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**Chevron**

August 30, 1994

**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

Mr. Scott Seery  
Alameda County Environmental Health  
80 Swan Way, Room 200  
Oakland, CA 94621

Re: Former Chevron Station # 9-5607, 5269 Crow Canyon Road, Castro Valley, CA  
Attached groundwater monitoring report (GTI, 5/20/94)

Dear Mr. Seery:

Attached is a report dated May 20, 1994, which was prepared by Chevron's consultant, Groundwater Technology Inc. (GTI), to describe quarterly groundwater monitoring performed at the subject site on April 18, 1994.

The measured direction of groundwater flow in April was toward the west-southwest. Ten of the site monitoring wells were sampled and analyzed for the presence of TPHGas and BTEX constituents. The detected levels of dissolved hydrocarbons were consistent with those detected during previous site monitoring events.

If you have any questions or comments, I can be reached at (510) 842-8695.

Sincerely,

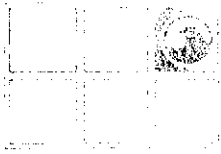
Brett L. Hunter  
Environmental Engineer  
Site Assessment and Remediation

Attachment

cc: Rich Hiatt, San Francisco Bay RWQCB, Oakland, CA  
Kevin Hinckley, 5269 Crow Canyon Road, Castro Valley, CA 94546  
Bette Owen, Chevron USA, Products Company, San Ramon, CA (w/o attachment)



MAY 20 1994



# GROUNDWATER TECHNOLOGY, INC.

4057 Port Chicago Highway, Concord, CA 94520 (415) 671-2387

FAX: (415) 685-9148

May 20, 1994

Project No. 02010 4228

Mr. Brett Hunter  
Chevron U.S.A. Products Company  
2410 Camino Ramon  
San Ramon, CA 94583-0804

SUBJECT: *Quarterly Monitoring and Sampling Activities*  
Chevron Service Station No. 9-5607  
5269 Crow Canyon Road  
Castro Valley, California

Dear Mr. Hunter:

Groundwater Technology, Inc. presents the quarterly groundwater monitoring and sampling data collected on April 18, 1994. Fifteen groundwater monitoring wells were gauged to determine depth to groundwater (DTW) and to check for the presence of separate-phase petroleum hydrocarbons. Separate-phase hydrocarbons were not detected in the monitoring wells. A potentiometric surface map and a summary of groundwater monitoring data are presented in Attachments 1 and 2, respectively. After measuring DTW, quarterly monitoring wells C-1, C-3, C-6, C-8, C-10A, C-10B, C-11, C-12, C-15 and C-16 were purged and sampled. Groundwater monitoring and sample collection protocol and field data sheets are presented in Attachment 3. The groundwater samples were analyzed for benzene, toluene, ethylbenzene, xylenes (BTEX), and total petroleum hydrocarbons-as-gasoline (TPH-G). Laboratory reports and chain-of-custody records are included in Attachment 4. Monitoring well purge water was transported by Groundwater Technology to the Chevron Terminal in Richmond, California, for recycling.

Groundwater Technology, Inc. is pleased to assist Chevron on this project. If you have any questions or comments please call our Concord office at (510) 671-2387.

Sincerely,  
**Groundwater Technology, Inc.**  
Written/Submitted by

Tim Watchers  
Project Manager

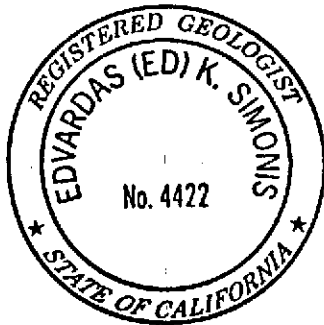
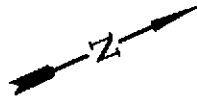
PR KJ

Attachment 1 Figure  
Attachment 2 Table  
Attachment 3 Protocol and Field Data Sheets  
Attachment 4 Laboratory Report

For:  
Wendell W. Lattz  
Vice President, General Manager  
West Region

**ATTACHMENT 1**

**Figure**

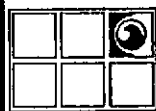
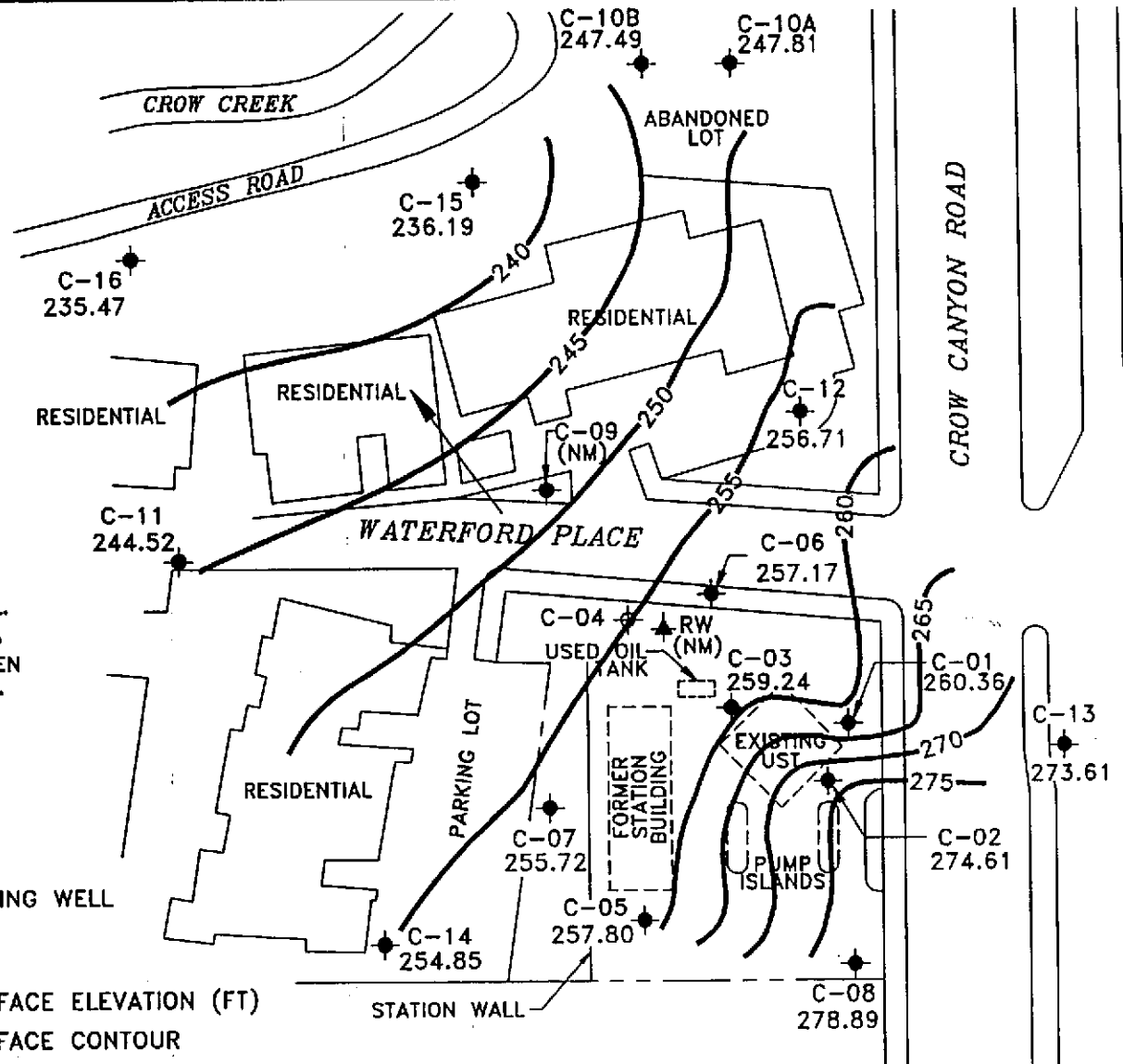


**NOTE:**

1. CONTOURS REPRESENT APPROXIMATE ELEVATIONS ABOVE MEAN SEA LEVEL.
2. ALL STRUCTURES AND UNDERGROUND GASOLINE STORAGE TANKS HAVE BEEN REMOVED AND DASHED FOR CLARITY.

**LEGEND**

- — — — — PROPERTY LINE
- ◆ MONITORING WELL
- ⊕ ABANDONED MONITORING WELL
- ▲ RECOVERY WELL
- NM NOT MONITORED
- X.XX POTENTIOMETRIC SURFACE ELEVATION (FT)
- ( ) — POTENTIOMETRIC SURFACE CONTOUR
- ← GROUNDWATER FLOW DIRECTION



**GROUNDWATER TECHNOLOGY**



CLIENT:  
CHEVRON U.S.A. PRODUCTS CO.  
FORMER S.S. NO. 9-5607

LOCATION:  
5269 CROW CANYON ROAD  
CASTRO VALLEY, CALIFORNIA

**POTENTIOMETRIC SURFACE MAP  
(4/18/94)**

FILE: 4228PSM

PROJECT NO.: 02010-4228

PM:

*Jaw*

PE/RG:

*zel*

FIGURE:

1

REV.:

DES.: TW

DET.: SS

DATE: 4/29/94

**ATTACHMENT 2**

**Table**

**Table  
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**

FORMER CHEVRON SERVICE STATION NO. 9-5607  
5269 CROW CANYON ROAD, CASTRO VALLEY, CALIFORNIA

WELL ID/ ELEVATION (TOC)	DATE	BENZENE (ppb)	TOLUENE (ppb)	ETHYL- BENZENE (ppb)	XYLENES (ppb)	TPH-G (ppb)	ORGANIC LEAD (ppb)	DTW (feet)	SPT (feet)	WTE (feet)
C-1 283.46	03/26/85							22.83	0.00	260.63
	07/03/86							23.58	0.00	259.88
	03/26/87							20.50	0.00	262.96
	03/28/88							26.00	0.00	257.46
	03/10/89							15.86	0.00	267.60
	04/03/89							16.85	0.00	266.61
	05/08/89							22.68	0.00	260.78
	06/05/89							24.66	0.00	258.80
	07/12/90							25.56	0.00	257.90
	08/10/90							25.89	0.00	257.57
	09/13/89	3,600	1,100	1,000	3,500	22,000		26.55	0.00	256.91
	10/04/89							25.24	0.00	258.22
	11/03/89							25.03	0.00	258.43
	12/04/89	2,000	550	610	1,600	13,000		26.37	0.00	257.09
	03/07/90							22.48	0.00	260.98
	03/09/90									
	06/12/90	3,500	1,400	840	4,000	21,000		24.35	0.00	259.11
	09/20/90	2,100	1,200	860	5,000	23,000		26.27	0.00	257.19
	12/20/90	760	410	260	1,100	8,200		22.59	0.00	260.87
	03/27/91							18.08	0.00	264.38
	06/18/91							27.11	0.00	256.35
	09/12/91							28.22	0.00	255.24
	01/23/92							26.65	0.00	256.81
04/13/92	3,100	1,300	850	3,100	38,000		22.16	0.00	261.30	
08/03/92	1,300	470	550	1,600	13,000	ND	26.15	0.00	257.31	
10/22/92	3,500	1,400	1,500	4,300	24,000		26.79	0.00	256.67	
01/18/93	6,900	8,900	3,100	23,000	370,000		18.60	0.00	264.86	
04/19/93	8,000	7,000	1,400	10,000	51,000		21.12	0.00	262.34	
07/21, 22/93	3,400	1,000	990	3,100	22,000		23.28	0.00	260.18	
10/25/93	2,000	550	790	2,300	14,000		24.66	0.00	258.80	
01/21/94	350	6	3	15	1,100		20.47	0.00	262.99	
04/18/94	3,200	1,000	1,000	3,100	24,000		23.10	0.00	260.36	
C-2 284.37	03/26/85							19.69	0.00	264.68
	07/03/86							15.45	0.00	268.92
	03/26/87							20.92	0.00	263.45
	03/28/88							12.80	0.00	271.57
	03/10/89							14.26	0.00	270.11
	04/03/89							18.42	0.00	265.95
	05/08/89							20.09	0.00	264.28
	06/05/89							20.79	0.00	263.58
	07/12/90							21.40	0.00	262.97
	08/10/90							21.86	0.00	262.51
	09/13/89	62	4	10	14	320		19.89	0.00	264.48
	10/04/89							20.76	0.00	263.61
	11/03/89							20.82	0.00	263.55
	12/04/89	240	37	66	130	1,000		17.83	0.00	266.54
	03/07/90							17.83	0.00	266.54
	03/09/90	280	35	27	50	390		19.89	0.00	264.48
	06/12/90	260	34	28	55	700		21.97	0.00	262.40
	09/20/90							17.73	0.00	266.64
	12/20/90							15.10	0.00	269.27
	03/27/91							22.68	0.00	261.69
	06/18/91							23.92	0.00	260.45
	09/12/91							21.24	0.00	263.13
	01/23/92							17.54	0.00	266.83
04/13/92	120	76	17	72	1,100		22.05	0.00	262.32	
08/03/92							23.03	0.00	261.34	
10/22/92							14.86	0.00	269.51	
01/18/93	6.4	ND	ND	ND	70		16.80	0.00	267.57	
04/19/93							19.25	0.00	265.12	
07/21, 22/93							19.65	0.00	264.72	
10/25/93							9.76	0.00	274.61	
01/21/94	5,100	1,800	2,000	6,800	43,000					

Table  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**

FORMER CHEVRON SERVICE STATION NO. 9-5607  
 5269 CROW CANYON ROAD, CASTRO VALLEY, CALIFORNIA

WELL ID/ ELEVATION (TOC)	DATE	BENZENE (ppb)	TOLUENE (ppb)	ETHYL- BENZENE (ppb)	XYLENES (ppb)	TPH-G (ppb)	ORGANIC LEAD (ppb)	DTW (feet)	SPT (feet)	WTE (feet)
C-3 285.98	03/26/85	--	--	--	--	--	--	--	--	--
	07/03/86	--	--	--	--	--	--	26.04	0.00	259.94
	03/26/87	--	--	--	--	--	--	25.64	0.00	260.34
	03/28/88	--	--	--	--	--	--	28.82	0.00	257.16
	03/10/89	--	--	--	--	--	--	22.78	0.00	263.20
	04/03/89	--	--	--	--	--	--	22.71	0.00	263.27
	05/08/89	--	--	--	--	--	--	25.95	0.00	260.03
	06/05/89	--	--	--	--	--	--	27.62	0.00	258.36
	07/12/90	--	--	--	--	--	--	28.29	0.00	257.69
	08/10/90	--	--	--	--	--	--	28.46	0.00	257.52
	09/13/89	1,400	6,800	2,300	10,000	60,000	--	29.33	0.00	256.65
	10/04/89	--	--	--	--	--	--	28.97	0.00	257.01
	11/03/89	--	--	--	--	--	--	28.72	0.00	257.26
	12/04/89	1,300	3,300	1,400	2,700	56,000	--	29.01	0.00	256.97
	03/07/90	--	--	--	--	--	--	27.69	0.00	258.29
	03/09/90	1,100	5,700	1,600	7,900	42,000	--	27.69	0.00	258.29
	06/12/90	1,400	7,100	3,400	16,000	160,000	--	28.09	0.00	257.89
	09/24/90	850	7,700	2,000	10,000	53,000	--	29.18	0.00	256.80
	12/20/90	1,200	5,400	5,400	33,000	520	--	28.27	0.00	257.71
	03/27/91	1,300	3,100	1,200	11,000	92,000	--	24.80	0.00	261.18
	06/18/91	--	--	--	--	--	--	30.84	0.00	255.14
	09/12/91e	--	--	--	--	--	--	31.64	0.03	254.34
	01/23/92	--	--	--	--	--	--	30.52	SHEEN	255.46
	04/13/92e	--	--	--	--	--	--	26.94	0.01	259.04
	08/03/92	1,300	2,800	3,100	17,000	220,000	ND	30.00	0.00	255.98
	10/22/92e	SP	SP	SP	SP	SP	SP	30.62	0.03	255.38
	01/18/93	2,400	5,300	10,000	61,000	1,000,000	--	23.91	0.00	262.07
	04/19/93	33,000	22,000	1,600	9,200	94,000	--	25.00	0.00	260.98
	07/21,22/93	2,600	5,500	1,300	6,900	44,000	--	26.55	0.00	259.43
	10/25/93	3,900	2,400	1,100	6,600	35,000	--	28.72	0.00	257.26
01/21/94	4,200	2,200	2,000	11,000	120,000	--	29.66	0.00	256.32	
04/18/94	1,200	310	520	2,000	29,000	--	26.74	0.00	259.24	
C-4 273.01	03/26/85	--	--	--	--	--	--	15.14	0.00	257.87
	07/03/86	--	--	--	--	--	--	15.37	0.00	257.64
	03/26/87	--	--	--	--	--	--	--	--	--
	03/28/88	--	--	--	--	--	--	18.04	0.00	254.97
	03/10/89	--	--	--	--	--	--	--	--	--
	04/03/89	--	--	--	--	--	--	13.34	0.00	259.67
	05/08/89	--	--	--	--	--	--	15.60	0.00	257.41
	06/05/89	--	--	--	--	--	--	16.51	0.00	256.50
	07/12/90	--	--	--	--	--	--	16.99	0.00	256.02
	08/10/90	--	--	--	--	--	--	17.27	0.00	255.74
	09/13/89	21,000	3,100	3,200	11,000	57,000	--	18.16	0.00	254.85
	10/04/89	--	--	--	--	--	--	18.24	0.00	254.77
	11/03/89	--	--	--	--	--	--	18.17	0.00	254.84
	12/04/89	17,000	2,200	2,800	9,800	48,000	--	18.45	0.00	254.56
	03/07/90	--	--	--	--	--	--	17.20	0.00	255.81
	03/09/90	20,000	2,300	2,800	11,000	43,000	--	17.20	0.00	255.81
	06/12/90	21,000	2,400	4,000	16,000	82,000	--	16.66	0.00	256.35
	09/24/90	--	--	--	--	--	--	18.11	0.00	254.90
12/20/90b	--	--	--	--	--	--	--	--	--	

**Table  
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**

FORMER CHEVRON SERVICE STATION NO. 9-5607  
5269 CROW CANYON ROAD, CASTRO VALLEY, CALIFORNIA

WELL ID/ ELEVATION (TOG)	DATE	BENZENE (ppb)	TOLUENE (ppb)	ETHYL- BENZENE (ppb)	XYLENES (ppb)	TPH-G (ppb)	ORGANIC LEAD (ppb)	DTW (feet)	SPT (feet)	WTE (feet)
C-5 287.95	03/26/85	---	---	---	---	---	---	25.33	0.00	262.62
	07/03/86	---	---	---	---	---	---	26.41	0.00	261.54
	03/26/87	---	---	---	---	---	---	24.96	0.00	262.99
	03/28/88	---	---	---	---	---	---	29.80	0.00	258.15
	03/10/89	---	---	---	---	---	---	25.89	0.00	262.06
	04/03/89	---	---	---	---	---	---	24.38	0.00	263.57
	05/08/89	---	---	---	---	---	---	27.80	0.00	260.15
	06/05/89	---	---	---	---	---	---	29.42	0.00	258.53
	07/12/90	---	---	---	---	---	---	29.86	0.00	258.09
	08/10/90	---	---	---	---	---	---	29.77	0.00	258.18
	09/13/89	ND	ND	ND	ND	310	---	30.95	0.00	257.00
	10/04/89	---	---	---	---	---	---	31.48	0.00	256.47
	11/03/89	---	---	---	---	---	---	31.32	0.00	256.63
	12/04/89	ND	ND	ND	ND	ND	---	31.70	0.00	256.25
	03/07/90	---	---	---	---	---	---	30.28	0.00	257.67
	03/09/90	ND	ND	ND	ND	ND	---	30.28	0.00	257.67
	06/12/90	ND	ND	ND	ND	ND	90	30.48	0.00	257.47
	09/24/90	ND	ND	ND	ND	ND	ND	31.78	0.00	256.17
	12/20/90	ND	ND	1.0	0.7	170	---	33.29	0.00	254.66
	03/27/91	---	---	---	---	---	---	27.98	0.00	259.97
	06/18/91	---	---	---	---	---	---	32.52	0.00	255.43
	09/12/91	---	---	---	---	---	---	33.37	0.00	254.58
	01/23/92	---	---	---	---	---	---	32.67	0.00	255.28
	04/13/92	ND	ND	0.7	ND	140	---	28.48	0.00	259.47
	08/03/92	ND	ND	ND	ND	ND	ND	32.50	0.00	255.45
	10/22/92	---	---	---	---	---	---	33.98	0.00	253.97
01/18/93	6.6	2.2	3.4	2.2	230	---	27.02	0.00	260.93	
04/19/93	---	---	---	---	---	---	24.81	0.00	263.14	
07/21,22/93	ND	0.6	ND	ND	130	---	29.06	0.00	258.89	
10/25/93	---	---	---	---	---	---	30.95	0.00	257.00	
01/21/94	ND	ND	ND	ND	ND	---	31.91	0.00	256.04	
04/18/94	---	---	---	---	---	---	30.15	0.00	257.80	
C-6 275.28	03/26/85	---	---	---	---	---	---	16.74	---	---
	07/03/86	---	---	---	---	---	---	17.46	0.00	257.82
	03/26/87	---	---	---	---	---	---	18.37	0.00	256.91
	03/28/88	---	---	---	---	---	---	29.84	0.00	245.44
	03/10/89	---	---	---	---	---	---	14.44	0.00	260.84
	04/03/89	---	---	---	---	---	---	14.44	0.00	260.84
	05/08/89	---	---	---	---	---	---	17.16	0.00	258.12
	06/05/89	---	---	---	---	---	---	18.51	0.00	256.77
	07/12/90	---	---	---	---	---	---	18.71	0.00	256.57
	08/10/90	---	---	---	---	---	---	19.32	0.00	255.96
	09/13/89	5,600	3,000	2,400	10,000	47	---	19.95	0.00	255.33
	10/04/89	---	---	---	---	---	---	19.87	0.00	255.41
	11/03/89	---	---	---	---	---	---	19.35	0.00	255.93
	12/04/89	8,100	1,800	1,700	7,500	40,000	---	19.59	0.00	255.69
	03/07/90	---	---	---	---	---	---	18.39	0.00	256.89
	03/09/90	23,000	5,900	3,400	17,000	73,000	---	18.39	0.00	256.89
	06/12/90	19,000	6,500	3,400	16,000	85,000	---	18.87	0.00	256.41
	09/24/90	15,000	3,200	2,600	11,000	72,000	---	19.99	0.00	255.29
	12/20/90	11,000	4,200	3,400	16,000	100,000	---	21.57	0.00	253.71
	03/27/91	11,000	4,400	2,300	11,000	100,000	---	16.32	0.00	258.96
	06/18/91	---	---	---	---	---	---	23.33	0.00	251.95
	09/12/91	---	---	---	---	---	---	23.96	0.00	251.32
	01/23/92	---	---	---	---	---	---	12.08	0.00	263.20
	04/13/92	---	---	---	---	---	---	19.85	SHEEN	255.43
	08/03/92	16,000	1,100	2,300	15,000	120,000	ND	14.72	0.00	260.56
	10/22/92	7,400	920	1,800	14,000	63,000	---	14.91	0.00	260.37
01/18/93	13,000	1,600	2,700	12,000	77,000	---	15.44	0.00	259.84	
04/19/93	14,000	1,100	2,400	9,100	56,000	---	9.25	0.00	266.03	
07/21,22/93	6,600	610	1,500	5,800	38,000	---	17.35	0.00	257.93	
10/25/93	11,000	800	2,200	8,200	42,000	---	21.03	0.00	254.25	
01/21/94	11,000	940	2,300	9,800	57,000	---	21.57	0.00	253.71	
04/18/94	9,800	830	1,900	7,500	48,000	---	18.11	0.00	257.17	



**Table**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**

FORMER CHEVRON SERVICE STATION NO. 9-5607  
5269 CROW CANYON ROAD, CASTRO VALLEY, CALIFORNIA

WELL ID/ ELEVATION (TOC)	DATE	BENZENE (ppb)	TOLUENE (ppb)	ETHYL- BENZENE (ppb)	XYLENES (ppb)	TPH-G (ppb)	ORGANIC LEAD (ppb)	DTW (feet)	SPT (feet)	WTE (feet)
C-7  270.70	03/26/85							9.61		
	07/03/86							10.74	0.00	259.96
	03/26/87							10.08	0.00	260.62
	03/28/88							13.79	0.00	256.91
	03/10/89							10.42	0.00	260.28
	04/03/89							9.14	0.00	261.56
	05/08/89							11.91	0.00	258.79
	06/05/89							11.54	0.00	259.16
	07/12/90							13.45	0.00	257.25
	08/10/90							13.37	0.00	257.33
	09/13/89	1.3	ND	10	ND	410		14.60	0.00	256.10
	10/04/89							15.17	0.00	255.53
	11/03/89							15.28	0.00	255.42
	12/04/89	1	ND	5	ND	1,000		15.70	0.00	255.00
	03/07/90							14.22	0.00	256.48
	03/09/90	2.8	2.4	3.5	2	590		14.22	0.00	256.48
	06/12/90	ND	5	8.2	3.2	1,200		14.18	0.00	256.52
	09/24/90	1.4	1.9	1.4	2.2	400		15.44	SHEEN	255.26
	09/24/90D	ND	2.4	1.4	1.5	580		15.44	SHEEN	255.26
	12/20/90	ND	6.5	4.7	9.3	2,300		17.08	0.00	253.62
	03/27/91	ND	2.4	9.1	3	980		12.65	0.00	258.05
	06/18/91							16.44	0.00	254.26
	09/12/91	ND	3.1	6.5	2.7	1,200c		17.05	0.00	253.65
	01/23/92							16.92	0.00	253.78
	04/13/92	ND	1	7.8	1.2	830		13.00	0.00	257.70
	08/03/92									
	10/22/92b									
	01/18/93b									
	04/19/93b									
	07/21, 22/93	0.9	3	4	4	890		12.94	0.00	257.76
10/25/93							14.83	0.00	255.87	
01/21/94	ND	6	1	3	660		15.94	0.00	254.76	
04/18/94							14.98	0.00	255.72	
C-8  288.40	03/26/85							8.68		
	07/03/86							13.89	0.00	274.51
	03/26/87							6.01	0.00	282.39
	03/28/88							10.66	0.00	277.74
	03/10/89							6.61	0.00	281.79
	04/03/89							6.46	0.00	281.94
	05/08/89							8.97	0.00	279.43
	06/05/89							10.88	0.00	277.52
	07/12/90							12.15	0.00	276.25
	08/10/90							12.46	0.00	275.94
	09/13/89	ND	ND	ND	ND	ND		12.78	0.00	275.62
	10/04/89							12.51	0.00	275.89
	11/03/89							14.63	0.00	273.77
	12/04/89	0.6	0.6	ND	1	64		9.59	0.00	278.81
	03/07/90							8.80	0.00	279.60
	03/09/90	ND	ND	ND	ND	ND		8.80	0.00	279.60
	06/12/90	2.5	1.2	1	1.4	120		8.94	0.00	279.46
	09/24/90							13.54	0.00	274.86
	12/20/90							9.33	0.00	279.07
	03/27/91	0.7	ND	0.7	1.9	54		6.10	0.00	282.30
	06/18/91							11.96	0.00	276.44
	09/12/91	ND	ND	ND	ND	ND		13.60	0.00	274.80
	09/12/91D	ND	ND	ND	ND	ND		13.60	0.00	274.80
	01/23/92							24.20	0.00	264.20
	04/13/92	ND	ND	ND	ND	ND		8.35	0.00	280.05
	08/03/92	ND	ND	ND	ND	ND		12.58	0.00	275.82
	10/22/92	ND	ND	ND	ND	ND		13.10	0.00	275.30
	01/18/93	ND	ND	ND	ND	ND		6.12	0.00	282.28
	04/19/93	ND	ND	ND	ND	ND		7.05	0.00	281.35
	07/21, 22/93	ND	ND	ND	ND	ND		11.35	0.00	277.05
10/25/93	ND	ND	ND	ND	ND		12.85	0.00	275.55	
01/21/94	ND	ND	ND	ND	ND		10.55	0.00	277.85	
04/18/94	1.2	0.9	ND	1.6	ND		9.51	0.00	278.89	

**Table**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**

FORMER CHEVRON SERVICE STATION NO. 9-5607  
5269 CROW CANYON ROAD, CASTRO VALLEY, CALIFORNIA

WELL ID/ ELEVATION (TOC)	DATE	BENZENE (ppb)	TOLUENE (ppb)	ETHYL- BENZENE (ppb)	XYLENES (ppb)	TPH-G (ppb)	ORGANIC LEAD (ppb)	DTW (feet)	SPT (feet)	WTE (feet)
C-9 268.46	07/03/86	--	--	--	--	--	--	13.89	0.00	254.57
	03/26/87	--	--	--	--	--	--	13.74	0.00	254.72
	03/28/88	--	--	--	--	--	--	14.99	0.00	253.47
	03/10/89	--	--	--	--	--	--	13.39	0.00	255.07
	04/03/89	--	--	--	--	--	--	12.84	0.00	255.62
	05/08/89	--	--	--	--	--	--	14.38	0.00	254.08
	06/05/89	--	--	--	--	--	--	15.36	0.00	253.10
	07/12/90	--	--	--	--	--	--	15.65	0.00	252.81
	08/10/90	--	--	--	--	--	--	15.80	0.00	252.66
	09/13/89	14,000	1,100	2,800	4,200	42,000	--	16.53	0.00	251.93
	10/04/89	--	--	--	--	--	--	16.52	0.00	251.94
	11/03/89	--	--	--	--	--	--	16.51	0.00	251.95
	12/04/89	11,000	670	2,500	3,800	36,000	--	16.79	0.00	251.67
	03/07/90	--	--	--	--	--	--	16.22	0.00	252.24
	03/09/90	12,000	940	3,000	4,700	28,000	--	16.22	0.00	252.24
	06/12/90	11,000	1,600	2,300	4,800	39,000	--	14.88	0.00	253.58
	09/24/90	13,000	1,600	3,700	6,800	120,000	--	16.30	0.00	252.16
	12/20/90	9,300	560	2,800	3,300	51,000	--	17.23	0.00	251.23
	12/20/90D	12,000	580	2,800	3,500	44,000	--	17.23	0.00	251.23
	03/27/91	3,400	5,000	1,600	5,600	56,000	--	13.78	0.00	254.68
06/18/91	--	--	--	--	--	--	18.64	0.00	249.82	
09/12/91d	--	--	--	--	--	--	--	--	--	
C-10A 264.84	03/07/90	--	--	--	--	--	--	20.21	0.00	244.63
	03/09/90	1.6	0.7	0.8	3.5	ND	--	--	--	--
	06/12/90	ND	ND	ND	ND	ND	--	19.70	0.00	245.14
	09/24/90	ND	ND	ND	ND	ND	--	19.54	0.00	245.30
	12/20/90	ND	ND	ND	ND	ND	--	19.84	0.00	245.00
	03/27/91	--	--	--	--	--	--	18.01	0.00	246.83
	06/18/91	ND	ND	ND	ND	ND	--	20.16	0.00	244.68
	09/12/91	ND	ND	ND	ND	ND	--	20.57	0.00	244.27
	01/23/92	ND	ND	ND	ND	ND	--	20.67	0.00	244.17
	04/13/92	0.9	1.3	ND	1	53	--	19.40	0.00	245.44
	08/03/92	ND	ND	ND	ND	ND	ND	19.81	0.00	245.03
	10/22/92	ND	ND	ND	0.5	ND	--	19.83	0.00	245.01
	01/18/93	ND	ND	ND	ND	ND	--	17.04	0.00	247.80
	04/19/93	ND	ND	ND	ND	ND	--	17.77	0.00	247.07
	04/19/93	ND	ND	ND	ND	ND	--	17.56	0.00	247.28
	10/25/93	ND	ND	ND	ND	ND	--	17.77	0.00	247.07
	01/21/94	ND	ND	ND	ND	ND	--	17.91	0.00	246.93
	04/18/94	3.0	3.0	1.4	5.5	ND	--	17.03	0.00	247.81

**Table**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**

FORMER CHEVRON SERVICE STATION NO. 9-5607  
5269 CROW CANYON ROAD, CASTRO VALLEY, CALIFORNIA

WELL ID/ ELEVATION (TOC)	DATE	BENZENE (ppb)	TOLUENE (ppb)	ETHYL- BENZENE (ppb)	XYLENES (ppb)	TPH-G (ppb)	ORGANIC LEAD (ppb)	DTW (feet)	SPT (feet)	WTE (feet)
C-10B 264.85	03/07/90	--	--	--	--	--	--	21.44	0.00	243.41
	06/12/90	ND	ND	ND	ND	ND	ND	19.94	0.00	244.91
	09/24/90	ND	ND	ND	ND	ND	ND	19.77	0.00	245.08
	12/20/90	ND	ND	ND	ND	ND	ND	20.00	0.00	244.85
	03/27/91	--	--	--	--	--	--	18.23	0.00	246.62
	06/18/91	--	--	--	--	--	--	20.44	0.00	244.41
	09/12/91	ND	ND	ND	ND	ND	ND	20.82	0.00	244.03
	01/23/92	ND	ND	ND	ND	ND	ND	20.92	0.00	243.93
	04/13/92	ND	ND	ND	ND	ND	ND	19.68	0.00	245.17
	08/03/92	ND	ND	ND	ND	ND	ND	20.07	0.00	244.78
	10/22/92	ND	ND	ND	ND	ND	ND	20.12	0.00	244.73
	01/18/93	3.3	11	2.1	8.9	60	60	17.36	0.00	247.49
	04/19/93	ND	ND	ND	ND	ND	ND	17.90	0.00	246.95
	07/21, 22/93	ND	ND	ND	ND	ND	ND	17.86	0.00	246.99
	10/25/93	ND	ND	ND	ND	ND	ND	18.10	0.00	246.75
	01/21/94	ND	ND	ND	ND	ND	ND	18.23	0.00	246.99
04/18/94	ND	ND	ND	0.5	ND	ND	17.36	0.00	247.49	
C-11 265.30	03/07/90	--	--	--	--	--	--	22.74	0.00	242.56
	03/09/90	1.2	0.7	ND	1.4	ND	ND	--	--	--
	06/12/90	ND	ND	ND	ND	ND	ND	21.98	0.00	243.32
	09/24/90	ND	ND	ND	ND	ND	ND	21.88	0.00	243.42
	12/20/90	ND	ND	ND	ND	ND	ND	23.18	0.00	242.12
	03/27/91	ND	ND	ND	1.5	ND	ND	21.52	0.00	243.78
	06/18/91	--	--	--	--	--	--	21.90	0.00	243.40
	09/12/91	ND	ND	ND	ND	ND	ND	22.70	0.00	242.60
	01/23/92	ND	ND	ND	ND	ND	ND	23.46	0.00	241.84
	04/13/92	ND	ND	ND	ND	ND	ND	21.57	0.00	243.73
	08/03/92	ND	ND	ND	ND	ND	ND	22.67	0.00	242.63
	10/22/92	ND	ND	ND	ND	ND	ND	23.29	0.00	242.01
	01/18/93	ND	1.2	ND	2.2	ND	ND	21.36	0.00	243.94
	04/19/93	ND	ND	ND	ND	ND	ND	19.97	0.00	245.33
	07/21, 22/93	ND	ND	ND	ND	ND	ND	20.65	0.00	244.65
	10/25/93	ND	ND	ND	ND	ND	ND	20.75	0.00	244.55
01/21/94	ND	ND	ND	ND	ND	ND	21.61	0.00	243.69	
04/18/94	ND	ND	ND	ND	ND	ND	20.78	0.00	244.52	
C-12 269.66	03/07/90	--	--	--	--	--	--	14.92	0.00	254.74
	03/09/90	230	140	33	180	1,400	ND	--	--	--
	06/12/90	190	71	18	73	720	ND	14.79	0.00	254.87
	09/24/90	1.1	ND	ND	0.6	ND	ND	15.72	0.00	253.94
	12/20/90	210	26	8.2	23	810	ND	15.26	0.00	254.40
	03/27/91	350	220	52	210	2,900	ND	12.11	0.00	257.55
	06/18/91	--	--	--	--	--	--	16.38	0.00	253.28
	09/12/91	59	12	4.5	8.5	350	ND	17.55	0.00	252.11
	01/23/92	110	31	7.9	22	450	ND	17.11	0.00	252.55
	04/13/92	1,100	76	100	200	5,000	ND	14.40	0.00	255.26
	08/03/92	200	21	13	25	520	ND	15.83	0.00	253.83
	10/22/92	310	66	35	56	1,300	ND	16.14	0.00	253.52
	01/18/93	1,200	430	220	610	5,600	ND	11.70	0.00	257.96
	04/19/93	600	99	96	170	2,000	ND	13.05	0.00	256.61
	07/21, 22/93	95	36	18	56	540	ND	12.84	0.00	256.82
	10/25/93	90	29	20	50	350	ND	14.03	0.00	255.63
01/21/94	73	18	14	37	450	ND	14.15	0.00	255.51	
04/18/94	70	21	12	39	370	ND	12.95	0.00	256.71	

**Table**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**

FORMER CHEVRON SERVICE STATION NO. 9-5607  
5269 CROW CANYON ROAD, CASTRO VALLEY, CALIFORNIA

WELL ID/ ELEVATION (TOC)	DATE	BENZENE (ppb)	TOLUENE (ppb)	ETHYL- BENZENE (ppb)	XYLENES (ppb)	TPH-G (ppb)	ORGANIC LEAD (ppb)	DTW (feet)	SPT (feet)	WTE (feet)
C-13 284.32	03/07/90	--	--	--	--	--	--	11.18	0.00	273.14
	03/09/90	15	3.7	1	6.2	ND	--	--	--	--
	06/12/90	2.6	ND	ND	ND	ND	--	10.70	0.00	273.62
	09/24/90	2.4	ND	ND	ND	ND	--	11.60	0.00	272.72
	12/20/90	1.6	ND	ND	ND	ND	--	10.16	0.00	274.16
	03/27/91	--	--	--	--	--	--	7.64	0.00	276.68
	06/18/91	--	--	--	--	--	--	11.32	0.00	273.00
	09/12/91	ND	ND	ND	ND	ND	--	11.84	0.00	272.48
	01/23/92	--	--	--	--	--	--	10.55	0.00	273.77
	04/13/92	1	ND	ND	ND	ND	--	10.96	0.00	273.36
	08/03/92	ND	ND	ND	ND	ND	ND	10.90	0.00	273.42
	10/22/92	--	--	--	--	--	--	11.18	0.00	273.14
	01/18/93	54	10	5.4	12	290	--	7.40	0.00	276.92
	04/19/93	--	--	--	--	--	--	8.93	0.00	275.39
	07/21, 22/93	ND	ND	ND	ND	ND	--	10.75	0.00	273.57
	10/25/93	--	--	--	--	--	--	10.85	0.00	273.47
01/21/94	ND	ND	ND	ND	ND	--	11.05	0.00	273.27	
04/18/94	--	--	--	--	--	--	10.71	0.00	273.61	
C-14 270.74	03/07/90	--	--	--	--	--	--	15.18	0.00	255.56
	03/09/90	ND	ND	ND	ND	ND	--	--	--	--
	06/12/90	ND	ND	ND	ND	ND	--	13.42	0.00	257.32
	09/24/90	ND	ND	ND	ND	ND	--	12.84	0.00	257.90
	12/20/90	1.7	0.7	ND	0.7	ND	--	16.72	0.00	254.02
	03/27/91	ND	ND	ND	1.3	ND	--	8.00	0.00	262.74
	06/18/91	--	--	--	--	--	--	15.21	0.00	255.53
	09/12/91	ND	ND	ND	ND	ND	--	15.61	0.00	255.13
	01/23/92	--	--	--	--	--	--	24.64	0.00	246.10
	04/13/92	ND	ND	ND	ND	ND	ND	12.21	0.00	258.53
	08/03/92	ND	ND	ND	ND	ND	ND	14.64	0.00	256.10
	10/22/92	--	--	--	--	--	--	16.94	0.00	253.80
	01/18/93	ND	ND	ND	ND	ND	--	5.10	0.00	265.64
	04/19/93	--	--	--	--	--	--	6.88	0.00	263.86
	07/21, 22/93	ND	ND	ND	ND	ND	--	11.16	0.00	259.58
	10/25/93	--	--	--	--	--	--	13.87	0.00	256.87
01/21/94	ND	ND	ND	ND	ND	--	15.32	0.00	255.42	
04/18/94	--	--	--	--	--	--	15.89	0.00	254.85	
C-15 246.15	03/07/90	--	--	--	--	--	--	11.10	0.00	235.05
	03/09/90	ND	1.4	0.5	0.6	410	--	--	--	--
	06/12/90	11	ND	ND	ND	420	--	10.78	0.00	235.37
	09/24/90	ND	1.5	ND	ND	430	--	10.93	0.00	235.22
	12/20/90	1.3	1.1	0.6	1.5	300	--	11.08	0.00	235.07
	03/27/91	4.6	1.1	ND	1	520c	--	8.50	0.00	237.65
	06/18/91	ND	1.1	ND	ND	290	--	10.83	0.00	235.32
	06/18/91D	ND	1.3	ND	ND	320	--	10.83	0.00	235.32
	09/12/91	ND	0.9	ND	ND	330c	--	11.05	0.00	235.10
	01/23/92	ND	0.6	ND	ND	210	--	10.80	0.00	235.35
	01/23/92D	1.2	0.8	ND	ND	190	--	10.80	0.00	235.35
	04/13/92	1.8	ND	ND	ND	430	--	9.58	0.00	236.57
	08/03/92	ND	2.1	0.7	1.3	640	ND	11.21	0.00	234.94
	10/22/92	ND	ND	ND	0.8	420	--	11.65	0.00	234.50
	01/18/93	7.0	3.0	2.9	6.7	640	--	7.12	0.00	239.03
	04/19/93	6.0	2.0	0.7	ND	260c	--	8.93	0.00	237.22
	07/21, 22/93	ND	8	ND	0.6	580f	--	9.78	0.00	236.37
	10/25/93	ND	12	ND	0.6	240	--	9.74	0.00	236.41
01/21/94	0.6	ND	0.6	ND	420f	--	10.37	0.00	235.78	
04/18/94	1.0	4.6	0.6	ND	550	--	9.96	0.00	236.19	

**Table**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**

FORMER CHEVRON SERVICE STATION NO. 9-5607  
5269 CROW CANYON ROAD, CASTRO VALLEY, CALIFORNIA

WELL ID/ ELEVATION (TOC)	DATE	BENZENE (ppb)	TOLUENE (ppb)	ETHYL- BENZENE (ppb)	XYLENES (ppb)	TPH-G (ppb)	ORGANIC LEAD (ppb)	DTW (feet)	SPT (feet)	WTE (feet)
C-16 246.69	03/07/90	—	—	—	—	—	—	18.50	0.00	228.19
	03/09/90	ND	ND	ND	ND	ND	ND	—	—	—
	06/12/90	ND	ND	ND	ND	ND	ND	11.42	0.00	235.27
	09/24/90	ND	ND	ND	ND	ND	ND	11.39	0.00	235.30
	12/20/90	ND	ND	ND	ND	0.7	ND	11.57	0.00	235.12
	03/27/91	ND	ND	ND	ND	1.3	ND	8.76	0.00	237.93
	03/27/91D	ND	ND	ND	ND	1.2	ND	8.76	0.00	237.93
	06/18/91	ND	ND	ND	ND	ND	ND	11.18	0.00	235.51
	09/12/91	ND	ND	ND	ND	ND	ND	11.95	0.00	234.74
	01/23/92	ND	ND	ND	ND	ND	ND	12.41	0.00	234.28
	04/13/92	ND	ND	ND	ND	ND	ND	10.69	0.00	236.00
	08/03/92	ND	ND	ND	ND	ND	ND	12.20	0.00	234.49
	10/22/92	ND	ND	ND	ND	ND	ND	12.60	0.00	234.09
	01/18/93	ND	ND	ND	ND	ND	ND	9.00	0.00	237.69
	04/19/93	ND	ND	ND	ND	ND	ND	9.89	0.00	236.80
	07/21,22/93	ND	ND	ND	ND	ND	ND	10.25	0.00	236.44
	10/25/93	ND	ND	ND	ND	ND	ND	10.96	0.00	235.73
	01/21/94	ND	0.7	ND	ND	1	ND	11.76	0.00	234.93
04/18/94	ND	ND	ND	ND	ND	ND	11.22	0.00	235.47	
RW 274.52	12/04/89	29,000	1,700	1,800	8,800	62,000	—	—	—	—
	03/07/90	—	—	—	—	—	—	18.50	0.00	256.02
	06/12/90	15,000	2,000	560	3,100	31,000	—	18.49	0.00	256.03
	09/24/90	—	—	—	—	—	—	—	—	—
	12/20/90	0.5	ND	ND	1.2	ND	—	—	—	—
	03/27/91	—	—	—	—	—	—	—	—	—
	06/18/91	—	—	—	—	—	—	—	—	—
	09/12/91a	—	—	—	—	—	—	—	—	—
	01/23/92a	—	—	—	—	—	—	—	—	—
	04/13/92a	—	—	—	—	—	—	—	—	—
	08/03/92a	—	—	—	—	—	—	—	—	—
	10/22/92a	—	—	—	—	—	—	—	—	—
	01/18/93a	—	—	—	—	—	—	—	—	—
	04/19/93a	—	—	—	—	—	—	—	—	—
	07/21,22/93a	—	—	—	—	—	—	—	—	—
10/25/93	—	—	—	—	—	—	—	—	—	
01/21/94	—	—	—	—	—	—	—	—	—	
04/18/94	—	—	—	—	—	—	—	—	—	

**Explanation**

Top of casing and groundwater elevations are expressed as feet above mean sea level.

TPH-G = Total petroleum hydrocarbons as gasoline

SP = Separate-phase petroleum hydrocarbons

DTW = Depth to water

SPT = Separate-phase hydrocarbon thickness

WTE = Water table elevation

(adjusted WTE = well elevation - (DTW-(SPT X 0.8))

TOC = Top of casing

ppb = parts per billion

ND = Not detected at or above the minimum quantitation limit

— = Not analyzed

NOTE: See laboratory reports for minimum quantitation limits.

D = Duplicate

a = Not sampled due to insufficient water in well

b = C-4: Well destroyed, C-7: Well could not be located

c = Typical gasoline chromatographic pattern not present

d = Not sampled: Well adapted for on-site remediation system

e = Groundwater elevation corrected assuming 0.8 specific gravity for gasoline

f = Uncategorized compound is not included in gasoline hydrocarbon total

**Sampling frequency:**

Quarterly: C-1, C-3, C-4, C-6, C-8, C-10A, C-10B, C-11, C-12, C-15, and C-16.

Semi-annually (1st & 3rd quarters): C-5, C-7, C-13, and C-14.

Annually (1st quarter): C-2.

**ATTACHMENT 3**

**Groundwater Monitoring and sample collection protocol  
and  
Field Data Sheets**

# GROUNDWATER TECHNOLOGY GROUNDWATER MONITORING AND SAMPLE COLLECTION PROTOCOL

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## Groundwater Monitoring

Groundwater monitoring is accomplished using a INTERFACE PROBE™ Well Monitoring System. The INTERFACE PROBE™ Well Monitoring System is a hand held, battery operated device for measuring the depth to separate-phase hydrocarbons and depth to water. The INTERFACE PROBE™ Well Monitoring System consists of a dual-sensing probe which utilizes an optical liquid sensor and electrical conductivity to distinguish between water and petroleum products.

Monitoring is accomplished by measuring from the surveyed top of well casing or grade to groundwater and separate-phase hydrocarbons if present. The static water elevation is then calculated for each well and a potentiometric surface map is constructed. If separate-phase hydrocarbons are detected the water elevation is adjusted by the following calculation:

$$(\text{Product thickness}) \times (0.8) + (\text{Water elevation}) = \text{Corrected water elevation}$$

Groundwater monitoring wells are monitored in order of wells with lowest concentrations of volatile organic compounds to wells with the highest concentrations, based upon historical concentrations. If separate-phase hydrocarbons are encountered in a well, the product is visually inspected to confirm and note color, amount, and viscosity. Monitoring equipment is washed with laboratory grade detergent and rinsed with distilled or deionized water before monitoring each well.

## Groundwater Sampling

Before groundwater samples are collected, sufficient water is purged from each well to ensure representative formation water is entering the well. Wells are purged and sampled in the same order as monitoring, from wells with the lowest concentrations of volatile organic compounds to wells with the highest concentrations. Wells are purged using either a polyvinyl chloride (PVC) bailer fitted with a check valve or with a stainless steel submersible Grundfos pump. The purge equipment is decontaminated before use in each well by washing with laboratory grade detergent and triple rinsing with deionized or distilled water. A minimum of 3 well-casing volumes of water are removed from each well while pH, electrical conductivity, and temperature are recorded to verify that "fresh" formation water is being sampled and the parameters have stabilized. If the well is low yielding, it may be purged dry and sampled before 3 casing volumes are purged. The wells are then allowed to recharge to approximately 80 percent of the initial water level before a sample is collected.

Groundwater samples are collected from each well using a new, prepackaged disposable bailer and string. The water sample is decanted from the bailer into laboratory-provided containers (appropriate for the analyses required) so that there is no headspace in the containers. Samples collected for benzene, toluene, ethylbenzene, xylene, and total petroleum hydrocarbons (TPH)-as-gasoline analyses are collected in 40-milliliter vials fitted with Teflon® septum lids. Samples are preserved with hydrochloric acid (HCL) to a pH of less than 2. Dissolved metals samples are filtered through a 0.45-micron paper filter in the field and preserved as required before submitting to the laboratory for analyses. All samples are labeled immediately upon collection and logged on the chain-of-custody record. Sample label and chain-of-custody recorded information includes the project name and number, sample identification, date and time of collection, analyses requested, and the sampler's name. Sample bottles are placed in plastic bags (to protect the bottles and labels) and on ice (frozen water) in an insulated cooler and are shipped under chain-of-custody protocol to the laboratory.

The chain-of-custody record documents who has possession of the samples until the analyses is performed. Other pertinent information is also noted for the laboratory use on the chain-of-custody record.

Trip blanks (TBLBs) are used for each project as a quality assurance/quality control measure. The TBLBs are prepared by the laboratory and are placed in the insulated cooler and accompany the field samples throughout the sampling event.

























**ATTACHMENT 4**  
**Laboratory Report**



# GTEL

ENVIRONMENTAL  
LABORATORIES, INC.

**Northwest Region**

4080 Pike Lane  
Suite C  
Concord, CA 94520  
(510) 685-7852  
(800) 544-3422 Inside CA  
FAX (510) 825-0720

Client Number: 020104228  
Consultant Project Number: 020104228.0610  
Facility Number: 9-5607  
Project ID: 5269 Crow Canyon Rd.  
Work Order Number: C4-04-0298

April 26, 1994

Tim Watchers  
Groundwater Technology, Inc.  
4057 Port Chicago Hwy.  
Concord, CA 94520

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 04/19/94.

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.

GTEL is certified by the California State Department of Health Services, Laboratory certification number E1075, to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

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

Sincerely,  
GTEL Environmental Laboratories, Inc.

Rashmi Shah  
Laboratory Director

Client Number: 020104228  
 Consultant Project Number: 020104228.0610  
 Facility Number: 9-5607  
 Project ID: 5269 Crow Canyon Rd.  
 Work Order Number: C4-04-0298

## ANALYTICAL RESULTS

### Aromatic Volatile Organics and

### Total Petroleum Hydrocarbons as Gasoline in Water

### EPA Methods 5030, 8020, and Modified 8015a

GTEL Sample Number		01	02	03	04
Client Identification		TB-LB	C-16	C-11	C-10B
Date Sampled		04/18/94	04/18/94	04/18/94	04/18/94
Date Analyzed		04/22/94	04/21/94	04/20/94	04/20/94
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.5	<0.5	<0.5	<0.5	<0.5
Toluene	0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5	<0.5	<0.5	<0.5	<0.5
Xylene, total	0.5	<0.5	<0.5	<0.5	0.5
TPH as Gasoline	50	<50	<50	<50	<50
Detection Limit Multiplier		1	1	1	1
BFB surrogate, % recovery		82.6	84.9	89.4	87.5

- a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Board LUFT Manual procedures. Bromofluorobenzene surrogate recovery acceptability limits are 70-130%.

Client Number: 020104228  
 Consultant Project Number: 020104228.0610  
 Facility Number: 9-5607  
 Project ID: 5269 Crow Canyon Rd.  
 Work Order Number: C4-04-0298

## ANALYTICAL RESULTS

### Aromatic Volatile Organics and

### Total Petroleum Hydrocarbons as Gasoline in Water

### EPA Methods 5030, 8020, and Modified 8015<sup>a</sup>

GTEL Sample Number		05	06	07	08
Client Identification		C-8	C-10A	C-15	C-12
Date Sampled		04/18/94	04/18/94	04/18/94	04/18/94
Date Analyzed		04/20/94	04/20/94	04/20/94	04/22/94
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.5	1.2	3.0	1.0	70
Toluene	0.5	0.9	3.0	4.6	21
Ethylbenzene	0.5	<0.5	1.4	0.6	12
Xylene, total	0.5	1.6	5.5	<0.5	39
TPH as Gasoline	50	<50	<50	550	370
Detection Limit Multiplier		1	1	1	1
BFB surrogate, % recovery		89.3	89.4	90.2	85.2

- a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Board LUFT Manual procedures. Bromofluorobenzene surrogate recovery acceptability limits are 70-130%.

Client Number: 020104228  
 Consultant Project Number: 020104228.0610  
 Facility Number: 9-5607  
 Project ID: 5269 Crow Canyon Rd.  
 Work Order Number: C4-04-0298

## ANALYTICAL RESULTS

### Aromatic Volatile Organics and

### Total Petroleum Hydrocarbons as Gasoline in Water

### EPA Methods 5030, 8020, and Modified 8015<sup>a</sup>

GTEL Sample Number		09	10	11	Q042094-1
Client Identification		C-1	C-3	C-6	METHOD BLANK
Date Sampled		04/18/94	04/18/94	04/18/94	--
Date Analyzed		04/23/94	04/23/94	04/21/94	04/20/94
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.5	3200	1200	9800	<0.5
Toluene	0.5	1000	310	830	<0.5
Ethylbenzene	0.5	1000	520	1900	<0.5
Xylene, total	0.5	3100	2000	7500	<0.5
TPH as Gasoline	50	24000	29000	48000	<50
Detection Limit Multiplier		50	10	50	1
BFB surrogate, % recovery		92.1	93.4	86.7	95.5

- a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Board LUFT Manual procedures. Bromofluorobenzene surrogate recovery acceptability limits are 70-130%.

Client Number: 020104228  
Consultant Project Number: 020104228.0610  
Facility Number: 9-5607  
Project ID: 5269 Crow Canyon Rd.  
Work Order Number: C4-04-0298

### QC Matrix Spike and Duplicate Spike Results

Matrix: Water

Analyte	Sample ID	Spike Amount	Units	Recovery, %	Duplicate Recovery, %	RPD, %	Control Limits
<b>Modified EPA 8020:</b>							
Benzene	Q042094-2	20.0	ug/L	85.9	82.9	3.55	57.3 - 138
Toluene	Q042094-2	20.0	ug/L	84.5	82.5	2.40	63.0 - 134
Ethylbenzene	Q042094-2	20.0	ug/L	88.0	85.5	2.88	59.3 - 137
Xylene, total	Q042094-2	60.0	ug/L	88.3	85.1	3.69	59.3 - 144

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

Chain-of-Custody-Record

Chevron U.S.A. Inc.  
P.O. BOX 5004  
San Ramon, CA 94583  
FAX (415)842-9591

Chevron Facility Number: 95607  
Facility Address: 5209 Crow Chevron Rd,  
Consultant Project Number: 080104228.0610  
Consultant Name: Groundwater Technology, Inc.  
Address: 4057 Port Chicago Hwy, Concord, CA 94520  
Project Contact (Name): Tim Watchers  
(Phone) 50-671-2387 (Fax Number)

Chevron Contact (Name): Brett Hunter  
(Phone): 510-544-3422  
Laboratory Name: GTEL  
Laboratory Release Number: 86083910  
Samples Collected by (Name): MARK GARCIA  
Collection Date: 4/18/94  
Signature: Mark Garcia

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Cholesterol	Type C = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analysis To Be Performed										NOTE: Do NOT BILL TB-LB SAMPLES 4° seals intact  Remarks	
								BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (8040 or AA)				
TB-LB	01	2	W		8:00	HEI	Y	X											
C-16	02	3			2:15			X											
C-11	03	3			2:20			X											USED
C-10b	04	3			2:25			X											Disposable Bailers
C-8	05	3			2:30			X											
C-10a	06	3			2:35			X											
C-15	07	3			2:40			X											
C-12	08	3			2:45			X											
C-1	09	3			2:50			X											
C-3	10	3			2:55			X											
C-16	11	3			3:00			X											

Retrieved By (Signature) <u>Mark Garcia</u>	Organization <u>GTEL</u>	Date/Time <u>4-18-94</u>	Received By (Signature) <u>Clayton Ample</u>	Organization <u>GTEL</u>	Date/Time <u>4-19-94</u>	Turn Around Time (Circle Choice)  24 Hrs. 48 Hrs. 6 Days <u>10 Days</u> As Contracted
Retrieved By (Signature) <u>Clayton Ample</u>	Organization <u>GTEL</u>	Date/Time 12:30 <u>4-19-94</u>	Received By (Signature) <u>Joan Weber</u>	Organization <u>GTEL</u>	Date/Time 12:30 <u>4-19-94</u>	
Retrieved By (Signature) <u>Joan Weber</u>	Organization <u>GTEL</u>	Date/Time 7:00 <u>4-19-94</u>	Received For Laboratory By (Signature) <u>Karin Malander</u>		Date/Time 7:00 <u>4/19/94</u>	

F-2  
C4040298