MONITORING
PURGING
DISPOSING
SAMPLING

MPDS SERVICES, INCORPORATED

February 14, 1995

Alameda County Health Care Services
1131 Harbor Bay Parkway
Alameda, CA 94502

Attention: Mr. Scott Seery

RE: Unocal Service Station #5367
500 Bancroft Avenue
San Leandro, California

Dear Mr. Seery:

Per the request of the Unocal Corporation Project Manager, Ms. Tina R. Berry, enclosed please find our report (MPDS-UN5367-05) dated January 18, 1995 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) 277-2321.

Sincerely,

MPDS Services, Inc.

Jarrel F. Crider

Jarrel F. Crider

/jfc

Enclosure

cc: Ms. Tina R. Berry

2401 Stanwell Drive, Suite 300, Concord, CA 94520
TEL: (510) 602-5120 FAX: (510) 689-1918

MONITORING PURGING DISPOSING SAMPLING
mpds SERVICES, INCORPORATED

MPDS-UN5367-05
January 18, 1995

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

Attention: Ms. Tina R. Berry

RE: Quarterly Data Report
Unocal Service Station #5367
500 Bancroft Avenue
San Leandro, California

Dear Ms. Berry:

This data 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.

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 December 19, 1994. Prior to sampling, the wells were each purged of between 3 and 46 gallons of water. During purging operations, the field parameters pH, temperature, and electrical conductivity were recorded and are presented in Table 2. Once the field parameters were observed to stabilize, and where possible, a minimum of approximately four casing volumes had been removed from each well, 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 Unocal 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 Table 3. The concentrations of Total Petroleum

2401 Stanwell Drive, Suite 300, Concord, CA 94520
TEL: (510) 602-5120 FAX: (510) 689-1918

Hydrocarbons (TPH) as gasoline 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.

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 Mr. Scott Seery of the Alameda County Health Care Services Agency, and to Mr. Mike Bakaldin of the San Leandro Fire Department.

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.

Sarkis A. Karkarian
Staff Engineer

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

License No. EG 1633
Exp. Date 8/31/96

/jfc

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

cc: Mr. Frank Poss, GeoResearch

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 December 19, 1994)						
MW-1	26.86	30.97	35.00	0	No	3
MW-2	26.87	31.26	46.90	0	No	41
MW-3	26.85	31.07	48.58	0	No	46
MW-4*	26.57	31.72	48.45	0	--	0
MW-5*	26.87	31.63	44.43	0	--	0
MW-6*	26.64	30.32	44.62	0	--	0
MW-7*	26.65	30.60	43.88	0	--	0
MW-8	26.76	30.95	44.02	0	No	9
MW-9	26.76	29.71	45.28	0	No	11
(Monitored and Sampled on September 21, 1994)						
MW-1	24.62	33.21	35.02	0	No	1.2
MW-2	24.61	33.52	47.00	0	No	32
MW-3	24.62	33.30	48.70	0	No	40
MW-4	24.43	33.86	48.50	0	No	40
MW-5	24.60	33.90	44.58	0	No	7.5
MW-6	24.34	32.62	44.70	0	No	8.5
MW-7	24.29	32.96	44.10	0	No	8
MW-8	24.41	33.30	44.05	0	No	7.5
(Monitored and Sampled on June 23, 1994)						
MW-1	26.51	31.32	35.02	0	No	4
MW-2	26.50	31.63	47.00	0	No	40
MW-3	26.50	31.42	48.60	0	No	45
MW-4*	26.34	31.95	48.50	0	--	
MW-5*	26.50	32.00	44.58	0	--	
MW-6*	26.20	30.76	44.72	0	--	
MW-7*	26.15	31.10	44.06	0	--	
MW-8	26.31	31.40	44.05	0	No	9

TABLE 2

RECORD OF THE TEMPERATURE, CONDUCTIVITY, AND pH VALUES
IN THE MONITORING WELLS DURING PURGING AND PRIOR TO SAMPLING

(Measured on December 19, 1994)

Well #	Gallons per Casing Volume	Time	Gallons Purged	Casing Volumes Purged	Temperature (°F)	Conductivity ([μmhos/cm] x1000)	pH
MW-1	0.69	11:45	0	0	69.4	0.747	7.77
			1	1.45	73.3	0.710	7.35
			1.5	2.17	74.5	0.751	7.15
			2.5	3.62	72.8	0.753	7.00
		11:55	3	4.35	73.1	0.760	6.97
MW-2	10.17	09:10	0	0	51.8	0.893	6.36
			10	0.98	61.5	0.620	6.76
			20	1.97	64.9	0.631	6.88
			30	2.95	64.4	0.610	6.92
		09:45	41	4.03	63.6	0.619	7.07
MW-3	11.38	10:50	0	0	64.3	0.735	7.33
			11.5	1.01	64.2	0.692	7.03
			23	2.02	64.6	0.661	6.98
			34.5	3.03	64.8	0.676	6.98
		11:25	46	4.04	65.2	0.701	7.03
MW-8	2.22	10:15	0	0	64.8	0.789	7.30
			2	0.90	65.3	0.869	6.90
			4.5	2.03	65.3	0.790	6.90
			6.5	2.93	65.8	0.790	6.88
		10:25	9	4.05	65.5	0.793	6.90
MW-9	2.65	12:35	0	0	67.8	0.700	8.00
			2.5	0.94	67.2	0.870	7.89
			5.5	2.08	66.2	0.690	7.68
			8	3.02	65.9	0.722	7.50
		12:45	11	4.15	65.6	0.687	7.36

TABLE 3

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
12/19/94	MW-1	200,000	2,400	28,000	6,600	37,000
	MW-2	190	1.9	ND	15	6.8
	MW-3	100,000	1,200	2,900	4,200	23,000
	MW-4	SAMPLED SEMI-ANNUALLY				
	MW-5	SAMPLED SEMI-ANNUALLY				
	MW-6	SAMPLED SEMI-ANNUALLY				
	MW-7	SAMPLED SEMI-ANNUALLY				
	MW-8	6,200	91	ND	230	210
	MW-9	ND	ND	1.6	1.5	8.4
9/21/94	MW-1	110,000	2,500	23,000	4,500	25,000
	MW-2	ND	ND	ND	ND	ND
	MW-3	24,000	890	110	2,200	8,800
	MW-4	ND	ND	0.78	ND	0.81
	MW-5	ND	ND	0.98	ND	1.6
	MW-6	ND	ND	ND	ND	ND
	MW-7	ND	0.50	ND	ND	0.89
	MW-8	6,900	190	ND	460	510
6/23/94	MW-1	150,000	2,500	33,000	6,400	37,000
	MW-2	420	3.9	0.66	23	11
	MW-3	37,000	1,300	670	3,100	14,000
	MW-8	12,000	210	ND	610	860
3/18/94	MW-1	99,000	3,800	37,000	6,800	36,000
	MW-2	250	6.4	0.64	28	24
	MW-3	22,000	1,200	430	2,200	9,700
	MW-4	ND	ND	ND	ND	ND
	MW-5	ND	ND	ND	ND	ND
	MW-6	ND	ND	0.93	ND	1.4
	MW-7	ND	ND	ND	ND	ND
	MW-8	6,100	85	ND	260	260
12/13/93	MW-1	140,000	3,600	37,000	7,100	40,000
	MW-2	260	7.7	0.83	17	23
	MW-3	49,000	1,300	360	2,300	9,200
	MW-4	SAMPLED SEMI-ANNUALLY				
	MW-5	SAMPLED SEMI-ANNUALLY				
	MW-6	SAMPLED SEMI-ANNUALLY				
	MW-7	SAMPLED SEMI-ANNUALLY				
	MW-8	6,900	180	ND	240	550

TABLE 3 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
9/03/93	MW-1	160,000	3,900	41,000	6,800	38,000
	MW-2	1,400	31	4.3	99	53
	MW-3	82,000	2,400	3,400	4,200	21,000
	MW-4	86	14	13	1.4	7.1
	MW-5	ND	ND	1.5	ND	7.9
	MW-6	ND	ND	ND	ND	ND
	MW-7	ND	ND	ND	ND	ND
	MW-8	9,800	180	ND	580	700
6/25/93	MW-1	160,000	4,300	36,000	5,800	34,000
	MW-2	4,000	110	ND	320	280
	MW-3	27,000	1,200	980	1,700	6,900
	MW-4	NOT SAMPLED				
	MW-5	WELL WAS INACCESSIBLE				
	MW-6	NOT SAMPLED				
	MW-7	NOT SAMPLED				
	MW-8	8,100	160	ND	580	740
3/03/93	MW-1	330,000	3,800	21,000	4,200	24,000
	MW-2	4,200	62	2.9	97	120
	MW-3	96,000*	1,400	1,900	1,400	8,400
	MW-4	68	0.9	0.6	ND	1.9
	MW-5	ND	ND	ND	ND	ND
	MW-6	ND*	ND	ND	ND	ND
	MW-7	ND	ND	ND	ND	ND
	MW-8	13,000	33	ND	160	290
11/18/92	MW-1	WELL WAS DRY				
	MW-2	65	1.2	ND	2.8	1.4
	MW-3	24,000*	430	160	640	2,800
	MW-4	NOT SAMPLED				
	MW-5	NOT SAMPLED				
	MW-6	NOT SAMPLED				
	MW-7	NOT SAMPLED				
	MW-8	1,100	6.1	ND	13	5.6

TABLE 3 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
10/16/92	MW-1	WELL WAS DRY				
	MW-2	--	--	--	--	--
	MW-3	--	--	--	--	--
	MW-4	ND	ND	ND	ND	ND
	MW-5	ND	ND	ND	ND	ND
	MW-6	ND	ND	ND	ND	ND
	MW-7	ND	ND	ND	ND	ND
	MW-8	300	0.96	ND	4.0	3.5
9/30/92	MW-2	820	21	ND	42	25
	MW-3	36,000	730	200	1,000	4,400
6/18/92	MW-1	680,000	9,000	40,000	7,600	44,000
	MW-2	1,200	35	1.6	56	26
	MW-3	180,000	2,200	1,700	2,300	1,100
	MW-4	ND	ND	ND	ND	ND
	MW-5	--	--	--	--	--
	MW-6	ND	ND	ND	ND	ND
	MW-7	--	--	--	--	--
	MW-8	WELL WAS INACCESSIBLE				
3/31/92	MW-1	330,000	8,200	33,000	6,800	36,000
	MW-2	4,200	110	3	190	250
	MW-3	100,000	1,900	1,900	2,300	9,400
	MW-4	ND	ND	ND	ND	ND
	MW-5	ND	ND	ND	ND	1.1
	MW-6	ND	ND	1.3	ND	2.0
	MW-7	ND	ND	ND	ND	0.9
	MW-8	15,000	120	1.0	430	530
12/27/91	MW-2	170	3.9	ND	7.3	60
	MW-3	31,000	240	280	400	1,600
	MW-4	ND	ND	ND	ND	ND
	MW-5	ND	ND	ND	ND	ND
	MW-6	ND	ND	ND	ND	ND
	MW-7	ND	ND	ND	ND	ND
	MW-8	1,600	15	2.9	40	49

TABLE 3 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
9/27/91	MW-1	WELL WAS DRY				
	MW-2	110	2.6	ND	5.6	5.1
	MW-3	4,000	160	84	180	560
	MW-4	ND	ND	ND	ND	ND
	MW-5	ND	ND	ND	ND	ND
	MW-6	ND	ND	ND	ND	ND
	MW-7	ND	ND	ND	ND	ND
	MW-8	720	13	4.3	26	26
5/06/91	MW-1	--	--	--	--	--
	MW-2	2,300	150	10	52	110
	MW-3	39,000	1,000	570	930	3,900
	MW-4	--	--	--	--	--
	MW-5	--	--	--	--	--
	MW-6	--	--	--	--	--
	MW-7	ND	ND	ND	ND	ND
	MW-8	14,000	80	ND	250	550
2/07/91	MW-2	510	40	ND	29	44
2/06/91	MW-1	WELL WAS DRY				
	MW-3	13,000	310	150	380	1,200
	MW-4	ND	ND	ND	ND	ND
	MW-5	ND	ND	ND	ND	ND
	MW-6	ND	ND	ND	ND	ND
	MW-7	ND	ND	ND	ND	ND
	MW-8	630	9.6	ND	35	36
11/30/90	MW-1	WELL WAS DRY				
	MW-2	400	41	ND	39	37
	MW-3	13,000	390	81	410	1,000
	MW-4	ND	ND	ND	ND	1.2
	MW-5	ND	ND	0.7	ND	ND
	MW-6	ND	ND	ND	ND	ND
	MW-7	ND	ND	ND	0.6	1.5
	MW-8	570	13	ND	45	36

TABLE 3 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
8/24/90	MW-1	WELL WAS DRY				
	MW-2	330	17	ND	19	20
	MW-3	19,000	480	160	510	1,500
	MW-4	ND	ND	ND	ND	ND
	MW-5	ND	ND	ND	ND	ND
	MW-6	ND	ND	ND	ND	ND
	MW-7	ND	ND	ND	ND	ND
	MW-8	990	13	ND	48	66
7/19/90	MW-1	WELL WAS DRY				
	MW-2	--	--	--	--	--
	MW-3	--	--	--	--	--
	MW-4	--	--	--	--	--
	MW-5	--	--	--	--	--
	MW-6	ND	ND	ND	ND	ND
	MW-7	--	--	--	--	
	MW-8	--	--	--	--	--
5/90	MW-2	1,000	39.0	ND	32.0	52.0
	MW-3	19,000	330	170	310	1,500
	MW-4	ND	ND	ND	0.68	1.4
	MW-5	ND	ND	ND	ND	ND
	MW-6	ND	ND	ND	ND	ND
	MW-7	24	ND	ND	0.74	1.7
	MW-8	770	6.5	ND	20	32
2/16/90	MW-1	WELL WAS DRY				
	MW-2	840	50.0	0.5	28.0	44.0
	MW-3	22,000	710	4,100	6,900	33,000
	MW-4	ND	ND	ND	ND	ND
	MW-5	67	0.51	1.6	2.9	7.5
	MW-6	ND	ND	ND	ND	ND
	MW-7	ND	ND	ND	ND	ND
	MW-8	1,900	11	ND	52	55
1/27/89	MW-1	WELL WAS DRY				
	MW-2	510	58.0	8.7	22.6	20.3
	MW-3	39,000	1,570	2,830	1,250	7,070
	MW-4	ND	ND	ND	ND	ND

TABLE 3 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
10/03/88	MW-1	WELL WAS DRY				
	MW-2	1,760	47.8	7.4	20.9	81.6
	MW-3	61,000	1,060	3,380	1,520	8,720
	MW-4	ND	ND	ND	ND	ND
9/07/88	MW-1	WELL WAS DRY				
4/27/88	MW-1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
11/19/87	MW-1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
11/13/87	MW-1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
11/05/87	MW-1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
10/06/87	MW-1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
9/24/87	MW-1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
9/23/87	MW-1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				

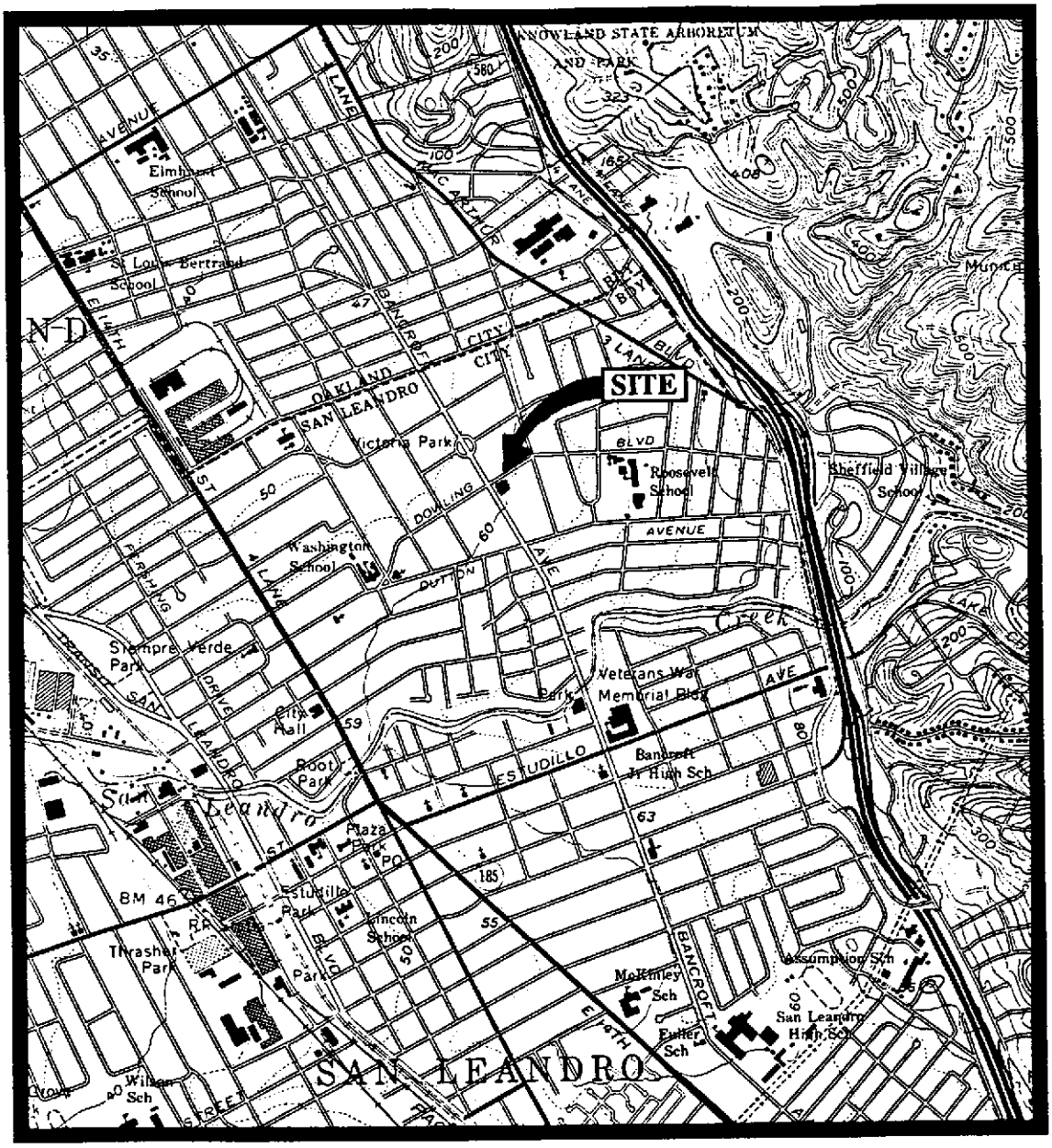
* Chromatogram contains early eluting peak.

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 December 13, 1993, were provided by RESNA.

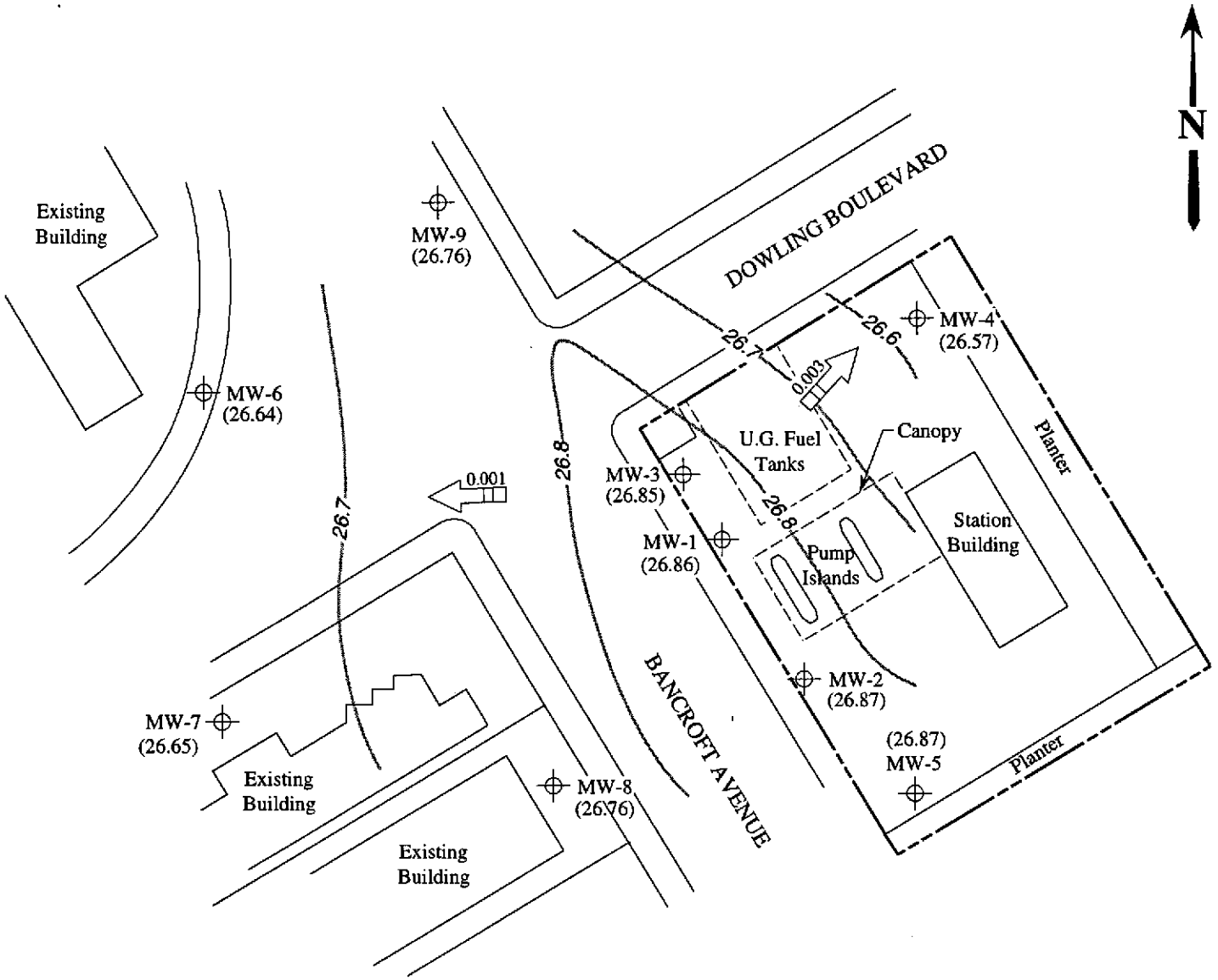


Base modified from 7.5 minute U.S.G.S. San Leandro Quadrangle
(photorevised 1980)

0 2000 4000

Approx. scale feet

mpds SERVICES, INCORPORATED	**UNOCAL SERVICE STATION #5367** **500 BANCROFT AVENUE** **SAN LEANDRO, CALIFORNIA**	**LOCATION MAP**



LEGEND

- Monitoring well
- ( ) 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

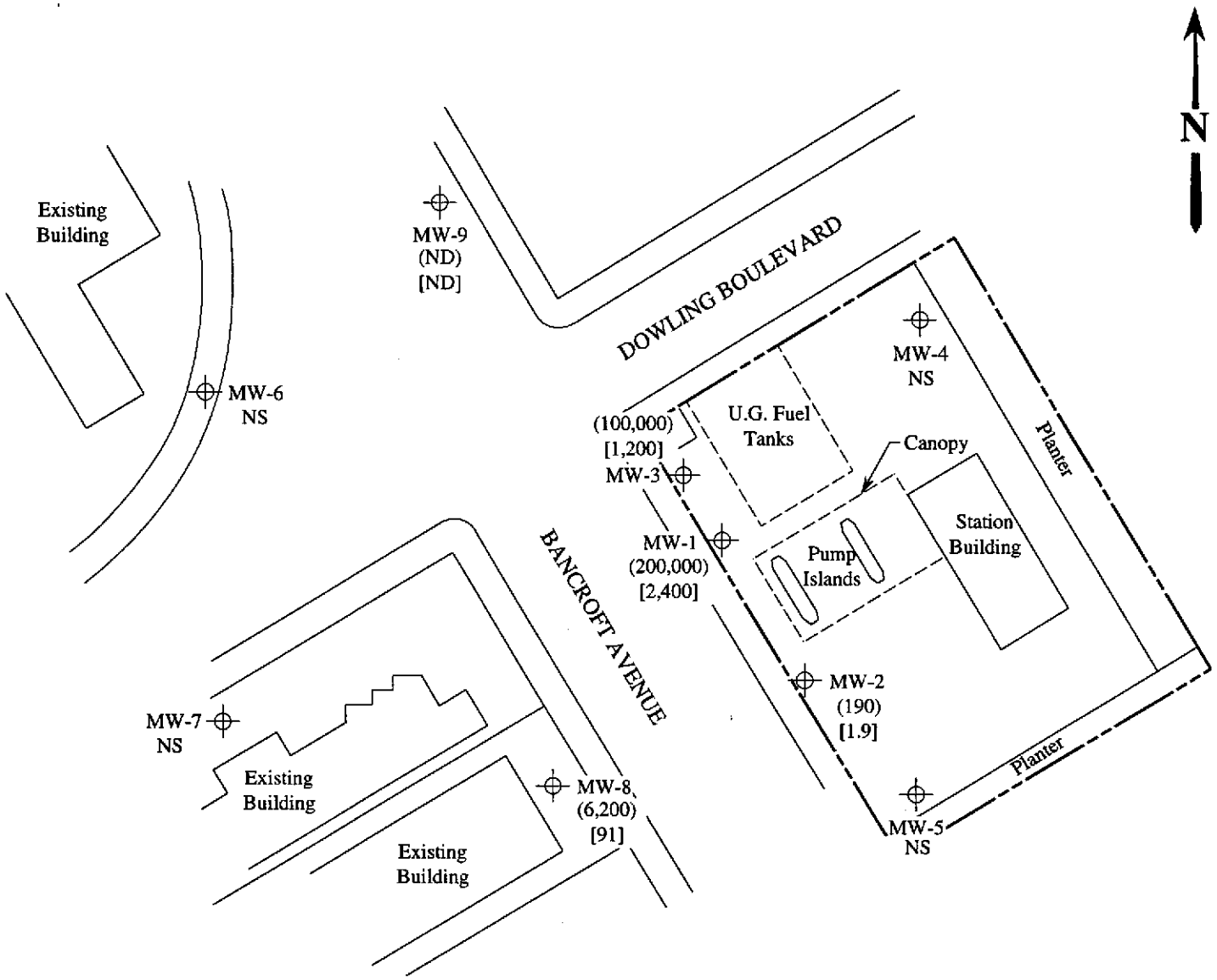
Approx. scale feet

POTENTIOMETRIC SURFACE MAP FOR THE DECEMBER 19, 1994 MONITORING EVENT

MPDS SERVICES, INCORPORATED

UNOCAL SERVICE STATION #5367
500 BANCROFT AVENUE
SAN LEANDRO, CALIFORNIA

FIGURE
1



LEGEND

- ⊕ Monitoring well
- ( ) Concentration of TPH as gasoline in µg/L
- [ ] Concentration of benzene in µg/L
- ND = Non-detectable, NS = Not sampled

0 50 100

Approx. scale feet

PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUND WATER ON DECEMBER 19, 1994

mpds SERVICES, INCORPORATED

UNOCAL SERVICE STATION #5367
500 BANCROFT AVENUE
SAN LEANDRO, CALIFORNIA

FIGURE
2

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

M.P.D.S.
2401 Stanwell Drive Suite 400
Concord, CA 94520

Attention: Avo Avedessian

Client Proj. ID: Unocal SS# 5367, San Leandro
Sample Descript: MW-1
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9412B55-01

Sampled: 12/19/94
Received: 12/19/94

Analyzed: 12/21/94
Reported: 12/22/94

QC Batch Number: GC122194BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**25000**	**200000**
Benzene	**250**	**2400**
Toluene	**250**	**28000**
Ethyl Benzene	**250**	**6600**
Xylenes (Total)	**250**	**37000**
Chromatogram Pattern:		**Gas**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	93

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

SEQUOIA ANALYTICAL - ELAP #1210

Suzanne Chin
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

M.P.D.S.	Client Proj. ID: Unocal SS# 5367, San Leandro	Sampled: 12/19/94
2401 Stanwell Drive Suite 400	Sample Descript: MW-2	Received: 12/19/94
Concord, CA 94520	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 12/20/94
Attention: Avo Avedessian	Lab Number: 9412B55-02	Reported: 12/22/94

QC Batch Number: GC122094BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**50**	**190**
Benzene	**0.50**	**1.9**
Toluene	0.50	N.D.
Ethyl Benzene	**0.50**	**15**
Xylenes (Total)	**0.50**	**6.8**
Chromatogram Pattern:		**Gas**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	94

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

SEQUOIA ANALYTICAL - ELAP #1210

Suzanne Chin
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

M.P.D.S.	Client Proj. ID: Unocal SS# 5367, San Leandro	Sampled: 12/19/94
2401 Stanwell Drive Suite 400	Sample Descript: MW-3	Received: 12/19/94
Concord, CA 94520	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 12/20/94
Attention: Avo Avedessian	Lab Number: 9412B55-03	Reported: 12/22/94

QC Batch Number: GC122094BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	10000	100000
Benzene	100	1200
Toluene	100	2900
Ethyl Benzene	100	4200
Xylenes (Total)	100	23000
Chromatogram Pattern:		Gas

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	99

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

SEQUOIA ANALYTICAL - ELAP #1210

Suzanne Chin
Project Manager

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M.P.D.S.	Client Proj. ID: Unocal SS# 5367, San Leandro	Sampled: 12/19/94
2401 Stanwell Drive Suite 400	Sample Descript: MW-8	Received: 12/19/94
Concord, CA 94520	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 12/20/94
Attention: Avo Avedessian	Lab Number: 9412B55-04	Reported: 12/22/94

QC Batch Number: GC122094BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**500**	**6200**
Benzene	**5.0**	**91**
Toluene	5.0	N.D.
Ethyl Benzene	**5.0**	**230**
Xylenes (Total)	**5.0**	**210**
Chromatogram Pattern:		**Gas**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	90

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

SEQUOIA ANALYTICAL - ELAP #1210

Suzanne Chin
Project Manager

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M.P.D.S.
2401 Stanwell Drive Suite 400
Concord, CA 94520

Attention: Avo Avedessian

Client Proj. ID: Unocal SS# 5367, San Leandro
Sample Descript: MW-9
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9412B55-05

Sampled: 12/19/94
Received: 12/19/94

Analyzed: 12/20/94
Reported: 12/22/94

QC Batch Number: GC121994BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	**0.50**	**1.6**
Ethyl Benzene	**0.50**	**1.5**
Xylenes (Total)	**0.50**	**8.4**
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	104

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

SEQUOIA ANALYTICAL - ELAP #1210

Suzanne Chin
Project Manager

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MPDS Services, Inc.
2401 Stanwell Drive, Suite 400
Concord, CA 94520
Attention: Avo Avedessian

Client Project ID: Unocal SS#5367, San Leandro
Matrix: Liquid
Work Order #: 9412B55 -01

Reported: Dec 22, 1994

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC122194BTEX17A	GC122194BTEX17A	GC122194BTEX17A	GC122194BTEX17A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	N/A	N/A	N/A	N/A
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:	941297002	941297002	941297002	941297002
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	N/A	N/A	N/A	N/A
Analyzed Date:	12/21/94	12/21/94	12/21/94	12/21/94
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	9.5	10	30
MS % Recovery:	100	95	100	100
Dup. Result:	10	9.8	10	30
MSD % Recov.:	100	98	100	100
RPD:	0.0	3.1	0.0	0.0
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:	-	-	-	-
Prepared Date:	-	-	-	-
Analyzed Date:	-	-	-	-
Instrument I.D.#:	-	-	-	-
Conc. Spiked:	-	-	-	-
LCS Result:	-	-	-	-
LCS % Recov.:	-	-	-	-
MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Suzanne Chin
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.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

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MPDS Services, Inc.
2401 Stanwell Drive, Suite 400
Concord, CA 94520
Attention: Avo Avedessian

Client Project ID: Unocal SS#5367, San Leandro
Matrix: Liquid
Work Order #: 9412B55-02-04

Reported: Dec 22, 1994

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC122094BTEX02A	GC122094BTEX02A	GC122094BTEX02A	GC122094BTEX02A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	N/A	N/A	N/A	N/A
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:	941297001	941297001	941297001	941297001
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	N/A	N/A	N/A	N/A
Analyzed Date:	12/20/94	12/20/94	12/20/94	12/20/94
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	10	10	30
MS % Recovery:	100	100	100	100
Dup. Result:	10	10	11	31
MSD % Recov.:	100	100	110	103
RPD:	0.0	0.0	9.5	3.3
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:	-	-	-	-
Prepared Date:	-	-	-	-
Analyzed Date:	-	-	-	-
Instrument I.D.#:	-	-	-	-
Conc. Spiked:	-	-	-	-
LCS Result:	-	-	-	-
LCS % Recov.:	-	-	-	-
MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

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SEQUOIA ANALYTICAL

Suzanne Chin
Project Manager

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MPDS Services, Inc.
2401 Stanwell Drive, Suite 400
Concord, CA 94520
Attention: Avo Avedessian

Client Project ID: Unocal SS#5367, San Leandro
Matrix: Liquid
Work Order #: 9412B55-05

Reported: Dec 22, 1994

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC121994BTEX03A	GC121994BTEX03A	GC121994BTEX03A	GC121994BTEX03A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	N/A	N/A	N/A	N/A
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:	941297401	941297401	941297401	941297401
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	N/A	N/A	N/A	N/A
Analyzed Date:	12/19/94	12/19/94	12/19/94	12/19/94
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	10	10	30
MS % Recovery:	100	100	100	100
Dup. Result:	9.6	9.3	9.4	28
MSD % Recov.:	96	93	94	93
RPD:	4.1	7.3	6.2	6.9
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:	-	-	-	-
Prepared Date:	-	-	-	-
Analyzed Date:	-	-	-	-
Instrument I.D.#:	-	-	-	-
Conc. Spiked:	-	-	-	-
LCS Result:	-	-	-	-
LCS % Recov.:	-	-	-	-
MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

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mpds SERVICES, INCORPORATED
2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel: (510) 602-5100, Fax: (510) 689-1918

CHAIN OF CUSTODY

SAMPLER: NICHOLAS PERROW

WITNESSING AGENCY:

UNOCAL S/S # 5367 CITY: SAN LEANDRO

ADDRESS: 500 BANCROFT AVE

ANALYSES REQUESTED

TURN AROUND TIME: 72 HR ~~RUSH 24 HR~~

SAMPLE ID NO.	DATE	TIME	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPH-GAS BTEX	TPH-DIESEL	TOG	8010				REMARKS
MW-1	12/19/94	12:10	✓	✓		2 VOAS	WELL	✓						-01	9412355
MW-2	"	10:00	✓	✓		"	"	✓						-02	
MW-3	"	11:35	✓	✓		"	"	✓						-03	9°C
MW-8	"	10:40	✓	✓		"	"	✓						-04	
MW-9	"	1:00	✓	✓		"	"	✓						-05	

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME
(SIGNATURE)	12/19/94 2:00 PM	(SIGNATURE)	1400 12/19/94
(SIGNATURE)		(SIGNATURE)	
(SIGNATURE)		(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? 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

SIGNATURE: TITLE: Analyst DATE: 12/19/94

Note: All water containers to be sampled for TPHG/BTEX, 8010 & 8240 are preserved with HCL. All water containers to be sampled for Lead or Metals are preserved with HNO3. All other containers are unpreserved.