

MONITORING  
PURGING  
DISPOSING  
SAMPLING

**MPDS**

SERVICES, INCORPORATED

ENVIRONMENTAL  
PROJECTS  
97 APR 22 PM 3:49

April 21, 1997

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

Attention: Mr. Scott Seery

RE: Unocal Service Station #7376  
4191 First Street  
Pleasanton, California

Dear Mr. Seery:

Per the request of the Tosco Marketing Company Project Professional, Ms. Tina R. Berry, enclosed please find our data report (MPDS-UN7376-09) dated April 10, 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 Professional at (510) 277-2321.

Sincerely,

MPDS Services, Inc.



Jarrel F. Crider

/jfc

Enclosure

cc: Ms. Tina R. Berry

MPDS-UN7376-07R  
November 4, 1996

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

Attention: Mr. Robert A. Boust

RE: Quarterly Data Report  
Unocal Service Station #7376  
4191 First Street  
Pleasanton, California

Dear Mr. Boust:

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 September 18, 1996. Prior to sampling, the wells were each purged of between 2.5 and 13 gallons of water. 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. 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, TPH as diesel, and benzene detected in the ground water samples

MPDS-UN7376-07R

November 4, 1996

Page 2

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.


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

Sincerely,

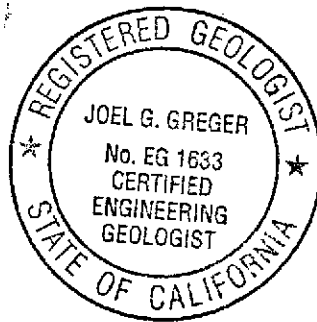
MPDS Services, Inc.



Haig (Gary) Tejrjian  
Senior Staff Geologist



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



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

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

cc: Mr. Robert H. Kezerian, 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 September 18, 1996)**

MW1	287.09	79.90	86.39	0	No	3.5
MW2B	283.97	81.08	85.25	0	No	2.5
MW3	284.17	82.84	94.10	0	No	6
MW4	295.36	73.67	94.99	0	No	13
MW5	299.03	64.20	72.58	0	No	5.5
MW6	284.05	79.07	88.09	0	No	6

**(Monitored and Sampled on June 15, 1996)**

MW1	291.92	75.07	86.40	0	No	8
MW2B	291.84	73.21	85.25	0	No	8.5
MW3	291.88	75.13	94.09	0	No	13

**(Monitored and Sampled on March 1, 1996)**

MW1	291.90	75.09	86.39	0	No	8
MW2B	291.78	73.27	85.25	0	No	8.5
MW3	291.83	75.18	94.10	0	No	13

**(Monitored and Sampled on December 12, 1995)**

MW1	289.44	77.55	86.47	0	No	6.5
MW2B	289.09	75.96	85.33	0	No	6.5
MW3	289.28	77.73	94.20	0	No	11.5

Well #	Well Casing Elevation (feet)*
--------	-------------------------------------

MW1	366.99
MW2B	365.05
MW3	367.01
MW4	369.03
MW5	363.23
MW6	363.12

**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 casings were surveyed relative to City of Pleasanton Benchmark V1, a brass disk on the north curb of Ray Street, approximately 200 feet northwest of the centerline of First Street (elevation = 367.17 feet Mean Sea Level).

**Table 2**  
 Summary of Laboratory Analyses  
 Water

Well #	Date	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE
MW1	12/7/94	--	ND	ND	ND	ND	ND	--
	3/1/95	120	ND	ND	1.1	ND	1.3	--
	6/1/95	54††	130	1.0	2.9	0.79	4.5	--
	9/6/95	690	ND	ND	ND	ND	ND	§
	12/12/95	190††	ND	ND	ND	ND	ND	--
	3/1/96	56	ND	ND	ND	ND	ND	370
	6/15/96	ND	ND	ND	ND	ND	ND	270
	9/18/96	130††	ND	ND	ND	ND	ND	590
MW2	12/7/94	WELL WAS DAMAGED						
	2/7/95	WELL WAS DESTROYED						
MW2B	3/1/95	320	ND	ND	ND	ND	ND	--
	6/1/95	280	350	19	5.8	ND	7.7	--
	9/6/95	ND	ND	90	ND	ND	ND	§
	12/12/95	850†	1,200	630	ND	15	57	§§
	3/1/96	870†	1,000	620	ND	ND	5.3	4,300
	6/15/96	420	910	350	ND	ND	ND	3,700
	9/18/96	600	1,200	95	ND	ND	ND	5,200
MW3	12/7/94	--	ND	ND	ND	ND	ND	--
	3/1/95	140†	ND	ND	1.1	ND	1.1	--
	6/1/95	140††	62	7.8	0.90	ND	1.6	--
	9/6/95	880††	4,100	380	490	130	710	§
	12/12/95	3,100†	19,000	600	380	2,100	5,300	§§
	3/1/96	1,500††	3,400	950	3.2	1,900	290	59
	6/15/96	400†	780	190	8.8	3.8	4.0	630
	9/18/96	170	2,800	340	12	11	110	2,500
MW4	9/18/96	200	160	14	ND	ND	1.6	ND
MW5	9/18/96	4,700††	36,000	6,700	410	730	6,500	4,100
MW6	9/18/96	ND	160	5.4	ND	ND	ND	ND

† 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.

**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 sample collected from this well.

MTBE = Methyl tert butyl ether.

ND = Non-detectable.

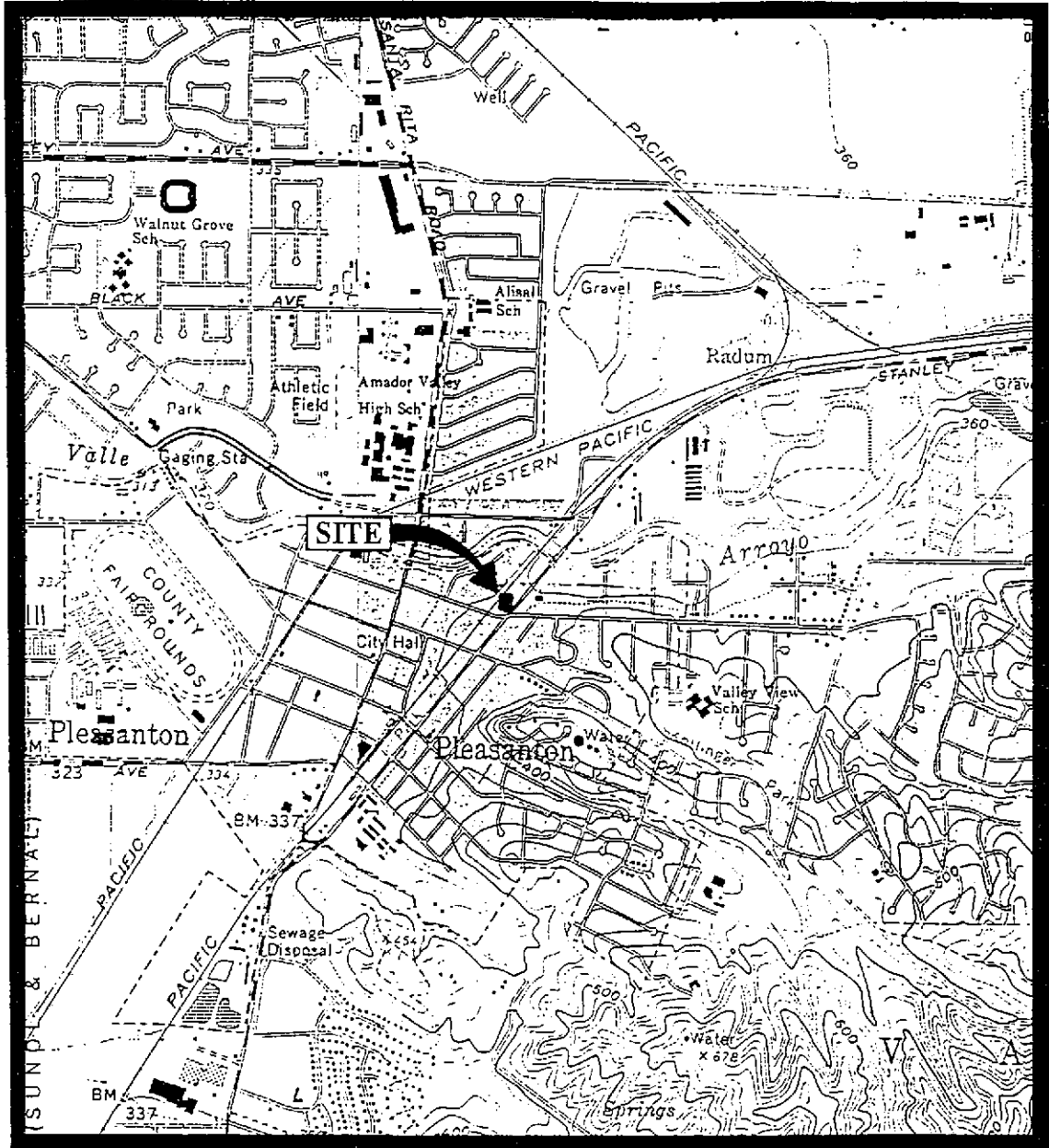
-- Indicates analysis was not performed.

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 March 1, 1995 were provided by Kaprealian Engineering, Inc.



Base modified from 7.5 minute U.S.G.S. Dublin and Livermore Quadrangles  
(both photorevised 1980)

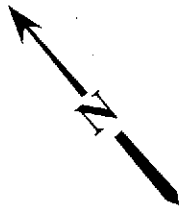


**MPDS** SERVICES, INCORPORATED

**UNOCAL SERVICE STATION #7376**  
4191 1ST STREET  
PLEASANTON, CALIFORNIA

**LOCATION  
MAP**





MW5  
(299.03)\*

MW2B  
(283.97)

U.G. Fuel  
Tanks

MW1  
(287.09)

(284.17)  
MW3

MW6  
(284.05)

Pump  
Islands

Existing  
Building

Pump  
Islands

MW4  
(295.36)

Approximate Location of Former Railroad Tracks (Southern Pacific)

Approximate Location of Underground Petroleum Pipeline (Santa Fe)

Retaining Wall

RAY STREET

1ST STREET

**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

\* Elevation was not used to calculate contours.

**POTENTIOMETRIC SURFACE MAP FOR THE SEPTEMBER 18, 1996 MONITORING EVENT**



UNOCAL SERVICE STATION #7376  
4191 1ST STREET  
PLEASANTON, CALIFORNIA

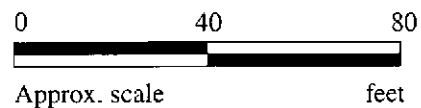
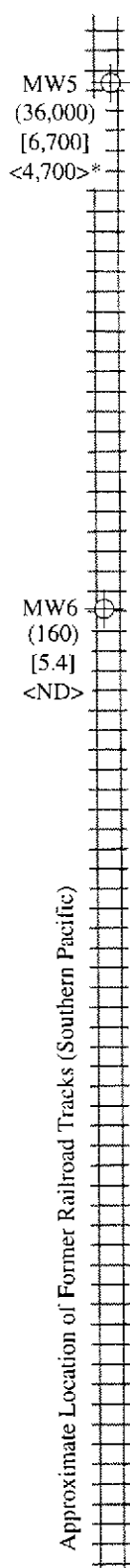
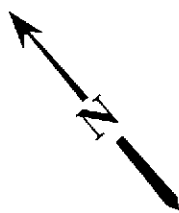
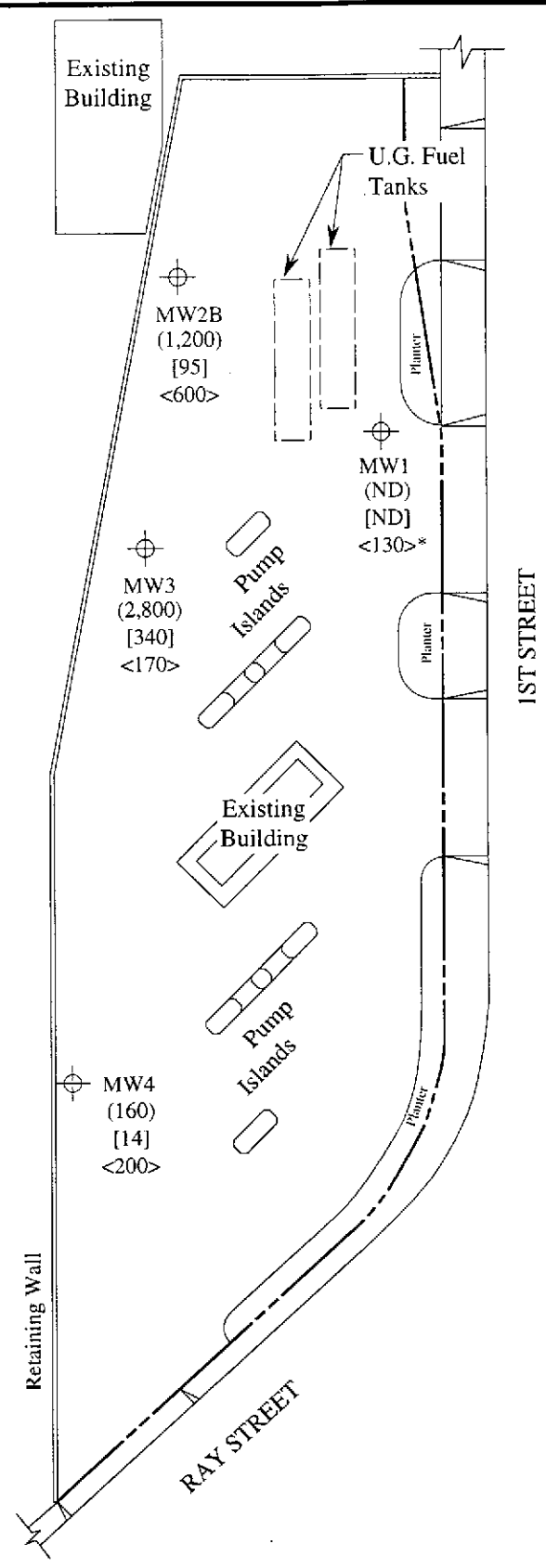


FIGURE  
**1**



MW5  
(36,000)  
[6,700]  
<4,700>\*

MW6  
(160)  
[5.4]  
<ND>



**LEGEND**

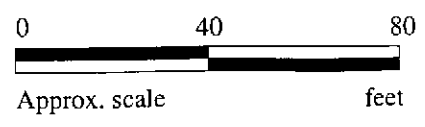
- ⊕ Monitoring well
- ( ) Concentration of TPH as gasoline in  $\mu\text{g/L}$
- [ ] Concentration of benzene in  $\mu\text{g/L}$
- < > Concentration of TPH as diesel in  $\mu\text{g/L}$
- ND Non-detectable

\* The lab reported that the hydrocarbons detected did not appear to be diesel.

**PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUND WATER ON SEPTEMBER 18, 1996**



**UNOCAL SERVICE STATION #7376**  
**4191 1ST STREET**  
**PLEASANTON, CALIFORNIA**



**FIGURE**  
**2**



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

Client Project ID: Unocal #7376, 4191 1st St, Pleasanton  
Matrix Descript: Water  
Analysis Method: EPA 5030/8015 Mod./8020  
First Sample #: 609-1267

Sampled: Sep 18, 1996  
Received: Sep 20, 1996  
Reported: Oct 9, 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
609-1267	MW1	ND	ND	ND	ND	ND
609-1268	MW2B	1,200	95	ND	ND	ND
609-1269	MW3	2,800	340	12	11	110
609-1270	MW4	160	14	ND	ND	1.6
609-1271	MW5	36,000	6,700	410	730	6,500
609-1272	MW6	160	5.4	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>
--------------------------	-----------	-------------	-------------	-------------	-------------

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

Client Project ID: Unocal #7376, 4191 1st St, Pleasanton  
Matrix Descript: Water  
Analysis Method: EPA 5030/8015 Mod./8020  
First Sample #: 609-1267

Sampled: Sep 18, 1996  
Received: Sep 20, 1996  
Reported: Oct 9, 1996

**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
609-1267	MW1	--	1.0	09/28/96	HP-2	98
609-1268	MW2B	Gasoline	1.0	09/28/96	HP-2	75
609-1269	MW3	Gasoline	20	09/28/96	HP-2	87
609-1270	MW4	Gasoline	1.0	09/28/96	HP-2	112
609-1271	MW5	Gasoline	500	09/28/96	HP-2	110
609-1272	MW6	Gasoline	1.0	09/28/96	HP-2	114

**SEQUOIA ANALYTICAL, #1894**

Signature on File

Alan B. Kemp  
Project Manager



# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834

(415) 364-9600  
(510) 988-9600  
(916) 921-9600

FAX (415) 364-9233  
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 #7376, 4191 1st St, Pleasanton  
Sample Descript: Water  
Analysis for: MTBE (EPA 8020 Mod.)  
First Sample #: 609-1267

Sampled: Sep 18, 1996  
Received: Sep 20, 1996  
Analyzed: Sep 28, 1996  
Reported: Oct 9, 1996

## LABORATORY ANALYSIS FOR: MTBE (EPA 8020 Mod.)

Sample Number	Sample Description	Detection Limit mg/L	Sample Result mg/L
609-1267	MW1	250	590
609-1268	MW2B	250	5,200
609-1269	MW3	40	2,500
609-1270	MW4	40	N.D.
609-1271	MW5	250	4,100
609-1272	MW6	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



# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834

(415) 364-9600  
(510) 988-9600  
(916) 921-9600

FAX (415) 364-9233  
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 #7376, 4191 1st St, Pleasanton  
Sample Matrix: Water  
Analysis Method: EPA 3510/8015 Mod.  
First Sample #: 609-1267

Sampled: Sep 18, 1996  
Received: Sep 20, 1996  
Reported: Oct 9, 1996

## TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 609-1267 MW1*	Sample I.D. 609-1268 MW2B	Sample I.D. 609-1269 MW3	Sample I.D. 609-1270 MW4	Sample I.D. 609-1271 MW5*	Sample I.D. 609-1272 MW6
Extractable Hydrocarbons	50	130	600	170	200	4,700	N.D.
Chromatogram Pattern:		Unidentified Hydrocarbons >C20	Diesel	Diesel	Diesel	Unidentified Hydrocarbons <C15	--

### Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	10	1.0
Date Extracted:	9/27/96	9/27/96	9/27/96	9/27/96	9/27/96	9/27/96
Date Analyzed:	9/27/96	9/27/96	9/27/96	9/27/96	9/30/96	9/27/96
Instrument Identification:	HP-3B	HP-3B	HP-3B	HP-3B	HP-3A	HP-3A

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:

\*These samples do not appear to contain diesel. "Unidentified hydrocarbons <C15" are probably gasoline; ">C20" refers to unidentified hydrocarbons in the total oil and grease range.



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

Client Project ID: Unocal #7376, 4191 1st St, Pleasanton  
Matrix: Liquid

QC Sample Group: 609126-272

Reported: Oct 9, 1996

**QUALITY CONTROL DATA REPORT**

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel
<b>Method:</b>	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015
<b>Analyst:</b>	ZT	ZT	ZT	ZT	I. Dalvand

<b>MS/MSD Batch#:</b>	MS092896	MS092896	MS092896	MS092896	BLK092796
<b>Date Prepared:</b>	9/28/96	9/28/96	9/28/96	9/28/96	9/27/96
<b>Date Analyzed:</b>	9/28/96	9/28/96	9/28/96	9/28/96	9/27/96
<b>Instrument I.D.#:</b>	HP-2	HP-2	HP-2	HP-2	HP-3B
<b>Conc. Spiked:</b>	10 µg/L	10 µg/L	10 µg/L	30 µg/L	300 µg/L
<b>Matrix Spike % Recovery:</b>	120	118	129	91	80
<b>Matrix Spike Duplicate % Recovery:</b>	130	118	137	89	76
<b>Relative % Difference:</b>	8.0	0.0	6.0	2.2	5.6

<b>LCS Batch#:</b>	LCS092896	LCS092896	LCS092896	LCS092896	LCS092796
<b>Date Prepared:</b>	9/28/96	9/28/96	9/28/96	9/28/96	9/27/96
<b>Date Analyzed:</b>	9/28/96	9/28/96	9/28/96	9/28/96	9/27/96
<b>Instrument I.D.#:</b>	HP-2	HP-2	HP-2	HP-2	HP-3B
<b>LCS % Recovery:</b>	120	118	119	93	79

<b>% Recovery Control Limits:</b>	80-120	80-120	80-120	80-120	50-150
-----------------------------------	--------	--------	--------	--------	--------

**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



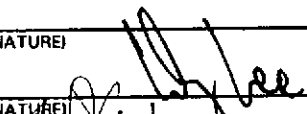
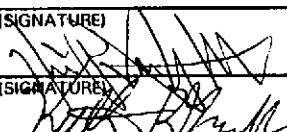
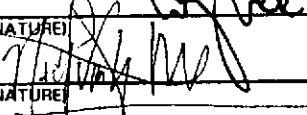
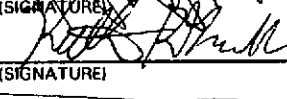
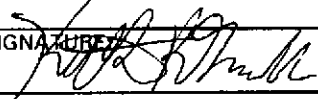
CHAIN OF CUSTODY

SAMPLER <b>DOUG LEE</b>			UNOCAL S/S # <b>7376</b> CITY: <b>PLEASANTON</b>					ANALYSES REQUESTED					TURN AROUND TIME:			
WITNESSING AGENCY			ADDRESS: <b>4191 1ST STREET</b>					TPH-GAS BTEX	TPH-DIESEL	TOG	8010	MTBE			<b>REGULAR</b> REMARKS	
SAMPLE ID NO.	DATE	TIME	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION									

SAMPLE ID NO.	DATE	TIME	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPH-GAS BTEX	TPH-DIESEL	TOG	8010	MTBE			
MW1	9/18/96		X	X		2 VOA/12		X	X			X	6091267		
MW2													6091268		
MW3													6091269		
MW4													6091270		
MW5													6091271		
MW6													6091272		

REGULAR  
REMARKS

E 4 03

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	THE FOLLOWING <u>MUST BE</u> COMPLETED BY THE LABORATORY ACCEPTING SAMPLES FOR ANALYSES:		
(SIGNATURE) 	09:22 9/20/96	(SIGNATURE) 	1. HAVE ALL SAMPLES RECEIVED FOR ANALYSIS BEEN STORED ON ICE? <span style="float:right;">Y</span>		
(SIGNATURE) 	15:25 9/20/96	(SIGNATURE) 	2. WILL SAMPLES REMAIN REFRIGERATED UNTIL ANALYZED? <span style="float:right;">Y</span>		
(SIGNATURE) _____		(SIGNATURE) _____	3. DID ANY SAMPLES RECEIVED FOR ANALYSIS HAVE HEAD SPACE? <span style="float:right;">N</span>		
(SIGNATURE) _____		(SIGNATURE) _____	4. WERE SAMPLES IN APPROPRIATE CONTAINERS AND PROPERLY PACKAGED? <span style="float:right;">Y</span>		
(SIGNATURE) _____		(SIGNATURE) _____	SIGNATURE: 	TITLE: <b>Lab Tech</b>	DATE: <b>9/20/96</b>



## PURGING/SAMPLING DATA SHEET

SAMPLING LOCATION: UNOCAL #7376/PLEASANTON DATE & TIME SAMPLED 9/18/96 11:35 11:35 A.M. P.M.

4191 1ST STREET FIELD TECHNICIAN ROUG LEE

PURGE METHOD BAILER DATE(S) PURGED 9/18/96

WELL NUMBER MW1

WATER LEVEL-INITIAL 79.90 SAMPLING METHOD BAILER

WATER LEVEL-FINAL 81.74 CONTAINERS 2 VOA / 1L

WELL DEPTH 86.39 PRESERVATIVES HCL (VOAS)

WELL CASING VOLUME 1.10 †CASING DIAMETER 2"

TIME	GALLONS PURGED	TEMPERATURE (°F) (± 1°F)	ELECTRICAL CONDUCTIVITY (µmhos/cm)x100 (± 10% of TOTAL)	pH (± 0.2)
11:00	1	80.2	5.54	6.71
	2	79.8	6.02	6.92
	3	79.2	5.78	6.79
11:31	3.5	78.6	5.68	6.66

† 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: UNOCAL #7376/PLEASANTON DATE & TIME SAMPLED 9/18/96 17:52 A.M. P.M.

4191 1ST STREET FIELD TECHNICIAN DOUG LEE

PURGE METHOD BAILER DATE(S) PURGED 9/18/96

WELL NUMBER MW2B

WATER LEVEL-INITIAL 81.08 SAMPLING METHOD BAILER

WATER LEVEL-FINAL 82.43 CONTAINERS 2 VOA / 1 L

WELL DEPTH 85.25 PRESERVATIVES HCL (VOAS)

WELL CASING VOLUME .71 † CASING DIAMETER 2"

TIME	GALLONS PURGED	TEMPERATURE (°F) (± 1°F)	ELECTRICAL CONDUCTIVITY ([μmhos/cm]x100) (± 10% of TOTAL)	pH (± 0.2)
17:23	0	83.7	8.90	6.61
	.75	80.8	8.22	6.46
	1.5	80.3	8.13	6.43
17:45	2.25	79.9	8.03	6.39

† 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: UNOCAL #7376/PLEASANTON DATE & TIME SAMPLED 9/18/96 17:10 A.M. P.M.

419 1ST STREET FIELD TECHNICIAN DAUG LEE

PURGE METHOD BAILER DATE(S) PURGED 9/18/96

WELL NUMBER MW3

WATER LEVEL-INITIAL 82.84 SAMPLING METHOD BAILER

WATER LEVEL-FINAL 83.33 CONTAINERS 2 VOA/1L

WELL DEPTH 94.10 PRESERVATIVES HCL (VOAS)

WELL CASING VOLUME 1.91 †CASING DIAMETER 2"

TIME	GALLONS PURGED	TEMPERATURE (°F) (± 1°F)	ELECTRICAL CONDUCTIVITY (µmhos/cm)x100 (± 10% of TOTAL)	pH (± 0.2)
16:08	0	88.7	7.92	6.99
	1	84.7	7.54	6.66
	2	81.3	7.72	6.67
	4	80.6	7.79	6.65
17:00	6	80.1	7.94	6.71

† 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: UNOCAL #7376/PLEASANTON DATE & TIME SAMPLED 9/18/96 12:40 A.M. P.M.

4191 1ST STREET FIELD TECHNICIAN DOUG LEE

PURGE METHOD BAILER DATE(S) PURGED 9/18/96

WELL NUMBER MW4

WATER LEVEL-INITIAL 73.67 SAMPLING METHOD BAILER

WATER LEVEL-FINAL 91.05 CONTAINERS 2 VOA / 1 L

WELL DEPTH 94.99 PRESERVATIVES HCL (VOAs)

WELL CASING VOLUME 3.62 †CASING DIAMETER 2"

TIME	GALLONS PURGED	TEMPERATURE (°F) (± 1°F)	ELECTRICAL CONDUCTIVITY ((μmhos/cm)x100) (± 10% of TOTAL)	pH (± 0.2)
12:07	0	90.2	5.33	7.03
	2	88.9	5.15	7.35
	4	88.4	4.95	7.36
	6	88.1	4.55	7.41
	8	87.4	4.47	7.46
	10	86.1	4.19	7.42
	12	85.9	4.22	7.40
12:25	13	85.8	4.44	7.34

† 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: UNOCAL #7376/PLEASANTON DATE & TIME SAMPLED 9/18/96 14:25 A.M. P.M.

4191 1ST STREET FIELD TECHNICIAN DOUG LEE

PURGE METHOD BAILER DATE(S) PURGED 9/18/96

WELL NUMBER MUS

WATER LEVEL-INITIAL 64.20 SAMPLING METHOD BAILER

WATER LEVEL-FINAL 67.46 CONTAINERS 2 VOA / 1L

WELL DEPTH 72.58 PRESERVATIVES HCL (VOAS)

WELL CASING VOLUME 1.42 †CASING DIAMETER 2"

TIME	GALLONS PURGED	TEMPERATURE (°F) (± 1°F)	ELECTRICAL CONDUCTIVITY (µmhos/cm)x100 (± 10% of TOTAL)	pH (± 0.2)
14:10	0	93.9	6.78	6.93
	1	91.0	7.47	6.72
	2	87.4	7.87	6.68
	3	85.5	7.53	6.63
	4	84.4	7.67	6.66
	5	84.1	7.81	6.60
14:10	5.5	83.9	7.90	6.62

† 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

## PURGING/SAMPLING DATA SHEET

SAMPLING LOCATION: UNOCAL #7376 / PLEASANTON DATE & TIME SAMPLED 9/18/96 13:56 A.M. / P.M.

4191 1ST STREET FIELD TECHNICIAN DOUG LEE

PURGE METHOD BAILER DATE(S) PURGED 9/18/96

WELL NUMBER MW6

WATER LEVEL-INITIAL 79.07 SAMPLING METHOD BAILER

WATER LEVEL-FINAL 79.15 CONTAINERS 2 VOA / 1 L

WELL DEPTH 89.09 PRESERVATIVES HCL (VOAS)

WELL CASING VOLUME 1.53 †CASING DIAMETER 2"

TIME	GALLONS PURGED	TEMPERATURE (°F) (± 1°F)	ELECTRICAL CONDUCTIVITY (µmhos/cm)x100 (± 10% of TOTAL)	pH (± 0.2)
13:27	0	98.4	4.65	7.53
	1	93.9	4.77	7.41
	2	90.2	6.64	7.03
	3	87.2	6.78	6.89
	4	85.2	6.71	6.86
	5	84.2	6.65	6.85
13:37	6	84.1	6.71	6.85

† 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