



KAPREALIAN ENGINEERING
I N C O R P O R A T E D

KEI-P88-1204.R8
April 26, 1993

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

Attention: Mr. Edward C. Ralston

RE: Continuing Subsurface Investigation at
Former Unocal Service Station #2512
1300 Davis Street
San Leandro, California

Dear Mr. Ralston:

This report presents the results of our most recent subsurface investigation for the referenced site, in accordance with Kaprealian Engineering, Inc's. (KEI) proposal (KEI-P88-1204.P9) dated February 25, 1993. The purpose of the investigation was to determine if the area beneath the former building at the subject site has been impacted by contamination. The borings were located so as to investigate previous tank and hoist locations. The scope of the work performed by KEI consisted of the following:

- Coordination with regulatory agencies
- ✓ Geologic logging of four exploratory borings
- Soil sampling
- Ground water sampling
- Laboratory analyses
- Data analyses, interpretation, and report preparation

SITE DESCRIPTION AND BACKGROUND

The subject site formerly contained a Unocal service station facility. The station building, pump islands, and other station facilities have been demolished and removed from the site. The site is situated on gently sloping, westward trending topography, and is located approximately two miles east-northeast of the present shoreline of San Francisco Bay. Also, the site is located approximately 2,000 feet south of San Leandro Creek.

Per Unocal Corporation's procedure for potential site divestment locations, KEI's work at the site began on December 30, 1988, when six exploratory borings, designated as EB1 through EB6 on t

attached Figure 1, were drilled at the site. The six borings were completed to depths ranging from 26.5 to 30 feet below grade, and ground water was encountered at depths ranging from 25 to 26.5 feet beneath the surface during drilling.

Soil and water samples were analyzed by Sequoia Analytical Laboratory in Redwood City, California. Soil and water samples collected from borings EB2 through EB6 were analyzed for total petroleum hydrocarbons (TPH) as gasoline, and benzene, toluene, xylenes, and ethylbenzene (BTX&E). Soil samples collected from boring EB6 were also analyzed for TPH as diesel and total oil and grease (TOG). Soil and water samples collected from boring EB1 were analyzed for TPH as diesel, BTX&E, TOG, and EPA method 8010 constituents.

Analytical results of soil samples collected from borings EB1 through EB6 indicated levels of TPH as gasoline ranging from non-detectable to 73 ppm. Benzene was detected only in samples EB5(20) and EB6(15) at concentrations of 0.12 ppm and 0.065 ppm, respectively. Analytical results of soil samples collected from boring EB6 indicated levels of TPH as diesel ranging from 3 ppm to 160 ppm, and levels of TOG ranging from 130 ppm to 7,800 ppm. Analytical results of the water samples collected from borings EB2, EB3, and EB4 indicated non-detectable levels of TPH as gasoline. Analytical results of the water samples collected from borings EB5 and EB6 indicated levels of TPH as gasoline at concentrations of 340 ppb and 1,500 ppb, respectively. Benzene was detected in water samples collected from borings EB2 and EB6 at concentrations of 8.2 ppb and 1.5 ppb, respectively. The results of the soil analyses are summarized in Table 1, and the results of the water analyses are summarized in Table 4. Documentation of the exploratory boring drilling procedures, sample collection techniques, and the analytical results are presented in KEI's report (KEI-P88-1204.R1) dated February 3, 1989. Based on the results of the exploratory boring investigation, KEI proposed the installation of three monitoring wells.

On April 17, 1989, three two-inch diameter monitoring wells (designated as MW1, MW2, and MW3 on the attached Figures 2 and 3) were installed at the site. The three wells were drilled and completed to total depths of 33 feet below grade. Ground water was encountered at depths ranging from 17.5 to 18.5 feet below grade. The wells were developed on April 24, 1989, and were initially sampled on April 25, 1989.

Water and selected soil samples were analyzed by Sequoia Analytical Laboratory in Redwood City, California, for TPH as gasoline, BTX&E, TPH as diesel, TOG, and EPA method 8010 constituents. The analytical results of the soil samples collected from MW1, MW2, and MW3 indicated levels of TPH as gasoline ranging from non-detectable

to 6.2 ppm, levels of TOG ranging from non-detectable to 180 ppm, and non-detectable levels of benzene, TPH as diesel and EPA method 8010 constituents. Analytical results of the water samples collected from MW1, MW2, and MW3 indicated levels of TPH as gasoline ranging from non-detectable to 56 ppb, levels of TPH as diesel ranging from non-detectable to 5,700 ppb, and levels of benzene ranging from non-detectable to 0.35 ppb. The results of the soil analyses are summarized in Table 2, and the results of the water analyses are summarized in Tables 5 and 6. Documentation of the well installation procedures, sample collection techniques, and the analytical results are presented in KEI's report (KEI-P88-1204.R2) dated May 16, 1990.

On May 11, 1989, at KEI's recommendation, the area surrounding exploratory boring EB6 (shown on the attached Figure 1) was excavated. Four soil samples, labeled SWA, SWB, SWC, and SWD, were collected from the sidewalls of the excavation at depths of approximately 16.5 feet below grade (six inches above the water table). The samples were analyzed for TPH as diesel and TOG. Analytical results of the soil samples indicated levels of TPH as diesel ranging from 16 ppm to 26 ppm, and levels of TOG ranging from 170 ppm to 850 ppm. The results of the soil analyses are summarized in Table 3. Documentation of the excavation investigation procedures, sample collection techniques, and the analytical results are presented in KEI's report (KEI-J88-1204.R4) dated June 15, 1989. Based on the results of the excavation soil samples, and based on the ground water contamination levels that had been previously detected in the monitoring wells, KEI recommended the installation of three additional monitoring wells.

On August 16, 1989, three additional two-inch diameter monitoring wells (designated as MW4, MW5, and MW6 on the attached Figures 2 and 3) were installed at the site. The new wells were drilled and completed to total depths of 33 feet below grade. Ground water was encountered at depths of approximately 19.8 to 22 feet below grade during drilling. The new wells (MW4, MW5, and MW6) were developed on August 27, 1989, and were initially sampled on August 29, 1989. The existing wells (MW1, MW2, and MW3) were sampled on August 10, 1989.

Water samples from all of the wells, and selected soil samples from the borings for MW4, MW5, and MW6, were analyzed by Sequoia Analytical Laboratory in Redwood City, California, for TPH as gasoline, BTX&E, and TOG. In addition, the water samples were analyzed for TPH as diesel. Analytical results of the soil samples collected from the borings for monitoring wells MW4, MW5, and MW6 indicated non-detectable levels of all constituents analyzed, except for soil sample MW4(5), which showed 3.3 ppm of TPH as gasoline and 0.11 ppm of xylenes, and soil sample MW5(20), which showed 20 ppm of TPH as gasoline. Analytical results of water

samples collected from MW1, MW2, MW4, MW5, and MW6 indicated non-detectable levels of TPH as gasoline, benzene, TPH as diesel, and TOG, except for MW4 and MW5, which indicated TPH as diesel at concentrations of 120 ppb and 100 ppb, respectively. Analytical results of the water sample collected from MW3 indicated 3,200 ppb of TPH as gasoline, 73 ppb of benzene, 860 ppb of TPH as diesel, and a non-detectable level of TOG. The results of the soil analyses are summarized in Table 2, and the results of the water analyses are summarized in Table 5. Documentation of the well installation procedures, sample collection techniques, and the analytical results are presented in KEI's report (KEI-P88-1204.QR1) dated September 27, 1989. Based on the analytical results, KEI recommended the implementation of a monthly monitoring and quarterly sampling program for all existing wells.

A field reconnaissance of the subject site was performed on August 24, 1990. The reconnaissance revealed the presence of soil borings within the asphalt parking area of the adjacent property located southwest of the site. KEI subsequently reviewed a report prepared by Applied Geosystems (AGS) of San Jose, California, dated April 30, 1990, (AGS #60004-1), documenting this work. Soil and ground water samples were collected from five borings (designated as B1 through B5 on the attached Figure 2). Analytical results of soil samples indicated non-detectable levels of petroleum hydrocarbons in all samples, except for 200 ppm of TOG and 0.058 ppm of toluene detected at 16 feet in boring B5 (located immediately southwest of Unocal's MW3). Tetrachloroethene was detected in borings B2, B3, and B4 at depths of 15 to 17.5 feet below grade at concentrations ranging from 0.0052 ppm to 0.0460 ppm. TPH as gasoline was detected in water samples collected from borings B2 and B3 at levels of 220 ppb and 50 ppb, respectively. Tetrachloroethene (PCE) was detected in the water samples from all five borings at levels ranging from 2.2 ppb to 540 ppb, with the greatest concentrations detected in borings, B2, B3, and B4, located adjacent to a former dry cleaning operation (see attached Figure 2).

Based on a site inspection conducted on December 27, 1990, a well (MW-DC) is present near the former dry cleaner operation (see the attached Figure 2). Communication with Unocal Corporation on January 2, 1991, indicated that this well was not installed at the request of Unocal. A follow-up site visit was conducted by KEI during March of 1991 in an attempt to determine the well owner. None of the adjacent property owners or tenants were aware of the presence of the well or the well owner.

KEI subsequently reviewed a report, titled "Report of Subsurface Environmental Conditions" (dated October 9, 1990), which was prepared by Hageman-Schenk, Inc. (HSI) for the current property owner (1335 to 1370 Davis Street). Investigations conducted by HSI indicated that the well was apparently a former water supply well

for the dry cleaning business located at 1370 Davis Street. The well is six inches in diameter, extends to a depth of approximately 28 feet below grade, and had a water level of 18 feet on August 1, 1990. At the time of HSI's investigation (June 7, 1990), the well was plugged with soil and other debris to a depth of about 8 feet below grade. Analytical results of a soil sample collected from the soil plug within the well showed 1.2 ppm of tetrachloroethene. After the well was unplugged, a water sample was collected on September 12, 1990. The sample showed a level of 33 ppb of tetrachloroethene. The soil and water samples were not analyzed for petroleum hydrocarbons. In addition to collecting soil and water samples from the dry cleaners' well, HSI also collected soil samples from six soil borings (A1 through A5 and HS-B-1), located at the northwest perimeter of the dry cleaners building, as well as six soil samples from beneath the concrete floor inside the building. Tetrachloroethene was detected in all soil borings at concentrations ranging from 0.0069 ppm to 0.20 ppm. The October 9, 1990, HSI report concluded that the tetrachloroethene soil and ground water contamination detected throughout the site was probably the result of small-scale spillage of tetrachloroethene over a long period of time. The HSI report recommended the installation of at least three monitoring wells; however, it does not appear that any further subsurface investigations have been conducted at the site as of March of 1991.

In KEI's quarterly report (KEI-P88-1204.QR8) dated July 15, 1991, KEI recommended that no additional ground water samples be collected and analyzed from wells MW1 and MW5, since both wells had shown non-detectable levels of TPH as gasoline and benzene for the four previous quarters of sampling.

Free product was first detected in Unocal well MW3 on August 1, 1991, at a thickness of 0.02 feet. The thickness of product in MW3 showed a general increase during the quarter ending November 1991, and was detected at a thickness of 0.26 feet on November 19, 1991. Approximately 27 ounces of product had been purged from well MW3 through November 19, 1991. Therefore, KEI recommended weekly purging of product from MW3 until the source could be verified and eliminated. Previous field notes during purging activities indicated that the product is black to dark brown and has an odor similar to that of parts cleaning solvent. A sample of this product was recommended to be collected and submitted to a laboratory for analysis to aid in determining the ultimate source of the product.

Based on the past levels of contamination detected in well MW3 at the subject Unocal site, and the predominant west-southwest ground water flow direction, KEI recommended (work plan/proposal KEI-P88-1204.P6 dated July 15, 1991) the installation of one off-site monitoring well to further define the extent of ground water

contamination. KEI did not recommend the use of the "dry cleaner well" (MW-DC), since the integrity, construction, and previous use of the well was unknown or otherwise unclear.

On February 11, 1992, one additional two-inch diameter monitoring well (designated as MW7 on the attached Figure 2) was installed in the vicinity of the site. Well MW7 was drilled and completed to a total depth 30 feet below grade. Ground water was encountered at a depth of 17 feet beneath the surface during drilling. Well MW7 was developed on February 12, 1992, and wells MW2, MW4, MW6, and MW7 were sampled on February 27, 1992. The surface of the well cover over MW7, the well covers of all previously existing wells (MW1 through MW6), and the off-site well MW-DC were surveyed by Kier & Wright of Pleasanton, California, to Mean Sea Level (MSL) and to a vertical accuracy of 0.01 feet.

Water samples from wells MW2, MW4, MW6, and MW7, and selected soil samples from the boring of MW7, were analyzed at Sequoia Analytical Laboratory in Concord, California. The samples were analyzed for TPH as gasoline and BTX&E. All soil samples from MW7, and the water sample from MW4, were also analyzed for TPH as diesel. In addition, the water sample collected from well MW7 was analyzed for EPA method 8010 constituents.

The results of the soil analyses are summarized in Table 2, and the results of the water analyses are summarized in Tables 5 and 6. Based on the analytical results, KEI recommended the continuation of the ground water monitoring and sampling program. Documentation of the well installation procedures, sample collection techniques, and the analytical results are presented in KEI's report (KEI-P88-1204.R5) dated April 9, 1992.

As noted in KEI's report (KEI-P88-1204.R5) dated April 9, 1992, there appeared to have been a significant change in the flow direction at the subject site sometime between January 20, 1992, and February 27, 1992. The ground water flow direction had been reported to be toward the west-southwest since at least September 18, 1991. However, based on the ground water level data collected on February 27, 1992, the ground water flow direction appeared to be toward the northeast. The reason for this observed change was unknown, but could have been related to pumping from an adjacent well or wells. KEI therefore recommended that a well survey be conducted for the area within a 1/2-mile radius of the site.

The ground water flow direction on March 27 and April 27, 1992, was toward the north-northeast (similar to the February 27, 1992 flow direction). A water well survey was conducted by KEI in April of 1992 for wells located within a one-half mile radius of the site. The data collected during the well survey did not indicate conclusively that nearby pumping wells were influencing the

direction of ground water flow at the subject site. Therefore, KEI recommended a review of additional well data and a possible reconnaissance to determine if nearby active wells had any influence on the ground water flow at the Unocal site. The details of the well survey and the data collected are presented in KEI's quarterly report (KEI-P88-1204.QR11) dated July 14, 1992.

As recommended in KEI's report (KEI-P88-1204.QR10) dated January 16, 1992, a sample of the free product in well MW3 was collected on May 26, 1992, and was analyzed to determine if the product is predominantly hydrocarbon-based (i.e., gasoline, diesel, or oil), or a halogenated volatile organic compound. The analytical results indicated levels of TPH as gasoline, benzene, and TPH as diesel at 1,300,000 ppb, 5,100, and 2,400,000, respectively. TOG was detected at 880 ppm. The analytical results also indicated non-detectable levels of all EPA method 8010 constituents. Based on these analytical results, the free product observed in well MW3 is predominantly hydrocarbon-based.

As recommended in KEI's report (KEI-P88-1204.QR11) dated July 14, 1992, KEI conducted an additional well survey in order to identify active water wells that could influence ground water flow direction at the Unocal site. A number of wells were located. However, the ground water flow at the site during this quarter was in a westerly to southwesterly direction, consistent with the previous predominant direction. Therefore, KEI recommended that in the event the ground water flow direction again changed from the predominant west to southwest direction, a site reconnaissance would be conducted to locate any pumping wells among the wells identified during the well survey. The details of the second well survey and the data collected are presented in KEI's quarterly report (KEI-P88-1204.QR12) dated November 25, 1992.

On July 28, 1992, KEI collected soil samples following the removal of two 10,000 gallon underground gasoline storage tanks and one 280 gallon waste oil tank at the referenced site. Four soil samples, labeled A1, A2, B1, and B2, were collected from beneath the fuel tanks at depths of about 14 feet below grade. Two soil samples, labeled W01 and W01(15), were collected from beneath the waste oil tank at depths of 10 and 15 feet below grade, respectively. Six soil samples, labeled P1 through P6, were collected from beneath the product pipe trenches and dispensers at depths of about 3.5 feet below grade. The soil sample locations are shown on the attached Figure 3.

All soil and water samples were analyzed by Sequoia Analytical Laboratory in Concord, California. All samples were analyzed for TPH as gasoline and for BTX&E. The soil sample (W01) collected beneath the waste oil storage tank was also analyzed for TPH as diesel, EPA method 8010 constituents, and the metals cadmium,

chromium, lead, nickel, and zinc. Sample WO1(15), collected from beneath sample point location WO1 at a depth of approximately 15 feet below grade, was analyzed only for TOG. The analytical results of the soil samples collected from the fuel tank pit indicated levels of TPH as gasoline ranging from non-detectable to 23 ppm. The analytical results of the soil samples collected from the product pipe trenches indicated levels of TPH as gasoline ranging from non-detectable to 91 ppm. The waste oil tank pit bottom sample (WO1) showed 150 ppm of TPH as gasoline, 210 ppm of TPH as diesel, and 3,000 ppm of TOG. However, sample WO1(15), collected beneath sample WO1 at a depth of 15 feet below grade, showed a level of TOG at 210 ppm. The analytical results of the soil samples are summarized in Table 6.

In KEI's work plan/proposal (KEI-P88-1204.P8) dated September 14, 1992, KEI proposed to perform additional soil sampling following additional excavation in the vicinity of sample point A1 (in the fuel tank pit), sample point WO1 (in the waste oil tank pit), and sample points P2 and P6 (in the product pipe trenches). The additional excavation was proposed in order to attempt to define the vertical and lateral extent of soil contamination.

RECENT FIELD ACTIVITIES

Per Unocal Corporation's procedure for potential site divestment locations, on March 22 and 23, 1993, four exploratory borings (designated as EB7 through EB10 on the attached Figure 1) were drilled at the site. The subsurface materials penetrated and the depths at which soil samples were collected are shown in the attached Boring Logs.

The four borings were each drilled to total depths ranging from 20.5 to 24.5 feet below grade. Ground water was encountered at depths ranging from 18 to 24 feet below grade during drilling. Soil samples were collected for laboratory analysis and for lithologic logging purposes at a maximum spacing of 5 foot intervals, at significant changes in lithology, at obvious areas of contamination, and at or within the soil/ground water interface, beginning at a depth of approximately 5 feet below grade and continuing until ground water was encountered. The undisturbed soil samples were collected by driving a California-modified split-spoon sampler (lined with brass liners) ahead of the drilling augers. The two-inch diameter brass liners holding the samples were then sealed with aluminum foil, plastic caps and tape, labeled, and stored in a cooler, on ice, until delivery to a state certified laboratory. Drilling was stopped about 1 to 2 feet after intersecting the first water table. Water samples were collected from each of the borings by the use of a clean acrylic bailer. The water samples were then decanted into clean VOA vials and/or one-liter amber bottles, as appropriate, which were subsequently sealed

with Teflon-lined screw caps, labeled, and stored in a cooler, on ice, until delivery to a state-certified laboratory. After the water samples were collected, bentonite was used to seal the borings within the saturated zone. Cement grout was then placed from the bentonite plug to the surface in one continuous pour, with a hardening agent used for the upper 1 to 2 feet of the borings.

ANALYTICAL RESULTS

Water and selected soil samples from all four exploratory borings were analyzed at Sequoia Analytical Laboratory, a state-certified laboratory, for TPH as gasoline by EPA method 5030/modified 8015, BTX&E by EPA method 8020, TPH as diesel by EPA method 3510/modified 8015 (water) and 3550/modified 8015 (soil), TOG by Standard Methods 5520B&F (water) and 5529E&F (soil), and for EPA method 8010 constituents. The soil and water samples collected from borings EB8 and EB9 (drilled inside the former service bay facility) were also analyzed for TPH as hydraulic fluid by EPA method 3510/modified 8015 (water) and 3550/modified 8015 (soil).

The results of soil analyses are summarized in Table 1, and the results of the water analyses are summarized in Table 4. Copies of the laboratory analyses and the Chain of Custody documentation are attached to this report.

HYDROLOGY AND GEOLOGY

As previously noted, ground water was encountered at depths ranging from 18 to 24 feet below grade during the drilling of the four exploratory borings, EB7 through EB10. Based on the water level data gathered on October 30, 1992 (the last time the subject site was monitored), the ground water flow direction appeared to be predominantly to the west (varying from west to southwest).

Based on review of regional geologic mapping (U.S. Geological Survey Professional Paper 943 "Flatland deposits of the San Francisco Bay Region, California - Their geology and engineering properties, and their importance to comprehensive planning," by E.J. Helley and K.R. Lajoie, 1979), the subject site is underlain by coarse-grained alluvium (Qhac). This deposit is described as typically consisting of unconsolidated, moderately sorted, permeable sand and silt, at thicknesses ranging from less than 10 feet to as much as 50 feet. This unit is assumed to overlie late Pleistocene alluvial fan deposits at depth.

Based on the results of our subsurface studies, the site is underlain by fill materials to a depth of about 1 to 8 feet below grade. The fill is in turn underlain by alluvium to the maximum depth explored (33 feet below grade). Contrary to what the regional geologic maps indicate, the alluvium underlying the site

consists mainly of clay or silty clay interbedded with thin discontinuous beds or lenses of clayey or sandy silt, and silty sand.

DISCUSSION AND RECOMMENDATIONS

As reported previously, the Christy boxes for monitoring wells MW2 through MW5 were damaged during the tank removal and soil excavation activities conducted at the site. Additional soil excavation work is scheduled to be performed. KEI previously recommended that upon completion of the soil excavation activities, the wells be inspected and repaired (if necessary), the Christy boxes be repaired or replaced, and the wells be re-surveyed. Until the proposed additional excavation work is completed, the monthly monitoring and quarterly sampling program at this site has been temporarily discontinued per KEI's recommendation presented in KEI's report (KEI-P88-1204.QR12) dated November 25, 1992.

Based on the concentrations of TOG detected in the soil samples collected from exploratory borings EB7 and EB8 at depths of 15 and 5 feet below grade, respectively, KEI proposes to perform additional soil sampling following additional excavation in the vicinity of these sample locations. In addition, based on the analytical results of the soil samples collected during the previous excavation of the area in the vicinity of exploratory boring EB6, KEI also recommends additional excavation in the vicinity of previous sample points SWA, SWB, SWC, and SWD. This proposed excavation and sampling will be performed in conjunction with the excavation work proposed in KEI's work plan/proposal (KEI-P88-1204.P8) dated September 14, 1992. The additional excavation is proposed in order to remove contaminated soil and also to continue to define the vertical and lateral extent of soil contamination. An addendum to the above referenced work plan will be submitted for your review and consideration in the near future.

DISTRIBUTION

A copy of this report should be sent to the Alameda County Health Care Services Agency, to Mr. Dan Sullivan of the City of San Leandro, and to the Regional Water Quality Control Board, San Francisco Bay Region.

LIMITATIONS

Soil deposits and rock formations may vary in thickness, lithology, saturation, strength and other properties across any site. In addition, environmental changes, either naturally-occurring or artificially-induced, may cause changes in ground water levels and flow paths, thereby changing the extent and concentration of any contaminants. Our studies assume that the field and laboratory

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data are reasonably representative of the site as a whole, and assume that subsurface conditions are reasonably conducive to interpolation and extrapolation.

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

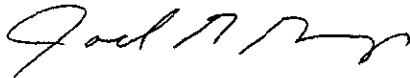
Should you have any questions on this report, please call us at (510) 602-5100.

Sincerely,

Kaprealian Engineering, Inc.



Thomas J. Berkins
Senior Environmental Engineer



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

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



Timothy R. Ross
Project Manager

/bp

Attachments: Tables 1 through 7
Location Map
Figures 1, 2 & 3
Boring Logs
Laboratory Analyses
Chain of Custody documentation

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TABLE 1
 SUMMARY OF LABORATORY ANALYSES
 SOIL

<u>Sample Number</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylenes</u>	<u>Ethyl-benzene</u>	<u>TOG</u>
(Collected on January 3, 1989)							
EB1(5)*	5.0	--	ND	0.05	ND	ND	ND
EB1(10)*	1.0	--	ND	ND	ND	ND	ND
EB1(15)*	1.0	--	ND	ND	ND	ND	ND
EB1(25)*	2.0	--	--	--	--	--	ND
EB2(10)	--	ND	ND	ND	ND	ND	--
EB2(15)	--	ND	ND	ND	ND	ND	--
EB2(20)	--	ND	ND	ND	ND	ND	--
EB2(25)	--	1.9	ND	ND	ND	ND	--
EB3(5)	--	ND	ND	ND	ND	ND	--
EB3(10)	--	ND	ND	ND	ND	ND	--
EB3(15)	--	2.7	ND	ND	ND	ND	--
EB3(20)	--	2.2	ND	ND	ND	ND	--
EB3(25)	--	ND	ND	ND	ND	ND	--
EB4(5)	--	ND	ND	ND	ND	ND	--
EB4(10)	--	ND	ND	ND	ND	ND	--
EB4(15)	--	ND	ND	ND	ND	ND	--
EB4(20)	--	ND	ND	ND	ND	ND	--
EB4(25)	--	ND	ND	ND	ND	ND	--
EB5(5)	--	ND	ND	ND	ND	ND	--
EB5(10)	--	ND	ND	ND	ND	ND	--
EB5(15)	--	2.0	ND	ND	ND	ND	--
EB5(20)	--	17	0.12	0.15	1.4	0.25	--
EB5(25)	--	3.9	ND	ND	0.17	ND	--
EB6(5)	10	1.8	ND	ND	ND	ND	7,800
EB6(10)	160	73	ND	ND	ND	ND	1,200
EB6(15)	40	17	0.065	ND	0.21	ND	900
EB6(25)	3.0	ND	ND	ND	ND	ND	130

TABLE 1 (Continued)

SUMMARY OF LABORATORY ANALYSES
 SOIL

<u>Sample Number</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylenes</u>	<u>Ethyl-benzene</u>	<u>TOG</u>
(Collected on March 22 and 23, 1993)							
EB7(5)*	ND	ND	0.018	ND	ND	ND	ND
EB7(10)*	1.3♦	3.2♦♦	ND	ND	ND	ND	140
EB7(15)*	6.4♦	17♦♦	ND	0.011	0.025	0.0090	340
EB7(19.5)*	3.5♦	4.4♦♦	ND	ND	ND	ND	80
EB7(23.5)*	ND	ND	ND	ND	ND	ND	60
EB8(5)**	12♦	50♦♦	0.020	0.040	0.045	0.062	1,700
EB8(10)**	1.2	ND	ND	ND	ND	ND	ND
EB8(15)**	7.6	5.0♦♦	ND	ND	0.0070	0.015	ND
EB8(20)**	ND	ND	ND	ND	ND	ND	ND
EB8(23)**	ND	ND	ND	ND	ND	ND	ND
EB9(5)**	ND	ND	ND	ND	ND	ND	ND
EB9(10)**	ND	2.0	ND	ND	ND	ND	ND
EB9(14.5)**	ND	ND	ND	ND	ND	ND	ND
EB10(5)*	ND	ND	ND	ND	ND	ND	ND
EB10(9.5)*	ND	1.6	ND	ND	ND	ND	ND
EB10(15)*	ND	ND	ND	ND	ND	ND	ND
EB10(20)*	ND	ND	ND	ND	ND	ND	ND
EB10(23)*	ND	ND	ND	ND	ND	ND	ND

NOTE: The soil samples were collected at the depths (below grade) indicated in the () of the respective sample number.

- * All EPA method 8010 constituents were non-detectable.
 - + TPH as Hydraulic Fluid was non-detectable, except in sample ~~EB8(5)~~ where it was detected at a concentration of 470 ppm.
 - ♦ Sequoia Analytical Laboratory reported that the hydrocarbons detected appeared to be a diesel and non-diesel mixture.
 - ♦♦ Sequoia Analytical Laboratory reported that the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.
- ND = Non-detectable.
 -- Indicates analysis was not performed.
 Results in parts per million (ppm), unless otherwise indicated.

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TABLE 2
 SUMMARY OF LABORATORY ANALYSES
 SOIL

<u>Sample Number</u>	<u>Depth (feet)</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylenes</u>	<u>Ethyl-benzene</u>	<u>TOG</u>
(Collected on April 17, 1989)								
MW1	5.0	ND	4.0	ND	ND	ND	ND	ND
MW1	10.0	ND	ND	ND	ND	ND	ND	ND
MW1	15.0	ND	ND	ND	ND	ND	ND	ND
MW1	17.0	ND	ND	ND	ND	ND	ND	31
MW2*	5.0	ND	ND	ND	ND	ND	ND	31
MW2*	10.0	ND	1.1	ND	ND	ND	ND	60
MW2*	15.0	ND	ND	ND	ND	ND	ND	71
MW3	5.0	ND	ND	ND	ND	ND	ND	ND
MW3	10.0	ND	1.1	ND	ND	ND	ND	ND
MW3	15.0	ND	1.2	ND	ND	ND	ND	32
MW3	17.0	ND	6.2	ND	0.21	0.42	ND	180
(Collected on August 16, 1989)								
MW4	5.0	--	3.3	ND	ND	0.11	ND	ND
MW4	10.0	--	ND	ND	ND	ND	ND	ND
MW4	15.0	--	ND	ND	ND	ND	ND	ND
MW4	19.0	--	ND	ND	ND	ND	ND	ND
MW5	5.0	--	ND	ND	ND	ND	ND	ND
MW5	10.0	--	ND	ND	ND	ND	ND	ND
MW5	15.0	--	ND	ND	ND	ND	ND	ND
MW5	20.0	--	20	ND	ND	ND	ND	ND
MW5	22.0	--	ND	ND	ND	ND	ND	ND
MW6	5.0	--	ND	ND	ND	ND	ND	ND
MW6	10.0	--	ND	ND	ND	ND	ND	ND
MW6	15.0	--	ND	ND	ND	ND	ND	ND
MW6	20.0	--	ND	ND	ND	ND	ND	ND

KEI-P88-1204.R8
April 26, 1993

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
SOIL

<u>Sample Number</u>	<u>Depth (feet)</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylenes</u>	<u>Ethyl-benzene</u>	<u>TOG</u>
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(Collected on February 11, 1992)

MW7 (5)	5.0	ND	ND	ND	ND	ND	ND	--
MW7 (9.5)	9.5	ND	ND	ND	ND	ND	ND	--
MW7 (15)	15.0	ND	ND	ND	ND	ND	ND	--
MW7 (16.5)	16.5	ND	ND	ND	ND	ND	ND	--

-- Indicates analysis not performed.

ND = Non-detectable.

* EPA method 8010 constituents were non-detectable.

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

KEI-P88-1204.R8
April 26, 1993

TABLE 3
SUMMARY OF LABORATORY ANALYSES
SOIL

<u>Sample Number</u>	<u>Depth (feet)</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylenes</u>	<u>Ethyl-benzene</u>	<u>TOG</u>
(Collected on May 11, 1989)								
SWA	16.5	21	--	--	--	--	--	850
SWB	16.5	18	--	--	--	--	--	580
SWC	16.5	26	--	--	--	--	--	680
SWD	16.5	16	--	--	--	--	--	170

-- Indicates analysis was not performed.

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

TABLE 4
 SUMMARY OF LABORATORY ANALYSES
~~WATER~~

<u>Sample Number</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylenes</u>	<u>Ethyl-benzene</u>	<u>TOG (ppm)</u>
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(Collected on January 3, 1989)

EB1	ND	--	ND	3.5	ND	ND	--
EB2	--	ND	8.2	7.4	3.3	0.67	--
EB3	--	ND	ND	ND	ND	ND	--
EB4	--	ND	ND	ND	ND	0.73	--
EB5	--	340	ND	ND	ND	0.63	--
EB6	--	1,500	1.5	1.4	12	8.1	--

Collected on March 22 and 23, 1993)

EB7*	320++	1,000♦	19	ND	ND	6.8	ND
EB8**	120++	510♦♦	ND	ND	ND	ND	ND
EB9**	480++	2,600	ND	5.1	8.8	8.3	ND
EB10*	ND	180♦♦	ND	ND	ND	ND	ND

* All EPA method 8010 constituents were non-detectable, except for ~~ethyl benzene~~ which was detected in samples EB9 and EB10 at concentrations of 12 ppb and 250 ppb, respectively. ~~toluene~~ was also detected in sample ~~EB9~~ at a concentration of ~~0.63 ppb~~.

+ TPH as hydraulic fluid was non-detectable.

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

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

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

ND = Non-detectable.

-- Indicates analysis was not performed.

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

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 April 26, 1993

TABLE 5
 SUMMARY OF LABORATORY ANALYSES
 WATER

<u>Date</u>	<u>Sample Well #</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylenes</u>	<u>Ethyl-benzene</u>	<u>TOG (ppm)</u>
10/30/92	MW1	NOT SAMPLED						
	MW2	--	1,200♦	ND	ND	ND	ND	--
	MW3	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT						
	MW4	WELL WAS INACCESSIBLE						
	MW5	NOT SAMPLED						
	MW6	--	ND	ND	ND	ND	ND	--
	MW7	--	ND	ND	ND	ND	ND	--
5/26/92	MW1	NOT SAMPLED						
	MW2	--	2,900	8.8	9.3	36	54	--
	MW3*	2,400,000	1,300,000	5,100	66,000	160,000	20,000	880
	MW4	ND	120	0.59	0.82	1.9	ND	--
	MW5	NOT SAMPLED						
	MW6	--	ND	ND	ND	0.65	ND	--
	MW7	--	ND	ND	ND	0.60	ND	--
2/27/92	MW1	NOT SAMPLED						
	MW2	--	330	12	12	93	10	--
	MW3	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT						
	MW4	ND	43	ND	1.0	2.5	0.37	--
	MW5	NOT SAMPLED						
	MW6	--	ND	3.2	ND	3.8	ND	--
	MW7	--	38	ND	0.97	4.0	0.69	--
11/19/91	MW1	NOT SAMPLED						
	MW2	--	220	2.5	8.4	14	2.4	--
	MW3	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT						
	MW4	ND	ND	ND	ND	ND	ND	--
	MW5	NOT SAMPLED						
	MW6	--	ND	ND	ND	ND	ND	--
8/15/91	MW1	NOT SAMPLED						
	MW2	--	ND	ND	ND	ND	ND	ND
	MW3	NOT SAMPLED DUE TO A TRACE OF FREE PRODUCT						
	MW4	ND	ND	ND	ND	ND	ND	ND
	MW5	NOT SAMPLED						
	MW6	--	ND	ND	ND	ND	ND	ND

KEI-P88-1204.R8
 April 26, 1993

TABLE 5 (Continued)
 SUMMARY OF LABORATORY ANALYSES
 WATER

<u>Date</u>	<u>Sample Well #</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylenes</u>	<u>Ethyl-benzene</u>	<u>TOG (ppm)</u>	
5/24/91	MW1	--	ND	ND	ND	ND	ND	ND	
	MW2	--	ND	1.5	ND	ND	ND	ND	
	MW3	2,000	23,000	940	3,400	2,600	590	ND	
	MW4	ND	ND	0.64	ND	ND	ND	ND	
	MW5	ND	ND	ND	ND	ND	ND	ND	
	MW6	--	ND	ND	ND	ND	ND	ND	
2/04/91	MW1	ND	ND	ND	0.31	0.62	ND	ND	
	MW2	ND	ND	ND	0.38	0.87	ND	ND	
	MW3	NOT SAMPLED DUE TO A TRACE OF FREE PRODUCT							
	MW4	ND	ND	ND	0.72	1.1	ND	ND	
	MW5	ND	ND	ND	0.35	ND	ND	ND	
	MW6	ND	ND	ND	ND	ND	ND	ND	
11/06/90	MW1	ND	ND	ND	ND	ND	ND	ND	
	MW2	ND	ND	ND	0.42	1.4	ND	ND	
	MW3	940	16,000	820	1,500	770	2,200	ND	
	MW4	ND	ND	ND	0.36	0.98	ND	ND	
	MW5	ND	ND	ND	ND	ND	ND	ND	
	MW6	ND	ND	1.6	0.35	ND	ND	ND	
8/09/90	MW1	ND	ND	ND	ND	ND	ND	ND	
	MW2	ND	ND	ND	ND	ND	ND	ND	
	MW3	500	1,900	56	140	140	31	ND	
	MW4	ND	ND	ND	ND	ND	ND	ND	
	MW5	ND	ND	ND	ND	ND	ND	ND	
	MW6	ND	ND	ND	ND	ND	ND	ND	
5/10/90	MW1	ND	ND	ND	ND	ND	ND	ND	
	MW2	ND	43	ND	1.0	ND	ND	ND	
	MW3	850	6,200	94	460	540	160	2.8	
	MW4	88	54	ND	2.0	0.37	ND	ND	
	MW5	83	ND	ND	ND	0.31	ND	ND	
	MW6	ND	ND	ND	1.2	ND	ND	ND	

TABLE 5 (Continued)

SUMMARY OF LABORATORY ANALYSES
 WATER

<u>Date</u>	<u>Sample Well #</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylenes</u>	<u>Ethyl-benzene</u>	<u>TOG (ppm)</u>
2/23/90	MW1	ND	ND	ND	ND	ND	ND	ND
	MW2	ND	44	ND	ND	ND	ND	ND
	MW3	350	ND	0.32	ND	ND	ND	1.3
	MW4	ND	ND	ND	ND	ND	ND	ND
	MW5	ND	ND	ND	ND	ND	ND	ND
	MW6	ND	ND	ND	ND	ND	ND	ND
11/21/89	MW1	ND	ND	ND	ND	ND	ND	8.9
	MW2	ND	48	ND	0.51	ND	ND	1.6
	MW3	110	1,900	ND	ND	ND	ND	3.8
	MW4	ND	ND	ND	ND	ND	ND	ND
	MW5	70	ND	ND	ND	ND	ND	ND
	MW6	ND	ND	ND	ND	ND	ND	ND
8/29/89	MW4	120	ND	ND	ND	ND	ND	ND
	MW5	100	ND	ND	0.94	ND	0.30	ND
	MW6	ND	ND	ND	ND	ND	ND	ND
8/10/89	MW1	ND	ND	ND	ND	ND	ND	ND
	MW2	ND	ND	ND	0.39	ND	ND	ND
	MW3	860	3,200	73	140	240	35	ND
4/25/89	MW1	100	ND	0.31	ND	ND	ND	--
	MW2	ND	32	0.35	ND	ND	ND	--
	MW3	5,700	56	ND	ND	0.49	0.31	--

-- Indicates analysis was not performed.

ND = Non-detectable.

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

* Free product was detected in well MW3; however, a water sample was collected and analyzed to determine if the product was predominantly hydrocarbon based.

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

KEI-P88-1204.R8

April 26, 1993

TABLE 6

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Sample Well #	<u>Tetrachloro-ethene</u>	<u>1,1-Dichloro-ethane</u>	<u>1,1,1-Trichloro-ethane</u>	<u>Chloro-methane</u>	<u>1,1-Dichlo-roethene</u>	<u>1,2-Dichlo-robenzene</u>
10/30/92	MW2	ND	ND	ND	ND	ND	ND
	MW3	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW4	WELL WAS INACCESSIBLE					
	MW6	1.2	ND	ND	ND	ND	ND
	MW7	2.2	ND	ND	ND	ND	ND
5/26/92	MW2	ND	ND	ND	ND	ND	ND
	MW3	ND	ND	ND	ND	ND	ND
	MW4	2.4	13	3.5	ND	0.83	ND
	MW6	1.1	ND	ND	ND	ND	1.7
	MW7	2.2	ND	ND	ND	ND	ND
2/27/92	MW2	ND	ND	ND	ND	ND	ND
	MW3	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW4	3.5	6.0	ND	ND	ND	ND
	MW6	1.5	ND	ND	ND	ND	1.6
	MW7	2.4	ND	ND	ND	ND	ND
11/19/91	MW2	ND	ND	ND	ND	ND	ND
	MW3	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW4	3.4	ND	ND	ND	ND	ND
	MW6	1.3	ND	ND	ND	ND	ND
8/15/91	MW2	ND	ND	ND	ND	ND	ND
	MW3	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW4	3.6	ND	ND	ND	ND	ND
	MW6	1.2	ND	ND	ND	ND	ND

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TABLE 6 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

<u>Date</u>	<u>Sample Well #</u>	<u>Tetrachloro-ethene</u>	<u>1,1-Dichloro-ethane</u>	<u>1,1,1-Trichloro-ethane</u>	<u>Chloro-methane</u>	<u>1,1-Dichloro-ethene</u>	<u>1,2-Dichloro-robenezene</u>
5/24/91	MW1	4.6	ND	ND	ND	ND	ND
	MW2	ND	ND	ND	ND	ND	ND
	MW3	ND	ND	ND	ND	ND	ND
	MW4	4.1	2.5	3.9	ND	ND	ND
	MW5	0.89	ND	ND	ND	ND	ND
	MW6	0.88	ND	ND	5.6	ND	ND
11/06/90	MW1	4.8	ND	ND	ND	ND	ND
	MW2	ND	ND	ND	ND	ND	ND
	MW3	ND	ND	ND	ND	ND	ND
	MW4	2.9	ND	ND	ND	ND	ND
	MW5	0.7	ND	ND	ND	ND	ND
	MW6	1.2	ND	ND	ND	ND	ND
4/25/89	MW1*	3.3	ND	ND	ND	ND	ND
	MW2	0.68	ND	ND	ND	ND	ND
	MW3	1.0	ND	ND	ND	ND	ND

NOTE: All EPA method 8010 constituents were non-detectable, except for those shown in the above table.

* Trichloroethene was detected at 0.55 ppb.

ND = Non-detectable.

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

TABLE 7
 SUMMARY OF LABORATORY ANALYSES
 SOIL

<u>Date</u>	<u>Sample</u>	<u>Depth (feet)</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylenes</u>	<u>Ethyl-benzene</u>	<u>TOG</u>
7/28/92	A1	14	--	23	0.078	0.093	0.16	0.061	--
	A2	14	--	ND	ND	ND	ND	ND	--
	B1	14	--	3.2	0.0056	ND	0.023	ND	--
	B2	14	--	8.4	0.0086	0.019	0.054	0.069	--
	P1	3.5	--	ND	0.013	ND	0.0060	ND	--
	P2	3.5	--	5.8	0.042	0.022	0.11	0.024	--
	P3	3.5	--	ND	ND	0.012	0.025	ND	--
	P4	3.5	--	ND	ND	ND	0.0067	ND	--
	P5	3.5	--	6.8	ND	ND	1.7	0.21	--
	P6	3.5	--	91	0.72	0.32	1.4	0.34	--
	W01*	10	210	150	0.61	3.3	12	1.8	3,000
	W01(10)	15	--	--	--	--	--	--	210
<u>Detection Limits</u>			1.0	1.0	0.005	0.005	0.005	0.005	30

-- Indicates analysis was not performed.

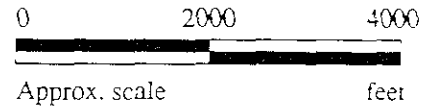
ND = Non-detectable.


* EPA method 8010 constituents were all non-detectable, except for 1-1-Dichloroethane at 120 ppb, tetrachloroethene at 86 ppb and 1,1,1-trichloroethane at 260 ppb. Cadmium, chromium, lead, nickel, and zinc were detected at concentrations of 0.95 ppm, 45 ppm, 5.8 pm, 42 ppm, and 40 ppm, respectively.

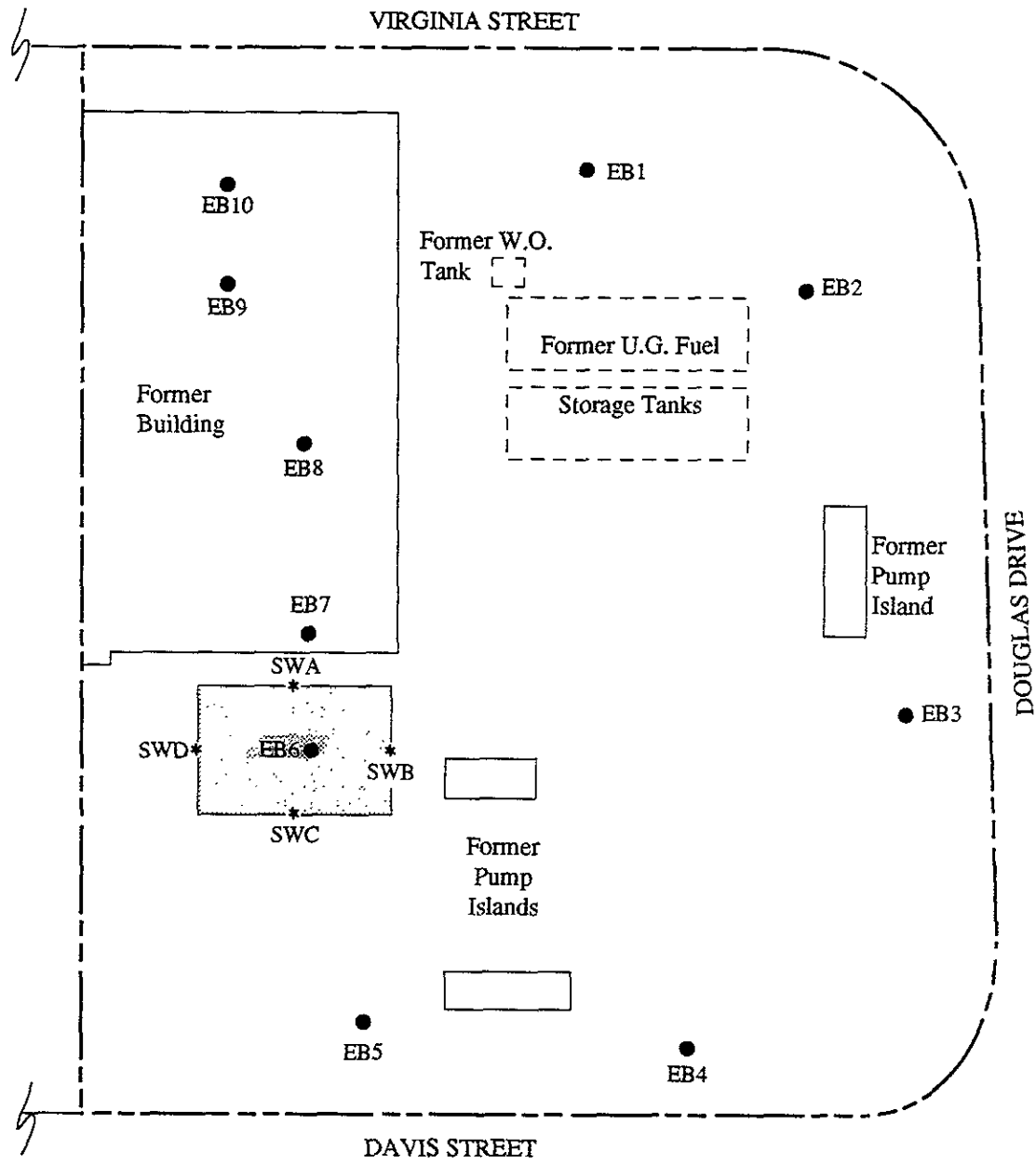
Results are in parts per million (ppm), unless otherwise indicated.



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

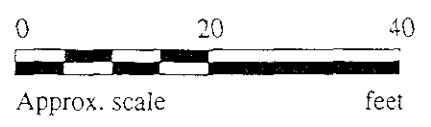


 <p>KAPREALIAN ENGINEERING INCORPORATED</p>	<p>FORMER UNOCAL S/S #2512 1300 DAVIS STREET SAN LEANDRO, CALIFORNIA</p>	<p>LOCATION MAP</p>
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LEGEND

- Exploratory boring
- * Sample point location
- Area of excavation

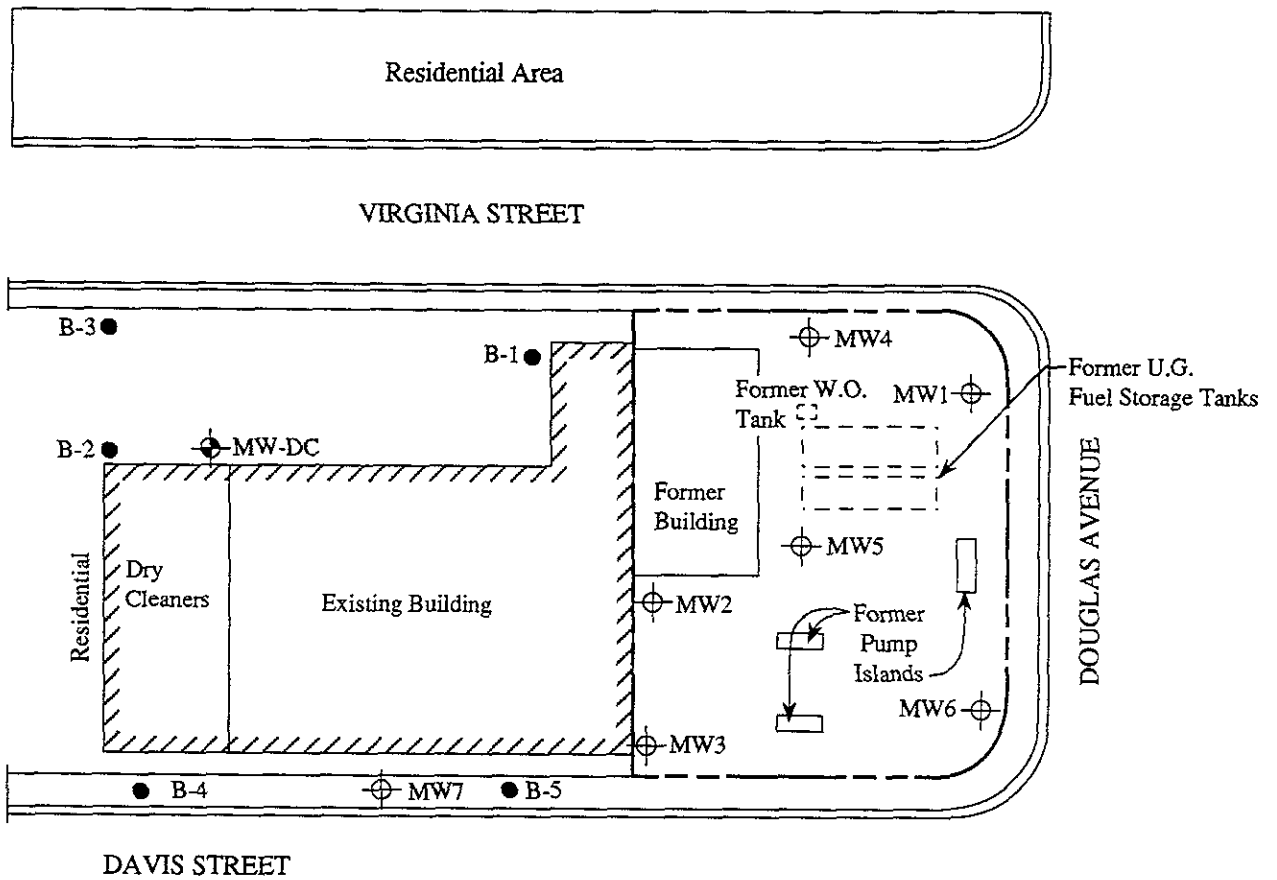


EXPLORATORY BORING AND SOIL SAMPLE LOCATION MAP



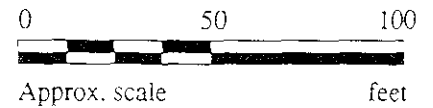
FORMER UNOCAL S/S #2512
1300 DAVIS STREET
SAN LEANDRO, CALIFORNIA

FIGURE
1



LEGEND

- ⊕ Existing Monitoring Well (by KEI)
- ⊙ Existing Monitoring Well (by others)
- Approximate location of existing off-site Soil Borings (by AGS)

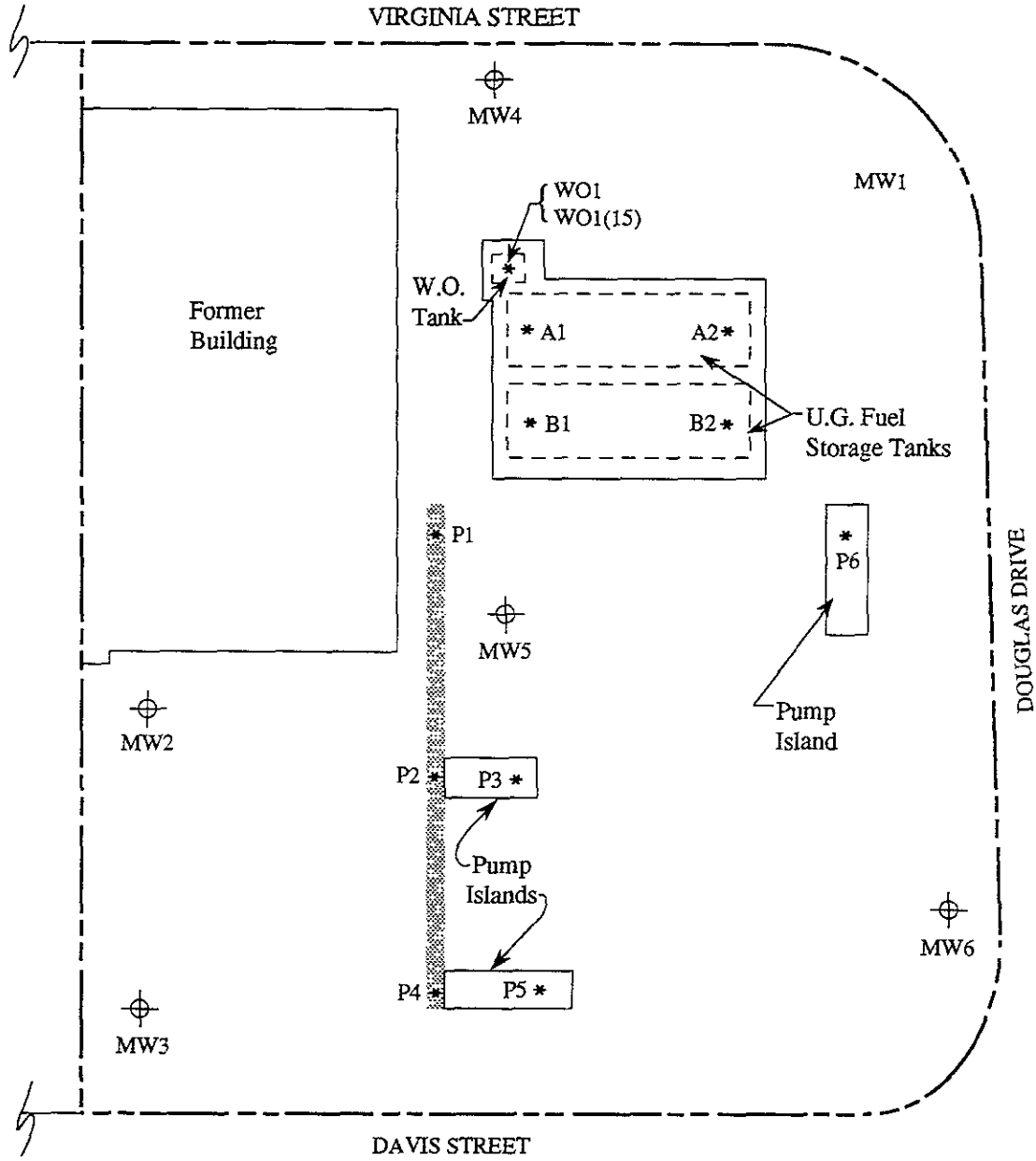


EXPLORATORY BORING AND MONITORING WELL LOCATION MAP



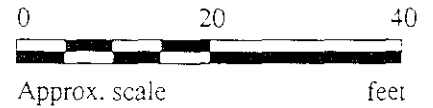
UNOCAL SERVICE STATION #2512
1300 DAVIS STREET
SAN LEANDRO, CA

FIGURE
2



LEGEND

- ⊕ Monitoring well
- * Sample point location



MONITORING WELL AND SOIL SAMPLE LOCATION MAP



UNOCAL SERVICE STATION #2512
1300 DAVIS STREET
SAN LEANDRO, CA

FIGURE
3

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

CLASSIFICATION CHART (Unified Soil Classification System)


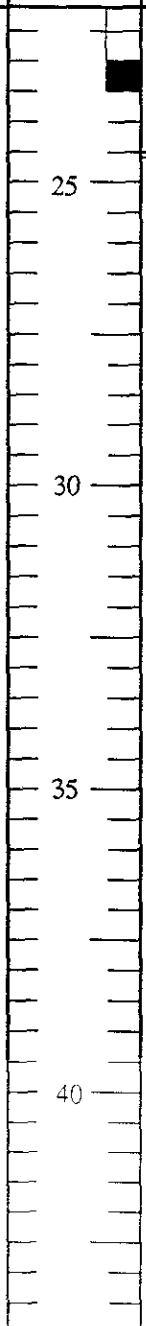
BORING LOG

Project No. KEI-P88-1204	Boring Diameter 8.5" Casing Diameter	Logged By JGG D.L. CEG 1633
Project Name Unocal S/S #2512 1300 Davis Street, San Leandro	Well Cover Elevation	Date Drilled 3/23/93
Boring No. EB7	Drilling Method Hollow-stem Auger	Drilling Company Woodward Drilling

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS	Description
		0		Silty sand with gravel and debris, medium dense, moist, very dark grayish brown (10YR 3/2), fill.
4/10/16		5	CL	Silty clay, estimated at 35-45% silt, stiff to very stiff, moist, very dark grayish brown (10YR 3/2) and black (10YR 2/1), mottled.
4/8/10		10	ML	Silt, estimated at 10-15% clay, stiff, moist, dark greenish gray (5GY 4/1).
			CL	Silty clay, stiff to very stiff, moist, very dark grayish brown (10YR 3/2), with root holes.
5/10/16				Silty clay, as above, except very dark grayish brown (10 YR 3/2) and dark brown (10YR 4/3), mottled, root holes discolored very dark gray (10YR 3/1).
4/6/10		15	ML	Clayey silt, stiff, moist, olive (5Y 4/4) and dark greenish gray (5GY 4/1).
6/11/12			CL	Silty clay, stiff to very stiff, moist, dark brown (10YR 4/4) and very dark gray (10YR 3/1), mottled.
4/8/13		20	ML	Clayey silt, stiff, moist, dark olive gray (5Y 3/2)
			CL	Clay, estimated at 10-15% silt, very stiff, moist dark, yellowish brown (10YR 3/4) and dark greenish gray (5GY 4/1).

BORING LOG

Project No. KEI-P88-1204	Boring Diameter 8.5" Casing Diameter	Logged By <i>JGG</i> D.L. <i>CEG 1633</i>
Project Name Unocal S/S #2512 1300 Davis Street, San Leandro	Well Cover Elevation	Date Drilled 3/23/93
Boring No. EB7	Drilling Method Hollow-stem Auger	Drilling Company Woodward Drilling

Penetration blows/6"	G. W. level	Depth (feet) Samples	Stratigraphy USCS	Description
8/12/17			CL	Clay, estimated at 10-15% silt, very stiff, moist, olive brown (2.5Y 4/4), with root holes.
TOTAL DEPTH: 24.5'				


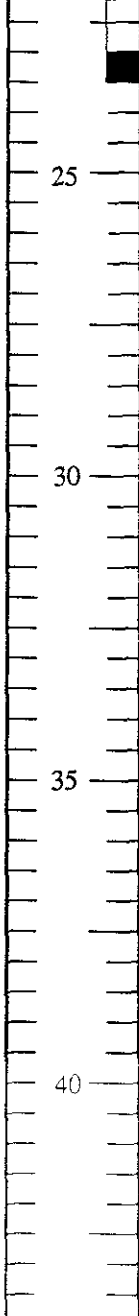

BORING LOG

Project No. KEI-P88-1204	Boring Diameter 8.5"	Logged By JGG D.L. CEG 1633
	Casing Diameter	
Project Name Unocal S/S #2512 1300 Davis Street, San Leandro	Well Cover Elevation	Date Drilled 3/22/93
Boring No. EB8	Drilling Method Hollow-stem Auger	Drilling Company Woodward Drilling

Penetration blows/6"	G. W. level	Depth (feet)	Samples	Stratigraphy USCS	Description
		0			Silty sand with gravel and debris, medium dense, moist, very dark grayish brown (10YR 3/2), fill.
13/50		5		CL-GM	Silty clay and clayey silt, stiff, moist, very dark grayish brown (10YR 3/2) to black (10YR 2/1), with debris, pocketed with silty gravel with sand (artificial fill).
7/13/21					----- Native Soil -----
4/8/13		10		CL	Silty clay, trace sand, stiff to very stiff, moist, very dark grayish brown (10YR 3/2), with very dark gray (10YR 3/1) discolored root holes.
5/8/15					Silty clay, as above, except olive brown (2.5Y 4/3) and dark greenish gray (5GY 4/1), mottled.
6/11/14		15		ML	Silt with clay, stiff, moist, olive (5Y 4/4) and dark greenish gray (5GY 4/1), mottled.
7/13/19				CL	Clay with silt, very stiff, moist, dark grayish brown (2.5Y 4/2) and dark olive gray (5Y 3/2), mottled.
6/9/15		20			Clay, as above, except olive brown (2.5Y 4/4) with dark greenish gray (5GY 4/3) discolored root holes.

BORING LOG

Project No. KEI-P88-1204	Boring Diameter 8.5"	Logged By <i>JGG</i> D.L. <i>CE61633</i>
	Casing Diameter	
Project Name Unocal S/S #2512 1300 Davis Street, San Leandro	Well Cover Elevation	Date Drilled 3/22/93
Boring No. EB8	Drilling Method Hollow-stem Auger	Drilling Company Woodward Drilling

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS		Description
7/11/16			CL		Silty clay, very stiff, moist, olive brown (2.5Y 4/4), with root holes.
TOTAL DEPTH: 24.5'					

BORING LOG

Project No. KEI-P88-1204	Boring Diameter 8.5"	Logged By JGG D.L. CEG 1633
	Casing Diameter	
Project Name Unocal S/S #2512 1300 Davis Street, San Leandro	Well Cover Elevation	Date Drilled 3/22/93
Boring No. EB9	Drilling Method Hollow-stem Auger	Drilling Company Woodward Drilling

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati-graphy USCS	Description
		0		Silty sand and silty clay, with gravel and debris (fill).
5/7/10		5	ML	Clayey silt, firm to stiff, moist, very dark grayish brown (10YR 3/2) grading to dark grayish brown (10YR 4/2).
			CL	Silty clay, very stiff, moist, very dark grayish brown (10YR 3/2).
6/9/11		10	ML	Sandy silt, trace clay, stiff, moist to very moist, sand is fine-grained, dark grayish brown (2.5Y 4/2).
			CL	Silty clay, trace sand, very stiff, moist, very dark, grayish brown (10YR 3/2) and black (10YR 2/1), mottled.
4/7/9		15	SM	Silty sand, estimated at 20-25% silt, medium dense, moist to wet, dark greenish gray (5GY 4/1), sand is fine to medium-grained.
			CL	Clay, estimated 10-15% silt, very stiff, moist, olive brown (2.5Y 4/4) and dark greenish gray (5GY 4/1), mottled, with root holes.
5/10/16		20		Clay, as above.
				TOTAL DEPTH: 20.5'



BORING LOG

Project No. KEI-P88-1204	Boring Diameter 8.5" Casing Diameter	Logged By D.L.
Project Name Unocal S/S #2512 1300 Davis Street, San Leandro	Well Cover Elevation	Date Drilled 3/22/93
Boring No. EB10	Drilling Method Hollow-stem Auger	Drilling Company Woodward Drilling

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS	Description
		0		Silty sand with gravel and debris, medium dense, moist, very dark grayish brown (10YR 3/2), fill.
		5	ML	Clayey silt, estimated at 30-40% clay, stiff, moist, very dark grayish brown (10YR 3/2).
7/9/15		10	CL	Silty clay, estimated at 35-45% silt, very stiff, moist, very dark grayish brown (10YR 3/2).
		10	SM	Silty sand, estimated at 15-20% silt, medium dense, wet, olive brown (2.5Y 4/4), sand is fine to medium-grained.
5/8/10		15	CL	Silty clay, estimated at 5-10% sand, very stiff, moist, very dark grayish brown (10YR 3/2).
		15	ML	Silt with clay, stiff, moist, olive (5Y 4/4) and dark greenish gray (5GY 4/1), mottled.
9/12/17		20	CL	Clay with silt, very stiff, moist, olive brown (2.5Y 4/4) and dark greenish gray (5GY 4/1), mottled.
8/10/16		20	CL	Clay, estimated 10-15% silt, very stiff, moist, olive brown (2.5Y 4/3), with root holes.

BORING LOG

Project No. KEI-P88-1204		Boring Diameter 8.5" Casing Diameter		Logged By D.L.	
Project Name Unocal S/S #2512 1300 Davis Street, San Leandro		Well Cover Elevation		Date Drilled 3/22/93	
Boring No. EB10		Drilling Method Hollow-stem Auger		Drilling Company Woodward Drilling	
Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS	Description	
8/10/12			CL		Clay, estimated at 10-15% silt, very stiff, moist, olive brown (2.5Y 4/3), with root holes.
			ML		Silt with clay, stiff, moist to very moist, olive brown (2.5Y 4/4).
		25		TOTAL DEPTH: 24.5'	
		30			
		35			
		40			



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Attention: Mardo Kaprealian, P.E.

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Matrix: Soil
Analysis Method: EPA 5030/8015/8020
First Sample #: 303-0921

Sampled: 3/22 & 3/23/93
Received: Mar 24, 1993
Reported: Apr 7, 1993

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 303-0921 EB7(5)	Sample I.D. 303-0922 EB7(10)	Sample I.D. 303-0923 EB7(15)	Sample I.D. 303-0924 EB7(19.5)	Sample I.D. 303-0925 EB7(23.5)	Sample I.D. 303-0926 EB8(5)
Purgeable Hydrocarbons	1.0	N.D.	3.2	17	4.4	N.D.	50
Benzene	0.005	0.018	N.D.	N.D.	N.D.	N.D.	0.020
Toluene	0.005	N.D.	N.D.	0.011	N.D.	N.D.	0.040
Ethyl Benzene	0.005	N.D.	N.D.	0.0090	N.D.	N.D.	0.062
Total Xylenes	0.005	N.D.	N.D.	0.025	N.D.	N.D.	0.045

Chromatogram Pattern: -- Gasoline & Non Gasoline Mixture (>C9) Gasoline & Non Gasoline Mixture (>C9) Gasoline & Non Gasoline Mixture (>C9) -- Gasoline & Non Gasoline Mixture (>C9)

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Analyzed:	3/31/93	3/31/93	3/31/93	3/31/93	3/31/93	3/31/93
Instrument Identification:	GCHP1	GCHP1	GCHP1	GCHP1	GCHP1	GCHP1
Surrogate Recovery, %: (QC Limits = 70-130%)	103	103	75	104	100	96

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

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Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Matrix: Soil
Analysis Method: EPA 5030/8015/8020
First Sample #: 303-0927

Sampled: Mar 22, 1993
Received: Mar 24, 1993
Reported: Apr 7, 1993

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 303-0927 EB8(10)	Sample I.D. 303-0928 EB8(15)	Sample I.D. 303-0929 EB8(20)	Sample I.D. 303-0930 EB8(23)	Sample I.D. 303-0931 EB9(5)	Sample I.D. 303-0932 EB9(10)
Purgeable Hydrocarbons	1.0	N.D.	5.0	N.D.	N.D.	N.D.	2.0
Benzene	0.005	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	0.005	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.005	N.D.	0.015	N.D.	N.D.	N.D.	N.D.
Total Xylenes	0.005	N.D.	0.0070	N.D.	N.D.	N.D.	N.D.
Chromatogram Pattern:		--	Gasoline & Non Gasoline Mixture (>C9)	--	--	--	Gasoline

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Analyzed:	3/31/93	3/31/93	3/31/93	3/31/93	3/31/93	3/31/93
Instrument Identification:	GCHP1	GCHP1	GCHP1	GCHP1	GCHP1	GCHP1
Surrogate Recovery, %: (QC Limits = 70-130%)	105	94	102	106	108	105

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

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Sample Matrix: Soil
Analysis Method: EPA 5030/8015/8020
First Sample #: 303-0933

Sampled: Mar 22, 1993
Received: Mar 24, 1993
Reported: Apr 7, 1993

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 303-0933 EB9(14.5)	Sample I.D. 303-0934 EB10(5)	Sample I.D. 303-0935 EB10(9.5)	Sample I.D. 303-0936 EB10(15)	Sample I.D. 303-0937 EB10(20)	Sample I.D. 303-0938 EB10(23)
Purgeable Hydrocarbons	1.0	N.D.	N.D.	1.6	N.D.	N.D.	N.D.
Benzene	0.005	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	0.005	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.005	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Total Xylenes	0.005	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chromatogram Pattern:		--	--	Gasoline	--	--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Analyzed:	3/31/93	3/31/93	3/31/93	3/31/93	3/31/93	3/31/93
Instrument Identification:	GCHP1	GCHP1	GCHP1	GCHP1	GCHP1	GCHP1
Surrogate Recovery, %: (QC Limits = 70-130%)	101	102	103	108	109	108

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

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Attention: Mardo Kaprealian, P.E.

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Matrix: Soil
Analysis Method: EPA 5030/8015/8020
First Sample #: Matrix Blank

Sampled: Mar 22, 1993
Received: Mar 24, 1993
Reported: Apr 7, 1993

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. Matrix Blank
Purgeable Hydrocarbons	1.0	
Benzene	0.005	
Toluene	0.005	
Ethyl Benzene	0.005	
Total Xylenes	0.005	

Chromatogram Pattern:

Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Analyzed:	3/31/93
Instrument Identification:	GCHP-1
Surrogate Recovery, %: (QC Limits = 70-130%)	102

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

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Kaprealian Engineering, Inc.	Client Project ID: Unocal #2512, 1300 Davis St., San Leandro	Sampled: 3/22 & 3/23/93
2401 Stanwell Drive, Suite 400	Sample Matrix: Soil	Received: Mar 24, 1993
Concord, CA 94520	Analysis Method: EPA 3550/8015	Reported: Apr 7, 1993
Attention: Mardo Kaprealian, P.E.	First Sample #: 303-0921	

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit mg/kg	Sample I.D. 303-0921 EB7(5)	Sample I.D. 303-0922 EB7(10)	Sample I.D. 303-0923 EB7(15)	Sample I.D. 303-0924 EB7(19.5)	Sample I.D. 303-0925 EB7(23.5)	Sample I.D. 303-0926 EB8(5)
Extractable Hydrocarbons	1.0	N.D.	1.3	6.4	3.5	N.D.	12
Chromatogram Pattern:	--	--	Diesel & Non Diesel Mixture (<C14; >C20)	Diesel & Non Diesel Mixture (<C14; >C20)	Diesel & Non Diesel Mixture (<C14; >C20)	--	Diesel & Non Diesel Mixture (<C14; >C20)

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	5.0
Date Extracted:	3/30/93	3/30/93	3/30/93	3/30/93	3/30/93	3/30/93
Date Analyzed:	4/2/93	4/2/93	4/2/93	4/2/93	4/1/93	4/2/93
Instrument Identification:	HP-3B	HP-3B	HP-3B	HP-3B	HP-3B	HP-3B

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

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Kaprealian Engineering, Inc. 2401 Stanwell Drive, Suite 400 Concord, CA 94520 Attention: Mardo Kaprealian, P.E.	Client Project ID: Unocal #2512, 1300 Davis St., San Leandro Sample Matrix: Soil Analysis Method: EPA 3550/8015 First Sample #: 303-0927	Sampled: Mar 22, 1993 Received: Mar 24, 1993 Reported: Apr 7, 1993
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TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit mg/kg	Sample I.D. 303-0927 EB8(10)	Sample I.D. 303-0928 EB8(15)	Sample I.D. 303-0929 EB8(20)	Sample I.D. 303-0930 EB8(23)	Sample I.D. 303-0931 EB9(5)	Sample I.D. 303-0932 EB9(10)
Extractable Hydrocarbons	1.0	1.2	7.6	N.D.	N.D.	N.D.	N.D.
Chromatogram Pattern:		Diesel	Diesel	--	--	--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Extracted:	3/30/93	3/30/93	3/30/93	3/30/93	3/30/93	3/30/93
Date Analyzed:	4/2/93	4/1/93	4/1/93	4/1/93	4/1/93	4/1/93
Instrument Identification:	HP-3B	HP-3B	HP-3B	HP-3B	HP-3B	HP-3B

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

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Sample Matrix: Soil
Analysis Method: EPA 3550/8015
First Sample #: 303-0933

Sampled: Mar 22, 1993
Received: Mar 24, 1993
Reported: Apr 7, 1993

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit mg/kg	Sample I.D. 303-0933 EB9(14.5)	Sample I.D. 303-0934 EB10(5)	Sample I.D. 303-0935 EB10(9.5)	Sample I.D. 303-0936 EB10(15)	Sample I.D. 303-0937 EB10(20)	Sample I.D. 303-0938 EB10(23)
Extractable Hydrocarbons	1.0	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chromatogram Pattern:		--	--	--	--	--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Extracted:	3/30/93	3/30/93	3/30/93	3/30/93	3/30/93	3/30/93
Date Analyzed:	4/1/93	4/2/93	4/1/93	4/1/93	4/1/93	4/1/93
Instrument Identification:	HP-3B	HP-3B	HP-3B	HP-3B	HP-3B	HP-3B

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

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Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Matrix: Soil
Analysis Method: EPA 3550/8015
First Sample #: Matrix Blank

Sampled: 3/22 & 3/23/93
Received: Mar 24, 1993
Reported: Apr 7, 1993

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit mg/kg	Sample I.D. Matrix Blank
Extractable Hydrocarbons	1.0	

Chromatogram Pattern:

Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Extracted:	3/30/93
Date Analyzed:	4/1/93
Instrument Identification:	HP-3A

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

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Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Matrix: Soil
Analysis Method: EPA 3550/8015
First Sample #: 303-0926

Sampled: Mar 22, 1993
Received: Mar 24, 1993
Reported: Apr 7, 1993

Attention: Mardo Kaprealian, P.E.

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS as HYDRAULIC FLUID

Analyte	Reporting Limit mg/kg	Sample I.D. 303-0926 EB8(5)	Sample I.D. 303-0927 EB8(10)	Sample I.D. 303-0928 EB8(15)	Sample I.D. 303-0929 EB8(20)	Sample I.D. 303-0930 EB8(23)	Sample I.D. 303-0931 EB9(5)
Extractable Hydrocarbons	10	470	N.D.	N.D.	N.D.	N.D.	N.D.
Chromatogram Pattern:		Hydraulic Fluid	--	--	--	--	--

Quality Control Data

Report Limit Multiplication Factor:	5.0	1.0	1.0	1.0	1.0	1.0
Date Extracted:	3/30/93	3/30/93	3/30/93	3/30/93	3/30/93	3/30/93
Date Analyzed:	4/5/93	4/5/93	4/5/93	4/5/93	4/5/93	4/5/93
Instrument Identification:	HP-3A	HP-3A	HP-3A	HP-3A	HP-3B	HP-3B

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

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Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Matrix: Soil
Analysis Method: EPA 3550/8015
First Sample #: 303-0932

Sampled: Mar 22, 1993
Received: Mar 24, 1993
Reported: Apr 7, 1993

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS as HYDRAULIC FLUID

Analyte	Reporting Limit mg/kg	Sample I.D. 303-0932 EB9(10)	Sample I.D. 303-0933 EB9(14.5)
Extractable Hydrocarbons	10	N.D.	N.D.

Chromatogram Pattern: -- --

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0
Date Extracted:	3/30/93	3/30/93
Date Analyzed:	4/5/93	4/5/93
Instrument Identification:	HP-3B	HP-3B

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

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Attention: Mardo Kaprealian, P.E.

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Matrix Descript: Soil
Analysis Method: SM 5520 E&F (Gravimetric)
First Sample #: 303-0921

Sampled: 3/22 & 3/23/93
Received: Mar 24, 1993
Extracted: Mar 25, 1993
Analyzed: Mar 29, 1993
Reported: Apr 7, 1993

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/kg (ppm)
303-0921	EB7(5)	N.D.
303-0922	EB7(10)	140
303-0923	EB7(15)	340
303-0924	EB7(19.5)	80
303-0925	EB7(23.5)	60
303-0926	EB8(5)	1,700
303-0927	EB8(10)	N.D.
303-0928	EB8(15)	N.D.
303-0929	EB8(20)	N.D.
303-0930	EB8(23)	N.D.

Detection Limits:

50

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

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Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Matrix Descript: Soil
Analysis Method: SM 5520 E&F (Gravimetric)
First Sample #: 303-0931

Sampled: Mar 22, 1993
Received: Mar 24, 1993
Extracted: Mar 25, 1993
Analyzed: Mar 29, 1993
Reported: Apr 7, 1993

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/kg (ppm)
303-0931	EB9(5)	N.D.
303-0932	EB9(10)	N.D.
303-0933	EB9(14.5)	N.D.
303-0934	EB10(5)	N.D.
303-0935	EB10(9.5)	N.D.
303-0936	EB10(15)	N.D.
303-0937	EB10(20)	N.D.
303-0938	EB10(23)	N.D.

Detection Limits:	50
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Analyses reported as N.D. were not present above the stated limit of detection

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Scott A. Chiefo
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2401 Stanwell Drive, Suite 400
Concord, CA 94520
Attention: Mardo Kaprealian, P.E.

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Descript: Soil, EB7(5)
Analysis Method: EPA 5030/8010
Lab Number: 303-0921

Sampled: Mar 23, 1993
Received: Mar 24, 1993
Analyzed: Apr 5, 1993
Reported: Apr 7, 1993

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.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.
Chlorobenzene.....	5.0	N.D.
Chloroethane.....	10	N.D.
2-Chloroethylvinyl ether.....	10	N.D.
Chloroform.....	5.0	N.D.
Chloromethane.....	10	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.....	10	N.D.

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

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Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Descript: Soil, EB7(10)
Analysis Method: EPA 5030/8010
Lab Number: 303-0922

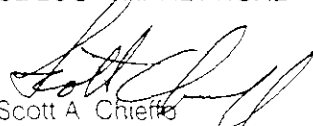
Sampled: Mar 23, 1993
Received: Mar 24, 1993
Analyzed: Apr 5, 1993
Reported: Apr 7, 1993

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.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.
Chlorobenzene.....	5.0	N.D.
Chloroethane.....	10	N.D.
2-Chloroethylvinyl ether.....	10	N.D.
Chloroform.....	5.0	N.D.
Chloromethane.....	10	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.....	10	N.D.

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

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Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Descript: Soil, EB7(15)
Analysis Method: EPA 5030/8010
Lab Number: 303-0923

Sampled: Mar 23, 1993
Received: Mar 24, 1993
Analyzed: Apr 5, 1993
Reported: Apr 7, 1993

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.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.
Chlorobenzene.....	5.0	N.D.
Chloroethane.....	10	N.D.
2-Chloroethylvinyl ether.....	10	N.D.
Chloroform.....	5.0	N.D.
Chloromethane.....	10	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.....	10	N.D.

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

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Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Descript: Soil, EB7(19.5)
Analysis Method: EPA 5030/8010
Lab Number: 303-0924

Sampled: Mar 23, 1993
Received: Mar 24, 1993
Analyzed: Apr 5, 1993
Reported: Apr 7, 1993

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.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.
Chlorobenzene.....	5.0	N.D.
Chloroethane.....	10	N.D.
2-Chloroethylvinyl ether.....	10	N.D.
Chloroform.....	5.0	N.D.
Chloromethane.....	10	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.....	10	N.D.

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

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Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Descript: Soil, EB7(23.5)
Analysis Method: EPA 5030/8010
Lab Number: 303-0925

Sampled: Mar 23, 1993
Received: Mar 24, 1993
Analyzed: Apr 5, 1993
Reported: Apr 7, 1993

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.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.
Chlorobenzene.....	5.0	N.D.
Chloroethane.....	10	N.D.
2-Chloroethylvinyl ether.....	10	N.D.
Chloroform.....	5.0	N.D.
Chloromethane.....	10	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.....	10	N.D.

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

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Attention: Mardo Kaprealian, P.E.

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Descript: Soil, EB8(5)
Analysis Method: EPA 5030/8010
Lab Number: 303-0926

Sampled: Mar 22, 1993
Received: Mar 24, 1993
Analyzed: Apr 5, 1993
Reported: Apr 7, 1993

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.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.
Chlorobenzene.....	5.0	N.D.
Chloroethane.....	10	N.D.
2-Chloroethylvinyl ether.....	10	N.D.
Chloroform.....	5.0	N.D.
Chloromethane.....	10	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.....	10	N.D.

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

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Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Descript: Soil, EB8(10)
Analysis Method: EPA 5030/8010
Lab Number: 303-0927

Sampled: Mar 22, 1993
Received: Mar 24, 1993
Analyzed: Apr 3, 1993
Reported: Apr 7, 1993

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.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.
Chlorobenzene.....	5.0	N.D.
Chloroethane.....	10	N.D.
2-Chloroethylvinyl ether.....	10	N.D.
Chloroform.....	5.0	N.D.
Chloromethane.....	10	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.....	10	N.D.

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

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Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Descript: Soil, EB8(15)
Analysis Method: EPA 5030/8010
Lab Number: 303-0928

Sampled: Mar 22, 1993
Received: Mar 24, 1993
Analyzed: Apr 5, 1993
Reported: Apr 7, 1993

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.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.
Chlorobenzene.....	5.0	N.D.
Chloroethane.....	10	N.D.
2-Chloroethylvinyl ether.....	10	N.D.
Chloroform.....	5.0	N.D.
Chloromethane.....	10	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.....	10	N.D.

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

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Attention: Mardo Kaprealian, P.E.

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Descript: Soil, EB8(20)
Analysis Method: EPA 5030/8010
Lab Number: 303-0929

Sampled: Mar 22, 1993
Received: Mar 24, 1993
Analyzed: Apr 5, 1993
Reported: Apr 7, 1993

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.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.
Chlorobenzene.....	5.0	N.D.
Chloroethane.....	10	N.D.
2-Chloroethylvinyl ether.....	10	N.D.
Chloroform.....	5.0	N.D.
Chloromethane.....	10	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.....	10	N.D.

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

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Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Descript: Soil, EB8(23)
Analysis Method: EPA 5030/8010
Lab Number: 303-0930

Sampled: Mar 22, 1993
Received: Mar 24, 1993
Analyzed: Apr 6, 1993
Reported: Apr 7, 1993

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.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.
Chlorobenzene.....	5.0	N.D.
Chloroethane.....	10	N.D.
2-Chloroethylvinyl ether.....	10	N.D.
Chloroform.....	5.0	N.D.
Chloromethane.....	10	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.....	10	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

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(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 #2512, 1300 Davis St., San Leandro
Sample Descript: Soil, EB9(5)
Analysis Method: EPA 5030/8010
Lab Number: 303-0931

Sampled: Mar 22, 1993
Received: Mar 24, 1993
Analyzed: Apr 5, 1993
Reported: Apr 7, 1993

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.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.
Chlorobenzene.....	5.0	N.D.
Chloroethane.....	10	N.D.
2-Chloroethylvinyl ether.....	10	N.D.
Chloroform.....	5.0	N.D.
Chloromethane.....	10	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.....	10	N.D.

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

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

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Descript: Soil, EB9(10)
Analysis Method: EPA 5030/8010
Lab Number: 303-0932

Sampled: Mar 22, 1993
Received: Mar 24, 1993
Analyzed: Apr 5, 1993
Reported: Apr 7, 1993

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.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.
Chlorobenzene.....	5.0	N.D.
Chloroethane.....	10	N.D.
2-Chloroethylvinyl ether.....	10	N.D.
Chloroform.....	5.0	N.D.
Chloromethane.....	10	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.....	10	N.D.

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

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Kaprealian Engineering, Inc.
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Concord, CA 94520
Attention: Mardo Kaprealian, P.E.

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Descript: Soil, EB9(14.5)
Analysis Method: EPA 5030/8010
Lab Number: 303-0933

Sampled: Mar 22, 1993
Received: Mar 24, 1993
Analyzed: Apr 3, 1993
Reported: Apr 7, 1993

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.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.
Chlorobenzene.....	5.0	N.D.
Chloroethane.....	10	N.D.
2-Chloroethylvinyl ether.....	10	N.D.
Chloroform.....	5.0	N.D.
Chloromethane.....	10	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.....	10	N.D.

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

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

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Descript: Soil, EB10(5)
Analysis Method: EPA 5030/8010
Lab Number: 303-0934

Sampled: Mar 22, 1993
Received: Mar 24, 1993
Analyzed: Apr 3, 1993
Reported: Apr 7, 1993

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.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.
Chlorobenzene.....	5.0	N.D.
Chloroethane.....	10	N.D.
2-Chloroethylvinyl ether.....	10	N.D.
Chloroform.....	5.0	N.D.
Chloromethane.....	10	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-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.....	10	N.D.

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

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Attention: Mardo Kaprealian, P.E.

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Descript: Soil, EB10(9.5)
Analysis Method: EPA 5030/8010
Lab Number: 303-0935


Sampled: Mar 22, 1993
Received: Mar 24, 1993
Analyzed: Apr 3, 1993
Reported: Apr 7, 1993

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.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.
Chlorobenzene.....	5.0	N.D.
Chloroethane.....	10	N.D.
2-Chloroethylvinyl ether.....	10	N.D.
Chloroform.....	5.0	N.D.
Chloromethane.....	10	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.....	10	N.D.

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

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Concord, CA 94520
Attention: Mardo Kaprealian, P.E.

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Descript: Soil, EB10(15)
Analysis Method: EPA 5030/8010
Lab Number: 303-0936

Sampled: Mar 22, 1993
Received: Mar 24, 1993
Analyzed: Apr 3, 1993
Reported: Apr 7, 1993

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.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.
Chlorobenzene.....	5.0	N.D.
Chloroethane.....	10	N.D.
2-Chloroethylvinyl ether.....	10	N.D.
Chloroform.....	5.0	N.D.
Chloromethane.....	10	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.....	10	N.D.

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

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

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Descript: Soil, EB10(20)
Analysis Method: EPA 5030/8010
Lab Number: 303-0937

Sampled: Mar 22, 1993
Received: Mar 24, 1993
Analyzed: Apr 3, 1993
Reported: Apr 7, 1993

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.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.
Chlorobenzene.....	5.0	N.D.
Chloroethane.....	10	N.D.
2-Chloroethylvinyl ether.....	10	N.D.
Chloroform.....	5.0	N.D.
Chloromethane.....	10	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.....	10	N.D.

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

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Concord, CA 94520
Attention: Mardo Kaprealian, P.E.

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Descript: Soil, EB10(23)
Analysis Method: EPA 5030/8010
Lab Number: 303-0938

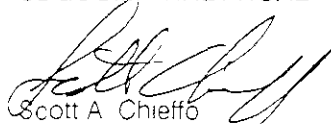
Sampled: Mar 22, 1993
Received: Mar 24, 1993
Analyzed: Apr 3, 1993
Reported: Apr 7, 1993

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.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.
Chlorobenzene.....	5.0	N.D.
Chloroethane.....	10	N.D.
2-Chloroethylvinyl ether.....	10	N.D.
Chloroform.....	5.0	N.D.
Chloromethane.....	10	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.....	10	N.D.

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

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Concord, CA 94520

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro

Attention: Mardo Kaprealian, P.E. QC Sample Group: 3030921-938

Reported: Apr 7, 1993

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes
		EPA	EPA	EPA
Method:	8015/8020	8015/8020	8015/8020	8015/8020
Analyst:	P.S.M.	P.S.M.	P.S.M.	P.S.M.
Reporting Units:	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Date Analyzed:	Mar 31, 1993	Mar 31, 1993	Mar 31, 1993	Mar 31, 1993
QC Sample #:	303-0699	303-0699	303-0699	303-0699
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	0.20	0.20	0.20	0.40
Conc. Matrix Spike:	0.24	0.24	0.25	0.49
Matrix Spike % Recovery:	120	120	125	123
Conc. Matrix Spike Dup.:	0.25	0.25	0.26	0.50
Matrix Spike Duplicate % Recovery:	125	125	130	125
Relative % Difference:	4.1	4.1	3.9	2.0

Laboratory blank contained the following analytes: None Detected

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Scott A. Chieffo
Project Manager

% Recovery	$\frac{\text{Conc of M.S.} - \text{Conc of Sample}}{\text{Spike Conc. Added}} \times 100$
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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Concord, CA 94520
Attention: Mardo Kaprealian, P.E.

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Matrix: Water

QC Sample Group 3030921-938

Reported: Apr 7, 1993

QUALITY CONTROL DATA REPORT

ANALYTE	Diesel	Oil & Grease
Method:	EPA 8015	SM 5520
Analyst:	K.Wimer	D.Newcomb
Conc. Spiked:	10	100
Units:	mg/Kg	mg/Kg
LCS Batch#:	BLK033093	BLK032693
Date Prepared:	4/1/93	3/26/93
Date Analyzed:	4/1/93	3/29/93
Instrument I.D.#:	HP-3A	
LCS % Recovery:	89	98
Control Limits:	80-120	80-120
MS/MSD Batch #:	3030939	3031012
Date Prepared:	3/30/93	3/26/93
Date Analyzed:	4/1/93	3/29/93
Instrument I.D.#:	HP-3A	
Matrix Spike % Recovery:	84	86
Matrix Spike Duplicate % Recovery:	89	86
Relative % Difference:	5.8	0.0

Laboratory Blank contained the following analytes: None detected

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Scott A. Chieffo
Project Manager

Please Note
The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation and analytical methods employed for the samples. The LCS % recovery data is used for validation of sample batch results. Due to matrix effects, the QC limits for MS/MSDs are advisory only and are not used to accept or reject batch results.



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Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Matrix: Water

Attention: Mardo Kaprealian, P.E. QC Sample Goup: 3030921-938

Reported: Apr 7, 1993

QUALITY CONTROL DATA REPORT

ANALYTE	1,1-Dichloroethene	Trichloroethene	Chloro-benzene
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Method:	EPA 8010	EPA 8010	EPA 8010
Analyst:	M.Nguyen	M.Nguyen	M.Nguyen
Conc. Spiked:	10	10	10
Units:	µg/Kg	µg/Kg	µg/Kg
LCS Batch#:	LCS040393	LCS040393	LCS040393
Date Prepared:	4/3/93	4/3/93	4/3/93
Date Analyzed:	4/3/93	4/3/93	4/3/93
Instrument I.D.#:	HP5890/1	HP5890/1	HP5890/1
LCS % Recovery:	95	90	88
Control Limits:	70-130	70-130	70-130

MS/MSD Batch #:	3030935	3030935	3030935
Date Prepared:	4/3/93	4/3/93	4/3/93
Date Analyzed:	4/3/93	4/3/93	4/3/93
Instrument I.D.#:	HP5890/1	HP5890/1	HP5890/1
Matrix Spike % Recovery:	83	86	79
Matrix Spike Duplicate % Recovery:	83	87	79
Relative % Difference:	0.0	1.2	0.0

Laboratory Blank contained the following analytes: None detected

Please Note

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation and analytical methods employed for the samples. The LCS % recovery data is used for validation of sample batch results. Due to matrix effects, the QC limits for MS/MSD's are advisory only and are not used to accept or reject batch results.

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Scott A. Chieffo
Project Manager



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Kaprealian Engineering, Inc.
2401 Stanwell Drive, Suite 400
Concord, CA 94520

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro

Attention: Mardo Kaprealian, P.E. QC Sample Group: 3030921-938

Reported: Apr 7, 1993

QUALITY CONTROL DATA REPORT

SURROGATE

Method:	EPA 8015	EPA 8015	EPA 8015	EPA 8015	EPA 8015	EPA 8015	EPA 8015
Analyst:	K. Wimer	K. Wimer	K. Wimer	K. Wimer	K. Wimer	K. Wimer	K. Wimer
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Apr 2, 1993	Apr 2, 1993	Apr 2, 1993	Apr 2, 1993	Apr 1, 1993	Apr 2, 1993	Apr 2, 1993
Sample #:	303-0921	303-0922	303-0923	303-0924	303-0925	303-0926	303-0927

Surrogate	88	83	108	104	87	104	83
% Recovery:							

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Scott A. Chieffo
Project Manager

% Recovery	$\frac{\text{Conc of MS} - \text{Conc of Sample}}{\text{Spike Conc Added}} \times 100$
Relative % Difference	$\frac{\text{Conc of MS} - \text{Conc of MSD}}{(\text{Conc of MS} + \text{Conc of MSD}) / 2} \times 100$



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Attention: Mardo Kaprealian, P.E. QC Sample Group: 3030921-938

Reported: Apr 7, 1993

QUALITY CONTROL DATA REPORT

SURROGATE

Method:	EPA 8015	EPA 8015	EPA 8015	EPA 8015	EPA 8015	EPA 8015	EPA 8015
Analyst:	K. Wimer	K. Wimer	K. Wimer	K. Wimer	K. Wimer	K. Wimer	K. Wimer
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Apr 1, 1993	Apr 1, 1993	Apr 1, 1993	Apr 1, 1993	Apr 1, 1993	Apr 1, 1993	Apr 2, 1993
Sample #:	303-0928	303-0929	303-0930	303-0931	303-0932	303-0933	303-0934

Surrogate							
% Recovery:	86	88	106	85	105	87	87

SEQUOIA ANALYTICAL


Scott A. Chieffo
Project Manager

% Recovery	$\frac{\text{Conc of MS} - \text{Conc of Sample}}{\text{Spike Conc Added}} \times 100$
Relative % Difference	$\frac{\text{Conc of MS} - \text{Conc of MSD}}{(\text{Conc of MS} + \text{Conc of MSD}) / 2} \times 100$



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Attention: Mardo Kaprealian, P.E. QC Sample Group: 3030921-938

Reported: Apr 7, 1993

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:	Apr 1, 1993	Apr 1, 1993	Apr 1, 1993	Apr 1, 1993	Apr 1, 1993
Sample #:	303-0935	303-0936	303-0937	303-0938	Blank

Surrogate					
% Recovery:	105	100	83	86	97

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Scott A. Chieffo
Project Manager

% Recovery	$\frac{\text{Conc of M S} - \text{Conc of Sample}}{\text{Spike Conc Added}} \times 100$
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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Client Project ID: Unocal #2512, 1300 Davis St., San Leandro

Attention: Mardo Kaprealian, P.E. QC Sample Group: 3030921-938

Reported: Apr 7, 1993

QUALITY CONTROL DATA REPORT

SURROGATE

Method:	EPA 8010	EPA 8010	EPA 8010	EPA 8010	EPA 8010	EPA 8010	EPA 8010
Analyst:	M.N.	M.N.	M.N.	M.N.	M.N.	M.N.	M.N.
Reporting Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Date Analyzed:	Apr 5, 1993	Apr 5, 1993	Apr 5, 1993	Apr 5, 1993	Apr 5, 1993	Apr 5, 1993	Apr 3, 1993
Sample #:	303-0921	303-0922	303-0923	303-0924	303-0925	303-0926	303-0927

Surrogate #1

% Recovery:	117	119	122	88	120	130	150
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Surrogate #2

% Recovery:	102	101	101	102	101	100	76
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Scott A. Chierfo
Project Manager

% Recovery	$\frac{\text{Conc of M S} - \text{Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$
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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Client Project ID: Unocal #2512, 1300 Davis St., San Leandro

Attention: Mardo Kaprealian, P.E. QC Sample Group: 3030921-938

Reported: Apr 7, 1993

QUALITY CONTROL DATA REPORT

SURROGATE

Method:	EPA 8010	EPA 8010	EPA 8010	EPA 8010	EPA 8010	EPA 8010	EPA 8010
Analyst:	M.N.	M.N.	M.N.	M.N.	M.N.	M.N.	M.N.
Reporting Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Date Analyzed:	Apr 5, 1993	Apr 5, 1993	Apr 6, 1993	Apr 5, 1993	Apr 5, 1993	Apr 3, 1993	Apr 3, 1993
Sample #:	303-0928	303-0929	303-0930	303-0931	303-0932	303-0933	303-0934

Surrogate #1							
% Recovery:	98	115	96	98	111	114	107
Surrogate #2							
% Recovery:	98	100	103	102	98	97	99

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Scott A. Chieffo
Project Manager

% Recovery	$\frac{\text{Conc of M S} - \text{Conc of Sample}}{\text{Spike Conc Added}} \times 100$
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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Client Project ID: Unocal #2512, 1300 Davis St., San Leandro

Attention: Mardo Kaprealian, P.E. QC Sample Group: 3030921-938

Reported: Apr 7, 1993

QUALITY CONTROL DATA REPORT

SURROGATE

Method:	EPA 8010	EPA 8010	EPA 8010	EPA 8010	EPA 8010
Analyst:	M.N.	M.N.	M.N.	M.N.	M.N.
Reporting Units:	ug/L	ug/L	ug/L	ug/L	ug/L
Date Analyzed:	Apr 3, 1993	Apr 3, 1993	Apr 3, 1993	Apr 3, 1993	Apr 3, 1993
Sample #:	303-0935	303-0936	303-0937	303-0938	Blank

Surrogate #1					
% Recovery:	111	103	107	104	112

Surrogate #2					
% Recovery:	99	106	99	101	107

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Scott A. Chieffo
Project Manager

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

CHAIN OF CUSTODY

SAMPLER		SITE NAME & ADDRESS							ANALYSES REQUESTED						TURN AROUND TIME:
<i>[Signature]</i>		UNOCAL #2512 / SAN LEANDRO 1300 DAVIS ST.							<input type="checkbox"/> TOXICOLOGY <input type="checkbox"/> METALS <input type="checkbox"/> VOLATILES <input type="checkbox"/> PCBs <input type="checkbox"/> PESTICIDES <input type="checkbox"/> OTHER						REGULAR
WITNESSING AGENCY															REMARKS
SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TOXICOLOGY	METALS	VOLATILES	PCBs	PESTICIDES	OTHER	
EG7(5)	3/23/93		X		X		1	SEE SAMPLE NO. NO.	X	X	X	X	X		3030921 922 923 924 925 926 927 928 929
EG7(10)	3/23/93		X		X		1		X	X	X	X			
EG7(15)	3/23/93		X		X		1		X	X	X	X			
EG7(19.5)	3/23/93		X		X		1		X	X	X	X			
EG7(23.5)	3/23/93		X		X		1		X	X	X	X			
EG8(5)	3/22/93		X		X		1		X	X	X	X	X		
EG8(10)	3/22/93		X		X		1		X	X	X	X	X		
EG8(15)	3/22/93		X		X		1		X	X	X	X	X		
EG8(20)	3/22/93		X		X		1		X	X	X	X	X		
Relinquished by: (Signature)	Date/Time		Received by: (Signature)		Date/Time				The following MUST BE completed by the laboratory accepting samples for analysis:						
<i>[Signature]</i>	3/24/93 0915		<i>[Signature]</i>		3/24/93 0915				1. Have all samples received for analysis been stored in ice? <u>Y</u>						
Relinquished by: (Signature)	Date/Time		Received by: (Signature)		Date/Time				2. Will samples remain refrigerated until analyzed? <u>Y</u>						
Relinquished by: (Signature)	Date/Time		Received by: (Signature)		Date/Time				3. Did any samples received for analysis have head space? <u>N</u>						
Relinquished by: (Signature)	Date/Time		Received by: (Signature)		Date/Time				4. Were samples in appropriate containers and properly packaged? <u>Y</u>						
									<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	
									Signature	Title	Date				

CHAIN OF CUSTODY

SAMPLER		SITE NAME & ADDRESS						ANALYSES REQUESTED						TURN AROUND TIME:	
WITNESSING AGENCY		UNOCAL #2512 / SAN LEBANDO 1300 DAYS						<input type="checkbox"/> Total <input type="checkbox"/> Volatile <input type="checkbox"/> PPH-D <input type="checkbox"/> PPH <input type="checkbox"/> BOD <input type="checkbox"/> PPH <input type="checkbox"/> PPH <input type="checkbox"/> PPH						REGULAR	
SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION							REMARKS
EB98(23)	3/22/93		X		X		1	SEE SAMPLE ID NO	X	X	X	X	X	X	3030930
EB95(5)	3/22/93		X		X		1		X	X	X	X	X	X	931
EB9(10)	3/22/93		X		X		1		X	X	X	X	X	X	932
EB9(14.5)	3/22/93		X		X		1		X	X	X	X	X	X	933
EB10(5)	3/22/93		X		X		1		X	X	X	X	X	X	934
EB10(9.5)	3/22/93		X		X		1		X	X	X	X	X	X	935
EB10(15)	3/22/93		X		X		1		X	X	X	X	X	X	936
EB10(20)	3/22/93		X		X		1		X	X	X	X	X	X	937
EB10(23)	3/22/93		X		X		1		X	X	X	X	X	X	938

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

Signature: EV Title: FS Date: 3/24/93



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

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Matrix: Water
Analysis Method: EPA 5030/8015/8020
First Sample #: 303-0907

Sampled: 3/22 & 3/23/93
Received: Mar 24, 1993
Reported: Apr 6, 1993

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 303-0907 EB7*	Sample I.D. 303-0908 EB8*	Sample I.D. 303-0909 EB9	Sample I.D. 303-0910 EB10^	Sample I.D. Matrix Blank
Purgeable Hydrocarbons	50	1,000	510	2,600	180	
Benzene	0.5	19	N.D.	N.D.	N.D.	
Toluene	0.5	N.D.	N.D.	5.1	N.D.	
Ethyl Benzene	0.5	6.8	N.D.	8.3	N.D.	
Total Xylenes	0.5	N.D.	N.D.	8.8	N.D.	
Chromatogram Pattern:		Gasoline and Discrete Peak	Discrete Peak	Gasoline	Discrete Peaks	

Quality Control Data

Report Limit Multiplication Factor:	1.0	4.0	2.0	1.0	1.0
Date Analyzed:	3/25/93	3/30/93	3/26/93	3/25/93	3/25/93
Instrument Identification:	HP-4	HP-5	HP-4	HP-4	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	95	101	79	100	95

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

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Scott A. Chieffo
Project Manager

Please Note

* Discrete Peak refers to an unidentified peak in the MTBE range

^ Discrete Peaks refers to an unidentified peak in the MTBE range and EPA 8010 peak



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

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Matrix: Water
Analysis Method: EPA 3510/3520/8015
First Sample #: 303-0907

Sampled: 3/22 & 3/23/93
Received: Mar 24, 1993
Reported: Apr 6, 1993

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 303-0907 EB7*	Sample I.D. 303-0908 EB8*	Sample I.D. 303-0909 EB9*	Sample I.D. 303-0910 EB10	Sample I.D. Matrix Blank
Extractable Hydrocarbons	50	320	120	480	N.D.	
Chromatogram Pattern:		Diesel and Non-Diesel Mixture (<C14)	Diesel and Non-Diesel Mixture (<C14)	Diesel and Non-Diesel Mixture (<C14)	--	

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0
Date Extracted:	3/29/93	3/29/93	3/29/93	3/29/93	3/29/93
Date Analyzed:	4/1/93	4/1/93	4/1/93	4/1/93	4/1/93
Instrument Identification:	HP-3A	HP-3A	HP-3A	HP-3A	HP-3B

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

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Scott A. Chieffo
Project Manager

Please Note * Non-Diesel Mixture is probably gasoline



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Concord, CA 94520
Attention: Mardo Kaprealian, P.E.

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Matrix: Water
Analysis Method: EPA 3510/3520/8015
First Sample #: 303-0908

Sampled: Mar 22, 1993
Received: Mar 24, 1993
Reported: Apr 6, 1993

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS as HYDRAULIC FLUID

Analyte	Reporting Limit µg/L	Sample I.D. 303-0908 EB8	Sample I.D. 303-0909 EB9
Extractable Hydrocarbons	250	N.D.	N.D.
Chromatogram Pattern:		--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0
Date Extracted:	3/29/93	3/29/93
Date Analyzed:	3/30/93	3/30/93
Instrument Identification:	HP-3B	HP-3A

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

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Scott A. Chierfo
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 #2512, 1300 Davis St., San Leandro Matrix Descript: Water Analysis Method: SM 5520 B&F (Gravimetric) First Sample #: 303-0907	Sampled: 3/22 & 3/23/93 Received: Mar 24, 1993 Extracted: Mar 24, 1993 Analyzed: Mar 26, 1993 Reported: Apr 6, 1993
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TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/L (ppm)
303-0907	EB7	N.D.
303-0908	EB8	N.D.
303-0909	EB9	N.D.
303-0910	EB10	N.D.

Detection Limits:	5.0
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Analytes reported as N.D. were not present above the stated limit of detection.

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Scott A. Chierro
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 #2512, 1300 Davis St., San Leandro
Sample Descript: Water, EB7
Analysis Method: EPA 5030/8010
Lab Number: 303-0907

Sampled: Mar 23, 1993
Received: Mar 24, 1993
Analyzed: Apr 2, 1993
Reported: Apr 6, 1993

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.....	1.0	N.D.
Carbon tetrachloride.....	0.50	N.D.
Chlorobenzene.....	0.50	N.D.
Chloroethane.....	1.0	N.D.
2-Chloroethylvinyl ether.....	1.0	N.D.
Chloroform.....	0.50	N.D.
Chloromethane.....	1.0	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.....	1.0	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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Kaprealian Engineering, Inc.
2401 Stanwell Drive, Suite 400
Concord, CA 94520
Attention: Mardo Kaprealian, P.E.

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Descript: Water, EB8
Analysis Method: EPA 5030/8010
Lab Number: 303-0908

Sampled: Mar 22, 1993
Received: Mar 24, 1993
Analyzed: Apr 1, 1993
Reported: Apr 6, 1993

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.....	1.0	N.D.
Carbon tetrachloride.....	0.50	N.D.
Chlorobenzene.....	0.50	N.D.
Chloroethane.....	1.0	N.D.
2-Chloroethylvinyl ether.....	1.0	N.D.
Chloroform.....	0.50	N.D.
Chloromethane.....	1.0	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.....	1.0	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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(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 #2512, 1300 Davis St., San Leandro
Sample Descript: Water, EB9
Analysis Method: EPA 5030/8010
Lab Number: 303-0909

Sampled: Mar 22, 1993
Received: Mar 24, 1993
Analyzed: Apr 1, 1993
Reported: Apr 6, 1993

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.....	1.0	N.D.
Carbon tetrachloride.....	0.50	N.D.
Chlorobenzene.....	0.50	N.D.
Chloroethane.....	1.0	N.D.
2-Chloroethylvinyl ether.....	1.0	N.D.
Chloroform.....	0.50	N.D.
Chloromethane.....	1.0	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	12
1,1,1-Trichloroethane.....	0.50	N.D.
1,1,2-Trichloroethane.....	0.50	N.D.
Trichloroethene.....	0.50	0.63
Trichlorofluoromethane.....	0.50	N.D.
Vinyl chloride.....	1.0	N.D.

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

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

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Descript: Water, EB10
Analysis Method: EPA 5030/8010
Lab Number: 303-0910

Sampled: Mar 23, 1993
Received: Mar 24, 1993
Analyzed: Apr 2, 1993
Reported: Apr 6, 1993

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane.....	20	N.D.
Bromoform.....	20	N.D.
Bromomethane.....	40	N.D.
Carbon tetrachloride.....	20	N.D.
Chlorobenzene.....	20	N.D.
Chloroethane.....	40	N.D.
2-Chloroethylvinyl ether.....	40	N.D.
Chloroform.....	20	N.D.
Chloromethane.....	40	N.D.
Dibromochloromethane.....	20	N.D.
1,3-Dichlorobenzene.....	20	N.D.
1,4-Dichlorobenzene.....	20	N.D.
1,2-Dichlorobenzene.....	20	N.D.
1,1-Dichloroethane.....	20	N.D.
1,2-Dichloroethane.....	20	N.D.
1,1-Dichloroethene.....	20	N.D.
cis-1,2-Dichloroethene.....	20	N.D.
trans-1,2-Dichloroethene.....	20	N.D.
1,2-Dichloropropane.....	20	N.D.
cis-1,3-Dichloropropene.....	20	N.D.
trans-1,3-Dichloropropene.....	20	N.D.
Methylene chloride.....	200	N.D.
1,1,2,2-Tetrachloroethane.....	20	N.D.
Tetrachloroethene.....	20	250
1,1,1-Trichloroethane.....	20	N.D.
1,1,2-Trichloroethane.....	20	N.D.
Trichloroethene.....	20	N.D.
Trichlorofluoromethane.....	20	N.D.
Vinyl chloride.....	40	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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2401 Stanwell Drive, Suite 400
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Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Matrix: Water

Attention: Mardo Kaprealian, P.E. QC Sample Group 3030907-910

Reported: Apr 6, 1993

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Diesel	Oil & Grease
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015	SM 5520
Analyst:	J.F.	J.F.	J.F.	J.F.	K. Wimer	D. Newcomb
Conc. Spiked:	20	20	20	60	300	100
Units:	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L
LCS Batch#:	2LCS032593	2LCS032593	2LCS032593	2LCS032593	BLK032993	BLK032493
Date Prepared:	3/25/93	3/25/93	3/25/93	3/25/93	3/29/93	3/24/93
Date Analyzed:	3/25/93	3/25/93	3/25/93	3/25/93	4/1/93	3/24/93
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4	HP-3B	N/A
LCS % Recovery:	102	103	105	120	96	95
Control Limits:	80-120%	80-120%	80-120%	80-120%	80-120%	80-120%
MS/MSD Batch #:	3030897	3030897	3030897	3030897	032993	032493
Date Prepared:	3/25/93	3/25/93	3/25/93	3/25/93	3/29/93	3/24/93
Date Analyzed:	3/25/93	3/25/93	3/25/93	3/25/93	4/1/93	3/24/93
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4	HP-3B	N/A
Matrix Spike % Recovery:	95	100	105	108	96	95
Matrix Spike Duplicate % Recovery:	95	100	105	108	102	95
Relative % Difference:	0.0	0.0	0.0	0.0	6.4	0.0

Laboratory Blank contained the following analytes: None detected

Please Note

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation and analytical methods employed for the samples. The LCS % recovery data is used for validation of sample batch results. Due to matrix effects, the QC limits for MS/MSDs are advisory only and are not used to accept or reject batch results.

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Concord, CA 94520

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Matrix: Water

Attention: Mardo Kaprealian, P.E.

QC Sample Goup: 3030907-910

Reported: Apr 6, 1993

QUALITY CONTROL DATA REPORT

ANALYTE	1,1-Dichloroethene	Trichloroethene	Chloro-benzene
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Method:	EPA 8010	EPA 8010	EPA 8020
Analyst:	K. Nill	K. Nill	K. Nill
Conc. Spiked:	100	100	100
Units:	µg/L	µg/L	µg/L
LCS Batch#:	BLK040293	BLK040293	BLK040293
Date Prepared:	4/2/93	4/2/93	4/2/93
Date Analyzed:	4/2/93	4/2/93	4/2/93
Instrument I.D.#:	Purge 1	Purge 1	Purge 1

LCS % Recovery:	100	95	92
Control Limits:	80-120%	80-120%	80-120%

MS/MSD Batch #:	3031173	3031173	3031173
Date Prepared:	4/2/93	4/2/93	4/2/93
Date Analyzed:	4/2/93	4/2/93	4/2/93
Instrument I.D.#:	Purge 1	Purge 1	Purge 1

Matrix Spike % Recovery:	98	92	89
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Matrix Spike Duplicate % Recovery:	100	95	91
---	-----	----	----

Relative % Difference:	2.0	3.2	2.2
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Laboratory Blank contained the following analytes: None detected

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Scott A. Chieffo
Project Manager

Please Note

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation and analytical methods employed for the samples. The LCS % recovery data is used for validation of sample batch results. Due to matrix effects, the QC limits for MS, MSD's are advisory only and are not used to accept or reject batch results.

3030907 RE: 4/6/93



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Client Project ID: Unocal #2512, 1300 Davis St., San Leandro

Attention: Mardo Kaprealian, P.E. QC Sample Group: 3030907-910

Reported: Apr 6, 1993

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:	µg/L	µg/L	µg/L	µg/L	µg/L
Date Analyzed:	Apr 1, 1993	Apr 1, 1993	Apr 1, 1993	Apr 1, 1993	Apr 1, 1993
Sample #:	303-0907	303-0908	303-0909	303-0910	Matrix Blank

Surrogate

% Recovery:	98	99	87	82	110
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Scott A. Chierfo
Scott A. Chierfo
Project Manager

% Recovery	$\frac{\text{Conc of M S} - \text{Conc of Sample}}{\text{Spike Conc Added}} \times 100$
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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Client Project ID: Unocal #2512, 1300 Davis St., San Leandro

Attention: Mardo Kaprealian, P.E. QC Sample Group: 3030907-910

Reported: Apr 6, 1993

QUALITY CONTROL DATA REPORT

SURROGATE

Method:	EPA 8010	EPA 8010	EPA 8010	EPA 8010	EPA 8010
Analyst:	K. Nill	K. Nill	K. Nill	K. Nill	K. Nill
Reporting Units:	µg/L	µg/L	µg/L	µg/L	µg/L
Date Analyzed:	Apr 2, 1993	Apr 1, 1993	Apr 1, 1993	Apr 2, 1993	Apr 1, 1993
Sample #:	303-0907	303-0908	303-0909	303-0910	Matrix Blank

Surrogate #1					
% Recovery:	99	86	102	130	106

Surrogate #2					
% Recovery:	102	101	101	117	101

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Scott A. Chierfo
Project Manager

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

CHAIN OF CUSTODY

SAMPLER		SITE NAME & ADDRESS							ANALYSES REQUESTED						TURN AROUND TIME:
WITNESSING AGENT		UNICAL #2512 / SAN LEANDRO 1300 DAVIS ST.													REGULAR
SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TOXIC	STATE	PH-D	TOB (5520 DAF)	QDID	INORGANIC FLUID	REMARKS
EB7	3/23/93			X	X		6		X	X	X	X	X		3030907AF ↓ 908AF 909AF 910AF
EB8	3/22/93			X	X		6		X	X	X	X	X		
EB9	3/22/93			X	X		6		X	X	X	X	X		
EB10	3/22/93			X	X		6		X	X	X	X			
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?							
Relinquished by: (Signature)			Date/Time		Received by: (Signature)										
Relinquished by: (Signature)			Date/Time		Received by: (Signature)										
Relinquished by: (Signature)			Date/Time		Received by: (Signature)										
			Date/Time		Received by: (Signature)			Signature		Title		Date			

KEI-P88-1204.R8
 April 26, 1993

TABLE 1
 SUMMARY OF LABORATORY ANALYSES
 SOIL

<u>Sample Number</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylenes</u>	<u>Ethyl-benzene</u>	<u>TOG</u>
(Collected on January 3, 1989)							
EB1(5)*	5.0	--	ND	0.05	ND	ND	ND
EB1(10)*	1.0	--	ND	ND	ND	ND	ND
EB1(15)*	1.0	--	ND	ND	ND	ND	ND
EB1(25)*	2.0	--	--	--	--	--	ND
EB2(10)	--	ND	ND	ND	ND	ND	--
EB2(15)	--	ND	ND	ND	ND	ND	--
EB2(20)	--	ND	ND	ND	ND	ND	--
EB2(25)	--	1.9	ND	ND	ND	ND	--
EB3(5)	--	ND	ND	ND	ND	ND	--
EB3(10)	--	ND	ND	ND	ND	ND	--
EB3(15)	--	2.7	ND	ND	ND	ND	--
EB3(20)	--	2.2	ND	ND	ND	ND	--
EB3(25)	--	ND	ND	ND	ND	ND	--
EB4(5)	--	ND	ND	ND	ND	ND	--
EB4(10)	--	ND	ND	ND	ND	ND	--
EB4(15)	--	ND	ND	ND	ND	ND	--
EB4(20)	--	ND	ND	ND	ND	ND	--
EB4(25)	--	ND	ND	ND	ND	ND	--
EB5(5)	--	ND	ND	ND	ND	ND	--
EB5(10)	--	ND	ND	ND	ND	ND	--
EB5(15)	--	2.0	ND	ND	ND	ND	--
EB5(20)	--	17	0.12	0.15	1.4	0.25	--
EB5(25)	--	3.9	ND	ND	0.17	ND	--
EB6(5)	10	1.8	ND	ND	ND	ND	7,800
EB6(10)	160	73	ND	ND	ND	ND	1,200
EB6(15)	40	17	0.065	ND	0.21	ND	900
EB6(25)	3.0	ND	ND	ND	ND	ND	130

TABLE 1 (Continued)

SUMMARY OF LABORATORY ANALYSES
 SOIL

<u>Sample Number</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylenes</u>	<u>Ethyl-benzene</u>	<u>TOG</u>
(Collected on March 22 and 23, 1993)							
EB7(5)*	ND	ND	0.018	ND	ND	ND	ND
EB7(10)*	1.3♦	3.2♦♦	ND	ND	ND	ND	140
EB7(15)*	6.4♦	17♦♦	ND	0.011	0.025	0.0090	340
EB7(19.5)*	3.5♦	4.4♦♦	ND	ND	ND	ND	80
EB7(23.5)*	ND	ND	ND	ND	ND	ND	60
EB8(5)*+	12♦	50♦♦	0.020	0.040	0.045	0.062	1,700
EB8(10)*+	1.2	ND	ND	ND	ND	ND	ND
EB8(15)*+	7.6	5.0♦♦	ND	ND	0.0070	0.015	ND
EB8(20)*+	ND	ND	ND	ND	ND	ND	ND
EB8(23)*+	ND	ND	ND	ND	ND	ND	ND
EB9(5)*+	ND	ND	ND	ND	ND	ND	ND
EB9(10)*+	ND	2.0	ND	ND	ND	ND	ND
EB9(14.5)*+	ND	ND	ND	ND	ND	ND	ND
EB10(5)*	ND	ND	ND	ND	ND	ND	ND
EB10(9.5)*	ND	1.6	ND	ND	ND	ND	ND
EB10(15)*	ND	ND	ND	ND	ND	ND	ND
EB10(20)*	ND	ND	ND	ND	ND	ND	ND
EB10(23)*	ND	ND	ND	ND	ND	ND	ND

NOTE: The soil samples were collected at the depths (below grade) indicated in the () of the respective sample number.

- * All EPA method 8010 constituents were non-detectable.
 - + TPH as Hydraulic Fluid was non-detectable, except in sample EB8(5), where it was detected at a concentration of 470 ppm.
 - ♦ Sequoia Analytical Laboratory reported that the hydrocarbons detected appeared to be a diesel and non-diesel mixture.
 - ♦♦ Sequoia Analytical Laboratory reported that the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.
- ND = Non-detectable.
 -- Indicates analysis was not performed.
 Results in parts per million (ppm), unless otherwise indicated.

KEI-P88-1204.R8
 April 26, 1993

TABLE 2

SUMMARY OF LABORATORY ANALYSES
 SOIL

<u>Sample Number</u>	<u>Depth (feet)</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylenes</u>	<u>Ethylbenzene</u>	<u>TOG</u>
(Collected on April 17, 1989)								
MW1	5.0	ND	4.0	ND	ND	ND	ND	ND
MW1	10.0	ND	ND	ND	ND	ND	ND	ND
MW1	15.0	ND	ND	ND	ND	ND	ND	ND
MW1	17.0	ND	ND	ND	ND	ND	ND	31
MW2*	5.0	ND	ND	ND	ND	ND	ND	31
MW2*	10.0	ND	1.1	ND	ND	ND	ND	60
MW2*	15.0	ND	ND	ND	ND	ND	ND	71
MW3	5.0	ND	ND	ND	ND	ND	ND	ND
MW3	10.0	ND	1.1	ND	ND	ND	ND	ND
MW3	15.0	ND	1.2	ND	ND	ND	ND	32
MW3	17.0	ND	6.2	ND	0.21	0.42	ND	<u>180</u>
(Collected on August 16, 1989)								
MW4	5.0	--	3.3	ND	ND	0.11	ND	ND
MW4	10.0	--	ND	ND	ND	ND	ND	ND
MW4	15.0	--	ND	ND	ND	ND	ND	ND
MW4	19.0	--	ND	ND	ND	ND	ND	ND
MW5	5.0	--	ND	ND	ND	ND	ND	ND
MW5	10.0	--	ND	ND	ND	ND	ND	ND
MW5	15.0	--	ND	ND	ND	ND	ND	ND
MW5	20.0	--	20	ND	ND	ND	ND	ND
MW5	22.0	--	ND	ND	ND	ND	ND	ND
MW6	5.0	--	ND	ND	ND	ND	ND	ND
MW6	10.0	--	ND	ND	ND	ND	ND	ND
MW6	15.0	--	ND	ND	ND	ND	ND	ND
MW6	20.0	--	ND	ND	ND	ND	ND	ND

KEI-P88-1204.R8
April 26, 1993

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
SOIL

<u>Sample Number</u>	<u>Depth (feet)</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylenes</u>	<u>Ethyl-benzene</u>	<u>TOG</u>
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(Collected on February 11, 1992)

MW7(5)	5.0	ND	ND	ND	ND	ND	ND	--
MW7(9.5)	9.5	ND	ND	ND	ND	ND	ND	--
MW7(15)	15.0	ND	ND	ND	ND	ND	ND	--
MW7(16.5)	16.5	ND	ND	ND	ND	ND	ND	--

-- Indicates analysis not performed.

ND = Non-detectable.

* EPA method 8010 constituents were non-detectable.

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

KEI-P88-1204.R8
April 26, 1993

TABLE 3

SUMMARY OF LABORATORY ANALYSES
SOIL

<u>Sample</u> <u>Number</u>	<u>Depth</u> <u>(feet)</u>	<u>TPH as</u> <u>Diesel</u>	<u>TPH as</u> <u>Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylenes</u>	<u>Ethyl-</u> <u>benzene</u>	<u>TOG</u>
(Collected on May 11, 1989)								
SWA	16.5	21	--	--	--	--	--	850
SWB	16.5	18	--	--	--	--	--	580
SWC	16.5	26	--	--	--	--	--	680
SWD	16.5	16	--	--	--	--	--	170

-- Indicates analysis was not performed.

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

KEI-P88-1204.R8
 April 26, 1993

TABLE 4
 SUMMARY OF LABORATORY ANALYSES
 WATER

<u>Sample Number</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylenes</u>	<u>Ethyl-benzene</u>	<u>TOG (ppm)</u>
(Collected on January 3, 1989)							
EB1	ND	--	ND	3.5	ND	ND	--
EB2	--	ND	8.2	7.4	3.3	0.67	--
EB3	--	ND	ND	ND	ND	ND	--
EB4	--	ND	ND	ND	ND	0.73	--
EB5	--	340	ND	ND	ND	0.63	--
EB6	--	1,500	1.5	1.4	12	8.1	--
Collected on March 22 and 23, 1993)							
EB7*	320++	1,000♦	19	ND	ND	6.8	ND
EB8*+	120++	510♦♦	ND	ND	ND	ND	ND
EB9*+	480++	2,600	ND	5.1	8.8	8.3	ND
EB10*	ND	180♦♦	ND	ND	ND	ND	ND

- * All EPA method 8010 constituents were non-detectable, except for tetrachloroethene, which was detected in samples EB9 and EB10 at concentrations of 12 ppb and 250 ppb, respectively. Trichloroethene was also detected in sample EB9 at a concentration of 0.63 ppb.
- + TPH as hydraulic fluid was non-detectable.
- ++ Sequoia Analytical Laboratory reported that the hydrocarbons detected appeared to be a diesel and non-diesel mixture.
- ♦ Sequoia Analytical Laboratory reported that the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.
- ♦♦ Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be gasoline.

ND = Non-detectable.

-- Indicates analysis was not performed.

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

KEI-P88-1204.R8
 April 26, 1993

TABLE 5

SUMMARY OF LABORATORY ANALYSES
 WATER

<u>Date</u>	<u>Sample Well #</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylenes</u>	<u>Ethyl-benzene</u>	<u>TOG (ppm)</u>
10/30/92	MW1	NOT SAMPLED						
	MW2	--	1,200♦	ND	ND	ND	ND	--
	MW3	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT						
	MW4	WELL WAS INACCESSIBLE						
	MW5	NOT SAMPLED						
	MW6	--	ND	ND	ND	ND	ND	--
	MW7	--	ND	ND	ND	ND	ND	--
5/26/92	MW1	NOT SAMPLED						
	MW2	--	2,900	8.8	9.3	36	54	--
	MW3*	2,400,000	1,300,000	5,100	66,000	160,000	20,000	880
	MW4	ND	120	0.59	0.82	1.9	ND	--
	MW5	NOT SAMPLED						
	MW6	--	ND	ND	ND	0.65	ND	--
	MW7	--	ND	ND	ND	0.60	ND	--
2/27/92	MW1	NOT SAMPLED						
	MW2	--	330	12	12	93	10	--
	MW3	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT						
	MW4	ND	43	ND	1.0	2.5	0.37	--
	MW5	NOT SAMPLED						
	MW6	--	ND	3.2	ND	3.8	ND	--
	MW7	--	38	ND	0.97	4.0	0.69	--
11/19/91	MW1	NOT SAMPLED						
	MW2	--	220	2.5	8.4	14	2.4	--
	MW3	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT						
	MW4	ND	ND	ND	ND	ND	ND	--
	MW5	NOT SAMPLED						
	MW6	--	ND	ND	ND	ND	ND	--
8/15/91	MW1	NOT SAMPLED						
	MW2	--	ND	ND	ND	ND	ND	ND
	MW3	NOT SAMPLED DUE TO A TRACE OF FREE PRODUCT						
	MW4	ND	ND	ND	ND	ND	ND	ND
	MW5	NOT SAMPLED						
	MW6	--	ND	ND	ND	ND	ND	ND

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TABLE 5 (Continued)

SUMMARY OF LABORATORY ANALYSES
 WATER

<u>Date</u>	<u>Sample Well #</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylenes</u>	<u>Ethyl-benzene</u>	<u>TOG (ppm)</u>	
5/24/91	MW1	--	ND	ND	ND	ND	ND	ND	
	MW2	--	ND	1.5	ND	ND	ND	ND	
	MW3	2,000	23,000	940	3,400	2,600	590	ND	
	MW4	ND	ND	0.64	ND	ND	ND	ND	
	MW5	ND	ND	ND	ND	ND	ND	ND	
	MW6	--	ND	ND	ND	ND	ND	ND	
2/04/91	MW1	ND	ND	ND	0.31	0.62	ND	ND	
	MW2	ND	ND	ND	0.38	0.87	ND	ND	
	MW3	NOT SAMPLED DUE TO A TRACE OF FREE PRODUCT							
	MW4	ND	ND	ND	0.72	1.1	ND	ND	
	MW5	ND	ND	ND	0.35	ND	ND	ND	
	MW6	ND	ND	ND	ND	ND	ND	ND	
11/06/90	MW1	ND	ND	ND	ND	ND	ND	ND	
	MW2	ND	ND	ND	0.42	1.4	ND	ND	
	MW3	940	16,000	820	1,500	770	2,200	ND	
	MW4	ND	ND	ND	0.36	0.98	ND	ND	
	MW5	ND	ND	ND	ND	ND	ND	ND	
	MW6	ND	ND	1.6	0.35	ND	ND	ND	
8/09/90	MW1	ND	ND	ND	ND	ND	ND	ND	
	MW2	ND	ND	ND	ND	ND	ND	ND	
	MW3	500	1,900	56	140	140	31	ND	
	MW4	ND	ND	ND	ND	ND	ND	ND	
	MW5	ND	ND	ND	ND	ND	ND	ND	
	MW6	ND	ND	ND	ND	ND	ND	ND	
5/10/90	MW1	ND	ND	ND	ND	ND	ND	ND	
	MW2	ND	43	ND	1.0	ND	ND	ND	
	MW3	850	6,200	94	460	540	160	2.8	
	MW4	88	54	ND	2.0	0.37	ND	ND	
	MW5	83	ND	ND	ND	0.31	ND	ND	
	MW6	ND	ND	ND	1.2	ND	ND	ND	

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TABLE 5 (Continued)

SUMMARY OF LABORATORY ANALYSES
 WATER

<u>Date</u>	<u>Sample Well #</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylenes</u>	<u>Ethyl-benzene</u>	<u>TOG (ppm)</u>
2/23/90	MW1	ND	ND	ND	ND	ND	ND	ND
	MW2	ND	44	ND	ND	ND	ND	ND
	MW3	350	ND	0.32	ND	ND	ND	1.3
	MW4	ND	ND	ND	ND	ND	ND	ND
	MW5	ND	ND	ND	ND	ND	ND	ND
	MW6	ND	ND	ND	ND	ND	ND	ND
11/21/89	MW1	ND	ND	ND	ND	ND	ND	8.9
	MW2	ND	48	ND	0.51	ND	ND	1.6
	MW3	110	1,900	ND	ND	ND	ND	3.8
	MW4	ND	ND	ND	ND	ND	ND	ND
	MW5	70	ND	ND	ND	ND	ND	ND
	MW6	ND	ND	ND	ND	ND	ND	ND
8/29/89	MW4	120	ND	ND	ND	ND	ND	ND
	MW5	100	ND	ND	0.94	ND	0.30	ND
	MW6	ND	ND	ND	ND	ND	ND	ND
8/10/89	MW1	ND	ND	ND	ND	ND	ND	ND
	MW2	ND	ND	ND	0.39	ND	ND	ND
	MW3	860	3,200	73	140	240	35	ND
4/25/89	MW1	100	ND	0.31	ND	ND	ND	--
	MW2	ND	32	0.35	ND	ND	ND	--
	MW3	5,700	56	ND	ND	0.49	0.31	--

-- Indicates analysis was not performed.

ND = Non-detectable.

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

* Free product was detected in well MW3; however, a water sample was collected and analyzed to determine if the product was predominantly hydrocarbon based.

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

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TABLE 6

SUMMARY OF LABORATORY ANALYSES
WATER

<u>Date</u>	<u>Sample Well #</u>	<u>Tetrachloro-ethene</u>	<u>1,1-Dichloro-ethane</u>	<u>1,1,1-Trichloro-ethane</u>	<u>Chloro-methane</u>	<u>1,1-Dichloro-ethene</u>	<u>1,2-Dichloro-benzene</u>
10/30/92	MW2	ND	ND	ND	ND	ND	ND
	MW3	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW4	WELL WAS INACCESSIBLE					
	MW6	1.2	ND	ND	ND	ND	ND
	MW7	2.2	ND	ND	ND	ND	ND
5/26/92	MW2	ND	ND	ND	ND	ND	ND
	MW3	ND	ND	ND	ND	ND	ND
	MW4	2.4	13	3.5	ND	0.83	ND
	MW6	1.1	ND	ND	ND	ND	1.7
	MW7	2.2	ND	ND	ND	ND	ND
2/27/92	MW2	ND	ND	ND	ND	ND	ND
	MW3	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW4	3.5	6.0	ND	ND	ND	ND
	MW6	1.5	ND	ND	ND	ND	1.6
	MW7	2.4	ND	ND	ND	ND	ND
11/19/91	MW2	ND	ND	ND	ND	ND	ND
	MW3	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW4	3.4	ND	ND	ND	ND	ND
	MW6	1.3	ND	ND	ND	ND	ND
8/15/91	MW2	ND	ND	ND	ND	ND	ND
	MW3	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW4	3.6	ND	ND	ND	ND	ND
	MW6	1.2	ND	ND	ND	ND	ND

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TABLE 6 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

<u>Date</u>	<u>Sample Well #</u>	<u>Tetrachloro-ethene</u>	<u>1,1-Dichloro-ethane</u>	<u>1,1,1-Trichloro-ethane</u>	<u>Chloro-methane</u>	<u>1,1-Dichlo-roethene</u>	<u>1,2-Dichlo-robenzene</u>
5/24/91	MW1	4.6	ND	ND	ND	ND	ND
	MW2	ND	ND	ND	ND	ND	ND
	MW3	ND	ND	ND	ND	ND	ND
	MW4	4.1	2.5	3.9	ND	ND	ND
	MW5	0.89	ND	ND	ND	ND	ND
	MW6	0.88	ND	ND	5.6	ND	ND
11/06/90	MW1	4.8	ND	ND	ND	ND	ND
	MW2	ND	ND	ND	ND	ND	ND
	MW3	ND	ND	ND	ND	ND	ND
	MW4	2.9	ND	ND	ND	ND	ND
	MW5	0.7	ND	ND	ND	ND	ND
	MW6	1.2	ND	ND	ND	ND	ND
4/25/89	MW1*	3.3	ND	ND	ND	ND	ND
	MW2	0.68	ND	ND	ND	ND	ND
	MW3	1.0	ND	ND	ND	ND	ND

NOTE: All EPA method 8010 constituents were non-detectable, except for those shown in the above table.

* Trichloroethene was detected at 0.55 ppb.

ND = Non-detectable.

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