



**Chevron U.S.A. Products Company**

2410 Camino Ramon, San Ramon, California • Phone (510) 842-9500  
Mail Address: P.O. Box 5004, San Ramon, CA 94583-0804

February 5, 1993

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  
Enclosed groundwater monitoring report (GTI, 12/30/92)

Dear Mr. Seery:

Attached is a report dated December 30, 1992, which was prepared by Chevron's consultant, Groundwater Technology Inc. (GTI), to describe quarterly groundwater monitoring performed at the subject site on October 22, 1992.

The groundwater extraction and treatment system continues to operate to control the migration of and to remove dissolved hydrocarbons from the shallow groundwater. Chevron is still awaiting approval of its proposal to expand the groundwater extraction system as presented in the August 31, 1992 report sent to your office.

If you have any questions or comments, I can be reached at (510) 842-8658.

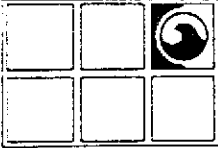
Sincerely,

Clint B. Rogers  
Environmental Engineer

Attachment

cc: Rich Hiatt, San Francisco Bay RWQCB, Oakland, CA  
Kevin Hinckley, 5269 Crow Canyon Road, Castro Valley, CA 94546  
Paul Hehn, Geraghty and Miller, Richmond, CA

JAN 06 '93 PWM



# GROUNDWATER TECHNOLOGY, INC.

1401 Halyard Drive, Suite 140, West Sacramento, CA 95691, (916) 372-4700

FAX (916) 372-8781

Project No. 02020 2887

December 30, 1992

Mr. Clint B. Rogers  
Chevron U.S.A. Products Company  
2410 Camino Ramon  
San Ramon, CA 94583-0804

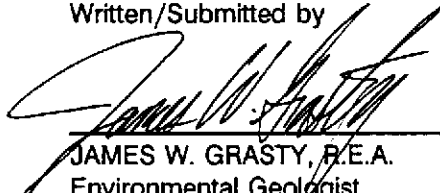
**RE: QUARTERLY MONITORING AND SAMPLING ACTIVITIES  
FORMER CHEVRON SERVICE STATION 9-5607  
5269 CROW CANYON ROAD  
CASTRO VALLEY, CALIFORNIA**

Dear Mr. Rogers:


Groundwater Technology, Inc. submits this letter as a summary of quarterly groundwater monitoring and sampling data collected at the above-referenced site on October 22, 1992. Fourteen site-related groundwater monitoring wells were gauged to determine depth to groundwater (DTW) and to check for the presence of separate-phase petroleum hydrocarbons (SP). MW-3 contained <sup>0.03</sup> 0.3 foot of SP. A potentiometric surface map (Figure 1) and a summary of groundwater monitoring data (Table 1) are included. After measuring DTW, nine monitoring wells were purged and sampled. The groundwater samples were analyzed for dissolved benzene, toluene, ethylbenzene and xylenes (BTEX), and total petroleum hydrocarbons-as-gasoline (TPH-G). Results of the chemical analyses are summarized in Table 1. Laboratory reports and chain-of-custody manifests are included in Attachment A. All purge water generated during the sampling process was processed through the onsite groundwater treatment system.

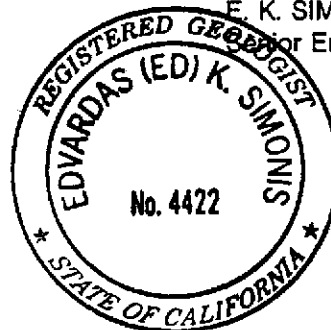
Groundwater Technology, Inc. is pleased to assist Chevron on this project. If you have any questions or comments please call our West Sacramento office.

Sincerely,  
Groundwater Technology, Inc.  
Written/Submitted by

  
\_\_\_\_\_  
JAMES W. GRASTY, P.E.A.  
Environmental Geologist  
Project Manager

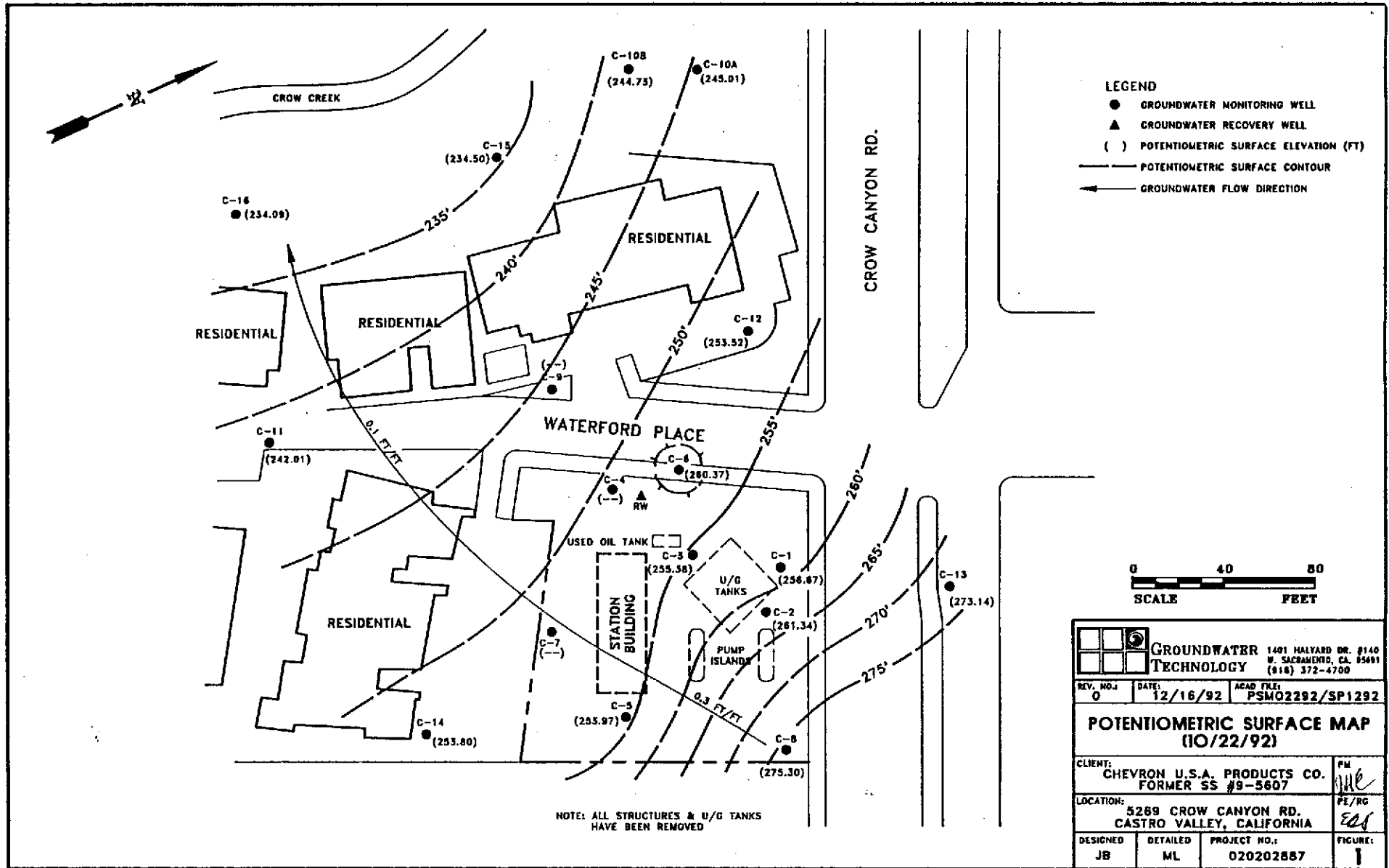
Groundwater Technology, Inc.  
Reviewed/Approved by

  
\_\_\_\_\_  
E. K. SIMONIS, R.G.  
Environmental Geologist



JWG/EKS:rc

Attachments  
2887QTR4.LTR



**Table 1**  
**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	--	--	--	--	--	--	19.08	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	
C-2 284.37	03/26/85	--	--	--	--	--	--	--	--	--
	07/03/86	--	--	--	--	--	--	19.69	0.00	264.68
	03/26/87	--	--	--	--	--	--	15.45	0.00	268.92
	03/28/88	--	--	--	--	--	--	20.92	0.00	263.45
	03/10/89	--	--	--	--	--	--	12.80	0.00	271.57
	04/03/89	--	--	--	--	--	--	14.26	0.00	270.11
	05/08/89	--	--	--	--	--	--	18.42	0.00	265.95
	06/05/89	--	--	--	--	--	--	20.09	0.00	264.28
	07/12/90	--	--	--	--	--	--	20.79	0.00	263.58
	08/10/90	--	--	--	--	--	--	21.40	0.00	262.97
	09/13/89	62	4	10	14	320	--	21.86	0.00	262.51
	10/04/89	--	--	--	--	--	--	19.89	0.00	264.48
	11/03/89	--	--	--	--	--	--	20.76	0.00	263.61
	12/04/89	240	37	66	130	1,000	--	20.82	0.00	263.55
	03/07/90	--	--	--	--	--	--	17.83	0.00	266.54
	03/09/90	280	35	27	50	390	--	17.83	0.00	266.54
	06/12/90	260	34	28	55	700	--	19.89	0.00	264.48
	09/20/90	--	--	--	--	--	--	21.97	0.00	262.40
	12/20/90	--	--	--	--	--	--	17.73	0.00	266.64
	03/27/91	--	--	--	--	--	--	15.10	0.00	269.27
06/18/91	--	--	--	--	--	--	22.68	0.00	261.69	
09/12/91	--	--	--	--	--	--	23.92	0.00	260.45	
01/23/92	--	--	--	--	--	--	21.24	0.00	263.13	
04/13/92	120	76	17	72	1,100	--	17.54	0.00	266.83	
08/03/92	--	--	--	--	--	--	22.05	0.00	262.32	
10/22/92	--	--	--	--	--	--	23.03	0.00	261.34	

**Table 1 (Continued)**  
**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	59,000	---	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	
09/12/91##	---	---	---	---	---	---	31.64	0.03	254.34	
01/23/92	---	---	---	---	---	---	30.52	SHEEN	255.46	
04/13/92##	---	---	---	---	---	---	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	
10/22/92	SP	SP	SP	SP	SP	SP	30.62	0.03	255.38	
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
	12/20/90**	---	---	---	---	---	---	---	---	---
	03/27/91**	---	---	---	---	---	---	---	---	---
06/18/91**	---	---	---	---	---	---	---	---	---	
09/12/91**	---	---	---	---	---	---	---	---	---	
01/23/92**	---	---	---	---	---	---	---	---	---	
04/13/92**	---	---	---	---	---	---	---	---	---	
08/03/92**	---	---	---	---	---	---	---	---	---	
10/22/92	---	---	---	---	---	---	---	---	---	

**Table 1 (continued)**  
**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-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	90	---	30.48	0.00	257.47
	09/24/90	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	
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	

**Table 1 (continued)**  
**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	1,200***	--	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	--	--	--	--	--	--	--	--	--	
10/22/92	--	--	--	--	--	--	---**	---**	---**	
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	ND	12.58	0.00	275.82	
10/22/92	ND	ND	ND	ND	ND	ND	13.10	0.00	275.30	

**Table 1 (continued)**  
**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
	03/28/87	---	---	---	---	---	---	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
09/12/91#	---	---	---	---	---	---	---	---	---	
01/23/92#	---	---	---	---	---	---	---	---	---	
04/13/92#	---	---	---	---	---	---	---	---	---	
08/03/92#	---	---	---	---	---	---	---	---	---	
10/22/92	---	---	---	---	---	---	---	---	---	
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	53.0	---	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	
C-10B 264.85	03/07/90	---	---	---	---	---	---	21.44	0.00	243.41
	06/12/90	ND	ND	ND	ND	ND	---	19.94	0.00	244.91
	09/24/90	ND	ND	ND	ND	ND	---	19.77	0.00	245.08
	12/20/90	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	---	20.82	0.00	244.03
	01/23/92	ND	ND	ND	ND	ND	---	20.92	0.00	243.93
	04/13/92	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	---	20.12	0.00	244.73	
C-11 265.30	03/07/90	---	---	---	---	---	---	22.74	0.00	242.56
	03/09/90	1.2	0.7	ND	1.4	ND	---	---	---	---
	06/12/90	ND	ND	ND	ND	ND	---	21.98	0.00	243.32
	09/24/90	ND	ND	ND	ND	ND	---	21.88	0.00	243.42
	12/20/90	ND	ND	ND	ND	ND	---	23.18	0.00	242.12
	03/27/91	ND	ND	ND	1.5	ND	---	21.52	0.00	243.78
	06/18/91	---	---	---	---	---	---	21.90	0.00	243.40
	09/12/91	ND	ND	ND	ND	ND	---	22.70	0.00	242.60
	01/23/92	ND	ND	ND	ND	ND	---	23.46	0.00	241.84
	04/13/92	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	---	23.29	0.00	242.01	



**Table 1 (continued)**  
**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-12 269.66	03/07/90	--	--	--	--	--	--	14.92	0.00	254.74
	03/09/90	230	140	33	180	1,400	--	--	--	--
	06/12/90	190	71	18	73	720	--	14.79	0.00	254.87
	09/24/90	1.1	ND	ND	0.6	ND	--	15.72	0.00	253.94
	12/20/90	210	26	8.2	23	810	--	15.26	0.00	254.40
	03/27/91	350	220	52	210	2,900	--	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	--	17.55	0.00	252.11
	01/23/92	110	31	7.9	22	450	--	17.11	0.00	252.55
	04/13/92	1,100	76	100	200	5,000	--	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	--	16.14	0.00	253.52	
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	
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	--	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	
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	520***	--	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	330***	--	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	
C-16 246.69	03/07/90	--	--	--	--	--	--	18.50	0.00	228.19
	03/09/90	ND	ND	ND	ND	ND	--	--	--	--
	06/12/90	ND	ND	ND	ND	ND	--	11.42	0.00	235.27
	09/24/90	ND	ND	ND	ND	ND	--	11.39	0.00	235.30
	12/20/90	ND	ND	ND	0.7	ND	--	11.57	0.00	235.12
	03/27/91	ND	ND	ND	1.3	ND	--	8.76	0.00	237.93
	03/27/91D	ND	ND	ND	1.2	ND	--	8.76	0.00	237.93
	06/18/91	ND	ND	ND	ND	ND	--	11.18	0.00	235.51
	09/12/91	ND	ND	ND	ND	ND	--	11.95	0.00	234.74
	01/23/92	ND	ND	ND	ND	ND	--	12.41	0.00	234.28
	04/13/92	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	

**Table 1 (continued)**  
**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)
RW	12/04/89	29,000	1,700	1,800	8,800	62,000	--	--	--	--
274.52	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	--	--	--	--	--	--	--	--	--
	09/12/91#	--	--	--	--	--	--	--	--	--
	01/23/92#	--	--	--	--	--	--	--	--	--
	04/13/92#	--	--	--	--	--	--	--	--	--
	08/03/92#	--	--	--	--	--	--	--	--	--
	10/22/92	--	--	--	--	--	--	--	--	--

**Explanation**

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

TPH-G = Total Petroleum Hydrocarbons as Gasoline (ppb)

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

D = Duplicate

\* = Not sampled due to insufficient water in well

\*\* = Well could not be located

\*\*\* = Typical gasoline chromatographic pattern not present

# = Not sampled: Well adapted for onsite remediation system

## = Groundwater elevation corrected assuming 0.8 specific gravity for gasoline

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: C-5, C-7, C-13, and C-14.

Annually: C-2.

NOTE: See laboratory reports for minimum quantitation limits.

**ATTACHMENT A**

**LABORATORY REPORTS  
AND  
CHAIN-OF-CUSTODY MANIFESTS**



# Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

Groundwater Technology Inc.  
Attn: James W. Grasty

Project 02020-2887  
Reported 11/06/92

## TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed Matrix
86986- 1	TB-LB	10/22/92	10/30/92 Water
86986- 2	RINSATE	10/22/92	10/30/92 Water
86986- 3	C-16	10/22/92	10/30/92 Water
86986- 4	C-11	10/22/92	11/02/92 Water
86986- 5	C-10B	10/22/92	10/30/92 Water
86986- 6	C-8	10/22/92	10/30/92 Water
86986- 7	C-10A	10/22/92	11/02/92 Water
86986- 8	C-15	10/22/92	10/31/92 Water
86986- 9	C-12	10/22/92	11/02/92 Water
86986-10	C-1	10/22/92	11/02/92 Water

## RESULTS OF ANALYSIS

Laboratory Number: 86986- 1    86986- 2    86986- 3    86986- 4    86986- 5

Gasoline:	ND<50	ND<50	ND<50	ND<50	ND<50
Benzene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Toluene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Ethyl Benzene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Xylenes:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5

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

Laboratory Number: 86986- 6    86986- 7    86986- 8    86986- 9    86986-10

Gasoline:	ND<50	ND<50	420	1300	24000
Benzene:	ND<0.5	ND<0.5	ND<0.5	310	3500
Toluene:	ND<0.5	ND<0.5	ND<0.5	66	1400
Ethyl Benzene:	ND<0.5	ND<0.5	ND<0.5	35	1500
Xylenes:	ND<0.5	0.5	0.8	56	4300

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



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Groundwater Technology Inc.  
Attn: James W. Grasty

Project 02020-2887  
Reported 11/06/92

---

## TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed Matrix
86986-11	C-6	10/22/92	11/04/92 Water

## RESULTS OF ANALYSIS

Laboratory Number: 86986-11

---

Gasoline:	63000
Benzene:	7400
Toluene:	920
Ethyl Benzene:	1800
Xylenes:	14000
Concentration:	ug/L



# Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

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

### ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

Page 3 of 3  
QA/QC INFORMATION  
SET: 86986

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

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

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

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

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

ANALYTE	SPIKE LEVEL	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Gasoline:	200 ng	79/85	7	70-130
Benzene:	200 ng	93/94	0	70-130
Toluene:	200 ng	96/98	3	70-130
Ethyl Benzene:	200 ng	100/104	4	70-130
Xylenes:	200 ng	98/102	4	70-130

Richard Srna, Ph.D.  
*Nancy A. Nelson for*  
Laboratory Director

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

Chevron Facility Number 51491114444 9-5607  
 Facility Address 5269 Crow Canyon Rd Castro Valley  
 Consultant Project Number 02020-2887  
 Consultant Name Groundwater Technology  
 Address 1401 Hebard #140 w. Sacramento Ca  
 Project Contact (Name) Jim Grasty  
 (Phone) 916-372-4700 (Fax Number) 916-372-8781

Chevron Contact (Name) Clint Rogers  
 (Phone) 510-842-8658  
 Laboratory Name Superior Analytical  
 Laboratory Release Number 4454550  
 Samples Collected by (Name) John McIntosh  
 Collection Date 10-22-92  
 Signature John R McIntosh

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed										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 (ICAP or AA)				
TB-LB		2	W	G	1200	HCL	Y	✓											*
Rinsate		2			1210														
C-16		3			1220														
C-11		3			1230														
C-10B		3			1240														
C-8		3			1250														
C-10A		3			1300														
C-15		3			1310														
C-12		3			1320														
C-1		3			1330														
<del>XXXXXXXXXX</del>		<del>3</del>			<del>1340</del>														
<del>XXXXXX</del>		<del>3</del>			<del>1350</del>														
C-6		3			1400														

Please Initial: C.M.  
 Samples Stored in ice: C.M.  
 Appropriate containers: C.M.  
 Samples preserved: C.M.  
 VOA's without headspace: C.M.  
 Comments:

NOTE: \*  
 Do NOT BILL  
 TB-LB SAMPLES

Relinquished By (Signature) <u>John R McIntosh</u>	Organization <u>02320</u>	Date/Time <u>10/23 0800</u>	Received By (Signature) <u>Don Carson</u>	Organization <u>EXPRESS-IT</u>	Date/Time <u>10/23/92</u>
Relinquished By (Signature) <u>Don Carson</u>	Organization <u>EXPRESS-IT</u>	Date/Time <u>10/23 1175</u>	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature) <u>Charles D...</u>	Organization <u>Superior</u>	Date/Time <u>10/23/92</u>

Turn Around Time (Circle Choice)

24 Hrs.  
 48 Hrs.  
 5 Days  
 10 Days  
 As Contracted