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Chevron

November 4, 1993

Chevron U.S.A. Products Company
2410 Camino Ramon
San Ramon, CA 94583

Marketing Department
Phone 510 842 9500

Site Assessment & Remediation

Ms. Jennifer Eberle
Alameda County Health Care Services
Department of Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621

**Re: Chevron Service Station #9-4587
609 Oak Street, Oakland, CA**

Dear Ms. Eberle:

Enclosed is the Groundwater Monitoring and Sampling Activities report dated October 7, 1993, prepared by our consultant Groundwater Technology, Inc. for the above referenced site. As indicated in the report, ground water samples collected were analyzed for total petroleum hydrocarbons as gasoline and BTEX. Benzene was detected in monitor well C-2 at a concentration of 690 ppb. Separate-phase hydrocarbons were detected in monitor well C-1 and tank pit backfill wells C-B and C-C at measured thicknesses of 0.02 feet, 0.52 feet, and a sheen, respectively. Depth to ground water was measured at approximately 8.9 to 10.1 feet below grade and the direction of flow is to the southeast.

Currently the ground water extraction system has been installed and a notice has been issued to the East Bay Municipal Utilities District that the system will begin operation on November 5, 1993.

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

A handwritten signature in cursive script, appearing to read "Mark A. Miller".

Mark A. Miller
Site Assessment and Remediation Engineer

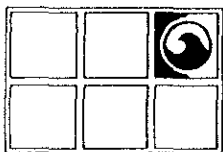
Enclosure

cc: Mr. Rich Hiatt, RWQCB - Bay Area
Mr. Kent O'Brien, Geraghty & Miller - Richmond
Ms. B.C. Owen
File (9-4587 QM3)

Mr. Dewey Barjockey
The Paris Company
8520 Pardee
Oakland, CA 94621

Mr. James Kimberlin
1100 Howe Avenue #415
Sacramento, CA 94825

Mr. William Kimberlin
51 Eureka Street
Kensington, CA 94707



GROUNDWATER TECHNOLOGY, INC.

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

FAX: (415) 685-9148

October 7, 1993

Project No. 020204111

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

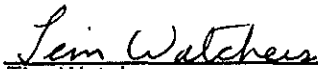
SUBJECT: *Groundwater Monitoring and Sampling Activities*
Chevron Service Station No. 9-4587
609 Oak Street, Oakland, California

Dear Mr. Miller:

Groundwater Technology, Inc. presents the attached quarterly groundwater monitoring and sampling data collected on September 8 and September 17, 1993. Nine of the 11 groundwater monitoring wells at this site were gauged to measure depth to groundwater (DTW) and to check for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were detected in monitoring wells C-1, C-B, and C-C at a thickness of 0.02, 0.52, and a sheen, respectively. Monitoring well CR-1 is a pumping well and was not monitored or sampled. Monitoring well C-A was monitored but inadvertently was not sampled. 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, each monitoring well, except monitoring wells CR-1, C-1, C-A, C-B, and C-C, was purged and sampled. The groundwater samples were analyzed for benzene, toluene, ethylbenzene, and xylenes, and for total petroleum hydrocarbons-as-gasoline. Results of the chemical analyses are summarized in Table 1. The laboratory report and chain-of-custody record are included in Attachment 3. The results of a monthly product bailing program for monitoring wells CR-1, C-1, C-C, and C-B are presented in Table 2. Monitoring-well purge water was transported by Groundwater Technology 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

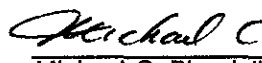


Tim Watchers
Project Geologist

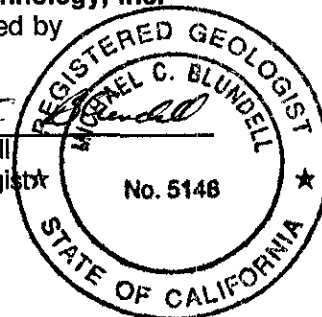
PR _____

Attachment 1 Figure
Attachment 2 Table
Attachment 3 Laboratory Report

Groundwater Technology, Inc.
Reviewed/Approved by



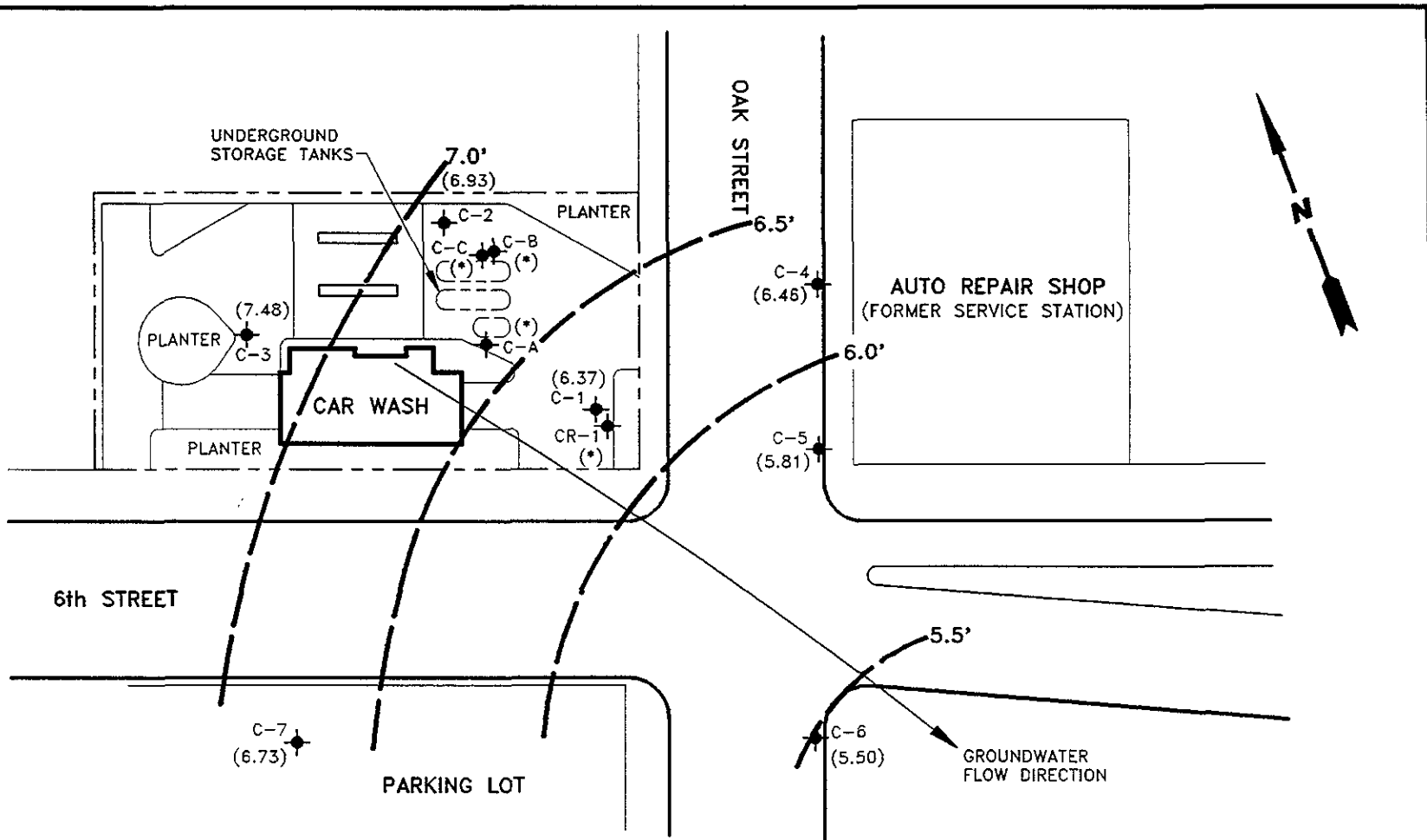
Michael C. Blundell
Registered Geologist
No. 5146



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

ATTACHMENT 1


Figure



LEGEND

- ◆ MONITORING WELL
- () POTENTIOMETRIC SURFACE ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- POTENTIOMETRIC SURFACE CONTOUR
- (*) TOP OF CASING ELEVATION NOT KNOWN



 GROUNDWATER TECHNOLOGY				4057 PORT CHICAGO HWY CONCORD, CA 94520 (510) 671-2387		POTENTIOMETRIC SURFACE MAP (9/17/93)			
CLIENT: CHEVRON U.S.A. PRODUCTS CO. SERVICE STATION No. 9-4587				LOCATION: 609 OAK STREET OAKLAND, CALIFORNIA		REV. NO.: 0	DATE: 10/6/93		
PM <i>JAW</i>	PE/RG <i>SUB</i>	DESIGNED TW	DETAILED ML	ACAD FILE: PSM91793/SP793		PROJECT NO.: 020204084		FIGURE: 1	

ATTACHMENT 2

Table

TABLE 1
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA
Chevron Service Station No. 9-4587
609 Oak Street, Oakland, California

Well ID/ Elevation	Sample Date	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)	
C-A	12/06/89	44,000	20,000	66	1,600	2,220	---	0.00	---	
	10/30/90	31,000	23,000	110	1,100	160	11.20	Sheen	---	
	10/30/90	30,000	23,000	150	1,000	180	11.20	Sheen	---	
	01/14/91	12,000	30,000	540	1,400	560	11.25	0.00	---	
	04/03/91	59,000	33,000	2,400	2,200	3,100	9.82	0.00	---	
	07/17/91	52,000	38,000	380	1,300	500	10.93	0.00	---	
	10/07/91	---	---	---	---	---	---	---	---	
	06/25/92	---	---	---	---	---	---	---	---	
	09/17/92	---	---	---	---	---	---	---	---	
	12/16/92	---	---	---	---	---	---	---	---	
	03/18/93	---	---	---	---	---	---	---	---	
	06/11/93	---	---	---	---	---	---	---	---	
	09/08/93	---	---	---	---	---	---	---	---	
	09/17/93	---	---	---	---	---	10.02	0.00	---	
	C-B	12/06/89	---	---	---	---	---	---	0.01	---
		10/30/90	---	---	---	---	---	11.19	0.01	---
		01/14/91	---	---	---	---	---	11.40	0.01	---
04/03/91		---	---	---	---	---	9.55	1.00	---	
04/04/91		---	---	---	---	---	10.54	1.06	---	
07/17/91		---	---	---	---	---	10.84	0.03	---	
10/07/91		---	---	---	---	---	11.10	0.04	---	
02/04/92		---	---	---	---	---	10.78	0.01	---	
03/06/92		---	---	---	---	---	---	---	---	
04/01/92		---	---	---	---	---	10.33	1.02	---	
06/25/92		---	---	---	---	---	11.20	0.68	---	
09/17/92		---	---	---	---	---	11.07	0.13	---	
12/16/92		---	---	---	---	---	10.41	0.38	---	
03/18/93		---	---	---	---	---	9.19	0.05	---	
06/11/93		---	---	---	---	---	9.54	0.70	---	
09/08/93		---	---	---	---	---	---	---	---	
09/17/93		---	---	---	---	---	9.85	0.52	---	

TABLE 1
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA
Chevron Service Station No. 9-4587
609 Oak Street, Oakland, California

Well ID/ Elevation	Sample Date	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
C-C	12/06/89	---	---	---	---	---	---	0.15	---
	10/30/90	---	---	---	---	---	10.84	0.03	---
	01/14/91	---	---	---	---	---	11.01	0.11	---
	04/03/91	---	---	---	---	---	9.19	0.02	---
	07/17/91	---	---	---	---	---	10.53	0.03	---
	10/07/91	---	---	---	---	---	10.98	0.08	---
	02/04/92	---	---	---	---	---	10.45	0.09	---
	03/06/92	---	---	---	---	---	8.83	0.09	---
	04/01/92	---	---	---	---	---	9.23	0.16	---
	06/25/92	---	---	---	---	---	10.40	0.12	---
	09/17/92	---	---	---	---	---	10.84	0.12	---
	12/16/92	---	---	---	---	---	10.02	0.12	---
	03/18/93	---	---	---	---	---	8.70	0.15	---
	06/11/93	---	---	---	---	---	9.25	0.13	---
	09/08/93	---	---	---	---	---	---	---	---
09/17/93	---	---	---	---	---	9.83	Sheen	---	
C-1 16.07	12/06/89	---	---	---	---	---	---	0.20	---
	10/30/90	---	---	---	---	---	10.79	0.02	5.30
	01/14/91	---	---	---	---	---	11.39	0.02	4.70
	04/03/91	---	---	---	---	---	9.43	0.02	6.66
	07/17/91	---	---	---	---	---	10.46	0.04	5.64
	10/07/91	---	---	---	---	---	10.74	0.04	5.36
	02/04/92	---	---	---	---	---	10.37	0.01	5.71
	03/06/92	---	---	---	---	---	9.20	0.00	6.87
	04/01/92	---	---	---	---	---	9.28	0.00	6.79
	06/25/92	100,000	8,800	7,000	2,800	19,000	9.98	0.01	6.10
	09/17/92	---	---	---	---	---	10.51	Sheen	5.56
	12/16/92	---	---	---	---	---	9.81	Sheen	6.26
	03/18/93	---	---	---	---	---	8.88	Sheen	7.19
	06/11/93	---	---	---	---	---	9.31	0.02	6.78
	09/08/93	---	---	---	---	---	---	---	---
09/17/93	---	---	---	---	---	9.72	0.02	6.37	

TABLE 1
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA
Chevron Service Station No. 9-4587
609 Oak Street, Oakland, California

Well ID/ Elevation	Sample Date	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
C-2 16.84	12/06/89	16,000	250	1,200	550	1,400	—	0.00	—
	10/30/90	28,000	3,700	1,900	1,200	4,300	11.16	0.00	5.68
	01/14/91	24,000	3,300	1,200	1,100	4,100	11.11	0.00	5.73
	01/14/91	30,000	3,900	1,500	1,500	5,000	11.11	0.00	5.73
	04/03/91	12,000	1,100	840	650	1,800	9.53	0.00	7.31
	04/03/91	14,000	1,100	990	680	1,800	9.53	0.00	7.31
	07/17/91	13,000	1,700	560	650	1,700	10.68	0.00	6.16
	07/17/91	14,000	1,700	640	720	1,900	10.68	0.00	6.16
	10/07/91	25,000	3,700	1,300	1,400	3,800	11.02	0.00	5.82
	02/04/92	16,000	2,600	300	880	1,900	10.60	0.00	6.24
	04/01/92	15,000	1,900	300	700	1,500	9.30	0.00	7.54
	06/25/92	23,000	3,400	740	1,300	3,400	10.45	0.00	6.39
	09/17/92	18,000	3,500	550	1,400	3,900	10.78	0.00	6.06
	12/16/92	12,000	1,200	120	460	1,100	9.94	0.00	6.90
	03/18/93	5,200	990	130	290	430	8.80	0.00	8.04
	06/11/93	34,000	8,200	910	2,400	6,600	9.43	0.00	7.41
09/08/93	3,400	690	26	190	330	—	—	—	
09/17/93	—	—	—	—	—	9.91	0.00	6.93	
C-3 16.48	12/06/89	<500	<0.5	<0.5	<0.5	0.74	—	0.00	—
	10/30/90	410	4	4	2	9	10.44	0.00	6.04
	01/14/91	80	<0.5	<0.5	<0.5	1	10.34	0.00	6.14
	04/03/91	53	<0.5	<0.5	<0.5	2	9.01	0.00	7.47
	07/17/91	<50	5.9	<0.5	<0.5	<0.5	10.00	0.00	6.48
	10/07/91	<50	<0.5	<0.5	<0.5	<0.5	10.38	0.00	6.10
	02/04/92	<50	<0.5	<0.5	<0.5	<0.5	10.00	0.00	6.48
	04/01/92	<50	<0.5	<0.5	<0.5	<0.5	8.83	0.00	7.65
	06/25/92	<50	<0.5	<0.5	<0.5	<0.5	9.85	0.00	6.63
	09/17/92	<50	<0.5	<0.5	<0.5	<0.5	10.20	0.00	6.28
	12/16/92	<50	<0.5	<0.5	<0.5	<0.5	9.40	0.00	7.08
	03/18/93	<50	<0.5	<0.5	<0.5	<1.5	8.12	0.00	8.36
	06/11/93	<50	<0.5	<0.5	<0.5	<0.5	8.59	0.00	7.89
	09/08/93	<50	<0.5	<0.5	<0.5	<1.5	—	—	—
	09/17/93	—	—	—	—	—	9.00	0.00	7.48

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Chevron Service Station No. 9-4587
609 Oak Street, Oakland, California

Well ID/ Elevation	Sample Date	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
C-4 16.53	12/06/89	—	—	—	—	—	—	0.00	—
	10/30/90	<50	<0.5	<0.5	<0.5	<0.5	11.56	0.00	4.97
	01/14/91	<50	<0.5	<0.5	<0.5	<0.5	11.44	0.00	5.09
	04/03/91	150	3	<0.5	12	9	10.00	0.00	6.53
	07/17/91	290	2.3	0.4	52	0.4	11.16	0.00	5.37
	10/07/91	<50	<0.5	<0.5	4.6	<0.5	11.39	0.00	5.14
	02/04/92	<50	<0.5	<0.5	2.8	<0.5	11.02	0.00	5.51
	02/04/92	<50	<0.5	<0.5	2.5	0.5	11.02	0.00	5.51
	04/01/92	480	4.9	<0.5	64	4.3	9.83	0.00	6.70
	06/25/92	<50	<0.5	<0.5	<0.5	<0.5	10.88	0.00	5.65
	09/17/92	<50	<0.5	<0.5	<0.5	<0.5	11.24	0.00	5.29
	12/16/92	56	<0.5	<0.5	1.0	<0.5	10.40	0.00	6.13
	03/18/93	<50	<0.5	<0.5	<0.5	<1.5	9.48	0.00	7.05
	06/11/93	<50	<0.5	<0.5	<0.5	<1.5	9.61	0.00	6.92
	09/08/93	<50	<0.5	<0.5	<0.5	<1.5	—	—	—
09/17/93	—	—	—	—	—	10.07	0.00	6.46	
C-5 14.70	12/06/89	—	—	—	—	—	9.97	0.00	4.73
	10/30/90	<50	0.8	<0.5	<0.5	0.5	—	0.00	—
	01/14/91	54	<0.5	<0.5	<0.5	<0.5	9.87	0.00	4.83
	04/03/91	1,800	330	200	52	170	8.72	0.00	5.98
	07/17/91	170	120	5.3	12	20	9.63	0.00	5.07
	10/07/91	<50	1.1	<0.5	<0.5	<0.5	9.83	0.00	4.87
	02/04/92	91	16	<0.5	2.4	2.0	9.53	0.00	5.17
	04/01/92	960	200	5.4	21	33	8.57	0.00	6.13
	06/25/92	800	2.5	<0.5	1.3	7.3	9.44	0.00	5.26
	09/17/92	<50	<0.5	<0.5	<0.5	<0.5	9.72	0.00	4.98
	12/16/92	81	5.4	1.2	1.5	4.3	9.07	0.00	5.63
	03/18/93	<50	<0.5	<0.5	<0.5	<1.5	8.44	0.00	6.26
	06/11/93	<50	1.6	<0.5	<0.5	<1.5	8.53	0.00	6.17
	09/08/93	<50	<0.5	<0.5	<0.5	<1.5	—	—	—
	09/17/93	—	—	—	—	—	8.89	0.00	5.81

TABLE 1
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA
Chevron Service Station No. 9-4587
609 Oak Street, Oakland, California

Well ID/ Elevation	Sample Date	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
C-6 13.87	12/06/89	---	---	---	---	---	---	0.00	---
	10/30/90	<50	<0.5	<0.5	<0.5	<0.5	9.43	0.00	4.44
	01/14/91	<0.5	<0.5	<0.5	<0.5	<0.5	9.41	0.00	4.46
	04/03/91	<0.5	<0.5	<0.5	<0.5	<0.5	8.66	0.00	5.21
	07/17/91	<0.5	<0.5	<0.5	<0.5	<0.5	9.25	0.00	4.62
	10/07/91	67	<0.5	0.6	<0.5	0.6	9.34	0.00	4.53
	02/04/92	<50	<0.5	<0.5	<0.5	<0.5	9.16	0.00	4.71
	04/01/92	<50	<0.5	<0.5	<0.5	<0.5	8.59	0.00	5.28
	06/25/92	<50	<0.5	<0.5	<0.5	<0.5	9.11	0.00	4.76
	09/17/92	<50	<0.5	<0.5	<0.5	<0.5	9.28	0.00	4.59
	12/16/92	120	9.3	1.9	2.7	7.4	8.88	0.00	4.99
	03/18/93	<50	<0.5	<0.5	<0.5	<1.5	8.35	0.00	5.52
	06/11/93	<50	<0.5	0.7	<0.5	<1.5	8.21	0.00	5.66
	09/08/93	<50	<0.5	<0.5	<0.5	<1.5	---	---	---
09/17/93	---	---	---	---	---	8.37	0.00	5.50	
C-7 15.78	02/07/91	<50	<0.5	0.8	<0.5	<0.5	9.88	0.00	5.90
	04/03/91	<50	<0.5	<0.5	<0.5	<0.5	9.04	0.00	6.74
	07/17/91	<50	<0.5	<0.5	<0.5	<0.5	9.86	0.00	5.92
	10/07/91	<50	<0.5	<0.5	<0.5	<0.5	10.10	0.00	5.68
	02/04/92	<50	<0.5	<0.5	<0.5	<0.5	9.74	0.00	6.04
	04/01/92	<50	<0.5	<0.5	<0.5	<0.5	8.96	0.00	6.82
	06/25/92	<50	<0.5	<0.5	<0.5	<0.5	9.62	0.00	6.16
	09/17/92	<50	<0.5	<0.5	<0.5	<0.5	9.75	0.00	6.03
	12/16/92	---	---	---	---	---	9.41	0.00	6.37
	03/18/93	<50	<0.5	<0.5	<0.5	<1.5	8.45	0.00	7.33
	06/11/93	<50	<0.5	<0.5	<0.5	<1.5	8.71	0.00	7.07
	09/08/93	<50	<0.5	<0.5	<0.5	<1.5	---	---	---
	09/17/93	---	---	---	---	---	9.05	0.00	6.73
	CR-1	10/30/90	9,600	7,100	65	610	190	10.51	0.00
01/14/91		1,500	3,200	52	190	77	10.29	0.00	---
07/17/91		15,000	9,300	220	680	530	10.19	0.00	---
10/07/91		17,000	7,600	50	440	68	10.46	0.00	---
10/07/91		14,000	9,400	52	430	110	10.46	0.00	---
02/04/92		19,000	6,100	32	350	100	10.12	0.00	---
04/01/92		29,000	5,300	820	380	1,200	9.24	0.00	---
06/25/92		12,000	3,300	280	210	460	10.03	0.00	---
09/17/92		---	---	---	---	---	10.30	0.00	---
12/16/92		---	---	---	---	---	9.59	Sheen	---
03/18/93		---	---	---	---	---	8.82	0.05	---
06/11/93		---	---	---	---	---	9.58	0.87	---
09/08/93		---	---	---	---	---	---	---	---
09/17/93		---	---	---	---	---	---	---	---

data ?

TABLE 1
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA
Chevron Service Station No. 9-4587
609 Oak Street, Oakland, California

Well ID/ Elevation	Sample Date	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
Trip Blank	10/30/90	---	---	---	---	---	---	---	---
	01/14/91	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	02/07/91	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	04/03/91	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/17/91	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	10/07/91	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	02/04/92	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	04/01/92	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	06/25/92	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	09/17/92	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	12/16/92	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	03/18/93	<50	<0.5	<0.5	<0.5	<0.5	<1.5	---	---
	06/11/93	<50	<0.5	<0.5	<0.5	<0.5	<1.5	---	---
	09/08/93	<50	<0.5	<0.5	<0.5	<0.5	<1.5	---	---
09/17/93	---	---	---	---	---	---	---	---	
Rinsate	10/30/90	<50	<0.5	0.6	<0.5	<0.5	---	---	---
	10/07/91	<50	<0.5	0.5	<0.5	<0.5	---	---	---
	02/04/92	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	04/01/92	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	06/25/92	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	09/17/92	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	12/16/92	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	06/11/93	<50	<0.5	<0.5	<0.5	<0.5	---	---	---

TPH-G = Total petroleum hydrocarbons-as-gasoline
DTW = Depth to water
SPT = Separate-phase hydrocarbon thickness
WTE = Water table elevation
--- = Not applicable, not sampled, not measured

Concentrations in parts per billion

Data from December 6, 1989, to December 16, 1992, are from Alton GeoSciences report dated January 26, 1993.

TABLE 2
PRODUCT RECOVERY PROGRAM
Chevron Service Station No. 9-4587
609 Oak Street, Oakland, California

Date	Well ID	Amount Product Bailed (gallons)	Total Product Bailed (gallons)
10/01/93	CR1*	0	0
10/01/93	C-1	0.01	0.01
10/01/93	C-C	0.01	0.01
10/01/93	C-B	0.03	0.03

* Pumping well, unable to bail product.

↓
for what?
explain

ATTACHMENT 3

Laboratory Report



Superior Precision Analytical, Inc.

1555 Burke, Unit I ▪ San Francisco, California 94124 ▪ (415) 647-2081 / fax (415) 821-7123

Groundwater Technology Inc.
Attn: NICOLE MERCHANT

Project 020204111
Reported 09/21/93

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed Matrix
14742- 1	TB-LB	09/08/93	09/16/93 Water
14742- 2	C-3	09/08/93	09/17/93 Water
14742- 3	C-7	09/08/93	09/17/93 Water
14742- 4	C-4	09/08/93	09/16/93 Water
14742- 5	C-5	09/08/93	09/16/93 Water
14742- 6	C-6	09/08/93	09/16/93 Water
14742- 7	C-2	09/08/93	09/16/93 Water

RESULTS OF ANALYSIS

Laboratory Number: 14742- 1 14742- 2 14742- 3 14742- 4 14742- 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<1.5	ND<1.5	ND<1.5	ND<1.5	ND<1.5
Concentration:	ug/L	ug/L	ug/L	ug/L	ug/L

Laboratory Number: 14742- 6 14742- 7

Gasoline:	ND<50	3400 ✓
Benzene:	ND<0.5	690 ✓
Toluene:	ND<0.5	26
Ethyl Benzene:	ND<0.5	190
Xylenes:	ND<1.5	330
Concentration:	ug/L	ug/L



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 2 of 2
QA/QC INFORMATION
SET: 14742

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	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Gasoline:	97/94	3%	72-116
Benzene:	92/103	11%	71-106
Toluene:	92/103	11%	69-116
Ethyl Benzene:	94/103	9%	66-121
Xylenes:	94/104	10%	67-108

Senior Chemist
Account Manager

