Reviewed on 5/12/95 by JK Leech
See notes to file.

MONITORING PURGING DISPOSING SAMPLING

MPDS SERVICES, INCORPORATED

April 26, 1995

ENVIRONMENTAL PROTECTION
95 APR 27 PM 1:43

Ms. Juliet Shin
Alameda County Health Care Services
1131 Harbor Bay Parkway
Alameda, CA 94501

RE: Unocal Service Station #5760
376 Lewelling Boulevard
San Lorenzo, California

Dear Ms. Shin:

Per the request of the Unocal Corporation Project Manager, Ms. Tina R. Berry, enclosed please find our report (MPDS-UN5760-06) dated April 4, 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) 277-2321.

Sincerely,

MPDS Services, Inc.

Jarrel F. Crider

/jfc

Enclosure

cc: Ms. Tina R. Berry

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

Correspondence File

PACIFIC
ENVIRONMENTAL
GROUP, INC.

ENVIRONMENTAL
PROTECTION

95 APR 21 PM 1:54

April 19, 1995
Project 310-058.3A

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

Re: Unocal Corporation
Quarterly Summary Report
First Quarter 1995

Dear Mr. Hiett:

As directed by Ms. Tina Berry of Unocal Corporation, Pacific Environmental Group, Inc. is forwarding the quarterly summary report for the following location:

Service Station	Location
5760	376 Lewelling Boulevard, San Lorenzo

If you have questions or comments, please do not hesitate to contact our office at (408) 441-7500.

Sincerely,

Pacific Environmental Group, Inc.

Joe Muzzio
Project Geologist

Enclosure

cc: Ms. Tina Berry, Unocal Corporation
Ms. Juliet Shin, Alameda County Environmental Health Care

2025 Gateway Place, Suite 440, San Jose, California 95110 (408) 441-7500 FAX (408) 441-7539

Quarterly Summary Report
First Quarter 1995

Unocal Service Station 5760
376 Lewelling Boulevard
San Lorenzo, California

City/County ID #: None
County: Alameda

BACKGROUND

The underground storage tanks were removed and replaced in November 1987. Currently there are nine monitoring wells on-site. Groundwater monitoring and sampling of wells began in February 1988. A remedial action plan was submitted during the third quarter 1994.

RECENT QUARTER ACTIVITIES

Design of soil vapor and groundwater extraction and remediation systems in progress. Prepared and submitted application for Permit to Construct from the Bay Area Air Quality Management District. Performed liaison with the Alameda County Health Care Services Agency to determine the permits required to begin construction of the remedial system.

NEXT QUARTER ACTIVITIES

Groundwater monitoring and sampling for the second quarter 1995 will be performed. Remedial system design will be completed, all necessary permits for construction will be obtained, bid packages will be submitted, and construction will begin.

CHARACTERIZATION/REMEDIAL STATUS

Soil contamination delineated? Yes.
Dissolved groundwater delineated? No.
Free product delineated? Yes.
Amount of groundwater contaminant recovered this quarter? Not applicable.
Soil remediation in progress? No.
Anticipated start? Third quarter 1995.
Anticipated completion date? Unknown.
Dissolved/free product remediation in progress? No.
Anticipated start? Third Quarter 1995.
Anticipated completion? Unknown.

CONSULTANT: Pacific Environmental Group, Inc.

MONITORING
PURGING
DISPOSING
SAMPLING
mpds SERVICES, INCORPORATED

MPDS-UN5760-06
April 4, 1995

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

Attention: Ms. Tina R. Berry

RE: Quarterly Data Report
Unocal Station Service #5760
376 Lewelling Boulevard
San Lorenzo, California

Dear Ms. Berry:

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 March 9, 1995. Prior to sampling, the wells were each purged of between 9 and 22 gallons of water. During purging operations, the field parameters pH, temperature, and electrical conductivity could not be measured due to a heavy storm. 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 Table 2. 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 Ms. Juliet Shin 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
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 March 9, 1995)						
U-1	24.38	15.82	30.10	0	No	22
U-2	24.30	16.96	30.00	0	No	20
U-3	24.05	15.20	25.02	0	No	15
U-4	24.12	16.16	27.92	0	No	17
U-5	23.96	15.35	28.46	0	No	9
U-6	23.94	13.74	28.34	0	No	10
U-7	23.75	13.36	35.00	0	No	15
U-8	24.01	14.56	29.90	0	No	11
U-9	23.81	13.50	28.26	0	No	11
(Monitored and Sampled on December 5, 1994)						
U-1	23.53	16.67	29.90	0	No	20
U-2	22.44	18.82	29.92	0	No	16.5
U-3	22.17	17.08	25.02	0	No	12
U-4	22.20	18.08	27.87	0	No	15
U-5	22.08	17.23	28.40	0	No	8
U-6	22.08	15.60	28.28	0	No	9
U-7	22.01	15.10	34.98	0	No	14
U-8	22.25	16.32	29.83	0	No	9.5
U-9	21.88	15.43	28.20	0	No	9
(Monitored and Sampled on September 7, 1994)						
U-1	22.03	18.17	30.00	0	No	18
U-2	21.98	19.28	29.98	0	No	16
U-3	21.64	17.61	24.72	0	No	11
U-4	21.76	18.52	27.88	0	No	14
U-5	21.58	17.73	28.26	0	No	8
U-6	21.48	16.20	28.32	0	No	8.5
U-7	21.39	15.72	35.00	0	No	14
U-8	21.70	16.87	29.70	0	No	9
U-9	21.25	16.06	28.23	0	No	8.5

TABLE 1 (Continued)

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 9, 1994)						
U-1	22.78	17.42	30.21	0	No	19
U-2	23.00	18.26	29.98	0	No	17.5
U-3	22.66	16.60	25.04	0	No	13
U-4	22.72	17.53	27.88	0	No	15.5
U-5	22.61	16.70	28.28	0	No	8
U-6	22.50	15.18	28.09	0	No	9
U-7	22.41	14.70	35.02	0	No	14
U-8	22.71	15.86	29.74	0	No	10
U-9	22.26	15.05	28.18	0	No	9

Well #	Well Casing Elevation (feet)*
U-1	40.20
U-2	41.26
U-3	39.25▲
U-4	40.28▲
U-5	39.31
U-6	37.68
U-7	37.11
U-8	38.57
U-9	37.31

♦ The depth to water level and total depth measurements were taken from the top of the well casings.

* The elevation of the top of the well casing are relative to Mean Sea Level.

▲ Recently remeasured levels. Prior to September 7, 1994, the respective top of well casing levels were; U-3 = 39.26 ft., U-4 = 40.25 ft.

TABLE 2

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	TPH as Gasoline	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes
3/09/95▼	U-1	49,000	1,500	860	3,200	1,900	10,000
	U-2	ND	ND	ND	ND	ND	ND
	U-3	100,000	54,000	2,300	3,300	4,800	21,000
	U-4	ND	ND	ND	ND	ND	ND
	U-5	ND	ND	ND	ND	ND	ND
	U-6	2,500	320	29	ND	70	120
	U-7	ND	ND	ND	ND	ND	ND
	U-8	ND	ND	ND	ND	ND	ND
	U-9	2,500**	5,800	ND	ND	ND	ND
12/05/94	U-1	1,300		55	20	16	330
	U-2	ND		ND	ND	ND	ND
	U-3	140,000		3,100	5,100	4,900	21,000
	U-4	ND		ND	ND	ND	ND
	U-5	ND		ND	ND	ND	ND
	U-6	450**		ND	ND	ND	ND
	U-7	ND		ND	ND	ND	ND
	U-8	ND		ND	ND	ND	ND
	U-9	3,700**		ND	ND	ND	ND
9/07/94	U-1	41,000		1,600	6,200	3,100	16,000
	U-2	ND		ND	0.63	ND	0.61
	U-3	100,000		2,400	4,900	4,200	21,000
	U-4	ND		ND	1.1	ND	1.0
	U-5	ND		ND	0.73	ND	0.84
	U-6	1,600*		ND	ND	ND	ND
	U-7	ND		ND	ND	ND	ND
	U-8	ND		ND	ND	ND	ND
	U-9	2,700**		ND	ND	ND	ND
6/09/94	U-1	59,000		5,200	1,300	5,200	15,000
	U-2	ND		ND	ND	ND	ND
	U-3	120,000*		3,300	6,100	5,200	26,000
	U-4	ND		ND	ND	ND	ND
	U-5	ND		ND	ND	ND	ND
	U-6	2,600*		16	ND	29	ND
	U-7	ND		ND	ND	ND	ND
	U-8	ND		ND	ND	ND	ND
	U-9	2,900**		ND	ND	ND	ND

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
4/13/94	U-2	ND	ND	ND	ND	ND
	U-4	ND	ND	ND	ND	ND
	U-5	ND	ND	ND	ND	ND
	U-7	ND	ND	ND	ND	ND
	U-8	ND	ND	0.78	ND	0.98
	U-9	ND	ND	ND	ND	ND
3/09/94	U-1	45,000	930	4,100	2,000	11,000
	U-2	62	1.1	5.4	1.1	9.7
	U-3	120,000	4,500	8,300	5,600	28,000
	U-4	ND	1.4	4.7	1.1	8.1
	U-5	71	1.7	6.3	1.5	10
	U-6	2,200	11	8.2	24	16
	U-7	ND	1.4	4.4	0.96	7.5
	U-8	ND	1.2	3.7	0.79	6.1
	U-9	5,700*	ND	ND	ND	ND
12/02/93	U-1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
	U-2	ND	ND	ND	ND	ND
	U-3	110,000	3,200	7,700	5,600	26,000
	U-4	ND	ND	ND	ND	2.6
	U-5	ND	ND	ND	ND	ND
	U-6	2,100	12	1.6	21	1.1
	U-7	ND	ND	ND	ND	ND
	U-8	ND	ND	ND	ND	ND
	U-9	ND	ND	ND	ND	ND
9/09/93	U-1	67,000	2,900	18,000	6,200	32,000
	U-2	ND	ND	ND	ND	ND
	U-3	110,000	2,800	10,000	6,500	31,000
	U-4	ND	ND	ND	ND	ND
	U-5	ND	ND	ND	ND	ND
	U-6	6,300♦♦	29	ND	120	34
	U-7	ND	ND	ND	ND	ND
	U-8	ND	ND	ND	ND	ND
	U-9	1,200♦	ND	ND	ND	ND

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
6/04/93	U-1	35,000	1,300	5,700	900	9,200
	U-2	ND	ND	ND	ND	ND
	U-3	92,000	2,900	8,700	4,300	20,000
	U-4	ND	ND	ND	ND	ND
	U-5	ND	ND	ND	ND	ND
	U-6	13,000	100	38	450	320
	U-7	ND	ND	ND	ND	ND
	U-8	ND	ND	ND	ND	ND
	U-9	2,100♦	ND	ND	ND	ND
2/12/93	U-1	70,000	2,200	8,400	3,100	18,000
	U-2	ND	ND	ND	ND	ND
	U-3	80,000	3,700	9,400	3,700	18,000
	U-4	ND	ND	ND	ND	ND
	U-5	ND	ND	ND	ND	ND
	U-6	2,600	27	ND	120	51
	U-7	ND	ND	ND	ND	ND
	U-8	ND	ND	ND	ND	ND
11/20/92	U-1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
	U-2	ND	ND	ND	ND	ND
	U-3	50,000	3,200	4,700	1,900	10,000
	U-4	ND	ND	2.5	ND	ND
	U-5	ND	ND	ND	ND	ND
	U-6	WELL WAS INACCESSIBLE				
	U-7	ND	ND	ND	ND	ND
8/06/92	U-1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
	U-2	ND	ND	ND	ND	ND
	U-3	140,000	5,100	13,000	5,000	23,000
	U-4	ND	ND	ND	ND	ND
	U-5	ND	ND	ND	ND	ND
	U-6	9,200	160	ND	360	150
	U-7	ND	ND	ND	ND	ND
	U-8	ND	ND	ND	ND	ND

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
4/07/92	U-1	▲	▲	▲	▲	▲
	U-2	ND	ND	ND	ND	ND
	U-3	97,000	6,100	16,000	5,400	28,000
	U-4	ND	ND	ND	ND	ND
	U-5	ND	ND	ND	ND	ND
	U-6	6,600	90	ND	820	1,200
	U-7	ND	ND	ND	ND	ND
	U-8	ND	ND	ND	ND	ND
3/05/92	U-1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
	U-2	ND	ND	0.36	ND	ND
	U-3	160,000	5,300	15,000	5,400	26,000
	U-4	ND	ND	ND	ND	ND
12/04/91	U-1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
	U-2	ND	ND	ND	ND	ND
	U-3	75,000	2,500	6,100	1,900	11,000
	U-4	ND	ND	ND	ND	ND
9/19/91	U-1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
	U-2	ND	ND	ND	ND	ND
	U-3	61,000	3,300	9,700	2,800	15,000
	U-4	ND	ND	ND	ND	ND
6/03/91	U-1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
	U-2	ND	ND	ND	ND	ND
	U-3	130,000	5,800	19,000	4,600	24,000
	U-4	ND	ND	ND	ND	ND
3/04/91	U-1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
	U-2	ND	ND	0.9	ND	2.6
	U-3	84,000	1,400	10,000	2,900	17,000
	U-4	ND	ND	ND	ND	ND
1/18/91	U-3	51,000	1,700	3,100	1,500	7,500
	U-4	ND	ND	ND	ND	ND

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
12/05/90	U-1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
	U-2	ND	ND	ND	ND	ND
	U-3	69,000	1,900	3,500	1,600	9,800
	U-4	ND	ND	ND	ND	ND
8/24/90	U-1	27,000	1,200	1,800	1,400	5,500
8/23/90	U-2	ND	ND	ND	ND	ND
	U-3	110,000	4,400	13,000	2,800	17,000
	U-4	ND	ND	1.0	ND	1.8
6/05/90	U-1	46,000	2,300	5,500	2,500	11,000
3/20/90	U-1	36,000	2,100	5,500	1,900	9,300
2/09/88	U-1	93,000	3,600	11,000	▲▲	20,000

* Sequoia Analytical Laboratory reported that the hydrocarbons detected appeared to be gasoline and non-gasoline mixture.

** Sequoia Analytical Laboratory reported that the hydrocarbon detected did not appear to be gasoline.

▲ Product Skimmer installed in well

▲▲ Ethylbenzene and xylenes were combined prior to March 1990.

▼ Methyl tert butyl ether was detected at the following concentrations: U-1 = 1,500 µg/L; U-3 = 54,000 µg/L; U-6 = 320 µg/L; U-9 = 5,800 µg/L; and was non-detectable in all other wells.

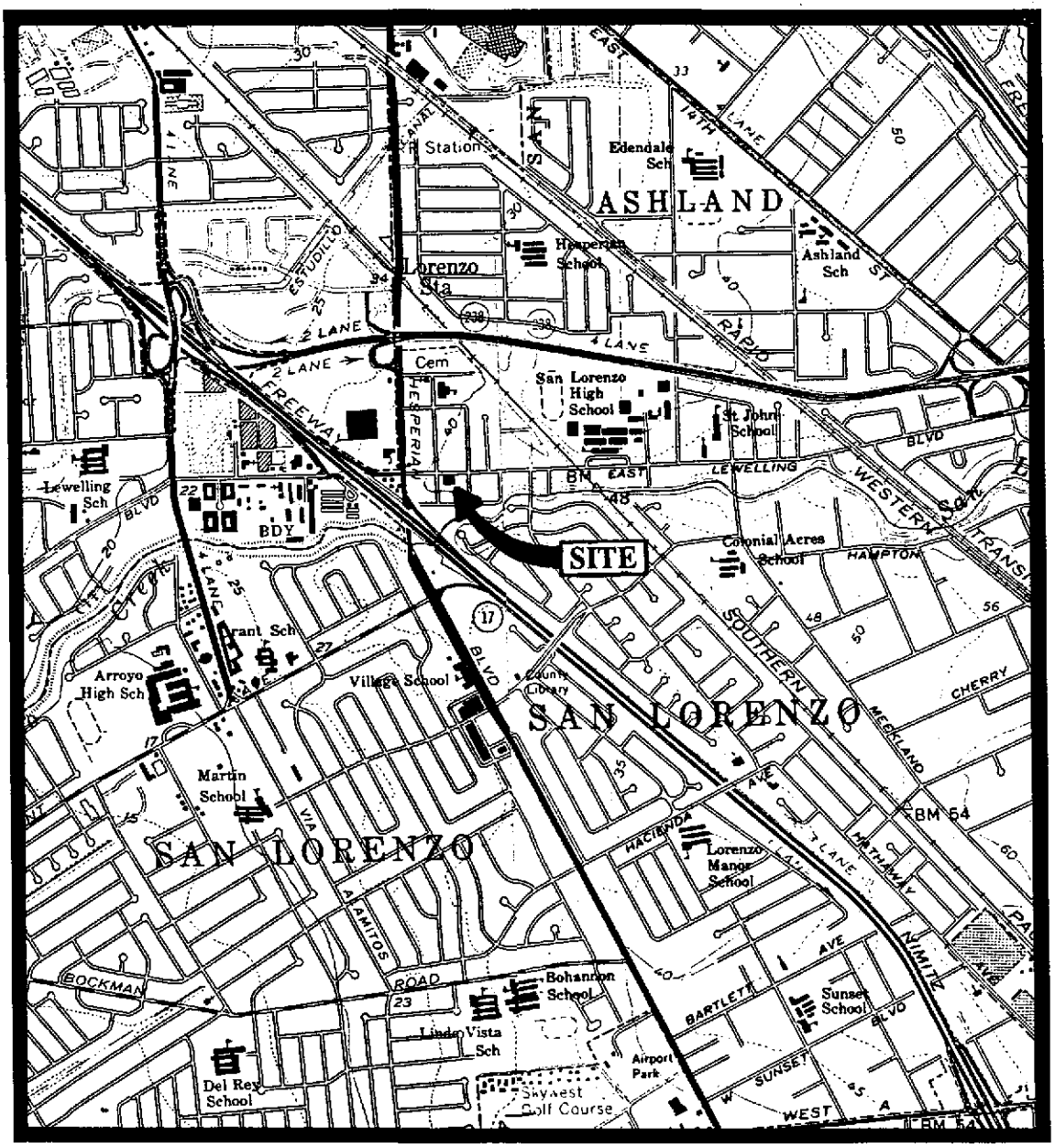
♦ The concentration reported as gasoline is primarily due to the presence of a discrete hydrocarbon peak not indicative of standard gasoline.

♦♦ The concentration reported as gasoline is primarily due to the presence of a combination of gasoline and a discrete peak not indicative of gasoline.

ND = Non-detectable.

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

Notes: Laboratory analyses data prior to December 2, 1993, were provided by GeoStrategies, Inc.

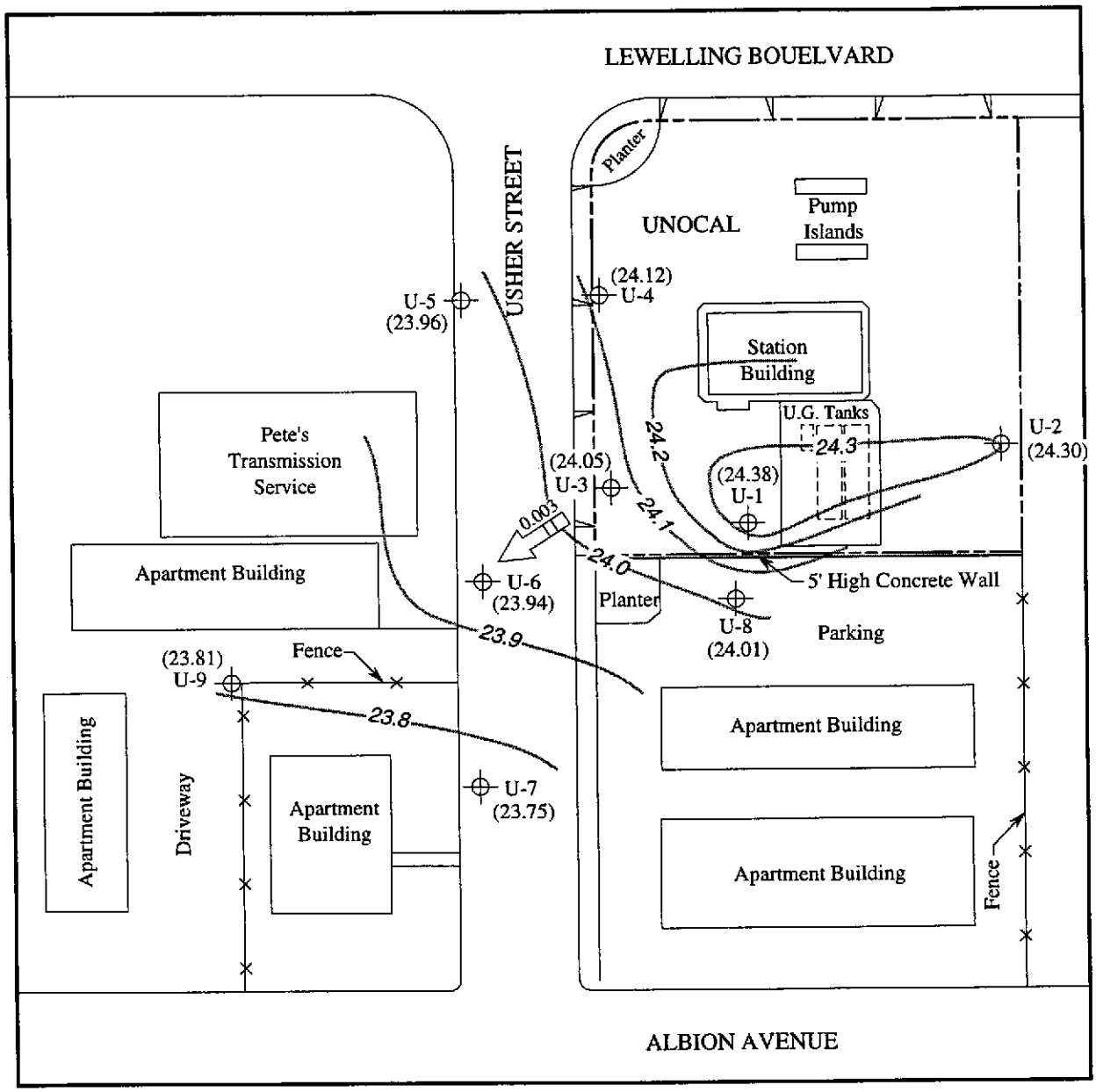


Base modified from 7.5 minute U.S.G.S.
Hayward and San Leandro Quadrangles
(both photorevised 1980)

0 2000 4000

Approx. scale feet

mpds SERVICES, INCORPORATED	**UNOCAL SERVICE STATION #5760** **376 LEWELLING BOULEVARD** **SAN LORENZO, CALIFORNIA**	**LOCATION MAP**



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

0 60 120

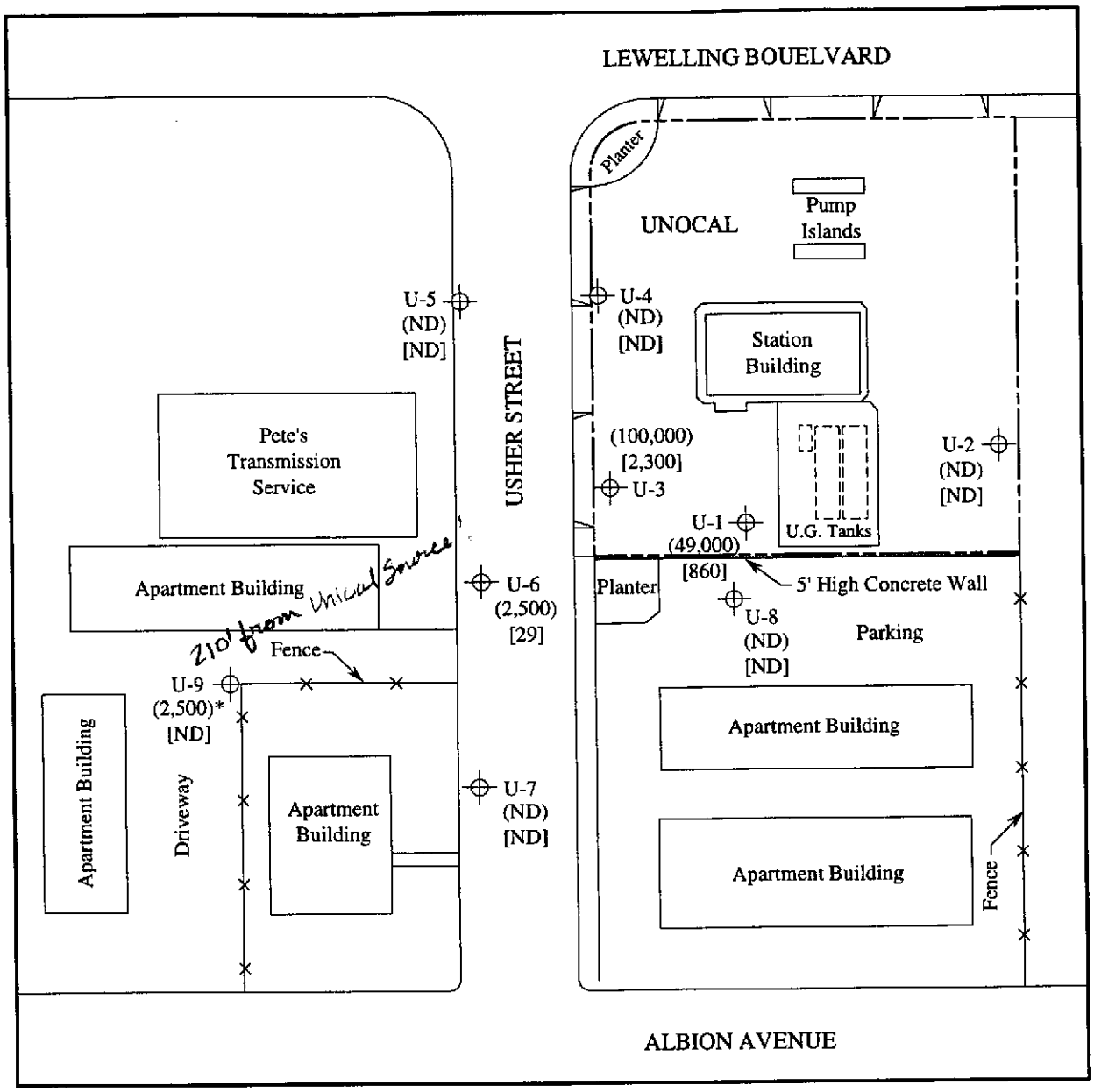
Approx. scale feet

POTENTIOMETRIC SURFACE MAP FOR THE MARCH 9, 1995 MONITORING EVENT

mpds SERVICES, INCORPORATED

UNOCAL SERVICE STATION #5760
376 LEWELLING BOULEVARD
SAN LORENZO, CALIFORNIA

FIGURE
1



Hwy 880

LEGEND

- ⊕ Monitoring well
- ( ) 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 MARCH 9, 1995

mpds SERVICES, INCORPORATED

UNOCAL SERVICE STATION #5760
376 LEWELLING BOULEVARD
SAN LORENZO, 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 #5760, 376 Lewelling Blvd., San Lorenzo	Sampled:	Mar 9, 1995
2401 Stanwell Dr., Ste. 300	Matrix Descript:	Water	Received:	Mar 9, 1995
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Reported:	Mar 29, 1995
Attention: Sarkis Karkarian	First Sample #:	503-0699		

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
503-0699	MW1	49,000	860	3,200	1,900	10,000
503-0700	MW2	ND	ND	ND	ND	ND
503-0701	MW3	100,000	2,300	3,300	4,800	21,000
503-0702	MW4	ND	ND	ND	ND	ND
503-0703	MW5	ND	ND	ND	ND	ND
503-0704	MW6	2,500	29	ND	70	120
503-0705	MW7	ND	ND	ND	ND	ND
503-0706	MW8	ND	ND	ND	ND	ND
503-0707	MW9	2,500*	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

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 #5760, 376 Lewelling Blvd., San Lorenzo	Sampled:	Mar 9, 1995
2401 Stanwell Dr., Ste. 300	Matrix Descript:	Water	Received:	Mar 9, 1995
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Reported:	Mar 29, 1995
Attention: Sarkis Karkarian	First Sample #:	503-0699		

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%)
503-0699	MW1	Gasoline	200	3/23/95	HP-4	77
503-0700	MW2	--	1.0	3/23/95	HP-5	81
503-0701	MW3	Gasoline	500	3/23/95	HP-4	91
503-0702	MW4	--	1.0	3/23/95	HP-4	92
503-0703	MW5	--	1.0	3/23/95	HP-4	92
503-0704	MW6	Gasoline	10	3/23/95	HP-4	73
503-0705	MW7	--	1.0	3/23/95	HP-5	97
503-0706	MW8	--	1.0	3/23/95	HP-5	88
503-0707	MW9	Discrete Peak*	20	3/24/95	HP-2	98

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager

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

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 #5760, 376 Lewelling Blvd., San Lorenzo	Sampled:	Mar 9, 1995
2401 Stanwell Dr., Ste. 300	Sample Descript:	Water	Received:	Mar 9, 1995
Concord, CA 94520	Analysis for:	MTBE (EPA 8020 Mod.)		
Attention: Sarkis Karkarian	First Sample #:	503-0699	Analyzed:	Mar 23-24, 1995
			Reported:	Mar 29, 1995

LABORATORY ANALYSIS FOR: MTBE (EPA 8020 Mod.)

Sample Number	Sample Description	Detection Limit µg/L	Sample Result µg/L
503-0699	MW1	120	1,500
503-0700	MW2	0.60	N.D.
503-0701	MW3	300	54,000
503-0702	MW4	0.60	N.D.
503-0703	MW5	0.60	N.D.
503-0704	MW6	6.0	320
503-0705	MW7	0.60	N.D.
503-0706	MW8	0.60	N.D.
503-0707	MW9	12	5,800

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

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

Client Project ID: Unocal #5760, 376 Lewelling Blvd., San Lorenzo
Matrix: Liquid
QC Sample Group: 5030699-707
Reported: Apr 3, 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#:	5030523	5030523	5030523	5030523
Date Prepared:	3/24/95	3/24/95	3/24/95	3/24/95
Date Analyzed:	3/24/95	3/24/95	3/24/95	3/24/95
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:	105	100	105	107
Matrix Spike Duplicate % Recovery:	105	105	110	107
Relative % Difference:	0.0	4.9	4.7	0.0
LCS Batch#:	1LCS032395	1LCS032395	1LCS032395	1LCS032395
Date Prepared:	3/24/95	3/24/95	3/24/95	3/24/95
Date Analyzed:	3/24/95	3/24/95	3/24/95	3/24/95
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
LCS % Recovery:	102	105	114	111
% Recovery Control Limits:	71-133	72-128	72-130	71-120

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.

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

Client Project ID: Unocal #5760, 376 Lewelling Blvd., San Lorenzo
Matrix: Liquid
QC Sample Group: 5030699-707

Reported: Apr 3, 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#:	5030700	5030700	5030700	5030700
Date Prepared:	3/23/95	3/23/95	3/23/95	3/23/95
Date Analyzed:	3/23/95	3/23/95	3/23/95	3/23/95
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:	85	85	85	85
Matrix Spike Duplicate % Recovery:	80	85	80	85
Relative % Difference:	6.1	0.0	6.1	0.0
LCS Batch#:	3LCS032395	3LCS032395	3LCS032395	3LCS032395
Date Prepared:	3/23/95	3/23/95	3/23/95	3/23/95
Date Analyzed:	3/23/95	3/23/95	3/23/95	3/23/95
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
LCS % Recovery:	96	96	96	98
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL, #1271

Signature on File

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Project Manager

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

Client Project ID: Unocal #5760, 376 Lewelling Blvd., San Lorenzo
Matrix: Liquid
QC Sample Group: 5030699-707
Reported: Apr 3, 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#:	5030563	5030563	5030563	5030563
Date Prepared:	3/24/95	3/24/95	3/24/95	3/24/95
Date Analyzed:	3/24/95	3/24/95	3/24/95	3/24/95
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:	90	95	95	97
Matrix Spike Duplicate % Recovery:	90	95	95	97
Relative % Difference:	0.0	0.0	0.0	0.0
LCS Batch#:	2LCS032495	2LCS032495	2LCS032495	2LCS032495
Date Prepared:	3/24/95	3/24/95	3/24/95	3/24/95
Date Analyzed:	3/24/95	3/24/95	3/24/95	3/24/95
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
LCS % Recovery:	92	95	99	98
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager

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

CHAIN OF CUSTODY

SAMPLER: RAY MARANGOSIAN

WITNESSING AGENCY:

UNOCAL S/S # 5760 CITY: SAN LORENZO

ADDRESS: 376 LEWELLING BLVD

ANALYSES REQUESTED

TURN AROUND TIME: REGULAR

SAMPLE ID NO.	DATE	TIME	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPH-GAS BTEX	TPH-DIESEL	TOG	8010	MTBE				REMARKS
MW1	3-9-95	14:10	X	X		2	well	X				X				5030699 A B
MW2	"	10:10	X	X		"	"	X				X				5030700
MW3	"	14:30	X	X		"	"	X				X				5030701
MW4	"	10:45	X	X		"	"	X				X				5030702
MW5	"	11:20	X	X		"	"	X				X				5030703
MW6	"	12:55	X	X		"	"	X				X				5030704
MW7	"	11:45	X	X		"	"	X				X				5030705
MW8	"	12:20	X	X		"	"	X				X				5030706
MW9	"	13:30	X	X		"	"	X				X				5030707

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME
Ray Marangosian	3-9-95 15:00		3/9/95 15:00
(SIGNATURE)	3/9/95 5:50PM	(SIGNATURE) Melissa Cleveland	3/9/95 1550
(SIGNATURE)		(SIGNATURE)	
(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? 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

SIGNATURE: Melissa Cleveland TITLE: Sample Control DATE: 3/9/95

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.