MONITORING
PURGING
DISPOSING
SAMPLING

mpds SERVICES, INCORPORATED

November 10, 1994

Mr. Scott Seery
Alameda County Health Care Services
1131 Harbor Bay Parkway
Alameda, California 94501

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

Per the request of the Unocal Corporation Project Manager, Mr. David J. Camille, enclosed please find our report (MPDS-UN5430-04) dated October 24, 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) 277-2335.

Sincerely,

MPDS Services, Inc.

Jarrel F. Crider

/jfc

Enclosure

cc: Mr. David J. Camille

2401 Stanwell Drive, Suite 400, Concord, CA 94520
TEL: (510) 602-5120 FAX: (510) 689-1918

PACIFIC
ENVIRONMENTAL
GROUP INC.

October 17, 1994
Project 310-038.1A

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

Re: Unocal Corporation
Quarterly Summary Report
Third Quarter 1994

Dear Mr. Jang:

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

Service Station	Location
5430	1935 Washington Avenue, San Leandro

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

Sincerely,

Pacific Environmental Group, Inc.

Joseph Muzzio
Project Geologist

Enclosure

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

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

Quarterly Summary Report
Third Quarter 1994

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

County STID #: 1747
County: Alameda

BACKGROUND

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

RECENT QUARTER ACTIVITIES

Quarterly groundwater monitoring and sampling were performed in September 1994.

NEXT QUARTER ACTIVITIES

Quarterly groundwater monitoring and sampling will be performed by in Decmber 1994. Unocal will submit a work plan to further delineate the extent of hydrocarbon-impacted groundwater.

CHARACTERIZATION/REMEDIAL STATUS

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

CONSULTANT: Pacific Environmental Group, Inc.

MONITORING
PURGING
DISPOSING
SAMPLING
MPDS SERVICES, INCORPORATED

MPDS-UN5430-04
October 24, 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 #5430
1935 Washington Avenue
San Leandro, California

Dear Mr. Camille:

This data report presents the results of the most recent quarter of monitoring and sampling of the monitoring wells at the referenced site by MPDS Services, Inc.

RECENT FIELD ACTIVITIES

The monitoring wells that were monitored and sampled during this quarter are indicated in Table 1. Prior to sampling, the wells were checked for depth to water and the presence of free product or sheen. The monitoring data and the ground water elevations are summarized in Table 1. The ground water flow directions during the most recent quarter are shown on the attached Figures 1, 2, and 3.

Ground water samples were collected on September 15, 1994. Prior to sampling, the wells were each purged of between 2 and 4.5 gallons of water. During purging operations, the field parameters pH, temperature, and electrical conductivity were recorded and are presented in Table 2. Once the field parameters were observed to stabilize, and where possible, a minimum of approximately four casing volumes had been removed from each well, samples were then collected using a clean Teflon bailer. The samples were decanted into clean VOA vials and/or one-liter amber bottles, as appropriate, which were then sealed with Teflon-lined screw caps, labeled, and stored in a cooler, on ice, until delivery to a state-certified laboratory. MPDS Services, Inc. transported the purged ground water to the Unocal Refinery located in Rodeo, California, for treatment and discharge to San Pablo Bay under NPDES permit.

ANALYTICAL RESULTS

The ground water samples were analyzed at Sequoia Analytical Laboratory and were accompanied by properly executed Chain of Custody documentation. The analytical results of the ground water samples collected to

2401 Stanwell Drive, Suite 400, Concord, CA 94520
TEL: (510) 602-5120 FAX: (510) 689-1918

date are summarized in Tables 3 and 4. The concentrations of Total Petroleum Hydrocarbons (TPH) as gasoline, TPH as diesel, and benzene detected in the ground water samples collected this quarter are shown on the attached Figure 4. Copies of the laboratory analytical results and the Chain of Custody documentation are attached to this report.

LIMITATIONS

Environmental changes, either naturally-occurring or artificially-induced, may cause changes in ground water levels and flow paths, thereby changing the extent and concentration of any contaminants.

DISTRIBUTION

A copy of this report should be sent to Mr. Scott Seery of the Alameda County Environmental Health Care Services, Mr. Michael Bakaldin of the San Leandro Fire Department.

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

Sincerely,

MPDS Services, Inc.

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 through 4
Location Map
Figures 1 through 4
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 September 15, 1994)				
U-1	22.17	33.93	39.68	0	No	2
U-2	22.27	33.00	39.38	0	No	4.5
U-3	22.40	32.84	38.48	0	No	4
		(Monitored on August 18, 1994)				
U-1	22.60	33.50	39.66	0	--	0
U-2	22.77	32.50	39.37	0	--	0
U-3	22.85	32.39	38.46	0	--	0
		(Monitored on July 27, 1994)				
U-1	23.03	33.07	★	0	--	0
U-2	23.15	32.12	★	0	--	0
U-3	23.26	31.98	★	0	--	0
		(Monitored and Sampled on June 19, 1994)				
U-1	23.84	32.26	39.65	0	No	4
U-2	23.96	31.31	39.36	0	No	5.5
U-3	24.05	31.19	38.46	0	No	5
		(Monitored and Sampled on March 25, 1994)				
U-1	25.03	31.07	39.62	0	No	6
U-2	25.18	30.09	39.33	0	No	6.5
U-3	25.21	30.03	38.45	0	No	6
		(Monitored and Sampled on December 16, 1993)				
U-1	22.91	33.19	39.56	0	No	2.5
U-2	23.08	32.19	39.28	0	No	5
U-3	23.16	32.08	38.38	0	No	4.5

TABLE 1 (Continued)

SUMMARY OF MONITORING DATA

Well #	Well Casing Elevation (feet)*
U-1	56.10
U-2	55.27
U-3	55.24

◆ 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.

* Total well depth was not measured.

-- Sheen determination was not performed.

TABLE 2

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

(Measured on September 15, 1994)

Well #	Gallons per Casing Volume	Time	Gallons Purged	Casing Volumes Purged	Temperature (°F)	Conductivity ([µmhos/cm] x100)	pH
U-1	0.98	8:45 am	0	0	63.9	12.87	7.53
			1	1.02	65.2	10.68	7.09
		9:00 am	1.5	1.53	65.8	11.71	7.14
			WELL DEWATERED				
		11:30 am	2	2.04	68.1	11.69	6.57
			WELL DEWATERED				
U-2	1.08	9:30 am	0	0	66.3	6.79	7.83
			1	0.93	69.2	6.91	6.92
			2	1.85	69.3	6.90	7.17
			3	2.78	69.4	6.93	6.99
		9:45 am	4.5	4.17	69.3	6.98	7.01
U-3	0.96	10:35 am	0	0	72.8	10.91	7.33
			1	1.04	70.7	11.12	6.80
			2	2.08	69.4	10.89	6.74
			3	3.13	68.7	10.83	6.76
		11:00 am	4	4.17	68.2	10.77	6.70

TABLE 3

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well#	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
9/15/94	U-1▲	83**	ND	0.50	0.85	ND	0.77
	U-2	--	1,000♦♦	44	ND	ND	ND
	U-3	--	12,000	[redacted]	ND	970	610
6/19/94	U-1▲	61**	51	ND	1.4	ND	2.7
	U-2	--	180♦	ND	ND	ND	0.86
	U-3	--	17,000	580	ND	1,300	90
3/25/94	U-1▲	57**	58	0.63	0.79	ND	0.65
	U-2	--	130	0.70	0.78	0.65	0.64
	U-3	--	18,000	560	40	1,000	770
12/16/93	U-1▲	130**	ND	ND	ND	ND	ND
	U-2	--	330	1.7	ND	11	8.5
	U-3	--	15,000	570	ND	940	670
8/13/93	U-1▲	50*	310	0.84	ND	2.6	1
	U-2	--	1,400	ND	ND	ND	ND
	U-3	--	23,000	1,000	ND	1,700	1,600

▲ Total Oil and Grease (TOG) was non-detectable.

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

[redacted] Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be gasoline.

* Not a typical diesel pattern; lower boiling hydrocarbons in the boiling range of stoddard calculated as diesel.

** Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be diesel.

ND = Non-detectable.

-- Indicates analysis was not performed.

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

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

TABLE 4

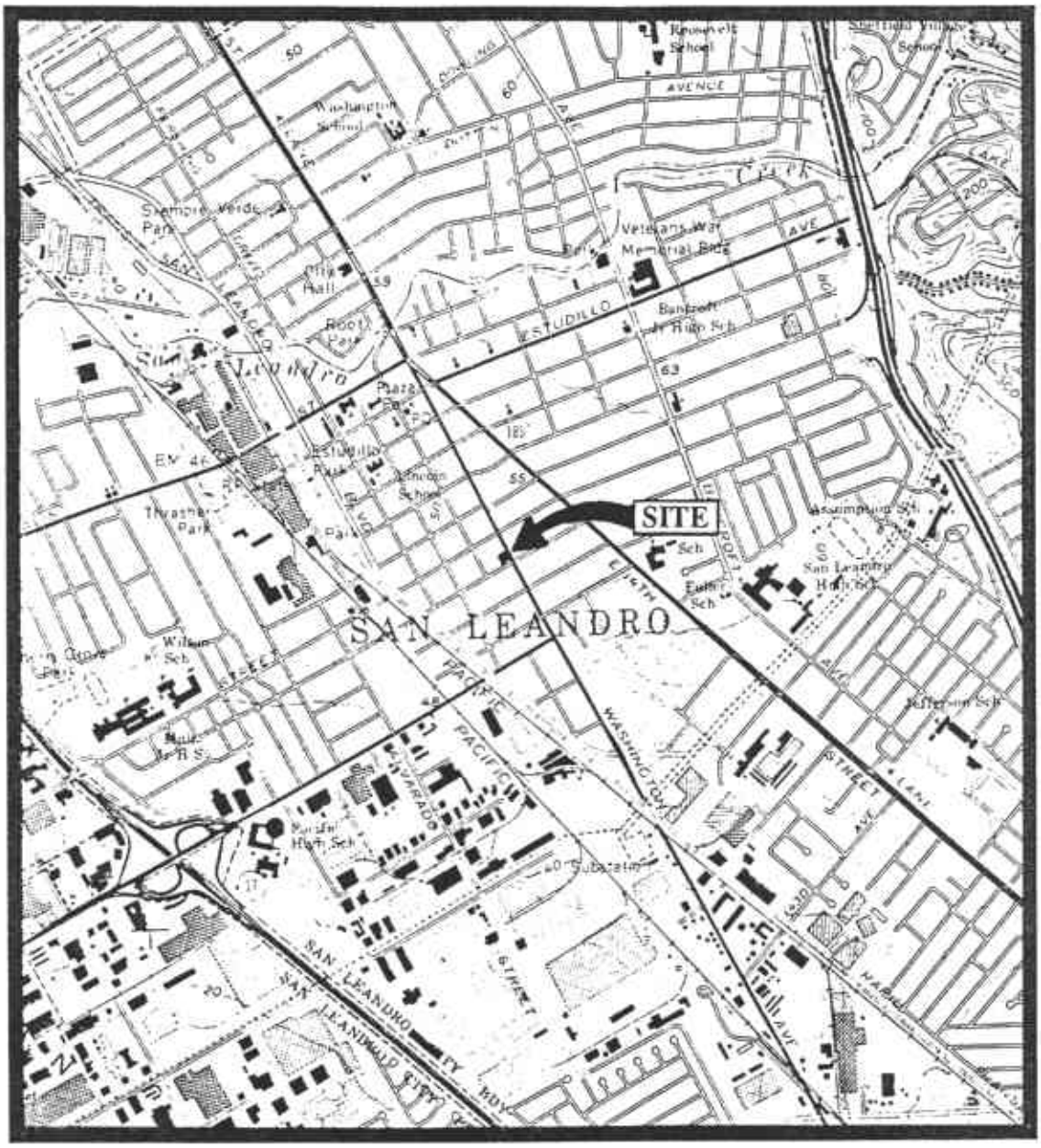
SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	1,2-Dichloro-benzene	1,2-Dichloro-ethane
9/15/94	U-1	ND	9.5
	U-2	ND	0.66
	U-3	ND	[redacted]
6/19/94	U-1	ND	7.4
	U-2	ND	0.54
	U-3	ND	410
3/25/94	U-1	ND	11
	U-2	ND	ND
	U-3	ND	480

ND = Non-detectable.

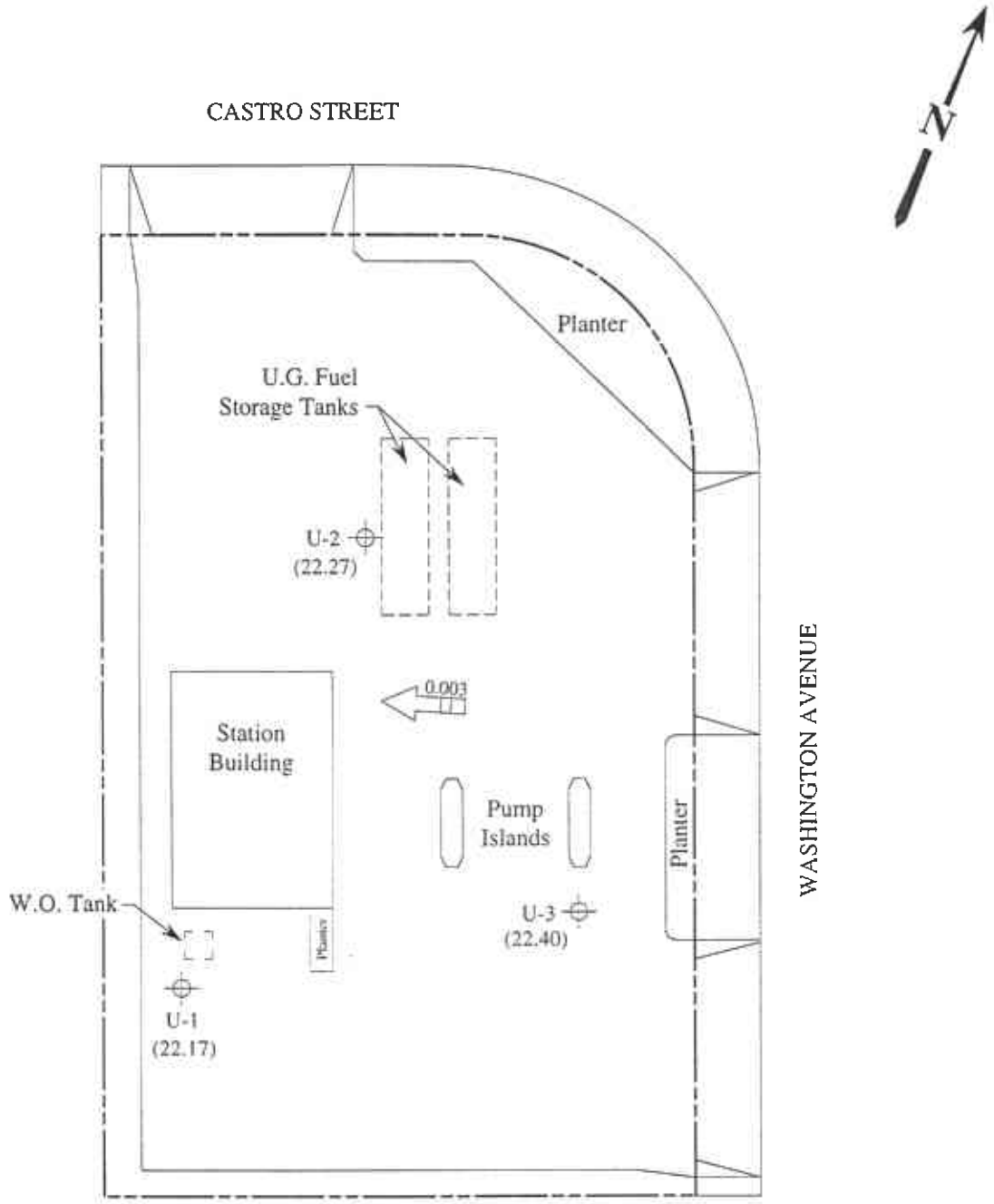
Results are in micrograms per liter (µg/L), unless otherwise indicated.

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



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

mpds SERVICES, INCORPORATED	**UNOCAL SERVICE STATION #5430** **1935 WASHINGTON AVENUE** **SAN LEANDRO, CALIFORNIA**	**LOCATION MAP**



LEGEND

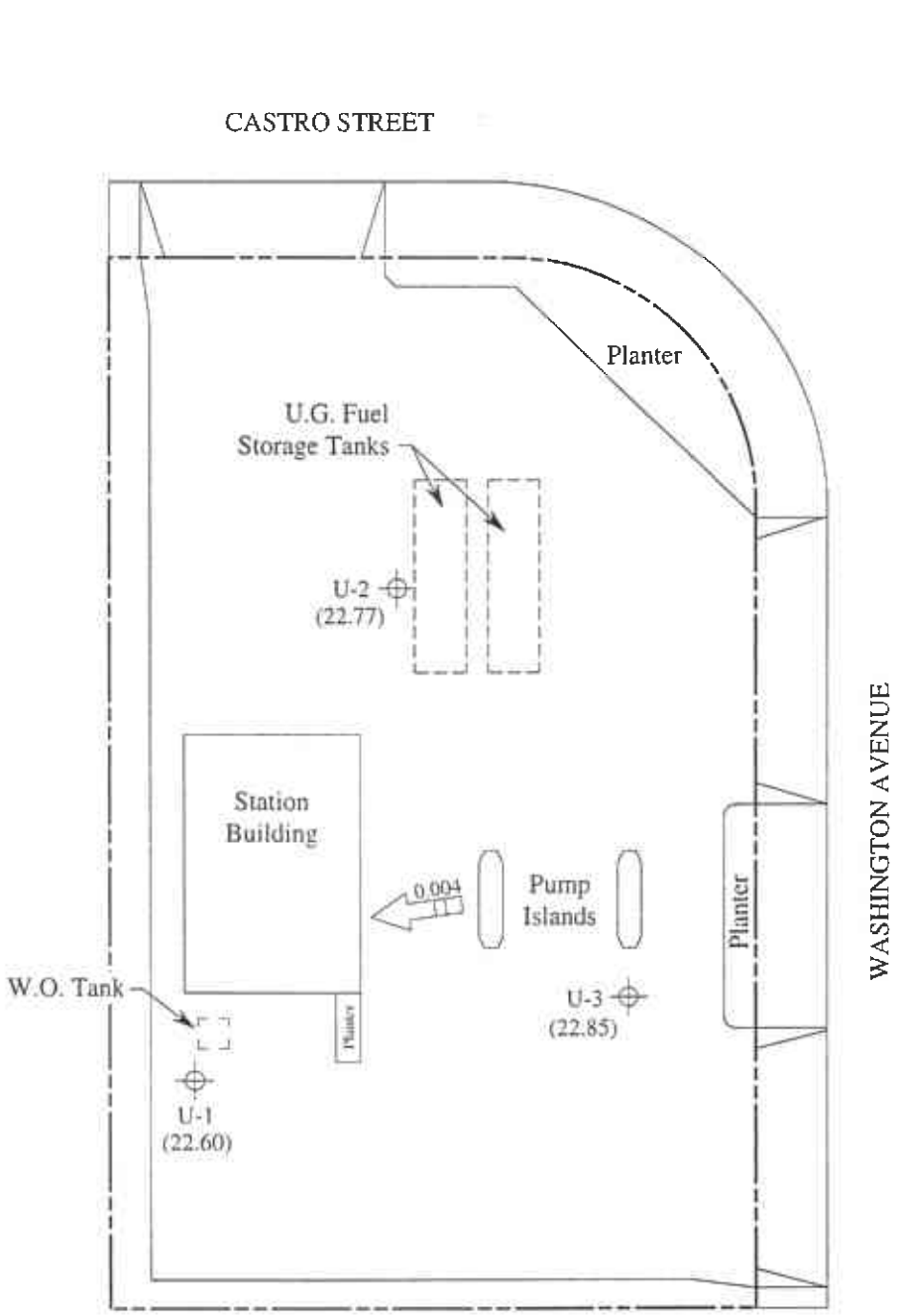
- Monitoring well
- ( ) Ground water elevation in feet above Mean Sea Level
- #.## Direction of ground water flow with approximate hydraulic gradient

0 30 60

Approx. scale feet

GROUND WATER FLOW DIRECTION MAP FOR THE SEPTEMBER 15, 1994 MONITORING EVENT

mpds SERVICES, INCORPORATED	**UNOCAL SERVICE STATION #5430** **1935 WASHINGTON AVENUE** **SAN LEANDRO, CALIFORNIA**	FIGURE **1**



LEGEND

- Monitoring well
- ( ) Ground water elevation in feet above Mean Sea Level
- #.## Direction of ground water flow with approximate hydraulic gradient

0 30 60

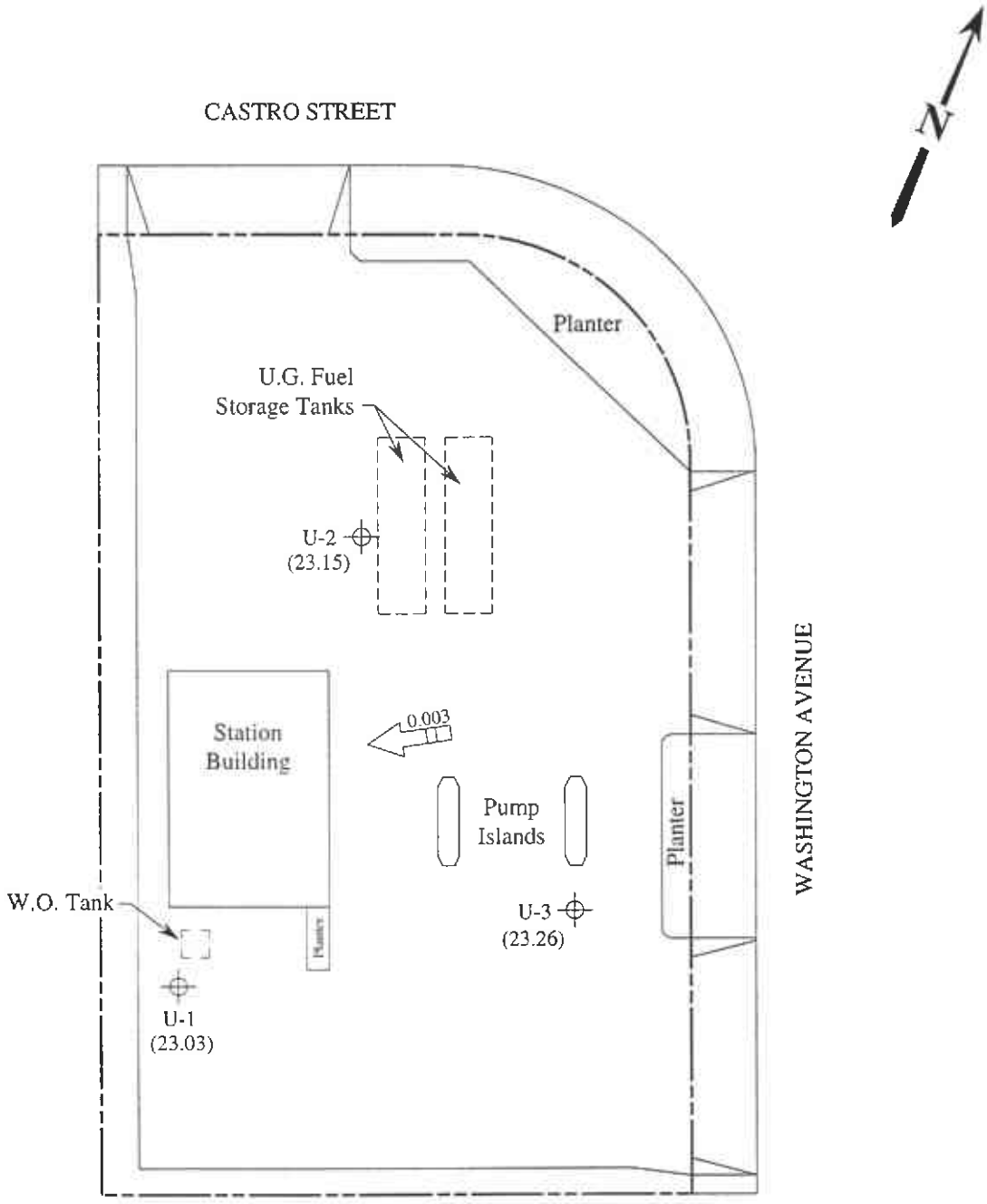
Approx. scale feet

GROUND WATER FLOW DIRECTION MAP FOR THE AUGUST 18, 1994 MONITORING EVENT

mpds SERVICES, INCORPORATED

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

FIGURE
2



LEGEND

- Monitoring well
- ( ) Ground water elevation in feet above Mean Sea Level
- #.## Direction of ground water flow with approximate hydraulic gradient

0 30 60

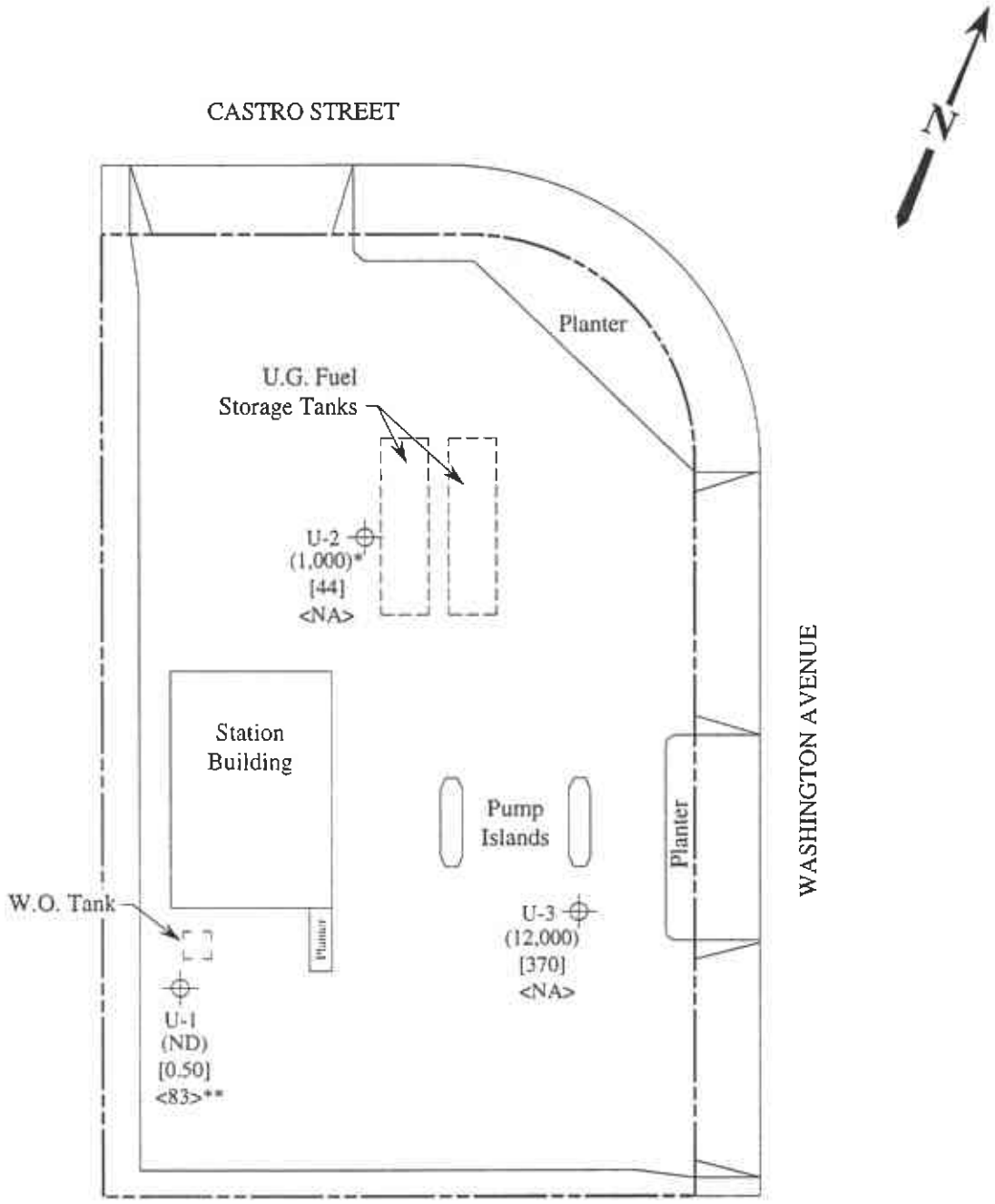
Approx. scale feet

GROUND WATER FLOW DIRECTION MAP FOR THE JULY 27, 1994 MONITORING EVENT

mpds SERVICES, INCORPORATED

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

FIGURE
3



LEGEND

- ⊕ Monitoring well
- ( ) Concentration of TPH as gasoline in µg/L
- [ ] Concentration of benzene in µg/L
- < > Concentration of TPH as diesel in µg/L

ND = Non-detectable, NA = Not analyzed

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

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

0 30 60

Approx. scale feet

PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUND WATER ON SEPTEMBER 15, 1994

MPDS SERVICES, INCORPORATED

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

FIGURE
4

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

MPDS Services	Client Project ID:	Unocal #5430, 1935 Washington, San Leandro	Sampled:	Sep 15, 1994
2401 Stanwell Dr., Ste. 400	Matrix Descript:	Water	Received:	Sep 15, 1994
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Reported:	Oct 7, 1994
Attention: Avo Avedessian	First Sample #:	409-1234		

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
409-1234	U 1	N.D.	0.50	0.85	N.D.	0.77
409-1235	U 2	1000*	44	N.D.	N.D.	N.D.
409-1236	U 3	12,000	370	N.D.	970	610

* 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 N.D. 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
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
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MPDS Services	Client Project ID:	Unocal #5430, 1935 Washington, San Leandro	Sampled:	Sep 15, 1994
2401 Stanwell Dr., Ste. 400	Matrix Descript:	Water	Received:	Sep 15, 1994
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Reported:	Oct 7, 1994
Attention: Avo Avedessian	First Sample #:	409-1234		

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%)
409-1234	U 1	--	1.0	9/26/94	HP-2	111
409-1235	U 2	Unidentified Hydrocarbons <C6	5.0	9/27/94	HP-4	104
409-1236	U 3	Gasoline	40	9/26/94	HP-2	124

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager

Please Note:
*Unidentified hydrocarbons <C6 refers to unidentified peaks in the EPA 8010 range.

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

MPDS Services	Client Project ID:	Unocal #5430, 1935 Washington, San Leandro	Sampled: Sep 15, 1994
2401 Stanwell Dr., Ste. 400	Sample Matrix:	Water	Received: Sep 15, 1994
Concord, CA 94520	Analysis Method:	EPA 3510/8015	Reported: Oct 7, 1994
Attention: Avo Avedessian	First Sample #:	409-1234	

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 409-1234 U 1*
Extractable Hydrocarbons	50	83
Chromatogram Pattern:		Discrete Peaks

Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Extracted:	9/21/94
Date Analyzed:	9/27/94
Instrument Identification:	HP-3B

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

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager

Please Note:
*This sample does not appear to contain diesel. Discrete peaks refers to unidentified peaks in the EPA 8270 range.

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

MPDS Services	Client Project ID:	Unocal #5430, 1935 Washington, San Leandro	Sampled: Sep 15, 1994
2401 Stanwell Dr., Ste. 400	Matrix Descript:	Water	Received: Sep 15, 1994
Concord, CA 94520	Analysis Method:	SM 5520 B&F (Gravimetric)	Extracted: Sep 21, 1994
Attention: Avo Avedessian	First Sample #:	409-1234	Analyzed: Sep 22, 1994
			Reported: Oct 7, 1994

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/L (ppm)	Detection Limit Multiplication Factor
409-1234	U 1	N.D.	1.0

Detection Limits:	**5.0**

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

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

MPDS Services	Client Project ID:	Unocal #5430, 1935 Washington, San Leandro	Sampled:	Sep 15, 1994
2401 Stanwell Dr., Ste. 400	Sample Descript:	Water, U 1	Received:	Sep 15, 1994
Concord, CA 94520	Analysis Method:	EPA 5030/8010	Analyzed:	Sep 29, 1994
Attention: Avo Avedessian	Lab Number:	409-1234	Reported:	Oct 7, 1994

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	9.5
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
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	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
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

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

MPDS Services	Client Project ID:	Unocal #5430, 1935 Washington, San Leandro	Sampled:	Sep 15, 1994
2401 Stanwell Dr., Ste. 400	Sample Descript:	Water, U 2	Received:	Sep 15, 1994
Concord, CA 94520	Analysis Method:	EPA 5030/8010	Analyzed:	Sep 29, 1994
Attention: Avo Avedessian	Lab Number:	409-1235	Reported:	Oct 7, 1994

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	0.66
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
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	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
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

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

MPDS Services	Client Project ID:	Unocal #5430, 1935 Washington, San Leandro	Sampled:	Sep 15, 1994
2401 Stanwell Dr., Ste. 400	Sample Descript:	Water, U 3	Received:	Sep 15, 1994
Concord, CA 94520	Analysis Method:	EPA 5030/8010	Analyzed:	Sep 29, 1994
Attention: Avo Avedessian	Lab Number:	409-1236	Reported:	Oct 7, 1994

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	50	420
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
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	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
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

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

Client Project ID: Unocal #5430, 1935 Washington, San Leandro
Matrix: Liquid
QC Sample Group: 4090903-912
Reported: Oct 11, 1994

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#:	4091562	4091562	4091562	4091562
Date Prepared:	9/27/94	9/27/94	9/27/94	9/27/94
Date Analyzed:	9/27/94	9/27/94	9/27/94	9/27/94
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	110	120	120
Matrix Spike Duplicate % Recovery:	105	110	120	120
Relative % Difference:	0.0	0.0	0.0	0.0
LCS Batch#:	1LCS092694	1LCS092694	1LCS092694	1LCS092694
Date Prepared:	9/26/94	9/26/94	9/26/94	9/26/94
Date Analyzed:	9/26/94	9/26/94	9/26/94	9/26/94
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
LCS % Recovery:	96	100	106	108
% 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. 400
Concord, CA 94520
Attention: Avo Avedessian

Client Project ID: Unocal #5430, 1935 Washington, San Leandro
Matrix: Liquid
QC Sample Group: 4091234-236
Reported: Oct 11, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015 Mod
Analyst:	A. Tuzon	A. Tuzon	A. Tuzon	A. Tuzon	K.V.S.
MS/MSD Batch#:	4091610	4091610	4091610	4091610	BLK092194
Date Prepared:	9/27/94	9/27/94	9/27/94	9/27/94	9/21/94
Date Analyzed:	9/27/94	9/27/94	9/27/94	9/27/94	9/26/94
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4	HP-3B
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	300. µg/L
Matrix Spike % Recovery:	75	90	95	97	64
Matrix Spike Duplicate % Recovery:	75	90	95	97	64
Relative % Difference:	0.0	0.0	0.0	0.0	0.0
LCS Batch#:	2LCS092794	2LCS092794	2LCS092794	2LCS092794	BLK092194
Date Prepared:	9/27/94	9/27/94	9/27/94	9/27/94	9/21/94
Date Analyzed:	9/27/94	9/27/94	9/27/94	9/27/94	9/26/94
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4	HP-3B
LCS % Recovery:	71	84	89	92	64
% Recovery Control Limits:	71-133	72-128	72-130	71-120	28-122

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager

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

Client Project ID: Unocal #5430, 1935 Washington, San Leandro
Matrix:
QC Sample Group: 4091234

Reported: Oct 11, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Oil & Grease
Method:	EPA 5520 B & F
Analyst:	D. Newcomb

Date Analyzed:	9/21/94
Instrument I.D.#:	--
Sample #:	BLK092194
Sample Concentration:	93
Sample Duplicate Concentration:	94
RPD:	1.1
RPD: Control Limits:	0-30

SEQUOIA ANALYTICAL, #1271

Signature of File

Alan B. Kemp
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

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

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

QC Sample Group: 4091234-236

Reported: Oct 11, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-benzene
Method:	EPA 8010	EPA 8010	EPA 8010
Analyst:	K. Nill	K. Nill	K. Nill
MS/MSD Batch#:	4091561	4091561	4091561
Date Prepared:	9/29/94	9/29/94	9/29/94
Date Analyzed:	9/29/94	9/29/94	9/29/94
Instrument I.D.#:	HP5890/7	HP5890/7	HP5890/7
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L
Matrix Spike % Recovery:	99	112	101
Matrix Spike Duplicate % Recovery:	105	116	98
Relative % Difference:	5.9	3.5	3.0
LCS Batch#:	LCS092994	LCS092994	LCS092994
Date Prepared:	9/29/94	9/29/94	9/29/94
Date Analyzed:	9/29/94	9/29/94	9/29/94
Instrument I.D.#:	HP5890/7	HP5890/7	HP5890/7
LCS % Recovery:	106	107	89
% Recovery Control Limits:	28-167	35-146	38-150

SEQUOIA ANALYTICAL, #1271

Signature of File

Alan B. Kemp
Project Manager

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M P D S Services, Inc.
2401 Stanwell Drive, Suite 400, Concord, CA 94520
Tel: (510) 602-5120 Fax: (510) 689-1918

CHAIN OF CUSTODY

SAMPLER: RAY MARANGOSIAN
WITNESSING AGENCY:
UNOCAL S/S # 5430 CITY: SAN LEANDRO
ADDRESS: 1935 WASHINGTON

SAMPLE ID NO.	DATE	TIME	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPH-GAS BTEX	TPH-DIESEL	TOG	8010					ANALYSES REQUESTED
U1	9.15.94	11:50	X	X		6	Well	X	X	X	X	4091234			A-F	TURN AROUND TIME: REGULAR
U2	"	9:55	X	X		4	"	X			X	4091235			A-D	REMARKS
U3	"	11:10	X	X		4	"	X			X	4091236			A-D	

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
Ray Marangosian	13:45 9-15-94	Suzanne Lee 1345 9.15.94
(SIGNATURE)	9/16/94 1330	(SIGNATURE)
(SIGNATURE)	9-16 3:00pm	(SIGNATURE) RB Kelley 9/16/94 3:00 pm
(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: Suzanne Lee TITLE: analyst DATE: 9.15.94 1345

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

MPDS Services	Client Project ID:	Unocal #5430, 1935 Washington Ave., San Leandro	Sampled:	Jun 19, 1994
2401 Stanwell Dr., Ste. 400	Sample Descript:	Water, U-3	Received:	Jun 20, 1994
Concord, CA 94520	Analysis Method:	EPA 5030/8010	Analyzed:	Jun 29, 1994
Attention: Avo Avedessian	Lab Number:	406-0854	Reported:	Jul 5, 1994

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane	50	N.D.
Bromoform	50	N.D.
Bromomethane	100	N.D.
Carbon tetrachloride	50	N.D.
Chlorobenzene	50	N.D.
Chloroethane	100	N.D.
2-Chloroethylvinyl ether	100	N.D.
Chloroform	50	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	50	N.D.
1,3-Dichlorobenzene	50	N.D.
1,4-Dichlorobenzene	50	N.D.
1,2-Dichlorobenzene	50	N.D.
1,1-Dichloroethane	50	N.D.
1,2-Dichloroethane	50	410
1,1-Dichloroethene	50	N.D.
cis-1,2-Dichloroethene	50	N.D.
trans-1,2-Dichloroethene	50	N.D.
1,2-Dichloropropane	50	N.D.
cis-1,3-Dichloropropene	50	N.D.
trans-1,3-Dichloropropene	50	N.D.
Methylene chloride	500	N.D.
1,1,2,2-Tetrachloroethane	50	N.D.
Tetrachloroethene	50	N.D.
1,1,1-Trichloroethane	50	N.D.
1,1,2-Trichloroethane	50	N.D.
Trichloroethene	50	N.D.
Trichlorofluoromethane	50	N.D.
Vinyl chloride	100	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, #1271

Alan B. Kemp
Project Manager

Please Note:
Revised Report, 10/20/94