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OCT 22 1993

HAYWARD FIRE DEPARTMENT



Chevron

October 15, 1993

SCVWD Coordinator
Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite #500
Oakland, CA 94612

Chevron U.S.A. Products Company
2410 Camino Ramon
San Ramon, CA 94583
P.O. Box 5004
San Ramon, CA 94583-0804

Marketing Department
Phone 510 842 9500

Re: **Chevron Service Station #9-0260**
21995 Foothill Boulevard, Hayward, CA

Dear Coordinator:

Enclosed is the Groundwater Monitoring and Sampling Report dated July 30, 1993, prepared by our consultant Groundwater Technology, Inc. for the above referenced site. Currently, monitor wells MW-6, MW-9, MW-11, and MW-13 are sampled during the 1st and 3rd quarters and monitor wells MW-4, MW-5, MW-7, MW-8, and MW-12 are sampled during the 2nd and 4th quarters. Monitor well MW-10 is sampled during the first quarter only. Monitor wells MW-14, MW-15, MW-16, and MW-17 are sampled during all four quarters. Depth to water measurements are taken from all wells on a quarterly basis to maintain knowledge of ground water flow direction and gradient.

As indicated in the report, groundwater samples collected were analyzed for total petroleum hydrocarbons as gasoline (TPH-G) and BTEX. The levels of dissolved hydrocarbon constituents in the ground water samples collected were consistent with previous observations at the site. Separate-phase hydrocarbons (SPH) were detected in monitor wells MW-5, MW-7, and MW-8 at thicknesses of 0.04, 1.06, and 0.25 feet, respectively. Chevron will instruct its consultant to remove the SPH during all future monitoring events.

Depth to groundwater was measured at approximately 11.6 to 23 feet below grade and the direction of flow is to the southwest.

A vacuum-enhanced aquifer pumping test was recently performed at this site. Once the results of the test are compiled, we will evaluate the effectiveness of the existing ground water extraction system and the potential pumping rate of the wells. As of August 26, 1993, the extraction system has removed approximately 170,000 gallons of hydrocarbon impacted ground water.

Chevron will continue to monitor and sample all wells at this site in accordance with the schedule outlined above.

If you have any questions or comments, please do not hesitate to contact me at (510) 842-8134.

Sincerely,
CHEVRON U.S.A. PRODUCTS COMPANY


Mark A. Miller
Site Assessment and Remediation Engineer

Enclosure

cc: Mr. Rafat Shahid, Alameda County Health Care Services
Mr. Hugh Murphy, City of Hayward Fire Department
Mr. Kent O'Brien, Geraghty & Miller - Richmond, CA
Mr. S.A. Willer

File (9-0260 QM1)



GROUNDWATER TECHNOLOGY, INC.

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

FAX: (415) 685-9148

July 30, 1993

Mr. Mark Miller
Chevron U.S.A. Products Company, Inc.
2410 Camino Ramon
San Ramon, CA 94583-0804

SUBJECT: Groundwater Monitoring and Sampling Report
Chevron Service Station No. 9-0260
21995 Foothill Boulevard, Hayward, California

Dear Mr. Miller:

Groundwater Technology, Inc. presents the attached groundwater monitoring and sampling data collected on June 23, 1993. Twelve of the 14 groundwater monitoring wells at this site were gauged to measure depth to groundwater (DTW) and to check for the presence of separate-phase hydrocarbons. Groundwater monitoring wells MW-4 and MW-11 are pumping wells and were not accessible. Separate-phase hydrocarbons were detected in monitoring wells MW-5, MW-7, and MW-8 at thicknesses of 0.04, 1.06, and 0.25 feet, respectively. A potentiometric surface map (Figure 1) and a summary of groundwater monitoring data (Table 1) are presented in Attachments 1 and 2, respectively. After the DTW was measured, monitoring wells MW-12, MW-14, MW-15, MW-16, and MW-17 were purged and sampled. The wells that were not sampled will be sampled during the next quarter or on an annual basis. The groundwater samples were analyzed for benzene, toluene, ethylbenzene, xylenes and for total petroleum hydrocarbons-as-gasoline. Results of the chemical analyses are summarized in Table 2. The laboratory report and chain-of-custody record are included in Attachment 3. Monitoring-well purge water was removed by Groundwater Technology and transported to the Chevron Terminal in Richmond, California, for recycling.

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

Sincerely,
Groundwater Technology, Inc.
Written/Submitted by

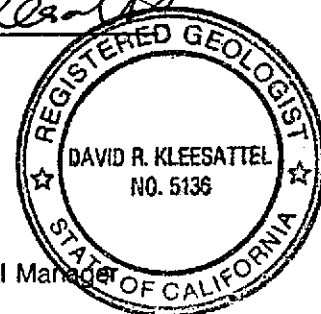

Tim Watchers
Project Geologist

PR _____

Attachment 1 Figure
Attachment 2 Table
Attachment 3 Laboratory Report

Groundwater Technology, Inc.
Reviewed/Approved by


David R. Kleesattel
Registered Geologist
No. 5136



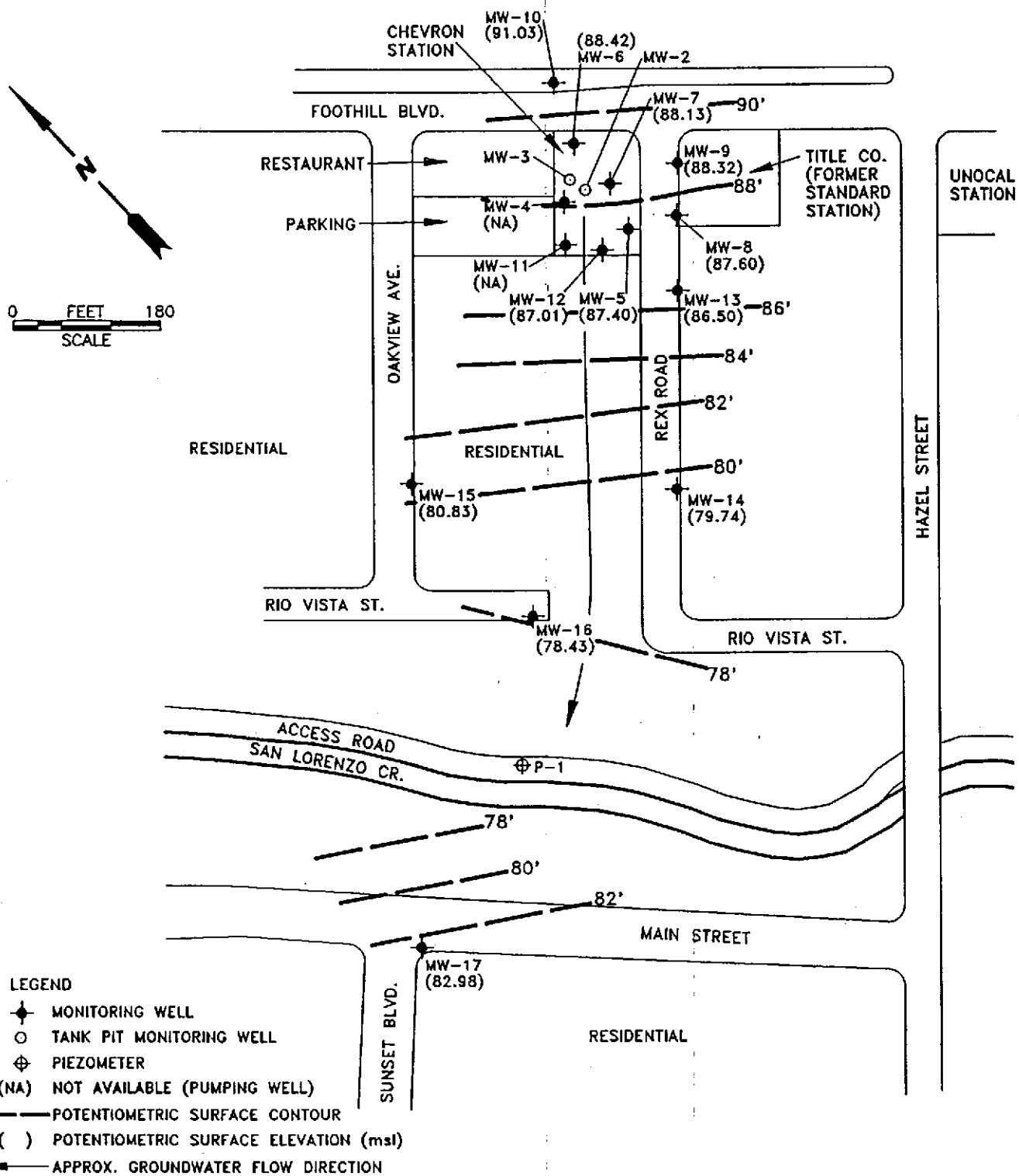
For:
John S. Gaines
Vice President, General Manager
West Region

4113R013.020

July 30, 1993

ATTACHMENT 1

Figure



GROUNDWATER TECHNOLOGY		4057 PORT CHICAGO HWY. CONCORD, CA 94520 (510) 671-2387		POTENTIOMETRIC SURFACE MAP (6/23/93)	
CLIENT: CHEVRON U.S.A. PRODUCTS CO. SERVICE STATION No. 9-0260		LOCATION: 21995 FOOTHILL BLVD. HAYWARD, CALIFORNIA		REV. NO.: 0	DATE: 7/28/93
PM <i>Law</i>	PE/RG DRK	DESIGNED TW	DETAILED ML	ACAD FILE: PSM62393/SP793	PROJECT NO.: 020204094
					FIGURE: 1

July 30, 1993

ATTACHMENT 2

Table

TABLE 1
GROUNDWATER ANALYTICAL RESULTS
Chevron Service Station No. 9-0260, 21995 Foothill Boulevard, Hayward, California

Well ID/ Elev	Date	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes	EDC	EDB	VOCs	DTW	SPT	GWE
MW-4	02/05/88	88,000	24,000	19,000	1,700	10,000	—	—	—	—	—	—
	06/15/88	95,000	45,000	30,000	2,100	17,000	—	—	—	12.92	—	87.83
100.75	09/27/88 ^a	500,000	41,000	27,000	<5,000	16,000	<5,000	<5,000	—	14.22	—	86.53
(2nd and	09/27/88 ^{ab}	88,000	1,200	4,100	1,600	12,000	270	230	—	—	—	—
4th	01/05/89	64,000	41,000	29,000	2,700	14,000	—	—	—	13.20	—	87.55
quarters)	04/06/89	—	—	—	—	—	—	—	—	12.32	—	88.43
	06/28/89	110,000	34,000	24,000	2,400	13,000	—	—	—	14.25	—	86.50
	10/03/89	240,000	36,000	31,000	3,200	19,000	—	—	—	14.75	—	86.00
	01/04/90	130,000	33,000	28,000	2,400	14,000	—	—	—	14.75	—	86.00
	04/03/90	110,000	41,000	32,000	2,900	17,000	—	—	—	13.81	—	86.94
	07/03/90	180,000	32,000	30,000	2,600	15,000	—	—	—	14.06	—	86.69
	11/06/90	170,000	31,000	30,000	2,700	17,000	—	—	—	15.66	—	85.09
	01/04/91	—	—	—	—	—	—	—	—	15.18	—	85.57
	04/03/91	130,000	21,000	24,000	2,300	14,000	—	—	—	11.00	—	89.75
	07/02/91	—	—	—	—	—	—	—	—	14.25	—	86.50
	10/02/91	240,000	27,000	33,000	2,600	16,000	—	—	—	16.16	—	84.59
	01/02/92	—	—	—	—	—	—	—	—	15.26	—	85.49
	04/07/92	—	—	—	—	—	—	—	—	12.38	—	88.37
	08/13/92	—	—	—	—	—	—	—	—	16.68	—	84.05
100.73	12/03/92	1,300,000	17,000	41,000	12,000	90,000	—	—	—	16.17	—	84.58
	03/25/93	—	—	—	—	—	—	—	—	10.50	—	90.2
	06/23/93	—	—	—	—	—	—	—	—	—	—	—

TABLE 1
GROUNDWATER ANALYTICAL RESULTS
Chevron Service Station No. 9-0260, 21995 Foothill Boulevard, Hayward, California

Well ID/ Elev	Date	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes	EDC	EDB	VOCs	DTW	SPT	GWE
MW-5	02/05/88	80,000	16,000	15,000	2,600	17,000	—	—	—	—	—	—
	06/15/88	77,000	42,000	38,000	2,500	16,000	—	—	—	12.30	—	87.6
99.97	09/27/88 ^a	470,000	39,000	32,000	<5,000	16,000	<5,000	<5,000	—	13.25	—	86.72
(2nd and	09/27/88 ^{ab}	48,000	1,800	3,500	1,600	10,000	410	420	—	—	—	—
4th	01/05/89	82,000	44,000	37,000	2,400	14,000	—	—	—	12.70	—	87.27
quarters)	04/06/89	—	—	—	—	—	—	—	—	12.22	—	87.75
	06/28/89	80,000	36,000	24,000	2,400	13,000	—	—	—	13.81	—	86.16
	10/03/89	240,000	40,000	35,000	2,600	15,000	—	—	—	14.27	—	85.70
	01/04/90	130,000	37,000	31,000	2,400	13,000	—	—	—	14.31	—	85.66
	04/03/90	120,000	41,000	33,000	2,500	14,000	—	—	—	13.50	—	86.47
	07/03/90	200,000	28,000	25,000	1,800	10,000	—	—	—	13.64	—	86.33
	11/06/90	370,000	38,000	36,000	4,700	31,000	—	—	—	15.14	—	84.83
	01/04/91	—	—	—	—	—	—	—	—	14.90	0.01	85.08
	04/03/91	140,000	36,000	32,000	2,700	17,000	—	—	—	11.56	—	88.41
	07/02/91	—	—	—	—	—	—	—	—	13.89	—	86.08
	10/02/91	230,000	34,000	31,000	2,700	16,000	—	—	—	15.26	—	84.71
	01/02/92	—	—	—	—	—	—	—	—	14.97	—	85.00
	04/07/92	220,000	35,000	30,000	2,500	14,000	—	—	—	13.44	—	86.53
	08/13/92	—	—	—	—	—	—	—	—	15.61	—	84.36
	12/03/92	—	—	—	—	—	—	—	—	16.29	<0.02 ^c	83.68
	03/25/93	—	—	—	—	—	—	—	—	10.97	—	89.00
	06/23/93	—	—	—	—	—	—	—	—	12.60	0.04	87.40



TABLE 1
GROUNDWATER ANALYTICAL RESULTS
Chevron Service Station No. 9-0260, 21995 Foothill Boulevard, Hayward, California

Well ID/ Elev	Date	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes	EDC	EDB	VOCs	DTW	SPT	GWE
MW-6	02/05/88	53,000	5,100	4,400	2,100	14,000	—	—	—		—	
	06/15/88	33,000	9,200	5,500	520	20,000	—	—	—	13.51	—	87.9
101.43	09/27/88 ^a	17,000	2,200	2,800	1,700	5,100	130	<10	—	14.56	—	86.87
(1st and	01/05/89	37,000	5,000	3,400	2,200	10,000	—	—	—	13.48	—	87.95
3rd	04/06/89	—	—	—	—	—	—	—	—	12.60	—	88.83
quarters)	06/28/89	80,000	7,000	4,100	2,000	9,700	—	—	—	14.58	—	86.85
	10/03/89	110,000	8,500	5,100	2,600	14,000	—	—	—	13.03	—	88.40
	01/04/90	59,000	5,200	2,600	2,000	11,000	—	—	—	15.08	—	86.35
	04/03/90	31,000	6,600	2,600	2,200	12,000	—	—	—	14.06	—	87.37
	07/03/90	66,000	5,800	2,900	2,000	9,800	—	—	—	14.28	—	87.15
	11/06/90	—	—	—	—	—	—	—	—	16.10	—	85.33
	01/04/91	50,000	5,600	2,200	1,800	9,400	—	—	—	15.52	—	85.91
	04/03/91	—	—	—	—	—	—	—	—	11.03	—	90.40
	07/02/91	81,000	11,000	2,700	2,100	13,000	—	—	—	14.44	—	86.99
	10/02/91	—	—	—	—	—	—	—	—	16.22	—	85.21
	01/02/92	67,000	7,500	1,900	1,800	9,500	—	—	—	15.71	—	85.72
	04/07/92	—	—	—	—	—	—	—	—	13.47	—	87.96
	08/13/92	—	—	—	—	—	—	—	—	15.97	—	85.46
	12/03/92	—	—	—	—	—	—	—	—	16.62	—	<84.81
	03/25/93	110,000	12,000	2,900	4,200	14,000	—	—	—	10.58	—	90.85
	06/23/93	—	—	—	—	—	—	—	—	13.01	0.00	88.42



TABLE 1
GROUNDWATER ANALYTICAL RESULTS
Chevron Service Station No. 9-0260, 21995 Foothill Boulevard, Hayward, California

Well ID/ Elev	Date	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes	EDC	EDB	VOCs	DTW	SPT	GWE
MW-7 100.91 (2nd and 4th quarters)	02/05/88	81,000	34,000	36,000	2,400	16,000	—	—	—	—	—	—
	06/15/88	77,000	40,000	41,000	1,400	24,000	—	—	—	12.57	—	88.3
	09/27/88 ^a	30,000	9,700	8,900	400	4,100	2,600	<10	—	13.60	—	87.31
	01/05/89	96,000	36,000	38,000	2,800	16,000	—	—	—	12.98	—	87.93
	04/06/89	—	—	—	—	—	—	—	—	12.34	—	88.57
	06/28/89	110,000	31,000	30,000	2,600	16,000	—	—	—	14.08	—	86.83
	10/03/89	230,000	34,000	34,000	2,400	15,000	—	—	—	14.53	—	86.38
	01/04/90	150,000	41,000	40,000	2,400	15,000	—	—	—	14.49	—	86.42
	04/03/90	100,000	31,000	28,000	2,100	16,000	—	—	—	13.66	—	87.25
	07/03/90	190,000	30,000	27,000	1,800	13,000	—	—	—	13.86	—	87.05
	11/06/90	160,000	27,000	25,000	1,900	15,000	—	—	—	15.58	—	85.33
	01/04/91	—	—	—	—	—	—	—	—	15.25	—	85.66
	04/03/91	240,000	40,000	36,000	2,400	18,000	—	—	—	11.41	—	89.50
	07/02/91	—	—	—	—	—	—	—	—	14.18	—	86.73
	10/02/91	220,000	26,000	27,000	2,500	18,000	—	—	—	15.78	—	85.13
	01/02/92	—	—	—	—	—	—	—	—	15.45	—	85.46
	04/07/92	260,000	27,000	26,000	2,400	15,000	—	—	—	13.48	—	87.43
	08/13/92	—	—	—	—	—	—	—	—	15.89	—	85.02
	12/03/92	330,000	29,000	31,000	3,300	18,000	—	—	—	16.43	—	84.48
	03/25/93	—	—	—	—	—	—	—	—	11.10	—	89.81
	06/23/93	—	—	—	—	—	—	—	—	13.63	1.06	88.13

TABLE 1
GROUNDWATER ANALYTICAL RESULTS
Chevron Service Station No. 9-0260, 21995 Foothill Boulevard, Hayward, California

Well ID/ Elev	Date	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes	EDC	EDB	VOCs	DTW	SPT	GWE
MW-8 99.67 (2nd and 4th quarters)	10/27/88	190,000	27,000	43,000	2,200	15,000	<500	<500	—	—	—	—
	01/05/89	87,000	24,000	39,000	3,000	15,000	—	—	—	12.02	—	87.6
	04/06/89	—	—	—	—	—	—	—	—	11.78	—	87.89
	06/28/89	120,000	22,000	35,000	2,900	16,000	—	—	—	13.40	—	86.27
	10/03/89	—	—	—	—	—	—	—	—	13.84	0.11	85.92
	01/04/90	—	—	—	—	—	—	—	—	13.99	0.10	85.76
	04/03/90	—	—	—	—	—	—	—	—	13.07	0.30	86.84
	07/03/90	—	—	—	—	—	—	—	—	13.11	0.04	86.59
	11/06/90	—	—	—	—	—	—	—	—	14.77	0.15	85.02
	01/04/91	—	—	—	—	—	—	—	—	14.59	0.18	85.22
	04/03/91	—	—	—	—	—	—	—	—	11.53	0.05	88.18
	07/02/91	—	—	—	—	—	—	—	—	13.71	0.48	86.34
	10/02/91	—	—	—	—	—	—	—	—	14.84	0.27	85.05
	01/02/92	—	—	—	—	—	—	—	—	15.05	0.30	84.86
	04/07/92	—	—	—	—	—	—	—	—	12.17	0.29	87.73
	08/13/92	—	—	—	—	—	—	—	—	14.96	0.31	84.96
	12/03/92	—	—	—	—	—	—	—	—	15.85	0.78	84.44
	03/25/93	—	—	—	—	—	—	—	—	10.78	—	88.89
	06/23/93	—	—	—	—	—	—	—	—	12.27	0.25	87.60



TABLE 1
GROUNDWATER ANALYTICAL RESULTS
Chevron Service Station No. 9-0260, 21995 Foothill Boulevard, Hayward, California

Well ID/ Elev	Date	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes	EDC	EDB	VOCs	DTW	SPT	GWE
MW-9	10/27/88	50,000	2,000	9,900	2,000	14,000	<500	<500	—	—	—	—
	01/05/89	55,000	670	8,900	3,400	16,000	—	—	—	12.63	—	88.5
101.15	04/06/89	—	—	—	—	—	—	—	—	12.46	—	88.69
(1st and 3rd quarters)	06/28/89	100,000	510	4,500	2,600	13,000	—	—	—	14.04	—	87.11
	10/03/89	130,000	540	8,000	3,200	17,000	—	—	—	14.61	—	86.54
	01/04/90	83,000	600	4,600	2,600	14,000	—	—	—	14.59	—	86.56
	04/03/90	52,000	1,600	5,400	3,100	16,000	—	—	—	13.75	—	87.40
	07/03/90	100,000	520	5,400	3,200	16,000	—	—	—	13.84	—	87.31
	11/06/90	—	—	—	—	—	—	—	—	15.42	—	85.73
	01/04/91	59,000	1,100	5,600	2,500	13,000	—	—	—	15.37	—	85.78
	04/03/91	—	—	—	—	—	—	—	—	12.27	—	88.88
	07/02/91	130,000	1,900	7,600	3,600	20,000	—	—	—	14.17	—	86.98
	10/02/91	—	—	—	—	—	—	—	—	15.68	—	85.47
	01/02/92	100,000	3,300	8,200	2,800	14,000	—	—	—	15.65	—	85.50
	04/07/92	—	—	—	—	—	—	—	—	13.84	—	87.31
	08/13/92	45,000	1,300	3,000	1,500	7,100	—	—	—	15.50	—	85.65
	12/03/92	—	—	—	—	—	—	—	—	16.66	—	84.49
	03/25/93	220,000	540	3,200	2,100	18,000	—	—	—	11.48	—	89.67
	06/23/93	—	—	—	—	—	—	—	—	12.83	—	88.32



TABLE 1
GROUNDWATER ANALYTICAL RESULTS
Chevron Service Station No. 9-0260, 21995 Foothill Boulevard, Hayward, California

Well ID/ Elev	Date	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes	EDC	EDB	VOCs	DTW	SPT	GWE
MW-10	10/27/88 ^a	<500	26	13	<5	<5	<5	<5	—	—	—	—
	01/05/89	<1,000	<0.3	<0.3	<0.3	<0.3	—	—	—	12.64	—	89.72
102.36	04/06/89	—	—	—	—	—	—	—	—	11.38	—	90.98
(1st	06/28/89	<500	<0.5	<0.5	<0.5	<0.5	—	—	—	13.64	—	88.72
quarter)	10/03/89	<500	<0.5	<0.5	<0.5	<0.5	—	—	—	13.85	—	88.51
	01/04/90	<50	0.5	1.1	<0.5	1.7	—	—	—	13.75	—	88.61
	04/03/90	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	12.86	—	89.50
	07/03/90	—	—	—	—	—	—	—	—	13.43	—	88.93
	11/06/90	—	—	—	—	—	—	—	—	14.82	—	87.54
	01/04/91	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	13.98	—	88.38
	04/03/91	—	—	—	—	—	—	—	—	9.79	—	92.57
	07/02/91	—	—	—	—	—	—	—	—	12.28	—	90.08
	10/02/91	—	—	—	—	—	—	—	—	14.53	—	87.83
	01/02/92	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	13.60	—	88.76
	04/07/92	—	—	—	—	—	—	—	—	11.83	—	90.53
	08/13/92	—	—	—	—	—	—	—	—	13.95	—	88.41
	12/03/92	—	—	—	—	—	—	—	—	13.96	—	88.40
	03/25/93	<50	<0.5	<0.5	<0.5	<1.5	—	—	—	8.45	—	93.91
	06/23/93	—	—	—	—	—	—	—	—	11.60	0.00	91.03

TABLE 1
GROUNDWATER ANALYTICAL RESULTS
Chevron Service Station No. 9-0260, 21995 Foothill Boulevard, Hayward, California

Well ID/ Elev	Date	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes	EDC	EDB	VOCs	DTW	SPT	GWE
MW-11 99.97 (1st and 3rd quarters)	06/28/89	60,000	36,000	13,000	2,500	12,000	—	—	d	14.33	—	85.64
	10/03/89	14,000	4,200	1,400	240	1,300	—	—	—	14.61	—	85.3
	01/04/90	82,000	33,000	11,000	2,000	10,000	—	—	—	14.55	—	85.42
	04/03/90	78,000	35,000	12,000	2,300	12,000	—	—	—	13.82	—	86.15
	07/03/90	140,000	32,000	12,000	2,100	10,000	—	—	—	14.00	—	85.97
	11/06/90	—	—	—	—	—	—	—	—	15.56	—	84.41
	01/04/91	—	—	—	—	—	—	—	—	14.88	0.30	—
	04/03/91	340,000	29,000	14,000	3,700	24,000	—	—	—	10.75	0.21	—
	07/02/91	130,000	27,000	14,000	2,200	12,000	—	—	—	13.97	0.02	—
	10/02/91	—	—	—	—	—	—	—	—	15.60	—	—
	01/02/92	77,000	18,000	14,000	1,900	10,000	—	—	—	14.51	—	85.46
	04/07/92	—	—	—	—	—	—	—	—	13.13	—	86.84
	08/13/92	—	—	—	—	—	—	—	—	17.04	—	82.53
	12/03/92	—	—	—	—	—	—	—	—	15.59	—	83.98
	03/25/93	110,000	13,000	2,100	5,900	9,800	—	—	—	10.06	—	89.51
	06/23/93	—	—	—	—	—	—	—	—	—	—	—
MW-12 99.64 (2nd and 4th quarters)	06/28/89	55,000	30,000	21,000	2,900	19,000	—	—	d	14.10	—	85.54
	10/03/89	170,000	30,000	23,000	2,700	15,000	—	—	—	14.30	—	85.34
	01/04/90	110,000	24,000	19,000	2,300	12,000	—	—	—	14.35	—	85.29
	04/03/90	89,000	41,000	28,000	3,300	17,000	—	—	—	13.59	—	86.05
	07/03/90	170,000	27,000	20,000	2,200	12,000	—	—	—	13.77	—	85.87
	11/06/90	110,000	28,000	21,000	2,400	14,000	—	—	—	15.19	0.06	84.45
	01/04/91	—	—	—	—	—	—	—	—	14.52	—	—
	04/03/91	—	—	—	—	—	—	—	—	10.91	—	—
	04/09/91	170,000	39,000	17,000	2,400	14,000	—	—	—	—	—	—
	07/02/91	—	—	—	—	—	—	—	—	13.51	—	—
	10/02/91	170,000	27,000	15,000	2,600	17,000	—	—	—	14.93	—	—
	01/02/92	—	—	—	—	—	—	—	—	14.45	—	85.19
	04/07/92	—	—	—	—	—	—	—	—	13.05	—	86.59
	08/13/92	—	—	—	—	—	—	—	—	17.39	—	81.83
	12/03/92	2,400,000	19,000	21,000	14,000	110,000	—	—	—	15.34	—	83.88
	03/25/93	—	—	—	—	—	—	—	—	10.37	—	88.85
	06/23/93	110,000	30,000	19,000	2,000	12,000	—	—	—	12.21	0.00	87.01

TABLE 1
GROUNDWATER ANALYTICAL RESULTS
Chevron Service Station No. 9-0260, 21995 Foothill Boulevard, Hayward, California

Well ID/ Elev	Date	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes	EDC	EDB	VOCs	DTW	SPT	GWE
MW-13 98.47 (1st and 3rd quarters)	06/28/89	54,000	12,000	10,000	1,900	15,000	—	—	d	13.22	—	85.25
	10/03/89	120,000	10,000	10,000	2,300	15,000	—	—	—	13.54	—	84.92
	01/04/90	87,000	6,800	10,000	2,000	12,000	—	—	—	13.64	—	84.85
	04/03/90	53,000	12,000	14,000	2,900	17,000	—	—	—	12.95	—	85.52
	07/03/90	90,000	8,400	11,000	2,000	11,000	—	—	—	13.05	—	85.42
	11/06/90	—	—	—	—	—	—	—	—	14.12	—	84.35
	01/04/91	72,000	5,500	12,000	2,300	12,000	—	—	—	14.05	—	84.42
	04/03/91	—	—	—	—	—	—	—	—	11.41	—	87.06
	07/02/91	120,000	12,000	13,000	2,500	14,000	—	—	—	13.17	—	85.30
	10/02/91	—	—	—	—	—	—	—	—	14.24	—	84.23
	01/02/92	—	—	—	—	—	—	—	—	14.13	0.03	84.34
	04/07/92	—	—	—	—	—	—	—	—	13.06	—	85.41
	08/13/92	84,000	7,400	11,000	2,600	13,000	—	—	—	14.26	—	84.21
	12/03/92	—	—	—	—	—	—	—	—	14.82	—	83.65
	03/25/93	97,000	5,200	2,500	7,200	12,000	—	—	—	10.73	—	87.74
	06/23/93	—	—	—	—	—	—	—	—	11.97	0.00	86.50
MW-14 99.68 (All quarters)	08/29/90	970	4	2	0.7	2	1	—	e	21.39	—	78.29
	11/06/90	920	10	10	4	9	—	—	—	21.62	—	78.06
	01/04/91	1,000	<0.5	4.0	2.6	4.2	—	—	—	21.69	—	77.99
	04/03/91	1,200	380	6	7	18	—	—	—	19.53	—	80.15
	07/02/91	460	27	1.0	1.2	1.0	—	—	—	20.93	—	78.75
	10/02/91	480	6.7	0.8	1.4	1.8	—	—	—	21.52	—	78.16
	01/02/92	1,100	2.4	1.5	6.2	18	—	—	—	21.43	—	78.25
	04/07/92	290	<0.5	1.4	<0.5	1.2	—	—	—	21.36	—	78.32
	08/13/92	370	10	1.2	<0.5	0.9	—	—	—	21.07	—	78.61
	12/03/92	230	1.3	<0.5	<0.5	<0.5	—	—	—	21.67	—	78.01
	03/25/93	390	57	2.1	1.3	1.7	—	—	—	19.03	—	80.65
	06/23/93	4,400	460	220	16	62	—	—	—	19.94	0.00	79.74

TABLE 1
GROUNDWATER ANALYTICAL RESULTS
Chevron Service Station No. 9-0260, 21995 Foothill Boulevard, Hayward, California

Well ID/ Elev	Date	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes	EDC	EDB	VOCs	DTW	SPT	GWE
MW-15 96.06 (All quarters)	08/29/90	2,000	26	2	72	110	<0.5	—	†	16.58	—	79.48
	11/06/90	1,300	40	5	45	63	—	—	—	17.43	—	78.6
	01/04/91	1,700	46	2.8	58	86	—	—	—	16.37	—	79.69
	04/03/91	2,100	74	0.8	44	85	—	—	—	12.46	—	83.60
	07/02/91	1,700	39	<0.5	35	46	—	—	—	16.53	—	79.53
	10/02/91	1,100	50	<0.5	40	33	—	—	—	17.33	—	78.73
	01/02/92	1,300	51	<0.5	30	30	—	—	—	16.46	—	79.60
	04/07/92	2,600	98	<5	64	36	—	—	—	14.70	—	81.36
	08/13/92	510	55	<0.5	35	2.8	—	—	—	16.72	—	79.34
	12/03/92	1,000	64	0.9	22	4.4	—	—	—	17.43	—	78.63
	03/25/93	1,300	86	52	0.7	7.7	—	—	—	13.33	—	82.73
	06/23/93	7,300	34	<0.5	85	160	—	—	—	15.23	0.00	80.83
MW-16 98.15 (All quarters)	08/29/90	11,000	6,000	51	1,100	20	<0.5	—	†	20.89	—	77.26
	11/06/90	15,000	6,300	340	1,300	540	—	—	—	21.27	—	76.88
	01/04/91	16,000	6,800	820	1,300	1,500	—	—	—	21.63	—	76.52
	04/03/91	45,000	7,300	2,200	1,800	4,900	—	—	—	19.32	—	78.83
	07/02/91	30,000	6,400	530	1,500	1,800	—	—	—	20.68	—	77.47
	10/02/91	24,000	4,600	450	1,400	1,600	—	—	—	21.18	—	76.97
	01/02/92	20,000	4,700	240	1,200	1,100	—	—	—	21.30	—	76.85
	04/07/92	40,000	5,000	980	1,100	2,100	—	—	—	20.19	—	77.96
	08/13/92	17,000	4,500	240	860	530	—	—	—	20.77	—	77.38
	12/03/92	39,000	4,600	410	1,100	2,200	—	—	—	21.44	—	76.7
	03/25/93	39,000	5,500	1,400	690	2,000	—	—	—	18.83	—	79.32
	06/23/93	29,000	6,600	1,200	1,400	3,700	—	—	—	19.72	0.00	78.43
MW-17 106.00 (All quarters)	08/13/92	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	23.30	—	82.70
	12/03/92	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	24.74	—	81.26
	03/25/93	<50	<0.5	<0.5	<0.5	<1.5	—	—	—	22.14	—	83.86
	06/23/93	<50	<0.5	<0.5	<0.5	1	—	—	—	23.02	0.00	82.98
P-1 86.43	08/13/92	—	—	—	—	—	—	—	—	10.02	—	76.41
	12/03/92	—	—	—	—	—	—	—	—	10.80	—	75.63
	03/25/93	—	—	—	—	—	—	—	—	8.95	—	77.48
	06/23/93	—	—	—	—	—	—	—	—	—	—	—

TABLE 1
GROUNDWATER ANALYTICAL RESULTS
Chevron Service Station No. 9-0260, 21995 Foothill Boulevard, Hayward, California

Well ID/ Elev	Date	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes	EDC	EDB	VOCs	DTW	SPT	GWE
Bailer Blank	01/05/89	<1,000	<0.3	<0.3	<0.3	<0.3	—	—	—	—	—	—
Trip Blank	01/05/89	<1,000	<0.3	<0.3	<0.3	<0.3	—	—	—	—	—	—
	10/03/89	<500	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—
	01/04/90	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—
	04/03/90	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—
	07/03/90	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—
	11/06/90	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—
	01/04/91	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—
	04/03/91	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—
	07/02/91	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—
	10/02/91	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—
	01/02/92	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—
	04/07/92	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—
	08/13/92	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—
	12/03/92	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—
	03/25/93	<50	<0.5	<0.5	<0.5	<1.5	—	—	—	—	—	—
	06/23/93	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—

- a = Samples analyzed by Fuel Fingerprint Analysis. EPA Method 524.2/8240 for total fuel and aromatic volatile hydrocarbons.
b = Sample was analyzed a second time after the holding time expired to confirm the high TPH-G concentration reported in the original analysis.
c = Estimated thickness
d = Not detected at detection limits ranging from 500 ppb to 2,000 ppb
e = Not detected at detection limits ranging from 0.5 ppb to 4.0 ppb
f = Chloroform detected. Detection limits ranging from 25 ppb to 500 ppb

TPH-G	=	Total petroleum hydrocarbons-as-gasoline	EDC	=	1,2-Dichloroethane
EDB	=	Ethylene dibromide	VOCs	=	Volatile Organic Compounds
DTW	=	Depth to water	SPT	=	Separate-phase hydrocarbon thickness
GWE	=	Groundwater elevation in feet above mean sea level	—	=	Not applicable, not sampled, not measured

Elevations are given as feet above mean sea level.

Concentrations shown in parts per billion.

Data from February 5, 1988, to December 3, 1992, taken from Weiss Associates report dated January 22, 1993.

July 30, 1993

ATTACHMENT 3

Laboratory Report



Northwest Region
4080-C Pike Lane
Concord, CA 94520
(510) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*
(510) 825-0720 (FAX)

Client Number: 020204113
Consultant Project Number: 020204113
Facility Number: 9-0260
Project ID: 21995 Foothill Blvd.
Work Order Number: C3-06-0432

July 8, 1993

Nicole Merchant
Groundwater Technology, Inc.
4057 Port Chicago Highway
Concord, CA 94520

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 06/23/93.

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: 020204113
 Consultant Project Number: 020204113
 Facility Number: 9-0260
 Project ID: 21995 Foothill Blvd.
 Work Order Number: C3-06-0432

Table 1

ANALYTICAL RESULTS

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

EPA Methods 5030, 8020, and Modified 8015^a

GTEL Sample Number		01	03	05	07
Client Identification		TB-LB	MW17	MW14	MW15
Date Sampled		06/23/93	06/23/93	06/23/93	06/23/93
Date Analyzed		07/03/93	07/05/93	07/03/93	07/03/93
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.5	<0.5	<0.5	460	34
Toluene	0.5	<0.5	<0.5	220	<0.5
Ethylbenzene	0.5	<0.5	<0.5	16	85
Xylene, total	0.5	<0.5	1	62	160
BTEX, total	—	—	1	760	280
TPH as Gasoline	50	<50	<50	4400	7300
Detection Limit Multiplier		1	1	5	1
BFB surrogate, % recovery		95.8	78.3	97.8	95.6

- 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: 020204113
 Consultant Project Number: 020204113
 Facility Number: 9-0260
 Project ID: 21995 Foothill Blvd.
 Work Order Number: C3-06-0432

Table 1 (Continued)

ANALYTICAL RESULTS

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

EPA Methods 5030, 8020, and Modified 8015^a

GTEL Sample Number		09	11	E070393	
Client Identification		MW16	MW12	METHOD BLANK	
Date Sampled		06/23/93	06/23/93	--	
Date Analyzed		07/05/93	07/03/93	07/03/93	
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.5	6600	30000	<0.5	
Toluene	0.5	1200	19000	<0.5	
Ethylbenzene	0.5	1400	2000	<0.5	
Xylene, total	0.5	3700	12000	<0.5	
BTEX, total	--	13000	63000	--	
TPH as Gasoline	50	29000	110000	<50	
Detection Limit Multiplier		50	50	1	
BFB surrogate, % recovery		108	104	100	

- 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: 020204113
Consultant Project Number: 020204113
Facility Number: 9-0260
Project ID: 21995 Foothill Blvd.
Work Order Number: C3-06-0432

QC Matrix Spike and Duplicate Spike Results

Matrix: Water

Analyte	Sample ID	Spike Amount	Units	Recovery, %	Duplicate Recovery, %	RPD, %	Control Limits
Modified EPA 8020:							
Benzene	C3060423-3	20.0	ug/L	115	89.5	24.9	55 - 129
Toluene	C3060423-3	20.0	ug/L	108	85.5	23.3	72 - 149
Ethylbenzene	C3060423-3	20.0	ug/L	112	84.5	27.9	75 - 138
Xylene, total	C3060423-3	60.0	ug/L	114	87.8	27.0	74 - 147

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

Chevron Facility Number 9-0260
Facility Address 21995 Foothill Blvd
Consultant Project Number 020204113
Consultant Name Groundwater Technology, Inc.
Address 4057 Port Chicago Hwy, Concord, CA 94520
Project Contact (Name) Nicole Merchant
(Phone) 671-2387 (Fax Number) 685-9148

Chevron Contact (Name) Jeff Zindall
(Phone) _____
Laboratory Name GTEL
Laboratory Release Number 882-9260
Samples Collected by (Name) Greg MASON
Collection Date 6/23-93
Signature [Signature]

Do not
Bill
TB-LB
Page 1 of 2
Remarks

Iced
Temp. 6°C
seal intact
6/23/93
KB

C3060432

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Cholesterol	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed											
								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)	HOLD			
TB-LB	01	1	W	D	2:30	HCl	Y	X								X			
RB MW17	02	1																	
MW17	03	2			2:30			X								X			
RB MW14	04	1														X			
MW14	05	2			2:40			X								X			
RB MW15	06	1																	
MW15	07	2			2:50			X								X			
RB MW16	08	1														X			
MW16	09	2			3:00			X								X			
RB MW8																X			
MW8								X								X			
RB MW5																X			
MW5								X											

Relinquished By (Signature) <u>[Signature]</u>	Organization <u>GTEL</u>	Date/Time <u>6/</u>	Received By (Signature)	Organization	Date/Time	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days 10 Days <u>As Contracted</u>
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature) <u>[Signature]</u>		Date/Time <u>6/23/93</u>	

3:35

Copy of Lab Report and COC to Chevron Contact: ☐ 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 9-0260
Facility Address 21995 Foothill Blvd
Consultant Project Number 020204113
Consultant Name Groundwater Technology, Inc.
Address 4057 Port Chicago Hwy, Concord, CA 94520
Project Contact (Name) Nicole Merchant
(Phone) 671-2387 (Fax Number) 685-9148

Chevron Contact (Name) Jeff Zindall
(Phone) _____
Laboratory Name GTEL
Laboratory Release Number 882-9260
Samples Collected by (Name) Greg MASON
Collection Date 6/23-93
Signature [Signature]

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analytes 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 (CAP or AA)	Hold			
RBMW7			W	D												X			
MW7			W					X											
RBMW4			W													X			
MW4			W					X											
RBMW12	10	1	W	D		HCl										X			
MW12	11	2	W		3:10	HCl		X											

Page
2 of 2
Remarks

C3060432

Relinquished By (Signature) <u>[Signature]</u>	Organization <u>GTEL</u>	Date/Time <u>6/23/93</u>	Received By (Signature) <u>[Signature]</u>	Organization <u>[Blank]</u>	Date/Time <u>[Blank]</u>	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days 10 Days <u>As Contracted</u>
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature) <u>[Signature]</u>	Date/Time <u>6/23/93</u>	<u>3:35</u>	

COC-3306/03 01/10/01