KAPREALIAN ENGINEERING
INCORPORATED

June 8, 1992

Alameda County Health Care Services
80 Swan Way, Room 200
Oakland, CA 94621

Attention: Mr. Larry Seto

RE: Unocal Service Station #7004
15599 Hesperian Boulevard
San Leandro, California

Dear Mr. Seto:

Per the request of Mr. Bob Boust of Unocal Corporation, enclosed please find our report dated May 29, 1992, for the above referenced site.

If you should have any questions, please feel free to call our office at (510) 602-5100.

Sincerely,

Kaprealian Engineering, Inc.

Judy A. Dewey

jad\82

Enclosure

cc: Bob Boust, Unocal Corporation

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

KAPREALIAN ENGINEERING
INCORPORATED

KEI-P90-1003.R6
May 29, 1992

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

Attention: Mr. Robert A. Boust

RE: **Continuing Ground Water Investigation and Quarterly Report**
Unocal Service Station #7004
15599 Hesperian Boulevard
San Leandro, California

Dear Mr. Boust:

This report presents the results of the most recent quarter of monitoring and sampling of the monitoring wells at the referenced site by Kaprealian Engineering, Inc. (KEI), per KEI's proposal KEI-P90-1003.P2 dated May 31, 1991. The wells are currently monitored monthly and sampled on a quarterly basis. This report covers the work performed by KEI from February through April 1992.

This report also presents the results of the drilling and installation of a six-inch recovery well for the purpose of ground water remediation at the referenced site, in accordance with KEI's work plan/proposal (KEI-P90-1003.P3) dated March 23, 1992. The scope of the work performed by KEI consisted of the following:

Coordination with regulatory agencies

Geologic logging of the boring for one recovery well

Ground water monitoring, purging, and sampling

Data analysis, interpretation, and report preparation

SITE DESCRIPTION AND BACKGROUND

The subject site is presently used as a self-service gasoline station, and is located adjacent to a Kragen Auto Parts store. The site is situated on gently sloping, southwest trending topography, and is located approximately 700 to 800 feet northeast of San Lorenzo Creek, and 2.1 miles northeast of the present shoreline of San Francisco Bay. A former Chevron service station is located approximately 450 feet north-northeast from the Unocal site, at the intersection of Sycamore Street and Hesperian Boulevard. A Location Map and Site Plans are attached to this report.

KEI's initial field work was conducted on October 12, 1990, when three underground storage tanks were removed from the site. The tanks consisted of one 12,000 gallon super unleaded gasoline storage tank and two 12,000 gallon regular unleaded gasoline storage tanks. The tanks were made of steel, and no apparent holes or cracks were observed in any of the tanks.

Nine soil samples, labeled A1, A2, A3, B1, B2, B3, C1, C2, and C3, were collected from beneath the fuel tanks at depths of approximately 14 to 15 feet below grade. Sample point locations are as shown on the attached Site Plan, Figure 2.

In an attempt to remove as much of the contaminated soil as possible, KEI returned to the site on October 19, 1990, in order to observe additional soil excavation in the fuel tank pit. Soil was excavated from a depth of 15 feet below grade to a depth of 19 feet below grade. Water was encountered in the fuel tank pit at a depth of approximately 18.5 feet below grade, thus prohibiting the collection of any additional soil samples from the bottom of the fuel tank pit. Four soil samples, labeled SW1 through SW4, were collected from trenches that were excavated near the sidewalls of the fuel tank pit. Each sample was collected at approximately six inches above the observed water table, and at lateral distances of 2, 4, 17, and 4 feet, respectively, from the original tank pit sidewalls. Sample point locations are as shown on the attached Site Plan, Figure 2.

KEI returned to the site on October 22, 1990, in order to complete the fuel tank pit sidewall sampling. One soil sample, labeled SW5, was collected from the south sidewall at a depth of about 18 feet below grade. Due to obvious contamination observed in the area of sample point SW5, one additional soil sample, labeled SW5(20), was collected from a trench that was excavated to a depth of 18 feet below grade, and to a lateral distance of 20 feet from the original tank pit south sidewall.

After soil sampling was completed, the entire fuel tank pit was excavated 4 feet laterally and to a depth of approximately 19 feet below grade. Following soil excavation, approximately 5,000 gallons of ground water were pumped from the fuel tank pit. On October 24, 1990, one water sample, labeled W1, was collected from the fuel tank pit.

KEI returned to the site on October 31, 1990, in order to collect soil samples from the product pipe trenches. Four samples, labeled P1 through P4, were collected from the pipe trenches at depths ranging from 2.5 to 3 feet below grade. After additional excava-

tion in the area of sample point P2, one soil sample, labeled P2(7.5), was collected directly beneath sample point P2 at a depth of 7.5 feet below grade. After the soil sampling was completed, the pipe trenches were excavated to the depth of the sample points.

After reviewing the laboratory analyses and in an attempt to remove as much of the contaminated soil as feasible, KEI returned to the site on November 2, 1990, in order to observe additional soil excavation in the area of sample points P1 and P3. Additional soil samples, labeled P1(8) and P3(5.5), were collected at depths of 8 and 5.5 feet below grade, respectively, beneath the initial sample points P1 and P3, respectively. Sample point locations are shown on the attached Site Plan, Figure 2.

All samples were analyzed by Sequoia Analytical Laboratory in Concord, California. All soil and water samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline, and benzene, toluene, xylenes, and ethylbenzene (BTX&E).

Analytical results of the soil samples collected from beneath the fuel tanks indicated levels of TPH as gasoline ranging from 180 ppm to 1,900 ppm, and levels of benzene ranging from 0.64 ppm to 9.7 ppm. Samples collected from the fuel tank pit sidewalls showed levels of TPH as gasoline ranging from non-detectable to 4.5 ppm, except for sample SW5, which showed 998 ppm of TPH as gasoline. However, the additional sample SW5(20), collected at a depth of 18 feet below grade and at a lateral distance of 16 feet from sample SW5, indicated 30 ppm of TPH as gasoline.

Analytical results of the soil samples (P1 through P4) collected from the pipe trenches indicated levels of TPH as gasoline at 1,400 ppm, 3,900 ppm, 100 ppm, and 19 ppm, respectively. However, after additional excavation, the levels of TPH as gasoline in samples P1(8), P2(7.5), and P3(5.5), collected beneath the samples P1, P2, and P3, respectively, were detected at 5.7 ppm, 20 ppm, and 9.8 ppm, respectively. The results of the soil analyses are summarized in Table 4.

Analytical results of the water sample (W1) collected from the fuel tank pit indicated 4,300 ppb of TPH as gasoline and 40 ppb of benzene. The results of the water analyses are summarized in Table 5.

Documentation of the tank and piping removal procedures, sample collection techniques, and the analytical results of the soil and ground water samples collected during the tank excavation are summarized in KEI's report (KEI-J90-1003.R1) dated November 26, 1990.

To comply with the requirements of the regulatory agencies and based on the analytical results, KEI proposed the installation of three monitoring wells.

On April 22, 1991, three two-inch diameter monitoring wells (designated as MW1, MW2, and MW3 on the attached Site Plan, Figure 1) were installed at the site. The monitoring wells were each drilled and completed to total depths of 25 feet below grade. Ground water was encountered at depths ranging from 16.5 to 18 feet beneath the surface during drilling. The surface of each well cover was surveyed by Kier & Wright of Pleasanton, California, to Mean Sea Level (MSL) and to a vertical accuracy of 0.01 feet. The wells were developed on April 23, 1991, and were initially sampled on May 4, 1991.

Water and selected soil samples collected from MW1, MW2, and MW3 were analyzed at Sequoia Analytical Laboratory in Concord, California, for TPH as gasoline and BTX&E.

Analytical results of the soil samples collected from the borings for monitoring wells MW1, MW2, and MW3 indicated levels of TPH as gasoline and benzene ranging from non-detectable to 6.8 ppm, and non-detectable to 0.025 ppm, respectively, except for samples MW3(15) and MW3(17.5) collected from the boring for well MW3 at depths of 15 feet and 17.5 feet below grade, respectively, which showed TPH as gasoline levels of 4,800 ppm and 1,000 ppm, and benzene levels of 23 ppm and 8.4 ppm, respectively.

Analytical results of the ground water samples collected from monitoring wells MW1 and MW2 indicated non-detectable levels of TPH as gasoline and BTX&E. In well MW3, TPH as gasoline was detected at 34,000 ppb and benzene was detected at 6,100 ppb. The results of the soil analyses are summarized in Table 3, and the results of the water analyses are summarized in Table 2.

Based on the results of the preliminary investigation, KEI proposed the installation of three additional monitoring wells. Documentation of the initial well installation protocol, sample collection techniques, and the analytical results of the preliminary ground water investigation are presented in KEI's report (KEI-P90-1003.R4) dated May 31, 1991.

On July 2, 1991, three additional two-inch diameter monitoring wells (designated as MW4, MW5, and MW6 on the attached Site Plan, Figure 1) were installed at the site. The three wells were each drilled and completed to total depths of 26 feet below grade. Ground water was encountered at depths ranging from 17.5 to 20.5

feet beneath the surface during drilling. The surface of each well cover was surveyed by Kier & Wright of Pleasanton, California, to MSL and to a vertical accuracy of 0.01 feet. The new wells (MW4, MW5, and MW6) were developed on July 15, 1991, and all of the wells were sampled on July 23, 1991.

Water samples from all of the wells, and selected soil samples collected from the borings of MW4, MW5, and MW6, were analyzed at Sequoia Analytical Laboratory in Concord, California. The soil and water samples were analyzed for TPH as gasoline and BTX&E.

Analytical results of the soil samples collected from the borings for monitoring wells MW4, MW5, and MW6 indicated non-detectable levels of TPH as gasoline and benzene in all analyzed samples.

Analytical results of the water samples collected from monitoring wells MW1, MW2, MW4, and MW6 indicated non-detectable levels of TPH as gasoline and BTX&E. In wells MW3 and MW5, levels of TPH as gasoline were detected at concentrations of 17,000 ppb and 260 ppb, respectively, and levels of benzene were detected at concentrations of 5,500 ppb and 1.2 ppb, respectively. The results of the soil analyses are summarized in Table 3, and the results of the water analyses are summarized in Table 2.

Documentation of the well installation procedures, sample collection techniques, and the analytical results are presented in KEI's report (KEI-P90-1003.R5) dated August 16, 1991. Based on the analytical results, KEI recommended the continuation of the monthly monitoring and quarterly sampling program, as well as monthly purging of well MW3 (in an attempt to reduce the levels of contamination detected in the vicinity of this well).

KEI reviewed a letter (dated October 9, 1991), from the Alameda County Health Care Services Agency (County) to Unocal that requested development of "a viable remediation plan for this site." The County also requested the following: (1) monthly monitoring of well MW3 for the presence of free product, (2) the monthly purging of any wells exhibiting free product, (3) monthly ground water level measurements in each well (with contour maps generated), and (4) geologic cross sections.

With respect to a remediation plan, KEI recommended in KEI's report (KEI-P90-1003.QR1) dated November 21, 1991, that water recovery tests be performed on wells MW3 and MW5 the following quarter in order to determine recovery rates in the vicinity of these wells. Based on the results of the water recovery tests, a ground water recovery well, if appropriate, would be installed at the site. A

pump test would then be performed on the recovery well. The results of the pump test would be used to determine locations of additional recovery wells necessary to achieve hydraulic control of the contaminant plume.

On December 12, 1991, water recovery tests were conducted on wells MW3 and MW5 in an attempt to gain a better understanding of the aquifer beneath the site. The results of the water recovery tests conducted on wells MW3 and MW5 indicated that removal of 55 gallons from each well had a minimal influence on the water level. Full recovery of the water level in MW3 was achieved within 20 minutes, and in MW5 within 10 minutes. The field data also indicated that the water recovery is greater in the vicinity of MW5 than in the vicinity of MW3. The field data is presented in Table 6. Based on the results of the water recovery tests and the concentrations of dissolved hydrocarbon constituents in the ground water, KEI recommended the installation of a ground water recovery well (KEI-P90-1003.P3 dated March 23, 1992).

RECENT FIELD ACTIVITIES - QUARTERLY MONITORING AND SAMPLING

The six wells (MW1 through MW6) were monitored three times and were sampled once during the quarter. During monitoring, the wells were checked for depth to water and the presence of free product. During sampling, the wells were also checked for the presence of sheen. **No free product or sheen was noted in any of the wells during the quarter, except for well MW3 where a sheen was detected prior to sampling on April 14, 1992.** Monitoring data is summarized in Table 1.

All of the wells were sampled on April 14, 1992. Prior to sampling, monitoring data were collected, the wells were each purged of between 8 and 11 gallons, and water samples were then collected by the use of a clean Teflon bailer. The samples were decanted into clean glass VOA vials that were then sealed with Teflon-lined screw caps, labeled, and stored in a cooler, on ice, until delivery to a state-certified laboratory.

RECENT FIELD ACTIVITIES - RECOVERY WELL INSTALLATION

On April 15, 1992, a six-inch diameter recovery well (designated as RW1 on the attached Site Plan, Figure 1) was installed at the site. The well was drilled, constructed, and completed in accordance with the guidelines of the Regional Water Quality Control Board (RWQCB) and the California Well Standards (per Bulletin 74-90). The subsurface materials penetrated and details of the construction of the well are described in the attached Boring Log.

The recovery well (RW1) was drilled and completed to a total depth of 29.5 feet below grade. Ground water was encountered at a depth of approximately 16 feet beneath the surface during drilling. Soil samples were collected for lithologic logging purposes at a maximum spacing of 3.5 foot intervals, and at/or within the soil/ground water interface, beginning at a depth of approximately 5 feet below grade, and continuing until ground water was encountered. Continuous sampling for lithologic logging purposes was conducted below the water table to the total depth explored (29.5 feet). A representative soil sample of the saturated zone was collected at a depth of 28 feet below grade level for particle size analysis (sieve and hydrometer analysis) for verification of casing slot size and filter pack design.

The surface of the well cover was surveyed by Kier & Wright of Pleasanton, California, to MSL and to a vertical accuracy of 0.01 feet.

The recovery well (RW1) was developed on April 21, 1992. Prior to development, the well was checked for the depth to the water table (by the use of an electronic sounder), and the presence of free product (by the use of an interface probe or paste tape). No free product was noted in the well. After recording the monitoring data, the well was purged (by the use of a surface pump) of 155 gallons until the evacuated water was clear and free of suspended sediment. Monitoring and well development data are summarized in Table 1.

HYDROLOGY AND GEOLOGY

Based on the water level data gathered on April 14, 1992, the ground water flow direction appeared to be toward the west-southwest, with an average hydraulic gradient of approximately 0.0017, which is slightly changed from the southwest flow direction reported previous quarters. However, on March 13, 1992, the ground water flow direction appeared to be toward the northwest, with a hydraulic gradient ranging from approximately 0.012 at the northwest portion of the site to 0.007 at the central portion of the site. On February 14, 1992, the ground water flow direction appeared to be complex, but predominantly toward the northeast, with an average hydraulic gradient of approximately 0.003. These conditions differ from the generally southwest flow direction reported during previous quarters. Water levels have fluctuated during the quarter, showing a net increase of approximately 1.90 feet in all wells since January 14, 1992. The measured depth to ground water at the site on April 14, 1992, ranged between 14.29 and 15.92 feet below grade. The ground water elevation contours

and flow direction for the three monitoring events are shown on the attached Site Plans, Figures 1, 1a, and 1b.

Based on review of regional geologic maps (U.S. Geological Survey Professional Paper 943 "Flatland Deposits of the San Francisco Bay Region, California - Their Geology and Engineering Properties and their Importance to Comprehensive Planning," by E.J. Helley and K.R. Lajoie, 1979), the subject site is underlain by Holocene Coarse-grained Alluvium (Qhac). The coarse-grained alluvium is described as typically consisting of unconsolidated, moderately sorted, permeable sand and silt, with a thickness ranging from less than 10 feet to as much as 50 feet.

The results of our previous subsurface study (the installation of monitoring wells MW1, MW2, and MW3) indicated that these wells are underlain by artificial fill materials to depths of 1.5 below grade to about 3.5 feet below grade. The fill materials are in turn underlain predominantly be silty clay and clayey silt materials to the maximum depth drilled (25 feet below grade). However, two distinct sand lenses (varying from about 2.5 to 3.75 feet in thickness) were encountered. The upper sand lens was encountered at depths of about 10 to 13.25 feet below grade at MW2, and about 8.25 to 12 feet below grade at MW1, but was not encountered at MW3. The deeper and generally saturated clayey sand lens was encountered at depths of about 17.5 to 20 feet below grade at MW3, and at about 16.5 to 19.75 feet below grade at MW2. This deeper saturated clayey sand lens was not observed at MW1; however, the interval below 16.5 to 20 feet below grade was not sampled, and it is inferred that this deeper clayey sand lens may be present at MW1 (representing the upper aquifer at the subject site).

The results of our previous subsurface study (the installation of monitoring wells MW4, MW5, and MW6) indicate that these wells are directly underlain by fill materials that extend to depths of about 2 to 3.5 feet below grade. The fill materials are in turn underlain by clayey silt and/or silty clay materials to depths of about 8 feet below grade, which are in turn underlain by a 2 to 3 foot thick bed of well-graded sand to depths of about 10 to 11 feet below grade (except at MW4, where the fill materials are underlain by silt to a depth of about 4 feet below grade, and by silt with interbedded poorly graded sand lenses to a depth of about 12 feet below grade). The above soil materials are in turn underlain by clay and/or silt materials to depths of about 20 to 20.5 feet below grade. However, at MW4, a 1 foot thick lens of silty sand was encountered at a depth of about 17.5 to 18.5 feet below grade that was not observed in MW5 or MW6. This second clay and/or silt zone is in turn underlain by a more laterally consistent silty sand bed,

which is about 2 to 3 feet thick and extends to depths of about 22 to 23 feet below grade. The silty sand bed is in turn underlain by a silty clay zone that extends to at least the maximum depth explored.

Cross Section A-A' (Figure 4) illustrates subsurface conditions in the direction of ground water flow and in the vicinity of wells MW1, MW3, and MW5. The location of the section is shown on the attached Site Plan, Figure 3. Sandy intervals encountered in the construction of these wells (and shown on the attached Cross-Section) appear to be discontinuous across the site.

The results of our recent subsurface study (the installation of recovery well RW1) indicates that in the vicinity of RW1, the site is underlain by clayey sand and gravel fill to a depth of approximately 5.5 feet below grade. The fill is underlain by a succession of silty sands, silty clays, and clays with silts to the total depth explored of 29.5 feet below grade.

The particle size analysis (sieve and hydrometer analysis) of the soil sample collected from RW1 at a depth of 28 feet below grade level indicates that the material is composed of approximately 31% of coarse to fine-grained sand, and 69% silt or clay. The sample is classified as sandy silty clay (CH). The results of the analysis are included as Plate 1.

ANALYTICAL RESULTS - QUARTERLY MONITORING AND SAMPLING

Water samples from all of the monitoring wells were analyzed at Sequoia Analytical Laboratory in Concord, California. All samples analyzed were accompanied by properly executed Chain of Custody documentation. The samples were analyzed for TPH as gasoline by EPA method 5030 in conjunction with modified 8015, and BTX&E by EPA method 8020.

The analytical results of the water samples collected from monitoring wells MW4 and MW6 indicated non-detectable levels of TPH as gasoline and BTX&E. The analytical results of the water samples collected from monitoring wells MW1, MW2, and MW5 also indicated non-detectable levels of BTX&E. The analytical results of the water samples collected from monitoring wells MW1, MW2, and MW5 indicated levels of low/medium boiling point (LMBP) hydrocarbons at concentrations of 76 ppb, 45 ppb, and 86 ppb, respectively. However, Sequoia Analytical Laboratory reported that the ground water samples obtained from wells MW1, MW2, and MW5 "do not appear to contain gasoline," and that the LMBP hydrocarbons detected is "due to one unidentified peak." In well MW3, a level of TPH as

DISTRIBUTION

A copy of this report should be sent to the Alameda County Health Care Services Agency, to Mr. Michael Bakaldin of the City of San Leandro Fire Department, and to the RWQCB, San Francisco Bay Region.

LIMITATIONS

Soil deposits and rock formations may vary in thickness, lithology, saturation, strength and other properties across any site. In addition, environmental changes, either naturally-occurring or artificially-induced, may cause changes in the extent and concentration of any contaminants. Our studies assume that the field and laboratory data are reasonably representative of the site as a whole, and assume that subsurface conditions are reasonably conducive to interpolation and extrapolation.

The results of this study are based on the data obtained from the field and laboratory analyses obtained from a state-certified laboratory. We have analyzed this data using what we believe to be currently applicable engineering techniques and principles in the Northern California region. We make no warranty, either expressed or implied, regarding the above, including laboratory analyses, except that our services have been performed in accordance with generally accepted professional principles and practices existing for such work.

gasoline was detected at a concentration of 16,000 ppb, with a benzene level of 3,400 ppb. The results of the water analyses are summarized in Table 2. Concentrations of TPH as gasoline and benzene detected in the ground water samples collected on April 14, 1992, are shown on the attached Site Plan, Figure 1c. Copies of the laboratory analyses and Chain of Custody documentation are attached to this report.

DISCUSSION AND RECOMMENDATIONS

Based on the analytical results collected and evaluated to date, KEI recommends the continuation of the current monitoring and sampling program of the existing wells, per KEI's proposal (KEI-P90-1003.P2) dated May 31, 1991. **KEI also recommends the continuation of monthly purging of ground water from well MW3, in an attempt to reduce the level of contamination detected in the vicinity of this well.**

As shown on the attached laboratory analysis sheet, Sequoia Analytical Laboratory reported that the levels of LMBP hydrocarbons detected in wells MW1, MW2, and MW5 on April 14, 1992, "do not appear to contain gasoline," and that the "LMBP is due to one unidentified peak." Thus, in an attempt to identify this peak, **KEI recommends that future ground water samples collected from wells MW1, MW2, and MW5 also be analyzed for methyl tert butyl ether (MTBE).**

As shown on the attached Site Plan, Figure 1c, the extent of significant ground water contamination appears to be generally confined to the vicinity of well MW3, which is located in what has been the predominant downgradient direction from the underground fuel tank pit.

KEI has previously recommended that a pump test be conducted on well RW1 to determine the radius of influence of pumping from the recovery well (at various flow rates). **The pump test was completed during the week of May 18, 1992.** Data gathered during the pump test will be used to determine the location and number of any additional recovery wells that may be necessary to achieve hydraulic control of the contaminant plume. **The pump test data and recommendations for further work will be included in a separate technical report to be submitted in the near future.** It is anticipated that a ground water remediation system will then be designed and installed at the site.

Should you have any questions regarding this report, please call me at (510) 602-5100.

Sincerely,

Kaprealian Engineering, Inc.

Thomas J. Berkins
Senior Environmental Engineer

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

License No. 1633
Exp. Date 6/30/92

for Timothy R. Ross

Timothy R. Ross
Project Manager

\bp

Attachments: Tables 1 through 6
Location Map
Site Plans - Figures 1, 1a, 1b, 1c, 2 & 3
Cross-Section A-A'- Figure 4
Boring Log
Particle Size Analysis - Plate 1
Laboratory Analyses
Chain of Custody documentation

KEI-P90-1003.R6
May 29, 1992

TABLE 1

SUMMARY OF GROUND WATER MONITORING AND PURGING DATA

Well #	Ground Water Elevation (feet)	Depth to Water (feet)	Product Thickness	Sheen	Water Purged (gallons)
(Developed and Monitored on April 21, 1992)					
RW1	21.70	15.50	0	--	155
(Monitored and Sampled on April 14, 1992)					
MW1	21.68	15.21	0	No	8
MW2	21.74	15.61	0	No	8
MW3	21.61	15.61	0	No*	8
MW4	21.52	14.29	0	No	9
MW5	21.51	15.50	0	No	11
MW6	21.63	15.92	0	No	9
(Monitored on March 13, 1992)					
MW1	20.01	16.88	0	--	0
MW2	20.23	17.12	0	--	0
MW3	20.16	17.06	0	--	55
MW4	18.83	16.98	0	--	0
MW5	19.84	17.17	0	--	0
MW6	20.32	17.23	0	--	0
(Monitored on February 14, 1992)					
MW1	20.16	16.73	0	--	0
MW2	20.39	16.96	0	--	0
MW3	20.28	16.94	0	No	0
MW4	20.49	15.32	0	--	0
MW5	20.48	16.53	0	--	0
MW6	20.63	16.92	0	--	0

KEI-P90-1003.R6
May 29, 1992

TABLE 1 (Continued)

SUMMARY OF GROUND WATER MONITORING AND PURGING DATA

Well #	Surface Elevation** (feet)
MW1	36.89
MW2	37.35
MW3	37.22
MW4	35.81
MW5	37.01
MW6	37.55

-- Sheen determination was not performed.

* During purging operations, a sheen or trace of product was reported; however, during sampling, a sheen or product was not observed.

** The elevations of the tops of the well covers have been surveyed relative to MSL.

KEI-P90-1003.R6
May 29, 1992

TABLE 2

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Sample Number	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethylbenzene
4/14/92	MW1	76*	ND	ND	ND	ND
	MW2	45*	ND	ND	ND	ND
	MW3	16,000	3,400	19	1,300	1,400
	MW4	ND	ND	ND	ND	ND
	MW5	86*	ND	ND	ND	ND
	MW6	ND	ND	ND	ND	ND
1/14/92	MW1	ND	ND	ND	ND	ND
	MW2	ND	ND	ND	ND	ND
	MW3	13,000	6,600	19	1,800	2,600
	MW4	ND	ND	ND	ND	ND
	MW5	60*	ND	ND	ND	ND
	MW6	ND	ND	ND	ND	ND
10/14/91	MW1	ND	ND	ND	ND	ND
	MW2	ND	ND	ND	ND	ND
	MW3	25,000	6,300	78	1,400	2,000
	MW4	ND	ND	ND	ND	ND
	MW5	140	0.72	ND	0.89	1.3
	MW6	ND	ND	ND	ND	ND
7/23/91	MW1	ND	ND	ND	ND	ND
	MW2	ND	ND	ND	ND	ND
	MW3	17,000	5,500	26	2,800	1,800
	MW4	ND	ND	ND	ND	ND
	MW5	260	1.2	0.39	0.71	10
	MW6	ND	ND	ND	ND	ND
5/04/91	MW1	ND	ND	ND	ND	ND
	MW2	ND	ND	ND	ND	ND
	MW3	34,000	6,100	32	6,100	1,200
Detection Limits		30	0.30	0.30	0.30	0.30

* Sequoia Analytical Laboratory reported that "the above samples do not appear to contain gasoline. LMBP is due to one unidentified peak."

ND = Non-detectable.

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

KEI-P90-1003.R6
May 29, 1992

TABLE 3

SUMMARY OF LABORATORY ANALYSES
SOIL

Date	Sample Number	Depth (feet)	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethyl-benzene
4/22/91	MW1(5)	5.0	ND	ND	ND	0.012	ND
	MW1(10)	10.0	ND	ND	ND	ND	ND
	MW1(16)	16.0	1.5	ND	ND	ND	ND
	MW2(5)	5.0	4.5	0.015	ND	0.079	0.034
	MW2(10)	10.0	6.8	0.025	ND	0.043	0.035
	MW2(15.5)	15.5	ND	ND	ND	ND	ND
	MW2(17)	17.0	ND	0.014	ND	ND	ND
	MW3(5)	5.0	2.0	0.025	ND	0.011	ND
	MW3(10)	10.0	ND	0.018	ND	ND	ND
	MW3(15)	15.0	4,800	23	9.1	290	63
	MW3(17.5)	17.5	1,000	8.4	4.6	64	17
7/02/91	MW4(5)	5.0	ND	ND	0.0084	ND	ND
	MW4(10)	10.0	ND	ND	0.0051	ND	ND
	MW4(15)	15.0	ND	ND	0.016	0.017	ND
	MW4(17)	17.0	ND	ND	0.015	0.015	ND
	MW5(5)	5.0	ND	ND	0.030	ND	ND
	MW5(10)	10.0	ND	ND	0.0074	0.012	ND
	MW5(15)	15.0	ND	ND	0.011	0.0094	ND
	MW5(17.5)	17.5	ND	ND	0.0098	0.0077	0.0052
	MW6(5)	5.0	ND	ND	0.0086	ND	ND
	MW6(10)	10.0	ND	ND	0.0061	ND	ND
	MW6(15)	15.0	ND	ND	ND	ND	ND
	MW6(17.5)	17.5	ND	ND	0.0084	0.0063	ND
Detection Limits			1.0	0.0050	0.0050	0.0050	0.0050

ND = Non-detectable.

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

KEI-P90-1003.R6
May 29, 1992

TABLE 4

SUMMARY OF LABORATORY ANALYSES
SOIL

(Collected on October 12, 19, 22 & 31, and November 2, 1990)

Sample	Depth (feet)	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethylbenzene
A1	14.5	350	2.0	3.6	47	7.7
A2	14.5	480	2.4	7.3	49	7.4
A3	14.0	570	0.97	5.6	50	8.3
B1	15.0	180	0.64	0.84	11	3.0
B2	15.0	1,900	9.7	120	250	33
B3	15.0	990	6.3	52	120	16
C1	15.0	270	0.64	3.7	22	5.4
C2	15.0	1,200	4.9	41	150	24
C3	15.0	590	4.6	23	80	9.4
SW1	18.0	3.7	0.21	0.024	0.42	0.14
SW2	18.0	4.5	0.46	0.024	0.46	0.26
SW3	18.0	4.1	0.024	0.0080	0.088	0.058
SW4	18.0	ND	0.0090	ND	0.0070	ND
SW5	18.0	998	0.58	ND	21	19
SW5(20)	18.0	30	0.054	0.047	0.054	0.46
P1	2.5	1,400	0.22	3.3	72	8.9
P1(8)	8.0	5.7	0.0078	0.0054	0.18	0.033
P2	3.0	3,900	1.1	23	280	41
P2(7.5)	7.5	20	ND	0.11	1.3	0.12
P3	2.5	100	0.057	0.63	12	0.97
P3(5.5)	5.5	9.8	0.015	0.15	1.3	0.13
P4	2.5	19	ND	0.10	0.13	ND
Detection Limits		1.0	0.0050	0.0050	0.0050	0.0050

ND = Non-detectable.

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

KEI-P90-1003.R6
May 29, 1992

TABLE 5

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Sample Number	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethyl-benzene
10/24/90	W1	4,300	40	1.9	520	0.54
Detection Limits		30.0	0.3	0.3	0.3	0.3

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

KEI-P90-1003.R6
May 29, 1992

TABLE 6

SUMMARY OF WELL RECOVERY DATA

(Measured on December 12, 1991)

Well #	Average Flow Rate (gpm)	Casing Volume (gallons)	Amount Purged (gallons)	Amount Purged Casing (volumes)	Recovery (%)	Recovery Time (hours)
MW3	1.00	1.21	55	45.6	70	0.03
					97	0.17
					99	0.23
					100	0.33
MW5	1.57	1.43	55	38.6	97	0.02
					99	0.05
					100	0.17

NOTE: Could not dewater MW3 or MW5 after 55 gallons at the given flow rates.

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

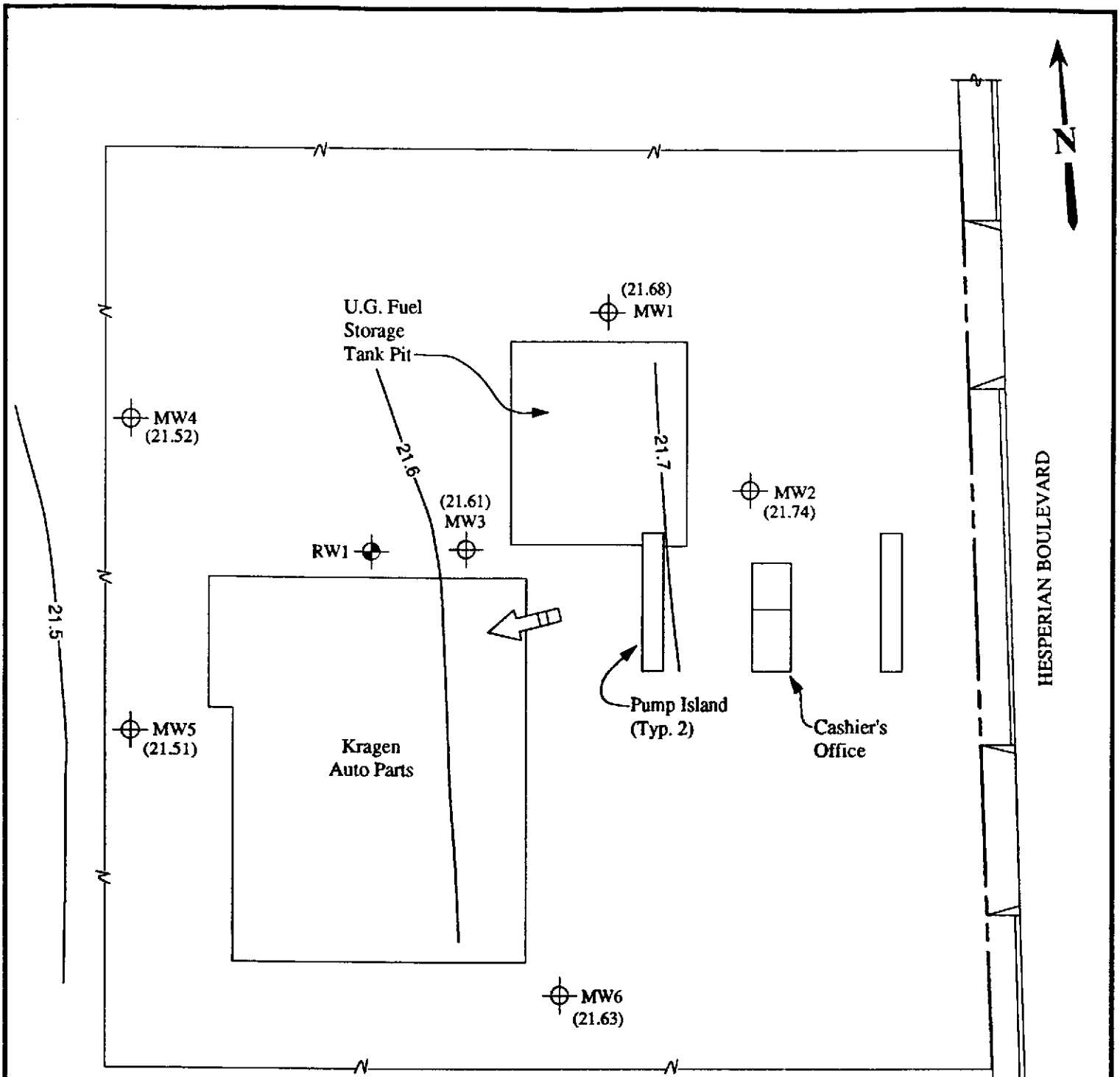
0 2000 4000

Approx. scale feet

KAPREALIAN ENGINEERING
INCORPORATED

UNOCAL SERVICE STATION #7004
15599 HESPERIAN BOULEVARD
SAN LEANDRO, CA

LOCATION MAP



LEGEND

- Monitoring well
- Recovery well
- ( ) Ground water elevation in feet above Mean Sea Level on 4/14/92
- Direction of ground water flow
- Contours of ground water elevation

SITE PLAN

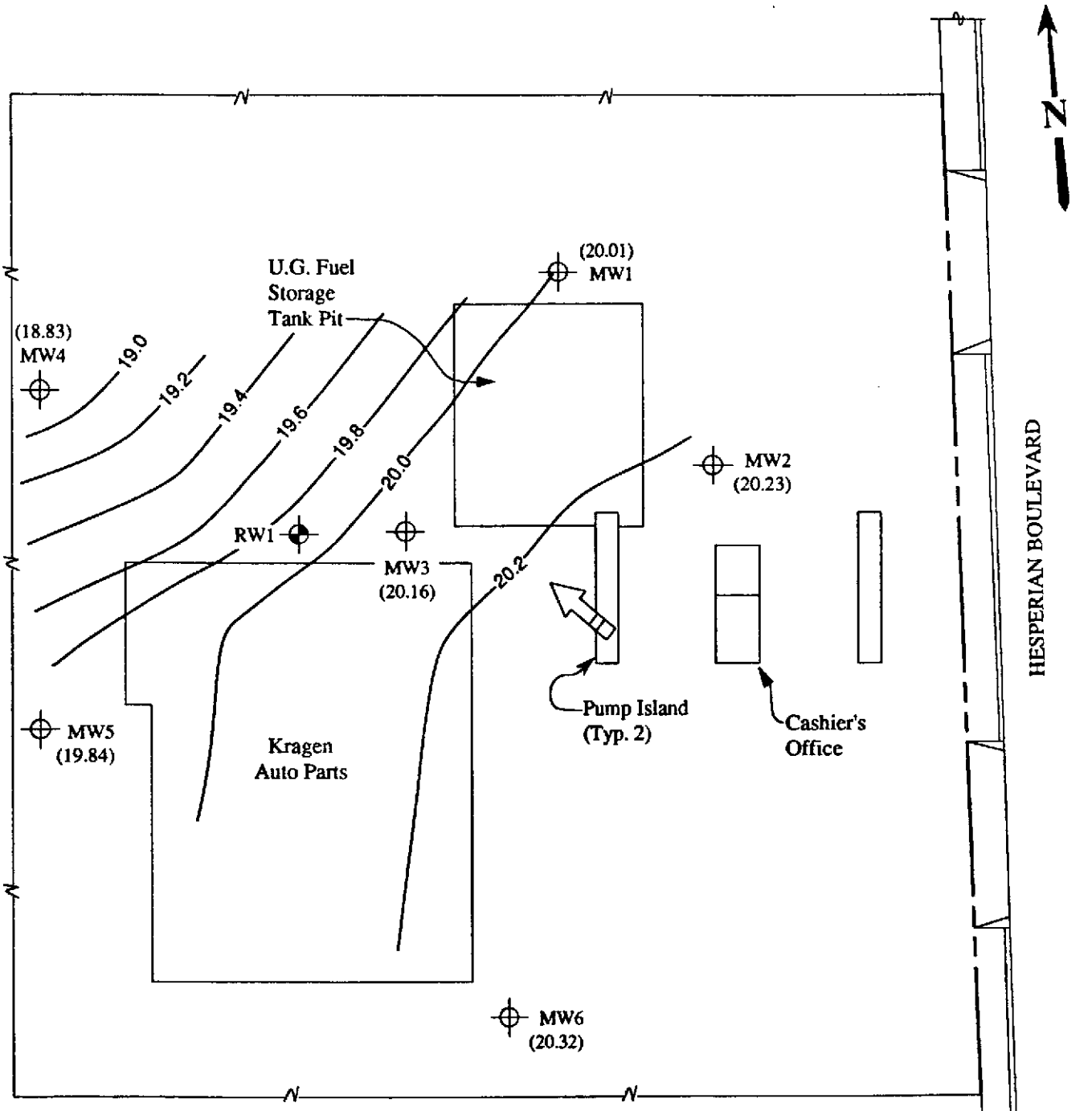
0 30 60

Approx. scale feet

KAPREALIAN ENGINEERING
INCORPORATED

UNOCAL SERVICE STATION #7004
15599 HESPERIAN BOULEVARD
SAN LEANDRO, CA

FIGURE
1



SITE PLAN

LEGEND

- Monitoring well
- Recovery well
- ( ) Ground water elevation in feet above Mean Sea Level on 3/13/92
- Direction of ground water flow
- Contours of ground water elevation

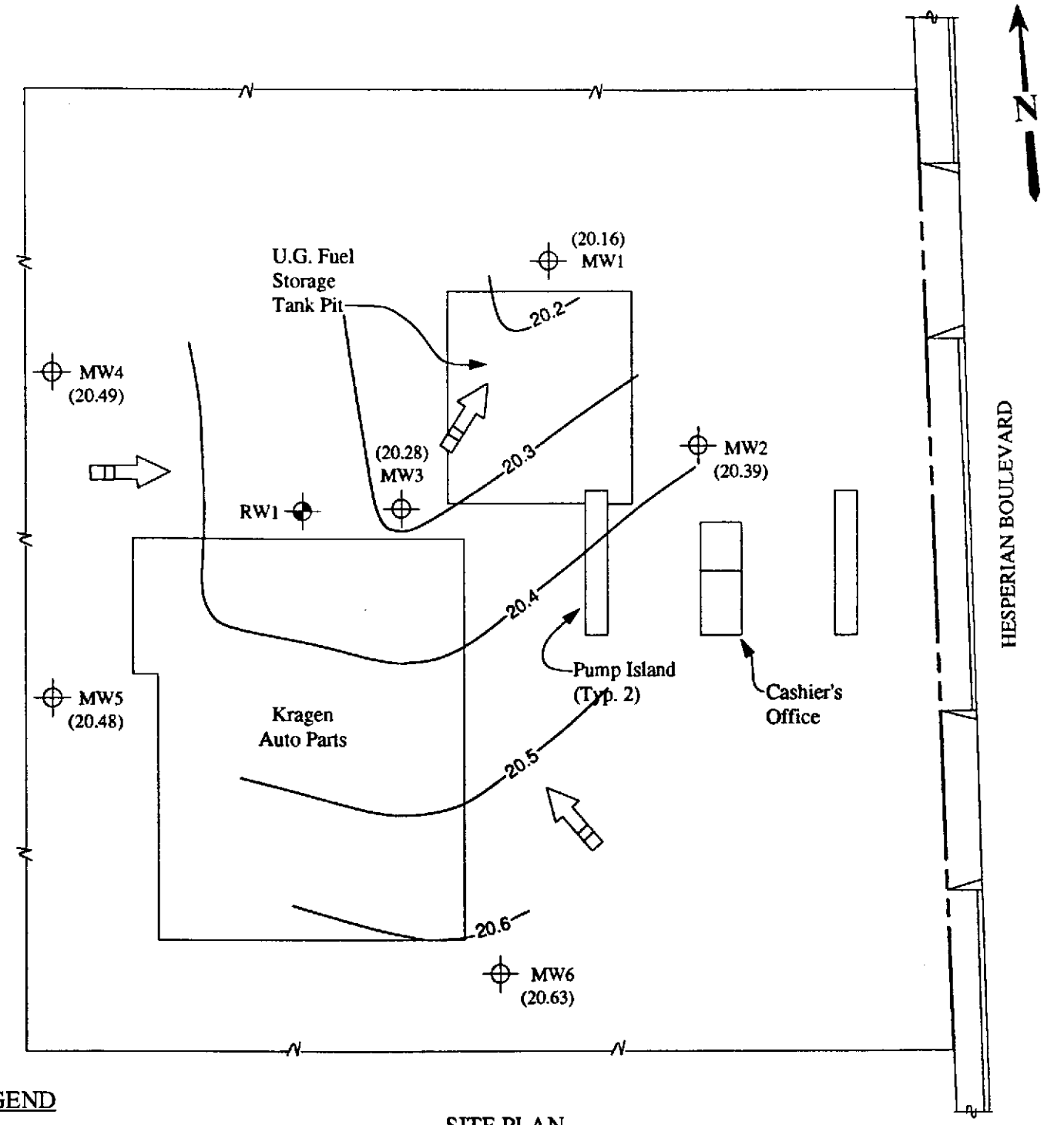
0 30 60

Approx. scale feet

KAPREALIAN ENGINEERING
INCORPORATED

UNOCAL SERVICE STATION #7004
15599 HESPERIAN BOULEVARD
SAN LEANDRO, CA

FIGURE
1a



LEGEND

- Monitoring Well
- Recovery well
- ( ) Ground water elevation in feet above Mean Sea Level on **2/14/92**
- Direction of ground water flow
- Contours of ground water elevation

SITE PLAN

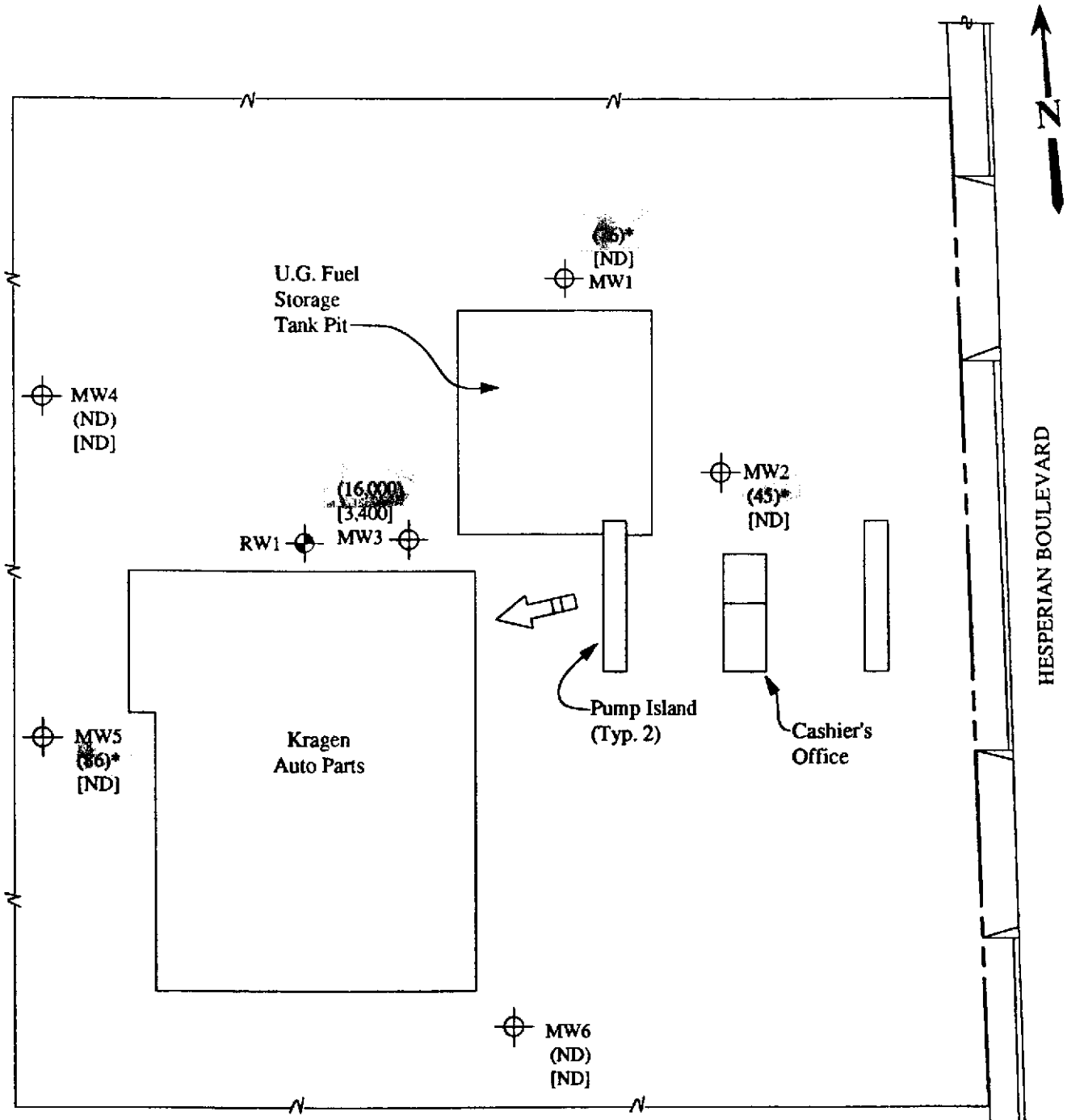
0 30 60

Approx. scale feet

KAPREALIAN ENGINEERING
INCORPORATED

UNOCAL SERVICE STATION #7004
15599 HESPERIAN BOULEVARD
SAN LEANDRO, CA

FIGURE
1b



LEGEND

- Monitoring Well
- Recovery well
- ( ) Concentrations of TPH as gasoline in ppb
- [ ] Concentrations of benzene in ppb
- Direction of ground water flow

* The lab reported that "the samples do not appear to contain gasoline."

SITE PLAN

(Samples Collected on 4/14/92)

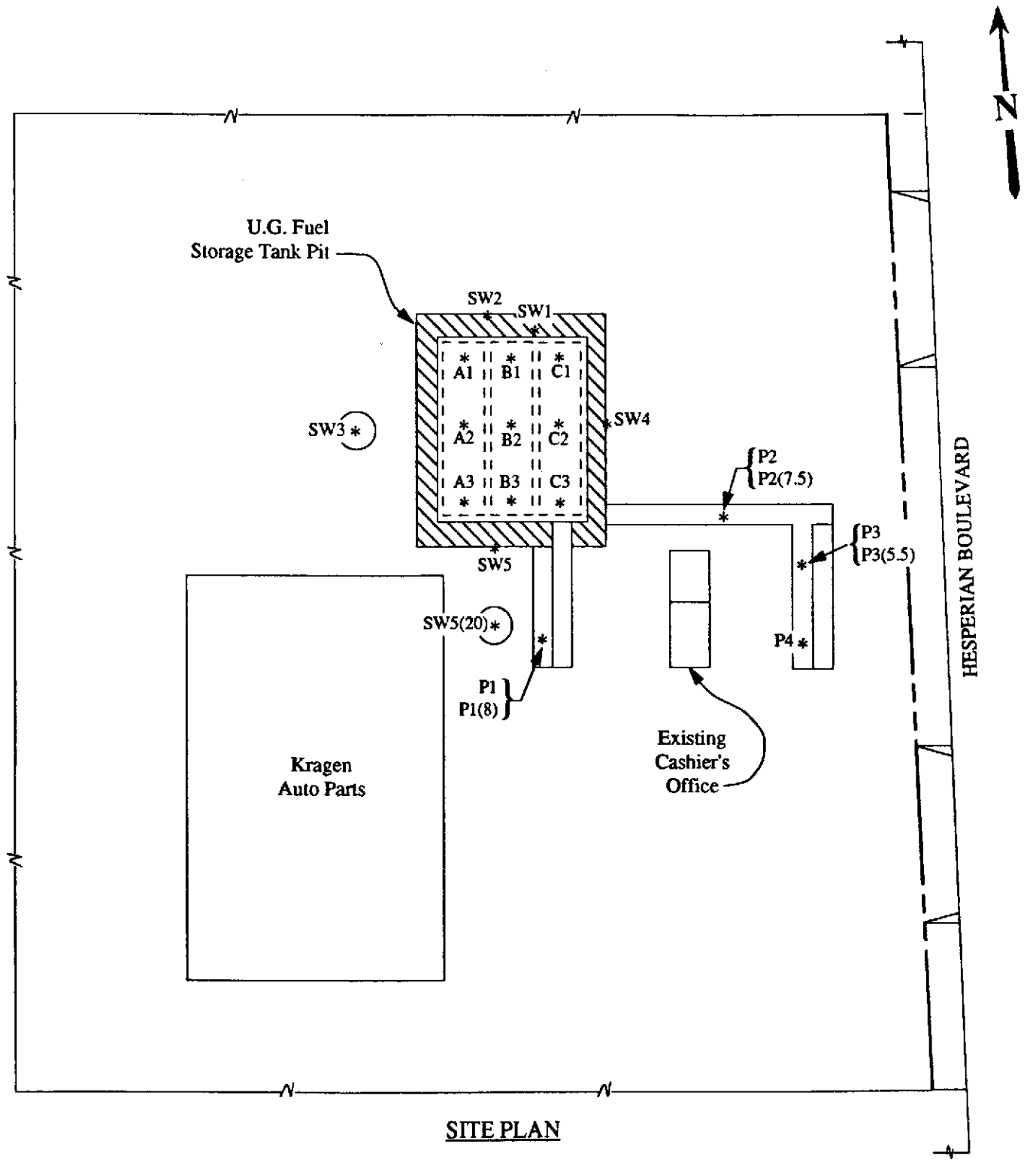
0 30 60

Approx. scale feet

KAPREALIAN ENGINEERING
INCORPORATED

UNOCAL SERVICE STATION #7004
15599 HESPERIAN BOULEVARD
SAN LEANDRO, CA

FIGURE
1c



SITE PLAN

LEGEND

* Sample Point Location

Area of Additional Excavation

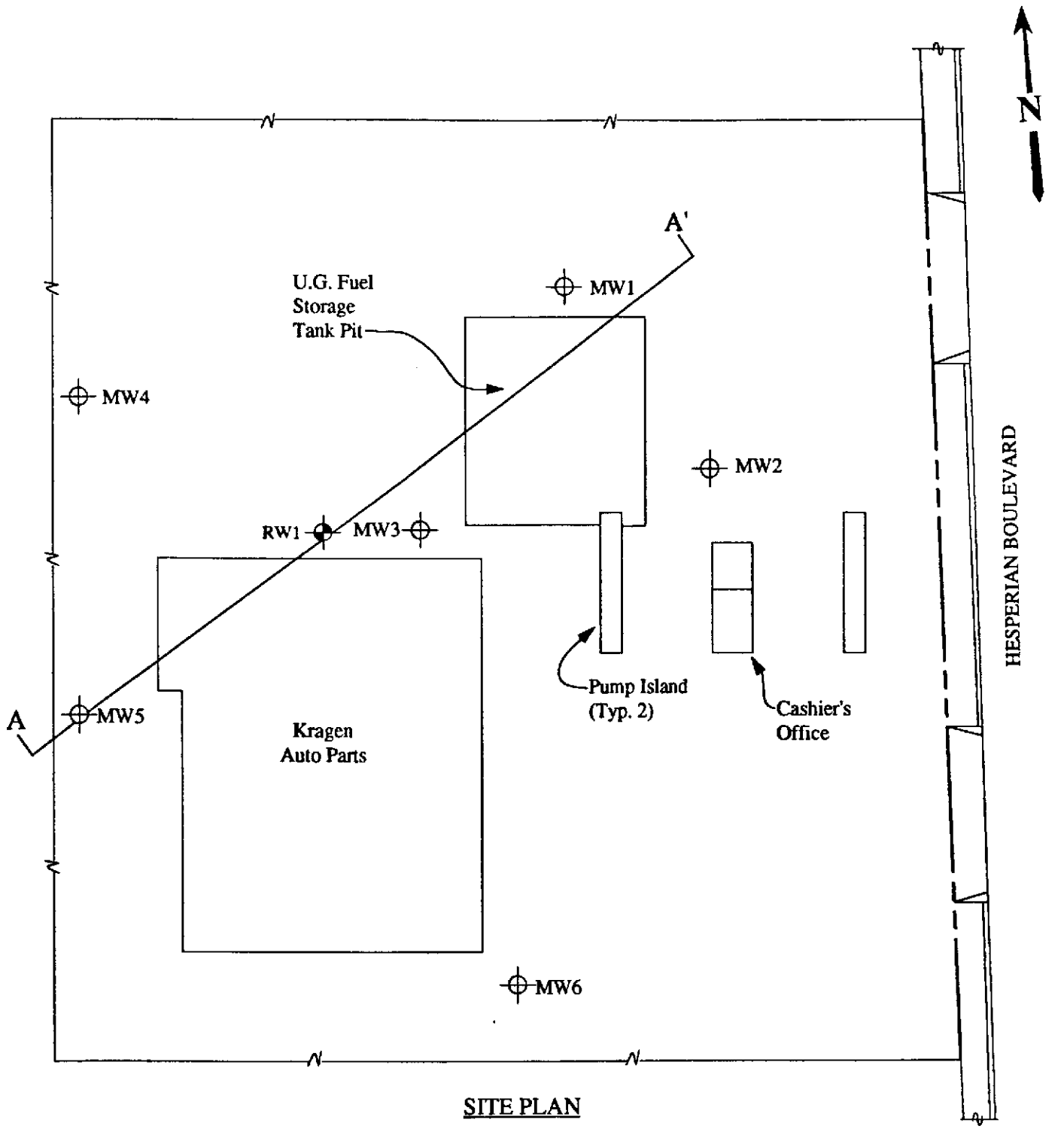
0 30 60

Approx. scale feet

KAPREALIAN ENGINEERING
INCORPORATED

UNOCAL SERVICE STATION #7004
15599 HESPERIAN BOULEVARD
SAN LEANDRO, CA

FIGURE
2



SITE PLAN

LEGEND

- Monitoring Well
- Recovery well
- A A' Location of Cross-Section A-A'

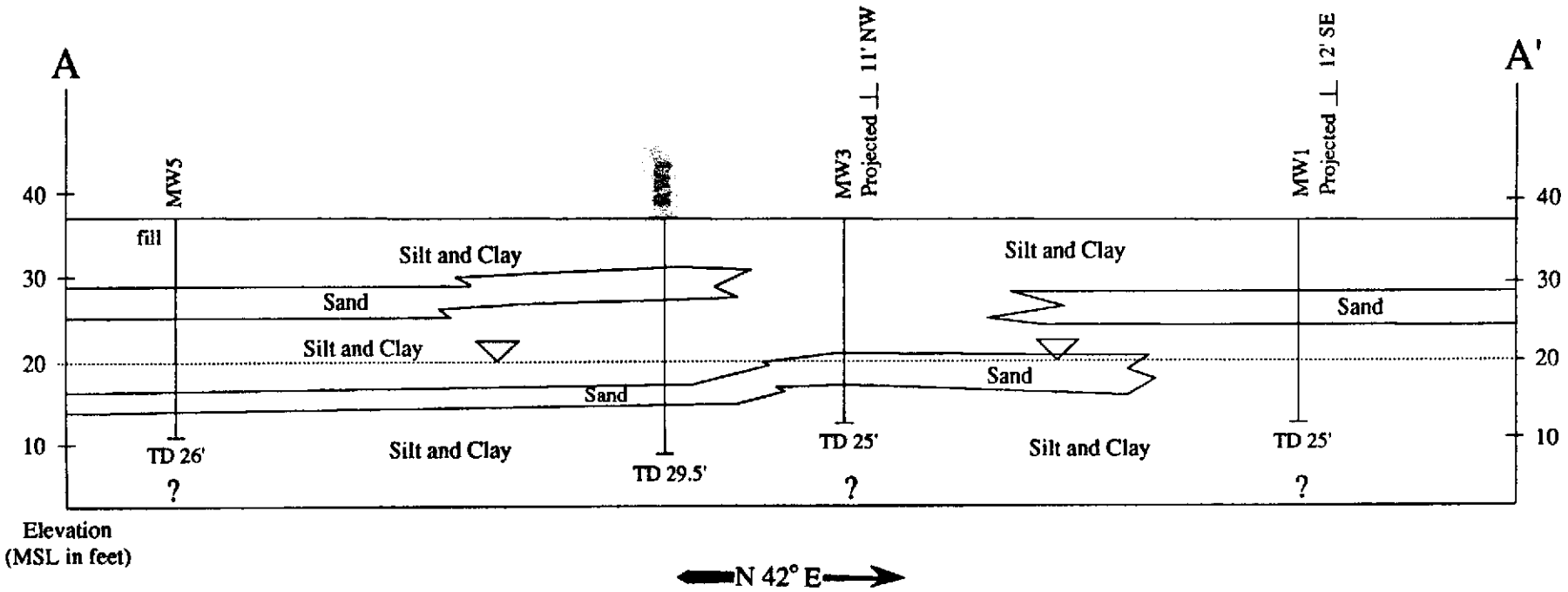
0 30 60

Approx. scale feet

KAPREALIAN ENGINEERING
INCORPORATED

UNOCAL SERVICE STATION #7004
15599 HESPERIAN BOULEVARD
SAN LEANDRO, CA

FIGURE
3



GEOLOGIC
CROSS-SECTION A-A'

▽ Ground water elevation in feet above Mean Sea Level on 5/12/92

Approved by:

0 20 40

Approx. scale feet
(Horizontal & Vertical)

KAPREALIAN ENGINEERING
INCORPORATED

UNOCAL SERVICE STATION #7004
15599 HESPERIAN BLVD.
SAN LEANDRO, CALIFORNIA

FIGURE
4

BORING LOG

Project No. KEI-P90-1003	**Boring & Casing Diameter** 12" 6"	**Logged By** D.L. JG
Project Name Unocal # 7004 15599 Hesperian Blvd, San Leandro	**Well Cover Elevation** N/A	**Date Drilled** 4-15-92
Boring No. RW1	**Drilling Method** Hollow-stem Auger	**Drilling Company** Woodward Drilling

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati-graphy USCS	Description
		0		Asphalt pavement over sand and gravel base.
				Clay, sand and gravel with cobbles to 8 inches in diameter, very dark grayish brown and black.
			SM	Silty sand, sand is very fine to fine-grained, moist, loose, dark olive gray.
2/3/5		5	CL	Silty clay, moist, firm, dark greenish gray.
			MH	Silt with clay, estimated at 10-15% fine-grained sand, moist, stiff, dark olive gray.
			SW	Well graded sand, dry, loose, light olive brown.
3/4/5			SW/ ML	Well graded sand, moist, loose, dark olive gray with lenses of sandy silt to 1 inch thick. Silt is moist, firm, dark olive gray.
		10	ML	Silt with sand, trace clay, sand is very fine-grained, moist, firm, dark olive gray.
3/4/6			MH	Clayey silt, estimated at 10-15% sand, moist, stiff, black, grades to dark olive gray.
NO BLOW COUNT DATA - CONTINUOUSLY CORED	▽		CH	Silty clay, moist, stiff, very dark gray to black.
		15	MH	Clayey silt very moist to wet, stiff, black with molds and root holes.
			CH	Silty clay, trace fine-grained sand, moist, very stiff, dark olive gray and very dark gray, mottled.
				Clay with silt, moist, very stiff, very dark grayish brown and very dark gray, mottled.
		20	SM	Silty sand, estimated at 15-20% silt, sand is fine to medium grained, saturated, medium dense, olive and olive brown, mottled.

BORING LOG

Project No. KEI-P90-1003	**Boring & Casing Diameter** 12" 6"	**Logged By** D.L. JG
Project Name Unocal #7004 15599 Hesperian Blvd, San Leandro	**Well Cover Elevation** N/A	**Date Drilled** 4-15-92
Boring No. RW1	**Drilling Method** Hollow-stem Auger	**Drilling Company** Woodward Drilling

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati-graphy USCS	Description
			SM	Silty sand as above.
			CH	Clay with trace silt and sand, locally trace caliche, moist, hard, very stiff, black.
		25	CL	Silty clay with root holes and organic matter, moist, stiff, olive gray.
			CH	Sandy silty clayey sand, significant caliche development locally, moist, very stiff to hard, olive and olive brown, mottled.
		30		TOTAL DEPTH: 29.5'
		35		
		40		

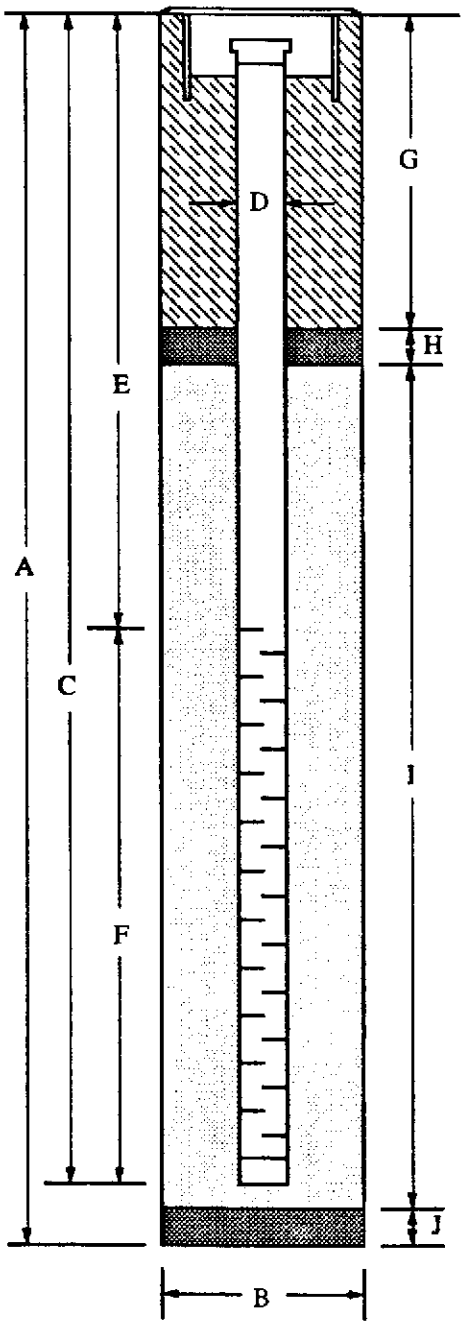
WELL COMPLETION DIAGRAM

PROJECT NAME: Unocal - San Leandro,Hesperian Blvd WELL NO. RW1

PROJECT NUMBER: KEI-P90-1003

WELL PERMIT NO.: ACF-C & WCD #92151

Flush-mounted Well Cover



A. Total Depth : 27.5"

B. Boring Diameter*: 12"

Drilling Method: Hollow Stem Auger

C. Casing Length: 27.5'

Material: Schedule 40 PVC

D. Casing Diameter: OD = 6.625

ID = 6.065

E. Depth to Perforations: 12.5'

F. Perforated Length: 15'

Perforation Type: Machined Slot

Perforation Size: 0.010"

G. Surface Seal: 8.5'

Seal Material: Neat Cement

H. Seal: 2'

Seal Material: Bentonite

I. Filter Pack: 17'

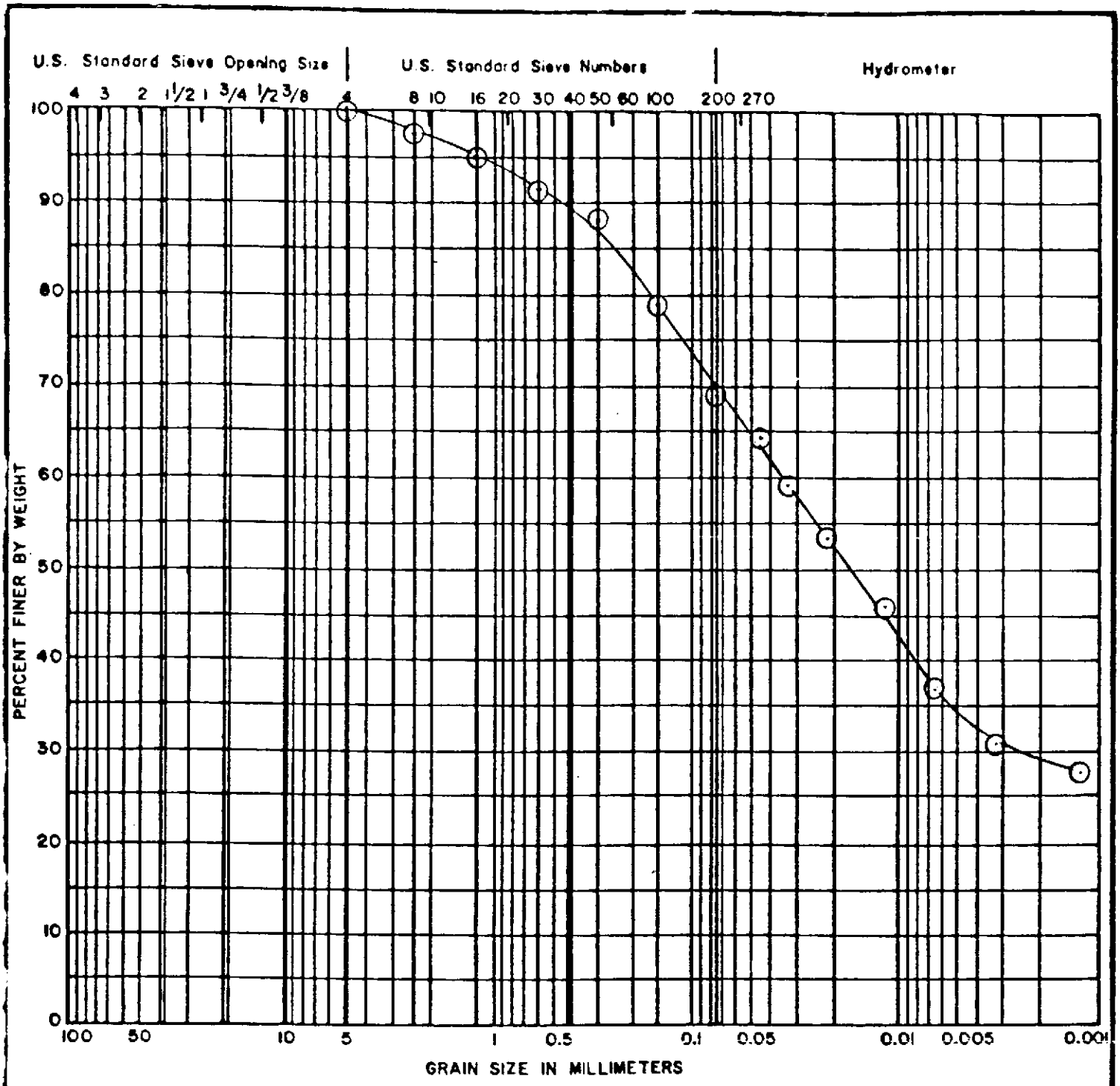
Pack Material: Silica Resources Inc. Sand

Size: #2/12

J. Bottom Seal: 2'

Seal Material: Bentonite

* Boring diameter can vary from 11 1/4" to 12" depending on bit wear.



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

Symbol	Sample Source	Classification
	RW1 (28')	Sandy silty clay (CH)

Unocal S/S #7004
15599 Hesperian Blvd.
San Leandro, CA

Job No:

Appr: JG

Date: 4/27/92

PARTICLE SIZE ANALYSIS

PLATE 1

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

Kaprealian Engineering, Inc.	Client Project ID:	Unocal, 15599 Hesperian Blvd., San Leandro	Sampled:	Apr 14, 1992
2401 Stanwell Drive, Suite 400	Matrix Descript:	Water	Received:	Apr 14, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	Apr 20, 1992
Attention: Mardo Kaprealian, P.E.	First Sample #:	204-0635	Reported:	Apr 24, 1992

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons µg/L (ppb)	Benzene µg/L (ppb)	Toluene µg/L (ppb)	Ethyl Benzene µg/L (ppb)	Xylenes µg/L (ppb)
204-0635	MW-1*	76	N.D.	N.D.	N.D.	N.D.
204-0636	MW-2*	45	N.D.	N.D.	N.D.	N.D.
204-0637	MW-3	16,000	3,400	19	1,400	1,300
204-0638	MW-4	N.D.	N.D.	N.D.	N.D.	N.D.
204-0639	MW-5*	86	N.D.	N.D.	N.D.	N.D.
204-0640	MW-6	N.D.	N.D.	N.D.	N.D.	N.D.
Method Detection Limits:		**30**	**0.30**	**0.30**	**0.30**	**0.30**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.

SEQUOIA ANALYTICAL

Belinda C. Vega
Laboratory Director

Please Note: *The above samples do not appear to contain gasoline. LMBP is due to one unidentified peak.

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

Kaprealian Engineering, Inc.
2401 Stanwell Drive, Suite 400
Concord, CA 94520
Attention: Mardo Kaprealian, P.E.

Client Project ID: Unocal, 15599 Hesperian Blvd., San Leandro
QC Sample Group: 2040635 - 640
Reported: Apr 24, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020
Analyst:	J.F.	J.F.	J.F.	J.F.
Reporting Units:	ug/L	ug/L	ug/L	ug/L
Date Analyzed:	Apr 21, 1992	Apr 21, 1992	Apr 21, 1992	Apr 21, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	20	20	20	60
Conc. Matrix Spike:	17	17	19	54
Matrix Spike % Recovery:	85	85	95	90
Conc. Matrix Spike Dup.:	17	17	19	55
Matrix Spike Duplicate % Recovery:	85	85	95	92
Relative % Difference:	0.0	0.0	0.0	1.8

Laboratory blank contained the following analytes: None detected

SEQUOIA ANALYTICAL

Belinda C. Vega
Laboratory Director

$$\%\ \text{Recovery:} \quad \frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$$

$$\text{Relative \% Difference:} \quad \frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$$

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

Kaprealian Engineering, Inc.
2401 Stanwell Drive, Suite 400
Concord, CA 94520
Attention: Mardo Kaprealian, P.E.

Client Project ID: Unocal, 15599 Hesperian Blvd., San Leandro
QC Sample Group: 2040635 - 640
Reported: Apr 24, 1992

QUALITY CONTROL DATA REPORT

SURROGATE

Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020
Analyst:	J.F.	J.F.	J.F.	J.F.	J.F.	J.F.	J.F.
Reporting Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Date Analyzed:	Apr 20, 1992	Apr 20, 1992	Apr 20, 1992	Apr 20, 1992	Apr 20, 1992	Apr 20, 1992	Apr 21, 1992
Sample #:	204-0635	204-0636	204-0637	204-0638	204-0639	204-0640	Blank
Surrogate % Recovery:	93	93	84	91	90	87	87

SEQUOIA ANALYTICAL

Belinda C. Vega
Laboratory Director

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

KAPREALIAN ENGINEERING, INC.

CHAIN OF CUSTODY

SAMPLER: RAY KET

WITNESSING AGENCY:

SITE NAME & ADDRESS: UNOCAL SAN LEANDRO
15599 HESPERIAN BLVD

ANALYSES REQUESTED: TPHG, BTXE

TURN AROUND TIME: REGULAR

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPHG	BTXE	REMARKS
MW1	4-14			x	x		2 VOA		x	x	2040635 AB
MW2	"			x	x		"		x	x	636 AB
MW3	"			x	x		"		x	x	637 AB
MW4	"			x	x		"		x	x	639 AB
MW5	"			x	x		"		x	x	639 AB
MW6	"			x	x		"		x	x	640 AB

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Ray KET	4.14.92	Jim Cottle 4/14/92 4:25
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[illegible]	4/15 3:30	Ken Spaulding Executive
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Ken Spaulding	4/15/92 5:35 pm	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)

The following MUST BE completed by the laboratory accepting samples for analysis:

1. Have all samples received for analysis been stored in ice?
2. Will samples remain refrigerated until analyzed?
3. Did any samples received for analysis have head space? N
4. Were samples in appropriate containers and properly packaged?

Signature	Title	Date
[illegible]	[illegible]	[illegible]

KAPREALIAN ENGINEERING
INCORPORATED

June 8, 1992

Alameda County Health Care Services
80 Swan Way, Room 200
Oakland, CA 94621

Attention: Mr. Larry Seto

RE: Unocal Service Station #7004
15599 Hesperian Boulevard
San Leandro, California

Dear Mr. Seto:

Per the request of Mr. Bob Boust of Unocal Corporation, enclosed please find our report dated May 29, 1992, for the above referenced site.

If you should have any questions, please feel free to call our office at (510) 602-5100.

Sincerely,

Kaprealian Engineering, Inc.

Judy A. Dewey

jad\82

Enclosure

cc: Bob Boust, Unocal Corporation

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

KAPREALIAN ENGINEERING
INCORPORATED

June 8, 1992

Alameda County Health Care Services
80 Swan Way, Room 200
Oakland, CA 94621

Attention: Mr. Larry Seto

RE: Unocal Service Station #7004
15599 Hesperian Boulevard
San Leandro, California

Dear Mr. Seto:

Per the request of Mr. Bob Boust of Unocal Corporation, enclosed please find our report dated May 29, 1992, for the above referenced site.

If you should have any questions, please feel free to call our office at (510) 602-5100.

Sincerely,

Kaprealian Engineering, Inc.

Judy A. Dewey

jad\82

Enclosure

cc: Bob Boust, Unocal Corporation

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

KAPREALIAN ENGINEERING
INCORPORATED

June 8, 1992

City of San Leandro
Fire Department
835 E. 14th Street
San Leandro, CA 94577

Attention: Mr. Michael Bakaldin

RE: Unocal Service Station #7004
15599 Hesperian Boulevard
San Leandro, California

Dear Mr. Bakaldin:

Per the request of Mr. Bob Boust of Unocal Corporation, enclosed please find our report dated May 29, 1992, for the above referenced site.

Should you have any questions, please feel free to call our office at (510) 602-5100.

Sincerely,

Kaprealian Engineering, Inc.

Judy A. Dewey

jad\15

Enclosure

cc: Bob Boust, Unocal Corporation

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

KAPREALIAN ENGINEERING
INCORPORATED

June 8, 1992

City of San Leandro
Fire Department
835 E. 14th Street
San Leandro, CA 94577

Attention: Mr. Michael Bakaldin

RE: Unocal Service Station #7004
15599 Hesperian Boulevard
San Leandro, California

Dear Mr. Bakaldin:

Per the request of Mr. Bob Boust of Unocal Corporation, enclosed please find our report dated May 29, 1992, for the above referenced site.

Should you have any questions, please feel free to call our office at (510) 602-5100.

Sincerely,

Kaprealian Engineering, Inc.

Judy A. Dewey

jad\15

Enclosure

cc: Bob Boust, Unocal Corporation

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

KAPREALIAN ENGINEERING
INCORPORATED

June 8, 1992

Regional Water Quality Control Board
2101 Webster #500
Oakland, CA 94612

Attention: Mr. Lester Feldman

RE: Unocal Service Station #7004
15599 Hesperian Boulevard
San Leandro, California

Dear Mr. Feldman:

Per the request of Mr. Bob Boust of Unocal Corporation, enclosed please find our report dated May 29, 1992, for the above referenced site.

If you should have any questions, please feel free to call our office at (510) 602-5100.

Sincerely,

Kaprealian Engineering, Inc.

Judy A. Dewey

jad\65

Enclosure

cc: Bob Boust, Unocal Corporation

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

KAPREALIAN ENGINEERING
INCORPORATED

June 8, 1992

Regional Water Quality Control Board
2101 Webster #500
Oakland, CA 94612

Attention: Mr. Lester Feldman

RE: Unocal Service Station #7004
15599 Hesperian Boulevard
San Leandro, California

Dear Mr. Feldman:

Per the request of Mr. Bob Boust of Unocal Corporation, enclosed please find our report dated May 29, 1992, for the above referenced site.

If you should have any questions, please feel free to call our office at (510) 602-5100.

Sincerely,

Kaprealian Engineering, Inc.

Judy A. Dewey

jad\65

Enclosure

cc: Bob Boust, Unocal Corporation

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