18,000	3,800	920	700	2,600	---
	4/23/92	SPA	8015/8020	46,000	5,000	1,900	1,000	3,500	---
	7/27/92	SPA	8015/8020	26,000	4,900	1,100	1,200	3,600	---
	10/26/92	SPA	8015/8020	6,600	1,100	41	220	570	---
	1/29/93	GTEL	8015/8020	32,000	5,900	2,900	1,300	5,000	---
4/30/93	GTEL	8015/8020	14,000⁴	6,100	98	870	2,400	---	
MW-4**	12/5/89	UNK	8015/8020/504	19,000	390	1,300	460	1,800	<0.5
	5/24/90	SAL	8015/8020	4,500	210	440	140	480	---
	9/6/90	SAL	8015/8020/504	6,000	680	520	170	580	<0.5
	11/29/90	SAL	8015/8020	15,000	800	1,000	430	1,700	---
	2/20/91	SAL	8015/8020	15,000	640	390	420	1,600	---
	(d) 2/20/91	SAL	8015/8020	15,000	680	410	430	1,600	---
	(d) 5/22/91	SAL	8015/8020	9,800	580	140	310	740	---
	(d) 5/22/91	SAL	8015/8020	7,200	520	130	270	670	---
MW-5**	5/25/90	SAL	8015/8020/504	28,000	920	1,100	460	1,300	2.4
	9/7/90	SAL	8015/8020	---	---	---	---	---	---
	11/29/90	SAL	8015/8020	---	---	---	---	---	---
	2/20/91	SAL	8015/8020	---	---	---	---	---	---
	5/22/91	SAL	8015/8020	---	---	---	---	---	---
MW-6	5/25/90	SAL	8015/8020/504	<50	<2	<3	<3	<3	<0.02
	9/7/90	SAL	8015/8020/504	<50	<2	<3	<3	<3	<0.05



Table 2. Analytic Results for Ground Water - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California
(continued)

Well ID	Date Sampled	Analytic Lab	Analytic Method	TPPH(G)	B	T	-----ppb----->		
							E	X	EDB
MW-6 (cont)	11/29/90	SAL	8015/8020/504	<50	<0.5	<0.5	<0.5	<0.5	<0.05
	2/20/91	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/22/91	SAL	8015/8020	<50	0.5	0.7	<0.5	1.1	---
	8/23/91	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/14/91	SAL	8015/8020/504	<50	<0.5	<0.5	<0.5	<0.5	<0.02
	11/14/91	SAL	8015/8020/504	<50	<0.5	0.6	<0.5	1.1	<0.05
	1/31/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/31/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/23/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/23/92	SPA	8015/8020	---	---	---	---	---	---
	7/27/92	SPA	8015/8020	<50	1.2	0.6	<0.5	1.9	---
	10/27/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/93	GTEL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/30/93	GTEL	8015/8020	<50	<0.5	<0.5	<0.5	0.6	---
MW-7 (d)	5/25/90	SAL	8015/8020/504	<50	<2	<3	<3	<3	<0.02
	9/27/90	SAL	8015/8020/504	<50	<2	<3	<3	<3	<0.05
	9/27/90	SAL	8015/8020/504	<50	<2	<3	<3	<3	<0.05
	11/29/90	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	2/20/91	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/22/91	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/22/91	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/13/91	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/31/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/23/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/27/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/26/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/93	GTEL	8015/8020	<50	4	13	2	8	---
	4/30/93	GTEL	8015/8020	<50	<0.5	<0.5	<0.5	0.6	---
MW-8	9/7/90	SAL	8015/8020/504	<50	<0.5	<0.5	<0.5	<0.5	<0.05
	11/29/90	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---



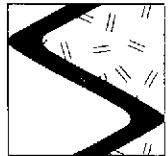
Table 2. Analytic Results for Ground Water - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California
(continued)

Well ID	Date Sampled	Analytic Lab	Analytic Method	TPPH(G)	B	T	E	X	EDB
				←-----ppb-----→					
MW-8 (d) (cont)	11/29/90	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	2/20/91	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/22/91	SAL	8015/8020	<50	0.6	<0.5	<0.5	1	---
	8/23/91	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/14/91	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/30/92	SPA	8015/8020	<50	1	0.7	<0.5	1.1	---
	4/24/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/27/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/27/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/93	GTEL	8015/8020	1,400	470	470	37	160	---
	4/30/93 ³	GTEL	8015/8020	1,600	<13	15	18	29	---
MW-9	8/22/91	SAL	8015/8020/504	9,600	46	170	98	1,200	<0.05
	11/14/91	SAL	8015/8020/504	11,000	130	58	86	1,500	<0.05
	1/30/92	SPA	8015/8020	11,000	210	29	110	1,900	---
	4/24/92	SPA	8015/8020	17,000	180	25	100	1,900	---
	7/27/92	SPA	8015/8020	2,800	59	1.6	18	280	---
	10/27/92	SPA	8015/8020	3,200	38	<0.5	19	200	---
	1/29/93	GTEL	8015/8020	1,300	23	6	8	100	---
	4/30/93 ³	GTEL	8015/8020	<1,300	<13	<13	<13	58	---
MW-10	7/27/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/27/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/93	GTEL	8015/8020	<50	<0.5	<0.5	<0.5	0.7	---
	4/30/93	GTEL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
MW-11	7/27/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/27/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/93	GTEL	8015/8020	<50	8	16	2	10	---
	4/30/93	GTEL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
EW-1**	5/25/90	SAL	8015/8020/504	3,900	260	430	64	340	0.03



Table 2. Analytic Results for Ground Water - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California (continued)

Well ID	Date Sampled	Analytic Lab	Analytic Method	TPPH(G)	B	T	E	X	EDB
				-----ppb-----					
Rinseate	12/5/89	UNK	8015/8020/413/504 ²	<500	<0.5	<0.5	<0.5	<0.5	<0.05
	5/24/90	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	9/7/90	SAL	8015/8020/504	<50	<0.5	<0.5	<0.5	<0.5	<0.05
	2/20/91	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/22/91	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/22/91	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/13/91	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/30/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/23/92	SPA	8015/8020	---	---	---	---	---	---
Trip Blank	2/20/91	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/22/91	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/22/91	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/13/91	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/30/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/23/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/27/92	SPA	8015/8020	<0.5	<0.5	<0.5	<0.5	<0.5	---
	10/26/92	SPA	8015/8020	<0.5	<0.5	<0.5	<0.5	<0.5	---
TB-LB	1/29/93	GTEL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/30/93	GTEL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
Bailer Blank BB	1/29/93	GTEL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/30/93	GTEL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---



SIERRA

Table 2. Analytic Results for Ground Water - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California
(continued)

EXPLANATION:

TPPH(G) = Total Purgeable Petroleum Hydrocarbons as Gasoline
TPH(D) = Total Petroleum Hydrocarbons as Diesel
O&G = Oil and Grease
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
EDB = Ethylene Dibromide
ppb = Parts per billion
--- = Not analyzed/Not applicable
(d) = Duplicate sample

ANALYTIC METHODS:

8015 = EPA Method 8015/5030 for TPPH(G)
8015 = Modified EPA Method 8015 for TPH(D)
8020 = EPA Method 8020 for BTEX
413 = Method 413 for O&G
504 = EPA Method 504 for EDB

ANALYTIC LABORATORY:

UNK = Unknown
SAL = Superior Analytic Precision, Inc. of San Francisco and Martinez, California
SPA = Superior Precision Analytical, Inc. of San Francisco and Martinez, California
GTEL = GTEL Environmental Laboratories, Inc. of Concord, California

NOTES:

Analytic data prior to January 15, 1993 compiled from Quarterly Ground Water Monitoring Report prepared for Chevron by Burlington Environmental Inc., December 3, 1992.

- ** Monitoring well was converted to a ground water extraction well on June 10, 1991.
- 1 TPH(D) analyzed during this event. Not detected at detection limits of 1,000 ppb.
- 2 O&G analyzed during this event. Not detected at detection limit of 5,000 ppb.
- 3 Detection limit raised due to surfactants in sample.
- 4 Uncategorized compound not included in gasoline hydrocarbon concentration.
- 5 Halogenated volatile organic compounds (HVOC) were also analyzed. **Chloroform was detected at 77 ppb.** Other HVOCs not detected at detection limits of 0.5 to 1.0 ppb.



SES STANDARD OPERATING PROCEDURE GROUND WATER SAMPLING

The following describes sampling procedures used by SES field personnel to collect and handle ground water samples. Before samples are collected, careful consideration is given to the type of analysis to be performed so that precautions are taken to prevent loss of volatile components or contamination of the sample, and to preserve the sample for subsequent analysis. Wells will be sampled no less than 24 hours after well development. Collection methods specific to ground water sampling are presented below.

Prior to sampling, each well is checked for the presence of free-phase hydrocarbons using an MMC flexi-dip interface probe. Product thickness (measured to the nearest 0.01 foot) is noted on the sampling form. Water level measurements are also made using either a water level meter or the interface probe. The water level measurements are also noted on the sampling form.

Prior to sampling, each well is purged of a minimum of four well casing volumes of water using a steam-cleaned PVC bailer, or a pre-cleaned pump. Temperature, pH and electrical conductivity are measured at least three times during purging. Purging is continued until these parameters have stabilized (i.e., changes in temperature, pH or conductivity do not exceed $\pm 0.5^{\circ}\text{F}$, 0.1 or 5%, respectively).

The purge water is taken to Chevron's Richmond Refinery for disposal.

Ground water samples are collected from the wells with steam-cleaned Teflon bailers. The water samples are decanted into the appropriate container for the analysis to be performed. Pre-preserved sample containers may be used or the analytic laboratory may add preservative to the sample upon arrival. Duplicate samples are collected from each well as a back-up sample and/or to provide quality control. The samples are labeled to include the project number, sample ID, date, preservative, and the field person's initials. The samples are placed in polyethylene bags and in an ice chest (maintained at 4°C with blue ice or ice) for transport under chain of custody to the laboratory.

The chain of custody form includes the project number, analysis requested, sample ID, date analysis and the SES field person's name. The form is signed and dated (with the transfer time) by each person who yields or receives the samples beginning with the field personnel and ending with the laboratory personnel.

A trip blank and bailer blank accompanies each sampling set, or 5% trip blanks and 5% bailer blanks are included for sets of greater than 20 samples. The bailer blank is prepared by pouring previously boiled water into a steam-cleaned Teflon bailer prior to sampling a well. The trip and bailer blanks are analyzed for some or all of the same compounds as the ground water samples.



4080 Pike Lane
Concord, CA 94520
(510) 685-7852
(800) 544-3422 Inside CA
(800) 423-7143 Outside CA
(510) 825-0720 FAX

Client Number: SIE01CHV08
Consultant Project Number: 1-289-04
Facility Number: 9-8139
Project ID: 16304 Foothill Blvd.
San Leandro
Work Order Number: C3-05-0028

May 17, 1993

Argy Mena
Sierra Environmental Services
P.O. Box 2546
Martinez, CA 94553

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 05/03/93.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria, unless otherwise stated in the footnotes.

GTEL is certified by the California State Department of Health Services, Laboratory certificate numbers 194 and 1075, to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,

GTEL Environmental Laboratories, Inc.

Eileen F. Bullen
Laboratory Director

Client Number: SIE01CHV08
 Consultant Project Number: 1-289-04
 Facility Number: 9-8139
 Project ID: 16304 Foothill Blvd.
 San Leandro
 Work Order Number: C3-05-0028

Table 1

ANALYTICAL RESULTS

**Aromatic Volatile Organics and
 Total Petroleum Hydrocarbons as Gasoline in Water**

EPA Methods 5030, 8020, and Modified 8015^a

GTEL Sample Number		01	02	03	04
Client Identification		TB-LB	BB	MW6	MW10
Date Sampled		04/30/93	04/30/93	04/30/93	04/30/93
Date Analyzed		05/12/93	05/12/93	05/13/93	05/13/93
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.5	<0.5	<0.5	<0.5	<0.5
Toluene	0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5	<0.5	<0.5	<0.5	<0.5
Xylene, total	0.5	<0.5	<0.5	0.6	<0.5
BTEX, total	--	--	--	0.6	--
TPH as Gasoline	50	<50	<50	<50	<50
Detection Limit Multiplier		1	1	1	1
BFB surrogate, % recovery		116	116	114	110

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision. Bromofluorobenzene surrogate recovery acceptability limits are 70 - 130%.

Client Number: SIE01CHV08
 Consultant Project Number: 1-289-04
 Facility Number: 9-8139
 Project ID: 16304 Foothill Blvd.
 San Leandro
 Work Order Number: C3-05-0028

Table 1 (Continued)

ANALYTICAL RESULTS

**Aromatic Volatile Organics and
 Total Petroleum Hydrocarbons as Gasoline in Water**

EPA Methods 5030, 8020, and Modified 8015^a

GTEL Sample Number		05	06*	07	08
Client Identification		MW1	MW2	MW7	MW11
Date Sampled		04/30/93	04/30/93	04/30/93	04/30/93
Date Analyzed		05/13/93	05/13/93	05/14/93	05/14/93
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.5	<0.5	<13	<0.5	<0.5
Toluene	0.5	0.7	<13	<0.5	<0.5
Ethylbenzene	0.5	<0.5	<13	<0.5	<0.5
Xylene, total	0.5	1	<13	0.6	<0.5
BTEX, total	--	2	--	0.6	--
TPH as Gasoline	50	<50	<1300	<50	<50
Detection Limit Multiplier		1	25	1	1
BFB surrogate, % recovery		115	108	80.7	83.4

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision. Bromofluorobenzene surrogate recovery acceptability limits are 70 - 130%.

* Detection limit raised due to surfactants in sample.

Client Number: SIE01CHV08
 Consultant Project Number: 1-289-04
 Facility Number: 9-8139
 Project ID: 16304 Foothill Blvd.
 San Leandro
 Work Order Number: C3-05-0028

Table 1 (Continued)

ANALYTICAL RESULTS

**Aromatic Volatile Organics and
 Total Petroleum Hydrocarbons as Gasoline in Water**

EPA Methods 5030, 8020, and Modified 8015^a

GTEL Sample Number		09*	10*	11	051393GCM
Client Identification		MW9	MW8	MW3	METHOD BLANK
Date Sampled		04/30/93	04/30/93	04/30/93	--
Date Analyzed		05/13/93	05/13/93	05/13/93	05/13/93
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.5	<13	<13	6100	<0.5
Toluene	0.5	<13	15	98	<0.5
Ethylbenzene	0.5	<13	18	870	<0.5
Xylene, total	0.5	58	29	2400	<0.5
BTEX, total	--	58	62	9500	--
TPH as Gasoline	50	<1300	1600	14000**	<50
Detection Limit Multiplier		25	25	25	1
BFB surrogate, % recovery		103	106	77.4	116

- a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision. Bromofluorobenzene surrogate recovery acceptability limits are 70 - 130%.
- * Detection limit raised due to surfactants in sample.
- ** Uncategorized compound not included in gasoline hydrocarbon concentration.

Client Number: SIE01CHV08
 Consultant Project Number: 1-289-04
 Facility Number: 9-8139
 Project ID: 16304 Foothill Blvd.
 San Leandro
 Work Order Number: C3-05-0028

QC Matrix Spike and Duplicate Spike Results

Matrix: Water

Analyte	Sample ID	Spike Amount	Units	Recovery, %	Duplicate Recovery, %	RPD, %	Control Limits
Modified EPA 8020:							
Benzene	Reagent Water	20.0	ug/L	91.5	95.0	3.8	70 - 147
Toluene	Reagent Water	20.0	ug/L	104	106	1.9	67 - 150
Ethylbenzene	Reagent Water	20.0	ug/L	106	107	0.9	69 - 145
Xylene, total	Reagent Water	60.0	ug/L	114	117	2.6	71 - 152

Client Number: SIE01CHV08
 Consultant Project Number: 1-289-04
 Facility Number: 9-8139
 Project ID: 16304 Foothill Blvd.
 San Leandro
 Work Order Number: C3-05-0028

Table 1
ANALYTICAL RESULTS
 Volatile Halocarbons and Aromatics in Water
 EPA Method 601^a

GTEL Sample Number		06	051293GCC		
Client Identification		MW2	METHOD BLANK		
Date Sampled		04/30/93	-		
Date Analyzed		05/12/93	05/12/93		
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Chloromethane	0.5	<5	<0.5		
Bromomethane	0.5	<5	<0.5		
Vinyl chloride	1	<10	<1		
Chloroethane	0.5	<5	<0.5		
Methylene chloride	0.5	<5	<0.5		
1,1-Dichloroethene	0.5	<5	<0.5		
1,1-Dichloroethane	0.5	<5	<0.5		
1,2-Dichloroethene	0.5	<5	<0.5		
Chloroform	0.5	77	<0.5		
1,2-Dichloroethane	0.5	<5	<0.5		
1,1,1-Trichloroethane	0.5	<5	<0.5		
Carbon tetrachloride	0.5	<5	<0.5		
Bromodichloromethane	0.5	<5	<0.5		
1,2-Dichloropropane	0.5	<5	<0.5		
cis-1,3-Dichloropropene	0.5	<5	<0.5		
Trichloroethene	0.5	<5	<0.5		
Dichlorodifluoromethane	0.5	<5	<0.5		
Dibromochloromethane	0.5	<5	<0.5		
1,1,2-Trichloroethane	0.5	<5	<0.5		
trans-1,3-Dichloropropene	0.5	<5	<0.5		
2-Chloroethylvinyl ether	1	<10	<1		
Bromoform	0.5	<5	<0.5		
Tetrachloroethene	0.5	<5	<0.5		
1,1,2,2-Tetrachloroethane	0.5	<5	<0.5		
Chlorobenzene	0.5	<5	<0.5		
1,2-Dichlorobenzene	0.5	<5	<0.5		
1,3-Dichlorobenzene	0.5	<5	<0.5		
1,4-Dichlorobenzene	0.5	<5	<0.5		
Trichlorofluoromethane	0.5	<5	<0.5		
Detection Limit Multiplier		10	1		
BFB surrogate, % recovery		88.6	88.6		

a. Federal Register, Vol. 49, October 26, 1984.
 * Detection limit raised due to surfactants in sample.

Client Number: SIE01CHV08
Consultant Project Number: 1-289-04
Facility Number: 9-8139
Project ID: 16304 Foothill Blvd.
San Leandro
Work Order Number: C3-05-0028

QC Matrix Spike and Duplicate Spike Results

Matrix: Water

Analyte	Sample ID	Spike Amount	Units	Recovery, %	Duplicate Recovery, %	RPD, %	Control Limits
EPA 8010:							
Chlorobenzene	C3050071-3	10.0	ug/L	54.3	63.9	16.2	34 - 134
Benzene	C3050071-3	10.0	ug/L	97.0	103	6.0	66 - 118
Toluene	C3050071-3	10.0	ug/L	79.7	88.4	10.3	53 - 115
Ethylbenzene	C3050071-3	10.0	ug/L	84.9	92.4	8.5	43 - 131
1,1-Dichloroethene	C3050071-3	10.0	ug/L	52.8	56.9	7.4	30 - 160
Trichloroethene	C3050071-3	10.0	ug/L	77.5	88.9	13.6	78 - 184

Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591	Chevron Facility Number <u>9-8139</u> Facility Address <u>16304 TOOTHILL BLVD, SAN LEANDRO</u> Consultant Project Number <u>1-289-04</u> Consultant Name <u>SIERRA ENVIRONMENTAL SERVICES</u> Address <u>PO Box 2546, MARTINEZ, CA</u> Project Contact (Name) <u>ARLY MENA</u> (Phone) <u>370-1280</u> (Fax Number) <u>370-7559</u>	Chevron Contact (Name) <u>KENNETH KAN</u> (Phone) <u>842-8752</u> Laboratory Name <u>GTEL</u> Laboratory Release Number <u>861700</u> Samples Collected by (Name) <u>R. HILTON</u> Collection Date <u>4/30/93</u> Signature <u>[Signature]</u>
--	---	--

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed											Note: Do Not Bill TB-LB Samples Seals Intact 4.3°C HCl Remarks				
								BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)								
TB-LB	01	3	W	G	1135	HCl	YES	✓															Analyze in order listed
BB	02				1140			✓															
MW 6	03				1250			✓															
MW 10	04				1144			✓															
MW 1	05				1300			✓															
MW 2	06				1318			✓															
MW 7	07				1327			✓															
MW 11	08				1356			✓															
MW 9	09				1410			✓															
MW 8	10				1425			✓															
MW 3	11				1450			✓															
MW 2	12				1318			✓															
	06																						

Relinquished By (Signature) <u>[Signature]</u>	Organization <u>SES</u>	Date/Time <u>5/3/93 1310</u>	Received By (Signature) <u>John Weber</u>	Organization <u>GTEL</u>	Date/Time <u>5-3 1305</u>	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days 10 Days <input checked="" type="checkbox"/> Contracted
Relinquished By (Signature) <u>John Weber</u>	Organization <u>GTEL</u>	Date/Time <u>5/3 1400</u>	Received By (Signature)	Organization	Date/Time	
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature) <u>Barbara Belstsky</u>		Date/Time <u>5/3/93 200</u>	

C3050028

COC-3.0/MS/03 91/1/93