



November 30, 1994

Lucia Chou  
Chevron USA Products Company  
P.O. Box 5004  
San Ramon, CA 94583

Re: Former Chevron Asphalt Plant and  
Terminal #1001067  
1520 Powell Street  
Emeryville, California  
SES Project #1-191-04

Dear Ms. Chou:

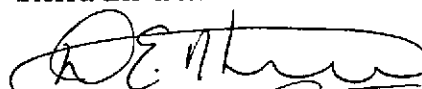
This report presents the results of the semi-annual water sampling at former Chevron Asphalt Plant and Terminal #1001067, located at 1520 Powell Street in Emeryville, California. Eight wells, MW-7, MW-10, MW-11, MW-13, MW-15, MW-17, MW-18 and MW-19, were sampled (Figure 1).

On October 24 and October 27, 1994, 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 checked. Water level data is shown in Table 1 and ground water elevation contours are included on Figure 1.


The water samples were collected on October 24 and October 27, 1994 in accordance with SES Standard Operating Procedure - Ground Water Sampling (attached). All analyses were performed by Superior Precision Analytical, Inc. of Martinez, California. Analytic results for ground water are presented in Tables 1 and 2. Chain of custody documents 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.

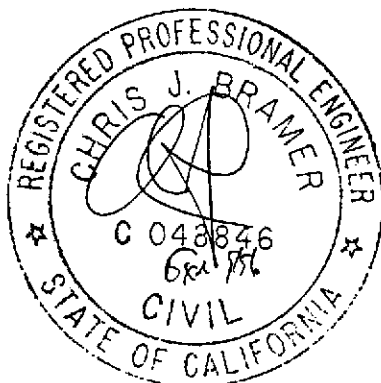
Sincerely,  
Sierra Environmental Services



Richard E. (Rick) Hilton  
Staff Environmental Scientist



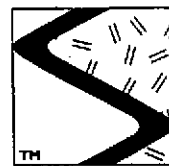
Chris J. Bramer  
Professional Engineer #C48846



REH/CJB/wmc  
19104QM.JN4

cc: Sheldon Nelson, CRTC

Attachments: Figure  
Tables  
SES Standard Operating Procedure  
Chain of Custody Documents and Laboratory Analytic Reports



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**EXPLANATION**

- MW-19** Monitoring well
- MW-16** Monitoring well not located
- MW-14** Abandoned monitoring well

**3.60** Ground water elevation, in feet

**\*** Well obstructed

**[5.40]** Ground water elevation not used in contouring

**- 5.00** Ground water elevation contour, dashed where inferred, queried where uncertain

Approximate ground water flow direction at a gradient of 0.004-0.007 ft/ft

Scale Approximate

POWELL STREET OVERPASS

Southern Pacific Railroad

LANDREGAN STREET

0 90 ft.

Base map after Western Geologic Resources, Inc.

Figure 1. Monitoring Well Locations and Ground Water Elevation Contours - October 24, 1994 - Former Chevron Asphalt Plant and Terminal #1001067, Emeryville, California



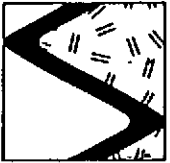
Table 1. Water Level Data and Ground Water Analytic Results - Former Chevron Asphalt Plant and Terminal #1001067, Emeryville, California

Well ID/ TOC (ft) <sup>1</sup>	Date	DTW (ft)	GWE <sup>1</sup> (msl)	Product Thickness <sup>2</sup> (ft)	Analytic Method	TPPH(G) <-----ppb----->					O&G <-ppm->
						B	T	E	X		
MW-1/ 10.67	4/26/85	---	---	---	---	---	99	---	---	6.0	---
	9/11/87	---	---	---	---	---	63	---	---	---	---
	7/7/88	---	---	---	---	<100	55	---	---	---	---
	4/13/89	3.72	6.95	---	---	---	---	---	---	---	---
	4/14/89	---	---	---	8260	<5,000	34	<5.0	<5.0	<10	---
	7/31/89	5.72	4.95	0	8260	7,000	57	1.2	<0.2	1.6	---
	12/8/89	4.80	5.87	0	8015/8020	---	26	0.4	0.9	2.0	---
	3/21/90	4.74	5.93	0	8015/8020	3,500	120	9.0	3.0	3.0	---
	6/19/90	4.75	5.92	0	8015/8020	2,700	100	<0.3	<0.3	7.0	---
	9/20/90	5.07	5.60	---	---	---	---	---	---	---	---
	9/21/90	---	---	---	8015/8020	2,200	120	2.0	2.0	0.79	---
	12/28/90	4.91	5.76	0	8015/8020	720	44	2.0	<0.5	9.0	---
	5/10/91	5.30	5.37	0	8015/8020	530	47	2.0	0.5	8.0	---
	8/8/91	5.85	4.82	0	8015/8020	1,400	37	8.3	3.7	12	---
	11/27/91	5.13	5.54	0	8015/8020	840	16	7.1	4.5	11	---
	1/29/92	4.82	5.85	0	8015/8020	350	18	9.3	3.7	7.7	---
	3/26/92	4.32	6.35	0	8015/8020	420 <sup>11</sup>	19	2.2	1.2	4.0	---
	7/23/92	5.42	5.25	0	8015/8020	4,000 <sup>12</sup>	50	82	40	160	---
	10/28/92	5.56	5.11	0	8015/8020	980	36	6.7	3.0	10	---
5/4/93	6.30	4.37	0	8015/8020	650	9.4	2.4	1.2	4.5	---	
1/5/94 <sup>10</sup>	---	---	---	---	---	---	---	---	---	---	
MW-2/ 13.78	4/26/85	---	---	---	---	---	<10	---	---	---	---
	9/11/87	---	---	---	---	---	---	---	---	---	---
	7/7/88	---	---	---	---	<100	<5.0	---	---	---	---
	4/13/89	2.62	11.16	---	---	---	---	---	---	---	---
	4/14/89	---	---	---	8260	<100	<0.2	<0.2	<0.2	<0.4	<3,000
	7/31/89	4.63	9.15	0	8260	<100	<0.2	<1.0	<0.2	<0.4	---
	12/8/89	5.98	7.80	0	8015/8020	---	<0.3	<0.3	<0.3	<0.6	---
	3/21/90	5.85	7.93	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	6/19/90	5.95	7.83	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	9/20/90	6.86	6.92	---	---	---	---	---	---	---	---
	9/21/90	---	---	---	8015/8020	<50	<1.5	<1.5	<1.5	<4.5	---
	12/28/90	6.34	7.44	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/10/91	5.96	7.82	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
8/8/91	7.66	6.12	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	



Table 1. Water Level Data and Ground Water Analytic Results - Former Chevron Asphalt Plant and Terminal #1001067, Emeryville, California (continued)

Well ID/ TOC (ft) <sup>1</sup>	Date	DTW (ft)	GWE <sup>1</sup> (msl)	Product Thickness <sup>2</sup> (ft)	Analytic Method	TPPH(G)	B	T	E	X	O&G	
						-----ppb-----					<-ppm->	
MW-2 (cont)	11/27/91	8.04	5.74	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	1/29/92	6.01	7.77	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	3/26/92	6.10	7.68	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	7/23/92	7.39	6.39	0	8015/8020	<50	<0.5	<0.5	<0.5	0.8	---	
	10/28/92	7.51	6.27	0	8015/8020	55	1.3	6.9	1.1	5.1	---	
	5/4/93 <sup>8</sup>	---	---	---	---	---	---	---	---	---	---	
	1/5/94 <sup>10</sup>	---	---	---	---	---	---	---	---	---	---	
	10/24/94	<b>Dry</b>	---	---	---	---	---	---	---	---	---	
	MW-3/ 11.73	4/26/85	---	---	---	---	---	<10	---	---	---	---
		9/11/87	---	---	---	---	---	<0.5	---	---	---	---
7/7/88		---	---	---	---	<100	<5.0	---	---	---	---	
4/13/89		2.34	9.39	---	---	---	---	---	---	---	---	
4/14/89		---	---	---	8260	<100	<0.2	<0.2	<0.2	<0.4	<3,000	
7/31/89		4.79	6.94	0	8260	<100	<0.2	<1.0	<0.2	<0.4	---	
12/8/89		3.03	8.70	0	8015/8020	---	<0.3	<0.3	<0.3	<0.6	---	
3/21/90		2.55	9.18	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---	
6/19/90		2.76	8.97	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---	
9/20/90		4.43	7.30	---	---	---	---	---	---	---	---	
9/21/90		---	---	---	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---	
12/28/90		3.67	8.06	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
5/10/91		2.83	8.90	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
8/8/91		5.09	6.64	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
11/27/91		5.37	6.36	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
1/29/92		3.46	8.27	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
3/26/92		2.10	9.63	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
7/23/92		4.60	7.13	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
10/28/92		5.07	6.66	0	8015/8020	92	1.8	12	2.0	10	---	
5/4/93 <sup>8</sup>		---	---	---	---	---	---	---	---	---	---	
1/5/94 <sup>10</sup>	---	---	---	---	---	---	---	---	---	---		
MW-4	4/26/85	---	---	---	---	3,100	<10	---	---	---	---	
	9/11/87	---	---	---	---	---	<0.5	---	---	---	---	
	7/7/88	---	---	---	---	<100	<5.0	---	---	---	---	
	4/13/89 <sup>3</sup>	2.12	---	---	---	---	---	---	---	---	---	
	4/14/89 <sup>4</sup>	---	---	---	8260	380 <sup>13</sup>	<0.5	<1.0	<1.0	<1.0	<3,000	



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Table 1. Water Level Data and Ground Water Analytic Results - Former Chevron Asphalt Plant and Terminal #1001067, Emeryville, California (continued)

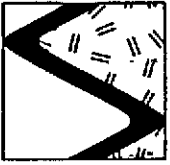
Well ID/ TOC (ft) <sup>1</sup>	Date	DTW (ft)	GWE <sup>1</sup> (msl)	Product Thickness <sup>2</sup> (ft)	Analytic Method	TPPH(G) <-----	-----ppb----->					O&G <-ppm->
							B	T	E	X		
MW-5	4/26/85	---	---	---	---	1,600	<100	---	---	---	---	
	9/11/87	---	---	---	---	---	<10	---	---	---		
	7/7/88	---	---	---	---	<100	<5.0	---	---	---		
	4/13/89 <sup>3</sup>	2.79	---	---	---	---	---	---	---	---		
	4/14/89 <sup>4</sup>	---	---	---	8260	4,300 <sup>13</sup>	<0.5	<1.0	<1.0	<1.0	<3,000	
MW-6	4/26/85	---	---	---	---	580	<100	---	---	---	---	
	9/11/87	---	---	---	---	---	<10	---	---	---		
	7/7/88	---	---	---	---	8,000	<5.0	---	---	---		
	4/13/89 <sup>3</sup>	1.90	---	---	---	---	---	---	---	---		
	4/14/89 <sup>4</sup>	---	---	---	8260	3,300 <sup>13</sup>	<0.5	<1.0	<1.0	<1.0	<3,000	
MW-7/ 10.47	4/26/85	---	---	---	---	700	ND	---	---	---	---	
	9/11/87	---	---	---	---	---	<10	---	---	---		
	7/7/88	---	---	---	---	17,000	<5.0	---	---	---		
	4/13/89	1.90	8.57	---	---	---	---	---	---	---		
	4/14/89	---	---	---	8260	<50	<0.5	<1.0	<1.0	<1.0	<3,000	
	7/31/89	4.24	6.23	---	8260	160 <sup>13</sup>	<0.1	<0.5	<0.1	<0.2	---	
	7/31/89	---	---	---	8260	100 <sup>13</sup>	<0.1	<0.5	<0.1	<0.2	---	
	12/8/89	2.65	7.82	0	8015/8020	---	<0.3	<0.3	<0.3	<0.6	---	
	3/21/90	2.76	7.71	0	8015/8020	<50	<0.3	<0.3	<0.3	0.6	---	
	6/19/90	3.24	7.23	0	8015/8020	<50	<0.3	<0.3	<0.3	0.6	---	
	9/20/90	4.57	5.90	---	---	---	---	---	---	---	---	
	9/21/90	---	---	---	8015/8020	<50	1.5	<0.3	<0.3	<0.6	---	
	12/28/90	3.12	7.35	0	8015/8020	<50	0.7	<0.5	<0.5	0.7	---	
	5/10/91	3.53	6.94	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	8/8/91	4.64	5.83	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	11/27/91	3.66	6.81	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	1/29/92	3.24	7.23	0	8015/8020	<50	<0.5	<0.5	<0.5	0.9	---	
	3/26/92	2.61	7.86	0	8015/8020	<50	<0.5	<0.5	<0.5	0.9	---	
	7/23/92	4.19	6.28	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	10/28/92	4.39	6.08	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
5/4/93 <sup>8</sup>	---	---	---	---	---	---	---	---	---	---		
1/5/94 <sup>10</sup>	---	---	---	---	---	---	---	---	---	---		
5/13/94	4.41	6.06	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---		
10/24/94	5.03	5.44	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---		





Table 1. Water Level Data and Ground Water Analytic Results - Former Chevron Asphalt Plant and Terminal #1001067, Emeryville, California (continued)

Well ID/ TOC (ft) <sup>1</sup>	Date	DTW (ft)	GWE <sup>1</sup> (msl)	Product Thickness <sup>2</sup> (ft)	Analytic Method	TPPH(G) B T E X O&G					
						<-----ppb----->					<-ppm->
MW-10 (cont)	9/21/90	---	---	---	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	12/28/90	4.99	5.83	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/10/91	5.80	5.02	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/8/91	5.86	4.96	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/27/91	5.39	5.43	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/92	5.44	5.38	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	3/26/92	4.96	5.86	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/23/92	5.80	5.02	0	8015/8020	<50	<0.5	1.8	0.5	1.9	---
	10/28/92	6.06	4.76	0	8015/8020	<50	0.6	0.7	<0.5	1.2	---
	5/4/93 <sup>b</sup>	---	---	---	---	---	---	---	---	---	---
	1/5/94	5.92	4.90	0	8015/8020	<50	<0.5	<0.5	<0.5	0.6	---
	5/13/94	5.09	5.73	0	8015/8020	140	<0.5	<0.5	<0.5	1.3	---
	10/24/94	6.24	4.58	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	MW-11/ 11.38	7/7/88	---	---	---	---	---	<5.0	---	---	---
4/14/89		---	---	---	8260	<50	<0.5	<1.0	<1.0	<1.0	<3,000
7/31/89		---	---	---	8260	<100	<0.2	<0.2	<0.2	<0.2	---
12/8/89		---	---	---	8015/8020	---	<0.3	<0.3	<0.3	<0.6	---
3/21/90		4.82	6.56	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
6/19/90		5.14	6.24	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
9/20/90		6.11	5.27	---	---	---	---	---	---	---	---
9/21/90		---	---	---	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
12/28/90		5.16	6.22	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
5/10/91		7.83	3.55	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
8/8/91		6.32	5.06	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
11/27/91		5.67	5.71	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
1/29/92		5.83	5.55	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
3/26/92		4.09	7.29	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
7/23/92		6.19	5.19	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
10/28/92		6.51	4.87	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
5/4/93 <sup>b</sup>		---	---	---	---	---	---	---	---	---	---
1/5/94 <sup>b</sup>		---	---	---	---	---	---	---	---	---	---
5/13/94		5.67	5.71	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
10/24/94	6.79	4.59	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	



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Table 1. Water Level Data and Ground Water Analytic Results - Former Chevron Asphalt Plant and Terminal #1001067, Emeryville, California (continued)

Well ID/ TOC (ft) <sup>1</sup>	Date	DTW (ft)	GWE <sup>1</sup> (msl)	Product Thickness <sup>2</sup> (ft)	Analytic Method	TPPH(G) <-----ppb----->	B	T	E	X	O&G <-ppm->
MW-12/ 13.03	7/7/88	---	---	---	---	<100	<5.0	---	---	---	---
	4/14/89	---	---	---	8260	<50	<0.5	<1.0	<1.0	<1.0	<3,000
	7/31/89	---	---	---	8260	<100	<0.1	<0.5	<0.1	<0.2	---
	12/8/89	---	---	---	8015/8020	---	<0.3	<0.3	<0.3	<0.6	---
	3/21/90	6.76	6.27	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.3	---
	6/19/90	6.62	6.41	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.3	---
	9/20/90	5.00	8.03	---	---	---	---	---	---	---	---
	9/21/90	---	---	---	8015/8020	<50	<0.3	<0.3	<0.3	<0.3	---
	12/28/90	6.62	6.41	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/10/91	6.48	6.55	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/8/91	8.01	5.02	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/27/91	7.95	5.08	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/92	7.68	5.35	0	8015/8020	<50	<0.5	<0.5	<0.5	1.0	---
	3/26/92	6.60	6.43	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/23/92 <sup>6</sup>	---	---	---	---	---	---	---	---	---	---
MW-13/ 11.15	3/21/90	4.08	7.07	0	8015/8020	480	<0.3	<0.3	1.0	5.0	---
	6/19/90	4.34	6.81	0	8015/8020	180	<0.3	<0.3	0.8	3.0	---
	9/20/90	5.31	5.84	0	8015/8020	150	<0.3	<0.3	<0.3	0.54	---
	12/28/90	4.79	6.36	0	8015/8020	160	<0.5	<0.5	<0.5	1.0	---
	5/10/91	4.20	6.95	0	8015/8020	110	<0.5	<0.5	<0.5	2.0	---
	8/8/91	5.13	6.02	0	8015/8020	220 <sup>4</sup>	<0.5	<0.5	<0.5	1.8	---
	11/27/91	4.72	6.43	0	8015/8020	70	<0.5	<0.5	<0.5	1.2	---
	1/29/92	4.69	6.46	0	8015/8020	150	<0.5	<0.5	3.1	7.1	---
	3/26/92	4.04	7.11	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/23/92	5.12	6.03	0	8015/8020	190	<0.5	<0.5	<0.5	2.1	---
	10/28/92	5.30	5.85	0	8015/8020	190	<0.5	<0.5	<0.5	2.0	---
	5/4/93 <sup>B</sup>	---	---	---	---	---	---	---	---	---	---
	1/5/94 <sup>B</sup>	---	---	---	---	---	---	---	---	---	---
	5/13/94	5.28	5.87	0	8015/8020	220	<0.5	1.2	<0.5	1.7	---
	10/24/94	6.04	5.11	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
MW-14/ 9.78	3/21/90	0.91	8.87	0	8015/8020	170	<0.3	<0.3	<0.4	2.0	---
	6/19/90	1.03	8.75	0	8015/8020	77	<0.3	<0.3	<0.3	<0.6	---
	9/20/90	2.53	7.25	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---





Table 1. Water Level Data and Ground Water Analytic Results - Former Chevron Asphalt Plant and Terminal #1001067, Emeryville, California (continued)

Well ID/ TOC (ft) <sup>1</sup>	Date	DTW (ft)	GWE <sup>1</sup> (msl)	Product Thickness <sup>2</sup> (ft)	Analytic Method	TPPH(G) B T E X O&G					
						<-----ppb----->					<-ppm->
MW-14 (cont)	12/28/90	1.61	8.17	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/10/91	1.22	8.56	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/8/91	2.45	7.33	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/27/91	2.59	7.19	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/92	1.10	8.68	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	3/26/92	0.74	9.04	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/23/92	2.30	7.48	0	8015/8020	<50	0.6	<0.5	<0.5	0.8	---
	10/28/92	2.76	7.02	0	8015/8020	56	0.7	4.0	0.8	3.8	---
	5/4/93 <sup>9</sup>	---	---	---	---	---	---	---	---	---	---
MW-15/ 11.01	3/21/90	4.72	6.29	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	6/19/90	4.78	6.23	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	9/20/90	4.98	6.03	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	12/28/90	4.84	6.17	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/10/91	4.58	6.43	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/8/91	5.03	5.98	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/27/91	5.88	5.13	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/92	4.82	6.19	0	8015/8020	<50	1.9	2.6	0.8	2.6	---
	3/26/92	4.35	6.66	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/23/92	5.04	5.97	0	8015/8020	<50	<0.5	<0.5	<0.5	0.5	---
	10/28/92	5.17	5.84	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/4/93 <sup>8</sup>	---	---	---	---	---	---	---	---	---	---
	1/5/94 <sup>10</sup>	---	---	---	---	---	---	---	---	---	---
5/13/94	4.50	6.51	0	8015/8020	110	<0.5	0.7	<0.5	2.0	---	
10/24/94	5.17	5.84	0	8015/8020	<50	2.3	1.1	<0.5	<0.5	---	
MW-16/ 11.11	3/21/90	5.84	5.27	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	6/19/90	5.90	5.21	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	9/20/90	6.36	4.75	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	12/28/90	5.98	5.13	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/10/91	5.89	5.22	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/8/91	6.28	4.83	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/27/91	5.62	5.49	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/92	5.88	5.23	0	8015/8020	65	3.6	6.2	1.9	6.6	---
	3/26/92	5.56	5.55	0	8015/8020	270 <sup>5</sup>	21	27	9.5	41	---
	7/23/92	6.29	4.82	0	8015/8020	<50	<0.5	<0.5	<0.5	0.7	---



Table 1. Water Level Data and Ground Water Analytic Results - Former Chevron Asphalt Plant and Terminal #1001067, Emeryville, California (continued)

Well ID/ TOC (ft) <sup>1</sup>	Date	DTW (ft)	GWE <sup>1</sup> (msl)	Product Thickness <sup>2</sup> (ft)	Analytic Method	TPPH(G) B T E X O&G					
						<-----ppb-----><-ppm->					
MW-16 (cont)	10/28/92	6.29	4.82	0	8015/8020	<50	0.9	1.4	<0.5	1.1	---
	5/4/93	5.75	5.36	0	8015/8020	51	<0.5	1.0	0.6	1.7	---
	1/5/94 <sup>10</sup>	---	---	---	---	---	---	---	---	---	---
MW-17/ 10.41	3/21/90	5.61	4.80	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	6/19/90	---	---	---	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	9/20/90	6.02	4.39	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	12/28/90	5.73	4.68	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/10/91	5.65	4.76	0	8015/8020	<50	<0.5	<0.5	<0.5	0.8	---
	8/8/91	5.94	4.47	0	8015/8020	82	1.9	2.5	0.9	5.4	---
	11/27/91	6.00	4.41	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/92	5.61	4.80	0	8015/8020	<50	<0.5	0.9	<0.5	0.5	---
	3/26/92	5.31	5.10	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/23/92	5.97	4.44	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/28/92	5.96	4.45	0	8015/8020	78	1.0	7.1	1.4	6.5	---
	5/4/93	7.53	2.88	0	8015/8020	60	0.8	1.7	1.1	3.0	---
	1/5/94	5.50	4.91	0	8015/8020	<50	<0.5	0.7	<0.5	<0.5	---
	5/13/94	5.17	5.24	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	<b>10/24/94</b>	<b>6.08</b>	<b>4.33</b>	<b>0</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>	<b>---</b>
MW-18/ 9.80	3/21/90	5.15	4.65	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	6/19/90	5.19	4.61	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	9/20/90	5.54	4.26	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	12/28/90	5.26	4.54	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/10/91	5.18	4.62	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/8/91	5.45	4.35	0	8015/8020	52	<0.5	<0.5	<0.5	<0.5	---
	11/27/91	5.24	4.56	0	8015/8020	<50	0.6	1.5	0.6	2.1	---
	1/29/92	5.12	4.68	0	8015/8020	67	3.7	5.2	1.5	5.0	---
	3/26/92	4.84	4.96	0	8015/8020	80 <sup>5</sup>	<0.5	<0.5	<0.5	0.8	---
	7/23/92	5.49	4.31	0	8015/8020	50 <sup>5</sup>	1.3	2.1	0.5	3.0	---
	10/28/92	5.47	4.33	0	8015/8020	54	<0.5	1.3	<0.5	1.1	---
	5/4/93	5.07	4.73	0	8015/8020	<50	<0.5	<0.5	<0.5	<1.5	---
	1/5/94	5.05	4.75	0	8015/8020	<50	<0.5	0.5	<0.5	0.6	---
	5/13/94	4.76	5.04	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	<b>10/24/94</b>	<b>5.65</b>	<b>4.15</b>	<b>0</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>	<b>---</b>



Table 1. Water Level Data and Ground Water Analytic Results - Former Chevron Asphalt Plant and Terminal #1001067, Emeryville, California (continued)

Well ID/ TOC (ft) <sup>1</sup>	Date	DTW (ft)	GWE <sup>1</sup> (msl)	Product Thickness <sup>2</sup> (ft)	Analytic Method	TPPH(G) B T E X O&G					
						<-----ppb-----> <-ppm->					
MW-19/ 8.45	3/21/90	5.00	3.45	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	6/19/90	5.06	3.39	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	9/20/90	5.25	3.20	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	12/28/90	5.07	3.38	0	8015/8020	66	<0.5	<0.5	<0.5	<0.5	---
	5/10/91	5.02	3.43	0	8015/8020	60 <sup>4</sup>	<0.5	<0.5	<0.5	<0.5	---
	8/8/91	5.17	3.28	0	8015/8020	58	<0.5	<0.5	<0.5	<0.5	---
	11/27/91	5.06	3.39	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/92	4.93	3.52	0	8015/8020	<50	1.7	2.6	0.7	2.1	---
	3/26/92	4.79	3.66	0	8015/8020	80 <sup>5</sup>	<0.5	<0.5	<0.5	<0.5	---
	7/23/92	5.22	3.23	0	8015/8020	70 <sup>5</sup>	0.6	0.5	<0.5	1.5	---
	10/28/92	5.16	3.29	0	8015/8020	170	4.3	28	5.1	24	---
	5/4/93	4.93	3.52	0	8015/8020	120	2.0	4.7	2.8	8.1	---
	1/5/94	4.91	3.54	0	8015/8020	<50	2.0	1.4	1.7	2.5	---
	5/13/94	4.18	4.27	0	8015/8020	<50	<0.5	0.9	<0.5	<0.5	---
	10/24/94	4.85	3.60	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	Trip Blank AA	4/14/89	---	---	---	8260	<50	<0.5	<1.0	<1.0	<1.0
7/31/89		---	---	---	8260	<50	<0.1	<0.5	<0.5	<0.2	---
12/8/89		---	---	---	8015/8020	---	<0.3	<0.3	<0.3	<0.6	---
3/21/90		---	---	---	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
3/26/90		---	---	---	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
6/19/90		---	---	---	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
9/21/90		---	---	---	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
12/28/90		---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.6	---
5/10/91		---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
8/8/91		---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
11/27/91		---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
1/29/92		---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
3/26/92		---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
TB-LB	7/23/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/28/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/4/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<1.5	---
	1/5/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/13/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/24/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---



Table 1. Water Level Data and Ground Water Analytic Results - Former Chevron Asphalt Plant and Terminal #1001067, Emeryville, California (continued)

Well ID/ TOC (ft) <sup>1</sup>	Date	DTW (ft)	GWE <sup>1</sup> (msl)	Product Thickness <sup>2</sup> (ft)	Analytic Method	TPPH(G)	B	T	E	X	O&G
						-----ppb-----					<-ppm->
Bailer Blank											
BB	5/10/91	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/8/91	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/27/91	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	3/26/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/23/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/28/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/4/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<1.5	---
	1/5/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/13/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---



Table 1. Water Level Data and Ground Water Analytic Results - Former Chevron Asphalt Plant and Terminal #1001067, Emeryville, California (continued)

EXPLANATION:

DTW = Depth to water  
TOC = Top of casing elevation  
GWE = Ground water elevation  
msl = Measurements referenced relative to mean sea level  
TPPH(G) = Total Purgeable Petroleum Hydrocarbons as Gasoline  
B = Benzene  
T = Toluene  
E = Ethylbenzene  
X = Xylenes  
O&G = Oil and Grease  
ppb = Parts per billion  
ppm = Parts per million  
--- = Not available/not applicable

ANALYTIC METHODS:

8260 = EPA Method 8260 for TPPH(G) & BTEX  
8015 = EPA Method 8015/8030 for TPPH(G)  
8020 = EPA Method 8020 for BTEX

NOTES:

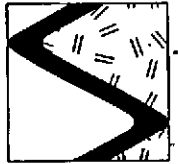
- <sup>1</sup> Top of casing elevations shown prior to 3/21/90 were surveyed to an arbitrary datum point set at 100 feet. The GWEs shown for dates prior to 3/21/90 were corrected using new TOC elevations which were surveyed to a USGS benchmark (relative to mean sea level) in April 1990.
- <sup>2</sup> Product thickness measurements on and after May 10, 1991 were made using an MMC flexi-dip interface probe. Product thickness information prior to May 10, 1991 was not available for inclusion in this report.
- <sup>3</sup> Well construction details for this well is not available for inclusion in this report.
- <sup>4</sup> Monitoring well was destroyed during soil excavation in 1989.
- <sup>5</sup> Well MW-9 was not measured after 5/10/91 because it could not be located. Previous water level data was not available for inclusion in this report.
- <sup>6</sup> Well MW-12 could not be located after building demolition.
- <sup>7</sup> Well was obstructed.
- <sup>8</sup> Monitoring well obstructed due to on-site construction activities.
- <sup>9</sup> Monitoring well abandoned on March 10, 1993 by Soils Exploration Services of Benicia, California.
- <sup>10</sup> Well covered with asphalt during construction activities.
- <sup>11</sup> Does not match a typical gasoline pattern.
- <sup>12</sup> Gasoline range concentration reported. Chromatogram shows only a single peak in the gasoline range.
- <sup>13</sup> TPH was reported as Diesel #2.



SIERRA

Table 2. Analytic Results for Ground Water - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant and Terminal #1001067, Emeryville, California

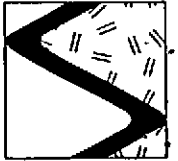
Well ID	Date Sampled	Analytic Lab	Analytic Method	1,1-DCE	1,2-DCE	t-1,2-DCE	c-1,2-DCE	1,1-DCA	1,1,1-TCA	TCE	PCE	CF	VC	Other HVOCs
				←-----ppb-----→										
MW-1	4/14/89	CCAS	8010	<5.0	---	19	720	<5.0	<5.0	11	<5.0	<20	340	ND <sup>1</sup>
	7/31/89	CCAS	8010	6.8	---	54	2,600	2.7	7.2	57	<0.2	<1.0	760	ND <sup>2</sup>
	12/8/89	GTEL	8010	4.3	2,700	---	---	1.7	1.4	59	<0.5	<0.5	520	---
	3/21/90	GTEL	8010	7.1	7,000	---	---	2.1	1.1	130	<0.5	<0.5	1,100	---
	6/19/90	GTEL	8010	12	6,100	---	---	3.1	<0.5	81	<0.5	<0.5	1,200	---
	9/21/90	GTEL	8010	1.8	2,400	---	---	2.2	1.7	60	<0.5	<0.5	1,100	ND <sup>3</sup>
	12/28/90	SAL	8010	2.0	---	28	1,500	1.0	0.6	15	<0.5	<0.5	510	ND <sup>4</sup>
	5/10/91	SAL	8010	10	---	69	5,500	2.0	<0.5	280	<0.5	<0.5	1,800	ND <sup>5</sup>
	8/8/91	SAL	8010	2.9	---	45	2,300	1.5	<0.5	110	<0.5	<0.5	<1.0	ND <sup>6</sup>
	11/27/91	SPA	8010	<25	---	<25	5,900	<25	<25	<25	<25	<25	540	ND <sup>20</sup>
	1/29/92	SPA	8010	<25	---	26	1,900	<25	<25	<25	<25	<25	320	ND <sup>20</sup>
	3/26/92	SPA	8010	<50	---	<50	1,500	<50	<50	<50	<50	<50	260	ND <sup>21</sup>
	7/23/92	SPA	8010	<50	---	<50	2,300	<50	<50	<50	<50	<50	170	ND <sup>21</sup>
	10/28/92	SPA	8010	4.2	---	30	1,600	3.6	<0.5	16	<0.5	<0.5	810	ND
	5/4/93	SPA	8010	1.0	---	16	670	0.5	<0.5	9.2	<0.5	<0.5	110	ND <sup>18</sup>
	1/5/94 <sup>24</sup>	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/13/94 <sup>27</sup>	---	---	---	---	---	---	---	---	---	---	---	---	---
	MW-2	4/14/89	CCAS	8010	<0.2	<0.2	---	---	<0.2	<0.2	<0.2	<0.2	<1.0	<0.2
7/31/89		CCAS	8010	<0.2	<0.2	---	---	<0.4	0.5	<0.2	<0.2	<1.0	<0.2	---
12/8/89		GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
3/21/90		GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
6/19/90		GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
9/21/90		GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
12/28/90		SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
5/10/91		SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
8/8/91		SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
11/27/91		SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
1/29/92		SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
3/26/92		SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
7/23/92		SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND <sup>18</sup>
10/28/92		SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
5/4/93 <sup>24</sup>		---	---	---	---	---	---	---	---	---	---	---	---	---
1/5/94 <sup>24</sup>		---	---	---	---	---	---	---	---	---	---	---	---	---
5/13/94 <sup>28</sup>	---	---	---	---	---	---	---	---	---	---	---	---	---	
10/24/94 <sup>30</sup>	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-3	4/14/89	CCAS	8010	<0.2	<0.2	---	---	<0.2	<0.2	<0.2	<0.2	<1.0	<0.2	---
	7/31/89	CCAS	8010	<0.2	<0.2	---	---	<0.4	0.5	<0.2	<0.2	<1.0	<0.2	---
	12/8/89	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---



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Table 2. Analytic Results for Ground Water - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant and Terminal #1001067, Emeryville, California

Well ID	Date Sampled	Analytic Lab	Analytic Method	1,1-DCE	1,2-DCE	t-1,2-DCE	c-1,2-DCE	1,1-DCA	1,1,1-TCA	TCE	PCE	CF	VC	Other HVOCs
				-----ppb-----										
MW-3 (cont)	3/21/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	6/19/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	9/21/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	12/28/90	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	5/10/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	8/8/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	11/27/91	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	1/29/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	3/26/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	7/23/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND <sup>18</sup>
	10/28/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	5/4/93 <sup>24</sup>	---	---	---	---	---	---	---	---	---	---	---	---	---
	1/5/94 <sup>24</sup>	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/13/94 <sup>27</sup>	---	---	---	---	---	---	---	---	---	---	---	---	---
	MW-4	4/14/89 <sup>7</sup>	CCAS	8010	<1.0	<1.0	---	---	2.0	<1.0	<1.0	<1.0	<2.0	<1.0
MW-5	4/14/89 <sup>7</sup>	CCAS	8010	<1.0	<1.0	---	---	2.0	<1.0	<1.0	<1.0	<2.0	<1.0	---
MW-6	4/14/89 <sup>7</sup>	CCAS	8010	<1.0	<1.0	---	---	2.0	<1.0	<1.0	<1.0	<2.0	<1.0	---
MW-7 (D)	4/14/89	CCAS	8010	<1.0	<1.0	---	---	1.0	1.0	<1.0	<1.0	<2.0	<1.0	---
	7/31/89	CCAS	8010	<0.1	0.3	---	---	0.3	4.5	<0.1	<0.1	<0.5	<0.1	ND <sup>5</sup>
	7/31/89	GTEL	8010	<0.1	0.4	---	---	0.2	2.6	<0.1	<0.1	<0.5	<0.1	ND <sup>5</sup>
	12/8/89	GTEL	8010	<0.2	<0.5	---	---	<0.5	0.67	<0.5	<0.5	<0.5	<1.0	---
	3/21/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	1.4	<0.5	<0.5	<0.5	<1.0	---
	6/19/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	0.67	<0.5	<0.5	<0.5	<1.0	---
	9/21/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	12/28/90	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	0.9	<0.5	<0.5	<0.5	<1.0	---
	5/10/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	8/8/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	11/27/91	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	1/29/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	3/26/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	7/23/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND <sup>18</sup>
	10/28/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
5/4/93 <sup>24</sup>	---	---	---	---	---	---	---	---	---	---	---	---	---	
1/5/94 <sup>24</sup>	---	---	---	---	---	---	---	---	---	---	---	---	---	
5/13/94	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND <sup>29</sup>	
10/24/94	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND <sup>29</sup>	

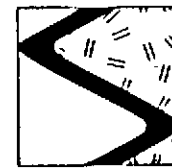


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Table 2. Analytic Results for Ground Water - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant and Terminal #1001067, Emeryville, California

Well ID	Date Sampled	Analytic Lab	Analytic Method	1,1-	1,2-	t-1,2-	c-1,2-	1,1-	1,1,1-	TCE	PCE	CF	VC	Other HVOCs
				DCE	DCE	DCE	DCE	DCA	TCA					
-----ppb----->														
MW-8	4/14/89	CCAS	8010	<1.0	<1.0	---	---	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	---
	7/31/89	CCAS	8010	<0.1	---	0.6	1.9	1.7	1.7	0.4	<0.1	<0.5	1.2	ND
	12/8/89	GTEL	8010	<0.2	0.53	---	---	<0.5	0.84	<0.5	<0.5	<0.5	<1.0	---
	3/21/90	GTEL	8010	<0.2	0.96	---	---	<0.5	0.72	<0.5	<0.5	<0.5	<1.0	---
	6/19/90	GTEL	8010	<0.2	0.59	---	---	<0.5	0.67	<0.5	<0.5	<0.5	<1.0	---
	9/21/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	12/28/90	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	2.0	<0.5	<0.5	<0.5	<1.0	---
	5/10/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	8/8/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	11/27/91	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	1/29/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	3/26/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	7/23/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND <sup>18</sup>
	10/28/92 <sup>23</sup>	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/4/93 <sup>24</sup>	---	---	---	---	---	---	---	---	---	---	---	---	---
	1/5/94 <sup>24</sup>	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/13/94	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND <sup>29</sup>
	10/24/94 <sup>28</sup>	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-9	5/10/91 <sup>9</sup>	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-10	4/14/89	CCAS	8010	<1.0	15	---	---	2.0	<1.0	5.0	<1.0	<2.0	<1.0	---
	7/31/89	CCAS	8010	0.7	---	6.3	27	2.9	<0.1	5.3	<0.1	<0.5	<0.1	ND
	12/8/89	GTEL	8010	<0.2	24	---	---	3.1	<0.5	4.9	<0.5	0.6	<1.0	---
	3/21/90	GTEL	8010	0.7	30	---	---	2.5	<0.5	3.5	<0.5	<0.5	<1.0	---
	6/19/90	GTEL	8010	0.3	33	---	---	2.6	<0.5	6.3	<0.5	<0.5	<1.0	---
	9/21/90	GTEL	8010	<0.2	32	---	---	5.0	<0.5	5.9	<0.5	<0.5	<1.0	---
	12/28/90	SAL	8010	<0.5	---	6.0	19	2.0	<0.5	5.0	<0.5	<0.5	<1.0	---
	5/10/91	SAL	8010	0.6	---	7.0	24	2.0	<0.5	6.0	<0.5	<0.5	<1.0	ND
	8/8/91	SAL	8010	<0.5	---	7.0	33	3.1	<0.5	6.2	<0.5	<0.5	<1.0	ND
	11/27/91	SPA	8010	<0.5	---	6.8	100	<0.5	<0.5	8.5	<0.5	<0.5	<1.0	ND
	1/29/92	SPA	8010	<0.5	---	9.1	30	2.8	<0.5	7.4	<0.5	<0.5	<1.0	ND
	3/26/92	SPA	8010	0.7	---	9.2	29	2.5	<0.5	6.8	<0.5	<0.5	<1.0	ND
	7/23/92	SPA	8010	<0.5	---	6.1	21	1.5	<0.5	4.7	<0.5	<0.5	<0.5	ND <sup>18</sup>
	10/28/92	SPA	8010	<0.5	---	4.3	16	2.1	<0.5	4.1	<0.5	<0.5	<1.0	ND
	5/4/93 <sup>24</sup>	---	---	---	---	---	---	---	---	---	---	---	---	---
	1/5/94	SPA	8010	<0.5	---	1.3	5.2	0.5	1.0	0.8	<0.5	<0.5	<1.0	ND <sup>18</sup>
	5/13/94	SPA	8010	<0.5	---	12	31	2.7	<0.5	4.8	<0.5	<0.5	<0.5	ND <sup>29</sup>
	10/24/94 <sup>33</sup>	SPA	8010	<10	---	13	44	<10	<10	<10	<10	<10	<10	ND <sup>31,33</sup>

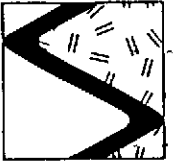




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Table 2. Analytic Results for Ground Water - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant and Terminal #1001067, Emeryville, California

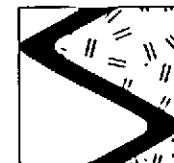
Well ID	Date Sampled	Analytic Lab	Analytic Method	1,1-DCE	1,2-DCE	t-1,2-DCE	c-1,2-DCE	1,1-DCA	1,1,1-TCA	TCE	PCE	CF	VC	Other HVOCs
				←-----ppb-----→										
MW-11	4/14/89	CCAS	8010	<1.0	120	---	---	<1.0	<1.0	4.0	<1.0	<2.0	10	---
	7/31/89	CCAS	8010	0.9	---	40	110	2.2	1.4	2.9	<0.2	<0.2	<0.2	ND
	12/8/89	GTEL	8010	0.5	120	---	---	2.1	1.2	4.1	<0.5	<0.5	2.4	---
	3/21/90	GTEL	8010	1.3	150	---	---	1.2	1.7	3.5	<0.5	<0.5	4.3	ND <sup>10</sup>
	6/19/90	GTEL	8010	0.068	140	---	---	1.3	<0.5	5.0	<0.5	<0.5	1.0	---
	9/21/90	GTEL	8010	<0.2	100	---	---	1.1	<0.5	3.8	<0.5	<0.5	<1.0	---
	12/28/90	SAL	8010	<0.5	---	23	43	0.9	0.7	3.0	<0.5	<0.5	<1.0	---
	5/10/91	SAL	8010	0.9	---	44	110	0.5	<0.5	5.0	<0.5	<0.5	<1.0	ND
	8/8/91	SAL	8010	<0.5	---	29	77	0.9	<0.5	2.4	<0.5	<0.5	<1.0	ND
	11/27/91	SPA	8010	<0.5	---	34	240	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	1/29/92	SPA	8010	<5.0	---	33	91	<5.0	<5.0	<5.0	<5.0	<5.0	<10	ND
	3/26/92	SPA	8010	<2.5	---	21	51	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	ND
	7/23/92	SPA	8010	<0.5	---	18	46	0.6	<0.5	1.4	<0.5	<0.5	<0.5	ND <sup>18</sup>
	10/28/92	SPA	8010	0.5	---	36	80	<0.5	<0.5	4.6	<0.5	<0.5	<1.0	ND
	5/4/93 <sup>24</sup>	---	---	---	---	---	---	---	---	---	---	---	---	---
	1/5/94 <sup>24</sup>	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/13/94	SPA	8010	<0.5	---	62	82	<0.5	<0.5	7.9	<0.5	<0.5	1.7	ND <sup>29</sup>
	10/24/94 <sup>33</sup>	SPA	8010	<10	---	28	75	<10	<10	<10	<10	<10	<10	ND <sup>31,33</sup>
	MW-12	4/14/89	CCAS	8010	<1.0	1.0	---	---	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
7/31/89		CCAS	8010	<0.1	1.7	---	---	<0.1	<0.1	0.8	<0.1	<0.5	<0.1	ND
12/8/89		GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
3/21/90		GTEL	8010	<0.2	<0.5	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
6/19/90		GTEL	8010	<0.2	<0.5	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
9/21/90		GTEL	8010	<0.2	<0.5	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
12/28/90		SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
5/10/91		SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	<1.0
8/8/91		SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
11/27/91		SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
1/29/92		SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
3/26/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND	
7/23/92 <sup>22</sup>	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-13	3/21/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	6/19/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	9/20/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	12/28/90	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	5/10/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND <sup>11</sup>
	8/8/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	11/27/91	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND



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Table 2. Analytic Results for Ground Water - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant and Terminal #1001067, Emeryville, California

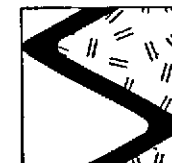
Well ID	Date Sampled	Analytic Lab	Analytic Method	1,1-DCE	1,2-DCE	t-1,2-DCE	c-1,2-DCE	1,1-DCA	1,1,1-TCA	TCE	PCE	CF	VC	Other HVOCs
				←-----ppb-----→										
MW-13 (cont)	1/29/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	3/26/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	7/23/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND <sup>18</sup>
	10/28/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	5/4/93 <sup>24</sup>	---	---	---	---	---	---	---	---	---	---	---	---	---
	1/5/94 <sup>24</sup>	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/13/94	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND <sup>29</sup>
	10/24/94	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND <sup>29</sup>
MW-14	3/21/90	GTEL	8010	<2.0	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	6/19/90	GTEL	8010	<2.0	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	9/20/90	GTEL	8010	<2.0	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	12/28/90	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	5/10/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	8/8/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	11/27/91	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	1/29/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	3/26/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	7/23/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND <sup>18</sup>
	10/28/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	5/4/93 <sup>25</sup>	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-15	3/21/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	6/19/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	9/20/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	12/28/90	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	5/10/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND <sup>12</sup>
	8/8/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	11/27/91	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	1/29/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	3/26/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	7/23/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND <sup>18</sup>
	10/28/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	5/4/93 <sup>24</sup>	---	---	---	---	---	---	---	---	---	---	---	---	---
	1/5/94 <sup>24</sup>	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/13/94	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND <sup>29</sup>
10/24/94	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	3.1	<0.5	3.8	<0.5	ND <sup>29</sup>	
MW-16	3/21/90	GTEL	8010	<0.2	0.8	---	---	<0.5	<0.5	27	8.0	2.0	<1.0	---
	6/19/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	35	7.0	2.0	<1.0	---



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Table 2. Analytic Results for Ground Water - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant and Terminal #1001067, Emeryville, California

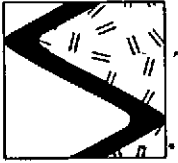
Well ID	Date Sampled	Analytic Lab	Analytic Method	1,1-	1,2-	t-1,2-	c-1,2-	1,1-	1,1,1-	TCE	PCE	CF	VC	Other HVOCs	
				DCE	DCE	DCE	DCE	DCA	TCA						
----->															
MW-16 (cont)	9/20/90	GTEL	8010	<0.2	0.9	---	---	<0.5	<0.5	49	15	4.1	<1.0	---	
	12/28/90	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	29	18	4.0	<1.0	ND <sup>13</sup>	
	5/10/91	SAL	8010	<0.5	---	<0.5	0.5	<0.5	<0.5	32	10	4.0	<1.0	ND	
	8/8/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	35	13	1.9	<1.0	ND	
	11/27/91	SPA	8010	<0.5	---	<0.5	1.3	<0.5	<0.5	47	12	1.8	<1.0	ND <sup>15</sup>	
	1/29/92	SPA	8010	<0.5	---	<0.5	0.9	<0.5	<0.5	31	11	1.8	<1.0	ND	
	3/26/92	SPA	8010	<0.8	---	<0.8	<0.8	<0.8	<0.8	24	8.5	1.7	<1.7	ND <sup>19</sup>	
	7/23/92	SPA	8010	<0.5	---	<0.5	0.9	<0.5	<0.5	37	12	1.0	<0.5	ND <sup>18</sup>	
	10/28/92	SPA	8010	<0.5	---	<0.5	1.7	<0.5	<0.5	39	14	1.1	<1.0	ND	
	5/4/93	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	32	10	1.1	<1	ND <sup>18</sup>	
	1/5/94 <sup>24</sup>	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/13/94 <sup>27</sup>	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-17	3/21/90	GTEL	8010	<0.2	5.2	---	---	0.7	1.3	32	11	1.1	<1.0	---	
	6/19/90	GTEL	8010	<0.2	3.1	---	---	<0.5	1.0	38	13	1.2	<1.0	---	
	9/20/90	GTEL	8010	<0.2	2.4	---	---	<0.5	1.4	44	16	2.8	<1.0	---	
	12/28/90	SAL	8010	<0.5	---	<0.5	2.0	<0.5	0.6	34	15	2.0	<1.0	---	
	5/10/91	SAL	8010	<0.5	---	<0.5	3.0	<0.5	0.6	37	14	1.0	<1.0	ND	
	8/8/91	SAL	8010	<0.5	---	<0.5	2.5	<0.5	<0.5	69	15	0.9	<1.0	ND	
	11/27/91	SPA	8010	<0.5	---	<0.5	13	<0.5	<0.5	59	14	2.4	<1.0	ND	
	1/29/92	SPA	8010	<0.5	---	<0.5	2.9	<0.5	0.8	35	15	1.1	<1.0	ND	
	3/26/92	SPA	8010	<0.5	---	<0.5	1.5	<0.5	0.7	41	12	0.6	<1.0	ND	
	7/23/92	SPA	8010	<0.5	---	<0.5	1.1	<0.5	<0.5	31	14	0.8	<0.5	ND <sup>18</sup>	
	10/28/92	SPA	8010	<0.5	---	<0.5	1.6	<0.5	<0.5	42	11	0.8	<1.0	ND	
	5/4/93	SPA	8010	<0.5	---	<0.5	1.1	<0.5	<0.5	26	12	0.6	<1.0	ND <sup>18</sup>	
	1/5/94	SPA	8010	<0.5	---	<0.5	1.1	<0.5	<0.5	25	13	0.8	<1.0	ND <sup>18</sup>	
	5/13/94	SPA	8010	<0.5	---	<0.5	1.0	<0.5	0.6	23	13	<0.5	<0.5	ND <sup>29</sup>	
	10/24/94	SPA	8010	<0.5	---	<0.5	1.4	<0.5	<0.5	26	13	<0.5	<0.5	ND <sup>29</sup>	
MW-18	3/21/90	GTEL	8010	<0.2	1.7	---	---	<0.5	2.4	33	20	0.9	<1.0	---	
	6/19/90	GTEL	8010	<0.2	2.7	---	---	<0.5	0.9	63	20	0.73	<1.0	---	
	9/20/90	GTEL	8010	<0.2	3.3	---	---	<0.5	1.6	76	25	1.7	<1.0	---	
	12/28/90	SAL	8010	<0.5	---	<0.5	2.0	<0.5	0.8	44	21	1.0	<1.0	---	
	5/10/91	SAL	8010	<0.5	---	<0.5	2.0	<0.5	0.7	47	20	2.0	<1.0	ND	
	8/8/91	SAL	8010	<0.5	---	<0.5	2.0	<0.5	0.7	32	25	1.0	<1.0	ND	
	11/27/91	SPA	8010	<0.5	---	<0.5	3.6	<0.5	0.5	60	18	1.5	<1.0	ND	
	1/29/92	SPA	8010	<5.0	---	<5.0	<5.0	<5.0	<5.0	67	17	<5.0	<10	ND	
	3/26/92	SPA	8010	<1.2	---	<1.2	6.4	<1.2	<1.2	130	19	1.7	<2.5	ND	
	7/23/92	SPA	8010	<0.5	---	<0.5	3.0	<0.5	0.5	67	19	0.8	<0.5	ND <sup>18</sup>	
	10/28/92	SPA	8010	<0.5	---	<0.5	1.1	<0.5	<0.5	52	14	0.8	<1.0	ND	



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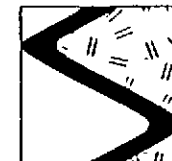
Well ID	Date Sampled	Analytic Lab	Analytic Method	1,1-	1,2-	t-1,2-	c-1,2-	1,1-	1,1,1-	TCE	PCE	CF	VC	Other HVOCs	
				DCE	DCE	DCE	DCE	DCA	TCA						
-----ppb-----															
MW-18 (cont)	5/4/93	SPA	8010	<0.5	---	<0.5	1.9	<0.5	0.7	48	18	2.5	<1.0	ND <sup>26</sup>	
	1/5/94	SPA	8010	<0.5	---	<0.5	4.0	<0.5	0.8	94	17	1.0	<1.0	ND <sup>18</sup>	
	5/13/94	SPA	8010	<0.5	---	<0.5	0.8	<0.5	0.8	16	15	0.8	<0.5	ND <sup>29</sup>	
	10/27/94	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	22	15	1.2	<0.5	ND <sup>29</sup>	
MW-19	3/21/90	GTEL	8010	<0.2	10	---	---	<0.5	2.5	41	53	3.2	<1.0	---	
	6/19/90	GTEL	8010	<0.2	13	---	---	<0.5	1.5	46	47	2.8	<1.0	---	
	9/20/90	GTEL	8010	<0.2	5.8	---	---	<0.5	2.5	39	32	3.1	<1.0	---	
	12/28/90	SAL	8010	<0.5	---	0.8	22	<0.5	1.0	40	44	3.0	<1.0	---	
	5/10/91	SAL	8010	<0.5	---	2.0	12	<0.5	1.0	47	47	3.0	<1.0	ND	
	8/8/91	SAL	8010	<0.5	---	1.1	4.8	<0.5	1.1	41	35	2.8	<1.0	ND	
	11/27/91	SPA	8010	<0.5	---	1.9	29	<0.5	0.9	59	31	2.7	<1.0	ND	
	1/29/92	SPA	8010	<5.0	---	<5.0	8.9	<5.0	<5.0	51	44	3.0	<1.0	ND	
	3/26/92	SPA	8010	<1.2	---	1.7	23	<1.2	1.5	68	130	1.4	<2.5	ND <sup>17</sup>	
	7/23/92	SPA	8010	1.1	---	1.4	5.6	<0.5	1.0	61	38	3.3	<0.5	ND <sup>18</sup>	
	10/28/92	SPA	8010	<0.5	---	0.9	5.3	<0.5	1.1	46	24	2.2	<1.0	ND	
	5/4/93	SPA	8010	<0.5	---	2.5	8.7	0.5	1.1	69	32	3.9	<1.0	ND <sup>18</sup>	
	1/5/94	SPA	8010	<0.5	---	1.7	1.7	<0.5	16	49	46	<0.5	<1.0	ND <sup>18</sup>	
	5/13/94	SPA	8010	<0.5	---	1.8	22	<0.5	0.7	40	58	<0.5	<0.5	ND <sup>29</sup>	
	10/24/94 <sup>33</sup>	SPA	8010	<50	---	110	54	<50	<50	98	300	<50	<50	ND <sup>32,33</sup>	
Trip Blank															
AA	4/14/89	CCAS	8010	<1.0	<0.5	---	---	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	---	
	7/31/89	CCAS	8010	<0.1	<0.5	---	---	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	---	
	12/8/89	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---	
	3/21/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---	
	3/26/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---	
	6/19/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---	
	9/21/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---	
	12/28/90	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---	
	5/10/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND	
	8/8/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND <sup>14</sup>	
	11/27/91	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND <sup>16</sup>	
	1/29/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND	
	3/26/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND	
	TB-LB	7/23/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND <sup>18</sup>
		10/28/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
5/4/93		SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	ND <sup>18</sup>	



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Table 2. Analytic Results for Ground Water - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant and Terminal #1001067, Emeryville, California

Well ID	Date Sampled	Analytic Lab	Analytic Method	1,1-DCE	1,2-DCE	t-1,2-DCE	c-1,2-DCE	1,1-DCA	1,1,1-TCA	TCE	PCE	CF	VC	Other HVOCs	
				-----ppb-----											
<b>Bailer Blank</b>															
BB	5/10/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND	
	8/8/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND	
	11/27/91	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND <sup>16</sup>	
	1/29/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND	
	3/26/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND	
	7/23/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND <sup>18</sup>	
	10/28/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND	
	5/4/93	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	ND <sup>18</sup>	



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Table 2. Analytic Results for Ground Water - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant and Terminal #1001067, Emeryville, California (continued)

EXPLANATION:

1,1-DCE = 1,1-Dichloroethene  
1,2-DCE = 1,2-Dichloroethene  
t-1,2-DCE = trans-1,2-Dichloroethene  
c-1,2-DCE = cis-1,2-Dichloroethene  
1,1-DCA = 1,1-Dichloroethane  
1,1,1-TCA = 1,1,1-Trichloroethane  
TCE = Trichloroethene  
PCE = Tetrachloroethene  
CF = Chloroform  
VC = Vinyl Chloride  
Other HVOCs = Other Halogenated Volatile Organic Compounds  
ppb = Parts per billion  
--- = Not analyzed/not applicable  
ND = Not detected at detection limits of 0.5 to 1 ppb  
D = Duplicate analysis

ANALYTIC METHOD:

8010 = EPA Method 8010 for Volatile Organic Compounds

ANALYTIC LABORATORIES:

CCAS = Coast to Coast Analytical Services of San Luis Obispo, California  
GTTEL = Groundwater Technologies Environmental Laboratory of Concord, California  
SAL = Superior Analytical Laboratory of Martinez and San Francisco, California  
SPA = Superior Precision Analytical, Inc. of Martinez and San Francisco, California

NOTES:

Historic analytic data was compiled from the Quarterly Groundwater Sampling report prepared for this service station by Western Geologic Resources, February 8, 1991.

Selected HVOCs were reported by WGR; it is unknown whether other HVOCs were detected in the samples.

- <sup>1</sup> 6 ppb 1,2-dichloropropane detected; other HVOCs not detected.
- <sup>2</sup> 0.6 ppb 1,2-dichloroethane detected; other HVOCs not detected.
- <sup>3</sup> 63 ppb chloromethane and 0.6 ppb methylene chloride detected; other HVOCs not detected; sample contained 1,250 ppb total dissolved solids.

NOTES: (continued)

- <sup>4</sup> 0.9 ppb trans-1,3-dichloropropane detected; other HVOCs not detected; sample contained 810 ppb total dissolved solids.
- <sup>5</sup> 0.9 ppb trichlorofluoromethane and 1 ppb trans-1,3-dichloropropane detected; other HVOCs not detected.
- <sup>6</sup> 11 ppb trans-1,3-dichloropropane detected; other HVOCs not detected.
- <sup>7</sup> Monitoring well was destroyed during excavation in 1989.
- <sup>8</sup> 0.1 ppb 1,2-dichlorobenzene detected; other HVOCs not detected.
- <sup>9</sup> Well MW-9 was not sampled after 5/10/91 because it could not be located. Previous analytic data were not available for inclusion in this report.
- <sup>10</sup> 1.8 ppb 1,2-dichloroethane detected; other HVOCs not detected
- <sup>11</sup> 3 ppb 1,1,2,2-tetrachloroethane detected; other HVOCs not detected.
- <sup>12</sup> 0.9 ppb 1,2-dichlorobenzene detected; other HVOCs not detected.
- <sup>13</sup> 0.5 ppb 1,2-dichloroethane detected; other HVOCs not detected.
- <sup>14</sup> 3.1 ppb 1,2-dichlorobenzene detected; other HVOCs not detected.
- <sup>15</sup> 0.9 ppb 1,2-dichloroethane detected; other HVOCs not detected.
- <sup>16</sup> Trace concentrations of trihalomethane compounds detected in bailer blank.
- <sup>17</sup> 1,1,2,2-Tetrachloroethane detected at 1.8 ppb; other HVOCs not detected at detection limits of 1.2 to 2.5 ppb.
- <sup>18</sup> Other HVOCs not detected at detection limit of 0.5 ppb.
- <sup>19</sup> Other HVOCs not detected at detection limits ranging from 0.8 to 1.7 ppb.
- <sup>20</sup> Other HVOCs not detected at detection limits of 25 ppb.
- <sup>21</sup> Other HVOCs not detected at detection limits of 50 ppb.
- <sup>22</sup> Well MW-12 could not be located after building demolition.
- <sup>23</sup> Well MW-8 was obstructed, therefore ground water samples could not be taken.
- <sup>24</sup> Monitoring well obstructed due to on-site construction activities.
- <sup>25</sup> Monitoring well abandoned on March 10, 1993 by Soils Exploration Services of Benicia, California.
- <sup>26</sup> Dichloromethane detected at 6.2 ppb; other HVOCs not detected at detection limits of 0.5 ppb.
- <sup>27</sup> Well paved over as a result of on-site construction activities.
- <sup>28</sup> Well obstructed.
- <sup>29</sup> Other HVOCs not detected at detection limits of 0.5 to 1.0 ppb.
- <sup>30</sup> Well was dry.
- <sup>31</sup> Other HVOCs not detected at detection limits of 10 to 20 ppb.
- <sup>32</sup> Other HVOCs not detected at detection limits of 50 to 100 ppb.
- <sup>33</sup> Detection limits raised due to sample dilution.



## 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.

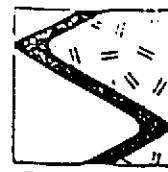
Prior to sampling, each well is purged of a minimum of three well casing volumes of water using a steam-cleaned PVC bailer, or a pre-cleaned pump. Temperature, pH and electrical conductivity are measured at least three times during purging. Purging is continued until these parameters have stabilized (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 Chevron designated disposable 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 accompanies each sampling set, or 5% trip blanks are included for sets of greater than 20 samples. The trip blank is analyzed for some or all of the same compounds as the ground water samples.



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### WATER SAMPLING DATA

Job Name EMERYVILLE Job Number 1-191-04 Sampler D.B.  
 Well Number MW-15 7 Date 10/24/94 Well Diameter 4"  
 Sample Point Location/Description N.W. CORNER OF A.T.S. ON SIDEWALK Well Depth (spec.) \_\_\_\_\_  
 Depth to Water (static) 5.03 Well Depth (sounded) 13.5  
 Initial height of water in casing 8.47 Volume 3.10 gallons  
 Volume to be purged 9 gallons  
 Purged With PUMP Sampled With Disp. BAILEY  
 Pumped or Bailed Dry?  Yes  No Time 12:33 After 8 gallons  
 Water level at sampling \_\_\_\_\_ Percent Recovery \_\_\_\_\_

**Formulas/Conversions**  
 $r$  = well radius in ft  
 $h$  = ht of water col. in ft  
 vol. in cyl. =  $\pi r^2 h$   
 7.48 gal/ft<sup>3</sup>  
 $V_{2.5}^*$  casing = 0.163 gal/ft  
 $V_{3.0}^*$  casing = 0.367 gal/ft  
 $V_{3.5}^*$  casing = 0.653 gal/ft  
 $V_{4.0}^*$  casing = 0.826 gal/ft  
 $V_{4.5}^*$  casing = 1.47 gal/ft  
 $V_{5.0}^*$  casing = 2.61 gal/ft

### CHEMICAL DATA

Purge Time		Purge Volume (gal.)	Cumulative (gal.)	pH	Temp (°C)	Specific Conductance	
Start	Stop					Measurement	x umhos/cm
12:26	12:29	3	3	6.5	71	430	
	12:32	3	6	6.5	71	670	
Day →	12:35	3	9	DRY	→	→	

SAMPLES COLLECTED Time 12:40 Total volume purged (gal.) 8  
 Water color Slight Cloudy Odor NONE  
 Description of sediments or material in sample: SOME SED.  
 Additional Comments: \_\_\_\_\_

Sample ID	# of Cont.	Container Type	Filtered (size, u)	Preservative (type)	Refrig. (Y/N)	Lab (Init)	Analysis Requested
MW-7	6	1	—	HCl	YES	SLA	4/BTEX, 8010

Container Type Codes: 1 = 40 ml clear VOA/Teflon septa; 2 = Brown glass/teflon lined cap (specify size);  
 3 = Clear glass/teflon lined cap (specify size); 4 = Polyethylene/polyethylene cap (specify size);  
 5 = Other \_\_\_\_\_; 6 = Other \_\_\_\_\_





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WATER SAMPLING DATA

Job Name EMERYVILLE Job Number 1-191-04 Sampler D.B.  
 Well Number MW-10 Date 10.24.94 Well Diameter 4"  
 Sample Point Location/Description S.W. END OF PARKING AREA ATIS Well Depth (spec.) \_\_\_\_\_  
 Depth to Water (static) 6.24 Well Depth (sounded) 20.0  
 Initial height of water in casing 13.6 Volume 8.8 gallons  
 Volume to be purged \_\_\_\_\_ 27. gallons  
 Purged With PUMP Sampled With Disp. Bailor  
 Pumped or Bailed Dry? Yes  No  Time \_\_\_\_\_ After \_\_\_\_\_ gallons  
 Water level at sampling \_\_\_\_\_ Percent Recovery \_\_\_\_\_

**Formulas/Conversions**  
 $r$  = well radius in ft  
 $h$  = ht of water col. in ft  
 vol. in cyl. =  $\pi r^2 h$   
 7.48 gal/ft<sup>3</sup>  
 $V_{2"}^{casing}$  = 0.163 gal/ft  
 $V_{3"}^{casing}$  = 0.367 gal/ft  
 $V_{4"}^{casing}$  = 0.653 gal/ft  
 $V_{4.5"}^{casing}$  = 0.826 gal/ft  
 $V_{5"}^{casing}$  = 1.47 gal/ft  
 $V_{6"}^{casing}$  = 2.61 gal/ft

CHEMICAL DATA

Purge Time		Purge Volume (gal.)	Cumulative (gal.)	pH	Temp (°C)	Specific Conductance	
Start	Stop					Measurement	x umhos/cm
10:47	10:50			6.6	65	1570	
	10:56	9	9	6.8	65	1500	
	10:05	9	18	6.7	65	510	
	11:14	9	27				

SAMPLES COLLECTED Time 11:20 Total volume purged (gal.) 27  
 Water color CLEAR Odor NONE  
 Description of sediments or material in sample: NONE  
 Additional Comments: \_\_\_\_\_

Sample ID	# of Cont.	Container Type	Filtered (size, u)	Preservative (type)	Refrig. (Y/N)	Lab (Init)	Analysis Requested
MW-10	6	1	—	HCl	YES	SLA	4/Brax, 8010

Container Type Codes: 1 = 40 ml clear VOA/Teflon septa; 2 = Brown glass/teflon lined cap (specify size);  
 3 = Clear glass/teflon lined cap (specify size); 4 = Polyethylene/polyethylene cap (specify size);  
 5 = Other \_\_\_\_\_; 6 = Other \_\_\_\_\_



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### WATER SAMPLING DATA

Job Name Emeryville Job Number 1-191-04 Sampler D.B.  
 Well Number MW-11 Date 10/24/94 Well Diameter 4"  
 Sample Point Location/Description SE side Racine Area of A.T.S. Well Depth (spec.)       
 Depth to Water (static) 6.79 Well Depth (sounded) 17.75  
 Initial height of water in casing 10.96 Volume 7.15 gallons  
 Volume to be purged 21 gallons  
 Purged With PUMP Sampled With Disp. Bailor  
 Pumped or Bailed Dry?    Yes  No Time      After      gallons  
 Water level at sampling      Percent Recovery     

**Formulas/Conversions**  
 r = well radius in ft  
 h = ht of water col. in ft  
 vol. in cyl. =  $\pi r^2 h$   
 7.48 gal/ft<sup>3</sup>  
 $V_{1\text{ casing}} = 0.163 \text{ gal/ft}$   
 $V_{2\text{ casing}} = 0.367 \text{ gal/ft}$   
 $V_{3\text{ casing}} = 0.653 \text{ gal/ft}$   
 $V_{4\text{ casing}} = 0.826 \text{ gal/ft}$   
 $V_{5\text{ casing}} = 1.47 \text{ gal/ft}$   
 $V_{6\text{ casing}} = 2.61 \text{ gal/ft}$

### CHEMICAL DATA

Purge Time		Purge Volume (gal.)	Cumulative (gal.)	pH	Temp (°C)	Specific Conductance	
Start	Stop					Measurement	x umhos/cm
11:26	11:32	7	7	7.0	70°	534	x 1,000
	11:38	7	14	7.0	71°	.53	
	11:44	7	21	7.0	70°	.53	

SAMPLES COLLECTED Time 11:51 Total volume purged (gal.) 21  
 Water color CLEAR Odor NONE  
 Description of sediments or material in sample: Some sed.  
 Additional Comments:     

Sample ID	# of Cont.	Container Type	Filtered (size, u)	Preservative (type)	Refrig. (Y/N)	Lab (Init)	Analysis Requested
MW-	6	1	—	HCl	YES	SLA	4/BTEX, 8010

Container Type Codes: 1 = 40 ml clear VOA/Teflon septa; 2 = Brown glass/teflon lined cap (specify size);  
 3 = Clear glass/teflon lined cap (specify size); 4 = Polyethylene/polyethylene cap (specify size);  
 5 = Other     ; 6 = Other



### WATER SAMPLING DATA

Job Name EMERYVILLE

Job Number 1-191-04

Sampler D.B.

Well Number MW-13

Date 10/24/94

Well Diameter 4

Sample Point Location/Description U. SIDE OF PARKING AREA A.T.S.

Well Depth (spec.) \_\_\_\_\_

Depth to Water (static) 6.04

Well Depth (sounded) 15.53

Initial height of water in casing 9.49

Volume 6.69 gallons

Volume to be purged \_\_\_\_\_ gallons

19 gallons

Purged With PUMP

Sampled With Disp. Bail

Pumped or Bailed Dry?  Yes  No

Time 2:03 After 10 gallons

Water level at sampling \_\_\_\_\_

Percent Recovery \_\_\_\_\_

**Formulas/Conversions**  
 $r$  = well radius in ft  
 $h$  = ht of water col. in ft  
 vol. in cyl. =  $\pi r^2 h$   
 7.48 gal/ft<sup>3</sup>  
 $V_{2"}$  casing = 0.163 gal/ft  
 $V_{3"}$  casing = 0.367 gal/ft  
 $V_{4"}$  casing = 0.653 gal/ft  
 $V_{5"}$  casing = 0.826 gal/ft  
 $V_{6"}$  casing = 1.47 gal/ft  
 $V_{8"}$  casing = 2.61 gal/ft

### CHEMICAL DATA

Purge Time		Purge Volume (gal.)	Cumulative (gal.)	pH	Temp (°C)	Specific Conductance	
Start	Stop					Measurement	x umhos/cm
11:55	12:01	6	6	6.8	74	990	
day At 12:03	12:07	7	13	dry			
↓	12:13	6	19	↓			

SAMPLES COLLECTED Time 12:20

Total volume purged (gal.) 10

Water color CLEAR

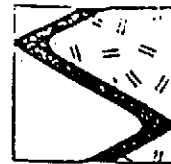
Odor NONE

Description of sediments or material in sample: SOME SED.

Additional Comments: \_\_\_\_\_

Sample ID	# of Cont.	Container Type	Filtered (size, u)	Preservative (type)	Refrig. (Y/N)	Lab (Init)	Analysis Requested
MW-13	6	1	—	HCl	YES	SIA	4/BTEX, 8010

Container Type Codes: 1 = 40 ml clear VOA/Teflon septa; 2 = Brown glass/teflon lined cap (specify size);  
 3 = Clear glass/teflon lined cap (specify size); 4 = Polyethylene/polyethylene cap (specify size);  
 5 = Other \_\_\_\_\_; 6 = Other \_\_\_\_\_



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### WATER SAMPLING DATA

Job Name Emeryville Job Number 1-191-04 Sampler D.B.  
 Well Number MW-15 Date 10/24/94 Well Diameter 4"  
 Sample Point Location/Description S.E. and Reclamation of A.T.S. Well Depth (spec.) \_\_\_\_\_  
 Depth to Water (static) 5.17 Well Depth (sounded) 7.15  
 Initial height of water in casing 1.98 Volume 1.29 gallons  
 Volume to be purged 4 gallons  
 Purged With PUMP Sampled With Disp. Bailor  
 Pumped or Bailed Dry?  Yes  No Time 1:48 After 2 gallons  
 Water level at sampling \_\_\_\_\_ Percent Recovery \_\_\_\_\_

**Formulas/Conversions**  
 $r$  = well radius in ft  
 $h$  = ht of water col. in ft  
 vol. in cyl. =  $\pi r^2 h$   
 7.48 gal/ft<sup>3</sup>  
 $V_{2.5}^*$  casing = 0.163 gal/ft  
 $V_{3.0}^*$  casing = 0.367 gal/ft  
 $V_{3.5}^*$  casing = 0.653 gal/ft  
 $V_{4.0}^*$  casing = 0.826 gal/ft  
 $V_{4.5}^*$  casing = 1.47 gal/ft  
 $V_{5.0}^*$  casing = 2.61 gal/ft

### CHEMICAL DATA

Purge Time		Purge Volume (gal.)	Cumulative (gal.)	pH	Temp (°C)	Specific Conductance	
Start	Stop					Measurement	x umhos/cm
1:46	1:47	1	1	8.1	68	550	
Dry →	1:49	2	3	Dry →			
↓	1:50	1	4	↓			

SAMPLES COLLECTED Time 1:50 Total volume purged (gal.) 4  
 Water color GREY Odor \_\_\_\_\_  
 Description of sediments or material in sample: Sandy sed.  
 Additional Comments: \_\_\_\_\_

Sample ID	# of Cont.	Container Type	Filtered (size, u)	Preservative (type)	Refrig. (Y/N)	Lab (Init)	Analysis Requested
MW-15	6	1	—	HCl	YES	SLA	4/BTEX, 8010

Container Type Codes: 1 = 40 ml clear VOA/Teflon septa; 2 = Brown glass/teflon lined cap (specify size);  
 3 = Clear glass/teflon lined cap (specify size); 4 = Polyethylene/polyethylene cap (specify size);  
 5 = Other \_\_\_\_\_; 6 = Other \_\_\_\_\_



### WATER SAMPLING DATA

Job Name EMERYVILLE Job Number 1-191-04 Sampler DB.  
 Well Number MW-17 Date 10-24-94 Well Diameter 2"  
 Sample Point Location/Description S.E. corner Power Office Well Depth (spec.) \_\_\_\_\_  
 Depth to Water (static) 6.08 Well Depth (sounded) 11.0  
 Initial height of water in casing 4.92 Volume .80 gallons  
 Volume to be purged 3 gallons  
 Purged With PUMP AND BAILED Sampled With Disp. Bailor  
 Pumped or Bailed Dry? Yes  No  Time \_\_\_\_\_ After \_\_\_\_\_ gallons  
 Water level at sampling \_\_\_\_\_ Percent Recovery \_\_\_\_\_

**Formulas/Conversions**  
 $r$  = well radius in ft  
 $h$  = ht of water col. in ft  
 vol. in cyl. =  $\pi r^2 h$   
 7.48 gal/ft<sup>3</sup>  
 $V_{1"} casing = 0.163 \text{ gal/ft}$   
 $V_{1.5"} casing = 0.367 \text{ gal/ft}$   
 $V_{2"} casing = 0.653 \text{ gal/ft}$   
 $V_{2.5"} casing = 0.826 \text{ gal/ft}$   
 $V_{3"} casing = 1.47 \text{ gal/ft}$   
 $V_{3.5"} casing = 2.61 \text{ gal/ft}$

#### CHEMICAL DATA

Purge Time		Purge Volume (gal.)	Cumulative (gal.)	pH	Temp (°C)	Specific Conductance	
Start	Stop					Measurement	x umhos/cm
10:04							
	10:08	1	1	6.07	63.6	0.38	x 1,000
	10:12	1	2	6.05	64.9	0.37	↓
	10:17	1	3	6.15	64.9	0.39	↓

SAMPLES COLLECTED Time 10:20 Total volume purged (gal.) 3  
 Water color cloudy Odor NONE  
 Description of sediments or material in sample: LIGHT SEDIMENT  
 Additional Comments: \_\_\_\_\_

Sample ID	# of Cont.	Container Type	Filtered (size, u)	Preservative (type)	Refrig. (Y/N)	Lab (Init)	Analysis Requested
MW-17	3	1	—	HCl	YES	SLA	4/BTEX, 8010

Container Type Codes: 1 = 40 ml clear VOA/Teflon septa; 2 = Brown glass/teflon lined cap (specify size);  
 3 = Clear glass/teflon lined cap (specify size); 4 = Polyethylene/polyethylene cap (specify size);  
 5 = Other \_\_\_\_\_; 6 = Other \_\_\_\_\_



### WATER SAMPLING DATA

Job Name EMERYVILLE Job Number 1-191-04 Sampler D.B.  
 Well Number MW-18 Date 10-24-94 Well Diameter 2"  
 Sample Point Location/Description S. QUINN PARKER ST. OVERPASS Well Depth (spec.) \_\_\_\_\_  
 Depth to Water (static) 5.65 Well Depth (sounded) 10.0  
 Initial height of water in casing 4.35 Volume .70 gallons  
 Volume to be purged \_\_\_\_\_ gallons  
 Purged With PUMP Sampled With Disp. Bailer  
 Pumped or Bailed Dry?  Yes  No Time \_\_\_\_\_ After \_\_\_\_\_ gallons  
 Water level at sampling \_\_\_\_\_ Percent Recovery \_\_\_\_\_

**Formulas/Conversions**  
 $r$  = well radius in ft  
 $h$  = ht of water col. in ft  
 vol. in cyl. =  $\pi r^2 h$   
 7.48 gal/ft<sup>3</sup>  
 $V_2$  casing = 0.163 gal/ft  
 $V_3$  casing = 0.367 gal/ft  
 $V_4$  casing = 0.653 gal/ft  
 $V_{4.5}$  casing = 0.826 gal/ft  
 $V_6$  casing = 1.47 gal/ft  
 $V_8$  casing = 2.61 gal/ft

### CHEMICAL DATA

Purge Time		Purge Volume (gal.)	Cumulative (gal.)	pH	Temp (°C)	Specific Conductance	
Start	Stop					Measurement	x umhos/cm
0932							
	0934	1	1	6.16	63.4	0.34	X 1,000
	0936	.5	1.5	6.16	64.0	0.35	↓
	0938	.5	2.0	6.16	64.2	0.35	↓

SAMPLES COLLECTED Time 0940 Total volume purged (gal.) 2.  
 Water color CLOUDY TAN Odor NONE  
 Description of sediments or material in sample: LIGHT  
 Additional Comments: \_\_\_\_\_

Sample ID	# of Cont.	Container Type	Filtered (size, u)	Preservative (type)	Refrig. (Y/N)	Lab (Init)	Analysis Requested
MW-18	<del>1</del> 3	1	—	HCl	YES	SLA	4/BTEX, 8010

Container Type Codes: 1 = 40 ml clear VOA/Teflon septa; 2 = Brown glass/teflon lined cap (specify size);  
 3 = Clear glass/teflon lined cap (specify size); 4 = Polyethylene/polyethylene cap (specify size);  
 5 = Other \_\_\_\_\_; 6 = Other \_\_\_\_\_



SIERRA

### WATER SAMPLING DATA

Job Name EMERYVILLE Job Number 1-191-04 Sampler D.B.  
 Well Number MW-19 Date 10-24-94 Well Diameter 2"  
 Sample Point Location/Description S.W. corner Powell St. Well Depth (spec.) \_\_\_\_\_  
 Depth to Water (static) 4.85 Well Depth (sounded) 8.5  
 Initial height of water in casing 3.65 Volume .59 gallons  
 Volume to be purged \_\_\_\_\_ gallons  
 Purged With PUMP HAND BAILED Sampled With Disp. Bailor  
 Pumped or Bailed Dry? Yes  No  Time \_\_\_\_\_ After \_\_\_\_\_ gallons  
 Water level at sampling \_\_\_\_\_ Percent Recovery \_\_\_\_\_

**Formulas/Conversions**  
 r = well radius in ft  
 h = ht of water col. in ft  
 vol. in cyl. =  $\pi r^2 h$   
 7.48 gal/ft<sup>3</sup>  
 V<sub>1</sub>" casing = 0.163 gal/ft  
 V<sub>2</sub>" casing = 0.367 gal/ft  
 V<sub>3</sub>" casing = 0.653 gal/ft  
 V<sub>4</sub>" casing = 0.826 gal/ft  
 V<sub>5</sub>" casing = 1.47 gal/ft  
 V<sub>6</sub>" casing = 2.61 gal/ft

### CHEMICAL DATA

Purge Time		Purge Volume (gal.)	Cumulative (gal.)	pH	Temp <sup>F°</sup>	Specific Conductance	
Start	Stop					Measurement	x umhos/cm
9:02							
	9:05	1	1	6.25	66.5	0.39	x 1000
	9:09	.5	1.5	6.42	66.1	0.35	↓
	9:13	.5	2.0	6.55	66.4	0.34	↓

SAMPLES COLLECTED Time 09:20 Total volume purged (gal.) 2  
 Water color CLOUDY TAN Odor NONE  
 Description of sediments or material in sample: LIGHT SEDIMENT  
 Additional Comments: \_\_\_\_\_

Sample ID	# of Cont.	Container Type	Filtered (size, u)	Preservative (type)	Refrig. (Y/N)	Lab (Init)	Analysis Requested
MW-19	<del>3</del> 3	1	—	HCl	YES	SLA	4/BTEX, 8010

Container Type Codes: 1 = 40 ml clear VOA/Teflon septa; 2 = Brown glass/teflon lined cap (specify size);  
 3 = Clear glass/teflon lined cap (specify size); 4 = Polyethylene/polyethylene cap (specify size);  
 5 = Other \_\_\_\_\_; 6 = Other \_\_\_\_\_

Fax copy of Lab Report and COC to Chevron Contact:  Yes  No

30810

Chain-of-Custody-Record

Chevron Facility Number: 1001067  
 Facility Address: 1520 POWELL ST. AT LANDRAV, EMERYVILLE  
 Consultant Project Number: 1-191.94  
 Consultant Name: SIERRA ENVIRONMENTAL SERVICES  
 Address: P.O. BOX 2546 MARTINEZ, CA 94553  
 Project Contact (Name): ED MORALES  
 (Phone) 370-1280 (Fax Number) 370-7959

Chevron Contact (Name): LUCA CHOW  
 (Phone): 842-9655  
 Laboratory Name: SPA  
 Laboratory Release Number: 8724331  
 Samples Collected by (Name): D.B. / J.C.  
 Collection Date: 10.24.94  
 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)	Analytes To Be Performed															
								BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Hydrocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)								
TB	1	2	W	G	-	HCl	YES	✓															
MW 7	2	6			12:40			✓															
MW 15	7	6			13:50			✓															
MW-13	4	6			12:20			✓															
MW-11	5	6			11:51			✓															
MW-10	6	6			11:20			✓															
MW 17	2	3			10:20			✓															
MW 18	8	3			09:40			✓															
MW 19	9	3	✓	✓	09:20	✓	✓	✓															

Note:  
 Do Not Bill  
 TB-LB Samples

Relinquished By (Signature): [Signature]  
 Relinquished By (Signature): [Signature]  
 Relinquished By (Signature): [Signature]

Organization: SES  
 Date/Time: 10/24/94  
 Organization: [Signature]  
 Date/Time: [Signature]  
 Organization: [Signature]  
 Date/Time: [Signature]

Received By (Signature): [Signature]  
 Received By (Signature): [Signature]  
 Received For Laboratory By (Signature): Alsanh Sat

Organization: [Signature]  
 Date/Time: [Signature]  
 Organization: [Signature]  
 Date/Time: [Signature]  
 Date/Time: 10/24/94

Turn Around Time (Circle Choice)  
 24 Hrs.  
 48 Hrs.  
 5 Days  
 10 Days  
As Contracted





### WATER SAMPLING DATA

Job Name Emeryville Job Number 1.199-04 Sampler P.B.  
 Well Number MW-18 Date 10.27.94 Well Diameter 2"  
 Sample Point Location/Description Santa Lucia Blvd St Overpass Well Depth (spec.) \_\_\_\_\_  
 Depth to Water (static) 5.67 Well Depth (sounded) 10.0  
 Initial height of water in casing 4.33 Volume 70 gallons  
 Volume to be purged 2.0 gallons  
 Purged With Hand Bailed Sampled With D. BAKER  
 Pumped or Bailed Dry? Yes  No  Time \_\_\_\_\_ After \_\_\_\_\_ gallons  
 Water level at sampling \_\_\_\_\_ Percent Recovery \_\_\_\_\_

**Formulas/Conversions**  
 $r$  = well radius in ft  
 $h$  = ht of water col. in ft  
 vol. in cyl. =  $\pi r^2 h$   
 7.48 gal/ft<sup>3</sup>  
 $V_{2"}$  casing = 0.163 gal/ft  
 $V_{3"}$  casing = 0.367 gal/ft  
 $V_{4"}$  casing = 0.653 gal/ft  
 $V_{5"}$  casing = 0.826 gal/ft  
 $V_{6"}$  casing = 1.47 gal/ft  
 $V_{8"}$  casing = 2.61 gal/ft

#### CHEMICAL DATA

Purge Time		Purge Volume (gal.)	Cumulative (gal.)	pH	Temp (°C)	Specific Conductance	
Start	Stop					Measurement	x umhos/cm
/							
/							
/							
/							

SAMPLES COLLECTED Time 12:15 Total volume purged (gal.) 2.0 GAL.  
 Water color CLOUDY TAN Odor NONE  
 Description of sediments or material in sample: LIGHT SEDIMENT  
 Additional Comments: PERMETERS COLLECTED PREVIOUSLY ON 10-24-94, WATER PURGED  
3 SAMPLE COLLECTED

Sample ID	# of Cont.	Container Type	Filtered (size, u)	Preservative (type)	Refrig. (Y/N)	Lab (Init)	Analysis Requested
MW-18	3	1	—	HCl	YES	SPA	G/PTER, 6010

Container Type Codes: 1 = 40 ml clear VOA/Teflon septa; 2 = Brown glass/teflon lined cap (specify size);  
 3 = Clear glass/teflon lined cap (specify size); 4 = Polyethylene/polyethylene cap (specify size);  
 5 = Other \_\_\_\_\_; 6 = Other \_\_\_\_\_





# Superior Precision Analytical, Inc.

A member of ESSCON Environmental Support Service Consortium

Sierra Environmental  
Attn: ED MORALES

Project 1-191.94  
Reported 10/31/94

## TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed Matrix
30810- 1	TB	10/24/94	10/26/94 Water
30810- 2	MW7	10/24/94	10/26/94 Water
30810- 3	MW15	10/24/94	10/26/94 Water
30810- 4	MW13	10/24/94	10/26/94 Water
30810- 5	MW11	10/24/94	10/26/94 Water
30810- 6	MW10	10/24/94	10/26/94 Water
30810- 7	MW17	10/24/94	10/27/94 Water
30810- 8	MW18	10/24/94	10/27/94 Water
30810- 9	MW19	10/24/94	10/26/94 Water

## RESULTS OF ANALYSIS

Laboratory Number: 30810- 1    30810- 2    30810- 3    30810- 4    30810- 5

Gasoline:	ND<50	ND<50	ND<50	ND<50	ND<50
Benzene:	ND<0.5	ND<0.5	2.3	ND<0.5	ND<0.5
Toluene:	ND<0.5	ND<0.5	1.1	ND<0.5	ND<0.5
Ethyl Benzene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Total Xylenes:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Concentration:	ug/L	ug/L	ug/L	ug/L	ug/L

Laboratory Number: 30810- 6    30810- 7    30810- 8    30810- 9

Gasoline:	ND<50	ND<50	ND<50	ND<50
Benzene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Toluene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Ethyl Benzene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Total Xylenes:	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Concentration:	ug/L	ug/L	ug/L	ug/L



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## C E R T I F I C A T E   O F   A N A L Y S I S

### ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

Page 2 of 2  
QA/QC INFORMATION  
SET: 30810

NA = ANALYSIS NOT REQUESTED  
ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT  
ug/L = parts per billion (ppb)

OIL AND GREASE ANALYSIS By Standard Methods Method 5520F:  
Minimum Detection Limit in Water: 5000ug/L

Modified EPA SW-846 Method 8015 for Extractable Hydrocarbons:  
Minimum Quantitation Limit for Diesel in Water: 50ug/L

EPA SW-846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:  
Minimum Quantitation Limit for Gasoline in Water: 50ug/L

EPA SW-846 Method 8020/BTXE  
Minimum Quantitation Limit in Water: 0.5ug/L

ANALYTE	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Gasoline:	100/104	4%	56-117
Benzene:	82/85	4%	59-149
Toluene:	89/90	1%	59-149
Ethyl Benzene:	95/96	1%	59-149
Total Xylenes:	96/97	1%	59-149

*Adrian Sabido* 11/8/94  
Certified Laboratory Chemist

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# Superior Precision Analytical, Inc.

A member of ESSCON Environmental Support Service Consortium

Sierra Environmental  
Attn: ED MORALES

Project 1-191.94  
Reported 08-November-1994

HALOGENATED VOLATILE ORGANICS by EPA SW-846 Methods 5030/8010.

## Chronology

Laboratory Number 30810

Identification	Sampled	Received	Extracted	Analyzed	Run #	Lab #
MW7	10/24/94	10/24/94	11/07/94	11/07/94		2
MW15	10/24/94	10/24/94	11/07/94	11/07/94		3
MW13	10/24/94	10/24/94	11/07/94	11/07/94		4
MW11	10/24/94	10/24/94	11/07/94	11/07/94		5
MW10	10/24/94	10/24/94	11/07/94	11/07/94		6
MW17	10/24/94	10/24/94	11/07/94	11/07/94		7
MW18	10/27/94	10/27/94	11/07/94	11/07/94		8
MW19	10/24/94	10/24/94	11/07/94	11/07/94		9

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Sierra Environmental  
Attn: ED MORALES

Project 1-191.94  
Reported 08-November-1994

## HALOGENATED VOLATILE ORGANICS by EPA SW-846 Methods 5030/8010.

Laboratory Number	Sample Identification	Matrix
30810- 2	MW7	Water
30810- 3	MW15	Water
30810- 4	MW13	Water
30810- 5	MW11	Water
30810- 6	MW10	Water

### RESULTS OF ANALYSIS

Laboratory Number:    30810- 2    30810- 3    30810- 4    30810- 5\*    30810- 6\*

Chloromethane:	ND<0.5	ND<0.5	ND<0.5	ND<10	ND<10
Vinyl Chloride:	ND<0.5	ND<0.5	ND<0.5	ND<10	ND<10
Bromomethane:	ND<0.5	ND<0.5	ND<0.5	ND<10	ND<10
Chloroethane:	ND<0.5	ND<0.5	ND<0.5	ND<10	ND<10
Trichlorofluoromethane:	ND<0.5	ND<0.5	ND<0.5	ND<10	ND<10
1,1-Dichloroethene:	ND<0.5	ND<0.5	ND<0.5	ND<10	ND<10
Dichloromethane:	ND<1.0	ND<1.0	ND<1.0	ND<20	ND<20
t-1,2-Dichloroethene:	ND<0.5	ND<0.5	ND<0.5	28	13
1,1-Dichloroethane:	ND<0.5	ND<0.5	ND<0.5	ND<10	ND<10
c-1,2-Dichloroethene:	ND<0.5	ND<0.5	ND<0.5	75	44
Chloroform:	ND<0.5	3.8	ND<0.5	ND<10	ND<10
1,1,1-Trichloroethane:	ND<0.5	ND<0.5	ND<0.5	ND<10	ND<10
Carbon tetrachloride:	ND<0.5	ND<0.5	ND<0.5	ND<10	ND<10
1,2-Dichloroethane:	ND<0.5	ND<0.5	ND<0.5	ND<10	ND<10
Trichloroethene:	ND<0.5	3.1	ND<0.5	ND<10	ND<10
c-1,3-Dichloropropene:	ND<0.5	ND<0.5	ND<0.5	ND<10	ND<10
1,2-Dichloropropane:	ND<0.5	ND<0.5	ND<0.5	ND<10	ND<10
t-1,3-Dichloropropene:	ND<0.5	ND<0.5	ND<0.5	ND<10	ND<10
Bromodichloromethane:	ND<0.5	ND<0.5	ND<0.5	ND<10	ND<10
1,1,2-Trichloroethane:	ND<0.5	ND<0.5	ND<0.5	ND<10	ND<10
Tetrachloroethene:	ND<0.5	ND<0.5	ND<0.5	ND<10	ND<10
Dibromochloromethane:	ND<0.5	ND<0.5	ND<0.5	ND<10	ND<10
Chlorobenzene:	ND<0.5	ND<0.5	ND<0.5	ND<10	ND<10
Bromoform:	ND<0.5	ND<0.5	ND<0.5	ND<10	ND<10
1,1,2,2-Tetrachloroeth:	ND<0.5	ND<0.5	ND<0.5	ND<10	ND<10
1,3-Dichlorobenzene:	ND<0.5	ND<0.5	ND<0.5	ND<10	ND<10
1,2-Dichlorobenzene:	ND<0.5	ND<0.5	ND<0.5	ND<10	ND<10
1,4-Dichlorobenzene:	ND<0.5	ND<0.5	ND<0.5	ND<10	ND<10

Concentration:                    ug/L                    ug/L                    ug/L                    ug/L                    ug/L

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A member of ESSCON Environmental Support Service Consortium

Sierra Environmental

Attn: ED MORALES

Project 1-191.94

Reported 08-November-1994

## HALOGENATED VOLATILE ORGANICS by EPA SW-846 Methods 5030/8010.

Laboratory Number	Sample Identification	Matrix
30810- 7	MW17	Water
30810- 8	MW18	Water
30810- 9	MW19	Water

### RESULTS OF ANALYSIS

Laboratory Number: 30810- 7 30810- 8 30810- 9\*

Chloromethane:	ND<0.5	ND<0.5	ND<50
Vinyl Chloride:	ND<0.5	ND<0.5	ND<50
Bromomethane:	ND<0.5	ND<0.5	ND<50
Chloroethane:	ND<0.5	ND<0.5	ND<50
Trichlorofluoromethane:	ND<0.5	ND<0.5	ND<50
1,1-Dichloroethene:	ND<0.5	ND<0.5	ND<50
Dichloromethane:	ND<1	ND<1.0	ND<100
t-1,2-Dichloroethene:	ND<0.5	ND<0.5	110
1,1-Dichloroethane:	ND<0.5	ND<0.5	ND<50
c-1,2-Dichloroethene:	1.4	ND<0.5	54
Chloroform:	ND<0.5	1.2	ND<50
1,1,1-Trichloroethane:	ND<0.5	ND<0.5	ND<50
Carbon tetrachloride:	ND<0.5	ND<0.5	ND<50
1,2-Dichloroethane:	ND<0.5	ND<0.5	ND<50
Trichloroethene:	26	22	98
c-1,3-Dichloropropene:	ND<0.5	ND<0.5	ND<50
1,2-Dichloropropane:	ND<0.5	ND<0.5	ND<50
t-1,3-Dichloropropene:	ND<0.5	ND<0.5	ND<50
Bromodichloromethane:	ND<0.5	ND<0.5	ND<50
1,1,2-Trichloroethane:	ND<0.5	ND<0.5	ND<50
Tetrachloroethene:	13	15	300
Dibromochloromethane:	ND<0.5	ND<0.5	ND<50
Chlorobenzene:	ND<0.5	ND<0.5	ND<50
Bromoform:	ND<0.5	ND<0.5	ND<50
1,1,2,2-Tetrachloroeth:	ND<0.5	ND<0.5	ND<50
1,3-Dichlorobenzene:	ND<0.5	ND<0.5	ND<50
1,2-Dichlorobenzene:	ND<0.5	ND<0.5	ND<50
1,4-Dichlorobenzene:	ND<0.5	ND<0.5	ND<50

Concentration: ug/L ug/L ug/L

Page 3 of 4

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# Superior Precision Analytical, Inc.

A member of ESSCON Environmental Support Service Consortium  
HALOGENATED VOLATILE ORGANICS by EPA SW-846 Methods 5030/8010.  
Quality Assurance and Control Data - Water

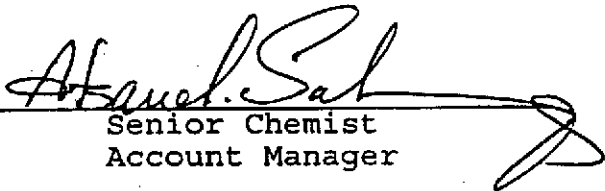
Laboratory Number 30810

Compound	Method Blank (ug/L)	RL (ug/L)	Spike Recovery (%)	Limits (%)	RPD (%)
Chloromethane:	ND<0.5	0.5			
Vinyl Chloride:	ND<0.5	0.5			
Bromomethane:	ND<0.5	0.5			
Chloroethane:	ND<0.5	0.5			
Trichlorofluoromethane:	ND<0.5	0.5			
1,1-Dichloroethene:	ND<0.5	0.5	104/108	50-189	4%
Dichloromethane:	ND<1.0	1.0			
t-1,2-Dichloroethene:	ND<0.5	0.5			
1,1-Dichloroethane:	ND<0.5	0.5			
c-1,2-Dichloroethene:	ND<0.5	0.5			
Chloroform:	ND<0.5	0.5			
1,1,1-Trichloroethane:	ND<0.5	0.5			
Carbon tetrachloride:	ND<0.5	0.5			
1,2-Dichloroethane:	ND<0.5	0.5			
Trichloroethene:	ND<0.5	0.5	104/99	53-161	5%
c-1,3-Dichloropropene:	ND<0.5	0.5			
1,2-Dichloropropane:	ND<0.5	0.5			
t-1,3-Dichloropropene:	ND<0.5	0.5			
Bromodichloromethane:	ND<0.5	0.5			
1,1,2-Trichloroethane:	ND<0.5	0.5			
Tetrachloroethene:	ND<0.5	0.5			
Dibromochloromethane:	ND<0.5	0.5			
Chlorobenzene:	ND<0.5	0.5	118/115	57-171	3%
Bromoform:	ND<0.5	0.5			
1,1,2,2-Tetrachloroeth:	ND<0.5	0.5			
1,3-Dichlorobenzene:	ND<0.5	0.5			
1,2-Dichlorobenzene:	ND<0.5	0.5			
1,4-Dichlorobenzene:	ND<0.5	0.5			

\*THE DETECTION LIMIT WAS RAISED DUE TO DILUTION REQUIRED BY HIGH LEVEL ANALYTEES IN THE SAMPLE.

Definitions:

- ND = Not Detected
- RPD = Relative Percent Difference
- RL = Reporting Limit
- ug/L = Parts per billion (ppb)
- QC File No. 30810

  
 Senior Chemist  
 Account Manager