KAPREALIAN ENGINEERING
INCORPORATED

KEI-P90-0606.R11
November 17, 1993

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

Attention: Mr. Adadu Yemane

RE: Continuing Ground Water Investigation at
Former Unocal Service Station #5901
11976 Dublin Boulevard
Dublin, California

Dear Mr. Yemane:

This report presents the results of Kaprealian Engineering, Inc's. (KEI) most recent soil and ground water investigation for the referenced site, in accordance with KEI's proposal (KEI-P90-0606.P6) dated June 11, 1993. The purpose of the investigation was to further define the degree and extent of soil and ground water contamination (if present), and to determine the direction of ground water flow, in the area east of the interred splay of the Calaveras fault at the site. The scope of the work performed by KEI consisted of the following:

Coordination with regulatory agencies

Geologic logging of two borings for the installation of two monitoring wells

Soil sampling

Ground water monitoring, purging, and sampling

Laboratory analyses

Data analysis, interpretation, and report preparation

SITE DESCRIPTION AND BACKGROUND

The subject site formerly contained a Unocal service station facility. The site is situated on topography that slopes gently eastward, and is located approximately 700 feet northwest of a channelized portion of Dublin Creek. The site is also located near the southwest end of the San Ramon Valley, near Amador Valley. The station building, pump islands, and other station facilities have been demolished and removed from the site. A Location Map is attached to this report.

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

KEI's initial field work was conducted on June 13, 1990, when two underground gasoline storage tanks and one waste oil tank were removed from the site. The tanks consisted of one 10,000 gallon super unleaded gasoline storage tank, one 10,000 gallon regular unleaded gasoline storage tank, and one 280 gallon waste oil tank. The tanks were made of steel, and at least one hole (of up to 1/4-inch diameter) was observed in each of the fuel tanks. Numerous holes (up to 1/2-inch in diameter) were observed in the waste oil tank. Mr. Ravi Arulanantham of the Alameda County Health Care Services (ACHCS) Agency was present during tank removal and subsequent soil sampling.

Water was encountered in the fuel tank pit at a depth of approximately 7 feet below grade, thus prohibiting the collection of any soil samples from immediately beneath the tanks. Six soil samples, labeled SW1 through SW6, were collected from the sidewalls of the fuel tank pit (each sample was collected at approximately 6 to 12 inches above the observed water table). One soil sample, labeled WO1, was collected from beneath the waste oil tank at a depth of approximately 6.5 feet below grade. An additional soil sample, labeled SWA, was collected from the waste oil tank pit sidewall at a depth of approximately 6.5 feet below grade. Sample point locations are as shown on the attached Figure 3.

KEI returned to the site on June 15, 1990, in order to collect soil samples from the product pipe trenches. Four samples, labeled P1 through P4, were collected from the trenches at depths of 6 feet below grade. After the soil sampling was completed, the pipe trenches were excavated to ground water at the areas indicated on the attached Figure 4. Pipe trench sample point locations are also shown on the attached Figure 4.

On June 15, 1990, after reviewing the analytical results of the soil samples SW1 through SW6, additional soil excavation was performed. Four additional soil samples, labeled SW1(3), SW2(3), SW5(2.5), and SW6(3), were collected from the sidewalls of the fuel tank pit (each sample was collected approximately 6 to 12 inches above ground water), in the vicinity of sample point locations SW1, SW2, SW5, and SW6, respectively.

After soil sampling was completed, approximately 25,000 gallons of ground water were pumped from the fuel tank pit. On June 20, 1990, one water sample, labeled W1, was collected from the fuel tank pit.

Also on June 20, 1990, based on the analytical results of soil samples SW1(3) and SW2(3), additional soil excavation was again performed. Two additional soil samples, labeled SW1(6.5) and SW2(6.5), were collected from the northerly sidewall of the fuel

tank pit (each sample was collected approximately 6 to 12 inches above ground water), in the vicinity of sample point locations SW1(3) and SW2(3). The sample point locations and the area excavated are as indicated on the attached Figure 3.

On June 26, 1990, KEI again returned to the site, in order to collect soil samples from the sidewalls of the new underground fuel storage tank pit located to the west of the pump islands. Four soil samples, labeled SW11, SW12, SW13, and SW14, were collected from the sidewalls of the excavation (each sample was collected at 6 to 12 inches above ground water). Sample point locations are as shown on the attached Figure 5.

On July 3, 1990, after approximately 10,000 gallons of ground water were pumped from the new fuel tank pit, KEI collected a water sample (labeled W2) from the pit.

All samples were analyzed by Sequoia Analytical Laboratory in Redwood City, California. All soil samples, except the waste oil tank pit sidewall sample SWA, were analyzed for total petroleum hydrocarbons (TPH) as gasoline and benzene, toluene, ethylbenzene, and xylenes (BTEX). In addition to TPH as gasoline and BTEX, soil sample WO1 (collected from the waste oil tank pit) was also analyzed for TPH as diesel, total oil and grease (TOG), and EPA method 8010 constituents. The waste oil tank pit sidewall sample (SWA) was analyzed for TOG only. In addition to TPH as gasoline and BTEX, a soil sample (SW11) collected from the new fuel tank pit was also analyzed for TOG.

Both water samples were analyzed for TPH as gasoline and BTEX. In addition, water sample W2, collected from the new fuel tank pit, was analyzed for TOG. The results of the soil analyses are summarized in Table 6, and the results of the water analyses are summarized in Table 7.

KEI returned to the site on July 16, 1990, when three trenches were excavated laterally from the easterly, northerly, and westerly waste oil tank pit sidewalls. Water was encountered at a depth of approximately 7 feet below grade. Three soil samples, labeled SWB(13), SWC(10), and SWD(14), were collected from the sidewalls of the trenches, each approximately 6 to 12 inches above the observed water table. Sample point locations are as shown on the attached Figure 6. After sampling, the sidewalls of the waste oil tank pit were excavated laterally to the sample point locations and to depths of approximately 1 foot below the water table (or about 8 feet below grade).

On July 19, 1990, after having pumped approximately 5,000 gallons of ground water from the waste oil tank pit excavation, a water sample, labeled W3, was collected from the pit.

On July 20, 1990, KEI returned to the site to collect the additional soil samples required by the ACHCS. Four soil samples, labeled SWE, SWF, SWG, and SWH, were collected (each approximately 6 to 12 inches above the ground water level) from the four corners of the waste oil tank excavation. Sample point locations are also shown on the attached Figure 6.

All samples were analyzed by Sequoia Analytical Laboratory in Redwood City, California. All soil samples were analyzed for TPH as gasoline, BTEX, TPH as diesel, TOG, and EPA method 8010 constituents. The water sample was analyzed for TPH as gasoline, BTEX, TPH as diesel, TOG, and EPA method 8010 constituents. The results of the soil analyses are summarized in Table 8, and the results of the water analyses are summarized in Table 9.

To comply with the requirements of the regulatory agencies and based on the analytical results, KEI proposed the installation of four monitoring wells. Documentation of the tank removal procedures, sample collection techniques, and the analytical results of the soil samples collected from the fuel and waste oil tank excavations are summarized in KEI's reports (KEI-J90-0606.R1 and KEI-J90-0606.R4) dated July 16, 1990, and July 30, 1990, respectively.

On November 6 and 7, 1990, four two-inch diameter monitoring wells (designated as MW1, MW2, MW3, and MW4 on the attached Figure 1) were installed at the site. The monitoring wells were drilled and completed to total depths ranging from 20 to 24 feet below grade. Ground water was encountered at depths ranging from about 5.4 to 9.5 feet below grade during drilling in all wells, except MW3, in which ground water was not encountered until a depth of about 15.2 feet below grade. All four wells were surveyed by a licensed land surveyor (Kier & Wright of Pleasanton, California) to Mean Sea Level (MSL) and to a vertical accuracy of 0.01 feet. The wells were developed on November 12, 1990, and were initially sampled on November 16, 1990.

Water and selected soil samples were analyzed at Sequoia Analytical Laboratory in Concord, California. Samples were analyzed for TPH as gasoline and BTEX. In addition, samples collected from MW1 (adjacent to the waste oil tank pit) were analyzed for TPH as diesel, TOG, and for EPA method 8010 compounds.

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 analytical results, KEI recommended the implementation of a monthly ground water monitoring and quarterly ground water sampling program. Documentation of the well installation procedures, sample collection techniques, and the analytical results are presented in KEI's report (KEI-P90-0606.R6) dated December 17, 1990. The monitoring and sampling program was initiated in February of 1991.

As shown in the attached tables, the analytical results of the soil and ground water samples collected at the site during various phases of KEI's subsurface investigation had shown the following:

- After overexcavation of the former underground fuel tank pit, all final soil samples indicated concentrations of less than 32 ppm of TPH as gasoline, with benzene levels less than 0.027 ppm.

- After overexcavation of the waste oil tank pit, all final soil samples showed non-detectable levels of TOG and all EPA method 8010 constituents, TPH as diesel, TPH as gasoline (except one sample at 1.1 ppm), and benzene (except two samples, at 0.0061 ppm and 0.0052 ppm).

- Pipe trench soil samples showed all TPH as gasoline levels at or less than 37 ppm, with benzene levels at or less than 0.078 ppm. Following sampling, the pipe trenches were excavated to ground water.

- All soil samples collected during installation of the four wells (MW1, MW2, MW3, and MW4) indicated non-detectable levels of TPH as gasoline and BTEX. Additionally, the soil samples collected during the installation of well MW1 indicated non-detectable levels of TPH as diesel, TOG, and all EPA method 8010 constituents.

- All soil samples collected during excavation of the new underground fuel tank pit indicated non-detectable levels of TPH as gasoline and benzene.

- Water samples collected from the four wells during six consecutive quarters of sampling (November 1990 through April 1992) had consistently shown non-detectable concentrations of TPH as gasoline and BTEX since the inception of sampling on November 16, 1990 (except for 38 ppb and 32 ppb of TPH as gasoline detected in MW3 on January 2, 1992, and October 3, 1991, respectively).

Water samples collected from MW1 had also consistently shown non-detectable levels of TPH as diesel, TOG, and EPA method 8010 constituents. It should be noted that the two detectable levels of TPH as gasoline encountered in MW3 were just slightly above the laboratory detection limit (30 ppb).

- Ground water flow direction had been consistent, generally to the north-northeast and with a relatively flat gradient.

Based on the analytical results of the soil and ground water samples collected and evaluated through April of 1992, and because the majority of the contaminated soil appeared to have been excavated and removed from the site, KEI recommended that no further ground water sampling be conducted at the site, unless required by the regulatory agencies.

KEI conducted additional field work on May 21, 1992, when two 12,000 gallon storage tanks (formerly containing regular unleaded and super unleaded gasoline) and one 520 gallon waste oil tank were removed from the site. The tanks, which had been installed in July 1990, were made of double-walled steel. No apparent holes or cracks were observed in any of the tanks. Mr. Scott Seery of the ACHCS was present during tank removal and subsequent soil sampling. Mr. Tom Hathcox of the Dougherty Regional Fire Authority was also present during tank removal. Ground water was encountered in the fuel tank pit at a depth of about 7 feet below grade, and in the waste oil tank pit at a depth of about 6.5 feet below grade, thus prohibiting the collection of any soil samples from immediately beneath the tanks. Four soil samples, labeled F-SW1 through F-SW4, were collected from the sidewalls of the fuel tank pit at depths of about 6.5 feet below grade. Four soil samples, labeled WO-1 through WO-4, were collected from the sidewalls of the waste oil tank pit at depths of about 6 feet below grade. Two soil samples, labeled H1 and H2, were collected from beneath the former hydraulic lifts at depths of about 5 and 5.5 feet, respectively. Five soil samples, labeled PT-1 through PT-5, were collected from beneath the abandoned product piping found during excavation activities at depths of about 1.75 feet below grade, except for samples PT-1 and PT-2, which were collected at depths of approximately 11.5 feet and 5.0 feet below grade. The undisturbed samples were collected from bulk material excavated by backhoe. The sample point locations are as shown on the attached Figure 7. In addition, one water sample, labeled Water-1, was collected from the fuel tank pit. A second water sample, labeled Water-2, was collected from the waste oil tank pit.

Upon review of the analytical results, KEI returned to the site on June 15, 1992, in order to attempt to define the extent of soil contamination in the vicinity of sample points PT-1 and PT-2 (in the former product pipe trench) and H2 (the former hydraulic lift area). Following additional soil excavation in the vicinity of the former product pipe trench (over an area of approximately 19 feet by 15 feet, and to a depth of about 16.5 feet below grade), four soil samples, labeled PT(SW1) through PT(SW4), were collected from the sidewalls of the new excavation at depths of about 12 feet below grade, and one soil sample, labeled PT(16.5), was collected from the bottom of the new excavation at a depth of approximately 16.5 feet below grade. Following additional soil excavation in the vicinity of the former hydraulic lift area (over an area of approximately 10 feet by 10 feet, and to a depth of about 6.5 feet below grade), four soil samples, labeled H2(SW1) through H2(SW4), were collected from the excavation sidewalls at depths of approximately 5.5 feet below grade, and one soil sample, labeled H2(6.5), was collected from beneath sample point location H2 at a depth of about 6.5 feet below grade. The sample point locations and the areas of additional excavation are shown on the attached Figure 7. After the soil sampling was completed, ground water was observed seeping through the former hydraulic lift area excavation.

On June 17, 1992, KEI returned to the site in order to collect one water sample from the former hydraulic lift area excavation. Water was stabilized at a depth of approximately 5.75 feet below grade. One water sample, labeled Water-3, was collected from the former hoist pit.

All soil and water samples were analyzed by Sequoia Analytical Laboratory in Concord, California. All soil and water samples were analyzed for TPH as gasoline and BTEX. In addition, all initial soil samples, except samples PT-2 and H1, were also analyzed for total lead. Soil and water samples collected from the waste oil tank pit were also analyzed for TPH as diesel, TOG, EPA methods 8010 and 8270 constituents, and the metals cadmium, chromium, lead, nickel, and zinc. In addition to TPH as gasoline and BTEX, the soil sample H2, collected from beneath the former hydraulic lift, was analyzed for TPH as hydraulic fluid, TOG, EPA method 8010 and 8270 constituents, and the metals cadmium, chromium, lead, nickel, and zinc. All additional soil samples collected from the former hoist pit were analyzed for TPH as gasoline, BTEX, TPH as hydraulic fluid, TOG, and EPA method 8270 constituents. The water sample (Water-1) was analyzed for TPH as gasoline, BTEX, and organic lead. The water sample (Water-3) collected from the former hoist pit was analyzed for TPH as gasoline, BTEX, TPH as hydraulic fluid, TOG, EPA method 8270 constituents, and the metals cadmium, chromium, lead, nickel, and zinc. Analytical results of the soil samples are

summarized in Tables 10, 11, and 12, and the analytical results of the water samples are summarized in Table 13.

Based on the analytical results of the final soil samples collected during the removal of the underground storage tanks in both 1990 and 1992, KEI concluded that the majority of the hydrocarbon-contaminated soil appeared to have been removed from the site. The final soil samples collected from beneath the former underground storage tanks, the former hydraulic lifts, and the former pipe trenches in 1992 showed non-detectable concentrations of TPH as gasoline and benzene, except for 0.0078 ppm and 0.069 ppm of benzene detected in one of the pipe trench and hydraulic lift samples, respectively. Samples collected from the former waste oil tank pit showed non-detectable levels of TPH as diesel and TOG. In addition, the final soil samples collected from beneath the former hydraulic lifts showed non-detectable concentrations of TPH as hydraulic fluid and TOG.

In addition, the final soil samples collected from beneath the underground storage tanks and the product pipe trenches in 1990 showed concentrations of TPH as gasoline ranging from non-detectable to 37 ppm, and concentrations of benzene ranging from non-detectable to 0.78 ppm. The final soil samples collected from the waste oil tank pit excavation also showed non-detectable levels of TPH as diesel. TOG was detected at a concentration of 3,500 ppm in the sample collected between the former waste oil tank pit excavation and adjacent to the former building in 1990; however, this contamination appears to have been removed in the 1992 tank removal and building demolition project.

Documentation of the tank removal procedures, sample collection techniques, and the analytical results of the soil samples collected from the fuel and waste oil tank excavations are summarized in KEI's report (KEI-J90-0606.R7) dated August 31, 1992. At the request of Unocal, and in accordance with Unocal's procedures for sites that have been designated for divestment, KEI proposed the installation of 11 exploratory borings at the site (KEI's work plan/proposal KEI-P90-0605.P5 dated July 31, 1992). In addition, due to the damage that was sustained by MW2 during the most recent tank removal, the destruction of MW2 was also proposed.

Per Unocal Corporation's procedure for potential site divestment locations, on August 24 and 25, 1992, 11 exploratory borings (designated as EB1 through EB11 on the attached Figure 2) were drilled at the site. The 11 borings were drilled to depths of between 11 to 35.5 feet below grade. Ground water was encountered at depths between 10.5 and 35.5 feet below grade.

Also, on August 24, 1992, monitoring well MW2 was properly destroyed. Destruction of monitoring well MW2 was necessary because the well was damaged during the second tank removal project.

All samples were analyzed at Sequoia Analytical Laboratory in Concord, California. Water and selected soil samples were analyzed for TPH as gasoline and BTEX. In addition, water and selected soil samples from exploratory borings EB3 and EB6 (adjacent to the former waste oil tank) were analyzed for TPH as diesel, TOG, and for EPA method 8010 constituents. The samples collected from borings EB4 and EB5 (drilled inside the former service bay facility) were also analyzed for TPH as hydraulic fluid, TOG, and EPA method 8010 constituents. The results of soil analyses are summarized in Table 4, and the results of water analyses are summarized in Table 5. Because the water samples were collected during drilling, the results of the analyses may not be representative of formation water, and should be used for comparative purposes only. Documentation of the exploratory boring drilling procedures, sample collection techniques, and the analytical results are presented in KEI's report (KEI-P90-0606.R10) dated October 8, 1992.

Per a letter from the ACHCS dated April 28, 1993, additional subsurface investigation was requested at the eastern portion of the site. Therefore, KEI proposed the installation of two additional monitoring wells in KEI's work plan/proposal (KEI-P90-0606.P6) dated June 11, 1993.

RECENT FIELD ACTIVITIES

On October 4, 1993, two additional two-inch diameter monitoring wells (designated as MW5 and MW6 on the attached Figure 1) were installed at the site. The wells were each 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 wells are described in the attached Boring Logs and Well Construction Diagrams, respectively.

The two new wells were each drilled and completed to a total depth of 25 feet below grade. Ground water was encountered during drilling at depths of 15 and 24 feet below grade in wells MW5 and MW6, respectively. Soil samples were collected for laboratory analysis and for lithologic logging purposes at a maximum spacing of 5 foot intervals, at significant changes in lithology, at obvious areas of contamination, and at or within the soil/ground

water interface, beginning at a depth of approximately 4.5 feet below grade and continuing until ground water was encountered. Other soil sampling conducted below the ground water table was for lithologic logging purposes only. A representative composite soil sample of the saturated zone was collected from well MW5 at depths of 15 and 20 feet below grade, and was submitted for particle size analysis (sieve and hydrometer) for verification of filter pack and well screen design. The undisturbed soil samples were collected by driving a California-modified split-spoon sampler (lined with brass liners) ahead of the drilling augers. The two-inch diameter brass liners holding the samples were then sealed with aluminum foil, plastic caps and tape, labeled, and stored in a cooler, on ice, until delivery to a state-certified laboratory.

Each new well casing was installed with a watertight cap and a padlock. A round, watertight, flush-mounted well cover was cemented in place over each well casing. The surface of each well cover and the top of each well casing were surveyed by Kier & Wright of Pleasanton, California, to MSL and to a vertical accuracy of 0.01 foot.

Well MW5 was developed on October 6, 1993. Well MW6 was dry on that date. Prior to development, well MW5 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 well MW5. After recording the monitoring data, monitoring well MW5 was purged (by the use of a surface pump) of 30 gallons of water until the evacuated water was clear and free of visible suspended sediment. Monitoring and well development data are summarized in Table 1.

Monitoring wells MW1, MW3, MW5, and MW6 were sampled on October 9, 1993. Prior to sampling, all of the existing wells were checked for depth to water and the presence of free product. Monitoring wells MW1, MW3, MW5, and MW6 were also checked for the presence of a sheen. No free product or sheen was noted in any of the wells. After recording the monitoring data, the wells (except well MW4) were each purged of between 1 and 7.5 gallons of water by the use of a surface pump. The water samples were then collected by the use of a clean Teflon bailer. The samples were decanted into clean 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.

is this adequate?

ANALYTICAL RESULTS

Water and selected soil samples from the borings of MW5 and MW6 were analyzed at Sequoia Analytical Laboratory. The water samples

collected from wells MW1 and MW3 were not submitted for analysis because water samples from these wells were previously collected and submitted on September 16, 1993. All samples analyzed were accompanied by properly executed Chain of Custody documentation. The samples were analyzed for TPH as gasoline by EPA method 5030/modified 8015, and BTEX by EPA method 8020.

The results of the soil analyses are summarized in Table 3, and the results of the water analyses are summarized in Table 2. Copies of the laboratory analyses and the Chain of Custody documentation are attached to this report.

HYDROLOGY AND GEOLOGY

On October 9, 1993, the measured depth to ground water in the monitoring wells ranged from 4.84 to 24.14 feet. The depth to ground water in wells MW3 and MW5 was approximately 10 feet greater than the depth in wells MW1 and MW4. Also, the depth to ground water in well MW6 was approximately 10 feet greater than the depth in the nearest other wells (MW3 and MW5).

The subject site is situated within the Dublin Subbasin of the larger Livermore Valley Ground Water Basin, as defined by the Alameda County Flood Control and Water Conservation District. As of the spring of 1990, the regional ground water flow direction was toward the southeast.

Based on a review of regional geologic maps (U.S. Geological Survey Professional Paper 943 "Flatland Deposits - 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 Quaternary-age alluvium. The surficial alluvium has been mapped as Holocene coarse-grained alluvium (Qhac) that typically consists of unconsolidated, permeable sand and silt (with locally coarse sand and gravel materials) and that ranges in thickness from less than 10 feet to as much as 50 feet. This coarse-grained alluvium zone appears to have been deposited from sediments generated from erosion within Dublin Canyon, which is situated immediately west of the site. The site is also situated near a mapped geologic contact with Late-Pleistocene alluvium (Qpa). The Late Pleistocene alluvium is described as typically consisting of weakly consolidated, irregularly interbedded clay, silt, sand, and gravel materials. The overall thickness of the alluvium underlying the site is presently unknown to KEI.

In addition, the site is situated on or closely adjacent to the mapped trace of the active Calaveras Fault.

On November 13, 1990, KEI conducted a review of available geologic fault study reports at the California Division of Mines and Geology (CDMG) in Pleasant Hill, California. Studies conducted at the adjacent parcel immediately north of the subject site encountered what was described as the western side of the Calaveras Fault zone. A fault was determined to be located between approximately 130 to 136 feet west of the curb along San Ramon Road, roughly parallel to San Ramon Road, and trending approximately N4°W. Significant changes in the color of the soil materials on opposite sides of the fault were noted, and the depth to ground water on the western side of the fault was noted to be significantly higher than on the eastern side of the fault. Geologic maps produced for this study project the trace of the Calaveras Fault onto the subject Unocal site.

Based on the results of our file review at the CDMG, and our monitoring activities of the wells MW1 through MW4 at the subject site, it is KEI's opinion that a splay (or splays) of the Calaveras Fault crosses the eastern portion of the site. One fault splay apparently crosses between well MW3 and wells MW1, MW2, and MW4, as shown on the attached Site Plan, Figure 1. Wells MW1, MW2, and MW4 appear to represent one distinct ground water aquifer separate from well MW3, with the fault splay representing a significant ground water barrier.

Based on the results of our subsurface studies, the site is underlain by fill materials to a depth of between 1 and 6 feet below grade. The fill is in turn underlain by alluvium to the maximum depth explored of 24 feet below grade, except for exploratory boring EB9, which was drilled and sampled to a total depth of 35.5 feet below grade.

The alluvium underlying the site consists predominantly of silty clay and clayey silt layers that extend to a depth of at least 35.5 feet below grade. Based on ground water levels encountered in the existing monitoring wells at the site, the unsaturated zone west of the inferred splay of the Calaveras fault is approximately 6 feet thick. The unsaturated zone on the east side of the fault splay in the vicinity of well MW3 is about 16 feet thick.

The first water bearing unit underlying the site also consists of fine grained silty clay or clayey silt soils. However, in MW3, an approximately 1 foot thick silty gravel lens was encountered at a depth of 15 to 16 feet below grade, and at MW2, a 0.5 foot thick silty sand and sandy silt layer was encountered at a depth of 23.5 feet below grade. In exploratory boring EB8, a 1 foot thick sandy gravel layer was encountered at a depth of 17 feet below grade, and in EB9, a silty sand approximately 3 feet thick was encountered at

also in MW-6 at 8-9'

a depth of 10.5 feet below grade. Also, in MW6, a 0.5 foot thick silty gravel layer was encountered at a depth of 9 feet below grade.

During the drilling of the ten exploratory borings, ground water was first encountered at depths of 10.5 to 13 feet below grade in the borings situated on the west side of the Calaveras fault trace, and at depths of 16 to 35.5 feet below grade in the three borings located on the east side of the fault. However, within minutes of the termination of drilling of each exploratory boring, water levels were observed to rise, suggesting that a semi-confined condition may exist for the first aquifer underlying the site.

The results of the particle size analysis (sieve and hydrometer) of the composite soil sample collected from the saturated zone in the boring for monitoring well MW5 at depths of 15 feet and 20 feet below grade indicate that the sample consists of approximately 49% silt, 28% sand, and 23% clay. The composite sample is classified as clayey silt/silty clay with sand (CL-ML). The results of the particle size analysis are presented on the attached Particle Size Distribution data sheets and Graph of Acquired Data.

DISCUSSION AND RECOMMENDATIONS

Based on the analytical results of the ground water samples collected and evaluated to date, KEI recommends the continuation of the ground water monitoring and sampling program. All of the existing wells are currently monitored and sampled quarterly, except for well MW4, which is no longer sampled. The results of the monitoring program will be documented and evaluated after each monitoring and sampling event, and recommendations for altering or terminating the program will be made as warranted.

As shown in Table 1, on October 9, 1993, the depth to water in well MW6 was approximately 10 feet deeper than in wells MW3 and MW5. Well MW6 may in fact represent a third distinct ground water zone, separated from the area to the west by a second fault splay. KEI will re-evaluate this possibility after an additional quarter of monitoring data is collected.

DISTRIBUTION

A copy of this report should be sent to Ms. Eva Chu of the ACHCS, and to Mr. Lester Feldman of 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 ground water levels and flow paths, thereby changing 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.

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

Sincerely,

Kaprealian Engineering, Inc.

Thomas J. Berkins

Thomas J. Berkins
Senior Environmental Engineer

Joel G. Greger

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

License No. EG 1633
Exp. Date 6/30/94

Timothy R. Ross

Timothy R. Ross
Project Manager

/bp

Attachments: Tables 1 through 13
Location Map
Exploratory Boring and Monitoring Well Location Map - Figure 1
Soil Sample Point Location Maps - Figures 2 through 7
Boring Logs
Laboratory Analyses
Chain of Custody documentation

KEI-P90-0606.R11
November 17, 1993

TABLE 1

SUMMARY OF MONITORING DATA

Well #	Ground Water Elevation (feet)	Depth to Water (feet)♦	Product Thickness (feet)	Sheen	Water Purged (gallons)
(Monitored and Sampled on October 9, 1993)					
MW1	361.96	4.84	0	No	10.5
MW3	351.59	15.27	0	No	3
MW4*	362.29	5.29	0	--	0
MW5	351.20	14.35	0	No	7.5
MW6	341.54	24.14	0	No	1
(Monitored and Developed on October 6, 1993)					
MW5	350.95	14.60	0	--	30
MW6	WELL WAS DRY				

Well #	Top of Casing Elevation in feet above MSL**
MW1	366.80
MW3	366.86
MW4	367.58
MW5	365.55
MW6	365.68

♦ The depth to water level measurement was taken from the top of the well casing. Prior to September 16, 1993, the water level measurement was taken from the top of the well cover.

* Monitored only.

** The elevations of the tops of the well casings have been surveyed relative to MSL, per the National Geodetic Survey disk stamped "I-1257, reset 1975" (elevation = 439.93 MSL).

-- Sheen determination was not performed.

KEI-P90-0606.R11
November 17, 1993

TABLE 2

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Sample Number	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Xylenes
10/09/93	MW5	--	ND	ND	ND	ND	ND
	MW6	--	480	1.8	0.63	0.81	ND
9/16/93	MW1♦	--	--	--	--	--	--
	MW3	--	ND	ND	ND	ND	ND
6/18/93	MW1♦	--	--	--	--	--	--
	MW3	--	ND	ND	ND	ND	ND
4/03/92	MW1*	ND	ND	ND	ND	ND	ND
	MW2	--	ND	ND	ND	ND	ND
	MW3	--	ND	ND	ND	ND	ND
	MW4	--	ND	ND	ND	ND	ND
1/02/92	MW1*	ND	ND	ND	ND	ND	ND
	MW2	--	ND	ND	ND	ND	ND
	MW3**	--	38	ND	ND	ND	ND
	MW4	--	ND	ND	ND	ND	ND
10/03/91	MW1*	ND	ND	ND	ND	ND	ND
	MW2	--	ND	ND	ND	ND	ND
	MW3	--	32	ND	ND	ND	ND
	MW4	--	ND	ND	ND	ND	ND
7/02/91	MW1*	ND	ND	ND	ND	ND	ND
	MW2	--	ND	ND	ND	ND	ND
	MW3	--	ND	ND	ND	ND	ND
	MW4	--	ND	ND	ND	ND	ND
4/01/91	MW1*	ND	ND	ND	ND	ND	ND
	MW2	--	ND	ND	ND	ND	ND
	MW3	--	ND	ND	ND	ND	ND
	MW4	--	ND	ND	ND	ND	ND
11/16/90	MW1*	ND	ND	ND	ND	ND	ND
	MW2	--	ND	ND	ND	ND	ND
	MW3	--	ND	ND	ND	ND	ND
	MW4	--	ND	ND	ND	ND	ND

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

♦ All EPA method 8100 constituents (polynuclear aromatic hydrocarbons) were non-detectable.

* TOG and all EPA method 8010 constituents were non-detectable.

** All EPA method 8010 constituents were non-detectable.

ND = Non-detectable.

-- Indicates analysis was not performed.

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

KEI-P90-0606.R11
November 17, 1993

TABLE 3

SUMMARY OF LABORATORY ANALYSES
SOIL

Date	Sample Number	Depth (feet)	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
11/06/90 & 11/07/90	MW1(5)*	5.0	ND	ND	ND	ND	ND	ND
	MW1(8)	8.0	--	ND	ND	ND	ND	ND
	MW2(5)	5.0	--	ND	ND	ND	ND	ND
	MW2(7.5)	7.5	--	ND	ND	ND	ND	ND
	MW2(9)	9.0	--	ND	ND	ND	ND	ND
	MW3(5)	5.0	--	ND	ND	ND	ND	ND
	MW3(10)	10.0	--	ND	ND	ND	ND	ND
	MW3(15)	15.0	--	ND	ND	ND	ND	ND
	MW4(5)	5.0	--	ND	ND	ND	ND	ND
10/04/93	MW5(5)	5.0	--	ND	ND	ND	ND	ND
	MW5(9.5)	9.5	--	ND	ND	ND	ND	ND
	MW5(14.5)	14.5	--	ND	ND	ND	ND	ND
	MW6(5)	5.0	--	ND	ND	ND	ND	ND
	MW6(9.5)	9.5	--	ND	ND	ND	ND	ND
	MW6(15)	15.0	--	ND	ND	ND	ND	ND
	MW6(19.5)	19.5	--	ND	ND	ND	ND	ND
	MW6(24)	24.0	--	120	0.74	0.072	0.036	0.15

* TOG and EPA method 8010 constituents were non-detectable.

ND = Non-detectable.

-- Indicates analysis was not performed.

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

KEI-P90-0606.R11
November 17, 1993

TABLE 4

SUMMARY OF LABORATORY ANALYSES
SOIL

(Collected on August 24 & 25, 1992)

Sample Number	Depth (feet)	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	TOG
EB1(5)	5.0	--	ND	ND	ND	ND	ND	--
EB1(8)	8.0	--	ND	ND	ND	ND	ND	--
EB1(10)	10.0	--	2.3	ND	ND	0.0057	0.11	--
EB1(12.5)	12.5	--	ND	ND	ND	ND	ND	--
EB2(5)	5.0	--	ND	ND	ND	ND	ND	--
EB2(10.5)	10.5	--	ND	ND	ND	ND	ND	--
EB3(5)*	5.0	ND	ND	ND	ND	ND	ND	ND
EB3(10)*	10.0	ND	ND	ND	ND	ND	ND	ND
EB3(13)*	13.0	ND	ND	ND	ND	ND	ND	ND
EB4(5)*+	5.0	--	ND	ND	ND	ND	ND	ND
EB4(10)*+	10.0	--	ND	ND	ND	ND	ND	ND
EB5(5)*+	5.0	--	ND	ND	ND	ND	ND	ND
EB5(10.5)*+	10.5	--	ND	ND	ND	ND	ND	ND
EB6(5.5)*	5.5	ND	ND	ND	ND	ND	ND	ND
EB6(10)*	10.0	ND	ND	ND	ND	ND	ND	ND
EB7(5)	5.0	--	ND	ND	ND	ND	ND	--
EB7(10)	10.0	--	ND	ND	ND	ND	ND	--
EB8(5)	5.0	--	ND	ND	ND	ND	ND	--
EB8(10)	10.0	--	ND	ND	ND	ND	ND	--
EB8(13)	13.0	--	ND	ND	ND	ND	ND	--
EB8(15.5)	15.5	--	ND	ND	ND	ND	ND	--
EB8(17.0)	17.0	--	ND	ND	ND	ND	ND	--
EB9(5)	5.0	--	ND	ND	ND	ND	ND	--
EB9(10)	10.0	--	ND	ND	ND	ND	ND	--
EB9(15)	15.0	--	ND	ND	ND	ND	0.010	--
EB9(17.5)	17.5	--	2.6	ND	0.010	0.015	0.018	--
EB9(20)	20.0	--	ND	ND	ND	ND	ND	--
EB9(25)	25.0	--	10	0.028	0.032	0.41	2.1	--
EB9(30)	30.0	--	ND	ND	ND	ND	ND	--
EB9(35)	35.0	--	ND	ND	ND	ND	ND	--

KEI-P90-0606.R11
November 17, 1993

TABLE 4 (Continued)

SUMMARY OF LABORATORY ANALYSES
SOIL

(Collected on August 24 & 25, 1992)

Sample Number	Depth (feet)	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	TOG
EB10(5)	5.0	--	ND	ND	ND	ND	ND	--
EB10(10)	10.0	--	ND	ND	ND	ND	ND	--
EB10(15.5)	15.5	--	ND	ND	ND	ND	ND	--
EB11(5.5)	5.5	--	ND	ND	ND	ND	ND	--
EB11(10)	10.0	--	ND	ND	ND	ND	ND	--
EB11(15.5)	15.5	--	ND	ND	ND	ND	ND	--

* All EPA method 8010 constituents were non-detectable, except in samples EB3(13), EB5(10.5), and EB6(10), where tetrachloroethene was detected at a concentration of 11 ppb in each case. Tetrachloroethene was also detected in sample EB6(5.5) at a concentration of 19 ppb.

\+ TPH as Hydraulic Fluid was non-detectable.

ND = Non-detectable.

-- Indicates analysis was not performed.

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

KEI-P90-0606.R11
November 17, 1993

TABLE 5

SUMMARY OF LABORATORY ANALYSES
WATER

(Collected on August 24 & 25, 1992)

Sample Number	TPH as Hydraulic Fluid	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	TOG (ppm)
EB1	--	--	ND	ND	ND	ND	ND	--
EB2	--	--	ND	ND	ND	ND	ND	--
EB3*	--	ND	ND	ND	ND	ND	ND	ND
EB4*	510	--	ND	ND	ND	ND	ND	ND
EB5*	ND	--	ND	ND	ND	ND	ND	ND
EB6*	--	500**	ND	ND	ND	ND	ND	ND
EB7	--	--	ND	ND	ND	ND	ND	--
EB8	--	--	ND	ND	ND	ND	ND	--
EB9	--	--	840***	0.70	ND	ND	98	--
EB10	--	--	ND	ND	ND	ND	ND	--
EB11	--	--	ND	ND	ND	ND	ND	--

-- Indicates analysis was not performed.

ND = Non-detectable.

* All EPA method 8010 constituents were non-detectable.

** 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 gasoline.

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

KEI-P90-0606.R11
November 17, 1993

TABLE 6

SUMMARY OF LABORATORY ANALYSES
SOIL

(Collected on June 13, 15, 20 & 26, 1990)

Sample	Depth (feet)	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
SW1	6.0	--	5,700	2.1	41	110	640
SW1(3)	6.0	--	2,200	1.8	6.3	30	76
SW1(6.5)	6.0	--	32	0.020	0.14	0.13	0.17
SW2	6.0	--	1,500	0.35	0.57	8.0	56
SW2(3)	6.0	--	360	ND	1.0	3.0	2.0
SW2(6.5)	6.5	--	6.8	0.020	0.052	0.029	0.063
SW3	6.0	--	ND	ND	ND	ND	ND
SW4	6.0	--	8.0	0.019	0.088	0.0071	0.16
SW5	6.5	--	340	0.80	0.26	2.5	3.6
SW5(2.5)	6.0	--	11	0.027	0.054	0.070	0.12
SW6	6.5	--	120	ND	0.21	0.19	0.14
SW6(3)	6.0	--	1.2	0.0084	0.012	0.012	0.021
P1	6.0	--	2.5	0.099	0.079	ND	0.034
P2	6.0	--	37	0.78	0.14	0.43	3.8
P3	6.0	--	8.5	0.028	0.016	0.35	0.080
P4	6.0	--	16	0.091	ND	0.52	1.3
SW11*	6.0	--	ND	ND	ND	ND	0.0079
SW12	6.0	--	ND	ND	ND	ND	ND
SW13	6.0	--	ND	ND	0.022	ND	ND
SW14	6.0	--	ND	ND	ND	ND	0.020
WO1**	6.5	120	36	0.091	0.17	0.38	1.8
SWA***	6.0	--	--	--	--	--	--

-- Indicates analysis was not performed.

ND = Non-detectable.

* TOG was 78 ppm.

TABLE 6 (Continued)

SUMMARY OF LABORATORY ANALYSES
SOIL

** TOG was 1,500 ppm, and all EPA method 8010 constituents were non-detectable, except 1,2-dichlorobenzene at 210 ppb.

*** TOG was 3,500 ppm.

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

KEI-P90-0606.R11
November 17, 1993

TABLE 7

SUMMARY OF LABORATORY ANALYSES
WATER

(Collected on June 20 & July 3, 1990)

Sample #	TOG (ppm)	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
W1*	--	2,300	3.1	0.88	0.39	250
W2**	ND	ND	ND	0.96	ND	ND

* Collected from the former fuel storage tank pit.

** Collected from the new fuel storage tank pit.

-- Indicates analysis was not performed.

ND = Non-detectable.

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

KEI-P90-0606.R11
November 17, 1993

TABLE 8

SUMMARY OF LABORATORY ANALYSES
SOIL

(Collected on July 16 & 20, 1990)

Sample	Depth (feet)	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
SWB(13)*	6.0	ND	ND	ND	0.0095	ND	ND
SWC(10)*	6.0	ND	1.1	0.0061	0.0330	0.024	0.044
SWD(14)*	6.0	ND	ND	0.0052	0.015	ND	ND
SWE*	6.3	ND	ND	ND	0.031	ND	ND
SWF*	6.3	ND	ND	ND	0.029	0.0059	0.013
SWG*	6.3	ND	ND	ND	0.028	ND	ND
SWH*	6.3	ND	ND	ND	0.015	ND	ND

* TOG and all EPA method 8010 constituents were non-detectable.

ND = Non-detectable.

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

KEI-P90-0606.R11
November 17, 1993

TABLE 9

SUMMARY OF LABORATORY ANALYSES
WATER

(Collected on July 19, 1990)

Sample #	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
W3*	ND	ND	ND	ND	ND	ND

ND = Non-detectable.

* TOG and all EPA method 8010 constituents were non-detectable.

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

KEI-P90-0606.R11
November 17, 1993

TABLE 10

SUMMARY OF LABORATORY ANALYSES
SOIL

Date	Sample Number	Depth (feet)	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	Total Lead
5/21/92	F-SW1	6.5	--	ND	ND	ND	ND	ND	7.4
	F-SW2	6.5	--	ND	ND	ND	ND	ND	4.1
	F-SW3	6.5	--	ND	ND	ND	ND	ND	4.9
	F-SW4	6.5	--	ND	ND	ND	ND	ND	3.8
	PT-1	11.5	--	6.2	0.0072	0.072	0.054	0.33	4.0
	PT-2	5.0	--	940	ND	0.81	12	100	--
	PT-3	1.75	--	ND	0.0078	0.061	0.026	0.14	5.1
	PT-4	1.75	--	ND	ND	ND	ND	ND	6.5
	PT-5	1.75	--	ND	ND	ND	ND	ND	4.8
	WO-1*	6.0	ND	ND	ND	ND	ND	ND	4.9
	WO-2*	6.0	ND	ND	ND	ND	ND	ND	5.2
	WO-3*	6.0	ND	ND	ND	ND	ND	ND	5.0
	WO-4*	6.0	ND	ND	ND	ND	ND	ND	5.3
	H1**	5.0	--	ND	ND	ND	ND	ND	--
	H2***	5.5	--	230	ND	ND	1.3	0.66	4.4

-- Indicates analysis was not performed.

ND = Non-detectable.

* TOG and EPA method 8010 and 8270 constituents were all non-detectable.

** TPH as hydraulic fluid was 1.3 ppm.

*** TOG was non-detectable. TPH as hydraulic fluid was detected at a concentration of 120 ppm. EPA method 8010 and 8270 constituents were non-detectable, except for bis(2-ethylhexyl)phthalate at 670 ppb, 2-methylnaphthalane at 5,800 ppb, naphthalene at 4,100 ppb, phenanthrene at 240 ppb, and pyrene at 120 ppb.

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

KEI-P90-0606.R11
November 17, 1993

TABLE 11

SUMMARY OF LABORATORY ANALYSES
SOIL

Date	Sample Number	Cadmium	Chromium	Nickel	Zinc
5/21/92	WO-1	ND	29	35	44
	WO-2	ND	24	27	37
	WO-3	ND	24	26	39
	WO-4	ND	32	39	49
	H2	ND	33	43	55

ND = Non-detectable.

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

KEI-P90-0606.R11
November 17, 1993

TABLE 12

SUMMARY OF LABORATORY ANALYSES
SOIL

Date	Sample Number	Depth (feet)	TPH as Hydraulic Fluid	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	TOG
6/15/92	PT(16.5)	16.5	--	ND	ND	ND	ND	ND	--
	PT(SW1)	12	--	ND	ND	ND	ND	ND	--
	PT(SW2)	12	--	ND	ND	ND	ND	ND	--
	PT(SW3)	12	--	ND	ND	ND	ND	ND	--
	PT(SW4)	12	--	ND	ND	ND	ND	ND	--
	H2(6.5)*	6.5	ND	ND	ND	ND	ND	ND	ND
	H2(SW1)*	5.5	ND	ND	ND	ND	ND	ND	ND
	H2(SW2)*	5.5	ND	ND	ND	0.0098	ND	0.022	ND
	H2(SW3)*	5.5	ND	ND	0.069	0.068	0.064	0.21	ND
	H2(SW4)*	5.5	ND	ND	ND	ND	ND	ND	ND

-- Indicates analysis was not performed.

ND = Non-detectable.

* EPA method 8270 constituents were all non-detectable

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

KEI-P90-0606.R11
November 17, 1993

TABLE 13

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Sample	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	Organic Lead
5/21/92	Water-1	--	ND	ND	ND	ND	2.7	ND
	Water-2*	86	ND	ND	ND	ND	ND	--
6/17/92	Water-3**	--	ND	ND	ND	ND	ND	--

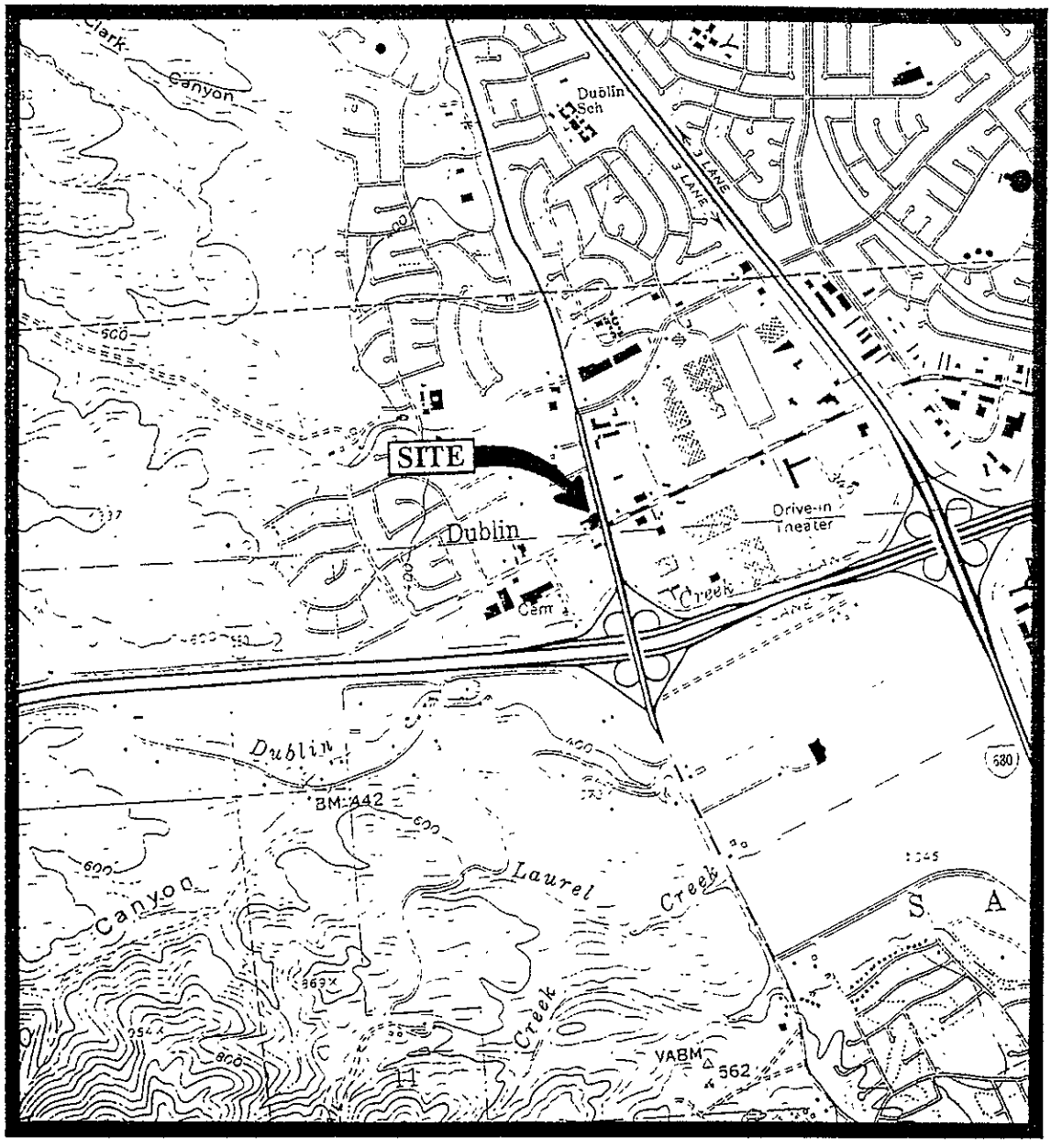
-- Indicates analysis was not performed.

ND = Non-detectable.

* TOG, cadmium, chromium, lead, nickel, EPA method 8010 and 8270 constituents were all non-detectable. Zinc was detected at 0.037 ppb.

** TPH as hydraulic fluid, TOG, EPA method 8270 constituents, and the metals cadmium, chromium, lead, nickel, and zinc were all non-detectable.

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



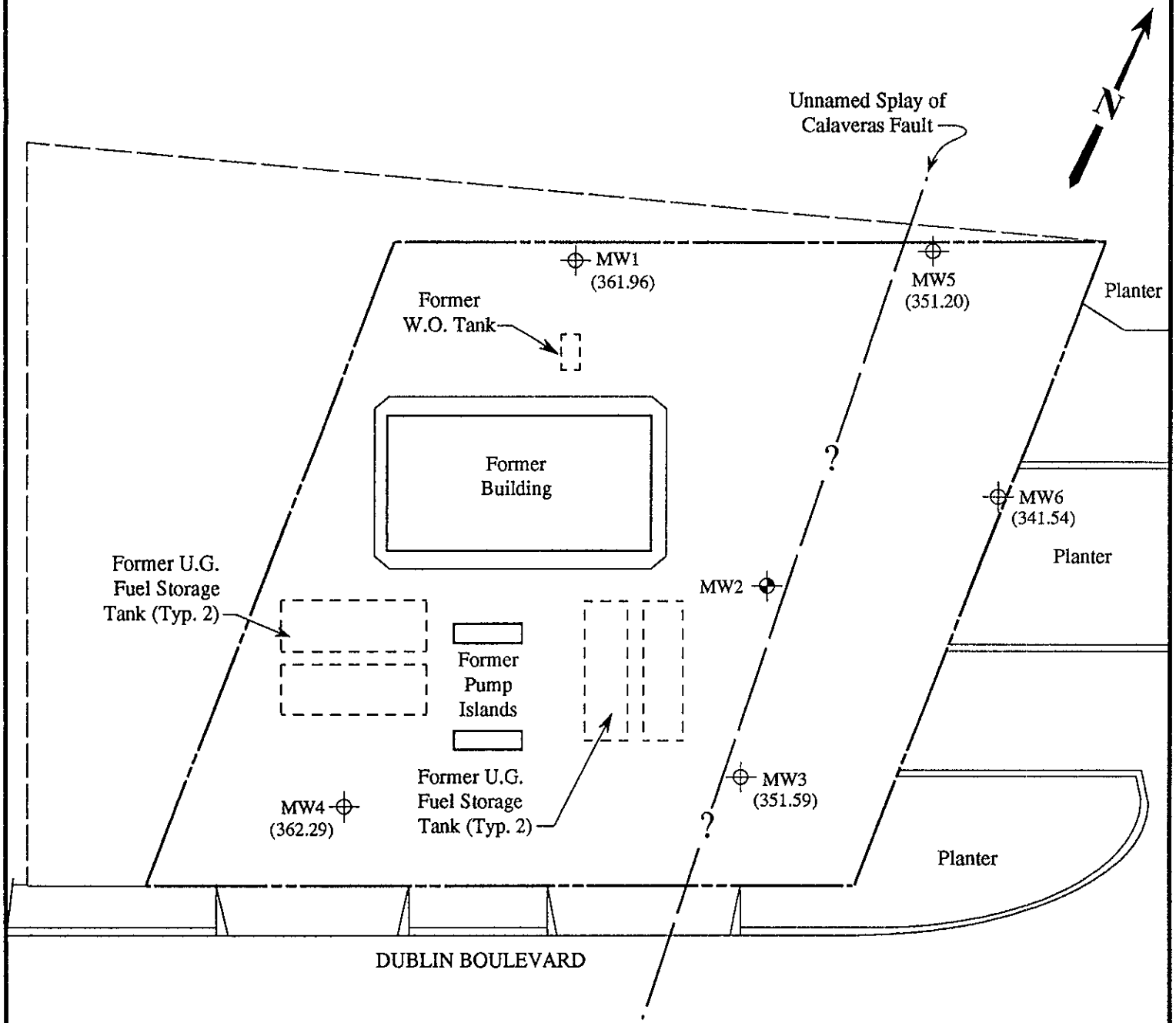
N

0 2000 4000

Approx. scale feet

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

KAPREALIAN ENGINEERING INCORPORATED	UNOCAL SERVICE STATION #5901 11976 DUBLIN BOULEVARD DUBLIN, CALIFORNIA	LOCATION MAP



LEGEND

- Monitoring well (existing)
- Monitoring well (destroyed)
- ( ) Ground water elevation in feet above Mean Sea Level

0 30 60

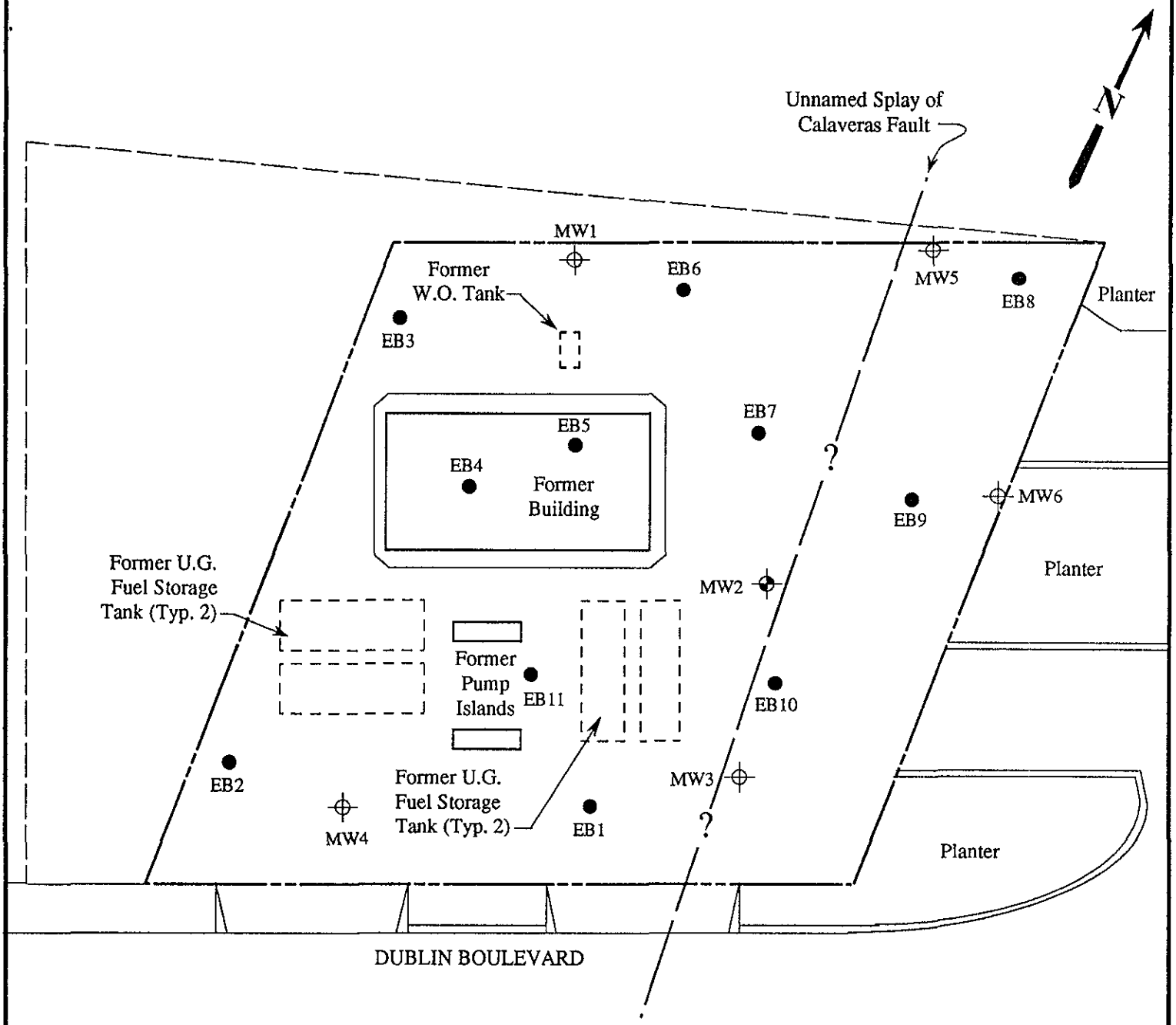
Approx. scale feet

GROUND WATER ELEVATION MAP FOR THE OCTOBER 9, 1993 MONITORING EVENT

KAPREALIAN ENGINEERING
INCORPORATED

FORMER UNOCAL S/S #5901
11976 DUBLIN BOULEVARD
DUBLIN, CALIFORNIA

FIGURE
1



LEGEND

- Monitoring well (existing)
- Monitoring well (destroyed)
- Exploratory boring

0 30 60

Approx. scale feet

EXPLORATORY BORING AND MONITORING WELL LOCATION MAP

KAPREALIAN ENGINEERING
INCORPORATED

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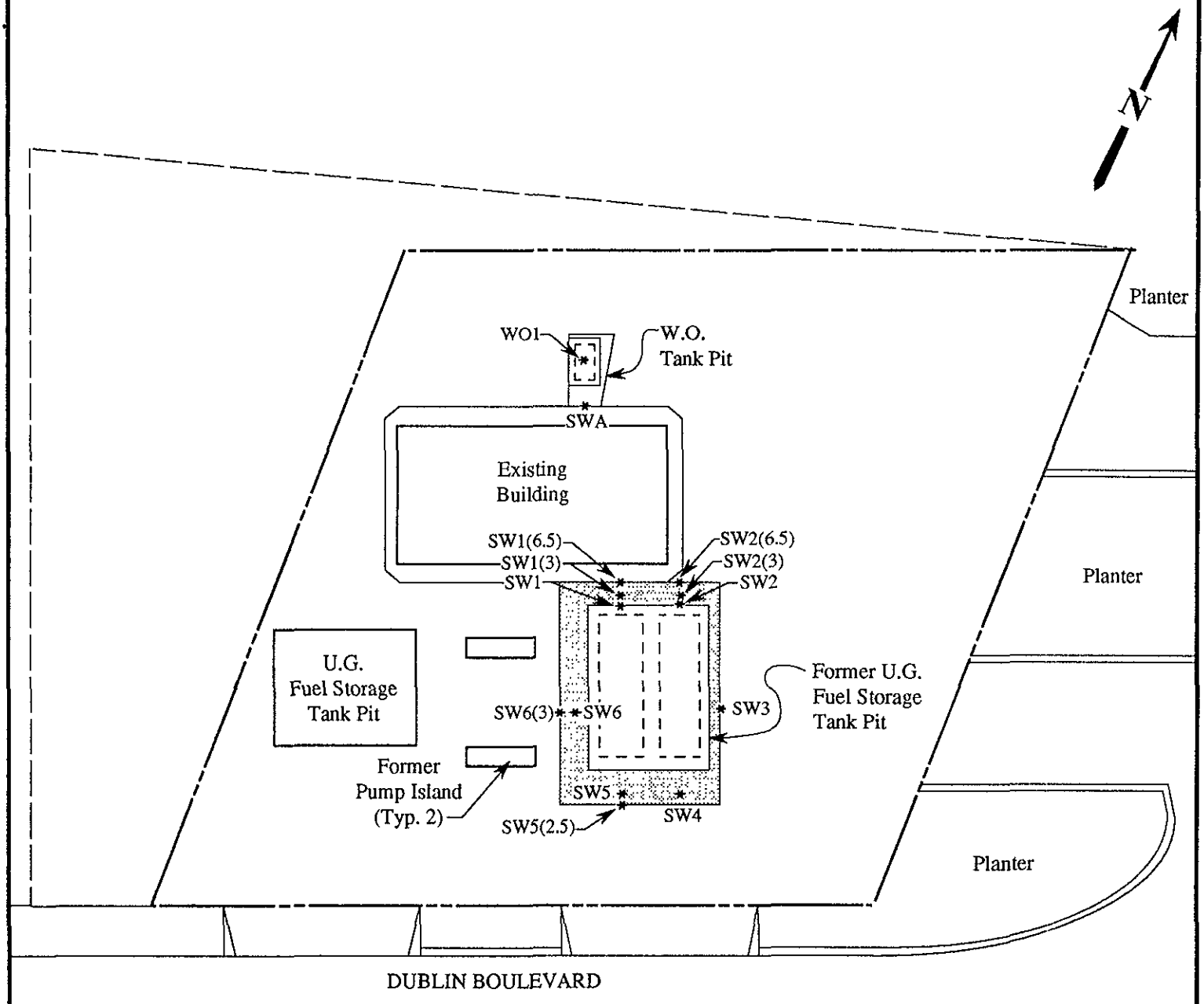
11976 DUBLIN BOULEVARD
DUBLIN, CALIFORNIA

FIGURE
2



LEGEND

* Sample point location

Additional area of excavation

Samples collected on June 13, 15 & 20, 1990

0 30 60

Approx. scale feet

SOIL SAMPLE POINT LOCATIONS MAP

KAPREALIAN ENGINEERING
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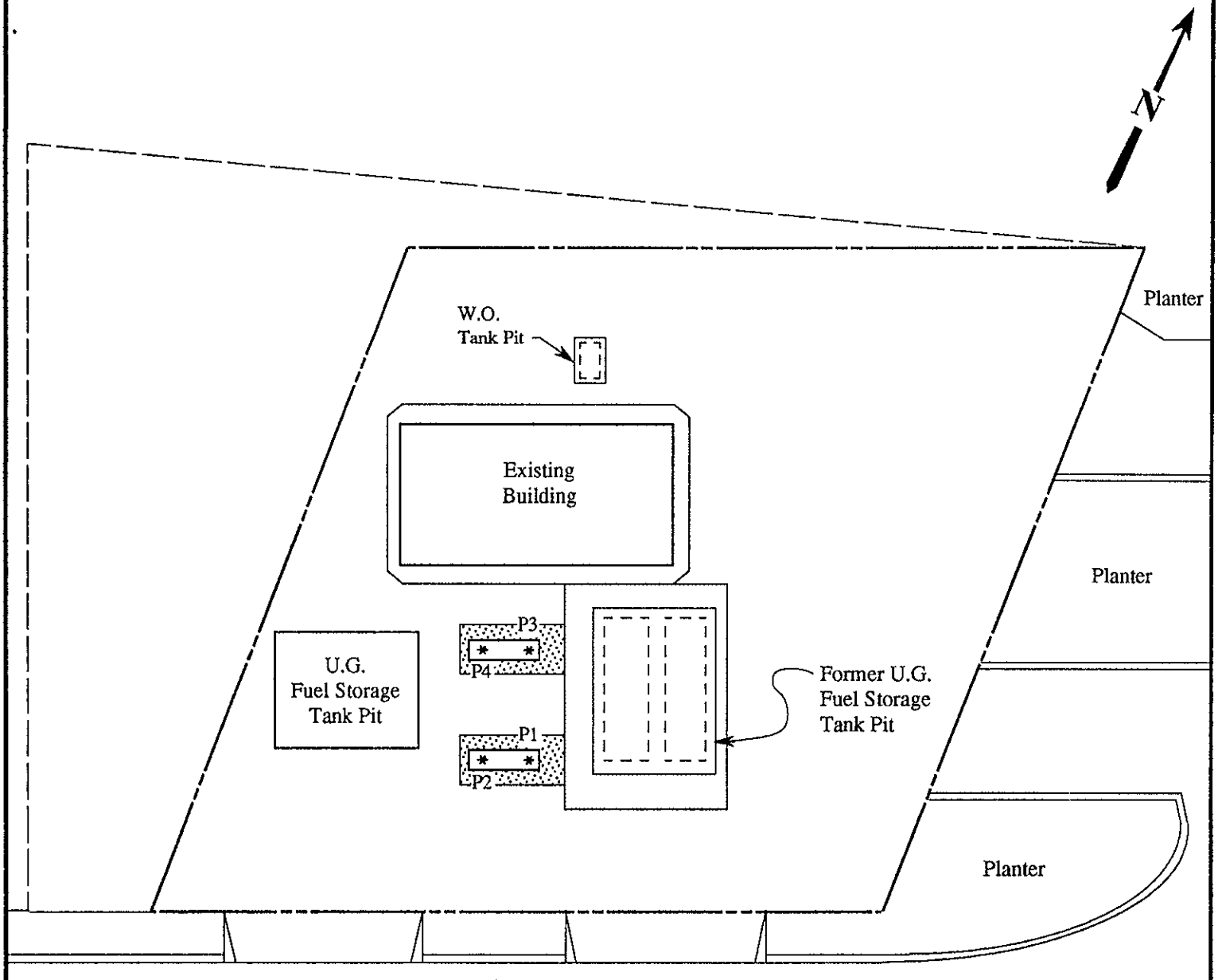
FORMER UNOCAL S/S #5901
11976 DUBLIN BOULEVARD
DUBLIN, CALIFORNIA

FIGURE
3



LEGEND

* Sample point location

Area of additional Tank Pit excavation

Area of additional Pipe Trench excavation

Samples collected on June 15, 1990

0 30 60

Approx. scale feet

SOIL SAMPLE POINT LOCATIONS MAP

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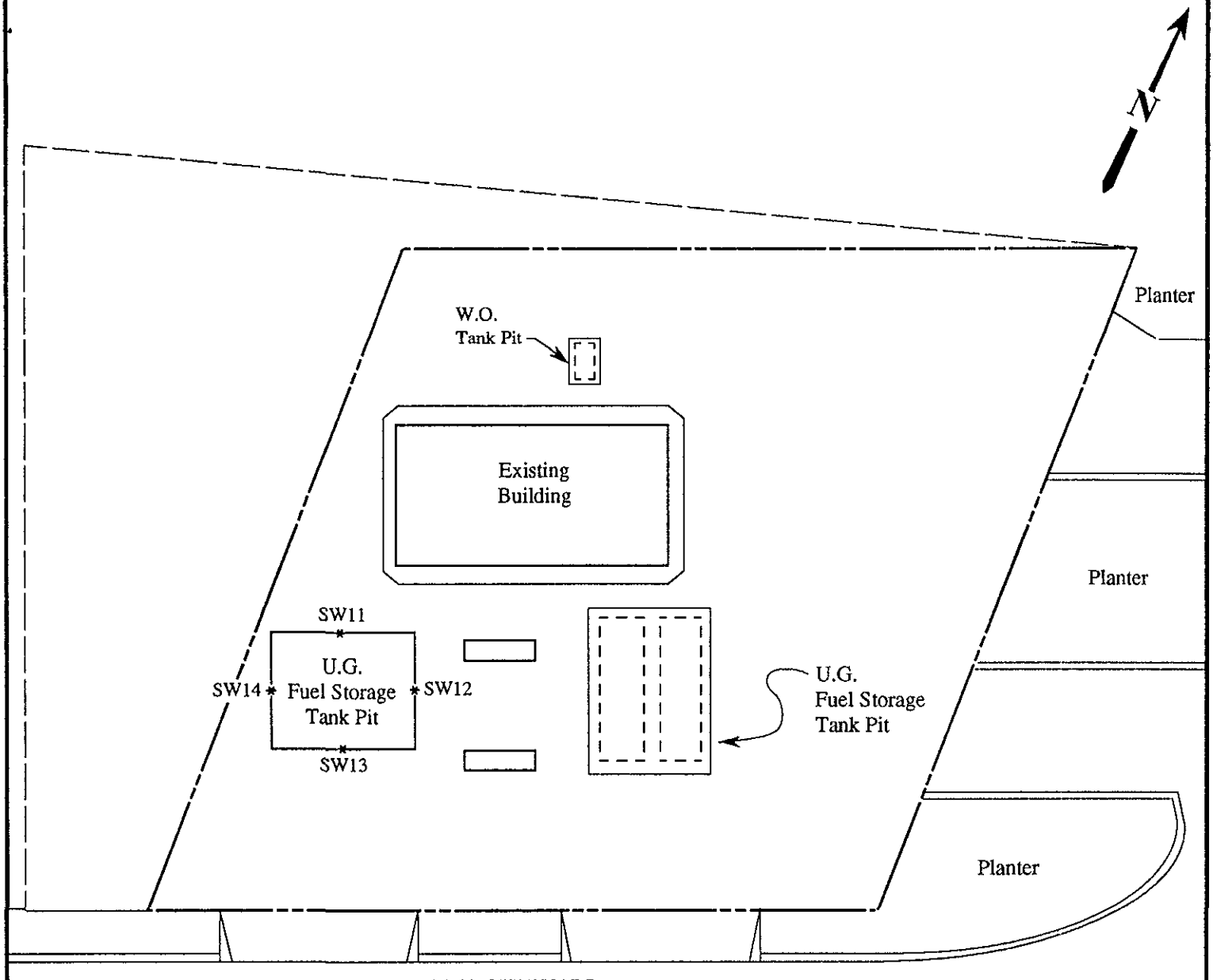
DUBLIN, CALIFORNIA

FIGURE
4



LEGEND

* Sample point location

Samples collected on June 26, 1990

0 30 60

Approx. scale feet

SOIL SAMPLE POINT LOCATIONS MAP

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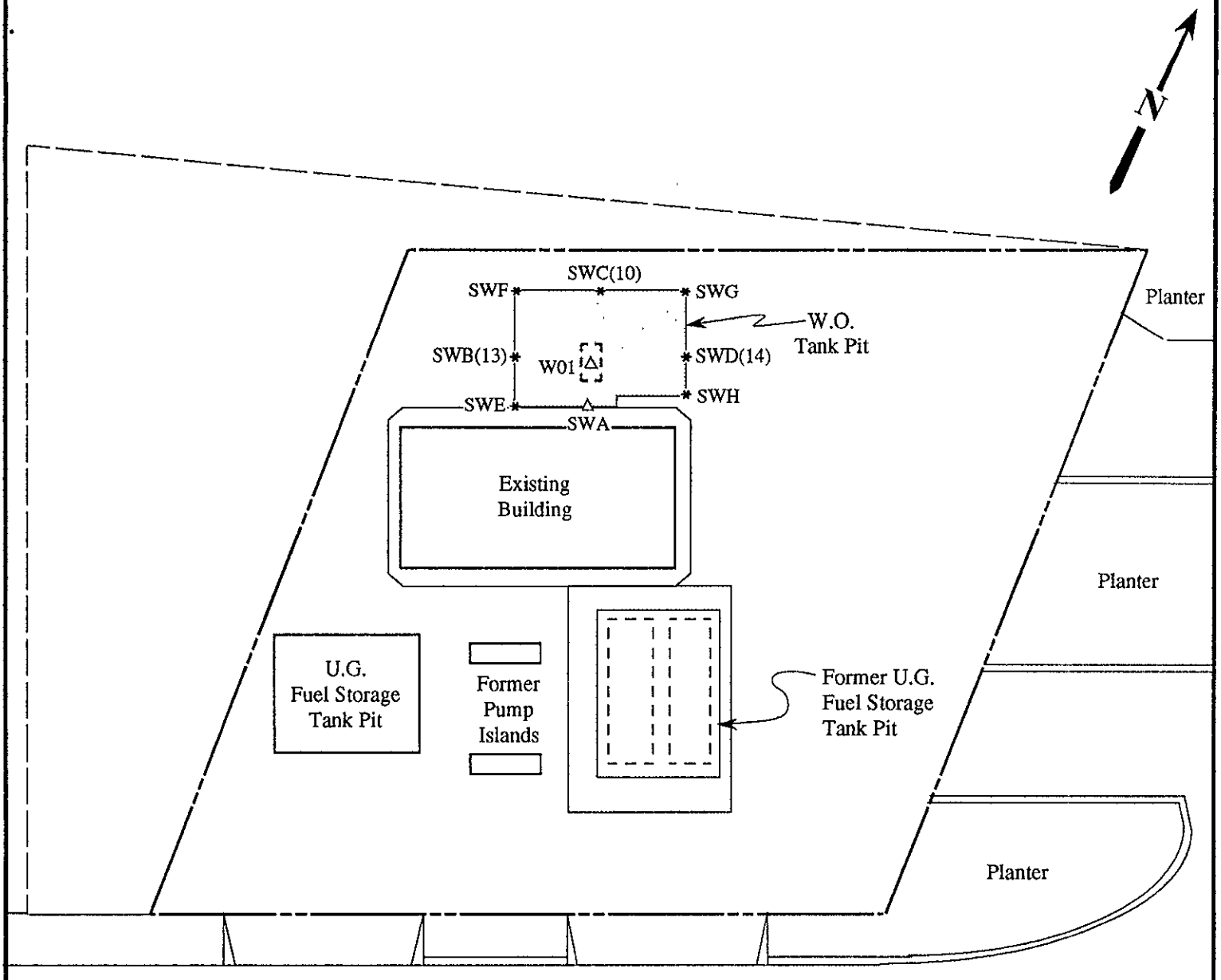
INCORPORATED

FORMER UNOCAL S/S #5901
11976 DUBLIN BOULEVARD
DUBLIN, CALIFORNIA

FIGURE
5



LEGEND

* Sample point location

△ Previous sample point location

Area of additional Tank Pit excavation

Samples collected on July 16 & 20, 1990

0 30 60

Approx. scale feet

SOIL SAMPLE POINT LOCATIONS MAP

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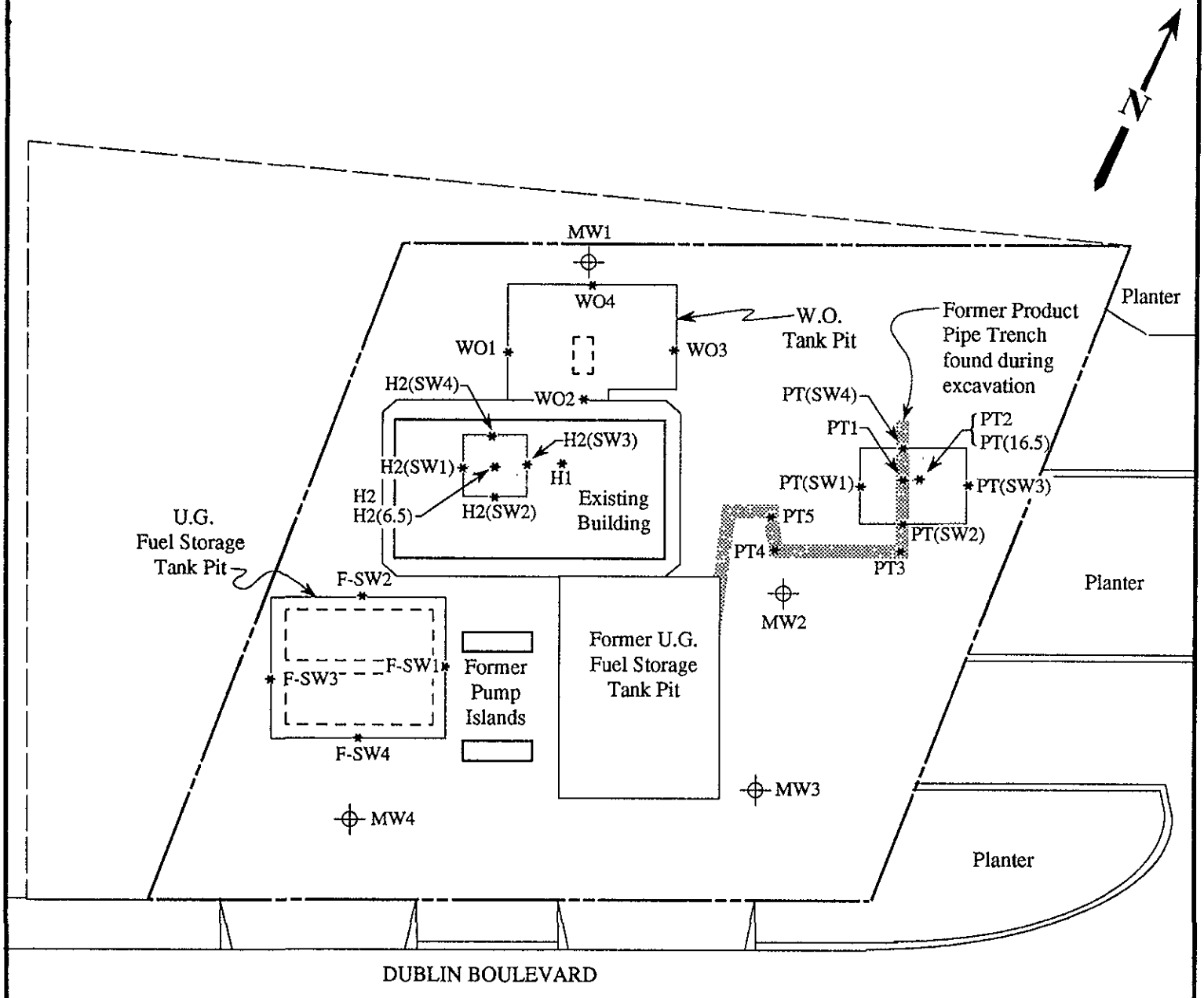
FORMER UNOCAL S/S #5901
11976 DUBLIN BOULEVARD
DUBLIN, CALIFORNIA

FIGURE
6



LEGEND

- Monitoring well
- * Sample point location
- Area of additional excavation

Samples collected on May 21 and June 15, 1992

0 30 60

Approx. scale feet

SOIL SAMPLE POINT LOCATIONS MAP

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FORMER UNOCAL S/S #5901
11976 DUBLIN BOULEVARD
DUBLIN, CALIFORNIA

FIGURE
7

KAPREALIAN ENGINEERING
INCORPORATED

MAJOR DIVISIONS	SYMBOLS		TYPICAL SOIL DESCRIPTIONS
GRAVELS (More than 1/2 of coarse fraction > No. 4 sieve size)	GW		Well graded gravels or gravel - sand mixtures, little or no fines
	GP		Poorly graded gravels or gravel - sand mixtures, little or no fines
	GM		Silty gravels, gravel - sand - silt mixtures
	GC		Clayey gravels, gravel - sand - clay mixtures
SANDS (More than 1/2 of coarse fraction < No. 4 sieve size)	SW		Well graded sands or gravelly sands, little or no fines
	SP		Poorly graded sands or gravelly sands, little or no fines
	SM		Silty sands, sand - silt mixtures
	SC		Clayey sands, sand - clay mixtures
SILTS & CLAYS LL < 50	ML		Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
	CL		Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
	OL		Organic silts and organic silty clays of low plasticity
SILTS & CLAYS LL > 50	MH		Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
	CH		Inorganic clays of high plasticity, fat clays
	OH		Organic clays of medium to high plasticity, organic silty clays, organic silts
HIGHLY ORGANIC SOILS	Pt		Peat and other highly organic soils

CLASSIFICATION CHART (Unified Soil Classification System)

BORING LOG

Project No. KEI-P90-0606.P6	**Boring Diameter** 9" **Casing Diameter** 2"	**Logged By** JGG J.G. CEG 1633
Project Name Unocal S/S #5901 11976 Dublin Blvd., Dublin	**Well Cover Elevation** N/A	**Date Drilled** October 4, 1993
Boring No. MW5	**Drilling Method** Hollow-stem Auger	**Drilling Company** Woodward Drilling

Pene-tration blows/6"	G.W level	O.V.M. (P.P.M.)	Depth (feet) Samples	Stratigraphy USCS	Description
			0		Sand and gravel base.
				ML	Silt, estimated at trace to 10% very fine-grained sand, trace clay, and local subrounded gravels to1/2 inch in diameter, slightly moist, stiff, dark grayish brown, pores and rootlets common.
4/6/7		0.0	5	CL	Silty clay, estimated at up to 40% silt, locally 1 inch thick lenses of clayey fine-grained sand, clay is moist, stiff, dark brown, with rust colored iron oxide staining.
4/5/8		0.0	10	CL-ML	Silty clay/clayey silt, trace to 10% subrounded gravel to 1 inch in diameter, gravel is very weathered, clay/silt is moist, very stiff, brown, pores common.
3/3/5	▽	0.0	15		Silty clay with gravel and sand, estimated at 40% silt and 35% gravel, gravel is subrounded, to 1-1/2 inches in diameter, locally up to 35% fine-grained sand, stiff, saturated.
				CL	
3/4/7		0.0	20		Silty clay, estimated at 40% silt,very stiff, saturated, brown, mottled.

BORING LOG

Project No. KEI-P90-0606.P6	**Boring Diameter** 9" **Casing Diameter** 2"	**Logged By** JGG J.G. CTG 1633
Project Name Unocal S/S #5901 11976 Dublin Blvd., Dublin	**Well Cover Elevation** N/A	**Date Drilled** October 4, 1993
Boring No. MW5	**Drilling Method** Hollow-stem Auger	**Drilling Company** Woodward Drilling

Pene-tration blows/6"	G.W. level	O.V.M. (P.P.M.)	Depth (feet) Samples	Stratigraphy USCS	Description
3/5/8		0.0	25 30 35 40	ML	Clayey silt, estimated at up to 25% clay, 10% fine-grained sand, and 10% sub angular subrounded gravel to 1/2 inch in diameter, very stiff, saturated, brown, mottled. TOTAL DEPTH: 25'

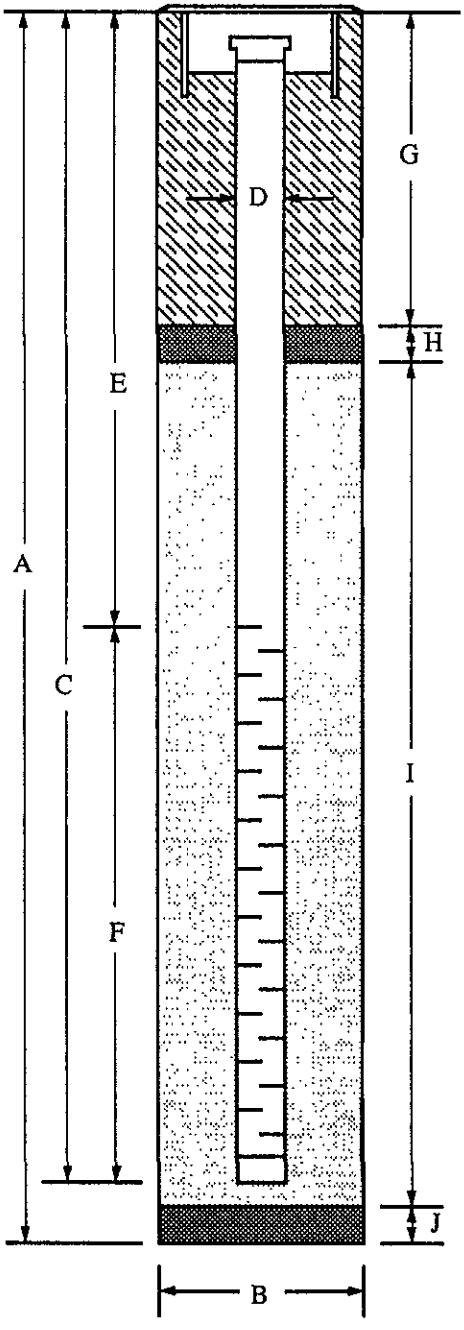
WELL CONSTRUCTION DIAGRAM

PROJECT NAME: Unocal S/S #5901, 11976 Dublin Blvd., Dublin **WELL NO.:** MW5

PROJECT NUMBER: KEI-P90-0606.P6

WELL PERMIT NO.: 93458

Flush-mounted Well Cover



A. Total Depth : 25'

B. Boring Diameter: 9"

Drilling Method: Hollow Stem Auger

C. Casing Length: 25'

Material: Schedule 40 PVC

D. Casing Diameter: OD = 2.375"

ID = 2.067"

E. Depth to Perforations: 10'

F. Perforated Length: 15'

Perforation Type: Machined Slot

Perforation Size: 0.020"

G. Surface Seal: 5' 9"

Seal Material: Neat Cement

H. Seal: 2' 4"

Seal Material: Bentonite

I. Filter Pack: 17'

Pack Material: RMC Lonestar Sand

Size: #2/12

J. Bottom Seal: None

Seal Material: N/A

BORING LOG

Project No. KEI-P90-0606.P6	**Boring Diameter** 9" **Casing Diameter** 2"	**Logged By** JGG J.G. CEG/633
Project Name Unocal S/S #5901 11976 Dublin Blvd., Dublin	**Well Cover Elevation** N/A	**Date Drilled** October 4, 1993
Boring No. MW6	**Drilling Method** Hollow-stem Auger	**Drilling Company** Woodward Drilling

Pene-tration blows/6"	G.W. level	Depth (feet) Samples	Stratigraphy USCS	Description
		0		Sand and gravel base.
			ML	Silt, trace fine-grained sand and trace clay, slightly moist, medium brown to dark brown, rootlets and pores common, trace black organic matter.
4/5/5		5	ML	Silt, estimated at trace to 10% clay and trace fine-grained sand, stiff, moist.
			GM	Silty gravel, estimated at 30% gravel and 40% silt, gravel is subrounded to subangular, to 3/4 inch in diameter, loose, moist, brown.
3/4/4		10	ML	Silt, as above.
3/4/8		15	ML	Clayey silt, estimated at 15% variable clay content and 15% subrounded gravel to 1/2 inch in diameter, very stiff, very moist to wet, brown.
2/3/5		20	CL-ML	Clayey silt/silty clay, trace gravel to 1/4 inch in diameter and trace fine-grained sand, stiff, very moist to wet, grayish brown, pores common.

BORING LOG

Project No. KEI-P90-0606.P6	**Boring Diameter** 9" **Casing Diameter** 2"	**Logged By** JG6 J.G. CEG 1633
Project Name Unocal S/S #5901 11976 Dublin Blvd., Dublin	**Well Cover Elevation** N/A	**Date Drilled** October 4, 1993
Boring No. MW6	**Drilling Method** Hollow-stem Auger	**Drilling Company** Woodward Drilling

Pene-tration blows/6"	G.W. level	Depth (feet) Samples	Stratigraphy USCS	Description
4/6/10	▽	25	CL-ML	Clayey silt/silty clay, locally with lenses of subrounded to subangular gravel to 1-3/4 inches in diameter, very stiff, saturated, grayish brown..
				TOTAL DEPTH: 25'
		30		
		35		
		40		

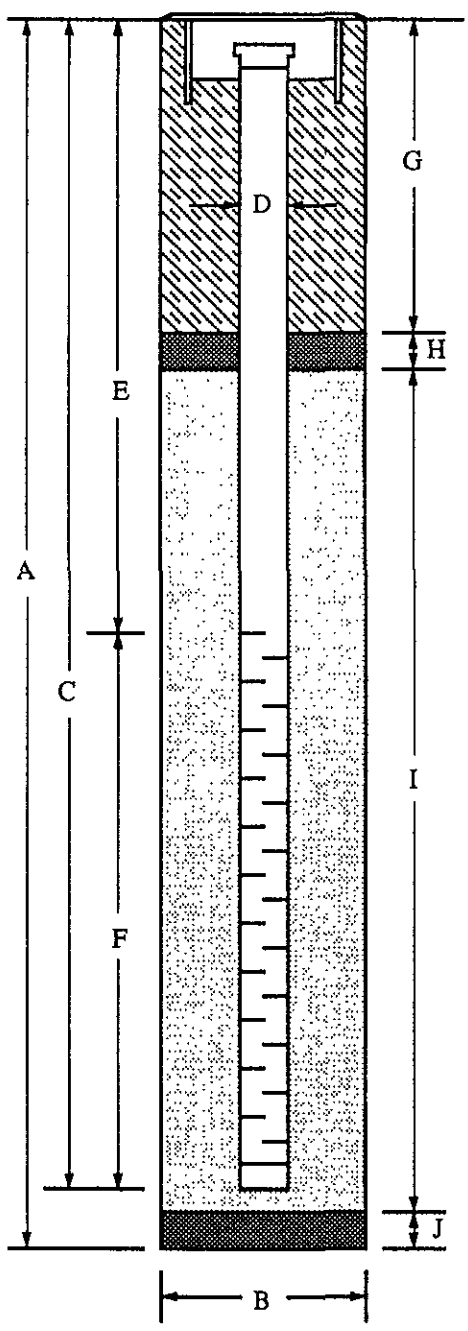
WELL CONSTRUCTION DIAGRAM

PROJECT NAME: Unocal S/S #5901, 11976 Dublin Blvd., Dublin **WELL NO.:** MW6

PROJECT NUMBER: KEI-P90-0606.P6

WELL PERMIT NO.: 93458

Flush-mounted Well Cover



A. Total Depth : 25'

B. Boring Diameter: 9"

Drilling Method: Hollow Stem Auger

C. Casing Length: 25'

Material: Schedule 40 PVC

D. Casing Diameter: OD = 2.375"

ID = 2.067"

E. Depth to Perforations: 10'

F. Perforated Length: 15'

Perforation Type: Machined Slot

Perforation Size: 0.020"

G. Surface Seal: 5' 9"

Seal Material: Neat Cement

H. Seal: 2' 4"

Seal Material: Bentonite

I. Filter Pack: 17'

Pack Material: RMC Lonestar Sand

Size: #2/12

J. Bottom Seal: None

Seal Material: N/A

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

Kaprealian Engineering, Inc.	Client Project ID:	Unocal #5901, 11976 Dublin Ave., Dublin	Sampled: Oct 9, 1993
2401 Stanwell Dr., Ste. 400	Sample Matrix:	Water	Received: Oct 11, 1993
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Reported: Oct 20, 1993
Attention: Avo Avedessian	First Sample #:	310-0444	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 310-0444 MW-5	Sample I.D. 310-0445 MW-6	Sample I.D. Matrix Blank
Purgeable Hydrocarbons	50	N.D.	480	
Benzene	0.5	N.D.	1.8	
Toluene	0.5	N.D.	0.63	
Ethyl Benzene	0.5	N.D.	0.81	
Total Xylenes	0.5	N.D.	N.D.	
Chromatogram Pattern:		--	Gasoline	

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0
Date Analyzed:	10/13/93	10/13/93	10/13/93
Instrument Identification:	HP-4	HP-5	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	102	114	103

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

SEQUOIA ANALYTICAL

Alan B. Kemp
Project Manager

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(510) 686-9600 • FAX (510) 686-9689

Kaprealian Engineering, Inc.
2401 Stanwell Dr., Ste. 400
Concord, CA 94520
Attention: Avo Avedessian

Client Project ID: Unocal #5901, 11976 Dublin Ave., Dublin
Matrix: Water
QC Sample Group: 3100444-45

Reported: Oct 20, 1993

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J.F.	J.F.	J.F.	J.F.
Conc. Spiked:	20	20	20	60
Units:	µg/L	µg/L	µg/L	µg/L
LCS Batch#:	2LCS101393	2LCS101393	2LCS101393	2LCS101393
Date Prepared:	10/13/93	10/13/93	10/13/93	10/13/93
Date Analyzed:	10/13/93	10/13/93	10/13/93	10/13/93
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
LCS % Recovery:	100	101	102	105
Control Limits:	70-130	70-130	70-130	70-130
MS/MSD Batch #:	3100407	3100407	3100407	3100407
Date Prepared:	10/13/93	10/13/93	10/13/93	10/13/93
Date Analyzed:	10/13/93	10/13/93	10/13/93	10/13/93
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
Matrix Spike % Recovery:	100	100	100	98
Matrix Spike Duplicate % Recovery:	100	100	95	98
Relative % Difference:	0.0	0.0	5.1	0.0

SEQUOIA ANALYTICAL

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 LCS % recovery data is used for validation of sample batch results. Due to matrix effects, the QC limits for MS/MSD's are advisory only and are not used to accept or reject batch results.

KAPREALIAN ENGINEERING
INCORPORATED

CHAIN OF CUSTODY

SAMPLER: STEVE

WITNESSING AGENCY:

SITE NAME & ADDRESS: UNO. # 5901 DUBLIN
11976 DUBLIN AVE.

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	ANALYSES REQUESTED: TPH-G BTXE	PNA	REMARKS
MW-1	10/7/93	3:30 P.M		X	X		1	MW		X	3100442
MW-3	"	3:10 P.M		X	X		2	"	X	X	443 A-B
MW-5	"	4:00 P.M		X	X		2	"	X		444
MW-6	"	4:30 P.M		X	X		2	"	X		445

CANCEL & DEL NUBAR 10-12-93 11:30 P.M

TURN AROUND TIME: REGULAR

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
STEVE	10/11/93 0930	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
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? Y
2. Will samples remain refrigerated until analyzed? Y
3. Did any samples received for analysis have head space? N
4. Were samples in appropriate containers and properly packaged? Y

SV (Signature) ES (Title) 10/10/93 (Date)

2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel: 510 602 5800 Fax: 510 687 0602

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Kaprealian Engineering, Inc.	Client Project ID:	Unocal 5901, Dublin	Sampled:	Oct 4, 1993
2401 Stanwell Dr., Ste. 400	Sample Matrix:	Soil	Received:	Oct 6, 1993
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Reported:	Oct 20, 1993
Attention: Avo Avedessian	First Sample #:	310-0287		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 310-0287 MW 6(5')	Sample I.D. 310-0288 MW 6(9.5')	Sample I.D. 310-0289 MW 6(15)	Sample I.D. 310-0290 MW 6(19.5)	Sample I.D. 310-0291 MW6(24')	Sample I.D. 310-0292 MW 5(5')
Purgeable Hydrocarbons	1.0	N.D.	N.D.	N.D.	N.D.	120	N.D.
Benzene	0.005	N.D.	N.D.	N.D.	N.D.	0.74	N.D.
Toluene	0.005	N.D.	N.D.	N.D.	N.D.	0.072	N.D.
Ethyl Benzene	0.005	N.D.	N.D.	N.D.	N.D.	0.036	N.D.
Total Xylenes	0.005	N.D.	N.D.	N.D.	N.D.	0.15	N.D.
Chromatogram Pattern:		--	--	--	--	Gasoline	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	20	1.0
Date Analyzed:	10/8/93	10/8/93	10/8/93	10/9/93	10/9/93	10/8/93
Instrument Identification:	HP-4	HP-4	HP-4	HP-2	HP-2	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	105	104	104	106	132	107

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

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Alan B. Kemp
Project Manager

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal 5901, Dublin	Sampled:	Oct 4, 1993
2401 Stanwell Dr., Ste. 400	Sample Matrix:	Soil	Received:	Oct 6, 1993
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Reported:	Oct 20, 1993
Attention: Avo Avedessian	First Sample #:	310-0293		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 310-0293 MW 5(9.5')	Sample I.D. 310-0294 MW 5(14.5')	Sample I.D. Matrix Blank
Purgeable Hydrocarbons	1.0	N.D.	N.D.	
Benzene	0.005	N.D.	N.D.	
Toluene	0.005	N.D.	N.D.	
Ethyl Benzene	0.005	N.D.	N.D.	
Total Xylenes	0.005	N.D.	N.D.	
Chromatogram Pattern:		--	--	

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0
Date Analyzed:	10/8/93	10/8/93	10/8/93
Instrument Identification:	HP-2	HP-4	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	108	99	102

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

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Alan B. Kemp
Project Manager

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Kaprealian Engineering, Inc.
2401 Stanwell Dr., Ste. 400
Concord, CA 94520
Attention: Avo Avedessian

Client Project ID: Unocal 5901, Dublin
Matrix: Soil
QC Sample Group: 3100287-95

Reported: Oct 20, 1993

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J.F.	J.F.	J.F.	J.F.
Conc. Spiked:	0.40	0.40	0.40	1.2
Units:	mg/kg	mg/kg	mg/kg	mg/kg
LCS Batch#:	1LCS100893	1LCS100893	1LCS100893	1LCS100893
Date Prepared:	10/8/93	10/8/93	10/8/93	10/8/93
Date Analyzed:	10/8/93	10/8/93	10/8/93	10/8/93
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
LCS % Recovery:	115	111	112	113
Control Limits:	70-130	70-130	70-130	70-130
MS/MSD Batch #:	3100169	3100169	3100169	3100169
Date Prepared:	10/8/93	10/8/93	10/8/93	10/8/93
Date Analyzed:	10/8/93	10/8/93	10/8/93	10/8/93
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Matrix Spike % Recovery:	87	97	100	103
Matrix Spike Duplicate % Recovery:	105	100	102	102
Relative % Difference:	19	3.0	1.9	0.98

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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 LCS % recovery data is used for validation of sample batch results. Due to matrix effects, the QC limits for MS/MSD's are advisory only and are not used to accept or reject batch results.

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Particle Size Distribution by Sieve and Hydrometer

Method: **ASTM D422-63**

Client: **Kaprealian Engineering, Inc.**
Client Project ID: Unocal #5901, Dublin
Received: 10/06/93
Analyzed: 10/18/93
Client ID: MW5(15',20')
Sample Description: Soil
Lab ID: 3100295

SIEVE TEST

A. Total weight of sample:	467.65	g
B. Weight retained in No. 10 sieve:	17.16	g
C. % passing No. 10 sieve:	96.33	%

Sieve test for weight retained in a No. 10 sieve.

SIEVE SIZE	WEIGHT RETAINED(g)	% RETAINED	CUMULATIVE % RETAINED	CUMULATIVE % PASSING
1 1/2 in	0.00	0.00	0.00	100.00
3/8 in	0.00	0.00	0.00	100.00
No. 4	2.00	0.43	0.43	99.57
No. 10	15.16	3.24	3 67	96.33
No. 16	8 05	1.72	5.39	94 61
No 32	15.16	3.24	8.63	91.37
No. 48	11.84	2.53	11.16	88.84
No. 80	13.03	2.79	13.95	86.05
No. 200	67.38	14.41	28.36	71.64

HYDROMETER TEST

ELAPSED TIME (min)	TEMP (deg C)	HYDROMETER READING (H)	CORRECTED READING (R)	(L)	PARTICLE DIAM in mm (S)	% SUSPENDED (P)
2	21	42	38	10.1	0.0303	58.1
5	21	33	29	11.5	0.0204	44.3
10	21	30	26	12.0	0.0148	39.7
15	21	28	24	12.4	0.0123	36.7
25	21	25	21	12.9	0.0097	32.1
40	21	23	19	13.2	0.0077	29.0
60	21	21	17	13.5	0.0064	26.0
90	21	20	16	13.7	0.0053	24.4
120	21	19	15	13.8	0.0046	22.9
1440	21	16	12	14.3	0.0013	18.3

Weight of soil used in hydrometer test (D):	65	g
Hydroscopic moisture correction factor (G):	0.97	
Specific gravity (Assumed):	2.65	
Dispersing agent correction factor (E):	3	
Meniscus correction factor (F):	1	
Temp./Spec. gravity dependent constant (K):	0.01348	

Formulas:

R = H - E - F
S = K[SQRT(L/T)]
P = (R/W)100
W = (J x 100)/C
J = D x G

SEQUOIA ANALYTICAL
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Method: **ASTM D422-63**
Analyzed: 10/18/93
Lab ID: 3100295
Client ID: MW5(15',20')

Graphing Data:

% SUSPENDED (P)	PARTICLE DIAM in mm (S)	Sieve Size
100.00	37.5	1 1/2 in
100.00	9.5	3/8 in
99.57	4.75	No. 4
96.33	2	No. 10
94.61	0.991	No. 16
91.37	0.495	No. 32
88.84	0.295	No. 48
86.05	0.18	No. 80
71.64	0.075	No. 200
58.1	0.0303	
44.3	0.0204	
39.7	0.0148	
36.7	0.0123	
32.1	0.0097	
29.0	0.0077	
26.0	0.0064	
24.4	0.0053	
22.9	0.0046	
18.3	0.0013	

Sample Composition:

(1) Gravel, passing 3-in. and retained on No. 4 Seive	0.43	%
(2a) Coarse Sand, passing No. 4 and retained on No. 10 Seive	3.24	%
(2b) Medium Sand, passing No. 10 and retained on No. 48 Seive	7.49	%
(2c) Fine Sand, passing No. 48 and retained on No. 200 Seive	17.19	%
(3) Silt size, 0.074 to 0.005 mm	48.72	%
(4) Clay Size, smaller than 0.005 mm	22.92	%
	100	

SEQUOIA ANALYTICAL

Alan B. Kemp
Project Manager

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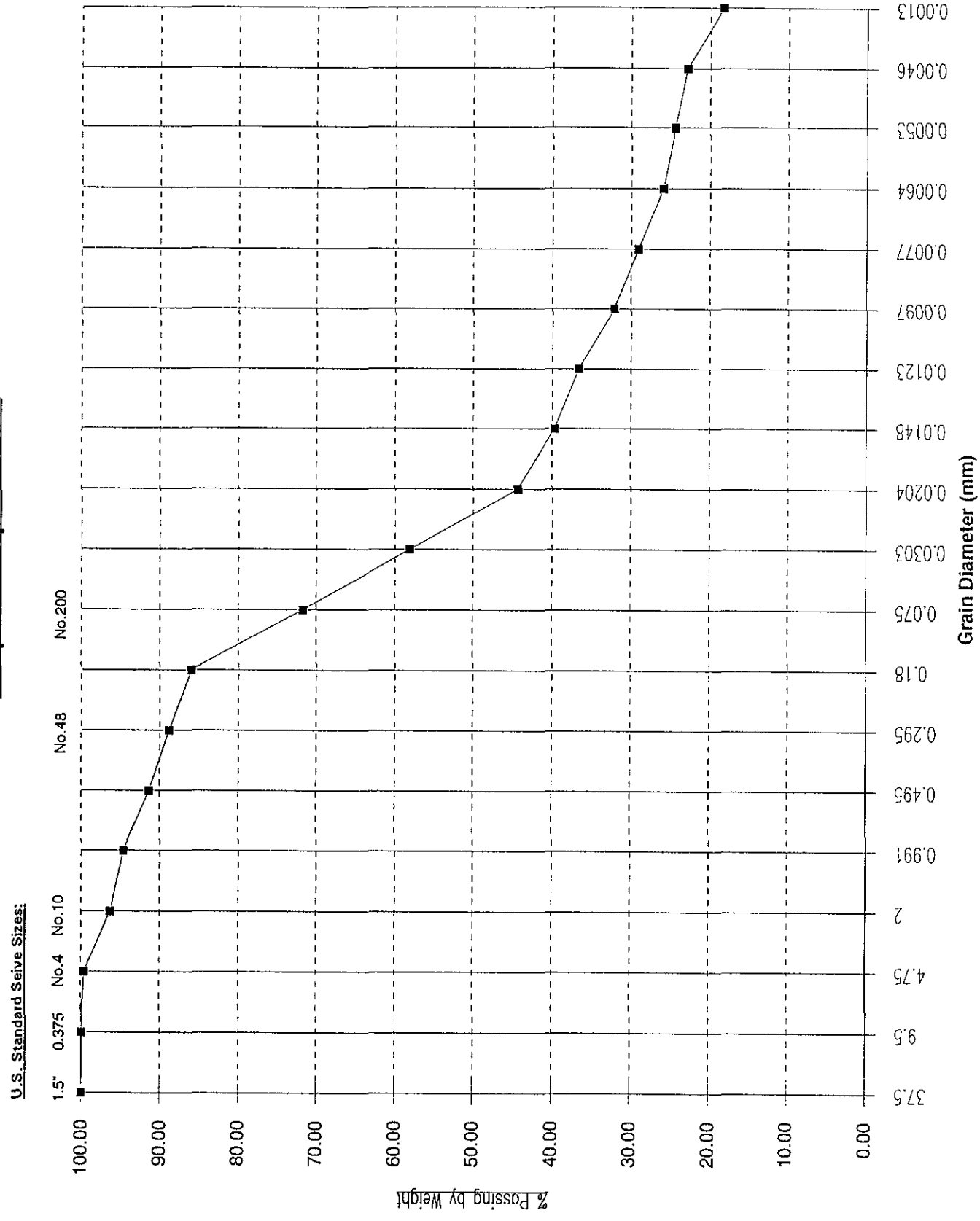
Graph of Acquired Data



KAPREALIAN ENGINEERING
INCORPORATED

CHAIN OF CUSTODY

SAMPLER: Joel Gregor
WITNESSING AGENCY:
SITE NAME & ADDRESS: Unocal 5901 Dublin

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	ANALYSES REQUESTED: TPHG	BTEX	Sieve + hydrometer	REMARKS
MW5 (5')	10/4/93		X				1		Y	X		3100287
MW6 (9.5')			X				1		X	X		288
MW6 (15)			X				1		X	X		289
MW6 (19.5')			X				1		X	X		290
MW6 (24')			X				1		X	X		291
MW5 (5')			X				1		X	X		292
MW5 (9.5')			X				1		X	X		293
MW5 (14.5') 15			X				1		X	X		294
MW5 (15, 20')			X				1	Bossi &			X	295

TURN AROUND TIME: Regular

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Joel Gregor	10/6/93 1730	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received by: (Signature)

The following MUST BE completed by the laboratory accepting sample 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?
4. Were samples in appropriate containers and properly packaged?

Signature | Title | Date

2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel 510 602 5100 Fax 510 687 0602