report. The station building, pump islands, and other station facilities have been demolished and removed from the site.

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 ACHCS 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 Site Plan, Figure 2.

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 Site Plan, Figure 3. Pipe trench sample point locations are also shown on the attached Site Plan, Figure 3.

On June 15, 1990, after reviewing the analytical results of the soil samples SW1 through SW6, additional 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 analytical results of soil samples SW1(3) and SW2(3), additional 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 Site Plan, Figure 2.

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 Site Plan, Figure 4.

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, xylenes, and ethylbenzene (BTX&E). In addition to TPH as gasoline and BTX&E, 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 BTX&E, 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 BTX&E. In addition, water sample W2, collected from the new fuel tank pit, was analyzed for TOG.

Analytical results of the soil samples (SW1, SW2, SW5, and SW6) collected from the sidewalls of the former fuel tank pit indicated levels of TPH as gasoline ranging from 120 ppm to 5,700 ppm. Samples SW3 and SW4 indicated levels of TPH as gasoline at non-detectable and 8.0 ppm, respectively. However, after additional excavation, analytical results of the final sidewall soil samples, SW1(6.5), SW2(6.5), SW5(2.5), and SW6(3), collected laterally beyond the samples SW1, SW2, SW5, and SW6 and at a depth of approximately 6 feet below grade, indicated levels of TPH as gasoline ranging from 1.2 ppm to 32 ppm.

Analytical results of the soil samples collected from the pipe trenches indicated levels of TPH as gasoline ranging from 2.5 ppm

to 37 ppm. Benzene was detected in all pipe trench samples at concentrations ranging from 0.28 ppm to 0.78 ppm.

Analytical results of the soil sample (WO1) collected from beneath the waste oil tank pit indicated levels of TPH as gasoline at 36 ppm, TPH as diesel at 120 ppm, and TOG at 1,500 ppm, with non-detectable concentrations of all EPA method 8010 constituents, except for 1,2-dichlorobenzene at 210 ppb. Analytical results of the soil sample (SWA) collected from the sidewall of the waste oil tank pit indicated levels of TOG at 3,500 ppm.

Analytical results of the soil samples (SW11, SW12, SW13, and SW14) collected from the new fuel tank pit indicated non-detectable levels of TPH as gasoline and benzene for all samples. Analytical results of sample SW11 for TOG indicated 78 ppm. The results of all soil analyses are summarized in Table 5.

Analytical results of the water sample (W1) collected from the former fuel tank pit indicated a level of TPH as gasoline at 2,300 ppb and a level of benzene at 3.1 ppb. Analytical results of the water sample (W2) collected from the new fuel tank pit indicated non-detectable levels of TPH as gasoline, TOG, and benzene. The results of the water analyses are summarized in Table 6.

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 Site Plan, Figure 5. 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 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 Site Plan, Figure 5.

All samples were analyzed by Sequoia Analytical Laboratory in Redwood City, California. All soil samples were analyzed for TPH as gasoline, BTX&E, TPH as diesel, TOG, and EPA method 8010 constituents. The water sample was analyzed for TPH as gasoline, BTX&E, TPH as diesel, TOG, and EPA method 8010 constituents.

Analytical results of the soil samples indicated non-detectable levels of TPH as diesel, TOG, and all EPA method 8010 constituents for all samples. Analytical results also indicated non-detectable levels of TPH as gasoline for all samples except SWC(10), which showed a level of TPH as gasoline at 1.1 ppm. The analytical results of the water sample indicated non-detectable levels of all constituents analyzed. The results of the soil analyses are summarized in Table 7, and the results of the water analyses are summarized in Table 8.

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 Site Plan, 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 beneath the surface 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 BTX&E. 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.

Analytical results of the soil samples collected from the borings for monitoring wells MW1 through MW4 indicated non-detectable levels of TPH as gasoline and BTX&E in all soil samples. Analytical results of the soil sample MW1(5) also indicated non-detectable levels of TPH as diesel, TOG, and EPA method 8010 compounds.

Analytical results of the ground water samples collected from monitoring wells MW1 through MW4 indicated non-detectable levels of TPH as gasoline and BTX&E. Analytical results of the water sample collected from MW1 indicated non-detectable levels of TPH as diesel, TOG, and EPA method 8010 constituents. The results of the soil analyses are summarized in Table 10, and the results of the water analyses are summarized in Table 9. Based on the analytical results, KEI recommended the implementation of a monthly monitoring and quarterly 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, 1991. The results of the most recent quarter of monitoring and sampling are documented in KEI's report (KEI-P90-0606.QR5) dated April 27, 1992.

RECENT FIELD ACTIVITIES

KEI's recent field work was conducted 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 (installed in July 1990) were made of double-walled steel, and 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 old product pipes 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 samples were placed in clean, two-inch diameter brass tubes, sealed with aluminum foil, plastic caps and tape, and stored in a cooled ice chest for delivery to a state-certified laboratory. Sample point locations are as shown on the attached Site Plan, Figure 1. In addition, one water sample, labeled Water-1, was collected from the fuel tank pit in four clean glass VOA vials with Teflon screw caps. A second water sample, labeled Water-2, was collected from the waste oil tank pit in four clean glass VOA vials and two one-liter amber bottles. The water samples were stored and delivered as described above.

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.

These samples were also collected, handled, and stored as described above. Sample point locations and the areas of additional excavation are shown on the attached Site Plan, Figure 1. 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 in six clean glass VOA vials and two one-liter amber bottles. This water sample was also stored and delivered as previously described.

REGIONAL GEOLOGY AND SUBSURFACE CONDITIONS

The subsurface soils exposed in the excavations consisted primarily of silty clay. Ground water was encountered in the fuel and waste oil tank pits, and in the former hoist pit, at depths ranging from 5.75 feet to 7 feet below grade.

ANALYTICAL RESULTS

All soil and water samples were analyzed by Sequoia Analytical Laboratory in Concord, California, and were accompanied by properly executed Chain of Custody documentation. All soil and water samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline using EPA method 5030/8015, and benzene, toluene, xylenes, and ethylbenzene (BTX&E) using EPA method 8020. 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 using EPA method 3550/8015, total oil and grease (TOG) by Standard Method 5520 E&F, EPA methods 8010 and 8270 constituents, and the metals cadmium, chromium, lead, nickel, and zinc. In addition to TPH as gasoline and BTX&E, 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, BTX&E, TPH as hydraulic fluid, TOG, and EPA method 8270 constituents. The water sample (Water-1) was analyzed for TPH as gasoline, BTX&E, and organic lead. The water sample (Water-3), collected from the former hoist pit, was analyzed for TPH as gasoline, BTX&E, TPH as hydraulic fluid, TOG, EPA method 8270 constituents, and the metals cadmium, chromium, lead, nickel, and zinc.

Analytical results of the soil samples collected from the fuel and waste oil tank pits indicated non-detectable levels of all constituents analyzed, except for total lead, which ranged from 3.8 ppm to 7.4 ppm. Analytical results of the soil samples collected from beneath the old product pipes indicated non-detectable levels of TPH as gasoline, except for samples PT-1 and PT-2, which showed 6.2 ppm and 940 ppm, respectively. Total lead ranged from 4 ppm to 6.5 ppm. However, after additional excavation in the vicinity of sample points PT-1 and PT-2, analyses of soil samples collected from the sidewalls and the bottom of the excavation indicated non-detectable levels of TPH as gasoline and BTX&E.

Analytical results of the soil sample H1, collected from beneath one of the former hydraulic lifts, showed non-detectable levels of

TPH as gasoline and BTX&E. TPH as hydraulic fluid was detected at 1.3 ppm. Sample H2, collected from beneath the other former hydraulic lift, showed levels of TPH as gasoline at 230 ppm and TPH as hydraulic fluid at 120 ppm. However, after additional excavation in the vicinity of sample point H2, analyses of soil samples collected from the sidewalls and the bottom of the excavation indicated non-detectable levels of TPH as gasoline, TPH as hydraulic fluid, TOG and EPA 8270 constituents. Analytical results of the water samples showed non-detectable levels of all constituents analyzed, except for 2.7 ppb of xylenes detected in sample Water-1, and 86 ppb of TPH as diesel and 0.037 ppb of zinc detected in sample Water-2. Analytical results of the soil samples are summarized in Tables 1, 2, and 3, and water samples in Table 4. Copies of the laboratory analyses and Chain of Custody Documentation are attached to this report.

DISCUSSION AND RECOMMENDATIONS

Based on the analytical results of the final soil samples collected during the removal of the underground storage tanks in both 1990 and 1992, it appears that the majority of the hydrocarbon-contaminated soil has 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.

KEI previously installed four monitoring wells at the site on November 6, 1990. No soil contamination was detected during the drilling of these wells. These wells have been monitored and sampled for a total of six quarters to date. No detectable

concentrations of TPH as gasoline, TPH as diesel, BTX&E constituents, TOG, or EPA method 8010 constituents have been detected in any of these ground water samples, except for concentrations of TPH as gasoline in MW3 that were just above the detection limits on two occasions.

In accordance with Unocal's procedures for sites that have been designated for divestment, KEI previously submitted a work plan for the installation of 11 exploratory borings at the site. In addition, due to the damage that was sustained by MW2 during the most recent tank removal project, our work plan also called for the destruction of this well. MW2 was destroyed and the 11 exploratory borings were installed on August 24 and 25, 1992. The locations of the exploratory borings are shown on the attached Figure 6. The description of the installation of these borings, the destruction of MW2, the analytical results of the samples collected, and recommendations for any additional warranted work at the site will be included in a separate technical report.

DISTRIBUTION

A copy of this report should be sent to Mr. Scott Seery of the ACHCS, 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 work and laboratory analyses. 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, 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 regarding this report, please feel free to call me at (510) 602-5100.

Sincerely,

Kaprealian Engineering, Inc.

Hagop Kevork
Staff Engineer

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

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

Timothy R. Ross
Project Manager

/bp

Attachments: Tables 1 through 10
Location Map
Site Plans - Figures 1 through 6
Laboratory Analyses
Chain of Custody documentation

KEI-J90-0606.R7
August 31, 1992

TABLE 1

SUMMARY OF LABORATORY ANALYSES
SOIL

Date	Sample Number	Depth (feet)	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethyl-benzene	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	0.33	0.054	4.0
	PT-2	5.0	--	940	ND	0.81	100	12	--
	PT-3	1.75	--	ND	0.0078	0.061	0.14	0.026	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	0.66	1.3	4.4
Detection Limits			1.0	1.0	0.0050	0.0050	0.0050	0.0050	2.5

-- Indicates analysis was not performed.

ND = Non-detectable.

* TOG, 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 methods 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 are in parts per million (ppm), unless otherwise indicated.

KEI-J90-0606.R7
August 31, 1992

TABLE 2

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
Detection Limits		0.25	0.25	1.3	0.25

ND = Non-detectable.

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

KEI-J90-0606.R7
August 31, 1992

TABLE 3

SUMMARY OF LABORATORY ANALYSES
SOIL

Date	Sample Number	Depth (feet)	TPH as Hydraulic Fluid	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethyl-benzene	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	0.022	ND	ND
	H2(SW3)*	5.5	ND	ND	0.069	0.068	0.21	0.064	ND
	H2(SW4)*	5.5	ND	ND	ND	ND	ND	ND	ND
Detection Limits			1.0	1.0	0.005	0.005	0.005	0.005	30

-- Indicates analysis was not performed.

ND = Non-detectable.

* EPA method 8270 constituents were all non-detectable

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

KEI-J90-0606.R7
August 31, 1992

TABLE 4

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Sample	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethyl-benzene	Organic Lead
5/21/92	Water-1	--	ND	ND	ND	2.7	ND	ND
	Water-2*	86	ND	ND	ND	ND	ND	--
6/17/92	Water-3**	--	ND	ND	ND	ND	ND	--
Detection Limits		50	30	0.30	0.30	0.30	0.30	0.050

-- 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.

KEI-J90-0606.R7
August 31, 1992

TABLE 5

SUMMARY OF LABORATORY ANALYSES
SOIL

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

Sample	Depth (feet)	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethyl-benzene
SW1	6.0	--	5,700	2.1	41	640	110
SW1(3)	6.0	--	2,200	1.8	6.3	76	30
SW1(6.5)	6.0	--	32	0.020	0.14	0.17	0.13
SW2	6.0	--	1,500	0.35	0.57	56	8.0
SW2(3)	6.0	--	360	ND	1.0	2.0	3.0
SW2(6.5)	6.5	--	6.8	0.020	0.052	0.063	0.029
SW3	6.0	--	ND	ND	ND	ND	ND
SW4	6.0	--	8.0	0.019	0.088	0.16	0.0071
SW5	6.5	--	340	0.80	0.26	3.6	2.5
SW5(2.5)	6.0	--	11	0.027	0.054	0.12	0.070
SW6	6.5	--	120	ND	0.21	0.14	0.19
SW6(3)	6.0	--	1.2	0.0084	0.012	0.021	0.012
P1	6.0	--	2.5	0.099	0.079	0.034	ND
P2	6.0	--	37	0.78	0.14	3.8	0.43
P3	6.0	--	8.5	0.028	0.016	0.080	0.35
P4	6.0	--	16	0.091	ND	1.3	0.52
SW11*	6.0	--	ND	ND	ND	0.0079	ND
SW12	6.0	--	ND	ND	ND	ND	ND
SW13	6.0	--	ND	ND	0.022	ND	ND
SW14	6.0	--	ND	ND	ND	0.020	ND
WO1**	6.5	120	36	0.091	0.17	1.8	0.38
SWA***	6.0	--	--	--	--	--	--
Detection Limits		1.0	1.0	0.0050	0.0050	0.0050	0.0050

-- Indicates analysis was not performed.

ND = Non-detectable.

* TOG was 78 ppm.

** 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-J90-0606.R7
August 31, 1992

TABLE 6

SUMMARY OF LABORATORY ANALYSES
WATER

(Collected on June 20 & July 3, 1990)

Sample #	TOG	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethylbenzene
W1*	--	2,300	3.1	0.88	250	0.39
W2**	ND	ND	ND	0.96	ND	ND
Detection Limits	5.0	30	0.30	0.30	0.30	0.30

* 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-J90-0606.R7
August 31, 1992

TABLE 7

SUMMARY OF LABORATORY ANALYSES
SOIL

(Collected on July 16 & 20, 1990)

Sample	Depth (feet)	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethyl-benzene
SWB(13)*	6.0	ND	ND	ND	0.0095	ND	ND
SWC(10)*	6.0	ND	1.1	0.0061	0.0330	0.044	0.024
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	0.013	0.0059
SWG*	6.3	ND	ND	ND	0.028	ND	ND
SWH*	6.3	ND	ND	ND	0.015	ND	ND
Detection Limits		1.0	1.0	0.005	0.005	0.005	0.005

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

ND = Non-detectable.

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

KEI-J90-0606.R7
August 31, 1992

TABLE 8

SUMMARY OF LABORATORY ANALYSES
WATER

(Collected on July 19, 1990)

Sample #	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethyl-benzene
W3*	ND	ND	ND	ND	ND	ND
Detection Limits	50	30	0.30	0.30	0.30	0.30

ND = Non-detectable.

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

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

KEI-J90-0606.R7
August 31, 1992

TABLE 9

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Sample Number	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethylbenzene
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
Detection Limits		50	30	0.30	0.30	0.30	0.30

* TOG and all EPA method 8010 constituents were all 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-J90-0606.R7
August 31, 1992

TABLE 10

SUMMARY OF LABORATORY ANALYSES
SOIL

(Collected on November 6 & 7, 1990)

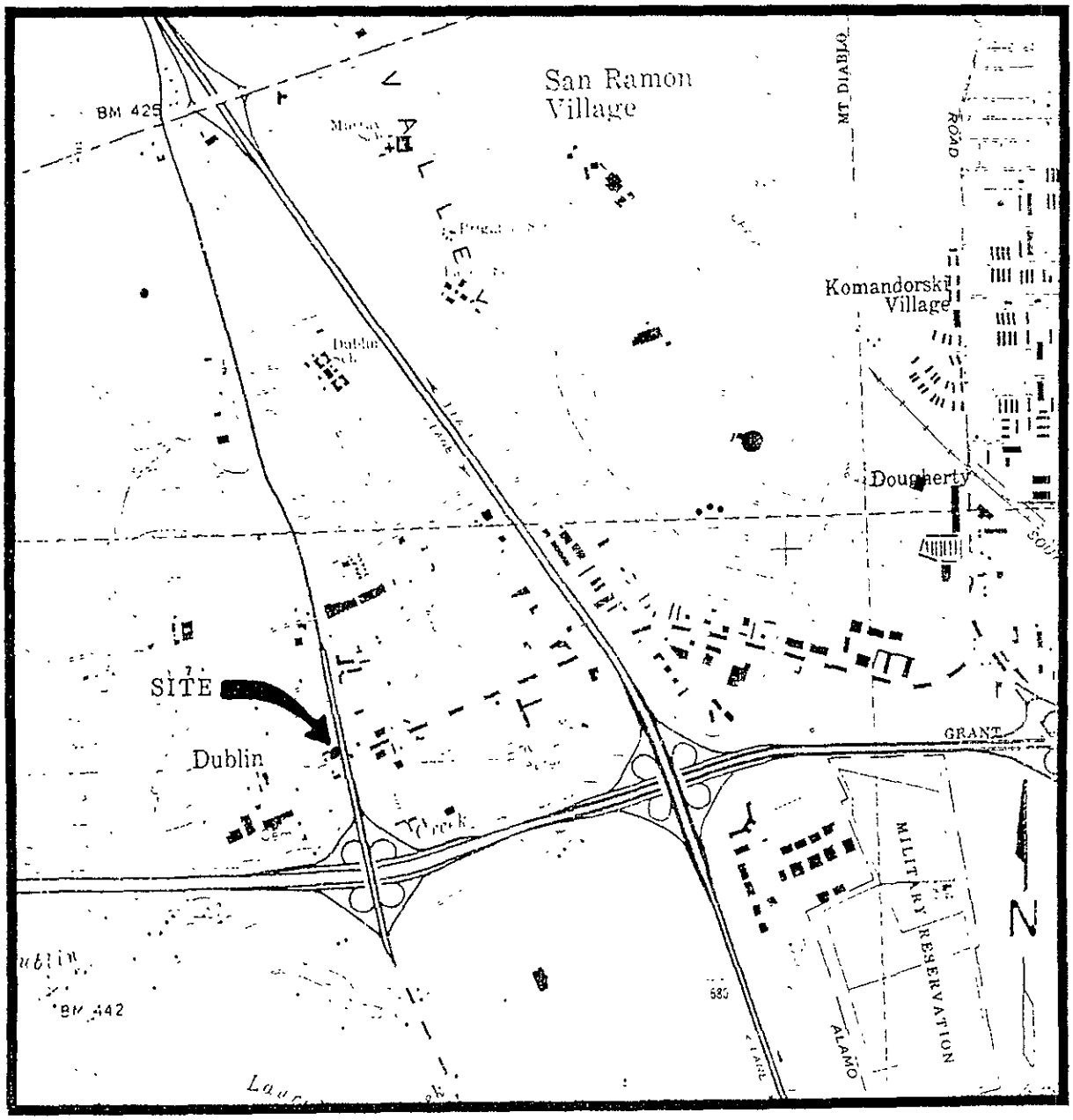
Sample Number	Depth (feet)	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethyl-benzene
MW1(5)*	5.0	ND	ND	ND	ND	ND	ND
MW1(8)	8.0	--	ND	ND	ND	ND	ND
MW2(5)	5.0	--	ND	ND	ND	ND	ND
MW2(7.5)	7.5	--	ND	ND	ND	ND	ND
MW2(9)	9.0	--	ND	ND	ND	ND	ND
MW3(5)	5.0	--	ND	ND	ND	ND	ND
MW3(10)	10.0	--	ND	ND	ND	ND	ND
MW3(15)	15.0	--	ND	ND	ND	ND	ND
MW4(5)	5.0	--	ND	ND	ND	ND	ND
Detection Limits		1.0	1.0	0.0050	0.0050	0.0050	0.0050

* 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.

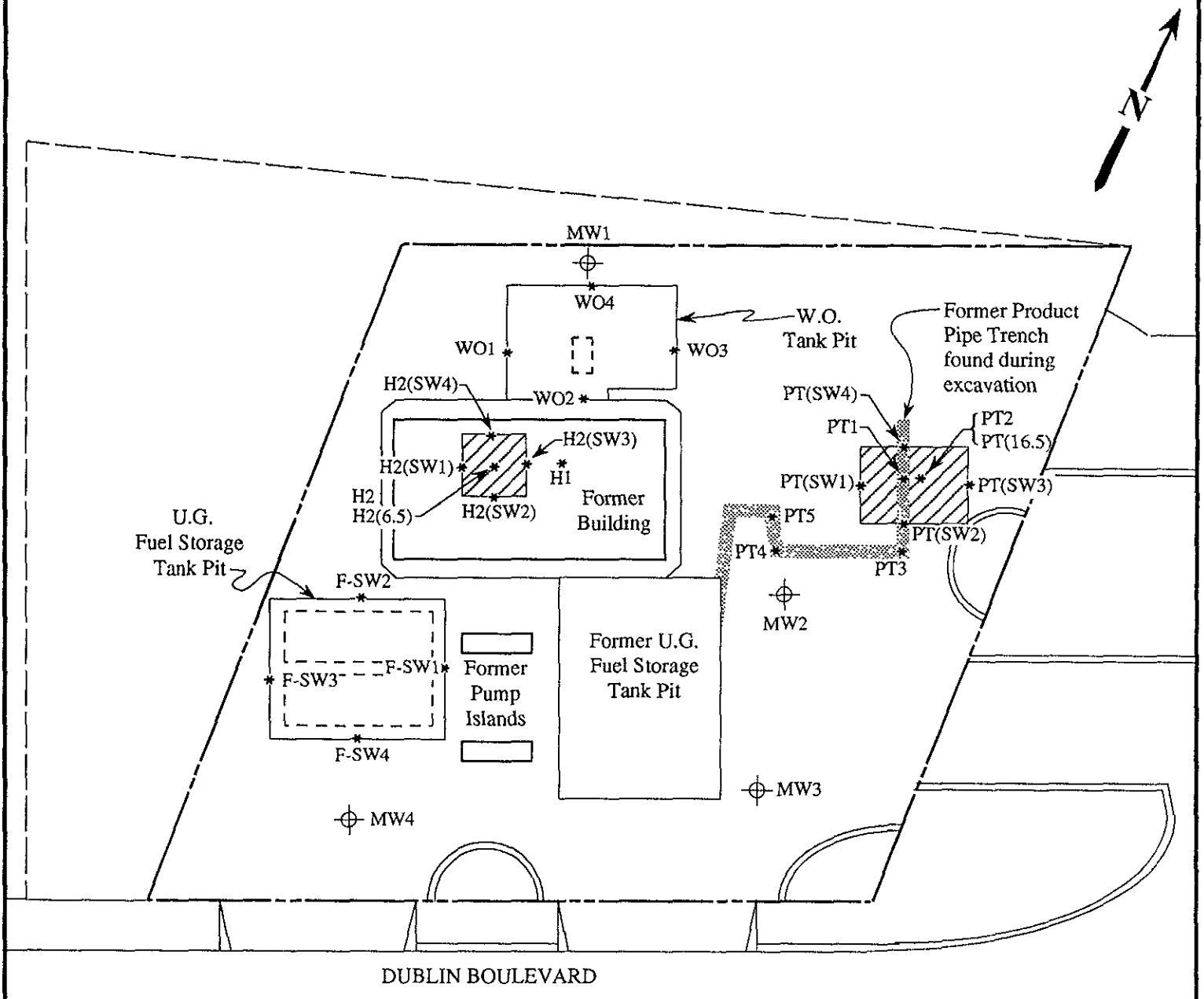


Base modified from 7.5 minute U.S.G.S. Dublin Quadrangle
(photorevised 1980)

0 2000 4000

Approx. scale feet

KAPREALIAN ENGINEERING INCORPORATED	**FORMER UNOCAL S/S #5901** **11976 DUBLIN BOULEVARD** **DUBLIN, CA**	**LOCATION MAP**



SITE PLAN

(Samples collected on
May 21 and June 15, 1992)

LEGEND

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

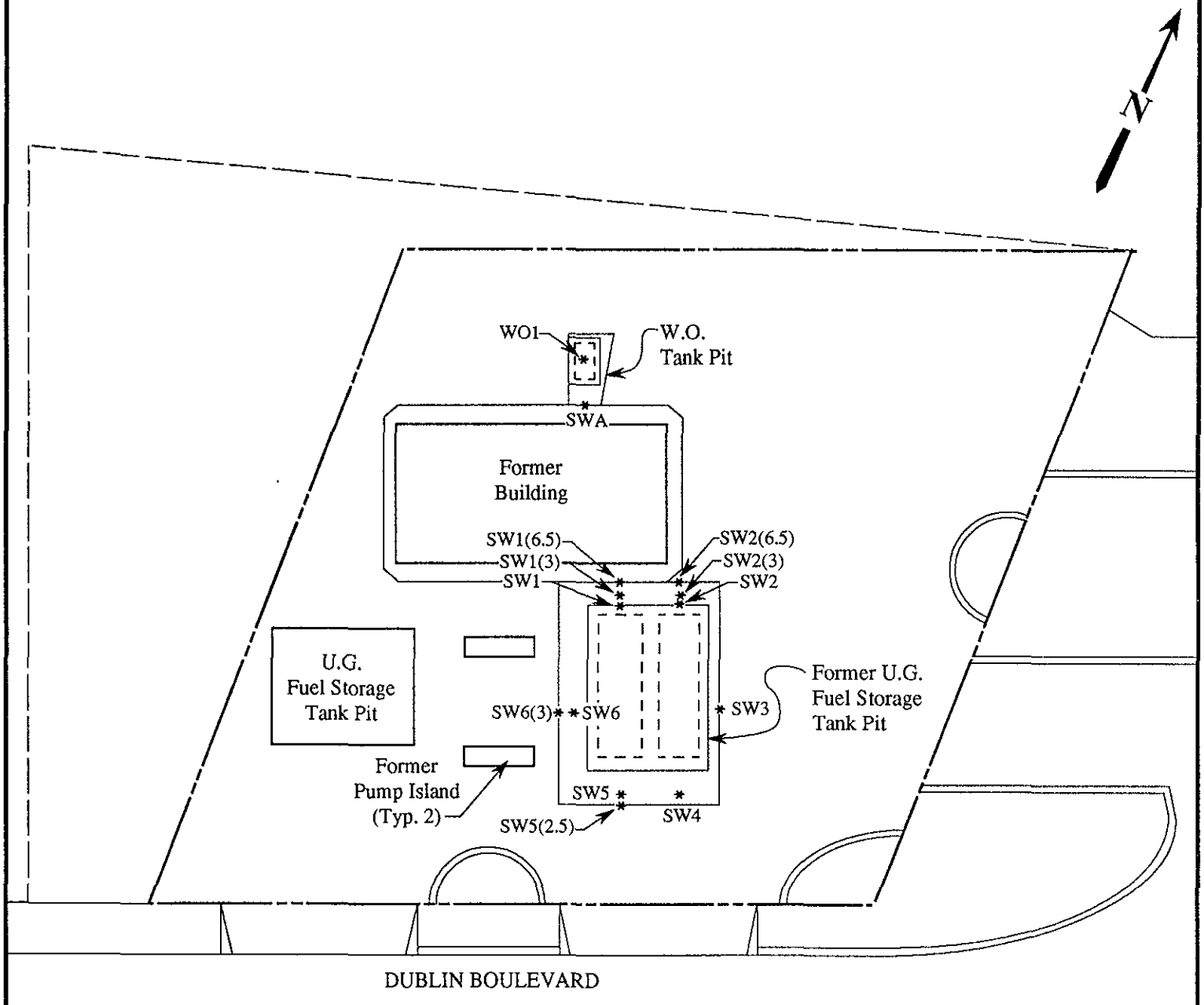
0 30 60

Approx. scale feet

KAPREALIAN ENGINEERING
INCORPORATED

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

FIGURE
1



SITE PLAN

(Samples collected on
June 13, 15 & 20, 1990)

LEGEND

* *Sample point location*

Additional area of excavation

0 30 60

Approx. scale feet

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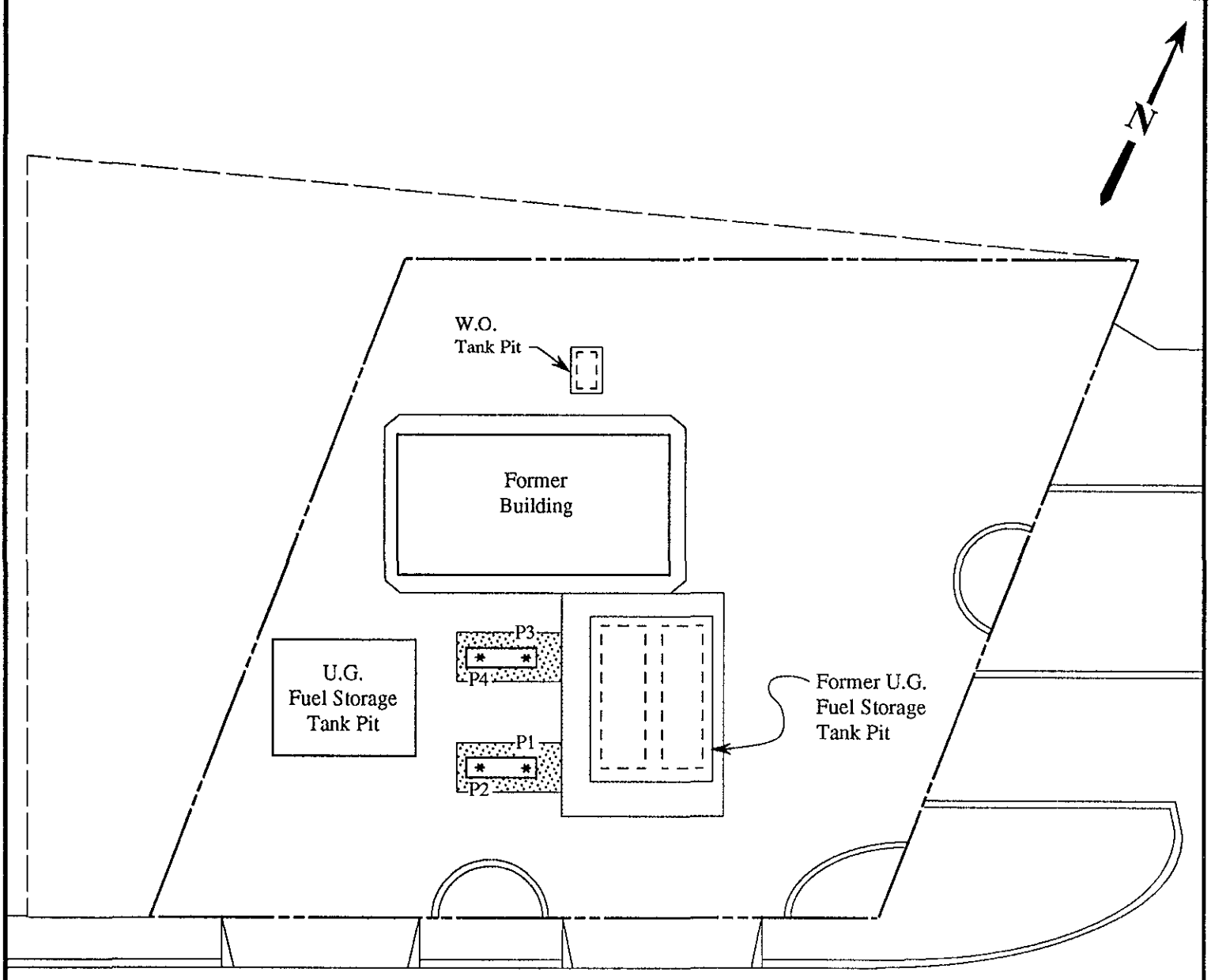
INCORPORATED

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

FIGURE
2



SITE PLAN

(Samples collected on June 15, 1992)

LEGEND

* Sample point location

Area of additional Tank Pit excavation

Area of additional Pipe Trench excavation

0 30 60

Approx. scale feet

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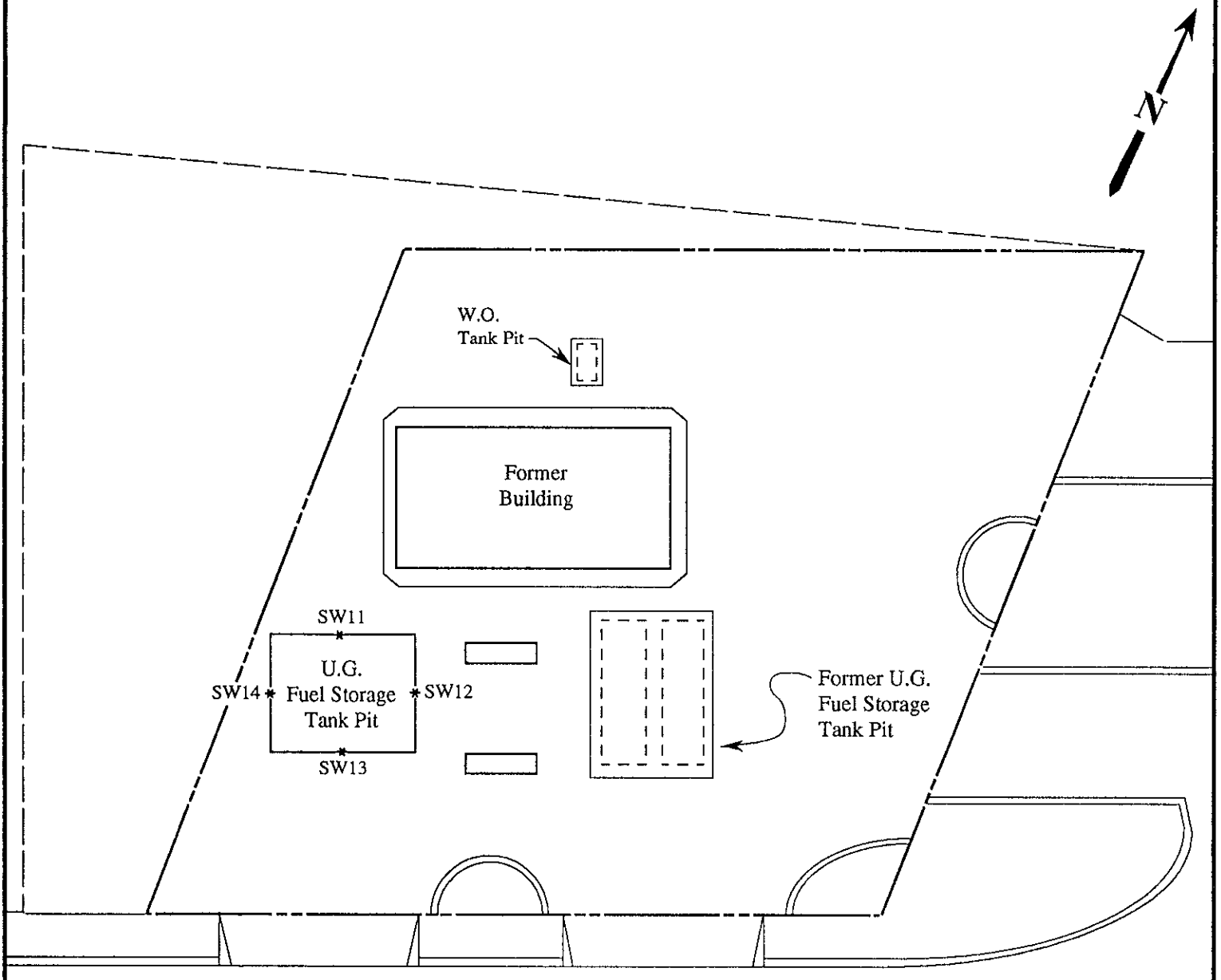
DUBLIN, CA

FIGURE
3



SITE PLAN

(Samples collected on June 26, 1990)

LEGEND

* Sample point location

0 30 60

Approx. scale feet

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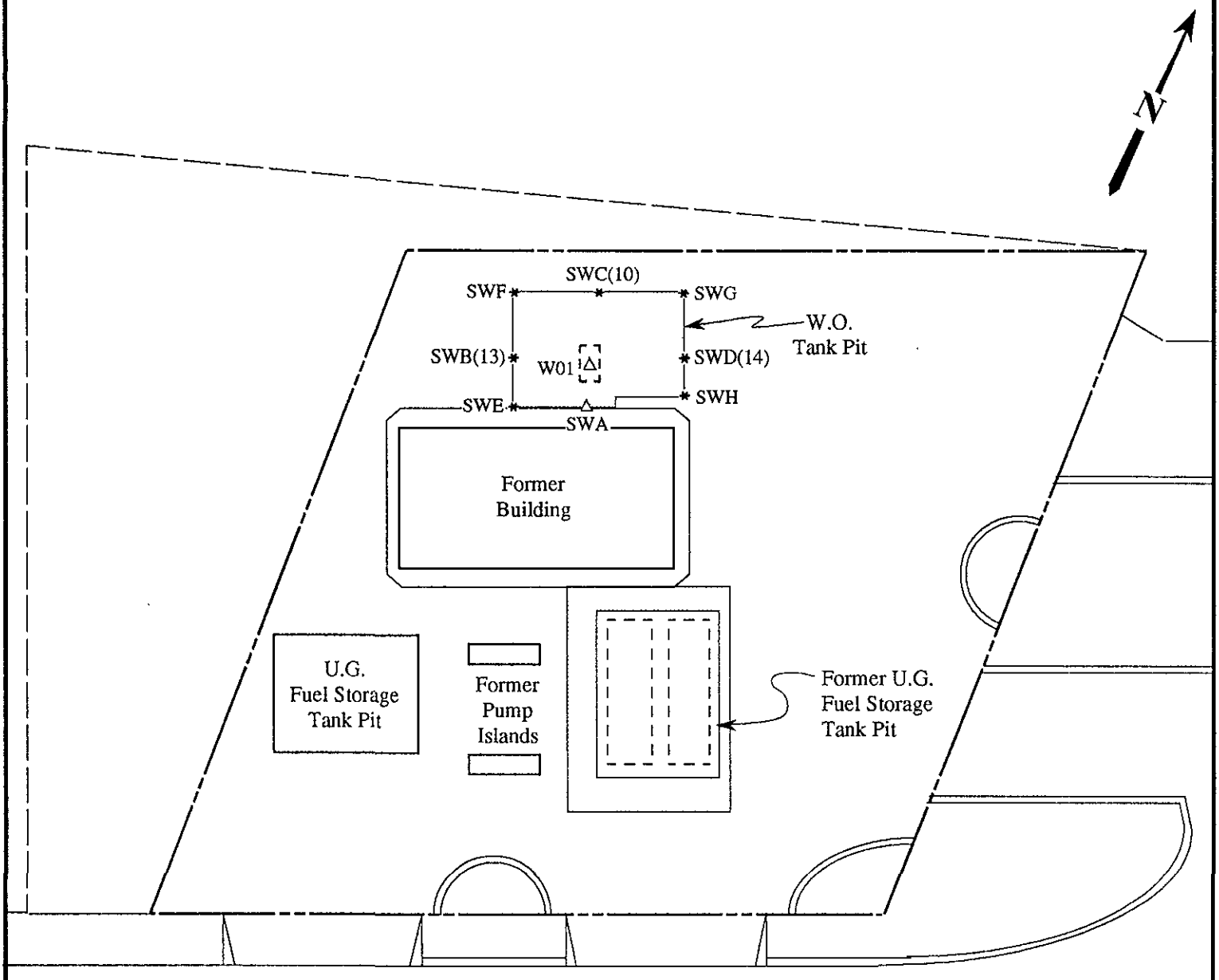
11976 DUBLIN BOULEVARD
DUBLIN, CA

FIGURE
4



SITE PLAN

(Samples collected on July 16 & 20, 1990)

LEGEND

* Sample point location

△ Previous sample point location

Area of additional Tank Pit excavation

0 30 60

Approx. scale feet

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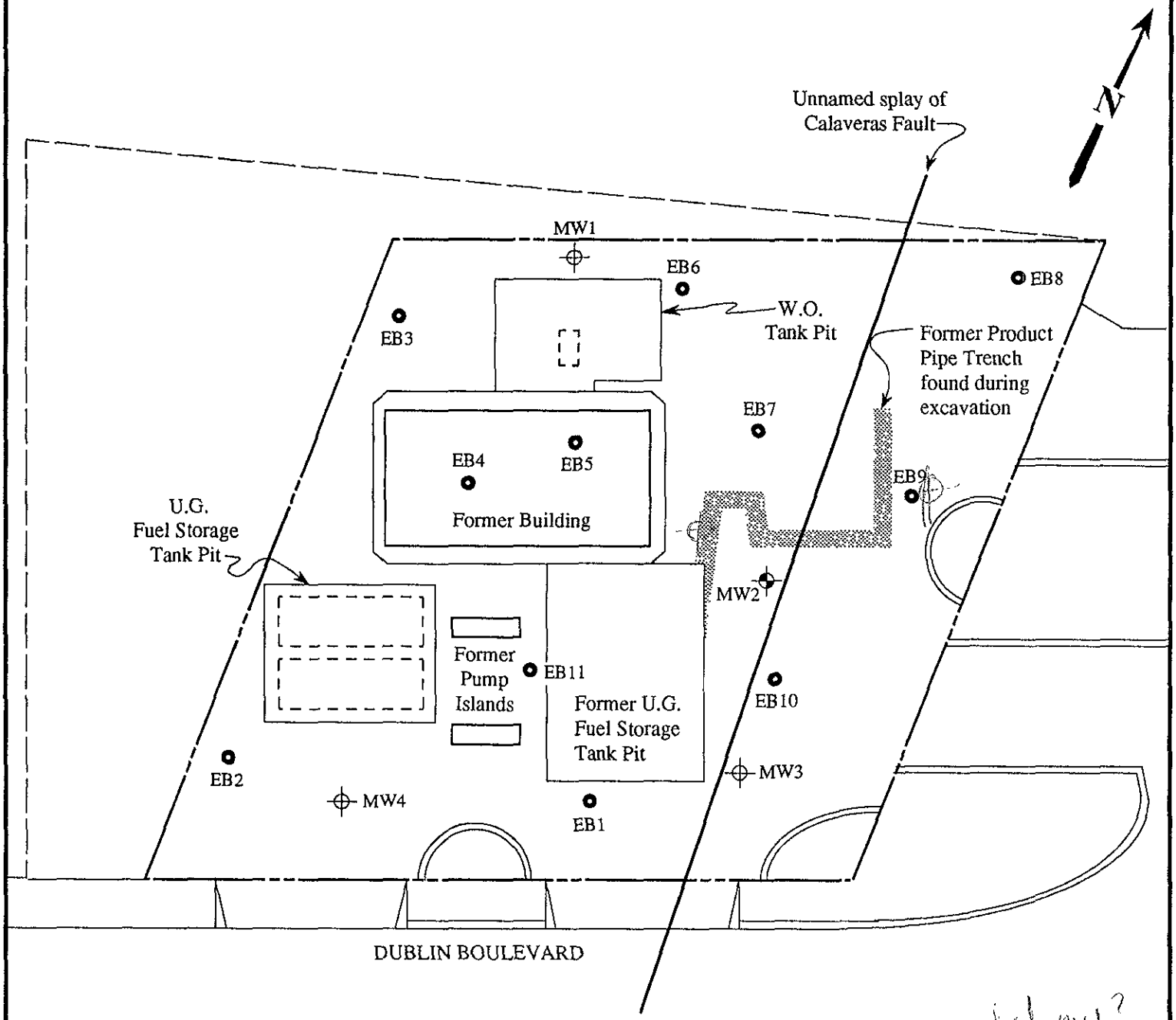
FORMER UNOCAL S/S #5901
11976 DUBLIN BOULEVARD
DUBLIN, CA

FIGURE
5



SITE PLAN

LEGEND

- Monitoring well
- Monitoring well (recently destroyed)
- Exploratory boring (recently installed)

AUG 1992

0 30 60

Approx. scale feet

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

FIGURE
6

SEQUOIA ANALYTICAL

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

Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	Jun 17, 1992
2401 Stanwell Drive, Suite 400	Sample Descript.:	Water, Water-3	Received:	Jun 18, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/ 8015/8020	Analyzed:	Jun 18, 1992
Attention: Mardo Kapreallan, P.E.	Lab Number:	206-0773	Reported:	Jun 30, 1992

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

Analyte	Method Detection Limit µg/L (ppb)	Sample Results µg/L (ppb)
Low to Medium Boiling Point Hydrocarbons	30	N.D.
Benzene	0.30	N.D.
Toluene	0.30	N.D.
Ethyl Benzene	0.30	N.D.
Xylenes	0.30	N.D.

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

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

Please Note:
Revised Report - 8/18/92

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SEQUOIA ANALYTICAL

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	Jun 17, 1992
2401 Stanwell Drive, Suite 400	Sample Descript.:	Water, Water-3	Received:	Jun 18, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/ 8015/8020	Analyzed:	Jun 18, 1992
Attention: Mardo Kapreallan, P.E.	Lab Number:	206-0773	Reported:	Jun 30, 1992

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

Analyte	Method Detection Limit µg/L (ppb)	Sample Results µg/L (ppb)
Low to Medium Boiling Point Hydrocarbons	50	N.D.
Benzene	0.30	N.D.
Toluene	0.30	N.D.
Ethyl Benzene	0.30	N.D.
Xylenes	0.30	N.D.

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

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

SEQUOIA ANALYTICAL

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	Jun 17, 1992
2401 Stanwell Drive, Suite 400	Matrix Descript:	Water	Received:	Jun 18, 1992
Concord, CA 94520	Analysis Method:	EPA 3510/8015	Extracted:	Jun 24, 1992
Attention: Mardo Kapreallan, P.E.	First Sample #:	206-0773	Analyzed:	Jun 26, 1992
			Reported:	Jun 30, 1992

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015) as HYDRAULIC FLUID

Sample Number	Sample Description	High B.P. Hydrocarbons µg/L (ppb)
206-0773	Water-3	N.D.

Method Detection Limits:	**250**

High Boiling Point Hydrocarbons are quantitated against a hydraulic fluid standard.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	Jun 17, 1992
2401 Stanwell Drive, Suite 400	Matrix Descript:	Water	Received:	Jun 18, 1992
Concord, CA 94520	Analysis Method:	SM 5520 B&F (Gravimetric)	Extracted:	Jun 23, 1992
Attention: Mardo Kapreallan, P.E.	First Sample #:	206-0773	Analyzed:	Jun 24, 1992
			Reported:	Jun 30, 1992

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/L (ppm)
206-0773	Water - 3	N.D.

Detection Limits:	10

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Scott A. Chieffo
Project Manager

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	Jun 17, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Water, Water - 3	Received:	Jun 18, 1992
Concord, CA 94520	Analysis Method:	EPA 8270	Extracted:	Jun 24, 1992
Attention: Mardo Kapreallan, P.E.	Lab Number:	206-0773	Analyzed:	Jun 29, 1992
			Reported:	Jun 30, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/L	Sample Results µg/L
Acenaphthene	4.0	N.D.
Acenaphthylene	4.0	N.D.
Aniline	4.0	N.D.
Anthracene	4.0	N.D.
Benzidine	100	N.D.
Benzoic Acid	20	N.D.
Benzo(a)anthracene	4.0	N.D.
Benzo(b)fluoranthene	4.0	N.D.
Benzo(k)fluoranthene	4.0	N.D.
Benzo(g,h,i)perylene	4.0	N.D.
Benzo(a)pyrene	4.0	N.D.
Benzyl alcohol	4.0	N.D.
Bis(2-chloroethoxy)methane	4.0	N.D.
Bis(2-chloroethyl)ether	4.0	N.D.
Bis(2-chloroisopropyl)ether	4.0	N.D.
Bis(2-ethylhexyl)phthalate	20	N.D.
4-Bromophenyl phenyl ether	4.0	N.D.
Butyl benzyl phthalate	4.0	N.D.
4-Chloroaniline	4.0	N.D.
2-Chloronaphthalene	4.0	N.D.
4-Chloro-3-methylphenol	4.0	N.D.
2-Chlorophenol	4.0	N.D.
4-Chlorophenyl phenyl ether	4.0	N.D.
Chrysene	4.0	N.D.
Dibenz(a,h)anthracene	4.0	N.D.
Dibenzofuran	4.0	N.D.
Di-N-butyl phthalate	20	N.D.
1,3-Dichlorobenzene	4.0	N.D.
1,4-Dichlorobenzene	4.0	N.D.
1,2-Dichlorobenzene	4.0	N.D.
3,3-Dichlorobenzidine	20	N.D.
2,4-Dichlorophenol	4.0	N.D.
Diethyl phthalate	4.0	N.D.
2,4-Dimethylphenol	4.0	N.D.
Dimethyl phthalate	4.0	N.D.
4,6-Dinitro-2-methylphenol	20	N.D.
2,4-Dinitrophenol	20	N.D.

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	Jun 17, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Water, Water - 3	Received:	Jun 18, 1992
Concord, CA 94520	Analysis Method:	EPA 8270	Extracted:	Jun 24, 1992
Attention: Mardo Kapreallan, P.E.	Lab Number:	206-0773	Analyzed:	Jun 29, 1992
			Reported:	Jun 30, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/L	Sample Results µg/L
2,4-Dinitrotoluene	4.0	N.D.
2,6-Dinitrotoluene	4.0	N.D.
Di-N-octyl phthalate	4.0	N.D.
Fluoranthene	4.0	N.D.
Fluorene	4.0	N.D.
Hexachlorobenzene	4.0	N.D.
Hexachlorobutadiene	4.0	N.D.
Hexachlorocyclopentadiene	4.0	N.D.
Hexachloroethane	4.0	N.D.
Indeno(1,2,3-cd)pyrene	4.0	N.D.
Isophorone	4.0	N.D.
2-Methylnaphthalene	4.0	N.D.
2-Methylphenol	4.0	N.D.
4-Methylphenol	4.0	N.D.
Naphthalene	4.0	N.D.
2-Nitroaniline	20	N.D.
3-Nitroaniline	20	N.D.
4-Nitroaniline	20	N.D.
Nitrobenzene	4.0	N.D.
2-Nitrophenol	4.0	N.D.
4-Nitrophenol	20	N.D.
N-Nitrosodiphenylamine	4.0	N.D.
N-Nitroso-di-N-propylamine	4.0	N.D.
Pentachlorophenol	20	N.D.
Phenanthrene	4.0	N.D.
Phenol	4.0	N.D.
Pyrene	4.0	N.D.
1,2,4-Trichlorobenzene	4.0	N.D.
2,4,5-Trichlorophenol	20	N.D.
2,4,6-Trichlorophenol	4.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	Jun 17, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Water, Water - 3	Received:	Jun 18, 1992
Concord, CA 94520			Analyzed:	6/26 - 6/29/92
Attention: Mardo Kapreallan, P.E.	Lab Number:	206-0773	Reported:	Jun 30, 1992

LABORATORY ANALYSIS

Analyte	Detection Limit mg/L	Sample Results mg/L
Cadmium	0.010	N.D.
Chromium	0.0050	N.D.
Lead	0.0050	N.D.
Nickel	0.050	N.D.
Zinc	0.010	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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

Client Project ID: Unocal, 11976 Dublin Blvd., Dublin
QC Sample Group: 206-0773
Reported: Jun 30, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Diesel	Oil and Grease
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA8015	SM5520
Analyst:	J.F.	J.F.	J.F.	J.F.	K.Wimer	D. Newcomb
Reporting Units:	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L
Date Analyzed:	Jun 18, 1992	Jun 18, 1992	Jun 18, 1992	Jun 18, 1992	Jun 26, 1992	Jun 23, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	20	20	20	60	300	100
Conc. Matrix Spike:	20	20	20	62	295	95
Matrix Spike % Recovery:	100	100	100	103	98	95
Conc. Matrix Spike Dup.:	20	20	20	63	292	96
Matrix Spike Duplicate % Recovery:	100	100	100	105	97	96
Relative % Difference:	0.0	0.0	0.0	1.6	1.0	1.0

Laboratory blank contained the following analytes: None Detected

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

% 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

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Kaprealian Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	
2401 Stanwell Drive, Suite 400	Method:	EPA 8270	Q.C. Sample Dates
Concord, CA 94520	Analyst(s):	Son Le	Extracted: Jun 24, 1992
Attention: Mardo Kapreallan, P.E.	QC Sample #:	Matrix Blank	Analyzed: Jun 29, 1992
			Reported: Jun 30, 1992

QUALITY CONTROL DATA REPORT

Analyte	Sample Conc.	Spike Conc. Added	Conc. Matrix Spike	Matrix Spike % Recovery	Conc. Matrix Spike Duplicate	Matrix Spike Duplicate % Recovery	Relative % Difference
Phenol	N.D.	100	33	33	35	35	5.9
2-Chlorophenol	N.D.	100	61	61	69	69	12
1,4-Dichloro-benzene	N.D.	50	35	70	37	74	5.6
N-Nitroso-Di-N-propylamine	N.D.	50	41	82	43	86	4.8
1,2,4-Trichloro-benzene	N.D.	50	36	72	38	76	5.4
4-Chloro-3-Methylphenol	N.D.	100	80	80	84	84	4.9
Acenaphthene	N.D.	50	42	84	41	82	2.4
4-Nitrophenol	N.D.	100	31	31	38	38	20
2,4-Dinitro-toluene	N.D.	50	41	82	41	82	0.0
Pentachloro-phenol	N.D.	100	79	79	102	102	25
Pyrene	N.D.	50	59	118	59	118	0.0

Laboratory Blank contained the following analytes: None detected.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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

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

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

Client Project ID: Unocal, 11976 Dublin Blvd., Dublin
QC Sample Group: 206-0773
Reported: Jun 30, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Cadmium	Chromium	Lead	Nickel	Zinc
Method:	EPA 213.1	EPA 218.2	EPA 239.2	EPA 249.1	EPA 289.1
Analyst:	K. Anderson	K. Anderson	K. Anderson	K. Anderson	K. Anderson
Reporting Units:	mg/L	mg/L	mg/L	mg/L	mg/L
Date Analyzed:	Jun 26, 1992	Jun 29, 1992	Jun 26, 1992	Jun 26, 1992	Jun 26, 1992
QC Sample #:	206-0773	206-0773	206-0606	206-0773	206-0773
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	0.10	0.020	0.10	0.50	0.10
Conc. Matrix Spike:	0.10	0.016	0.10	0.53	0.11
Matrix Spike % Recovery:	100	80	100	106	110
Conc. Matrix Spike Dup.:	0.10	0.017	0.10	0.53	0.11
Matrix Spike Duplicate % Recovery:	100	85	100	106	110
Relative % Difference:	0.0	6.1	0.0	0.0	0.0

Laboratory Blank contained the following analytes: None detected.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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

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

2060773.KEL <9>

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(510) 686-9600 • FAX (510) 686-9689

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

Client Project ID: Unocal, 11976 Dublin Blvd., Dublin
QC Sample Group: 206-0773
Reported: Jun 30, 1992

QUALITY CONTROL DATA REPORT

SURROGATE

	EPA	EPA
Method:	8015/8020	8015/8020
Analyst:	J.F.	J.F.
Reporting Units:	µg/L	µg/L
Date Analyzed:	Jun 18, 1992	Jun 18, 1992
Sample #:	206-0773	Matrix Blank
Surrogate % Recovery:	86	100

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

% Recovery:	$\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}}$	x 100
Relative % Difference:	$\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}}$	x 100

KAPREALIAN ENGINEERING
INCORPORATED

CHAIN OF CUSTODY

SAMPLER: Haig
WITNESSING AGENCY:
SITE NAME & ADDRESS: Unocal - Dublin, 11976 Dublin Blvd

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPH-G	BTXE	TPH as Hydr. Fluid	TDG	Metals: Lead Cadmium Nickel Zinc	EPA 8270
Water_3	6/17/92			✓	✓		2+6	Beneath Former Hoist	✓	✓	✓	✓	✓	✓

TURN AROUND TIME: REGULAR

REMARKS: 206077 3AH

Water was collected in six VOA's and two one liter amber bottles.

Relinquished by: (Signature)	Date/Time 6/18/92 9:55am	Received by: (Signature)
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. Were 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? NO
4. Were samples in appropriate containers and properly packaged? Y

Signature: [signature] Title: E.S. Date: 6/18/92

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

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	Jun 15, 1992
2401 Stanwell Drive, Suite 400	Matrix Descript:	Soil	Received:	Jun 16, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	Jun 18, 1992
Attention: Mardo Kapreallan, P.E.	First Sample #:	206-0713	Reported:	Jun 29, 1992

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

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
206-0713	H2 (6.5)	N.D.	N.D.	N.D.	N.D.	N.D.
206-0714	H2 (SW1)	N.D.	N.D.	N.D.	N.D.	N.D.
206-0715	H2 (SW2)	N.D.	N.D.	0.0098	N.D.	0.022
206-0716	H2 (SW3)	N.D.	0.069	0.068	0.064	0.21
206-0717	H2 (SW4)	N.D.	N.D.	N.D.	N.D.	N.D.

Method Detection Limits:	**1.0**	**0.0050**	**0.0050**	**0.0050**	**0.0050**

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

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Project Manager

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	Jun 15, 1992
2401 Stanwell Drive, Suite 400	Matrix Descript:	Soil	Received:	Jun 16, 1992
Concord, CA 94520	Analysis Method:	EPA 3550/8015	Extracted:	Jun 23, 1992
Attention: Mardo Kapreallan, P.E.	First Sample #:	206-0713	Analyzed:	Jun 26, 1992
			Reported:	Jun 29, 1992

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015) as HYDRAULIC FLUID

Sample Number	Sample Description	High B.P. Hydrocarbons mg/kg (ppm)
206-0713	H2 (6.5)	N.D.
206-0714	H2 (SW1)	N.D.
206-0715	H2 (SW2)	N.D.
206-0716	H2 (SW3)	N.D.
206-0717	H2 (SW4)	N.D.

Method Detection Limits:	**1.0**

High Boiling Point Hydrocarbons are quantitated against a hydraulic fluid standard.

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Scott A. Chieffo
Project Manager

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	Jun 15, 1992
2401 Stanwell Drive, Suite 400	Matrix Descript:	Soil	Received:	Jun 16, 1992
Concord, CA 94520	Analysis Method:	SM 5520 E&F (Gravimetric)	Extracted:	Jun 24, 1992
Attention: Mardo Kaprealian, P.E.	First Sample #:	206-0713	Analyzed:	Jun 26, 1992
			Reported:	Jun 29, 1992

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/kg (ppm)
206-0713	H2 (6.5)	N.D.
206-0714	H2 (SW1)	N.D.
206-0715	H2 (SW2)	N.D.
206-0716	H2 (SW3)	N.D.
206-0717	H2 (SW4)	N.D.

Detection Limits:	30

Analytes reported as N.D. were not present above the stated limit of detection.

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	Jun 15, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, H2 (6.5)	Received:	Jun 16, 1992
Concord, CA 94520	Analysis Method:	EPA 8270	Extracted:	Jun 23, 1992
Attention: Mardo Kapreallan, P.E.	Lab Number:	206-0713	Analyzed:	Jun 24, 1992
			Reported:	Jun 29, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Kaprealian Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	Jun 15, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, H2 (6.5)	Received:	Jun 16, 1992
Concord, CA 94520	Analysis Method:	EPA 8270	Extracted:	Jun 23, 1992
Attention: Mardo Kaprealian, P.E.	Lab Number:	206-0713	Analyzed:	Jun 24, 1992
			Reported:	Jun 29, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Scott A. Chieffo
Project Manager

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	Jun 15, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, H2 (SW1)	Received:	Jun 16, 1992
Concord, CA 94520	Analysis Method:	EPA 8270	Extracted:	Jun 23, 1992
Attention: Mardo Kapreallan, P.E.	Lab Number:	206-0714	Analyzed:	Jun 24, 1992
			Reported:	Jun 29, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	Jun 15, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, H2 (SW1)	Received:	Jun 16, 1992
Concord, CA 94520	Analysis Method:	EPA 8270	Extracted:	Jun 23, 1992
Attention: Mardo Kapreallan, P.E.	Lab Number:	206-0714	Analyzed:	Jun 24, 1992
			Reported:	Jun 29, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Scott A. Chieffo
Project Manager

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	Jun 15, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, H2 (SW2)	Received:	Jun 16, 1992
Concord, CA 94520	Analysis Method:	EPA 8270	Extracted:	Jun 23, 1992
Attention: Mardo Kapreallan, P.E.	Lab Number:	206-0715	Analyzed:	Jun 24, 1992
			Reported:	Jun 29, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	Jun 15, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, H2 (SW2)	Received:	Jun 16, 1992
Concord, CA 94520	Analysis Method:	EPA 8270	Extracted:	Jun 23, 1992
Attention: Mardo Kapreallan, P.E.	Lab Number:	206-0715	Analyzed:	Jun 24, 1992
			Reported:	Jun 29, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	Jun 15, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, H2 (SW3)	Received:	Jun 16, 1992
Concord, CA 94520	Analysis Method:	EPA 8270	Extracted:	Jun 23, 1992
Attention: Mardo Kapreallan, P.E.	Lab Number:	206-0716	Analyzed:	Jun 24, 1992
			Reported:	Jun 29, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	Jun 15, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, H2 (SW3)	Received:	Jun 16, 1992
Concord, CA 94520	Analysis Method:	EPA 8270	Extracted:	Jun 23, 1992
Attention: Mardo Kapreallan, P.E.	Lab Number:	206-0716	Analyzed:	Jun 24, 1992
			Reported:	Jun 29, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

SEQUOIA ANALYTICAL

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

Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	Jun 15, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, H2 (SW4)	Received:	Jun 16, 1992
Concord, CA 94520	Analysis Method:	EPA 8270	Extracted:	Jun 23, 1992
Attention: Mardo Kapreallan, P.E.	Lab Number:	206-0717	Analyzed:	Jun 24, 1992
			Reported:	Jun 29, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	Jun 15, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, H2 (SW4)	Received:	Jun 16, 1992
Concord, CA 94520	Analysis Method:	EPA 8270	Extracted:	Jun 23, 1992
Attention: Mardo Kapreallan, P.E.	Lab Number:	206-0717	Analyzed:	Jun 24, 1992
			Reported:	Jun 29, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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

Client Project ID: Unocal, 11976 Dublin Blvd., Dublin
QC Sample Group: 2060713-717
Reported: Jun 29, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Diesel	Oil and Grease
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA8015	SM5520
Analyst:	A.T.	A.T.	A.T.	A.T.	K.Wimer	D. Newcomb
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Jun 18, 1992	Jun 18, 1992	Jun 18, 1992	Jun 18, 1992	Jun 26, 1992	Jun 24, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	0.40	0.40	0.40	1.2	10	5000
Conc. Matrix Spike:	0.40	0.40	0.40	1.3	10.4	4800
Matrix Spike % Recovery:	100	100	100	107	104	96
Conc. Matrix Spike Dup.:	0.41	0.42	0.41	1.3	9.8	4600
Matrix Spike Duplicate % Recovery:	103	105	103	108	98	92
Relative % Difference:	2.5	4.9	2.5	1.6	5.9	4.0

Laboratory blank contained the following analytes: None Detected

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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

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

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	
2401 Stanwell Drive, Suite 400	Method:	EPA 8270	Q.C. Sample Dates
Concord, CA 94520	Analyst(s):	Son Le	Extracted: Jun 24, 1992
Attention: Mardo Kapreallan, P.E.	QC Sample #:	Matrix Blank	Analyzed: Jun 24, 1992
			Reported: Jun 29, 1992

QUALITY CONTROL DATA REPORT

Analyte	Sample Conc.	Spike Conc. Added	Conc. Matrix Spike	Matrix Spike % Recovery	Conc. Matrix Spike Duplicate	Matrix Spike Duplicate % Recovery	Relative % Difference
Phenol	N.D.	100	76	76	74	74	2.7
2-Chlorophenol	N.D.	100	80	80	79	79	1.3
1,4-Dichloro-benzene	N.D.	50	38	76	38	76	0.0
N-Nitroso-Di-N-propylamine	N.D.	50	42	84	42	84	0.0
1,2,4-Trichloro-benzene	N.D.	50	31	62	31	62	0.0
4-Chloro-3-Methylphenol	N.D.	100	60	60	60	60	0.0
Acenaphthene	N.D.	50	41	82	41	82	0.0
4-Nitrophenol	N.D.	100	57	57	63	63	10
2,4-Dinitro-toluene	N.D.	50	22	44	22	44	0.0
Pentachloro-phenol	N.D.	100	73	73	72	72	1.4
Pyrene	N.D.	50	44	88	40	80	9.5

Laboratory Blank contained the following analytes: None detected.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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

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

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Kapreallan Engineering, Inc. Client Project ID: Unocal, 11976 Dublin Blvd., Dublin
2401 Stanwell Drive, Suite 400
Concord, CA 94520
Attention: Mardo Kapreallan, P.E. QC Sample Group: 2060713-717 Reported: Jun 29, 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
Analyst:	A.T.	A.T.	A.T.	A.T.	A.T.	A.T.
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Jun 18, 1992	Jun 18, 1992	Jun 18, 1992	Jun 18, 1992	Jun 18, 1992	Jun 18, 1992
Sample #:	206-0713	206-0714	206-0715	206-0716	206-0717	Matrix Blank
Surrogate % Recovery:	100	99	93	93	100	100

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

% 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

2060713.KEI <16>

KAPREALIAN ENGINEERING
INCORPORATED

CHAIN OF CUSTODY

SAMPLER: Haig
WITNESSING AGENCY:
SITE NAME & ADDRESS: Unocal - Dublin
11976 Dublin Blvd

ANALYSES REQUESTED: TPH-D; BTXE; TOG; TPH-D Hydr. Fluid; EPA 8270

TURN AROUND TIME: REGULAR

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	REMARKS
H2(6.5)	6/15/92		✓		✓		1	Beneath Former Hoist	2060713
H2(SW1)	↓		✓		✓		1	↓	714
H2(SW2)			✓		✓		1		715
H2(SW3)			✓		✓		1		716
H2(SW4)			✓		✓		1		717

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	6/16/92 1105	[signature]
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? ✓
2. Will samples remain refrigerated until analyzed? ✓
3. Did any samples received for analysis have head space? NO
4. Were samples in appropriate containers and properly packaged? ✓

Signature / Title / Date: 6/16/92

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

SEQUOIA ANALYTICAL

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

Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	Jun 15, 1992
2401 Stanwell Drive, Suite 400	Matrix Descript:	Soil	Received:	Jun 16, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	Jun 18, 1992
Attention: Mardo Kapreallan, P.E.	First Sample #:	206-0718	Reported:	Jun 23, 1992

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

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
206-0718	PT (16.5)	N.D.	N.D.	N.D.	N.D.	N.D.
206-0719	PT (SW1)	N.D.	N.D.	N.D.	N.D.	N.D.
206-0720	PT (SW2)	N.D.	N.D.	N.D.	N.D.	N.D.
206-0721	PT (SW3)	N.D.	N.D.	N.D.	N.D.	N.D.
206-0722	PT (SW4)	N.D.	N.D.	N.D.	N.D.	N.D.

Method Detection Limits:	**1.0**	**0.0050**	**0.0050**	**0.0050**	**0.0050**

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

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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(510) 686-9600 • FAX (510) 686-9689

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

Client Project ID: Unocal, 11976 Dublin Blvd., Dublin
QC Sample Group: 2060718-722
Reported: Jun 23, 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:	A.T.	A.T.	A.T.	A.T.
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Jun 18, 1992	Jun 18, 1992	Jun 18, 1992	Jun 18, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	0.40	0.40	0.40	1.2
Conc. Matrix Spike:	0.46	0.46	0.48	1.4
Matrix Spike % Recovery:	115	115	120	117
Conc. Matrix Spike Dup.:	0.44	0.45	0.46	1.4
Matrix Spike Duplicate % Recovery:	110	113	115	118
Relative % Difference:	4.4	2.2	4.3	1.4

Laboratory blank contained the following analytes: None Detected

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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

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

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Kapreallan Engineering, Inc. Client Project ID: Unocal, 11976 Dublin Blvd., Dublin
2401 Stanwell Drive, Suite 400
Concord, CA 94520
Attention: Mardo Kapreallan, P.E. QC Sample Group: 2060718-722 Reported: Jun 23, 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
Analyst:	A.T.	A.T.	A.T.	A.T.	A.T.	A.T.
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Jun 18, 1992	Jun 18, 1992	Jun 18, 1992	Jun 18, 1992	Jun 18, 1992	Jun 18, 1992
Sample #:	206-0718	206-0719	206-0720	206-0721	206-0722	Matrix Blank
Surrogate % Recovery:	100	100	100	100	100	100

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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

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

2060718.KEL <3>

KAPREALIAN ENGINEERING
INCORPORATED

CHAIN OF CUSTODY

SAMPLER: Haig
WITNESSING AGENCY:
SITE NAME & ADDRESS: Unocal - Dublin, 11976 Dublin Blvd
ANALYSES REQUESTED: TPH G+D; BTXE
TURN AROUND TIME: REGULAR

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	REMARKS
PT(16.5)	6/15/92		✓		✓		1	Old Pump Island	20607 18
PT(SW1)			✓		✓		1		719
PT(SW2)			✓		✓		1		720
PT(SW3)			✓		✓		1		721
PT(SW4)			✓		✓		1		722

Relinquished by: (Signature)	Date/Time 6/16/92 1105	Received by: (Signature)
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

Signature / Title / Date: 6/16/92

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

SEQUOIA ANALYTICAL

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

Kaprealian Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Sample Descript.:	Water, Water 2	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/ 8015/8020	Analyzed:	May 22, 1992
Attention: Mardo Kaprealian, P.E.	Lab Number:	205-1074	Reported:	May 26, 1992

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

Analyte	Method Detection Limit µg/L (ppb)	Sample Results µg/L (ppb)
Low to Medium Boiling Point Hydrocarbons	30	N.D.
Benzene	0.30	N.D.
Toluene	0.30	N.D.
Ethyl Benzene	0.30	N.D.
Xylenes	0.30	N.D.

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

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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

Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Matrix Descript:	Water	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	EPA 3510/8015	Extracted:	May 25, 1992
Attention: Mardo Kapreallan, P.E.	First Sample #:	205-1074	Analyzed:	May 25, 1992
			Reported:	May 26, 1992

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	High B.P. Hydrocarbons µg/L (ppb)
205-1074	Water - 2	86

Method Detection Limits:	**50**

High Boiling Point Hydrocarbons are quantitated against a diesel fuel standard.

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Scott A. Chieffo
Project Manager

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Kaprealian Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Matrix Descript:	Water	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	SM 5520 B&F (Gravimetric)	Extracted:	May 22, 1992
Attention: Mardo Kaprealian, P.E.	First Sample #:	205-1074	Analyzed:	May 23, 1992
			Reported:	May 26, 1992

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/L (ppm)
205-1074	Water - 2	N.D.

Detection Limits:	5.0

Analytes reported as N.D. were not present above the stated limit of detection.

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Scott A. Chieffo
Project Manager

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Water, Water 2	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8010	Analyzed:	May 22, 1992
Attention: Mardo Kapreallan, P.E.	Lab Number:	205-1074	Reported:	May 26, 1992

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	0.50	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	0.50	N.D.
2-Chloroethylvinyl ether	0.50	N.D.
Chloroform	0.50	N.D.
Chloromethane	0.50	N.D.
Dibromochloromethane	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	0.50	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

SEQUOIA ANALYTICAL

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

Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Water, Water 2	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	EPA 8270	Extracted:	May 22, 1992
Attention: Mardo Kapreallan, P.E.	Lab Number:	205-1074	Analyzed:	May 22, 1992
			Reported:	May 26, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/L	Sample Results µg/L
Acenaphthene	2.0	N.D.
Acenaphthylene	2.0	N.D.
Aniline	2.0	N.D.
Anthracene	2.0	N.D.
Benzidine	50	N.D.
Benzoic Acid	10	N.D.
Benzo(a)anthracene	2.0	N.D.
Benzo(b)fluoranthene	2.0	N.D.
Benzo(k)fluoranthene	2.0	N.D.
Benzo(g,h,i)perylene	2.0	N.D.
Benzo(a)pyrene	2.0	N.D.
Benzyl alcohol	2.0	N.D.
Bis(2-chloroethoxy)methane	2.0	N.D.
Bis(2-chloroethyl)ether	2.0	N.D.
Bis(2-chloroisopropyl)ether	2.0	N.D.
Bis(2-ethylhexyl)phthalate	10	N.D.
4-Bromophenyl phenyl ether	2.0	N.D.
Butyl benzyl phthalate	2.0	N.D.
4-Chloroaniline	2.0	N.D.
2-Chloronaphthalene	2.0	N.D.
4-Chloro-3-methylphenol	2.0	N.D.
2-Chlorophenol	2.0	N.D.
4-Chlorophenyl phenyl ether	2.0	N.D.
Chrysene	2.0	N.D.
Dibenz(a,h)anthracene	2.0	N.D.
Dibenzofuran	2.0	N.D.
Di-N-butyl phthalate	10	N.D.
1,3-Dichlorobenzene	2.0	N.D.
1,4-Dichlorobenzene	2.0	N.D.
1,2-Dichlorobenzene	2.0	N.D.
3,3-Dichlorobenzidine	10	N.D.
2,4-Dichlorophenol	2.0	N.D.
Diethyl phthalate	2.0	N.D.
2,4-Dimethylphenol	2.0	N.D.
Dimethyl phthalate	2.0	N.D.
4,6-Dinitro-2-methylphenol	10	N.D.
2,4-Dinitrophenol	10	N.D.

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Water, Water 2	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	EPA 8270	Extracted:	May 22, 1992
Attention: Mardo Kapreallan, P.E.	Lab Number:	205-1074	Analyzed:	May 22, 1992
			Reported:	May 26, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/L	Sample Results µg/L
2,4-Dinitrotoluene	2.0	N.D.
2,6-Dinitrotoluene	2.0	N.D.
Di-N-octyl phthalate	2.0	N.D.
Fluoranthene	2.0	N.D.
Fluorene	2.0	N.D.
Hexachlorobenzene	2.0	N.D.
Hexachlorobutadiene	2.0	N.D.
Hexachlorocyclopentadiene	2.0	N.D.
Hexachloroethane	2.0	N.D.
Indeno(1,2,3-cd)pyrene	2.0	N.D.
Isophorone	2.0	N.D.
2-Methylnaphthalene	2.0	N.D.
2-Methylphenol	2.0	N.D.
4-Methylphenol	2.0	N.D.
Naphthalene	2.0	N.D.
2-Nitroaniline	10	N.D.
3-Nitroaniline	10	N.D.
4-Nitroaniline	10	N.D.
Nitrobenzene	2.0	N.D.
2-Nitrophenol	2.0	N.D.
4-Nitrophenol	10	N.D.
N-Nitrosodiphenylamine	2.0	N.D.
N-Nitroso-di-N-propylamine	2.0	N.D.
Pentachlorophenol	10	N.D.
Phenanthrene	2.0	N.D.
Phenol	2.0	N.D.
Pyrene	2.0	N.D.
1,2,4-Trichlorobenzene	2.0	N.D.
2,4,5-Trichlorophenol	10	N.D.
2,4,6-Trichlorophenol	2.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

2051074.KEI <6>

SEQUOIA ANALYTICAL

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Kaprealian Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Water, Water - 2	Received:	May 22, 1992
Concord, CA 94520			Analyzed:	May 26, 1992
Attention: Mardo Kaprealian, P.E.	Lab Number:	205-1074	Reported:	May 26, 1992

LABORATORY ANALYSIS

Analyte	Detection Limit mg/L	Sample Results mg/L
Cadmium	0.010	N.D.
Chromium	0.010	N.D.
Lead	0.10	N.D.
Nickel	0.050	N.D.
Zinc	0.010	0.037

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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1900 Bates Avenue • Suite LM • Concord, California 94520
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Kaprealian Engineering, Inc.
2401 Stanwell Drive, Suite 400
Concord, CA 94520
Attention: Mardo Kaprealian, P.E.

Client Project ID: Unocal, 11976 Dublin Blvd., Dublin
QC Sample Group: 205-1074
Reported: May 27, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Diesel	Oil and Grease
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA8015	SM5520
Analyst:	J.F.	J.F.	J.F.	J.F.	K.Wimer	D. Newcomb
Reporting Units:	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Date Analyzed:	May 22, 1992	May 22, 1992	May 22, 1992	May 22, 1992	May 28, 1992	May 22, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	20	20	20	60	300	100
Conc. Matrix Spike:	24	23	21	66	250	89
Matrix Spike % Recovery:	120	115	105	110	83	89
Conc. Matrix Spike Dup.:	24	23	22	66	260	88
Matrix Spike Duplicate % Recovery:	120	115	110	110	87	88
Relative % Difference:	0.0	0.0	4.7	0.0	3.9	1.0

Laboratory blank contained the following analytes: None Detected

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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

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

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

Client Project ID: Unocal, 11976 Dublin Blvd., Dublin
QC Sample Group: 205-1074
Reported: May 26, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	1,1-Dichloroethene	Trichloro-ethene	Chloro-benzene
Method:	EPA 8010	EPA 8010	EPA 8010
Analyst:	M. Nguyen	M. Nguyen	M. Nguyen
Reporting Units:	µg/L	µg/L	µg/L
Date Analyzed:	May 21, 1992	May 21, 1992	May 21, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank
Sample Conc.:	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10
Conc. Matrix Spike:	7.6	10	9.3
Matrix Spike % Recovery:	76	100	93
Conc. Matrix Spike Dup.:	7.4	9.9	9.2
Matrix Spike Duplicate % Recovery:	74	99	92
Relative % Difference:	2.7	1.0	1.1

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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

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

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	
2401 Stanwell Drive, Suite 400	Method:	EPA 8270	Q.C. Sample Dates
Concord, CA 94520	Analyst(s):	Son Le	Extracted: May 22, 1992
Attention: Mardo Kapreallan, P.E.	QC Sample #:	Matrix Blank	Analyzed: May 22, 1992
			Reported: May 26, 1992

QUALITY CONTROL DATA REPORT

Analyte	Sample Conc.	Spike Conc. Added	Conc. Matrix Spike	Matrix Spike % Recovery	Conc. Matrix Spike Duplicate	Matrix Spike Duplicate % Recovery	Relative % Difference
Phenol	N.D.	100	87	87	84	84	3.5
2-Chlorophenol	N.D.	100	95	95	91	91	4.3
1,4-Dichloro-benzene	N.D.	50	48	96	46	92	4.3
N-Nitroso-Di-N-propylamine	N.D.	50	53	106	51	102	3.8
1,2,4-Trichloro-benzene	N.D.	50	49	98	47	94	4.2
4-Chloro-3-Methylphenol	N.D.	100	98	99	95	95	4.1
Acenaphthene	N.D.	50	51	102	48	96	6.1
4-Nitrophenol	N.D.	100	95	95	88	88	7.7
2,4-Dinitro-toluene	N.D.	50	45	90	43	86	4.5
Pentachloro-phenol	N.D.	100	100	100	99	99	1.0
Pyrene	N.D.	50	56	112	55	110	1.8

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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

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

2051074.KEI <10>

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

Client Project ID: Unocal, 11976 Dublin Blvd., Dublin
QC Sample Group: 205-1074
Reported: May 26, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Cadmium	Chromium	Lead	Nickel	Zinc
Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Analyst:	S. Foster	S. Foster	S. Foster	S. Foster	S. Foster
Reporting Units:	mg/L	mg/L	mg/L	mg/L	mg/L
Date Analyzed:	May 26, 1992	May 26, 1992	May 26, 1992	May 26, 1992	May 26, 1992
QC Sample #:	205-1074	205-1074	205-1074	205-1074	205-1074
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	0.037
Spike Conc. Added:	2.0	2.0	2.0	2.0	2.0
Conc. Matrix Spike:	1.9	2.0	1.7	2.0	1.9
Matrix Spike % Recovery:	95	100	85	100	93
Conc. Matrix Spike Dup.:	1.9	2.0	1.8	1.9	1.8
Matrix Spike Duplicate % Recovery:	95	100	90	95	88
Relative % Difference:	0.0	0.0	5.7	5.1	5.4

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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

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

2051074.KEI <11>

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

Kaprealian Engineering, Inc.
P.O. Box 996
Benicia, CA 94510
Attention: Mardo Kaprealian, P.E.

Client Project ID: Unocal, 11976 Dublin Blvd., Dublin
QC Sample Group: 205-1074
Reported: May 26, 1992

QUALITY CONTROL DATA REPORT

SURROGATE

Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015	EPA 8015
Analyst:	J.D.	J.D.	K. Wimer	K. Wimer
Reporting Units:	ug/L	ug/L	ug/L	ug/L
Date Analyzed:	May 22, 1992	May 22, 1992	May 25, 1992	May 28, 1992
Sample #:	205-1074	Matrix Blank	205-1074	Matrix Blank
Surrogate % Recovery:	110	112	122	93

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

% 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

SEQUOIA ANALYTICAL

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Kaprealian Engineering, Inc.
P.O. Box 996
Benicia, CA 94510
Attention: Mardo Kaprealian, P.E.

Client Project ID: Unocal, 11976 Dublin Blvd., Dublin
QC Sample Group: 205-1074
Reported: May 26, 1992

QUALITY CONTROL DATA REPORT

SURROGATE

Method:	EPA 8010	EPA 8010
Analyst:	M. Nguyen	M. Nguyen
Reporting Units:	µg/L	µg/L
Date Analyzed:	May 22, 1992	May 22, 1992
Sample #:	205-1074	Matrix Blank
Surrogate #1 % Recovery:	79	103
Surrogate #2 % Recovery:	100	98

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

% Recovery:	$\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}}$	x 100
Relative % Difference:	$\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}}$	x 100

2051074.KEI <13>

KAPREALIAN ENGINEERING
INCORPORATED

CHAIN OF CUSTODY

SAMPLER: Haig

WITNESSING AGENCY:

SITE NAME & ADDRESS: Unocal - Dublin
11976 Dublin Blvd

TURN AROUND TIME: 24 Hrs

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPH-G	BTEX	TPH-D	TPH-MO	8010	Cadmium	Chromium	Lead	Nickel	REMARKS
Water-2	5/21/92			✓	✓		2+4	Waste Oil Tank Pit	✓	✓	✓	✓	✓	✓	✓	✓	✓	Please Fax 2051074 AH. Water sample was collected in 2 - one liter amber bottles and 4 VOA's

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Haig Kelloff	5-22-92 10:10 AM	
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?
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? MB

ABIC — Signature; PS — Title; 5-22-92 — Date

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

SEQUOIA ANALYTICAL

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

Kaprealian Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Matrix Descript:	Water	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	May 22, 1992
Attention: Mardo Kaprealian, P.E.	First Sample #:	205-1062	Reported:	May 26, 1992

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

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons ug/L (ppb)	Benzene ug/L (ppb)	Toluene ug/L (ppb)	Ethyl Benzene ug/L (ppb)	Xylenes ug/L (ppb)
205-1062	Water-1	N.D.	N.D.	N.D.	N.D.	2.7
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

Scott A. Chieffo
Project Manager

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Kaprealian Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Water	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	California LUFT Manual, 12/87		
Attention: Mardo Kaprealian, P.E.	First Sample #:	205-1062	Analyzed:	May 22, 1992
			Reported:	May 26, 1992

ORGANIC LEAD

Sample Number	Sample Description	Sample Results mg/L (ppm)
205-1062	Water-1	N.D.

Detection Limits:	0.050

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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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, 11976 Dublin Blvd., Dublin
QC Sample Group: 205-1062
Reported: May 26, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Organic Lead
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	Luft
Analyst:	J.F.	J.F.	J.F.	J.F.	K. Anderson
Reporting Units:	ug/L	ug/L	ug/L	ug/L	mg/L
Date Analyzed:	May 22, 1992	May 22, 1992	May 22, 1992	May 22, 1992	May 22, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	205-0750
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	20	20	20	60	10
Conc. Matrix Spike:	24	23	21	66	10
Matrix Spike % Recovery:	120	115	105	110	100
Conc. Matrix Spike Dup.:	24	23	22	66	10
Matrix Spike Duplicate % Recovery:	120	115	110	110	100
Relative % Difference:	0.0	0.0	4.7	0.0	0.0

Laboratory blank contained the following analytes: None Detected

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

% 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

SEQUOIA ANALYTICAL

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

Kaprealian Engineering, Inc.
P.O. Box 996
Benicia, CA 94510
Attention: Mardo Kaprealian, P.E.

Client Project ID: Unocal, 11976 Dublin Blvd., Dublin
QC Sample Group: 205-1062
Reported: May 26, 1992

QUALITY CONTROL DATA REPORT

SURROGATE

Method:	EPA 8015/8020	EPA 8015/8020
Analyst:	J.F.	J.F.
Reporting Units:	ug/L	ug/L
Date Analyzed:	May 22, 1992	May 22, 1992
Sample #:	205-1062	Matrix Blank
Surrogate % Recovery:	105	112

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

% 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
INCORPORATED

CHAIN OF CUSTODY

SAMPLER: Haig

WITNESSING AGENCY:

SITE NAME & ADDRESS: Unocal - Dublin
11976 Dublin Blvd

ANALYSES REQUESTED: TPH | BTEX | Organic Pb

TURN AROUND TIME: 24 Hrs

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPH	BTEX	Organic Pb					REMARKS
Water-1	5/21/92			✓	✓		4	Fuel Tank Pit	✓	✓	✓	2051	462	AD		Please Fax Water sample was collected in 4 - VOA's

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	5-21-92 10:15 AM	[signature]
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~~ 10
4. Were samples in appropriate containers and properly packaged? ~~Y~~

ABK (Signature) — PS (Title) — 5-22-92 (Date)

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

SEQUOIA ANALYTICAL

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

Kaprealian Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Matrix Descript:	Soil	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	May 22, 1992
Attention: Mardo Kaprealian, P.E.	First Sample #:	205-1058	Reported:	May 26, 1992

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

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
205-1058	WO-1	N.D.	N.D.	N.D.	N.D.	N.D.
205-1059	WO-2	N.D.	N.D.	N.D.	N.D.	N.D.
205-1060	WO-3	N.D.	N.D.	N.D.	N.D.	N.D.
205-1061	WO-4	N.D.	N.D.	N.D.	N.D.	N.D.

Method Detection Limits:	**1.0**	**0.0050**	**0.0050**	**0.0050**	**0.0050**

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

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Matrix Descript:	Soil	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	EPA 3550/8015	Extracted:	May 25, 1992
Attention: Mardo Kapreallan, P.E.	First Sample #:	205-1058	Analyzed:	5/25 - 5/26/92
			Reported:	May 26, 1992

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	High B.P. Hydrocarbons mg/kg (ppm)
205-1058	WO-1	N.D.
205-1059	WO-2	N.D.
205-1060	WO-3	N.D.
205-1061	WO-4	N.D.

Method Detection Limits:	**1.0**

High Boiling Point Hydrocarbons are quantitated against a diesel fuel standard.

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Matrix Descript:	Soil	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	SM 5520 E&F (Gravimetric)	Extracted:	May 22, 1992
Attention: Mardo Kapreallan, P.E.	First Sample #:	205-1058	Analyzed:	May 23, 1992
			Reported:	May 26, 1992

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/kg (ppm)
205-1058	WO-1	N.D.
205-1059	WO-2	N.D.
205-1060	WO-3	N.D.
205-1061	WO-4	N.D.

Detection Limits:	**30**

Analytes reported as N.D. were not present above the stated limit of detection.

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Kaprealian Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, WO-1	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8010	Analyzed:	May 22, 1992
Attention: Mardo Kapreallan, P.E.	Lab Number:	205-1058	Reported:	May 26, 1992

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane	5.0	N.D.
Bromoform	5.0	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	5.0	N.D.
2-Chloroethylvinyl ether	5.0	N.D.
Chloroform	5.0	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	N.D.
1,1-Dichloroethene	5.0	N.D.
cis-1,2-Dichloroethene	5.0	N.D.
trans-1,2-Dichloroethene	5.0	N.D.
1,2-Dichloropropane	5.0	N.D.
cis-1,3-Dichloropropene	5.0	N.D.
trans-1,3-Dichloropropene	5.0	N.D.
Methylene chloride	50	N.D.
1,1,2,2-Tetrachloroethane	5.0	N.D.
Tetrachloroethene	5.0	N.D.
1,1,1-Trichloroethane	5.0	N.D.
1,1,2-Trichloroethane	5.0	N.D.
Trichloroethene	5.0	N.D.
Trichlorofluoromethane	5.0	N.D.
Vinyl chloride	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, WO-2	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8010	Analyzed:	May 22, 1992
Attention: Mardo Kapreallan, P.E.	Lab Number:	205-1059	Reported:	May 26, 1992

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane	5.0	N.D.
Bromoform	5.0	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	5.0	N.D.
2-Chloroethylvinyl ether	5.0	N.D.
Chloroform	5.0	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	N.D.
1,1-Dichloroethene	5.0	N.D.
cis-1,2-Dichloroethene	5.0	N.D.
trans-1,2-Dichloroethene	5.0	N.D.
1,2-Dichloropropane	5.0	N.D.
cis-1,3-Dichloropropene	5.0	N.D.
trans-1,3-Dichloropropene	5.0	N.D.
Methylene chloride	50	N.D.
1,1,2,2-Tetrachloroethane	5.0	N.D.
Tetrachloroethene	5.0	N.D.
1,1,1-Trichloroethane	5.0	N.D.
1,1,2-Trichloroethane	5.0	N.D.
Trichloroethene	5.0	N.D.
Trichlorofluoromethane	5.0	N.D.
Vinyl chloride	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, WO-3	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8010	Analyzed:	May 22, 1992
Attention: Mardo Kapreallan, P.E.	Lab Number:	205-1060	Reported:	May 26, 1992

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane	5.0	N.D.
Bromoform	5.0	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	5.0	N.D.
2-Chloroethylvinyl ether	5.0	N.D.
Chloroform	5.0	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	N.D.
1,1-Dichloroethene	5.0	N.D.
cis-1,2-Dichloroethene	5.0	N.D.
trans-1,2-Dichloroethene	5.0	N.D.
1,2-Dichloropropane	5.0	N.D.
cis-1,3-Dichloropropene	5.0	N.D.
trans-1,3-Dichloropropene	5.0	N.D.
Methylene chloride	50	N.D.
1,1,2,2-Tetrachloroethane	5.0	N.D.
Tetrachloroethene	5.0	N.D.
1,1,1-Trichloroethane	5.0	N.D.
1,1,2-Trichloroethane	5.0	N.D.
Trichloroethene	5.0	N.D.
Trichlorofluoromethane	5.0	N.D.
Vinyl chloride	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, WO-4	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8010	Analyzed:	May 22, 1992
Attention: Mardo Kapreallan, P.E.	Lab Number:	205-1061	Reported:	May 26, 1992

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane	5.0	N.D.
Bromoform	5.0	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	5.0	N.D.
2-Chloroethylvinyl ether	5.0	N.D.
Chloroform	5.0	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	N.D.
1,1-Dichloroethene	5.0	N.D.
cis-1,2-Dichloroethene	5.0	N.D.
trans-1,2-Dichloroethene	5.0	N.D.
1,2-Dichloropropane	5.0	N.D.
cis-1,3-Dichloropropene	5.0	N.D.
trans-1,3-Dichloropropene	5.0	N.D.
Methylene chloride	50	N.D.
1,1,2,2-Tetrachloroethane	5.0	N.D.
Tetrachloroethene	5.0	N.D.
1,1,1-Trichloroethane	5.0	N.D.
1,1,2-Trichloroethane	5.0	N.D.
Trichloroethene	5.0	N.D.
Trichlorofluoromethane	5.0	N.D.
Vinyl chloride	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, WO-1	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	EPA 8270	Extracted:	May 22, 1992
Attention: Mardo Kapreallan, P.E.	Lab Number:	205-1058	Analyzed:	May 22, 1992
			Reported:	May 26, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, WO-1	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	EPA 8270	Extracted:	May 22, 1992
Attention: Mardo Kapreallan, P.E.	Lab Number:	205-1058	Analyzed:	May 22, 1992
			Reported:	May 26, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, WO-2	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	EPA 8270	Extracted:	May 22, 1992
Attention: Mardo Kapreallan, P.E.	Lab Number:	205-1059	Analyzed:	May 22, 1992
			Reported:	May 26, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	*100*	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Kaprealian Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, WO-2	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	EPA 8270	Extracted:	May 22, 1992
Attention: Mardo Kaprealian, P.E.	Lab Number:	205-1059	Analyzed:	May 22, 1992
			Reported:	May 26, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Kaprealian Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, WO-3	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	EPA 8270	Extracted:	May 22, 1992
Attention: Mardo Kaprealian, P.E.	Lab Number:	205-1060	Analyzed:	May 22, 1992
			Reported:	May 26, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, WO-3	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	EPA 8270	Extracted:	May 22, 1992
Attention: Mardo Kapreallan, P.E.	Lab Number:	205-1060	Analyzed:	May 22, 1992
			Reported:	May 26, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

2051058.KEI <13>

SEQUOIA ANALYTICAL

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, WO-4	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	EPA 8270	Extracted:	May 22, 1992
Attention: Mardo Kapreallan, P.E.	Lab Number:	205-1061	Analyzed:	May 22, 1992
			Reported:	May 26, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

2051058.KEI <14>

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, WO-4	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	EPA 8270	Extracted:	May 22, 1992
Attention: Mardo Kapreallan, P.E.	Lab Number:	205-1061	Analyzed:	May 22, 1992
			Reported:	May 26, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
DI-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-dl-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

2051058.KEI <15>

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Kaprealian Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, WO-1	Received:	May 22, 1992
Concord, CA 94520			Extracted:	May 24, 1992
Attention: Mardo Kaprealian, P.E.	Lab Number:	205-1058	Analyzed:	May 26, 1992
			Reported:	May 26, 1992

LABORATORY ANALYSIS

Analyte	Detection Limit mg/kg	Sample Results mg/kg
Cadmium	0.25	N.D.
Chromium	0.25	29
Lead	2.5	4.9
Nickel	1.3	35
Zinc	0.25	44

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

2051058.KEI <16>

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Kaprealian Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, WO-2	Received:	May 22, 1992
Concord, CA 94520			Extracted:	May 24, 1992
Attention: Mardo Kaprealian, P.E.	Lab Number:	205-1059	Analyzed:	May 26, 1992
			Reported:	May 26, 1992

LABORATORY ANALYSIS

Analyte	Detection Limit mg/kg	Sample Results mg/kg
Cadmium	0.25	N.D.
Chromium	0.25	24
Lead	2.5	5.2
Nickel	1.3	27
Zinc	0.25	37

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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Kaprealian Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, WO-3	Received:	May 22, 1992
Concord, CA 94520			Extracted:	May 24, 1992
Attention: Mardo Kaprealian, P.E.	Lab Number:	205-1060	Analyzed:	May 26, 1992
			Reported:	May 26, 1992

LABORATORY ANALYSIS

Analyte	Detection Limit mg/kg	Sample Results mg/kg
Cadmium	0.25	N.D.
Chromium	0.25	24
Lead	2.5	5.0
Nickel	1.3	26
Zinc	0.25	39

Analytes reported as N.D. were not present above the stated limit of detection.

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Scott A. Chieffo
Project Manager

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, WO-4	Received:	May 22, 1992
Concord, CA 94520			Extracted:	May 24, 1992
Attention: Mardo Kapreallan, P.E.	Lab Number:	205-1061	Analyzed:	May 26, 1992
			Reported:	May 26, 1992

LABORATORY ANALYSIS

Analyte	Detection Limit mg/kg	Sample Results mg/kg
Cadmium	0.25	N.D.
Chromium	0.25	32
Lead	2.5	5.3
Nickel	1.3	39
Zinc	0.25	49

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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

Client Project ID: Unocal, 11976 Dublin Blvd., Dublin
QC Sample Group: 2051058-061
Reported: May 26, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Diesel	Oil and Grease
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA8015	SM5520
Analyst:	A.T.	A.T.	A.T.	A.T.	K.Wimer	D. Newcomb
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	May 22, 1992	May 22, 1992	May 22, 1992	May 22, 1992	May 27, 1992	May 21, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	0.40	0.40	0.40	1.2	10	5000
Conc. Matrix Spike:	0.32	0.37	0.37	1.2	8.5	4800
Matrix Spike % Recovery:	80	93	93	100	85	96
Conc. Matrix Spike Dup.:	0.36	0.35	0.39	1.2	8.5	4800
Matrix Spike Duplicate % Recovery:	90	88	98	100	85	96
Relative % Difference:	12	5.6	5.3	0.0	0.0	0.0

Laboratory blank contained the following analytes: None Detected

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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

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

2051058.KEI <20>

SEQUOIA ANALYTICAL

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

Client Project ID: Unocal, 11976 Dublin Blvd., Dublin
QC Sample Group: 2051058-061
Reported: May 26, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	1,1-Dichloroethene	Trichloro-ethene	Chloro-benzene
Method:	EPA 8010	EPA 8010	EPA 8010
Analyst:	M. Nguyen	M. Nguyen	M. Nguyen
Reporting Units:	µg/kg	µg/kg	µg/kg
Date Analyzed:	May 22, 1992	May 22, 1992	May 22, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank
Sample Conc.:	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10
Conc. Matrix Spike:	9.6	12	8.7
Matrix Spike % Recovery:	96	120	87
Conc. Matrix Spike Dup.:	8.6	9.7	8.9
Matrix Spike Duplicate % Recovery:	86	97	89
Relative % Difference:	11	21	2.1

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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

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

2051058.KEI <21>

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	
2401 Stanwell Drive, Suite 400	Method:	EPA 8270	Q.C. Sample Dates
Concord, CA 94520	Analyst(s):	S. L.	Extracted: May 22, 1992
Attention: Mardo Kapreallan, P.E.	QC Sample #:	Matrix Blank	Analyzed: May 22, 1992

QUALITY CONTROL DATA REPORT

Analyte	Sample Conc.	Spike Conc. Added	Conc. Matrix Spike	Matrix Spike % Recovery	Conc. Matrix Spike Duplicate	Matrix Spike Duplicate % Recovery	Relative % Difference
Phenol	N.D.	100	78	78	65	65	18
2-Chlorophenol	N.D.	100	84	84	76	76	10
1,4-Dichloro-benzene	N.D.	50	43	86	38	76	12
N-Nitroso-Di-N-propylamine	N.D.	50	48	96	43	86	11
1,2,4-Trichloro-benzene	N.D.	50	42	84	38	76	10
4-Chloro-3-Methylphenol	N.D.	100	87	87	78	78	11
Acenaphthene	N.D.	50	45	90	41	82	9.3
4-Nitrophenol	N.D.	100	77	77	73	73	5.3
2,4-Dinitro-toluene	N.D.	50	39	78	35	70	11
Pentachloro-phenol	N.D.	100	93	93	83	83	11
Pyrene	N.D.	50	52	104	45	90	14

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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

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

2051058.KEI <22>

SEQUOIA ANALYTICAL

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

Client Project ID: Unocal, 11976 Dublin Blvd., Dublin

QC Sample Group: 2051058-061

Reported: May 26, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Cadmium	Chromium	Lead	Nickel	Zinc
Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Analyst:	S. Foster	S. Foster	S. Foster	S. Foster	S. Foster
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	May 26, 1992	May 26, 1992	May 26, 1992	May 26, 1992	May 26, 1992
QC Sample #:	205-0602	205-0602	205-0602	205-0602	205-0602
Sample Conc.:	N.D.	32	5.3	39	49
Spike Conc. Added:	50	50	50	50	50
Conc. Matrix Spike:	43	71	45	83	88
Matrix Spike % Recovery:	86	78	79	88	78
Conc. Matrix Spike Dup.:	45	76	47	83	87
Matrix Spike Duplicate % Recovery:	90	88	83	88	76
Relative % Difference:	4.5	6.8	4.3	0.0	1.1

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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

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

2051058.KEI <23>

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

Kapreallan Engineering, Inc. Client Project ID: Unocal, 11976 Dublin Blvd., Dublin
P.O. Box 996
Benicia, CA 94510
Attention: Mardo Kapreallan, P.E. QC Sample Group: 2051058-061 Reported: May 26, 1992

QUALITY CONTROL DATA REPORT

SURROGATE

Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020
Analyst:	A.T.	A.T.	A.T.	A.T.	A.T.
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	May 22, 1992	May 22, 1992	May 22, 1992	May 22, 1992	May 22, 1992
Sample #:	205-1058	205-1059	205-1060	205-1061	Matrix Blank
Surrogate % Recovery:	95	95	93	93	90

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

% Recovery:	$\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}}$	x 100
Relative % Difference:	$\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}}$	x 100

2051058.KEI <24>

SEQUOIA ANALYTICAL
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Kapreallan Engineering, Inc.
P.O. Box 996
Benicia, CA 94510
Attention: Mardo Kapreallan, P.E.

Client Project ID: Unocal, 11976 Dublin Blvd., Dublin
QC Sample Group: 2051058-061
Reported: May 26, 1992

QUALITY CONTROL DATA REPORT

SURROGATE

Method:	EPA 8015	EPA 8015	EPA 8015	EPA 8015	EPA 8015
Analyst:	K. Wimer	K. Wimer	K. Wimer	K. Wimer	K. Wimer
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	May 25, 1992	May 25, 1992	May 25, 1992	May 25, 1992	May 27, 1992
Sample #:	205-1058	205-1059	205-1060	205-1061	Matrix Blank
Surrogate % Recovery:	93	100	98	114	92

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

% 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

2051058.KEI <25>

SEQUOIA ANALYTICAL
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(510) 686-9600 • FAX (510) 686-9689

Kapreallan Engineering, Inc. Client Project ID: Unocal, 11976 Dublin Blvd., Dublin
P.O. Box 996
Benicia, CA 94510
Attention: Mardo Kapreallan, P.E. QC Sample Group: 2051058-061 Reported: May 26, 1992

QUALITY CONTROL DATA REPORT

SURROGATE

Method:	EPA 8010	EPA 8010	EPA 8010	EPA 8010	EPA 8010
Analyst:	M. Nguyen	M. Nguyen	M. Nguyen	M. Nguyen	M. Nguyen
Reporting Units:	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
Date Analyzed:	May 22, 1992	May 22, 1992	May 22, 1992	May 22, 1992	May 22, 1992
Sample #:	205-1058	205-1059	205-1060	205-1061	Matrix Blank
Surrogate #1 % Recovery:	73	70	75	75	103
Surrogate #2 % Recovery:	95	93	95	95	98

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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

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

KAPREALIAN ENGINEERING
INCORPORATED

CHAIN OF CUSTODY

SAMPLER: Hardy
WITNESSING AGENCY:
SITE NAME & ADDRESS: Unocal - Dublin, 11976 Dublin Blvd

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPH-G	BTXE	TPH-D	TOG	8010 8020	Cadmium Chromium	Lead-Zinc Nickel
WO-1	5/21/92		✓		✓		1	Waste Oil Tank Pit	✓	✓	✓	✓	✓	✓	✓
WO-2			✓		✓		1		✓	✓	✓	✓	✓	✓	✓
WO-3			✓		✓		1		✓	✓	✓	✓	✓	✓	✓
WO-4			✓		✓		1		✓	✓	✓	✓	✓	✓	✓

ANALYSES REQUESTED

TURN AROUND TIME: 24 Hrs

REMARKS: Please Fax 2051058 2051059 1060 1061

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	5-22-92 10:10 AM	[signature]
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?
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?

ABK (Signature) — PS (Title) — 5-22-92 (Date)

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

SEQUOIA ANALYTICAL

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

Kaprealian Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Matrix Descript:	Soil	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	May 22, 1992
Attention: Mardo Kaprealian, P.E.	First Sample #:	205-1063	Reported:	May 26, 1992

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

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
205-1063	F-SW1	N.D.	N.D.	N.D.	N.D.	N.D.
205-1064	F-SW2	N.D.	N.D.	N.D.	N.D.	N.D.
205-1065	F-SW3	N.D.	N.D.	N.D.	N.D.	N.D.
205-1066	F-SW4	N.D.	N.D.	N.D.	N.D.	N.D.

Method Detection Limits:	**1.0**	**0.0050**	**0.0050**	**0.0050**	**0.0050**

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

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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Kaprealian Engineering, Inc.	*Client Project ID:*	*Unocal, 11976 Dublin Blvd., Dublin*	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil	Received:	May 22, 1992
Concord, CA 94520	Analysis for:	Total Lead	Extracted:	May 23, 1992
Attention: Mardo Kaprealian, P.E.	First Sample #:	205-1063	Analyzed:	May 26, 1992
			Reported:	May 26, 1992

LABORATORY ANALYSIS FOR: Total Lead

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
205-1063	F-SW1	2.5	7.4
205-1064	F-SW2	2.5	4.1
205-1065	F-SW3	2.5	4.9
205-1066	F-SW4	2.5	3.8

Analytes reported as N.D. were not present above the stated limit of detection.

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Scott A. Chieffo
Project Manager

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

Client Project ID: Unocal, 11976 Dublin Blvd., Dublin
QC Sample Group: 2051063-1066
Reported: May 16, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Total Lead
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 7420
Analyst:	J.F.	J.F.	J.F.	J.F.	K.Anderson
Reporting Units:	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Date Analyzed:	May 22, 1992	May 22, 1992	May 22, 1992	May 22, 1992	May 26, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	205-1063
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	7.4
Spike Conc. Added:	0.40	0.40	0.40	1.2	50
Conc. Matrix Spike:	0.41	0.51	0.46	1.5	49
Matrix Spike % Recovery:	103	128	115	125	83
Conc. Matrix Spike Dup.:	0.45	0.45	0.46	1.4	47
Matrix Spike Duplicate % Recovery:	113	113	115	117	79
Relative % Difference:	9.3	13	0.0	6.9	4.2

Laboratory blank contained the following analytes: None Detected

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

% Recovery:	$\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}}$	x 100
Relative % Difference:	$\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}}$	x 100

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Kapreallan Engineering, Inc.
P.O. Box 996
Benicia, CA 94510
Attention: Mardo Kapreallan, P.E.

Client Project ID: Unocal, 11976 Dublin Blvd., Dublin
QC Sample Group: 2051063-1066

Reported: May 26, 1992

QUALITY CONTROL DATA REPORT

SURROGATE

Method:	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.
Reporting Units:	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Date Analyzed:	May 22, 1992	May 22, 1992	May 22, 1992	May 22, 1992	May 22, 1992
Sample #:	205-1063	205-1064	205-1065	205-1066	Blank
Surrogate % Recovery:	98	98	100	99	99

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

% 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
INCORPORATED

CHAIN OF CUSTODY

SAMPLER: Haig
WITNESSING AGENCY:
SITE NAME & ADDRESS: Unocal - Dublin, 11976 Dublin Blvd

ANALYSES REQUESTED: TPH-D; BTXE; Total Pb

TURN AROUND TIME: 24 Hrs

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION							REMARKS
F-SW1	5/21/92		✓		✓		1	Fuel Tank Pit	✓	✓	✓	2051063			Please Fax
F-SW2			✓		✓		1		✓	✓	✓		1064		
F-SW3			✓		✓		1		✓	✓	✓		1065		
F-SW4			✓		✓		1		✓	✓	✓		1066		

Relinquished by: (Signature)	Date/Time: 5-22-92 10:10 AM	Received by: (Signature)
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?
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? Yes

ABK — Signature; PS — Title; 5-22-92 — Date

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

SEQUOIA ANALYTICAL

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(510) 686-9600 • FAX (510) 686-9689

Kaprealian Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Matrix Descript:	Soil	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	May 22, 1992
Attention: Mardo Kaprealian, P.E.	First Sample #:	205-1069	Reported:	May 26, 1992

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

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
205-1069	PT-1	6.2	0.0072	0.072	0.054	0.33
205-1070	PT-2	940	N.D.	0.81	12	100
205-1071	PT-3	N.D.	0.0078	0.061	0.026	0.14
205-1072	PT-4	N.D.	N.D.	N.D.	N.D.	N.D.
205-1073	PT-5	N.D.	N.D.	N.D.	N.D.	N.D.

Method Detection Limits:	**1.0**	**0.0050**	**0.0050**	**0.0050**	**0.0050**

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

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Scott A. Chieffo
Project Manager

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil	Received:	May 22, 1992
Concord, CA 94520	Analysis for:	Total Lead	Extracted:	May 23, 1992
Attention: Mardo Kapreallan, P.E.	First Sample #:	205-1069	Analyzed:	May 26, 1992
			Reported:	May 26, 1992

LABORATORY ANALYSIS FOR: Total Lead

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
205-1069	PT-1	2.5	4.0
205-1071	PT-3	2.5	5.1
205-1072	PT-4	2.5	6.5
205-1073	PT-5	2.5	4.8

Analytes reported as N.D. were not present above the stated limit of detection.

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Scott A. Chieffo
Project Manager

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Kapreallan Engineering, Inc. Client Project ID: Unocal, 11976 Dublin Blvd., Dublin
2401 Stanwell Drive, Suite 400
Concord, CA 94520
Attention: Mardo Kapreallan, P.E. QC Sample Group: 2051069-73 Reported: May 26, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Total Lead
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 7420
Analyst:	A.T.	A.T.	A.T.	A.T.	K.Anderson
Reporting Units:	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Date Analyzed:	May 22, 1992	May 22, 1992	May 22, 1992	May 22, 1992	May 26, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	205-1063
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	7.4
Spike Conc. Added:	0.40	0.40	0.40	1.2	50
Conc. Matrix Spike:	0.32	0.37	0.37	1.2	49
Matrix Spike % Recovery:	80	93	93	100	83
Conc. Matrix Spike Dup.:	0.36	0.35	0.39	1.2	47
Matrix Spike Duplicate % Recovery:	90	88	98	100	79
Relative % Difference:	12	5.6	5.3	0.0	4.2

Laboratory blank contained the following analytes: None Detected

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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

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

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Kaprealian Engineering, Inc.
P.O. Box 996
Benicia, CA 94510
Attention: Mardo Kaprealian, P.E.

Client Project ID: Unocal, 11976 Dublin Blvd., Dublin
QC Sample Group: 2051069-73
Reported: May 26, 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
Analyst:	A.T.	A.T.	A.T.	A.T.	A.T.	A.T.
Reporting Units:	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Date Analyzed:	May 22, 1992	May 22, 1992	May 22, 1992	May 22, 1992	May 22, 1992	May 22, 1992
Sample #:	205-1069	205-1070	205-1071	205-1072	205-1073	Blank
Surrogate % Recovery:	90	82	90	91	94	90

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Scott A. Chieffo
Project Manager

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

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

KAPREALIAN ENGINEERING
INCORPORATED

CHAIN OF CUSTODY

SAMPLER: Haig

WITNESSING AGENCY:

SITE NAME & ADDRESS: Unocal - Dublin, 11976 Dublin Blvd

ANALYSES REQUESTED: TPH-D; BTXE; Total Lead

TURN AROUND TIME: 24 Hrs

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPH-D	BTXE	Total Lead				REMARKS
PT-1	5/21/92		✓		✓		1	Old Product Pipe Trench	✓	✓	✓	2051	069		Please Fax
PT-2			✓		✓		1		✓	✓			10	70	
PT-3			✓		✓		1		✓	✓	✓		10	71	
PT-4			✓		✓		1		✓	✓	✓		10	72	
PT-5			✓		✓		1		✓	✓	✓		10	73	

Relinquished by: (Signature) Haig Kevorkian	Date/Time 5-22-92 10:10 AM	Received by: (Signature)
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?
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? YC

ABK — Signature; ES — Title; 5-22-92 — Date

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Matrix Descript:	Soil	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	May 22, 1992
Attention: Mardo Kapreallan, P.E.	First Sample #:	205-1067	Reported:	May 27, 1992

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

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
205-1067	H1	N.D.	N.D.	N.D.	N.D.	N.D.
205-1068	H2	230	N.D.	N.D.	1.3	0.66
Method Detection Limits:		**1.0**	**0.0050**	**0.0050**	**0.0050**	**0.0050**

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

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Scott A. Chieffo
Project Manager

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Matrix Descript:	Soil	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	EPA 3550/8015	Extracted:	May 25, 1992
Attention: Mardo Kapreallan, P.E.	First Sample #:	205-1067	Analyzed:	May 26, 1992
			Reported:	May 27, 1992

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015) as HYDRAULIC FLUID

Sample Number	Sample Description	High B.P. Hydrocarbons mg/kg (ppm)
205-1067	H1	1.3
205-1068	H2	120

Method Detection Limits:	**1.0**

High Boiling Point Hydrocarbons are quantitated against a hydraulic fluid standard.

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Matrix Descript:	Soil	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	SM 5520 E&F (Gravimetric)	Extracted:	May 22, 1992
Attention: Mardo Kapreallan, P.E.	First Sample #:	205-1068	Analyzed:	May 23, 1992
			Reported:	May 27, 1992

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/kg (ppm)
205-1068	H2	N.D.

Detection Limits:	**30**

Analytes reported as N.D. were not present above the stated limit of detection.

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Kaprealian Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, H2	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8010	Analyzed:	May 22, 1992
Attention: Mardo Kaprealian, P.E.	Lab Number:	205-1068	Reported:	May 27, 1992

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethylvinyl ether	100	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,2-Dichlorobenzene	100	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Methylene chloride	1,000	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl chloride	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Scott A. Chieffo
Project Manager

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Kaprealian Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, H2	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	EPA 8270	Extracted:	May 22, 1992
Attention: Mardo Kaprealian, P.E.	Lab Number:	205-1068	Analyzed:	May 22, 1992
			Reported:	May 27, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	670
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Kaprealian Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, H2	Received:	May 22, 1992
Concord, CA 94520	Analysis Method:	EPA 8270	Extracted:	May 22, 1992
Attention: Mardo Kaprealian, P.E.	Lab Number:	205-1068	Analyzed:	May 22, 1992
			Reported:	May 27, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	5,800
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	4,100
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	240
Phenol	100	N.D.
Pyrene	100	120
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

2051067.KEI <6>

SEQUOIA ANALYTICAL

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

Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	Sampled:	May 21, 1992
2401 Stanwell Drive, Suite 400	Sample Descript:	Soil, H2	Received:	May 22, 1992
Concord, CA 94520			Extracted:	May 24, 1992
Attention: Mardo Kapreallan, P.E.	Lab Number:	205-1068	Analyzed:	May 26, 1992
			Reported:	May 27, 1992

LABORATORY ANALYSIS

Analyte	Method Detection Limit mg/kg	Sample Results mg/kg
Cadmium	0.25	N.D.
Chromium	0.25	33
Lead	2.5	4.4
Nickel	1.3	43
Zinc	0.25	58

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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(510) 686-9600 • FAX (510) 686-9689

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

Client Project ID: Unocal, 11976 Dublin Blvd., Dublin
QC Sample Group: 2051067-068
Reported: May 27, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Oil and Grease	Diesel
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	SM5520	EPA 8015
Analyst:	A.T.	A.T.	A.T.	A.T.	D. Newcomb	K. Wimer
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	May 22, 1992	May 22, 1992	May 22, 1992	May 22, 1992	May 21, 1992	May 27, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	0.40	0.40	0.40	1.2	5000	10
Conc. Matrix Spike:	0.32	0.37	0.37	1.2	4800	8.5
Matrix Spike % Recovery:	80	93	93	100	96	85
Conc. Matrix Spike Dup.:	0.36	0.35	0.39	1.2	4800	8.5
Matrix Spike Duplicate % Recovery:	90	88	98	100	96	85
Relative % Difference:	12	5.6	5.3	0.0	0.0	0.0

Laboratory blank contained the following analytes: None Detected

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Scott A. Chieffo
Project Manager

% Recovery:	$\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}}$	x 100
Relative % Difference:	$\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}}$	x 100

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2401 Stanwell Drive, Suite 400
Concord, CA 94520
Attention: Mardo Kaprealian, P.E. QC Sample Group: 2051067-068 Reported: May 27, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	1,1-Dichloroethene	Trichloro-ethene	Chloro-benzene
Method:	EPA 8010	EPA 8010	EPA 8010
Analyst:	M. Nguyen	M. Nguyen	M. Nguyen
Reporting Units:	µg/kg	µg/kg	µg/kg
Date Analyzed:	May 22, 1992	May 22, 1992	May 22, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank
Sample Conc.:	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10
Conc. Matrix Spike:	9.6	12	8.7
Matrix Spike % Recovery:	96	120	87
Conc. Matrix Spike Dup.:	8.6	9.7	8.9
Matrix Spike Duplicate % Recovery:	86	97	89
Relative % Difference:	11	21	2.1

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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

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

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal, 11976 Dublin Blvd., Dublin	
2401 Stanwell Drive, Suite 400	Method:	EPA 8270	Q.C. Sample Dates
Concord, CA 94520	Analyst(s):	S. L.	Extracted: May 22, 1992
Attention: Mardo Kapreallan, P.E.	QC Sample #:	Matrix Blank	Analyzed: May 22, 1992
			Reported: May 27, 1992

QUALITY CONTROL DATA REPORT

Analyte	Sample Conc.	Spike Conc. Added	Conc. Matrix Spike	Matrix Spike % Recovery	Conc. Matrix Spike Duplicate	Matrix Spike Duplicate % Recovery	Relative % Difference
Phenol	N.D.	100	78	78	65	65	18
2-Chlorophenol	N.D.	100	84	84	76	76	10
1,4-Dichloro-benzene	N.D.	50	43	86	38	76	12
N-Nitroso-Di-N-propylamine	N.D.	50	48	96	43	86	11
1,2,4-Trichloro-benzene	N.D.	50	42	84	38	76	10
4-Chloro-3-Methylphenol	N.D.	100	87	87	78	78	11
Acenaphthene	N.D.	50	45	90	41	82	9.3
4-Nitrophenol	N.D.	100	77	77	73	73	5.3
2,4-Dinitro-toluene	N.D.	50	39	78	35	70	11
Pentachloro-phenol	N.D.	100	93	93	83	83	11
Pyrene	N.D.	50	52	104	45	90	14

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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

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

2051067.KEI <10>

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

Client Project ID: Unocal, 11976 Dublin Blvd., Dublin
QC Sample Group: 205-1068
Reported: May 27, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Cadmium	Chromium	Lead	Nickel	Zinc
Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Analyst:	S. Foster	S. Foster	S. Foster	S. Foster	S. Foster
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	May 26, 1992	May 26, 1992	May 26, 1992	May 26, 1992	May 26, 1992
QC Sample #:	205-0602	205-0602	205-0602	205-0602	205-0602
Sample Conc.:	N.D.	32	5.3	39	49
Spike Conc. Added:	50	50	50	50	50
Conc. Matrix Spike:	43	71	45	83	88
Matrix Spike % Recovery:	86	78	79	88	78
Conc. Matrix Spike Dup.:	45	76	47	83	87
Matrix Spike Duplicate % Recovery:	90	88	83	88	76
Relative % Difference:	4.5	6.8	4.3	0.0	1.1

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Scott A. Chieffo
Project Manager

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

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

2051067.KEI <11>

SEQUOIA ANALYTICAL

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Kaprealian Engineering, Inc.
P.O. Box 996
Benicia, CA 94510
Attention: Mardo Kaprealian, P.E.

Client Project ID: Unocal, 11976 Dublin Blvd., Dublin
QC Sample Group: 2051067-068
Reported: May 27, 1992

QUALITY CONTROL DATA REPORT

SURROGATE

Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015	EPA 8015	EPA 8015
Analyst:	A.T.	A.T.	A.T.	K. Wimer	K. Wimer	K. Wimer
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	May 22, 1992	May 22, 1992	May 22, 1992	May 26, 1992	May 26, 1992	May 27, 1992
Sample #:	205-1067	205-1068	Matrix Blank	205-1067	205-1068	Matrix Blank
Surrogate % Recovery:	93	93	90	79	590	92

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

% 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

2051067.KEI <12>

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Kapreallan Engineering, Inc.
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Attention: Mardo Kapreallan, P.E.

Client Project ID: Unocal, 11976 Dublin Blvd., Dublin
QC Sample Group: 2051067-068
Reported: May 27, 1992

QUALITY CONTROL DATA REPORT

SURROGATE

Method:	EPA 8010	EPA 8010
Analyst:	M. Nguyen	M. Nguyen
Reporting Units:	mg/kg	mg/kg
Date Analyzed:	May 22, 1992	May 22, 1992
Sample #:	205-1068	Matrix Blank
Surrogate #1 % Recovery:	79	103
Surrogate #2 % Recovery:	100	98

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

% Recovery:	$\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}}$	x 100
Relative % Difference:	$\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}}$	x 100

KAPREALIAN ENGINEERING
INCORPORATED

CHAIN OF CUSTODY

SAMPLER: Haig
WITNESSING AGENCY:
SITE NAME & ADDRESS: Unocal - Dublin, 11976 Dublin Blvd

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPH-G	BTXE	TPH as Hyd. Fluid	TOG	8010 8240	Cadmium, Chromium	Lead - Zinc Nickel	REMARKS
H1	5/21/92		✓		✓		1	Beneath Hydraulic Lift	✓	✓	✓	2051067				Please Fax
H2	5/21/92		✓		✓		1	↓	✓	✓	✓	✓	✓	✓	✓	2051068

Relinquished by: (Signature) Haig Kaprealian	Date/Time 5-20-92 10:10 am	Received by: (Signature)
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?
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?

ABK (Signature) PS (Title) 5-22-92 (Date)

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