



**Chevron**

97 OCT 27 PM 4:19

October 24, 1997

**Chevron Products Company**

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

**Marketing - Sales West**

Phone 510 842-9500

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

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

Dear Ms. Hugo:

Enclosed is a copy of the Third Quarter (Semi-Annual) Groundwater Monitoring & Sampling Report for 1997 that was prepared by our consultant Gettler-Ryan Inc. for the above noted site. Monitoring wells were sampled and analyzed for TPH-g, BTEX and MtBE constituents.

Six wells were monitored and sampled ( A, B, B-1, B-2, B-3 and B-4 ). The benzene constituent declined in monitoring wells A and B-4 from the previous sampling event, while the benzene constituent remained the same in well B-1. Separate phase hydrocarbons (SPH) were detected in monitoring wells B, B-2, and B-3. All three wells were bailed and approximately 3.0 gals., 1.5 gals., and 2.0 gals., were removed from the respective wells.

Monitoring wells A and B-4, which are upgradient of Chevron's former tanks and lines, continues to be impacted by petroleum hydrocarbon 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.

Depth to the groundwater varied from 13.54 feet to 16.02 feet below grade with direction of flow to the west.

Chevron implemented the sampling program outlined in the Comprehensive Site Evaluation and Proposed Future Action Plan, dated December 20, 1994, which initiated semi-annual monitoring, with the first and third quarters being the sampling periods. The next sampling event will be in March of 1998.

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

Sincerely,

**CHEVRON PRODUCTS COMPANY**

*Philip R. Briggs*  
Philip R. Briggs

Site Assessment and Remediation Project Manager

Enclosure

October 24, 1997  
Ms. Susan Hugo  
Former Service Station 9-1026  
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.

ENVIRONMENTAL  
PROTECTION  
97 OCT 27 PM 4:19

October 14, 1997

Job #5127.80

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

Re: Semi-Annual Groundwater Monitoring & Sampling Report  
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 September 12, 1997, field personnel were on-site to monitor six wells (A, B, B-1 through B-4), and sample three wells (A, B-1 and B-4) at the Former Chevron Service Station #9-1026 located at 3701 Broadway in Oakland, California.

Static groundwater levels were measured on September 12, 1997. All wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were present in three 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 - Groundwater Sampling (attached). The field data sheets for this event are also attached. The samples were sent to NEI/GTEL Environmental Laboratories, Inc. and analyzed by Sequoia Analytical. Analytical results are presented in Table 1. The chain of custody document and laboratory analytical reports are attached.

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

Sincerely,

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

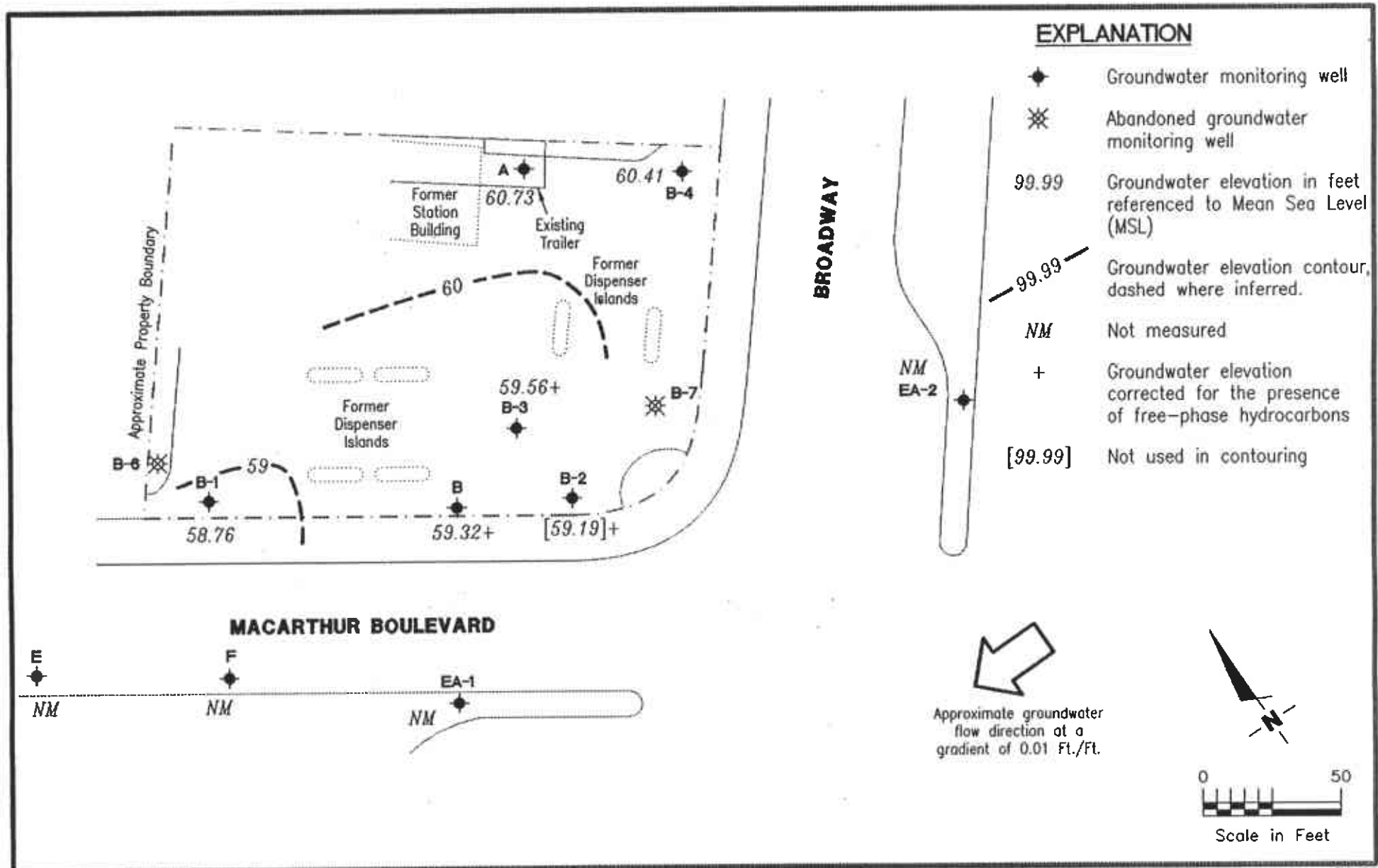
*Stephen J. Carter*  
Stephen J. Carter  
Senior Geologist, R.G. No. 5577



DLH/SJC/dh  
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 - Groundwater Sampling  
Field Data Sheets

Chain of Custody Document and Laboratory Analytical Reports



**Gertler - 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

DATE  
September 12, 1997

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)	B T E X				MTBE
						←-----ppb----->				
A	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	--
75.28	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>	--	--	--	--	--	--	--	--	--
	9/25/96 <sup>7</sup>	--	--	--	--	--	--	--	--	--
	3/6/97 <sup>7</sup>	--	--	--	--	--	--	--	--	--
	9/12/97	14.56	60.73	0	2,600	460	<10	70	11	67
B	5/9/89	13.97	59.58	0.20	--	--	--	--	--	--
	8/9/89	15.69	57.86	0.20	--	--	--	--	--	--
73.39	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	--



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)	B				X	MTBE
						←-----ppb----->					
B (cont)	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	---	---	---	---	---	---	
	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	---	---	---	---	---	---	
	9/25/96	15.76	58.81 <sup>3</sup>	1.47	---	---	---	---	---	---	
	3/6/97	14.30	59.95 <sup>3</sup>	1.08	---	---	---	---	---	---	
	9/12/97	14.61	59.32 <sup>3</sup>	0.68	---	---	---	---	---	---	
	B-1 71.77	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	---	
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	---	
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	---	
72.30	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	---	



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-1 (cont)	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	
	9/25/96	13.76	58.54	0	690	5.4	1.2	1.6	6.8	<5.0	
	3/6/97	12.08	60.22	0	420	31	1.0	2.5	4.3	5.9	
	9/12/97	13.54	58.76	0	170	31	1.4	1.6	4.6	11	
B-2 74.51	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	---	
	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	59.54	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>5</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>3</sup>	0.02	---	---	---	---	---	---		
9/25/96	15.98	58.56 <sup>3</sup>	0.03	---	---	---	---	---	---		
3/6/97	14.11	60.43 <sup>3</sup>	0.02	---	---	---	---	---	---		
9/12/97	15.35	59.19 <sup>3</sup>	0.03	---	---	---	---	---	---		
B-3 74.12	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	---	---	---	---	---	---	
	11/9/89	15.55	58.61	0.05	---	---	---	---	---	---	
	2/8/90	14.68	59.44	<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 (cont)	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	—	—	—	—	—	—	—	
	74.13	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	0.00	1,100,000	18,000	29,000	8,900	59,000	—	—
3/9/94		13.53	60.60	0.00	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	—	—	—	—	—	—	—	
9/25/96	14.82	60.13 <sup>3</sup>	1.02	—	—	—	—	—	—	—		
3/6/97	13.12	61.23 <sup>3</sup>	0.28	—	—	—	—	—	—	—		
9/12/97	14.67	59.56 <sup>3</sup>	0.13	—	—	—	—	—	—	—		
B-4 76.43	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	—	—	
	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	—	—	





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-4 (cont)	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*	12,000	72	540	68	---	
	3/22/96	12.00	64.43	0	29,000	10,000	72	560	170	400	
	9/25/96	16.28	60.15	0	53,000	11,000	<50	160	74	<500	
	3/6/97	13.56	62.87	0	<5,000	17,000	<50	<50	<50	<500	
	9/12/97	16.02	60.41	0	7,600	8,100	65	520	38	300	
	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	---	





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)	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	---
		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		
3/6/97	13.88	57.97	0	<50	2.8	<0.5	<0.5	0.8	<5.0		
9/12/97	---	---	---	---	---	---	---	---	---		
EA-2	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	---	
75.24	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	---	



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		
EA-2 (cont)	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	
	3/6/97	15.06	61.18	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	9/12/97	---	---	---	---	---	---	---	---	---	
Trip Blank TBLB	5/9/89	---	---	---	<500	<0.5	<0.5	<0.5	<0.5	---	
	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	---	
	8/9/90	---	---	---	<50	<0.3	<0.3	<0.3	<0.6	---	
	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	---	
TB-LB	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	
	9/25/96	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	3/6/97	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
9/12/97	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<2.5		



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

**EXPLANATION:**

TOC = Top of casing elevation  
(ft) = feet  
DTW = Depth to water  
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 TPPH(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)	PRODUCT/WATER BAILED (Gallons)
B	6/22/95	0.11	1.00
	9/21/95	1.12	2.00
	3/22/96	1.02	2.00
	9/25/96	1.47	1.50
	3/6/97	1.08	2.00
	9/12/97	0.68	3.00
B-2	3/22/96	0.02	0.25
	9/25/96	0.03	0.25
	3/6/97	0.02	0.00
	9/12/97	0.03	1.50
B-3	3/28/95	1.54	2.00
	6/22/95	1.23	0.50
	9/21/95	0.30	0.50
	3/22/96	0.37	0.25
	9/25/96	1.02	1.00
	3/6/97	0.28	0.50
	9/12/97	0.13	2.00

**EXPLANATION:**

(ft) = feet



## STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

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

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

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

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

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

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

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

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Chevron Facility # 9-1026  
 Address: 3701 Broadway  
 City: Oakland, CA

Job#: 5127.80  
 Date: 9-12-97  
 Sampler: E.Cline

Well ID: A  
 Well Diameter: 2" in.  
 Total Depth: 20' ft.  
 Depth to Water: 14.56 ft.

Well Condition: clear okay

Hydrocarbon Thickness:	in.	Amount Bailed (product/water):	(gal.)
Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

5.44 x VF 0.17 0.9 x 3 (case volume) = Estimated Purge Volume: 27.7 (gal.)

Purge Equipment:

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

Sampling Equipment:

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

Starting Time: 11:27  
 Sampling Time: 11:31  
 Purging Flow Rate: \_\_\_\_\_ gpm.  
 Did well de-water? No

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

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>11:28</u>	<u>1</u>	<u>6.90</u>	<u>432</u>	<u>19.7</u>			
<u>11:30</u>	<u>2</u>	<u>6.80</u>	<u>430</u>	<u>19.6</u>			
<u>11:31</u>	<u>3</u>	<u>6.58</u>	<u>423</u>	<u>19.5</u>			
<u>11</u>							

**LABORATORY INFORMATION**

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

COMMENTS: trailer moved off of well

Trailer moved off of well.



**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Chevron Facility # 9-1026

Job#: 5127.80

Address: 3701 Broadway

Date: \_\_\_\_\_

City: Oakland, CA

Sampler: E.Cline

Well ID

B

Well Condition:

okay

Well Diameter

4"

in.

Hydrocarbon

Thickness: 0.68

in.

Amount Bailed

1/320 gal

(product/water):

(gal.)

Total Depth

ft.

Depth to Water

14.61

ft.

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

\_\_\_\_\_ X VF \_\_\_\_\_ = \_\_\_\_\_ X 3 (case volume) = Estimated Purge Volume: \_\_\_\_\_ (gal.)

**Purge  
Equipment:**

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

**Sampling  
Equipment:**

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

Starting Time: \_\_\_\_\_

Weather Conditions: \_\_\_\_\_

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

Water Color: \_\_\_\_\_ Odor: \_\_\_\_\_

Purging Flow Rate: \_\_\_\_\_ gpm.

Sediment Description: \_\_\_\_\_

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

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

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	<u>3 x 40mVQA</u>	<u>Y</u>	<u>HCL</u>	<u>NEI/GTEL</u>	<u>TPH Gas/BTEX/MTBE</u>

COMMENTS: Bailed Product - Not Sampled.

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Chevron Facility # 9-1026  
 Address: 3701 Broadway  
 City: Oakland, CA

Job#: 5127.80  
 Date: 9-12-97  
 Sampler: F. Cline

Well ID B-1  
 Well Diameter 4" in.  
 Total Depth 33' ft.  
 Depth to Water 13.54 ft.

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

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

19.46 x VF 0.66 = 12.8 X 3 (case volume) = Estimated Purge Volume: 38.5 (gal.)

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

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

Starting Time: 10:33  
 Sampling Time: 10:57  
 Purging Flow Rate: 1.8 gpm.  
 Did well de-water? \_\_\_\_\_

Weather Conditions: \_\_\_\_\_  
 Water Color: \_\_\_\_\_ Odor: \_\_\_\_\_  
 Sediment Description: \_\_\_\_\_  
 If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>10:40</u>	<u>12.6</u>	<u>6.17</u>	<u>358</u>	<u>20.0</u>			
<u>10:47</u>	<u>25.2</u>	<u>6.26</u>	<u>482</u>	<u>20.2</u>			
<u>10:54</u>	<u>37.8</u>	<u>6.36</u>	<u>720</u>	<u>20.8</u>			
<u>10:57</u>	<u>38.0</u>	<u>6.29</u>	<u>720</u>	<u>20.5</u>			

**LABORATORY INFORMATION**

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

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

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Chevron Facility # 9-1026

Job#: 5127.80

Address: 3701 Broadway

Date: \_\_\_\_\_

City: Oakland, CA

Sampler: F. Cline

Well ID B-2

Well Condition: dry

Well Diameter 2" in.

Hydrocarbon Thickness: 0.03 in. Amount Bailed (product/water): 1 1/2 / 1/4 (gal.)

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

Depth to Water 15.33 ft.

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

\_\_\_\_\_ X VF \_\_\_\_\_ = \_\_\_\_\_ X 3 (case volume) = Estimated Purge Volume: \_\_\_\_\_ (gal.)

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

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

Starting Time: \_\_\_\_\_

Weather Conditions: \_\_\_\_\_

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

Water Color: \_\_\_\_\_ Odor: \_\_\_\_\_

Purging Flow Rate: \_\_\_\_\_ gpm.

Sediment Description: \_\_\_\_\_

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

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

Time	Volume (gal.)	pH	Conductivity $\mu$ hos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	<u>3 x 40mV/OA</u>	<u>Y</u>	<u>HCl</u>	<u>NEV/STEL</u>	<u>TPH Gas/BTEX/MTBE</u>

COMMENTS: Bailed product/water - Not Sampled.

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Chevron Facility # 9-1026

Job#: 5127.80

Address: 3701 Broadway

Date: \_\_\_\_\_

City: Oakland, CA

Sampler: E. Cline

Well ID B-3

Well Condition: dry

Well Diameter 2" in.

Hydrocarbon Thickness: 13' in. Amount Bailed (product/water): 4/2 (gal.)

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

Depth to Water 14.67 ft.

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

\_\_\_\_\_ X VF \_\_\_\_\_ = \_\_\_\_\_ X 3 (case volume) = Estimated Purge Volume: \_\_\_\_\_ (gal.)

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

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

Starting Time: \_\_\_\_\_

Weather Conditions: \_\_\_\_\_

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

Water Color: \_\_\_\_\_ Odor: \_\_\_\_\_

Purging Flow Rate: \_\_\_\_\_ gpm.

Sediment Description: \_\_\_\_\_

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

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

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	<u>3 x 40mVDA</u>	<u>Y</u>	<u>HCL</u>	<u>NEH/GTEL</u>	<u>TPH-Gas/BTEX/MTBE</u>

COMMENTS: Bailed Product/water. Not Sampled.

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Chevron Facility # 9-1026  
Address: 3701 Broadway  
City: Oakland, CA

Job#: 5127.80  
Date: 9-12-97  
Sampler: F. Cline

Well ID: B-4  
Well Diameter: 2' in.  
Total Depth: 19. ft.  
Depth to Water: 16.02 ft.

Well Condition: Okay

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

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

2.98 x VF 0.17 = 0.5 X 3 (case volume) = Estimated Purge Volume: 1.5 (gal.)

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

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

Starting Time: 11:14  
Sampling Time: 11:17  
Purging Flow Rate: \_\_\_\_\_ gpm.  
Did well de-water? NO

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

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>11:15</u>	<u>0.5</u>	<u>6.36</u>	<u>1010</u>	<u>17.6</u>			
<u>11:16</u>	<u>1.0</u>	<u>6.42</u>	<u>850</u>	<u>19.3</u>			
<u>11:17</u>	<u>1.5</u>	<u>6.45</u>	<u>8.00</u>	<u>19.2</u>			
_____	_____	_____	_____	_____	_____	_____	_____

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>B-4</u>	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>NEI/GTEL</u>	<u>TPH-Gas/BTEX/MTBE</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

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





Gettler-Ryan 6747 Broadway Oakland, CA 94568 Attention: Deanna Harding	Client Project ID: Chevron #9-1026 Sample Matrix: Water Analysis Method: EPA 5030/8015 Mod./8020 First Sample #: 709-1233	Sampled: Sep 16, 1997 Received: Sep 16, 1997 Reported: Sep 26, 1997
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QC Batch Number: GC092497 GC092497 GC092497 GC092497

802004A 802004A 802004A 802004A

**TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION**

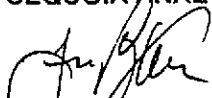
Analyte	Reporting Limit µg/L	Sample I.D. 709-1233 TB-LB	Sample I.D. 709-1234 B-1	Sample I.D. 709-1235 B-4	Sample I.D. 709-1236 A
Purgeable Hydrocarbons	50	N.D.	170	7,600	2,600
Benzene	0.50	N.D.	31	8,100	460
Toluene	0.50	N.D.	1.4	65	N.D.
Ethyl Benzene	0.50	N.D.	1.8	520	70
Total Xylenes	0.50	N.D.	4.6	38	11
MTBE	2.5	N.D.	11	300	67
Chromatogram Pattern:		--	Gasoline	Gasoline	Gasoline

**Quality Control Data**

Report Limit Multiplication Factor:	1.0	1.0	20	20
Date Analyzed:	9/24/97	9/24/97	9/24/97	9/24/97
Instrument Identification:	HP-4	HP-4	HP-4	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	103	109	109	105

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.  
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

  
Jim Bava  
Project Manager





Gettler-Ryan  
6747 Broadway  
Oakland, CA 94568  
Attention: Deanna Harding

Client Project ID: Chevron #9-1026  
Matrix: Liquid

QC Sample Group: 7091233-236

Reported: Oct 1, 1997

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC092497 802004A	GC092497 802004A	GC092497 802004A	GC092497 802004A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb
MS/MSD #:	7090961	7090961	7090961	7090961
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	9/24/97	9/24/97	9/24/97	9/24/97
Analyzed Date:	9/24/97	9/24/97	9/24/97	9/24/97
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Result:	19	19	18	57
MS % Recovery:	95	95	90	95
Dup. Result:	19	19	18	56
MSD % Recov.:	95	95	90	93
RPD:	0.0	0.0	0.0	1.8
RPD Limit:	0-20	0-20	0-20	0-20

LCS #:	4LCS092497	4LCS092497	4LCS092497	4LCS092497
Prepared Date:	9/24/97	9/24/97	9/24/97	9/24/97
Analyzed Date:	9/24/97	9/24/97	9/24/97	9/24/97
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
LCS Result:	18	19	18	57
LCS % Recov.:	90	95	90	95

MS/MSD LCS Control Limits	70-130	70-130	70-130	70-130
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**Please Note:**  
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.  
\*\* MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

SEQUOIA ANALYTICAL, #1271

Jim Bava  
Project Manager