



PACIFIC  
ENVIRONMENTAL  
GROUP, INC.

October 18, 1996  
Project 310-127.5A

Mr. Richard Hiett  
Regional Water Quality Control Board  
San Francisco Bay Region  
2101 Webster Street, Suite 500  
Oakland, California 94612

Re: Unocal Corporation  
Quarterly Summary Report  
Third Quarter 1996

Dear Mr. Hiett:

As directed by Ms. Tina Berry of Unocal Corporation, Pacific Environmental Group, Inc. is forwarding the quarterly summary report for the following location:

<u>Service Station</u>	<u>Location</u>
5367	500 Bancroft Avenue, San Leandro

Should you have questions or comments, please do not hesitate to contact our office at (408) 441-7500.

Sincerely,

**Pacific Environmental Group, Inc.**

Joseph Muzzio  
Project Geologist

Enclosure

cc: Ms. Tina Berry, Unocal Corporation  
✓ Ms. Amy Leech, Alameda County Health Care Services

## Quarterly Summary Report Third Quarter 1996

Unocal Service Station 5367  
500 Bancroft Avenue  
San Leandro, California

City/County ID #: None  
County: Alameda

### BACKGROUND

The site is an active Unocal service station. In 1987, limited soil excavation was performed at the site during the replacement of underground storage tanks, product lines and product dispensers. One groundwater monitoring well was installed following these activities. Between 1988 and 1994, eight monitoring wells were installed, aquifer testing was performed and a remedial action plan was prepared. In 1995, one additional monitoring well was installed, and a soil vapor extraction and groundwater extraction remediation system was constructed. During the first quarter of 1996, remedial system start up and operation were performed.

### RECENT QUARTER ACTIVITIES

Unocal submit revisions to the groundwater monitoring program requesting a sampling reduction from quarterly to semiannually. Groundwater monitoring was performed in September. Monthly monitoring of the soil vapor and groundwater extraction and treatment system was performed and appropriate compliance documentation was submitted.

### NEXT QUARTER ACTIVITIES

Operation and maintenance of the remedial system will continue.

### CHARACTERIZATION/REMEDIAL STATUS

Soil contamination delineated? Yes.  
Dissolved groundwater delineated? Yes.  
Free product delineated? Not applicable.  
Amount of groundwater contaminant recovered this quarter? Approximately 14 pounds.  
Soil remediation in progress? Yes.  
Start? March 1996.  
Anticipated completion date? Unknown.  
Dissolved/free product remediation in progress? Yes.  
Start? March 1996.  
Anticipated completion? Unknown.

**CONSULTANT:** Pacific Environmental Group, Inc.

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 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. Oxygen Release Compound (ORC) filter socks were present in monitoring well MW-8. 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 September 21, 1996. Prior to sampling, the wells were each purged of between 3 and 36 gallons of water. In addition, dissolved oxygen concentrations were measured and are presented in Table 3. During purging operations, the field parameters pH, temperature, and electrical conductivity were recorded on the purging/sampling data sheets which are attached to this report. Once the field parameters were observed to stabilize, and where possible, a minimum of approximately three 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. Field blank, Equipment blank and Trip blank samples (denoted as ES1, ES2, and ES3, respectively) were also collected for quality assurance and control. 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 2. 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 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. Joel G. Greger at (510) 602-5120.

Sincerely,

MPDS Services, Inc.



Thomas J. Berkins  
Project Engineer



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



License No. EG 1633  
Exp. Date 8/31/98

/aab

- Attachments: Tables 1 & 2  
Location Map  
Figures 1 & 2  
Laboratory Analyses  
Chain of Custody documentation  
Purging/Sampling Data Sheets

cc: Mr. Joe Muzzio, Pacific Environmental Group, 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)
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**(Monitored and Sampled on September 21, 1996)**

MW-1	28.39	29.44	35.15	0	No	3
MW-2*	28.66	29.47	46.89	0	--	0
MW-3	28.77	29.15	48.23	0	--	§
MW-4	28.41	29.88	48.51	0	No	36
MW-5	28.55	29.95	44.42	0	No	7.5
MW-6	28.24	28.72	44.61	0	No	9
MW-7	28.18	29.07	43.98	0	No	8
MW-8	28.37	29.34	43.91	0	No	8
MW-9	28.42	28.05	44.65	0	No	9
MW-10	28.17	30.77	42.70	0	No	6

**(Monitored and Sampled on March 27, 1996)**

MW-1	35.54	22.29	35.18	0	No	9
MW-2*	35.83	22.30	46.90	0	--	0
MW-3*	35.93	21.99	48.25	0	--	0
MW-4	35.58	22.71	48.52	0	No	67.5
MW-5	35.75	22.75	44.40	0	No	15
MW-6	35.37	21.59	44.53	0	No	16
MW-7	35.31	21.94	43.80	0	No	15
MW-8	35.51	22.20	43.92	0	No	15
MW-9	35.56	20.91	44.52	0	No	16.5
MW-10	35.32	23.62	42.60	0	No	13

**(Monitored and Sampled on December 29, 1995)**

MW-1	27.43	30.40	35.15	0	No	3.5
MW-2	27.88	30.25	46.70	0	No	43
MW-3	28.01	29.91	48.07	0	No	47.5
MW-4*	27.33	30.96	48.50	0	--	0
MW-5*	27.63	30.87	44.52	0	--	0
MW-6*	27.34	29.62	44.56	0	--	0
MW-7*	27.34	29.91	43.70	0	--	0
MW-8	27.46	30.25	43.90	0	No	9.5
MW-9	27.45	29.02	44.63	0	No	11
MW-10	27.39	31.55	42.60	0	No	8

**Table 1**  
 Summary of Monitoring Data

Well #	Ground Water Elevation (feet)	Depth to Water (feet)*	Total Well Depth (feet)*	Product Thickness (feet)	Seen	Water Purged (gallons)
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(Monitored and Sampled on October 24, 1995)

MW-1*	27.84	29.99	★	0	--	0
MW-2*	27.57	30.56	★	0	--	0
MW-3*	27.58	30.34	★	0	--	0
MW-4*	27.50	30.79	★	0	--	0
MW-5*	27.52	30.98	★	0	--	0
MW-6*	27.23	29.73	★	0	--	0
MW-7*	27.20	30.05	★	0	--	0
MW-8*	27.31	30.40	★	0	--	0
MW-9*	27.26	29.21	★	0	--	0
MW-10	27.18	31.76	44.15	0	No	8.5

Well #	Well Casing Elevation (feet)**
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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
MW-9	56.47
MW-10	58.94

- ◆ The depth to water level and total well depth measurements were taken from the top of the well casings.
- § Well is connected to remediation system. Sampled from valve on well head.
- \* Monitored only.

**Table 1**  
**Summary of Monitoring Data**

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- \*\* The elevations of the top of the well casings have been surveyed relative to Mean Sea Level.
- ★ Total well depth was not measured.
- Sheen determination was not performed.

**Table 2**  
 Summary of Laboratory Analyses  
 Water

Well	Date	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE	
MW-1	9/21/96	110,000	270	3,500	5,900	16,000	260	
	3/27/96	120,000	920	17,000	7,100	41,000	180	
	12/29/95	110,000	990	22,000	8,300	47,000	--	
	9/28/95	100,000	810	21,000	6,500	37,000	--	
	6/26/95	130,000	1,000	23,000	5,600	33,000	--	
	3/27/95	88,000	1,500	20,000	4,200	25,000	--	
	12/19/94	200,000	2,400	28,000	6,600	37,000	--	
	9/21/94	110,000	2,500	23,000	4,500	25,000	--	
	6/23/94	150,000	2,500	33,000	6,400	37,000	--	
	3/18/94	99,000	3,800	37,000	6,800	36,000	--	
	12/13/93	140,000	3,600	37,000	7,100	40,000	--	
	9/3/93	160,000	3,900	41,000	6,800	38,000	--	
	6/25/93	160,000	4,300	36,000	5,800	34,000	--	
	3/3/93	330,000	3,800	21,000	4,200	24,000	--	
	11/18/92	WELL WAS DRY						
	10/16/92	WELL WAS DRY						
	6/18/92	680,000	9,000	40,000	7,600	44,000	--	
	3/31/92	330,000	8,200	33,000	6,800	36,000	--	
	9/27/91	WELL WAS DRY						
	5/6/91	--	--	--	--	--	--	--
	2/6/91	WELL WAS DRY						
	11/30/90	WELL WAS DRY						
	8/24/90	WELL WAS DRY						
	7/19/90	WELL WAS DRY						
	2/16/90	WELL WAS DRY						
	1/27/89	WELL WAS DRY						
	10/3/88	WELL WAS DRY						
	9/7/88	WELL WAS DRY						
	4/27/88	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT						
	11/19/87	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT						
	11/13/87	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT						
11/5/87	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT							
10/6/87	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT							
9/24/87	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT							
9/23/87	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT							
MW-2	9/21/96	NOT SAMPLED (CONNECTED TO REMEDIATION SYSTEM)						
	3/27/96	NOT SAMPLED (CONNECTED TO REMEDIATION SYSTEM)						
	12/29/95	860	4.3	1.0	27	50	--	
	9/28/95	730	2.9	ND	41	29	--	
	6/26/95	ND	ND	0.93	0.88	3.4	--	
	3/27/95**	ND	ND	0.55	1.2	2.5	--	

**Table 2**  
 Summary of Laboratory Analyses  
 Water

Well	Date	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE	
MW-2	12/19/94	190	1.9	ND	15	6.8	--	
(Cont.)	9/21/94	ND	ND	ND	ND	ND	--	
	6/23/94	420	3.9	0.66	23	11	--	
	3/18/94	250	6.4	0.64	28	24	--	
	12/13/93	260	7.7	0.83	17	23	--	
	9/3/93	1,400	31	4.3	99	53	--	
	6/25/93	4,000	110	ND	320	280	--	
	3/3/93	4,200	62	2.9	97	120	--	
	11/18/92	65	1.2	ND	2.8	1.4	--	
	10/16/92	--	--	--	--	--	--	
	9/30/92	820	21	ND	42	25	--	
	6/18/92	1,200	35	1.6	56	26	--	
	12/27/91	170	3.9	ND	7.3	60	--	
	9/27/91	110	2.6	ND	5.6	5.1	--	
	5/6/91	2,300	150	10	52	110	--	
	2/7/91	510	40	ND	29	44	--	
	11/30/90	400	41	ND	39	37	--	
	8/24/90	330	17	ND	19	20	--	
	7/19/90	--	--	--	--	--	--	
	2/16/90	840	50	0.5	28	44	--	
	1/27/89	510	58	8.7	22.6	20.3	--	
	10/3/88	1,760	47.8	7.4	20.9	81.6	--	
	May-90	1,000	39	ND	32	52	--	
MW-3	9/21/96	34,000	140	ND	2,200	6,600	1,800	
	3/27/96	NOT SAMPLED (CONNECTED TO REMEDIATION SYSTEM)						
	12/29/95	55,000	700	ND	4,900	16,000	††	
	9/28/95	17,000	730	30	4,000	8,800	†	
	6/26/95	14,000	300	ND	1,300	3,900	--	
	3/27/95**	33,000	410	66	1,600	6,500	--	
	12/19/94	100,000	1,200	2,900	4,200	23,000	--	
	9/21/94	24,000	890	110	2,200	8,800	--	
	6/23/94	37,000	1,300	670	3,100	14,000	--	
	3/18/94	22,000	1,200	430	2,200	9,700	--	
	12/13/93	49,000	1,300	360	2,300	9,200	--	
	9/3/93	82,000	2,400	3,400	4,200	21,000	--	
	6/25/93	27,000	1,200	980	1,700	6,900	--	
	3/3/93	96,000*	1,400	1,900	1,400	8,400	--	
	11/18/92	24,000*	430	160	640	2,800	--	
	10/16/92	--	--	--	--	--	--	
	9/30/92	36,000	730	200	1,000	4,400	--	
	6/18/92	180,000	2,200	1,700	2,300	1,100	--	
	3/31/92	100,000	1,900	1,900	2,300	9,400	--	

**Table 2**  
**Summary of Laboratory Analyses**  
 Water

Well	Date	TPH as Gasoline	Benzene	Toluene	Ethyl- Benzene	Xylenes	MTBE	
MW-3 (Cont.)	12/27/91	31,000	240	280	400	1,600	--	
	9/27/91	4,000	160	84	180	560	--	
	5/6/91	39,000	1,000	570	930	3,900	--	
	2/6/91	13,000	310	150	380	1,200	--	
	11/30/90	13,000	390	81	410	1,000	--	
	8/24/90	19,000	480	160	510	1,500	--	
	7/19/90	--	--	--	--	--	--	
	2/16/90	22,000	710	4,100	6,900	33,000	--	
	1/27/89	39,000	1,570	2,830	1,250	7,070	--	
	10/3/88	61,000	1,060	3,380	1,520	8,720	--	
	May-90	19,000	330	170	310	1,500	--	
	MW-4	9/21/96	ND	ND	ND	ND	ND	ND
		3/27/96	ND	ND	0.70	ND	0.79	ND
12/29/95		SAMPLED SEMI-ANNUALLY						
9/28/95		ND	ND	ND	ND	ND	†	
6/26/95		SAMPLED SEMI-ANNUALLY						
3/27/95		ND	ND	0.79	0.5	3.1	--	
12/19/94		SAMPLED SEMI-ANNUALLY						
9/21/94		ND	ND	0.78	ND	0.81	--	
3/18/94		ND	ND	ND	ND	ND	--	
12/13/93		SAMPLED SEMI-ANNUALLY						
9/3/93		86	14	13	1.4	7.1	--	
6/25/93		NOT SAMPLED						
3/3/93		68	0.9	0.6	ND	1.9	--	
11/18/92		NOT SAMPLED						
10/16/92		ND	ND	ND	ND	ND	--	
6/18/92		ND	ND	ND	ND	ND	--	
3/31/92		ND	ND	ND	ND	ND	--	
12/27/91		ND	ND	ND	ND	ND	--	
9/27/91		ND	ND	ND	ND	ND	--	
5/6/91		--	--	--	--	--	--	
2/6/91		ND	ND	ND	ND	ND	--	
11/30/90		ND	ND	ND	ND	1.2	--	
8/24/90		ND	ND	ND	ND	ND	--	
7/19/90		--	--	--	--	--	--	
May-90		ND	ND	ND	0.68	1.4	--	
2/16/90		ND	ND	ND	ND	ND	--	
1/27/89		ND	ND	ND	ND	ND	--	
10/3/88	ND	ND	ND	ND	ND	--		

**Table 2**  
 Summary of Laboratory Analyses  
 Water

Well	Date	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE	
MW-5	9/21/96	ND	ND	ND	ND	ND	ND	
	3/27/96	ND	ND	1.7	ND	2.4	ND	
	12/29/95	SAMPLED SEMI-ANNUALLY						
	9/28/95	ND	ND	ND	ND	ND	--	
	6/26/95	SAMPLED SEMI-ANNUALLY						
	3/27/95	ND	ND	0.66	ND	2.9	--	
	12/19/94	SAMPLED SEMI-ANNUALLY						
	9/21/94	ND	ND	0.98	ND	1.6	--	
	3/18/94	ND	ND	ND	ND	ND	--	
	12/13/93	SAMPLED SEMI-ANNUALLY						
	9/3/93	ND	ND	1.5	ND	7.9	--	
	6/25/93	WELL WAS INACCESSIBLE						
	3/3/93	ND	ND	ND	ND	ND	--	
	11/18/92	NOT SAMPLED						
	10/16/92	ND	ND	ND	ND	ND	--	
	6/18/92	--	--	--	--	--	--	
	3/31/92	ND	ND	ND	ND	1.1	--	
	12/27/91	ND	ND	ND	ND	ND	--	
	9/27/91	ND	ND	ND	ND	ND	--	
	5/6/91	--	--	--	--	--	--	
2/6/91	ND	ND	ND	ND	ND	--		
11/30/90	ND	ND	0.7	ND	ND	--		
8/24/90	ND	ND	ND	ND	ND	--		
7/19/90	--	--	--	--	--	--		
2/16/90	67	0.51	1.6	2.9	7.5	--		
May-90	ND	ND	ND	ND	ND	--		
MW-6	9/21/96	ND	ND	ND	ND	ND	ND	
	3/27/96	50	ND	0.92	ND	0.96	ND	
	12/29/95	SAMPLED SEMI-ANNUALLY						
	9/28/95	ND	ND	ND	ND	ND	--	
	6/26/95	SAMPLED SEMI-ANNUALLY						
	3/27/95	56	ND	0.65	ND	3.3	--	
	12/19/94	SAMPLED SEMI-ANNUALLY						
	9/21/94	ND	ND	ND	ND	ND	--	
	3/18/94	ND	ND	0.93	ND	1.4	--	
	12/13/93	SAMPLED SEMI-ANNUALLY						
	9/3/93	ND	ND	ND	ND	ND	--	
	6/25/93	NOT SAMPLED						
	3/3/93	ND*	ND	ND	ND	ND	--	
	11/18/92	NOT SAMPLED						
	10/16/92	ND	ND	ND	ND	ND	--	
6/18/92	ND	ND	ND	ND	ND	--		
3/31/92	ND	ND	1.3	ND	2	--		

**Table 2**  
 Summary of Laboratory Analyses  
 Water

Well	Date	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE
MW-6 (Cont.)	12/27/91	ND	ND	ND	ND	ND	--
	9/27/91	ND	ND	ND	ND	ND	--
	5/6/91	--	--	--	--	--	--
	2/6/91	ND	ND	ND	ND	ND	--
	11/30/90	ND	ND	ND	ND	ND	--
	8/24/90	ND	ND	ND	ND	ND	--
	7/19/90	ND	ND	ND	ND	ND	--
	2/16/90	ND	ND	ND	ND	ND	--
	May-90	ND	ND	ND	ND	ND	--
MW-7	9/21/96	ND	ND	ND	ND	ND	ND
	3/27/96	ND	ND	1.1	ND	1.7	ND
	12/29/95	SAMPLED SEMI-ANNUALLY					
	9/28/95	ND	ND	ND	ND	ND	†
	6/26/95	SAMPLED SEMI-ANNUALLY					
	3/27/95	ND	ND	0.54	ND	1.9	--
	12/19/94	SAMPLED SEMI-ANNUALLY					
	9/21/94	ND	0.5	ND	ND	0.89	--
	3/18/94	ND	ND	ND	ND	ND	--
	12/13/93	SAMPLED SEMI-ANNUALLY					
	9/3/93	ND	ND	ND	ND	ND	--
	6/25/93	NOT SAMPLED					
	3/3/93	ND	ND	ND	ND	ND	--
	11/18/92	NOT SAMPLED					
	10/16/92	ND	ND	ND	ND	ND	--
	6/18/92	--	--	--	--	--	--
	3/31/92	ND	ND	ND	ND	0.9	--
	12/27/91	ND	ND	ND	ND	ND	--
	9/27/91	ND	ND	ND	ND	ND	--
	5/6/91	ND	ND	ND	ND	ND	--
2/6/91	ND	ND	ND	ND	ND	--	
11/30/90	ND	ND	ND	0.6	1.5	--	
8/24/90	ND	ND	ND	ND	ND	--	
7/19/90	--	--	--	--	--	--	
2/16/90	ND	ND	ND	ND	ND	--	
May-90	24	ND	ND	0.74	1.7	--	
MW-8	9/21/96	3,800	27	ND	46	45	ND
	3/27/96	970	29	0.77	82	85	ND
	12/29/95	7,500	260	ND	580	870	††
	9/28/95	10,000	250	ND	760	910	†
	6/26/95	11,000	320	ND	680	2,000	--
	3/27/95**	9,200	240	ND	200	1,400	--

**Table 2**  
 Summary of Laboratory Analyses  
 Water

Well	Date	TPH as Gasoline	Benzene	Toluene	Ethyl- Benzene	Xylenes	MTBE	
MW-8	12/19/94	6,200	91	ND	230	210	--	
(Cont.)	9/21/94	6,900	190	ND	460	510	--	
	6/23/94	12,000	210	ND	610	860	--	
	3/18/94	6,100	85	ND	260	260	--	
	12/13/93	6,900	180	ND	240	550	--	
	9/3/93	9,800	180	ND	580	700	--	
	6/25/93	8,100	160	ND	580	740	--	
	3/3/93	13,000	33	ND	160	290	--	
	11/18/92	1,100	6.1	ND	13	5.6	--	
	10/16/92	300	0.96	ND	4.0	3.5	--	
	6/18/92	WELL WAS INACCESSIBLE						
	3/31/92	15,000	120	1.0	430	530	--	
	12/27/91	1,600	15	2.9	40	49	--	
	9/27/91	720	13	4.3	26	26	--	
	5/6/91	14,000	80	ND	250	550	--	
	2/6/91	630	9.6	ND	35	36	--	
	11/30/90	570	13	ND	45	36	--	
	8/24/90	990	13	ND	48	66	--	
	7/19/90	--	--	--	--	--	--	
	2/16/90	1,900	11	ND	52	55	--	
	May-90	770	6.5	ND	20	32	--	
MW-9	9/21/96	ND	ND	ND	ND	ND	ND	
	3/27/96	ND	ND	0.68	ND	0.51	ND	
	12/29/95	ND	ND	0.58	ND	0.52	--	
	9/28/95	ND	ND	ND	ND	ND	--	
	6/26/95	ND	ND	ND	ND	3.9	--	
	3/27/95	ND	ND	0.61	ND	2.8	--	
	12/19/94	ND	ND	1.6	1.5	8.4	--	
MW-10	9/21/96	ND	ND	ND	ND	ND	ND	
	3/27/96	ND	ND	0.68	ND	0.69	ND	
	12/29/95	ND	ND	0.65	ND	1.1	--	
	10/24/95	ND	ND	ND	ND	ND	--	
	7/28/95	ND	ND	ND	ND	ND	--	

**Table 2**  
Summary of Laboratory Analyses  
Water

---

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

\* Chromatogram contains early eluting peak.

\*\* On March 27, 1995, total dissolved solid concentrations were as follows: MW-2 at 410 µg/L; MW3 at 450 µg/L; MW8 at 490 µg/L.

ND = Non-detectable.

-- 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 quantification range used by Sequoia Analytical Laboratory is C6 - C12.
- Laboratory analyses data prior to December 13, 1993, were provided by RESNA.

**Table 3**  
 Summary of Monitoring Data  
 Dissolved Oxygen Concentration Measurements

Well #	Date	Dissolved Oxygen (mg/L)	
		<u>Before Purging</u>	<u>After Purging</u>
MW-1	9/21/96	--	1.01
MW-2		--	--
MW-3		--	--
MW-4		--	2.82
MW-5		--	4.12
MW-6		--	3.74
MW-7		--	1.19
MW-8		--	2.16
MW-9		--	4.13
MW-10		--	5.38
MW-1	3/27/96	1.48	1.02
MW-2		--	--
MW-3		--	--
MW-4		4.32	3.91
MW-5		4.03	4.71
MW-6		5.94	4.96
MW-7		6.63	5.23
MW-8		11.73	9.76
MW-9		5.62	5.23
MW-10		4.38	4.57
MW-1	12/29/95	--	1.74
MW-2		--	8.71
MW-3		--	6.97
MW-4		--	--
MW-5		--	--
MW-6		--	--
MW-7		--	--
MW-8		--	2.03
MW-9		--	5.32
MW-10		--	5.11
MW-1	9/28/95	--	1.22
MW-2		--	3.00
MW-3		--	1.63
MW-4		--	6.29
MW-5		--	1.96
MW-6		--	4.19
MW-7		--	2.04
MW-8		--	1.85
MW-9		--	5.76

**Table 3**  
 Summary of Monitoring Data  
 Dissolved Oxygen Concentration Measurements

Well #	Date	Dissolved Oxygen (mg/L)	
		<u>Before Purging</u>	<u>After Purging</u>
MW-1	6/26/95	--	1.60
MW-2		--	4.55
MW-3		--	1.55
MW-4		--	--
MW-5		--	--
MW-6		--	--
MW-7		--	--
MW-8		--	3.86
MW-9		--	4.61
MW-1	3/27/95*	--	1.5
MW-2		--	1.7
MW-3		--	0.90
MW-4		--	4.90
MW-5		--	5.20
MW-6		--	7.4
MW-7		--	8.4
MW-8		--	2.2
MW-9		--	7.8

\* Measurements taken at Sequoia Analytical Laboratory.

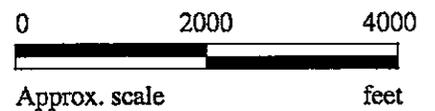
-- Indicates reading was not taken.

mg/L = milligrams per liter.

Note: In the field, measurements were taken using a LaMotte DO4000 dissolved oxygen meter.



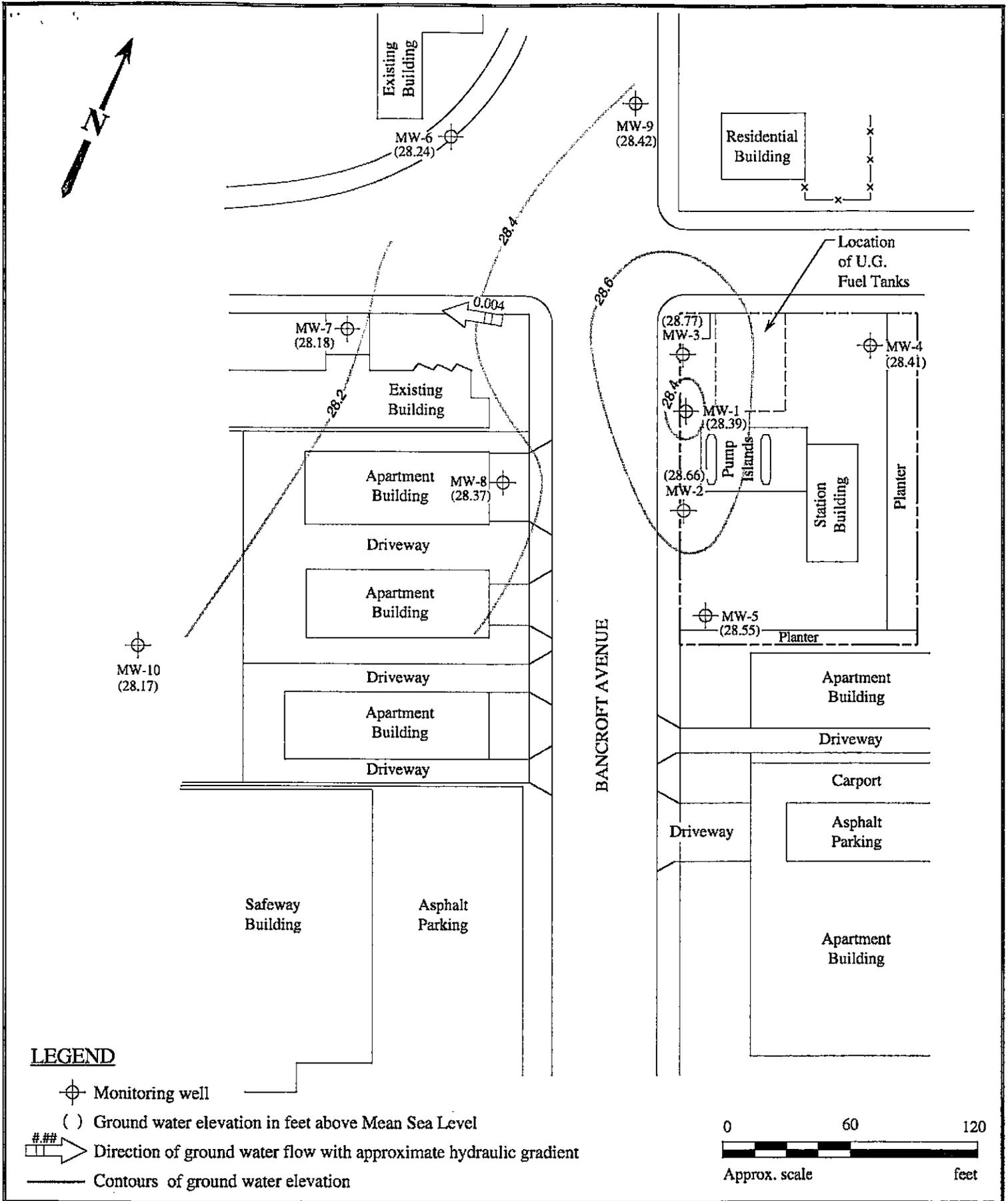
Base modified from 7.5 minute U.S.G.S. San Leandro Quadrangle  
 (photorevised 1980)

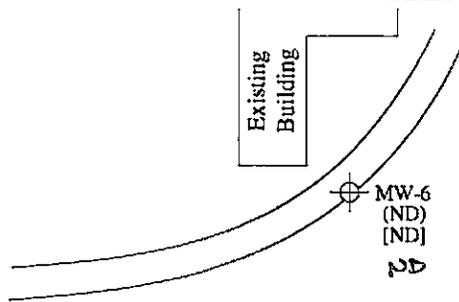


**MPDS** SERVICES, INCORPORATED

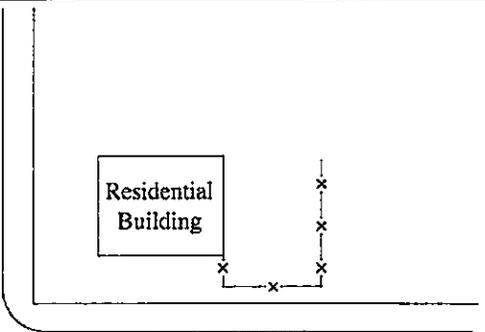
**UNOCAL SERVICE STATION #5367  
 500 BANCROFT AVENUE  
 SAN LEANDRO, CALIFORNIA**

**LOCATION  
 MAP**

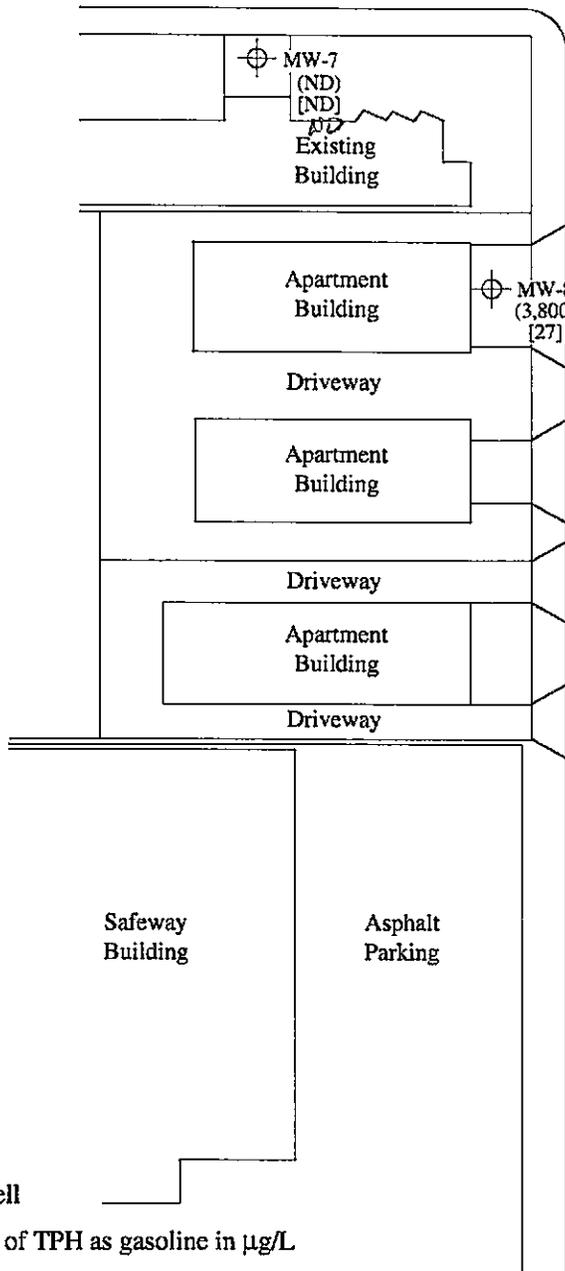




MW-9  
(ND)  
[ND]  
ND



DOWLING BOULEVARD



MW-10  
(ND)  
[ND]

**LEGEND**

⊕ Monitoring well

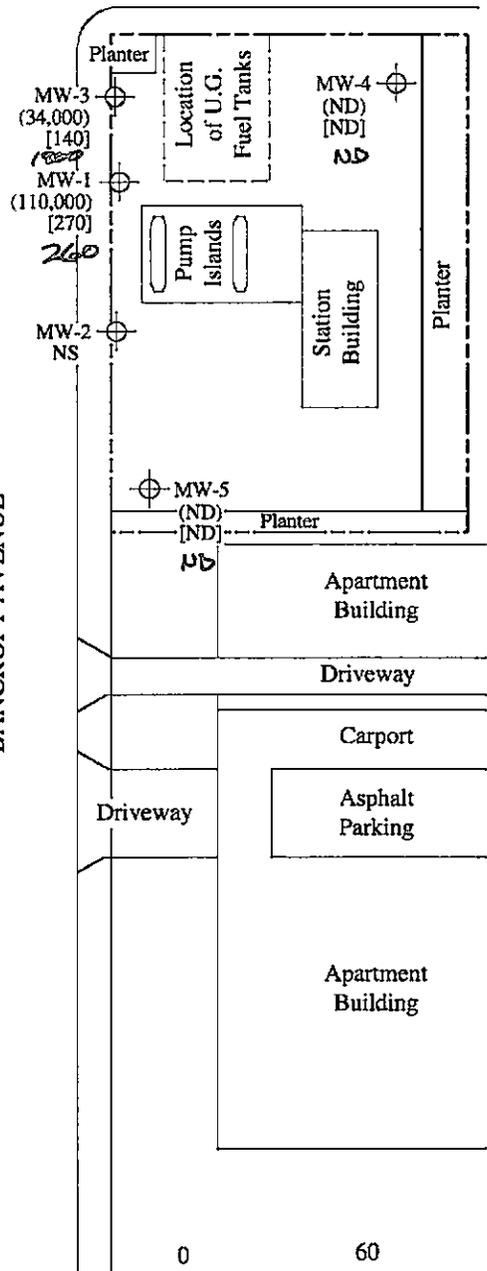
( ) Concentration of TPH as gasoline in  $\mu\text{g/L}$

[ ] Concentration of benzene in  $\mu\text{g/L}$

ND Non-detectable, NS Not sampled

*MEBE*

BANCROFT AVENUE



**PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUND WATER ON SEPTEMBER 21, 1996**



MPDS Services	Client Project ID: Unocal #5367, 500 Bancroft Ave.	Sampled: Sep 21, 1996
2401 Stanwell Dr., Ste. 300	Matrix Descript: Water	Received: Sep 24, 1996
Concord, CA 94520	Analysis Method: EPA 5030/8015 Mod./8020	Reported: Oct 10, 1996
Attention: Jarrel Crider	First Sample #: 609-1824	

**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
609-1824	MW1	110,000	270	3,500	5,900	16,000
609-1825	MW3	34,000	140	ND	2,200	6,600
609-1826	MW4	ND	ND	ND	ND	ND
609-1827	MW5	ND	ND	ND	ND	ND
609-1828	MW6	ND	ND	ND	ND	ND
609-1829	MW7	ND	ND	ND	ND	ND
609-1830	MW8	3,800	27	ND	46	45
609-1831	MW9	ND	ND	ND	ND	ND
609-1832	MW10	ND	ND	ND	ND	ND

<b>Detection Limits:</b>	<b>50</b>	<b>0.50</b>	<b>0.50</b>	<b>0.50</b>	<b>0.50</b>
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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, #1894**

Signature on File

Alan B. Kemp  
Project Manager





MPDS Services	Client Project ID:	Unocal #5367, 500 Bancroft Ave,	Sampled:	Sep 21, 1996
2401 Stanwell Dr., Ste. 300	Matrix Descript:	Water	Received:	Sep 24, 1996
Concord, CA 94520	Analysis Method:	EPA 5030/8015 Mod./8020	Reported:	Oct 10, 1996
Attention: Jarrel Crider	First Sample #:	609-1824		

**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
609-1824	MW1	Gasoline	100	10/04/96	HP3	102
609-1825	MW3	Gasoline	100	10/04/96	HP3	105
609-1826	MW4	--	1.0	10/04/96	HP3	116
609-1827	MW5	--	1.0	10/04/96	HP3	116
609-1828	MW6	--	1.0	10/04/96	HP3	114
609-1829	MW7	--	1.0	10/04/96	HP3	119
609-1830	MW8	Gasoline	1.0	10/04/96	HP3	70
609-1831	MW9	--	1.0	10/04/96	HP3	108
609-1832	MW10	--	1.0	10/04/96	HP3	101

**SEQUOIA ANALYTICAL, #1894**

Signature on File

Alan B. Kemp  
Project Manager





MPDS Services 2401 Stanwell Dr., Ste. 300 Concord, CA 94520 Attention: Jarrel Crider	Client Project ID: Unocal #5367, 500 Bancroft Ave, Matrix Descript: Water Analysis Method: EPA 5030/8015 Mod./8020 First Sample #: 609-1833	San Leandro Reported: Oct 10, 1996	Sampled: Sep 21, 1996 Received: Sep 24, 1996
-----------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------	-------------------------------------------------

**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
609-1833	ES1	ND	ND	ND	ND	ND
609-1834	ES2	ND	ND	ND	ND	ND
609-1835	ES3	ND	ND	ND	ND	ND

<b>Detection Limits:</b>	<b>50</b>	<b>0.50</b>	<b>0.50</b>	<b>0.50</b>	<b>0.50</b>
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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, #1894**

Signature on File

Alan B. Kemp  
Project Manager





MPDS Services	Client Project ID: Unocal #5367, 500 Bancroft Ave,	Sampled: Sep 21, 1996
2401 Stanwell Dr., Ste. 300	Matrix Descript: Water San Leandro	Received: Sep 24, 1996
Concord, CA 94520	Analysis Method: EPA 5030/8015 Mod./8020	Reported: Oct 10, 1996
Attention: Jarrel Crider	First Sample #: 609-1833	

**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
609-1833	ES1	--	1.0	10/04/96	HP3	106
609-1834	ES2	--	1.0	10/04/96	HP3	114
609-1835	ES3	--	1.0	10/04/96	HP3	112

**SEQUOIA ANALYTICAL, #1894**

Signature on File

Alan B. Kemp  
Project Manager





# Sequoia Analytical

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404 N. Wiget Lane  
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FAX (510) 988-9673  
FAX (916) 921-0100

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

Client Project ID: Unocal #5367, 500 Bancroft Ave,  
Sample Descript: Water San Leandro  
Analysis for: MTBE (EPA 8020 MOD)  
First Sample #: 609-1824

Sampled: Sep 21, 1996  
Received: Sep 24, 1996  
Analyzed: Oct 4, 1996  
Reported: Oct 10, 1996

## LABORATORY ANALYSIS FOR: MTBE (EPA 8020 MOD)

Sample Number	Sample Description	Detection Limit mg/L	Sample Result mg/L
609-1824	MW1	50	260
609-1825	MW3	50	1,800
609-1826	MW4	40	N.D.
609-1827	MW5	40	N.D.
609-1828	MW6	40	N.D.
609-1829	MW7	40	N.D.
609-1830	MW8	40	N.D.
609-1831	MW9	40	N.D.
609-1832	MW10	40	N.D.

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

### SEQUOIA ANALYTICAL, #1894

Signature on File

Alan B. Kemp  
Project Manager





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

Client Project ID: Unocal #5367, 500 Bancroft Ave, San Leandro  
Matrix: Liquid

QC Sample Group: 6091824-835

Reported: Oct 10, 1996

**QUALITY CONTROL DATA REPORT**

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	ZT	ZT	ZT	ZT

MS/MSD Batch#:	6100191MS	6100191MS	6100191MS	6100191MS
Date Prepared:	10/4/96	10/4/96	10/4/96	10/4/96
Date Analyzed:	10/4/96	10/4/96	10/4/96	10/4/96
Instrument I.D.#:	HP3	HP3	HP3	HP3
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Matrix Spike % Recovery:	99	88	83	88
Matrix Spike Duplicate % Recovery:	95	84	79	85
Relative % Difference:	4.1	4.7	4.9	3.5

LCS Batch#:	LCS100496	LCS100496	LCS100496	LCS100496
Date Prepared:	10/4/96	10/4/96	10/4/96	10/4/96
Date Analyzed:	10/4/96	10/4/96	10/4/96	10/4/96
Instrument I.D.#:	HP3	HP3	HP3	HP3
LCS % Recovery:	100	88	83	89

% Recovery Control Limits:	80-120	80-120	80-120	80-120
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**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, #1894**

Signature on File  
Alan B. Kemp  
Project Manager



**CHAIN OF CUSTODY**

9609423

SAMPLER			UNOCAL					ANALYSES REQUESTED							TURN AROUND TIME:		
VARTKES TASHDJIAN			S/S # <u>5367</u> CITY: <u>San Leandro</u>					TPH-GAS BTEX	TPH- DIESEL	TOG	8010	MTBE					Regular
WITNESSING AGENCY			ADDRESS: <u>500 Bancroft Ave.</u>														
SAMPLE ID NO.	DATE	TIME	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION										
MW 1	9/21/96	2:55 PM	X	X		2 V&A's	Well	X					X			6091824AB	
MW 3	"	3:15 PM	X	X		"	"	X					X			6091825	
MW 4	"	10:35 AM	X	X		"	"	X					X			6091826	
MW 5	"	11:13 AM	X	X		"	"	X					X			6091827	
MW 6	"	1:38 PM	X	X		"	"	X					X			6091828	
MW 7	"	12:25 PM	X	X		"	"	X					X			6091829	
MW 8	"	2:15 PM	X	X		"	"	X					X			6091830	
MW 9	"	1:05 PM	X	X		"	"	X					X			6091831	
MW 10	"	11:48 AM	X	X		"	"	X					X			6091832 ✓	
RELINQUISHED BY:			DATE/TIME		RECEIVED BY:			DATE/TIME		THE FOLLOWING <u>MUST BE</u> COMPLETED BY THE LABORATORY ACCEPTING SAMPLES FOR ANALYSES:							
<i>Vartkes Tashdjian</i>			9/24/96 12:30 PM		<i>[Signature]</i>			12:30 09-24-96		1. HAVE ALL SAMPLES RECEIVED FOR ANALYSIS BEEN STORED ON ICE? <u>Yes</u>							
<i>[Signature]</i>			9/25/96 8:15		<i>[Signature]</i>			1:00 9-25		2. WILL SAMPLES REMAIN REFRIGERATED UNTIL ANALYZED? <u>Yes</u>							
<i>[Signature]</i>			9-25 15:15		<i>[Signature]</i>			15:15 9-25		3. DID ANY SAMPLES RECEIVED FOR ANALYSIS HAVE HEAD SPACE? <u>No</u>							
<i>[Signature]</i>					<i>[Signature]</i>					4. WERE SAMPLES IN APPROPRIATE CONTAINERS AND PROPERLY PACKAGED? <u>Yes</u>							
<i>[Signature]</i>					<i>[Signature]</i>					SIGNATURE: <i>[Signature]</i> TITLE: <u>Analyst</u> DATE: <u>09-24</u>							

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.



## PURGING/SAMPLING DATA SHEET

SAMPLING LOCATION: # 5367 - San Leandro      DATE & TIME SAMPLED: 9/21/96 2:55 A.M.  
P.M.

500 Bancroft Ave      FIELD TECHNICIAN: Vartkas

PURGE METHOD: ∅ Bail      DATE(S) PURGED: 9/21/96

WELL NUMBER: MW 1

WATER LEVEL-INITIAL: 29.44      SAMPLING METHOD: Bail

WATER LEVEL-FINAL: 29.46      CONTAINERS: 2

WELL DEPTH: 35.15      PRESERVATIVES: NaAs HCl

WELL CASING VOLUME: 0.97      † CASING DIAMETER: 2"

TIME	GALLONS PURGED	TEMPERATURE (°F) (± 1°F)	ELECTRICAL CONDUCTIVITY ([μmhos/cm]x100) (± 10% of TOTAL)	pH (± 0.2)
2:30	0	70.5	5.35	7.57
	1	68.9	5.40	7.40
	2	68.3	5.52	7.29
2:45	3	68.2	5.61	7.23

† Correction Factors:

Well Diameter	Factor
2"	0.17
3"	0.37
4"	0.65
4.5"	0.82
6"	1.46
8"	2.6
12"	5.87

## PURGING/SAMPLING DATA SHEET

SAMPLING LOCATION: <u># 5367 - San Leandro</u> <u>500 Bancroft Ave.</u>	DATE & TIME SAMPLED _____ FIELD TECHNICIAN <u>Varkis</u>
PURGE METHOD _____ WELL NUMBER <u>MW 2</u> WATER LEVEL-INITIAL <u>29.47</u> WATER LEVEL-FINAL _____ WELL DEPTH <u>46.89</u> WELL CASING VOLUME _____	DATE(S) PURGED _____ SAMPLING METHOD _____ CONTAINERS _____ PRESERVATIVES _____ †CASING DIAMETER _____

TIME	GALLONS PURGED	TEMPERATURE (°F) (± 1°F)	ELECTRICAL CONDUCTIVITY ([μmhos/cm]x100) (± 10% of TOTAL)	pH (± 0.2)
	<i>Pump in the well. no purging, no sampling.</i>			

† Correction Factors:

Well Diameter	Factor
2"	0.17
3"	0.37
4"	0.65
4.5"	0.82
6"	1.46
8"	2.6
12"	5.87

## PURGING/SAMPLING DATA SHEET

SAMPLING LOCATION: # <u>5367 - San Leandro</u> <u>500 Bancroft Ave.</u> PURGE METHOD <u>/</u> WELL NUMBER <u>MW 3</u> WATER LEVEL-INITIAL <u>29.15</u> WATER LEVEL-FINAL <u>/</u> WELL DEPTH <u>48.23</u> WELL CASING VOLUME <u>/</u>	DATE & TIME SAMPLED <u>9/2/96</u> <span style="float: right;">A.M. <u>3:15</u> P.M. <u>(circled)</u></span> FIELD TECHNICIAN <u>Vartkus</u> DATE(S) PURGED <u>/</u> SAMPLING METHOD <u>/</u> CONTAINERS <u>2</u> <del>0.2</del> PRESERVATIVES <u>VOA's HCl</u> † CASING DIAMETER <u>/</u>
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

TIME	GALLONS PURGED	TEMPERATURE (°F) (± 1°F)	ELECTRICAL CONDUCTIVITY ([μmhos/cm]x100) (± 10% of TOTAL)	pH (± 0.2)
	<i>Pump in the well, could not purge!</i>			

† Correction Factors:

Well Diameter	Factor
2"	0.17
3"	0.37
4"	0.65
4.5"	0.82
6"	1.46
8"	2.6
12"	5.87

## PURGING/SAMPLING DATA SHEET

SAMPLING LOCATION: #5367 - San Leandro DATE & TIME SAMPLED: 9/21/96 10:35 A.M. P.M.

500 Bancroft Ave. FIELD TECHNICIAN: Vatkes

PURGE METHOD: Seed. Pump. DATE(S) PURGED: 9/21/96

WELL NUMBER: MW4

WATER LEVEL-INITIAL: 29.88 SAMPLING METHOD: Bail

WATER LEVEL-FINAL: 29.93 CONTAINERS: 2

WELL DEPTH: 48.51 PRESERVATIVES: NOA's HCl

WELL CASING VOLUME: 12.11 †CASING DIAMETER: 4"

TIME	GALLONS PURGED	TEMPERATURE (°F) (± 1°F)	ELECTRICAL CONDUCTIVITY ([μmhos/cm]x100) (± 10% of TOTAL)	pH (± 0.2)
9:58	0	64.5	3.88	7.96
	12	63.8	3.87	7.74
	24	64.4	3.88	7.59
10:18	36	64.5	3.88	7.53

† Correction Factors:

Well Diameter	Factor
2"	0.17
3"	0.37
4"	0.65
4.5"	0.82
6"	1.46
8"	2.6
12"	5.87

## PURGING/SAMPLING DATA SHEET

SAMPLING LOCATION: # 5367- San Leandro DATE & TIME SAMPLED: 9/21/96 11:13 A.M. P.M.

500 Bancroft Ave. FIELD TECHNICIAN: Vaukris

PURGE METHOD: Pump. DATE(S) PURGED: 9/21/96

WELL NUMBER: MW5

WATER LEVEL-INITIAL: 29.95 SAMPLING METHOD: Bail

WATER LEVEL-FINAL: 29.95 CONTAINERS: 2

WELL DEPTH: 44.42 PRESERVATIVES: VOA, HCl

WELL CASING VOLUME: 2.46 †CASING DIAMETER: 2"

TIME	GALLONS PURGED	TEMPERATURE (°F) (± 1°F)	ELECTRICAL CONDUCTIVITY ([μmhos/cm]x100) (± 10% of TOTAL)	pH (± 0.2)
10:55	0	68.0	4.23	7.92
	2.5	67.6	4.04	7.75
	5	67.4	4.37	7.63
11:03	7.5	67.3	4.46	7.59

† Correction Factors:

Well Diameter	Factor
2"	0.17
3"	0.37
4"	0.65
4.5"	0.82
6"	1.46
8"	2.6
12"	5.87

## PURGING/SAMPLING DATA SHEET

SAMPLING LOCATION: # 5367 - San Leandro DATE & TIME SAMPLED 9/21/96 1:38 (P.M.) A.M.  
500 Bancroft Ave. FIELD TECHNICIAN Vaithes  
 PURGE METHOD Pump DATE(S) PURGED 9/21/96  
 WELL NUMBER MW 6  
 WATER LEVEL-INITIAL 28.72 SAMPLING METHOD Bail  
 WATER LEVEL-FINAL 28.74 CONTAINERS 2  
 WELL DEPTH 44.61 PRESERVATIVES VOA's HCl  
 WELL CASING VOLUME 2.70 †CASING DIAMETER 2"\*

TIME	GALLONS PURGED	TEMPERATURE (°F) (± 1°F)	ELECTRICAL CONDUCTIVITY ([µmhos/cm]x100) (± 10% of TOTAL)	pH (± 0.2)
1:18	0	77.1	3.95	7.88
	3	72.4	3.67	7.66
	6	70.4	3.70	7.54
1:27	9	69.9	3.75	7.49

† Correction Factors:

Well Diameter	Factor
2"	0.17
3"	0.37
4"	0.65
4.5"	0.82
6"	1.46
8"	2.6
12"	5.87

## PURGING/SAMPLING DATA SHEET

SAMPLING LOCATION: #5367-San Leandro DATE & TIME SAMPLED 9/21/96 12:25 P.M. A.M.

500 Bancroft Ave. FIELD TECHNICIAN Vaitkes

PURGE METHOD Pumps DATE(S) PURGED 9/21/96

WELL NUMBER MW7

WATER LEVEL-INITIAL 29.07 SAMPLING METHOD Bail

WATER LEVEL-FINAL 29.89 CONTAINERS 2

WELL DEPTH 43.98 PRESERVATIVES NOA's HCl

WELL CASING VOLUME 2.53 †CASING DIAMETER 2"

TIME	GALLONS PURGED	TEMPERATURE (°F) (± 1°F)	ELECTRICAL CONDUCTIVITY ([μmhos/cm]x100) (± 10% of TOTAL)	pH (± 0.2)
12:05	0	71.2	4.98	7.89
	2.5	68.9	4.89	7.71
	5	67.4	4.68	7.66
12:14	7.5	67.4	4.59	7.60
	8	—	—	—

† Correction Factors:

Well Diameter	Factor
2"	0.17
3"	0.37
4"	0.65
4.5"	0.82
6"	1.46
8"	2.6
12"	5.87

## PURGING/SAMPLING DATA SHEET

SAMPLING LOCATION: # 5367 - San Leandro DATE & TIME SAMPLED 9/27/96 2:15 P.M. A.M.

500 Bancroft Ave. FIELD TECHNICIAN Vortheis

PURGE METHOD Pumps DATE(S) PURGED 9/21/96

WELL NUMBER MW 8

WATER LEVEL-INITIAL 29.34 SAMPLING METHOD Bail

WATER LEVEL-FINAL 29.37 CONTAINERS 2

WELL DEPTH 43.91 PRESERVATIVES VOA's HCl

WELL CASING VOLUME 2.48 † CASING DIAMETER 2"

TIME	GALLONS PURGED	TEMPERATURE (°F) (± 1°F)	ELECTRICAL CONDUCTIVITY ([µmhos/cm]x100) (± 10% of TOTAL)	pH (± 0.2)
1:55	0	76.7	6.52	7.80
	2.5	71.6	5.93	7.61
	5	69.9	5.89	7.46
	7.5	69.2	5.67	7.39
2:03	8	—	—	—

† Correction Factors:

Well Diameter	Factor
2"	0.17
3"	0.37
4"	0.65
4.5"	0.82
6"	1.46
8"	2.6
12"	5.87

## PURGING/SAMPLING DATA SHEET

SAMPLING LOCATION: # 5367 - San Leandro DATE & TIME SAMPLED 9/21/96 1:05 A.M.  
P.M.

500 Bancroft Ave. FIELD TECHNICIAN Vatke

PURGE METHOD Pump DATE(S) PURGED 9/21/96

WELL NUMBER MW 9

WATER LEVEL-INITIAL 28.05 SAMPLING METHOD Boil

WATER LEVEL-FINAL 28.09 CONTAINERS 2

WELL DEPTH 44.65 PRESERVATIVES NOA<sub>2</sub> HCl

WELL CASING VOLUME 2.82 †CASING DIAMETER 2"

TIME	GALLONS PURGED	TEMPERATURE (°F) (± 1°F)	ELECTRICAL CONDUCTIVITY ([μmhos/cm]x100) (± 10% of TOTAL)	pH (± 0.2)
12:45	0	74.3	4.27	7.92
	3	70.0	3.69	7.77
	6	68.9	3.86	7.63
12:55	9	68.4	3.93	7.57

† Correction Factors:

Well Diameter	Factor
2"	0.17
3"	0.37
4"	0.65
4.5"	0.82
6"	1.46
8"	2.6
12"	5.87

## PURGING/SAMPLING DATA SHEET

SAMPLING LOCATION: #5367 - San Leandro DATE & TIME SAMPLED: 9/21/96 11:48 A.M.  
500 Bancroft Ave FIELD TECHNICIAN: Vutkas  
 PURGE METHOD: Pump DATE(S) PURGED: 9/21/96  
 WELL NUMBER: MW10  
 WATER LEVEL-INITIAL: 30.77 SAMPLING METHOD: Bail  
 WATER LEVEL-FINAL: 30.79 CONTAINERS: 2  
 WELL DEPTH: 42.70 PRESERVATIVES: VOA's HCl  
 WELL CASING VOLUME: 2.03 †CASING DIAMETER: 2"

TIME	GALLONS PURGED	TEMPERATURE (°F) (± 1°F)	ELECTRICAL CONDUCTIVITY (μmhos/cm)x100 (± 10% of TOTAL)	pH (± 0.2)
11:30	0	70.7	4.66	8.02
	2	88.6	4.55	7.85
	4	67.5	4.64	7.69
11:38	6	67.2	4.73	7.62

† Correction Factors:

Well Diameter	Factor
2"	0.17
3"	0.37
4"	0.65
4.5"	0.82
6"	1.46
8"	2.6
12"	5.87