



ST 10 459
Chevron

October 24, 1997

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

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

Marketing - Sales West
Phone 510 842-9500

**Re: Chevron Service Station #9-2506
2630 Broadway
Oakland, California**

Dear Mr. Peacock:

Enclosed is the Third Quarter (Semi-Annual) Groundwater Monitoring Report for 1997, prepared by our consultant Gettler-Ryan, Inc. for the above noted facility. Ground water samples were analyzed for TPH-g, BTEX, and MtBE. As previously agreed, sampling for monitoring wells B-2 and B-4 have been suspended. Monitoring well B-8 was not sampled as it was inaccessible.

Dissolved concentrations of BTEX constituents were below method detection limits in monitoring wells B-10, and B-11. Well B-8 was not sampled due to access restriction by a fence surrounding the restaurant, which is closed. Monitoring wells B-1, B-3, B-5, B-6, B-7 and B-9 showed a decrease in the benzene constituent from the previous sampling event. Well B-12 showed concentrations of the BTEX constituents of less than 1.0 ppb.

Depth to ground water varied from 6.81 feet to 10.90 feet below grade with a variable direction of flow northwesterly and northeasterly.

You submitted a letter dated October 2, 1997 in which you made two comments concerning the First Quarter Monitoring Report for 1997. I believe I addressed these comments by phone on October 9, but believe it would be appropriate to restate Chevron's response to your letter. *Comment #1- there were high concentrations of benzene and MtBE in the area around well B-1, B-3, B-5, B-6, B-7, B-9 and this area was not shown as a plume in the site drawing.* I don't have plumes shown on my site maps as they are subjective and you would have to have wells very close together before you would be able to determine a reasonable contour pattern for the constituents in the groundwater. *Comment #2- what is meant by public concern "on the closer of the restaurant". Is it closeness of the restaurant or is the restaurant closing?* The restaurant has been closed and it was proposed to be torn down along with the station. The station was to be reconstructed along with a McDonald restaurant on the old restaurant site. There was an appeal by people who live in the area, to prevent the demolition of the existing restaurant and build the new restaurant. This has postponed any construction at this time. Closing the restaurant had nothing to do with the petroleum hydrocarbons located on the station site. Reconstruction will not take place this year and any decision by Chevron to reconstruct this site has been postponed to 1998.

OCT 29 11:35 AM '97
Engineering Dept

October 24, 1997
Mr. Thomas Peacock
Chevron Service Station #9-2506
Page 2

ENVIRONMENTAL
PROTECTION
97 OCT 28 PM 3:35

As previously noted the sampling frequency is biannually and the next sampling event is scheduled for March 1998. If you have any questions or comments, call me at (510) 842-9136.

Sincerely,
CHEVRON PRODUCTS COMPANY



Philip R. Briggs
Site Assessment and Remediation Project Manager

Enclosure

cc. Mr. Bill Scudder, Chevron



GETTLER-RYAN INC.

October 14, 1997

Job #5203.80

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

Re: Semi-Annual Groundwater Monitoring & Sampling Report
Chevron Service Station #9-2506
2630 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 and sample nine wells (B-1, B-3, B-5 through B-7, and B-9 through B-12) at Chevron Service Station #9-2506 located at 2630 Broadway in Oakland, California. One well, B-8, was not accessible.

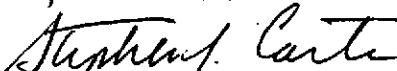
Static groundwater levels were measured on September 12, 1997. All wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in any of the wells. Static water level data and groundwater elevations are presented in Table 1. A Potentiometric Map is included as Figure 1.

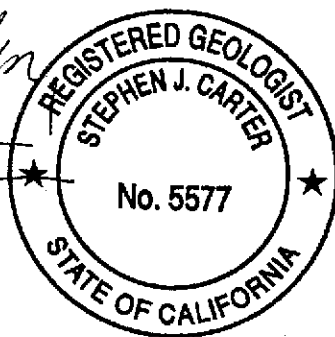
Groundwater samples were collected from the monitoring wells as specified by G-R Standard Operating Procedure - Groundwater Sampling (attached). The field data sheets for this event are also attached. The samples were sent to NEI/GTEL Environmental Laboratories, Inc. and analyzed by Sequoia Analytical. 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,

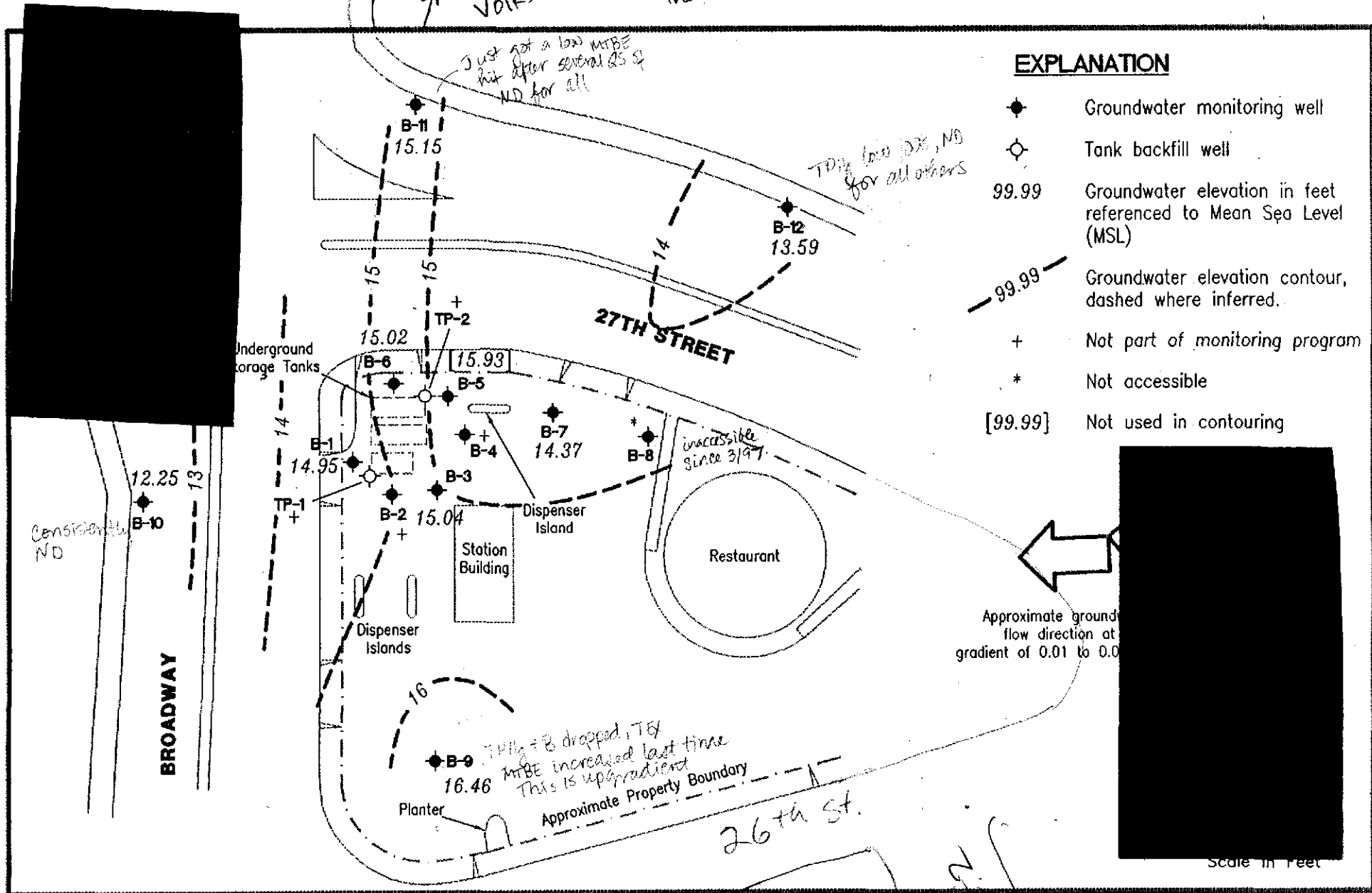

Deanna L. Harding
Project Coordinator


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



DLH/SJC/dlh
5203.QML

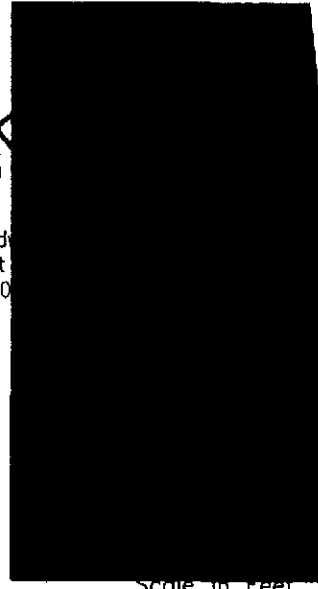
Figure 1: Potentiometric Map
Table 1: Water Level Data and Groundwater Analytical Results
Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytical Reports



EXPLANATION

- ◆ Groundwater monitoring well
- ⊙ Tank backfill well
- 99.99 Groundwater elevation in feet referenced to Mean Sea Level (MSL)
- - - 99.99 - - - Groundwater elevation contour, dashed where inferred.
- + Not part of monitoring program
- * Not accessible
- [99.99] Not used in contouring

Approximate ground flow direction at gradient of 0.01 to 0.0



Scale in Feet

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

POTENTIOMETRIC MAP
 Chevron Service Station No. 9-2506
 2630 Broadway
 Oakland, California

FIGURE

1

JOB NUMBER
5203

REVIEWED BY

DATE
September 12, 1997

REMOVED DATE

WEBSTER

WALDEN



Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G)	←-----ppb----->				MTBE	
						B	T	E	X		
B-1/ 23.00 ¹	3/18/82	7.81	15.19	0	---	---	---	---	---	---	
	3/25/82	8.67	14.33	0	---	---	---	---	---	---	
	5/21/82	9.30	13.70	0	---	---	---	---	---	---	
	5/26/82	10.18	12.82	0	---	---	---	---	---	---	
	6/24/82	9.92	13.08	0	---	---	---	---	---	---	
	9/9/93	9.90	13.10	0	8,800 ²	240	280	<2.5	<7.5	---	
	12/2/93	9.10	13.90	0	1,100	100	7.9	3.4	3.9	---	
	3/17/94	9.41	13.59	0	1,600	370	13	13	26	---	
	6/10/94	9.89	13.11	0	1,400	270	24	18	78	---	
	9/15/94	11.24	11.76	0	4,100	740	<5	270	300	---	
	25.67 ³	12/28/94	9.25	16.42	0	1,200	200	32	37	79	---
		3/29/95	8.32	17.35	0	13,000	540	54	77	120	---
		6/5/95	9.72	15.95	0	3,000	610	<25	<25	<25	---
		9/21/95	10.92	14.75	0	630 ⁶	5.4	<0.5	1.3	6.1	---
		12/22/95	10.14	15.53	0	<50	<0.50	<0.50	<0.50	<0.50	40,000
		3/22/96	8.83	16.84	0	<1,200 ¹¹	150	<12	<12	<12	32,000
9/25/96		10.80	14.87	0	28,000 ¹²	19	<12	<12	<12	38,000	
3/6/97		9.15	16.52	0	<5,000 ¹⁴	52	<50	<50	<50	18,000	
9/12/97	10.72	14.95	0	89	<0.50	0.54	<0.50	1.3	9,200		
B-2/ 22.28 ¹	3/18/82	3.83	18.45	0	---	---	---	---	---	---	
	3/25/82	5.79	16.49	0	---	---	---	---	---	---	
	5/21/82	4.85	17.43	0	---	---	---	---	---	---	
	5/26/82	8.53	13.75	0	---	---	---	---	---	---	
	6/24/82	8.40	13.88	0	---	---	---	---	---	---	
	9/9/93	6.46	15.82	0	4,700	470	630	180	590	---	
	12/2/93	5.41	16.87	0	2,200	59	27	110	350	---	
	3/17/94	7.44	14.84	0	1,800	52	33	97	320	---	
	6/10/94	8.15	14.13	0	1,200	37	48	20	93	---	
	9/15/94	10.00	12.28	0	4,900	710	12	340	450	---	
	25.13 ³	12/28/94	7.32	17.81	0	2,600	63	49	56	370	---
		3/29/95 ⁴	---	---	---	---	---	---	---	---	---
B-3/ 21.78 ¹	3/18/82	5.65	16.13	0	---	---	---	---	---	---	
	3/25/82	5.75	16.03	0	---	---	---	---	---	---	
	5/21/82	5.58	16.20	0	---	---	---	---	---	---	
	5/26/82	7.99	13.79	0	---	---	---	---	---	---	
	6/24/82	7.68	14.10	0	---	---	---	---	---	---	
	9/9/93	5.99	15.79	0	7,800	500	760	180	720	---	
	12/2/93	5.70	16.08	0	9,800	790	870	380	1,500	---	



Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-2506, 2630 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)	3/17/94	6.50	15.28	0	2,400	88	55	74	270	---	
	6/10/94	7.23	14.55	0	2,300	110	95	84	240	---	
	9/15/94	9.16	12.62	0	5,000	670	9.3	340	410	---	
24.35 ⁴	12/28/94	6.44	17.91	0	4,100	650	34	320	440	---	
	3/29/95	5.47	18.88	0	3,300	170	2.2	51	8.9	---	
	6/5/95	7.05	17.30	0	2,500	850	31	170	85	---	
	9/21/95	8.92	15.43	0	2,900 ⁷	1,300	280	140	100	---	
	12/22/95	8.53	15.82	0	5,400 ⁹	340	37	150	460	8,600	
	3/22/96	5.98	18.37	0	2,200	79	50	58	200	1,600	
	9/25/96	9.02	15.33	0	11,000	530	97	74	400	7,200	
	3/6/97	6.71	17.64	0	<500 ¹⁶	20	<5.0	<5.0	<5.0	420	
	9/12/97	9.31	15.04	0	<500 ¹⁸	<5.0	<5.0	<5.0	<5.0	1,900	
	B-4/ 21.35 ¹	3/18/82	4.65	16.70	0	---	---	---	---	---	---
3/25/82		5.08	16.27	0	---	---	---	---	---	---	
5/21/82		---	---	2.5	---	---	---	---	---	---	
5/26/82		9.21	12.14	---	---	---	---	---	---	---	
6/24/82		8.22	13.13	0.5	---	---	---	---	---	---	
9/9/93		6.09	15.26	0	88,000	3,200	16,000	2,000	9,500	---	
12/2/93		5.54	15.81	0	110,000	3,600	25,000	2,800	15,000	---	
3/17/94		6.00	15.35	0	60,000	1,400	16,000	1,800	8,900	---	
6/10/94		6.87	14.48	0	25,000	770	880	190	1,100	---	
9/15/94		8.74	12.61	0	3,300	800	8.0	300	350	---	
24.11 ³		12/28/94	5.74	18.37	0	17,000	400	4,000	630	2,900	---
		3/29/95 ⁵	---	---	---	---	---	---	---	---	---
B-5/ 21.53 ¹		3/18/82	5.13	16.40	0	---	---	---	---	---	---
	3/25/82	5.27	16.26	0	---	---	---	---	---	---	
	5/21/82	4.40	17.13	0	---	---	---	---	---	---	
	5/26/82	7.55	13.98	0	---	---	---	---	---	---	
	6/24/82	7.27	14.26	0	---	---	---	---	---	---	
	9/9/93	6.45	15.08	0	110,000	1,800	1,800	6,300	25,000	---	
	12/2/93	5.13	16.40	0	81,000	4,400	3,800	6,700	28,000	---	
	3/17/94	6.55	14.98	0	38,000	2,100	3,100	1,800	9,100	---	
	6/10/94	7.34	14.19	0	110,000	5,100	7,000	5,400	27,000	---	
	9/15/94	6.34	15.19	0	2,700	770	15	240	320	---	
	24.23 ³	12/28/94	6.55	17.68	0	94,000	4,600	10,000	4,400	19,000	---
		3/29/95	5.59	18.64	0	59,000	1,500	3,100	2,100	8,100	---
		6/5/95	7.19	17.04	0	58,000	2,300	4,300	2,600	11,000	---
		9/21/95	9.10	15.13	0	3,500 ⁶	300	30	260	330	---
		12/22/95	8.61	15.62	0	6,500 ⁹	370	120	400	870	5,500



Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-2506, 2630 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-5 (cont)	3/22/96	6.02	18.21	0	13,000	410	1,000	750	2,900	5,400	
	9/25/96	9.20	15.03	0	8,000	170	<5.0	140	110	7,200	
	3/6/97	6.63	17.60	0	60,000	630	320	2,300	9,500	4,700	
	9/12/97	8.30	15.93	0	1,400	66	<10	59	24	3,300	
B-6/ 22.03 ¹	3/18/82	7.56	14.47	0	---	---	---	---	---	---	
	3/25/82	6.08	15.95	0	---	---	---	---	---	---	
	5/21/82	4.85	17.18	0	---	---	---	---	---	---	
	5/26/82	8.31	13.72	0	---	---	---	---	---	---	
	6/24/82	8.03	14.00	0	---	---	---	---	---	---	
	9/9/93	8.12	13.91	0	6,800 ²	<0.5	<0.5	<0.5	<1.5	---	
	12/2/93	7.06	14.97	0	320	29	<0.5	<0.5	<0.5	---	
	3/17/94	7.57	14.46	0	570	130	6.2	4.7	14	---	
	6/10/94	8.21	13.82	0	1,500	100	81	51	240	---	
	9/15/94	9.94	12.09	0	6,400	900	24	490	620	---	
	24.72 ³	12/28/94	7.45	17.27	0	350	110	4.4	3.7	14	---
		3/29/95	6.40	18.32	0	3,300	46	<0.5	1.3	1.2	---
		6/5/95	8.07	16.65	0	230	<0.5	<0.5	<0.5	<0.5	---
		9/21/95	9.55	15.17	0	<50 ⁶	<0.5	<0.5	<0.5	<0.5	---
		12/22/95	8.91	15.81	0	<50	<0.50	<0.50	<0.50	<0.50	15,000
		3/22/96	6.94	17.78	0	<1,200 ¹⁰	<12	<12	<12	<12	18,000
		9/25/96	9.63	15.09	0	15,000 ¹²	<10	<10	<10	<10	20,000
3/6/97		7.50	17.22	0	<5,000 ¹⁴	<50	<50	<50	<50	18,000	
9/12/97	9.70	15.02	0	<100 ¹⁸	<1.0	<1.0	<1.0	<1.0	1,300		
B-7/ 19.54 ⁴	3/18/82	4.08	15.46	0	---	---	---	---	---	---	
	3/25/82	4.00	15.54	0	---	---	---	---	---	---	
	5/21/82	3.00	16.54	0	---	---	---	---	---	---	
	5/26/82	4.96	14.58	0	---	---	---	---	---	---	
	6/24/82	4.90	14.64	0	---	---	---	---	---	---	
	9/9/93	6.54	13.00	0	230	1.3	2.3	0.6	2.1	---	
	12/2/93	6.20	13.34	0	190	4.7	<0.5	1.1	1.9	---	
	3/17/94	5.19	14.35	0	320	15	3.3	1.0	3.0	---	
	6/10/94	5.97	13.57	0	210	6.1	5.7	2.3	5.8	---	
	9/15/94	7.78	11.76	0	<50	<0.5	<0.5	<0.5	<0.5	---	
	22.22 ⁵	12/28/94	5.04	17.18	0	520	17	4.8	2.5	2.1	---
		3/29/95	4.35	17.87	0	420	6.0	2.3	1.8	0.9	---
		6/5/95	5.79	16.43	0	65	<0.5	<0.5	<0.5	<0.5	---
9/21/95		7.55	14.67	0	<50 ⁶	<0.5	<0.5	<0.5	<0.5	---	
12/22/95		9.16	13.06	0	<50	<0.50	<0.50	<0.50	<0.50	930	
3/22/96	4.60	17.62	0	300	1.0	0.5	<0.5	0.6	280		



Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G)	B T E X					MTBE
						←-----ppb----->					
B-7 (cont)	9/25/96	7.98	14.24	0	310 ¹²	<0.5	0.6	<0.5	0.8	420	
	3/6/97	5.06	17.16	0	1,200	9.0	<0.5	<0.5	2.9	1,000	
	9/12/97	7.85	14.37	0	<500 ¹⁸	<5.0	<5.0	<5.0	<5.0	3,500	
B-8/ 18.49 ¹	3/18/82	4.27	14.22	0	---	---	---	---	---	---	
	3/25/82	4.06	14.43	0	---	---	---	---	---	---	
	5/21/82	4.86	13.63	0	---	---	---	---	---	---	
	5/26/82	4.96	13.53	0	---	---	---	---	---	---	
	6/24/82	4.87	13.62	0	---	---	---	---	---	---	
	9/9/93	5.20	13.29	0	<50	3.4	<0.5	<0.5	<1.5	---	
	12/2/93	5.31	13.18	0	<50	<0.5	<0.5	<0.5	<0.5	---	
	3/17/94	4.87	13.62	0	<50	1.7	0.5	<0.5	0.6	---	
	6/10/94	5.63	12.86	0	<50	<0.5	<0.5	<0.5	<0.5	---	
	9/15/94	7.10	11.39	0	<50	<0.5	<0.5	<0.5	<0.5	---	
	21.01 ³	12/28/94	4.63	16.38	0	<50	<0.5	<0.5	<0.5	<0.5	---
		3/29/95	4.20	16.81	0	<50	<0.5	<0.5	<0.5	<0.5	---
		6/5/95	5.18	15.83	0	<50	<0.5	<0.5	<0.5	<0.5	---
		9/21/95	6.80	14.21	0	<50 ⁵	<0.5	<0.5	<0.5	<0.5	---
		12/22/95	6.48	14.53	0	<50	<0.50	<0.50	<0.50	<0.50	190
		3/22/96	4.49	16.52	0	<50	<0.5	<0.5	<0.5	<0.5	86
		9/25/96	7.18	13.83	0	90 ¹²	<0.5	<0.5	<0.5	1.0	110
		3/6/97 ¹¹	---	---	---	---	---	---	---	---	---
		9/12/97 ¹¹	---	---	---	---	---	---	---	---	---
B-9 ⁴		8/4/94	11.53	14.08	---	650	4.4	2.4	6.3	14	---
	11/2/94	9.42	16.19	---	---	---	---	---	---	---	
	25.61 ³	12/28/94	8.35	17.26	0	2,400	290	8.4	90	36	---
		3/29/95	7.43	18.18	0	5,900	540	24	200	84	---
		6/5/95	8.47	17.14	0	3,000	130	<25	<25	<25	---
		9/21/95	8.99	16.62	0	240 ⁸	1,500	14	62	55	---
		12/22/95	9.20	16.41	0	1,800	170	6.6	59	20	<6.0
		3/22/96	7.84	17.77	0	2,400	230	6.2	77	9.7	9.2
		9/25/96	9.24	16.37	0	1,800	28	4.7	39	13	56
		3/6/97	8.46	17.15	0	3,400	68	3.3	45	18	47
9/12/97	9.15	16.46	0	560	13	7.9	5.8	16	67		
B-10 ⁴	8/4/94	10.95	12.20	---	<50	<0.5	<0.5	<0.5	<0.5	---	
	11/2/94	11.19	11.96	---	---	---	---	---	---	---	
	23.15 ³	12/28/94	10.30	12.85	0	<50	<0.5	<0.5	<0.5	<0.5	---
		3/29/95	9.68	13.47	0	<50	<0.5	<0.5	<0.5	<0.5	---



Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G)	B T E X MTBE				
						←-----ppb----->				
B-10 (cont)	6/5/95	10.59	12.56	0	<50	<0.5	<0.5	<0.5	<0.5	—
	9/21/95	10.87	12.28	0	<50	<0.5	<0.5	<0.5	<0.5	—
	12/22/95	10.41	12.74	0	<50	<0.50	<0.50	<0.50	<0.50	<0.60
	3/22/96	10.11	13.04	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	9/25/96	10.15	13.00	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	3/6/97	9.98	13.17	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	9/12/97	10.90	12.25	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
B-11 ⁴ 25.23 ³	8/4/94	10.39	14.84	—	<50	<0.5	<0.5	<0.5	<0.5	—
	11/2/94	11.50	13.73	—	—	—	—	—	—	—
	12/28/94	9.09	16.14	0	<50	<0.5	<0.5	<0.5	<0.5	—
	3/29/95	7.40	17.83	0	<50	<0.5	<0.5	<0.5	<0.5	—
	6/5/95	8.26	16.97	0	<50	<0.5	<0.5	<0.5	<0.5	—
	9/21/95	9.79	15.44	0	<50	<0.5	<0.5	<0.5	<0.5	—
	12/22/95	9.55	15.68	0	<50	<0.50	<0.50	<0.50	<0.50	<0.60
	3/22/96	7.35	17.88	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	9/25/96	10.21	15.02	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	3/6/97	7.76	17.47	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	9/12/97	10.08	15.15	0	<50	<0.50	<0.50	<0.50	<0.50	2.5
B-12 ⁴ 20.40 ³	8/4/94	6.41	13.99	—	<50	<0.5	<0.5	<0.5	<0.5	—
	11/2/94	8.75	11.65	—	—	—	—	—	—	—
	12/28/94	2.76	17.64	0	74	1.0	2.6	1.3	4.4	—
	3/29/95	2.46	17.94	0	210	<0.5	<0.5	0.7	1.6	—
	6/5/95	4.59	15.81	0	<50	<0.5	<0.5	<0.5	0.7	—
	9/21/95	7.36	13.04	0	<50	<0.5	<0.5	<0.5	<0.5	—
	12/22/95	3.96	16.44	0	140 ⁹	<0.50	<0.50	<0.50	0.93	<0.60
	3/22/96	2.92	17.48	0	150	<0.5	0.8	<0.5	2.0	<5.0
	9/25/96	7.84	12.56	0	90	<0.5	<0.5	<0.5	<0.5	<5.0
	3/6/97	3.17	17.23	0	270 ¹²	<0.5	<0.5	<0.5	<0.5	<5.0
	9/12/97	6.81	13.59	0	130 ¹⁷	<1.0	<1.0	<1.0	<1.0	<5.0
TP-1/ —	9/9/93	7.33	—	0	8,500	770	890	120	590	—
TP-2/ —	9/9/93	6.18	—	0	13,000	2,400	3,200	380	1,900	—



Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G)	B ←	T	E ppb	X →	MTBE
Trip-Blank										
TB-LB	9/9/93	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
	12/2/93	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
	3/17/94	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
	6/10/94	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
	9/15/94	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
	12/28/94	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
	3/29/95	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
	6/5/95	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
	9/21/95	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
	12/22/95	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<0.60
	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	0.55	<0.50	<0.50	<2.5
Bailer Blank										
BB	9/9/93	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
	12/2/93	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
	3/17/94	--	--	--	<50	<0.5	<0.5	<0.5	0.6	--



Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California (continued)

EXPLANATION:

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

ANALYTICAL METHODS:

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

NOTES:

Water level data and laboratory analytical results prior to March 29, 1995, compiled from the quarterly monitoring reports prepared for Chevron by Sierra Environmental Services.

- * Product thickness was measured on and after September 9, 1993, with an MMC flexi-dip interface probe.
- ¹ Top of casing elevations were compiled from IT Enviroscience Program Report, August 2, 1982. TOC for MW-1 was assumed to be 23 feet MSL.
- ² Laboratory indicates a non-typical gasoline pattern.

NOTES (continued):

- ³ Wells were resurveyed. Top of casing elevations were compiled from RESNA Subsurface Investigation Report, October 19, 1994.
- ⁴ Water level and analytic data prior to 12/28/94 from RESNA Subsurface Investigation Report, October 19, 1994.
- ⁵ Well removed from monitoring program January 11, 1995, per approval of Alameda County Health Services.
- ⁶ Laboratory report indicates uncategorized compounds are not included in gasoline concentration.
- ⁷ Laboratory report indicates uncategorized compounds are not included in gasoline concentration. Data obtained from multiple dilutions. Dilution factor noted represents the dilution used for majority of results.
- ⁸ BFB recovery high due to interference of hydrocarbons.
- ⁹ Laboratory report indicates gasoline and discrete peaks.
- ¹⁰ Laboratory report indicates hydrocarbons in the gasoline range do not match the gasoline standard pattern. The TPH as gasoline value was 4,200 ug/L which was attributed to the presence of MTBE.
- ¹¹ Laboratory report indicates hydrocarbons in the gasoline range do not match the gasoline standard pattern. The TPH as gasoline value was 9,600 ug/L which was attributed to the presence of MTBE.
- ¹² Laboratory report indicates hydrocarbons in the gasoline range do not match the gasoline standard pattern.
- ¹³ Well was inaccessible.
- ¹⁴ Laboratory report indicates the TPH as Gasoline value was 22,000 ug/L which was attributed to the presence of a single target analyte.
- ¹⁵ Laboratory report indicates the TPH as Gasoline value was 21,000 ug/L which was attributed to the presence of a single target analyte.
- ¹⁶ Laboratory report indicates the TPH as Gasoline value was 770 ug/L which was attributed to the presence of a single target analyte.
- ¹⁷ Laboratory report indicates unidentified hydrocarbons > C8.
- ¹⁸ Laboratory report indicates discrete peaks.



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 # 9-2506
 Address: 2630 Broadway
 City: Oakland, CA

Job#: 5203.80
 Date: 9-12-97
 Sampler: F. Cline

Well ID: B-1 Well Condition: okay
 Well Diameter: 2" in. Hydrocarbon Thickness: 0 in. Amount Bailed: 0 (gal.)
 Total Depth: 29' ft. Volume Factor (VF): 2" = 0.17, 3" = 0.38, 4" = 0.66, 6" = 1.50, 12" = 5.80
 Depth to Water: 10.72 ft. 18.28 x VF 0.17 = 3.1 X 3 (case volume) = Estimated Purge Volume: 9.3 (gal.)

Purge Equipment: Disposable Bailer
 Stack
 Suction
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 1408 Weather Conditions: clear warm
 Sampling Time: 1426 Water Color: clear Odor: no od
 Purging Flow Rate: 1.5 gpm. Sediment Description: None
 Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>14:10</u>	<u>3</u>	<u>6.60</u>	<u>250</u>	<u>22.5</u>			
<u>14:12</u>	<u>6</u>	<u>6.57</u>	<u>257</u>	<u>23.0</u>			
<u>14:14</u>	<u>9</u>	<u>6.60</u>	<u>248</u>	<u>22.0</u>			
<u>14:16</u>	<u>10</u>	<u>6.58</u>	<u>250</u>	<u>22.1</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 # 9-2506
 Address: 2630 Broadway
 City: Oakland, CA

Job #: 5203.80
 Date: 9-12-97
 Sampler: F. Cline

Well ID: B-3 Well Condition: okay
 Well Diameter: 2" in. Hydrocarbon Thickness: 0 in. Amount Bailed: 0 (gal.)
 Total Depth: 19' ft.
 Depth to Water: 9.31 ft.

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

9.69 x VF 0.17 = 1.65 x 3 (case volume) = Estimated Purge Volume: 4.94 (gal.)

Purge Equipment: Disposable Bailer
~~Bailer~~
~~Suction~~
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 13:24 Weather Conditions: clear warm
 Sampling Time: ~~13:50~~ 15:05 Water Color: clear Odor: Mid
 Purging Flow Rate: _____ gpm. Sediment Description: nk
 Did well de-water? Yes If yes; Time: Yes Volume: 250/5' (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1326</u>	<u>1</u>	<u>6.70</u>	<u>340</u>	<u>22.1</u>			
<u>1328</u>	<u>2</u>	<u>6.63</u>	<u>335</u>	<u>22.3</u>			
<u>1505</u>	<u>25</u>	<u>6.62</u>	<u>358</u>	<u>22.7</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>B-3</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 # 9-2506
 Address: 2630 Broadway
 City: Oakland, CA

Job#: 5203.80
 Date: 9-12-97
 Sampler: E.Cline

Well ID: B-5
 Well Diameter: 2" in.
 Total Depth: 19' ft.
 Depth to Water: 8.3 ft.

Well Condition: okay

Hydrocarbon Thickness:	<u>0</u> in.	Amount Bailed (product/water):	_____ (gal.)
Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

10.7 X VF 0.17 = 1.8 X 3 (case volume) = Estimated Purge Volume: 5.4 (gal.)

Purge Equipment: Disposable Bailer
 Bailer
 Stack
 Suction
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 1444
 Sampling Time: 1530
 Purging Flow Rate: _____ gpm.
 Did well de-water? YPS

Weather Conditions: _____
 Water Color: _____ Odor: _____
 Sediment Description: _____
 If yes; Time: 14:48 Volume: 3 gals. (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>14:46</u>	<u>2</u>	<u>6.58</u>	<u>298</u>	<u>23.0</u>			
<u>15:48</u>	<u>3</u>	<u>6.55</u>	<u>300</u>	<u>22.8</u>			
<u>15:30</u>	<u>3.5</u>	<u>6.60</u>	<u>301</u>	<u>22.7</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>B-5</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 # 9-2506
 Address: 2630 Broadway
 City: Oakland, CA

Job#: 5203.80
 Date: 9-12-97
 Sampler: F. Cline

Well ID: B-6
 Well Diameter: 2" in.
 Total Depth: 19' ft.
 Depth to Water: 9.70 ft.

Well Condition: dry

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

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

9.30 x VF 0.17 = 1.6 x 3 (case volume) = Estimated Purge Volume: 4.7 (gal.)

Purge Equipment: Disposable Bailer
~~Bailer~~
 Stack
 Suction
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
~~Bailer~~
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 1354
 Sampling Time: 1405
 Purging Flow Rate: _____ gpm.
 Did well de-water? YLS

Weather Conditions: clear warm
 Water Color: clear Odor: Mild
 Sediment Description: None
 If yes; Time: 13:28 Volume: 2 (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1356</u>	<u>1</u>	<u>6.66</u>	<u>316</u>	<u>23.4</u>			
<u>1358</u>	<u>2</u>	<u>6.68</u>	<u>312</u>	<u>22.8</u>			
<u>1400</u>	<u>2.5</u>	<u>6.70</u>	<u>310</u>	<u>22.7</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>B-6</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 # 9-2506

Job#: 5203.80

Address: 2630 Broadway

Date: 9-12-97

City: Oakland, CA

Sampler: E. Cline

Well ID B-7

Well Condition: Okay

Well Diameter 2" in.

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

Total Depth 19' ft.

Depth to Water 7.85 ft.

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

11.15 X VF 0.17 = 1.89 X 3 (case volume) = Estimated Purge Volume: 5.69 (gal.)

Purge Equipment: Disposable Bailer
Bailer
Stack
Suction
Grundfos
Other: _____

Sampling Equipment: Disposable Bailer
Bailer
Pressure Bailer
Grab Sample
Other: _____

Starting Time: 13:12

Weather Conditions: Clear warm

Sampling Time: 13:20

Water Color: Clear Odor: None

Purging Flow Rate: 1 gpm.

Sediment Description: None

Did well de-water? MC

If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>13:14</u>	<u>2</u>	<u>6.64</u>	<u>321</u>	<u>24.6</u>			
<u>13:16</u>	<u>4</u>	<u>6.65</u>	<u>320</u>	<u>22.8</u>			
<u>13:18</u>	<u>6</u>	<u>6.66</u>	<u>318</u>	<u>22.7</u>			
<u>13:20</u>	<u>7</u>	<u>6.65</u>	<u>319</u>	<u>22.5</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>B-7</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 # 9-2506
 Address: 2630 Broadway
 City: Oakland, CA

Job#: 5203.80
 Date: 9-12
 Sampler: F. Cline

Well ID B- ~~28~~ 8
 Well Diameter 2" in.
 Total Depth 18' ft.
 Depth to Water _____ ft.

Well Condition: _____

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	

_____ 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: _____
 Sampling Time: _____
 Purging Flow Rate: _____ gpm.
 Did well de-water? _____

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

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

Unable to access well. Fence around old restaurant area (old restaurant).

LABORATORY INFORMATION

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

COMMENTS: Unable to access well. Fence around area (old restaurant).

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Chevron Facility # 9-2506
 Address: 2630 Broadway
 City: Oakland, CA

Job#: 5203.80
 Date: 9-12-97
 Sampler: E. Cline

Well ID B- 9 Well Condition: okay

Well Diameter 2" in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)
 Total Depth 19' ft.
 Depth to Water 9.15 ft.
 Volume Factor (VF) 2" = 0.17 3" = 0.38 4" = 0.66
 6" = 1.50 12" = 5.80
9.85 X VF: 0.17 = 1.67 X 3 (case volume) = Estimated Purge Volume: 50 (gal.)

Purge Equipment: Disposable Bailer
 Bailer
Stack
 Suction
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 13:40
 Sampling Time: 13:46
 Purging Flow Rate: 1 gpm.
 Did well de-water? _____

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

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>13:42</u>	<u>2</u>	<u>6.53</u>	<u>377</u>	<u>25.6</u>			
<u>13:42</u>	<u>4</u>	<u>6.48</u>	<u>370</u>	<u>24.0</u>			
<u>13:44</u>	<u>6</u>	<u>6.56</u>	<u>368</u>	<u>22.9</u>			
<u>13:46</u>	<u>7</u>	<u>6.49</u>	<u>310</u>	<u>23.0</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>B- 9</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 # 9-2506
Address: 2630 Broadway
City: Oakland, CA

Job#: 5203.80
Date: 9-12
Sampler: F.Cline

Well ID: B-10
Well Diameter: 2" in.
Total Depth: 19' ft.
Depth to Water: 10.90 ft.

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

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

4.10 x VF 0.17 = 1.4 X 3 (case volume) = Estimated Purge Volume: 4.13 (gal.)

Purge Equipment: Disposable Bailer
Stack
Suction
Grundfos
Other: _____

Sampling Equipment: Disposable Bailer
Bailer
Pressure Bailer
Grab Sample
Other: _____

Starting Time: 1202
Sampling Time: 1208
Purging Flow Rate: 1 gpm.
Did well de-water? NO

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

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1202</u>	<u>2</u>	<u>6.56</u>	<u>255</u>	<u>23.2</u>			
<u>1204</u>	<u>4</u>	<u>6.26</u>	<u>264</u>	<u>22.3</u>			
<u>1206</u>	<u>6</u>	<u>6.28</u>	<u>266</u>	<u>22.2</u>			
<u>1208</u>	<u>7</u>	<u>6.27</u>	<u>265</u>	<u>22.2</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>B-10</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 # 9-2506

Job#: 5203.80

Address: 2630 Broadway

Date: 9-12-97

City: Oakland, CA

Sampler: F. Cline

Well ID B- 11

Well Condition: dry

Well Diameter 2" in.

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

Total Depth 18' ft.

Depth to Water 10.08 ft.

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

7.92 x VF 0.17 = 1.3 x 3 (case volume) = Estimated Purge Volume: 4.09 (gal.)

Purge Equipment: Disposable Bailer
Bailer
Stack Suction
Grundfos
Other: _____

Sampling Equipment: Disposable Bailer
Bailer
Pressure Bailer
Grab Sample
Other: _____

Starting Time: 12:26

Weather Conditions: clear a/c

Sampling Time: 12:32

Water Color: clear Odor: None

Purging Flow Rate: 1.4 gpm.

Sediment Description: None

Did well de-water? NO

If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>12:28</u>	<u>1.4</u>	<u>6.26</u>	<u>295</u>	<u>23.0</u>			
<u>12:30</u>	<u>2.8</u>	<u>6.20</u>	<u>295</u>	<u>22.1</u>			
<u>12:31</u>	<u>4.2</u>	<u>6.19</u>	<u>294</u>	<u>22.3</u>			
<u>12:32</u>	<u>5.0</u>	<u>6.18</u>	<u>293</u>	<u>22.1</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>B- 11</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 # 9-2506

Job#: 5203.80

Address: 2630 Broadway

Date: 9-12-97

City: Oakland, CA

Sampler: E.Cline

Well ID B- 12

Well Condition: okay

Well Diameter 2" in.

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

Total Depth 181 ft.

Depth to Water 681 ft.

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

11.19 x VF 0.17 = 1.9 X 3 (case volume) = Estimated Purge Volume: 5.71 (gal.)

Purge Equipment: Disposable Bailer
Bailer
Stack
Suction
Grundfos
Other: _____

Sampling Equipment: Disposable Bailer
Bailer
Pressure Bailer
Grab Sample
Other: _____

Starting Time: 12:46
Sampling Time: 12:54
Purging Flow Rate: 1 gpm.
Did well de-water? _____

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

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>12:48</u>	<u>2</u>	<u>6.06</u>	<u>355</u>	<u>22.5</u>			
<u>12:50</u>	<u>4</u>	<u>6.14</u>	<u>327</u>	<u>21.9</u>			
<u>12:52</u>	<u>6</u>	<u>6.15</u>	<u>325</u>	<u>21.7</u>			
<u>12:54</u>	<u>7</u>	<u>6.14</u>	<u>322</u>	<u>21.8</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>B- 12</u>	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>NEI/GTEL</u>	<u>TPH-Gas/BTEX/MTBE</u>

COMMENTS: _____



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Gettler-Ryan
6747 Sierra Ct., Ste. J
Dublin, CA 94568
Attention: Deanna Harding

Client Project ID: Chevron #9-2506
Sample Matrix: Water
Analysis Method: EPA 5030/8015 Mod./8020
First Sample #: 709-1223

Sampled: Sep 16, 1997
Received: Sep 16, 1997
Reported: Sep 29, 1997

QC Batch Number: GC092497 GC092497 GC092497 GC092597 GC092597 GC092497
802005A 802005A 802005A 802005A 802005A 802005A

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 709-1223 TB-LB	Sample I.D. 709-1224 B-10	Sample I.D. 709-1225 B-11	Sample I.D. 709-1226 B-12	Sample I.D. 709-1227 B-3	Sample I.D. 709-1228 B-7
Purgeable Hydrocarbons	50	N.D.	N.D.	N.D.	130	N.D.	N.D.
Benzene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	0.50	0.55	N.D.	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Total Xylenes	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MTBE	2.5	N.D.	N.D.	N.D.	N.D.	1,900	3,500
Chromatogram Pattern:		--	--	--	Unidentified Hydrocarbons >C8	Discrete Peaks	Discrete Peaks

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	2.0	10	10
Date Analyzed:	9/24/97	9/24/97	9/24/97	9/25/97	9/25/97	9/24/97
Instrument Identification:	HP-5	HP-5	HP-5	HP-5	HP-5	HP-5
Surrogate Recovery, %: (QC Limits = 70-130%)	128	124	123	112	87	93

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

7091223.GGG <1>





Gettler-Ryan 6747 Sierra Ct., Ste. J Dublin, CA 94568 Attention: Deanna Harding	Client Project ID: Chevron #9-2506 Sample Matrix: Water Analysis Method: EPA 5030/8015 Mod./8020 First Sample #: 709-1229	Sampled: Sep 16, 1997 Received: Sep 16, 1997 Reported: Sep 29, 1997
--	--	---

QC Batch Number: GC092597 GC092497 GC092497 GC092597

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D.	Sample I.D.	Sample I.D.	Sample I.D.
		709-1229 B-9	709-1230 B-6	709-1231 B-1	709-1232 B-5
Purgeable Hydrocarbons	50	560	N.D.	89	1,400
Benzene	0.50	13	N.D.	N.D.	66
Toluene	0.50	7.9	N.D.	0.54	N.D.
Ethyl Benzene	0.50	5.8	N.D.	N.D.	59
Total Xylenes	0.50	16	N.D.	1.3	24
MTBE	2.5	67	1,300	9,200	3,300
Chromatogram Pattern:		Gasoline	Discrete Peaks	--	Gasoline

Quality Control Data

Report Limit Multiplication Factor:	10	2.0	1.0	20
Date Analyzed:	9/25/97	9/24/97	9/24/97	9/25/97
Instrument Identification:	HP-5	HP-5	HP-5	HP-5
Surrogate Recovery, %: (QC Limits = 70-130%)	106	81	86	86

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 Beva
Project Manager





Sequoia Analytical

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Gettler-Ryan
6747 Sierra Ct., Ste. J
Dublin, CA 94568
Attention: Deanna Harding

Client Project ID: Chevron #9-2506
Matrix: Liquid

QC Sample Group: 7091223-232

Reported: Oct 1, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC092497 802005A	GC092497 802005A	GC092497 802005A	GC092497 802005A
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 #:	7090716	7090716	7090716	7090716
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-5	HP-5	HP-5	HP-5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Result:	18	18	18	56
MS % Recovery:	90	90	90	93
Dup. Result:	18	18	18	56
MSD % Recov.:	90	90	90	93
RPD:	0.0	0.0	0.0	0.0
RPD Limit:	0-20	0-20	0-20	0-20

LCS #:	5LCS092497	5LCS092497	5LCS092497	5LCS092497
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-5	HP-5	HP-5	HP-5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
LCS Result:	19	18	19	57
LCS % Recov.:	95	90	95	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



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Gettler-Ryan
6747 Sierra Ct., Ste. J
Dublin, CA 94568
Attention: Deanna Harding

Client Project ID: Chevron #9-2506
Matrix: Liquid

QC Sample Group: 7091223-232

Reported: Oct 1, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC092597 802005A	GC092597 802005A	GC092597 802005A	GC092597 802005A
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 #:	7091965	7091965	7091965	7091965
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	9/25/97	9/25/97	9/25/97	9/25/97
Analyzed Date:	9/25/97	9/25/97	9/25/97	9/25/97
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Result:	19	20	19	60
MS % Recovery:	95	100	95	100
Dup. Result:	19	20	19	61
MSD % Recov.:	95	100	95	102
RPD:	0.0	0.0	0.0	1.7
RPD Limit:	0-20	0-20	0-20	0-20

LCS #:	5LCS092597	5LCS092597	5LCS092597	5LCS092597
Prepared Date:	9/25/97	9/25/97	9/25/97	9/25/97
Analyzed Date:	9/25/97	9/25/97	9/25/97	9/25/97
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
LCS Result:	19	19	18	56
LCS % Recov.:	95	95	90	93

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