MONITORING
PURGING
DISPOSING
SAMPLING
MPDS SERVICES, INCORPORATED

STID
2422

May 29, 1996

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

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 most recent data report 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

/dr

Enclosure

cc: Mr. David J. Camille

2401 Stanwell Drive, Suite 300, Concord, CA 94520
TEL: (510) 602-5120 FAX: (510) 689-1918

MONITORING
PURGING
DISPOSING
SAMPLING
MPDS SERVICES, INCORPORATED

MPDS-UN6277-09
May 13, 1996

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 April 8, 1996. Prior to sampling, the wells were each purged of between 9 and 10 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. Trip blank and Field blank samples (denoted as ES1 and ES3 respectively) were also collected for quality assurance and control. MPDS Services, Inc. transported the purged ground water to the Unocal Refinery located in Rodeo, California, for treatment and discharge to San Pablo Bay under NPDES permit.

ANALYTICAL RESULTS

The ground water samples were analyzed at Sequoia Analytical Laboratory and were accompanied by properly executed Chain of Custody documentation. The analytical results of the ground water samples collected to date are summarized in Tables 3 and 4. 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

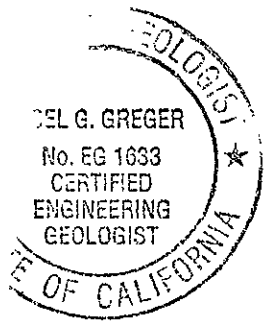
A copy of this report should be sent to Mr. Scott Seery of the Alameda County Health Care Services Agency.

If you have any questions regarding this report, please do not hesitate to call Mr. Joel G. Greger 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. 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 April 8, 1996)						
MW1	22.35	10.15	24.46	0	No	10
MW2A	22.45	11.08	25.23	0	No	10
MW3	22.65	9.57	23.45	0	No	10
MW4	22.46	9.30	22.85	0	No	10
MW5	22.39	6.90	20.53	0	No	10
MW6	22.48	6.36	19.25	0	No	9
(Monitored and Sampled on January 10, 1996)						
MW1	22.30	10.20	24.80	0	No	10
MW2A	22.38	11.15	25.35	0	No	10
MW3	22.60	9.62	23.43	0	No	10
MW4	22.48	9.28	22.52	0	No	9
MW5	22.32	6.97	20.95	0	No	9.5
MW6	22.33	6.51	19.62	0	No	9
(Monitored and Sampled on July 14, 1995)						
MW1	22.26	10.24	24.44	0	No	10
MW2A	22.36	11.17	25.21	0	No	10
MW3	22.54	9.68	23.43	0	No	9.5
MW4	22.37	9.39	22.80	0	No	9.5
MW5	22.32	6.97	20.53	0	No	9.5
MW6	22.38	6.46	19.24	0	No	9
(Monitored and Sampled on April 4, 1995)						
MW1	22.52	9.98	24.88	0	No	10
MW2A	22.59	10.94	25.35	0	No	10
MW3	22.78	9.44	23.45	0	No	10
MW4	22.34	9.42	22.50	0	No	9
MW5	22.54	6.75	20.94	0	No	9.5
MW6	22.61	6.23	19.61	0	No	9

Table 1

Summary of Monitoring Data

Well #	Well Casing Elevation (feet)*
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

Record of the Temperature, Conductivity, and pH values
in the Monitoring Wells During Purging and Prior to Sampling

Well #	Gallons per Casing Volume	Time	Gallons Purged	Casing Volumes Purged	Temperature (°F)	Conductivity ([µmhos/cm] x1000)	pH
			(Measured on April 8, 1996)				
MW1	2.43	12:25	0	0	62.6	1.14	7.51
			2.5	1.03	65.6	1.12	7.52
			5	2.06	66.7	1.12	7.50
			7.5	3.09	67.5	1.13	7.50
		12:35	10	4.12	67.8	1.08	7.50
MW2A	2.41	11:50	0	0	64.5	1.21	7.37
			2.5	1.04	65.2	1.21	7.34
			5	2.07	66.1	1.11	7.32
			7.5	3.11	66.9	1.22	7.35
		12:00	10	4.15	67.4	1.11	7.36
MW3	2.36	10:25	0	0	63.2	1.05	7.45
			2.5	1.06	63.4	1.08	7.45
			5	2.12	65.9	1.01	7.44
			7.5	3.18	66.3	1.04	7.47
		10:35	10	4.24	67.1	1.01	7.48
MW4	2.30	11:05	0	0	60.5	1.02	7.60
			2.5	1.09	67.0	0.98	7.55
			5	2.17	68.3	0.96	7.56
			7.5	3.26	68.9	0.96	7.55
		11:15	10	4.35	69.2	0.94	7.54
MW5	2.32	9:00	0	0	56.6	0.92	7.31
			2.5	1.08	58.8	0.88	7.41
			5	2.16	64.3	1.05	7.45
			7.5	3.23	66.2	0.98	7.47
		9:10	10	4.31	67.7	1.04	7.49
MW6	2.19	9:35	0	0	62.0	1.08	7.66
			2	0.91	66.4	1.07	7.45
			4	1.83	66.7	1.21	7.40
			6	2.74	66.9	1.18	7.40
		9:45	9	4.11	67.3	1.21	7.40

Table 3

Summary of Laboratory Analyses
Water

Well #	Date	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE
MW1	4/8/96	2,100	43	27	7.4	21	480
	1/10/96⩛	220	35	ND	2.0	7.6	--
	7/14/95	410	77	ND	7.4	30	--
	4/4/95	410♦	19	ND	ND	ND	--
	1/5/95	780	30	ND	ND	9.1	--
	10/6/94	970	19	ND	ND	13	--
	7/7/94	2,100♦♦	250	ND	57	200	--
	4/4/94	1,100	15	ND	ND	7.4	--
	1/6/94	260	21	ND	2.5	14	--
	10/6/93	1,200♦	36	ND	ND	23	--
	7/1/93	510	100	0.79	5.7	52	--
	4/2/93	690	94	0.73	5.3	39	--
	1/29/93	740♦♦	69	ND	3.8	43	--
	10/20/92	720	110	1.4	18	110	--
	7/20/92	630	100	2.8	6.3	52	--
	4/23/92	530	100	7.9	4.6	60	--
	1/13/92	450	240	4.6	8.6	73	--
	9/10/91	280	38	3.1	4.1	22	--
	6/10/91	310	1.5	ND	ND	0.31	--
	3/15/91	110	21	ND	ND	8.4	--
	12/14/90	450	150	6.8	0.28	49	--
	9/19/90	140	ND	ND	ND	3.5	--
	6/25/90	310	10	0.89	0.37	2.1	--
	3/29/90	320	12	1.6	0.31	3.5	--
	12/12/89	340	100	13	3.4	44	--
	9/13/89	550	32	17	3.4	52	--
	6/6/89	590	ND	ND	ND	ND	--
MW2A	4/8/96	ND	ND	ND	ND	ND	ND
	1/10/96	89	1.2	ND	ND	0.58	--
	7/14/95	60	3.0	ND	1.3	2.4	--
	4/4/95	67♦	1.0	ND	ND	ND	--
	1/5/95	140♦	1.4	ND	ND	ND	--
	10/6/94	71	6.4	ND	2.1	2.4	--
	7/7/94	90	5.2	ND	1.5	2.2	--
	4/4/94	80	8.0	ND	1.4	1.5	--
	1/6/94	110	2.6	ND	1.6	1.7	--
	10/6/93	110♦	12	ND	7.4	1.4	--
	7/1/93	74♦	0.75	ND	ND	ND	--
	4/2/93	120	7.2	ND	5.8	1.2	--
	10/20/92	96	2.8	ND	1.8	1.6	--
	7/20/92	99	8.6	ND	2.4	0.95	--

Table 3

Summary of Laboratory Analyses
Water

Well #	Date	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE
MW2A (Cont)	4/23/92	190	15	ND	15	2.0	--
	1/13/92	160	11	2.0	10	5.9	--
	9/10/91	180	8.7	0.93	15	13	--
	6/10/91	54	1.2	ND	ND	0.69	--
	3/15/91	160	2.5	ND	ND	51	--
MW2	12/12/89	660	220	6.6	13	36	--
	9/13/89	170	2.0	0.38	ND	9.5	--
	6/6/89	77	ND	ND	ND	ND	--
MW3	4/8/96	ND	ND	ND	ND	ND	ND
	1/10/96	100♦	ND	ND	ND	ND	--
	7/14/95	130♦	ND	ND	1.3	4.2	--
	4/4/95	100♦	0.62	ND	ND	ND	--
	1/5/95	140♦	ND	ND	ND	ND	--
	10/6/94	93♦	ND	ND	ND	ND	--
	7/7/94	190♦	ND	ND	ND	ND	--
	4/4/94	170♦	ND	ND	ND	ND	--
	1/6/94	140♦	ND	ND	ND	ND	--
	10/6/93	140♦	ND	ND	ND	ND	--
	7/1/93	120♦	ND	ND	ND	ND	--
	4/2/93	130♦	ND	ND	ND	ND	--
	1/29/93	130♦	0.84	ND	ND	ND	--
	10/20/92	180♦	ND	ND	ND	ND	--
	7/20/92	120♦	ND	ND	ND	ND	--
	4/23/92	150♦	1.6	ND	ND	ND	--
	1/13/92	120♦	ND	ND	ND	ND	--
	9/10/91	170	ND	ND	ND	ND	--
	6/10/91	160	0.65	ND	ND	ND	--
	3/15/91	150	ND	ND	ND	0.45	--
	12/14/90	150	ND	ND	ND	ND	--
	9/19/90	74	0.74	ND	ND	ND	--
	6/25/90	190	1.5	0.68	ND	5.3	--
	3/29/90	85	ND	ND	ND	ND	--
	12/12/89	120	6.7	0.64	0.46	1.5	--
	9/13/89	76	ND	ND	ND	ND	--
	6/6/89	32	ND	ND	ND	ND	--

Table 3

Summary of Laboratory Analyses
Water

Well #	Date	TPH as Gasoline	Benzene	Toluene	Ethyl Benzene	Xylenes	MTBE
MW4	4/8/96	ND	ND	ND	ND	ND	ND
	1/10/96	100♦	ND	ND	ND	1.8	--
	7/14/95	89♦	ND	ND	0.97	0.52	--
	4/4/95	82♦	ND	ND	ND	ND	--
	1/5/95	150♦	ND	ND	ND	ND	--
	10/6/94	78♦	ND	ND	ND	ND	--
	7/7/94	150♦	ND	ND	ND	ND	--
	4/4/94	120	0.76	0.76	ND	0.98	--
	1/6/94	100♦	ND	ND	ND	ND	--
	10/6/93	130♦	ND	ND	ND	ND	--
	7/1/93	91♦	ND	ND	ND	ND	--
	4/2/93	110♦	ND	ND	ND	ND	--
	1/29/93	130♦	0.95	ND	ND	ND	--
	10/20/92	110♦	ND	ND	ND	ND	--
	7/20/92	80♦	ND	ND	ND	ND	--
	4/23/92	120♦	ND	ND	ND	ND	--
	1/13/92	58♦	ND	ND	ND	ND	--
	9/10/91	56	ND	ND	ND	ND	--
	6/10/91	64	ND	ND	ND	ND	--
	3/15/91	53	ND	ND	ND	ND	--
	12/14/90	54	ND	ND	ND	ND	--
	9/19/90	61	ND	ND	ND	ND	--
	6/25/90	66	ND	ND	ND	ND	--
	3/29/90	120	0.39	ND	ND	ND	--
	12/12/89	97	4.6	ND	ND	ND	--
	9/13/89	77	ND	ND	ND	ND	--
	6/6/89	37	ND	ND	ND	ND	--
MW5	4/8/96	ND	ND	ND	ND	ND	ND
	1/10/96	50♦	ND	ND	ND	ND	--
	7/14/95	ND	ND	0.91	ND	1.1	--
	4/4/95	ND	ND	ND	ND	ND	--
	1/5/95	ND	ND	ND	ND	ND	--
	10/6/94	ND	ND	ND	ND	ND	--
	7/7/94	72♦	ND	ND	ND	ND	--
	4/4/94	65♦	ND	ND	ND	ND	--
	1/6/94	62♦	ND	ND	ND	ND	--
	10/6/93	60♦	ND	ND	ND	ND	--
	7/1/93	54♦	ND	ND	ND	ND	--
	4/2/93	65♦	ND	ND	ND	ND	--

Table 3

Summary of Laboratory Analyses
Water

Well #	Date	TPH as Gasoline	Benzene	Toluene	Ethyl Benzene	Xylenes	MTBE
MW6	4/8/96	ND	ND	ND	ND	ND	ND
	1/10/96	53♦	ND	ND	ND	ND	--
	7/14/95	ND	ND	ND	ND	ND	--
	4/4/95	ND	ND	ND	ND	ND	--
	1/5/95	ND	ND	ND	ND	ND	--
	10/6/94	ND	ND	ND	ND	ND	--
	7/7/94	ND	ND	ND	ND	ND	--
	4/4/94	57♦	ND	ND	ND	ND	--
	1/6/94	53♦	ND	ND	ND	ND	--
	10/6/93	ND	ND	ND	ND	ND	--
	7/1/93	ND	ND	ND	ND	ND	--
	4/2/93	ND	ND	ND	ND	ND	--

∀ 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.

♦ 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.

MTBE = methyl tert butyl ether.

ND = Non-detectable.

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 January 6, 1994, were provided by Kaprealian Engineering, Inc.

Table 4

Summary of Laboratory Analyses
Water

Well #	Date	TPH as Diesel	Tetra-chloroethene	Trichloro-ethene	1,2-Dichloro-ethane	Cis-1,2-dichloro-ethene	Total Oil & Grease (mg/L)
MW1	4/04/94*	--	390	38	ND	17	--
	4/2/93	ND	--	--	--	--	--
	1/29/93	ND	300	ND	ND	ND	--
	10/20/92	ND	230	22	ND	16	--
	7/20/92	62♦	200	7.4	ND	ND	--
MW2	4/2/93	ND	--	--	--	--	--
	12/12/89	1,700	30	9.0	ND	ND	1.2
	9/13/89	ND	18	6.1	4.2	1.2	ND
	6/6/89	ND	110	4.4	2.8	ND	ND
MW2A	9/10/93	65	--	--	--	--	--
	1/29/93	ND	140	10	ND	ND	--
	10/20/92	ND	64	11	ND	ND	--
	7/20/92	ND	35	7.2	ND	4.8	ND
	4/23/92	ND	17	5.6	ND	1.9	ND
	1/13/92**	ND	33	ND	ND	2.1	ND
	6/10/91	100	150	10	ND	ND	ND
	3/15/91	ND	67	8.2	ND	2.6	ND
MW3	1/10/96	--	950	ND	ND	ND	--
	1/5/95	--	1,100	18	ND	6.2	--
	1/6/94	--	960	ND	ND	ND	--
	4/2/93	ND	--	--	--	--	--
	1/29/93	ND	980	ND	ND	ND	--
	10/20/92	ND	1,100	20	ND	ND	--
	7/20/92	ND	1,400	25	ND	ND	--
MW4	1/29/93	ND	950	ND	ND	ND	--
	7/20/92	ND	440	11	ND	ND	--
	4/2/93	ND	--	--	--	--	--
	10/20/92	ND	360	17	ND	ND	--
MW5	4/2/93	ND	190	ND	ND	ND	--
MW6	4/2/93	ND	71	ND	ND	ND	--

Table 4

Summary of Laboratory Analyses
Water

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* 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 diesel.

ND = Non-detectable.

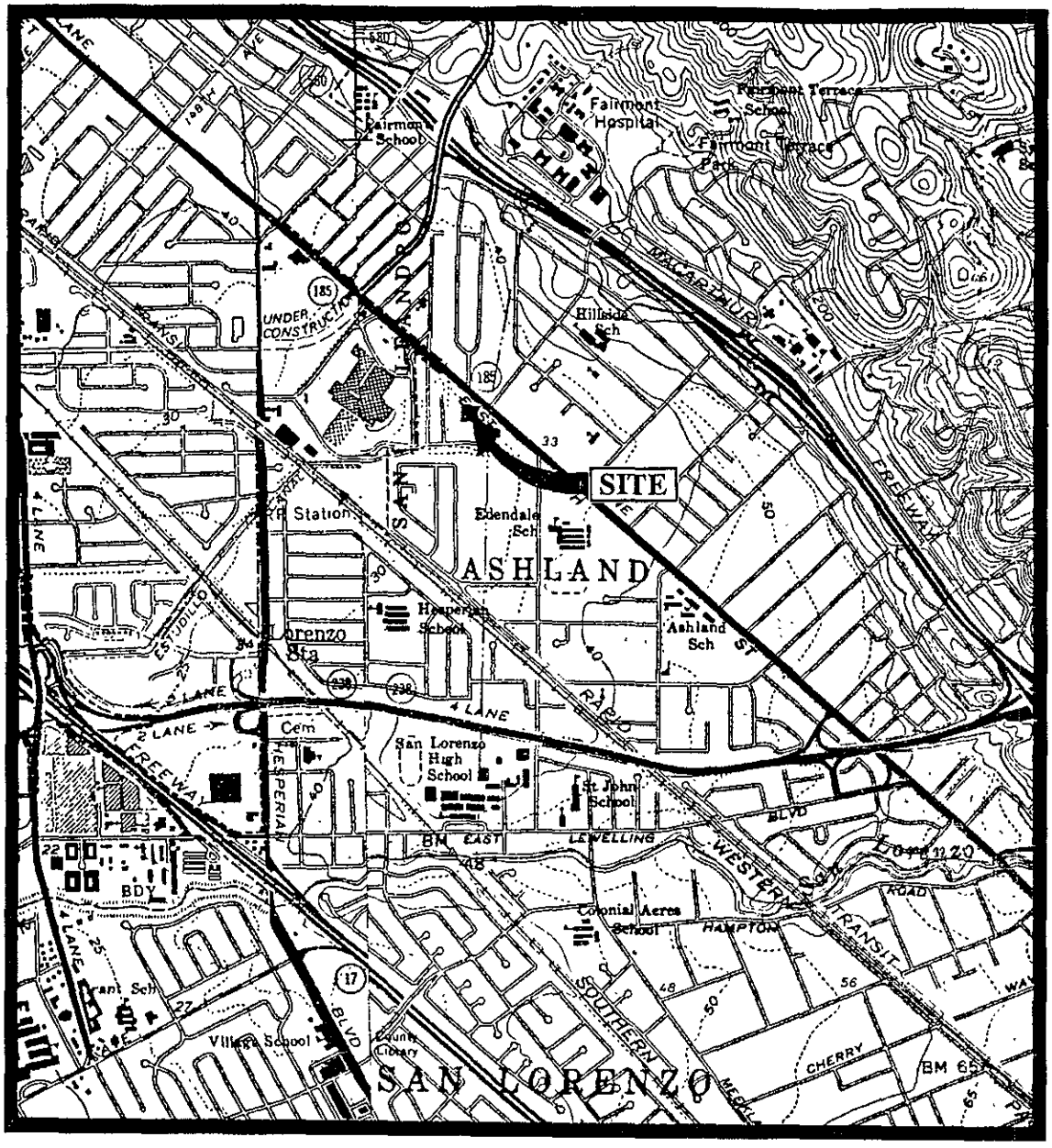
-- Indicates analysis was not performed.

mg/L = milligrams per liter.

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

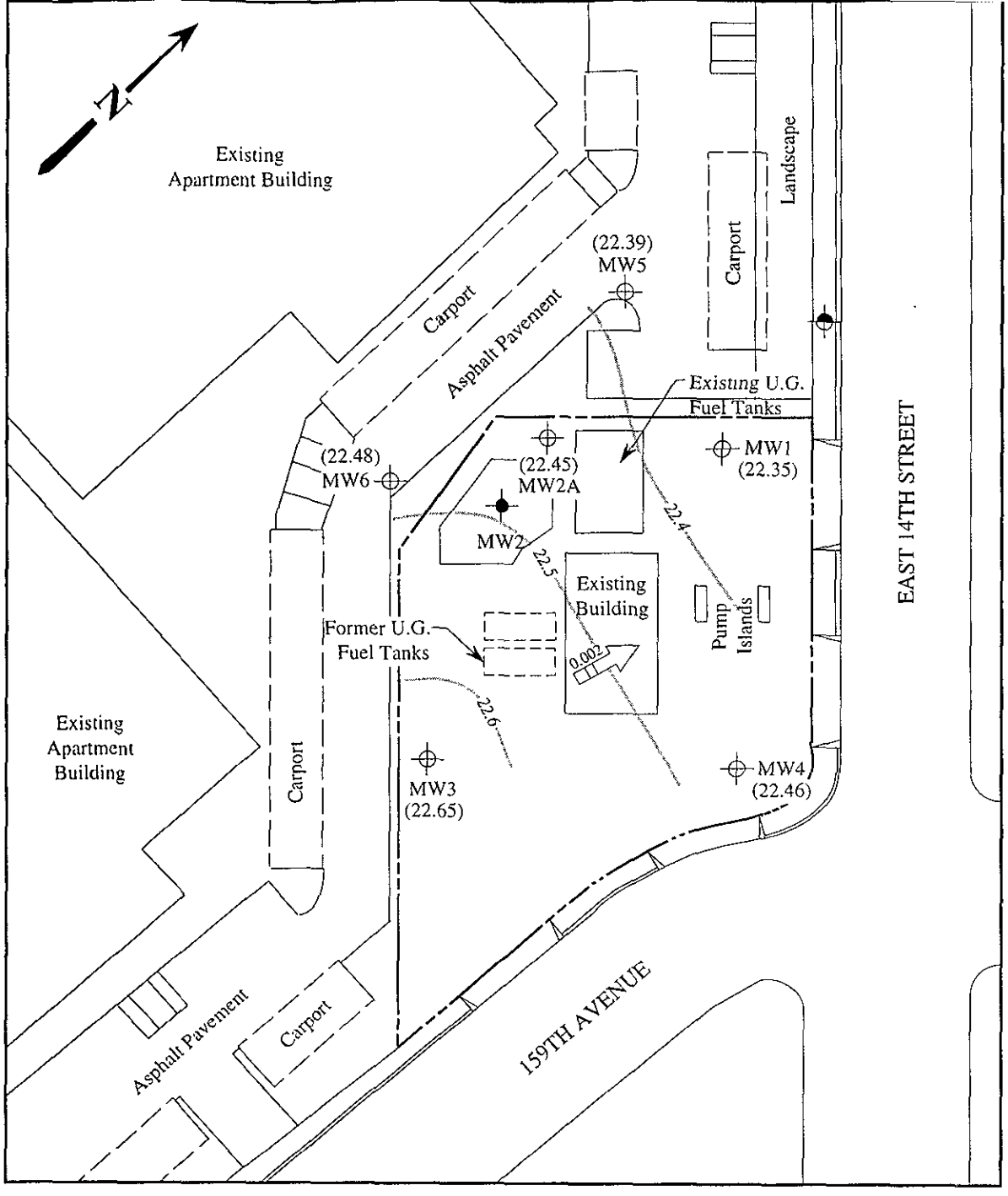
Note: All EPA method 8010 constituents were non-detectable in all of the ground water samples, except as indicated.

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)

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



LEGEND

- Monitoring well (existing)
- Monitoring well (previously attempted)
- Monitoring well (destroyed February1, 1990)
- ( ) Ground water elevation in feet above Mean Sea Level
- #.## Direction of ground water flow with approximate hydraulic gradient
- Contours of ground water elevation

0 60 120

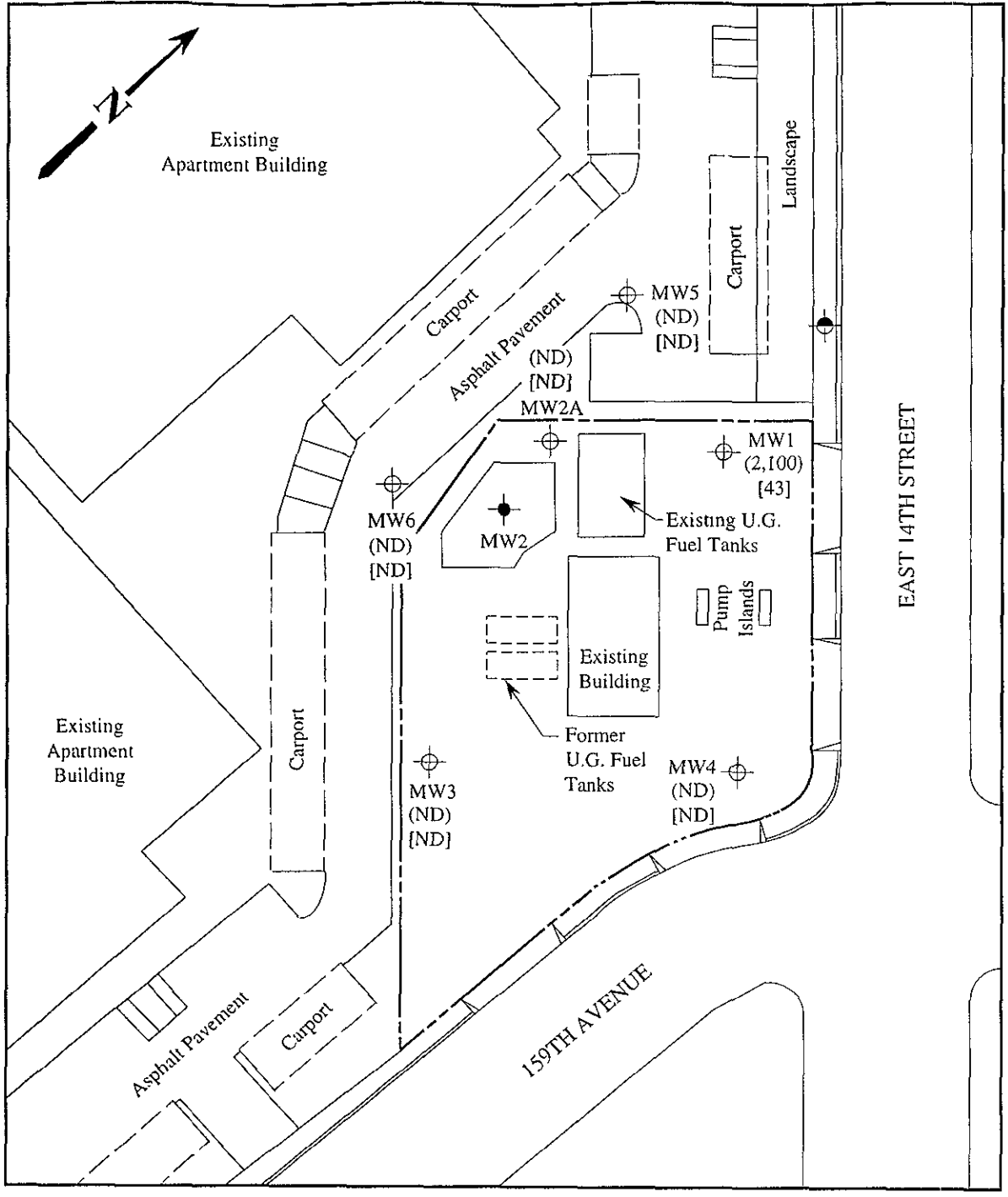
Approx. scale feet

POTENTIOMETRIC SURFACE MAP FOR THE APRIL 8, 1996 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

0 60 120

Approx. scale feet

PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUND WATER ON APRIL 8, 1996

mpds SERVICES, INCORPORATED

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

FIGURE
2

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

MPDS Services	Client Project ID:	Unocal #6277,15803 E. 14th St.,San Leandro	Sampled: Apr 8, 1996
2401 Stanwell Dr., Ste. 300	Matrix Descript:	Water	Received: Apr 8, 1996
Concord, CA 94520	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: Apr 30, 1996
Attention: Jarrel Crider	First Sample #:	604-0883	

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
604-0883	MW-1	2,100	43	27	7.4	21
604-0884	MW-2A	ND	ND	ND	ND	ND
604-0885	MW-3	ND	ND	ND	ND	ND
604-0886	MW-4	ND	ND	ND	ND	ND
604-0887	MW-5	ND	ND	ND	ND	ND
604-0888	MW-6	ND	ND	ND	ND	ND
604-0889	ES-1	ND	ND	ND	ND	ND
604-0890	ES-3	ND	ND	ND	ND	ND
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

6040883.MPD <1>

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

MPDS Services	Client Project ID:	Unocal #6277,15803 E. 14th St.,San Leandro	Sampled:	Apr 8, 1996
2401 Stanwell Dr., Ste. 300	Matrix Descript:	Water	Received:	Apr 8, 1996
Concord, CA 94520	Analysis Method:	EPA 5030/8015 Mod./8020	Reported:	Apr 30, 1996
Attention: Jarrel Crider	First Sample #:	604-0883		

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
604-0883	MW-1	Gasoline	20	4/20/96	HP-2	170
604-0884	MW-2A	--	1.0	4/20/96	HP-2	113
604-0885	MW-3	--	1.0	4/20/96	HP-2	108
604-0886	MW-4	--	1.0	4/20/96	HP-2	109
604-0887	MW-5	--	1.0	4/20/96	HP-2	110
604-0888	MW-6	--	1.0	4/20/96	HP-2	98
604-0889	ES-1	--	1.0	4/23/96	HP-2	90
604-0890	ES-3	--	1.0	4/23/96	HP-2	102

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

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

Client Project ID: Unocal #6277,15803 E. 14th St ,San Leandro
Sample Descript: Water
Analysis for: MTBE (Modified EPA 8020)
First Sample #: 604-0883

Sampled: Apr 8, 1996
Received: Apr 8, 1996
Analyzed: Apr 20, 1996
Reported: Apr 30, 1996

LABORATORY ANALYSIS FOR: MTBE (Modified EPA 8020)

Sample Number	Sample Description	Detection Limit µg/L	Sample Result µg/L
604-0883	MW-1	40	480
604-0884	MW-2A	40	N.D.
604-0885	MW-3	40	N.D.
604-0886	MW-4	40	N.D.
604-0887	MW-5	40	N.D.
604-0888	MW-6	40	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

6040883.MPD <3>

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

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

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

QC Sample Group: 6040883-890

Reported: Apr 30, 1996

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	L. Huang	L. Huang	L. Huang	L. Huang
MS/MSD Batch#:	6041324	6041324	6041324	6041324
Date Prepared:	4/23/96	4/23/96	4/23/96	4/23/96
Date Analyzed:	4/23/96	4/23/96	4/23/96	4/23/96
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:	100	93	100	100
Matrix Spike Duplicate % Recovery:	110	98	110	105
Relative % Difference:	9.5	4.9	9.5	4.8
LCS Batch#:	2LCS042396	2LCS042396	2LCS042396	2LCS042396
Date Prepared:	4/23/96	4/23/96	4/23/96	4/23/96
Date Analyzed:	4/23/96	4/23/96	4/23/96	4/23/96
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
LCS % Recovery:	105	105	110	108
% Recovery Control Limits:	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL, #1271

Signature on File

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

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

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

QC Sample Group: 6040883-890

Reported: Apr 30, 1996

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	Z.T.	Z.T.	Z.T.	Z.T.
MS/MSD Batch#:	MS042096	MS042096	MS042096	MS042096
Date Prepared:	4/20/96	4/20/96	4/20/96	4/20/96
Date Analyzed:	4/20/96	4/20/96	4/20/96	4/20/96
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	95	99	97	90
Matrix Spike Duplicate % Recovery:	94	98	97	93
Relative % Difference:	1.0	1.0	0.0	3.3
LCS Batch#:	2LCS042096	2LCS042096	2LCS042096	2LCS042096
Date Prepared:	4/20/96	4/20/96	4/20/96	4/20/96
Date Analyzed:	4/20/96	4/20/96	4/20/96	4/20/96
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
LCS % Recovery:	85	81	80	86
% Recovery Control Limits:	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL, #1894

Signature on File

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.

MPDS SERVICES, INCORPORATED
2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel: (510) 602-5100, Fax: (510) 689-1918

CHAIN OF CUSTODY

9604164

SAMPLER: RAY MARANGOSIAN

WITNESSING AGENCY:

UNOCAL S/S # 6227 CITY: SAN LEANDRO

ADDRESS: 15803 E 14TH ST

TURN AROUND TIME: REGULAR

SAMPLE ID NO.	DATE	TIME	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	ANALYSES REQUESTED: TPH-GAS BTEX	TPH-DIESEL	TOG	8010	MTBE			REMARKS
MW1	4-8-96	12:45	X	X		2	Well	X				X		6040883	AB
MW2A	"	12:10	X	X		4	"	X				X		6040884	↓
MW3	"	10:45	X	X		4	"	X				X		6040885	
MW4	"	11:25	X	X		4	"	X				X		6040886	
MW5	"	9:20	X	X		4	"	X				X		6040887	
MW6	"	9:55	X	X		4	"	X				X		6040888	

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME
Ray Marangosian (SIGNATURE)	4.8.96 15:10	(SIGNATURE)	04/08/96 1500
(SIGNATURE)		(SIGNATURE)	4-9
(SIGNATURE)	4-9	(SIGNATURE)	04/9 1630
(SIGNATURE)		(SIGNATURE)	
(SIGNATURE)		(SIGNATURE)	

THE FOLLOWING MUST BE COMPLETED BY THE LABORATORY ACCEPTING SAMPLES FOR ANALYSES:

1. HAVE ALL SAMPLES RECEIVED FOR ANALYSIS BEEN STORED ON ICE? Y
2. WILL SAMPLES REMAIN REFRIGERATED UNTIL ANALYZED? Y
3. DID ANY SAMPLES RECEIVED FOR ANALYSIS HAVE HEAD SPACE? N
4. WERE SAMPLES IN APPROPRIATE CONTAINERS AND PROPERLY PACKAGED? Y

SIGNATURE: [signature] TITLE: analyst DATE: 04/08/96.

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.

mpds SERVICES, INCORPORATED
2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel: (510) 602-5100, Fax: (510) 689-1918

CHAIN OF CUSTODY

9604164

SAMPLER: RAY MARANGOSIAN

WITNESSING AGENCY:

UNOCAL S/S # 6277 CITY: SAN LEANDRO

ADDRESS: 15803 E 14TH ST

ANALYSES REQUESTED

TURN AROUND TIME: REGULAR

REMARKS:

SAMPLE ID NO.	DATE	TIME	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPH-GAS BTEX	TPH-DIESEL	TOG	8010				
ES 1	4.8.96		✓	✓		1		X						6040889	
ES 3	"		✓	✓		1		X						6040890	

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME
Ray Marangosian	4-8-96 15:10	Tony McMahon	04/08/96
(SIGNATURE)		(SIGNATURE)	1500 4-9
(SIGNATURE)	4-9	(SIGNATURE)	4/9 1630
(SIGNATURE)		(SIGNATURE)	
(SIGNATURE)		(SIGNATURE)	

THE FOLLOWING MUST BE COMPLETED BY THE LABORATORY ACCEPTING SAMPLES FOR ANALYSES:

1. HAVE ALL SAMPLES RECEIVED FOR ANALYSIS BEEN STORED ON ICE? Y
2. WILL SAMPLES REMAIN REFRIGERATED UNTIL ANALYZED? Y
3. DID ANY SAMPLES RECEIVED FOR ANALYSIS HAVE HEAD SPACE? N
4. WERE SAMPLES IN APPROPRIATE CONTAINERS AND PROPERLY PACKAGED? Y

SIGNATURE: Tony McMahon TITLE: analyst DATE: 04/08/96 1520

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 HN03. All other containers are unpreserved.