MPDS

SERVICES, INCORPORATED

ALCO
HAZMAT
94 MAR -7 PM 12:41

March 4, 1994

Alameda County Health Care Services
80 Swan Way, Room 200
Oakland, CA 94621

Attn: Mr. Scott Seery

RE: Unocal Service Station #6277
15803 E. 14th Street
San Leandro, California

Dear Mr. Seery:

Per the request of the Unocal Corporation Project Manager, Mr. David J. Camille, enclosed please find our report (MPDS-UN6277-01) dated February 7, 1994, 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) 277-2334.

Sincerely,

MPDS Services, Inc.

Deanna L. Harding

Deanna L. Harding
Technical Assistant

/dlh

Enclosure

cc: Mr. David J. Camille

2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel: (510) 602-5120 Fax: (510) 689-1918

MPDS
SERVICES, INCORPORATED

MPDS-UN6277-01
February 7, 1994

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 #6277
15803 E. 14th Street
San Leandro, California

94 MAR -7 PM 1:14
ALCO
HAZMAT

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 January 6, 1994. Prior to sampling, the wells were each purged of between 9 and 10 gallons of water. 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.

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 2 and 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.

2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel: (510) 602-5120 Fax: (510) 689-1918

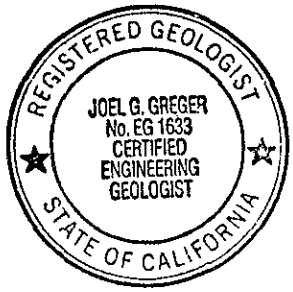
DISTRIBUTION

A copy of this report should be sent to Mr. Scott Seery of the Alameda County Health Care Services Agency, and to the Regional Water Quality Control Board, San Francisco Bay Region.

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

Sincerely,

MPDS Services, Inc.



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

License No. EG 1633
Exp. Date 6/30/94

/bp

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

cc: Robert H. Kezerian, Kaprealian Engineering, Inc.

TABLE 1

SUMMARY OF MONITORING DATA

Well #	Ground Water Elevation (feet)	Depth to Water (feet)♦	Product Thickness (feet)	Sheen	Water Purged (gallons)	Total Well Depth (feet)♦
(Monitored and Sampled on January 6, 1994)						
MW1	22.19	10.31	0	No	10	24.30
MW2A	22.24	11.29	0	No	9.5	25.19
MW3	22.41	9.81	0	No	9.5	23.15
MW4	22.33	9.43	0	No	9	22.10
MW5	22.20	7.09	0	No	9.5	20.51
MW6	22.24	6.60	0	No	9	19.21
(Monitored and Sampled on October 6, 1993)						
MW1	22.18	10.32	0	No	10	
MW2A	22.19	11.34	0	No	10	
MW3	22.37	9.85	0	No	9	
MW4	22.25	9.51	0	No	9	
MW5	22.14	7.15	0	No	9	
MW6	22.20	6.64	0	No	9	
(Monitored and Sampled on July 1, 1993)						
MW1	22.46	10.29	0	No	10	
MW2A	22.58	11.20	0	No	10	
MW3	22.91	9.65	0	No	10	
MW4	22.63	9.69	0	No	9	
MW5	22.54	7.20	0	No	10	
MW6	22.67	6.57	0	No	10	

TABLE 1 (Continued)

SUMMARY OF MONITORING DATA

Well #	Ground Water Elevation (feet)	Depth to Water (feet)◆	Product Thickness (feet)	Sheen	Water Purged (gallons)	Total Well Depth (feet)◆
(Monitored and Sampled on January 29, 1993)						
MW1	22.50	10.25	0	No	8	
MW2A	22.63	11.15	0	No	8	
MW3	22.89	9.67	0	No	8	
MW4	22.77	9.55	0	No	8	

Well #	Well Cover Elevation (feet)*	Well Casing Elevation (feet)**
MW1	32.75	32.50
MW2A	33.78	33.53
MW3	32.56	32.22
MW4	32.32	31.76
MW5	29.74	29.29
MW6	29.24	28.84

◆ The depth to water level and total well depth measurements were taken from the top of the well casing. Prior to October 6, 1993, the water level and total well depth measurements were taken from the top of the well covers.

* The elevations of the top of the well covers have been surveyed relative to Mean Sea Level (MSL), based on a Benchmark located on the west side of East 14th Street, approximately 75 feet north of 155th Avenue (elevation = 31.65 MSL).

** Relative to MSL.

Note: Monitoring data prior to January 6, 1994, were provided by Kaprealian Engineering, Inc.

TABLE 2

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
1/06/94	MW1	--	260	21	ND	2.5	14
	MW2A	--	110	2.6	ND	1.6	1.7
	MW3	--	140♦	ND	ND	ND	ND
	MW4	--	100♦	ND	ND	ND	ND
	MW5	--	62♦	ND	ND	ND	ND
	MW6	--	53♦	ND	ND	ND	ND
10/06/93	MW1	--	1,200♦	36	ND	ND	23
	MW2A	--	110♦	12	ND	7.4	1.4
	MW3	--	140♦	ND	ND	ND	ND
	MW4	--	130♦	ND	ND	ND	ND
	MW5	--	60♦	ND	ND	ND	ND
	MW6	--	ND	ND	ND	ND	ND
7/01/93	MW1	--	510	100	0.79	5.7	52
	MW2A	--	74♦	0.75	ND	ND	ND
	MW3	--	120♦	ND	ND	ND	ND
	MW4	--	91♦	ND	ND	ND	ND
	MW5	--	54♦	ND	ND	ND	ND
	MW6	--	ND	ND	ND	ND	ND
4/02/93	MW1	ND	690	94	0.73	5.3	39
	MW2A	ND	120	7.2	ND	5.8	1.2
	MW3	ND	130♦	ND	ND	ND	ND
	MW4	ND	110♦	ND	ND	ND	ND
	MW5	ND	65♦	ND	ND	ND	ND
	MW6	ND	ND	ND	ND	ND	ND
1/29/93	MW1	ND	740♦♦	69	ND	3.8	43
	MW2A	ND	66♦	1.4	ND	ND	ND
	MW3	ND	130♦	0.84	ND	ND	ND
	MW4	ND	130♦	0.95	ND	ND	ND
10/20/92	MW1	ND	720	110	1.4	18	110
	MW2A	ND	96	2.8	ND	1.8	1.6
	MW3	ND	180♦	ND	ND	ND	ND
	MW4	ND	110♦	ND	ND	ND	ND

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
7/20/92	MW1	62+	630	100	2.8	6.3	52
	MW2A	ND	99	8.6	ND	2.4	0.95
	MW3	ND	120♦	ND	ND	ND	ND
	MW4	ND	80♦	ND	ND	ND	ND
4/23/92	MW1	--	530	100	7.9	4.6	60
	MW2A	ND	190	15	ND	15	2.0
	MW3	--	150♦	1.6	ND	ND	ND
	MW4	--	120♦	ND	ND	ND	ND
1/13/92	MW1	--	450	240	4.6	8.6	73
	MW2A	ND	160	11	2.0	10	5.9
	MW3	--	120♦	ND	ND	ND	ND
	MW4	--	58♦	ND	ND	ND	ND
9/10/91	MW1	--	280	38	3.1	4.1	22
	MW2A	65	180	8.7	0.93	15	13
	MW3	--	170	ND	ND	ND	ND
	MW4	--	56	ND	ND	ND	ND
6/10/91	MW1	--	310	1.5	ND	ND	0.31
	MW2A	100	54	1.2	ND	ND	0.69
	MW3	--	160	0.65	ND	ND	ND
	MW4	--	64	ND	ND	ND	ND
3/15/91	MW1	--	110	21	ND	ND	8.4
	MW2A	ND	160	2.5	ND	ND	51
	MW3	--	150	ND	ND	ND	0.45
	MW4	--	53	ND	ND	ND	ND
12/14/90	MW1	--	450	150	6.8	0.28	49
	MW3	--	150	ND	ND	ND	ND
	MW4	--	54	ND	ND	ND	ND
9/19/90	MW1	--	140	ND	ND	ND	3.5
	MW3	--	74	0.74	ND	ND	ND
	MW4	--	61	ND	ND	ND	ND

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
6/25/90	MW1	--	310	10	0.89	0.37	2.1
	MW3	--	190	1.5	0.68	ND	5.3
	MW4	--	66	ND	ND	ND	ND
3/29/90	MW1	--	320	12	1.6	0.31	3.5
	MW3	--	85	ND	ND	ND	ND
	MW4	--	120	0.39	ND	ND	ND
12/12/89	MW1	--	340	100	13	3.4	44
	MW2	1,700	660	220	6.6	13	36
	MW3	--	120	6.7	0.64	0.46	1.5
	MW4	--	97	4.6	ND	ND	ND
9/13/89	MW1	--	550	32	17	3.4	52
	MW2	ND	170	2.0	0.38	ND	9.5
	MW3	--	76	ND	ND	ND	ND
	MW4	--	77	ND	ND	ND	ND
6/06/89	MW1	--	590	ND	ND	ND	ND
	MW2	ND	77	ND	ND	ND	ND
	MW3	--	32	ND	ND	ND	ND
	MW4	--	37	ND	ND	ND	ND

♦ Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be gasoline.

♦♦ 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 diesel.

-- Indicates analysis was not performed.

ND = Non-detectable.

Results are in micrograms per liter (µg/L), unless otherwise indicated.

Note: Laboratory analyses data prior to January 6, 1994, were provided by Kaprealian Engineering, Inc.

TABLE 3

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	Tetra-chloroethene	Trichloro-ethene	1,2-Dichloro-ethane	1,2-dichloro-ethene	TOG (mg/L)
1/06/94	MW3	960	--	--	--	--
4/02/93	MW5	190	ND	ND	ND	--
	MW6	71	ND	ND	ND	--
1/29/93	MW1	300	ND	ND	ND	--
	MW2A	140	10	ND	ND	--
	MW3	980	ND	ND	ND	--
	MW4	950	ND	ND	ND	--
10/20/92	MW1	230	22	ND	16	--
	MW2A	64	11	ND	ND	--
	MW3	1,100	20	ND	ND	--
	MW4	360	17	ND	ND	--
7/20/92	MW1	200	7.4	ND	ND	--
	MW2A	35	7.2	ND	4.8	ND
	MW3	1,400	25	ND	ND	--
	MW4	440	11	ND	ND	--
4/23/92	MW2A	17	5.6	ND	1.9	ND
1/13/92	MW2A*	33	ND	ND	2.1	ND
6/10/91	MW2A	150	10	ND	ND	ND
3/15/91	MW2A	67	8.2	ND	2.6	ND
12/12/89	MW2	30	9.0	ND	ND	1.2
9/13/89	MW2	18	6.1	4.2	1.2	<50
6/06/89	MW2	110	4.4	2.8	ND	ND

TABLE 3 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

* 1,1,2-Trichloroethane was also detected at a level of 9.9 ppb.

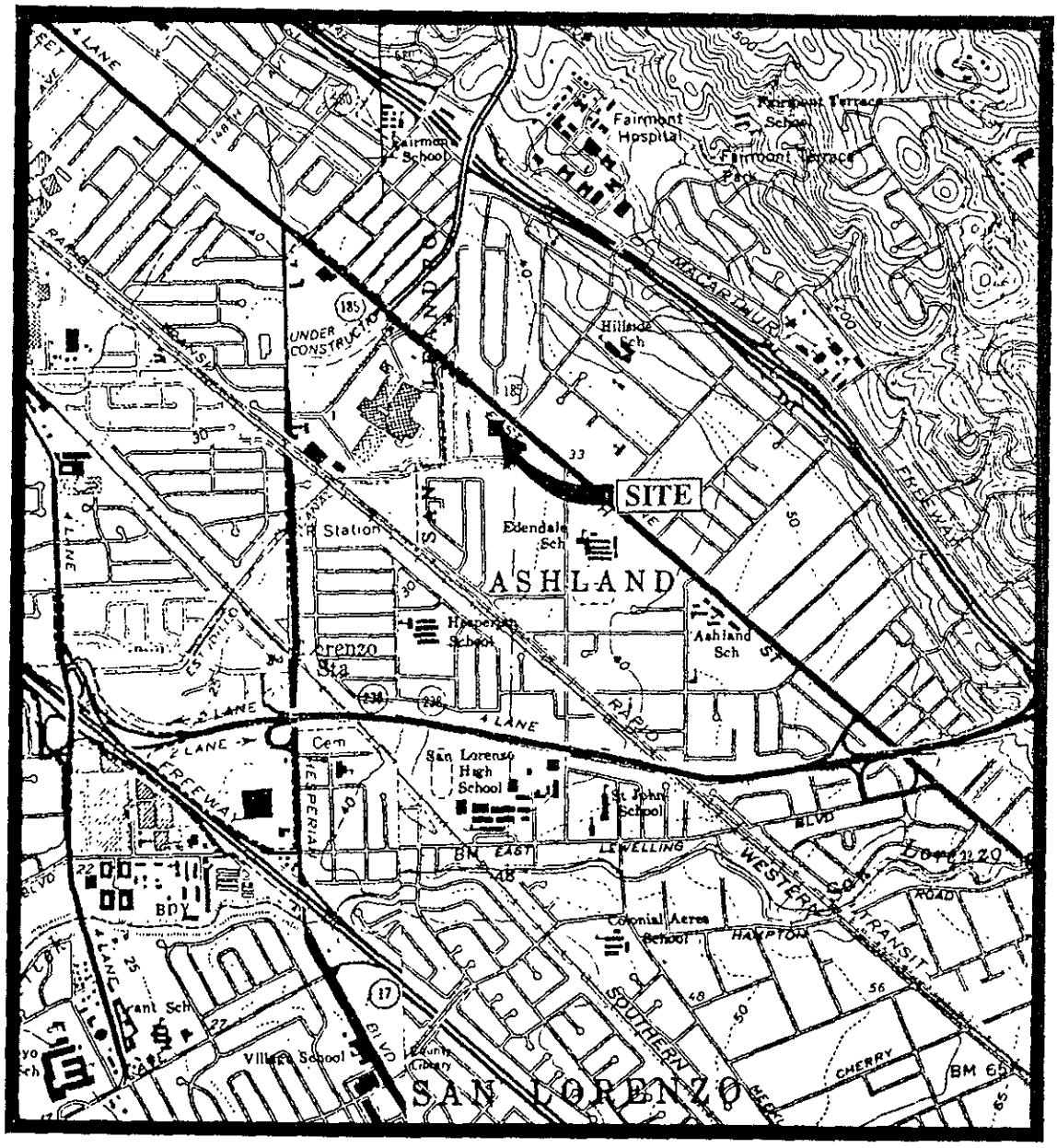
ND = Non-detectable.

-- Indicates analysis was not performed.

Results are in micrograms per liter (μg/L), unless otherwise indicated.

Note: - All EPA method 8010 constituents were non-detectable in all of the ground water samples, except as indicated.

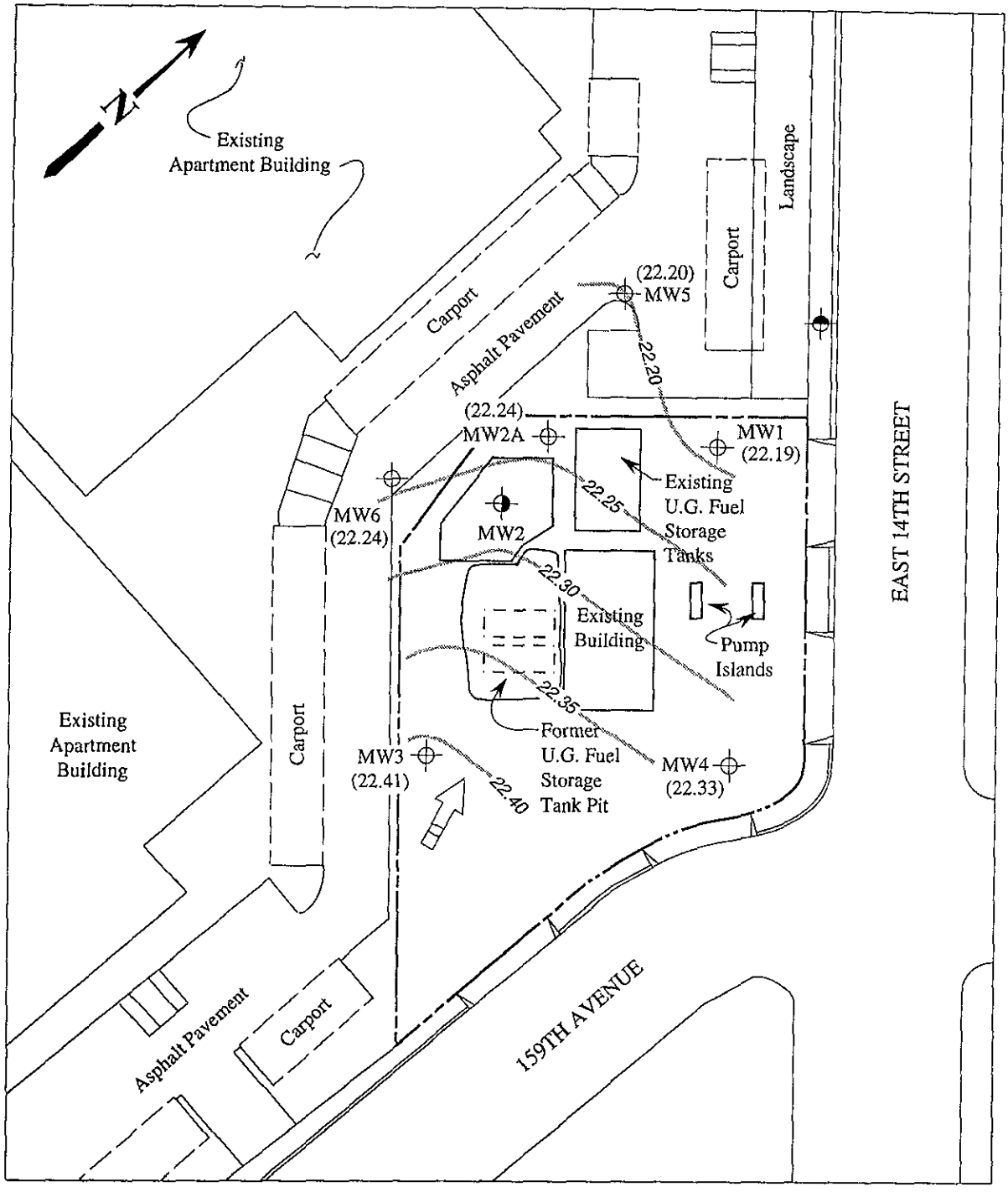
- Laboratory analyses data prior to January 6, 1994, were provided by Kaprealian Engineering, Inc.



Base modified from 7.5 minute U.S.G.S.
Hayward and San Leandro Quadrangles
(both photorevised 1980)

0 2000 4000
Approx. scale feet

MPDS SERVICES, INC.	**UNOCAL SERVICE STATION #6277** **15803 E. 14TH STREET** **SAN LEANDRO, CALIFORNIA**	**LOCATION MAP**



LEGEND

- Monitoring well (existing)
- Monitoring well (previously attempted)
- Monitoring well (destroyed February 1, 1990)
- ( ) Ground water elevation in feet above Mean Sea Level
- Direction of ground water flow
- Contours of ground water elevation

0 60 120

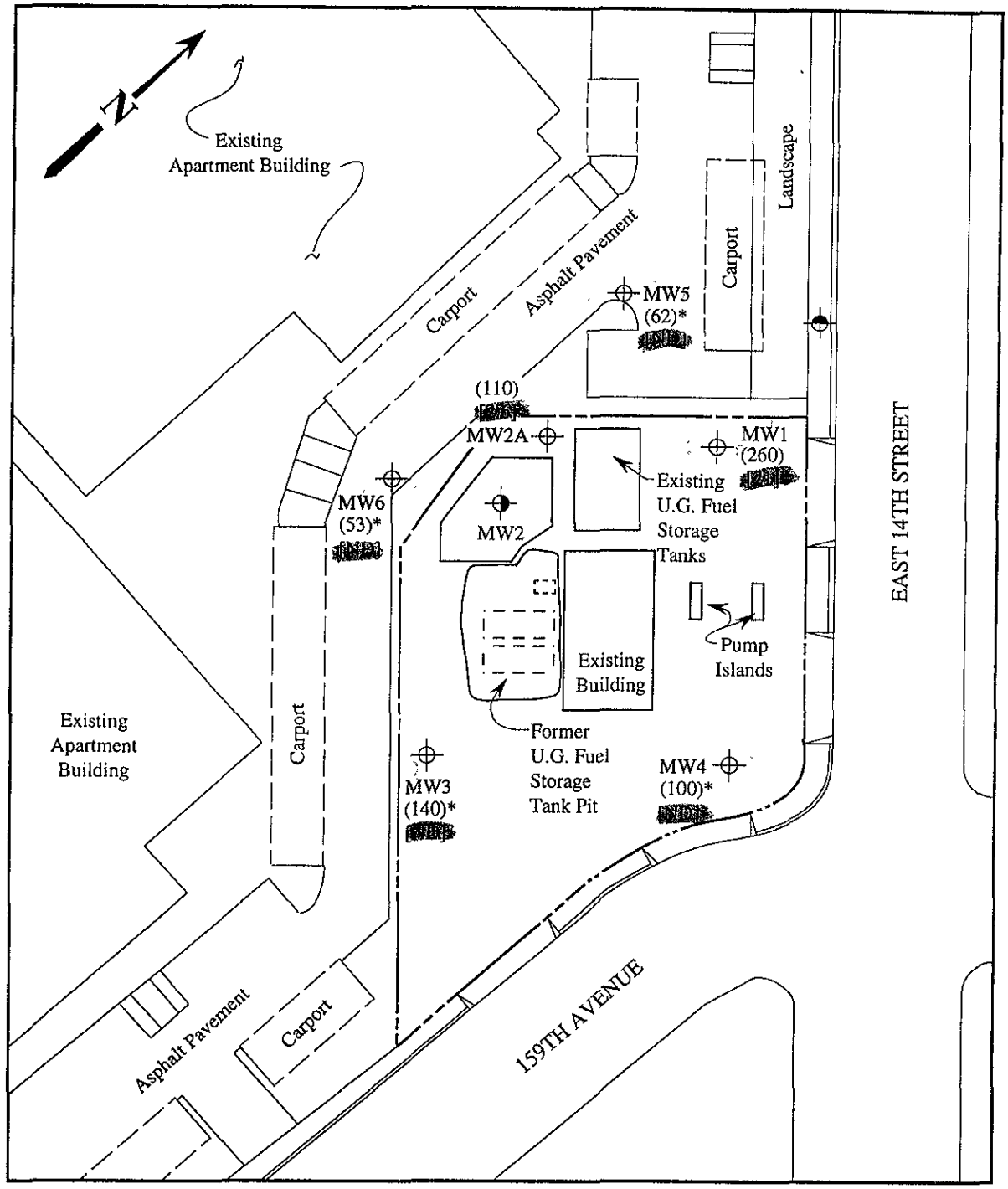
Approx. scale feet

POTENTIOMETRIC SURFACE MAP FOR THE JANUARY 6, 1994 MONITORING EVENT

MPDS
SERVICES, INCORPORATED

UNOCAL SERVICE STATION #6277
15803 E. 14TH STREET
SAN LEANDRO, CALIFORNIA

FIGURE
1



LEGEND

- Monitoring well (existing)
- Monitoring well (previously attempted)
- Monitoring well (destroyed February1, 1990)
- ( ) Concentration of TPH as gasoline in µg/L
- [ ] Concentration of benzene in µg/L

ND = Non-detectable

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

0 60 120

Approx. scale feet

PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUND WATER ON JANUARY 6, 1994

MPDS
SERVICES, INCORPORATED

UNOCAL SERVICE STATION #6277
15803 E. 14TH STREET
SAN LEANDRO, CALIFORNIA

FIGURE
2

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

MPDS Services, Inc.	Client Project ID:	Unocal #6277, 15803 E. 14th Street, San Leandro		Sampled:	Jan 6, 1994
2401 Stanwell Dr., Ste. 400	Sample Matrix:	Water		Received:	Jan 6, 1994
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020		Reported:	Jan 20, 1994
Attention: Avo Avedissian	First Sample #:	401-0188			

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 401-0188 MW-1	Sample I.D. 401-0189 MW-2	Sample I.D. 401-0190 MW-3*	Sample I.D. 401-0191 MW-4*	Sample I.D. 401-0192 MW-5*	Sample I.D. 401-0193 MW-6*
Purgeable Hydrocarbons	50	260	110	140	100	62	53
Benzene	0.5	21	2.6	N.D.	N.D.	N.D.	N.D.
Toluene	0.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.5	2.5	1.6	N.D.	N.D.	N.D.	N.D.
Total Xylenes	0.5	14	1.7	N.D.	N.D.	N.D.	N.D.
Chromatogram Pattern:		Gasoline	Gasoline	Discrete Peaks	Discrete Peaks	Discrete Peaks	Disorete Peaks

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Analyzed:	1/10/94	1/10/94	1/10/94	1/10/94	1/10/94	1/10/94
Instrument Identification:	HP-5	HP-5	HP-5	HP-5	HP-5	HP-5
Surrogate Recovery, %: (QC Limits = 70-130%)	98	99	100	99	101	99

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

SEQUOIA ANALYTICAL

Alan B. Kemp
Project Manager

Please Note:
*This sample does not appear to contain gasoline. Discrete Peaks refers to unidentified peaks in the EPA 8010 Range.

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MPDS Services, Inc.	Client Project ID:	Unocal #6277, 15803 E. 14th Street,	Sampled:	--
2401 Stanwell Dr., Ste. 400	Sample Matrix:	Water San Leandro	Received:	--
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Reported:	Jan 20, 1994
Attention: Avo Avedissian	First Sample #:	Matrix Blank		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. Matrix Blank
Purgeable Hydrocarbons	50	
Benzene	0.5	
Toluene	0.5	
Ethyl Benzene	0.5	
Total Xylenes	0.5	

Chromatogram Pattern:

Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Analyzed:	1/10/94
Instrument Identification:	HP-5
Surrogate Recovery, %: (QC Limits = 70-130%)	99

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

SEQUOIA ANALYTICAL

Alan B. Kemp
Project Manager

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

MPDS Services, Inc.	Client Project ID:	Unocal #6277, 15803 E. 14th Street,	Sampled:	Jan 6, 1994
2401 Stanwell Dr., Ste. 400	Sample Descript:	Water, MW-3	Received:	Jan 6, 1994
Concord, CA 94520	Analysis Method:	EPA 5030/8010	Analyzed:	Jan 10, 1994
Attention: Avo Avedissian	Lab Number:	401-0190	Reported:	Jan 20, 1994

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	200	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	200	N.D.
2-Chloroethylvinyl ether	200	N.D.
Chloroform	100	N.D.
Chloromethane	200	N.D.
Dibromochloromethane	100	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Methylene chloride	1,000	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	**100**	**960**
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl chloride	200	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

Alan B. Kemp
Project Manager

SEQUOIA ANALYTICAL

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(510) 686-9600 • FAX (510) 686-9689

MPDS Services, Inc.
2401 Stanwell Dr., Ste. 400
Concord, CA 94520
Attention: Avo Avedissian

Client Project ID: Unocal #6277, 15803 E. 14th Street, San Leandro
Matrix: Liquid

QC Sample Group: 4010188-193

Reported: Jan 20, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	A.T.	A.T.	A.T.	A.T.
MS/MSD Batch#:	4010193	4010193	4010193	4010193
Date Prepared:	1/10/94	1/10/94	1/10/94	1/10/94
Date Analyzed:	1/10/94	1/10/94	1/10/94	1/10/94
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Matrix Spike % Recovery:	120	110	105	107
Matrix Spike Duplicate % Recovery:	120	110	105	103
Relative % Difference:	0.0	0.0	0.0	3.8
LCS Batch#:	3LCS011094	3LCS011094	3LCS011094	3LCS011094
Date Prepared:	1/10/94	1/10/94	1/10/94	1/10/94
Date Analyzed:	1/10/94	1/10/94	1/10/94	1/10/94
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
LCS % Recovery:	123	112	103	104
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

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.

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MPDS Services, Inc.
2401 Stanwell Dr., Ste. 400
Concord, CA 94520
Attention: Avo Avedissian

Client Project ID: Unocal #6277, 15803 E. 14th Street, San Leandro
Matrix: Liquid

QC Sample Group: 401-0190

Reported: Jan 20, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-benzene
Method:	EPA 8010	EPA 8010	EPA 8010
Analyst:	K.N.	K.N.	K.N.
MS/MSD Batch#:	4010220	4010220	4010220
Date Prepared:	1/10/94	1/10/94	1/10/94
Date Analyzed:	1/10/94	1/10/94	1/10/94
Instrument I.D.#:	HP-5890/1	HP-5890/1	HP-5890/1
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L
Matrix Spike % Recovery:	78	100	98
Matrix Spike Duplicate % Recovery:	83	91	85
Relative % Difference:	6.2	9 4	14
LCS Batch#:	LCS011094	LCS011094	LCS011094
Date Prepared:	1/10/94	1/10/94	1/10/94
Date Analyzed:	1/10/94	1/10/94	1/10/94
Instrument I.D.#:	HP-5890/1	HP-5890/1	HP-5890/1
LCS % Recovery:	85	96	95
% Recovery Control Limits:	28-167	35-146	38-150

SEQUOIA ANALYTICAL

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.

SEQUOIA ANALYTICAL
1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

MPDS Services, Inc.
2401 Stanwell Dr., Ste. 400
Concord, CA 94520
Attention: Avo Avedissian

Client Project ID: Unocal #6277, 15803 E. 14th Street, San Leandro

QC Sample Group: 401-0190

Reported: Jan 20, 1994

QUALITY CONTROL DATA REPORT

SURROGATE

Method:	EPA 8010	EPA 8010
Analyst:	K.Nill	K.Nill
Reporting Units:	µg/L	µg/L
Date Analyzed:	Jan 10, 1994	Jan 10, 1994
Sample #:	401-0190	Matrix Blank
Surrogate #1 % Recovery:	114	113
***Surrogate #2* % Recovery:**	113	116

SEQUOIA ANALYTICAL

Alan B. Kemp
Project Manager

% Recovery:	$\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}}$	x 100
Relative % Difference:	$\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}}$	x 100

MPDS
Services, Inc.

CHAIN OF CUSTODY

SAMPLER: STEVE

WITNESSING AGENCY:

SITE NAME & ADDRESS: UNC # 6277 SAN LEANDRO
15803 E. 14th STREET

ANALYSES REQUESTED: TPH-G, BTEX; 5-10

TURN AROUND TIME: REGULAR

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPH-G, BTEX	5-10	REMARKS
MW 1	1-6-94			X	X		2	MW	X		4010188 A-B
MW 2	"			X	X		2	"	X		0189 ↓
MW 3	"			X	X		4	"	X	X	0190 A-D
MW 4	"			X	X		2	"	X		0191 A-B
MW 5	"			X	X		2	"	X		0192 ↓
MW 6	"			X	X		2	"	X		0193 ↓

Relinquished by: (Signature) STEVE	Date/Time 1/6/94 3:15pm	Received by: (Signature) Melissa Creuser
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received by: (Signature)

The following MUST BE completed by the laboratory accepting samples for analysis:

1. Have all samples received for analysis been stored in ice? yes
2. Will samples remain refrigerated until analyzed? yes
3. Did any samples received for analysis have head space? NO
4. Were samples in appropriate containers and properly packaged? yes

Melissa Creuser — Signature; Sample Control — Title; 1/6/94 — Date

2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel 510 602 5100 Fax 510 602 5102