MONITORING
PURGING
DISPOSING
SAMPLING

MPDS SERVICES, INCORPORATED

Conc discont. sampling of well V-3

January 9, 1997

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

Attention: Ms. Eva Chu

RE: Unocal Service Station #7176
7850 Amador Valley Boulevard
Dublin, California

Dear Ms. Chu:

Per the request of the Unocal Corporation Project Manager, Mr. Edward C. Ralston, enclosed please find our report (MPDS-UN7176-05) dated December 2, 1996 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) 277-2311.

Sincerely,

MPDS Services, Inc.

Jarrel F. Crider

/jfc

Enclosure

cc: Mr. Edward C. Ralston

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

MONITORING
PURGING
DISPOSING
SAMPLING

MPDS SERVICES, INCORPORATED

MPDS-UN7176-05
December 2, 1996

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

Attention: Mr. Edward C. Ralston

RE: Quarterly Data Report
Unocal Service Station #7176
7850 Amador Valley Boulevard
Dublin, California

Dear Mr. Ralston:

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. Oxygen Release Compound (ORC®) filter socks were present in monitoring wells U-1, U-2, and U-3. 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 October 30, 1996. Dissolved oxygen concentrations were measured and are presented in Table 3. 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, TPH as diesel, and benzene detected in the ground water samples collected this quarter are shown on the attached Figure 2. Copies of the laboratory analytical results and the Chain of Custody documentation are attached to this report.

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

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. Eva Chu of the Alameda County Health Care Services Agency.

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

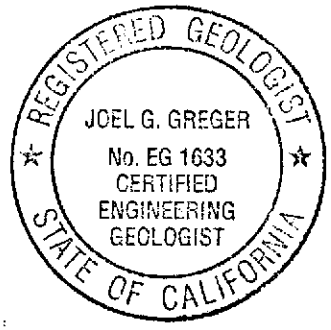
Sincerely,

MPDS Services, Inc.

Haig (Gary) Tejirian
Senior Staff Geologist

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

License No. EG 1633
Exp. Date 8/31/98



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

cc: Clyde Galantine, Enviros, 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 October 30, 1996)			
U-1	339.77	15.85	27.98	0	--	0
U-2	339.77	16.82	26.55	0	--	0
U-3	339.89	18.24	28.89	0	--	0
			(Monitored and Sampled on July 10, 1996)			
U-1	341.78	13.84	28.03	0	--	0
U-2	342.17	14.42	26.57	0	--	0
U-3	342.15	15.98	28.85	0	--	0
			(Monitored and Sampled on April 11, 1996)			
U-1	343.42	12.20	28.60	0	No	12
U-2	343.84	12.75	26.70	0	No	10
U-3	344.93	13.20	29.26	0	No	11
			(Monitored and Sampled January 11, 1996)			
U-1	339.29	16.33	28.85	0	No	9
U-2	339.53	17.06	27.25	0	No	7
U-3	339.48	18.65	29.33	0	No	7.5

Well #	Well Casing Elevation (feet)*
U-1	355.62
U-2	356.59
U-3	358.13

Table 1

Summary of Monitoring Data

- 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), per the Benchmark AM-STW1977 located at the easterly return at the most easterly corner of intersection of Amador Valley Blvd. and Starward Street (Elevation = 344.17 feet MSL).

-- Sheen determination was not performed.

Table 2

Summary of Laboratory Analyses
Water

Date	Well #	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE
10/30/96	U-1	560♦	2,200	67	19	140	150	360
	U-2	1,800♦	7,700	67	35	1,000	54	260
	U-3	ND	70	ND	ND	ND	ND	ND
7/10/96	U-1	2,200♦	2,600	81	4.4	210	230	510
	U-2	2,300♦	5,600	59	15	610	42	250
	U-3	ND	ND	ND	ND	ND	ND	ND
4/11/96	U-1✹	630♦	3,200	110	ND	180	290	790
	U-2✹	1,900♦	7,700	130	27	1,100	110	340
	U-3	ND	68★	ND	ND	ND	ND	ND
1/11/96‡	U-1	8,200♦	8,300	690	11	680	1,500	††
	U-2	8,600♦	10,000	210	55	1,400	240	††
	U-3	260♦♦	230	0.62	0.91	0.97	1.9	--
10/12/95	U-1	4,200♦	33,000	1,400	ND	1,400	3,100	†
	U-2	3,600♦	24,000	310	60	1,900	190	†
	U-3	470♦♦	560	ND	0.87	0.7	1.1	--
7/8/95	U-1	9,400*	39,000	1,500	19	1,600	5,200	--
	U-2	4,700*	17,000	430	ND	2,200	590	--
	U-3	710*	1,100**	0.57	2.1	1.7	2.4	--

✹ On April 11, 1996, all PNA compounds were non-detectable.

‡ On January 11, 1996, PNA compound naphthalene was detected in well U-1 at a concentration of 320 µg/L, and at a concentration of 310 µg/L in well U-2. All other PNA compounds were non-detectable in both wells.

† Sequoia Analytical Laboratory has potentially identified the presence of MTBE at reportable levels in the ground water sample collected from this well.

†† 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.

* Unidentified Hydrocarbon C9-C26

** Gas and Unidentified Hydrocarbons >C12

★ Sequoia Analytical Laboratory reported that the hydrocarbons detected did not apepar to be gasoline.

Table 2

Summary of Laboratory Analyses
Water

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

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

PNA = Polynuclear aromatic hydrocarbons (EPA method 8100).

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 October 12, 1995, were provided by Enviros, Inc.

Table 3

Summary of Monitoring Data

Date	Well #	Dissolved Oxygen Concentrations	
		Before Purging	After Purging
10/30/96★	U-1	1.41	--
	U-2	1.42	--
	U-3	2.18	--
7/10/96★	U-1	1.22	--
	U-2	1.01	--
	U-3	3.44	--
4/11/96	U-1	3.77	3.78
	U-2	3.32	3.41
	U-3	5.16	4.96
1/11/96	U-1	--	3.41
	U-2	--	3.99
	U-3	--	5.05
10/2/95	CC1*	2.83	--

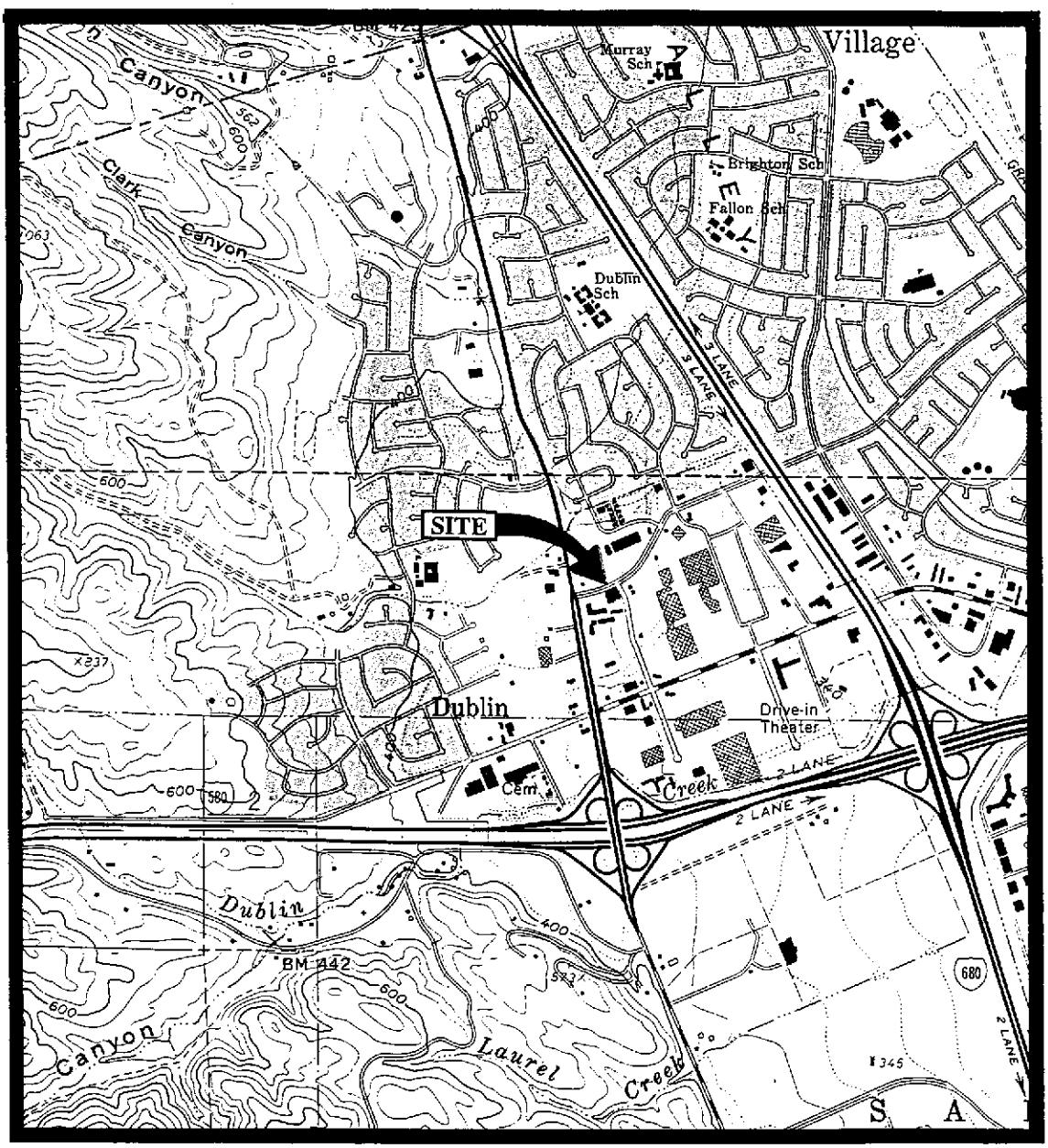
* For the location of sample point CC1, see Figure 1.

★ The wells were not purged on this date.

-- Measurement was not taken.

Results are in milligrams per liter (mg/L).

Note: Measurements were taken using a LaMotte DO4000 dissolved oxygen meter.

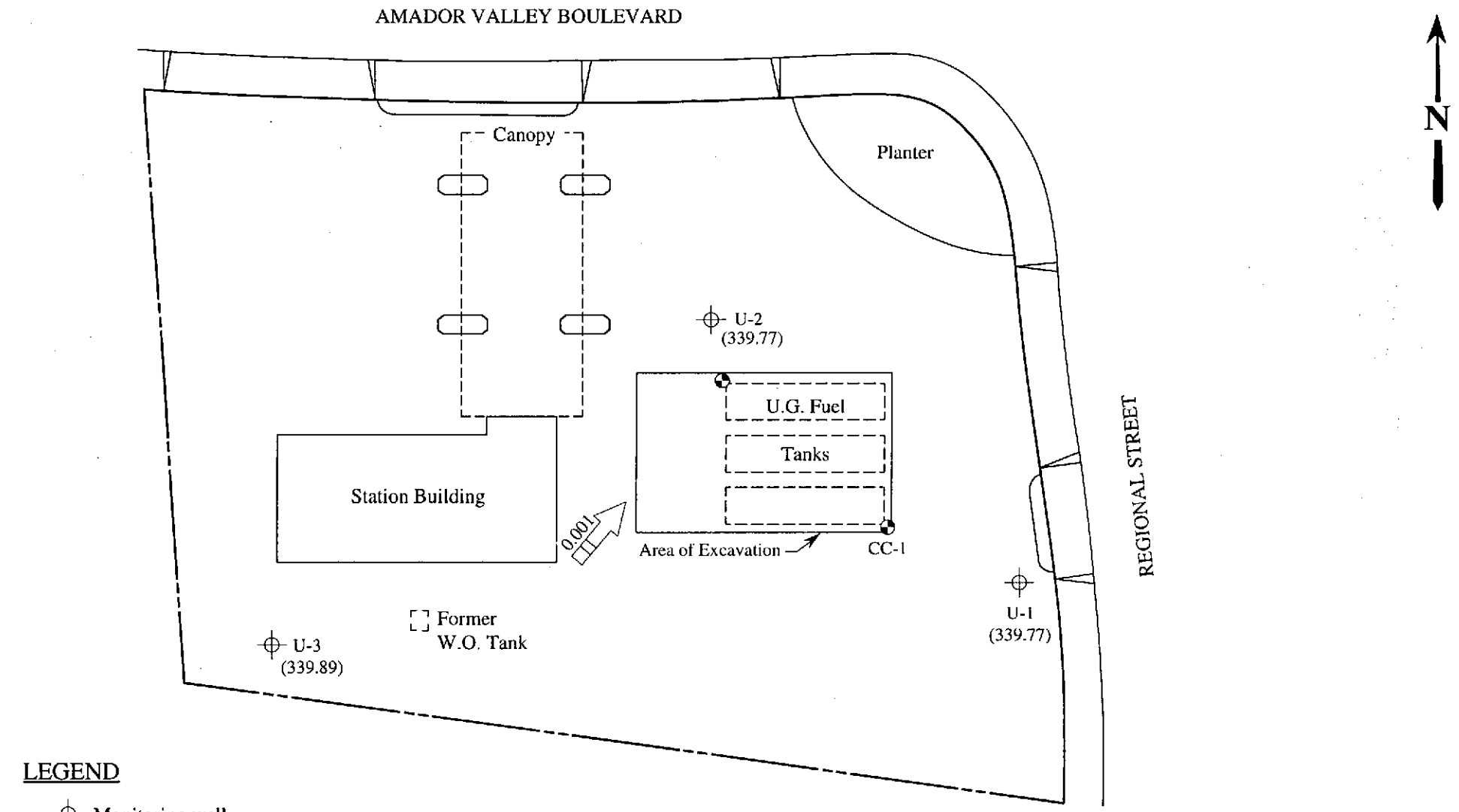


Base modified from 7.5 minute U.S.G.S. Dublin Quadrangle
(photorevised 1980)

0 2000 4000

Approx. scale feet

mpds SERVICES, INCORPORATED	**UNOCAL SERVICE STATION #7176** **7850 AMADOR VALLEY BOULEVARD** **DUBLIN, CALIFORNIA**	**LOCATION MAP**

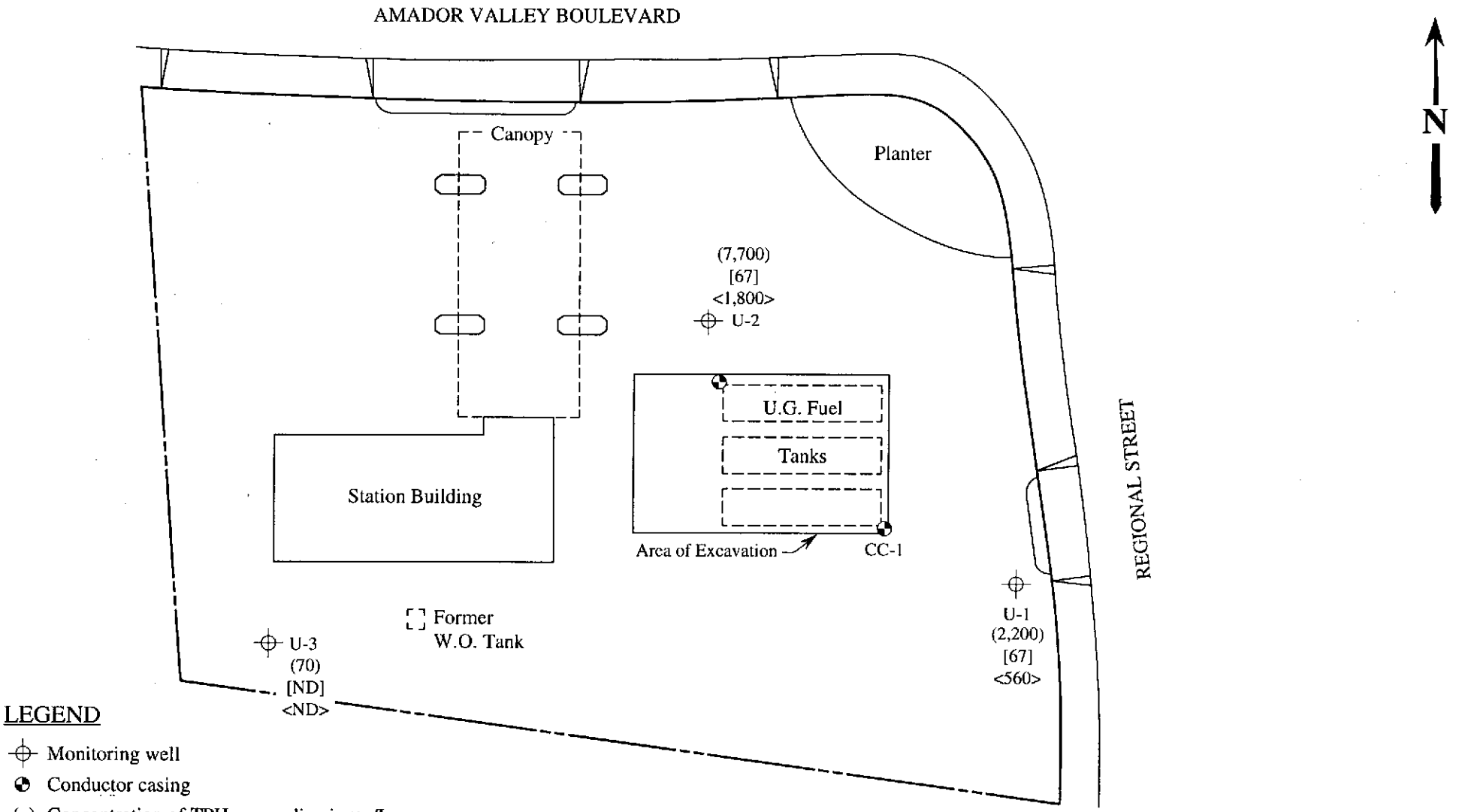


GROUND WATER FLOW DIRECTION MAP FOR THE OCTOBER 30, 1996 MONITORING EVENT

UNOCAL SERVICE STATION #7176
7850 AMADOR VALLEY BOULEVARD
DUBLIN, CALIFORNIA

mpds SERVICES, INCORPORATED

FIGURE
1



PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUND WATER ON OCTOBER 30, 1996

UNOCAL SERVICE STATION #7176
7850 AMADOR VALLEY BOULEVARD
DUBLIN, CALIFORNIA

mpds SERVICES, INCORPORATED

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 #7176, 7850 Amador Valley Rd.		Sampled: Oct 30, 1996
2401 Stanwell Dr., Ste. 300	Matrix Descript:	Water	Dublin	Received: Oct 30, 1996
Concord, CA 94520	Analysis Method:	EPA 5030/8015 Mod./8020		Reported: Nov 18, 1996
Attention: Jarrel Crider	First Sample #:	610-1737		

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
610-1737	U-1	2,200	67	19	140	150
610-1738	U-2	7,700	67	35	1,000	54
610-1739	U-3	70	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

6101737.MPD <1>

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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MPDS Services	Client Project ID:	Unocal #7176, 7850 Amador Valley Rd.		Sampled: Oct 30, 1996
2401 Stanwell Dr., Ste. 300	Matrix Descript:	Water	Dublin	Received: Oct 30, 1996
Concord, CA 94520	Analysis Method:	EPA 5030/8015 Mod./8020		Reported: Nov 18, 1996
Attention: Jarrel Crider	First Sample #:	610-1737		

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
610-1737	U-1	Gasoline	5.0	11/13/96	HP-2	90
610-1738	U-2	Gasoline	20	11/13/96	HP-2	116
610-1739	U-3	Gasoline	1.0	11/12/96	HP-2	90

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 #7176, 7850 Amador Valley Rd.		Sampled: Oct 30, 1996
2401 Stanwell Dr., Ste. 300	Sample Descript:	Water	Dublin	Received: Oct 30, 1996
Concord, CA 94520	Analysis for:	MTBE (Modified EPA 8020)		
Attention: Jarrel Crider	First Sample #:	610-1737		Analyzed: Nov 12-13, 1996
				Reported: Nov 18, 1996

LABORATORY ANALYSIS FOR: MTBE (Modified EPA 8020)

Sample Number	Sample Description	Detection Limit µg/L	Sample Result µg/L
610-1737	U-1	5.0	360
610-1738	U-2	10	260
610-1739	U-3	5.0	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
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 #7176, 7850 Amador Valley Rd.	Sampled:	Oct 30, 1996
2401 Stanwell Dr., Ste. 300	Sample Matrix:	Water	Dublin Received:	Oct 30, 1996
Concord, CA 94520	Analysis Method:	EPA 3510/8015 Mod.	Reported:	Nov 18, 1996
Attention: Jarrel Crider	First Sample #:	610-1737		

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS WITH SILICA GEL CLEANUP

Analyte	Reporting Limit µg/L	Sample I.D. 610-1737 U-1 ^	Sample I.D. 610-1738 U-2 ^	Sample I.D. 610-1739 U-3
Extractable Hydrocarbons	50	560	1,800	N.D.
Chromatogram Pattern:		Diesel & Unidentified Hydrocarbons <C15	Diesel & Unidentified Hydrocarbons <C15	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0
Date Extracted:	11/4/96	11/4/96	11/4/96
Date Analyzed:	11/5/96	11/5/96	11/5/96
Instrument Identification:	HP-3B	HP-3B	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 appears to contain diesel and non-diesel mixtures. "Unidentified Hydrocarbons <C15" are probably gasoline.

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

Client Project ID: Unocal #7176, 7850 Amador Valley Rd.
Matrix: Liquid
QC Sample Group: 6101737-739

Reported: Nov 18, 1996

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015
Analyst:	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb	D. Sharma
MS/MSD Batch#:	6101675	6101675	6101675	6101675	BLK110496
Date Prepared:	11/12/96	11/12/96	11/12/96	11/12/96	11/4/96
Date Analyzed:	11/12/96	11/12/96	11/12/96	11/12/96	11/5/96
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	HP-3B
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	300 µg/L
Matrix Spike % Recovery:	110	105	110	112	80
Matrix Spike Duplicate % Recovery:	105	105	105	110	57
Relative % Difference:	4.7	0.0	4.7	1.5	34
LCS Batch#:	2LCS111296	2LCS111296	2LCS111296	2LCS111296	LCS110496
Date Prepared:	11/12/96	11/12/96	11/12/96	11/12/96	11/4/96
Date Analyzed:	11/12/96	11/12/96	11/12/96	11/12/96	11/5/96
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	HP-3B
LCS % Recovery:	105	105	115	110	83
% Recovery Control Limits:	60-140	60-140	60-140	60-140	60-140

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.

M P D S Services, Inc.

96613

CHAIN OF CUSTODY

SAMPLER: ARMOND BALAIAN
WITNESSING AGENCY:

UNOCAL S/S # 7176 CITY: DUBLIN
ADDRESS: 7850 AMADOR VALLEY RD.

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
~~MW-1~~ U-1	10-30-96		X	X		3	WELL	X	X			X	6101737			* FILTER TPH-D W/ SILICA GEL
~~MW-2~~ U-2	"		X	X		3	"	X	X			X	6101738			
~~MW-3~~ U-3	"		X	X		3	"	X	X			X	6101739			

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
(SIGNATURE)		(SIGNATURE)
(SIGNATURE)	16:50 10-30-96	(SIGNATURE)
(SIGNATURE)		(SIGNATURE)
(SIGNATURE)		(SIGNATURE) KH

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

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

SIGNATURE: [signature] TITLE: ANALYST DATE: 10/30/96