

# GROUNDWATER TECHNOLOGY, INC.

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Alameda County  
Environmental Health

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

FAX (916) 372-8781

June 7, 1993

Project No. 02070 4233

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

**RE: QUARTERLY MONITORING AND SAMPLING ACTIVITIES  
CHEVRON SERVICE STATION 9-1924  
4904 SOUTHFRONT ROAD  
LIVERMORE, CALIFORNIA**

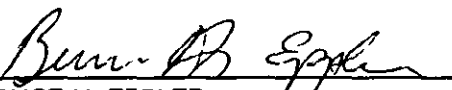
Dear Mr. Hunter:

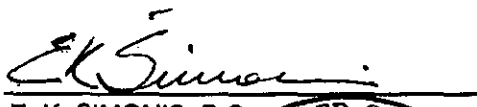
Groundwater Technology, Inc. submits this letter as a summary of quarterly groundwater monitoring and sampling data collected at the above-referenced site on April 22, 1993. The eighteen site-related groundwater monitoring wells were gauged to determine depth to groundwater (DTW) and to check for the presence of separate-phase petroleum hydrocarbons (SP). A potentiometric surface map (Figure 1) and a summary of groundwater monitoring data (Table 1) are included. The April 22, 1993 potentiometric surface map includes data collected on the same date by Kaprelian Engineering, Inc. for the Unocal station northwest of the Chevron site. After measuring DTW, each monitoring well was 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 I. All purge water generated during sampling was collected in a Department of Transportation (DOT)-approved purge trailer and transported for recycling to the Chevron refinery in Richmond, California.

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

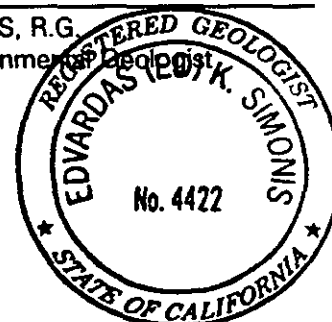
Sincerely,  
Groundwater Technology, Inc.  
Written/Submitted by

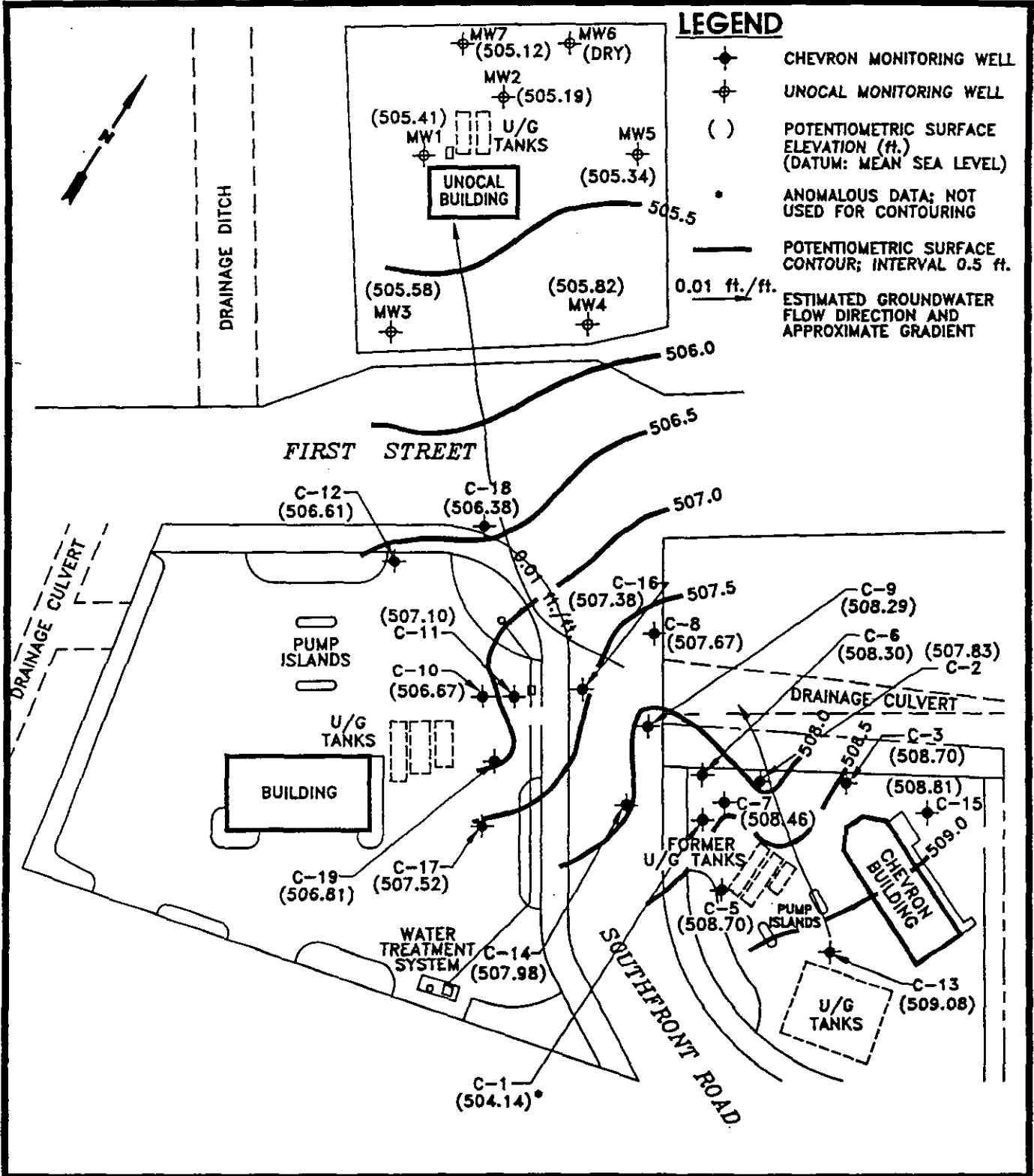
Groundwater Technology, Inc.  
Reviewed/Approved by

  
BRUCE H. EPPLER  
Environmental Geologist  
Project Manager

  
E. K. SIMONIS, R.G.  
Senior Environmental Geologist

PR   
DSB/BHE/EKS:rb  
Attachments  
4233QTR2.LTR





				<b>POTENTIOMETRIC SURFACE MAP</b> APRIL 22, 1993	
<b>CLIENT:</b> CHEVRON U.S.A. PRODUCTS CO. SERVICE STATION NO. 9-1924			<b>LOCATION:</b> 4904 SOUTHFRONT ROAD LIVERMORE, CALIFORNIA		<b>REV. NO.:</b> DATE: 6/2/93
<b>PM</b> <i>BAL</i>	<b>PE/RG</b> <i>EV's</i>	<b>DESIGNED</b> DSB	<b>DETAILED</b> S BRITO	<b>ACAD FILE:</b> 2886-POT/2886-STE	<b>PROJECT NO.:</b> 02070-4233
					<b>FIGURE:</b> 1

**Table 1  
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**

CHEVRON SERVICE STATION #9-1924  
4904 SOUTHFRONT ROAD, LIVERMORE, CALIFORNIA

WELL ID/ ELEVATION (TOC)	DATE	BENZENE (ppb)	TOLUENE (ppb)	ETHYL- BENZENE (ppb)	XYLENES (ppb)	TPH-G (ppb)	TOG (ppb)	1,2- DCA (ppb)	OTHER (ppb)	MC (ppb)	1,1,1- TCA (ppb)	1,1- DCA (ppb)	PCE (ppb)	DTW (feet)	SPT (feet)	WTE (feet)
C-1 520.39	03/28/86	--	--	--	--	--	--	--	--	--	--	--	--	11.75	0.00	508.64
	03/15/88	770	87	610	2,100	27,000	--	--	--	--	--	--	--	13.50	0.00	506.89
	05/10/88	--	--	--	--	--	--	--	--	--	--	--	--	13.65	0.00	506.74
	06/10/88	--	--	--	--	--	--	--	--	--	--	--	--	14.72	0.00	505.67
	07/25/88	--	--	--	--	--	--	--	--	--	--	--	--	13.50	0.00	506.89
	10/13/88	220	11	62	130	3,200	--	--	--	--	--	--	--	12.89	0.00	507.50
	01/01/89	--	--	--	--	--	--	--	--	--	--	--	--	12.89	0.00	507.50
	01/12/89	820	43	490	260	4,000	--	--	--	--	--	--	--	--	--	--
	04/10/89	100	ND	70	50	4,000	ND	ND	--	--	--	--	--	13.65	0.00	506.74
	04/10/89	100	ND	60	50	4,000	--	ND	--	--	--	--	--	13.65	0.00	506.74
	06/26/89	97	20	60	50	600	ND	3	--	--	--	--	--	13.94	0.00	506.45
	06/26/89	86	15	44	35	570	--	1.7	--	--	--	--	--	13.94	0.00	506.45
	10/13/89	64	ND	51	48	1,600	ND	ND	5	--	--	--	--	13.92	0.00	506.47
	01/03/90	36	0.68	30	30	1,100	--	1	--	--	--	--	--	13.80	0.00	506.59
	05/08/90	37	9.2	40	32	1,300	--	1.2	--	ND	--	ND	--	13.91	0.00	506.48
	09/29/90	19	1.2	32	31	350	--	ND	ND	0.7	1.4	ND	--	13.93	0.00	506.46
	01/03/91	12	ND	17	14	400	--	ND	ND	ND	ND	ND	--	13.85	0.00	506.54
	04/12/91	--	--	--	--	--	--	--	--	--	--	--	--	13.51	0.00	506.88
	09/04/91	--	--	--	--	--	--	--	--	--	--	--	--	14.10	0.00	506.29
	04/06/92	12	0.8	31	31	1,000	--	ND	ND	ND	ND	ND	--	13.08	0.00	507.33
07/28/92	47	110	98	260	4,200	--	--	--	--	--	--	--	13.93	0.00	506.46	
10/16/92	11	ND	32.0	55.0	1,800	--	--	--	--	--	--	--	14.45	0.00	505.94	
01/14/93*	24	ND	98	62	2,000	--	--	--	--	--	--	--	11.23	0.00	509.16	
03/26/93	21	12	120	100	4,400	--	--	--	--	--	--	--	10.94	0.00	509.45	
04/22/93	26	44	580	330	18,000	--	--	--	--	--	--	--	16.25	SHEEN	504.14	
C-2 520.76	03/28/86	--	--	--	--	--	--	--	--	--	--	--	--	11.98	0.00	508.78
	03/15/88	3,900	1,900	1,200	1,200	22,000	--	--	--	--	--	--	--	13.77	0.00	506.99
	05/10/88	--	--	--	--	--	--	--	--	--	--	--	--	14.03	0.00	506.73
	06/10/88	--	--	--	--	--	--	--	--	--	--	--	--	15.12	0.00	505.84
	07/25/88	--	--	--	--	--	--	--	--	--	--	--	--	13.86	0.00	506.90
	10/13/88	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	14.11	0.00	506.65
	01/01/89	--	--	--	--	--	--	--	--	--	--	--	--	12.83	0.00	507.93
	01/12/89	25	3	83	59	1,000	--	--	--	--	--	--	--	--	--	--
	04/10/89	2.5	ND	15	12	600	ND	ND	--	--	--	--	--	14.04	0.00	506.72
	04/10/89	ND	ND	11	11	ND	ND	ND	--	--	--	--	--	14.04	0.00	506.72
	06/26/89	5.3	8	18	14	640	ND	ND	--	--	--	--	--	14.34	0.00	506.42
	06/26/89	3.7	0.6	13	8.2	750	--	2	--	--	--	--	--	14.34	0.00	506.42
	10/13/89	ND	ND	17	10	630	--	ND	--	--	--	--	--	13.92	0.00	506.84
	01/03/90	3	ND	19	17	880	--	1	--	--	--	--	--	14.11	0.00	506.65
	05/08/90	1.3	2.7	8.4	11	340	--	1.1	--	ND	--	ND	--	14.28	0.00	506.48
	09/29/90	ND	ND	4.6	1.8	74	--	ND	ND	1.7	0.5	ND	--	14.25	0.00	506.51
	01/03/91	270	ND	79	93	2,000	--	ND	ND	ND	ND	ND	--	14.15	0.00	506.61
	04/12/91	--	--	--	--	--	--	--	--	--	--	--	--	13.88	0.00	506.90
	09/04/91	--	--	--	--	--	--	--	--	--	--	--	--	14.50	0.00	506.26
	04/06/92	ND	ND	54.0	6.1	1,200	--	ND	ND	ND	ND	ND	--	13.47	0.00	507.29
07/28/92	5.2	2.9	26	16	1,000	--	--	--	--	--	--	--	14.35	0.00	506.41	
10/16/92	ND	2.2	20	10	2,000	--	--	--	--	--	--	--	14.84	0.00	505.92	
01/14/93*	49	50	31	29	1,800	--	--	--	--	--	--	--	11.22	0.00	509.54	
03/26/93	15	12	14	6	820**	--	--	--	--	--	--	--	10.77	0.00	509.99	
04/22/93	12	12	28	29	2,000	--	--	--	--	--	--	--	12.93	0.00	507.83	

**Table 1  
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**

CHEVRON SERVICE STATION #9-1924  
4904 SOUTHFRONT ROAD, LIVERMORE, CALIFORNIA

WELL ID/ ELEVATION (TOC)	DATE	BENZENE (ppb)	TOLUENE (ppb)	ETHYL- BENZENE (ppb)	XYLENES (ppb)	TPH-G (ppb)	TOG (ppb)	1,2- DCA (ppb)	OTHER (ppb)	MC (ppb)	1,1,1- TCA (ppb)	1,1- DCA (ppb)	PCE (ppb)	DTW (feet)	SPT (feet)	WTE (feet)
C-3 521.31	03/28/86	---	---	---	---	---	---	---	---	---	---	---	---	12.24	0.00	509.07
	03/15/88	86	8	30	36.0	2,100	---	---	---	---	---	---	---	14.21	0.00	507.10
	05/10/88	---	---	---	---	---	---	---	---	---	---	---	---	14.43	0.00	506.88
	06/10/88	---	---	---	---	---	---	---	---	---	---	---	---	15.53	0.00	505.78
	07/25/88	---	---	---	---	---	---	---	---	---	---	---	---	14.22	0.00	507.09
	10/13/88	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	14.10	0.00	507.21
	01/01/89	---	---	---	---	---	---	---	---	---	---	---	---	12.70	0.00	508.61
	04/10/89	2.1	ND	4.4	2.6	200	ND	1.4	---	---	---	---	---	14.36	0.00	506.95
	06/26/89	1.1	0.7	4.9	1.8	260	ND	1.5	---	---	---	---	---	14.74	0.00	506.57
	10/13/89	ND	ND	ND	ND	ND	---	ND	---	---	---	---	---	14.70	0.00	506.61
	01/03/90	ND	ND	0.9	1.4	ND	---	0.7	---	---	---	---	---	14.42	0.00	506.89
	05/08/90	ND	ND	ND	ND	ND	---	0.7	---	ND	---	ND	---	14.65	0.00	506.66
	09/27/90	ND	1.0	ND	ND	71	---	ND	ND	1.1	1.6	ND	---	14.67	0.00	506.64
	01/03/91	ND	ND	ND	ND	57	---	ND	ND	ND	ND	ND	ND	14.58	0.00	506.73
	04/12/91	ND	ND	1.6	ND	98	---	ND	ND	ND	ND	ND	ND	14.23	0.00	507.08
	09/04/91	ND	ND	ND	ND	64	---	ND	ND	ND	ND	ND	ND	14.88	0.00	506.43
	04/06/92	ND	ND	0.8	ND	88	---	ND	ND	ND	ND	ND	ND	13.83	0.00	507.48
	07/28/92	ND	ND	0.5	1.1	80	---	---	---	---	---	---	---	14.80	0.00	506.51
	10/16/92	ND	ND	6.6	11	1,400	---	---	---	---	---	---	---	15.23	0.00	506.08
	01/14/93*	ND	ND	ND	1.3	100	---	---	---	---	---	---	---	11.45	0.00	509.86
03/26/93	0.7	1	ND	ND	74	---	---	---	---	---	---	---	11.27	0.00	510.04	
04/22/93	ND	ND	ND	ND	ND***	---	---	---	---	---	---	---	12.61	0.00	508.70	
C-5 520.82	03/28/86	---	---	---	---	---	---	---	---	---	---	---	---	12.00	0.00	508.82
	03/15/88	82	7	77	95	1,600	---	---	---	---	---	---	---	13.75	0.00	507.07
	05/10/88	---	---	---	---	---	---	---	---	---	---	---	---	13.92	0.00	506.90
	07/10/88	---	---	---	---	---	---	---	---	---	---	---	---	13.72	0.00	507.10
	07/25/88	---	---	---	---	---	---	---	---	---	---	---	---	13.72	0.00	507.10
	10/13/88	ND	ND	ND	ND	2,500	---	---	---	---	---	---	---	13.84	0.00	506.98
	01/01/89	---	---	---	---	---	---	---	---	---	---	---	---	13.41	0.00	507.41
	01/12/89	42	3	44	52	ND	---	---	---	---	---	---	---	---	0.00	520.82
	04/10/89	2.6	ND	6.2	5.5	180	ND	1.4	---	---	---	---	---	13.88	---	---
	06/26/89	7.6	0.8	40	56	420	ND	1.5	---	---	---	---	---	14.14	0.00	506.68
	10/13/89	ND	ND	10	ND	620	ND	ND	---	---	---	---	---	14.15	0.00	506.67
	01/03/90	0.7	ND	8	6	ND	---	ND	---	---	---	---	---	14.10	0.00	506.72
	05/08/90	0.6	0.8	11	7.2	140	---	0.8	---	ND	---	ND	---	14.00	0.00	506.82
	09/27/90	ND	3.2	5.2	6.4	360	---	ND	ND	0.7	ND	ND	---	14.00	0.00	506.82
	01/03/91	ND	ND	ND	3	90	---	ND	ND	ND	ND	ND	ND	14.00	0.00	506.82
	04/12/91	12	ND	19	7	270	---	0.5	ND	ND	ND	ND	ND	13.71	0.00	507.11
	09/04/91	ND	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	14.30	0.00	506.52
	04/06/92	12	ND	40	ND	670	---	ND	ND	ND	ND	ND	ND	13.29	0.00	507.53
	07/28/92	15	ND	1.8	0.5	130	---	---	---	---	---	---	---	14.13	0.00	506.69
	10/16/92	ND	ND	ND	1.2	ND	---	---	---	---	---	---	---	14.68	0.00	506.14
01/14/93*	13	ND	110	10	2,300	---	---	---	---	---	---	---	11.87	0.00	508.95	
03/26/93	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
04/22/93	220	18	120	65	2,300**	---	---	---	---	---	---	---	12.12	0.00	508.70	

**Table 1  
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**

CHEVRON SERVICE STATION #9-1924  
4904 SOUTHFRONT ROAD, LIVERMORE, CALIFORNIA

WELL ID/ ELEVATION (TOC)	DATE	BENZENE (ppb)	TOLUENE (ppb)	ETHYL- BENZENE (ppb)	XYLENES (ppb)	TPH-G (ppb)	TOG (ppb)	1,2- DCA (ppb)	OTHER (ppb)	MC (ppb)	1,1,1- TCA (ppb)	1,1- DCA (ppb)	PCE (ppb)	DTW (feet)	SPT (feet)	WTE (feet)
C-6 519.62	03/28/86	--	--	--	--	--	--	--	--	--	--	--	--	11.12	0.00	508.50
	03/15/88	870	4,600	1,500	8,200	46,000	--	--	--	--	--	--	--	12.93	0.00	506.69
	05/10/88	1,400	10,000	3,000	19,000	86,000	--	--	--	--	--	--	--	13.03	0.00	506.59
	06/10/88	--	--	--	--	--	--	--	--	--	--	--	--	14.11	0.00	505.51
	07/25/88	--	--	--	--	--	--	--	--	--	--	--	--	12.95	0.00	506.67
	10/13/88	300	600	260	1,600	5,300	--	--	--	--	--	--	--	13.14	0.00	506.48
	01/01/89	--	--	--	--	--	--	--	--	--	--	--	--	12.14	0.00	507.48
	01/12/89	260	110	270	720	5,000	--	--	--	--	--	--	--	--	--	--
	04/12/89	90	190	190	680	5,000	4.0	ND	--	--	--	--	--	12.98	0.00	506.64
	06/26/89	77	250	140	610	3,600	ND	ND	--	--	--	--	--	13.39	0.00	508.23
	10/13/89	32	81	100	530	3,500	ND	ND	--	--	--	--	--	13.40	0.00	506.22
	01/03/90	20	97	65	410	3,200	--	1	--	--	--	--	--	13.18	0.00	506.44
	05/08/90	17	140	ND	400	1,800	--	1.6	ND	ND	ND	ND	--	13.39	0.00	506.23
	09/29/90	58	210	260	2,100	8,000	--	1.0	ND	ND	2.4	1.6	--	13.32	0.00	506.30
	01/03/91	4	79	59	380	2,300	--	0.5	ND	ND	ND	ND	--	13.19	0.00	506.43
	04/12/91	--	--	--	--	--	--	--	--	--	--	--	--	12.91	0.00	506.71
	09/04/91	--	--	--	--	--	--	--	--	--	--	--	--	13.56	0.00	506.06
	04/06/92	ND	120	740	3,400	44,000	--	ND	ND	ND	ND	ND	ND	12.48	0.00	507.14
	07/28/92	220	1,100	3,000	13,000	120,000	--	--	--	--	--	--	--	13.47	0.00	506.15
	10/16/92	ND	830	3,300	9,600	570,000	--	--	--	--	--	--	--	13.95	0.00	505.67
01/14/93*	ND	25	460	980	19,000	--	--	--	--	--	--	--	10.39	0.00	509.23	
03/26/93	30	90	290	1,100	11,000**	--	--	--	--	--	--	--	9.83	0.00	509.79	
04/22/93	29	170	640	2,400	20,000	--	--	--	--	--	--	--	11.32	0.00	508.30	
C-7 520.30	03/28/86	--	--	--	--	--	--	--	--	--	--	--	--	11.67	0.00	508.63
	03/15/88	98	690	120	120	8,000	--	--	--	--	--	--	--	13.48	0.00	506.82
	05/10/88	--	--	--	--	--	--	--	--	--	--	--	--	13.60	0.00	506.70
	06/10/88	--	--	--	--	--	--	--	--	--	--	--	--	14.68	0.00	505.62
	07/25/88	--	--	--	--	--	--	--	--	--	--	--	--	13.43	0.00	506.87
	10/13/88	4,400	220	1,000	3,000	16,000	--	--	--	--	--	--	--	13.61	0.00	506.69
	01/01/89	--	--	--	--	--	--	--	--	--	--	--	--	12.66	0.00	507.64
	01/12/89	950	47	670	640	8,000	--	--	--	--	--	--	--	--	--	--
	04/12/89	1,100	30	760	370	6,000	ND	ND	--	--	--	--	--	13.60	0.00	506.70
	06/26/89	1,300	50	600	340	6,000	ND	ND	--	--	--	--	--	13.88	0.00	506.42
	10/13/89	1,300	ND	160	150	3,900	--	ND	--	--	--	--	--	13.81	0.00	506.49
	01/03/90	1,200	13	180	200	5,600	--	1	--	--	--	--	--	13.71	0.00	506.59
	05/08/90	1,100	15	110	140	3,500	--	1.7	ND	ND	ND	ND	--	13.85	0.00	506.45
	09/29/90	580	ND	46	68	2,400	--	0.7	ND	ND	ND	ND	ND	13.80	0.00	506.50
	01/03/91	300	2	110	120	2,500	--	0.7	ND	ND	ND	ND	ND	13.71	0.00	506.59
	04/12/91	190	1	81	87	2,300	--	0.6	ND	ND	ND	ND	ND	13.46	0.00	506.84
	09/04/91	--	--	--	--	--	--	--	--	--	--	--	--	14.09	0.00	506.21
	10/07/91	170	1.9	97	59	4,700	--	ND	ND	24	ND	ND	ND	--	--	--
	04/06/92	95	0.8	110	100	2,400	--	ND	ND	ND	ND	ND	ND	13.02	0.00	507.28
	07/28/92	120	3.4	110	110	2,000	--	--	--	--	--	--	--	13.76	0.00	506.54
10/16/92	130	4.2	68	74	2,700	--	--	--	--	--	--	--	14.42	0.00	505.88	
01/14/93*	160	33	380	210	7,800	--	--	--	--	--	--	--	10.98	0.00	509.32	
03/26/93	39	9	28	15	1,400	--	--	--	--	--	--	--	10.61	0.00	509.69	
04/22/93	130	18	43	36	3,800	--	--	--	--	--	--	--	11.84	0.00	508.46	

**Table 1  
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**

CHEVRON SERVICE STATION #9-1924  
4904 SOUTHFRONT ROAD, LIVERMORE, CALIFORNIA

WELL ID/ ELEVATION (TOC)	DATE	BENZENE (ppb)	TOLUENE (ppb)	ETHYL- BENZENE (ppb)	XYLENES (ppb)	TPH-G (ppb)	TOG (ppb)	1,2- DCA (ppb)	OTHER (ppb)	MC (ppb)	1,1,1- TCA (ppb)	1,1- DCA (ppb)	PCE (ppb)	DTW (feet)	SPT (feet)	WTE (feet)
C-8 519.74	03/28/86	---	---	---	---	---	---	---	---	---	---	---	---	11.78	0.00	507.96
	03/15/88	360	25	10	ND	7,500	---	---	---	---	---	---	---	13.83	0.00	506.11
	05/10/88	---	---	---	---	---	---	---	---	---	---	---	---	13.74	0.00	506.00
	06/10/88	---	---	---	---	---	---	---	---	---	---	---	---	14.89	0.00	504.85
	07/25/88	---	---	---	---	---	---	---	---	---	---	---	---	13.65	0.00	506.09
	10/13/88	6	5.3	ND	ND	ND	---	---	---	---	---	---	---	13.78	0.00	505.96
	01/01/89	---	---	---	---	---	---	---	---	---	---	---	---	12.88	0.00	507.06
	01/12/89	37	4	1	5	ND	---	---	---	---	---	---	---	---	---	---
	04/12/89	13	ND	ND	ND	3,000	12.0	5	---	---	---	---	---	13.77	0.00	505.97
	06/26/89	14	8	ND	6	780	ND	4	---	---	---	---	---	14.03	0.00	505.71
	10/13/89	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	14.06	0.00	505.68
	01/03/90	ND	ND	1	1	910	---	1.5	---	---	---	---	---	13.74	0.00	506.00
	05/07/90	3.9	6	0.5	3.4	620	---	1.9	---	---	ND	---	---	14.10	0.00	505.64
	09/29/90	ND	1.4	ND	ND	77	---	ND	ND	0.6	ND	ND	---	13.97	0.00	505.77
	01/03/91	2	2	ND	2	67	---	ND	ND	0.7	ND	ND	ND	13.81	0.00	505.93
	04/12/91	4	ND	ND	ND	180	---	0.6	ND	ND	ND	ND	ND	13.60	0.00	506.14
	09/04/91	1.8	4.7	0.8	4.8	140	---	ND	ND	ND	ND	ND	ND	14.14	0.00	505.60
	04/06/92	ND	ND	ND	ND	150	---	ND	ND	ND	ND	ND	ND	13.12	0.00	506.62
	07/28/92	ND	ND	ND	0.8	90	---	---	---	---	---	---	---	14.10	0.00	505.64
	10/16/92	ND	ND	ND	ND	51	---	---	---	---	---	---	---	14.57	0.00	505.17
01/14/93*	ND	1.6	1.0	3.5	120	---	---	---	---	---	---	---	10.95	0.00	508.79	
03/26/93	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
04/22/93	ND	0.6	0.6	0.8	68**	---	---	---	---	---	---	---	12.07	0.00	507.67	
C-9 519.52	03/28/86	---	---	---	---	---	---	---	---	---	---	---	---	11.24	0.00	508.28
	03/15/88	540	560	580	3,900	29,000	---	---	---	---	---	---	---	12.92	0.00	506.60
	05/10/88	---	---	---	---	---	---	---	---	---	---	---	---	13.12	0.00	506.40
	06/10/88	---	---	---	---	---	---	---	---	---	---	---	---	14.16	0.00	505.36
	07/25/88	---	---	---	---	---	---	---	---	---	---	---	---	13.00	0.00	506.52
	10/13/88	57	8	20	150	2,200	---	---	---	---	---	---	---	13.13	0.00	506.39
	01/01/89	---	---	---	---	---	---	---	---	---	---	---	---	12.19	0.00	507.33
	01/12/89	39	12	51	48	2,000	---	---	---	---	---	---	---	---	---	---
	04/12/89	16	20	55	240	6,000	ND	2.1	---	---	---	---	---	13.11	0.00	506.41
	04/11/89	14	25	45	290	6,000	---	ND	---	---	---	---	---	13.11	0.00	506.41
	06/26/89	37	63	140	690	3,900	ND	ND	---	---	---	---	---	13.40	0.00	506.12
	10/13/89	7	ND	26	50	1,300	ND	ND	---	---	---	---	---	13.46	0.00	506.06
	01/03/90	ND	0.7	202	37	1,500	---	1.5	---	---	---	---	---	13.30	0.00	506.22
	05/07/90	21	33	89	500	7,100	---	1.9	---	---	ND	---	---	13.48	0.00	506.04
	09/29/90	21	3.9	31	110	1,000	---	1.0	ND	0.7	1.8	1.0	---	13.39	0.00	506.13
	01/03/91	ND	ND	32	140	3,200	---	0.8	ND	ND	ND	ND	ND	13.28	0.00	506.44
	04/12/91	---	---	---	---	---	---	---	---	---	---	---	---	13.00	0.00	506.72
	09/04/91	---	---	---	---	---	---	---	---	---	---	---	---	13.61	0.00	506.11
	04/06/92	ND	ND	33	130	2,800	---	ND	ND	ND	ND	ND	ND	12.54	0.00	507.18
	07/28/92	6.5	2.4	17	37	1,000	---	---	---	---	---	---	---	13.45	0.00	506.27
10/16/92	ND	730	960	2,000	190,000	---	---	---	---	---	---	---	13.98	0.00	505.74	
01/14/93*	ND	ND	27	77	2,200	---	---	---	---	---	---	---	10.44	0.00	509.28	
03/26/93	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
04/22/93	60	40	68	98	7,300	---	---	---	---	---	---	---	11.43	0.00	508.29	

**Table 1**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**

CHEVRON SERVICE STATION #9-1924  
4904 SOUTHFRONT ROAD, LIVERMORE, CALIFORNIA

WELL ID/ ELEVATION (TOC)	DATE	BENZENE (ppb)	TOLUENE (ppb)	ETHYL- BENZENE (ppb)	XYLENES (ppb)	TPH-G (ppb)	TOG (ppb)	1,2- DCA (ppb)	OTHER (ppb)	MC (ppb)	1,1,1- TCA (ppb)	1,1- DCA (ppb)	PCE (ppb)	DTW (feet)	SPT (feet)	WTE (feet)
C-10 520.41	03/28/86	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	03/15/88	7	ND	ND	ND	90	---	---	---	---	---	---	---	14.86	0.00	505.55
	05/10/88	---	---	---	---	---	---	---	---	---	---	---	---	14.90	0.00	505.51
	06/10/88	---	---	---	---	---	---	---	---	---	---	---	---	15.94	0.00	504.47
	07/25/88	---	---	---	---	---	---	---	---	---	---	---	---	14.85	0.00	505.56
	10/13/88	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	14.90	0.00	505.51
	01/01/89	---	---	---	---	---	---	---	---	---	---	---	---	14.83	0.00	505.58
	01/12/89	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---
	04/11/89	4.8	ND	ND	ND	ND	ND	ND	6.1	---	---	---	---	14.90	0.00	505.51
	06/26/89	0.7	ND	ND	ND	1.5	ND	4.0	ND	---	---	---	---	15.12	0.00	505.29
	10/13/89	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	15.11	0.00	505.30
	01/03/90	ND	ND	ND	ND	ND	ND	---	3	---	---	---	---	15.01	0.00	505.40
	05/07/90	ND	ND	ND	ND	ND	ND	---	ND	---	ND	---	---	15.53	0.00	504.88
	09/27/90	ND	ND	ND	ND	ND	ND	---	ND	1.2	ND	ND	---	15.20	0.00	505.21
	01/03/91	ND	ND	ND	ND	ND	ND	---	ND	ND	ND	ND	---	15.06	0.00	505.35
	04/12/91	16	ND	2.9	2.7	110	---	---	1	ND	ND	ND	ND	14.86	0.00	505.55
	09/04/91	ND	ND	ND	ND	ND	---	---	ND	ND	ND	ND	ND	15.22	0.00	505.19
	04/06/92	ND	ND	ND	ND	57	---	---	1.1	ND	ND	ND	ND	14.21	0.00	506.20
	07/28/92	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	14.78	0.00	505.63
	10/16/92	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	15.51	0.00	504.90
01/14/93*	4.7	ND	2.3	1.6	88	---	---	---	---	---	---	---	13.44	0.00	506.97	
03/26/93	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	12.55	0.00	507.86	
04/22/93	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	13.74	0.00	506.67	
C-11 520.04	03/28/86	---	---	---	---	---	---	---	---	---	---	---	---	13.82	0.00	506.22
	03/15/88	---	---	---	---	---	---	---	---	---	---	---	---	14.49	0.00	505.55
	05/10/88	---	---	---	---	---	---	---	---	---	---	---	---	14.31	0.00	505.73
	06/10/88	---	---	---	---	---	---	---	---	---	---	---	---	15.47	0.00	504.57
	07/25/88	---	---	---	---	---	---	---	---	---	---	---	---	13.60	0.00	506.44
	10/14/88	240	93	4.7	67	2	---	---	---	---	---	---	---	14.83	0.00	505.51
	01/01/89	---	---	---	---	---	---	---	---	---	---	---	---	14.10	0.00	505.94
	01/12/89	ND	0.8	ND	ND	ND	---	---	---	---	---	---	---	---	---	---
	04/12/89	4.3	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	14.36	0.00	505.68
	06/26/89	2	ND	ND	ND	ND	ND	4.0	ND	---	---	---	---	14.58	0.00	505.46
	10/13/89	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	14.71	0.00	505.33
	01/03/90	ND	ND	ND	0.7	ND	---	---	ND	---	---	---	---	14.61	0.00	505.43
	05/08/90	12	11	0.9	22	110	---	---	ND	---	ND	---	---	15.53	0.00	504.51
	09/28/90	2.0	1.4	ND	3.3	ND	---	---	ND	ND	1.2	ND	ND	15.51	0.00	504.53
	01/03/91	2	ND	ND	2	ND	---	---	ND	ND	ND	ND	---	14.63	0.00	505.41
	04/12/91	---	---	---	---	---	---	---	---	---	---	---	---	14.30	0.00	505.74
	09/04/91	---	---	---	---	---	---	---	---	---	---	---	---	14.84	0.00	505.20
	04/06/92	ND	ND	ND	ND	ND	---	---	ND	ND	ND	ND	ND	13.56	0.00	506.48
	07/28/92	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	14.39	0.00	505.65
	10/16/92	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	15.79	0.00	504.25
01/14/93*	ND	1.3	0.7	6	94	---	---	---	---	---	---	---	12.14	0.00	507.90	
03/26/93	2	ND	0.6	1	130	---	---	---	---	---	---	---	11.81	0.00	508.23	
04/22/93	0.8	ND	ND	ND	ND	---	---	---	---	---	---	---	12.94	0.00	507.10	

**Table 1  
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**

CHEVRON SERVICE STATION #9-1924  
4904 SOUTHFRONT ROAD, LIVERMORE, CALIFORNIA

WELL ID/ ELEVATION (TOC)	DATE	BENZENE (ppb)	TOLUENE (ppb)	ETHYL- BENZENE (ppb)	XYLENES (ppb)	TPH-G (ppb)	TOG (ppb)	1,2- DCA (ppb)	OTHER (ppb)	MC (ppb)	1,1,1- TCA (ppb)	1,1- DCA (ppb)	PCE (ppb)	DTW (feet)	SPT (feet)	WTE (feet)
C-12 519.82	03/28/88	---	---	---	---	---	---	---	---	---	---	---	---	13.61	0.00	506.21
	03/15/88	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	14.55	0.00	505.27
	05/10/88	---	---	---	---	---	---	---	---	---	---	---	---	14.57	0.00	505.25
	06/10/88	---	---	---	---	---	---	---	---	---	---	---	---	15.63	0.00	504.19
	07/25/88	---	---	---	---	---	---	---	---	---	---	---	---	14.51	0.00	505.31
	10/13/88	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	14.60	0.00	505.22
	01/12/89	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	14.62	0.00	505.20
	04/11/89	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	14.61	0.00	505.21
	06/26/89	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	14.75	0.00	505.07
	10/13/89	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	14.77	0.00	505.05
	01/03/90	ND	ND	ND	ND	0.6	ND	---	---	---	---	---	---	14.85	0.00	504.97
	05/07/90	ND	ND	ND	ND	ND	ND	---	---	ND	---	---	---	14.75	0.00	505.07
	09/27/90	ND	ND	ND	ND	ND	ND	---	---	ND	ND	ND	---	14.61	0.00	505.21
	01/03/91	ND	ND	ND	ND	ND	ND	---	---	ND	ND	ND	ND	14.70	0.00	505.12
	04/12/91	---	---	---	---	---	---	---	---	---	---	---	---	14.52	0.00	505.30
	09/04/91	---	---	---	---	---	---	---	---	---	---	---	---	14.83	0.00	504.99
	04/06/92	ND	ND	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	13.81	0.00	506.01
	07/28/92	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	14.32	0.00	505.50
10/16/92	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	15.12	0.00	504.70	
01/14/93*	ND	ND	ND	ND	1.7	65	---	---	---	---	---	---	13.23	0.00	506.59	
03/26/93	0.9	ND	ND	ND	ND	ND	---	---	---	---	---	---	12.20	0.00	507.62	
04/22/93	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	13.21	0.00	506.61	
C-13 522.24	03/28/88	---	---	---	---	---	---	---	---	---	---	---	---	12.95	0.00	509.29
	03/15/88	2	ND	9	3	250	---	---	---	---	---	---	---	14.82	0.00	507.42
	05/10/88	---	---	---	---	---	---	---	---	---	---	---	---	15.03	0.00	507.21
	06/10/88	---	---	---	---	---	---	---	---	---	---	---	---	16.10	0.00	506.14
	07/25/88	---	---	---	---	---	---	---	---	---	---	---	---	14.73	0.00	507.51
	10/13/88	1.9	ND	ND	ND	ND	---	---	---	---	---	---	---	14.91	0.00	507.33
	01/01/89	---	---	---	---	---	---	---	---	---	---	---	---	14.10	0.00	508.14
	01/12/89	ND	0.6	4	ND	ND	---	---	---	---	---	---	---	---	---	---
	04/10/89	ND	ND	8	ND	ND	ND	ND	---	---	---	---	---	14.99	0.00	507.25
	06/26/89	0.3	ND	ND	ND	ND	ND	ND	---	---	---	---	---	15.16	0.00	507.08
	10/13/89	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	15.23	0.00	507.01
	01/03/90	ND	ND	0.5	0.6	ND	ND	---	---	---	---	---	---	15.15	0.00	507.09
	05/08/90	ND	ND	ND	ND	ND	ND	---	---	ND	---	ND	---	15.02	0.00	507.22
	09/27/90	ND	0.6	ND	ND	ND	ND	---	---	ND	ND	ND	---	15.11	0.00	507.13
	01/03/91	ND	ND	ND	0.6	ND	---	---	---	ND	ND	ND	ND	15.08	0.00	507.16
	04/12/91	---	---	---	---	---	---	---	---	---	---	---	---	14.77	0.00	507.47
	09/04/91	---	---	---	---	---	---	---	---	---	---	---	---	15.43	0.00	506.81
	04/06/92	ND	ND	ND	ND	66	---	---	ND	ND	ND	ND	ND	14.43	0.00	507.81
07/28/92	8.2	ND	ND	ND	1.1	60	---	---	---	---	---	---	15.37	0.00	506.87	
10/16/92	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	15.87	0.00	506.37	
01/14/93*	ND	ND	ND	ND	1.3	100	---	---	---	---	---	---	12.83	0.00	509.41	
03/26/93	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	12.59	0.00	509.65	
04/22/93	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	13.16	0.00	509.08	



**Table 1  
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**

CHEVRON SERVICE STATION #9-1924  
4904 SOUTHFRONT ROAD, LIVERMORE, CALIFORNIA

WELL ID/ ELEVATION (TOC)	DATE	BENZENE (ppb)	TOLUENE (ppb)	ETHYL- BENZENE (ppb)	XYLENES (ppb)	TPH-G (ppb)	TOG (ppb)	1,2- DCA (ppb)	OTHER (ppb)	MC (ppb)	1,1,1- TCA (ppb)	1,1- DCA (ppb)	PCE (ppb)	DTW (feet)	SPT (feet)	WTE (feet)
C-14 520.08	03/28/86	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/15/88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/10/88	13,000	29,000	2,700	18	120,000	--	--	--	--	--	--	--	13.39	0.00	506.69
	06/10/88	--	--	--	--	--	--	--	--	--	--	--	--	14.65	0.00	505.43
	07/25/88	--	--	--	--	--	--	--	--	--	--	--	--	13.47	0.00	506.61
	10/13/88	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	13.58	0.00	506.50
	01/01/89	--	--	--	--	--	--	--	--	--	--	--	--	13.00	0.00	507.08
	01/12/89	ND	ND	ND	ND	NS	--	--	--	--	--	--	--	--	--	--
	04/12/89	ND	ND	ND	ND	NS	ND	ND	ND	--	--	--	--	13.47	0.00	506.61
	06/26/89	14,000	25,000	3,400	26,000	140,000	--	30	--	--	--	--	--	13.80	0.00	506.28
	10/13/89	12,000	16,000	1,600	13,000	86,000	--	--	--	--	--	--	--	13.62	0.00	506.46
	01/03/90	9,500	16,000	1,800	13,000	120,000	--	--	--	--	--	--	--	13.91	0.00	506.17
	01/04/90	3,900	8,100	1,200	7,700	76,000	--	18	1	--	--	--	--	13.91	0.00	506.17
	05/08/90	7,500	17,000	1,400	14,000	62,000	--	13	--	ND	--	ND	--	13.89	0.00	506.19
	09/27/90	--	--	--	--	--	--	--	--	--	--	--	--	13.78	0.00	506.30
	01/03/91	--	--	--	--	--	--	--	--	--	--	--	--	13.72	0.00	506.36
	04/12/91	750	3,800	720	9,200	60,000	--	ND	ND	ND	ND	ND	ND	12.97	0.00	507.11
	09/04/91	2,800	11,000	1,300	13,000	110,000	--	--	--	--	--	--	--	13.84	0.00	506.24
	04/06/92	180	1,800	440	5,100	41,000	--	ND	ND	ND	ND	ND	ND	12.44	0.00	507.64
	07/28/92	2,300	9,700	1,800	15,000	130,000	--	--	--	--	--	--	--	13.70	0.00	506.38
10/16/92	--	--	--	--	--	--	--	--	--	--	--	--	14.38	0.00	505.70	
01/14/93*	220	790	220	2,700	27,000	--	--	--	--	--	--	--	8.80	0.00	511.28	
03/26/93	330	1,600	460	4,000	23,000**	--	--	--	--	--	--	--	9.12	0.00	510.96	
04/22/93	840	2,300	130	3,500	17,000	--	--	--	--	--	--	--	12.10	SHEEN	507.98	
C-15 522.41	03/28/86	--	--	--	--	--	--	--	--	--	--	--	--	13.14	0.00	509.27
	03/15/88	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	15.13	0.00	507.28
	05/10/88	--	--	--	--	--	--	--	--	--	--	--	--	15.40	0.00	507.01
	06/10/88	--	--	--	--	--	--	--	--	--	--	--	--	16.49	0.00	505.92
	07/25/88	--	--	--	--	--	--	--	--	--	--	--	--	15.17	0.00	507.24
	10/13/88	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	15.33	0.00	507.08
	01/01/89	--	--	--	--	--	--	--	--	--	--	--	--	13.70	0.00	508.71
	01/12/89	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	04/12/89	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	15.34	0.00	507.07
	06/26/89	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	15.72	0.00	506.69
	10/13/89	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	15.96	0.00	506.45
	01/03/90	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	15.42	0.00	506.99
	05/08/90	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	15.62	0.00	506.79
	09/27/90	ND	ND	ND	ND	ND	ND	ND	ND	2.9	ND	ND	--	15.59	0.00	506.82
	01/03/91	ND	ND	ND	0.6	ND	--	ND	ND	ND	ND	ND	ND	15.50	0.00	506.91
	04/12/91	--	--	--	--	--	--	--	--	--	--	--	--	15.21	0.00	507.20
	09/04/91	--	--	--	--	--	--	--	--	--	--	--	--	15.90	0.00	506.51
	04/06/92	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	14.88	0.00	507.53
	07/28/92	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	15.82	0.00	506.59
	10/16/92	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	16.25	0.00	506.16
01/14/93*	ND	1.9	0.8	5.1	61	--	--	--	--	--	--	--	12.48	0.00	509.93	
03/26/93	ND	ND	ND	1	ND	--	--	--	--	--	--	--	12.67	0.00	509.74	
04/22/93	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	13.60	0.00	508.81	

**Table 1  
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**

CHEVRON SERVICE STATION #9-1924  
4904 SOUTHFRONT ROAD, LIVERMORE, CALIFORNIA

WELL ID/ ELEVATION (TOC)	DATE	BENZENE (ppb)	TOLUENE (ppb)	ETHYL- BENZENE (ppb)	XYLENES (ppb)	TPH-G (ppb)	TOG (ppb)	1,2- DCA (ppb)	OTHER (ppb)	MC (ppb)	1,1,1- TCA (ppb)	1,1- DCA (ppb)	PCE (ppb)	DTW (feet)	SPT (feet)	WTE (feet)
C-16 519.68	03/28/86	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	03/15/88	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	05/10/88	1,000	73	140	180	4,500	---	---	---	---	---	---	---	13.78	0.00	505.90
	06/10/88	---	---	---	---	---	---	---	---	---	---	---	---	14.88	0.00	504.80
	07/25/88	---	---	---	---	---	---	---	---	---	---	---	---	13.69	0.00	505.99
	10/13/88	18	5.5	ND	16	1,600	---	---	---	---	---	---	---	13.80	0.00	505.88
	01/01/89	---	---	---	---	---	---	---	---	---	---	---	---	13.45	0.00	506.23
	01/12/89	360	11	78	51	1,000	---	---	---	---	---	---	---	---	---	---
	04/11/89	130	4	21	19	15,800	ND	8	---	---	---	---	---	13.78	0.00	505.90
	06/26/89	170	8	37	43	1,300	ND	ND	---	---	---	---	---	14.02	0.00	505.66
	10/13/89	20	ND	7	ND	1,000	ND	ND	---	---	---	---	---	14.01	0.00	505.67
	01/03/90	150	3	41	24	1,300	---	5	---	---	---	---	---	13.97	0.00	505.71
	05/07/90	49	4.4	29	13	480	---	4.5	---	---	ND	ND	---	14.45	0.00	505.23
	09/29/90	18	2.1	11	8.0	360	---	1.8	ND	ND	ND	ND	---	14.32	0.00	505.36
	01/03/91	12	ND	6	6	230	---	2	ND	---	ND	---	ND	13.96	0.00	505.72
	04/12/91	---	---	---	---	---	---	---	---	---	---	---	---	13.74	0.00	505.94
	09/04/91	---	---	---	---	---	---	---	---	---	---	---	---	14.22	0.00	505.46
	04/06/92	30	ND	14	12.0	360	---	1.0	ND	---	ND	ND	ND	13.18	0.00	506.50
	07/28/92	31	ND	6.8	16	310	---	---	---	---	---	---	---	13.93	0.00	505.75
	10/16/92	11	ND	5.1	3.4	140	---	---	---	---	---	---	---	14.92	0.00	504.76
01/14/93*	24	ND	36	21	740	---	---	---	---	---	---	---	11.81	0.00	507.87	
03/26/93	22	2	16	10	730	---	---	---	---	---	---	---	11.36	0.00	508.32	
04/22/93	46	ND	24	6	850	---	---	---	---	---	---	---	12.30	0.00	507.38	
C-17 520.82	03/28/86	---	---	---	---	---	---	---	---	---	---	---	---	13.48	0.00	507.34
	03/15/88	---	---	---	---	---	---	---	---	---	---	---	---	14.76	0.00	506.06
	05/10/88	---	---	---	---	---	---	---	---	---	---	---	---	14.77	0.00	506.05
	06/10/88	---	---	---	---	---	---	---	---	---	---	---	---	15.84	0.00	504.98
	07/25/88	---	---	---	---	---	---	---	---	---	---	---	---	14.63	0.00	506.19
	10/13/88	18	900	760	5,500	270,000	---	---	---	---	---	---	---	14.83	0.00	505.99
	01/01/89	---	---	---	---	---	---	---	---	---	---	---	---	14.78	0.00	506.04
	01/12/89	ND	490	2,100	6,700	190,000	---	---	---	---	---	---	---	---	---	---
	04/11/89	30	150	320	1,000	27,000	6.0	ND	---	---	---	---	---	14.83	0.00	505.99
	06/26/89	50	390	660	2,000	20,000	ND	ND	---	---	---	---	---	15.03	0.00	505.79
	06/26/89	40	420	740	2,200	27,000	---	ND	---	---	---	---	---	15.03	0.00	505.79
	10/13/89	ND	48	230	480	17,000	ND	ND	---	---	---	---	---	15.02	0.00	505.80
	01/03/90	ND	29	120	210	14,000	---	ND	---	---	---	---	---	15.10	0.00	505.72
	05/08/90	25	130	210	470	9,500	---	ND	---	---	ND	ND	---	15.12	0.00	505.70
	09/29/90	ND	ND	ND	ND	ND	---	ND	ND	ND	1.9	ND	---	14.99	0.00	505.83
	09/29/90	ND	3.4	ND	ND	ND	---	ND	ND	1.8	1.9	ND	---	14.99	0.00	505.83
	01/03/91	ND	28	56	140	3,700	---	ND	ND	1.8	1.9	ND	ND	14.92	0.00	505.90
	01/03/91	ND	10	59	150	8,600	---	ND	ND	ND	ND	ND	ND	14.92	0.00	505.90
	04/12/91	ND	5	47	120	8,600	---	ND	ND	ND	ND	ND	ND	14.71	0.00	506.11
	04/12/91	ND	11	48	120	4,400	---	ND	ND	ND	ND	ND	ND	14.71	0.00	506.11
09/04/91	ND	27	49	79	5,800	---	ND	ND	ND	ND	ND	ND	15.17	0.00	505.65	
09/04/91	ND	21	36	61	4,100	---	ND	ND	ND	ND	ND	ND	15.17	0.00	505.65	
04/06/92	ND	5.8	27	29	2,300	---	ND	ND	ND	ND	ND	ND	14.14	0.00	506.68	
07/28/92	99	180	170	430	11,000	---	---	---	---	---	---	---	15.18	0.00	505.64	
10/16/92	ND	4,800	3,900	6,600	1,200,000	---	---	---	---	---	---	---	15.76	0.00	505.06	
01/14/93*	9.3	9.1	23	34	3,500	---	---	---	---	---	---	---	13.44	0.00	507.38	
03/26/93	ND	19	20	35	3,700**	---	---	---	---	---	---	---	12.46	0.00	508.36	
04/22/93	16	68	44	97	8,900	---	---	---	---	---	---	---	13.30	0.00	507.52	

**Table 1**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**

CHEVRON SERVICE STATION #9-1924  
4904 SOUTHFRONT ROAD, LIVERMORE, CALIFORNIA

WELL ID/ ELEVATION (TOC)	DATE	BENZENE (ppb)	TOLUENE (ppb)	ETHYL- BENZENE (ppb)	XYLENES (ppb)	TPH-G (ppb)	TOG (ppb)	1,2- DCA (ppb)	OTHER (ppb)	MC (ppb)	1,1,1- TCA (ppb)	1,1- DCA (ppb)	PCE (ppb)	DTW (feet)	SPT (feet)	WTE (feet)
C-18 518.96	03/28/86	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	03/15/88	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	05/10/88	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	06/10/88	---	---	---	---	---	---	---	---	---	---	---	---	14.89	0.00	504.07
	07/25/88	---	---	---	---	---	---	---	---	---	---	---	---	13.79	0.00	505.17
	10/13/88	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	13.86	0.00	505.10
	01/01/89	---	---	---	---	---	---	---	---	---	---	---	---	13.94	0.00	505.02
	01/12/89	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	0.00	518.96
	04/11/89	ND	ND	ND	ND	ND	ND	ND	3.6	---	---	---	---	14.86	0.00	504.10
	06/26/89	ND	ND	ND	ND	ND	ND	ND	3.1	---	---	---	---	14.02	0.00	504.94
	10/13/89	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	15.06	0.00	503.90
	01/03/90	ND	ND	ND	ND	ND	ND	ND	1	---	---	---	---	14.07	0.00	504.89
	05/07/90	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	14.01	0.00	504.95
	09/27/90	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.8	ND	ND	13.91	0.00	505.05
	01/03/91	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	13.98	0.00	504.98
	04/12/91	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	13.83	0.00	505.13
	09/04/91	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	14.20	0.00	504.76
	04/06/92	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	13.07	0.00	505.89
	07/28/92	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	13.55	0.00	505.41
	10/16/92	ND	ND	ND	ND	ND	ND	ND	---	---	---	---	---	14.38	0.00	504.58
01/14/93*	ND	ND	ND	ND	1.8	58	---	---	---	---	---	---	12.46	0.00	506.50	
03/26/93	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	11.46	0.00	507.50	
04/22/93	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	12.58	0.00	506.38	

**Table 1**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA**

CHEVRON SERVICE STATION #9-1924  
4904 SOUTHFRONT ROAD, LIVERMORE, CALIFORNIA

WELL ID/ ELEVATION (TOC)	DATE	BENZENE (ppb)	TOLUENE (ppb)	ETHYL- BENZENE (ppb)	XYLENES (ppb)	TPH-G (ppb)	TOG (ppb)	1,2- DCA (ppb)	OTHER (ppb)	MC (ppb)	1,1,1- TCA (ppb)	1,1- DCA (ppb)	PCE (ppb)	DTW (feet)	SPT (feet)	WTE (feet)
C-19 520.99	03/28/88	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	03/15/88	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	05/10/88	1,400	360	350	1,300	18	---	---	---	---	---	---	---	---	---	---
	06/10/88	---	---	---	---	---	---	---	---	---	---	---	---	15.23	0.00	505.76
	07/25/88	---	---	---	---	---	---	---	---	---	---	---	---	16.58	0.00	504.41
	10/13/88	8.3	4.7	4.4	ND	ND	---	---	---	---	---	---	---	15.19	0.00	505.80
	01/01/89	---	---	---	---	---	---	---	---	---	---	---	---	15.27	0.00	505.72
	01/12/89	5	4	ND	ND	ND	---	---	---	---	---	---	---	15.20	0.00	505.79
	04/11/89	1.8	ND	ND	ND	ND	ND	13	---	---	---	---	---	---	---	---
	04/11/89	1.2	ND	0.6	0.6	500	---	14	---	---	---	---	---	15.24	0.00	505.75
	06/26/89	2.5	ND	ND	ND	500	ND	26	---	---	---	---	---	15.24	0.00	505.75
	10/13/89	ND	ND	ND	ND	540	ND	13	13	---	---	---	---	15.44	0.00	505.55
	01/03/90	1.2	0.7	1.3	0.9	ND	---	11	---	---	---	---	---	15.47	0.00	505.52
	05/07/90	ND	ND	ND	ND	ND	---	4.6	---	ND	---	ND	---	15.45	0.00	505.54
	09/28/90	ND	ND	ND	ND	ND	---	ND	---	ND	---	ND	---	15.68	0.00	505.31
	01/03/91	ND	ND	ND	ND	ND	---	ND	---	ND	---	ND	---	15.52	0.00	505.47
	04/12/91	---	---	---	---	---	---	1	---	ND	---	ND	---	15.56	0.00	505.43
	09/04/91	---	---	---	---	---	---	---	---	---	---	---	---	15.20	0.00	505.79
	04/06/92	0.7	ND	1.0	ND	110	---	---	---	---	---	---	---	15.60	0.00	505.39
	07/28/92	1.4	ND	1.0	4.2	ND	---	1.9	---	ND	---	ND	---	14.58	0.00	506.41
10/16/92	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	15.26	0.00	505.73	
01/14/93*	1.1	ND	0.9	0.9	100	---	---	---	---	---	---	---	16.00	0.00	504.99	
03/26/93	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	13.69	0.00	507.30	
04/22/93	0.6	1	1	1	250**	---	---	---	---	---	---	---	12.96	0.00	508.03	
													14.18	0.00	506.81	

**Explanation**

Elevations are expressed as feet above mean sea level.

TOC = Top of casing

WTE = Water table elevation (well elevation - (DTW - (SPT x 0.8))

DTW = Depth to water

SPT = Separate-phase hydrocarbon thickness

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

TOG = Total Oil & Grease (EPA Method 503D & 503E)

\* = Rinsate sample contaminated; resampled 03/26/93

\*\* = Uncategorized compound not included in gasoline hydrocarbon total

\*\*\* = Hydrocarbon pattern uncharacteristic of fresh gasoline

PCE = Tetrachloroethene

1,2-DCA = 1,2-Dichloroethane

MC = Methylene Chloride

TCA = 1,1,1-Trichloroethane

1,1-DCA = 1,1-Dichloroethane

ND = Not detected at or above the minimum quantitation limit (MQL)

--- = Not sampled, not monitored, inaccessible

OTHER = 5 ppb Carbon Disulfide detected in C-1 on 10/13/89

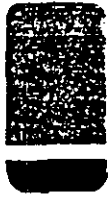
3 ppb Vinyl Chloride detected in C-14 on 1/3/90

1 ppb Vinyl Chloride detected in C-14 on 1/4/90

13 ppb Carbon Disulfide detected in C-19 on 10/13/89

**ATTACHMENT I**

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



# GTEL

ENVIRONMENTAL  
LABORATORIES, INC.

4080 Pike Lane  
Concord, CA 94520  
(510) 685-7852  
(800) 544-3422 Inside CA  
(800) 423-7143 Outside CA  
(510) 825-0720 FAX

Client Number: 020704233  
Facility Number: 9-1924  
Project ID: 4904 Southfront Rd.  
Livermore  
Work Order Number: C3-04-0368

May 7, 1993

Bruce Eppler  
Groundwater Technology, Inc.  
1401 Halyard Drive, Suite 140  
W. Sacramento, CA 95691

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 04/23/93.

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 certificate numbers 194 and 1075, 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.

Eileen F. Bullen  
Laboratory Director

Client Number: 020704233  
 Facility Number: 9-1924  
 Project ID: 4904 Southfront Rd.  
 Livermore  
 Work Order Number: C3-04-0368

**Table 1**

**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	RINSATE	C-11	C-12
Date Sampled		04/22/93	04/22/93	04/22/93	04/22/93
Date Analyzed		05/04/93	05/04/93	05/05/93	05/05/93
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.5	<0.5	<0.5	0.8	<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
BTEX, total	-	-	-	0.8	-
TPH as Gasoline	50	<50	<50	<50	<50
Detection Limit Multiplier		1	1	1	1
BFB surrogate, % recovery		95.9	100	98.4	95.3

- 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 Control Board LUFT Manual protocols, May 1988 revision. Bromofluorobenzene surrogate recovery acceptability limits are 70 - 130%.

Client Number: 020704233  
 Facility Number: 9-1924  
 Project ID: 4904 Southfront Rd.  
 Livermore  
 Work Order Number: C3-04-0368

**Table 1 (Continued)**

**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-15	C-18	C-10	C-13
Date Sampled		04/22/93	04/22/93	04/22/93	04/22/93
Date Analyzed		05/05/93	05/05/93	05/05/93	05/05/93
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
BTEX, total	--	--	--	--	--
TPH as Gasoline	50	<50	<50	<50	<50
Detection Limit Multiplier		1	1	1	1
BFB surrogate, % recovery		97.3	93.6	96.5	98.5

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 Control Board LUFT Manual protocols, May 1988 revision. Bromofluorobenzene surrogate recovery acceptability limits are 70 - 130%.



Client Number: 020704233  
 Facility Number: 9-1924  
 Project ID: 4904 Southfront Rd.  
 Livermore  
 Work Order Number: C3-04-0368

**Table 1 (Continued)**

**ANALYTICAL RESULTS**

**Aromatic Volatile Organics and  
 Total Petroleum Hydrocarbons as Gasoline in Water**

EPA Methods 5030, 8020, and Modified 8015a

GTEL Sample Number		09	10	11	12
Client Identification		C-3	C-19	C-8	C-16
Date Sampled		04/22/93	04/22/93	04/22/93	04/22/93
Date Analyzed		05/05/93	05/05/93	05/05/93	05/05/93
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.5	<0.5	0.6	<0.5	46
Toluene	0.5	<0.5	1	0.6	<0.5
Ethylbenzene	0.5	<0.5	1	0.6	24
Xylene, total	0.5	<0.5	1	0.8	6
BTEX, total	--	--	4	2	76
TPH as Gasoline	50	<50**	250*	68*	850
Detection Limit Multiplier		1	1	1	1
BFB surrogate, % recovery		96.8	99.7	98.0	104

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 Control Board LUFT Manual protocols, May 1988 revision. Bromofluorobenzene surrogate recovery acceptability limits are 70 - 130%.

\* Uncategorized compounds not included in gasoline hydrocarbon concentration.

\*\* Hydrocarbon pattern uncharacteristic of fresh gasoline.

Client Number: 020704233  
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 Livermore  
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**Table 1 (Continued)**

**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		13	14	15	16
Client Identification		RINSATE C-5	C-5	C-1	C-2
Date Sampled		04/22/93	04/22/93	04/22/93	04/22/93
Date Analyzed		05/05/93	05/05/93	05/05/93	05/05/93
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.5	<0.5	220	26	12
Toluene	0.5	<0.5	18	44	12
Ethylbenzene	0.5	<0.5	120	580	28
Xylene, total	0.5	<0.5	65	330	29
BTEX, total	—	—	420	980	81
TPH as Gasoline	50	<50	2300*	18000	2000
Detection Limit Multiplier		1	1	5	1
BFB surrogate, % recovery		101	140***	108	116

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 Control Board LUFT Manual protocols, May 1988 revision. Bromofluorobenzene surrogate recovery acceptability limits are 70 - 130%.

\* Uncategorized compounds not included in gasoline hydrocarbon concentration.

\*\*\*BFB recovery high due to interference of the target compounds at the BFB peak.

Client Number: 020704233  
 Facility Number: 9-1924  
 Project ID: 4904 Southfront Rd.  
 Livermore  
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**Table 1 (Continued)**

**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		17	18	19	20
Client Identification		C-17	C-7	C-9	C-14
Date Sampled		04/22/93	04/22/93	04/22/93	04/22/93
Date Analyzed		05/06/93	05/06/93	05/05/93	05/06/93
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.5	16	130	60	840
Toluene	0.5	68	18	40	2300
Ethylbenzene	0.5	44	43	68	130
Xylene, total	0.5	97	36	98	3500
BTEX, total	—	230	230	270	6800
TPH as Gasoline	50	8900	3800	7300	17000
Detection Limit Multiplier		1	1	1	10
BFB surrogate, % recovery		142***	139***	127	112

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 Control Board LUFT Manual protocols, May 1988 revision. Bromofluorobenzene surrogate recovery acceptability limits are 70 - 130%.

\*\*\*BFB recovery high due to interference of the target compounds at the BFB peak.

Client Number: 020704233  
 Facility Number: 9-1924  
 Project ID: 4904 Southfront Rd.  
 Livermore  
 Work Order Number: C3-04-0368

**Table 1 (Continued)**

**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		21	050593GCCQ		
Client Identification		C-6	METHOD BLANK		
Date Sampled		04/22/93	-		
Date Analyzed		05/06/93	05/05/93		
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.5	29	<0.5		
Toluene	0.5	170	<0.5		
Ethylbenzene	0.5	640	<0.5		
Xylene, total	0.5	2400	<0.5		
BTEX, total	-	3200	--		
TPH as Gasoline	50	20000	<50		
Detection Limit Multiplier		5	1		
BFB surrogate, % recovery		129	98.4		

- 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 Control Board LUFT Manual protocols, May 1988 revision. Bromofluorobenzene surrogate recovery acceptability limits are 70 - 130%.

Client Number: 020704233  
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### 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	Reagent Water	20.0	ug/L	98.5	94.5	4.1	70 - 147
Toluene	Reagent Water	20.0	ug/L	101	97.5	3.5	67 - 150
Ethylbenzene	Reagent Water	20.0	ug/L	95.5	92.0	3.7	69 - 145
Xyrene, total	Reagent Water	60.0	ug/L	97.8	94.2	3.8	71 - 152

