M P D S
SERVICES, INCORPORATED

MPDS-UN0746-01
January 7, 1994

Unocal Corporation
2000 Crow Canyon Place, Suite 400
P.O. Box 5155
San Ramon, California 94583

Attention: Mr. Edward C. Ralston

RE: Quarterly Data Report
Unocal Service Station #0746
3943 Broadway
Oakland, California

Dear Mr. Ralston:

This report presents the results of the most recent quarter of monitoring and sampling of the monitoring wells at the referenced site by MPDS Services, Inc. The wells are currently monitored on a monthly basis and sampled on a quarterly basis, except for wells MW1, MW6, and MW7, which are sampled on a semi-annual basis. In addition, monitoring wells MW3, MW5, and MW8 are currently monitored and purged of ground water on a bi-weekly basis. This report covers the work performed by MPDS Services, Inc. from September through November of 1993.

RECENT FIELD ACTIVITIES

The twelve monitoring wells (MW1 through MW12) were monitored three times during the quarter, except for well MW10, which was inaccessible on the sampling date. In addition, monitoring wells MW3, MW5, and MW8 were monitored and purged of ground water on three other occasions. Well RW1 was also monitored three times during the quarter. Monitoring wells MW2, MW4, MW8, MW9, MW11, and MW12 were sampled once during the quarter. The remaining monitoring wells were not sampled because wells MW1, MW6 and MW7 are sampled on a semi-annual basis, well MW10 was inaccessible, and wells MW3 and MW5 had free product. The monitoring data collected this quarter are summarized in Table 1.

2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel: (510) 602-5120 Fax: (510) 689-1918

Ground water samples were collected from monitoring wells MW2, MW4, MW8, MW9, MW11, and MW12 on November 30, 1993. Prior to sampling, these wells were each purged of between 3 and 9 gallons of water. Samples were collected using a clean Teflon bailer. The samples were decanted into clean VOA vials which were then sealed with Teflon-lined screw caps, labeled, and stored in a cooler, on ice, until delivery to a state-certified laboratory.

HYDROLOGY

The ground water elevations in each monitoring well at the Unocal site during the quarter are summarized in Table 1. The ground water flow directions at the Unocal site during the most recent quarter are shown on the attached Potentiometric Surface Maps, Figures 1, 2, and 3.

ANALYTICAL RESULTS

The ground water samples collected this quarter were analyzed at Sequoia Analytical Laboratory and were accompanied by properly executed Chain of Custody documentation. The samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline by EPA method 5030/modified 8015, and benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA method 8020.

The analytical results of all of the ground water samples collected from the monitoring wells to date are summarized in Table 2. The concentrations of TPH as gasoline and benzene detected in the ground water samples collected this quarter are shown on the attached Figures 4 and 5, respectively. Copies of the laboratory analytical results and the Chain of Custody documentation are attached to this report.

DISTRIBUTION

A copy of this report should be sent to the Alameda County Health Care Services, and to Mr. Lester Feldman of the Regional Water Quality Control Board, San Francisco Bay Region.

LIMITATIONS

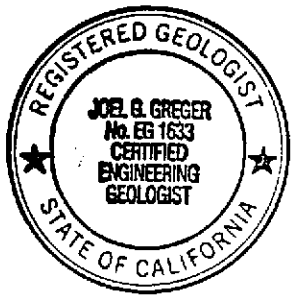
Environmental changes, either naturally-occurring or artificially-induced, may cause changes in ground water levels and flow paths, thereby changing the extent and concentration of any contaminants.

If you have any questions regarding this report, please do not hesitate to call at (510) 602-5120.

Sincerely,

MPDS Services, Inc.

Joel G. Greger, C.E.G.
Senior Engineering Geologist



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Attachments: Tables 1 & 2
Location Map
Potentiometric Surface Maps - Figures 1, 2 & 3
Concentrations of Petroleum Hydrocarbons - Figure 4
Concentrations of Benzene - Figure 5
Laboratory Analyses
Chain of Custody documentation

cc: Mr. Aram B. Kaloustian, Kaprealian Engineering, Inc.

TABLE 1

SUMMARY OF MONITORING DATA

Well #	Ground Water Elevation (feet)	Depth to Water (feet)◆	Product Thick-ness (feet)	Sheen	Water Purged (gallons)	Product Purged (ounces)	Total Well Depth (feet)◆
			(Monitored and Sampled on November 30, 1993)				
MW1*	72.89	7.65	0	--	0	0	19.59
MW2	72.14	9.18	0	No	8	0	19.81
MW3*	71.77**	9.66	0.02	N/A	0	1	22.05
MW4	71.89	9.40	0	No	8	0	20.00
MW5*	71.76	9.62	<0.01	N/A	0	1	19.79
MW6*	72.54	7.40	0	--	0	0	19.57
MW7*	72.99	8.65	0	--	0	0	19.98
MW8	70.99	10.42	0	No	8	0	21.24
MW9	70.66	9.87	0	No	9	0	21.92
MW10	WELL WAS INACCESSIBLE						
MW11	65.14	13.04	0	No	4	0	19.11
MW12	66.33	13.28	0	No	3	0	17.58
			(Monitored on November 12, 1993)				
MW3	71.65	9.76	<0.01	--	55	<1	
MW5	71.59	9.79	<0.01	--	55	<1	
MW8	WELL WAS INACCESSIBLE						
RW1	71.63	9.00	<0.01	--	0	<1	
			(Monitored on October 28, 1993)				
MW1	72.39	8.15	0	--	0	0	
MW2	71.67	9.65	0	--	0	0	
MW3	71.38	10.03	0	--	45	0	
MW4	71.67	9.62	0	--	0	0	
MW5	71.36**	10.04	0.02	--	50	0	
MW6	71.64	8.30	0	--	0	0	
MW7	72.66	8.98	0	--	0	0	
MW8	70.22	11.19	0	--	25	0	
MW9	69.85	10.68	0	--	0	0	
MW10	68.38	13.23	0	--	0	0	
MW11	64.34	13.84	0	--	0	0	
MW12	65.57	14.04	0	--	0	0	

TABLE 1 (Continued)

SUMMARY OF MONITORING DATA

Well #	Ground Water Elevation (feet)	Depth to Water (feet)◆	Product Thick-ness (feet)	Sheen	Water Purged (gallons)	Product Purged (ounces)	Total Well Depth (feet)◆
			(Monitored on October 7, 1993)				
MW3	71.54	9.87	<0.01	N/A	37	<1.0	
MW5	71.46**	9.94	0.03	N/A	50	3	
MW8	70.45	10.96	0	--	20	0	
			(Monitored on September 22, 1993)				
MW1	72.44	8.10	0	--	0	0	
MW2	71.65	9.67	0	--	0	0	
MW3	71.59**	9.84	0.02	N/A	45	<1	
MW4	71.66	9.63	0	--	0	0	
MW5	71.41**	10.01	0.05	N/A	50	4	
MW6	72.18	7.76	0	--	0	0	
MW7	72.68	8.96	0	--	0	0	
MW8	70.28	11.13	0	--	28	0	
MW9	69.89	10.64	0	--	0	0	
MW10	68.55	13.06	0	--	0	0	
MW11	63.15	15.03	0	--	0	0	
MW12	64.59	15.02	0	--	0	0	
RW1	71.38	9.25	0	--	0	0	
			(Monitored on September 8, 1993)				
MW3	71.07	10.34	<0.01	N/A	50	<1	
MW5	71.31**	10.09	0.03	N/A	50	1	
MW8	70.07	11.34	0	--	20	0	
RW1	70.92	9.71	0	--	0	0	

TABLE 1 (Continued)

SUMMARY OF MONITORING DATA

Well #	Ground Water Elevation (feet)	Depth to Water (feet)◆	Product Thick-ness (feet)	Sheen	Water Purged (gallons)	Product Purged (ounces)	Total Well Depth (feet)◆
			(Monitored and Sampled on August 25, 1993)				
MW1	72.54	8.00	0	No	8	0	
MW2	71.79	9.53	0	No	7	0	
MW3*	71.76**	9.67	0.03	N/A	0	1	
MW4	71.84	9.45	0	No	7.5	0	
MW5*	71.59**	9.81	0.02	N/A	0	7	
MW6	72.28	7.66	0	No	8.5	0	
MW7	72.83	8.81	0	No	7.5	0	
MW8	70.46	10.95	0	No	7	0	
MW9	70.09	10.44	0	No	8	0	
MW10	68.83	12.78	0	No	6.5	0	
MW11	64.08	14.10	0	No	3.5	0	
MW12	66.00	13.61	0	No	3	0	
RW1*	71.56	9.07	0	N/A	0	0	
			(Monitored on August 11, 1993)				
MW3	71.83**	9.59	<0.01	N/A	50	<1	
MW5	71.57**	9.84	0.04	N/A	50	<1	
MW8	WELL WAS INACCESSIBLE						
RW1	71.63	9.00	0	--	0	0	
			(Monitored on July 22, 1993)				
MW1	72.67	7.87	0	--	0	0	
MW2	71.90	9.42	0	--	0	0	
MW3	71.95**	9.47	<0.01	N/A	50	<1	
MW4	72.03	9.26	0	--	0	0	
MW5	71.77**	9.73	0.16	N/A	50	1.5	
MW6	72.41	7.53	0	--	0	0	
MW7	72.81	8.83	0	--	0	0	
MW8	WELL WAS INACCESSIBLE						
MW9	70.43	10.10	0	--	0	0	
MW10	69.12	12.49	0	--	0	0	
MW11	62.72	15.46	0	--	0	0	
MW12	64.65	14.96	0	--	0	0	

TABLE 1 (Continued)

SUMMARY OF MONITORING DATA

Well #	Ground Water Elevation (feet)	Depth to Water (feet)◆	Product Thick-ness (feet)	Sheen	Water Purged (gallons)	Product Purged (ounces)	Total Well Depth (feet)◆
			(Monitored on July 8, 1993)				
MW3	72.12**	9.31	0.03	N/A	50	0	
MW5	71.93**	9.48	0.04	N/A	50	0	
MW8	70.89	10.52	0	--	35	0	
RW1	71.94	8.69	0	--	0	0	
			(Monitored on June 23, 1993)				
MW1	72.88	7.66	0	--	0	0	
MW2	72.15	9.17	0	--	0	0	
MW3	72.23**	9.20	0.02	N/A	50	<1	
MW4	72.39	8.90	0	--	0	0	
MW5	72.08**	9.32	0.03	N/A	50	<1	
MW6	72.60	7.34	0	--	0	0	
MW7	73.17	8.47	0	--	0	0	
MW8	71.05	10.36	0	N/A	36	0	
MW9	70.75	9.78	0	--	0	0	
MW10	69.50	12.11	0	--	0	0	
MW11	63.10	15.08	0	--	0	0	
MW12	65.05	14.56	0	--	0	0	
RW1	72.10	8.53	0	--	0	0	
			(Monitored on June 7, 1993)				
MW3	72.48**	8.94	<0.01	N/A	50	<1	
MW5	71.64**	9.75	0.01	N/A	50	<1	
MW8	71.43	9.98	0	--	50	0	
RW1	72.47	8.16	0	--	0	0	

TABLE 1 (Continued)

SUMMARY OF MONITORING DATA

Well #	Ground Water Elevation (feet)	Depth to Water (feet)◆	Product Thick-ness (feet)	Sheen	Water Purged (gallons)	Product Purged (ounces)	Total Well Depth (feet)◆
			(Monitored and Sampled on May 25, 1993)				
MW1	73.20	7.87	0	No	9	0	
MW2	72.58	9.04	0	No	8	0	
MW3*	72.58**	9.45	0.03	N/A	0	0	
MW4	72.73	8.75	0	No	8	0	
MW5*	72.06**	9.63	0.13	N/A	0	0	
MW6	72.99	7.48	0	No	9	0	
MW7	73.40	8.43	0	No	7	0	
MW8	71.59	10.12	0	No	8	0	
MW9	69.63	11.50	0	No	8	0	
MW10	69.88	12.02	0	No	7	0	
MW11	63.29	15.14	0	No	3	0	
MW12	66.21	13.68	0	No	3	0	
RW1	72.62	8.58	0	Yes	0	0	
			(Monitored on May 12, 1993)				
MW3	72.46**	9.57	0.03	N/A	50	<1	
MW5	72.33**	9.28	0.02	N/A	50	<1	
MW8	WELL WAS INACCESSIBLE						
RW1	72.38**	8.82	0	--	0	0	
			(Monitored on April 28, 1993)				
MW1	73.16	7.91	0	--	0	0	
MW2	72.75	8.87	0	--	0	0	
MW3	72.59**	9.44	0.03	N/A	50	<1	
MW4	72.12	9.36	0	--	0	0	
MW5	72.47**	9.14	0.02	N/A	50	<1	
MW6	72.89	7.58	0	--	0	0	
MW7	73.44	8.39	0	--	0	0	
MW8	WELL WAS INACCESSIBLE						
MW9	WELL WAS INACCESSIBLE						
MW10	69.79	12.11	0	--	0	0	
MW11	64.56	13.87	0	--	0	0	
MW12	66.47	13.42	0	--	0	0	

TABLE 1 (Continued)

SUMMARY OF MONITORING DATA

Well #	Ground Water Elevation (feet)	Depth to Water (feet)◆	Product Thick-ness (feet)	Sheen	Water Purged (gallons)	Product Purged (ounces)	Total Well Depth (feet)◆
			(Monitored on April 8, 1993)				
MW3	72.89**	9.14	0.02	N/A	50	<1	
MW5	72.76**	8.84	0.01	N/A	50	<1	
MW8	WELL WAS INACCESSIBLE						
			(Monitored on March 22, 1993)				
MW1	74.81	6.26	0	--	0	0	
MW2	72.12	9.50	0	--	0	0	
MW3	73.22**	8.81	0.02	N/A	50	0	
MW4	73.36	8.12	0	--	0	0	
MW5	73.14**	8.46	0.01	N/A	50	0	
MW6	74.62	5.85	0	--	0	0	
MW7	74.86	6.97	0	--	0	0	
MW8	WELL WAS INACCESSIBLE						
MW9	WELL WAS INACCESSIBLE						
MW10	71.01	10.89	0	--	0	0	
MW11	69.48	8.95	0	--	0	0	
MW12	68.67	11.22	0	--	0	0	
			(Monitored on March 9, 1993)				
MW3	72.85**	9.18	0.02	N/A	50	<1	
MW5	72.73**	8.87	0.01	N/A	50	<1	
MW8	WELL WAS INACCESSIBLE						

TABLE 1 (Continued)

SUMMARY OF MONITORING DATA

Well #	Ground Water Elevation (feet)	Depth to Water (feet)◆	Product Thick-ness (feet)	Sheen	Water Purged (gallons)	Product Purged (ounces)	Total Well Depth (feet)◆
			(Monitored and Sampled on February 24, 1993)				
MW1	73.91	7.16	0	No	9	0	
MW2	73.59	8.03	0	No	9	0	
MW3	73.76*	8.26	0.01	N/A	0	0	
MW4	73.31	8.17	0	No	9	0	
MW5	73.69*	7.91	0.01	N/A	0	<1	
MW6	73.73	6.74	0	No	10	0	
MW7	73.98	7.85	0	No	7	0	
MW8	WELL WAS INACCESSIBLE						
MW9	WELL WAS INACCESSIBLE						
MW10	70.67	11.23	0	No	8	0	
MW11	65.73	12.70	0	No	4	0	
MW12	67.76	12.13	0	No	4	0	
RW1	74.01	7.19	0	--	0	0	
			(Monitored on February 10, 1993)				
MW3	73.01*	9.01	0.01	--	50	<1	
MW5	72.91	8.68	Trace	--	50	<1	
MW8	WELL WAS INACCESSIBLE						
			(Monitored on January 30, 1993)				
MW1	73.44	7.63	0	--	0	0	
MW2	72.63	8.99	0	--	0	0	
MW3	73.11	8.90	0	--	0	0	
MW4	73.13	8.35	0	--	0	0	
MW5	73.01	8.58	Trace	N/A	0	0	
MW6	73.22	7.25	0	--	0	0	
MW7	73.62	8.21	0	--	0	0	
MW8	WELL WAS INACCESSIBLE						
MW9	WELL WAS INACCESSIBLE						
MW10	70.30	11.60	0	--	0	0	
MW11	64.26	14.17	0	--	0	0	
MW12	66.71	13.18	0	--	0	0	

TABLE 1 (Continued)

SUMMARY OF MONITORING DATA

Well #	Ground Water Elevation (feet)	Depth to Water (feet)♦	Product Thick-ness (feet)	Sheen	Water Purged (gallons)	Product Purged (ounces)	Total Well Depth (feet)♦
			(Monitored on January 9, 1993)				
MW3	73.46	8.55	0	--	50	0	
MW5	73.37	8.22	0	--	50	0	
MW8	WELL WAS INACCESSIBLE						
			(Monitored on December 21, 1992)				
MW1	72.95	8.12	0	--	0	0	
MW2	72.48	9.14	0	--	0	0	
MW3	72.23	9.78	Trace	N/A	50	<1	
MW4	72.38	9.10	0	--	0	0	
MW5	72.10*	9.50	0.01	N/A	50	<1	
MW6	72.76	7.71	0	--	0	0	
MW7	73.41	8.42	0	--	0	0	
MW8	WELL WAS INACCESSIBLE						
MW9	WELL WAS INACCESSIBLE						
MW10	68.49	13.41	0	--	0	0	
MW11	66.09	12.34	0	--	0	0	
MW12	67.78	12.11	0	--	0	0	
			(Monitored on December 4, 1992)				
MW3	71.71	10.30	0	--	48	0	
MW5	71.62*	10.03	0.08	--	49	0	
MW8	WELL WAS INACCESSIBLE						

TABLE 1 (Continued)

SUMMARY OF MONITORING DATA

Well #	Well Cover Elevation (feet)***	Well Casing Elevation (feet)****
MW1	81.07	80.54
MW2	81.62	81.32
MW3	82.01	81.41
MW4	81.48	81.29
MW5	81.59	81.38
MW6	80.47	79.94
MW7	81.83	81.64
MW8	81.71	81.41
MW9	81.13	80.53
MW10	81.90	81.61
MW11	78.43	78.18
MW12	79.89	79.61
RW1	81.20	80.63

◆ The depth to water level and total well depth measurements were taken from the top of the well casings. Prior to June 7, 1993, the water level and total well depth measurements were taken from the top of the well covers.

* Monitored only.

** Ground water elevation corrected due to the presence of free product.

*** The elevations of the top of the well covers have been surveyed relative to Mean Sea Level (MSL), per the City of Oakland Benchmark BM#1336 (elevation = 82.28 MSL) as of June 7, 1993.

**** Relative to MSL.

N/A = Not applicable.

-- Sheen determination was not performed.

Note: Monitoring data prior to November 30, 1993, were provided by Kaprealian Engineering, Inc.

TABLE 2

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
11/30/93	MW1	SAMPLED SEMI-ANNUALLY				
	MW2	480◆	ND	ND	ND	ND
	MW3	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
	MW4	200	28	ND	17	8.1
	MW5	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
	MW6	SAMPLED SEMI-ANNUALLY				
	MW7	SAMPLED SEMI-ANNUALLY				
	MW8	3,500	18	ND	ND	ND
	MW9	200	5.6	ND	2.9	2.7
	MW10	WELL WAS INACCESSIBLE				
	MW11	ND	ND	ND	ND	ND
	MW12	ND	ND	ND	ND	ND
8/25/93	MW1	ND	ND	ND	ND	ND
	MW2	190◆	ND	ND	ND	ND
	MW3	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
	MW4	640	100	1.1	100	22
	MW5	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
	MW6	ND	ND	ND	ND	ND
	MW7	ND	ND	ND	ND	ND
	MW8	1,800	11	17	8.9	29
	MW9	220	10	ND	6.8	1.4
	MW10	ND	ND	ND	ND	ND
	MW11	ND	ND	ND	ND	ND
	MW12	ND	ND	ND	ND	ND
5/25/93	MW1	260	27	4.9	2.6	54
	MW2*	1,300◆	ND	ND	ND	ND
	MW3	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
	MW4	74	10	ND	4.6	1.8
	MW5	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
	MW6	ND	ND	ND	ND	ND
	MW7	ND	ND	ND	ND	ND
	MW8	1,200	5.4	ND	9.0	21
	MW9	160	6.1	ND	7.4	1.1
	MW10	ND	ND	ND	ND	ND
	MW11	ND	ND	0.75	ND	1.0
	MW12	ND	ND	ND	ND	ND

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
2/24/93	MW1	1,100	280	4.9	120	140
	MW2	11,000♦	ND	ND	ND	ND
	MW3	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
	MW4	140	12	0.64	9.4	3.7
	MW5	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
	MW6	ND	ND	ND	ND	ND
	MW7	ND	ND	ND	ND	ND
	MW8	WELL WAS INACCESSIBLE				
	MW9	WELL WAS INACCESSIBLE				
	MW10	ND	ND	ND	ND	ND
	MW11	ND	ND	ND	ND	ND
	MW12	ND	ND	ND	ND	ND
11/20/92	MW1	ND	0.75	ND	ND	ND
	MW2	510♦	ND	ND	ND	ND
	MW3	1,100,000♦♦	1,800	6,400	3,000	15,000
	MW4	ND	6.2	ND	1.2	0.52
	MW5	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
	MW6	ND	ND	ND	ND	ND
	MW7	ND	ND	ND	ND	ND
	MW8	WELL WAS INACCESSIBLE				
	MW9	WELL WAS INACCESSIBLE				
	MW10	ND	ND	ND	ND	ND
	MW11	ND	ND	ND	ND	ND
	MW12	ND	ND	ND	ND	ND
8/26/92	MW1	ND	ND	ND	ND	ND
	MW2	ND	ND	ND	ND	ND
	MW3	20,000	690	1,900	1,300	5,700
	MW4	120	86	0.52	0.57	1.6
	MW5	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
	MW6	ND	ND	ND	ND	ND
	MW7	ND	ND	ND	0.73	ND
	MW8	1,800	12	8.0	4.0	13
	MW9	250	13	ND	8.6	3.8
	MW10	ND	ND	ND	ND	ND
	MW11	ND	ND	ND	ND	ND
	MW12	ND	ND	ND	ND	ND

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
5/23/92	MW1	ND	ND	ND	ND	ND
	MW2	ND	ND	ND	ND	ND
	MW3	25,000	300	130	880	4,900
	MW4	ND	ND	ND	ND	ND
	MW5	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
	MW6	ND	ND	ND	ND	ND
	MW7	ND	ND	ND	ND	ND
	MW8	2,100	8.6	1.6	1.7	28
	MW9	460	18	0.66	1.4	3.2
	MW10	ND	ND	ND	ND	ND
	MW11	ND	ND	ND	ND	ND
2/06/92	MW1	ND	ND	ND	ND	ND
	MW2	ND	0.36	0.66	ND	0.62
	MW3	24,000	600	1,800	1,200	5,800
	MW4	5,700	2,200	140	57	980
	MW5	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
	MW6	ND	ND	ND	ND	ND
	MW7	ND	ND	ND	ND	ND
	MW8	2,600	4.1	7.0	31	93
	MW9	660	41	1.0	33	15
	MW10	ND	ND	ND	ND	ND
	MW11	ND	ND	ND	ND	ND
11/19/91	MW1	ND	ND	ND	ND	ND
	MW2	ND	ND	ND	ND	ND
	MW3	22,000	250	440	660	3,000
	MW4	55	9.2	4.5	1.4	6.7
	MW5	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
	MW6	ND	ND	ND	ND	ND
	MW7	32	ND	ND	ND	ND
	MW8	1,600	8.1	1.8	19	52
	MW9	360	17	0.45	15	11

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
8/28/91	MW1	ND	ND	ND	ND	ND
	MW2	ND	ND	ND	ND	ND
	MW3	16,000	650	2,200	1,100	5,400
	MW4	2,000	1,500	20	120	300
	MW5	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
	MW6	ND	ND	ND	ND	ND
	MW7	ND	ND	ND	ND	ND
	MW8	1,800	3.2	1.9	19	74
	MW9	450	17	0.9	13	14
5/28/91	MW1	ND	ND	ND	ND	ND
	MW2	ND	ND	ND	ND	ND
	MW3	24,000	570	1,100	810	4,200
	MW4	38	ND	ND	ND	1.9
	MW5	24,000	2,300	3,400	1,300	6,000
	MW6	ND	ND	ND	ND	0.42
	MW7	39	ND	ND	ND	0.73
	MW8	4,800	4.2	1.3	5.1	170
	MW9	590	6.0	0.43	6.8	1.4
2/25/91	MW1	ND	ND	ND	ND	ND
	MW2	ND	0.68	0.42	ND	0.86
	MW3	37,000	730	2,900	1,300	7,300
	MW4	22,000	600	1,300	780	2,800
	MW5	25,000	950	1,300	900	3,500
	MW6	ND	0.37	0.40	0.35	1.5
	MW7	70	ND	ND	ND	0.52
	MW8	5,300	17	6.1	53	300
	MW9	390	13	1.1	2.8	14
11/07/90	MW1	45	ND	ND	ND	ND
	MW2	ND	ND	ND	ND	ND
	MW3	42,000	1,400	5,000	1,800	7,500
	MW4	180	1.5	0.37	6.3	26
	MW5	20,000	640	1,100	670	3,000
	MW6	ND	ND	ND	ND	ND
	MW7	ND	ND	ND	ND	ND
	MW8	4,700	28	38	86	7,200
	MW9	480	7.8	1.2	13	47

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
8/16/90	MW1	ND	ND	ND	ND	ND
	MW2	ND	ND	6.7	ND	ND
	MW3	6,800	600	660	760	160
	MW4	3,600	480	17	230	260
	MW5	16,000	1,400	1,900	2,800	660
2/15/90	MW1	170	7.9	ND	2.2	2.8
	MW2	ND	ND	ND	ND	ND
	MW3	20,000	1,700	2,100	750	3,100
	MW4	150	8.0	8.0	10	45
	MW5	24,000	1,500	1,700	260	3,600
11/01/89	MW1	ND	ND	ND	ND	0.30
	MW2	200	ND	ND	3.0	1.2
	MW3	13,000	57	48	1.7	120

♦ Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be gasoline.

♦♦ Sequoia Analytical Laboratory reported that the hydrocarbons detected appeared to be gasoline and non-gasoline mixture.

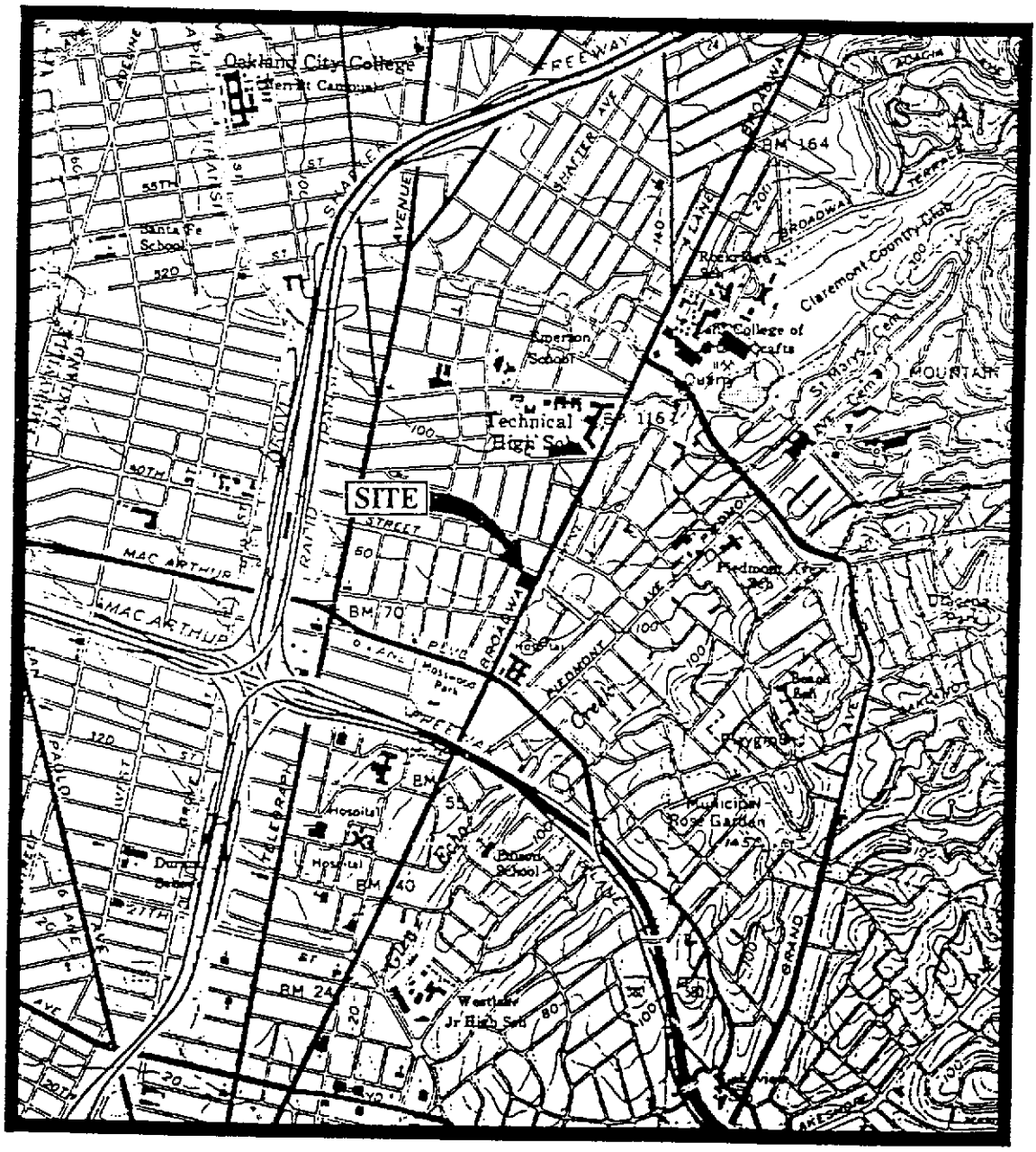
* MTBE was detected at 2,700 µg/L.

ND = Non-detectable.

-- Indicates analysis was not performed.

Results are in micrograms per liter (µg/L), unless otherwise indicated.

Note: Laboratory analyses data prior to November 30, 1993, were provided by Kaprealian Engineering, Inc.

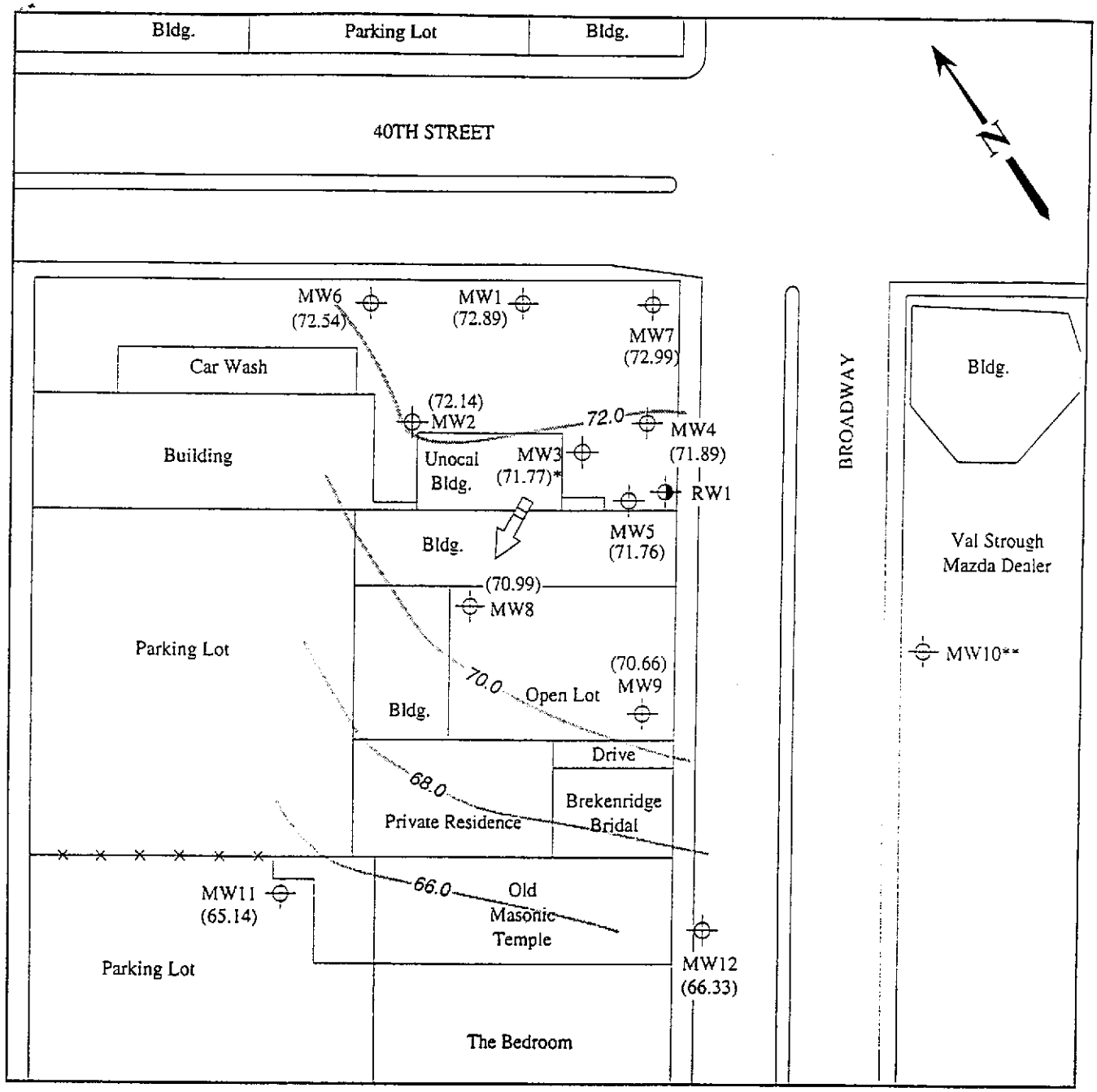


Base modified from 7.5 minute U.S.G.S. Oakland East and West Quadrangles (both photorevised 1980)

0 2000 4000

Approx. scale feet

MPDS SERVICES, INCORPORATED	UNOCAL SERVICE STATION #0746 3943 BROADWAY OAKLAND, CA	LOCATION MAP



LEGEND

- Monitoring well
- 6-inch diameter recovery well
- ( ) Ground water elevation in feet above Mean Sea Level
- Direction of ground water flow
- Contours of ground water elevation
- * Ground water elevation corrected due to the presence of free product
- ** Well was inaccessible

0 60 120

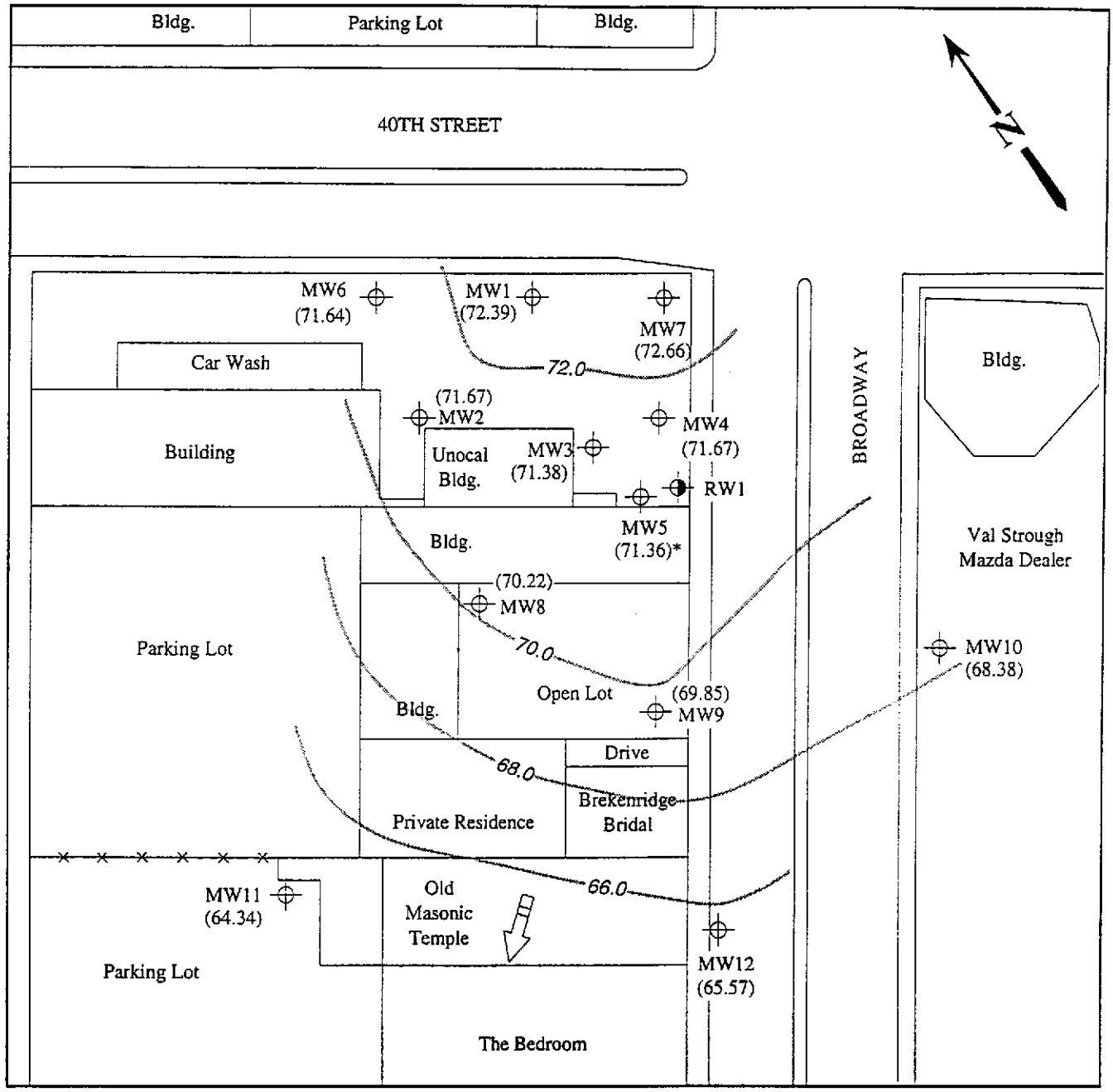
Approx. scale feet

POTENTIOMETRIC SURFACE MAP FOR THE NOVEMBER 30, 1993 MONITORING EVENT

MPDS
SERVICES, INCORPORATED

UNOCAL SERVICE STATION #0746
3943 BROADWAY
OAKLAND, CALIFORNIA

FIGURE
1



LEGEND

- Monitoring well
- 6-inch diameter recovery well
- ( ) Ground water elevation in feet above Mean Sea Level
- Direction of ground water flow
- Contours of ground water elevation

* Ground water elevation corrected due to the presence of free product

0 60 120

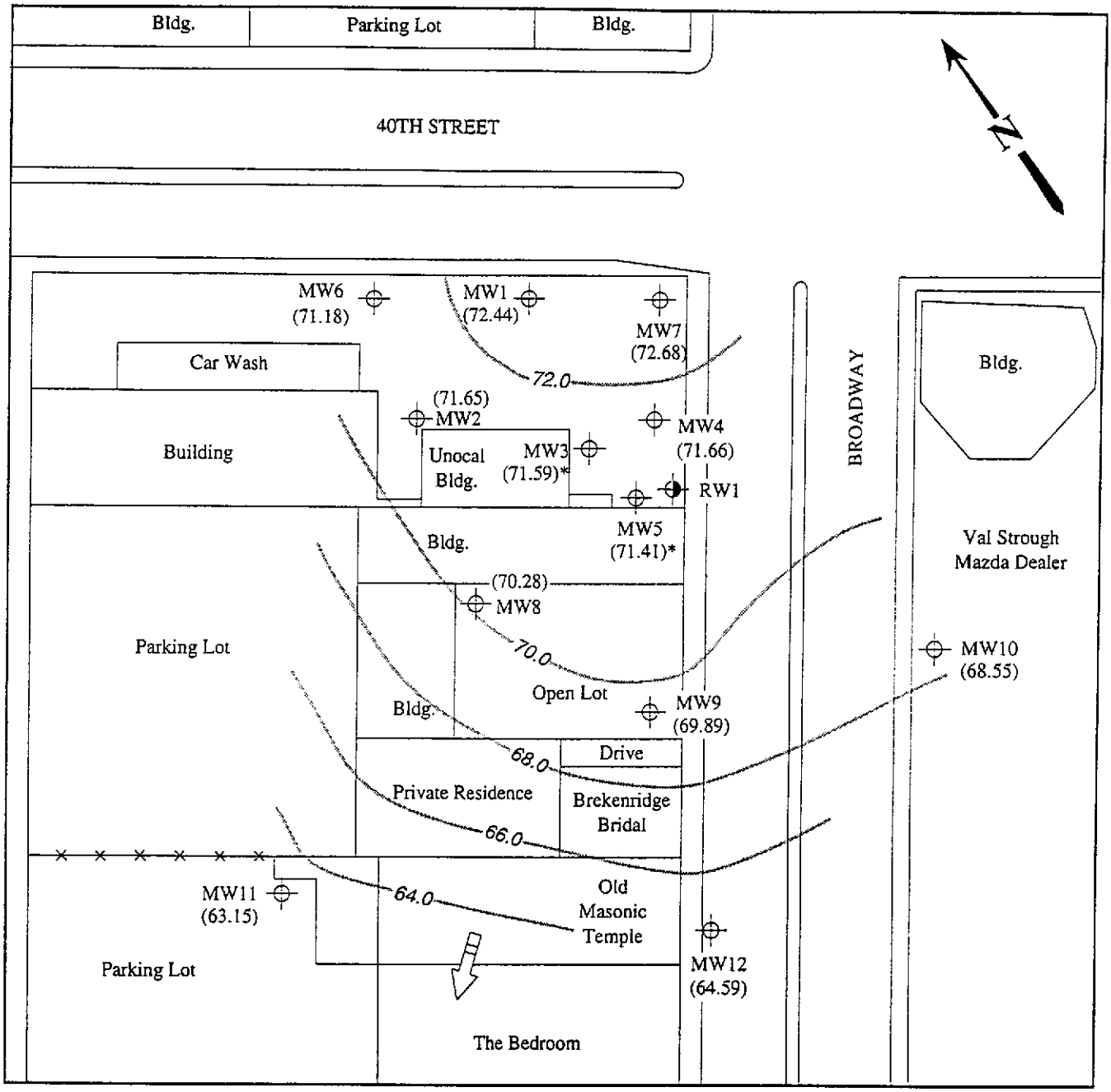
Approx. scale feet

POTENTIOMETRIC SURFACE MAP FOR THE OCTOBER 28, 1993 MONITORING EVENT

M P D S
SERVICES, INCORPORATED

UNOCAL SERVICE STATION #0746
3943 BROADWAY
OAKLAND, CALIFORNIA

FIGURE
2



LEGEND

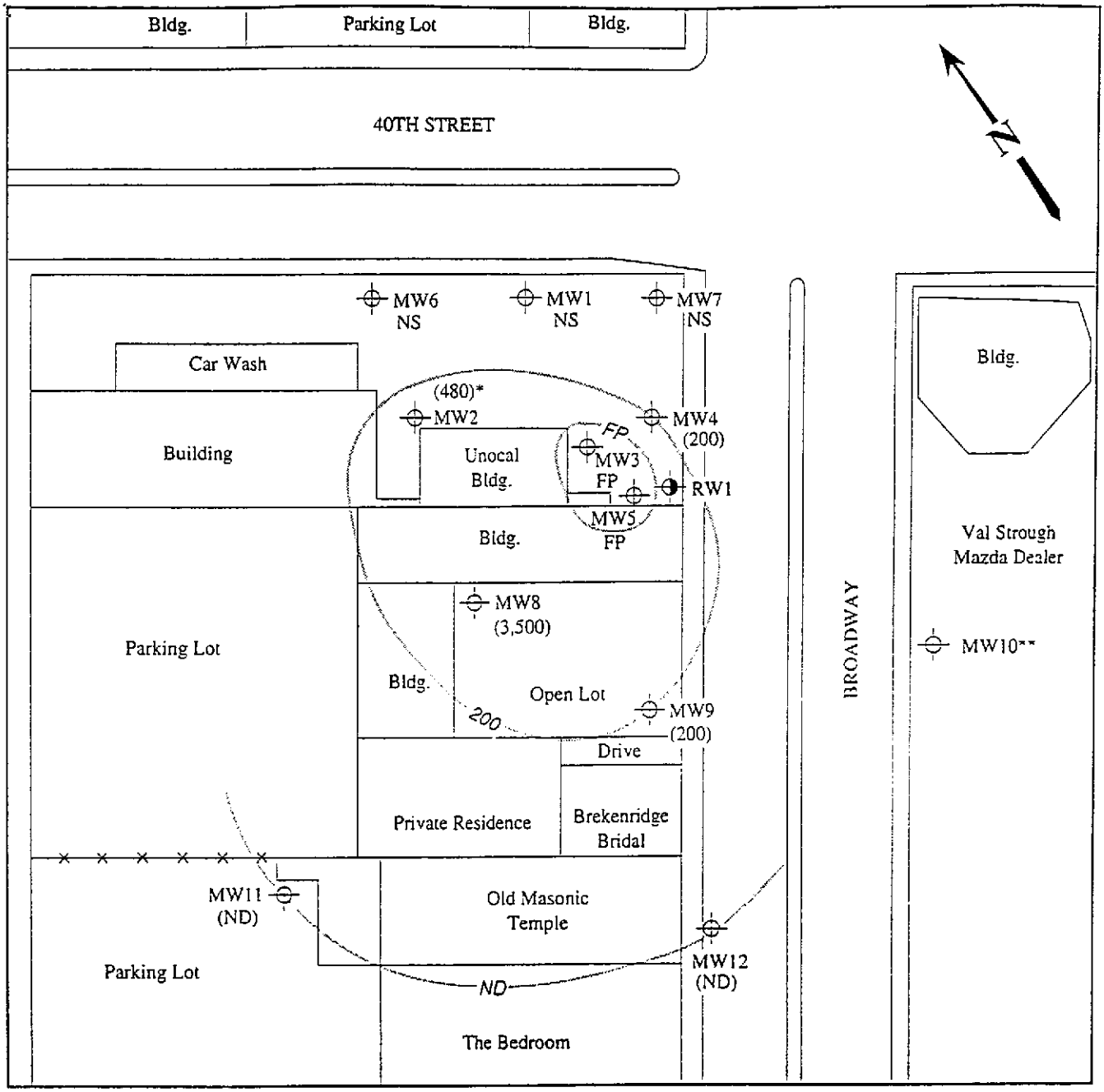
- Monitoring well
- 6-inch diameter recovery well
- ( ) Ground water elevation in feet above Mean Sea Level
- Direction of ground water flow
- Contours of ground water elevation
- * Ground water elevation corrected due to the presence of free product

0 60 120

Approx. scale feet

POTENTIOMETRIC SURFACE MAP FOR THE SEPTEMBER 22, 1993 MONITORING EVENT

M P D S SERVICES, INCORPORATED	**UNOCAL SERVICE STATION #0746** **3943 BROADWAY** **OAKLAND, CALIFORNIA**	FIGURE **3**



LEGEND

- Monitoring well
- 6-inch diameter recovery well
- ( ) Concentration of TPH as gasoline in ppb
- Approximate iso-concentration contours of TPH as gasoline contamination in ground water in ppb

ND = Non-detectable, FP = Free product, NS = Not sampled

* The lab reported that the hydrocarbons detected do not appear to be gasoline.

** Well was inaccessible

0 60 120

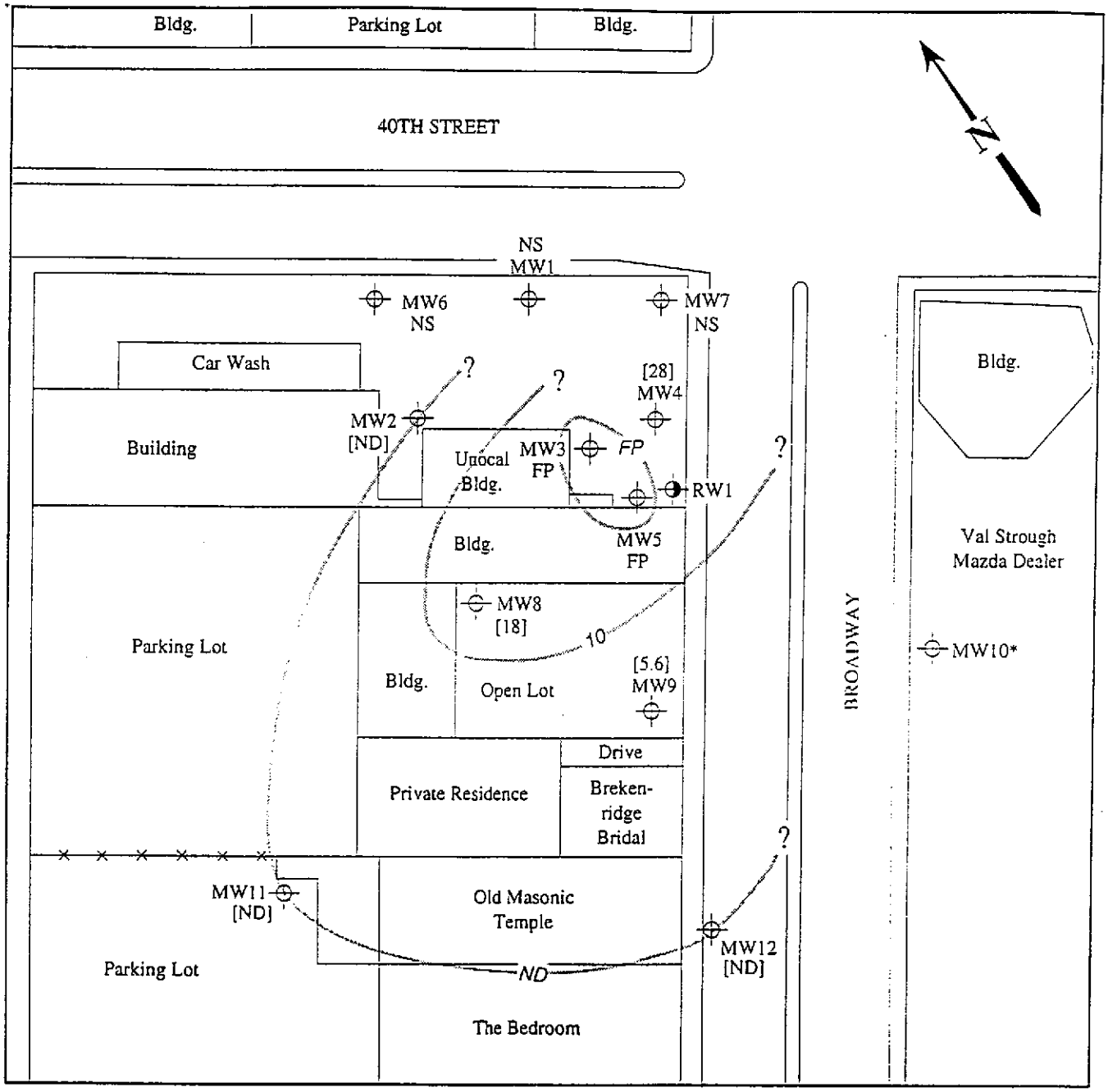
Approx. scale feet

CONCENTRATIONS OF TPH AS GASOLINE IN GROUND WATER ON NOVEMBER 30, 1993

MPDS
SERVICES, INCORPORATED

UNOCAL SERVICE STATION #0746
3943 BROADWAY
OAKLAND, CALIFORNIA

FIGURE
4



LEGEND

- Monitoring well
- 6-inch diameter recovery well
- [ ] Concentration of benzene in ppb
- Approximate iso-concentration contours of benzene contamination in ground water in ppb

ND = Non-detectable, FP = Free product, NS = Not sampled

* Well was inaccessible

0 60 120

Approx. scale feet

CONCENTRATIONS OF BENZENE IN GROUND WATER ON NOVEMBER 30, 1993

MPDS
SERVICES, INCORPORATED

UNOCAL SERVICE STATION #0746
3943 BROADWAY
OAKLAND, CALIFORNIA

FIGURE
5

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

MPDS Services	Client Project ID:	Unocal 0746, 3943 Broadway, Oakland	Sampled: Nov 30, 1993
2401 Stanwell Dr., Ste. 400	Sample Matrix:	Water	Received: Nov 30, 1993
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Reported: Dec 16, 1993
Attention: Avo Avedessian	First Sample #:	312-0227	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 312-0227 MW 2*	Sample I.D. 312-0228 MW 4	Sample I.D. 312-0229 MW 8	Sample I.D. 312-0230 MW 9	Sample I.D. 312-0231 MW 11	Sample I.D. 312-0232 MW 12
Purgeable Hydrocarbons	50	480	200	3,500	200	N.D.	N.D.
Benzene	0.5	N.D.	28	18	5.6	N.D.	N.D.
Toluene	0.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.5	N.D.	17	N.D.	2.9	N.D.	N.D.
Total Xylenes	0.5	N.D.	8.1	N.D.	2.7	N.D.	N.D.
Chromatogram Pattern:		Discrete Peak	Gasoline	Gasoline	Gasoline	--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	20	1.0	1.0	1.0
Date Analyzed:	12/10/93	12/10/93	12/10/93	12/10/93	12/10/93	12/10/93
Instrument Identification:	ML #2	ML #2	ML #2	ML #2	ML #2	ML #2
Surrogate Recovery, %: (QC Limits = 70-130%)	70	84	94	76	79	71

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Alan B. Kemp
Project Manager

Please Note:

* Discrete Peak refers to an unidentified peak in the MTBE range.

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

MPDS Services	Client Project ID:	Unocal 0746, 3943 Broadway, Oakland	Sampled:	- -
2401 Stanwell Dr., Ste. 400	Sample Matrix:	Water	Received:	- -
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Reported:	Dec 16, 1993
Attention: Avo Avedessian	First Sample #:	Method Blank		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. Method Blank
Purgeable Hydrocarbons	50	N.D.
Benzene	0.5	N.D.
Toluene	0.5	N.D.
Ethyl Benzene	0.5	N.D.
Total Xylenes	0.5	N.D.
Chromatogram Pattern:		- -

Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Analyzed:	12/10/93
Instrument Identification:	ML #2
Surrogate Recovery, %: (QC Limits = 70-130%)	84

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Alan B. Kemp
Project Manager

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

MPDS Services	Client Project ID:	Unocal 0746, 3943 Broadway, Oakland
2401 Stanwell Dr., Ste. 400	Matrix:	Liquid
Concord, CA 94520		
Attention: Avo Avedessian	QC Sample Group: 3120227-32	Reported: Dec 16, 1993

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Dinsay	J. Dinsay	J. Dinsay	J. Dinsay
MS/MSD Batch#:	3120109	3120109	3120109	3120109
Date Prepared:	12/10/93	12/10/93	12/10/93	12/10/93
Date Analyzed:	12/10/93	12/10/93	12/10/93	12/10/93
Instrument I.D.#:	ML #2	ML #2	ML #2	ML #2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Matrix Spike % Recovery:	104	113	130	127
Matrix Spike Duplicate % Recovery:	115	108	113	113
Relative % Difference:	10	4.5	14	12
LCS Batch#:	LCS121093	LCS121093	LCS121093	LCS121093
Date Prepared:	12/10/93	12/10/93	12/10/93	12/10/93
Date Analyzed:	12/10/93	12/10/93	12/10/93	12/10/93
Instrument I.D.#:	ML #2	ML #2	ML #2	ML #2
LCS % Recovery:	85	93	104	104
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Alan B. Kemp
Project Manager

Please Note:
The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

MPDS
Services, Inc.

CHAIN OF CUSTODY

SAMPLER: Rees
WITNESSING AGENCY:
SITE NAME & ADDRESS: UNOCAL 0746, 3943 BROADWAY, OAKLAND

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPH G BTEX
MW2	11.30			x	x		2	VOA	x
MW4	"			x	x		"	"	x
MW3	"			x	x		"	"	x
MW9	"			x	x		"	"	x
MW11	"			x	x		"	"	x
MW12	"			x	x		"	"	x

ANALYSES REQUESTED

TURN AROUND TIME: REGULAR

REMARKS: 3120227 AB 0228 0229 0230 0231 0232

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Rees	11-30-93 1835	L. Stenstrom 1835
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
RL	12/1/93	Melissa Crescent
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received by: (Signature)

The following MUST BE completed by the laboratory accepting samples for analysis:
1. Have all samples received for analysis been stored in ice? yes
2. Will samples remain refrigerated until analyzed? yes
3. Did any samples received for analysis have head space? NO
4. Were samples in appropriate containers and properly packaged? yes

LMS (Signature) _____ (Title) 11/30/93 (Date)

2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel: 510 602.5100 Fax: 510 687.0602