



KAPREALIAN ENGINEERING  
INCORPORATED

KEI-P91-1004.P5A  
February 23, 1995

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

Attention: Mr. David B. DeWitt

RE: Addendum to Work Plan/Proposal  
Unocal Service Station #5043  
449 Hegenberger Road  
Oakland, California

ENVIRONMENTAL  
PROTECTION  
95 MAR 15 PM 1:19

Dear Mr. DeWitt:

In Kaprealian Engineering, Inc.'s (KEI) work plan/proposal (KEI-P91-1004.P5) dated June 3, 1994, KEI proposed the destruction of two on-site monitoring wells and the installation of two replacement wells. This work was made necessary due to the construction of a car wash on-site, and was completed on January 25 and 26, 1995. Also, in KEI's work plan/proposal (KEI-P91-1004.P3) dated June 22, 1993, KEI proposed the installation of four additional monitoring wells (MW7 through MW10) to further define the degree and extent of soil and ground water contamination at and in the vicinity of the subject site. Wells MW9 and MW10 were installed in conjunction with the other work in January 1995. All of this work will be documented in a future technical report. In addition, KEI understands that Unocal is still in the process of negotiating an off-site access agreement for the installation of wells MW7 and MW8.

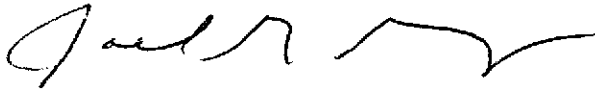
On-site construction activities now make the destruction and replacement of well MW2 necessary. This work will be carried out in accordance with the above referenced work plan (KEI-P91-1004.P5). It will be necessary to reinstall MW2A on a separate date after construction activities are completed. The locations of the existing, destroyed, and proposed on-site wells are shown on the attached Figure 1. The results of the well installation will be included in the report for the installation of proposed wells MW7 through MW10.

KEI-P91-1004.P5A  
February 23, 1995  
Page 2

Should you have any questions regarding this work plan/proposal,  
please do not hesitate to call me at (510) 602-5100.

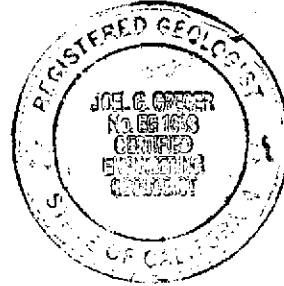
Sincerely,

Kaprealian Engineering, Inc.



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

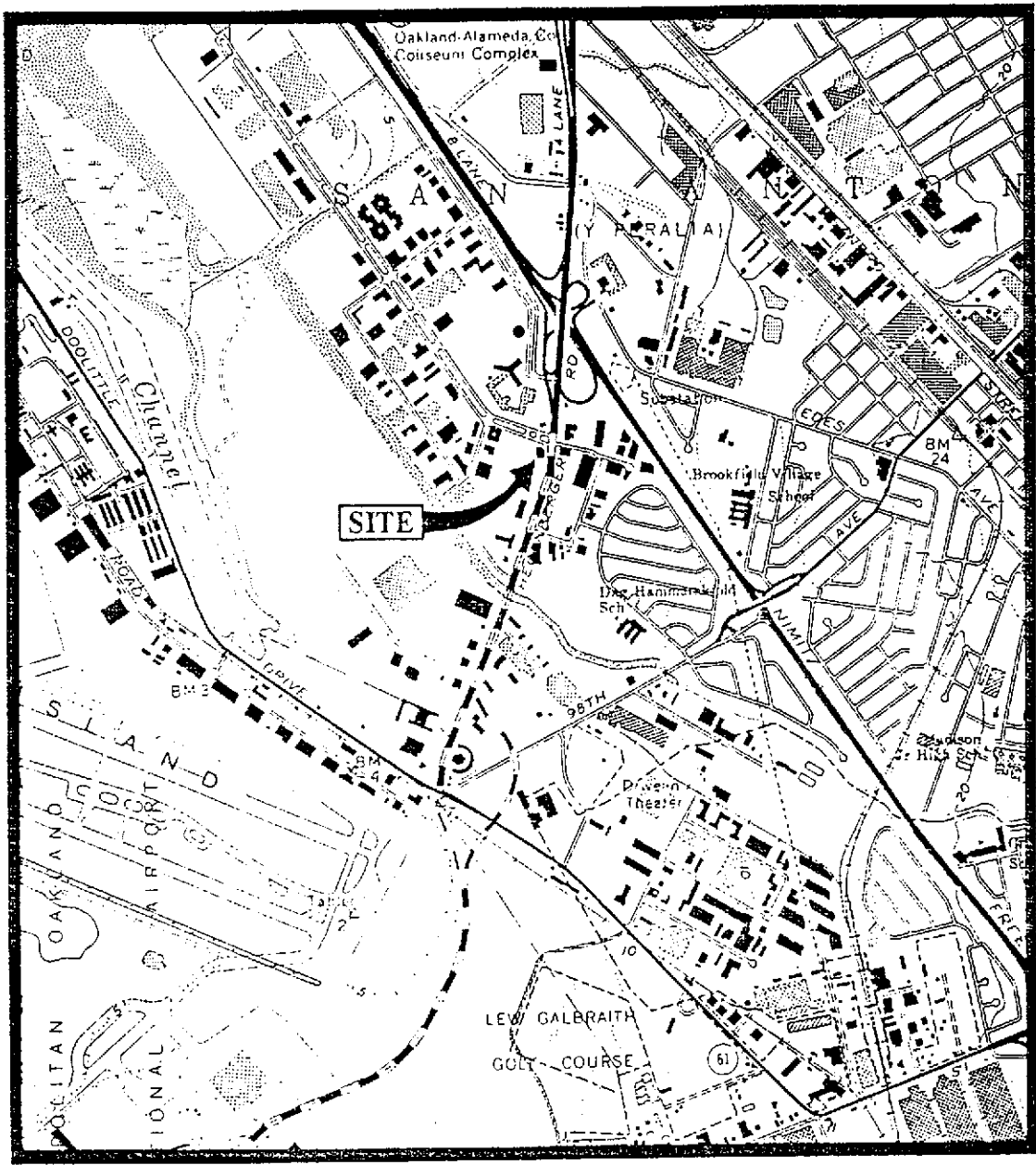
License No. EG 1633  
Exp. Date 8/31/96



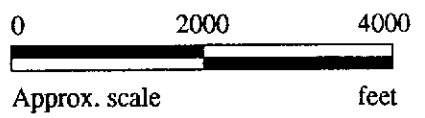
Robert H. Kezerian  
Project Manager


\jad

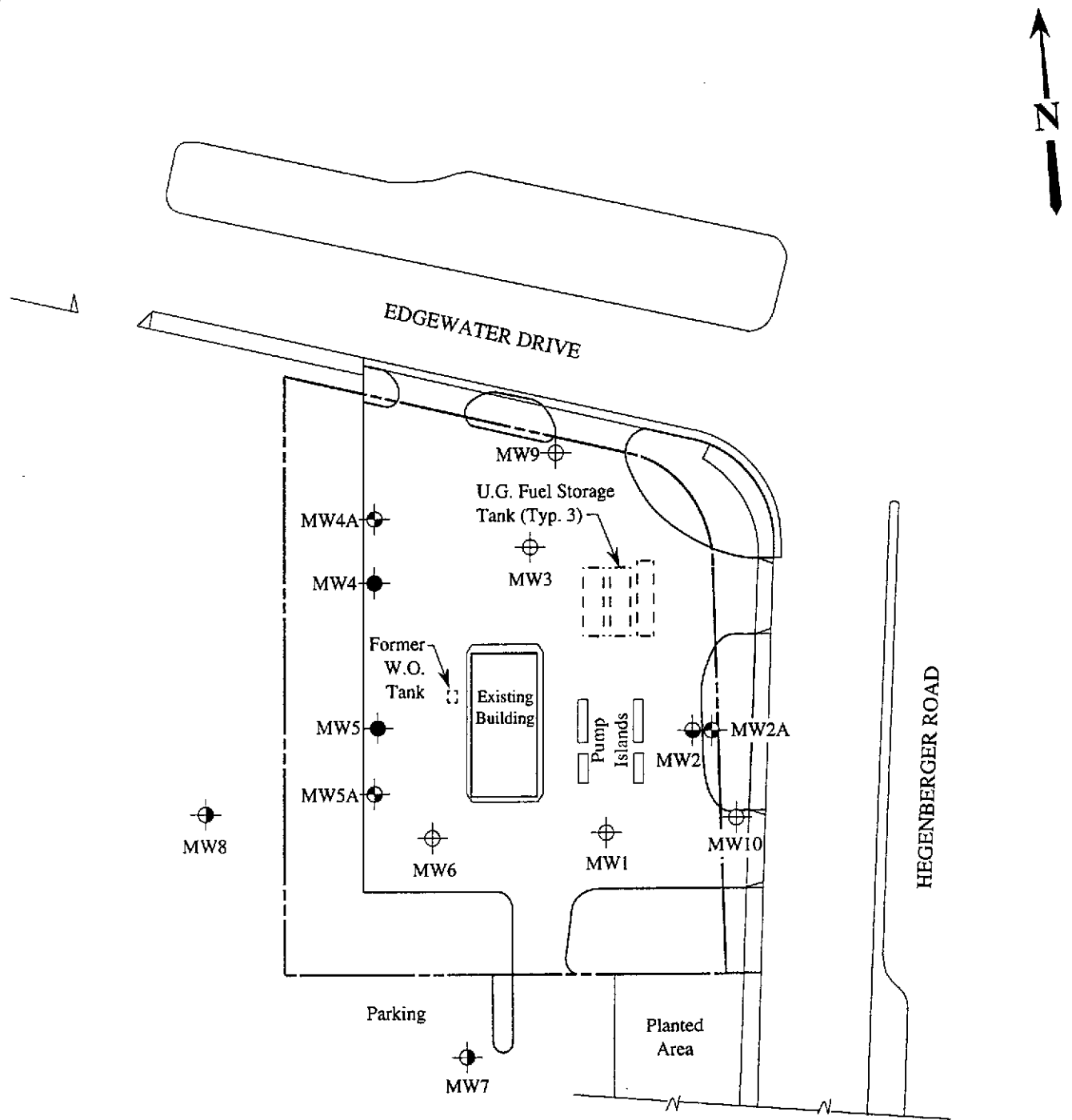
Attachments: Location Map  
Figure 1  
Proposed Well Construction Diagram



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

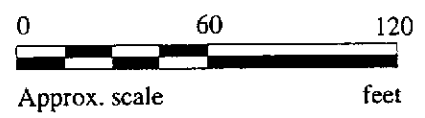


 <p><b>KAPREALIAN ENGINEERING INCORPORATED</b></p>	<p><b>UNOCAL SERVICE STATION #5043 449 HEGENBERGER ROAD OAKLAND, CALIFORNIA</b></p>	<p><b>LOCATION MAP</b></p>
---	---	--------------------------------



**LEGEND**

- ⊕ Monitoring well (existing)
- Monitoring well (to be destroyed)
- Monitoring well (destroyed)
- ⊕ Monitoring well (to be installed)
- ⊕ Monitoring well (previously proposed)



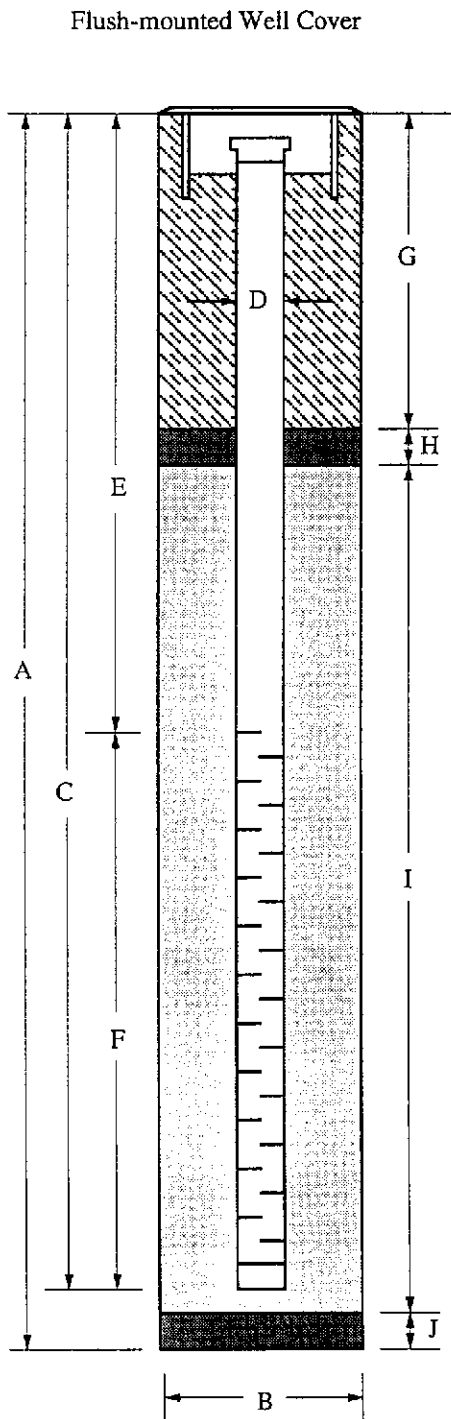
**EXISTING AND PROPOSED MONITORING WELL LOCATION MAP**

**KAPREALIAN ENGINEERING  
INCORPORATED**

**UNOCAL SERVICE STATION #5043  
449 HEGENBERGER ROAD  
OAKLAND, CALIFORNIA**

**FIGURE  
1**

## PROPOSED WELL CONSTRUCTION DIAGRAM



### WELL DETAILS\*

1. Well will be terminated 10 feet into the first encountered ground water, unless an aquitard five feet or greater in thickness is encountered below the water table, in which case the bottom of the boring will be backfilled with bentonite pellets and the well terminated at the top of this aquitard [A].
2. Boring diameter [B] is 8 inches for 2 inch wells, 10 inches for 4 inch wells, and 12 inches for 6 inch wells.
3. Perforated interval [F] will extend from bottom of casing to five feet above the first encountered ground water table (unless water <5 feet deep).
4. Schedule 40 PVC casing, 2 inch in diameter [D], will be used. Screen is 0.020 or 0.010 inch factory machined slots, depending on filter pack grain size.
5. Filter pack will be placed from bottom of casing to two feet above perforated interval [I]. (Bottom seal [J] is not installed unless required.) One to two feet of bentonite [H] will be placed above the filter pack. Concrete grout [G] will be placed from top of bentonite seal to the surface (unless modified due to shallow water). Blank casing [E] will extend from the top of the perforated casing to the top of the hole.
6. The well will be installed with a waterproof cap, padlock and a flush-mounted well cover.

\* See text for additional information.