

8/25/89



**KAPREALIAN ENGINEERING, INC.**

Consulting Engineers

P. O. BOX 913

BENICIA, CA 94510

(707) 746-6915

August 21, 1989

Alameda County Health Agency  
470 27th Street, Room 322  
Oakland, CA 94612

Attention: Mr. Lowell Miller

RE: Unocal Service Station #6034  
4700 First Street  
Livermore, California

Dear Mr. Miller:

Per the request of Mr. Ron Bock of Unocal, enclosed please find our report and proposal dated August 15, 1989 for the above referenced site.

Should you have any questions, please feel free to call our office at (707) 746-6915.

Sincerely,

Kaprealian Engineering, Inc.

Judy A. Dewey

Enclosure

cc: Ron Bock, Unocal



**KAPREALIAN ENGINEERING, INC.**

Consulting Engineers

P. O. BOX 913

BENICIA, CA 94510

(707) 746-6915

KEI-P89-0801.P1  
August 15, 1989

Proposal

to

UNOCAL CORPORATION

for

Unocal Service Station #6034

at

4700 First Street

Livermore, California

Submitted By:

A handwritten signature in dark ink, appearing to read 'Mardo Kaprealian', written over a horizontal line.

Mardo Kaprealian  
President

## 1.0 INTRODUCTION

In August, 1989, Kaprealian Engineering, Inc. (KEI) was hired to obtain soil samples from beneath two 12,000 gallon fuel storage tanks and a waste oil tank during replacement. The soil samples from beneath the fuel tanks were taken at depths of 15 to 16 feet. The soil sample from beneath the waste oil tank was taken at a depth of 8.5 feet. Pipe trench samples were collected at depths ranging from 2.5 to 3.5 feet. Ground water was encountered in the fuel tank pit at 17.5 feet during additional excavation of the location where sample A3 was collected. One ground water sample was collected. The results of the soil analyses for total petroleum hydrocarbon (TPH) as gasoline ranged from non-detectable to 9.6 ppm in all samples, except A3, which showed 390 ppm. The sample from beneath the waste oil tank showed low to non-detectable levels of all constituents analyzed. The water sample showed 260 ppb of benzene. For additional information on the tank removal, please see KEI's report (KEI-J89-0801.R2) dated August 15, 1989. Since the results of the laboratory analyses exceed the level set by the Regional Water Quality Control Board (RWQCB), additional investigation is necessary.

## 2.0 SCOPE OF WORK

Per our recommendations described in KEI's report KEI-J89-0801.R2 dated August 15, 1989, additional investigation is necessary to comply with the State and Local Regulatory Agency regulations. Therefore, per the RWQCB guidelines, KEI proposes to perform the work as outlined below:

### New Well Installation:

- 2.1 Coordination with regulatory agencies.
- 2.2 Installation and construction of four monitoring wells as shown on attached Site Plan.
- 2.3 Collection of soil samples during the well construction. Soil samples will be collected at five foot intervals starting at a depth of five feet. Soil sampling will continue until the first water table is encountered. Selected soil samples will be analyzed for TPH as gasoline and benzene, toluene, xylenes and ethylbenzene (BTX&E). In addition, selected soil samples collected from MW1 (adjacent to the waste oil tank) will be analyzed for TPH as diesel, TOG and 8010 constituents.

- 2.4 The monitoring wells will be observed for free product and sheen. Water samples will be taken from all monitoring wells and analyzed for TPH as gasoline and BTX&E per the RWQCB guidelines. In addition, water samples collected from MW1 (adjacent to the waste oil tank) will be analyzed for TPH as diesel, TOG, and EPA method 601 constituents. All analyses will be performed by a state certified laboratory.
- 2.5 Evaluation of results of the sample analyses as to the current and potential impact on the ground water.
- 2.6 Preparation and submission of a technical report within 45 days of completion of the soil and water sampling. The report will document the field work performed, chemical analyses of soil/ground water, and offer discussion and recommendations.
- 3.0 SCHEDULING

KEI is prepared to start the work as soon as this proposal is accepted by the client.



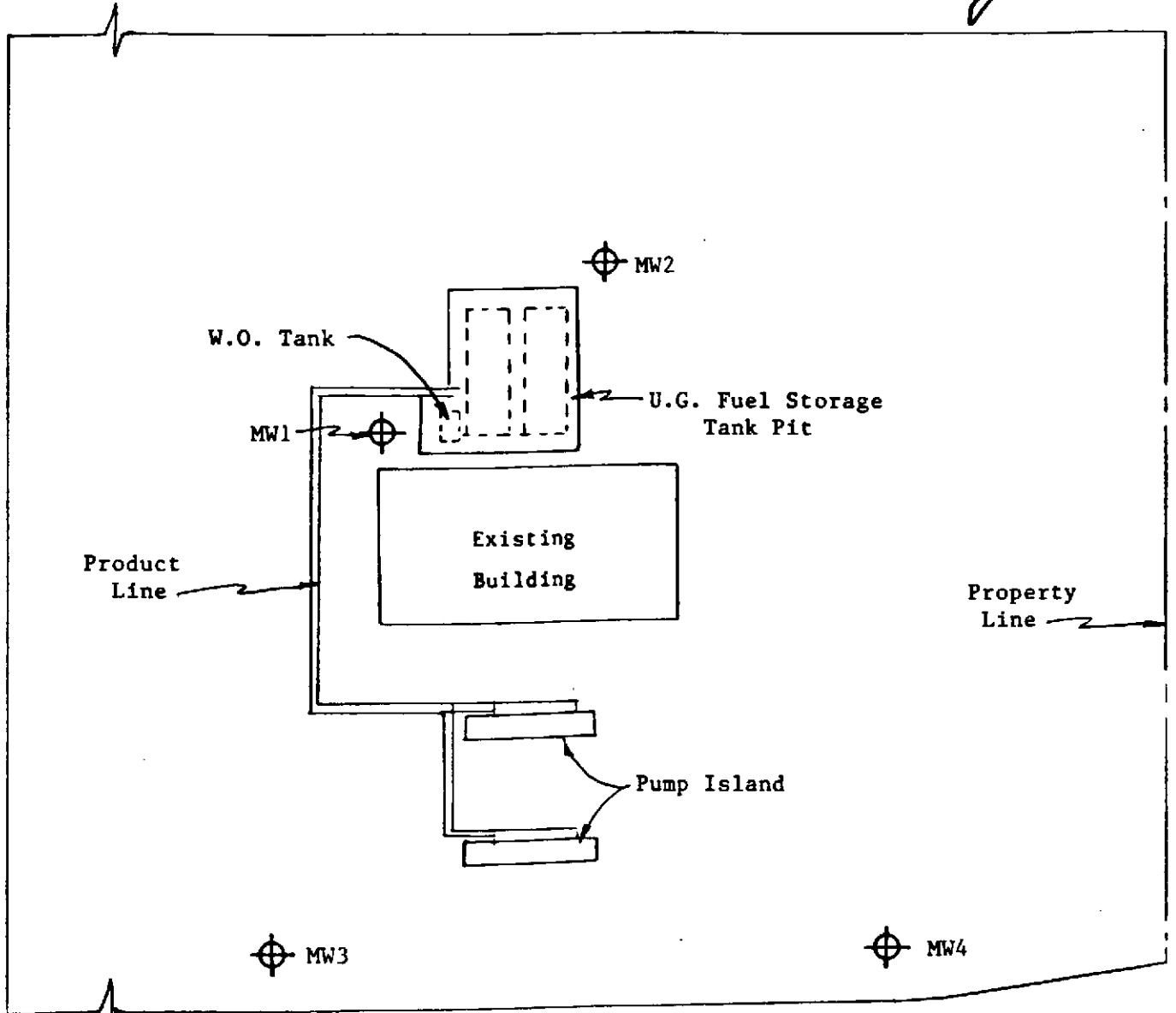
# KAPREALIAN ENGINEERING, INC.

Consulting Engineers

P. O. BOX 913

BENICIA, CA 94510

(707) 746-6915



Product Line

W.O. Tank

MW1

MW2

U.G. Fuel Storage Tank Pit

Existing Building

Property Line

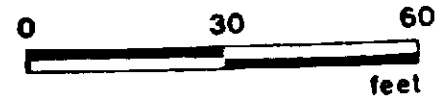
Pump Island


MW3

MW4

FIRST STREET

SITE PLAN



 Monitoring Well

Unocal Service Station #6034  
4700 First Street  
Livermore, California