MONITORING
PURGING
DISPOSING
SAMPLING

MPDS SERVICES, INCORPORATED

May 27, 1997

City of San Leandro
Development Services
835 E. 14th Street
San Leandro, CA 94577

RE: Former Unocal Service Station #2512
1300 Davis Street
San Leandro, California

Per the request of the Unocal Corporation Project Manager, Mr. Robert A. Boust, enclosed please find our report (MPDS-UN2512-09) dated May 2, 1997, for the above referenced site.

Should you have any questions regarding the reporting of data, please feel free to call our office at (510) 602-5120. Any other questions may be directed to the Project Manager at (510) 277-2334.

Sincerely,

MPDS Services, Inc.

Jarrel F. Crider

/jfc

Enclosure

cc: Mr. Robert A. Boust

2401 Stanwell Drive, Suite 401, Concord, CA 94520
TEL: 510 602-5120, FAX: 510 689-1918

MONITORING
PURGING
DISPOSING
SAMPLING

MPDS SERVICES, INCORPORATED

MPDS-UN2512-09
May 2, 1997

Unocal - DBG/AMG
2000 Crow Canyon Place, Suite 470
P.O. Box 5073
San Ramon, California 94583-0973

Attention: Mr. Robert A. Boust

RE: Quarterly Report
Former Unocal Service Station #2512
1300 Davis Street
San Leandro, California

Dear Mr. Boust:

This data report presents the results of the most recent monitoring and sampling of the monitoring wells at the referenced site by MPDS Services, Inc.

RECENT FIELD ACTIVITIES

The monitoring wells that were monitored and sampled during this quarter are indicated in Table 1. Prior to sampling, the wells were checked for depth to water and the presence of free product or sheen. The monitoring data and the ground water elevations are summarized in Table 1. The ground water flow direction during the most recent quarter is shown on the attached Figure 1.

Ground water samples were collected on April 16, 1997. Prior to sampling, the wells were each purged of 10 gallons of water. Samples were then collected using a clean Teflon bailer. The samples were decanted into clean VOA vials and/or one-liter amber bottles, as appropriate, which were then sealed with Teflon-lined screw caps, labeled, and stored in a cooler, on ice, until delivery to a state-certified laboratory. MPDS Services, Inc. transported the purged ground water to the Tosco Refinery located in Rodeo, California, for treatment and discharge to San Pablo Bay under NPDES permit.

ANALYTICAL RESULTS

The ground water samples were analyzed at Sequoia Analytical Laboratory and were accompanied by properly executed Chain of Custody documentation. The analytical results of the ground water samples collected to date are summarized in Tables 2 and 3. The concentrations of Total Petroleum Hydrocarbons (TPH) as gasoline, TPH as diesel, and benzene detected in the ground water samples collected this quarter are shown on the attached Figure 2. Copies of the laboratory analytical results and the Chain of Custody documentation are attached to this report.

2401 Stanwell Drive, Suite 400, Concord, CA 94520
TEL (510) 602-5120 FAX (510) 689-1918

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.

DISTRIBUTION

A copy of this report should be sent to the Alameda County Health Care Services Agency, and to the City of San Leandro.

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

Sincerely,

MPDS Services, Inc.

Haig (Gary) Tejirian
Senior Staff Geologist

Hagop Kevork, P.E.
Senior Staff Engineer

License No. C55734
Exp. Date: December 31, 2000

/aab

Attachments: Tables 1, 2 & 3
Location Map
Figures 1 & 2
Laboratory Analyses
Chain of Custody documentation

cc: Mr. Sarkis A. Soghomonian, Kaprealian Engineering, Inc.

Table 1

Summary of Monitoring Data

Well #	Ground Water Elevation (feet)	Depth to Water (feet)♦	Total Well Depth (feet)♦	Product Thickness (feet)	Sheen	Water Purged (gallons)
(Monitored and Sampled on April 16, 1997)						
MW3	19.97	12.05	32.18	0	No	10 (100)
MW7	19.59	12.12	29.78	0	No	10
MW8	19.99	12.74	30.04	0	No	10
MW9	19.67	12.66	29.98	0	No	10
(Monitored and Sampled on January 28, 1997)						
MW3	20.47	11.55	33.35	0	No	11.5 (100)
MW7	21.30	10.41	29.61	0	No	10
MW8	18.87	13.86	29.86	0	No	8.5
MW9	18.57	13.76	29.99	0	No	8.5
(Monitored and Sampled on October 25, 1996)						
MW3	16.69	15.33	33.30	0	No	9.5 (100)
MW7	16.58	15.13	29.89	0	No	8
MW8	16.77	15.96	29.95	0	No	7.5
MW9	16.67	15.66	30.00	0	No	7.5
(Monitored and Sampled on July 25, 1996)						
MW3	17.62	14.40	32.28	0	No	12.5 (100)
MW7	17.41	14.30	29.80	0	No	11
MW8	17.63	15.10	30.02	0	No	11
MW9	17.28	15.05	30.05	0	No	11

Well #	Well Casing Elevation (feet)*
MW3	32.02
MW7	31.71
MW8	32.73
MW9	32.33

Table 1

Summary of Monitoring Data

♦ The depth to water level and total well depth measurements were taken from the top of the well casings.

* The elevations of the top of the well casing are relative to MSL, per East Bay MUD Benchmark DAVIS FREE #2 - San Leandro 1952 (Elevation = 32.02 feet MSL).

(x) Amount of water purged after sampling.

-- Sheen determination was not performed.

Table 2

Summary of Laboratory Analyses
Water

Well #	Date	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	TOG (mg/L)	MTBE
MW1	4/25/89	100	ND	0.31	ND	ND	ND	--	--
	8/10/89	ND	ND	ND	ND	ND	ND	ND	--
	11/21/89	ND	ND	ND	ND	ND	ND	8.9	--
	2/23/90	ND	ND	ND	ND	ND	ND	ND	--
	5/10/90	ND	ND	ND	ND	ND	ND	ND	--
	8/9/90	ND	ND	ND	ND	ND	ND	ND	--
	11/6/90	ND	ND	ND	ND	ND	ND	ND	--
	2/4/91	ND	ND	ND	0.31	ND	0.62	ND	--
	5/24/91	--	ND	ND	ND	ND	ND	ND	--
	8/15/91	NOT SAMPLED							
	11/19/91	NOT SAMPLED							
	2/27/92	NOT SAMPLED							
	5/26/92	NOT SAMPLED							
	10/30/92	NOT SAMPLED							
	6/9/94	--	580†	ND	ND	ND	ND	--	--
	9/8/94	--	160††	ND	1.6	ND	3.1	--	--
	1/25/95	WELL WAS DESTROYED							
MW2	4/25/89	ND	32	0.35	ND	ND	ND	--	--
	8/10/89	ND	ND	ND	0.39	ND	ND	ND	--
	11/21/89	ND	48	ND	0.51	ND	ND	1.6	--
	2/23/90	ND	44	ND	ND	ND	ND	ND	--
	5/10/90	ND	43	ND	1	ND	ND	ND	--
	8/9/90	ND	ND	ND	ND	ND	ND	ND	--
	11/6/90	ND	ND	ND	0.42	ND	1.4	ND	--
	2/4/91	ND	ND	ND	0.38	ND	0.87	ND	--
	5/24/91	--	ND	1.5	ND	ND	ND	ND	--
	8/15/91	--	ND	ND	ND	ND	ND	ND	--
	11/19/91	--	220	2.5	8.4	2.4	14	--	--
	2/27/92	--	330	12	12	10	93	--	--
	5/26/92	--	2,900	8.8	9.3	54	36	--	--
	10/30/92	--	1,200†	ND	ND	ND	ND	--	--
	6/9/94	--	1,900††	6.7	ND	66	ND	--	--
	9/8/94	--	3,000†	ND	ND	ND	17	--	--
	1/25/95	WELL WAS DESTROYED							
MW3	4/25/89	5,700	56	ND	ND	0.31	0.49	--	--
	8/10/89	860	3,200	73	140	35	240	ND	--
	11/21/89	110	1,900	ND	ND	ND	ND	3.8	--
	2/23/90	350	ND	0.32	ND	ND	ND	1.3	--
	5/10/90	850	6,200	94	460	160	540	2.8	--
	8/9/90	500	1,900	56	140	140	31	ND	--
	11/6/90	940	16,000	820	1,500	2,200	770	ND	--
	2/4/91	NOT SAMPLED DUE TO A TRACE OF FREE PRODUCT							
	5/24/91	2,000	23,000	940	3,400	590	2,600	ND	--

Table 2

Summary of Laboratory Analyses
Water

Well #	Date	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	TOG (mg/L)	MTBE
MW3 (Cont.)	8/15/91	NOT SAMPLED DUE TO A TRACE OF FREE PRODUCT							
	11/19/91	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT							
	2/27/92	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT							
	5/26/92●	2,400,000	1,300,000	5,100	66,000	20,000	160,000	880	--
	10/30/92	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT							
	6/9/94	17,000*	69,000	1,300	7,100	1,900	11,000	--	--
	9/8/94	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT							
	10/21/95	5,900*	50,000	250	4,200	1,700	18,000	--	§
	1/24/96	5,300*	100,000	950	3,300	2,500	16,000	--	‡
	4/23/96	4,900*	50,000	430	1,700	1,600	7,600	--	ND
	7/25/96	2,400**	17,000	170	ND	650	3,300	--	240
	10/25/96	3,700**	26,000	420	1,100	1,800	6,400	--	340
	1/28/97	3,900*	32,000	230	1,000	1,000	4,500	--	ND
	4/16/97	3,100*	12,000	76	ND	330	1,600	--	ND
MW4	8/29/89	120	ND	ND	ND	ND	ND	ND	--
	11/21/89	ND	ND	ND	ND	ND	ND	ND	--
	2/23/90	ND	ND	ND	ND	ND	ND	ND	--
	5/10/90	88	54	ND	2	ND	0.37	ND	--
	8/9/90	ND	ND	ND	ND	ND	ND	ND	--
	11/6/90	ND	ND	ND	0.36	ND	0.98	ND	--
	2/4/91	ND	ND	ND	0.72	ND	1.1	ND	--
	5/24/91	ND	ND	0.64	ND	ND	ND	ND	--
	8/15/91	ND	ND	ND	ND	ND	ND	ND	--
	11/19/91	ND	ND	ND	ND	ND	ND	--	--
	2/27/92	ND	43	ND	1	0.37	2.5	--	--
	5/26/92	ND	120	0.59	0.82	ND	1.9	--	--
	10/30/92	WELL WAS INACCESSIBLE							
	6/9/94	ND	780†	ND	ND	ND	ND	--	--
	9/8/94	ND	300†	ND	ND	ND	ND	--	--
	1/25/95	WELL WAS DESTROYED							
MW5	8/29/89	100	ND	ND	0.94	0.3	ND	ND	--
	11/21/89	70	ND	ND	ND	ND	ND	ND	--
	2/23/90	ND	ND	ND	ND	ND	ND	ND	--
	5/10/90	83	ND	ND	ND	ND	0.31	ND	--
	8/9/90	ND	ND	ND	ND	ND	ND	ND	--
	11/6/90	ND	ND	ND	ND	ND	ND	ND	--
	2/4/91	ND	ND	ND	0.35	ND	ND	ND	--
	5/24/91	ND	ND	ND	ND	ND	ND	ND	--
	11/19/91	NOT SAMPLED							
	2/27/92	NOT SAMPLED							
	5/26/92	NOT SAMPLED							
	10/30/92	NOT SAMPLED							
	6/9/94	WELL WAS INACCESSIBLE							
	9/8/94	WELL WAS INACCESSIBLE							
	1/25/95	WELL WAS DESTROYED							

Table 2

Summary of Laboratory Analyses
Water

Well #	Date	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	TOG (mg/L)	MTBE
MW6	8/29/89	ND	ND	ND	ND	ND	ND	ND	--
	11/21/89	ND	ND	ND	ND	ND	ND	ND	--
	2/23/90	ND	ND	ND	ND	ND	ND	ND	--
	5/10/90	ND	ND	ND	1.2	ND	ND	ND	--
	8/9/90	ND	ND	ND	ND	ND	ND	ND	--
	11/6/90	ND	ND	1.6	0.35	ND	ND	ND	--
	2/4/91	ND	ND	ND	ND	ND	ND	ND	--
	5/24/91	--	ND	ND	ND	ND	ND	ND	--
	8/15/91	--	ND	ND	ND	ND	ND	ND	--
	11/19/91	--	ND	ND	ND	ND	ND	--	--
	2/27/92	--	ND	3.2	ND	ND	3.8	--	--
	5/26/92	--	ND	ND	ND	ND	0.65	--	--
	10/30/92	--	ND	ND	ND	ND	ND	--	--
	6/9/94	WELL WAS INACCESSIBLE							
	9/8/94	WELL WAS INACCESSIBLE							
	1/25/95	WELL WAS DESTROYED							
MW7	2/27/92	--	38	ND	0.97	0.69	4	--	--
	5/26/92	--	ND	ND	ND	ND	0.6	--	--
	10/30/92	--	ND	ND	ND	ND	ND	--	--
	6/9/94	--	610†	ND	ND	ND	ND	--	--
	9/8/94	--	ND	ND	1.3	ND	1.6	--	--
	10/21/95	--	ND	ND	ND	ND	ND	--	--
	1/24/96	--	ND	ND	ND	ND	ND	--	--
	4/23/96	--	220	ND	0.62	0.88	5.4	--	ND
	7/25/96	--	ND	ND	ND	ND	ND	--	ND
	10/25/96	--	ND	ND	ND	ND	ND	--	ND
	1/28/97	--	ND	ND	ND	ND	ND	--	ND
	4/16/97	--	ND	ND	ND	ND	ND	--	ND
MW8	10/21/95	--	ND	ND	ND	ND	ND	--	--
	1/24/96	--	ND	ND	ND	ND	ND	--	--
	4/23/96	--	ND	ND	ND	ND	ND	--	ND
	7/25/96	--	ND	ND	ND	ND	ND	--	ND
	10/25/96	--	ND	ND	ND	ND	ND	--	ND
	1/28/97	--	ND	ND	ND	ND	ND	--	ND
	4/16/97	--	ND	ND	ND	ND	ND	--	ND
MW9	10/21/95	--	ND	ND	ND	ND	ND	--	§
	1/24/96	--	ND	ND	ND	ND	ND	--	‡
	4/23/96	--	ND	ND	ND	ND	ND	--	ND
	7/25/96	--	ND	ND	ND	ND	ND	--	ND
	10/25/96	--	ND	ND	ND	ND	ND	--	180
	1/28/97	--	ND	ND	ND	ND	ND	--	75
	4/16/97	--	ND	ND	ND	ND	ND	--	ND

Table 2

Summary of Laboratory Analyses
Water

TOG = Total Oil & Grease

MTBE = Methyl tert butyl ether

ND = Non-detectable.

mg/L = milligrams per liter.

* Sequoia Analytical Laboratory reported that the hydrocarbons detected appeared to be a diesel and non-diesel mixture.

** Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be diesel.

† 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 a gasoline and non-gasoline mixture.

• Free product was detected in well MW3; however, a water sample was collected and analyzed to determine if the product was predominantly hydrocarbon based.

§ Sequoia Analytical Laboratory has potentially identified the presence of MTBE at reportable levels in the sample collected from this well.

‡ Sequoia Analytical Laboratory has identified the presence of MTBE at a level above or equal to the taste and odor threshold of 40 µg/L in the sample collected from this well.

-- Indicates analysis was not performed.

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

Note: The detection limit for results reported as ND by Sequoia Analytical Laboratory is equal to the stated detection limit times the dilution factor indicated on the laboratory analytical sheets.

Prior to August 1, 1995, the total purgeable petroleum hydrocarbon (TPH as gasoline) quantification range used by Sequoia Analytical Laboratory was C4 - C12. Since August 1, 1995, the quantificiation range used by Sequoia Analytical Laboratory is C6 - C12.

Monitoring data prior to June 9, 1994, were provided by Kaprealian Engineering, Inc.

Table 3

Summary of Laboratory Analyses
Water

Well #	Date	Tetrachloro-ethene	1,1-Dichloro-ethane	1,1,1-Trichloro-ethane	Chloro-methane	1,1-Dichloro-ethene	1,2-Dichloro-benzene	Trichloro-ethene
MW1	4/25/89	3.3	ND	ND	ND	ND	ND	0.55
	11/06/90	4.8	ND	ND	ND	ND	ND	ND
	5/24/91	4.6	ND	ND	ND	ND	ND	ND
	6/9/94	1.0	ND	ND	ND	ND	ND	ND
	9/8/94	1.2	ND	ND	ND	ND	ND	ND
	1/25/95	WELL WAS DESTROYED						
MW2	4/25/89	0.68	ND	ND	ND	ND	ND	ND
	11/06/90	ND	ND	ND	ND	ND	ND	ND
	5/24/91	ND	ND	ND	ND	ND	ND	ND
	8/15/91	ND	ND	ND	ND	ND	ND	ND
	11/19/91	ND	ND	ND	ND	ND	ND	ND
	2/27/92	ND	ND	ND	ND	ND	ND	ND
	5/26/92	ND	ND	ND	ND	ND	ND	ND
	10/30/92	ND	ND	ND	ND	ND	ND	ND
	6/9/94	ND	ND	ND	ND	ND	ND	ND
	9/8/94	ND	ND	ND	ND	ND	ND	ND
	1/25/95	WELL WAS DESTROYED						
MW3	4/25/89	1.0	ND	ND	ND	ND	ND	ND
	11/6/90	ND	ND	ND	ND	ND	ND	ND
	5/24/91	ND	ND	ND	ND	ND	ND	ND
	8/15/91	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT						
	11/19/91	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT						
	2/27/92	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT						
	5/26/92	ND	ND	ND	ND	ND	ND	ND
	10/30/92	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT						
	6/9/94	ND	ND	ND	ND	ND	ND	ND
	9/8/94	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT						
	10/21/95	ND	ND	ND	ND	ND	ND	ND
	1/24/96	ND	ND	ND	ND	ND	ND	ND
	4/23/96	ND	ND	ND	ND	ND	ND	ND
	7/25/96	ND	ND	ND	ND	ND	ND	ND
	10/25/96	ND	ND	ND	ND	ND	ND	ND
	1/28/97	ND	ND	ND	ND	ND	ND	ND
	4/16/97	ND	ND	ND	ND	ND	ND	ND
MW4	11/6/90	2.9	ND	ND	ND	ND	ND	ND
	5/24/91	4.1	2.5	3.9	ND	ND	ND	ND
	8/15/91	3.6	ND	ND	ND	ND	ND	ND
	11/19/91	3.4	ND	ND	ND	ND	ND	ND
	2/27/92	3.5	6	ND	ND	ND	ND	ND
	5/26/92	2.4	13	3.5	ND	0.83	ND	ND
	10/30/92	WELL WAS INACCESSIBLE						
	6/9/94	2.8	8.8	0.83	ND	0.51	ND	0.70
	9/8/94*	1.8	ND	ND	ND	ND	ND	0.60
	1/25/95	WELL WAS DESTROYED						

Table 3

Summary of Laboratory Analyses
Water

Well #	Date	Tetrachloro-ethene	1,1-Dichloro-ethane	1,1,1-Trichloro-ethane	Chloro-methane	1,1-Dichloro-ethene	1,2-Dichloro-benzene	Trichloro-ethene
MW5	11/6/90	0.7	ND	ND	ND	ND	ND	ND
	5/24/91	0.89	ND	ND	ND	ND	ND	ND
	6/9/94	WELL WAS INACCESSIBLE						
	9/8/94	WELL WAS INACCESSIBLE						
	1/25/95	WELL WAS DESTROYED						
MW6	11/6/90	1.2	ND	ND	ND	ND	ND	ND
	5/24/91	0.88	ND	ND	5.6	ND	ND	ND
	8/15/91	1.2	ND	ND	ND	ND	ND	ND
	11/19/91	1.3	ND	ND	ND	ND	ND	ND
	2/27/92	1.5	ND	ND	ND	ND	1.6	ND
	5/26/92	1.1	ND	ND	ND	ND	1.7	ND
	10/30/92	1.2	ND	ND	ND	ND	ND	ND
	6/9/94	WELL WAS INACCESSIBLE						
	9/8/94	WELL WAS INACCESSIBLE						
	1/25/95	WELL WAS DESTROYED						
MW7	2/27/92	2.4	ND	ND	ND	ND	ND	ND
	5/26/92	2.2	ND	ND	ND	ND	ND	ND
	10/30/92	2.2	ND	ND	ND	ND	ND	ND
	6/9/94	0.67	ND	ND	ND	ND	ND	ND
	9/8/94	0.76	ND	ND	ND	ND	ND	ND
	10/21/95	ND	ND	ND	ND	ND	ND	ND
	1/24/96	1.2	ND	ND	ND	ND	ND	ND
	4/23/96	0.84	ND	ND	ND	ND	ND	ND
	7/25/96	1.7	ND	ND	ND	ND	ND	ND
	10/25/96**	1.2	ND	ND	ND	ND	ND	ND
	1/28/97	1.4	ND	ND	ND	ND	ND	ND
	4/19/97	0.75	ND	ND	ND	ND	ND	ND
MW8	10/21/95	ND	ND	ND	ND	ND	ND	ND
	1/24/96	0.74	ND	ND	ND	ND	ND	ND
	4/23/96	1.1	ND	ND	ND	ND	ND	ND
	7/25/96	1.1	ND	ND	ND	ND	ND	ND
	10/25/96	0.90	ND	ND	ND	ND	ND	ND
	1/28/97	0.96	ND	ND	ND	ND	ND	ND
	4/16/97	0.51	ND	ND	ND	ND	ND	ND
MW9	10/21/95	17	1.0	ND	ND	ND	ND	ND
	1/24/96	17	2.2	ND	ND	ND	ND	0.64
	4/23/96	71	ND	ND	ND	ND	ND	ND
	7/25/96	1.0	ND	ND	ND	ND	ND	ND
	10/25/96	80	ND	ND	ND	ND	ND	ND
	1/28/97	39	ND	ND	ND	ND	ND	ND
	4/16/97	0.51	ND	ND	ND	ND	ND	ND

Table 3

Summary of Laboratory Analyses
Water

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* 1,2 Dichloroethane was detected at a concentration of 4.8 μg/L.

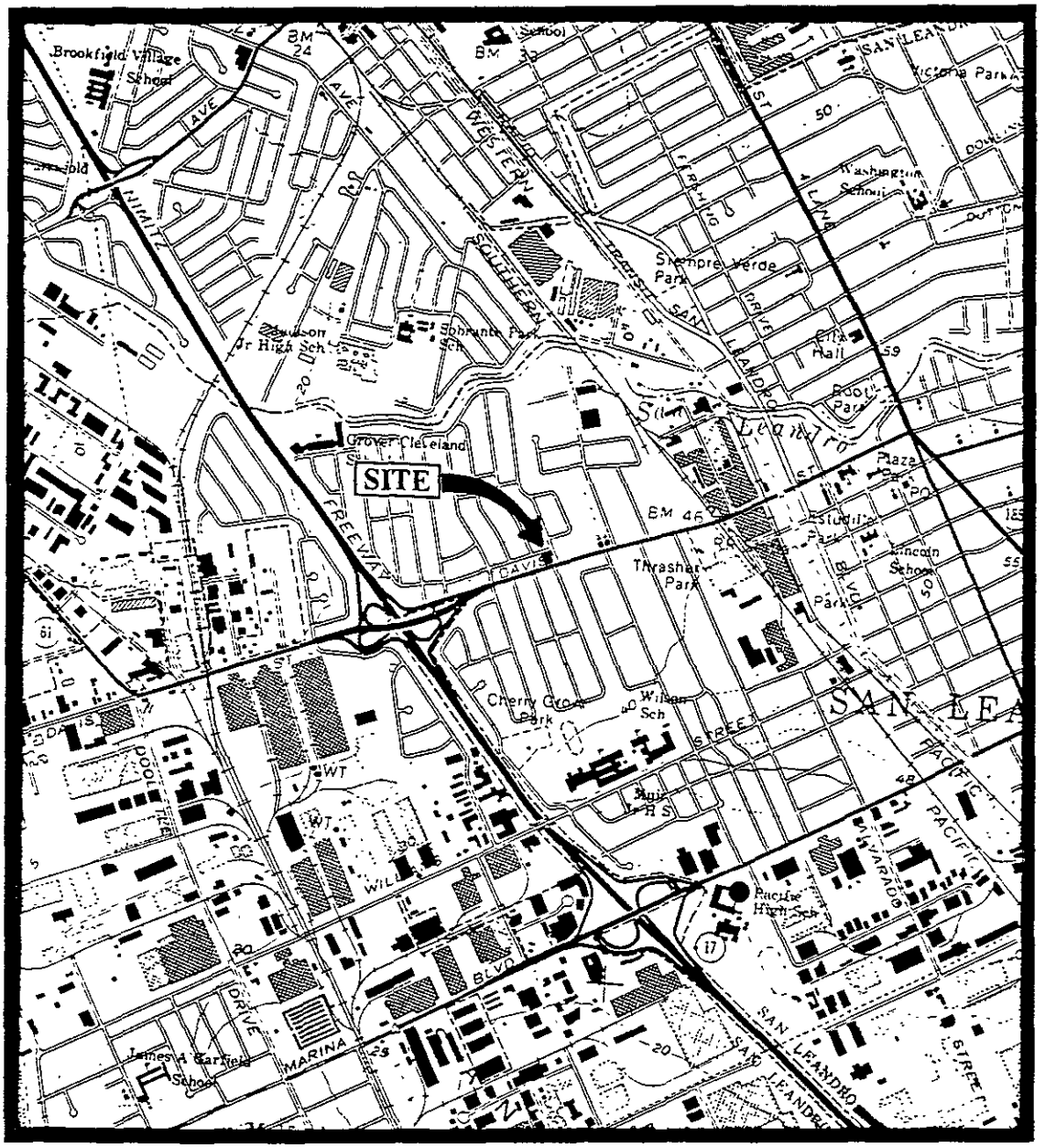
** Chlororform was detected at a concentration of 1.7 μg/L.

ND = Non-detectable.

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

Note: All EPA method 8010 constituents were non detectable, except for those shown in this Table.

Laboratory analyses data prior to June 9, 1994, were provided by Kaprealian Engineering, Inc.

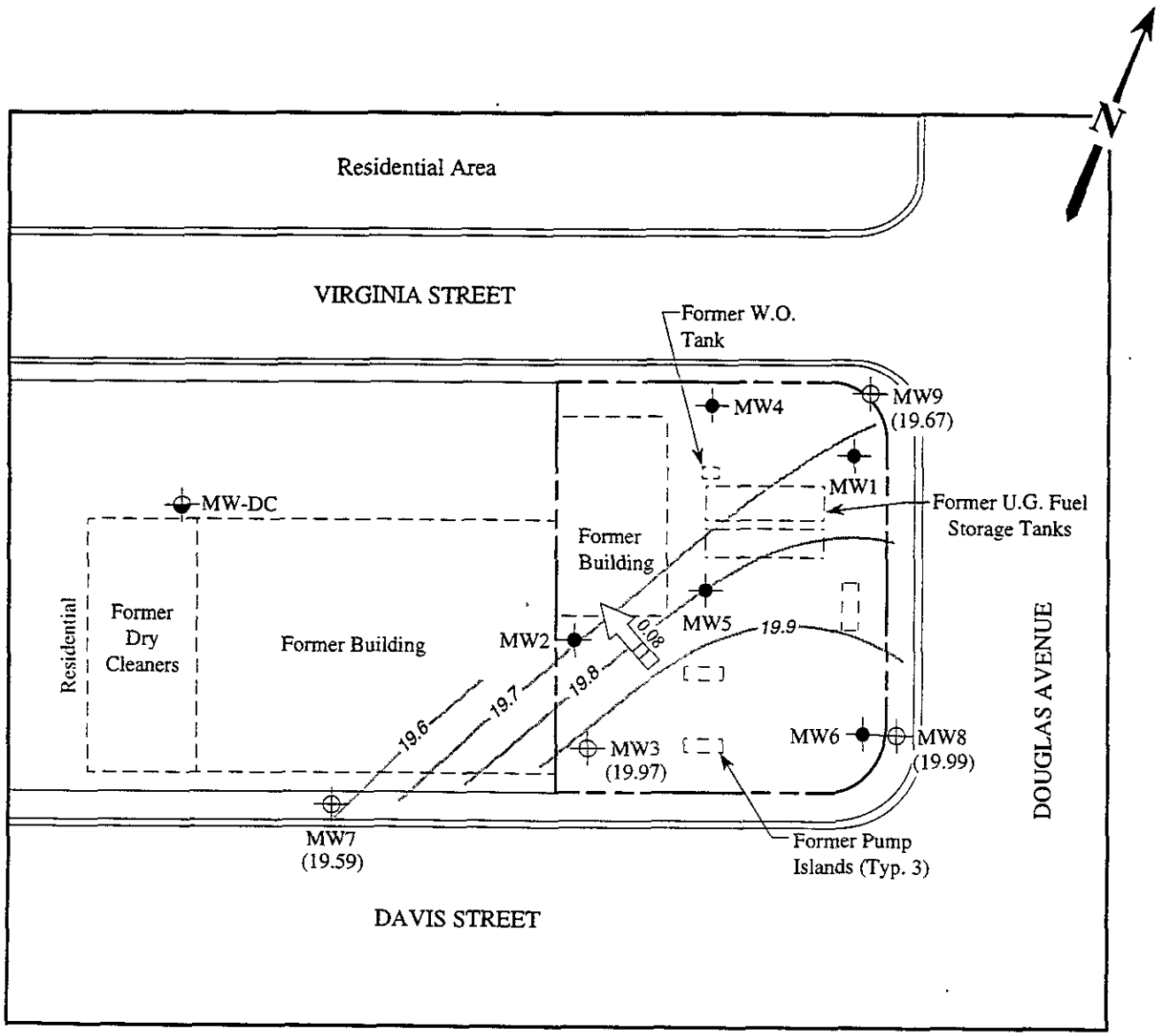


Base modified from 7 5 minute U S G S San Leandro Quadrangle (photorevised 1980)

0 2000 4000

Approx scale feet

mpds SERVICES INCORPORATED	FORMER UNOCAL S/S #2512 1300 DAVIS STREET SAN LEANDRO, CALIFORNIA	LOCATION MAP



LEGEND

- Monitoring well (by KEI-existing)
- Monitoring well (by KEI-destroyed)
- Monitoring well (by others)
- ( ) Ground water elevation in feet above Mean Sea Level
- # ## Direction of ground water flow with approximate hydraulic gradient
- Contours of ground water elevation

0 50 100

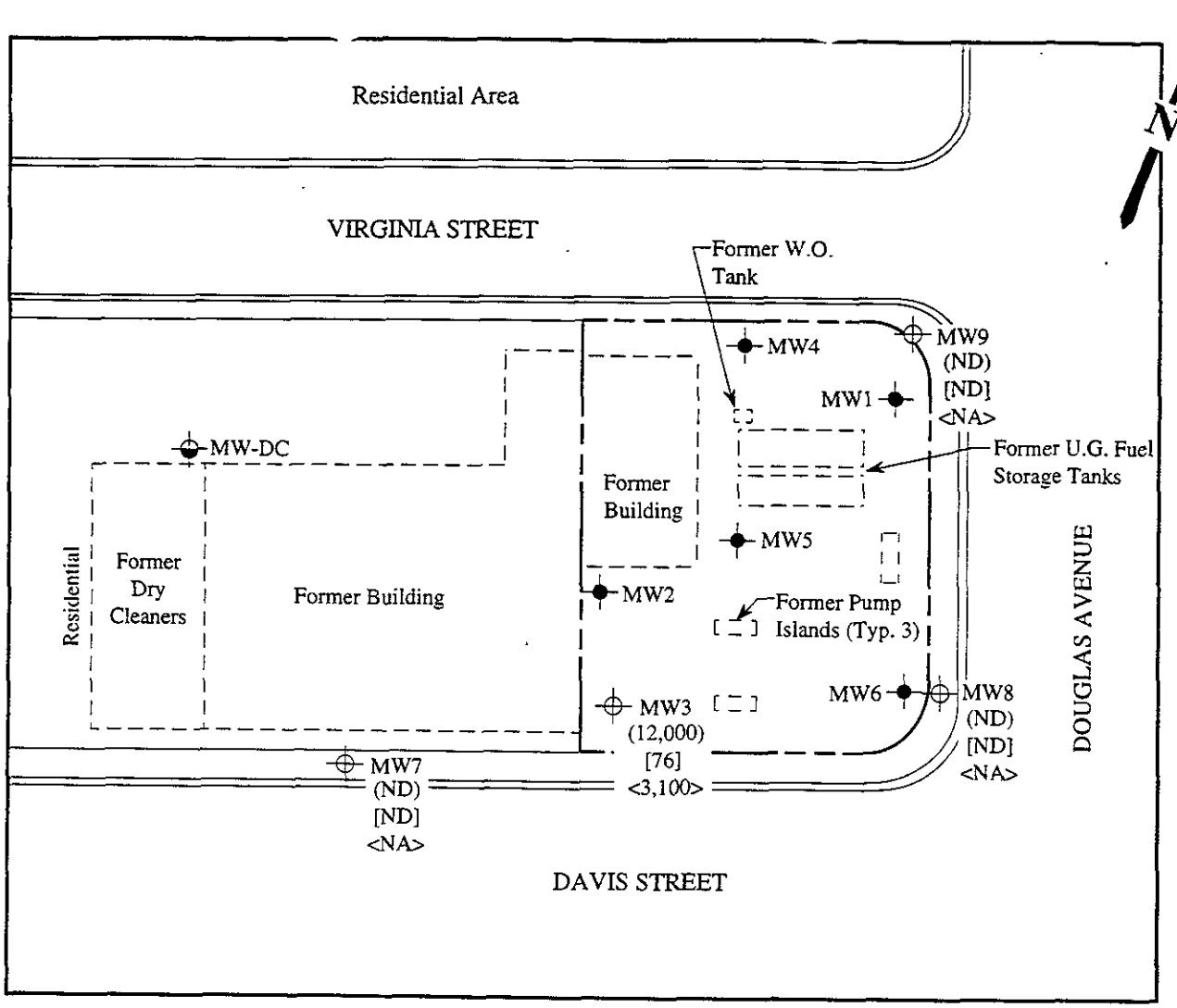
Approx scale feet

POTENTIOMETRIC SURFACE MAP FOR THE APRIL 16, 1997 MONITORING EVENT

MPDS SERVICES, INCORPORATED

FORMER UNOCAL S/S #2512
1300 DAVIS STREET
SAN LEANDRO, CALIFORNIA

FIGURE
1



LEGEND

- Monitoring well (by KEI-existing)
- Monitoring well (by KEI-destroyed)
- Monitoring well (by others – existing)
- ( ) Concentration of TPH as gasoline in µg/L
- [ ] Concentration of benzene in µg/L
- < > Concentration of TPH as diesel in µg/L
- ND Non-detectable, NA Not analyzed

0 50 100

Approx scale feet

PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUND WATER ON APRIL 16, 1997

MPDS SERVICES, INCORPORATED

FORMER UNOCAL S/S #2512
1300 DAVIS STREET
SAN LEANDRO, CALIFORNIA

FIGURE
2

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 940 (415) 364-9600 FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94596 (510) 988-9600 FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834 (916) 921-9600 FAX (916) 921-0100

MPDS Services
2401 Stanwell Dr., Ste. 300
Concord, CA 94520
Attention: Jarrel Crider

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Matrix Descript: Water
Analysis Method: EPA 5030/8015 Mod./8020
First Sample #: 704-1025

Sampled: Apr 16, 1997
Received: Apr 16, 1997
Reported: May 1, 1997

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Sample Number	Sample Description	Purgeable Hydrocarbons µg/L	Benzene µg/L	Toluene µg/L	Ethyl Benzene µg/L	Total Xylenes µg/L
704-1025	MW-3	12,000	76	ND	330	1,600
704-1026	MW-7	ND	ND	ND	ND	ND
704-1027	MW-8	ND	ND	ND	ND	ND
704-1028	MW-9	ND	ND	ND	ND	ND
Detection Limits:		50	0.50	0.50	0.50	0.50

Total Purgeable Petroleum Hydrocarbons are quantitated against a fresh gasoline standard
Analytes reported as ND were not present above the stated limit of detection

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager

7041025.MPD - 1 -

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94C, (415) 364-9600, FAX (415) 364-9233
404 N Wiget Lane, Walnut Creek, CA 9459o, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

MPDS Services
2401 Stanwell Dr., Ste. 300
Concord, CA 94520
Attention: Jarrel Crider

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Matrix Descript: Water
Analysis Method: EPA 5030/8015 Mod./8020
First Sample #: 704-1025

Sampled: Apr 16, 1997
Received: Apr 16, 1997
Reported: May 1, 1997

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Sample Number	Sample Description	Chromatogram Pattern	DL Mult. Factor	Date Analyzed	Instrument ID	Surrogate Recovery, % QC Limits: 70-130
704-1025	MW-3	Gasoline	100	4/21/97	HP-2	91
704-1026	MW-7	--	1.0	4/21/97	HP-2	92
704-1027	MW-8	--	1.0	4/21/97	HP-2	87
704-1028	MW-9	--	1.0	4/21/97	HP-2	87

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B Kemp
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

MPDS Services
2401 Stanwell Dr., Ste. 300
Concord, CA 94520
Attention: Jarrel Crider

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Descript: Water
Analysis for: MTBE (Modified EPA 8020)
First Sample #: 704-1025

Sampled: Apr 16, 1997
Received: Apr 16, 1997
Analyzed: Apr 21, 1997
Reported: May 1, 1997

LABORATORY ANALYSIS FOR: MTBE (Modified EPA 8020)

Sample Number	Sample Description	Detection Limit µg/L	Sample Result µg/L
704-1025	MW-3	250	N.D.
704-1026	MW-7	5.0	N.D.
704-1027	MW-8	5.0	N.D.
704-1028	MW-9	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager

Sequoia Analytical

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404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

MPDS Services	Client Project ID:	Unocal #2512, 1300 Davis St., San Leandro	Sampled: Apr 16, 1997
2401 Stanwell Dr., Ste. 300	Sample Matrix:	Water	Received: Apr 16, 1997
Concord, CA 94520	Analysis Method:	EPA 3510/8015 Mod.	Reported: May 1, 1997
Attention: Jarrel Crider	First Sample #:	704-1025	

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 704-1025 MW-3 ^
Extractable Hydrocarbons	50	3,100
Chromatogram Pattern:		Diesel & Unidentified Hydrocarbons <C15

Quality Control Data

Report Limit Multiplication Factor:	1.1
Date Extracted:	4/21/97
Date Analyzed:	4/23/97
Instrument Identification:	HP-3B

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

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B Kemp
Project Manager

Please Note
^ This sample appears to contain diesel and non-diesel mixtures 'Unidentified Hydrocarbons < C15 are probably gasoline

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 940, (415) 364-9600, FAX (415) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

MPDS Services	Client Project ID:	Unocal #2512, 1300 Davis St , San Leandro	Sampled: Apr 16, 1997
2401 Stanwell Dr., Ste. 300	Sample Descript:	Water, MW-3	Received: Apr 16, 1997
Concord, CA 94520	Analysis Method:	EPA 5030/8010	Analyzed: Apr 23, 1997
Attention: Jarrel Crider	Lab Number:	704-1025	Reported: May 1, 1997

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane	5.0	N.D.
Bromoform	5.0	N.D.
Bromomethane	10	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	10	N.D.
2-Chloroethylvinyl ether	10	N.D.
Chloroform	5.0	N.D.
Chloromethane	10	N.D.
Dibromochloromethane	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	N.D.
1,1-Dichloroethene	5.0	N.D.
cis-1,2-Dichloroethene	5.0	N.D.
trans-1,2-Dichloroethene	5.0	N.D.
1,2-Dichloropropane	5.0	N.D.
cis-1,3-Dichloropropene	5.0	N.D.
trans-1,3-Dichloropropene	5.0	N.D.
Methylene chloride	50	N.D.
1,1,2,2-Tetrachloroethane	5.0	N.D.
Tetrachloroethene	5.0	N.D.
1,1,1-Trichloroethane	5.0	N.D.
1,1,2-Trichloroethane	5.0	N.D.
Trichloroethene	5.0	N.D.
Trichlorofluoromethane	5.0	N.D.
Vinyl chloride	10	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

MPDS Services	Client Project ID:	Unocal #2512, 1300 Davis St., San Leandro	Sampled: Apr 16, 1997
2401 Stanwell Dr., Ste. 300	Sample Descript:	Water, MW-7	Received: Apr 16, 1997
Concord, CA 94520	Analysis Method:	EPA 5030/8010	Analyzed: Apr 23, 1997
Attention: Jarrel Crider	Lab Number:	704-1026	Reported: May 1, 1997

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	**0.50**	**0.75**
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 940, (415) 364-9600, FAX (415) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

MPDS Services	Client Project ID:	Unocal #2512, 1300 Davis St., San Leandro	Sampled: Apr 16, 1997
2401 Stanwell Dr., Ste. 300	Sample Descript:	Water, MW-8	Received: Apr 16, 1997
Concord, CA 94520	Analysis Method:	EPA 5030/8010	Analyzed: Apr 23, 1997
Attention: Jarrel Crider	Lab Number:	704-1027	Reported: May 1, 1997

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	**0.50**	**0.51**
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

MPDS Services	Client Project ID:	Unocal #2512, 1300 Davis St., San Leandro	Sampled:	Apr 16, 1997
2401 Stanwell Dr., Ste. 300	Sample Descript:	Water, MW-9	Received:	Apr 16, 1997
Concord, CA 94520	Analysis Method:	EPA 5030/8010	Analyzed:	Apr 23, 1997
Attention: Jarrel Crider	Lab Number:	704-1028	Reported:	May 1, 1997

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	**0.50**	**0.51**
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager

Sequoia Analytical

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MPDS Services
2401 Stanwell Dr., Ste. 300
Concord, CA 94520
Attention: Jarrel Crider

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Matrix: Liquid

QC Sample Group: 7041025-028

Reported: May 1, 1997

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015
Analyst:	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb	D. Sharma
MS/MSD Batch#:	7040985	7040985	7040985	7040985	BLK042197
Date Prepared:	4/21/97	4/21/97	4/21/97	4/21/97	4/21/97
Date Analyzed:	4/21/97	4/21/97	4/21/97	4/21/97	4/23/97
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	HP-3A
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	300 µg/L
Matrix Spike % Recovery:	85	105	95	98	77
Matrix Spike Duplicate % Recovery:	85	100	95	95	77
Relative % Difference:	0.0	4.9	0.0	3.5	0.0
LCS Batch#:	2LCS042197	2LCS042197	2LCS042197	2LCS042197	LCS042197
Date Prepared:	4/21/97	4/21/97	4/21/97	4/21/97	4/21/97
Date Analyzed:	4/21/97	4/21/97	4/21/97	4/21/97	4/23/97
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	HP-3A
LCS % Recovery:	90	105	100	100	73
% Recovery Control Limits:	60-140	60-140	60-140	60-140	60-140

SEQUOIA ANALYTICAL, #1271

Signature on File

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.

Sequoia Analytical

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MPDS Services
2401 Stanwell Dr., Ste. 300
Concord, CA 94520
Attention: Jarrel Crider

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Matrix: Liquid

QC Sample Group: 7041025-028

Reported: May 1, 1997

QUALITY CONTROL DATA REPORT

ANALYTE	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-benzene	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-benzene
Method:	EPA 8010	EPA 8010	EPA 8010	EPA 8010	EPA 8010	EPA 8010
Analyst:	P. Horton	P. Horton	P. Horton	P. Horton	P. Horton	P. Horton
MS/MSD Batch#:	7040823	7040823	7040823	7040823	7040823	7040823
Date Prepared:	4/21/97	4/21/97	4/21/97	4/21/97	4/21/97	4/21/97
Date Analyzed:	4/21/97	4/21/97	4/21/97	4/21/97	4/21/97	4/21/97
Instrument I.D.#:	HP-6	HP-6	HP-6	HP-6	HP-6	HP-6
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	10 µg/L	10 µg/L	10 µg/L
Matrix Spike % Recovery:	73	97	93	73	97	93
Matrix Spike Duplicate % Recovery:	72	100	100	72	100	100
Relative % Difference:	1.4	3.0	7.3	1.4	3.0	7.3
LCS Batch#:	LCS042297	LCS042297	LCS042297	LCS042397	LCS042397	LCS042397
Date Prepared:	4/22/97	4/21/97	4/21/97	4/23/97	4/23/97	4/23/97
Date Analyzed:	4/22/97	4/21/97	4/21/97	4/23/97	4/23/97	4/23/97
Instrument I.D.#:	HP-6	HP-6	HP-6	HP-6	HP-6	HP-6
LCS % Recovery:	105	104	99	100	97	93
% Recovery Control Limits:	60-140	60-140	60-140	60-140	60-140	60-140

SEQUOIA ANALYTICAL, #1271

Signature on File

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.

M P D S Services, Inc.
2401 Stanwell Drive, Suite 400, Concord, CA 94520
Tel: (510) 602-5120 Fax: (510) 689-1918

ST#4230

CHAIN OF CUSTODY

SAMPLER: (JOE) HOVSIA AJEMIAN

WITNESSING AGENCY

UNOCAL S/S # 2512 CITY: San Leandro

ADDRESS: 1300 Davis st.

ANALYSES REQUESTED

TURN AROUND TIME: Regular

SAMPLE ID NO	DATE	TIME	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPH-GAS BTEX & MTBE	TPH-DIESEL	TOG	8010				REMARKS
MW-3	4-16-97	12:00 P.M	✓	✓		4(VOA) 1 Amber	wells	✓	✓		✓	7041025	A-E		MTBE: 5 ppb.
MW-7	"	10:30 A.M	✓	✓		4 VOA	"	✓			✓	7041026	A-B		
MW-8	"	11:00 A.M	✓	✓		4 VOA	"	✓			✓	7041027			
MW-9	"	11:30 A.M	✓	✓		4 VOA	"	✓			✓	7041028	✓		

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
(SIGNATURE)	4-16-97 2:30 P.M	(SIGNATURE) 4-16-97 1430
(SIGNATURE)	4-16-97 1400	(SIGNATURE)
(SIGNATURE)	4-17-97 1525	(SIGNATURE)
(SIGNATURE)		(SIGNATURE)

THE FOLLOWING MUST BE COMPLETED BY THE LABORATORY ACCEPTING SAMPLES FOR ANALYSES:

1. HAVE ALL SAMPLES RECEIVED FOR ANALYSIS BEEN STORED ON ICE? Y
2. WILL SAMPLES REMAIN REFRIGERATED UNTIL ANALYZED? Y
3. DID ANY SAMPLES RECEIVED FOR ANALYSIS HAVE HEAD SPACE? N
4. WERE SAMPLES IN APPROPRIATE CONTAINERS AND PROPERLY PACKAGED? Y

SIGNATURE: TITLE: analyst DATE: 4-16-97