

ENVIRONMENTAL  
PROTECTION



<sup>80</sup>  
STW 776  
**Chevron**

99 MAY 14 AM 9:07

May 11, 1998

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

**Chevron Products Company**  
6001 Bollinger Canyon Road  
Building L  
San Ramon, CA 94583  
P.O. Box 6004  
San Ramon, CA 94583-0904

**Marketing - Sales West**  
Phone 510 842-9500

**Re: Chevron Service Station #9-0504  
15900 Hesperian Blvd., San Lorenzo, California**

Dear Mr. Peacock:

Enclosed is the Semi-Annual Groundwater Monitoring Report for 1998 (First Quarter), that was prepared by our consultant Gettler-Ryan Inc. for the above noted site. Ground water samples were collected and analyzed for TPH-g, BTEX and MtBE constituents.

The sampling frequency on the groundwater monitoring wells was changed in accordance with Juliet Shin's letter of May 21, 1997 and verbal conversation of June 12, 1997. Monitoring wells C-4, C-5 and C-6 are discontinued from sampling, while wells C-1, C-2, C-3, C-7 and C-8 are sampled annually, in March. Wells C-9, C-10 and C-11 are to be sampled semi-annually, in March and September.

The benzene concentration decreased in monitoring wells C-7 and C-8 from the previous sampling event while increasing slightly in wells C-1, C-2 and C-3. In wells C-9 and C-11 the concentrations were below method detection limits for all constituents. In well C-10 the concentrations were below method detection limits for all of the constituents except for toluene at 0.52 ppb.

In monitoring wells C-1, C-2, C-7 and C-8 the chromatogram pattern indicates gas and unidentified hydrocarbons C6-C12.

Depth to ground water varied from 6.56 feet to 9.72 feet below grade with direction of flow south southeasterly.

It appears that natural attenuation is occurring at this site, and Chevron will continue to monitor the site as noted above to confirm this.

May 11, 1998  
Mr. Thomas Peacock  
Chevron Service Station #9-0504  
Page 2

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

Sincerely,  
**CHEVRON PRODUCTS COMPANY**

A handwritten signature in cursive script, appearing to read "Philip R. Briggs", is written over the printed name and company name.

Philip R. Briggs  
Site Assessment and Remediation Project Manger

Enclosure

Cc. Mr. Bill Scudder, Chevron

Mr. Ron Sykora  
David E. Bohannon Organization  
60 Hillsdale Mall  
San Mateo, CA 94403



# GETTLER - RYAN INC.

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May 11, 1998

Job #5259.80

Mr. Phil Briggs  
Chevron Products Company  
P.O. Box 6004  
San Ramon, CA 94583

Re: Semi-Annual 1998 Groundwater Monitoring & Sampling Report  
Chevron Service Station #9-0504  
15900 Hesperian Boulevard  
San Lorenzo, California

Dear Mr. Briggs:

This report documents the semi-annual groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On March 28, 1998, field personnel were on-site to monitor and sample eight wells (C-1 through C-3, and C-7 through C-11) at the above referenced site.

Static groundwater levels were measured and all wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in any of the wells. Static water level data and groundwater elevations are presented in Table 1. A Potentiometric Map is included as Figure 1.

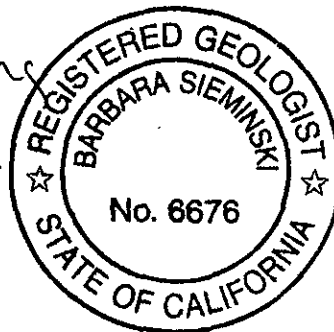
Groundwater samples were collected from the monitoring wells as specified by G-R Standard Operating Procedure - Groundwater Sampling (attached). The field data sheets for this event are also attached. The samples were analyzed by Sequoia Analytical. Analytical results are presented in Table 1. The chain of custody document and laboratory analytical reports are attached.

Thank you for allowing Gettler-Ryan Inc. to provide environmental services to Chevron. Please call if you have any questions or comments regarding this report.

Sincerely,

*Deanna L. Harding*  
Deanna L. Harding  
Project Coordinator

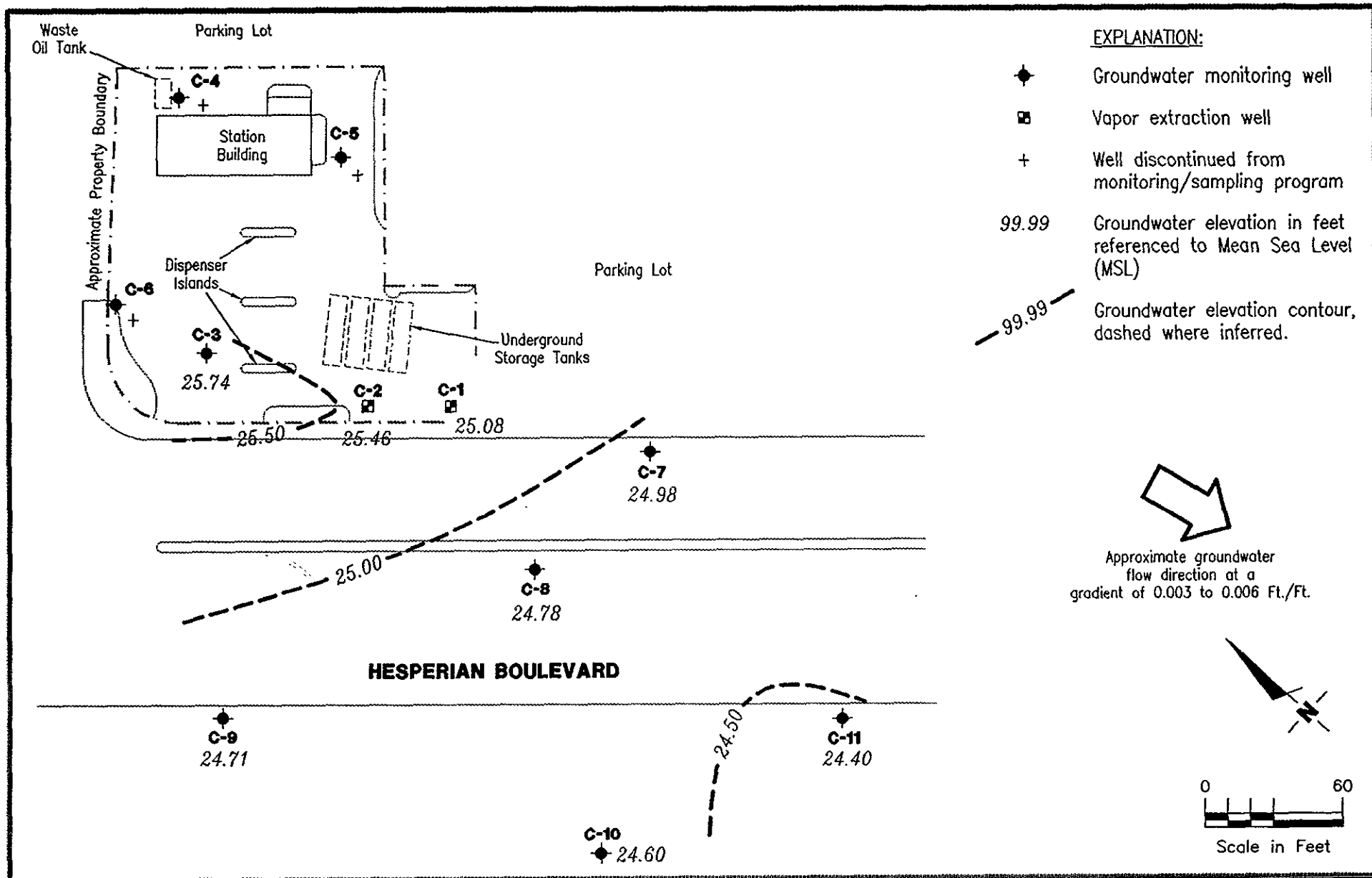
*Barbara Sieminski*  
Barbara Sieminski  
Project Geologist, R.G. No. 6676



DLH/SJC/ahh  
5259.QML

Figure 1: Potentiometric Map  
Table 1: Water Level Data and Groundwater Analytical Results  
Attachments: Standard Operating Procedure - Groundwater Sampling  
Field Data Sheets  
Chain of Custody Document and Laboratory Analytical Reports

C-2 <sup>NOTICE</sup> POSITIVE IF pH BRIGGS  
8260



**Gettler - Ryan Inc.**

6747 Sierra Ct., Suite J (925) 551-7555  
Dublin, CA 94568

**POTENTIOMETRIC MAP**  
Chevron Service Station No. 9-0504  
15900 Hesperian Boulevard  
San Lorenzo, California

FIGURE

**1**

JOB NUMBER  
5259

REVIEWED BY

DATE  
March 28, 1998

REVISED DATE

Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-0504, 15900 Hesperian Boulevard, San Lorenzo, California

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G)	B	T	E	X	MTBE	C	HVOCs	
													<-----ppb----->
C-1 33.93 <sup>2</sup>	6/6/89	---	---	0	5,100	250	170	200	990	---	---	---	
	12/8/89	13.14	---	0.01	---	---	---	---	---	---	---	---	
	9/7/90	14.04	19.91 <sup>1</sup>	0.03	---	---	---	---	---	---	---	---	
	12/20/90	13.87	20.07 <sup>1</sup>	0.01	---	---	---	---	---	---	---	---	
	3/15/91	11.40	22.53	0	37,000	220	53	53	1,900	---	---	---	
	6/28/91	12.25	21.68	0	3,300	110	6.2	6.2	350	---	---	---	
	9/26/91	14.02	19.91	0	3,200	220	6.9	6.9	710	---	---	---	
	1/27/92	12.63	21.30	0	330	20	0.6	0.6	48	---	---	---	
	4/20/92	10.43	23.50	0	2,700	130	3.4	3.4	690	---	---	---	
	7/17/92	12.61	21.32	0	490	17	<0.5	<0.5	52	---	---	---	
	1/20/93	9.42	24.51	0	---	---	---	---	---	---	---	---	
	7/28/93	10.48	23.45	0	---	---	---	---	---	---	---	---	
	32.80	10/27/93	11.32	21.48	0	240	3.6	<0.5	11	23	---	---	---
		3/31/94	9.45	23.35	0	530	23	1.2	10	120	---	---	---
		6/8/94	9.93	22.87	0	990	15	1.5	42	89	---	---	---
		9/29/94 <sup>4</sup>	---	---	---	---	---	---	---	---	---	---	---
		11/9/94 <sup>4</sup>	---	---	---	---	---	---	---	---	---	---	---
12/14/94 <sup>4</sup>		---	---	---	---	---	---	---	---	---	---	---	
3/30/95		8.01	24.79	0	3,900	21	7.2	190	250	---	---	---	
6/30/95		9.82	22.98	0	1,400	3.1	0.8	54	95	---	---	---	
9/22/95		10.60	22.20	0	620 <sup>8</sup>	0.7	<0.5	3.3	3.5	---	---	---	
12/11/95		10.30	22.50	0	210	2.4	<0.5	43	85	79	---	---	
3/8/96		7.65	25.15	0	750	2.1	<0.5	22	34	330	---	---	
6/21/96		9.28	23.52	0	2,800	9.0	<0.5	94	83	1,300	---	---	
9/27/96		10.28	22.52	0	770	0.5	<0.5	5.1	6.1	580	---	---	
1/3/97		7.85	24.95	0	1,800	2.8	<0.5	51	41	110	---	---	
3/28/97		9.37	23.43	0	720	0.6	<0.5	4.7	3.7	200	---	---	
9/30/97	---	---	---	---	---	---	---	---	---	---	---		
3/28/98	7.72	25.08	0	940 <sup>12</sup>	3.9	<0.50	17	4.7	290	---	---		
C-2 34.21 <sup>2</sup>	6/6/89	---	---	0	130,000	14,000	28,000	3,400	24,000	---	---	---	
	12/8/89	13.44	---	0.15	---	---	---	---	---	---	---	---	
	9/7/90	14.28	20.01 <sup>1</sup>	0.10	---	---	---	---	---	---	---	---	
	12/20/90	14.06	20.16 <sup>1</sup>	0.01	---	---	---	---	---	---	---	---	
	3/15/91	11.59	22.63 <sup>1</sup>	0.01	1,200,000	4,700	16,000	13,000	140,000	---	---	---	
	6/28/91	12.55	21.66	0	150,000	3,500	4,200	2,100	16,000	---	---	---	
	9/26/91	14.20	20.01	0	4,900	220	290	130	880	---	---	---	
	1/27/92	12.46	21.75	0	8,200	510	590	230	1,300	---	---	---	
	4/20/92	10.24	23.97	0	19,000	1,700	1,700	930	4,700	---	---	---	
	7/17/92	12.81	21.40	0	20,000	950	950	1,300	4,700	---	---	---	
	1/20/93	8.79	25.42	0	---	---	---	---	---	---	---	---	
	33.46	10/27/93	12.36	21.10	0	1,600	63	5.8	5.9	190	---	---	---
		3/31/94	9.62	23.84	0	12,000	300	96	510	2,700	---	---	---
6/8/94		9.98	23.48	0	8,700	140	35	250	1,500	---	---	---	
9/28/94 <sup>4</sup>		---	---	---	---	---	---	---	---	---	---	---	

Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-0504, 15900 Hesperian Boulevard, San Lorenzo, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G) <----->	B	T	E	X	MTBE	C	HVOCs	
												ppb	
C-2	11/9/94*	---	---	---	---	---	---	---	---	---	---	---(cont)(cont)	
(cont)	12/14/94*	---	---	---	---	---	---	---	---	---	---	---	
	3/30/95	7.69	25.77	0	1,400	17	5.4	52	240	---	---	---	
	6/30/95	9.90	23.56	0	730	22	2.6	50	240	---	---	---	
	9/22/95	10.61	22.85	0	2,100 <sup>a</sup>	66	7.3	140	550	---	---	---	
	12/11/95	10.38	23.08	0	3,700	23	<0.5	68	300	1,000	---	---	
	3/8/96	7.70	25.76	0	2,200	19	<5.0	63	290	1,300	---	---	
	6/21/96	9.37	24.09	0	2,200	23	1.1	70	260	2,300	---	---	
	9/27/96	10.58	22.88	0	5,500	12	0.6	30	110	2,200	---	---	
	1/3/97	7.90	25.56	0	750	4.2	<0.5	29	120	51	---	---	
	3/28/97	9.35	24.11	0	1,300	12	1.5	24	86	310	---	---	
	9/30/97	---	---	---	---	---	---	---	---	---	---	---	
	3/28/98	8.00	25.46	0	1,100 <sup>b</sup>	14	<5.0	34	79	710	---	---	
C-3	6/6/89	---	---	0	2,600	63	20	390	370	---	---	---	
	12/8/89	---	---	0	680	6.0	1.0	31	58	---	---	---	
35.46 <sup>c</sup>	9/7/90	15.31	20.15	0	490	6.0	<0.5	41	120	---	---	---	
(d)	9/7/90	---	---	0	460	6.0	<0.5	40	110	---	---	---	
	12/20/90	15.17	20.29	0	100	5.0	<0.5	27	130	---	---	---	
	3/6/91	13.27	22.19	0	1,300	7.0	<0.5	75	250	---	---	---	
(d)	3/6/91	---	---	0	1,400	8.0	<0.5	76	250	---	---	---	
	6/28/91	13.67	21.79	0	770	6.0	<0.5	81	71	---	---	---	
(d)	6/28/91	---	---	0	990	5.5	<0.5	86	75	---	---	---	
	9/26/91	15.32	20.14	0	1,400	7.9	<0.5	98	340	---	---	---	
	1/27/92	13.91	21.55	0	150	0.7	<0.5	12	12	---	---	---	
	4/20/92	11.66	23.80	0	1,600	9.3	1.0	190	370	---	---	---	
	7/17/92	13.96	21.50	0	460	18	<0.5	20	52	---	---	---	
	10/29/92	15.51	19.95	0	520	2.4	1.0	30	79	---	---	---	
	1/20/93	10.99	24.47	0	4,200	7.4	<0.5	140	380	---	---	---	
	5/3/93	10.97	24.49	0	1,300	6.8	3.2	71	170	---	---	---	
	7/28/93	12.41	23.05	0	220	1.4	<0.5	17	39	---	---	---	
	10/27/93	13.37	21.78	0	1,800	5.5	0.7	68	290	---	---	---	
	3/31/94	11.56 <sup>d</sup>	23.90	0	310	1.2	<0.5	19	54	---	---	---	
	6/8/94	12.07	23.39	0	300	2.7	1.6	19	48	---	---	---	
	9/29/94 <sup>e</sup>	13.84	21.62	0	2,500	<25	<25	<25	220	---	---	---	
	11/9/94 <sup>f</sup>	---	---	0	170	<0.5	0.8	3.3	16	---	---	---	
	12/14/94	11.85	23.61	0	510	3.2	1.4	28	60	---	---	---	
	3/30/95	9.61	25.85	0	66	<0.5	<0.5	1.1	2.4	---	---	---	
	6/30/95	11.50	23.96	0	1,500	1.9	8.1	100	300	---	---	---	
	9/22/95	12.58	22.88	0	600 <sup>g</sup>	0.7	<0.5	43	110	---	---	---	
	12/11/95	12.55	22.91	0	670 <sup>g</sup>	<0.5	<0.5	7.0	13	15	---	---	
	3/8/96	9.66	25.80	0	3,600	7.5	33	130	400	1,100	---	---	
	6/21/96	11.78	23.68	0	310	<0.5	<0.5	16	49	57	---	---	
	9/27/96	12.37	23.09	0	250	<0.5	<0.5	3.6	9.6	44	---	---	
	1/3/97	9.89	25.57	0	170	<0.5	1.2	4.5	15	15	---	---	

Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-0504, 15900 Hesperian Boulevard, San Lorenzo, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G) <-----	B	T	E	X	MTBE	C	HVOCs	ppb	
													----->	>
C-3 (cont)	3/28/97	10.96	24.50	0	60	<0.5	<0.5	1.7	1.8	23	--	--		
	9/30/97	--	--	--	--	--	--	--	--	--	--	--		
	3/28/98	9.72	25.74	0	<50	0.88	<0.50	<0.50	<0.50	16	--	--		
C-4 35.78 <sup>2</sup>	6/6/89	--	--	0	<50	<0.05	<1.0	<1.0	<3.0	--	--	--		
	12/8/89	--	--	0	<500	<0.5	<0.5	<0.5	<0.5	--	--	--		
	9/7/90	15.58	20.20	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	12/20/90	15.42	20.36	0	170	1.0	<0.5	<0.5	4.0	--	--	--		
	3/6/91	13.54	22.24	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	6/28/91	13.93	21.85	0	<50	<0.5	<0.5	<0.5	<0.8	--	--	--		
	9/26/91	15.64	20.14	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	9/26/91	15.64	--	0	<50	<0.5	<0.5	<0.5	--	--	--	--		
	1/27/92	13.96	21.82	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	4/20/92	11.71	24.07	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	7/17/92	14.19	21.59	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	10/29/92	15.72	20.06	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	1/20/93	11.17	24.61	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	5/3/93	10.94	24.84	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	7/28/93	12.40	23.38	0	<50	<0.5	<0.5	<0.5	<1.5	--	--	--		
	35.23 10/27/93	13.32	21.91	0	<50	<0.5	<0.5	<0.5	<1.5	--	--	--		
	3/31/94 <sup>4</sup>	--	--	--	--	--	--	--	--	--	--	--		
6/8/94	11.92	23.31	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--			
9/29/94 <sup>5</sup>	13.76	21.47	0	<2,500	<25	<25	<25	<25	--	<0.5	--	ND <sup>7</sup>		
11/9/94 <sup>6</sup>	--	--	0	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	--	ND <sup>7</sup>		
12/14/94	11.79	23.44	0	<50	2.1	3.0	1.9	3.7	--	1.8	--	ND <sup>7</sup>		
3/30/95	9.01	26.22	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--			
6/30/95	11.44	23.79	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--			
9/22/95	12.51	22.72	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--			
12/11/95	12.62	22.61	0	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--			
3/8/96	9.63	25.60	0	<50	<0.5	<0.5	<0.5	0.6	<5.0	--	--			
6/21/96	11.24	23.99	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--			
9/27/96	12.31	22.92	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--			
1/3/97	9.69	25.54	0	<50	1.5	7.2	1.3	6.2	<5.0	--	--			
3/28/97	11.00	24.23	0	<50	5.0	8.3	0.8	4.7	<5.0	--	--			
9/30/97	Discontinued			--	--	--	--	--	--	--	--	--		
C-5 35.31 <sup>2</sup>	6/6/89	--	--	0	<50	<0.05	<0.05	<1.0	<3.0	--	--	--		
	12/8/89	--	--	0	<500	<0.5	<0.5	<0.5	<0.5	--	--	--		
	9/7/90	15.10	20.21	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	12/20/90	14.94	20.37	0	80	<0.5	<0.5	<0.5	<0.5	--	--	--		
	3/6/91	13.06	22.25	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	6/28/91	13.46	21.85	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	9/26/91	15.14	20.17	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		

Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-0504, 15900 Hesperian Boulevard, San Lorenzo, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G) <-----	B	T	E	X	MTBE	C	HVOCs	ppb	
													----->	>
C-5 (cont)	1/27/92	13.31	22.00	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	4/20/92	11.10	24.21	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
34.61	7/17/92	13.73	21.58	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	10/29/92	15.20	20.11	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	1/20/93	10.72	24.59	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	5/3/93	10.43	24.88	0	<50	<0.5	<0.5	<0.5	<1.5	--	--	--		
	7/28/93	11.81	23.50	0	<50	<0.5	<0.5	<0.5	<1.5	--	--	--		
	10/27/93	12.68	21.93	0	<50	<0.5	<0.5	<0.5	<1.5	--	--	--		
	3/31/94	11.00 <sup>3</sup>	23.61	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	6/8/94	11.26	23.35	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	9/29/94 <sup>5</sup>	13.10	21.51	0	<2,500	<25	<25	<25	<25	--	--	--		
	11/9/94 <sup>6</sup>	--	--	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	12/14/94	11.37	23.24	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	3/30/95	8.97	25.64	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	6/30/95	10.83	23.78	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	9/22/95	11.89	22.72	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	12/11/95	11.78	22.83	0	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--		
	3/8/96	9.02	25.59	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--		
	6/21/96	10.64	23.97	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--		
	9/27/96	11.57	23.04	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--		
	1/3/97	9.02	25.59	0	<50	0.7	3.2	<0.5	2.2	<5.0	--	--		
	3/28/97	10.38	24.23	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--		
9/30/97	Discontinued		--	--	--	--	--	--	--	--	--	--		
C-6 36.89 <sup>2</sup>	12/8/89	--	--	0	<500	<0.5	<0.5	<0.5	<0.5	--	--	--		
	9/7/90	16.83	20.06	0	57	<0.5	<0.5	0.6	4.0	--	--	--		
36.57	12/20/90	16.66	20.23	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	3/6/91	14.80	22.09	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	6/28/91	15.16	21.73	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	9/26/91	16.82	20.07	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	1/27/92	15.44	21.45	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	4/20/92	13.17	23.72	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	7/17/92	15.44	21.45	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	10/29/92	16.98	19.91	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	1/20/93	12.47	24.42	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	5/3/93	--	--	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	7/28/93	13.86	23.03	0	<50	<0.5	<0.5	<0.5	<1.5	--	--	--		
	10/27/93	14.85	21.72	0	<50	<0.5	<0.5	<0.5	<1.5	--	--	--		
	3/31/94	13.00	23.57	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	6/8/94	13.44	23.13	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	9/29/94 <sup>5</sup>	14.88	21.69	0	<2,500	<25	<25	<25	<25	--	--	--		
	11/9/94 <sup>6</sup>	--	--	0	<50	<0.5	0.5	<0.5	<0.5	--	--	--		
	12/14/94	12.99	23.58	0	<50	0.9	1.5	1.3	2.6	--	--	--		
	3/30/95	10.77	25.80	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	6/30/95	12.62	23.95	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		



Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-0504, 15900 Hesperian Boulevard, San Lorenzo, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G) <-----ppb----->	B	T	E	X	MTBE	C	HVOCs
C-6 (cont)	9/22/95	13.65	22.92	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	12/11/95	13.68	22.89	0	140 <sup>10</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
	3/8/96	10.73	25.84	0	<50	<0.5	0.6	<0.5	<0.5	<5.0	--	--
	6/21/96	12.41	24.16	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--
	9/27/96	13.47	23.10	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--
	1/3/97	11.00	25.57	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--
	3/28/97	12.06	24.51	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--
	9/30/97	Discontinued		--	--	--	--	--	--	--	--	--
C-7 32.75 <sup>2</sup>  32.32	12/8/89	--	--	0	1,700	32	12	17	150	--	--	--
	9/7/90	13.02	19.73	0	880	84	23	46	180	--	--	--
	12/20/90	12.28	20.47	0	560	24	3.0	19	21	--	--	--
	3/6/91	16.92	15.83	0	240	25	2.0	4.0	26	--	--	--
	6/28/91	11.31	21.44	0	2,400	130	13	82	220	--	--	--
	9/26/91	12.28	20.47	0	8,100	47	35	350	1,200	--	--	--
	1/27/92	11.43	21.32	0	12,000	170	40	420	830	--	--	--
	4/20/92	9.28	23.47	0	1,200	80	11	90	110	--	--	--
	7/17/92	11.49	21.26	0	2,400	20	7.4	95	200	--	--	--
	10/29/92	13.05	19.70	0	69	1.3	<0.5	3.8	7.2	--	--	--
	1/20/93	8.69	24.06	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	5/3/93	8.68	24.07	0	2,400	29	8.6	140	210	--	--	--
	7/28/93	9.99	22.76	0	3,600	38	16	290	920	--	--	--
	10/27/93	10.72	21.60	0	22,000	23	26	990	2,600	--	--	--
	3/31/94	9.11	23.21	0	2,300	45	7.0	130	190	--	--	--
	6/8/94	9.22	23.10	0	6,900	46	11	380	820	--	--	--
	9/29/94	11.32	21.00	0	11,000	10	11	620	810	--	--	--
	11/9/94 <sup>6</sup>	--	--	0	7,800	33	18	570	1,100	--	--	--
	12/14/94	8.99	23.33	0	7,700	63	16	140	1,200	--	--	--
	3/30/95	7.28	25.04	0	4,100	64	18	170	280	--	--	--
	6/30/95	9.07	23.25	0	1,200	31	3.7	21	18	--	--	--
	9/22/95	10.05	22.27	0	1,800	64	5.7	30	38	--	--	--
	12/11/95	9.30	23.02	0	14,000	80	6.1	91	120	70	--	--
	3/8/96	7.33	24.99	0	2,300	57	8.4	110	180	37	--	--
	6/21/96	8.85	23.47	0	1,100	37	3.2	21	29	9.0	--	--
	9/27/96	9.11	23.21	0	10,000	150	30	270	670	45	--	--
	1/3/97	7.49	24.83	0	1,800	35	<0.5	34	72	15	--	--
3/28/97	8.57	23.75	0	2,200	38	4.1	31	56	19	--	--	
9/30/97	--	--	--	--	--	--	--	--	--	--	--	
3/28/98	7.34	24.98	0	2,100 <sup>12</sup>	28	7.8	70	170	<25	--	--	
C-8 33.82 <sup>2</sup>	12/8/89	--	--	0	4,800	62	11	95	180	--	--	--
	9/7/90	14.32	19.50	0	3,700	170	31	180	270	--	--	--
	12/20/90	14.20	19.61	0	3,900	120	20	130	180	--	--	--
	3/6/91	14.80	19.02	0	1,200	45	6.0	34	57	--	--	--

Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-0504, 15900 Hesperian Boulevard, San Lorenzo, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G) <-----	B	T	E	-----ppb----->			C	HVOCs
									X	MTBE			
C-8 (cont)	6/28/91	12.65	21.17	0	6,900	180	46	340	640	--	---	---	
	9/26/91	14.29	19.53	0	1,400	66	9.8	38	40	--	---	---	
	1/27/92	12.60	21.22	0	3,600	100	26	170	260	--	---	---	
	4/20/92	10.36	23.46	0	2,600	110	32	180	260	--	---	---	
	7/17/92	12.88	20.94	0	1,100	34	5.9	35	52	--	---	---	
	10/29/92	14.39	19.43	0	820	29	4.8	23	27	--	---	---	
	1/20/93	10.02	23.80	0	6,000	81	22	200	310	--	---	---	
	5/3/93	9.75	24.07	0	11,000	75	96	880	2,600	--	---	---	
	7/28/93	11.14	22.68	0	2,800	60	13	92	150	--	---	---	
	33.25	10/27/93	12.01	21.24	0	2,700	49	17	60	90	--	---	---
	3/31/94	10.27	22.98	0	190	8.6	1.7	9.1	11	--	---	---	
	6/8/94	10.56	22.69	0	2,800	52	110	78	110	--	---	---	
	9/29/94	12.42	20.83	0	3,700	120	20	120	85	--	---	---	
	11/9/94 <sup>a</sup>	---	---	0	3,200	82	44	160	110	--	---	---	
	12/14/94	10.51	22.74	0	5,300	140	30	170	310	--	---	---	
	3/30/95	8.44	24.81	0	3,900	86	19	180	210	--	---	---	
	6/30/95	10.14	23.11	0	1,500	75	21	72	72	--	---	---	
9/22/95	11.20	22.05	0	3,400	94	24	110	110	--	---	---		
12/11/95	10.99	22.26	0	7,500	100	<0.5	160	120	130	--	---	---	
3/8/96	8.46	24.79	0	3,600	93	8.9	110	88	82	--	---	---	
6/21/96	9.97	23.28	0	3,200	69	6.8	100	88	19	--	---	---	
9/27/96	10.78	22.47	0	7,000	98	12	150	130	53	--	---	---	
1/3/97	8.82	24.43	0	5,700	43	9.3	110	95	17	--	---	---	
3/28/97	9.65	23.60	0	4,900	52	4.7	70	47	50	--	---	---	
9/30/97	---	---	---	---	---	---	---	---	---	--	---	---	
3/28/98	8.47	24.78	0	3,300 <sup>12</sup>	33	4.2	110	61	<25	--	---	---	
C-9/ 33.43 <sup>2</sup>	9/7/90	14.06	19.37	0	<50	<0.5	<0.5	<0.5	<0.5	--	---	---	
	12/20/90	14.03	19.40	0	<50	<0.5	<0.5	<0.5	<0.5	--	---	---	
	3/6/91	12.12	21.31	0	<50	<0.5	<0.5	<0.5	<0.5	--	---	---	
	6/28/91	12.41	21.02	0	<50	<0.5	<0.5	<0.5	<0.5	--	---	---	
	9/26/91	14.02	19.41	0	<50	<0.5	<0.5	<0.5	<0.5	--	---	---	
	1/27/92	12.53	20.90	0	<50	<0.5	<0.5	<0.5	<0.5	--	---	---	
	4/20/92	10.22	23.21	0	<50	<0.5	<0.5	<0.5	<0.5	--	---	---	
	7/17/92	12.64	20.79	0	<50	<0.5	<0.5	<0.5	<0.5	--	---	---	
	10/29/92	14.20	19.23	0	<50	<0.5	<0.5	<0.5	<0.5	--	---	---	
	1/20/93	9.72	23.71	0	<50	<0.5	<0.5	<0.5	<0.5	--	---	---	
	5/3/93	9.55	23.66	0	<50	<0.5	<0.5	<0.5	<1.5	--	---	---	
	7/28/93	10.98	22.45	0	<50	<0.5	<0.5	<0.5	<1.5	--	---	---	
	32.97	10/27/93	11.98	20.99	0	<50	<0.5	<0.5	<0.5	<1.5	--	---	---
	3/31/94	10.17	22.80	0	<50	<0.5	<0.5	<0.5	<0.5	--	---	---	
	6/8/94	10.53	22.44	0	<50	<0.5	<0.5	<0.5	<0.5	--	---	---	
	9/29/94 <sup>b</sup>	12.40	20.57	0	<5,000	<50	<50	<50	<50	--	---	---	
	11/9/94 <sup>c</sup>	---	---	0	<50	<0.5	<0.5	<0.5	0.7	--	---	---	

Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-0504, 15900 Hesperian Boulevard, San Lorenzo, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G) <-----	B	T	E	X	MTBE	C	HVOCs	ppb	
													----->	>
C-9 (cont)	12/14/94	10.49	22.48	0	69	1.1	2.2	3.4	7.8	--	--	--		
	3/30/95	8.20	24.77	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	6/30/95	9.97	23.00	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	9/22/95	11.07	21.90	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	12/11/95	11.08	21.89	0	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	
	3/8/96	8.20	24.77	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	
	6/21/96	9.81	23.16	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	
	9/27/96	10.91	22.06	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	
	1/3/97	8.67	24.30	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	
	3/28/97	9.47	23.50	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	
	9/30/97	11.61	21.36	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	
	3/28/98	8.26	24.71	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--	--	
	C-10/ 31.63 <sup>2</sup>	9/7/90	12.49	19.14	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
12/20/90		12.36	19.27	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
3/6/91		10.45	21.18	0	<50	<0.5	0.8	<0.5	0.8	--	--	--		
6/28/91		10.74	20.69	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
9/26/91		12.42	19.21	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
1/27/92		10.84	20.79	0	<50	<0.5	1.3	<0.5	<0.5	--	--	--		
1/27/92		--	--	0	<50	<0.5	1.3	<0.5	<0.5	--	--	--		
4/20/92		8.55	23.06	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
7/17/92		11.02	20.61	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
10/29/92		12.40	19.23	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
1/20/93		8.14	23.49	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
5/3/93		7.92	23.71	0	<50	<0.5	<0.5	<0.5	<1.5	--	--	--		
7/28/93		9.36	22.27	0	<50	<0.5	<0.5	<0.5	<1.5	--	--	--		
31.16	10/27/93	10.30	20.86	0	<50	<0.5	<0.5	<0.5	<1.5	--	--	--		
	3/31/94	8.45	22.71	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	6/8/94	8.85	22.31	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	9/29/94 <sup>5</sup>	10.70	20.46	0	<5,000	<50	<50	<50	<50	--	--	--		
	11/9/94 <sup>6</sup>	--	--	0	<50	<0.5	1.4	0.8	1.2	--	--	--		
	12/14/94	8.61	22.55	0	110	3.9	5.4	4.3	11	--	--	--		
	3/30/95	6.65	24.51	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	6/30/95	8.30	22.86	0	<50	1.5	1.5	<0.5	2.2	--	--	--		
	9/22/95	9.41	21.75	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
	12/11/95	9.27	21.89	0	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	
	3/8/96	6.63	24.53	0	<50	<0.5	<0.5	<0.5	0.5	<5.0	--	--	--	
	6/21/96	8.12	23.04	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	
	9/27/96	9.21	21.95	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	
1/3/97	7.32	23.84	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--		
3/28/97	7.82	23.34	0	<50	1.2	1.8	<0.5	0.8	<5.0	--	--	--		
9/30/97	9.82	21.34	0	<250 <sup>11</sup>	<2.5	<2.5	<2.5	<2.5	<2.5	--	--	--		
3/28/98	6.56	24.60	0	<50	<0.50	0.52	<0.50	<0.50	<2.5	--	--	--		

Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-0504, 15900 Hesperian Boulevard, San Lorenzo, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G) <----->	-----ppb-----					C	HVOCs	
						B	T	E	X	MTBE			
C-11/ 31.58 <sup>2</sup>	9/7/90	12.22	19.36	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
	12/20/90	12.08	19.50	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
	3/6/91	16.15	15.43	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
	6/28/91	10.52	21.06	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
	9/26/91	12.20	19.38	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
	1/27/92	10.73	20.85	0	<50	<0.5	0.8	<0.5	<0.5	--	--	--	
	4/20/92	8.56	23.02	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
	7/17/92	10.78	20.80	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
	10/29/92	12.07	19.51	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
	1/20/93	7.97	21.61	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
	5/3/93	7.95	23.63	0	<50	<0.5	<0.5	<0.5	<1.5	--	--	--	
	7/28/93	9.31	22.27	0	<50	<0.5	<0.5	<0.5	<1.5	--	--	--	
	10/27/93	10.17	21.06	0	<50	<0.5	<0.5	<0.5	<1.5	--	--	--	
	3/31/94	8.43	22.80	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
	6/8/94	8.76	22.47	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
	9/29/94	10.54	20.69	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
	11/9/94	--	--	0	<50	<0.5	0.6	<0.5	0.7	--	--	--	
	12/14/94	8.50	22.73	0	51	1.1	1.7	1.6	4.0	--	--	--	
	3/30/95	6.85	24.38	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
	6/30/95	8.34	22.89	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
	9/22/95	9.30	21.93	0	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
	12/11/95	9.01	22.22	0	<50	<0.5	<0.5	<0.5	1.1	1.1	--	--	
	3/8/96	6.90	24.33	0	<50	<0.5	0.6	<0.5	1.6	<5.0	--	--	
	6/21/96	8.10	23.13	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	
	9/27/96	9.07	22.16	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	
	1/3/97	7.13	24.10	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	
	3/28/97	9.83	21.40	0	120	12	20	2.3	14	<5.0	--	--	
	9/30/97	9.67	21.56	0	<50	0.7	0.8	<0.5	0.6	<5.0	--	--	
	3/28/98	6.83	24.40	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--	
	Trip Blank	9/7/90	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
		12/20/90	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
3/6/91		--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
6/28/91		--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
9/26/91		--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
1/27/92		--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
4/20/92		--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
7/17/92		--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
10/29/92		--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
1/20/93		--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
5/3/93		--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--	--	
7/28/93		--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--	--	
10/27/93		--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--	--	
3/31/94	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		

Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-0504, 15900 Hesperian Boulevard, San Lorenzo, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G) <-----ppb----->	B	T	E	X	MTBE	C	HVOCs
Trip Blank (cont)	6/8/94	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	11/9/94	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	12/14/94	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	3/30/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	6/30/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	9/22/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	12/11/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<0.5	---	---
	3/8/96	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0	---	---
	6/21/96	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0	---	---
	9/27/96	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0	---	---
	1/3/97	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0	---	---
	3/28/97	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0	---	---
	9/30/97	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0	---	---
	3/28/98	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---
	DTSC MCLs	---	---	---	---	---	NE	1.0	100	680	1,750	---

Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-0504, 15900 Hesperian Boulevard, San Lorenzo, California (continued)

EXPLANATION:

TOC = Top of casing elevation  
(ft) = feet  
DTW = Depth to water  
GWE = Groundwater elevation  
msl = Measurements referenced relative to mean sea level  
TPH(G) = Total Purgeable Petroleum Hydrocarbons as Gasoline  
B = Benzene  
T = Toluene  
E = Ethylbenzene  
X = Xylenes  
MTBE = Methyl tertiary-butyl ether  
C = Chloroform  
HVOC = Halogenated Volatile Organic Compounds  
DTSC = Department of Toxic Substances Control  
MCLs = Maximum Contaminant Level  
NE = Not established  
(d) = duplicate  
ppb = Parts per billion  
-- = Not available/not applicable

ANALYTICAL METHODS:

TPH(G) = EPA Method 8015/5030  
BTEX & MTBE = EPA Method 8020  
HVOC's = EPA Method 8010

NOTES:

Analytical results and groundwater elevation data prior to 1995 were compiled from the quarterly groundwater monitoring reports prepared for Chevron by Sierra Environmental Services.

\* A product thickness measured with an MMC flexi-dip interface probe.

<sup>1</sup> Groundwater Elevation = [(Top-of-casing elevation - depth to water) + (0.8 x hydrocarbon thickness)]. The assumed specific gravity for free-phase hydrocarbons is 0.8.

<sup>2</sup> Elevation of well box.

<sup>3</sup> Depth to water measured from top of well vault.

<sup>4</sup> Well inaccessible due to down-hole extraction equipment.

<sup>5</sup> Detection limit raised due to foaming sample.

<sup>6</sup> All site monitoring wells were re-sampled due to an excessive number of foaming samples on the 9/29/94 event.

<sup>7</sup> Other HVOCs were not detected at detection limits of 0.5 - 1.0 ppb.

<sup>8</sup> Laboratory report indicates uncategorized compounds are not included in gasoline concentration.

<sup>9</sup> Laboratory report indicates gasoline + unidentified hydrocarbons > C8.

<sup>10</sup> Laboratory report indicates unidentified hydrocarbons > C12.

<sup>11</sup> Laboratory report indicates sample diluted due to foaming.

<sup>12</sup> Laboratory report indicates gas and unidentified hydrocarbons C6-C12.



## STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. Prior to sample collection, the type of analysis to be performed is determined. Loss prevention of volatile compounds is controlled and sample preservation for subsequent analysis is maintained.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using a MMC flexi-dip interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, static water level measurements are collected with the interface probe and are also recorded in the field notes.

After water levels are collected and prior to sampling, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging. Purging continues until these parameters stabilize.

Groundwater samples are collected using Chevron-designated disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Chevron Products Company, the purge water and decontamination water generated during sampling activities is transported by IWM to McKittrick Waste Management located in McKittrick, California.

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Chevron Facility # 9-0504

Job#: 5259.80

Address: 15900 Hesperian Blvd.

Date: 3-28-98

City: San Lorenzo, CA

Sampler: F. Cline

Well ID C-1

Well Condition: dry

Well Diameter 2" (3") in.

Hydrocarbon Thickness: C in. Amount Bailed C (product/water): (gal.)

Total Depth 19' ft.

Depth to Water 7.72 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

11.28 X VF 0.38 = 4.3 X 3 (case volume) = Estimated Purge Volume: 12.9 (gal.)

Purge Equipment:

- Disposable Bailer
- Bailer
- Stack
- Suction
- Grundfos
- Other: \_\_\_\_\_

Sampling Equipment:

- Disposable Bailer
- Bailer
- Pressure Bailer
- Grab Sample
- Other: \_\_\_\_\_

Starting Time: 14:33

Weather Conditions: Clear Breeze

Sampling Time: 14:41

Water Color: Clear Odor: None

Purging Flow Rate: 2.2 gpm.

Sediment Description: None

Did well de-water? \_\_\_\_\_

If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>14:35</u>	<u>4.4</u>	<u>6.94</u>	<u>2160</u>	<u>20.0</u>			
<u>14:37</u>	<u>8.8</u>	<u>6.92</u>	<u>2220</u>	<u>20.1</u>			
<u>14:39</u>	<u>13.2</u>	<u>6.91</u>	<u>2300</u>	<u>20.2</u>			
<u>14:41</u>	<u>17.6</u>	<u>6.97</u>	<u>2290</u>	<u>20.1</u>			

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>C-1</u>	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>NEWTETL SEQ.</u>	<u>TPH-Gas/BTEX/MTBE</u>

COMMENTS: \_\_\_\_\_



**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Chevron Facility # 9-0504  
 Address: 15900 Hesperian Blvd.  
 City: San Lorenzo, CA

Job#: 5259.80  
 Date: 3-28-98  
 Sampler: F. Cline

Well ID: C-2  
 Well Diameter: 2" 3" in.  
 Total Depth: 20' ft.  
 Depth to Water: 8.00 ft.

Well Condition: dry

Hydrocarbon Thickness: C in. Amount Bailed (product/water): C (gal.)  

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

12.00 x VF 0.38 = 4.56 x 3 (case volume) = Estimated Purge Volume: 13.7 (gal.)

Purge Equipment: Disposable Bailer  
 Bailer  
Suction  
 Grundfos  
 Other: \_\_\_\_\_

Sampling Equipment: Disposable-Bailer  
 Bailer  
 Pressure Bailer  
 Grab Sample  
 Other: \_\_\_\_\_

Starting Time: 14:47  
 Sampling Time: 14:55  
 Purging Flow Rate: 2.3 gpm.  
 Did well de-water? MC

Weather Conditions: Clear windy  
 Water Color: Black Odor: None  
 Sediment Description: light brown  
 If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>14:49</u>	<u>4.6</u>	<u>7.10</u>	<u>530</u>	<u>18.4</u>			
<u>14:51</u>	<u>9.2</u>	<u>7.09</u>	<u>700</u>	<u>18.5</u>			
<u>14:53</u>	<u>13.8</u>	<u>7.07</u>	<u>1030</u>	<u>18.5</u>			
<u>14:55</u>	<u>14.5</u>	<u>7.08</u>	<u>1020</u>	<u>18.4</u>			

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE /	LABORATORY	ANALYSES
<u>C-2</u>	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>NEHOTEL SEQ.</u>	<u>TPH-Gas/BTEX/MTBE</u>

COMMENTS: \_\_\_\_\_

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Chevron Facility # 9-0504  
 Address: 15900 Hesperian Blvd.  
 City: San Lorenzo, CA

Job#: 5259.80  
 Date: 3-28-98  
 Sampler: E.Cline

Well ID: C-3  
 Well Diameter: 2" 3" in.  
 Total Depth: 19' ft.  
 Depth to Water: 9.72 ft.

Well Condition: dry  
 Hydrocarbon Thickness: 0 in.  
 Amount Bailed (product/water): 0 (gal.)

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

9.72 x VF 0.38 = 3.5 X 3 (case volume) = Estimated Purge Volume: 10.5 (gal.)

Purge Equipment: Stack  
 Disposable Bailer  
 Bailer  
 Suction  
 Grundfos  
 Other: \_\_\_\_\_

Sampling Equipment: Disposable Bailer  
 Bailer  
 Pressure Bailer  
 Grab Sample  
 Other: \_\_\_\_\_

Starting Time: 14:14  
 Sampling Time: 14:22  
 Purging Flow Rate: 2 gpm.  
 Did well de-water? NC

Weather Conditions: Clear Breezy  
 Water Color: clear Odor: None  
 Sediment Description: None  
 If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
14:16	4	7.08	2520	20.4			
14:18	8	6.98	2540	20.5			
14:20	12	6.97	2530	20.5			
14:22	13	6.98	2540	20.5			

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
C-3	3 x 40m/VOA	Y	HCL	NEHOTEL SER	TPH-Gas/BTEX/MTBE

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

# WELL MONITORING/SAMPLING FIELD DATA SHEET

Chevron Facility # 9-0504  
 Address: 15900 Hesperian Blvd.  
 City: San Lorenzo, CA

Job#: 5259.80  
 Date: 3-28-98  
 Sampler: F. Cline

Well ID: C-7  
 Well Diameter: 2" 3" in.  
 Total Depth: 24' ft.  
 Depth to Water: 7.34 ft.

Well Condition: dry

Hydrocarbon Thickness: 0 in. Amount Bailed: 0 (gal.)

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

16.66 x VF 0.17 = 2.8 x 3 (case volume) = Estimated Purge Volume: 8.5 (gal.)

Purge Equipment: Stack Suction Grundfos  
 Disposable Bailer  
 Bailer  
 Other: \_\_\_\_\_

Sampling Equipment: Disposable Bailer  
 Bailer  
 Pressure Bailer  
 Grab Sample  
 Other: \_\_\_\_\_

Starting Time: 15:20  
 Sampling Time: 15:28  
 Purging Flow Rate: 1.5 gpm.  
 Did well de-water? nk

Weather Conditions: clear Breeze  
 Water Color: clear Odor: Mild  
 Sediment Description: None  
 If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>15:22</u>	<u>3</u>	<u>6.90</u>	<u>2150</u>	<u>19.2</u>			
<u>15:24</u>	<u>6</u>	<u>6.85</u>	<u>2200</u>	<u>20.8</u>			
<u>15:26</u>	<u>9</u>	<u>6.83</u>	<u>2260</u>	<u>20.9</u>			
<u>15:28</u>	<u>10</u>	<u>6.84</u>	<u>2250</u>	<u>20.8</u>			

### LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>C-7</u>	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>HEMPER SEQ.</u>	<u>TPH-Gas/BTEX/MTBE</u>

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Chevron Facility # 9-0504

Job#: 5259.80

Address: 15900 Hesperian Blvd.

Date: 3-28-98

City: San Lorenzo, CA

Sampler: F. Cline

Well ID C-8

Well Condition: Okay

Well Diameter 2" 3" in.

Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)

Total Depth 241 ft.

Depth to Water 8.47 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

15153 X VF 0.17 = 2.6 X 3 (case volume) = Estimated Purge Volume: 7.9 (gal.)

Purge Equipment: Disposable Bailer  
Bailer  
Stack  
Suction  
Grundfos  
Other: \_\_\_\_\_

Sampling Equipment: Disposable Bailer  
Bailer  
Pressure Bailer  
Grab Sample  
Other: \_\_\_\_\_

Starting Time: 15:08  
Sampling Time: 15:14  
Purging Flow Rate: 1.5 gpm.  
Did well de-water? NE

Weather Conditions: Clear Breezy  
Water Color: Clear Odor: Mid  
Sediment Description: N/A  
If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>15:08</u>	<u>3</u>	<u>6.81</u>	<u>2370</u>	<u>20.7</u>			
<u>15:10</u>	<u>6</u>	<u>6.81</u>	<u>2480</u>	<u>21.2</u>			
<u>15:12</u>	<u>9</u>	<u>6.82</u>	<u>2480</u>	<u>21.2</u>			
<u>15:14</u>	<u>10</u>	<u>6.81</u>	<u>2470</u>	<u>21.3</u>			

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>C-8</u>	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>NEHOTEL SEQ.</u>	<u>TPH-Gas/BTEX/MTBE</u>

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Chevron Facility # 9-0504  
 Address: 15900 Hesperian Blvd.  
 City: San Lorenzo, CA

Job#: 5259.80  
 Date: 3-28-98  
 Sampler: E. Cline

Well ID C-9

Well Condition: okay

Well Diameter 2" 3" in.

Hydrocarbon Thickness: ✓ in. Amount Bailed (product/water): ✓ (gal.)

Total Depth 24' ft.

Depth to Water 8.26 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

15174 X VF 0.17 = 2.7 X 3 (case volume) = Estimated Purge Volume: 8.1 (gal.)

Purge Equipment: Disposable Bailer  
Stack  
 Suction  
 Grundfos  
 Other: \_\_\_\_\_

Sampling Equipment: Disposable Bailer  
 Bailer  
 Pressure Bailer  
 Grab Sample  
 Other: \_\_\_\_\_

Starting Time: 13:30  
 Sampling Time: 13:42  
 Purging Flow Rate: 1.5 gpm.  
 Did well de-water? NO

Weather Conditions: cloudy Windy  
 Water Color: clear Odor: None  
 Sediment Description: None  
 If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>13:36</u>	<u>3</u>	<u>8.91</u>	<u>399</u>	<u>18.4</u>			
<u>13:38</u>	<u>6</u>	<u>8.47</u>	<u>400</u>	<u>18.4</u>			
<u>13:40</u>	<u>9</u>	<u>8.46</u>	<u>378</u>	<u>18.4</u>			
<u>13:42</u>	<u>10</u>	<u>8.46</u>	<u>399</u>	<u>18.4</u>			

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>C-9</u>	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>HEWLETT SEQ.</u>	<u>TPH-Gas/BTEX/MTBE</u>

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Chevron Facility # 9-0504

Job#: 5259.80

Address: 15900 Hesperian Blvd.

Date: 3-28-98

City: San Lorenzo, CA

Sampler: E.Cline

Well ID C-10

Well Condition: okay

Well Diameter 2" 3" in.

Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)

Total Depth 24' ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

Depth to Water 6.56 ft.

17.44 x VF 0.17 = 2.9 x 3 (case volume) = Estimated Purge Volume: 8.89 (gal.)

Purge Equipment: Disposable Bailer  
Bailer  
Stack  
Suction  
Grundfos  
Other: \_\_\_\_\_

Sampling Equipment: Disposable Bailer  
Bailer  
Pressure Bailer  
Grab Sample  
Other: \_\_\_\_\_

Starting Time: 13:57

Weather Conditions: Clear cool

Sampling Time: 14:05

Water Color: Clear Odor: None

Purging Flow Rate: 1.5 gpm.

Sediment Description: None

Did well de-water? \_\_\_\_\_

If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ hos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>13:59</u>	<u>3</u>	<u>6.91</u>	<u>2330</u>	<u>20.9</u>			
<u>14:01</u>	<u>6</u>	<u>6.90</u>	<u>2340</u>	<u>21.0</u>			
<u>14:03</u>	<u>9</u>	<u>6.89</u>	<u>2350</u>	<u>21.0</u>			
<u>14:05</u>	<u>10</u>	<u>6.89</u>	<u>2340</u>	<u>21.0</u>			

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>C-10</u>	<u>3 x 40m/NOA</u>	<u>Y</u>	<u>HCL</u>	<u>NEPTEL SER</u>	<u>TPH-Gas/BTEX/MTBE</u>

COMMENTS: \_\_\_\_\_

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Chevron Facility # 9-0504  
 Address: 15900 Hesperian Blvd.  
 City: San Lorenzo, CA

Job#: 5259.80  
 Date: 3-28-98  
 Sampler: E. Cline

Well ID: C-11 Well Condition: dry  
 Well Diameter: 2" - 3" in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)  
 Total Depth: 24' ft.  
 Depth to Water: 6.83 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

17.17 X VF 0.17 = 2.9 X 3 (case volume) = Estimated Purge Volume: 8.7 (gal.)

Purge Equipment: Disposable Bailer Stack Suction Grundfos Other: \_\_\_\_\_  
 Sampling Equipment: Disposable Bailer Bailer Pressure Bailer Grab Sample Other: \_\_\_\_\_

Starting Time: 1344 Weather Conditions: Clear Breez  
 Sampling Time: 1353 Water Color: clear Odor: None  
 Purging Flow Rate: 1.5 gpm. Sediment Description: None  
 Did well de-water? \_\_\_\_\_ If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ hos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>13:46</u>	<u>3</u>	<u>7.12</u>	<u>3320</u>	<u>19.7</u>			
<u>13:48</u>	<u>6</u>	<u>7.09</u>	<u>2840</u>	<u>20.1</u>			
<u>13:50</u>	<u>9</u>	<u>7.09</u>	<u>2800</u>	<u>20.1</u>			
<u>13:52</u>	<u>10</u>	<u>7.10</u>	<u>2820</u>	<u>20.1</u>			

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>C-11</u>	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>NEWTEL SEQ.</u>	<u>TPH-Gas/BTEX/MTBE</u>

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_







**Sequoia  
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APR 19 1998

GETTLER-RYAN INC.

Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568	Client Proj. ID: Chevron 9-0504, San Lorenzo Sample Descript: TB-LB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9803J67-01	Sampled: 03/28/98 Received: 03/30/98 Analyzed: 04/03/98 Reported: 04/08/98
Attention: Deanna Harding		


QC Batch Number: GC040398802007A  
Instrument ID: GCHP07

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	87

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
\_\_\_\_\_  
Mike Gregory  
Project Manager



Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568	Client Proj. ID: Chevron 9-0504, San Lorenzo Sample Descript: C-1 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9803J67-06	Sampled: 03/28/98 Received: 03/30/98 Analyzed: 04/03/98 Reported: 04/08/98
Attention: Deanna Harding		

QC Batch Number: GC040398802007A  
Instrument ID: GCHP07

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	940
Methyl t-Butyl Ether	2.5	290
Benzene	0.50	3.9
Toluene	0.50	N.D.
Ethyl Benzene	0.50	17
Xylenes (Total)	0.50	4.7
Chromatogram Pattern: Gas & Unidentified HC		C6-C12
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	103

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Mike Gregory  
Project Manager



Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568	Client Proj. ID: Chevron 9-0504, San Lorenzo Sample Descript: C-2 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9803J67-07	Sampled: 03/28/98 Received: 03/30/98 Analyzed: 04/03/98 Reported: 04/08/98
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QC Batch Number: GC040398802007A  
Instrument ID: GCHP07

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	1100
Methyl t-Butyl Ether	25	710
Benzene	5.0	14
Toluene	5.0	N.D.
Ethyl Benzene	5.0	34
Xylenes (Total)	5.0	79
Chromatogram Pattern: Gas & Unidentified HC		C6-C12
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	79

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Mike Gregory  
Project Manager



Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568	Client Proj. ID: Chevron 9-0504, San Lorenzo Sample Descript: C-3 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9803J67-05	Sampled: 03/28/98 Received: 03/30/98 Analyzed: 04/06/98 Reported: 04/08/98
Attention: Deanna Harding		

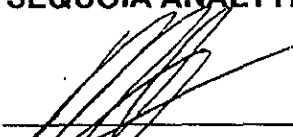
QC Batch Number: GC040698802007A  
Instrument ID: GCHP07

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	16
Benzene	0.50	0.88
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	92

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
\_\_\_\_\_  
Mike Gregory  
Project Manager



Gettler Ryan/Geostrategies  
6747 Sierra Court Suite J  
Dublin, CA 94568

Attention: Deanna Harding

Client Proj. ID: Chevron 9-0504, San Lorenzo  
Sample Descript: C-7  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9803J67-08

Sampled: 03/28/98  
Received: 03/30/98  
Analyzed: 04/03/98  
Reported: 04/08/98

QC Batch Number: GC040398802007A  
Instrument ID: GCHP07

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	2100
Methyl t-Butyl Ether	25	N.D.
Benzene	5.0	28
Toluene	5.0	7.8
Ethyl Benzene	5.0	70
Xylenes (Total)	5.0	170
Chromatogram Pattern: Gas & Unidentified HC		C6-C12
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	83

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Mike Gregory  
Project Manager



Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568	Client Proj. ID: Chevron 9-0504, San Lorenzo Sample Descript: C-8 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9803J67-09	Sampled: 03/28/98 Received: 03/30/98 Analyzed: 04/03/98 Reported: 04/08/98
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QC Batch Number: GC040398802007A  
Instrument ID: GCHP07

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	3300
Methyl t-Butyl Ether	25	N.D.
Benzene	5.0	33
Toluene	5.0	4.2
Ethyl Benzene	5.0	110
Xylenes (Total)	5.0	61
Chromatogram Pattern: Gas & Unidentified HC		C6-C12
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	92

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Mike Gregory  
Project Manager



Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568	Client Proj. ID: Chevron 9-0504, San Lorenzo Sample Descript: C-9 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9803J67-02	Sampled: 03/28/98 Received: 03/30/98 Analyzed: 04/03/98 Reported: 04/08/98
Attention: Deanna Harding		

QC Batch Number: GC040398802007A  
Instrument ID: GCHP07

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

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

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Mike Gregory  
Project Manager



Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568	Client Proj. ID: Chevron 9-0504, San Lorenzo Sample Descript: C-10 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9803J67-04	Sampled: 03/28/98 Received: 03/30/98 Analyzed: 04/06/98 Reported: 04/08/98
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QC Batch Number: GC040698802007A  
Instrument ID: GCHP07

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
<b>Toluene</b>	<b>0.50</b>	<b>0.52</b>
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70                      130	97

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
\_\_\_\_\_  
Mike Gregory  
Project Manager





Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568	Client Proj. ID: Chevron 9-0504, San Lorenzo Sample Descript: C-11 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9803J67-03	Sampled: 03/28/98 Received: 03/30/98 Analyzed: 04/06/98 Reported: 04/08/98
Attention: Deanna Harding		

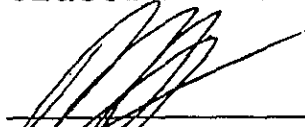
QC Batch Number: GC040698802007A  
Instrument ID: GCHP07

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	101

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
 \_\_\_\_\_  
 Mike Gregory  
 Project Manager



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Gettler Ryan/Geostrategies  
6747 Sierra Court Suite J  
Dublin, CA 94568  
Attention: Deanna Harding

Client Proj. ID: Chevron 9-0504, San Lorenzo

Received: 03/30/98

Lab Proj. ID: 9803J67

Reported: 04/08/98

### LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 17 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

TPGBMW: Sample 9803J67-07 was diluted 10-fold.  
Sample 9803J67-08 was diluted 10-fold.  
Sample 9803J67-09 was diluted 10-fold.

SEQUOIA ANALYTICAL

  
Mike Gregory  
Project Manager



# Sequoia Analytical

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Gettler Ryan/Geostrategies  
6747 Sierra Court, Ste J  
Dublin, CA 94568  
Attention: Deanna Harding

Client Project ID: Chevron 9-0504, San Lorenzo  
Matrix: Liquid

Work Order #: 9803J67 -01-02, 06-09

Reported: Apr 10, 1998

## QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC040398802007A	GC040398802007A	GC040398802007A	GC040398802007A	GC040398802007A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030

	S.L.	S.L.	S.L.	S.L.	S.L.
Analyst:	S.L.	S.L.	S.L.	S.L.	S.L.
MS/MSD #:	98030009	98030009	98030009	98030009	-
Sample Conc.:	33	4.2	110	61	-
Prepared Date:	4/3/98	4/3/98	4/3/98	4/3/98	-
Analyzed Date:	4/3/98	4/3/98	4/3/98	4/3/98	-
Instrument I.D.#:	GC7	GC7	GC7	GC7	-
Conc. Spiked:	200 µg/L	200 µg/L	200 µg/L	600 µg/L	-
Result:	238	208	334	731	-
MS % Recovery:	103	102	112	112	-
Dup. Result:	234	203	326	710	-
MSD % Recov.:	101	99	108	108	-
RPD:	1.7	2.4	2.4	2.9	-
RPD Limit:	0-25	0-25	0-25	0-25	-

LCS #:	LCS040398	LCS040398	LCS040398	LCS040398	LCS040398
Prepared Date:	4/3/98	4/3/98	4/3/98	4/3/98	4/3/98
Analyzed Date:	4/3/98	4/3/98	4/3/98	4/3/98	4/3/98
Instrument I.D.#:	GC7	GC7	GC7	GC7	GC7
Conc. Spiked:	200 µg/L	200 µg/L	200 µg/L	600 µg/L	500 µg/L
LCS Result:	23	23	24	73	421
LCS % Recov.:	113	113	118	122	84

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

SEQUOIA ANALYTICAL  
Elap #2142

Mike Gregory  
Project Manager

**Please Note:**

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

\*\* MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9803J67.GET <1>





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Gettler Ryan/Geostrategies  
6747 Sierra Court, Ste J  
Dublin, CA 94568  
Attention: Deanna Harding

Client Project ID: Chevron 9-0504, San Lorenzo  
Matrix: Liquid

Work Order #: 9803J67-03-05

Reported: Apr 10, 1998

## QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC040698802007A	GC040698802007A	GC040698802007A	GC040698802007A	GC040698802007A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	S.L.	S.L.	S.L.	S.L.	S.L.
MS/MSD #:	98030009	98030009	98030009	98030009	-
Sample Conc.:	33	4.2	110	61	-
Prepared Date:	4/3/98	4/3/98	4/3/98	4/3/98	-
Analyzed Date:	4/3/98	4/3/98	4/3/98	4/3/98	-
Instrument I.D.#:	GC7	GC7	GC7	GC7	-
Conc. Spiked:	200 µg/L	200 µg/L	200 µg/L	600 µg/L	-
Result:	238	208	334	731	-
MS % Recovery:	103	102	112	112	-
Dup. Result:	234	203	326	710	-
MSD % Recov.:	101	99	108	108	-
RPD:	1.7	2.4	2.4	2.9	-
RPD Limit:	0-25	0-25	0-25	0-25	-

LCS #:	LCS040698	LCS040698	LCS040698	LCS040698	LCS040698
Prepared Date:	4/6/98	4/6/98	4/6/98	4/6/98	4/6/98
Analyzed Date:	4/6/98	4/6/98	4/6/98	4/6/98	4/6/98
Instrument I.D.#:	GC7	GC7	GC7	GC7	GC7
Conc. Spiked:	200 µg/L	200 µg/L	200 µg/L	600 µg/L	500 µg/L
LCS Result:	20	20	21	64	438
LCS % Recov.:	100	100	105	106	88

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

SEQUOIA ANALYTICAL  
Elap #2142

Mike Gregory  
Project Manager

**Please Note:**

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

\*\* MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9803J67.GET <2>