



**Chevron**

93 SEP 10 PM 12:34

September 7, 1993

**Chevron U.S.A. Products Company**

2410 Camino Ramon  
San Ramon, CA 94583  
P.O. Box 5004  
San Ramon, CA 94583-0804

**Marketing Department**

Phone 510 842 9500

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 Sierra Environmental Services August 23, 1993 quarterly monitoring and sampling report.

Samples from monitoring wells MW-6 and MW-10 were below the detection limit for total petroleum hydrocarbons as gasoline (TPH-G), benzene, toluene, ethylbenzene, and xylenes (BTEX). Samples from wells MW-1, MW-2, MW-7, and MW-11 have minor levels (ND<0.5 to 4 ppb) of BTEX. (Note: These samples were below the detection limit for TPH-G.) The remaining samples have detectable levels of dissolved hydrocarbons.

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,

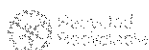
Chevron U.S.A. Products Co.

Kenneth Kan  
Engineer

LKAN/MacFile 9-8139R9

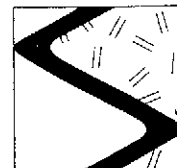
cc : Mr. Lester Feldman  
RWQCB-S.F. Bay Region  
2101 Webster Str., Suite 500  
Oakland, CA 94612

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



SEP 3 '93 J.M.M.

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Environmental Services

August 23, 1993

Mr. Kenneth 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

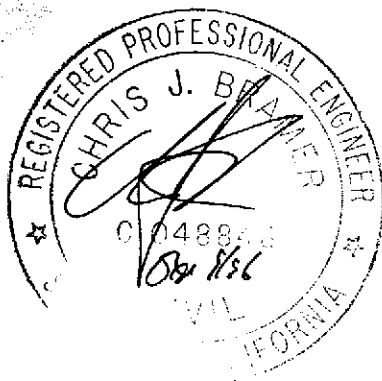
Dear Mr. Kan:

This report presents the results of the quarterly ground 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 July 14, 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 July 14, 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 Tables 2 & 3. 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.



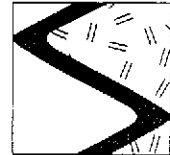
Sincerely,  
Sierra Environmental Services

  
Richard E. Hilton  
Staff Environmental Scientist

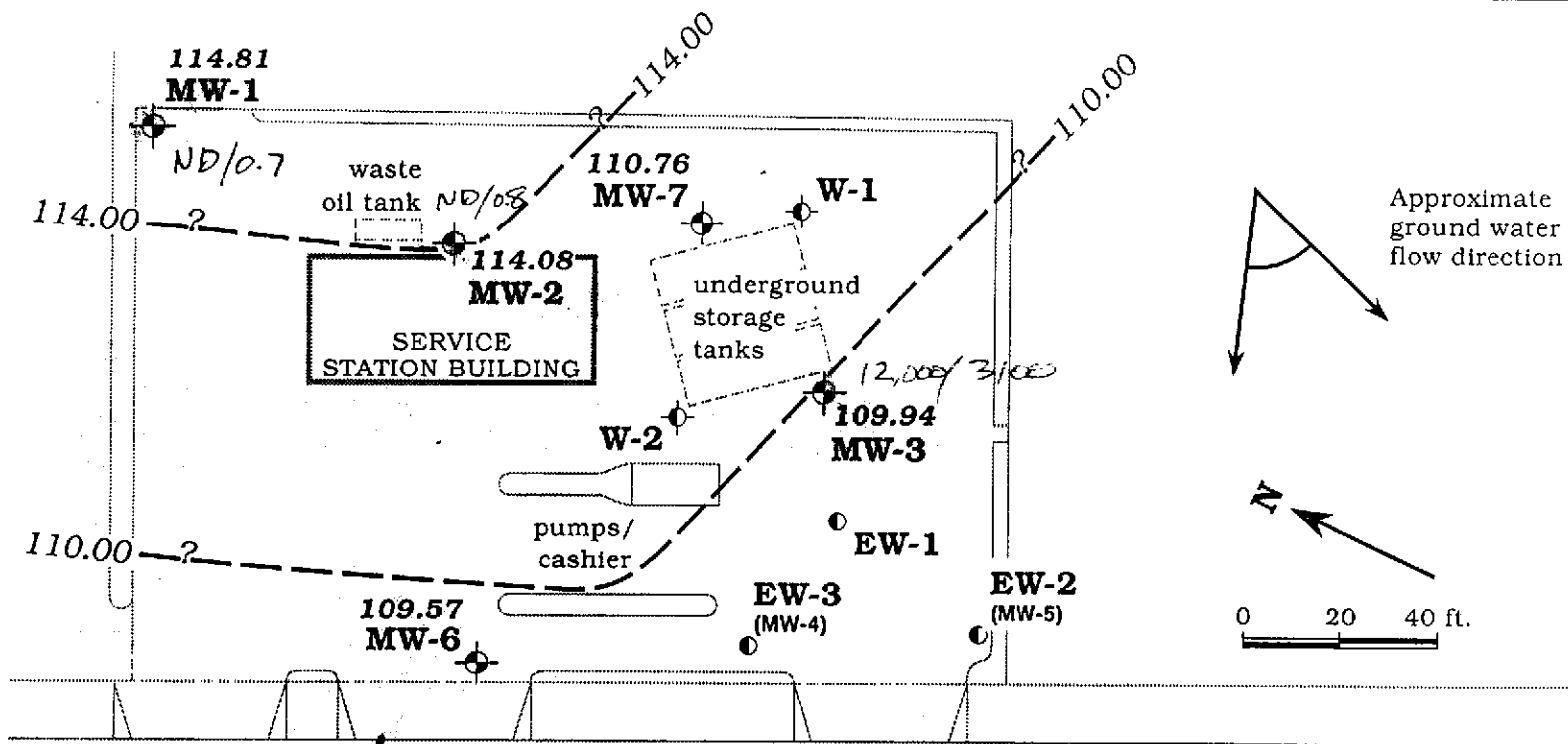
  
Chris J. Bramer  
Professional Engineer #C48846

REH/CJB/mc  
28904QM.AU3

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



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FOOTHILL BOULEVARD

109.23  
MW-10

◆ MW-11 Monitoring well

○ EW-3 (MW-4) Extraction well (former well designation)

◆ W-2 Observation well

109.08 Ground water elevation, in feet

- 110.00 Ground water elevation contour, dashed where inferred, queried where uncertain

108.96  
MW-8

1300/25  
109.12  
MW-9

median

dirt sidewalk

109.08  
MW-11

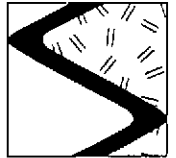
TPH-C/benzene

Figure 1. Monitoring Well Locations and Ground Water Elevation Contour Map - July 14, 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			
<b>7/14/93</b>	<b>12.28</b>	<b>114.81</b>	<b>0</b>					
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			
<b>7/14/93</b>	<b>11.90</b>	<b>114.08</b>	<b>0</b>					
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		108.05	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-----		
MW-3 (cont)	9/25/90	18.40		108.37	0			
	11/29/90	18.97		107.80	0			
	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			
	<b>7/14/93</b>	<b>16.83</b>		<b>109.94</b>	<b>0</b>			
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 <sup>2</sup>	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 <sup>1</sup>	0.04			
	11/29/90	18.87		107.54 <sup>1</sup>	0.71			
	2/20/91	18.91		107.31 <sup>1</sup>	0.47			
	4/19/91	16.99		109.24 <sup>1</sup>	0.48			
	9/25/90	19.30		107.58 <sup>1</sup>	1.3			
	5/22/91 <sup>2</sup>	17.69		108.42 <sup>1</sup>	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			



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 -----feet below grade-----	Sand Pack Interval	Bentonite/Grout Interval
MW-6 (cont)	2/20/91	16.09		108.09	0			
	4/19/91	15.15		109.03	0			
	5/22/91	15.41		108.77	0			
	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			
	<b>7/14/93</b>	<b>14.61</b>		<b>109.57</b>	<b>0</b>			
	MW-7	3/23/90	21.40	126.86	105.46	0	21.5 - 27	20.5 - 26.5
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			
4/30/93		14.86		112.00	0			
<b>7/14/93</b>	<b>16.10</b>		<b>110.76</b>	<b>0</b>				
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				



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-----		
MW-8 (cont)	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			
	1/29/93	12.82		110.79	0			
	4/30/93	13.54		110.07	0			
	<b>7/14/93</b>	<b>14.65</b>		<b>108.96</b>	<b>0</b>			
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			
	<b>7/14/93</b>	<b>15.08</b>		<b>109.12</b>	<b>0</b>			
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			
	<b>7/14/93</b>	<b>15.80</b>		<b>109.23</b>	<b>0</b>			
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			
	<b>7/14/93</b>	<b>13.84</b>		<b>109.08</b>	<b>0</b>			
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)

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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

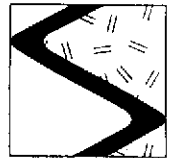
NOTES:

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.
  - <sup>1</sup> 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.
  - <sup>2</sup> Monitoring well was converted to a ground water extraction well on June 10, 1991. MW-4 was redesignated EW-3. MW-5 was redesignated EW-2.
-





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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(G)	B	T	E	X	EDB
				-----ppb----->					
MW-1	12/5/89	UNK	8015/8020/413/504 <sup>1,2</sup>	<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	---
	7/14/93	GTEL	8015/8020	<50	0.7	1	<0.5	3	---
MW-2	12/5/89	UNK	8015/8020/413/504 <sup>1,2</sup>	<500	<0.5	<0.5	<0.5	0.9	<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	<0.5	<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 <sup>3</sup>	GTEL	8015/8020	<1,300	<13	<13	<13	<13	---
	7/14/93	GTEL	8015/8020	<50	0.8	2	0.8	4	---
MW-3 (d)	12/5/89	UNK	8015/8020/504	24,000	2,400	1,800	360	2,600	<0.5
	12/5/89	UNK	8015/8020/413/504 <sup>2</sup>	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	---
	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	---

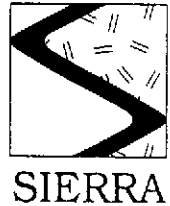
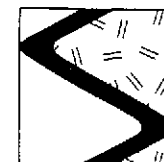


Table 2. Analytic Results for Ground Water - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California (continued)

Well ID	Date Sampled	Analytic Lab	Analytic Method	TPPH(G)	B	T	E	X	EDB
MW-3 (cont)	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	---
	(d) 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	14,000 <sup>d</sup>	6,100	98	870	2,400	---
	7/14/93	GTEL	8015/8020	12,000 <sup>d</sup>	3,100	1,100	720	2,900	---
	MW-4**	12/5/89	UNK	8015/8020/504	19,000	390	1,300	460	1,800
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	---
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
	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	---

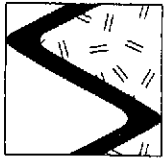




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Table 2. Analytic Results for Ground Water - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California (continued)

Well ID	Date Sampled	Analytic Lab	Analytic Method	TPPH(G)	B	T	ppb		
							E	X	EDB
MW-8 (cont)	4/30/93 <sup>3</sup>	GTEL	8015/8020	1,600	<13	15	18	29	---
	7/14/93	GTEL	8015/8020	<50	<0.5	6.7	<0.5	2	---
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 <sup>3</sup>	GTEL	8015/8020	<1,300	<13	<13	<13	58	---
7/14/93	GTEL	8015/8020	1,300	25	4	15	120	---	
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	---
	7/14/93	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	---
	7/14/93	GTEL	8015/8020	<50	<0.5	0.7	<0.5	1	---
EW-1	5/25/90	SAL	8015/8020/504	3,900	260	430	64	340	0.03
Rinseate	12/5/89	UNK	8015/8020/413/504 <sup>2</sup>	<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	---	---	---	---	---	---



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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 -----→
				<i>ppb</i>					
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	---
	<b>7/14/93</b>	<b>GTEL</b>	<b>8015/8020</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	---
Bailer Blank	1/29/93	GTEL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
BB	4/30/93	GTEL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	<b>7/14/93</b>	<b>GTEL</b>	<b>8015/8020</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	---



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.

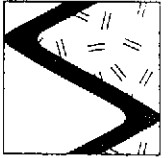
\*\* Monitoring well was converted to a ground water extraction well on June 10, 1991. MW-4 redesignated EW-3. MW-5 redesignated EW-2.

<sup>1</sup> TPH(D) analyzed during this event. Not detected at detection limits of 1,000 ppb.

<sup>2</sup> O&G analyzed during this event. Not detected at detection limit of 5,000 ppb.

<sup>3</sup> Detection limit raised due to surfactants in sample.

<sup>4</sup> Uncategorized compound not included in gasoline hydrocarbon concentration.



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Table 3. Analytic Results for Halogenated Volatile Organic Compounds - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California

Well ID	Date Sampled	Analytic Lab	Analytic Method	C	BR	BDM	DBM	Other HVOC's
MW-2	4/30/93	GTEL	8010	77	<0.5	<0.5	<0.5	ND <sup>1</sup>

EXPLANATION:

C = Chloroform  
BR = Bromoform  
BDM = Bromodichloromethane  
DBM = Dibromochloromethane  
HVOC = Halogenated Volatile Organic Compound  
ND = Not detectable  
--- = Not analyzed/Not applicable  
ppb = Parts per billion

ANALYTIC METHODS:

8010 = EPA Method 8010 for HVOC's.

ANALYTIC LABORATORIES:

GTEL = Groundwater Technology Environmental Laboratories, Inc. of Concord and Torrance, California.

NOTES:

<sup>1</sup> Other HVOC's not detected at detection limits of 0.5 to 1.0 ppb.



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## 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 three 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  $4^{\circ}\text{C}$ ) 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.





# GTEL

ENVIRONMENTAL  
LABORATORIES, INC.

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: C3-07-0230  
Date Reissued: 07-30-93

July 30, 1993

Argy Mena/Rick Hilton  
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 07/16/93.

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 certification number E1075, 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: C3-07-0230  
 Date Reissued: 07-30-93

**Table 1**

**ANALYTICAL RESULTS**

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

**EPA Methods 5030, 8020, and Modified 8015<sup>a</sup>**

GTEL Sample Number		01	02	03	04
Client Identification		TBLB	BB	MW-10	MW-11
Date Sampled		07/14/93	07/14/93	07/14/93	07/14/93
Date Analyzed		07/16/93	07/17/93	07/17/93	07/17/93
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	0.7
Ethylbenzene	0.5	<0.5	<0.5	<0.5	<0.5
Xylene, total	0.5	<0.5	<0.5	<0.5	1
BTEX, total	--	--	--	--	2
TPH as Gasoline	50	<50	<50	<50	<50
Detection Limit Multiplier		1	1	1	1
BFB surrogate, % recovery		81.0	83.9	91.5	93.6

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%.

Note: Due to laboratory error, samples were 12°C at sample receipt.

Client Number: SIE01CHV08  
 Consultant Project Number: 1-289-04  
 Facility Number: 9-8139  
 Project ID: 16304 Foothill Blvd.  
 San Leandro  
 Work Order Number: C3-07-0230  
 Date Reissued: 07-30-93

**Table 1 (Continued)**

**ANALYTICAL RESULTS**

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

EPA Methods 5030, 8020, and Modified 8015<sup>a</sup>

GTEL Sample Number		05	06	07	08
Client Identification		MW-6	MW-7	MW-1	MW-2
Date Sampled		07/14/93	07/14/93	07/14/93	07/14/93
Date Analyzed		07/17/93	07/17/93	07/17/93	07/18/93
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.5	<0.5	<0.5	0.7	0.8
Toluene	0.5	<0.5	1	1	2
Ethylbenzene	0.5	<0.5	<0.5	<0.5	0.8
Xylene, total	0.5	<0.5	2	3	4
BTEX, total	--	--	3	5	8
TPH as Gasoline	50	<50	<50	<50	<50
Detection Limit Multiplier		1	1	1	1
BFB surrogate, % recovery		90.8	91.3	90.5	95.6

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%.

Note: Due to laboratory error, samples were 12°C at sample receipt.

Client Number: SIE01CHV08  
 Consultant Project Number: 1-289-04  
 Facility Number: 9-8139  
 Project ID: 16304 Foothill Blvd.  
 San Leandro  
 Work Order Number: C3-07-0230  
 Date Reissued: 07-30-93

**Table 1 (Continued)**

**ANALYTICAL RESULTS**

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

EPA Methods 5030, 8020, and Modified 8015<sup>a</sup>

GTEL Sample Number		09	10	11	S071893
Client Identification		MW-9	MW-8	MW-3	METHOD BLANK
Date Sampled		07/14/93	07/14/93	07/14/93	--
Date Analyzed		07/18/93	07/18/93	07/18/93	07/18/93
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.5	25	<0.5	3100	<0.5
Toluene	0.5	4	0.7	1100	<0.5
Ethylbenzene	0.5	15	<0.5	720	<0.5
Xylene, total	0.5	120	2	2900	<0.5
BTEX, total	--	160	3	7800	--
TPH as Gasoline	50	1300	<50	12000*	<50
Detection Limit Multiplier		1	1	25	1
BFB surrogate, % recovery		111	97.4	99.4	101

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%.

\* Uncategorized compound is not included in gasoline hydrocarbon total.

Note: Due to laboratory error, samples were 12°C at sample receipt.

Client Number: SIE01CHV08  
 Consultant Project Number: 1-289-04  
 Facility Number: 9-8139  
 Project ID: 16304 Foothill Blvd.  
 San Leandro  
 Work Order Number: C3-07-0230  
 Date Reissued: 08-31-93

### QC Matrix Spike and Duplicate Spike Results

Matrix: Water

Analyte	Sample ID	Spike Amount	Units	Recovery, %	Duplicate Recovery, %	RPD, %	Control Limits
<b>Modified EPA 8020:</b>							
Benzene	C3070241-02	20.0	ug/L	105	101	3.9	55 - 129
Toluene	C3070241-02	20.0	ug/L	105	99.0	5.9	72 - 149
Ethylbenzene	C3070241-02	20.0	ug/L	105	98.5	3.2	75 - 138
Xylene, total	C3070241-02	60.0	ug/L	110	106	3.7	74 - 147

fax copy of Lab Report and COC to Chevron Contact:  No

Chain-of-Custody-Record

Chevron Facility Number 9-8139  
 Facility Address 16304 FOOTHILL BLVD; SAN LEANDRO  
 Consultant Project Number 1-281-04  
 Consultant Name SIERRA ENVIRONMENTAL SERVICES  
 Address PO BOX 2546, MARTINEZ, CA 94553  
 Project Contact (Name) ARGY MENA / RICK HILTON  
 (Phone) 510-370-1280 (Fax Number) 510-370-7959

Chevron Contact (Name) MR. JEN KAN  
 (Phone) 842-8752  
 Laboratory Name GTEL  
 Laboratory Release Number 8617900  
 Samples Collected by (Name) RICK HILTON  
 Collection Date 7/15/93  
 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	Lead (Yes or No)	Analyses To Be Performed													
								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)						
TBLB	01	3	W	G	1020	HCl	YES	X													
BB	02	3			1026			X													
MW-10	03	6			1056			X													
MW-11	04				1120			X													
MW-6	05				1145			X													
MW-7	06				1159			X													
MW-1	07				1217			X													
MW-2	08				1249			X													
MW-9	09				1310			X													
MW-8	10				1329			X													
MW-3	11				1354			X													

Note:  
 Do Not Bill  
 TB-LB Sample  
 SEALS INTACT  
 ON ICE AT 11°C  
 7/16/93  
 Remarks [Signature]

Analytical  
 ORDER LISTED

DO NOT  
 REPORT SEC

C3070230

Relinquished By (Signature) [Signature]  
 Relinquished By (Signature) Jen Weber  
 Received By (Signature) [Signature]

Organization SES  
 Date/Time 2:21 7/15/93  
 Organization GTEL  
 Date/Time 5:00 7/15/93  
 Organization

Received By (Signature) Jen Weber  
 Received By (Signature)  
 Received For Laboratory By (Signature) [Signature]

Organization GTEL  
 Date/Time 7-15-93  
 Organization  
 Date/Time  
 Date/Time 0830 7/16/93

Turn Around Time (Circle Choice)  
 24 Hrs.  
 48 Hrs.  
 6 Days  
 10 Days  
 As Contracted  
3 da

DWC 103 9/7/93