

February 27, 1995

Alameda County Health Care Services
1131 Harbor Bay Parkway
Alameda, CA 94501

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-UN6277-05) dated February 1, 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

ENVIRONMENTAL
PROTECTION
55 FEB 28 PM 12:32

MPDS-UN6277-05
February 1, 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 #6277
15803 E. 14th Street
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 January 5, 1995. Prior to sampling, the wells were each purged of between 9.5 and 10.5 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. 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 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.

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. Nubar Srabian at (510) 602-5120.

Sincerely,

MPDS Services, Inc.



Sarkis A. Karkarian
Staff Engineer



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

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



/bp

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

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

TABLE 1

SUMMARY OF MONITORING DATA

<u>Well #</u>	<u>Ground Water Elevation (feet)</u>	<u>Depth to Water (feet)♦</u>	<u>Total Well Depth (feet)♦</u>	<u>Product Thickness (feet)</u>	<u>Sheen</u>	<u>Water Purged (gallons)</u>
---------------	--------------------------------------	-------------------------------	---------------------------------	---------------------------------	--------------	-------------------------------

(Monitored and Sampled on January 5, 1995)

MW1	23.02	9.48	24.88	0	No	10.5
MW2A	23.16	10.37	25.35	0	No	10.5
MW3	23.34	8.88	23.43	0	No	10
MW4	22.94	8.82	22.52	0	No	9.5
MW5	22.91	6.38	20.95	0	No	10
MW6	22.99	5.85	19.60	0	No	9.5

(Monitored and Sampled on October 6, 1994)

MW1	22.16	10.34	24.43	0	No	10
MW2A	22.22	11.31	25.20	0	No	9.5
MW3	22.40	9.82	23.37	0	No	9.5
MW4	22.26	9.50	22.80	0	No	9.5
MW5	22.20	7.09	20.52	0	No	9.5
MW6	22.25	6.59	19.23	0	No	9

(Monitored and Sampled on July 7, 1994)

MW1	22.27	10.23	24.31	0	No	10
MW2A	22.37	11.16	25.20	0	No	10
MW3	22.55	9.67	23.17	0	No	9.5
MW4	22.38	9.38	22.12	0	No	9
MW5	22.33	6.96	20.53	0	No	9.5
MW6	22.42	6.42	19.22	0	No	9

(Monitored and Sampled on April 4, 1994)

MW1	22.23	10.27	24.30	0	No	10
MW2A	22.30	11.23	25.20	0	No	9.5
MW3	22.50	9.72	23.17	0	No	9.5
MW4	22.37	9.39	22.10	0	No	9
MW5	22.25	7.04	20.51	0	No	9.5
MW6	22.32	6.52	19.23	0	No	9

TABLE 1 (Continued)

SUMMARY OF MONITORING DATA

<u>Well #</u>	<u>Well Casing Elevation (feet)*</u>
MW1	32.50
MW2A	33.53
MW3	32.22
MW4	31.76
MW5	29.29
MW6	28.84

- ◆ 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 (MSL), based on a Benchmark located on the west side of East 14th Street, approximately 75 feet north of 155th Avenue (elevation = 31.65 feet MSL).

TABLE 2

**SUMMARY OF LABORATORY ANALYSES
WATER**

<u>Date</u>	<u>Well #</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethylbenzene</u>	<u>Xylenes</u>
1/05/95	MW1	780	30	ND	ND	9.1
	MW2A	140♦	1.4	ND	ND	ND
	MW3	140♦	ND	ND	ND	ND
	MW4	150♦	ND	ND	ND	ND
	MW5	ND	ND	ND	ND	ND
	MW6	ND	ND	ND	ND	ND
10/06/94	MW1	970	19	ND	ND	13
	MW2A	71	6.4	ND	2.1	2.4
	MW3	93♦	ND	ND	ND	ND
	MW4	78♦	ND	ND	ND	ND
	MW5	ND	ND	ND	ND	ND
	MW6	ND	ND	ND	ND	ND
7/07/94	MW1	2,100♦♦	250	ND	57	200
	MW2A	90	5.2	ND	1.5	2.2
	MW3	190♦	ND	ND	ND	ND
	MW4	150♦	ND	ND	ND	ND
	MW5	72♦	ND	ND	ND	ND
	MW6	ND	ND	ND	ND	ND
4/04/94	MW1	1,100	15	ND	ND	7.4
	MW2A	80	8.0	ND	1.4	1.5
	MW3	170♦	ND	ND	ND	ND
	MW4	120	0.76	0.76	ND	0.98
	MW5	65♦	ND	ND	ND	ND
	MW6	57♦	ND	ND	ND	ND
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

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

<u>Date</u>	<u>Well #</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Xylenes</u>
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	690	94	0.73	5.3	39
	MW2A	120	7.2	ND	5.8	1.2
	MW3	130♦	ND	ND	ND	ND
	MW4	110♦	ND	ND	ND	ND
	MW5	65♦	ND	ND	ND	ND
	MW6	ND	ND	ND	ND	ND
1/29/93	MW1	740♦♦	69	ND	3.8	43
	MW2A	66♦	1.4	ND	ND	ND
	MW3	130♦	0.84	ND	ND	ND
	MW4	130♦	0.95	ND	ND	ND
10/20/92	MW1	720	110	1.4	18	110
	MW2A	96	2.8	ND	1.8	1.6
	MW3	180♦	ND	ND	ND	ND
	MW4	110♦	ND	ND	ND	ND
7/20/92	MW1	630	100	2.8	6.3	52
	MW2A	99	8.6	ND	2.4	0.95
	MW3	120♦	ND	ND	ND	ND
	MW4	80♦	ND	ND	ND	ND

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

<u>Date</u>	<u>Well #</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Xylenes</u>
4/23/92	MW1	530	100	7.9	4.6	60
	MW2A	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	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	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	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	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
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

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

<u>Date</u>	<u>Well #</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Xylenes</u>
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	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	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	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.

-- Indicates analysis was not performed.

ND = Non-detectable.

Results are in micrograms per liter ($\mu\text{g/L}$), 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**

<u>Date</u>	<u>Well #</u>	<u>TPH as Diesel</u>	<u>Tetra-chloroethene</u>	<u>Trichloro-ethene</u>	<u>1,2-Dichloro-ethane</u>	<u>Cis-1,2-Dichloro-ethene</u>	<u>Total Oil & Grease (mg/L)</u>
1/05/95	MW3	--	1,100	18	ND	6.2	--
4/04/94	MW1*	--	390	38	ND	17	--
1/06/94	MW3	--	960	ND	ND	ND	--
4/02/93	MW1	ND	--	--	--	--	--
	MW2	ND	--	--	--	--	--
	MW3	ND	--	--	--	--	--
	MW4	ND	--	--	--	--	--
	MW5	ND	190	ND	ND	ND	--
	MW6	ND	71	ND	ND	ND	--
1/29/93	MW1	ND	300	ND	ND	ND	--
	MW2A	ND	140	10	ND	ND	--
	MW3	ND	980	ND	ND	ND	--
	MW4	ND	950	ND	ND	ND	--
10/20/92	MW1	ND	230	22	ND	16	--
	MW2A	ND	64	11	ND	ND	--
	MW3	ND	1,100	20	ND	ND	--
	MW4	ND	360	17	ND	ND	--
7/20/92	MW1	62♦	200	7.4	ND	ND	--
	MW2A	ND	35	7.2	ND	4.8	ND
	MW3	ND	1,400	25	ND	ND	--
	MW4	ND	440	11	ND	ND	--
4/23/92	MW2A	ND	17	5.6	ND	1.9	ND
1/13/92	MW2A**	ND	33	ND	ND	2.1	ND
9/10/93	MW2A	65	--	--	--	--	--
6/10/91	MW2A	100	150	10	ND	ND	ND

TABLE 3 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	TPH as Diesel	Tetra-chloroethene	Trichloro-ethene	1,2-Dichloro-ethane	Cis-1,2-Dichloro-ethene	Total Oil & Grease (mg/L)
3/15/91	MW2A	ND	67	8.2	ND	2.6	ND
12/12/89	MW2	1,700	30	9.0	ND	ND	1.2
9/13/89	MW2	ND	18	6.1	4.2	1.2	ND
6/06/89	MW2	ND	110	4.4	2.8	ND	ND

* All EPA method 8240 constituents were non-detectable, except for concentrations of benzene at 29 µg/L, ethylbenzene at 3.4 µg/L, total xylenes at 19 µg/L, and trans-1,2-dichloroethene at 2.4 µg/L.

** 1,1,2-trichloroethane was detected at a concentration of 9.9 µg/L.

◆ Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear be a diesel.

ND = Non-detectable.

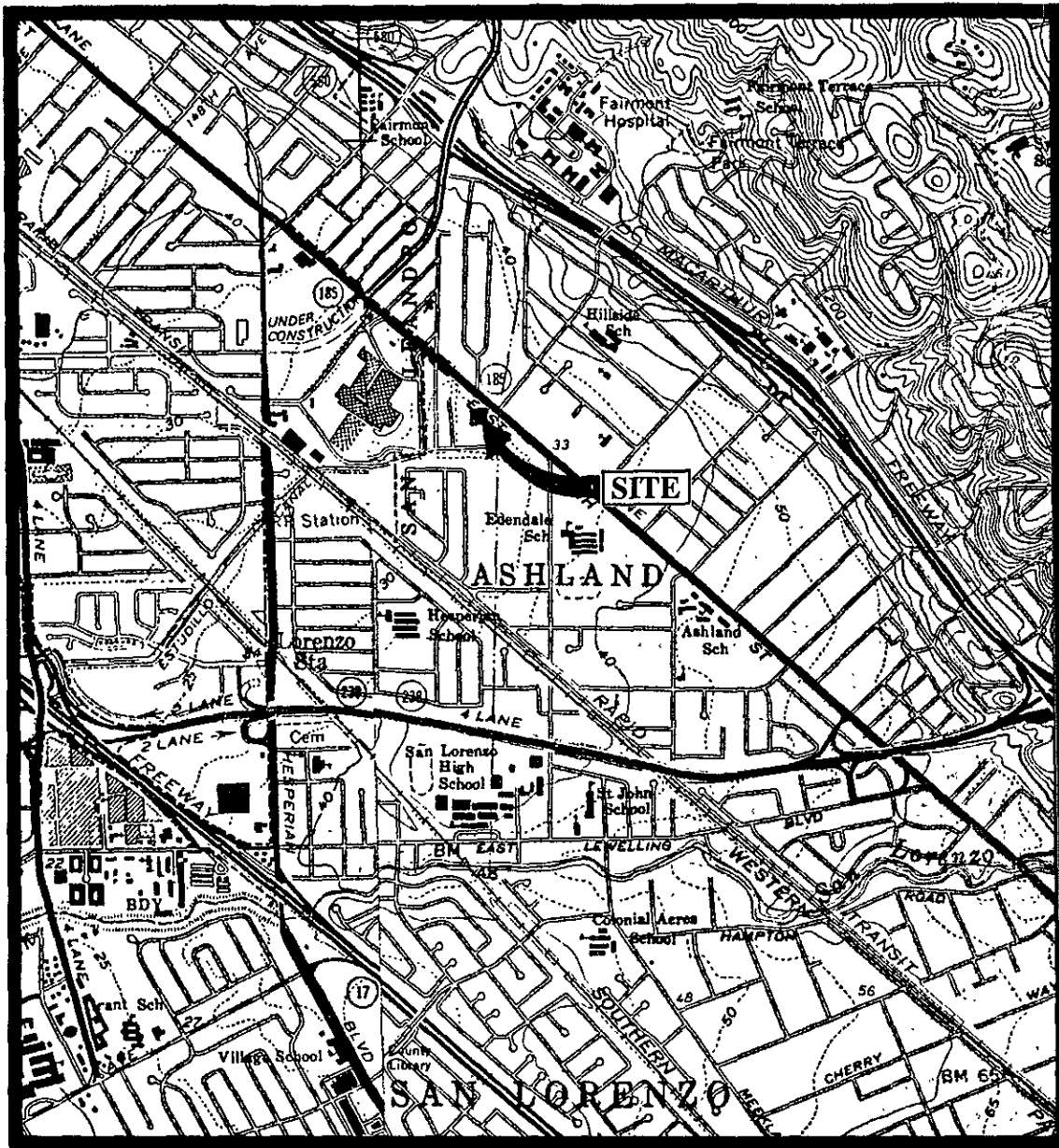
-- Indicates analysis was not performed.

mg/L = milligrams per liter.

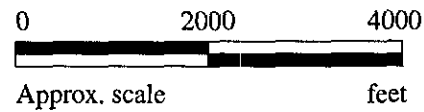
Results are in micrograms per liter (µg/L), unless otherwise indicated.

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

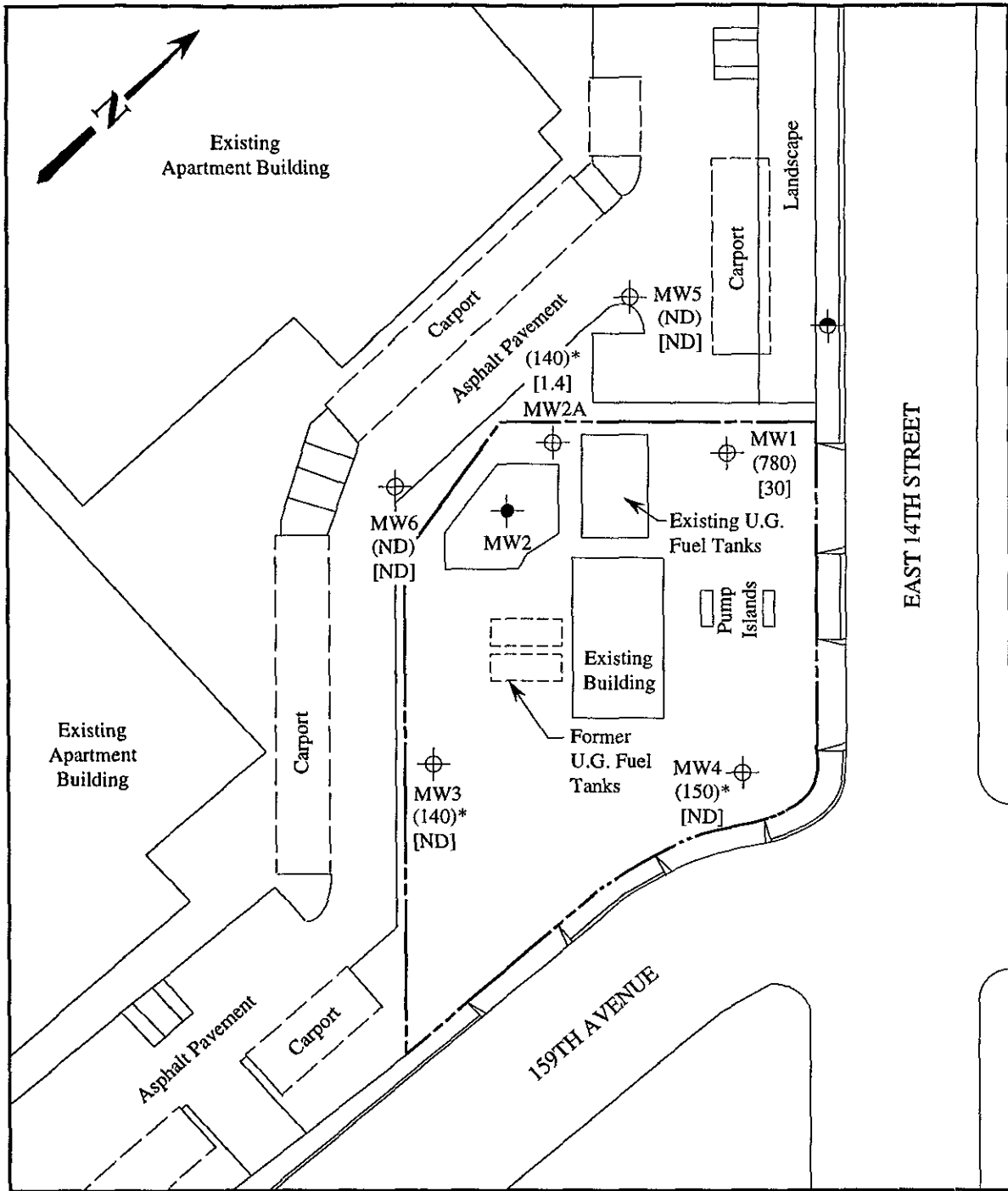
- Laboratory analyses data prior to January 6, 1994, were provided by Kaprealian Engineering, Inc.



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

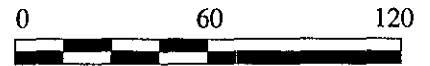


	<p>UNOCAL SERVICE STATION #6277 15803 E. 14TH STREET SAN LEANDRO, CALIFORNIA</p>	<p>LOCATION MAP</p>
--	--	----------------------------------



LEGEND

- ⊕ Monitoring well (existing)
- ⊙ Monitoring well (previously attempted)
- Monitoring well (destroyed February 1, 1990)
- () Concentration of TPH as gasoline in µg/L
- [] Concentration of benzene in µg/L
- ND = Non-detectable



Approx. scale

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

PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUND WATER ON JANUARY 5, 1995



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

**FIGURE
2**



MPDS Services Client Project ID: Unocal #6277, 15803 E 14th St, San Leandro Sampled: Jan 5, 1995
 2401 Stanwell Dr., Ste. 400 Matrix Descript: Water Received: Jan 5, 1995
 Concord, CA 94520 Analysis Method: EPA 5030/8015/8020 Reported: Jan 20, 1995
 Attention: Avo Avedissian First Sample #: 501-0222

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
501-0222	MW-1	780	30	ND	ND	9.1
501-0223	MW-2 <i>A</i>	140*	1.4	ND	ND	ND
501-0224	MW-3	140*	ND	ND	ND	ND
501-0225	MW-4	150*	ND	ND	ND	ND
501-0226	MW-5	ND	ND	ND	ND	ND
501-0227	MW-6	ND	ND	ND	ND	ND

* Hydrocarbons detected did not appear to be gasoline.

Detection Limits:	50	0.50	0.50	0.50	0.50
--------------------------	-----------	-------------	-------------	-------------	-------------

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

Client Project ID: Unocal #6277, 15803 E 14th St, San Leandro
 Matrix Descript: Water
 Analysis Method: EPA 5030/8015/8020
 First Sample #: 501-0222

Sampled: Jan 5, 1995
 Received: Jan 5, 1995
 Reported: Jan 20, 1995

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
501-0222	MW-1	Gasoline	5.0	1/13/95	HP-5	94
501-0223	MW-2 <i>A</i>	Discrete Peak*	1.0	1/11/95	HP-4	111
501-0224	MW-3	Discrete Peak*	1.0	1/11/95	HP-4	112
501-0225	MW-4	Discrete Peak*	1.0	1/11/95	HP-4	109
501-0226	MW-5	--	1.0	1/12/95	HP-2	96
501-0227	MW-6	--	1.0	1/11/95	HP-5	93

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
 Project Manager

Please Note:
 * "Discrete Peak" refers to an unidentified peak in the EPA 8010 range.





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

Client Project ID: Unocal #6277, 15803 E 14th St, San Leandro
 Sample Descript: Water
 Analysis Method: EPA 5030/8010
 Lab Number: 501-0224

Sampled: Jan 5, 1995
 Received: Jan 5, 1995
 Analyzed: Jan 10-13, 1995
 Reported: Jan 20, 1995

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane.....	0.50	N.D.
Bromoform.....	0.50	N.D.
Bromomethane.....	1.0	N.D.
Carbon tetrachloride.....	0.50	N.D.
Chlorobenzene.....	0.50	N.D.
Chloroethane.....	1.0	N.D.
2-Chloroethylvinyl ether.....	1.0	N.D.
Chloroform.....	0.50	N.D.
Chloromethane.....	1.0	N.D.
Dibromochloromethane.....	0.50	N.D.
1,3-Dichlorobenzene.....	0.50	N.D.
1,4-Dichlorobenzene.....	0.50	N.D.
1,2-Dichlorobenzene.....	0.50	N.D.
1,1-Dichloroethane.....	0.50	N.D.
1,2-Dichloroethane.....	0.50	N.D.
1,1-Dichloroethene.....	0.50	N.D.
cis-1,2-Dichloroethene.....	0.50	6.2
trans-1,2-Dichloroethene.....	0.50	N.D.
1,2-Dichloropropane.....	0.50	N.D.
cis-1,3-Dichloropropene.....	0.50	N.D.
trans-1,3-Dichloropropene.....	0.50	N.D.
Methylene chloride.....	5.0	N.D.
1,1,2,2-Tetrachloroethane.....	0.50	N.D.
Tetrachloroethene.....	50	1.100
1,1,1-Trichloroethane.....	0.50	N.D.
1,1,2-Trichloroethane.....	0.50	N.D.
Trichloroethene.....	0.50	18
Trichlorofluoromethane.....	0.50	N.D.
Vinyl chloride.....	1.0	N.D.

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

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
 Project Manager





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

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

QC Sample Group: 5010222-27

Reported: Jan 20, 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#:	5010387	5010387	5010387	5010387
Date Prepared:	1/11/95	1/11/95	1/11/95	1/11/95
Date Analyzed:	1/11/95	1/11/95	1/11/95	1/11/95
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Matrix Spike % Recovery:	65	105	115	120
Matrix Spike Duplicate % Recovery:	65	105	115	117
Relative % Difference:	0.0	0.0	0.0	2.5

LCS Batch#:	2LCS011195	2LCS011195	2LCS011195	2LCS011195
Date Prepared:	1/11/95	1/11/95	1/11/95	1/11/95
Date Analyzed:	1/11/95	1/11/95	1/11/95	1/11/95
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
LCS % Recovery:	84	94	97	96

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

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. 400
 Concord, CA 94520
 Attention: Avo Avedissian

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

QC Sample Group: 5010222-27

Reported: Jan 20, 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#:	5010177	5010177	5010177	5010177
Date Prepared:	1/11/95	1/11/95	1/11/95	1/11/95
Date Analyzed:	1/11/95	1/11/95	1/11/95	1/11/95
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:	95	105	100	100
Matrix Spike Duplicate % Recovery:	105	115	105	105
Relative % Difference:	10	4.5	4.9	4.9

LCS Batch#:	3LCS011195	3LCS011195	3LCS011195	3LCS011195
Date Prepared:	1/11/95	1/11/95	1/11/95	1/11/95
Date Analyzed:	1/11/95	1/11/95	1/11/95	1/11/95
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
LCS % Recovery:	95	94	91	88

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

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. 400
Concord, CA 94520
Attention: Avo Avedissian

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

QC Sample Group: 5010222-27

Reported: Jan 20, 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	Benzene	Toluene	Ethyl Benzene	Xylenes
Batch#:	5010411	5010411	5010411	5010411
Date Prepared:	1/12/95	1/12/95	1/12/95	1/12/95
Date Analyzed:	1/12/95	1/12/95	1/12/95	1/12/95
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:	90	90	95	97
Matrix Spike Duplicate % Recovery:	100	100	105	105
Relative % Difference:	11	11	10	7.9

LCS Batch#:	1LCS011295	1LCS011295	1LCS011295	1LCS011295
Date Prepared:	1/12/95	1/12/95	1/12/95	1/12/95
Date Analyzed:	1/12/95	1/12/95	1/12/95	1/12/95
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
LCS % Recovery:	95	95	100	98

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

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. 400
Concord, CA 94520
Attention: Avo Avedissian

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

QC Sample Group: 5010222-27

Reported: Jan 20, 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	Benzene	Toluene	Ethyl Benzene	Xylenes
Batch#:	5010414	5010414	5010414	5010414
Date Prepared:	1/13/95	1/13/95	1/13/95	1/13/95
Date Analyzed:	1/13/95	1/13/95	1/13/95	1/13/95
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:	100	100	105	102
Matrix Spike Duplicate % Recovery:	105	105	105	103
Relative % Difference:	4.9	4.9	0.0	0.98

LCS Batch#:	Benzene	Toluene	Ethyl Benzene	Xylenes
Date Prepared:	1/13/95	1/13/95	1/13/95	1/13/95
Date Analyzed:	1/13/95	1/13/95	1/13/95	1/13/95
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
LCS % Recovery:	98	107	109	107

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

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. 400
Concord, CA 94520
Attention: Avo Avedissian

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

QC Sample Group: 501-0224

Reported: Jan 20, 1995

QUALITY CONTROL DATA REPORT

ANALYTE	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-benzene	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-benzene
Method:	EPA 8010	EPA 8010	EPA 8010	EPA 8010	EPA 8010	EPA 8010
Analyst:	K. Nill	K. Nill	K. Nill	K. Nill	K. Nill	K. Nill

MS/MSD	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-benzene	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-benzene
Batch#:	5010301	5010301	5010301	5010084	5010084	5010084
Date Prepared:	1/10/95	1/10/95	1/10/95	1/13/95	1/13/95	1/13/95
Date Analyzed:	1/10/95	1/10/95	1/10/95	1/13/95	1/13/95	1/13/95
Instrument I.D.#:	HP5890/7	HP5890/7	HP5890/7	HP5890/6	HP5890/6	HP5890/6
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	10 µg/L	10 µg/L	10 µg/L
Matrix Spike % Recovery:	88	89	92	95	101	93
Matrix Spike Duplicate % Recovery:	104	104	92	111	99	90
Relative % Difference:	17	16	0.0	16	2.0	3.3

LCS Batch#:	LCS011095	LCS011095	LCS011095	LCS011395	LCS011395	LCS011395
Date Prepared:	1/10/95	1/10/95	1/10/95	1/13/95	1/13/95	1/13/95
Date Analyzed:	1/10/95	1/10/95	1/10/95	1/13/95	1/13/95	1/13/95
Instrument I.D.#:	HP5890/7	HP5890/7	HP5890/7	HP5890/6	HP5890/6	HP5890/6
LCS % Recovery:	81	90	91	126	102	92

% Recovery Control Limits:	28-167	35-146	38-150	28-167	35-146	38-150
----------------------------	--------	--------	--------	--------	--------	--------

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, #1271

Signature on File
Alan B. Kemp
Project Manager



M P D S Services, Inc.

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

CHAIN OF CUSTODY

SAMPLER (JOE) HOVSIA AJEMIAN			UNOCAL S/S # <u>6277</u> CITY: <u>San Leandro</u>					ANALYSES REQUESTED							TURN AROUND TIME: Regular	
WITNESSING AGENCY			ADDRESS: <u>15803 E. 14th St.</u>					TPH-GAS BTEX	TPH-DIESEL	TOG	8010					REMARKS
SAMPLE ID NO	DATE	TIME	WATER	GRAB	COMP	NO OF CONT	SAMPLING LOCATION									
MW-1	1-5-95	11:08 P.M.	✓	✓		2 (VOA)	Wells	✓					5010222	Fl.	VOA's preserved	
MW-2A	"	12:35 P.M.	✓	✓		"	"	✓					5010223	↓		
MW-3	"	11:52 A.M.	✓	✓		4 (VOA)	"	✓		✓			5010224	A-D		
MW-4	"	11:00 A.M.	✓	✓		2 (VOA)	"	✓					5010225	A-B		
MW-5	"	10:10 A.M.	✓	✓		"	"	✓					5010226	↓		
MW-6	"	9:28 A.M.	✓	✓		"	"	✓					5010227	↓		

RELINQUISHED BY:		DATE/TIME 6:00 P.M.	RECEIVED BY:	THE FOLLOWING <u>MUST BE</u> COMPLETED BY THE LABORATORY ACCEPTING SAMPLES FOR ANALYSES:	
(SIGNATURE) Joe Demian	1-5-95	(SIGNATURE) [Signature]	12:00	1. HAVE ALL SAMPLES RECEIVED FOR ANALYSIS BEEN STORED ON ICE?	YES
(SIGNATURE) [Signature]	1/6/95 8:00 AM	(SIGNATURE) [Signature]	1:595	2. WILL SAMPLES REMAIN REFRIGERATED UNTIL ANALYZED?	YES
(SIGNATURE) [Signature]	1-6 1:20	(SIGNATURE) [Signature]	1/6/95	3. DID ANY SAMPLES RECEIVED FOR ANALYSIS HAVE HEAD SPACE?	NO
(SIGNATURE)		(SIGNATURE)		4. WERE SAMPLES IN APPROPRIATE CONTAINERS AND PROPERLY PACKAGED?	YES
(SIGNATURE)		(SIGNATURE)		SIGNATURE	TITLE: Analyst
					DATE: 1-5-95