

ENVIRONMENTAL
PROTECTION
95 AUG 11 PM 2:42

August 10, 1995

Mr. Scott Seery
Alameda County Health Care Services
1131 Harbor Bay Parkway
Alameda, California 94502

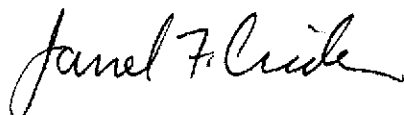
RE: Unocal Service Station #5430
1935 Washington Avenue
San Leandro, California

Per the request of the Unocal Corporation Project Manager, Mr. David J. Camille, enclosed please find our report (MPDS-UN5430-07) dated July 21, 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) 277-2335.

Sincerely,

MPDS Services, Inc.

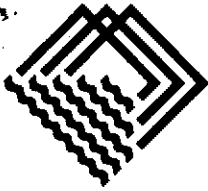


Jarrel F. Crider

/jfc

Enclosure

cc: Mr. David J. Camille



PACIFIC ENVIRONMENTAL GROUP INC.

July 18, 1995
Project 310-038.1A

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

Re: Unocal Corporation
Quarterly Summary Report
Second Quarter 1995

Dear Mr. Jang:

As directed by Mr. Dave Camille of Unocal Corporation, Pacific Environmental Group, Inc. is forwarding the quarterly summary report for the following location:

Service Station

Location

5430

1935 Washington Avenue, San Leandro

If 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: Mr. Dave Camille, Unocal Corporation
Mr. Michael Bakaldin, San Leandro Fire Department
Mr. Scott Seery, Alameda County Environmental Health Care Services

95 JUL 24 PM 2:12
ENVIRONMENTAL
LABORATORY

Quarterly Summary Report Second Quarter 1995

Unocal Service Station 5430
1935 Washington Avenue at Castro Street
San Leandro, California

County STID #: 1747
County: Alameda

BACKGROUND

Unocal files suggest that a product line leak occurred in June 1976, and that one of the original underground gasoline storage tanks failed a precision test in October 1981. In December 1981, the two original steel gasoline storage tanks were replaced with two fiberglass gasoline storage tanks. Groundwater Monitoring Wells U-1 through U-3 and Borings U-A through U-E were installed by PACIFIC in August 1993. Hydrocarbons were detected in the groundwater samples collected from all wells. Monthly groundwater monitoring and quarterly groundwater sampling of the wells was initiated in December 1993.

RECENT QUARTER ACTIVITIES

A report documenting the installation of four groundwater monitoring wells was submitted on June 21, 1995. Quarterly groundwater monitoring and sampling were performed in June 1995.

NEXT QUARTER ACTIVITIES

Third quarter 1995 groundwater monitoring and sampling will be performed.

CHARACTERIZATION/REMEDIAL STATUS

Soil contamination delineated? None encountered.
Dissolved groundwater delineated? No.
Free product delineated? Not applicable.
Amount of groundwater contaminant recovered this quarter? None
Soil remediation in progress? Not Applicable.
Anticipated start date? Not Applicable.
Anticipated completion date? Not Applicable.
Dissolved/free product remediation in progress? No.
Anticipated start? Unknown.
Anticipated completion? Unknown.

CONSULTANT: Pacific Environmental Group, Inc.

MPDS-UN5430-07
July 21, 1995

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

Attention: Mr. David J. Camille

RE: Quarterly Data Report
Unocal Service Station #5430
1935 Washington Avenue
San Leandro, California

Dear Mr. Camille:

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 20, 1995. Prior to sampling, the wells were each purged of between 8 and 9 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 Tables 3 and 4. The concentrations of Total Petroleum Hydrocarbons (TPH) as gasoline, TPH as diesel, and benzene detected in the ground water samples collected this quarter are shown on the attached Figure 2. Copies of the laboratory analytical results and the Chain of Custody documentation are attached to this report.

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 Environmental Health Care Services, Mr. Michael 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.

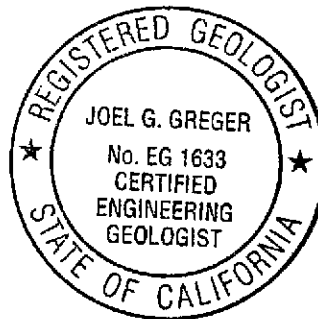


Haig (Gary) Tejirian
Senior Staff Geologist



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

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



/bp

Attachments: Tables 1 through 4
Location Map
Figures 1 & 2
Laboratory Analyses
Chain of Custody documentation

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)
(Monitored and Sampled on June 20, 1995)						
U-1	27.89	28.20	39.62	0	No	8
U-2	28.55	26.74	36.40	0	No	9
U-3	28.53	26.70	38.57	0	No	8.5
U-4	28.49	26.90	39.17	0	No	8.5
U-5	28.58	25.60	38.80	0	No	9
U-6	28.21	27.15	40.10	0	No	9
U-7	28.67	26.38	37.95	0	No	8
(Monitored and Sampled on March 14, 1995)						
U-1	28.23	27.86	39.70	0	No	8.5
U-2	28.93	26.36	39.40	0	No	9
U-3	29.79	25.44	38.62	0	No	9
U-4	28.87	26.52	39.42	0	No	9
U-5	28.98	25.20	39.22	0	No	10
U-6	28.42	26.94	40.22	0	No	9.5
U-7	28.92	26.13	38.00	0	No	8.5
(Monitored and Sampled on December 6, 1994)						
U-1	23.73	32.37	39.64	0	No	5
U-2	23.83	31.44	39.35	0	No	5.5
U-3	23.90	31.34	38.44	0	No	5
(Monitored and Sampled on September 15, 1994)						
U-1	22.17	33.93	39.68	0	No	2
U-2	22.27	33.00	39.38	0	No	4.5
U-3	22.40	32.84	38.48	0	No	4

TABLE 1 (Continued)

SUMMARY OF MONITORING DATA

<u>Well #</u>	<u>Well Casing Elevation (feet)*</u>	<u>Well Casing Elevation (feet)**</u>
U-1	56.10	56.09
U-2	55.27	55.29
U-3	55.24	55.23
U-4	-	55.39
U-5	-	54.18
U-6	-	55.36
U-7	-	55.05

- ◆ 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 are relative to Mean Sea Level. These elevations were used prior to March 1995.
- ** The elevation of the top of the well casings were resurveyed on March 1995, based on benchmark provided by City of San Leandro, City Engineers Office, Datum 1929, USGS adjusted.

TABLE 2

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

(Measured on June 20, 1995)

<u>Well #</u>	<u>Gallons per Casing Volume</u>	<u>Time</u>	<u>Gallons Purged</u>	<u>Casing Volumes Purged</u>	<u>Temperature (°F)</u>	<u>Conductivity ([μmhos/cm] x100)</u>	<u>pH</u>
U-1	1.94	12:30	0	0	69.7	6.84	7.18
			2	1.03	70.4	6.95	6.93
			4	2.06	71.3	7.43	6.80
			6	3.09	71.0	7.51	6.83
			8	4.12	70.9	7.66	6.81
U-2	2.15	11:10	0	0	66.2	7.84	7.28
			2	0.93	67.4	7.19	7.09
			4	1.86	67.9	7.19	6.86
			6	2.79	67.9	7.20	6.82
			9	4.19	67.8	7.19	6.80
U-3	2.02	14:20	0	0	76.1	9.60	7.51
			2	0.99	72.1	9.32	7.32
			4	1.98	71.5	9.26	7.10
			6	2.97	71.0	10.02	6.54
			8.5	4.21	70.9	10.48	6.56
U-4	2.09	11:45	0	0	68.3	8.05	7.29
			2	0.96	68.4	8.00	7.16
			4	1.91	68.9	7.98	6.90
			6	2.87	68.7	8.45	6.92
			8.5	4.07	68.8	8.53	6.93

TABLE 2 (Continued)

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

(Measured on June 20, 1995)

<u>Well #</u>	<u>Gallons per Casing Volume</u>	<u>Time</u>	<u>Gallons Purged</u>	<u>Casing Volumes Purged</u>	<u>Temper- ature (°F)</u>	<u>Conductivity ([μmhos/cm] x100)</u>	<u>pH</u>
U-5	2.24	09:00	0	0	66.7	7.61	7.11
			2	0.89	67.1	7.89	7.05
			4	1.79	67.2	7.11	7.00
			6	2.68	66.8	6.85	6.89
			9	4.02	66.7	6.78	6.84
		09:07					
U-6	2.20	13:30	0	0	73.7	10.82	7.31
			2	0.91	71.4	10.29	7.19
			4	1.82	70.4	10.36	7.05
			6	2.73	70.5	10.69	7.01
			9	4.09	70.2	10.61	7.00
		13:40					
U-7	1.97	09:35	0	0	66.9	5.81	7.41
			2	1.02	66.9	5.80	7.35
			4	2.03	67.8	5.69	7.17
			6	3.05	67.8	5.54	7.08
			8	4.06	67.4	5.85	7.06
		09:45					

TABLE 3

**SUMMARY OF LABORATORY ANALYSES
 WATER**

<u>Date</u>	<u>Well#</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Xylenes</u>
[REDACTED]	U-1	[REDACTED]	[REDACTED]	50	ND	ND	[REDACTED]
3/14/95	U-1	71**	380	20	ND	ND	10
12/06/94	U-1▲	ND	ND	ND	ND	ND	ND
9/15/94	U-1▲	83**	ND	0.50	0.85	ND	0.77
6/19/94	U-1▲	61**	51	ND	1.4	ND	2.7
3/25/94	U-1▲	57**	58	0.63	0.79	ND	0.65
12/16/93	U-1▲	130**	ND	ND	ND	ND	ND
8/13/93	U-1▲	50*	310	0.84	ND	2.6	1
6/20/95	U-2	--	ND	ND	0.58	ND	[REDACTED]
3/14/95	U-2	--	89	ND	ND	ND	1.2
12/06/94	U-2	--	250	19	ND	ND	ND
9/15/94	U-2	--	1,000◆◆	44	ND	ND	ND
6/19/94	U-2	--	180◆	ND	ND	ND	0.86
3/25/94	U-2	--	130	0.70	0.78	0.65	0.64
12/16/93	U-2	--	330	1.7	ND	11	8.5
8/13/93	U-2	--	1,400	ND	ND	ND	ND
6/20/95	U-3	--	9,800	590	ND	800	1,000
3/14/95	U-3	--	13,000	860	120	1,300	1,700
12/06/94	U-3	--	17,000	390	ND	990	560
9/15/94	U-3	--	12,000	370	ND	970	610
6/19/94	U-3	--	17,000	580	ND	1,300	90
3/25/94	U-3	--	18,000	560	40	1,000	770
12/16/93	U-3	--	15,000	570	ND	940	670
8/13/93	U-3	--	23,000	1,000	ND	1,700	1,600
6/20/95	U-4	--	ND	ND	ND	ND	1.5
3/14/95	U-4	--	490	3.2	2.1	0.79	1.2
6/20/95	U-5	--	ND	ND	ND	ND	1.6
3/14/95	U-5	--	ND	ND	ND	ND	1.2
6/20/95	U-6	--	8,500	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
3/14/95	U-6	--	14,000	170	36	790	1,500

TABLE 3 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

<u>Date</u>	<u>Well#</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Xylenes</u>
[REDACTED]	U-7	--	ND	ND	ND	ND	ND
3/14/95	U-7	--	ND	ND	ND	ND	ND

- ▲ Total Oil and Grease was non-detectable.
- ◆ Sequoia Analytical Laboratory reported that the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.
- ◆◆ Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be gasoline.
- * Not a typical diesel pattern; lower boiling hydrocarbons in the boiling range of stoddard calculated as diesel.
- ** Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be diesel.

ND = Non-detectable.

-- Indicates analysis was not performed.

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

Note: Laboratory analyses data prior to December 16, 1993, were provided by Pacific Environmental Group, Inc.

TABLE 4

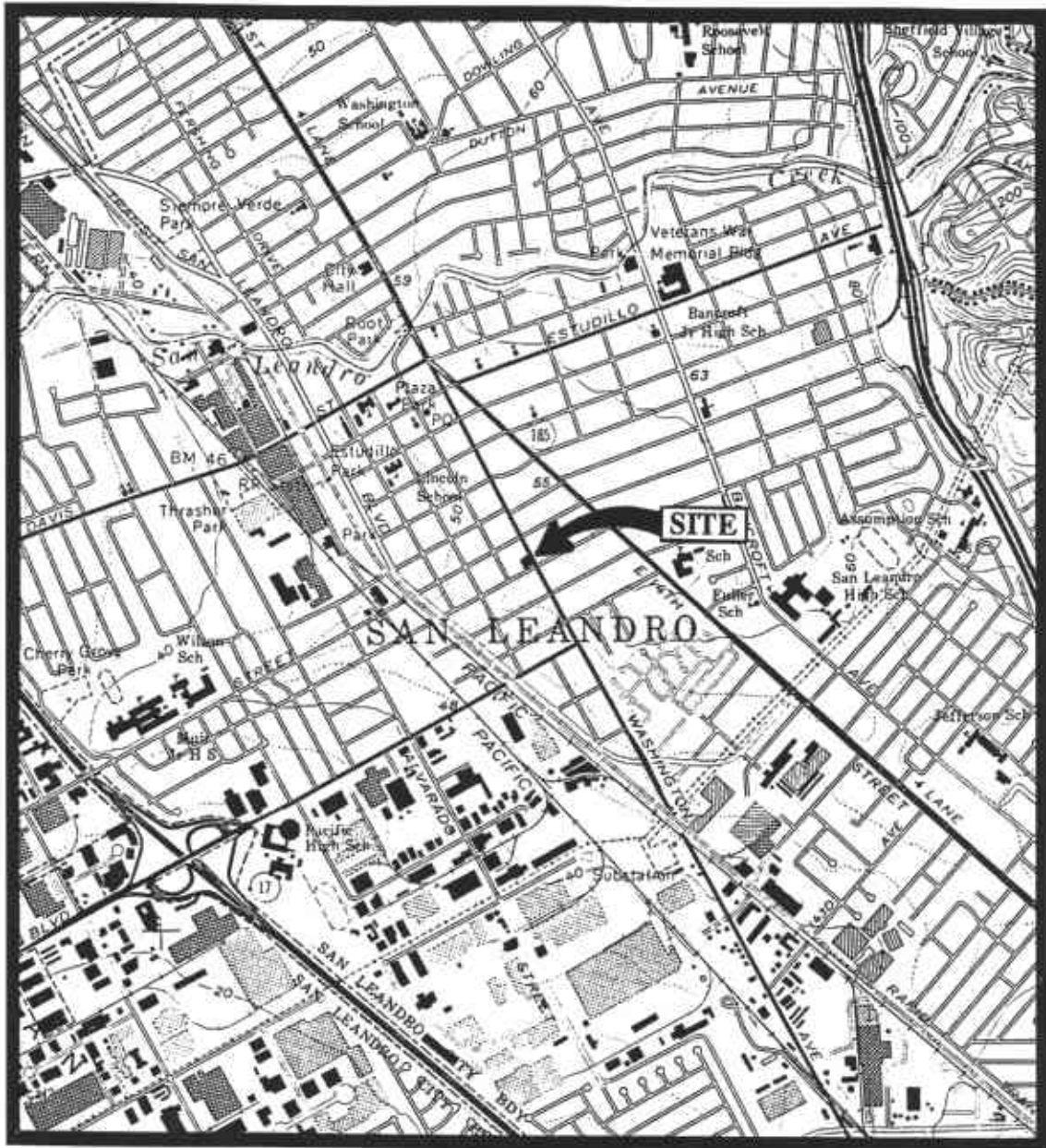
SUMMARY OF LABORATORY ANALYSES
WATER

<u>Date</u>	<u>Well #</u>	<u>1,2-Dichloro- benzene</u>	<u>1,2-Dichloro- ethane</u>
12/06/94	U-1	ND	5.8
9/15/94	U-1	ND	9.5
6/19/94	U-1	ND	7.4
3/25/94	U-1	ND	11
12/06/94	U-2	ND	ND
9/15/94	U-2	ND	0.66
6/19/94	U-2	ND	0.54
3/25/94	U-2	ND	ND
6/19/94	U-3	ND	410
3/25/94	U-3	ND	480
12/06/94	U-3	ND	430
9/15/94	U-3	ND	420
3/14/95	U-4	ND	ND
3/14/95	U-5	ND	ND
3/14/95	U-6	ND	210
3/14/95	U-7	ND	ND

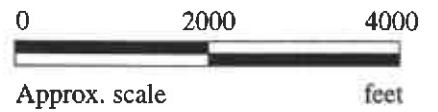
ND = Non-detectable.

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

Note: All EPA method 8010 constituents were non-detectable, except as indicated above.



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

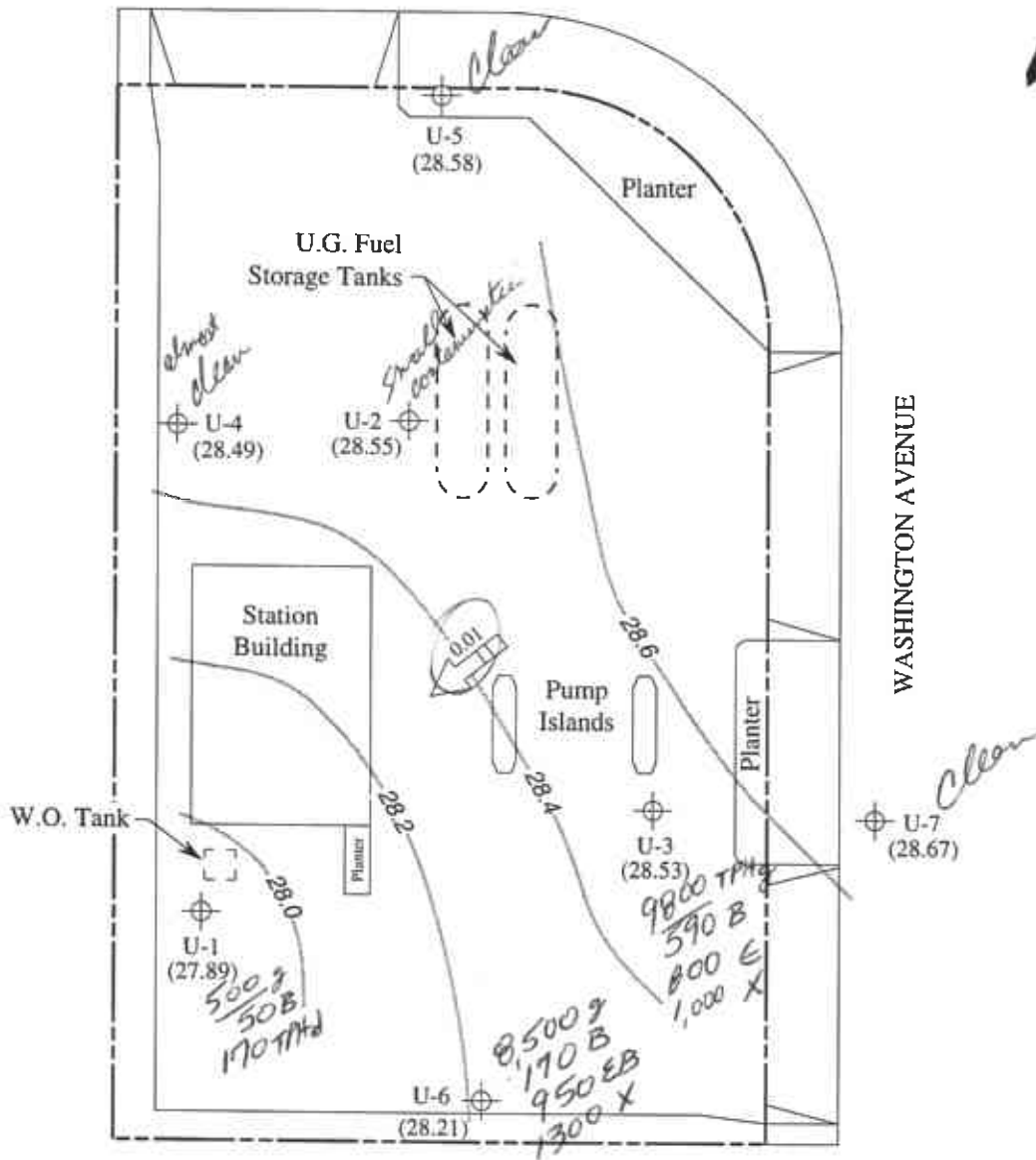


MPDS SERVICES, INCORPORATED

**UNOCAL SERVICE STATION #5430
1935 WASHINGTON AVENUE
SAN LEANDRO, CALIFORNIA**

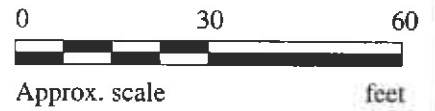
**LOCATION
MAP**

CASTRO 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

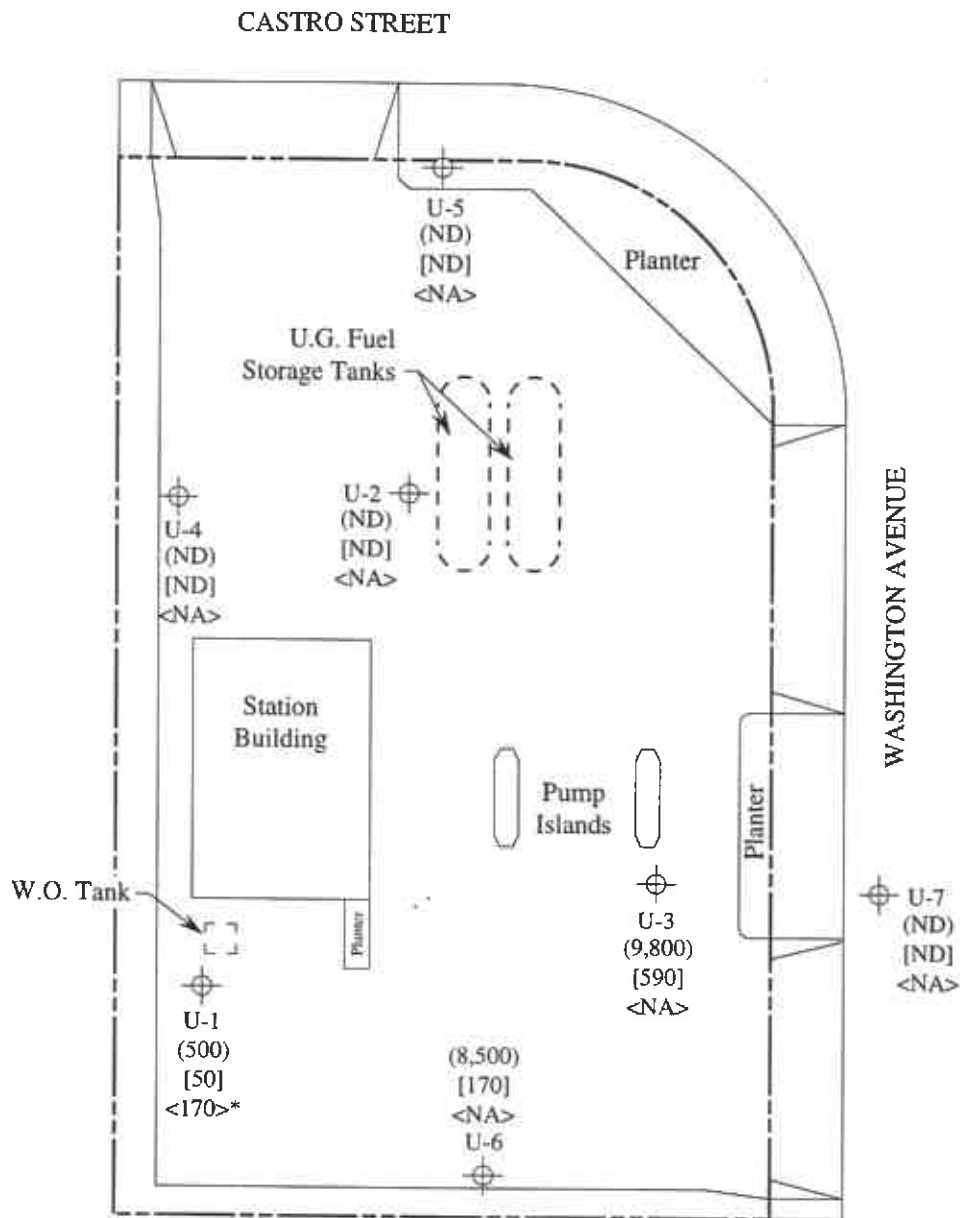


POTENTIOMETRIC SURFACE MAP FOR THE JUNE 20, 1995 MONITORING EVENT

MPDS SERVICES, INCORPORATED

UNOCAL SERVICE STATION #5430
1935 WASHINGTON AVENUE
SAN LEANDRO, CALIFORNIA

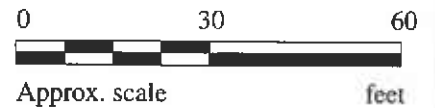
FIGURE
1



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, NA Not analyzed

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



PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUND WATER ON JUNE 20, 1995

MPDS SERVICES, INCORPORATED

**UNOCAL SERVICE STATION #5430
1935 WASHINGTON AVENUE
SAN LEANDRO, CALIFORNIA**

**FIGURE
2**



MPDS Services
2401 Stanwell Dr., Ste. 300
Concord, CA 94520
Attention: Sarkis Karkarian

Client Project ID: Unocal #5430, 1935 Washington Ave.,
Matrix Descript: Water San Leandro
Analysis Method: EPA 5030/8015/8020
First Sample #: 506-1595

Sampled: Jun 20, 1995
Received: Jun 20, 1995
Reported: Jul 6, 1995

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
506-1595	U 1	500	50	ND	ND	4.4
506-1596	U 2	ND	ND	0.58	ND	1.7
506-1597	U 3	9,800	590	ND	800	1,000
506-1598	U 4	ND	ND	ND	ND	1.5
506-1599	U 5	ND	ND	ND	ND	1.6
506-1600	U 6	8,500	170	11	950	1,300
506-1601	U 7	ND	ND	ND	ND	ND

Detection Limits:	50	0.50	0.50	0.50	0.50
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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, #1271

Signature on File

Alan B. Kemp
Project Manager





MPDS Services	Client Project ID:	Unocal #5430, 1935 Washington Ave.,	Sampled:	Jun 20, 1995
2401 Stanwell Dr., Ste. 300	Matrix Descript:	Water	Received:	Jun 20, 1995
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Reported:	Jul 6, 1995
Attention: Sarkis Karkarian	First Sample #:	506-1595		

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
506-1595	U 1	Gasoline	4.0	6/27/95	HP-2	104
506-1596	U 2	--	1.0	6/26/95	HP-2	107
506-1597	U 3	Gasoline	100	6/28/95	HP-2	104
506-1598	U 4	--	1.0	6/26/95	HP-2	108
506-1599	U 5	--	1.0	6/26/95	HP-2	105
506-1600	U 6	Gasoline	20	6/26/95	HP-2	114
506-1601	U 7	--	1.0	6/26/95	HP-2	106

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager





MPDS Services 2401 Stanwell Dr., Ste. 300 Concord, CA 94520 Attention: Sarkis Karkarian	Client Project ID: Unocal #5430, 1935 Washington Ave., Sample Matrix: Water San Leandro Analysis Method: EPA 3510/8015 Mod. First Sample #: 506-1595	Sampled: Jun 20, 1995 Received: Jun 20, 1995 Reported: Jul 6, 1995
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TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 506-1595 U 1*
Extractable Hydrocarbons	50	170

Chromatogram Pattern: Unidentified Hydrocarbons <C15

Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Extracted:	6/26/95
Date Analyzed:	6/27/95
Instrument Identification:	HP-3B

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

SEQUOIA ANALYTICAL, #1271

Signature on File
 Alan B. Kemp
 Project Manager

Please Note:
 * This sample does not appear to contain diesel. "Unidentified Hydrocarbons <C15" are probably gasoline.





MPDS Services Client Project ID: Unocal #5430, 1935 Washington Ave., San Leandro
 2401 Stanwell Dr., Ste. 300 Matrix: Liquid
 Concord, CA 94520
 Attention: Sarkis Karkarian QC Sample Group: 5061595-601 Reported: Jul 6, 1995

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015 M
Analyst:	A. Tuzon	A. Tuzon	A. Tuzon	A. Tuzon	J. Dinsay

MS/MSD					
Batch#:	5061601	5061601	5061601	5061601	BLK062695
Date Prepared:	6/26/95	6/26/95	6/26/95	6/26/95	6/26/95
Date Analyzed:	6/26/95	6/26/95	6/26/95	6/26/95	6/27/95
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	GCHP-3B
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	300 µg/L
Matrix Spike					
% Recovery:	125	120	125	125	60
Matrix Spike Duplicate %					
Recovery:	115	110	115	115	60
Relative % Difference:	8.3	8.7	8.3	8.3	0.0

LCS Batch#:	1LCS062695	1LCS062695	1LCS062695	1LCS062695	BLK062695
Date Prepared:	6/26/95	6/26/95	6/26/95	6/26/95	6/26/95
Date Analyzed:	6/26/95	6/26/95	6/26/95	6/26/95	6/27/95
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	GCHP-3B
LCS % Recovery:	103	107	115	115	60

% Recovery Control Limits:	71-133	72-128	72-130	71-120	38-122
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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, #1271
 Signature on File
 Alan B. Kemp
 Project Manager





MPDS Services
2401 Stanwell Dr., Ste. 300
Concord, CA 94520
Attention: Sarkis Karkarian

Client Project ID: Unocal #5430, 1935 Washington Ave., San Leandro
Matrix: Liquid

QC Sample Group: 5061595-601

Reported: Jul 6, 1995

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	A. Tuzon	A. Tuzon	A. Tuzon	A. Tuzon

MS/MSD Batch#:	5061661	5061661	5061661	5061661
Date Prepared:	6/27/95	6/27/95	6/27/95	6/27/95
Date Analyzed:	6/27/95	6/27/95	6/27/95	6/27/95
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Matrix Spike % Recovery:	115	115	125	120
Matrix Spike Duplicate % Recovery:	115	115	120	117
Relative % Difference:	0.0	0.0	4.1	2.5

LCS Batch#:	1LCS062795	1LCS062795	1LCS062795	1LCS062795
Date Prepared:	6/27/95	6/27/95	6/27/95	6/27/95
Date Analyzed:	6/27/95	6/27/95	6/27/95	6/27/95
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
LCS % Recovery:	110	108	114	114

% Recovery Control Limits:	71-133	72-128	72-130	71-120
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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, #1271

Signature on File

Alan B. Kemp
Project Manager





MPDS Services Client Project ID: Unocal #5430, 1935 Washington Ave., San Leandro
 2401 Stanwell Dr., Ste. 300 Matrix: Liquid
 Concord, CA 94520
 Attention: Sarkis Karkarian QC Sample Group: 5061595-601 Reported: Jul 6, 1995

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	A. Tuzon	A. Tuzon	A. Tuzon	A. Tuzon

MS/MSD Batch#:	5061774	5061774	5061774	5061774
Date Prepared:	6/28/95	6/28/95	6/28/95	6/28/95
Date Analyzed:	6/28/95	6/28/95	6/28/95	6/28/95
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Matrix Spike % Recovery:	115	115	120	117
Matrix Spike Duplicate % Recovery:	110	110	115	108
Relative % Difference:	4.4	4.4	4.3	8.0

LCS Batch#:	1LCS062895	1LCS062895	1LCS062895	1LCS062895
Date Prepared:	6/28/95	6/28/95	6/28/95	6/28/95
Date Analyzed:	6/28/95	6/28/95	6/28/95	6/28/95
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
LCS % Recovery:	114	113	118	118

% Recovery Control Limits:	71-133	72-128	72-130	71-120
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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, #1271

Signature on File
 Alan B. Kemp
 Project Manager



CHAIN OF CUSTODY

SAMPLER		UNOCAL		ANALYSES REQUESTED										TURN AROUND TIME:	
RAY MARANGOSIAN		S/S # <u>5430</u> CITY: <u>STANLEANDRO</u>													
WITNESSING AGENCY		ADDRESS: <u>1935 WASHINGTON Ave</u>													
SAMPLE ID NO.	DATE	TIME	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPH-GAS BTEX	TPH-DIESEL	TOG	8010			REMARKS	
U1	6.20.95	12:50	+	+		3	Well	X	X					5061595 AC	
U2	"	11:30	+	+		2	4	X						5061596 AB	
U3	4	14:46	+	+		4	4	X						5061597	
U4	4	12:05	+	+		4	4	X						5061598	
U5	4	9:12	+	+		4	4	X						5061599	
U6	4	14:00	+	+		4	4	X						5061600	
U7	4	9:50	+	+		4	4	X						5061601	
RELINQUISHED BY:		DATE/TIME		RECEIVED BY:		DATE/TIME		THE FOLLOWING MUST BE COMPLETED BY THE LABORATORY ACCEPTING SAMPLES FOR ANALYSES:							
Ray Marangosian		6.25 6.20.95		MJS		6/20/95 16:25		1. HAVE ALL SAMPLES RECEIVED FOR ANALYSIS BEEN STORED ON ICE? <u>yes</u>							
(SIGNATURE)		6-21-95 0844		(SIGNATURE)		6-21 11:02		2. WILL SAMPLES REMAIN REFRIGERATED UNTIL ANALYZED? <u>yes</u>							
(SIGNATURE)		6-21		(SIGNATURE)		6-21 12:00		3. DID ANY SAMPLES RECEIVED FOR ANALYSIS HAVE HEAD SPACE? <u>no</u>							
(SIGNATURE)				(SIGNATURE)				4. WERE SAMPLES IN APPROPRIATE CONTAINERS AND PROPERLY PACKAGED? <u>yes</u>							
(SIGNATURE)				(SIGNATURE)				SIGNATURE: <u>MJS</u> TITLE: <u>Sequencia</u> DATE: <u>6/20/95</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.