

*File*



**Chevron**

ENVIRONMENTAL  
PROTECTION

96 SEP 30 PM 2:59

September 26, 1996

Ms. Susan Hugo  
Alameda County Health Care Services  
Department of Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

**Chevron U.S.A. Products Company**  
6001 Bollinger Canyon Road  
Building L  
San Ramon, CA 94583  
P.O. Box 5004  
San Ramon, CA 94583-0804

**Marketing - Northwest Region**  
Phone 510 842 9500

**Re: Former Chevron Service Station # 9-1026  
3701 Broadway  
Oakland, California**

Dear Ms. Hugo:

Enclosed is a copy of the First Quarter Groundwater Monitoring report for 1996 that was prepared by our consultant Gettler-Ryan Inc. for the above noted site. Apologize for the delay in submittal of this report, any future reports will be submitted in a timely manner. Monitoring wells were sampled and analyzed for TPH-g, BTEX and MtBE. Concentrations of benzene constituents were below method detection levels in monitoring wells B-1, E, EA-1, EA-2, and F. Separate phase hydrocarbons (SPH) were detected in monitoring wells B, B-2, and B-3. All three wells were bailed and the SPH was removed from site and transported to Chevron's Richmond facility for recycling. Depth to groundwater varied from 9.02 feet to 13.88 feet below grade with a direction of flow to the southwest.

Monitoring well B-4 continues to be impacted by BTEX, TPH-g and MtBE constituents, which may indicate the presence of a source located upgradient of Chevron's site. Chevron's portion of the plume appears to stable and contained.

Chevron implemented the sampling program outlined in the Comprehensive Site Evaluation and Proposed Future Action Plan, dated December 20, 1994. Therefore, no monitoring event occurred in the Second Quarter, but will occur in the Third Quarter, with monitoring wells B, B-1, B-2, B-3, and B-4 to be sampled.

If you have any questions or comments, call me at (510) 842-9136. For your information, Mr. Mark Miller has been transferred to another position within Chevron and I have taken over this project from him.

Sincerely  
CHEVRON PRODUCTS COMPANY

Philip R. Briggs  
Site Assessment and Remediation Project Manager

Enclosure

Ms. Susan Hugo  
Former Service Station 9-1026  
September 26, 1996  
Page 2

cc. Ms. Bette Owen, Chevron

Mr. W. Bruce Bercovich  
Kay & Merkel  
100 The Embarcadero, 3rd Floor  
San Francisco, CA 94105



# GETTLER-RYAN INC.

April 26, 1996

Job #5127.80

Mr. Phill Briggs  
Chevron USA Products Company  
P.O. Box 5004  
San Ramon, CA 94583

Re: Former Chevron Service Station #9-1026  
3701 Broadway  
Oakland, California

Dear Mr. Briggs:

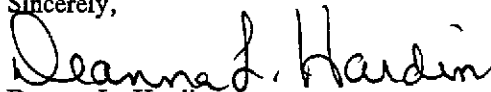
This report documents the semi-annual groundwater sampling event performed by Gettler-Ryan Inc. (G-R). On March 22, 1996, field personnel were on-site to monitor nine wells (B, B-1 through B-4, E, EA-1, EA-2, and F), and sample six wells (B-1, B-4, E, EA-1, EA-2 and F) at the Former Chevron Service Station #9-1026 located at 3701 Broadway in Oakland, California.

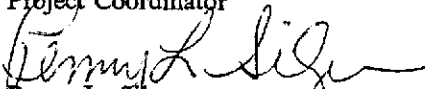
Static groundwater levels were measured on March 22, 1996. All wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were present in three site wells (B, B-2 and B-3). Static water level data and groundwater elevations are presented in Table 1. Separate-phase hydrocarbon removal data is presented in Table 2. A potentiometric map is included as Figure 1.

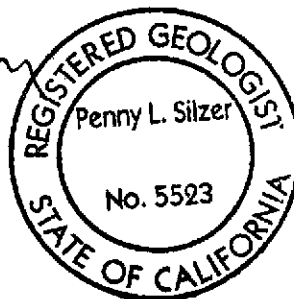
Groundwater samples were collected from the monitoring wells as specified by G-R Standard Operating Procedure - Quarterly Groundwater Sampling (attached). The field data sheets for this event are also attached. The samples were analyzed by GTEL Environmental Laboratories, Inc. Analytical results are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

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

Sincerely,

  
Deanna L. Harding  
Project Coordinator

  
Penny L. Sitzer  
Senior Geologist, R.G. No. 5523

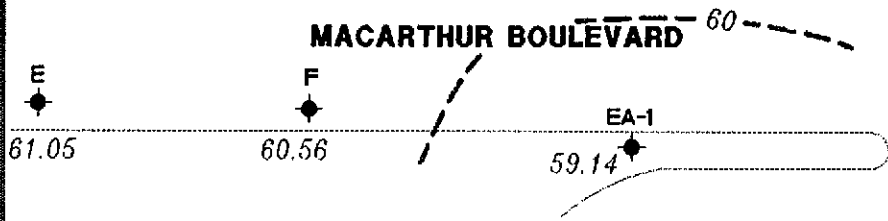
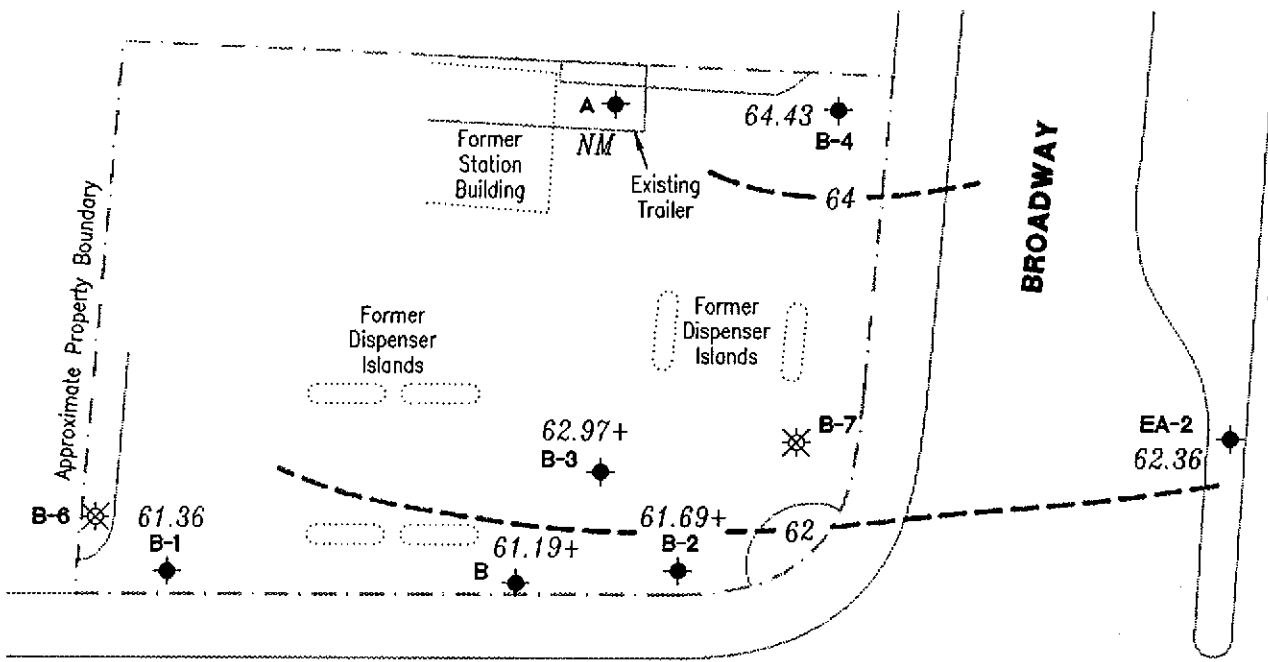


DLH/PLS/dlh  
5127.QML

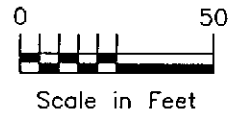
Figure 1: Potentiometric Map  
Table 1: Water Level Data and Groundwater Analytical Results  
Table 2: Separate-phase Hydrocarbon Removal Data  
Attachments: Standard Operating Procedure - Quarterly Groundwater Sampling  
Field Data Sheets  
Chain of Custody Document and Laboratory Analytical Reports

**EXPLANATION**

- ◆ Groundwater monitoring well
- ⊗ Abandoned groundwater monitoring well
- 99.99 Groundwater elevation in feet referenced to Mean Sea Level (MSL)
- 99.99 - Groundwater elevation contour, dashed where inferred.
- [99.99] Not used in contouring
- NM Not measured
- + Groundwater elevation corrected for the presence of free-phase hydrocarbons



Approximate groundwater flow direction at a gradient of 0.02 to 0.04 Ft./Ft.



**Gettler - Ryan Inc.**

6747 Sierra Ct., Suite J (510) 551-7555  
Dublin, CA 94568

**POTENTIOMETRIC MAP**  
Former Chevron Service Station No. 9-1026  
3701 Broadway  
Oakland, California

FIGURE

**1**

JOB NUMBER  
5127

REVIEWED BY  
*[Signature]*

DATE  
March 22, 1996

REVISED DATE



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Service Station #9-1026, 3701 Broadway, Oakland, California

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G)	←-----ppb----->					
						B	T	E	X	MTBE	
A  75.28	5/9/89	13.92	61.36	0	11,000	260	<2	94	230	--	
	8/9/89	15.62	59.66	0	12,000	370	<1.5	100	240	--	
	11/9/89	15.95	59.33	0	16,000	690	10	180	350	--	
	2/8/90	14.73	60.55	0	14,000	600	7	120	270	--	
	5/10/90	15.48	59.80	0	16,000	840	4.8	140	340	--	
	8/9/90	15.66	59.62	0	17,000	510	40	170	280	--	
	11/13/90	16.48	58.80	0	9,000	570	3.1	86	170	--	
	3/27/91	--	--	--	8,000	660	<5	110	250	--	
	4/5/91	13.22	62.06	0	--	--	--	--	--	--	
	6/19/91	15.37	59.91	0	8,900	740	<3	120	280	--	
	8/21/91	15.99	59.29	0	6,800	620	23	85	200	--	
	11/8/91	16.15	59.13	0	4,000	640	<5	77	160	--	
	2/13/92	14.58	60.70	0	8,000	860	<5	120	390	--	
	5/1/92	14.26	61.02	0	13,000	870	19	220	780	--	
	75.29	11/18/92	16.38	58.91	0	12,000	1,500	83	360	530	--
		3/19/93	12.16	63.13	0	14,000	820	6.1	180	420	--
		6/10/93	14.25	61.04	0	9,000	700	13	170	310	--
		9/8/93	--	--	--	--	--	--	--	--	--
		12/21/93	--	--	--	--	--	--	--	--	--
3/9/94		13.34	61.95	0	9,600	860	21	200	390	--	
9/21/94 <sup>2</sup>		--	--	--	--	--	--	--	--	--	
12/20/94 <sup>2</sup>		--	--	--	--	--	--	--	--	--	
3/28/95 <sup>2</sup>		--	--	--	--	--	--	--	--	--	
6/22/95 <sup>2</sup>		--	--	--	--	--	--	--	--	--	
9/21/95 <sup>7</sup>	--	--	--	--	--	--	--	--	--		
3/22/96 <sup>7</sup>	--	--	--	--	--	--	--	--	--		
B  73.39	5/9/89	13.97	59.58	0.20	--	--	--	--	--	--	
	8/9/89	15.69	57.86	0.20	--	--	--	--	--	--	
	11/9/89	15.29	58.16	0.08	--	--	--	--	--	--	
	2/8/90	14.46	58.93	0	--	--	--	--	--	--	
	5/10/90	14.07	58.32	0	--	--	--	--	--	--	
	8/9/90	15.12	58.27	0	--	--	--	--	--	--	
	11/13/90	15.76	57.63	0	--	--	--	--	--	--	
	4/5/91	13.38	60.01	0	--	--	--	--	--	--	
	6/19/91	15.14	58.25	0	26,000	7,100	370	430	1,000	--	
	8/21/91	15.58	57.81	0	16,000	4,900	270	390	640	--	
	11/8/91	15.71	57.68	0	11,000	2,400	48	280	160	--	
	2/13/92	14.66	58.73	0	6,800	2,400	60	220	140	--	
	5/1/92	14.50	58.89	Sheen	16,000	6,000	180	370	460	--	
11/18/92	15.60	57.79	0	28,000	2,200	150	920	4,300	--		
3/19/93	13.29	60.12	0.03	--	--	--	--	--	--		



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Service Station #9-1026, 3701 Broadway, Oakland, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G)	←-----ppb----->					
						B	T	E	X	MTBE	
B (cont)	6/10/93	14.30	59.11	0.03	---	---	---	---	---	---	
	9/8/93	15.33	58.25	0.24	---	---	---	---	---	---	
	12/21/93	14.73	58.76	0.12	---	---	---	---	---	---	
	3/9/94	14.07	59.35	0.04	---	---	---	---	---	---	
	9/21/94	15.50	57.91 <sup>3</sup>	0.02 <sup>4</sup>	---	---	---	---	---	---	
	12/20/94	13.75	59.88 <sup>3</sup>	0.12	---	---	---	---	---	---	
	3/28/95 <sup>2</sup>	---	---	---	---	---	---	---	---	---	
	6/22/95	14.56	58.92 <sup>3</sup>	0.11	---	---	---	---	---	---	
	9/21/95	15.88	58.41 <sup>3</sup>	1.12	---	---	---	---	---	---	
	3/22/96	13.02	61.19 <sup>3</sup>	1.02	---	---	---	---	---	---	
B-1	5/9/89	12.58	59.19	0	16,000	2,300	260	81	740	---	
	8/9/89	14.09	57.68	0	12,000	2,600	340	100	870	---	
	71.77	11/9/89	14.06	57.71	0	17,000	340	140	110	760	---
		2/8/90	12.65	59.12	0	5,500	70	19	17	150	---
	5/10/90	13.62	58.15	0	18,000	770	110	73	600	---	
	8/9/90	13.87	57.90	0	82,000	750	66	95	980	---	
	11/13/90	14.38	57.39	0	43,000	1,300	120	74	760	---	
	3/27/91	---	---	---	18,000	580	92	94	770	---	
	4/5/91	11.73	60.04	0	---	---	---	---	---	---	
	6/19/91	13.56	58.21	0	21,000	910	56	96	810	---	
8/21/91	13.90	57.87	0	50,000	2,400	610	300	1,800	---		
72.30	11/8/91	14.05	57.72	0	540,000	3,600	1,500	1,900	5,900	---	
	2/13/92	12.68	59.09	0	20,000	500	100	150	920	---	
	5/1/92	12.92	58.85	Sheen	27,000	2,800	200	310	1,900	---	
	11/18/92	14.30	58.00	0	300	9.7	3.4	2.3	21	---	
	3/19/93	12.28	60.02	0	130	23	.9	<0.5	5.6	---	
	6/10/93	13.04	59.26	0	170	21	1.1	.8	6.6	---	
	9/8/93	13.88	58.46	0.05	---	---	---	---	---	---	
	12/21/93	13.53	58.77	0	<50	6.7	.5	<0.5	1.2	---	
	3/9/94	12.65	59.65	0	1,300	520	8.8	2.4	53	---	
	9/21/94	14.40	57.90	0	390	130	2.7	2.4	7.7	---	
12/20/94	12.35	59.95	0	1,600	520	9.9	8.9	34	---		
3/28/95	10.76	61.54	0	160	38	2.1	1.4	5.4	---		
6/22/95	12.60	59.70	0	340	73	3.1	2.4	7.5	---		
9/21/95	13.65	58.65	0	140	19	1.0	1.2	6.1	---		
3/22/96	10.94	61.36	0	200	<0.5	0.6	2.1	2.2	<5.0		



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Service Station #9-1026, 3701 Broadway, Oakland, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G)	←-----ppb----->					
						B	T	E	X	MTBE	
B-2	5/9/89	14.58	59.93	0	170,000	30,000	8,400	2,300	12,000	---	
	8/9/89	16.06	58.45	0	60,000	29,000	8,700	2,400	12,000	---	
74.51	11/9/89	16.95	57.56	0	110,000	32,000	5,500	2,800	12,000	---	
	2/8/90	15.56	58.95	0	67,000	28,000	5,900	2,300	11,000	---	
	5/10/90	15.94	58.57	0	69,000	24,000	4,800	2,000	11,000	---	
	8/9/90	15.97	58.54	0	100,000	33,000	4,000	2,100	12,000	---	
	11/13/90	16.70	57.81	0	110,000	33,000	4,300	2,900	13,000	---	
	3/27/91	---	---	---	160,000	26,000	3,200	2,600	15,000	---	
	4/5/91	14.20	60.31	0	---	---	---	---	---	---	
	6/19/91	15.83	58.68	0	100,000	22,000	2,500	2,000	11,000	---	
	8/21/91	16.31	58.20	0	80,000	28,000	2,800	2,400	12,000	---	
	11/8/91	16.60	57.91	0	94,000	29,000	1,900	2,200	11,000	---	
	2/13/92	15.93	58.58	0	280,000	34,000	2,500	4,600	23,000	---	
	5/1/92	14.94	59.57	Sheen	29,000	1,700	300	1,100	4,300	---	
	74.52	11/18/92	16.71	57.81	0	26,000	11,000	170	870	950	---
		3/19/93	14.06	60.46	0	110,000	28,000	1,200	2,200	12,000	---
6/10/93		14.88	59.64	0	140,000	15,000	930	1,900	8,800	---	
9/8/93		16.03	58.52	0.04	---	---	---	---	---	---	
12/21/93		15.61	58.91	0	980,000	21,000	30,000	9,100	71,000	---	
3/9/94		14.53	59.99	Sheen	110,000	23,000	920	1,300	7,800	---	
9/21/94 <sup>1</sup>		---	---	---	---	---	---	---	---	---	
12/20/94		14.65	59.86	0	70,000	25,000	710	920	5,300	---	
3/28/95		12.30	62.22	0	76,000	20,000	920	1,200	5,200	---	
6/22/95		14.22	60.30	0	89,000	21,000	3,8000	1,500	6,800	---	
9/21/95		15.80	58.72	0	84,000	24,000	2,900	1,800	9,800	---	
3/22/96		12.85	61.69 <sup>2</sup>	0.02	---	---	---	---	---	---	
B-3	5/9/89	14.02	60.01	0	70,000	12,000	9,500	400	8,900	---	
	8/9/89	15.38	58.74	0	---	---	---	---	---	---	
74.12	11/9/89	15.55	58.61	0.05	---	---	---	---	---	---	
	2/8/90	14.68	59.44	<0.01	---	---	---	---	---	---	
	5/10/90	15.15	58.99	0.02	---	---	---	---	---	---	
	8/9/90	15.27	58.85	<0.01	---	---	---	---	---	---	
	11/13/90	16.04	58.13	0.06	---	---	---	---	---	---	
	4/5/91	13.30	60.82	<0.01	---	---	---	---	---	---	
	6/19/91	15.16	58.96	0	260,000	20,000	9,000	2,200	16,000	---	
	8/21/91	15.61	58.51	0	70,000	28,000	11,000	1,800	11,000	---	
	11/8/91	15.77	58.35	0	150,000	29,000	9,700	2,200	13,000	---	
	2/13/92	14.88	59.24	0	100,000	27,000	9,906	2,000	11,000	---	
	5/1/92	14.20	59.93	0.01	---	---	---	---	---	---	



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Service Station #9-1026, 3701 Broadway, Oakland, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G)	←-----ppb----->					MTBE	
						B	T	E	X			
B-3/74.13 (cont)	11/18/92	15.68	58.47	0.03	---	---	---	---	---	---	---	
	3/19/93	13.75	61.24	1.08	---	---	---	---	---	---	---	
	6/10/93	14.79	60.04	0.87	---	---	---	---	---	---	---	
	9/8/93	15.38	58.81	0.08	---	---	---	---	---	---	---	
	12/21/93	14.74	59.39	0	1,100,000	18,000	29,000	8,900	59,000	---	---	
	3/9/94	13.53	60.60	0	130,000	11,000	20,000	1,700	15,000	---	---	
	9/21/94	15.70	58.45 <sup>3</sup>	0.02 <sup>4</sup>	---	---	---	---	---	---	---	
	12/20/94	13.48	60.67 <sup>3</sup>	0.03	---	---	---	---	---	---	---	
	3/28/95	---	---	1.54	---	---	---	---	---	---	---	
	6/22/95	14.25	60.86 <sup>3</sup>	1.23	---	---	---	---	---	---	---	
	9/21/95	15.25	59.12 <sup>3</sup>	0.30	---	---	---	---	---	---	---	
	3/22/96	11.46	62.97 <sup>3</sup>	0.37	---	---	---	---	---	---	---	
	B-4	5/9/89	14.93	61.50	0	3,600	840	34	120	200	---	---
		8/9/89	16.65	59.78	0	<500	4,200	130	370	260	---	---
76.43	11/9/89	---	---	---	5,000	4,200	83	400	250	---	---	
	2/8/90	16.99	59.44	0	14,000	6,000	70	530	300	---	---	
	5/10/90	16.05	60.38	0	12,000	5,400	130	460	320	---	---	
	8/9/90	16.49	59.94	0	16,000	7,400	120	530	350	---	---	
	11/13/90	16.64	59.79	0	21,000	7,000	100	550	320	---	---	
	3/27/91	17.42	59.01	0	17,000	8,500	120	500	300	---	---	
	4/5/91	14.66	61.77	0	14,000	7,700	75	610	210	---	---	
	6/19/91	16.48	59.95	0	16,000	7,800	110	550	340	---	---	
	8/21/91	17.00	59.43	0	18,000	11,000	110	450	340	---	---	
	11/8/91	17.38	59.05	0	18,000	6,800	98	500	620	---	---	
	2/13/92	16.42	60.01	0	15,000	9,100	86	570	350	---	---	
	5/1/92	15.50	60.93	0	36,000	16,000	180	990	690	---	---	
	3/19/93	14.11	62.32	0	26,000	15,000	150	900	790	---	---	
	6/10/93	15.44	60.99	0	35,000	14,000	180	940	590	---	---	
	9/8/93	16.65	59.78	0	34,000	15,000	170	1,100	870	---	---	
	12/21/93	16.45	59.98	0	30,000	12,000	74	610	340	---	---	
	3/9/94	14.88	61.55	0	37,000	15,000	140	1,000	580	---	---	
	9/21/94	17.14	59.29	0	32,000	14,000	110	660	190	---	---	
	12/20/94	14.99	61.44	0	23,000	8,400	97	640	530	---	---	
	3/28/95	11.33	65.10	0	27,000	9,900	120	880	540	---	---	
6/22/95	14.59	61.84	0	33,000	12,000	84	650	150	---	---		
9/21/95	16.19	60.24	0	20,000 <sup>5</sup>	12,000	72	540	68	---	---		
3/22/96	12.00	64.43	0	29,000	10,000	72	560	170	400	---		





Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Service Station #9-1026, 3701 Broadway, Oakland, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G)	←-----ppb----->					MTBE
						B	T	E	X		
B-6 72.66	5/9/89	12.11	60.55	0	26,000	120	110	250	1,300	---	
	8/9/89	14.72	57.94	0	19,000	470	150	440	1,400	---	
	11/9/89	13.85	58.81	0	13,000	70	36	36	440	---	
	2/8/90	7.73	64.93	0	2,900	16	5	10	58	---	
	5/10/90	---	---	---	---	---	---	---	---	---	
	8/9/90	14.51	58.15	0	14,000	55	3	130	500	---	
	11/13/90	14.86	57.80	0	---	---	---	---	---	---	
	4/5/91	10.43	62.23	0	---	---	---	---	---	---	
6/19/91 <sup>1</sup>	---	---	---	---	---	---	---	---	---		
B-7 75.40	5/9/89	14.73	60.67	0	210,000	13,000	19,000	2,000	20,000	---	
	8/9/89	16.36	59.04	0	672,000	8,7000	17,000	2,700	30,000	---	
	11/9/89	16.64	58.76	0	150,000	7,000	12,000	1,800	16,000	---	
	2/8/90	15.69	59.71	0	41,000	2,500	6,900	1,100	11,000	---	
	5/10/90	---	---	---	---	---	---	---	---	---	
	8/9/90	16.31	59.09	0	50,000	1,100	3,900	640	7,200	---	
	11/13/90	17.09	58.31	0	---	---	---	---	---	---	
	4/5/91	14.36	61.04	0	---	---	---	---	---	---	
6/19/91 <sup>1</sup>	---	---	---	---	---	---	---	---	---		
E 70.07	11/18/92	12.20	57.87	0	280	2.7	2.4	3	12	---	
	3/19/93	9.97	60.10	0	<50	<0.5	<0.5	<0.5	<1.5	---	
	6/10/93	10.98	59.09	0	<50	<0.5	<0.5	<0.5	<1.5	---	
	9/8/93	11.80	58.29	0.03	---	---	---	---	---	---	
	12/21/93	11.25	58.82	0	<50	<0.5	<0.5	<0.5	<0.5	---	
	3/9/94	10.67	59.40	0	<50	<0.5	0.7	<0.5	0.7	---	
	9/21/94	12.29	57.78	0	<50	2.5	<0.5	1.0	<0.5	---	
	12/20/94	15.53	54.54	0	<50	0.5	<0.5	<0.5	<0.5	---	
	3/28/95	8.45	61.62	0	<50	<0.5	<0.5	<0.5	<0.5	---	
	6/22/95	10.57	59.50	0	<50	<0.5	<0.5	<0.5	<0.5	---	
	9/21/95	11.59	58.48	0	<50	<0.5	<0.5	<0.5	<0.5	---	
3/22/96	9.02	61.05	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0		
F 72.01	5/9/89	18.70	53.31	0	<500	<0.5	<0.5	0.6	1	---	
	8/9/89	19.03	52.98	0	---	---	---	---	---	---	
	11/9/89	19.02	52.99	0	---	---	---	---	---	---	
	2/8/90	18.70	53.31	0	<50	0.4	<0.3	0.3	<0.6	---	
	5/10/90	18.98	53.03	0	---	---	---	---	---	---	



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Service Station #9-1026, 3701 Broadway, Oakland, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G)	Product ppb					MTBE
						B	T	E	X		
F	8/9/90	18.95	53.06	0	--	--	--	--	--	--	--
(cont)	11/13/90	19.10	52.91	0	--	--	--	--	--	--	--
	3/27/91	--	--	--	64	<0.5	<0.5	<0.5	1	--	--
	6/19/91	18.95	53.06	0	--	--	--	--	--	--	--
	8/21/91	>19.94	<52.07	0	--	--	--	--	--	--	--
	11/8/91	>19.94	<52.07	0	--	--	--	--	--	--	--
	2/13/92	18.60	53.41	0	<50	<0.5	<0.5	<0.5	<0.5	--	--
	5/1/92	Dry	--	--	--	--	--	--	--	--	--
71.72	11/18/92	14.85	56.87	0	<50	<0.5	<0.5	<0.5	<0.5	--	--
	3/19/93	14.25	57.47	0	<50	<0.5	<0.5	<0.5	<1.5	--	--
	6/10/93	13.92	57.80	0	<50	<0.5	<0.5	<0.5	<1.5	--	--
	9/8/93	14.80	56.95	0.04	--	--	--	--	--	--	--
	12/21/93	13.31	58.41	0	<50	<0.5	<0.5	<0.5	<0.5	--	--
	3/9/94	12.99	58.73	0	<50	<0.5	<0.5	<0.5	<0.5	--	--
	9/21/94	16.30	55.42	0	<50	<0.5	<0.5	<0.5	<0.5	--	--
	12/20/94	12.57	59.15	0	<50	<0.5	<0.5	<0.5	<0.5	--	--
	3/28/95	8.95	62.77	0	<50	<0.5	<0.5	<0.5	<0.5	--	--
	6/22/95	13.77	57.95	0	<50	<0.5	<0.5	<0.5	<0.5	--	--
	9/21/95	13.45	58.27	0	<50	<0.5	<0.5	<0.5	<0.5	--	--
	3/22/96	11.16	60.56	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
EA-1	5/9/89	14.56	59.38	0	<500	<0.5	<0.5	<0.5	<0.5	--	--
	8/9/89	16.09	57.85	0	<500	<0.5	<0.5	<0.5	<0.5	--	--
73.94	11/9/89	15.84	58.10	0	<500	<0.5	<0.5	<0.5	<0.5	--	--
	2/8/90	15.05	58.89	0	<50	<0.3	<0.3	<0.3	<0.6	--	--
	5/10/90	15.65	58.29	0	<50	1	0.3	<0.3	<0.6	--	--
	8/9/90	15.67	58.27	0	<50	<0.3	<0.3	<0.3	<0.6	--	--
	11/13/90	16.32	57.62	0	<50	<0.4	<0.3	<0.3	<0.4	--	--
	3/27/91	--	--	--	<50	0.7	0.5	<0.5	<0.5	--	--
	4/5/91	14.03	59.91	0	--	--	--	--	--	--	--
	6/19/91	15.56	58.38	0	<50	<0.5	<0.5	<0.5	<0.5	--	--
	8/21/91	15.99	57.95	0	<50	<0.4	<0.3	<0.3	<0.4	--	--
	11/08/91	16.13	57.81	0	<50	<0.5	<0.5	<0.5	<0.5	--	--
	2/13/92	15.10	58.84	0	<50	<0.5	<0.5	<0.5	<0.5	--	--
	5/1/92	18.80	55.14	0	<50	2.7	<0.5	<0.5	<0.5	--	--
71.85	11/18/92	15.97	55.88	0	<10	<0.3	<0.3	<0.3	<0.5	--	--
	3/19/93	13.66	58.19	0	<50	<0.5	<0.5	<0.5	<1.5	--	--
	6/10/93	14.71	57.14	0	<50	<0.5	<0.5	<0.5	<1.5	--	--
	9/8/93	15.58	56.33	0.08	--	--	--	--	--	--	--
	12/21/93	15.02	56.83	0	<50	<0.5	<0.5	<0.5	<0.5	--	--



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Service Station #9-1026, 3701 Broadway, Oakland, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G)	←-----ppb----->					
						B	T	E	X	MTBE	
EA-1 (cont)	3/9/94	14.38	57.47	0	<50	<0.5	1.0	<0.5	<0.5	---	
	9/21/94	16.12	55.73	0	<50	<0.5	<0.5	<0.5	<0.5	---	
	12/20/94	14.05	57.80	0	<50	<0.5	<0.5	<0.5	<0.5	---	
	3/28/95	12.05	59.80	0	<50	<0.5	<0.5	<0.5	<0.5	---	
	6/22/95	14.35	57.50	0	<50	2.0	<0.5	<0.5	<0.5	---	
	9/21/95	15.36	56.49	0	<50	<0.5	<0.5	<0.5	<0.5	---	
	3/22/96	12.71	59.14	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
EA-2  75.24	5/9/89	15.95	59.29	0	760	<0.5	<0.5	1.1	<0.5	---	
	8/9/89	17.45	57.79	0	<500	<0.5	<0.5	<0.5	<0.5	---	
	11/9/89	17.41	57.83	0	<500	<0.5	1	<0.5	<0.5	---	
	2/8/90	16.57	58.67	0	190	<0.3	<0.3	<0.3	<0.6	---	
	5/10/90	17.12	58.12	0	<50	<0.3	<0.3	<0.3	<0.6	---	
	8/9/90	17.20	58.04	0	120	<0.3	<0.3	<0.3	<0.6	---	
	11/13/90	17.88	57.36	0	160	<0.4	1	<0.3	<0.4	---	
	3/27/91	---	---	---	110	<0.5	<0.5	<0.5	<0.5	---	
	4/5/91	15.54	59.70	0	---	---	---	---	---	---	
	6/19/91	17.07	58.17	0	<50	<0.5	<0.5	<0.5	<0.5	---	
	8/21/91	17.46	57.78	0	70	0.8	1.4	<0.3	<0.4	---	
	11/8/91	17.58	57.66	0	<50	<0.5	0.7	<0.5	<0.5	---	
	2/13/92	16.69	58.55	0	<50	<0.5	<0.5	<0.5	<0.5	---	
	5/1/92	16.16	59.08	0	340	<0.5	2.6	0.7	<0.5	---	
	76.24	11/18/92	17.61	58.63	0	450	<0.5	3.3	<0.5	0.8	---
		3/19/93	15.00	61.24	0	450	<0.5	2.3	0.6	<1.5	---
		6/10/93	16.08	60.16	0	250	<0.5	1.3	<0.5	<1.5	---
9/8/93		17.07	59.17	0	<50	<0.5	<0.5	<0.5	<1.5	---	
12/21/93		16.60	59.64	0	170	<0.5	1.3	<0.5	<0.5	---	
3/9/94		15.83	60.41	0	200	1.8	1.4	<0.5	<0.5	---	
9/21/94		17.60	58.64	0	<50	<0.5	<0.5	<0.5	<0.5	---	
12/20/94		15.53	60.71	0	950	31	15	1.7	<0.5	---	
3/28/95		13.28	62.96	0	71	2.0	0.6	<0.5	<0.5	---	
6/22/95		15.62	60.62	0	300	<0.5	3.7	<0.5	0.6	---	
9/21/95		16.78	59.46	0	170	<0.5	<0.5	<0.5	<0.5	---	
3/22/96	13.88	62.36	0	90	<0.5	<0.5	<0.5	<0.5	<5.0		
Trip Blank	5/9/89	---	---	---	<500	<0.5	<0.5	<0.5	<0.5	---	
TBLB	8/9/89	---	---	---	<500	<0.5	<0.5	<0.5	<0.5	---	
	11/9/89	---	---	---	<500	<0.5	<0.5	<0.5	<0.5	---	
	2/8/90	---	---	---	<50	<0.3	<0.3	<0.3	<0.6	---	
	5/10/90	---	---	---	<50	<0.3	<0.3	<0.3	<0.6	---	



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Service Station #9-1026, 3701 Broadway, Oakland, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G)	←-----ppb----->				
						B	T	E	X	MTBE
TBLB	8/9/90	---	---	---	<50	<0.3	<0.3	<0.3	<0.6	---
(cont)	11/13/90	---	---	---	<50	<0.4	<0.3	<0.3	<0.4	---
	3/27/91	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	6/19/91	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	8/21/91	---	---	---	<50	<0.4	<0.3	<0.3	<0.4	---
	11/8/91	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	2/13/92	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	5/1/92	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	11/18/92	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	3/19/93	---	---	---	<50	<0.5	<0.5	<0.5	<1.5	---
	6/10/93	---	---	---	<50	<0.5	<0.5	<0.5	<1.5	---
	9/8/93	---	---	---	<50	<0.5	<0.5	<0.5	<1.5	---
	12/21/93	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	3/9/94	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	9/21/94	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	12/20/94	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	3/28/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	6/22/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	9/21/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	3/22/96	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Service Station #9-1026, 3701 Broadway, Oakland, California  
(continued)

EXPLANATION:

DTW = Depth to water  
TOC = Top of casing elevation  
GWE = Groundwater elevation  
msl = Mean sea level  
TPH(G) = Total Purgeable Petroleum Hydrocarbons as Gasoline  
B = Benzene  
T = Toluene  
E = Ethylbenzene  
X = Xylenes  
MTBE = Methyl-tertiary-butyl ether  
ppb = Parts per billion  
--- = Not analyzed/not applicable

ANALYTICAL METHODS

EPA Method 8015/5030 for TPH(G)  
EPA Method 8020 for BTEX & MTBE

NOTES:

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

Analytical methods prior to September 21, 1994 are assumed to be 8015/8020.

\* Product thickness measurements on and after September 21, 1994 were measured using an MMC flexi-dip interface probe.

<sup>1</sup> Well abandoned. Exact date unknown.

<sup>2</sup> Well inaccessible on this date.

<sup>3</sup> GWE corrected for the presence of free-phase hydrocarbons using:  $GWE = [(TOC - DTW) + (0.8)(Product\ Thickness)]$ . 0.8 is the assumed specific gravity of free-phase hydrocarbons.

<sup>4</sup> Approximate thickness; equipment not functioning properly.

<sup>5</sup> Well not located this event.

<sup>6</sup> Laboratory report indicates data obtained from multiple dilutions. Dilution factor noted represents the dilution used for majority of results.

<sup>7</sup> Well inaccessible due to office trailer positioned over well.



Table 2. Separate-phase Hydrocarbon Thickness and Product Removal -  
Former Chevron Service Station #9-1026, 3701 Broadway, Oakland, California

WELL ID	DATE	PRODUCT THICKNESS (ft)	AMOUNT BAILED (gals - prod & water)
B	6/22/95	0.11	1.0
	9/21/95	1.12	2.0
	3/22/96	1.02	2.0
B-2	3/22/96	0.02	0.25
B-3	3/28/95	1.54	2.0
	6/22/95	1.23	0.5
	9/21/95	0.30	0.5
	3/22/96	0.37	0.25

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## STANDARD OPERATING PROCEDURE QUARTERLY GROUNDWATER SAMPLING

Gettler-Ryan 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 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 analytic 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, preservative (if any), and the sample collector's initials. The water samples are placed in cooler maintained at 4 C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivery 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 USA Products Company, the purge and decontamination water generated during sampling activities is taken to Chevron's Richmond Refinery for disposal.



# WELL SAMPLING FIELD DATA SHEET

SAMPLER F. Cline + G. Sanchez DATE 3-22-96  
 ADDRESS 3701 Broadway JOB # 5127-25  
 CITY Oakland SS# 9-1026

Well ID EA-1 Well Condition okay  
 Well Location Description \_\_\_\_\_

Well Diameter 4" in Hydrocarbon Thickness 0  
 Total Depth 27.0 ft  
 Depth to Liquid 12.71 ft

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

# of casing 3x 14.29 x Oil x (VF) 9.14 #Estimated 28.3 gal.  
 Volume  
 Purge Equipment Suction Sampling Equipment Disposable Bailor  
 Did well dewater No If yes, Time \_\_\_\_\_ Volume \_\_\_\_\_

Starting Time 1142 Purging Flow Rate 3.2 gpm.  
 Sampling Time 1154

Time	pH	Conductivity	Temperature	Volume
<u>1145</u>	<u>6.61</u>	<u>475</u>	<u>20.15</u>	<u>9.6</u>
<u>1148</u>	<u>6.69</u>	<u>478</u>	<u>20.3</u>	<u>19.2</u>
<u>1151</u>	<u>6.67</u>	<u>480</u>	<u>20.4</u>	<u>28.8</u>
<u>1154</u>	<u>6.66</u>	<u>488</u>	<u>20.3</u>	<u>29.0</u>

Weather Conditions Cloudy cool Breezy  
 Water Color: Clear Odor: None  
 Sediment Description None

## LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>EA-1</u>	<u>3X40ml</u>	<u>Y</u>	<u>HCL</u>	<u>GTEL</u>	<u>GW, BTEX / HPC</u>

Comments \_\_\_\_\_





# WELL SAMPLING FIELD DATA SHEET

SAMPLER F. Cline + G. Sanchez DATE 3-22-96  
 ADDRESS 3701 Broadway JOB # 5127-85  
 CITY Oakland SS# 9-1026

Well ID EA-2 Well Condition OK  
 Well Location Description \_\_\_\_\_

Well Diameter 4 in Hydrocarbon Thickness 0

Total Depth 30.0 ft  
 Depth to Liquid 13.88 ft

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

# of casing 3x Volume 16.12 x 0.66 x(VF) 10.6 #Estimated 32 gal.  
 Volume \_\_\_\_\_ x(VF) \_\_\_\_\_ #Estimated \_\_\_\_\_ gal.

Purge Equipment Suction Sampling Equipment Disposable Bailor  
 Did well dewater NO If yes, Time \_\_\_\_\_ Volume \_\_\_\_\_

Starting Time 1110 Purging Flow Rate 36 gal.  
 Sampling Time 1122

Time	pH	Conductivity	Temperature	Volume
<u>1113</u>	<u>6.86</u>	<u>387</u>	<u>20.4</u>	<u>10.8</u>
<u>1116</u>	<u>6.88</u>	<u>396</u>	<u>20.4</u>	<u>21.6</u>
<u>1119</u>	<u>6.91</u>	<u>416</u>	<u>20.4</u>	<u>32.4</u>
<u>1122</u>	<u>6.90</u>	<u>410</u>	<u>20.5</u>	<u>33.0</u>

Weather Conditions Partly cloud Breeze  
 Water Color: Clear Odor: None  
 Sediment Description None

## LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>EA-2</u>	<u>3X40ml</u>	<u>Y</u>	<u>HCl</u>	<u>GTEL</u>	<u>GW, DTEX / HT</u>

Comments \_\_\_\_\_



# WELL SAMPLING FIELD DATA SHEET

SAMPLER F. Cline + G. Sanchez DATE 3-22-96  
 ADDRESS 3701 Broadway JOB # 5127-25  
 CITY Oakland SS# 9-1026

Well ID B Well Condition OK  
 Well Location Description \_\_\_\_\_

Well Diameter \_\_\_\_\_ in Hydrocarbon Thickness 1.02

Total Depth \_\_\_\_\_ ft

Depth to Liquid 13.02 ft

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

# of casing Volume \_\_\_\_\_ x \_\_\_\_\_ x(VF) = #Estimated \_\_\_\_\_ gal.  
 Purge Equipment \_\_\_\_\_ Sampling Equipment Disposable Bailer  
 Did well dewater \_\_\_\_\_ If yes, Time \_\_\_\_\_ Volume \_\_\_\_\_

Starting Time \_\_\_\_\_ Purging Flow Rate \_\_\_\_\_ gpm.  
 Sampling Time \_\_\_\_\_

Time	pH	Conductivity	Temperature	Volume
<u>Not sampled - Bailed product in well</u>				

Weather Conditions \_\_\_\_\_  
 Water Color: \_\_\_\_\_ Odor: \_\_\_\_\_  
 Sediment Description \_\_\_\_\_

## LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
	<u>3X40ml</u>	<u>Y</u>	<u>HCL</u>	<u>GTEL</u>	<u>Gws. BTEX w/ HTP</u>

Comments Bailed 1/2 gal (product)

# WELL SAMPLING FIELD DATA SHEET

SAMPLER F. Cline + G. Sanchez DATE 3-22-96  
 ADDRESS 3701 Broadway JOB # 5127.25  
 CITY Oakland SS# 9-1026

Well ID B-1 Well Condition OK  
 Well Location Description \_\_\_\_\_

Well Diameter 4 in Hydrocarbon Thickness 0

Total Depth 33.0 ft

Depth to Liquid 10.24 ft

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

3 # of casing Volume 22.06 x 6.6 x(VF) 14.6 #Estimated 43.7 gal. purge Volume

Purge Equipment Stack Pump Sampling Equipment Disposable Bailor

Did well dewater \_\_\_\_\_ If yes, Time \_\_\_\_\_ Volume \_\_\_\_\_

Starting Time 1205 Purging Flow Rate 2.5 gpm.  
 Sampling Time 1228

Time	pH	Conductivity	Temperature	Volume
<u>1211</u>	<u>6.41</u>	<u>1042</u>	<u>20.3</u>	<u>15 gal.</u>
<u>1217</u>	<u>6.37</u>	<u>1083</u>	<u>20.7</u>	<u>30 gal.</u>
<u>1223</u>	<u>6.35</u>	<u>1113</u>	<u>20.9</u>	<u>45 gal.</u>
<u>1228</u>	<u>6.35</u>	<u>1115</u>	<u>20.9</u>	<u>46 gal.</u>

Weather Conditions pt cloudy  
 Water Color: clear Odor: none  
 Sediment Description none

## LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>B-1</u>	<u>2X40ml</u>	<u>Y</u>	<u>HCL</u>	<u>GTEL</u>	<u>Gas. BTEX / MTHC</u>

Comments \_\_\_\_\_



# WELL SAMPLING FIELD DATA SHEET

SAMPLER F. Cline + G. Sanchez DATE 3-22-96  
 ADDRESS 3701 Broadway JOB # 5127-85  
 CITY Oakland SS# 9-1026

Well ID B-2 Well Condition OK  
 Well Location Description \_\_\_\_\_

Well Diameter 2 in Hydrocarbon Thickness 0.02

Total Depth 19.0 ft

Depth to Liquid 12.85 ft

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

# of casing Volume \_\_\_\_\_ x 1.7 x (VF) \_\_\_\_\_ #Estimated \_\_\_\_\_ gal.  
 Purge Equipment Bailer Sampling Equipment Disposable Bailer  
 Did well dewater \_\_\_\_\_ If yes, Time \_\_\_\_\_ Volume \_\_\_\_\_

Starting Time \_\_\_\_\_ Purging Flow Rate \_\_\_\_\_ gpm.

Sampling Time \_\_\_\_\_

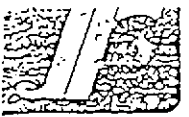
Time	pH	Conductivity	Temperature	Volume
<u>Not sampled - Product in well</u>				

Weather Conditions cloudy  
 Water Color: clear Odor: strong  
 Sediment Description none

## LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>B-2</u>	<u>2X40ml</u>	<u>Y</u>	<u>HCl</u>	<u>GTEL</u>	<u>GW, BTEX / HTR</u>

Comments Bailed 1/6 gal (product)



WELL SAMPLING FIELD DATA SHEET

SAMPLER F. Cline + G. Sanchez DATE 3-22-96  
 ADDRESS 3701 Broadway JOB # 5127.85  
 CITY Oakland SS# 9-1026

Well ID B-3 Well Condition OK

Well Location Description \_\_\_\_\_

Well Diameter \_\_\_\_\_ in  
 Total Depth \_\_\_\_\_ ft  
 Depth to Liquid 11.46 ft

Hydrocarbon Thickness 0.37

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

# of casing Volume \_\_\_\_\_ x \_\_\_\_\_ x(VF) -- #Estimated purge Volume \_\_\_\_\_ gal.

Purge Equipment \_\_\_\_\_ Sampling Equipment Disposable Bailer

Did well dewater \_\_\_\_\_ If yes, Time \_\_\_\_\_ Volume \_\_\_\_\_

Starting Time \_\_\_\_\_ Purging Flow Rate \_\_\_\_\_ gpm.

Sampling Time \_\_\_\_\_

Time	pH	Conductivity	Temperature	Volume
<u>Not sampled - Product in well</u>				

Weather Conditions \_\_\_\_\_  
 Water Color: \_\_\_\_\_ Odor: \_\_\_\_\_  
 Sediment Description \_\_\_\_\_

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
	<u>2X40ml</u>	<u>Y</u>	<u>HCl</u>	<u>GTEL</u>	<u>Gas, BTEX / H2S</u>

Comments Bailed 1/4 gal (product)



## WELL SAMPLING FIELD DATA SHEET

SAMPLER F. Cline + G. Sanchez DATE 3-22-96  
 ADDRESS 3701 Broadway JOB # 5127-85  
 CITY Oakland SS# 9-1026

Well ID E Well Condition dry  
 Well Location Description \_\_\_\_\_

Well Diameter 2" in Hydrocarbon Thickness 0

Total Depth 33.0 ft

Depth to Liquid 9.02 ft

# of casing Volume 23.98 x Ø17 x(VF) 4.1 #Estimated 12.2 gal.  
 Volume purge Volume

Purge Equipment Suction Sampling Equipment Disposable Bailer

Did well dewater NC If yes, Time \_\_\_\_\_ Volume \_\_\_\_\_

Starting Time 1207 Purging Flow Rate 2.2 gpm.

Sampling Time 1216

Time	pH	Conductivity	Temperature	Volume
<u>1209</u>	<u>6.77</u>	<u>536</u>	<u>20.11</u>	<u>4.4</u>
<u>1211</u>	<u>6.56</u>	<u>547</u>	<u>20.2</u>	<u>8.8</u>
<u>1213</u>	<u>6.40</u>	<u>543</u>	<u>20.11</u>	<u>13.2</u>
<u>1216</u>	<u>6.48</u>	<u>545</u>	<u>20.11</u>	<u>14.0</u>

Weather Conditions cloudy cool Breezy

Water Color: clear Odor: None

Sediment Description Na

### LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>E</u>	<u>3X40ml</u>	<u>Y</u>	<u>HCl</u>	<u>GTEL</u>	<u>Gas, BTEX / MTX</u>

Comments \_\_\_\_\_



# WELL SAMPLING FIELD DATA SHEET

SAMPLER F. Cline + G. Sanchez DATE 3-22-96  
 ADDRESS 3701 Broadway JOB # 5127-25  
 CITY Oakland SS# 9-1026

Well ID F Well Condition OK  
 Well Location Description \_\_\_\_\_

Well Diameter 3" in Hydrocarbon Thickness \_\_\_\_\_

Total Depth 21.0 ft

Depth to Liquid 11.6 ft

# of casing Volume 9.84 x 0.17 x (VF) 1.67 #Estimated 50 gal. purge Volume

Purge Equipment Suction Sampling Equipment Disposable Bailer

Did well dewater NO If yes, Time \_\_\_\_\_ Volume \_\_\_\_\_

Starting Time 11:58 Purging Flow Rate 1.7 gpm.

Sampling Time 12:04

Time	pH	Conductivity	Temperature	Volume
<u>11:59</u>	<u>6.86</u>	<u>551</u>	<u>20.6</u>	<u>1.7</u>
<u>12:00</u>	<u>6.77</u>	<u>556</u>	<u>21.0</u>	<u>3.4</u>
<u>12:01</u>	<u>6.85</u>	<u>557</u>	<u>20.7</u>	<u>5.1</u>
<u>12:04</u>	<u>6.84</u>	<u>556</u>	<u>20.7</u>	<u>5.5</u>

Weather Conditions Partly cloudy Breezy  
 Water Color: Clear Odor: None  
 Sediment Description None

## LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
<u>F</u>	<u>3X40ml</u>	<u>Y</u>	<u>HCl</u>	<u>GTEL</u>	<u>(G.W. BTEX / HPLC)</u>

Comments \_\_\_\_\_



# WELL SAMPLING FIELD DATA SHEET

SAMPLER F. Cline + G. Sanchez DATE 3-22-96  
 ADDRESS 3701 Broadway JOB # 5127-85  
 CITY Oakland SS# 9-1026

Well ID B-4 Well Condition OK  
 Well Location Description \_\_\_\_\_

Well Diameter 2 in Hydrocarbon Thickness 6

Total Depth 19.0 ft

Depth to Liquid 12.00 ft

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

3 # of casing Volume 7.00 x .17 x(VF) 7.2 #Estimated 3.6 gal. purge Volume

Purge Equipment Bailer Sampling Equipment Disposable Bailer

Did well dewater NO If yes, Time \_\_\_\_\_ Volume \_\_\_\_\_

Starting Time 1132 Purging Flow Rate \_\_\_\_\_ gpm.

Sampling Time \_\_\_\_\_

Time	pH	Conductivity	Temperature	Volume
1133	6.56	2910	17.9	1.2 gal
1135	6.52	2950	18.7	2.4 gal
1137	6.52	2970	19.0	3.6 gal

Weather Conditions cloudy  
 Water Color: clear Odor: strang  
 Sediment Description none

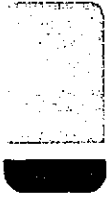
## LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
B-4	2X40ml	Y	HCl	GTEL	Gas. BTEX / H2S

Comments \_\_\_\_\_







# GTEL

ENVIRONMENTAL  
LABORATORIES, INC.

**Midwest Region**

4211 May Avenue  
Wichita, KS 67209  
(316) 945-2624  
(800) 633-7936  
(316) 945-0506 (FAX)

March 28, 1996

Deanna Harding  
GETTLER-RYAN  
6747 Sierra Ct.  
Suite J  
Dublin, CA 94568

RECEIVED

APR - 1 1996

GETTLER-RYAN INC.  
GENERAL CONTRACTOR

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RE: GTEL Client ID:	GTR01CHV08
Login Number:	W6030463
Project ID (number):	5127
Project ID (name):	CHEVRON/9-1026/3701 BROADWAY/OAKLAND/CA

---

Dear Deanna Harding:

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 03/23/96.

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

GTEL is certified by the Department of Health Service under Certification Number 1845.

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

Sincerely,  
GTEL Environmental Laboratories, Inc.

*Justin Ward, Project Coordinator for*  
Terry R. Loucks  
Laboratory Director

ANALYTICAL RESULTS  
Volatile Organics

GTEL Client ID: GTR01CHV08  
 Login Number: W6030463  
 Project ID (number): 5127  
 Project ID (name): CHEVRON/9-1026/3701 BROADWAY/OAKLAND/CA

Method: EPA 8020  
 Matrix: Aqueous

GTEL Sample Number	W6030463-01	W6030463-02	W6030463-03	W6030463-04
Client ID	TB-LB	EA-1	F	E
Date Sampled		03/22/96	03/22/96	03/22/96
Date Analyzed	03/25/96	03/25/96	03/25/96	03/25/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting		Concentration:			
	Limit	Units				
MTBE	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes (total)	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
BTEX (total)	--	ug/L	--	--	--	--
TPH as Gasoline	50	ug/L	< 50	< 50	< 50	< 50

Notes:

**Dilution Factor:**

Dilution factor indicates the adjustments made for sample dilution.

**EPA 8020:**

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. Analyte list modified to include additional compounds. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 1.

ANALYTICAL RESULTS  
Volatile Organics

GTEL Client ID: GTR01CHV08  
 Login Number: W6030463  
 Project ID (number): 5127  
 Project ID (name): CHEVRON/9-1026/3701 BROADWAY/OAKLAND/CA

Method: EPA 8020  
 Matrix: Aqueous

GTEL Sample Number	W6030463-05	W6030463-06	W6030463-07	--
Client ID	EA-2	B-1	B-4	--
Date Sampled	03/22/96	03/22/96	03/22/96	--
Date Analyzed	03/25/96	03/25/96	03/25/96	--
Dilution Factor	1.00	1.00	50.0	--

Analyte	Reporting		Concentration:			
	Limit	Units				
MTBE	5.0	ug/L	< 5.0	< 5.0	400	--
Benzene	0.5	ug/L	< 0.5	< 0.5	10000	--
Toluene	0.5	ug/L	< 0.5	0.6	72.	--
Ethylbenzene	0.5	ug/L	< 0.5	2.1	560	--
Xylenes (total)	0.5	ug/L	< 0.5	2.2	170	--
BTEX (total)	--	ug/L	--	4.9	11000	--
TPH as Gasoline	50	ug/L	90	200	29000	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. Analyte list modified to include additional compounds. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods". SW-846, Third Edition including Update 1.



GTEL Client ID: GTR01CHV08                      QUALITY CONTROL RESULTS  
Login Number: W6030463  
Project ID (number): 5127  
Project ID (name): CHEVRON/9-1026/3701 BROADWAY/OAKLAND/CA

Volatile Organics  
Method: EPA 8020  
Matrix: Aqueous

Method Blank Results

QC Batch No: 032596GC5-3  
Date Analyzed: 25-MAR-96

Analyte	Method: EPA 8020	Concentration: ug/L
MTBE	< 2.00	
Benzene	< 0.400	
Toluene	< 0.500	
Ethylbenzene	< 0.400	
Xylenes (Total)	< 0.800	
TPH as Gasoline	< 50.0	

Notes:

GTEL Client ID: GTR01CHV08

QUALITY CONTROL RESULTS

Login Number: W6030463

Volatile Organics

Project ID (number): 5127

Method: EPA 8020

Project ID (name): CHEVRON/9-1026/3701 BROADWAY/OAKLAND/CA

Matrix: Aqueous

Calibration Verification Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8020	Units:ug/L	QC Batch:032596GC5-2		
Benzene	20.0	16.3	81.5	77-123%
Toluene	20.0	18.0	90.0	77.5-122.5%
Ethylbenzene	20.0	18.2	91.0	63-137%
Xylenes (Total)	60.0	53.3	88.8	85-115%
TPH as Gasoline	500	494	98.8	80-120%

Notes:

QC check source: Supelco #LA12389

GTEL Client ID: GTR01CHV08

QUALITY CONTROL RESULTS

Login Number: W6030463

Volatile Organics

Project ID (number): 5127

Method: EPA 8020

Project ID (name): CHEVRON/9-1026/3701 BROADWAY/OAKLAND/CA

Matrix: Aqueous

Duplicate Sample Results

Analyte	Original Concentration	Duplicate Concentration	RPD. %	Acceptability Limits. %
EPA 8020	Units: ug/L	QC Batch: 032596GC5-4	GTEL Sample ID: W6030463-07	Client ID: B-4
MTBE	< 500	< 500	NA	20
Benzene	10400	10400	NA	23.9
Toluene	71.7	72.4	0.972	27.2
Ethylbenzene	559	555	0.718	21.6
Xylenes (Total)	173	168	2.93	22.0
TPH as Gasoline	28600	29400	2.76	20

Notes:

NA - The concentration of the analyte is less than the reporting limit.



GTEL Client ID: GTR01CHV08  
Login Number: W6030463  
Project ID (number): 5127  
Project ID (name): CHEVRON/9-1026/3701 BROADWAY/OAKLAND/CA

QUALITY CONTROL RESULTS

Volatile Organics  
Method: EPA 8020  
Matrix: Aqueous

Matrix Spike(MS) Results

GTEL Sample ID:W6030463-02		MS ID:MS03046302			
Analysis Date: 25-MAR-96		25-MAR-96			
Units: ug/L	Sample	Spike	MS	MS	Acceptability Limits
Analyte	Conc.	Added	Conc.	% Rec.	%Rec.
Benzene	< 0.5 (0.000)	20.0	18.5	92.5	67-110
Toluene	< 0.5 (0.000)	20.0	20.4	102.	68-115
Ethylbenzene	< 0.5 (0.000)	20.0	21.3	107	65-120
Xylenes (Total)	< 0.5 (0.000)	60.0	59.1	98.5	62-119

Notes:

Values in parentheses in the sample concentration column are used for % recovery calculations.

GTEL Client ID: GTR01CHV08

QUALITY CONTROL RESULTS

Login Number: W6030463

Volatile Organics

Project ID (number): 5127

Method: EPA 8020

Project ID (name): CHEVRON/9-1026/3701 BROADWAY/OAKLAND/CA

Matrix: Aqueous

Conformance/Non-Conformance Summary

(X = Requirements Met \* = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	X	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	X	--	--
Method Precision	X	--	--
Blank Contamination	X	--	--

Comments: