KAPREALIAN ENGINEERING
INCORPORATED

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HAZMAT

93 DEC 16 AM 11:00

DATE: December 13, 1993

SUBJECT: Meeting Minutes

Unocal Service Station #3292
15008 East 14th Street
San Leandro, California

ATTENDEES: Scott Seery, Alameda County Health Care Services
Ed Ralston, Unocal Corporation
Tim Ross, Kaprealian Engineering, Inc.
Bob Kezerian, Kaprealian Engineering, Inc.

On November 18, 1993, a meeting was held at the Alameda County Health Care Services (ACHCS) Agency office in Oakland, California, between the ACHCS, Unocal, and Kaprealian Engineering, Inc. (KEI). The meeting was held to discuss the ongoing subsurface investigations at the subject Unocal site and the other nearby sites in the vicinity.

KEI presented a summary of the subsurface investigation that has been conducted by KEI at and in the vicinity of the Unocal site to date. A site vicinity update was presented by Scott Seery.

SITE VICINITY UPDATE

1. The adjacent Quality Tune-Up (former Phillips 66 service station) site has obtained approval to close their existing underground storage tanks in-place from Mike Bakaldin of the San Leandro Fire Department.

2. Chevron has proposed additional investigative work to further define the extent of contamination in the vicinity of their site.

3. The potential responsible parties (RP's) for the adjacent former Mobil site have been directed to conduct an investigation at the subject property. A 45-day deadline for the submittal of a work plan was directed by the ACHCS on October 29, 1993.

4. Currently, two ground water monitoring wells exist on the former Mobil site.

5. During previous work at the former Mobil site by PG&E, a concentration of 45,000 ppm of total oil and grease was detected in the soil along 150th street. Excavation was conducted in the area. Subsequent to excavation, less than 100 ppm of "TPH and total extractables" were detected.

2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel: 510.602.5100 Fax: 510.687.0602

ACTION ITEMS

1. Unocal will contract to have a "Phase I" investigation conducted, which will include a detailed study of the site vicinity.

2. Unocal will analyze the ground water samples collected from monitoring wells MW2 and/or MW6 and/or MW7 for EPA method 8010 constituents on a one-time basis.

3. If a ground water monitoring and sampling program is instituted for the existing wells on the Mobil site, Unocal will attempt to arrange a joint monitoring and sampling program.

4. Unocal, ACHCS, and KEI discussed the need for a future meeting with the RP's of all of the nearby sites to coordinate future warranted work.

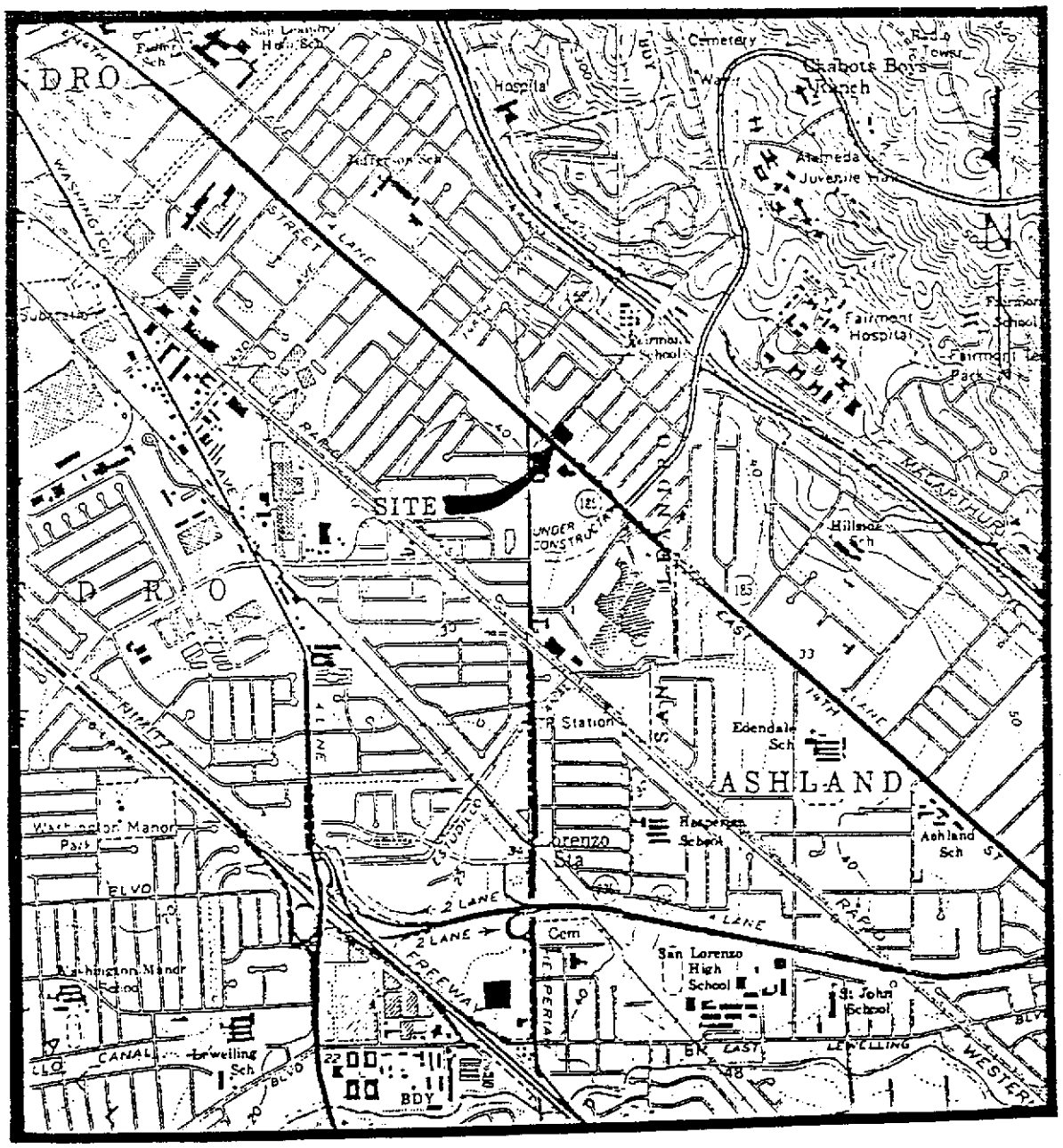
Should you have any questions regarding these minutes, please do not hesitate to call me at (510) 602-5100.

Sincerely,

Kaprealian Engineering, Inc.

Robert H. Kezerian
Project Manager

RHK:jad\MINS



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

0 2000 4000

Approx. scale feet

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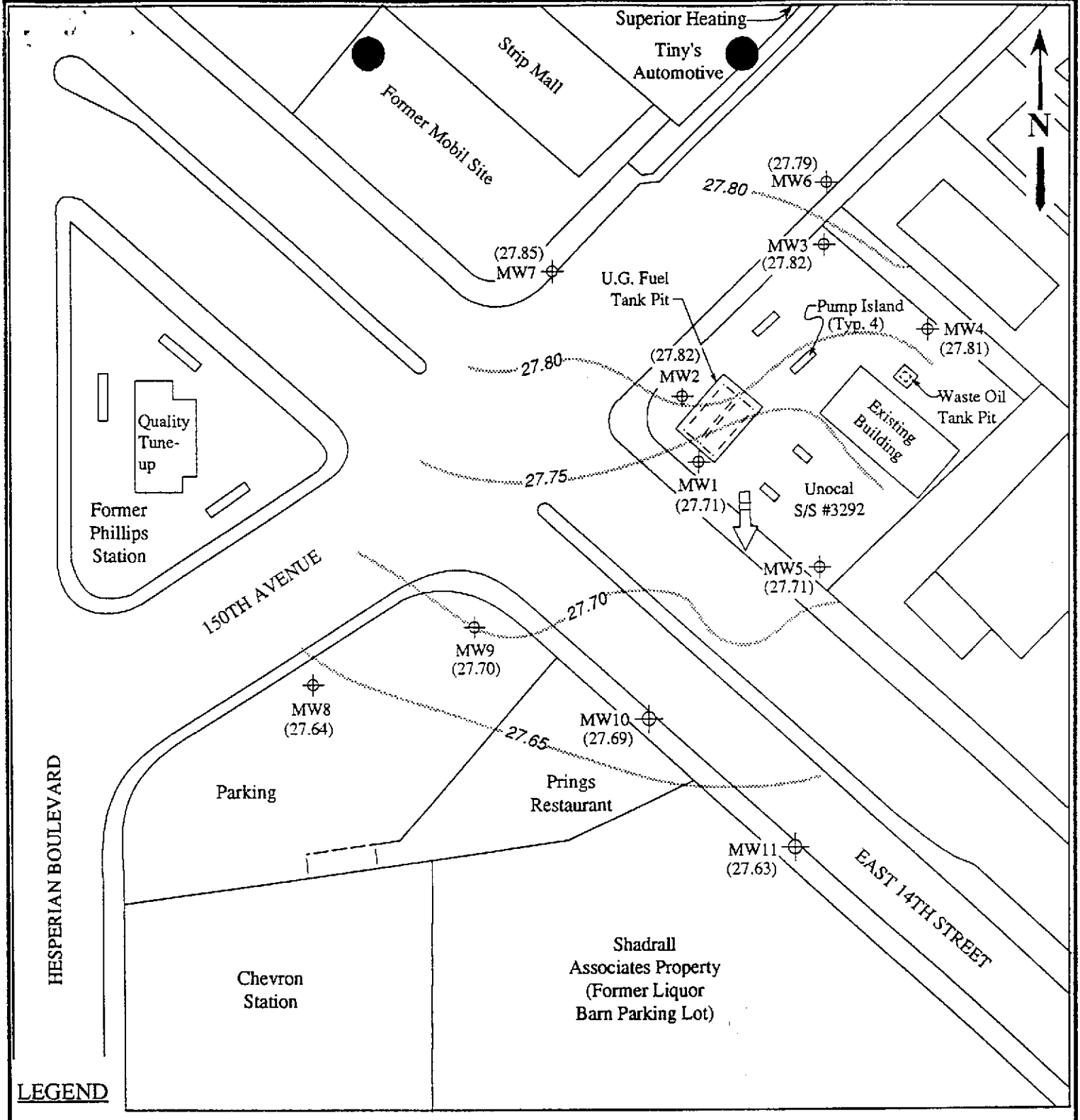
UNOCAL SERVICE STATION #3292
15008 EAST 14TH STREET
SAN LEANDRO, CA

LOCATION MAP



LEGEND

- Monitoring well
- ( ) Ground water elevation in feet above Mean Sea Level
- Direction of ground water flow
- Contours of ground water elevation

0 60 120

Approx. scale feet

POTENTIOMETRIC SURFACE MAP FOR FEBRUARY 20, 1993 MONITORING EVENT

KAPREALIAN ENGINEERING INCORPORATED

UNOCAL SERVICE STATION #3292
15008 E. 14TH STREET
SAN LEANDRO, CA

FIGURE 4

KEI-P91-0102.QR5
April 6, 1993

TABLE 4

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Sample Well #	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethylbenzene
2/20/93	MW1	19,000	190	ND	620	880
	MW2	1,500	2.9	3.8	ND	9.1
	MW3	1,600	12	18	12	8.9
	MW4	2,400	40	2.1	ND	33
	MW5	17,000	75	ND	620	1,000
	MW6	2,400	43	ND	2.0	33
	MW7	1,800	37	4.6	7.7	11
	MW8	2,200	32	ND	5.0	42
	MW9	2,300	47	ND	ND	32
	MW10	17,000	74	ND	620	1,000
	MW11	18,000	76	ND	630	1,000
11/10/92	MW1	18,000	220	ND	830	690
	MW2	11,000	36	7.2	45	570
	MW3	3,400	37	ND	34	85
	MW4	690	9.1	ND	2.8	16
	MW5	57,000	800	1,800	18,000	4,400
	MW6	490	7.0	1.2	ND	1.7
	MW7	1,800	74	ND	350	230
	MW8	1,800	20	ND	ND	ND
	MW9	4,200	ND	ND	23	21
	MW10	15,000	300	42	330	3,500
	MW11	5,800	130	ND	42	260
8/20/92	MW1	18,000	230	22	950	640
	MW2	13,000	52	ND	70	660
	MW3	4,500	58	ND	35	65
	MW4	1,000	15	ND	3.0	11
	MW5	58,000	660	1,700	19,000	4,200
	MW6	280	8.4	ND	0.84	0.51
	MW7	13,000	460	54	3,100	ND
	MW8	3,500*	67	11	ND	ND
	MW9	3,800*	37	ND	ND	ND
	MW10	15,000	230	ND	350	1,000
	MW11	4,600*	62	ND	54	ND

KEI-P91-0102.QR5
April 6, 1993

TABLE 4 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Sample Well #	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethylbenzene
5/19/92	MW1	29,000	650	370	1,200	1,100
	MW2	17,000	140	87	170	680
	MW3	3,400	25	3.6	41	66
	MW4	2,000	20	3.5	8.3	42
	MW5	84,000	760	1,500	17,000	4,000
	MW6	1,300	2.0	2.1	2.7	ND
	MW7	17,000	540	90	1,900	1,200
	MW8	5,300	28	3.3	2.1	2.6
	MW9	8,100	11	ND	5.8	25
3/17/92	MW1	23,000	320	19	940	1,000
	MW2	16,000	110	ND	220	730
	MW3	5,800	66	7.5	58	100
	MW4	1,800	3.7	1.4	21	90
	MW5	81,000	850	1,600	18,000	4,800
12/18/91	MW1	17,000	160	20	1,600	1,400
	MW2	10,000	110	5.1	96	420
	MW3	5,900	54	6.4	64	110
	MW4	2,500	28	2.5	22	54
	MW5	31,000	1,600	3,100	19,000	4,800
9/19/91	MW1	26,000	130	16	1,800	1,300
	MW2	19,000	100	6.8	310	790
	MW3	7,600	ND	13	170	190
	MW4	1,800	0.83	ND	46	54
	MW5	57,000	1,600	2,700	20,000	5,200
5/04/91	MW1	31,000	74	20	1,500	920
	MW2	19,000	6.6	1.4	630	460
	MW3	9,100	2.0	ND	180	55
	MW4	6,300	ND	ND	61	2.8
	MW5	69,000	1,400	2,500	15,000	3,500

ND = Non-detectable.

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

Results in parts per billion (ppb), unless otherwise indicated.

KEI-P91-0102.R6
October 5, 1992

TABLE 4

SUMMARY OF LABORATORY ANALYSES
SOIL

Date	Sample Number	Depth (feet)	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethyl-benzene
4/23/91	MW1(5)	5.0	ND	ND	ND	0.0070	ND
	MW1(10)	10.0	82	0.20	0.23	0.31	0.14
	MW1(12)	12.0	420	1.2	1.3	0.72	0.78
	MW2(5)	5.0	ND	ND	ND	0.022	0.0085
	MW2(10)	10.0	2.2	0.089	ND	0.0064	ND
	MW2(12)	12.0	12	ND	0.017	0.075	0.14
	MW3(5)	5.0	ND	ND	ND	ND	ND
	MW3(10)	10.0	1.4	0.015	0.0051	0.014	ND
	MW3(13)	13.0	3.5	0.026	0.026	0.030	0.0088
	MW4(5)	5.0	ND	ND	ND	ND	ND
	MW4(10)	10.0	ND	ND	ND	0.0060	ND
	MW4(13)	13.0	ND	ND	ND	0.012	0.0088
	MW5(5)	5.0	ND	ND	ND	ND	ND
	MW5(10)	10.0	7.7	0.029	0.14	0.090	0.13
	MW5(14.5)	14.5	620	6.8	4.4	75	18
5/05/92	MW6(5.5)	5.5	ND	ND	ND	ND	ND
	MW6(10.5)	10.5	ND	ND	ND	ND	ND
	MW7(9)	9.0	280	0.45	0.45	23	7.2
	MW7(12.5)	12.5	540	1.9	0.47	47	15
5/06/92	MW8(5)	5.0	ND	ND	ND	ND	ND
	MW8(10)	10.0	ND	ND	ND	ND	ND
	MW8(11.5)	11.5	ND	ND	ND	ND	ND
	MW8(13.5)	13.5	1.2	0.011	0.0054	0.014	ND
	MW9(5)	5.0	ND	ND	0.0053	0.014	ND
	MW9(10)	10.0	ND	ND	ND	0.0078	ND
	MW9(12)	12.0	ND	ND	ND	0.0074	ND

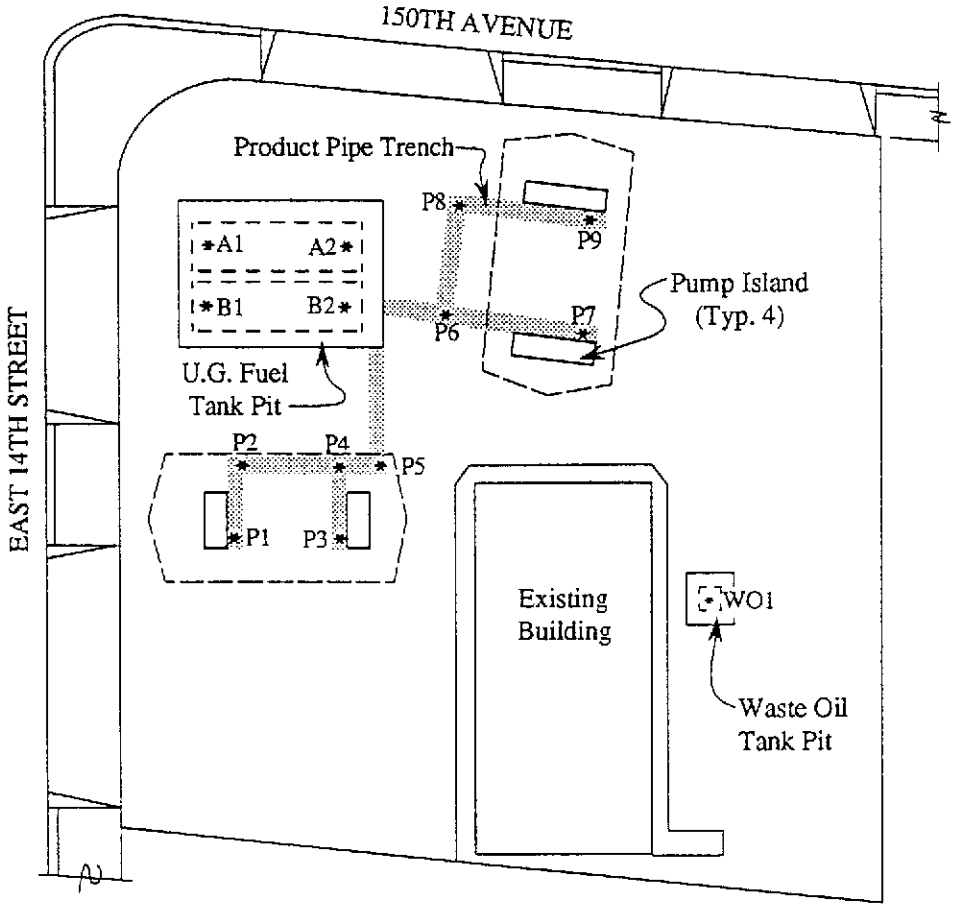
TABLE 4 (Continued)

SUMMARY OF LABORATORY ANALYSES
SOIL

Date	Sample Number	Depth (feet)	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethyl-benzene
8/13/92	MW10(5)	5.0	ND	ND	ND	0.0098	ND
	MW10(10)	10.0	1.2	0.013	0.0064	0.013	0.019
	MW10(13)	13.00	32	ND	0.11	0.065	0.99
	MW11(5)	5.0	ND	ND	ND	0.0063	ND
	MW11(10)	10.0	2.3	ND	0.0050	0.014	0.037
	MW11(12)	12.0	47	ND	0.056	0.38	0.46
Detection Limits			1.0	0.0050	0.0050	0.0050	0.0050

ND = Non-detectable.

Results in parts per million (ppm), unless otherwise indicated.



LEGEND

* Sample point location

(Samples collected during January and February of 1991)

0 30 60

Approx. scale feet

FUEL TANK PIT AND FUEL LINE SOIL SAMPLE LOCATIONS

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UNOCAL SERVICE STATION #3292
15008 E. 14TH STREET
SAN LEANDRO, CA

FIGURE

KEI-P91-0102.R6
October 5, 1992

TABLE 4

SUMMARY OF LABORATORY ANALYSES
SOIL

(Collected on January 16, and
February 11 & 12, 1991)

Sample	Depth (feet)	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethylbenzene
A1	15.5	2,600	7.1	55	170	55
A2	16.0	290	1.3	1.1	1.2	1.5
B1	15.5	840	1.5	2.7	9.9	1.3
B2	15.0	150	1.6	3.3	11	2.0
P1	3.5	ND	0.0072	0.019	0.026	ND
P2	4.75	1.2	0.014	0.041	0.11	0.019
P3	3.75	ND	ND	ND	ND	ND
P4	3.75	ND	ND	ND	ND	ND
P5	3.5	ND	ND	ND	ND	ND
P6	5.0	ND	ND	ND	ND	ND
P7	5.0	7.1	0.89	0.23	0.70	0.57
P8	3.5	ND	ND	ND	ND	ND
P9	7.5	130	0.068	0.37	0.076	0.66
WO1*	8.25	ND	ND	ND	ND	ND
Detection Limits		1.0	0.0050	0.0050	0.0050	0.0050

ND = Non-detectable.

* TOG, TPH as diesel, and all EPA method 8010 constituents were non-detectable. Metals were non-detectable, except for zinc, which showed 31 ppm.

Results in parts per million (ppm), unless otherwise indicated.

County Health Care Services (ACHCS) Agency for the following sites: 1) Former Mobil service station site (presently a shopping center), 14994 E. 14th Street; 2) Former Phillips service station site (presently a Quality Tune-Up facility), 14901 E. 14th Street; and 3) Shadrall Associates Property (former Liquor Barn), 15035 E. 14th Street. The locations of the sites relative to the Unocal site are shown on the attached Site Vicinity Map, Figure 5.

1. Former Mobil Site (presently a shopping center), 14994 E. 14th Street:

   The former Mobil site is located directly across 150th Avenue and approximately 80 feet northwest of the Unocal site. Documents contained within the CSLFD and ACHCS files indicate that three underground storage tanks were relined in February 1984, due to failed precision tests. File documents indicate that the leaks were acknowledged at the time by Mobil Oil and the dealer. The tanks were removed from the site in 1986. Volatile hydrocarbons ranged from non-detectable to 1,700 ppm in soil samples collected from beneath the tanks. Correspondence from the ACHCS indicates that soils with hydrocarbon levels of up to 1,000 ppm were left in place. One monitoring well was required by the regulatory agencies, but no documentation was found as to whether it was ever installed.

   In 1987, a PG&E crew reported encountering hydrocarbon contaminated soil during utility pole replacement along 150th Avenue, along the southeast edge of the former Mobil site. In September through November of 1987, Subsurface Consultants of Oakland, California, installed a total of 15 borings in the immediate vicinity of this contamination (approximately 40 feet northeast of Unocal well MW7). TPH as gasoline and TPH as diesel detected in soil samples collected from the borings ranged from non-detectable to 370 ppm, and non-detectable to 200 ppm, respectively. Trans-1,2,-dichloroethene, trichloroethene, and tetrachloroethene were detected in the boring closest to the PG&E excavation at levels of 6,600 ppb, 15,000 ppb, and 8,000 ppb, respectively, at a depth of 5 feet below grade. Approximately 125 cubic yards of soil were subsequently removed from the affected area. The approximate limits of the excavation are shown on the attached Site Vicinity Map, Figure 5. In April 1988, one monitoring well was installed within 10 feet of the excavation in the presumed down-gradient direction. The initial water sample collected from this well showed 29,000 ppb of TPH as gasoline. No documentation of further sampling or investigation was found in the file review.

2. Former Phillips Service Station (site presently occupied by a Quality Tune-Up Facility), 14901 E. 14th Street:

   The former Phillips site is located approximately 150 feet west of the Unocal Site. No records of any site investigation or sampling activities were found during the file review. A Fire Safety Inspection Sheet contained in the CSLFD records infers that three underground fuel storage tanks, along with their associated piping, were sealed and abandoned in place in July of 1976.

3. Shadrall Associates Property (former Liquor Barn), 15035 E. 14th Street:

   As previously reported, a report from Law Environmental, Inc., of San Rafael, California, dated November 14, 1990, and titled "Phase II Site Assessment Report" documents the installation of three monitoring wells. Ground water flow was towards the southwest with a gradient of 0.0003 on October 25, 1990. A sample collected from upgradient well MW3 on the same date showed a level of 11,000 ppb of TPH as gasoline and 540 ppb of benzene. No information concerning the three wells was available at the CSLFD or the ACHCS at the time of our review.

In addition to the three sites listed above, KEI reviewed all available CSLFD and ACHCS records pertaining to Tiny's Automotive Service, located at 1405 150th Avenue, and Superior Heating and Sheet Metal, located at 1455 150th Avenue. These sites are located northeastward of and adjacent to the former Mobil site, and approximately 100 and 150 feet directly upgradient of the Unocal site. No record of underground storage tanks exist for either site.

In summary, laterally undefined contamination from the former Mobil site appears to be impacting off-site monitoring well MW7. This contamination, and undefined potential contamination from the former Phillips Service Station site, may be contributing to the contaminant levels observed in the other Unocal wells. Therefore, KEI recommends that Unocal request that Mr. Scott Seery of the ACHCS contact the responsible parties for the Phillips service station site and the former Mobil site, so that these potential responsible parties can instigate investigations for their former sites.

Lastly, based on the analytical results of the samples collected from the Unocal site, and evaluated to date, KEI recommends the continuation of the existing ground water monitoring and sampling program, per KEI's proposal (KEI-P91-0102.P3) dated August 6, 1991.

BORING LOG

Project No. KEI-P91-0102	**Boring Diameter** 9" **Casing Diameter** 2"	**Logged By** JGG D.L. CEG 1633
Project Name Unocal S/S #3292 15008 E. 14th, San Leandro	**Well Cover Elevation**	**Date Drilled** 8/13/92
Boring No. MW10	**Drilling Method** Hollow-stem Auger	**Drilling Company** Woodward Drilling

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati-graphy USCS	Description
NO BLOW COUNT DATA - SAMPLES PUSHED	▼	0		Concrete slab.
				Sand and gravel mixed with black silty clay (fill and disturbed native soil).
			SC	Silty clay with trace sand and gravel, very stiff, moist, very dark brown (10YR 2/1) and black (10YR 1/1), mottled.
		5		Clayey sand with trace gravel to 3/4 inch in diameter, sand is fine to coarse-grained, medium dense, moist, dark brown (10YR 3/3), with iron-oxide stained root holes.
			ML	Silt with trace fine-grained sand, stiff, moist, dark greenish gray (5GY 4/1).
		10	CL	Silty clay, stiff, moist, dark gray (5Y 4/1), olive brown (2.5YR 4/4) below 10.5 feet with dark greenish gray (5GY 4/1) discolored root holes.
			MH	Clayey silt, stiff, moist, olive gray (5Y 4/2).
			CL	Silty clay, as at 11 feet.
			MH	Clayey silt, stiff, moist, olive gray (5Y 4/2).
			SM	Silty sand with trace clay, sand is fine-grained, medium dense, wet, dark greenish gray (5GY 4/1).
			CH	Silty clay, stiff, moist, olive gray (5Y 4/2) and very dark grayish brown (10YR 3/2), mottled.
		15	ML	Silt and sandy silt, stiff, very moist to wet, dark greenish gray (5Y 4/1), sand is very fine to fine-grained.
				Silty clay, stiff, moist, olive gray (5Y 4/1) with minor iron oxide staining.
			CH	Clay with silt and trace sand, stiff, moist, very dark brown (10YR 2/2) and very dark gray (10YR 3/1), mottled, minor caliche.
		20		TOTAL DEPTH 20'