

MPDS-UN5367-03 July 21, 1994

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 June 23, 1994. Prior to sampling, the wells were each purged of between 4 and 45 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

MPDS-UN5367-03 July 21, 1994 Page 2

date are summarized in Table 3. The concentrations of Total Petroleum 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 artificiallyinduced, 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 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

/dlh

Tables 1, 2 & 3 Attachments:

> Location Map Figures 1 & 2

Laboratory Analyses

Chain of Custody documentation

cc: Mr. Warren Gross, GeoResearch

TABLE 1
SUMMARY OF MONITORING DATA

		ann ann an ann ann an an an an an an an		ocentree woodn wood ook ook dab, dab		
	Ground Water Elevation	Depth to Water	Product Thickness		Water Purged	Total Well Depth
Well #	(feet)	(feet)◆	(feet)	Sheen	(gallons)	(feet)◆
100.000 1000 1000 1000 1000 1000 1000 1				June 2-3		
	(Me	onitored and	Sampled on	•		
		27 20	0	1 7 -	4	35 03
MW-1	26.51	31.32	0	No	4	35.02
MW - 2	26.50	31.63	0	No	40	47.00
MW-3	26.50	31.42	0	No	45	48.60
MW-4	26.34	31.95	0			48.50
MW-5	26.50	32.00	0			44.58
MW-6	26.20	30.76	0			44.72
MW - 7	26.15	31.10	0			44.06
MW-8	26.31	31.40	0	No	9	44.05
	(M	onitored and	Sampled on	March 18,	1994)	
MW - 1	27.73	30.10	0	No	4	35.00
MW - 2	27.79	30.10	0	No	44	47.00
MW-3	27.75	30.34	0	No	48	48.60
	27.75	30.17	0	No	47	48.20
MW - 4				No No	10	44.54
MW-5	27.83	30.67	0		10.5	44.72
MW-6	27.50	29.46	0	No		44.14
MW - 7	27.49	29.76	0	No N-	10	44.14
MW - 8	27.59	30.12	0	No	10	44.00
	(Mor	nitored and S	ampled on D	ecember 13	3, 1993)	
MW-1	25.10	32.73	o	No	2	35.00
MW - 2	25.10	33.03	0	No	36.5	46.98
MW-3	25.10	32.82	0	No	42	48.65
MW-4*	25.20	33.09	0		0	48.20
MW-5*	25.11	33.39	0		0	44.54
MW-6*	24.82	32.14	0		0	44.68
MW-7*	24.80	32.45	0		0	44.15
MW - 8	24.96	32.75	0	No	8	44.05
		~ - · · -	-			

TABLE 1 (Continued)

SUMMARY OF MONITORING DATA

Ground Water Depth to Product Water Total Well Elevation Water Thickness Purged Depth Well # (feet) ◆ (feet) Sheen (gallons) (feet) ◆
(Monitored and Sampled on September 3, 1993)

(Woultoked and Sambled on Sebtember 3

MW-1	27.03	30.80	0
MW-2	27.03	31.10	0
MW-3	27.04	30.88	0
MW-4	27.24	31.05	0
MW-5	27.05	31.45	0
MW-6	26.71	30.25	0
MW - 7	26.65	30.60	0
MW-8	26.81	30.90	0

Well #	Well Casing Elevation (feet)**
MW-1	57.83
MW-2	58.13
MW-3	57.92
MW-4	58.29
MW-5	58.50
MW-6	56.96
MW-7	57.25
MW-8	57.71

- The depth to water level and total well depth measurements were taken from the top of the well casings.
- Monitored only.
- The elevations of the top of the well casings have been surveyed relative * * to Mean Sea Level (MSL).
- Sheen determination was not performed.

Note: Monitoring data prior to December 13, 1993, were provided by RESNA.

(Measured on June 23, 1994)

Well #	Gallons per Casing Volume	<u>Time</u>	Gallons <u>Purged</u>	Casing Volumes <u>Purged</u>	Temper- ature (°F)	Conductivity ([µmhos/cm] <u>x100</u>)	Нq
100100000000000000000000000000000000000		annan anna seona annan Seo Mas M	Manus Mario de la companya de la com				
MW-1	0.63	13:30	0	0	76.1	8.19	7.90
			1	1.59	69.7	7.63	7.48
			2	3.17	69.1	7.45	7.33
			3	4.76	78.9	7.98	7.10
		13:50	4	6.35	69.4	7.62	7.20
MW-2	9.99	10:15	0	0	71.2	6.02	7.30
			10	1.00	70.6	6.02	7.10
			20	2.00	69.0	6.81	6.97
			30	3.00	68.0	5.84	7.15
		10:38	40	4.00	67.4	5.82	7.20
MW-3	11.17	12:25	0	0	67.8	6.53	7.73
			11	0.98	69.9	6.46	6.62
			29	2.60	70.1	6.61	6.63
			33	2.95	69.5	6.54	6.55
		12:55	45	4.03	69.3	6.68	6.61
MW-8	2.15	11:20	0	0	70.2	8.03	7.37
			2	0.93	67.0	7.73	7.11
			4	1.86	67.2	7.74	7.10
			6	2.79	67.4	7.73	7.20
		11:30	9	4.19	67.3	7.75	7.21

TABLE 3

SUMMARY OF LABORATORY ANALYSES

WATER

59.000000000000000000000000000000000000	300000000000000000000000000000000000000	TPH as			Ethyl-	X. 38. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3.
<u>Date</u>	Well #	<u>Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>benzene</u>	<u>Xylenes</u>
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
	8 - WM	12,000	210	ND		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
	8 - WM	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	•	MI-ANNUALLY		•	
	MW-5		MI-ANNUALLY			
	MW - 6		MI-ANNUALLY			
	MW - 7		MI-ANNUALLY			
	8 – WM	6,900	180	ND	240	550
9/03/93	MW-1	160,000	3,900	41,000	6,800	38,000
3,00,52	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	NĎ	ND	ND	ND
	MW-7	ND	ND	ND	ND	ND
	8 - WM	9,800	180	ND	580	700
6/25/93	MW-1	160,000	4,300	36,000	5,800	34,000
0,20,55	MW - 2	4,000	110	ND	320	280
	MW-3	27,000	1,200	980	1,700	6,900
	MW - 4	NOT SAMPLE			·	
	MW-5		INACCESSIBLE			
	MW-6	NOT SAMPLE				
	MW - 7	NOT SAMPLE				
	MW-8	8,100	160	ND	580	740
		-				

TABLE 3 (Continued)

SUMMARY OF LABORATORY ANALYSES WATER

<u>Date</u>	Well #	TPH as <u>Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	Ethyl- <u>benzene</u>	<u>Xylenes</u>
0.400.400	1877 4	220 000	2 000	01 000	4 200	24 000
3/03/93	MW-1	330,000	3,800	21,000 2.9	4,200 97	24,000 120
	MW-2 MW-3	4,200	62 1,400	1,900	1,400	8,400
	MW - 4	96,000* 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	<i>.</i>			
•	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	NĎ	13	5.6
10/16/92	MW-1	WELL WAS DRY	<i>.</i>			
	MW-2					
	MW-3					 NT'\
	MW - 4	ND	ND	ND	ND	ND ND
	MW-5	ND	ND ND	ND ND	ND ND	ND
	MW - 6 MW - 7	ND 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
2, 2-,	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	~ - 175		 NTD	~	ND
	MW - 6	ND	ND	ND 	ND 	ND
	MW - 7	HELL MAC TAIL	 ACCECCTET E		- -	-
	8 - WM	WELL WAS IN	ACCESSIBLE			

TABLE 3 (Continued)

SUMMARY OF LABORATORY ANALYSES WATER

		TPH_as			Ethyl-	<u>.</u>
<u>Date</u>	Well #	<u>Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>benzene</u>	<u>Xylenes</u>
3/31/92	MW-1	330,000	8,200	33,000	6,800	36,000
3,31,32	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	\mathbf{N} D	ND	ND	0.9
	8 - WM	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
	8 - WM	1,600	15	2.9	40	49
9/27/91	MW-1	WELL WAS D	RY			
	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
	8-WM	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					
	MM - 6					
	MW - 7	ND	ND	ND	ND	ND
	8 - WM	14,000	80	ND	250	550
2/07/91	MW-2	510	40	ND	29	44

TABLE 3 (Continued)

SUMMARY OF LABORATORY ANALYSES WATER

Date Well # Gasoline Benzens Toluene Penzens Xylenes			TPH as			Ethyl-	
MW-3	<u>Date</u>	Well #		<u>Benzene</u>	<u>Toluene</u>		<u>Xylenes</u>
MW-3	2/06/91	M TAT _ 1	WET.T. WAS	אפת			
MW-4	2/00/01				150	380	1.200
MW-5							
MW-6							
MW-7							
MM-8							
MW-2							
MW-2	11/30/90	MTaI _ 1	Wet.i. Was	DBA			
MW-3	11/30/30				ND	39	37
MW-4							
MW-5							
MW-6							
MW-7							
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-5 MW-6 ND ND ND ND ND ND MW-8 <th></th> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1.5</td>							1.5
MW-2 330 17 ND 19 20 MW-3 19,000 480 160 510 1,500 MW-4 ND ND ND ND ND ND ND MW-5 ND ND ND ND ND ND ND MW-6 ND ND ND ND ND ND ND MW-7 ND ND ND ND ND ND ND MW-8 990 13 ND 48 66 7/19/90 MW-1 WELL WAS DRY MW-2 MW-4 MW-5 MW-6 ND ND ND ND ND ND ND MW-7 MW-6 ND ND ND ND ND ND ND MW-7 MW-8 MW-8 MW-8 19,000 330 170 310 1,500 MW-3 19,000 330 170 310 1,500 MW-4 ND ND ND ND ND ND ND MW-5 ND ND ND ND ND ND MW-5 ND ND ND ND ND ND MW-6 ND ND ND ND ND ND ND							36
MW-2 330 17 ND 19 20 MW-3 19,000 480 160 510 1,500 MW-4 ND ND ND ND ND ND ND MW-5 ND ND ND ND ND ND ND MW-6 ND ND ND ND ND ND ND MW-7 ND ND ND ND ND ND ND MW-8 990 13 ND 48 66 7/19/90 MW-1 WELL WAS DRY MW-2 MW-4 MW-5 MW-6 ND ND ND ND ND ND ND MW-7 MW-6 ND ND ND ND ND ND ND MW-7 MW-8 MW-8 MW-8 19,000 330 170 310 1,500 MW-3 19,000 330 170 310 1,500 MW-4 ND ND ND ND ND ND ND MW-5 ND ND ND ND ND ND MW-5 ND ND ND ND ND ND MW-6 ND ND ND ND ND ND ND	8/24/90	MTa7 1	WELL WAS	DRY			
MW-3 19,000 480 160 510 1,500 MW-4 ND ND ND ND ND ND MW-5 ND ND ND ND ND ND MW-6 ND ND ND ND ND ND MW-7 ND ND ND ND ND ND MW-8 990 13 ND 48 66 7/19/90 MW-1 WELL WAS DRY MW-2 MW-4 MW-5 MW-6 ND ND ND ND ND ND ND MW-7 MW-8 MW-8 MW-8 19,000 39.0 ND 32.0 52.0 MW-3 19,000 39.0 ND 32.0 52.0 MW-4 ND ND ND ND ND ND ND MW-7 MW-5 ND ND ND ND ND ND ND MW-4 ND ND ND ND ND ND ND MW-7 ND ND ND ND ND ND ND MW-5 ND ND ND ND ND ND ND MW-6 ND ND ND ND ND ND MW-6 ND ND ND ND ND ND ND MW-6 ND ND ND ND ND ND ND MW-6 ND ND ND ND ND ND ND	0,21,50				ND	19	20
MW-4 ND							
MW-5 ND							
MW-6 ND							ND
MW-7 ND MW-8 990 13 ND 48 66 7/19/90 MW-1 WELL WAS DRY MW-2					ND	ND	ND
7/19/90 MW-1 WELL WAS DRY MW-2 MW-3					ND	ND	ND
MW-2 MW-3					ND	48	66
MW-2 MW-3	7/19/90	MW - 1.	WELL WAS	DRY			
MW-3 MW-4 MW-5	.,,						
MW-4			 -				
MW-6 ND ND ND ND ND ND ND ND ND MW-7		MW - 4					
MW-7		MW-5					
MW-8		MW - 6	ND	ND	ND	ND	ND
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		MW - 7					
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 ND MW-6 ND ND ND ND ND ND MW-7 24 ND ND 0.74 1.7		8 - WM					- -
MW-4 ND ND ND 0.68 1.4 MW-5 ND ND ND ND ND ND MW-6 ND ND ND ND ND ND MW-7 24 ND ND 0.74 1.7	5/90	MW-2	1,000	39.0	ND		
MW-5 ND		MW-3	19,000	330	170		
MW-6 ND ND ND ND ND ND ND NM-7 24 ND ND 0.74 1.7		MW - 4	ND				
MW-7 24 ND ND 0.74 1.7		MW-5					
		MW-6					
MW-8 770 6.5 ND 20 32							
		MW - 8	770	6.5	ND	20	32

TABLE 3 (Continued)
SUMMARY OF LABORATORY ANALYSES

WATER

		TPH							Ethyl		
<u>Date</u>	<u>Well #</u>	<u>Gasol</u>	.ine	Ben	zen	<u>e</u>	<u>Toluene</u>		<u>benze</u>	<u>ne Xyler</u>	<u>168</u>
2/16/90	MW-1 MW-2	WELL 84	WAS DRY).0		0.5		28.0) 44.	O.
	MW-3	22,0			10		4,100		6,90		
	MW - 4	NI			1D		ND		ND	ND	
	MW-5	67		0.	51		1.6		2.9	7.5	5
	MW-6	NE)	N	1D		ND		ND	ND	
	MW-7	NI		N	1D		ND		ND	ND	
	MW - 8	1,9	00	1	Ll		ND		52	55	
1/27/89	MW-1		WAS DRY				8.7		22.6	. 20.	2
	MW-2	51			3.0 570		2,830		1,25		
	MW-3 MW-4	39,0 NE		-	570 ID		2,630 ND		ND	ND	
	14144 — 47	IAT	,	r	4D		1412		112	212	
10/03/88	MW-1		WAS DRY						00.0	0.7	_
	MW-2	1,7			7.8		7.4		20.9		
	MW-3	61,0			060		3,380 ND		1,52 ND	0 8,72 ND	
	MW - 4	NI)	Г	1D		MD		מאז	ND	
9/07/88	MW-1	WELL	WAS DRY	<i>7</i>							
4/27/88	MW-1	NOT S	SAMPLED	DUE	TO	THE	PRESENCE	OF	FREE	PRODUCT	
11/19/87	MW-1	NOT S	SAMPLED	DUE	TO	THE	PRESENCE	OF	FREE	PRODUCT	
11/13/87	MW-1	NOT S	SAMPLED	DUE	TO	THE	PRESENCE	OF	FREE	PRODUCT	
11/05/87	MW-1	NOT S	SAMPLED	DUE	TO	THE	PRESENCE	OF	FREE	PRODUCT	
10/06/87	MW-1	NOT S	SAMPLED	DUE	OT	THE	PRESENCE	OF	FREE	PRODUCT	
9/24/87	MW-1	NOT S	SAMPLED	DUE	TO	THE	PRESENCE	OF	FREE	PRODUCT	
9/23/87	MW-1	NOT S	SAMPLED	DUE	TO	THE	PRESENCE	OF	FREE	PRODUCT	

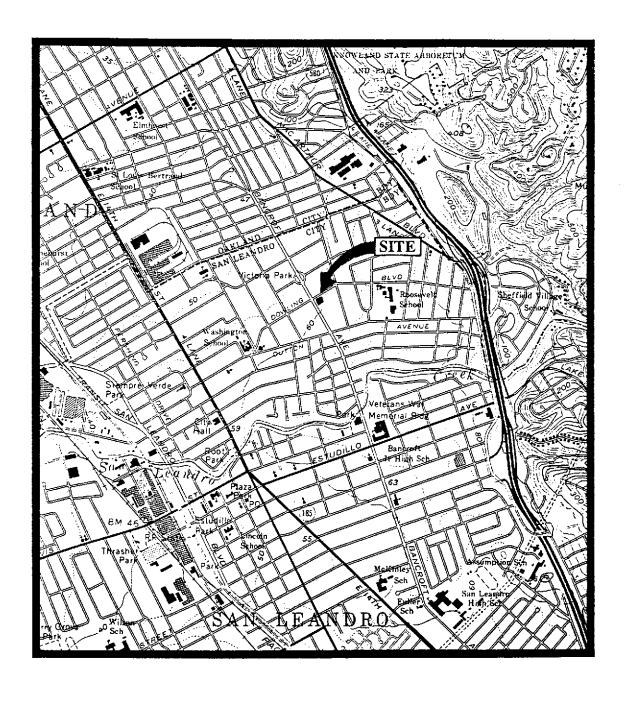
TABLE 3 (Continued)

SUMMARY OF LABORATORY ANALYSES WATER

- * Chromatogram contains early eluting peak.
- ND = Non-detectable.
- -- Indicates analysis was not performed.

Results are in micrograms per liter ($\mu g/L$), unless otherwise indicated.

Note: Laboratory analyses data prior to December 13, 1993, were provided by RESNA.

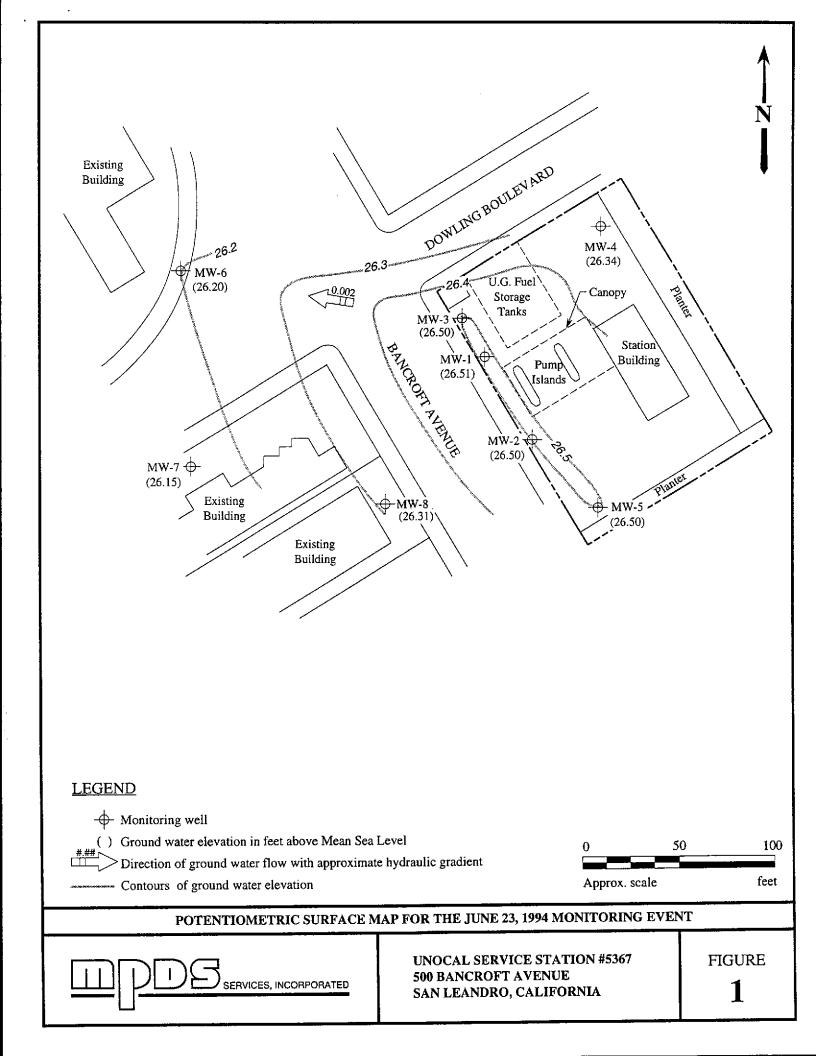


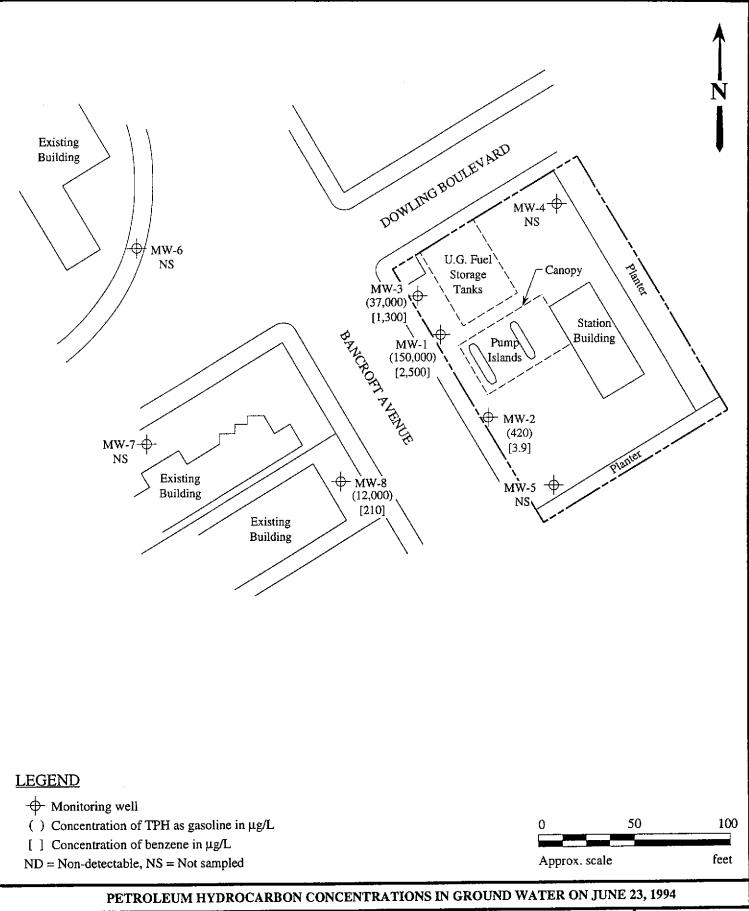
Base modified from 7.5 minute U.S.G.S. San Leandro Quadrangle (photorevised 1980)

0 2000 4000 Approx. scale feet



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



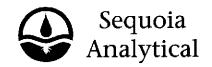




UNOCAL SERVICE STATION #5367 500 BANCROFT AVENUE SAN LEANDRO, CALIFORNIA

FIGURE

2



680 Chesapeake Drive 1900 Bates Avenue, Suite L. Concord, CA 94520 819 Striker Avenue, Suite 8

Redwood City, CA 94063 Sacramento, CA 95834

(415) 364-9600 (510) 686-9600 (916) 921-9600

San Leandro

FAX (415) 364-9233 FAX (510) 686-9689 FAX (916) 921-0100

MPDS Services

2401 Stanwell Dr., Ste. 400 Concord, CA 94520 Attention: Avo Avedessian

Client Project ID: Sample Matrix: Analysis Method:

First Sample #:

Unocal #5367, 500 Bancroft Ave.,

Water EPA 5030/8015/8020

406-1242

Sampled: Received:

Jun 23, 1994 Jun 23, 1994

Reported: Jul 7, 1994

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit μg/L	Sample I.D. 406-1242 MW1	Sample I.D. 406-1243 MW2	Sample I.D. 406-1244 MW3	Sample I.D. 406-1245 MW8	
Purgeable Hydrocarbons	50	150,000	420	37,000	12,000	
Benzene	0.5	2,500	3.9	1,300	210	
Toluene	0.5	33,000	0.66	670	N.D.	
Ethyl Benzene	0.5	6,400	23	3,100	610	
Total Xylenes	0.5	37,000	11	14,000	860	
Chromatogram Pat	tern:	Gasoline	Gasoline	Gasoline	Gasoline	

Quality Control Data

Report Limit Multiplication Factor:	500	1.0	50	40
Date Analyzed:	7/5/94	7/5/94	7/5/94	7/5/94
Instrument Identification:	HP-4	HP-4	HP-4	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	87	72	88	77

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

SEQUOIA ANALYTICAL, #1271

Project Manager



680 Chesapeake Drive 1900 Bates Avenue, Suite L 819 Striker Avenue, Suite 8

Redwood City, CA 94063 Concord, CA 94520 Sacramento, CA 95834 (415) 364-9600 (510) 686-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 686-9689 FAX (916) 921-0100

MPDS Services

2401 Stanwell Dr., Ste. 400 Concord, CA 94520

Client Project ID:

Unocal #5367, 500 Bancroft Ave.,

Matrix:

Liquid

San Leandro

Attention: Avo Avedessian

QC Sample Group: 4061242-45

Reported:

Jul 7, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl	Xylenes	
			Benzene		
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	
Analyst:	J.Fontecha	J.Fontecha	J.Fontecha	J.Fontecha	
MS/MSD					
Batch#:	BLK070594	BLK070594	BLK070594	BLK070594	
Date Prepared:	7/5/94	7/5/94	7/5/94	7/5/94	
Date Analyzed:	7/5/94	7/5/94	7/5/94	7/5/94	
nstrument I.D.#:	HP-4	HP-4	HP-4	HP-4	
Conc. Spiked:	20 μg/L	20 μg/L	20 μg/L	60 μg/L	
Matrix Spike					
% Recovery:	80	85	85	92	
Matrix Spike					
Duplicate %					
Recovery:	85	90	90	93	
Relative %					
Difference:	6.1	5.7	5.7	1.1	

2LCS070594	2LCS070594	2LCS070594	2LCS070594			
7/5/94	7/5/94	7/5/94	7/5/94			
7/5/94	7/5/94	7/5/94	7/5/94			
HP-4	HP-4	HP-4	HP-4			
103	103	103	103			
						
71-133	72-128	72-130	71-120			
	7/5/94 7/5/94 HP-4	7/5/94 7/5/94 7/5/94 7/5/94 HP-4 HP-4	7/5/94 7/5/94 7/5/94 7/5/94 7/5/94 7/5/94 HP-4 HP-4 HP-4	7/5/94 7/5/94 7/5/94 7/5/94 7/5/94 7/5/94 7/5/94 HP-4 HP-4 HP-4 HP-4	7/5/94 7/5/94 7/5/94 7/5/94 7/5/94 7/5/94 7/5/94 HP-4 HP-4 HP-4 HP-4	7/5/94 7/5/94 7/5/94 7/5/94 7/5/94 7/5/94 HP-4 HP-4 HP-4 HP-4

SEQUOIA ANALYTICAL, #1271

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

CHAIN OF CUSTODY

SAMPLER				UNOCAL S/S # 536) CITY: STN LEANDRO						TURN AROUND TIME:						
RAY MARANGOSIAN WITNESSING AGENCY			ADDRESS: 500 BANCROFT AUE				TPH-GAS BTEX	TPH-DIESEL	ى ق	10					REGULAR	
SAMPLE ID NO.	DATE	TIME	WATER	GRAB	СОМР	NO. OF CONT.	SAMPLING LOCATION	тРН ВТЕ	ТРН	TOG	8010					REMARKS
MWI	6.23.96	1 1 F-60	*	×		2	well	X						4061	242	AB
MW2	ls	10:45	j	x		4		X		ļ 				4061	243	
MW3	ч	13:05	×	<u>x</u>			<u> </u>	x						4061	244	
Mw8	4.	11:40	[~		ч	1	入			\			1061	245	V
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RELINQUISHED BY: DATE/TIME (SIGNATURE) (SIGNATURE)				RECEIV	THE FOLLOWING MUST BE COMPLETED BY THE LABORATORY ACCEPTING SAMPLES FOR ANALYSES: 1. HAVE ALL SAMPLES RECEIVED FOR ANALYSIS BEEN STORED ON ICE?											
(SIGNATURE) A CO2494 (6			RAN	ISIGNATURE	2. WILL SAMPLES REMAIN REFRIGERATED UNTIL ANALYZED?											
ISIGNATURE)					(SIGNATURE)			ソとう 3. DID ANY SAMPLES RECEIVED FOR ANALYSIS HAVE HEAD SPACE? いっつ								
(SIGNATURE)			18.		/	ISIGNATURE)	7		SAMPLES	IN APPROP	RIATE CON	ITAINERS A	ND PAOPE	RLY PACK	AGED?	
(SIGNATURE)						(SIGNATURE)		SIGNAT					TLE: fuect	15+		ate: 6/23/94