COP 5043

R2-19

STATE OF CALIFORNIA - THE RESOURCES AGENCY — GRAY DAVIS, Governor

DEPARTMENT OF WATER RESOURCES

CENTRAL DISTRICT	NORTHERN DISTRICT	SAN JOAQUIN DISTRICT	SOUTHERN DISTRICT
3251 S Street	2440 Main Street	3374 East Shields Avenue	770 Fairmont Avenue
Sacramento, CA 95816	Red Bluff, CA 96080	Fresno, CA 93726	Glendale, CA 91203
(916) 227-7632	(530) 529-7300	(559) 230-3300	(818) 543-4600
(916) 227-7600(Fax)	(530) 529-7322 (Fax)	(559) 230-3301 (Fax)	(818) 543-4604 (Fax)

WELL COMPLETION REPORT RELEASE AGREEMENT--AGENCY

(Government and Regulatory Agencies and their Authorized Agents)

Project/Contract No. 42014409 County Alameda

Township, Range, and Section T2S, R3W, Sec 21, 22, 27, & 28 Radius ½ Mile
(Must include entire study area and a map that shows the area of interest.)

Under California Water Code Section 13752, the agency named below requests permission from Department of Water Resources to inspect or copy, or for our authorized agent named below to inspect or copy, Well Completion Reports filed pursuant to Section 13751 to (check one):

[X] Make a study, or,

[ ] Perform an environmental cleanup study associated with an unauthorized release of a contaminant within a distance of 2 miles.

In accordance with Section 13752, information obtained from these reports shall be kept confidential and shall not be disseminated, published, or made available for inspection by the public without written authorization from the owner(s) of the well(s). The information shall be used only for the purpose of conducting the study. Copies obtained shall be stamped **CONFIDENTIAL** and shall be kept in a restricted file accessible only to agency staff or the authorized agent.

TRC Rachelle Dunn	ALAMEDA COUNTY ENVIRONMENTAL HEALTH SERVICES 1131 HARBOR BAY PARKWAY ALAMEDA, CALIFORNIA 94502-6577
Authorized Agent	Government or Regulatory Agency
1590 Solano Way, St A	Address
Concord, CA 94520	City, State, and Zip Code
City, State, and Zip Code	
Signature Rachelle Dunn	Signature Don Hwang
Title Staff Geologist	Title HAZARDOUS MATERIALS SPECIALIST
Telephone (925) 688-2464	Telephone (510) 567-6746
Fax (925) 688-0388	Fax (510) 337-9335
Date 1/9/06	Date 1/18/06
E-mail rdunn@trcsolutions.com	E-mail don.hwang@acgov.org

6 June 2001

TRC
Customer-Focused Solutions

January 9, 2006 Project # 42014409

Mr. Don Hwang
Alameda County Health Services
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

Site: 76 Service Station #5043
449 Hegenberger Road
Oakland, California

Re: REQUEST FOR WELL LOCATIONS

Dear Mr. Hwang:

On behalf of ConocoPhillips, TRC is performing a sensitive receptor survey for the above referenced site. The survey is for the area within a ½ mile radius of 449 Hegenberger Road., Oakland. We request from you the authorization to continue with this survey by viewing well completion reports for those domestic and municipal wells within a ½ mile radius of the subject site. Upon your signature and return, the attached DWR Well Completion Report Release Agreement will be forwarded to the Department of Water Resources.

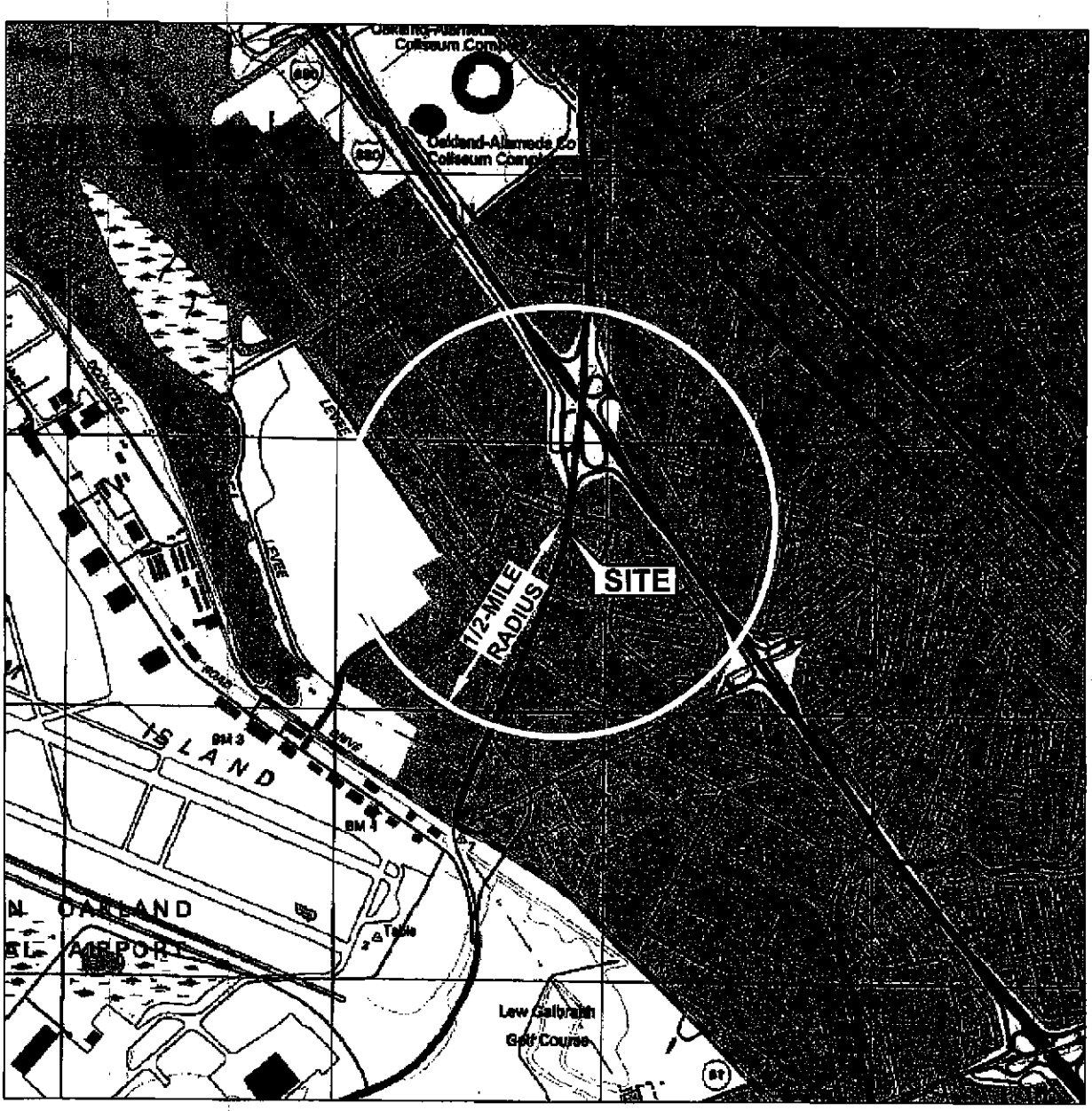
TRC would like to request that you expedite the turn around of this authorization letter so that we may complete this review at the same time as the review of well completion reports in the vicinity of 76 Service Station #0018 and #3135. The completed authorization forms for these two sites have already been received from you, thank you.

Should you have any questions, please feel free to call Keith Woodburne at (925) 688-2488 or myself at (925) 688-2464. Thank you for your time.

Sincerely,
TRC

Rachelle Dunn
Staff Geologist

1590 Solano Way, Suite A • Concord, California 94520
Telephone 925-688-1200 • Fax 925-688-0388



1 MILE 3/4 1/2 1/4 0 1 MILE

SCALE 1 : 24,000

N

SOURCE:

United States Geological Survey
7.5 Minute Topographic Maps:
San Leandro Quadrangle
California

SENSITIVE RECEPTORS WITHIN HALF-MILE OF SITE

76 Service Station #5043
449 Hegenberger Road
Oakland, California

TRC

FIGURE 1

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

March 25, 2005

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

Thomas H. Kosel, Site Manager
Risk Management and Remediation
ConocoPhillips
76 Broadway
Sacramento, CA 95818

Dear Mr. Kosel,

Subject: Fuel Leak Case No [redacted]219, Unocal Service Station No. 5043,
449 Hegenberger Rd., Oakland, CA

Alameda County Environmental Health (ACEH) staff has reviewed "Work Plan for Dual-Phase Vacuum Extraction Pilot Test" dated October 11, 2004, "Dual-Phase Vacuum Extraction Application at Each Site" via email dated March 14, 2005, "Draft Multi-phase Extraction Standard Operating Procedure" via email dated March 18, 2005, all prepared by TRC. We approve the Work Plan. We request that you perform the work and send us the technical reports requested below.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Don Hwang), according to the following schedule:

May 25, 2005 - Dual-Phase Vacuum Extraction Pilot Test

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

If you have any questions, I may be reached at (510) 567-6746.

Sincerely,

Don Hwang
Hazardous Materials Specialist
Local Oversight Program

C: Roger Batra, TRC, 1590 Solano Way, Suite A, Concord, CA 94520
Donna Drogos
File

Hwang, Don, Env. Health

From: Batra, Roger [rbatra@TRCSOLUTIONS.com]
Sent: Friday, March 18, 2005 10:12 AM
To: Hwang, Don, Env. Health
Cc: Thomas.H.Kosel@conocophillips.com; Shelby.S.Lathrop@conocophillips.com
Subject: RE: 76 Stations 0746 (3943 Broadway), 3135 (6535 San Leandro Street), and 5043 (449 Hegenberger Road), Oakland, California

Attachments: 2887_001.pdf

2887_001.pdf (302 KB)

Don,

Here is a generic SOP that we follow for conducting MTS events at UST sites.

Thanks,

Roger Batra
Senior Project Manager
TRC

-----Original Message-----
From: Hwang, Don, Env. Health [mailto:don.hwang@acgov.org]
Sent: Thursday, March 17, 2005 2:08 PM
To: Batra, Roger
Subject: RE: 76 Stations 0746 (3943 Broadway), 3135 (6535 San Leandro Street), and 5043 (449 Hegenberger Road), Oakland, California

Roger, I looked at the website. Still, the information regarding MTS is about its capabilities. Do you have Standard Operating Procedures which describes how the MTS will be operated? Thanks, Don

-----Original Message-----
From: Batra, Roger [mailto:rbatra@TRCSOLUTIONS.com]
Sent: Thursday, March 17, 2005 10:17 AM
To: Hwang, Don, Env. Health
Cc: Thomas.H.Kosel@conocophillips.com; Shelby.S.Lathrop@conocophillips.com
Subject: RE: 76 Stations 0746 (3943 Broadway), 3135 (6535 San Leandro Street), and 5043 (449 Hegenberger Road), Oakland, California

Don,

TRC has a website, www.trcmts.com, and a lot of information regarding MTS is available on that site. Hope that will help.

Thanks,

Roger Batra
Senior Project Manager
TRC

-----Original Message-----
From: Hwang, Don, Env. Health [mailto:don.hwang@acgov.org]
Sent: Tuesday, March 15, 2005 5:40 PM
To: Batra, Roger
Subject: RE: 76 Stations 0746 (3943 Broadway), 3135 (6535 San Leandro

Street), and 5043 (449 Hegenberger Road), Oakland, California

Roger, Do you have an SOP for the MTS? Thanks, Don

-----Original Message-----
From: Batra, Roger [mailto:rbatra@TRCSOLUTIONS.com]
Sent: Tuesday, March 15, 2005 8:59 AM
To: Hwang, Don, Env. Health
Cc: Thomas.H.Kosel@conocophillips.com;
Shelby.S.Lathrop@conocophillips.com
Subject: FW: 76 Stations 0746 (3943 Broadway), 3135 (6535 San Leandro Street), and 5043 (449 Hegenberger Road), Oakland, California

Don,

Here is the response to your question for each site.

Thanks,

Roger Batra
TRC

-----Original Message-----
From: Trevor, Mark
Sent: Monday, March 14, 2005 11:12 AM
To: Batra, Roger
Subject: RE: 76 Stations 0746 (3943 Broadway), 3135 (6535 San Leandro Street), and 5043 (449 Hegenberger Road), Oakland, California

Here is a short paragraph on DPVE application at each site.

3135:
Dissolved-phase hydrocarbon concentrations in the target well (MW-6) have been 1,000 to 8,000 ug/L during the last 4 monitoring events. Prior to that, concentrations were in the 10,000 to 30,000 ug/L range. Depth to groundwater is approximately 6 fbg and the soil in the vadose zone consists of well graded sand. The high concenrations in a localized area, combined with shallow groundwater and permeable soil make this location a good candidate for short-term dual-phase extraction. It is anticipated that vapor-phase hydrocarbons will be removed from the vadose zone and possibly from the saturated zone if water levels can be lowered. In addition, hydrocarbon-impacted groundwater will be removed from the subsurface. Dissolved-phase hydrocarbon concentrations may be lowered significantly at relatively little expense using this technology.

0746:
Dissolved-phase hydrocarbon concentrations in the target wells (MW-3, MW-5 and RW-1) have been on the order of several thousand ug/L with free-product in MW-5. Benzene and MTBE have also been detected in MW-3 and RW-1. Depth to groundwater is approximately 10 fbg and the soil in the vadose zone consists of fine to medium grained fill or clay. The soil in the water bearing zone is coarse-grained gravel and sands. The high concenrations in a localized area, combined with shallow groundwater and a coarse-grained water-bearing zone make this site a potentially good candidate for short-term dual-phase extraction. It is anticipated that dissolved- and vapor-phase hydrocarbons will be removed from the saturated zone and to a lesser extent from the fine-grained vadose zone soils. In addition, hydrocarbon-impacted groundwater will likely be removed from the subsurface.

5043:
Dissolved-phase hydrocarbon concentrations in the target well (MW-6)

have been 71,000 to 110,000 ug/L during the last 4 monitoring events. Concentrations have been consistent with this for the past 4 years. Depth to groundwater is approximately 2 fbg and the soil in the upper 7 feet consists of sandy clayey fill. The high concenrations in a localized area, combined with shallow groundwater and semi-permeable soil make this location a good candidate for short-term dual-phase extraction. A DPVE event conducted in 1999 on MW-6 removed approximately 300 pounds of vapor-phase hydrocarbons and appeared successful at removing the recurring free-product in MW-6. It is anticipated that vapor-phase hydrocarbons will be removed from the vadose zone and possibly from the saturated zone if water levels can be lowered.

-----Original Message-----
From: Batra, Roger
Sent: Friday, March 11, 2005 11:50 AM
To: Trevor, Mark
Subject: FW: 76 Stations 0746 (3943 Broadway), 3135 (6535 San Leandro Street), and 5043 (449 Hegenberger Road), Oakland, California

Mark,

Please see me regarding a response to Don Hwang at Alameda County. I would like to get a response to him by Monday.

Thanks,

Roger
-----Original Message-----
From: Hwang, Don, Env. Health [mailto:don.hwang@acgov.org]
Sent: Friday, March 11, 2005 11:12 AM
To: Batra, Roger
Subject: RE: 76 Stations 0746 (3943 Broadway), 3135 (6535 San Leandro Street), and 5043 (449 Hegenberger Road), Oakland, California

Roger,

I've reviewed Work Plans for Dual Phase Vacuum Extraction Pilot Test for 0746 (3943 Broadway) and 5043 (449 Hegenberger Road), but can't find 3135 (6535 San Leandro Street) because we have it listed under a different address, do you have another address and which address should be used? The Work Plans are similar, specs for the MTS are given & which well will be used. For each site, please state how your proposals have a reasonable expectation to be effective.

Don

-----Original Message-----
From: Batra, Roger [mailto:rbatra@TRCSOLUTIONS.com]
Sent: Tuesday, March 08, 2005 3:17 PM
To: Hwang, Don, Env. Health
Subject: FW: 76 Stations 0746 (3943 Broadway), 3135 (6535 San Leandro Street), and 5043 (449 Hegenberger Road), Oakland, California

Don,

Here it is. I did not have the period between your first and last name. Thanks.

Roger Batra
TRC
925-688-2466

> -----Original Message-----
> From: Batra, Roger
> Sent: Tuesday, March 08, 2005 2:37 PM
> To: 'donhwang@acgov.org'
> Cc: 'Thomas.H.Kosel@conocophillips.com';
'Shelby.S.Lathrop@conocophillips.com'
> Subject: 76 Stations 0746 (3943 Broadway), 3135 (6535 San
Leandro Street), and 5043 (449 Hegenberger Road), Oakland, California
>
>
> Don,
>
> TRC on behalf of ConocoPhillps Company (ConocoPhillips) had submitted
the following documents for the subject sites to Alameda County Health
Services in September/October 2004.
>
> 76 Station No. 0746, 3943 Broadway, Oakland, California
>
> Work Plan for Dual Phase Vacuum Extraction Pilot Test dated September
23, 2004.
>
> 76 Station No. 3135, 6535 San Leandro Street, Oakland, California
>
> Work Plan for Dual Phase Vacuum Extraction Pilot Test dated September
23, 2004.
>
> 76 Station No. 5043, 449 Hegenberger Road, Oakland, California
>
> Work Plan for Dual Phase Vacuum Extraction pilot Test dated October
> 11, 2004
>
> TRC has scheduled the pilot tests at these sites to take place in late
March/early April 2005. The pilot tests will be conducted using TRC's
Mobile Treatment System, a truck-mounted, dual-phase soil-vapor and
liquid extraction system. In addition, prior to commencement of onsite
work, TRC will notify the Bay Area Air Quality Management District of
the proposed activities.
>
> No comments have been received from Alameda County Health Services
> since the submittal of the Work Plans for the subject sites. In
> accordance with 60-day rule (CCR Title 23, Division 3, Chapter 16,
> Article 11, Section 2722, 2e), TRC on behalf of ConocoPhillips can
> proceed with the dual-phase vacuum extraction pilot tests at the
> subject sites. If we do not hear back from you by March 18, 2005 we
> will assume you have no objections to the implementation of the
> aforementioned Work Plans
>
> Please call me should you have any questions or need additional
information.
>
> Thanks,
>
> Roger Batra
> Senior Project Manager
> TRC
> 1590 Solano Way, Suite A
> Concord, California 94520
> 925-688-2466 (Direct)
> 925-260-6405 (Cell)
>

3/18/05

Draft Multi-phase Extraction Standard Operating Procedure

This document provides guidance to remediation contractors operating multi-phase extraction (MPE) systems. Emphasis is placed on current remediation objectives of the mobile MPE trailers which focus on product removal or dissolved hot-spot cleanup through short-term (30-60 day) operation. Many of the operating decisions described herein will be applicable to longer-term MPE remediation systems, although monitoring schedule and scope may be significantly altered. This is a working document, subject to change and improvement as needed. The purpose is to establish a standardized methodology for performing MPE remediation, and thereby improve system flexibility, efficiency, effectiveness, and cost reduction.

I. Multi-phase Extraction Objectives and Overview

UST gasoline release volume is often sufficient for non-aqueous phase liquid hydrocarbon (NAPL) to migrate to the water table, forming a non-wetting phase in soils of the upper saturated zone. Modern multi-phase flow theory recognizes this zone as an area of intimate contact between NAPL and water, representing a long-term source for dissolved phase contamination. Since NAPL displaces the wetting phase (water) it is mobile only so long as saturations are sufficient to maintain fluid pressures exceeding the pore entry pressures of adjacent soil pores. As seasonal water table fluctuations occur, NAPL is distributed vertically through an increasingly larger soil volume, causing a reduction in saturation throughout the NAPL plume. As saturations decline, the majority of the NAPL mass eventually becomes trapped as discontinuous ganglia within a "smear zone"[1]. Since saturations are low within the smear zone, little NAPL can be removed through drainage. Multi-phase extraction (MPE) systems are designed to dewater smear zone soils, induce air flow, and remove NAPL through volatilization.

MPE systems have two primary configurations. The first is dual-phase extraction (DPE), utilizing separate mechanical systems for pumping groundwater and extracting soil vapor. The second is two-phase extraction (TPE), where a single vacuum pump is used to extract both water and soil vapor through small diameter piping inserted in recovery wells. The most cost-effective MPE configuration is determined by aquifer permeability and corresponding well yield of both water and air (Figure 1). MPE systems are designed to operate at moderate to high vacuums (12-25" Hg), which create an inward radial pressure gradient in the vicinity of extraction wells. Subsurface vacuum enhances gravity-driven hydraulic gradient, which increases water yield to extraction wells and can generate a much broader cone of depression than would be possible under atmospheric pressure conditions. Since the objective of MPE remediation is to dewater the smear zone and volatilize NAPL, primary operational metrics are based on aquifer drawdown and vacuum distribution. Maximizing drawdown and annular vacuum in extraction wells optimizes both.

II. Dual-Phase Extraction Systems

DPE systems typically include an air compressor and pneumatic downhole pumps for groundwater extraction, and a rotary lobe vacuum pump for concurrent vapor extraction at moderate vacuum. Vapor effluent may be treated with a thermal oxidizer, or may be discharged direct to the atmosphere where permitted. Extracted groundwater is processed through an oil/water separator, surge tank, air stripper, and final carbon polish (if necessary) prior to discharge to a POTW or surface drainage through NPDES permit.

---

[1] Monitoring wells in the center of the smear zone may contain ephemeral thicknesses of locally mobile NAPL, although the plume as a whole is immobile.

DPE system performance monitoring data include:

- ✓ Groundwater extraction pump depth
- ✓ Groundwater extraction rate (on an individual well basis)
- ✓ System operating vacuum
- ✓ System air flow rate
- ✓ System VOC concentration
- ✓ Wellhead operating vacuum
- ✓ Wellhead air flow rate
- ✓ Wellhead air flow control valve setting
- ✓ Wellhead VOC concentration
- ✓ Vacuum in adjacent monitoring wells
- ✓ Drawdown in adjacent monitoring wells

These data allow well-specific system adjustments based on degree of drawdown, yields of water and air, and mass removal rate.

IIA. DPE Groundwater Extraction System Setup:

Groundwater extraction pumps should be placed at a depth such that the pump intake allows maximum well dewatering. This may not be practical at sites with excessive yields where wells may not be completely dewatered to the pump intakes. Excessive yields are generally greater than 6-7 GPM/well for 2" diameter wells, and 12-14 GPM/well for 4" diameter wells. If either individual well yield is too great for pump capacity, or combined yield is too large for the groundwater treatment system, pumps should be raised to reduce dewatering and lower flow rates. In such cases, pumps should be set at a depth corresponding to an interpreted base of the smear zone[2], or generally as deep as water treatment or pump capacity will permit. Preferred pump types will utilize internal level controllers (e.g., clean environment, QED), since these controller designs do not require external pressure reference to casing vacuum, generally use less air/cycle, pump only water, and are reliable. Individual pump rates should be determined with cycle meters located within the remediation trailer, and should be converted to GPM values and recorded at each site visit.

IIB. DPE Drawdown measurement:

Prior to startup of the DPE system, a round of liquid elevations should be collected from all extraction wells and site monitoring wells as a baseline for calculation of induced drawdown. Once DPE has begun, liquid levels need not be collected from extraction wells, which are presumed to be dewatered to the pump intake, but should be collected from monitoring wells. Liquid levels should be collected at each site visit until stabilized drawdown can be demonstrated. If system configuration is altered, drawdown levels should again be verified until a steady-state condition can be verified.

IIC. DPE Wellhead air flow rates and vacuum monitoring:

Refer to Figure 2A for an example schematic of a typical DPE wellhead configuration. Although solid SVE piping can be utilized at the wellhead, a hose connection between underground SVE piping and casing is recommended to facilitate air flow measurement and provide flexibility for installation of valves and fittings within the well vault. Air flow can be measured with a rotameter attached to a double length of hose with camlock fittings at either end. In this manner, a single rotameter can be used to measure flow from all wells. Likewise, a quick-connect fitting is recommended for monitoring wellhead vacuum as a single gauge can be used on all extraction wells (although dedicated vacuum gauges are also acceptable).

[2] Since smear zone soils contain residual NAPL, headspace screening of soil samples collected during well installation can be used to distinguish between smear zone soils, and soils within the dissolved plume only.

IID. DPE Wellhead VOC monitoring:

VOC sampling should be performed under operating conditions, requiring a sample pump capable of defeating casing vacuum of 20" Hg (recommended). Although a variety of sample pump configurations are possible, the use of vacuum chamber/Tedlar bag combination allows positive visual evidence that the air sample is undiluted by leakage within the pump or fittings. Vapor samples should be screened in the field with a portable gas analyzer (FID preferred). VOC concentration (ppmv) should be converted to mass removal rate (Lb./day) utilizing an assumed molecular weight of 86.2 Lb./Lb.-mole (Hexane)[3].

IIE. DPE System VOC monitoring:

A pitot tube, venturi gauge, orifice plate, or other appropriate differential pressure flow measurement device should be installed on the discharge side of the vacuum blower. A hose barb or quick-connect fitting should also be installed at this location for vapor sampling upstream of effluent treatment (Thermox, if required). A matching flow measurement device should be installed to allow measurement of ambient air flow introduced to the system at the blow intake manifold. System air flow rate, VOC concentration as measured with a portable gas analyzer, mass removal rate (per method describe above), and bleed air flow rate (if any) should be recorded at each site visit. A confirmation laboratory analytical vapor sample should be collected concurrent with field screening sample to validate the portable gas analyzer readings. A Suma canister should be used for this purpose and submitted for analysis of BTEX and MTBE (if present) by Method 8020, and GOR through Method 8015, TO3, or suitable alternate. A laboratory VOC sample should be collected at least once during each 10 days of operation.

IIF. Optimizing DPE mass removal:

DPE systems allow broad flexibility and control in optimizing smear zone dewatering and remediation. The operational objective should be to maximize mass removal rate, initially for the system as a whole, and secondly from individual wells. Mass removal rate optimization approach emphasizes both air flow rate and VOC concentrations from individual wells, and considers initial limitations on mass removal which may be imposed by effluent treatment requirements. This approach is especially important in light of the short time frame of most DPE remediations (30-60 days).

All DPE wells should experience high mass removal rates at the beginning of remediation, especially if product removal is the remediation objective. If so, air flow control valves should be set 100% open initially, and baseline mass removal rates should be established for each well during the first week of operation. If a thermal oxidizer is required, air flow adjustments from individual wells should generally be deferred until no ambient bleed air is required (i.e., the BTU fuel value of the vapor effluent is less than Thermox treatment capacity). If maximum system vacuum operation is possible (i.e., no bleed air), individual air flow adjustments should be considered in the context of air flow rate comparisons between wells, and total air flow to the blower. Air flow rate adjustment decisions should be based on the following criteria:

1) If combined air flow rates from all wells are high relative to the maximum flow capacity of the blower, system vacuum should be within the mid- to lower portion of the performance curve (Figure 3). Under these operating conditions, flow and mass removal rate comparisons should be made between individual wells to evaluate whether air flow from certain wells should be restricted.

[3] (ppmv/1,000,000) * SCFM * 1440 min/day * 379 ft.^{3} air/mole * 86.2 Lb./Lb.-mole = Lb./day

Figure 4 illustrates a two well DPE scenario in which one well is completed in higher permeability soils than the other. The high permeability well (high K) will receive the majority of air flow if flow control valves for both wells are set at 100% open, or if the system is balanced on wellhead vacuum (left illustration). Overall air flow rates are high and system vacuum low under these conditions (Figure 3). However, if the flow control valve is partially closed for the high K well, the system can be balanced on flow rather than vacuum (right illustration). System air flow rate is lowered and system vacuum increases. Casing vacuum increases in the low K well, and decreases in the High K well. Changing casing vacuum may affect drawdown which, in turn, may affect flow rate, requiring further flow valve adjustment to obtain balance. Balancing the system on air flow places emphasis on low permeability wells where remediation of NAPL through volatilization will occur less rapidly than high permeability wells, thus increasing the probably that all wells in the remediation system will be adequately treated within the preferred operational period of 30-60 days.

2) Balancing on flow rate criteria alone may not be optimal if low permeability wells also have low mass removal rates, especially when dissolved phase hot-spot reduction is the remediation goal. Empirical data suggest certain smear zone soils will experience mass removal limitations (diffusion-limited SVE performance), which is usually associated with low permeability. If flow balancing does not significantly improve mass removal rate from these wells, it may be optimal to shut them down and thereby increase flow to other extraction wells in the system. In any case, where dissolved hot-spot cleanup is the remediation objective, decisions to eliminate low permeability extraction wells from the system based on mass removal rate should be shared between the remediation contractor, Chevron project manager, and CRTC support personnel.

3) Extraction wells with high air flow rate and low mass removal rate should be considered for exclusion from the DPE system. These conditions are more likely to develop when dissolved phase hot-spot reduction is the remediation goal. High flow/low mass removal rate wells lower the operating vacuum of the system, and contribute little to overall system performance. It is important to note that high flow/low mass removal rate wells may be experiencing short-circuiting, especially if VOC concentrations drop markedly within the first few day of operation. A study of over 70 SVE pilot tests (Peargin and Mohr, 1994) noted short-circuiting occurred in about 20% of these tests. Since the pilot tests were performed at vacuums ranging between 2.1"- 4.6" Hg, short circuiting may be more prevalent at the high vacuums typical of MPE operation. Short circuiting may be more likely where well screen and filter pack intervals extend to within about 3 ft. of the surface. If monitoring wells are completed in this manner due to a shallow water table, DPE may not be feasible.

4) If combined air flow rates from all wells are relatively low, the blower should be operating in the high vacuum end of the performance curve (Figure 3). In this case, restricting air flow from individual wells will have little effect on system vacuum, and should result in little change in flow from other wells. No air flow adjustments are necessary.

IIG. DPE System Monitoring Schedule:

Monitoring should be performed frequently at startup, and less frequently as the system performance pattern is established. A minimum frequency of 3 site visits is recommended during the first week of operation. Two site visits are recommended during the second week, followed by a single visit per week until the end of remediation. This should be considered a minimum frequency, and can be increased for Metro Atlanta, or other site locations where travel time and accessibility permit.

NA

II. Two-Phase Extraction Systems

TPE systems use a single vacuum pump to extract both water and soil vapor through small diameter piping inserted in recovery wells. A generic system schemaic is shown in figure ____. Chevron mobile systems are equipped with either a 15 or 20 h.p. Travaini oil-sealed liquid ring vacuum pump. The liquid ring pump is connected to an air/liquid seperation tank which is under high vacuum. The tank is equipped with level controls and a Moyno progressive cavity pump to transfer liquids (and any entrained sediment) from the tank to an oil/water separator, or, settling tank, if required. Vapor effluent treatment has not been required for these systems to date. However, if necessary, vapor could be readily treated through use of a thermal oxidizer, or with vapor phase carbon following filtration for entrained sealant oil droplets. Extracted groundwater and NAPL (if present) is processed through the oil/water separator, followed by surge tank, air stripper, and final carbon polish (if necessary) prior to discharge to a POTW or surface drainage through NPDES permit.

TPE system performance monitoring is more limited than DPE systems since both vapor and liquids are extracted through a single piping system. TPE performance data include:

- ✓ Groundwater extraction rate (on a system basis)
- ✓ System operating vacuum
- ✓ System air flow rate
- ✓ System VOC concentration
- ✓ Wellhead drop tube operating vacuum
- ✓ Wellhead casing operating vacuum
- ✓ Wellhead flow control valve setting
- ✓ Wellhead bleed valve setting
- ✓ Vacuum in adjacent monitoring wells
- ✓ Drawdown in adjacent monitoring wells

These data allow for limited well-specific system adjustments, and may indicate the need to modify system piping sizes, connections, and operating practice.

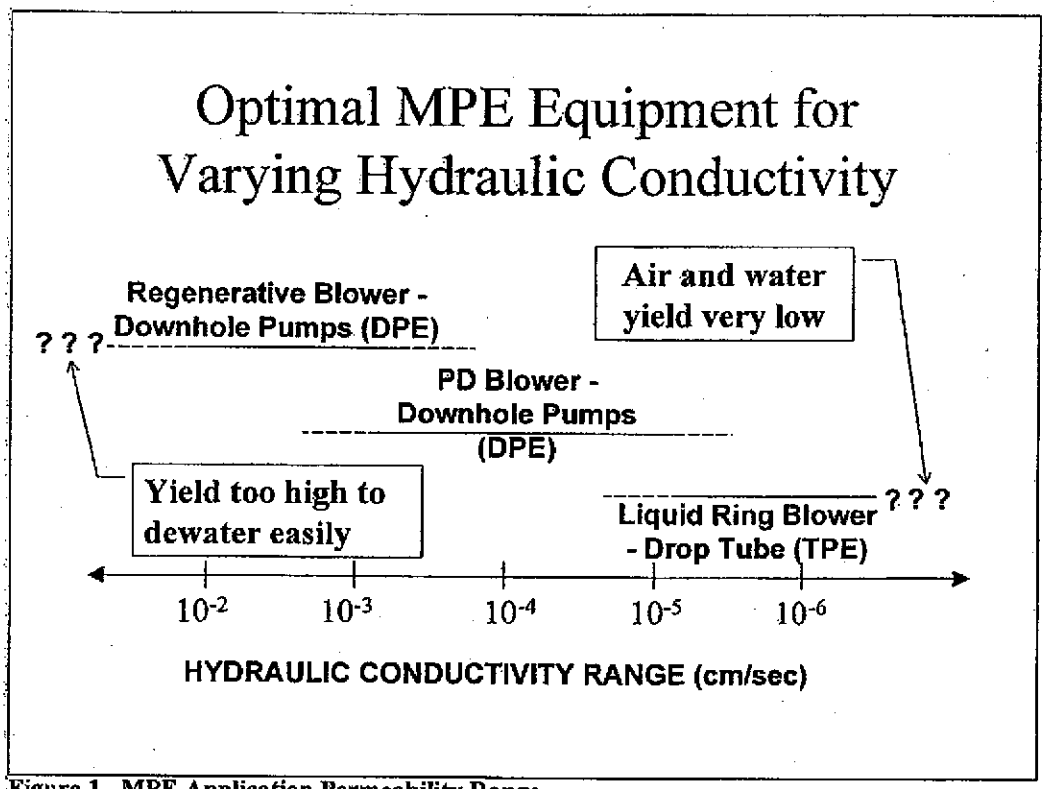


Figure 1. MPE Application Permeability Range

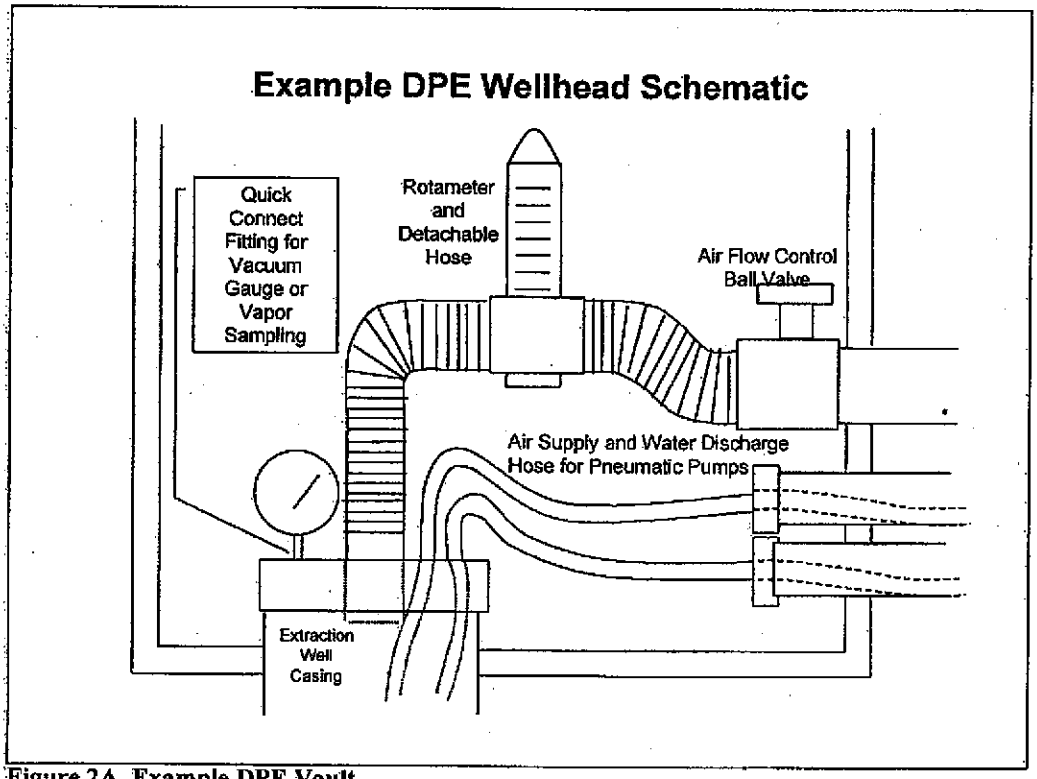


Figure 2A. Example DPE Vault

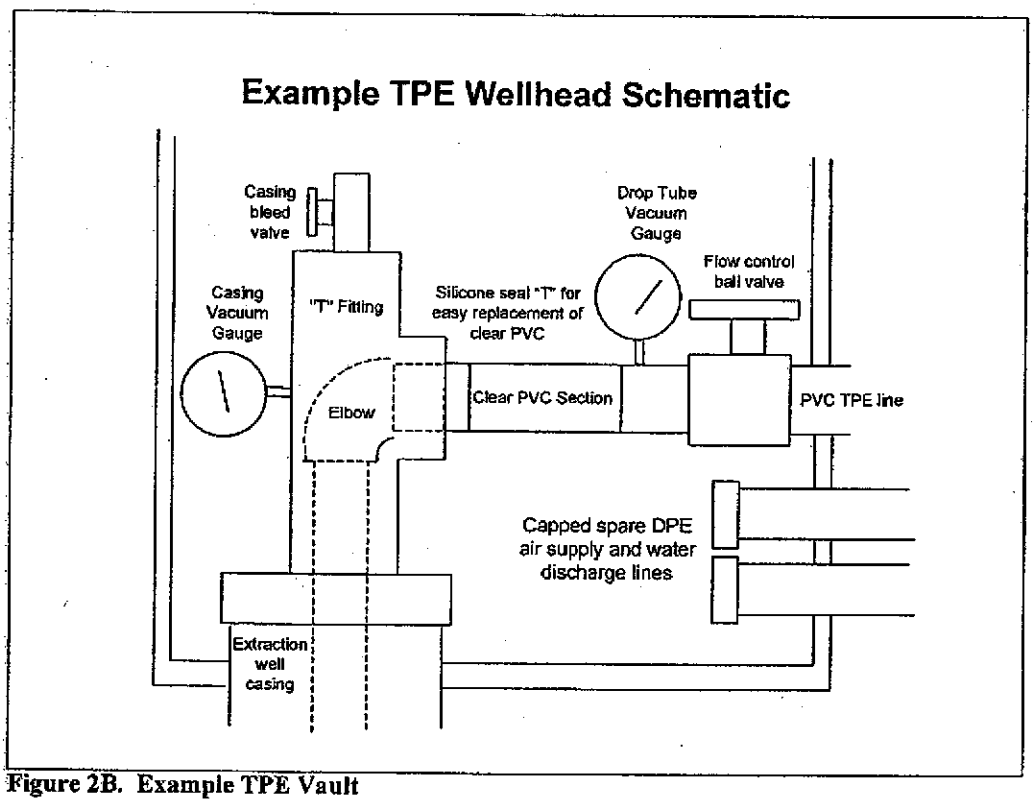


Figure 2B. Example TPE Vault

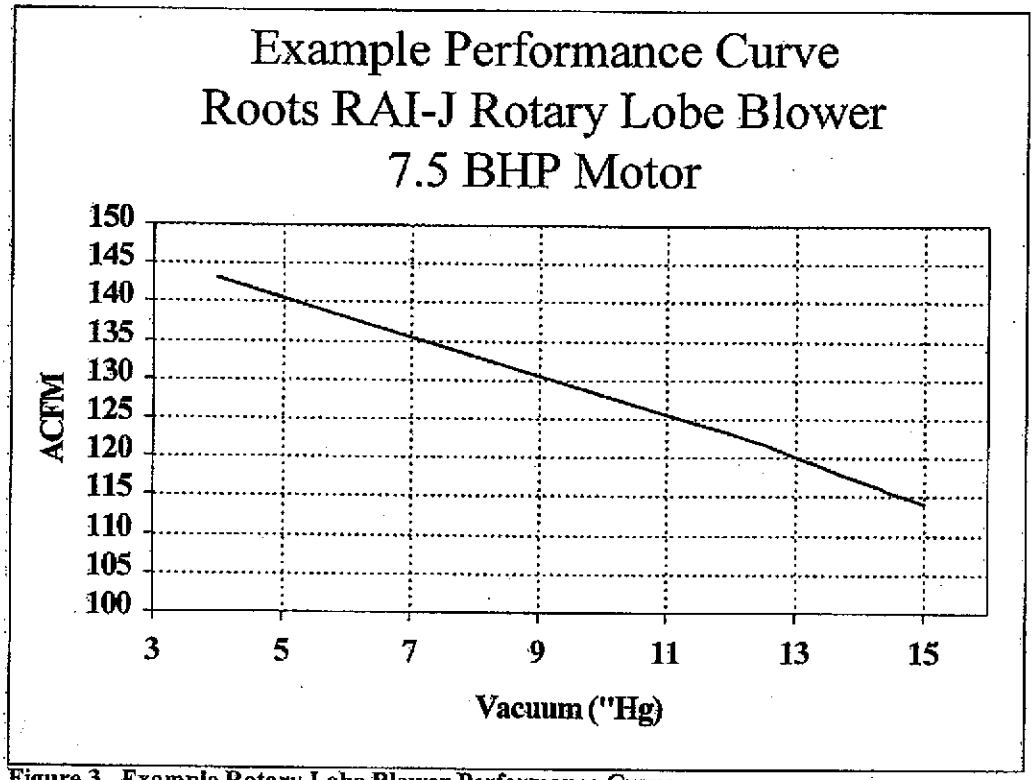


Figure 3. Example Rotary Lobe Blower Performance Curve

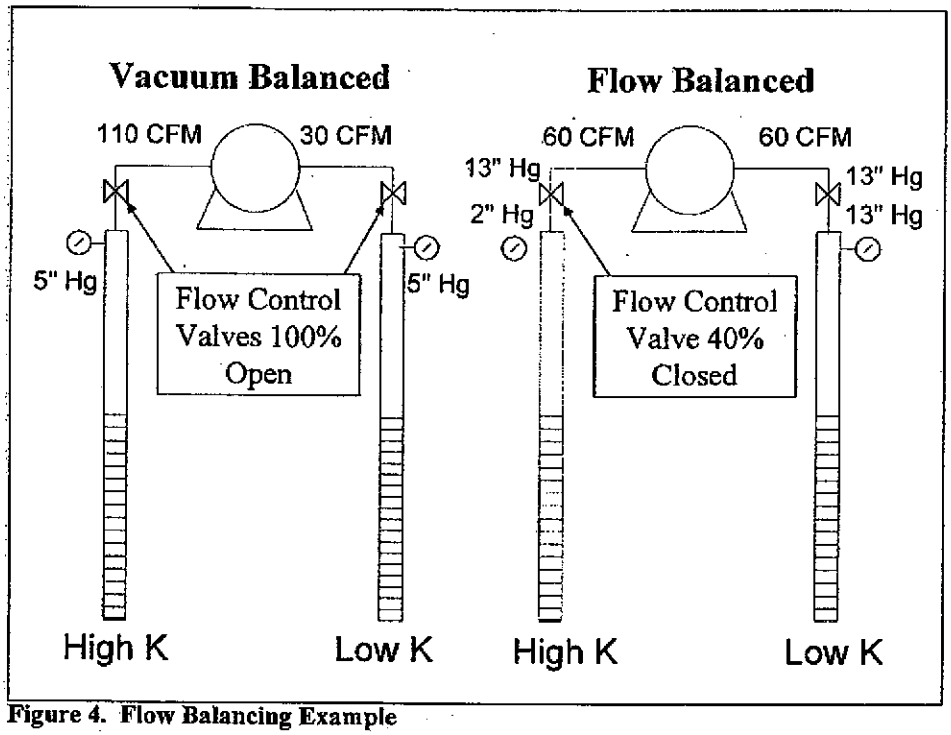


Figure 4. Flow Balancing Example

Hwang, Don, Env. Health

From: Batra, Roger [rbatra@TRCSOLUTIONS.com]
Sent: Thursday, March 17, 2005 10:17 AM
To: Hwang, Don, Env. Health
Cc: Thomas.H.Kosel@conocophillips.com; Shelby.S.Lathrop@conocophillips.com
Subject: RE: 76 Stations 0746 (3943 Broadway), 3135 (6535 San Leandro Street), and 5043 (449 Hegenberger Road), Oakland, California

Don,

TRC has a website, www.trcmts.com, and a lot of information regarding MTS is available on that site. Hope that will help.

Thanks,

Roger Batra
Senior Project Manager
TRC

-----Original Message-----
From: Hwang, Don, Env. Health [mailto:don.hwang@acgov.org]
Sent: Tuesday, March 15, 2005 5:40 PM
To: Batra, Roger
Subject: RE: 76 Stations 0746 (3943 Broadway), 3135 (6535 San Leandro Street), and 5043 (449 Hegenberger Road), Oakland, California

Roger, Do you have an SOP for the MTS? Thanks, Don

-----Original Message-----
From: Batra, Roger [mailto:rbatra@TRCSOLUTIONS.com]
Sent: Tuesday, March 15, 2005 8:59 AM
To: Hwang, Don, Env. Health
Cc: Thomas.H.Kosel@conocophillips.com; Shelby.S.Lathrop@conocophillips.com
Subject: FW: 76 Stations 0746 (3943 Broadway), 3135 (6535 San Leandro Street), and 5043 (449 Hegenberger Road), Oakland, California

Don,

Here is the response to your question for each site.

Thanks,

Roger Batra
TRC

-----Original Message-----
From: Trevor, Mark
Sent: Monday, March 14, 2005 11:12 AM
To: Batra, Roger
Subject: RE: 76 Stations 0746 (3943 Broadway), 3135 (6535 San Leandro Street), and 5043 (449 Hegenberger Road), Oakland, California

Here is a short paragraph on DPVE application at each site.

3135:
Dissolved-phase hydrocarbon concentrations in the target well (MW-6) have been 1,000 to 8,000 ug/L during the last 4 monitoring events. Prior to that, concentrations were in the 10,000 to 30,000 ug/L range. Depth to groundwater is approximately 6 fbg and the soil in the vadose zone consists of well graded sand. The high concenrations in a localized area,

combined with shallow groundwater and permeable soil make this location a good candidate for short-term dual-phase extraction. It is anticipated that vapor-phase hydrocarbons will be removed from the vadose zone and possibly from the saturated zone if water levels can be lowered. In addition, hydrocarbon-impacted groundwater will be removed from the subsurface. Dissolved-phase hydrocarbon concentrations may be lowered significantly at relatively little expense using this technology.

0746:
Dissolved-phase hydrocarbon concentrations in the target wells (MW-3, MW-5 and RW-1) have been on the order of several thousand ug/L with free-product in MW-5. Benzene and MTBE have also been detected in MW-3 and RW-1. Depth to groundwater is approximately 10 fbg and the soil in the vadose zone consists of fine to medium grained fill or clay. The soil in the water bearing zone is coarse-grained gravel and sands. The high concenrations in a localized area, combined with shallow groundwater and a coarse-grained water-bearing zone make this site a potentially good candidate for short-term dual-phase extraction. It is anticipated that dissolved- and vapor-phase hydrocarbons will be removed from the saturated zone and to a lesser extent from the fine-grained vadose zone soils. In addition, hydrocarbon-impacted groundwater will likely be removed from the subsurface.

5043:
Dissolved-phase hydrocarbon concentrations in the target well (MW-6) have been 71,000 to 110,000 ug/L during the last 4 monitoring events.
Concentrations have been consistent with this for the past 4 years.
Depth to groundwater is approximately 2 fbg and the soil in the upper 7 feet consists of sandy clayey fill. The high concenrations in a localized area, combined with shallow groundwater and semi-permeable soil make this location a good candidate for short-term dual-phase extraction. A DPVE event conducted in 1999 on MW-6 removed approximately 300 pounds of vapor-phase hydrocarbons and appeared successful at removing the recurring free-product in MW-6. It is anticipated that vapor-phase hydrocarbons will be removed from the vadose zone and possibly from the saturated zone if water levels can be lowered.

-----Original Message-----
From: Batra, Roger
Sent: Friday, March 11, 2005 11:50 AM
To: Trevor, Mark
Subject: FW: 76 Stations 0746 (3943 Broadway), 3135 (6535 San Leandro Street), and 5043 (449 Hegenberger Road), Oakland, California

Mark,

Please see me regarding a response to Don Hwang at Alameda County. I would like to get a response to him by Monday.

Thanks,

Roger
-----Original Message-----
From: Hwang, Don, Env. Health [mailto:don.hwang@acgov.org]
Sent: Friday, March 11, 2005 11:12 AM
To: Batra, Roger
Subject: RE: 76 Stations 0746 (3943 Broadway), 3135 (6535 San Leandro Street), and 5043 (449 Hegenberger Road), Oakland, California

Roger,

I've reviewed Work Plans for Dual Phase Vacuum Extraction Pilot Test for 0746 (3943 Broadway) and 5043 (449 Hegenberger Road), but can't find 3135 (6535 San Leandro Street) because we have it listed under a different address, do you have another address and which address should

be used? The Work Plans are similar, specs for the MTS are given & which well will be used. For each site, please state how your proposals have a reasonable expectation to be effective.

Don

-----Original Message-----
From: Batra, Roger [mailto:rbatra@TRCSOLUTIONS.com]
Sent: Tuesday, March 08, 2005 3:17 PM
To: Hwang, Don, Env. Health
Subject: FW: 76 Stations 0746 (3943 Broadway), 3135 (6535 San Leandro Street), and 5043 (449 Hegenberger Road), Oakland, California

Don,

Here it is. I did not have the period between your first and last name. Thanks.

Roger Batra
TRC
925-688-2466

> -----Original Message-----
> From: Batra, Roger
> Sent: Tuesday, March 08, 2005 2:37 PM
> To: 'donhwang@acgov.org'
> Cc: 'Thomas.H.Kosel@conocophillips.com'; 'Shelby.S.Lathrop@conocophillips.com'
> Subject: 76 Stations 0746 (3943 Broadway), 3135 (6535 San Leandro Street), and 5043 (449 Hegenberger Road), Oakland, California
>
>
> Don,
>
> TRC on behalf of ConocoPhillps Company (ConocoPhillips) had submitted the following documents for the subject sites to Alameda County Health Services in September/October 2004.
>
> 76 Station No. 0746, 3943 Broadway, Oakland, California
>
> Work Plan for Dual Phase Vacuum Extraction Pilot Test dated September 23, 2004.
>
> 76 Station No. 3135, 6535 San Leandro Street, Oakland, California
>
> Work Plan for Dual Phase Vacuum Extraction Pilot Test dated September 23, 2004.
>
> 76 Station No. 5043, 449 Hegenberger Road, Oakland, California
>
> Work Plan for Dual Phase Vacuum Extraction pilot Test dated October 11, 2004
>
> TRC has scheduled the pilot tests at these sites to take place in late March/early April 2005. The pilot tests will be conducted using TRC's Mobile Treatment System, a truck-mounted, dual-phase soil-vapor and liquid extraction system. In addition, prior to commencement of onsite work, TRC will notify the Bay Area Air Quality Management District of the proposed activities.
>
> No comments have been received from Alameda County Health Services
> since the submittal of the Work Plans for the subject sites. In
> accordance with 60-day rule (CCR Title 23, Division 3, Chapter 16,
> Article 11, Section 2722, 2e), TRC on behalf of ConocoPhillips can
> proceed with the dual-phase vacuum extraction pilot tests at the
> subject sites. If we do not hear back from you by March 18, 2005 we

> will assume you have no objections to the implementation of the
> aforementioned Work Plans
>
> Please call me should you have any questions or need additional
information.
>
> Thanks,
>
> Roger Batra
> Senior Project Manager
> TRC
> 1590 Solano Way, Suite A
> Concord, California 94520
> 925-688-2466 (Direct)
> 925-260-6405 (Cell)
>

Hwang, Don, Env. Health

From: Lathrop, Shelby Suzanne [Shelby.S.Lathrop@conocophillips.com]
Sent: Thursday, March 03, 2005 4:07 PM
To: Hwang, Don, Env. Health
Subject: ConocoPhillips, point of contact change

Hello, I'm replacing Thomas Kosel as the ConocoPhillips point of contact for the following locations:

Site 4625, 3070 Fruitvale Ave., Oakland
Site 7176, 7850 Amador Valley Road, Dublin
Site 0746, 3943 Broadway, Oakland
Site 5043, 449 Hegenberger Road, Oakland
Site 6419, 6401 Dublin Blvd, Dublin

Please call with any questions; thanks.

Also, I've received a copy of your letter dated 2/9/2005 for site 4625 from Mr. Kosel and have noted comments and requirements. Thanks!

Shelby S. Lathrop

Shaw Environmental, Inc.
Approved service provider of ConocoPhillips - Risk Management & Remediation

Client Contact Information:
76 Broadway
Sacramento, CA 95818
(916) 558-7609
fax (916) 558-7639

ConocoPhillips

76 Broadway
Sacramento, CA 95818
phone 916.558.7676
fax 916.558.7639

RO 215

November 12, 2003

Mr. Amir Gholami
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

Alameda County
NOV 17 2003
Environmental Health

Dear Mr. Gholami:

ConocoPhillips would like to inform you of a recent change in the environmental consulting responsibility for several sites in your oversight area. TRC will now be the lead consultant for the following sites:

Site No.	Location
76 Service Station # 3135	6535 San Leandro St., Oakland, CA
76 Service Station # 5043	449 Hegenberger Rd., Oakland, CA
76 Service Station # 11104	1716 Webster St., Alameda, CA

In addition to ConocoPhillips, any future correspondence should also be sent to TRC using the following contact information:

Barbara Moed, R.G.
Sr. Project Geologist
TRC
5052 Commercial Circle
Concord, CA 94520-1248
(925) 688-2460 (direct)
(925) 688-1200 (main)
(925) 688-0388 (fax)
bmoed@trcsolutions.com

If you have any questions or requests, please do not hesitate to telephone me at (916) 558-6666. Thank you.

David B. DeWitt
Site Manager
Risk Management and Remediation

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

September 14, 2001
StID 521/ RO0000219

Mr. Dave De Witt
Tosco Marketing Company
2000 Crow Canyon Place, Suite 400
San Ramon, CA 94583

Re: Groundwater Monitoring Report for Tosco Service Station #5043,
449 Hegenberger Rd., Oakland CA 94621

Dear Mr. De Witt:

Our office has received and reviewed the August 22, 2001 Third Quarter 2001 Groundwater Monitoring and Sampling Report for the referenced site as prepared by Gettler-Ryan, your consultant. The results show a consistent elevated TPHd and TPHg and BTEX concentrations in monitoring well MW-6. All other wells are very low in TPH impact. These result are surprising given the past efforts performed to remediate the site and this area, which include soil excavation, groundwater and dual phase extraction. These elevated levels continue to require monitoring as they represent a continual source of contamination.

You may continue to monitor the site since the residual contamination does not pose a human health or environmental risk, however, our office recommends some form of remediation for this well. The reduction of elevated TPH levels will allow site closure.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
Mr. D. Lee, Gettler-Ryan Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568

Rec449HegRd

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

October 25, 2000
StID # 521

Mr. David DeWitt
Tosco Marketing Co.
2000 Crow Canyon Place, Suite 400
San Ramon, CA 94568

Re: Tosco SS # 5043, 449 Hegenberger Rd., Oakland CA 94621

Dear Mr. DeWitt:

The referenced site above is characterized by a localized area around monitoring well MW-6 which over the years, (1996-2000), has exhibited either free product or elevated TPHg and BTEX. The rest of the site is fairly well understood and only slightly impacted. Based on this history, you had performed a five day dual phase extraction test at the site in late 1999. Was a report of this extraction test ever finalized in a report? Please send our office a copy of the results of this test. What recommendation is made regarding using this remedial approach?

It appears that even after the extraction test, residual gasoline contamination remains in soil and/or groundwater as reflected in the monitoring results that have followed the test. Our office recommends that you consider additional remediation in the area of this well. This would result in the reduction of potential human health risk and allow for site closure. Natural attenuation does not appear to be attenuating contamination in this well significantly.

Please provide comment to this recommendation.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
Mr. D. Lee, Gettler-Ryan, 6747 Sierra Ct., Suite J, Dublin CA 94568

Remed449Heg

GETTLER-RYAN INC.

October 6, 1999

#1521

Mr. Barney Chan
Alameda County Health Care Services
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: **Tosco 76 Branded Facility No. 5043, 449 Hegenberger Road, California**

Mr. Chan:

At the request of Tosco Marketing Company (Tosco), Gettler-Ryan Inc. (GR) has prepared this letter in response to your April 23, 1999, correspondence regarding the subject site. In the referenced correspondence, you expressed concern over the continued presence of free product in monitoring well MW-6 and requested renewed efforts in removing the product. To accelerate free product removal, Tosco will conduct dual-phase extraction from well MW-6.

Dual-phase extraction will be conducted using a portable system operated by Alton Geoscience of Livermore, California. This system utilizes a high vacuum to remove and separate liquid and vapor contaminants from individual monitoring wells. The liquids will be contained on-site in a storage vessel pending appropriate off-site disposal and the vapors will be abated using a thermal/catalytic oxidizer. Tosco and GR are currently working on scheduling and on-site logistics. You will be notified at least 48 hours prior to commencing extraction.

If you have any questions, please do not hesitate to call me at (925) 551-7555.

Sincerely,
Gettler-Ryan Inc.

Douglas J. Lee
Project Manager
R.G. No. 6882

cc: Mr. David B. De Witt, Tosco Marketing Company

140081.01

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

April 23, 1999
StID # 521

Mr. David De Witt
Tosco Marketing Company
2000 Crow Canyon Place, Suite 400
San Ramon, CA 94583

Re: Unocal branded station #5043, 449 Hegenberger Rd., Oakland CA 94621

Dear Mr. De Witt:

Our office has received and reviewed the **March 30, 1999 First Quarter 1999 Monitoring** report for the above site as prepared by Gettler-Ryan Inc. Of concern to our office is the continual presence of free product in MW-6. It appears that free product has been present in this well since July of 1996 and has remained even with the excavation of significant impacted soil and removal of large amounts of water during the tank removal and station remodel. Current conditions would require extended monitoring without the removal and remediation of the source of the free product. A secondary concern is the possible presence of MTBE in the free product found in MW-6. Because groundwater is not sampled, the extent of this compound is not defined.

Our office recommends that free product be removed from MW-6. One possible approach would be the removal of as much groundwater as possible from MW-6 via excessive purging or dual phase extraction.

Please comment on this recommendation. You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: **B. Chan, files**
Mr. D. Lee, Gettler-Ryan, 6747 Sierra Court, Suite J, Dublin, CA 94568
FP-449Hegenberger

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

March 11, 1997
StID # 521

Mr. David De Witt
Unocal Corporation
2000 Crow Canyon Place, Suite 400
San Ramon, CA 94583

Re: Unocal Service Station #5043, 449 Hegenberger Rd., Oakland CA 94621

Dear Mr. De Witt:

Our office has received and reviewed the March 4, 1997 MPDS Services groundwater monitoring report for the above site. The sampling results of three of the four existing wells are reported. MW3 remains inaccessible as it is obstructed with debris. Please be aware that Unocal's quarterly reports are to include more than the analytical results provided by your sampling contractor. As required by Title 23, Division 3, Chapter 16, Section 2652(d), the quarterly reports should include the results of all investigation monitoring or other corrective actions which have occurred since the last reporting period. If free product exists, which is the case here, other abatement methods may be required.

Our office has approved the Kaprealian Engineering Inc. (KEI) work plan for monitoring well installation and repair for the above site. Your quarterly report should give the status of this proposed work and give reasons for any delay in their implementation.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

c: B. Chan, files
B. Kazerian, Kapraelian Eng., 2401 Stanwell Dr., Suite 400, Concord, CA 94520

qmr449

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

November 20, 1996
StID # 521

Mr. David De Witt
Unocal Corporation
2000 Crow Canyon Place, Suite 400
San Ramon, CA 94583

Re: Work Plan Approval, Unocal Service Station #5043, 449 Hegenberger Rd., Oakland CA 94621

Dear Mr. De Witt:

Our office has received and reviewed the November 15, 1996 Kaprealian Engineering Inc. (KEI) work plan for monitoring well installation and repair for the above site. This work plan is in response to my October 16, 1996 letter and is acceptable with the following condition:

1. Please include the analysis for MTBE in the soil and groundwater samples taken from the proposed wells, MW-7 and MW-8. Please also include MTBE in the quarterly monitoring events along with TPHg, TPHd and BTEX. Should MTBE be detected via EPA method 8020 please confirm the highest reading via EPA method 8240 or 8260 as recommended by the SWRCB.

2. As previously mentioned in my October 16, 1996 letter, please notify our office should offsite encroachment for the installation of the wells be a problem.

3. Please notify our office **48 working hours prior to your field work.**

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

c: B. Chan, files
B. Kazerian, Kapraelian Eng., 2401 Stanwell Dr., Suite 400, Concord, CA 94520

wpap449

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

October 16, 1996
StID # 521

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

Mr. David De Witt
Unocal Corporation
2000 Crow Canyon Place, Suite 400
San Ramon, CA 94583

Re: Unocal Service Station #5043, 449 Hegenberger Rd., Oakland CA 94621

Dear Mr. De Witt:

Our office has received and reviewed the September 5, 1996 submission of the chemical analysis of the free product found in monitoring well MW6 at the above site. Our office agrees with the expert opinion given in this report ie the free product appears to have been the result of an individual event, possibly an act of vandalism. Continual removal of free product and bailing from this well should reduce contamination levels to pre-existing levels. Because this release is not likely from the underground tank system, no Unauthorized Release (Leak) Report will be required from our office.

Since the reconstruction of this facility caused significant destruction and damage to a number of monitoring wells, please provide a brief work plan indicating the number and location of your replacement wells. It would appear, minimally, that additional monitoring wells are necessary in the west and south portions of the site. The significant soil and groundwater removal which has occurred should have a positive affect on groundwater quality, however, replacement wells are necessary to document current water quality. In addition, please repair monitoring well MW3. Please inform our office if you have encountered any difficulty in obtaining encroachment permits for the installation of the additional wells.

Please submit your monitoring well installlation work plan **within 30 days or by November 18, 1996.** You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

c: B. Chan, files
K. Tinsley, ACEH
B. Kazerian, Kapraelian Eng., 2401 Stanwell Dr., Suite 400, Concord, CA 94520

mwwp449

#520

76 PRODUCTS COMPANY

ENVIRONMENTAL PROTECTION

96 AUG -6 AM 7:55

August 2, 1996

Mr. Kevin Tinsley
Alameda County
Department of Environmental Health
1131 Harbor Bay Parkway, Rm. 250
Alameda, California 94502

RE: UNOCAL SERVICE STATION #5043
449 HEGENBERGER ROAD @ EDGEWATER
OAKLAND, CALIFORNIA 94621

Don Hwang Jr

Dear Mr. Tinsley:

Per our conversation, approximately three feet of free product was discovered floating on groundwater in a monitoring well at the above referenced Unocal service station. The well is MW-6 located in the SW corner on this site.

There is an open case on this site at present, #01-1601, therefore I have not enclosed an Underground Storage Tank Unauthorized Release Report. Fuel samples have been taken for fingerprinting to see if it is related to the previously reported site contamination. If the source of the product in the monitoring well is found to be any different than previously reported, I will notify you immediately, and will submit the form at that time.

Unocal Business Operations Manager, Mr. Sandy LaBeaux, is conducting an inventory audit at the facility. When I get the results of the audit, you will be informed. The monitoring system was certified on April 8, 1996.

Unocal ERS Project Professional, Mr. Dave DeWitt, has been assigned to coordinate further activity at this facility. Mr. DeWitt can be reached as follows:

Mr. Dave DeWitt (510) 277-2384
Unocal ERS Department
2000 Crow Canyon Place, Suite 400
San Ramon, California 94583

Your assistance in this matter is appreciated. Should you have any questions, please call me at (714) 428-6569.

Sincerely,

Barbara F. Todd

Barbara F. Todd
Release Reporting Coordinator

BFT/bt
cc: R. E. Bock
D. DeWitt
D. J. Hoover - PTM
S. LaBeaux - BOM
J. M. Tyson
File

555 Anton Blvd., Costa Mesa, California 92626
Mailing Address: P.O. Box 25376, Santa Ana, California 92799-5376
Fax (714) 428-8051
A Unocal Company

CALIFORNIA OFFICE OF EMERGENCY SERVICES
HAZARDOUS MATERIAL SPILL REPORT

CONTROL#: 014893 RECEIVED BY: RR

OES NOTIFIED

DATE: 07/30/96 TIME: 14:59 COUNTY: ALAMEDA

NOTIFIED OES: BARBARA TODD PHONE#: 714-428-6569

AGENCY: UNOCAL EXT:

SUBSTANCE: FREE PRODUCT QTY: UNKNOWN

UN I.D. #: TYPE: ○ CHEMICAL ◉ PETROLEUM ○ SEWAGE ○ VAPOR ○ OTHE

LOCATION: STN #5043 449 HEGENBERGER ROAD OCCURRENCE TIME/DATE: 1400 30jul96

COUNTY:

CITY: OAKLAND ZIP: 94621 ALAMEDA

SPILL SITE: ○ PL ○ RD ○ REF ◉ S/S ○ MIL BASE ○ RESIDENCE
○ SHP ○ O/F ○ R/R ○ IND PLT ○ AIRPORT ○ OTHER

WHAT HAPPENED: MONITORING WELL CONTAINED PRODUCT. UNKNOWN IF ANY ENTERED A WATERWAY. STILL UNDER INVESTIGATION. UNKNOWN IF CONTAINED.

WATER INVOLVED: ○ YES ○ NO WATER WAY:

CONTAINED: ○ YES ◉ NO CLEAN UP BY: UNKNOWN

ON SCENE/NTFD: ○ FD ○ PD ○ CO.OES ○ CHP ○ CDF CONTROL#:
○ SO ○ CO.HLTH ○ AIR/Q ○ CALTRANS ○ USC 014893

NRC#:

INJURIES: ○ YES ◉ NO ○ UNKNOWN

FATALITIES: ○ YES ◉ NO ○ UNKNOWN

EVACUATIONS: ○ YES ◉ NO ○ UNKNOWN

PROP 65 RPT: ○ YES ○ NO NOTIFIED:

◉ OSPR/DFG:	○ SFM P/L:	○ DHS/D.O:	○ RGN:
◉ EPA:	○ DOG:	○ OSHA:	○ HAZMAT:
◉ RWQCB:	○ LA FLOOD:	○ FOOD&AG:	○ EMSA:
◉ LANDS:	○ PUC:	○ MNRLSMGT:	◉ FAX TIME:
◉ USFWS:	◉ USCG:	○ EB PARKS:	○ PLANS UNIT(262-2546)
◉ CSTL COM:	◉ TOXICS:	◉ PARKS&REC:	◉ ADMIN. AGENCY

CALIFORNIA OFFICE OF EMERGENCY SERVICES
HAZARDOUS MATERIAL SPILL REPORT
UPDATE

CONTROL#: 14893 RECEIVED BY: RR

DATE: 07/30/96 TIME: 14:59 COUNTY: ALAMEDA

NOTIFIED OES: BARBARA TODD PHONE#: 714-428-6569

AGENCY: UNOCAL

SUBSTANCE: FREE PRODUCT QTY: UNKNOWN

UPDATED INFORMATION:

BARBRA TODD 0809 31JULY96 // PRODUCT IS FLOATING ON THE GROUND WATER.

FAX / NOTIFICATION LIST

◉ OSPR/DFG:	◉ CSTL COM:	◉ USCG:	○ MNRLSMGT:	○ EMSA
◉ EPA:	○ SFM P/L:	◉ TOXICS:	○ EB PARKS:	◉ FAX TIME:_____
◉ RWQCB:___	○ DOG:	○ DHS/D.O:	◉ PARKS&REC:	○ PLANS UNIT(262-
◉ LANDS:	○ LA FLOOD:	○ OSHA:	○ RGN:	◉ ADMIN. AGENCY
◉ USFWS:	○ PUC:	○ FOOD&AG:	○ HAZMAT:	

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6700

September 22, 1995
StID # 521

Unocal Corporation
Mr. Dave De Witt
2000 Crow Canyon Place, Suite 450
San Ramon, CA 94583

Re: Request for Technical Reports for Unocal Station #5043
449 Hegenberger Rd., Oakland CA 94621

Dear Mr. De Witt:

This letter serves to recount our conversation of September 21, 1995 where I requested an update of the status of the subsurface investigation at the above site. Our office has just received and reviewed the documentation for the removal and disposal of the approximate 6000 cubic yards of soil from the site.

Recall, I requested the following information/reports:

Report for the soil sampling performed after each excavation activity;

Documentation of the amounts of groundwater taken to the Unocal refinery for recycling;and,

A schedule for the resumption of groundwater monitoring and the installation of the replacement wells.

Please provide a written reponse to these items **within 30 days or by October 23, 1995.**

You may contact me at (510) 567-6765 should you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

cc: R. Kerzian, Kaprealian Engineering, 2401 Stanwell Drive, Suite 400, Concord, CA 94520
G. Young, files
reps449

KAPREALIAN ENGINEERING
INCORPORATED

September 6, 1995

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

Attention: Mr. David Dewitt

RE: Former Unocal Service Station #5043
449 Hegenberger Road
Oakland, California

Dear Mr. Dewitt:

This letter is to notify you of damage to wells MW3 and MW6 at the subject site. On the August 17, 1995, sampling date, MPDS Services personnel found that the casing for well MW3 was plugged with soil, and well MW6 had been paved over, apparrently during the recent construction activities. The two other existing wells, MW9 and MW10, are apparrently undamaged.

Additional wells have been proposed, and negotiation for off-site access from the affected property owner is in progress at this time. It is anticipated that the damaged wells can be located and repaired at the time the additional wells are installed.

In the interim, it is our recommendation that monitoring and sampling of the two remaining wells be temporarily suspended until the additional wells are installed and MW3 and MW6 are repaired.

Should you have any questions, comments, or concerns, please do not hesitate to call me at (510) 602-5100.

Sincerely,

Kaprealian Engineering, Inc.

Robert H. Kezerian
Project Manager

cc: [redacted] County Health Care Services Agency
MPDS Services, Inc.

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

MONITORING
PURGING
DISPOSING
SAMPLING

MPDS SERVICES, INCORPORATED

August 10, 1995

Alameda County Health Care Services
1131 Harbor Bay Parkway
Alameda, CA 94502

RE: Unocal Service Station #5043
449 Hegenberger Road
Oakland, California

Per the request of the Unocal Corporation Project Manager, Mr. David B. DeWitt, enclosed please find our report (MPDS-UN5043-06) dated June 15, 1995 for the above referenced site.

Should you have any questions regarding the reporting of data, please feel free to call our office at (510) 602-5120. Any other questions may be directed to the Project Manager at (510) 277-2384.

Sincerely,

MPDS Services, Inc.

Jarrel F. Crider

/jfc

Enclosure

cc: Mr. David B. DeWitt

2401 Stanwell Drive, Suite 300, Concord, CA 94520
TEL: (510) 602-5120 FAX: (510) 689-1918

KAPREALIAN ENGINEERING
INCORPORATED

ENVIRONMENTAL
PROTECTION

95 APR 20 PM 1:53

April 17, 1995

Alameda County Flood Control
and Water Conservation District
Zone 7
5997 Parkside Drive
Pleasanton, California 94588

Attention: Mr. Wyman Hong

Destruction of Monitoring Wells MW1 & MW2
Unocal Service Station #5043
449 Hegenberger Road
Oakland, California

Dear Mr. Hong:

The two existing on-site monitoring wells, designated as MW1 and MW2 on the attached Figure 1, were destroyed on April 4, and March 29, 1995, respectively. The former wells were destroyed in order to accommodate overexcavation activities adjacent to the dispenser islands during the recent UST and product piping replacement project at the referenced site.

The former monitoring wells MW1 and MW2 were installed on February 5, 1992, under drilling permit 92012, and extended to total depths of 13.5 and 15 feet below grade, respectively.

The two wells were destroyed by fully excavating the well casing, filter pack, and seal materials to the total depth of each well. The excavated areas were subsequently backfilled with clean engineered fill.

The destroyed wells will be replaced at an appropriate time after the completion of construction activities at the site.

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

Sincerely,

Kaprealian Engineering, Inc.

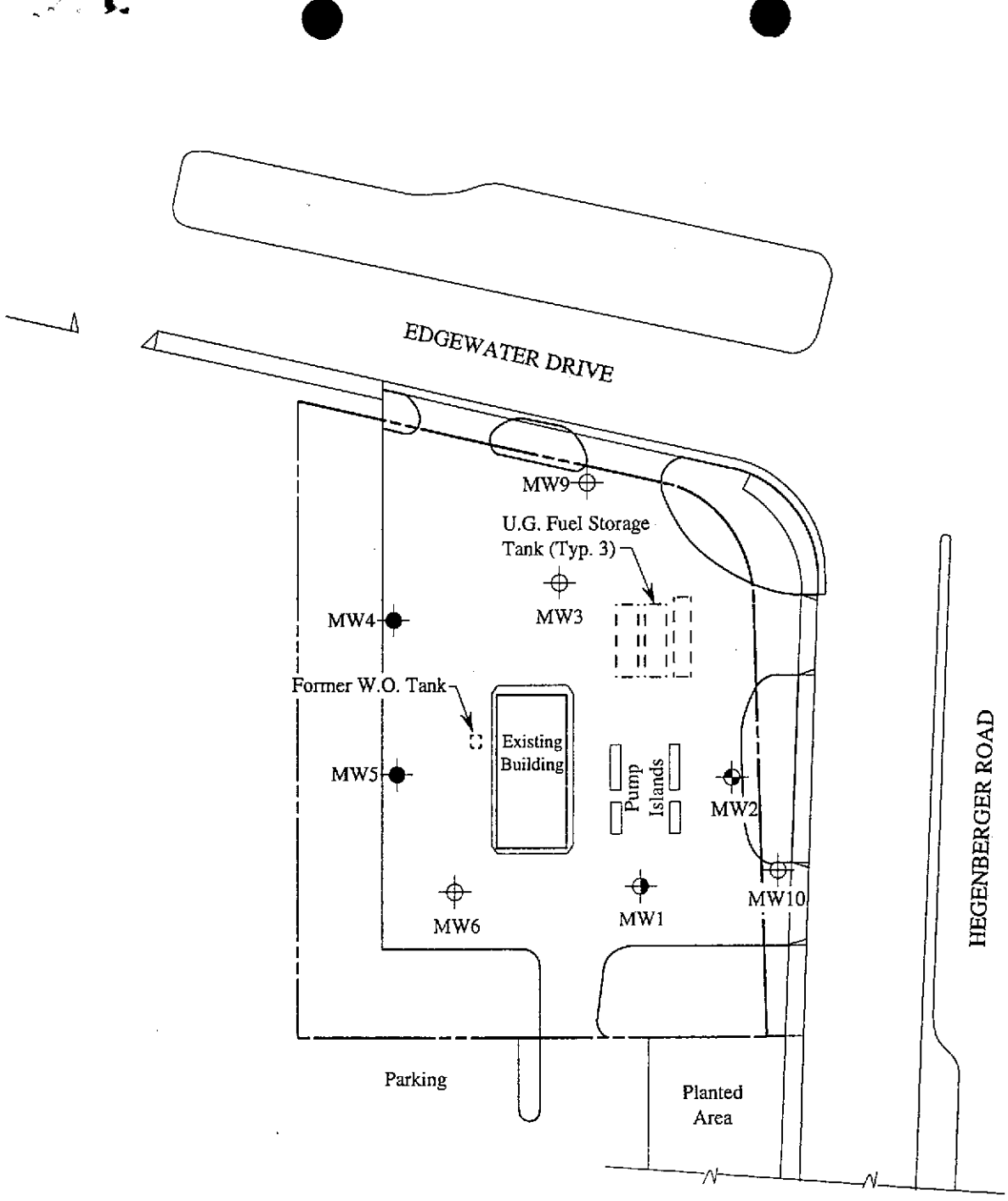
Haig (Gary) Tejirian
Senior Staff Geologist

Attachment

hgt:jad\WH0417

cc: Mr. Barney Chan, Alameda County Health Care Services Agency

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



LEGEND

- Monitoring well (existing)
- Monitoring well (destroyed, 1/25/95)
- Monitoring well (destroyed, 3/29/95)
- Monitoring well (destroyed, 4/4/95)

0 60 120

Approx. scale feet

MONITORING WELL LOCATION MAP

KAPREALIAN ENGINEERING INCORPORATED

UNOCAL SERVICE STATION #5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

FIGURE **1**

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

1131 Harbor Bay Pkwy
Alameda CA 94502
510/567-6700

Hazardous Materials Inspection Form

II, III

Site ID # ______ Site Name Unocal Today's Date 4/5/95

Site Address 449 Hegenberger Rd

City Oak Zip 94621 Phone ________

_____ MAX AMT stored > 500 lbs, 55 gal., 200 cft.?

Inspection Categories:

____ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
____ II. Hazardous Materials Business Plan, Acutely Hazardous Materials
____ III. Underground Storage Tanks

* Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

Comments:

Returned to witness addnl soil sampling after overex in the southern portion of site, destroyed MW1 + along a former sanitary sewer line. Apparently a sandy gravel layer @ ~3' BGS acted as a trap for perched water + a conduit for fuel migration.
Additional 50x14x5/27 ≅ 80 cyd excavated.
3 sampling areas designated MW1SW 1,2 = monitoring well 1 side wall
WE 1-3 = western excavation 1-3
FS-1,2 = former sewer
All samples taken approx 4-5' BGS w/i the sandy permeable layer. Only WE2 was different soil (sandy gravel) than the other soils. No gasoline odors noticed.

Recd addnl analytical results for dispenser samples + Sidewall samples on Hegenberger Road side (minor gas detected)

II, III

Contact KEI
Title ENG
Signature X [signature]

Inspector B. Chan
Signature [signature]

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

Hazardous Materials Inspection Form

1131 Harbor Bay Pkwy
Alameda CA 94502
510/567-6700

II, III

Site ID # _____ Site Name _____ Today's Date 4/5/11

Site Address _____

City _____ Zip 94621 Phone _____

_____ MAX AMT stored > 500 lbs, 55 gal., 200 cft.?

Inspection Categories:

____ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
____ II. Hazardous Materials Business Plan, Acutely Hazardous Materials
____ III. Underground Storage Tanks

* Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

Comments:

Contact KEJ

Title _____

Signature _____

II, III

Inspector B. Chan

Signature _____

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

Hazardous Materials Inspection Form

1131 Harbor Bay Pkwy
Alameda CA 94502
510/567-6700

II, III

Site ID # _____ Site Name Unocal Today's Date 4/3/95 + 4/5/95

Site Address 449 Hegenberger Rd

City Oak Zip 94621 Phone _____

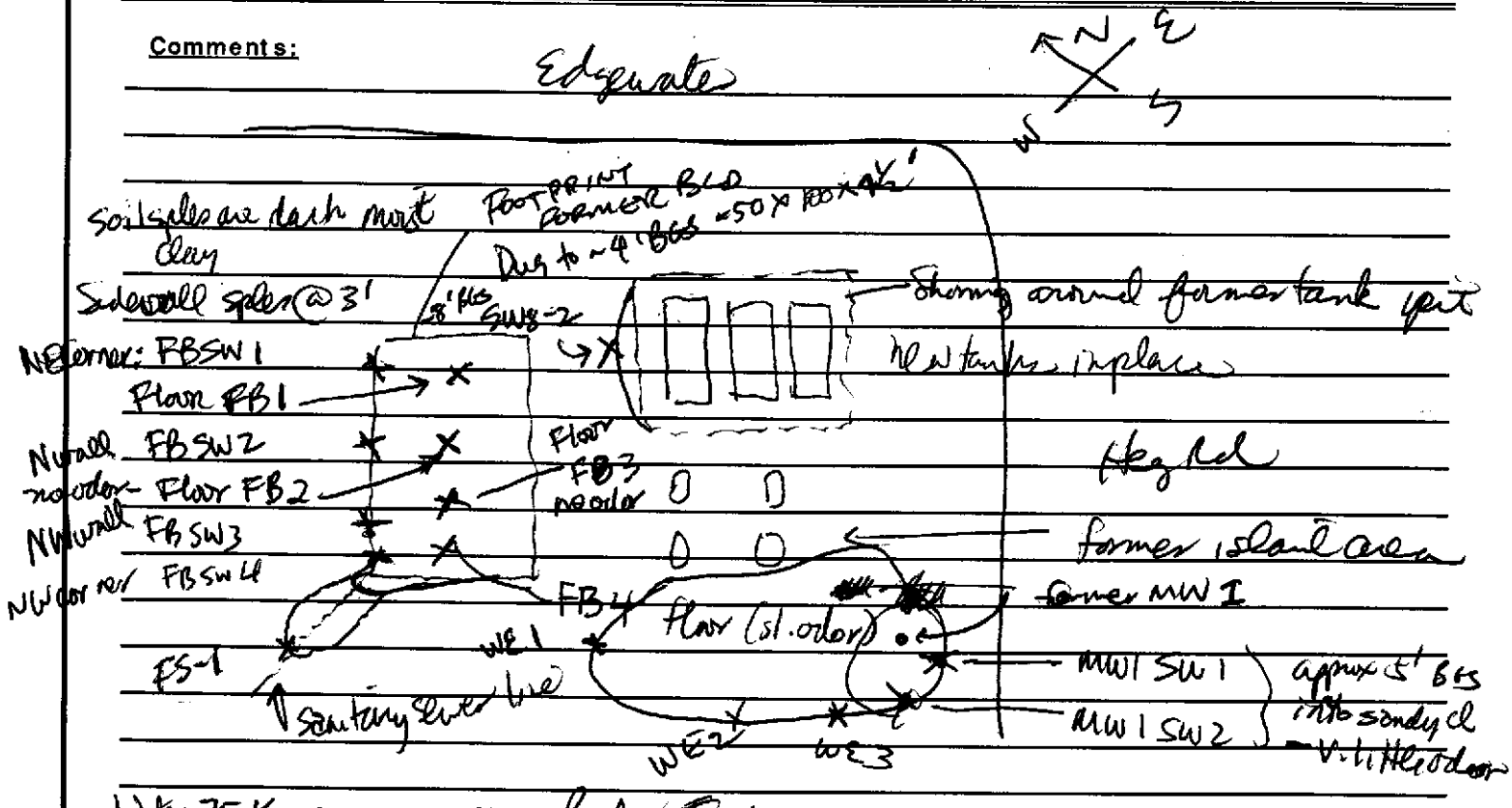
_____ MAX AMT stored > 500 lbs, 55 gal., 200 cft.?

Inspection Categories:

____ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
____ II. Hazardous Materials Business Plan, Acutely Hazardous Materials
____ III. Underground Storage Tanks

* Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

Comments: Edgewater



Water: 75K pumped, 8K Baker Tank
4 Soil spls taken from former bld sidewalls + bottom, + 1 on west wall
9 - total spls, will add TPH as hydraulic oil on FB-2 3 based on former location of lifts
Spls H. Kevork of Kaprealian

II, III

Contact KEI

Title ENG.

Signature [signature]

Inspector B Chan

Signature B Chan

4/5/95 Return to witness soil spls after additional exc on the south part of Pup + along former San. sewer line, MW1 destroyed

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

Hazardous Materials Inspection Form

1131 Harbor Bay Pkwy
Alameda CA 94502
510/567-6700

II, III

Site ID # _____ Site Name _____ Today's Date 4/5/95

Site Address _____

City _____ Zip 94621 Phone _____

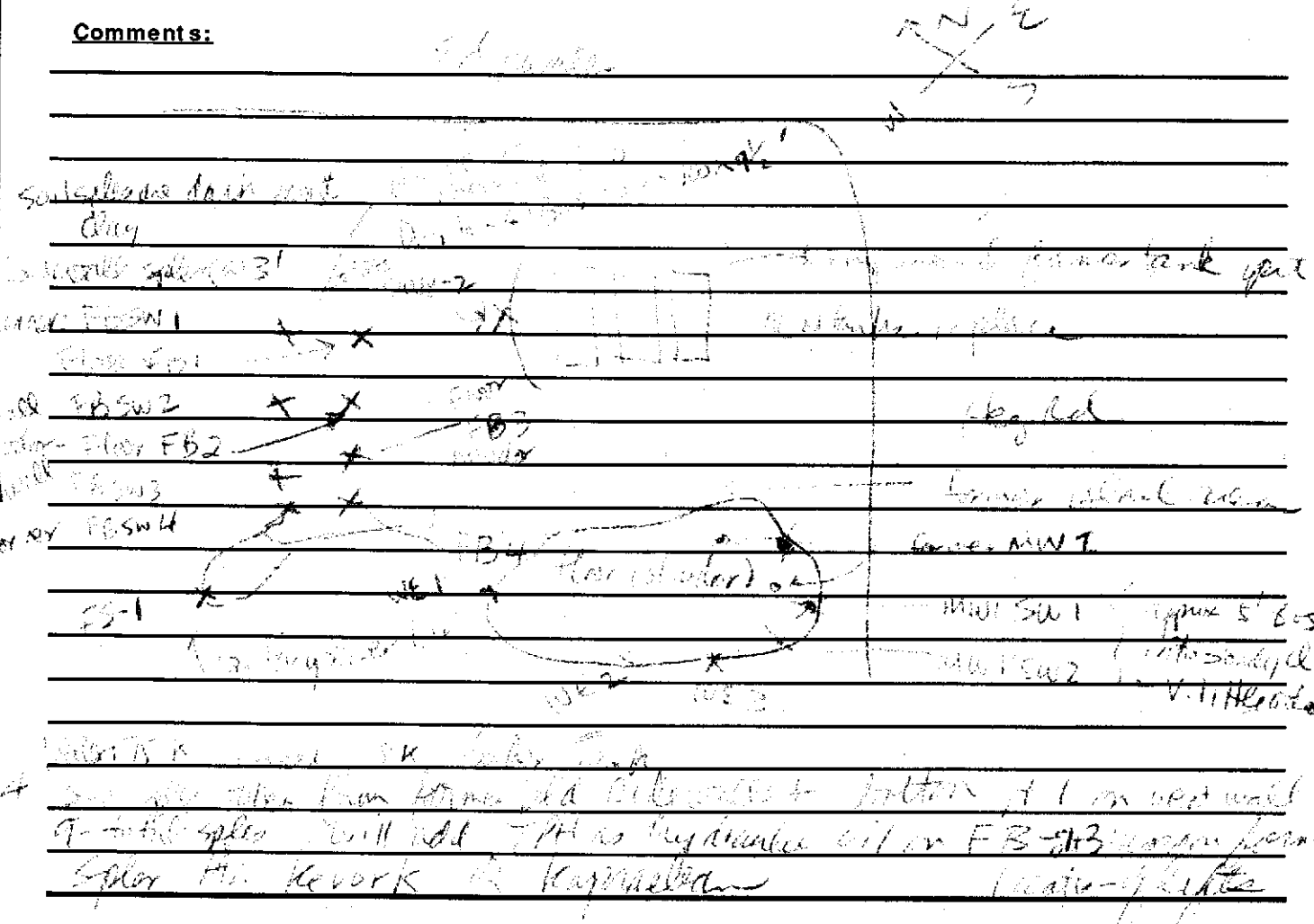
_____ MAX AMT stored > 500 lbs, 55 gal., 200 cft.?

Inspection Categories:

____ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
____ II. Hazardous Materials Business Plan, Acutely Hazardous Materials
____ III. Underground Storage Tanks

* Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

Comments:



II, III

Contact KFT

Title ENG

Signature _____

Inspector B Chan

Signature _____

KAPREALIAN ENGINEERING
INCORPORATED

April 4, 1995

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

Attention: Mr. David B. DeWitt

RE: Modify Monitoring and
Sampling Program
Unocal Service Station #5043
449 Hegenberger Road
Oakland, California

Dear Mr. DeWitt:

This cover letter is written in association with MPDS Services, Inc's. Quarterly Data Report (MPDS-UN5043-05) dated March 17, 1995, and provides Kaprealian Engineering, Inc's. (KEI) recommendations for a modification of the ground water monitoring and sampling program for the subject Unocal site.

As you are aware, monitoring wells MW4 and MW5 were properly destroyed on January 25, 1995, in order to accommodate the planned installation of a carwash at the subject site. Additionally, MW1 and MW2 were properly destroyed on March 29, and April 4, 1995, respectively, in order to accommodate overexcavation activities adjacent to the dispenser islands associated with the current UST and product piping replacement project. The four wells will be re-installed upon completion of the excavation and construction activities. It is also important to note that the two proposed off-site wells (MW7 and MW8) will be installed once an access agreement has been received from the property owner.

Due to the limited access associated with the ongoing excavation and construction activities at the site, and in light of the fact that only four monitoring wells currently exist, KEI recommends a modification to the ground water monitoring and sampling program. KEI recommends that the monitoring frequency be reduced from monthly to quarterly. In summary, the four existing monitoring wells (MW3, MW6, MW9, and MW10) will be monitored and sampled quarterly. The ground water samples will be analyzed for TPH as gasoline, TPH as diesel, and BTEX. KEI will re-evaluate the monitoring and sampling program subsequent to the completion of the UST replacement and service station reformat project at the subject site.

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

Should you have any questions, please do not hesitate to call me at (510) 602-5100.

Sincerely,

Kaprealian Engineering, Inc.

Robert H. Kezerian
Project Manager

rhk:jad\DBD0404

cc: Mr. Barney Chan, Alameda County Health Care Services Agency
MPDS Services, Inc.

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

1131 Harbor Bay Pkwy.
Suite 250
Alameda, CA 94502-6577
(510) 567-6700

Hazardous Materials Inspection Form

II,III

Site ID # 521 Site Name CNOCAL Today's Date 3/28/95

Site Address 449 Hegenberger, Oakland

City ______ Zip 94621 Phone ______

____ MAX AMT stored > 500 lbs, 55 gal., 200 cft.?

Inspection Categories:

___ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
___ II. Business Plans, Acute Hazardous Materials
X III. Underground Tanks

* Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

II.A BUSINESS PLANS (Title 19)

___	1. Immediate Reporting	2703
___	2. Bus. Plan Stds.	25503(b)
___	3. RR Cars > 30 days	25503.7
___	4. Inventory Information	25504(a)
___	5. Inventory Complete	2730
___	6. Emergency Response	25504(b)
___	7. Training	25504(c)
___	8. Deficiency	25505(a)
___	9. Modification	25505(b)

II.B ACUTELY HAZ. MAT'LS

___	10. Registration Form Filed	25533(a)
___	11. Form Complete	25533(b)
___	12. RMPP Contents	25534(c)
___	13. Implement Sch. Req'd? (Y/N)	
___	14. Offsite Conseq. Assess.	25524(c)
___	15. Probable Risk Assessment	25534(d)
___	16. Persons Responsible	25534(g)
___	17. Certification	25534(f)
___	18. Exemption Request? (Y/N)	25536(b)
___	19. Trade Secret Requested?	25538

III. UNDERGROUND TANKS (Title 23)

General

___	1. Permit Application	25284 (H&S)
___	2. Pipeline Leak Detection	25292 (H&S)
___	3. Records Maintenance	2712
___	4. Release Report	2651
___	5. Closure Plans	2670

Monitoring for Existing Tanks

___ 6. Method
1) Monthly Test
2) Daily Vadose
Semi-annual gndwater
One time soils
3) Daily Vadose
One time soils
Annual tank test
4) Monthly Gndwater
One time soils
5) Daily Inventory
Annual tank testing
Cont pipe leak det
Vadose/gndwater mon.
6) Daily Inventory
Annual tank testing
Cont pipe leak det
7) Weekly Tank Gauge
Annual tank tstng
8) Annual Tank Testing
Daily Inventory
9) Other ______

___	7. Precis Tank Test Date: ______	2643
___	8. Inventory Rec.	2644
___	9. Soil Testing.	2646
___	10. Ground Water.	2647

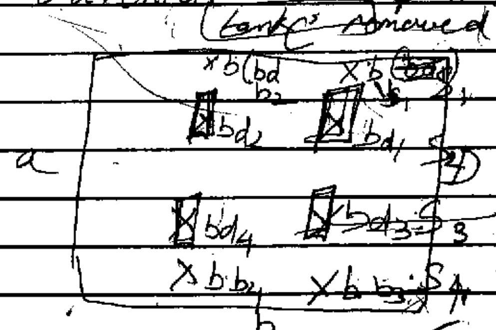
New Tanks

___	11. Monitor Plan	2632
___	12. Access. Secure	2634
___	13. Plans Submit Date: ______	2711
___	14. As Built Date: ______	2635

Rev 8/88

Comments:

Overexcavation & Confirmatory Samples (tanks removed)



8 Samples - bottom (b) (4' BGS)
4 samples - sidewall (S) - on side D
Sides a & b - are going to be extended & so will be included in the next phase of confirmatory sampling. Side C is where the tanks where removed & according to consultant soil was excavated upto G.W depth (4 feet).
S1-S4 Very stiff clay w/no odors.
Will call to schedule Fri's sampling for sides A & B. MW2-will be destroyed.

II, III

Contact: H. Kervok Kapmelian

Title: ______

Signature: ______

Inspector: Madhulla Logan

Signature: Madhulla L.

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR
DEPARTMENT OF ENVIRONMENTAL HEALTH

ALAMEDA COUNTY-ENV. HEALTH DEPT.
ENVIRONMENTAL PROTECTION DIV.
1131 HARBOR BAY PKWY., #250
ALAMEDA CA 94502-6577
(510)567-6700

March 16, 1995
StID # 521

Mr. David DeWitt
Unocal Corporation
2000 Crow Canyon Place, Suite 400
P.O. Box 5155
San Ramon, CA 94583

Re: Comment on February 23, 1995 Work Plan Addendum for Unocal Station #5043, 449 Hegenberger Rd., Oakland CA 94621

Dear Mr. DeWitt:

Our office has received and reviewed the above referenced work plan addendum prepared by your consultant, Kapraelian Engineering Incorporated. Recall, this work plan calls for the replacement of wells MW4 and MW5 and the also the replacement of well MW2 due to the excavation of the pump islands. This addendum is acceptable, however, it is probably best to wait until after the excavation of the pump islands is complete. It is possible that the limits of excavation may dictate the location of the replacement well, MW2A. In addition, MW1 may also be in jeopardy.

After the completion of tank removals, tank installations and station reformatting please provide an accurate map indicating the locations of all replacement wells.

Please notify me **48 working hours prior to well installations.**

You may contact me at (5100 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

cc: Joel Greger, Kapraelian Engineering, 2401 Stanwell Drive, Suite 400, Concord CA 94520
G. Coleman, files
wpad449

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

1131 Harbor Bay Pkwy.
Suite 250
Alameda, CA 94502-6577
(510) 567-6700

Hazardous Materials Inspection Form

II,III

Site ID # ____ Site Name 76 Union Today's Date 3/15/95

Site Address 448 Hegenberger

City Oakland Zip 94__ Phone ______

___ MAX AMT stored > 500 lbs, 55 gal., 200 cft.?

Scheduled for 930

Inspection Categories:
___ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
___ II. Business Plans, Acute Hazardous Materials
✓ III. Underground Tanks LOP

1.75 hours

* Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

II.A BUSINESS PLANS (Title 19)

___	1. Immediate Reporting	2703
___	2. Bus. Plan Stds.	25503(b)
___	3. RR Cars > 30 days	25503.7
___	4. Inventory Information	25504(a)
___	5. Inventory Complete	2730
___	6. Emergency Response	25504(b)
___	7. Training	25504(c)
___	8. Deficiency	25505(a)
___	9. Modification	25505(b)

II.B ACUTELY HAZ. MAT'LS

___	10. Registration Form Filed	25533(a)
___	11. Form Complete	25533(b)
___	12. RMPP Contents	25534(c)
___	13. Implement Sch. Req'd? (Y/N)	
___	14. OffSite Conseq. Assess.	25524(c)
___	15. Probable Risk Assessment	25534(d)
___	16. Persons Responsible	25534(g)
___	17. Certification	25534(f)
___	18. Exemption Request? (Y/N)	25536(b)
___	19. Trade Secret Requested?	25538

III. UNDERGROUND TANKS (Title 23)

General

___	1. Permit Application	25284 (H&S)
___	2. Pipeline Leak Detection	25292 (H&S)
___	3. Records Maintenance	2712
___	4. Release Report	2651
___	5. Closure Plans	2670

Monitoring for Existing Tanks

___ 6. Method
1) Monthly Test
2) Daily Vadose
Semi-annual gndwater
One time soils
3) Daily Vadose
One time soils
Annual tank test
4) Monthly Gndwater
One time soils
5) Daily Inventory
Annual tank testing
Cont pipe leak det
Vadose/gndwater mon.
6) Daily Inventory
Annual tank testing
Cont pipe leak det
7) Weekly Tank Gauge
Annual tank tstng
8) Annual Tank Testing
Daily Inventory
9) Other ______

___	7. Precis Tank Test Date: ______	2643
___	8. Inventory Rec.	2644
___	9. Soil Testing.	2646
___	10. Ground Water.	2647

New Tanks

___	11. Monitor Plan	2632
___	12. Access. Secure	2634
___	13. Plans Submit Date: ______	2711
___	14. As Built Date: ______	2635

Rev 6/88

Comments: LOP

On site at request of Kapulea (Consultant for RP) for Observations related to sampling of former UST excavation. This is a Shortr (metal Shoring) excavation that is being prepared for new UST installation (on 3/17/95). Also observed sheen on water in pit with areas of obvious soil contamination observed.

10:15 Samples taken in pit.
2-40 mL VOA
1 Amber Liter
@ 15 feet
To be sampled for
BTEX
TPH-G TPH-D

Required actions:
Submit sample result to Al Co LOP program upon chemical analyses completed

II, III

Contact: HAIG KEVORK
Title: ENGINEER
Signature: [illegible]

Inspector: [illegible]
Signature: ______

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

1131 Harbor Bay Pkwy
Alameda CA 94502
510/567-6700

Hazardous Materials Inspection Form

II, III

Site ID # _____ Site Name Unocal Today's Date 3/10/95

Site Address 449 Hey Rd

City Oak Zip 94621 Phone ________

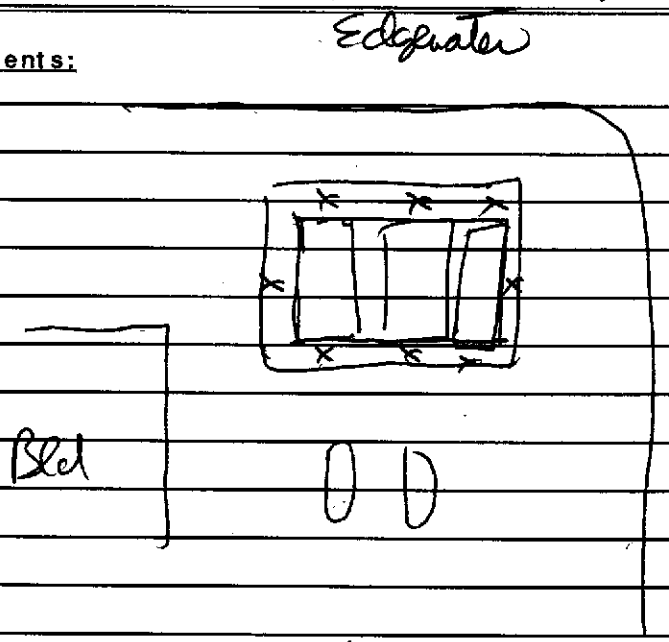
_____ MAX AMT stored > 500 lbs, 55 gal., 200 cft.?

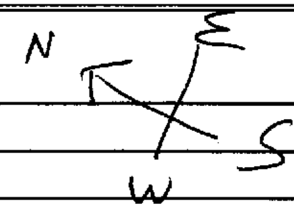
Inspection Categories:

____ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
____ II. Hazardous Materials Business Plan, Acutely Hazardous Materials
____ III. Underground Storage Tanks

* Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

Comments:





Hey Rd

Shoring emplaced due to sloughing of sidewalls + asphalt

witness soil spls from around former gas + diesel USTs
Getler Ryan contractor, Haig Kevorkp KEI - Splr
8 soil sples taken from ends + sidewalls of tank pit
just above GW approx 8' BGS, 1 add'l spl taken @
4' on west end of middle tank, representing fill material
- (fill) had noticeable gas odor. All other sples taken
in silty clay - w/ no appreciable odor

II, III

Contact ________
Title ________
Signature ________

Inspector B. Chan
Signature ________

white -env.health yellow -facility pink -files	

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

80 Swan Way, #200
Oakland, CA 94621
(415) 271-4320

Hazardous Materials Inspection Form p. 1

II,III

Site ID # ____ Site Name Unocal Today's Date 3/7/95

Site Address 449 Heg Rd

City Oakland Zip 94621 Phone ________

____ MAX AMT stored > 500 lbs, 55 gal., 200 cft.?

Inspection Categories:

- ____ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
- ____ II. Business Plans, Acute Hazardous Materials
- X III. Underground Tanks Removal

* Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

II.A BUSINESS PLANS (Title 19)

___	1. Immediate Reporting	2703
___	2. Bus. Plan Stds.	25503(b)
___	3. RR Cars > 30 days	25503.7
___	4. Inventory Information	25504(a)
___	5. Inventory Complete	2730
___	6. Emergency Response	25504(b)
___	7. Training	25504(c)
___	8. Deficiency	25505(a)
___	9. Modification	25505(b)

II.B ACUTELY HAZ. MAT'LS

___	10. Registration Form Filed	25533(a)
___	11. Form Complete	25533(b)
___	12. RMPP Contents	25534(c)
___	13. Implement Sch. Req'd? (Y/N)	
___	14. Offsite Conseq. Assess.	25524(c)
___	15. Probable Risk Assessment	25534(d)
___	16. Persons Responsible	25534(g)
___	17. Certification	25534(i)
___	18. Exemption Request? (Y/N)	25536(b)
___	19. Trade Secret Requested?	25538

III. UNDERGROUND TANKS (Title 23)

General

___	1. Permit Application	25284 (H&S)
___	2. Pipeline Leak Detection	25292 (H&S)
___	3. Records Maintenance	2712
___	4. Release Report	2651
___	5. Closure Plans	2670

Monitoring for Existing Tanks

___ 6. Method
1) Monthly Test
2) Daily Vadose
Semi-annual gndwater
One time soils
3) Daily Vadose
One time soils
Annual tank test
4) Monthly Gndwater
One time soils
5) Daily Inventory
Annual tank testing
Cont pipe leak det
Vadose/gndwater mon.
6) Daily Inventory
Annual tank testing
Cont pipe leak det
7) Weekly Tank Gauge
Annual tank tstng
8) Annual Tank Testing
Daily Inventory
9) Other ________

___	7. Precis Tank Test Date: ______	2643
___	8. Inventory Rec.	2644
___	9. Soil Testing .	2646
___	10. Ground Water.	2647

New Tanks

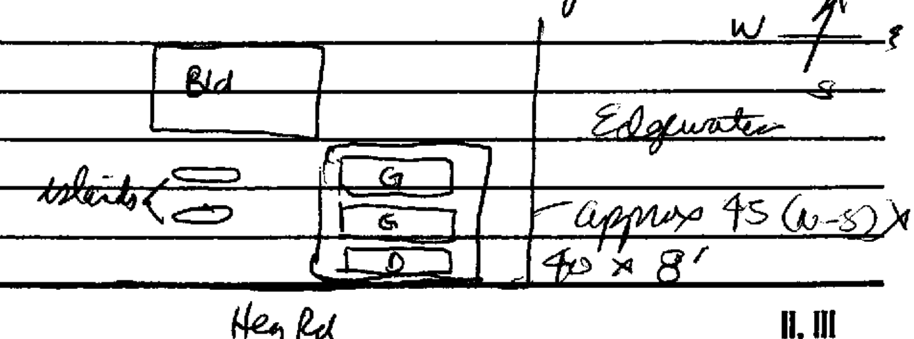
___	11. Monitor Plan	2632
___	12. Access. Secure	2634
___	13. Plans Submit Date: ______	2711
___	14. As Built Date: ______	2635

Rev 6/88

Comments:

Witness removal 3 - 10 k tanks (2 - 10 k gas asphalt wrapped steel + 1 - diesel Fibreglass)

Contractor Gettler-Ryan - Jeff Ryan present
Unocal - Dave DeWitt present, D. Camille
Sampler - Kaprealian - Haig Kevork
~20 k gallons of water has already been removed
10 k to the refinery + 10 k in Baker Tank
- Spoils have been approved for disposal to the Forward Land fill.
- Obvious FP present on water.
Will remove as much water as possible as an interim remediation practice.



II, III

Contact: ____________________

Title: ____________________

Signature: ____________________

Inspector: B. Chan

Signature: ____________________

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

Hazardous Materials Inspection Form

80 Swan Way, #200
Oakland, CA 94621
(415) 271-4320

II,III

Site ID # ____ Site Name Unocal Today's Date 3/7/95

Site Address 449 Hegenberger Rd

City Oakland Zip 94621 Phone ____

____ MAX AMT stored > 500 lbs. 55 gal., 200 cft.?

Inspection Categories:
____ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
____ II. Business Plans, Acute Hazardous Materials
__X__ III. Underground Tanks

* Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

II.A BUSINESS PLANS (Title 19)

___	1. Immediate Reporting	2703
___	2. Bus. Plan Stds.	25503(b)
___	3. RR Cars > 30 days	25503.7
___	4. Inventory Information	25504(a)
___	5. Inventory Complete	2730
___	6. Emergency Response	25504(b)
___	7. Training	25504(c)
___	8. Deficiency	25505(a)
___	9. Modification	25505(b)

II.B ACUTELY HAZ. MAT'LS

___	10. Registration Form Filed	25533(a)
___	11. Form Complete	25533(b)
___	12. RMPP Contents	25534(c)
___	13. Implement Sch. Req'd? (Y/N)	___
___	14. OffSite Conseq. Assess.	25524(c)
___	15. Probable Risk Assessment	25534(d)
___	16. Persons Responsible	25534(g)
___	17. Certification	25534(l)
___	18. Exemption Request? (Y/N)	25536(b)
___	19. Trade Secret Requested?	25538

III. UNDERGROUND TANKS (Title 23)

General

___	1. Permit Application	25284 (H&S)
___	2. Pipeline Leak Detection	25292 (H&S)
___	3. Records Maintenance	2712
___	4. Release Report	2651
___	5. Closure Plans	2670

Monitoring for Existing Tanks

___ 6. Method
1) Monthly Test
2) Daily Vadose
Semi-annual gndwater
One time soils
3) Daily Vadose
One time soils
Annual tank test
4) Monthly Gndwater
One time soils
5) Daily Inventory
Annual tank testing
Cont pipe leak det
Vadose/gndwater mon.
6) Daily Inventory
Annual tank testing
Cont pipe leak det
7) Weekly Tank Gauge
Annual tank tstng
8) Annual Tank Testing
Daily Inventory
9) Other ____

___	7. Precis Tank Test Date: ____	2643
___	8. Inventory Rec.	2644
___	9. Soil Testing.	2646
___	10. Ground Water.	2647

New Tanks

___	11. Monitor Plan	2632
___	12. Access. Secure	2634
___	13. Plans Submit Date: ____	2711
___	14. As Built Date: ____	2635

Rev 6/88

Comments: OFD gave approval for County to authorize tank R. G. Eddy will not show

10K diesel % LEL - 5% $\%O_2$ - 2%
10K gas (N) % LEL - 3% $\%O_2$ - 2
10K gas (middle) % LEL - 2% $\%O_2$ - 2
No holes or cracks observed in diesel tank
No obvious holes however tar wrapping severely deteriorated
No obvious holes " " " " "
Hunter - Erickson - #430322 exp 5/95
" " 430346 exp 5/95
diesel middle gas + more northern
Will overexcavate pit prior to sampling soil
So far approx 14'x18' cy of soils removed

II, III

Contact: ____

Title: ____ Inspector: BChan

Signature: ____ Signature: ____

Unocal Corporation
2000 Crow Canyon Place, Suite 400
San Ramon, California 94583
Telephone (510) 867-0760
Facsimile (510) 277-2309

UNOCAL 76

Northern Region
Corporate Environmental Remediation & Technology

October 25, 1994

Mr. Barney M. Chan
Hazardous Materials Specialist
Alameda County Health Care Services
Department of Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502-6577

Unocal Service Station #5043
449 Hegenberger Rd.
Oakland, CA 94621

Dear Mr. Chan:

This letter is written in response to concerns expressed in your September 14, 1994 letter about the subject site and our meeting on October 21, 1994. I will address each point in the order in which it was presented in your letter.

1. Unocal has made repeated requests of the Shuwa Investment Corporation for an offsite-access agreement to allow Unocal to install two off-site monitor wells. We have received a telephone request for additional copies of the agreement, but no other form of communication. Mr. Ron Senner of our Corporate Real Estate Division has pursued this access agreement since February, 1994 and has yet to receive an answer from Shuwa Corporation. Unocal requests the assistance of Alameda County Department of Environmental Health in the acquisition of this agreement. See attached copy of letter.

2. Unocal and Kaprealian Engineering have scheduled the installation of monitor wells MW-9 and MW-10 for the week of November 14th. If an off-site access agreement can be arranged with Shuwa Corporation, then monitor wells MW-7 and MW-8 will be installed at the same time. If this agreement can not be reached in time, then the wells will be installed following the receipt of an approved access agreement. If the Reformat Program for the service station is approve in the near future, then MW-4 and MW-5 will be destroyed, then re-installed following the completion of the Reformat Program.

As previously noted in my September 9, 1994 letter, the tanks and line replacement will take place when approval of the Reformat Program has been completed. As of today, this approval has not been received and is not anticipated for several weeks. In the meantime, Unocal will be installing the additional monitor wells in order to define the extent of hydrocarbon contamination.

3. The hydraulic hoist and clarifier was removed. The analytical results from sampling are being summarized in a report detailing the procedures of the removal. The waste oil tank was also removed at the same time and a similar report of that removal is being prepared. I understand that you witnessed this removal.

4. Removal of free product from MW-1 has been conducted on a monthly purging (since May, 1994) and passive bailer basis (since August of 1992). A summary of all the purging and volume of recovered free product is found in the Quarterly Monitoring reports and the QSRs.

5. Unocal and its consultant Kaprealian Engineering, Inc. (KEI) will submit to your office by November 15, 1994, a Corrective Action Plan which will contain the elements found in Title 23.

If you have any other questions or this letter does not accurately summarize our meeting, please call me at (510)-277-2384.

Sincerely yours

David B. De Witt
Senior Environmental Geologist

cc: R. D. Sisk
Ron Senner
Robert Kezerian, KEI

Unocal Real Estate Division
Unocal Corporation
2000 Crow Canyon Place, Suite 440
P.O. Box 5155
San Ramon, California 94583
Telephone (510) 277-2430
Facsimile (510) 277-2414

#521

UNOCAL 76

ALCO HAZMAT
OCT 17 PM 3:17

Ronald E. Senner
Senior Supervisor of Property

213 - 489-2757

• Frank De Furio

October 14, 1994

Shuwa Investments Corporation
515 Flower Street, Suite 1270
Los Angeles, CA 90071

Re: **Access Permission**
Lot in Vicinity of
Service Station 5043

Kelvin
Dear Mr. Nishikawa,

Unocal originally requested site access from Shuwa Investments Corporation in a letter of February 14, 1994. I spoke to you on a telecon March 16, 1994, stating that we still needed that access.

I subsequently sent you a follow up letter on September 21, 1994 asking that you execute and return the License Agreement. I responded to your September 27, 1994 request for replacement documents.

Having received nothing back from you as of this date, I can only assume that Shuwa is not receptive to cooperating with this Agency mandated project by granting site access. My only alternative at this point is to so inform the Agency and will do so by copy of this letter.

Sincerely,

Ron E. Senner
Senior Supervisor of property.

Cc: Alameda County Health Services Agency

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
SHUWA INVESTMENTS CO.
ATTN: MR. NISHIKAWA
515 FLOWER ST., SUITE 1270
LOS ANGELES, CA
90071

4a. Article Number
Z094905521

4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery
10/14/94

5. Signature (Addressee)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Agent)

PS Form 3811, December 1991 ★U.S. GPO: 1993—352-714 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

UNITED STATES POSTAL SERVICE

Official Business

LOS ANGELES, CA PM 14 OCT 1994

ATLANTIC RICHFIELD OCT 14 1994

PENALTY FOR PRIVATE USE TO AVOID PAYMENT OF POSTAGE, $300

National Station

U.S. MAIL

RECEIVED
OCT 21 1994

Print your name, address and ZIP Code here

UNOCAL
2000 CROW CANYON PLACE
SUITE 400
SAN RAMON, CA 94583

34
J. OUFFIN 10/14

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

80 Swan Way, #200
Oakland, CA 94621
(415) 271-4320

Hazardous Materials Inspection Form

II,III

Site ID # ____ Site Name UNOCAL Today's Date 9/21/94

Site Address 449 Hegenberger

City Oakland Zip 94621 Phone ______

____ MAX AMT stored > 500 lbs, 55 gal., 200 cft.?

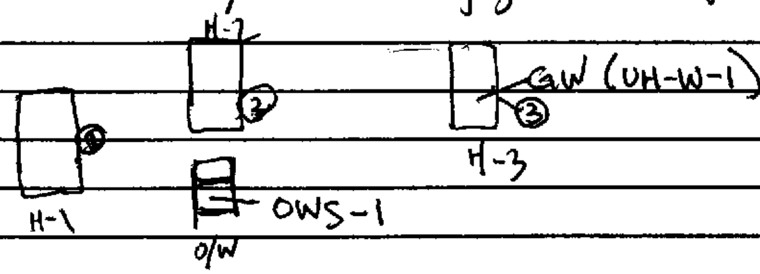
Inspection Categories:

____ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
____ II. Business Plans, Acute Hazardous Materials
X III. Underground Tanks Sampling beneath hoists + oil/water sep.

* Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

Comments:

Robert Mallory - Geo Strategies sampler



UH-W-1 GW w/ sheen - water at 5' bgs

UH-① soil from 3-3.5'. Bay mud (clayey silt) - PHC odor

UH-② at 3.5' - strong PHC odor

UH-③ at 4.0' - strong HC odor.

OWS-1-5.0' w/ HC odor

Analyze soil + water from Hoists for TPH-hydraulic oil

Analyze soil from oil/water separator for TPH-G, TPH-D, BTEX, TOG, Cl-HC and Cd, Cr, Pb, Ni, Zn

II.A BUSINESS PLANS (Title 19)

___	1. Immediate Reporting	2703
___	2. Bus. Plan Stds.	25503(b)
___	3. RR Cars > 30 days	25503.7
___	4. Inventory Information	25504(a)
___	5. Inventory Complete	2730
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___	7. Training	25504(c)
___	8. Deficiency	25505(a)
___	9. Modification	25505(b)

II.B ACUTELY HAZ. MAT'LS

___	10. Registration Form Filed	25533(a)
___	11. Form Complete	25533(b)
___	12. RMPP Contents	25534(c)
___	13. Implement Sch. Req'd? (Y/N)	
___	14. OffSite Conseq. Assess.	25524(c)
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___	16. Persons Responsible	25534(g)
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___	19. Trade Secret Requested?	25538

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General

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___	2. Pipeline Leak Detection	25292 (H&S)
___	3. Records Maintenance	2712
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2) Daily Vadose
Semi-annual gndwater
One time soils
3) Daily Vadose
One time soils
Annual tank test
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One time soils
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Annual tank testing
Cont pipe leak det
Vadose/gndwater mon.
6) Daily Inventory
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Cont pipe leak det
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Annual tank tstng
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9) Other ______

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___	12. Access. Secure	2634
___	13. Plans Submit Date: ______	2711
___	14. As Built Date: ______	2635

Rev 6/88

II, III

Contact: ROBERT C. MALLORY
Title: GEOLOGIST
Signature: Robert C. Mallory

Inspector: Eva Chu
Signature: [signature]

P1

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

80 Swan Way, #200
Oakland, CA 94621
(415) 271-4320

Hazardous Materials Division Inspection Form

I

Site ID# ______ Site Name Unocal #5043 Today's Date 9/20/94

Site Address 449 Hegenberger Rd EPA ID# ______

City Oak Zip 94621 Phone ______

MAX Amt. Stored > 500lbs/55g/200cf? Y N
Hazardous Waste generated per month?

Inspection Categories:

___ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
___ II. Business Plans, Acute Hazardous Materials
X III. Underground Tanks R

The marked items represent violations of the Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

I.A GENERATOR (Title 22)

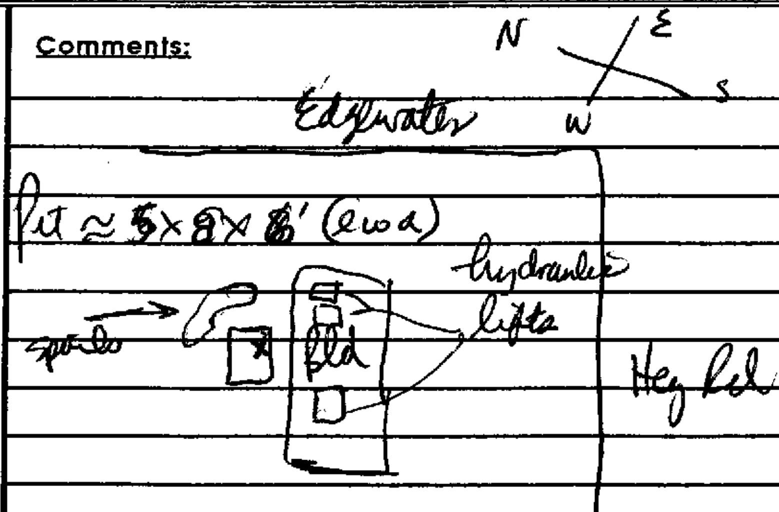
	1. Waste ID	* 66471
	2. EPA ID	66472
	3. > 90 days	66508
	4. Label dates	66508
	5. Biennial	66493
Manifest	6. Records	66492
	7. Correct	66484
	8. Copy sent	66492
	9. Exception	66484
	10. Copies Rec'd	66492
Misc.	11. Treatment	66371
	12. On-site Disp. (H.S.&C.)	26189.5
	13. Ex Haz. Waste	66570
Prevention	14. Communications	67121
	15. Aisle Space	67124
	16. Local Authority	67126
	17. Maintenance	67120
	18. Training	67105
Contingency	19. Prepared	67140
	20. Name List	67141
	21. Copies	67141
	22. Emg. Coord. Trng.	67144
Containers, Tanks	23. Condition	67241
	24. Compatibility	67242
	25. Maintenance	67243
	26. Inspection	67244
	27. Buffer Zone	67246
	28. Tank Inspection	67259
	29. Containment	67245
	30. Safe Storage	67261
	31. Freeboard	67257

I.B TRANSPORTER (Title 22)

	32. Applic./Insurance	66428
	33. Comp. Cert./CHP Insp.	66448
	34. Containers	66465
Manifest	35. Vehicles	66465
	36. EPA ID #s	66531
	37. Correct	66541
	38. HW Delivery	66543
	39. Records	66544
Cont'rs	40. Name/ Covers	66545
	41. Recyclables	66800

Rev 6/88

Comments:



Witness removal of 1-280 gal wasteoil tank
B Kezerian of Kaprealian present
Frank Pirelli - rep. Unocal present
Gettler-Ryan contractor
3 - hydraulic lifts also being removed today
Erickson - Tank hauler #430808 exp 5/95
Manifest # 93480990, OFD Insp. James allowed *
LEL = 0%, O2 unable to run, however I
Okayed removal based on former contents (waste oil)
Tank is steel + tar wrapped w/ no holes observed
Black loose fill w/i pit removed prior to
sampling, some GW present in pit

Contact: B. Kezerian
Title: ______
Signature: X [signature] 9/20/94

Inspector: B. Chan
Signature: [signature]

* County to make call on tank removal

Unocal Real Estate Divis
Unocal Corporation
2000 Crow Canyon Place, Suite 440
P.O. Box 5155
San Ramon, California 94583
Telephone (510) 277-2430
Facsimile (510) 277-2414

UNOCAL 76

#521

Ronald E. Senner
Senior Supervisor of Property

September 21, 1994

Shuwa Investments Corporation
801 South Grand Avenue, 6th Floor
Los Angeles, CA 90017

Re: **Access Permission**
Lot in Vicinity of
Service Station 5043

Dear Property Owners :

Enclosed is a copy of my letter dated February 14, 1994 requesting permission for Unocal to come on your property to install one ground water monitoring well. Included with the letter were a site vicinity map, a ground water monitoring well diagram and two License Agreements executed by Unocal.

I had requested in the letter that you sign and date one of the Agreements and return it in the stamped envelope we provided. As of this date Unocal does not have any record of the signed copy of the License Agreement being received.

I intended to trace you on my original letter in early March, but on March 16, 1994 I received a call from a Mr. Calvin Ishikawa. Mr. Ishikawa said he had received my letter and License Agreement request. He wanted to make sure Unocal still needed the Agreement signed. I assured him that we did need the Agreement as our actions are Agency directed. Unfortunately, I still have not received the document back or heard from anyone else since my conversation with Mr. Ishikawa on March 16, 1994.

If the information I sent you was misplaced or if you need additional information regarding the work we plan, please call me at (510) 277-2430. If you do not want Unocal to perform the work, I would appreciate a response in that regard as well.

We need to respond to the Agency of what efforts Unocal has put forth in attempting site access to complete required testing. The chronology stated above will be shared with the Agency.

Thank you in advance for your prompt attention to this important matter.

Sincerely,

Ron E. Senner
Senior Supervisor of Property

cc: Alameda County Health Care Services Agency

P2

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

80 Swan Way, #200
Oakland, CA 94621
(415) 271-4320

Hazardous Materials Division Inspection Form

I

Site ID# _____ Site Name Unocal #5043 Today's Date 9/20/94

Site Address 449 Hegenberger Rd EPA ID# _____

City Oak Zip 94621 Phone _____

MAX Amt. Stored > 500lbs/55g/200cf? Y N
Hazardous Waste generated per month? _____

Inspection Categories:
- ___ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
- ___ II. Business Plans, Acute Hazardous Materials
- Y III. Underground Tanks R

The marked items represent violations of the Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

I.A GENERATOR (Title 22)

	___ 1. Waste ID	* 66471
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	___ 3. > 90 days	66508
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	___ 32. Applic./Insurance	66428
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	___ 34. Containers	66465
Manifest	___ 35. Vehicles	66465
	___ 36. EPA ID #s	66531
	___ 37. Correct	66541
	___ 38. HW Delivery	66543
	___ 39. Records	66544
Con't's	___ 40. Name/ Covers	66545
	___ 41. Recyclables	66800

Comments:

1 soil sple taken beneath tank @ 9' into black bay mud — no odor detected
Spoils ≈ 8 Cyds
Denny Gay - 551-7444 x240, Gettler Ryan (Robert (Chris) Mallory) x262
- Aline to a remote fill exists approx 10' into bay, please either cap or grout fill & cap line since it can't be pulled.
- Soil sple should be run for TOG, TPHg, & BTEX, Chlorinated HC, semivolatiles + the metals Cd, Cr, Pb, Ni & Zn
- 4 stockpile soil sple taken. Will ~~have~~ composite these sples for disposal (landfill) required parameters

I

Rev 6/88

Contact: B. Kerzerian

Title: _____ Inspector: B Chan

Signature: _____ 9/20/94 Signature: B Chan

DEPARTMENT OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS DIVISION
80 SWAN WAY, ROOM 200
OAKLAND, CA 94621
PHONE NO. 510/271-4320

BARNEY CHAN

Note additional req. in RED
9/15/94
this replaces previously approved plan for waste and tank removal only

ACCEPTED

DEPARTMENT OF ENVIRONMENTAL HEALTH
470 - 27th Street, Third Floor
Oakland, CA 94612
Telephone: (415) 874-7237

These plans have been reviewed and found to be acceptable and essentially meet the requirements of State and local health laws. Changes to your plans indicated by this Department are to assure compliance with State and local laws. The project proposed herein is now released for issuance of any required building permits for construction.

One copy of these accepted plans must be on the job and available to all contractors and craftsmen involved with the removal.

Any change or alterations of these plans and specifications must be submitted to this Department and to the Fire and Building Inspection Department to determine if such changes meet the requirements of State and local laws. Notify this Department at least 48 hours prior to the following required inspections:

____ Removal of Tank and Piping

____ Sampling

____ Final Inspection

Issuance of a permit to operate is dependent on compliance with accepted plans and all applicable laws and regulations.

THERE IS A FINANCIAL PENALTY FOR NOT [illegible]

'94 AUG 31 AM 9:43
HAZMAT

UNDERGROUND TANK CLOSURE PLAN

* * * Complete according to attached instructions * * *

1. Business Name Unocal SS # 5043
   Business Owner Union Oil Co. of Ca.
2. Site Address 449 Hegenberger Rd
   City Oakland Zip 94621 Phone (510) 632-9949
3. Mailing Address 17700 Castleton St. Ste. 500
   City City of Industry Zip 91748 Phone 818 854-7092
4. Land Owner Union Oil Co.
   Address 2929 E. Imperial Hwy City, State Brea, Ca. Zip 92621
5. Generator name under which tank will be manifested
   Union Oil Company of Ca.

EPA I.D. No. under which tank will be manifested CAD 982056251

rev 3/92

6. Contractor Getter-Ryan Inc.

Address 6747 Sierra Ct., Ste. J

City Dublin, Ca. Phone (510) 551-7444

License Type* A, B, C61/D40, Haz ID# 220793

*Effective January 1, 1992, Business and Professional Code Section 7058.7 requires prime contractors to also hold Hazardous Waste Certification issued by the State Contractors License Board. Indicate that the certificate has been received, in addition, to holding the appropriate contractors license type.

7. Consultant Kaprealian Engr. Inc.

Address 2401 Stanwell Dr., Ste. 400

City Concord Phone (510) 602-5100

8. Contact Person for Investigation

Name Tim Ross Title Envt. Engineer

Phone (510) 602-5100

9. Number of tanks being closed under this plan 3

Length of piping being removed under this plan 400 Ft.

Total number of tanks at facility 3

10. State Registered Hazardous Waste Transporters/Facilities (see instructions).

** Underground tanks are hazardous waste and must be handled ** as hazardous waste

a) Product/Residual Sludge/Rinsate Transporter

Name Erickson Inc. EPA I.D. No. CAD 009466392

Hauler License No. 019 License Exp. Date 5/95

Address 255 Parr Blvd.

City Richmond State Ca. Zip 94801

b) Product/Residual Sludge/Rinsate Disposal Site

Name Same as A EPA I.D. No. _____

Address _____

City _____ State _____ Zip _____

c) Tank and Piping Transporter

Name Same as a. EPA I.D. No. _____

Hauler License No. _____ License Exp. Date _____

Address _____

City _____ State _____ Zip _____

d) Tank and Piping Disposal Site

Name Same as a. EPA I.D. No. _____

Address _____

City _____ State _____ Zip _____

11. Experienced Sample Collector (Hagop Kevork)

Name Kapredian Engr. Inc. - Technician

Company " " "

Address 2401 Stanwell Dr., Ste. 400

City Concord State Ca. Zip 94520 Phone (510) 602-5100

12. Laboratory

Name Sequoia Analytical

Address 1900 Bates Ave., Suite L

City Concord State Ca. Zip 94520

State Certification No. #1271

13. Have tanks or pipes leaked in the past? Yes [ ] No [X]

If yes, describe. _____

14. Describe methods to be used for rendering tank inert

Dry Ice - 30 lb/1000 gal. of tank size

Before tanks are pumped out and inerted, all associated piping must be flushed out into the tanks. All accessible associated piping must then be removed. Inaccessible piping must be plugged.

The Bay Area Air Quality Management District (771-6000), along with local Fire and Building Departments, must also be contacted for tank removal permits. Fire departments typically require the use of explosion proof combustible gas meters to verify tank inertness. It **is the contractor's responsibility to bring a working combustible gas meter on site to verify tank inertness.**

15. Tank History and Sampling Information

Tank		Material to be sampled (tank contents, soil, groundwater, etc.)	Location and Depth of Samples
Capacity	Use History (see instructions)		
10,000 Gal	87 Octane Unleaded Gas	Groundwater	Top of Water Table
10,000 Gal	92 Octane Unleaded Gas	"	"
10,000 Gal	Diesel	"	"
~~500 Gal~~	~~Waste Oil~~	"	"
		High Water Table + Wells already installed @ site.	

One soil sample must be collected for every 20 feet of piping that is removed. A ground water sample must be collected should any ground water be present in the excavation.

Excavated/Stockpiled Soil	
Stockpiled Soil Volume (Estimated) 500 yds.	Sampling Plan Per D.H.S./LUFT Manual + R.W.Q.C.B. guidelines

Stockpiled soil must be placed on bermed plastic and must be completely covered by plastic sheeting.

16. Chemical methods and associated detection limits to be used for analyzing samples

The Tri-Regional Board recommended minimum verification analyses and practical quantitation reporting limits should be followed. See attached Table 2.

Contaminant Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Method Number	Method Detection Limit (ppb)
SOIL: TPH-G	FOR GASOLINE TANKS	5030/8015 Mod	50
SOIL: BTEX	FOR GASOLINE TANKS	8020	0.5
SOIL: TPH-D	FOR DIESEL	3550/8015 Mod	50
FOR WASTE OIL: ~~TOG~~	5030/	5520 E, F	1 (ppm)
FOR WASTE OIL: ~~Chlorinated~~ HC	8010		
FOR WASTE OIL: ~~Metals~~	Cd, Cr, Pb, Ni, Zn	AA or ICAP	
FOR WASTE OIL: ~~Semi-Volatiles~~	8270		

17. Submit Site Health and Safety Plan (See Instructions)

18. Submit Worker's Compensation Certificate (W)

Name of Insurer T. G. I. Insurance

19. Submit Plot Plan (See Instructions)

20. Enclose Deposit (See Instructions)-

21. Report any leaks or contamination to this office within 5 days of discovery. The report shall be made on an Underground Storage Tank Unauthorized Leak/Contamination Site Report form. (See Instructions)

22. Submit a closure report to this office within 60 days of the tank removal. This report must contain all the information listed in item 22 of the instructions.

I declare that to the best of my knowledge and belief the statements and information provided above are correct and true.

I understand that information in addition to that provided above may be needed in order to obtain an approval from the Department of Environmental Health and that no work is to begin on this project until this plan is approved.

I understand that any changes in design, materials or equipment will void this plan if prior approval is not obtained.

I understand that all work performed during this project will be done in compliance with all applicable OSHA (Occupational Safety and Health Administration) requirements concerning personnel health and safety. I understand that site and worker safety are solely the responsibility of the property owner or his agent and that this responsibility is not shared nor assumed by the County of Alameda.

Once I have received my stamped, accepted closure plan, I will contact the project Hazardous Materials Specialist at least three working days in advance of site work to schedule the required inspections.

Signature of Contractor

Name (please type) Timothy J. Dahl Gettler-Ryan Inc. Project Manager

Signature Timothy J. Dahl

Date August 25, 1994

Signature of Site Owner or Operator

Name (please type) Unocal - Steve Birkett, Project Engr.

Signature Steve Birkett

Date 8/22/94

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
1131 HARBOR BAY PARKWAY, 2ND FLOOR
ALAMEDA, CA 94502-6577

(510) 271-4530

September 14, 1994
StID # 521

Mr. David De Witt
Unocal Corporation
2000 Crow Canyon Place, Suite 400
San Ramon, CA 94583

Re: Comment on September 9, 1994 Letter on the Status of the Subsurface Investigation at Unocal Station 5043, 449 Hegenberger Rd., Oakland CA 94621

Dear Mr. De Witt:

Our office has received and reviewed the above referenced letter regarding the status of proposed work at Unocal Station 5043. Your letter summarizes the current status and offers a proposal for a sequence of events for the future investigation and reconfiguration of this service station.

Our office has the following concerns/requests regarding Unocal's tentative proposal:

1. We understand that Unocal has not received any reply from the adjacent property owner after several access requests for the installation of off-site monitoring wells. Please provide our office copies of any correspondence to the off-site property owner. Please also provide the complete mailing address, the name of this company's contact person and their phone number.

2. Please provide a time line and schedule for the implementation of the bulleted items in your letter.

3. As previously discussed, although no removal permit is required for the excavation of the hydraulic hoist and clarifier, our office should be notified prior to any sampling performed after these removals.

4. Our office is most concerned about the presence of free product and high dissolved product being found at this site. At one time, you mentioned attempting to extract groundwater from MW-1. What is the status of this proposal? At this time, the passive removal of free product is not sufficient. Free product removal should be consistent with Section 2655, Article 5 of Title 23, Division 3, Chapter 16 of the California Code of Regulations.

5. You are also requested to provide a Corrective Action Plan, CAP, the contents of which are stated in Section 2725, Article 11 of Title 23. I understand that the contents of your CAP may include some of the items listed in your September 9, 1994 letter, however, the CAP requires, among other things, a feasibility study which evaluates each alternative for remediating the site for its cost-effectiveness.

Please submit a written response to the above items along with your CAP **within 45 days or by October 31, 1994.** ext. NOV 15,

You may contact me at (510) 567-6765 should you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

cc: G. Jensen, Alameda County District Attorney Office
Mr. Bob Kerzerian, KEI, 2401 Stanwell Drive, Suite 400, Concord, CA 94520
E. Howell, file

CAP449

I Requested copies of accessagreement & fuel address of Shuwa Inv. Corp.

Unocal Corporation
2000 Crow Canyon Place, Suite 400
San Ramon, California 94583
Telephone (510) 867-0760
Facsimile (510) 277-2309

ALCO HAZMAT
94 SEP 13 PM 1:51
#521

UNOCAL 76

September 9, 1994

Northern Region
Corporate Environmental Remediation & Technology

Mr. Barney Chan
Hazardous Materials Specialist
Alameda County Health Care Services
1131 Harbor Bay Parkway, Rm. 250
Alameda, CA 94502

449
Unocal Station No. 5043
499 Hegenberger Road
Oakland, CA 94621

Dear Mr. Chan:

This letter is written in reply to your August 16, 1994 letter requesting further investigation of hydrocarbon contamination at the subject site and requesting that work begin by September 19, 1994. You also had a question regarding the request for a waste oil tank removal at the site. I will try to answer your questions based upon the current plans for the site:

1. Unocal has submitted plans to the City of Oakland to reformat this site. This includes the removal and replacement of the current underground fuel storage tanks, lines and dispensers. A car wash will be installed on the western portion of the site and the building will be modified to provide space for a convience store. The facility will no longer provide automotive repair services. As a result, the hoist, clarifier and the waste oil tank will need to be removed prior to the renovation. Because of its location, the installation of the car wash will require the destruction and relocation of the two monitor wells (MW-4 and MW-5) on the west side of the site. The tank closure request your office received is to remove the waste oil tank since it will interfere with the construction of the car wash.

It is my understanding that the plans should be approved by the City of Oakland at the end of September with construction to start November 1st. Unocal has no control over the timing of the project approval process.

2. The approved work plan (KEI, June 22, 1993) involves the installation of two offsite wells. + 2 onsite wells Unocal has attempted to reach an off-site access agreement with the off-site property owner, the Shuwa Investment Corporation, on February 16 and March 17, 1994. We have not received a reply of any kind on these requests. We would appreciate your assisstance in obtaining an access agreement with the Shuwa Investment Corporation.

Unocal proposes the following sequence of events in order to efficiently delineate the extent of hydrocarbon contamination at the site. This plan is contingent upon the reformat process taking place at the planned time.

- Unocal will remove the waste oil tank, hoist and clarifier and sample these areas for contamination.

- Monitor wells MW-4 and MW-5 will be destroyed so that the car wash can be installed. The previously proposed monitor wells MW-9 and MW-10 can be installed at this time if conditions permit. MW-7 and MW-8 can be installed at the time that off-site access is acquired.

- Tanks, lines and dispensers will be removed. The tank pit and pipe trenches will be expanded and groundwater purged as much as practical. Excavated soil which is contaminated will be disposed at an approved facility. Purge water will be disposed at an approved facility.

- At the conclusion of construction, monitor wells MW-3 and MW-4 will be re-installed in new locations..

You will note that most of the installation of monitor wells is to be done when there are no construction crews on site. Our experience is that despite the best attempts of contractors, we inevitably damage several of our wells. We prefer that we only have to install the wells once, since there is a risk of contamination to the aquifer due to damaged wells.

If the construction does not proceed at the planned time, Unocal will install MW-7, MW-8, MW-9 and MW-10 by the end of the year, assuming that off-site access has been achieved. Based upon the results obtained from the installation of the monitor wells, remediation options will be examined to determine the most efficient means of remediation.

If you have questions, concerns or comments, please call me at 510-277-2384

Sincerely yours,

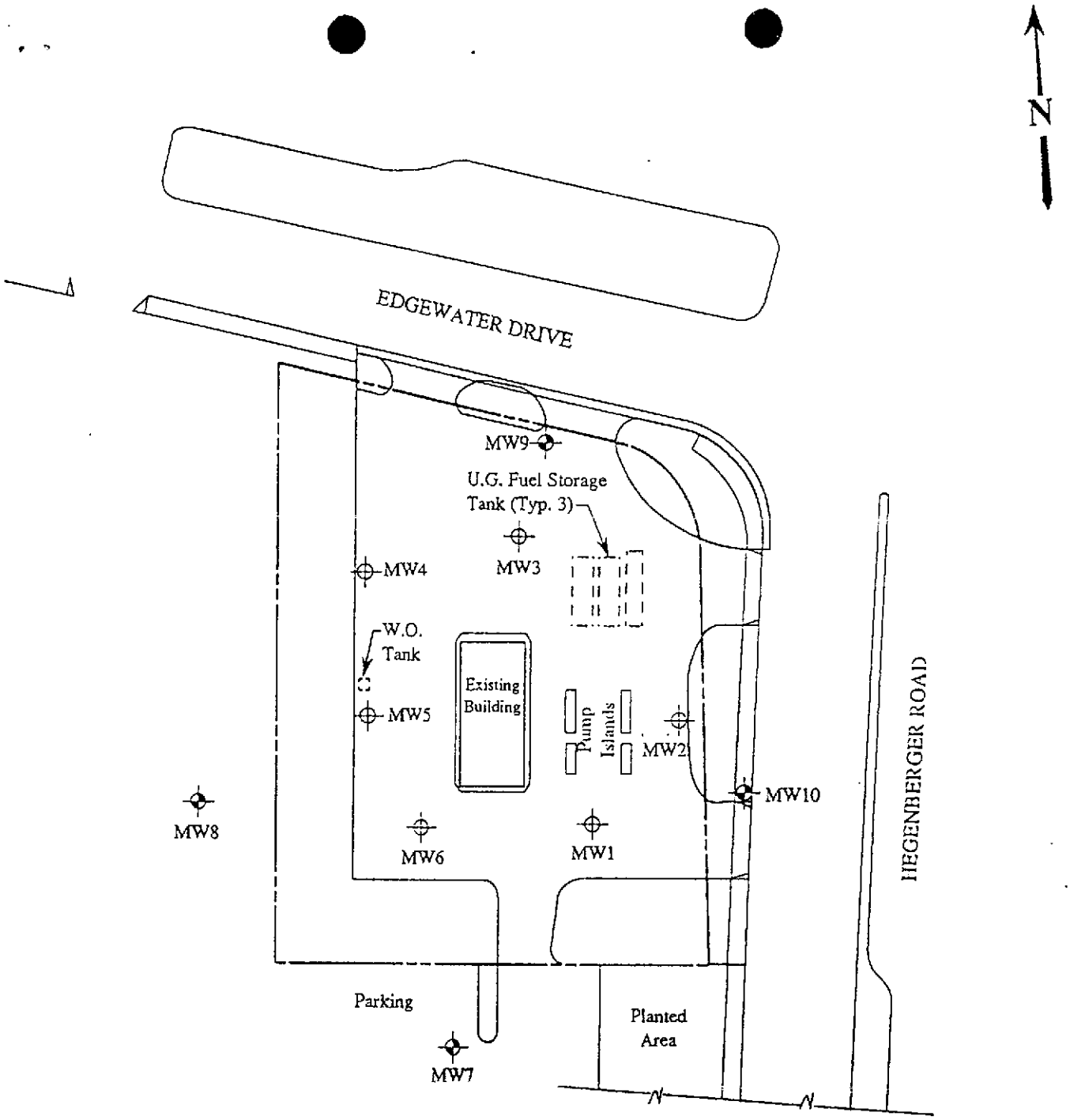
David B. De Witt
Environmental Geologist

J. Duffy
277-2360

Attachment

cc: R. D. Sisk 277
Ron Senner
Bob Kezerian, KEI

- need: a timeline & schedule for above items.
- need proposal to address f.p.



LEGEND

- Monitoring well (existing)
- Monitoring well (proposed)

0 60 120

Approx. scale feet

EXISTING AND PROPOSED MONITORING WELL LOCATION MAP

KAPREALIAN ENGINEERING INCORPORATED

UNOCAL SERVICE STATION #5043
449 HEGENBERGER ROAD
OAKLAND, CA

FIGURE 1

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

August 16, 1994
StID # 521

Mr. David DeWitt
Unocal Corporation
2000 Crow Canyon Place, Suite 400
P.O. Box 5155
San Ramon, CA 94583

Re: Request for the Implementation of Additional Subsurface Investigation at Unocal Station #5043, 449 Hegenberger Rd., Oakland CA 94621

Dear Mr. DeWitt:

As you are aware, significant gasoline and diesel contamination in groundwater has been detected through monitoring at the above site for well over two years. In fact, free product has been detected in monitoring well 1 ever since the November 30, 1992 monitoring event. When we last spoke, I understood that because of a major remodel planned for this station, which would include underground storage tank replacement, the proposed installation of additional monitoring wells as described in Kaprealian Engineering's June 22, 1993 work plan was on hold.

Our office recently received an underground tank closure plan for the waste oil tank only at the above site. Does this mean that your intentions to replace all the existing underground tanks has changed? If this is the case, it is now appropriate to initiate the installation of the four monitoring wells described in the June 22, 1993 Kaprealian proposal. This letter serves to provide written approval of this proposal and request the initiation of its implementation **within 30 days or by September 19, 1994.** Please notify me at least **48 working hours** prior to any field work, so I may arrange to witness this activity if possible.

You should also provide a work plan for the determination of the appropriate remedial method for this site. The skimmer implaced in monitoring well MW1 should is considered as an interim groundwater remedial measure to be used only until a more aggressive approach has been determined. Please describe the elements of your feasibility study within the contents of your next quarterly monitoring report scheduled for this month.

You may reach me at (510) 567-6700 should you have any questions.

Please be advised of our new address:
1131 Harbor Bay Parkway, Room 250, Alameda CA 94502.

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

cc: Mr. Joel Greger, Kaprealian Engineering, Inc., 2401 Stanwell Dr., Suite 400, Concord CA 94520
E. Howell, files

4-449Heg

BARNEY CHAN

Need A+B forms

On 8/23/94 Blue

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS DIVISION
80 SWAN WAY, ROOM 200
OAKLAND, CA 94621
PHONE NO. 510/271-4320

ACCEPTED
DEPARTMENT OF ENVIRONMENTAL HEALTH
470 - 27th Street, Third Floor
Oakland, CA 94612
Telephone: (415) 874-7237

These plans have been reviewed and found to be acceptable and essentially meet the requirements of State and local health laws. Changes to your plans indicated by this Department are to assure compliance with State and local laws. The project proposed herein is now released for issuance of any required building permits for construction.

One copy of these accepted plans must be on the job and available to all contractors and craftsmen involved with the removal.

Any change or alterations of these plans and specifications must be submitted to this Department and to the Fire and Building Inspection Department to determine if such changes meet the requirements of State and local laws.

Notify this Department at least 48 hours prior to the following required inspections:

_____ Removal of Tank and Piping

_____ Sampling

_____ Final Inspection

Issuance of a permit to operate is dependent on compliance with accepted plans and all applicable laws and regulations.

THERE IS A FINANCIAL PENALTY FOR NOT OBTAINING THIS PERMIT BEFORE STARTING WORK

UNDERGROUND TANK CLOSURE PLAN
*** * * Complete according to attached instructions * * ***

1. Business Name UNOCAL SERVICE STATION #5043

   Business Owner UNOCAL CORP

2. Site Address 449 HEGENBERGER RD / EDGEWATER

   City OAKLAND Zip 94621 Phone (510) 632-9999

3. Mailing Address 2000 CROW CANYON PL, Ste 400

   City SAN RAMON Zip 94583 Phone (510) 867-0760

4. Land Owner UNOCAL CORP

   Address 2000 CROW CYN PL #400 City, State SAN RAMON, CA Zip 94583

5. Generator name under which tank will be manifested UNOCAL CORP

   EPA I.D. No. under which tank will be manifested CAD982056251

6. Contractor SETTLER RYAN INC

Address 6747 SIERRA Ct, Ste J

City DUBLIN Phone (510) 551-7555

License Type* HAZ A ID# 220793

*Effective January 1, 1992, Business and Professional Code Section 7058.7 requires prime contractors to also hold Hazardous Waste Certification issued by the State Contractors License Board. Indicate that the certificate has been received, in addition, to holding the appropriate contractors license type.

7. Consultant KEI ASSOC

Address 2401 STANWELL DR STE 400

City CONCORD, CA 94520 Phone (510) 602 5100

8. Contact Person for Investigation

Name HAIG KEZORK Title PROJECT GEOLOGIST

Phone (510) 602 5100

9. Number of tanks being closed under this plan 1

Length of piping being removed under this plan 15' (rent)

Total number of tanks at facility 3

10. State Registered Hazardous Waste Transporters/Facilities (see instructions).

** Underground tanks are hazardous waste and must be handled ** as hazardous waste

a) Product/Residual Sludge/Rinsate Transporter

Name ERICKSON INC EPA I.D. No. CAD009466392

Hauler License No. 0019 License Exp. Date 5-95

Address 255 PARR BLVD

City RICHMOND State CA Zip 94801

b) Product/Residual Sludge/Rinsate Disposal Site

Name ERICKSON INC EPA I.D. No. CAD009466392

Address 255 PARR BLVD

City RICHMOND State CA Zip 94801

c) Tank and Pipi Transporter

Name ERICKSON INC EPA I.D. No. CAD009466392

Hauler License No. 0019 License Exp. Date 5-95

Address 255 PARR BLVD

City RICHMOND State CA Zip 94801

d) Tank and Piping Disposal Site

Name ERICKSON INC EPA I.D. No. CAD009466392

Address 255 PARR BLVD

City RICHMOND State CA Zip 94801

11. Experienced Sample Collector

Name HAIG KEZORK

Company KAPREILIAN ENGINEERING

Address 2401 STANWELL DR STE 400

City CONCORD State CA Zip 94520 Phone (510) 602-5104

12. Laboratory

Name SEQUOIA ANALYTICAL

Address 1900 BATES AVE Ste LM

City CONCORD State CA Zip 94520

State Certification No. # 1271

13. Have tanks or pipes leaked in the past? Yes [ ] No [X]

If yes, describe. _____

14. Describe methods to be used for rendering tank inert

TRIPLE RINSE

CO_2

Before tanks are pumped out and inerted, all associated piping must be flushed out into the tanks. All accessible associated piping must then be removed. Inaccessible piping must be plugged.

The Bay Area Air Quality Management District (771-6000), along with local Fire and Building Departments, must also be contacted for tank removal permits. Fire departments typically require the use of explosion proof combustible gas meters to verify tank inertness. **It is the contractor's responsibility to bring a working combustible gas meter on site to verify tank inertness.**

15. Tank History and Sampling Information

Tank		Material to be sampled (tank contents, soil, ground-water, etc.)	Location and Depth of Samples
Capacity	Use History (see instructions)		
280 GAL	WASTE OIL	SOIL GW if encountered	2 FT BELOW CENTER OF TANK

One soil sample must be collected for every 20 feet of piping that is removed. A ground water sample must be collected should any ground water be present in the excavation.

Excavated/Stockpiled Soil	
Stockpiled Soil Volume (Estimated) 30 yds	Sampling Plan 1 Composite Sample

Stockpiled soil must be placed on bermed plastic and must be completely covered by plastic sheeting.

16. Chemical methods and associated detection limits to be used for analyzing samples

The Tri-Regional Board recommended minimum verification analyses and practical quantitation reporting limits should be followed. See attached Table 2.

Contaminant Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Method Number	Method Detection Limit
WASTE OIL	TPHG TPHD ~~TPH AND BTXE~~ O&G CHC ICAP METALS Cd, Cr, Pb, Zn, Ni Semi Volatiles	5030/GCFID 3550 ~~8260~~/GCFID 5520 E+F 8020 8010 8270	1 ppm 1 ppm 50 ppm 5 ppb

17. Submit Site Health and Safety Plan (See Instructions)

18. Submit Worker's [redacted]pensation Certificate cop[redacted] ON FILE

Name of Insurer TRANSAMERICA

19. Submit Plot Plan (See Instructions)

20. Enclose Deposit (See Instructions)

21. **Report any leaks or contamination to this office within 5 days of discovery.** The report shall be made on an Underground Storage Tank Unauthorized Leak/Contamination Site Report form. (see Instructions)

22. Submit a closure report to this office within 60 days of the tank removal. This report must contain all the information listed in item 22 of the instructions.

I declare that to the best of my knowledge and belief the statements and information provided above are correct and true.

I understand that information in addition to that provided above may be needed in order to obtain an approval from the Department of Environmental Health and that no work is to begin on this project until this plan is approved.

I understand that any changes in design, materials or equipment will void this plan if prior approval is not obtained.

I understand that all work performed during this project will be done in compliance with all applicable OSHA (Occupational Safety and Health Administration) requirements concerning personnel health and safety. I understand that site and worker safety are solely the responsibility of the property owner or his agent and that this responsibility is not shared nor assumed by the County of Alameda.

Once I have received my stamped, accepted closure plan, I will contact the project Hazardous Materials Specialist at least three working days in advance of site work to schedule the required inspections.

Signature of Contractor

Name (please type) BARRY E. MC COY

Signature Barry E McCoy

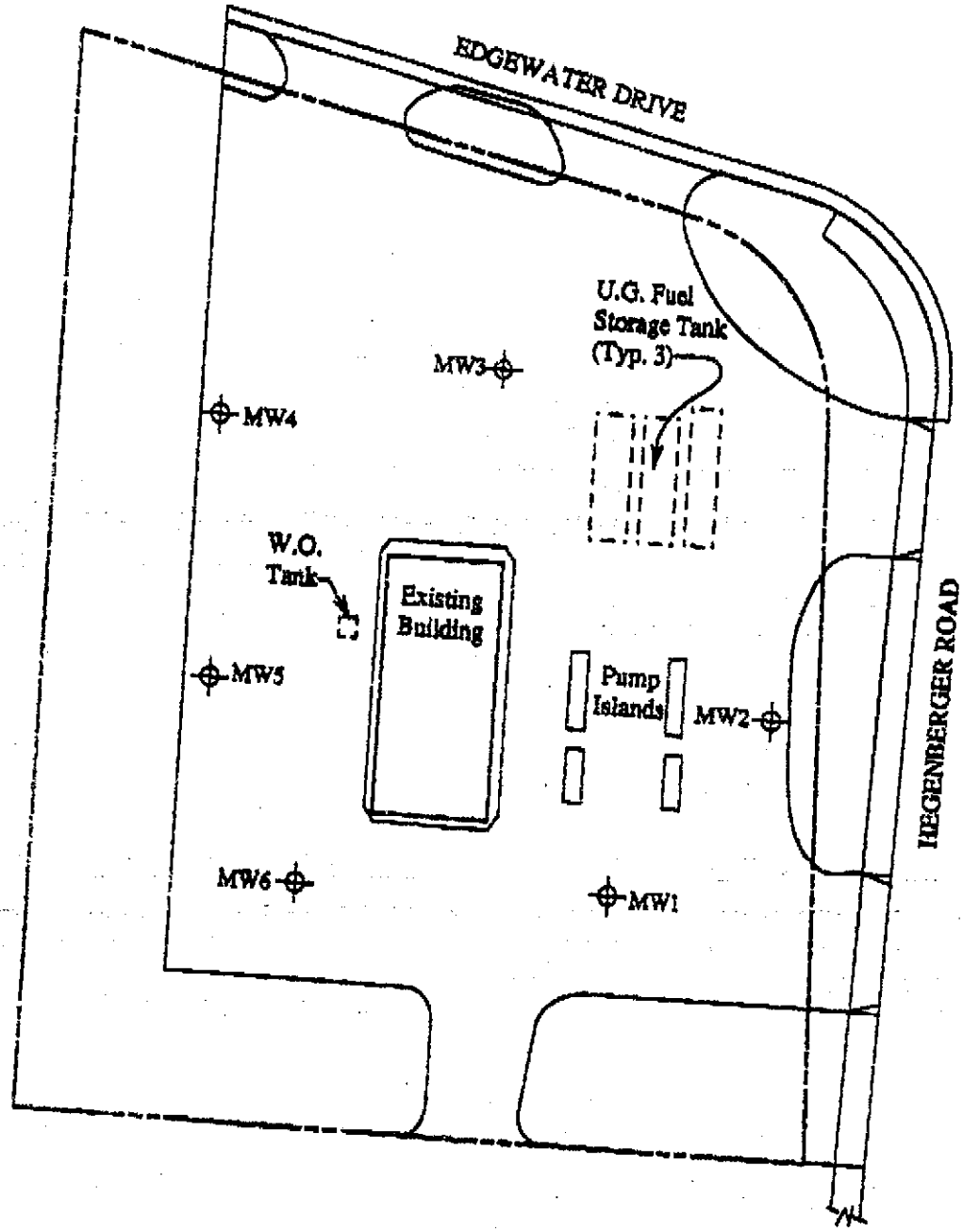
Date 8-10-94

Signature of Site Owner or Operator

Name (please type) BARRY E. MC COY , ON BEHALF OF UNOCAL CORP

Signature Barry E McCoy

Date 8-10-94



LEGEND

- Monitoring well
- ( ) Ground water elevation in feet above Mean Sea Level
- Direction of ground water flow
- Contours of ground water elevation

0 40 80
Approx. scale feet

POTENTIOMETRIC SURFACE MAP FOR THE 3rd, 1994 MONITORING EVENT

KAPREALIAN ENGINEERING INCORPORATED

UNOCAL SERVICE STATION #5043
449 HEGENBERGER ROAD
OAKLAND, CA

FIGURE

GETTLER-RYAN INC.

SITE SAFETY PLAN, JOB #3025.01

SITE:	Company:	UNOCAL Corporation #5043
	Location:	449 Hegenberger Avenue/Edgewater
	City:	Oakland, CA

PLAN PREPARED BY: Gettler-Ryan Inc. DATE: 8/15/94

OBJECTIVES: To provide a plan for the safe completion of the site work.

PROPOSED DATE OF SITE WORK: 8/29/94

DOCUMENTATION/ SUMMARY: Hazardous material may be present, caution is advised. Site work includes removal/installation of one waste oil tank and decommissioning of the oil/water separator.

SITE/WASTE CHARACTERISTICS:

WASTE TYPE(S):	Liquid	Solid	Gas
CHARACTERISTIC(S):	Volatile	Flammable	Toxic

FACILITY DESCRIPTION: Gasoline service station with underground utilities

STATUS: Active

HAZARD EVALUATION

PARAMETER: TLV 300 ppm THC

HEALTH: ingestion, inhalation, absorption

LEL 10% Gastechtor max.

SPECIAL PRECAUTIONS AND COMMENTS: Correct safety procedures must be followed, per Gettler-Ryan Inc. Health and Safety Plan. UGST to be inerted per BAAQMD guidelines (Reg.8, Section 30) 30 lbs. of dry ice to be placed in tank prior to removal.

SITE SAFETY WORKPLAN

PERIMETER ESTABLISHMENT:	Use barricades and flagging to restrict access to tank removal area and gasoline UGST work area. Tank excavation to be fenced while hole is open.
PERSONAL PROTECTION:	Level of Protection EPA Level D Modifications: Rubber gloves, hard hats and red vests. Surveillance Equipment and Material: Gastech
SITE ENTRY PROCEDURES:	None
DECONTAMINATION PROCEDURES:	Personnel: Wash thoroughly with detergent solution and water Equipment: Steam clean if necessary
FIRST AID:	As applicable
WORK LIMITATIONS	(Time of day, weather, heat/cold stress): none.
INVESTIGATION-DERIVED MATERIAL DISPOSAL:	Tank and lines to be manifested and hauled by Erickson, Inc. All materials removed from tank hole to be sampled, placed on visqueen on site and covered until classified for proper disposal.
TEAM COMPOSITION:	- Job Foreman, Site Safety Officer 1 Laborers 1 Operator 1 Field Technician from GeoTech Co.

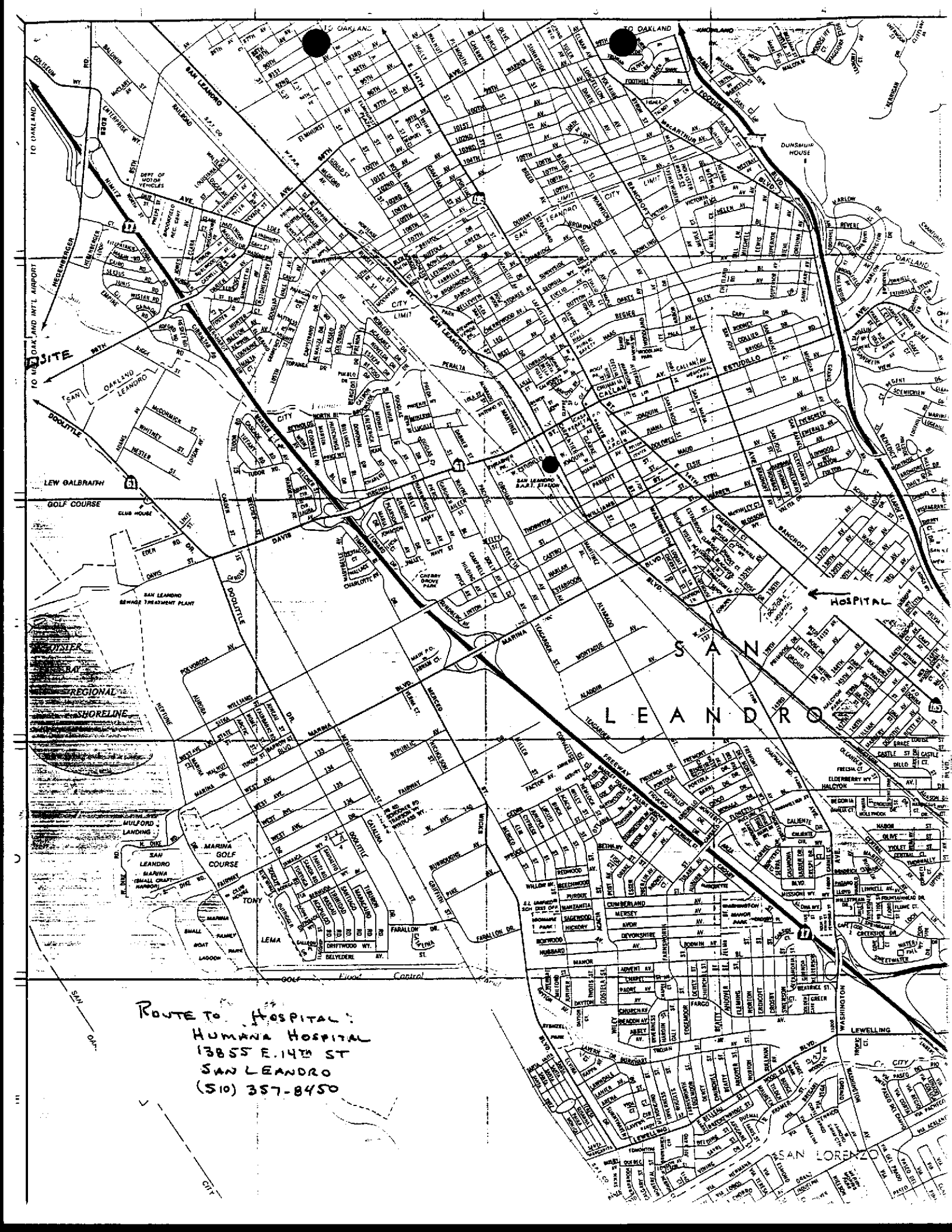
EMERGENCY INFORMATION

LOCAL RESOURCES:	Ambulance/Hospital	Dial 911
	Police/Sheriff/Hwy Patrol	Dial 911
	Fire Department	Dial 911
SITE RESOURCES:	Water Supply	
	Telephone	
	Visqueen	
	Fire Extinguisher	
	First Aid Kit	
	Sorbant Pads	
EMERGENCY CONTACT:	Gettler-Ryan Inc.	(510) 551-7555
EMERGENCY ROUTES:	Nearest emergency hospital is:	

Humana Hospital
13855 E. 14th Street
San Leandro, CA

(510) 357-8450

MAP ATTACHED



ROUTE TO HOSPITAL:
HUMANA HOSPITAL
13855 E. 14TH ST
SAN LEANDRO
(510) 357-8450

Unocal Real Estate Divisi
Unocal Corporation
2000 Crow Canyon Place, Suite 400
P.O. Box 5155
San Ramon, California 94583
Telephone (510) 277-2430
Facsimile (510) 277-~~2309~~ 2417

UNOCAL 76

Ronald E. Senner
Senior Supervisor of Property

February 14, 1994
Shuwa Investments Corporation
801 South Grand Avenue, 6th Floor
Los Angeles, California

Re: Access Permission
Lot in the vicinity of
Service Station 5043
449 Hegenberger Road
Oakland, California

Dear Property Owner:

As part of Unocal's continuing environmental commitment and to comply with existing laws and regulations, we will be assessing the soil and ground water beneath our property indicated above. We plan to assess the soil and ground water on adjoining property as well.

As you are an adjoining property owner, we are requesting your permission to come on your property which is in the vicinity of the subject service station to install ~~four~~ two ground monitoring wells.

I have enclosed:

1. A Site Vicinity Map that shows the locations on your property where the proposed wells would be installed.

2. Two original License Agreements executed by Unocal that would allow Unocal employees, representatives and contractors to enter on your property to install the wells. This Agreement also indemnifies the property owner.

Please sign and date one of the Agreements and return it to me in the enclosed envelope by February 28,1994. The remaining Agreement is for your file.

Be assured that once testing is completed, we will return your property to its original condition. If you have any questions about the work we plan or the Agreement, please call me at (510) 277-2430

Thank you in advance for your prompt attention in this matter.

Ron E. Senner
Senior Supervisor of Property

LICENSE AGREEMENT

Agreement is made this 20th day of February, 1994 by and between Shuwa Investments Corporation, 801 South Grand Avenue, 6th Floor, Los Angeles, CA. 90017 (hereinafter "Licensor ") and Union Oil Company of California d.b.a. Unocal, with principal offices at 1201 West Fifth Street, Los Angeles California, [hereinafter "Licensee"]; Licensor and Licensee shall sometimes hereinafter be referred to as the "Parties

RECITALS

A. Licensor is the owner of a certain parcel, of real property ("Subject Property") in the vicinity of Unocal Service Station 5043, located at 449 Hegenberger Road, Oakland, CA.

B. Licensee now desires to enter the Subject Property to install four ground monitoring wells.

C. Licensor and Licensee desire to enter into this License Agreement so that the soil and/or groundwater can be assessed in relation to environmental laws and regulations;

NOW THEREFORE, in consideration of the granting of the foregoing, the mutual premises, covenants, conditions and agreements hereinafter set forth, and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the Parties agree as follows:

1. Grant of License - Licensor hereby grants to Licensee, its employees, representatives and contractors a non-exclusive license [hereinafter the"License"] to enter upon the Subject Property from time to time to conduct the activities described in Recitals Paragraph B & C above. This License shall commence on February 20th, 1994 and shall end on February 19th, 1996,unless the parties agree in writing to extend the term of the License. If Licensee is required by a government agency to maintain a well or other installation installed under this agreement, the license shall, on notice of such requirement to Licensor, be extended until 30 days after such requirement ceases. Prior to the expiration of the License, Licensee shall, at its sole cost and expense, cause any excavations to be returned to the original gradient, and shall remove all equipment placed on the Subject Property, fill and level all ditches, ruts and depressions, if any caused by the closure of the excavation operations, and remove all debris resulting therefrom

2. Compliance with Laws - Licensee shall conduct all operations which are the subject of this License in compliance with all federal, state, and municipal statutes and ordinances, and with all regulations, orders, and directives of appropriate governmental agencies, as such statutes, ordinances, regulations, orders, and directives now exist or provide.
3. Permits - Licensee, at no cost or expense to Licensor, shall be responsible for obtaining any and all governmental permits and approvals which may be necessary for it to conduct any work or activities under this License Agreement. Licensor shall coordinate and cooperate with Licensee in Licensee's activities to obtain all necessary government permits and permissions.
4. Liens and Claims - Licensee will not permit any mechanics', materialmen's, or other similar liens or claims to stand against the Subject Property for labor or material furnished in connection with any work performed by Licensee under this License Agreement. Upon reasonable and timely notice of any such lien or claim delivered to Licensee by Licensor, Licensee may bond and contest the validity and the amount of such lien, but Licensee will immediately pay any judgment rendered, will pay all proper costs and charges, and will have the lien or claim released at its sole expense.
5. Cooperation - Licensee agrees to coordinate its activities with Licensor to minimize any impairment of access by customers or business invitees of Licensor to the Subject Property and any inconvenience to or disruption of Licensor's business on the subject Property.
6. Indemnity - Licensee agrees that it will indemnify and hold Licensor harmless from and against any claims, demands, actions, suits, judgments, losses, damages, costs or expenses incurred as a result of personal injury, property damage, civil penalties or fines proximately caused in whole or in part by the negligent acts or omissions of Licensee or its authorized contractors, employees and agents in conducting its activities under this License Agreement. This Indemnity is expressly conditioned on the following:

(a) In the event Licensor shall identify any matter to which this indemnity may apply or receive a notice or claim from any third party of such matter,it shall immediately, and in every case within thirty (30) days of said notice or claim, notify Licensee in writing of such matter addressed to Licensee's Law Department, 1201 West Fifth Street, Los Angeles, California 90017.
(b) Licensor shall cooperate with Licensee by allowing Licensee, its agents, representatives, contractors and consultants, prompt and ready access to the Subject Property for the purpose of investigating any matter to which this Indemnity may apply.
(c) This Indemnity extends only to liability found to have been due to License's comparative fault and shall not extend to liability for any claim, including future contamination, determined to have been due to acts or

omissions of Licensor, its agents, its predecessors, successors or assigns, or any third party.

7. Notices - Any notice provided for herein or otherwise required to be given hereunder shall be given by registered mail or certified United States mail, postage prepaid, addressed to the other as set forth in the first paragraph of this License Agreement, except for the notice required to be given to Licensee as set forth in paragraph 6 (a) hereof. The person and the place to which notices are to be mailed may be changed by either party by providing written notice of same to the other.
8. Assignment, Successors and Assigns - This Agreement may not be assigned by either party without the prior written consent of the other, but otherwise shall be binding upon and inure to the benefit of the Parties' respective representatives, successors and assigns.
9. Entire Agreement - This License Agreement represents the full, complete and entire agreement between the parties with respect to the subject matter hereof, and the rights and remedies of the Parties shall be solely and exclusively those herein contained, and in lieu of any remedies otherwise available at law or in equity.
10. Governing Law - This Agreement shall be construed and interpreted and governed by and in accordance with the local law of the State of California without reference to any choice of law rules or policies which may refer the resolution of any dispute arising hereunder to the laws of any other jurisdiction. IN WITNESS WHEREOF, the Parties have executed this License Agreement by their duly authorized representatives on the date first above written.

LICENSOR: Shuwa Investments Corporation

By:_____ Date:_____

Title:_____

LICENSEE

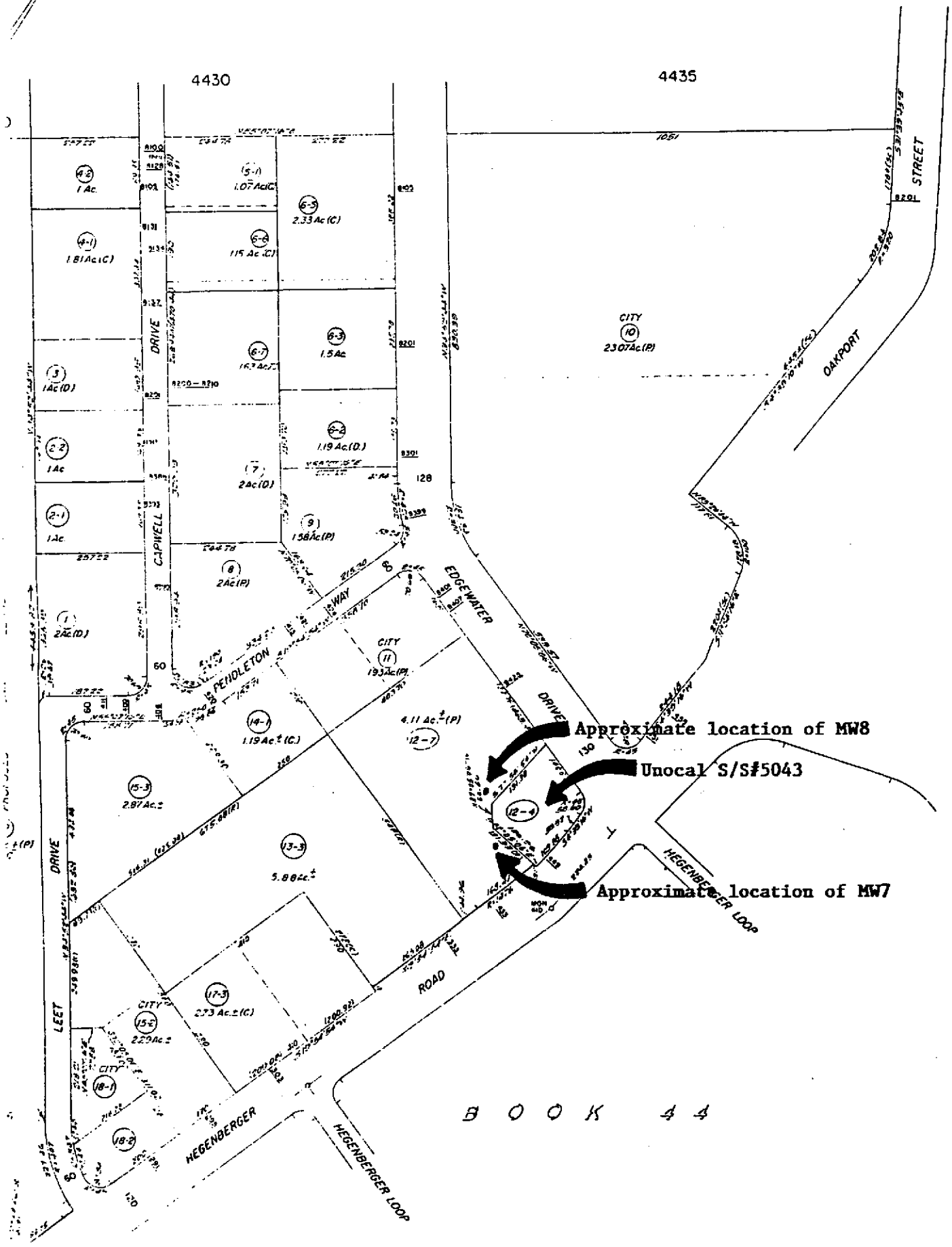
Union Oil Company of California d.b.a. Unocal

By:_____ Date:_____

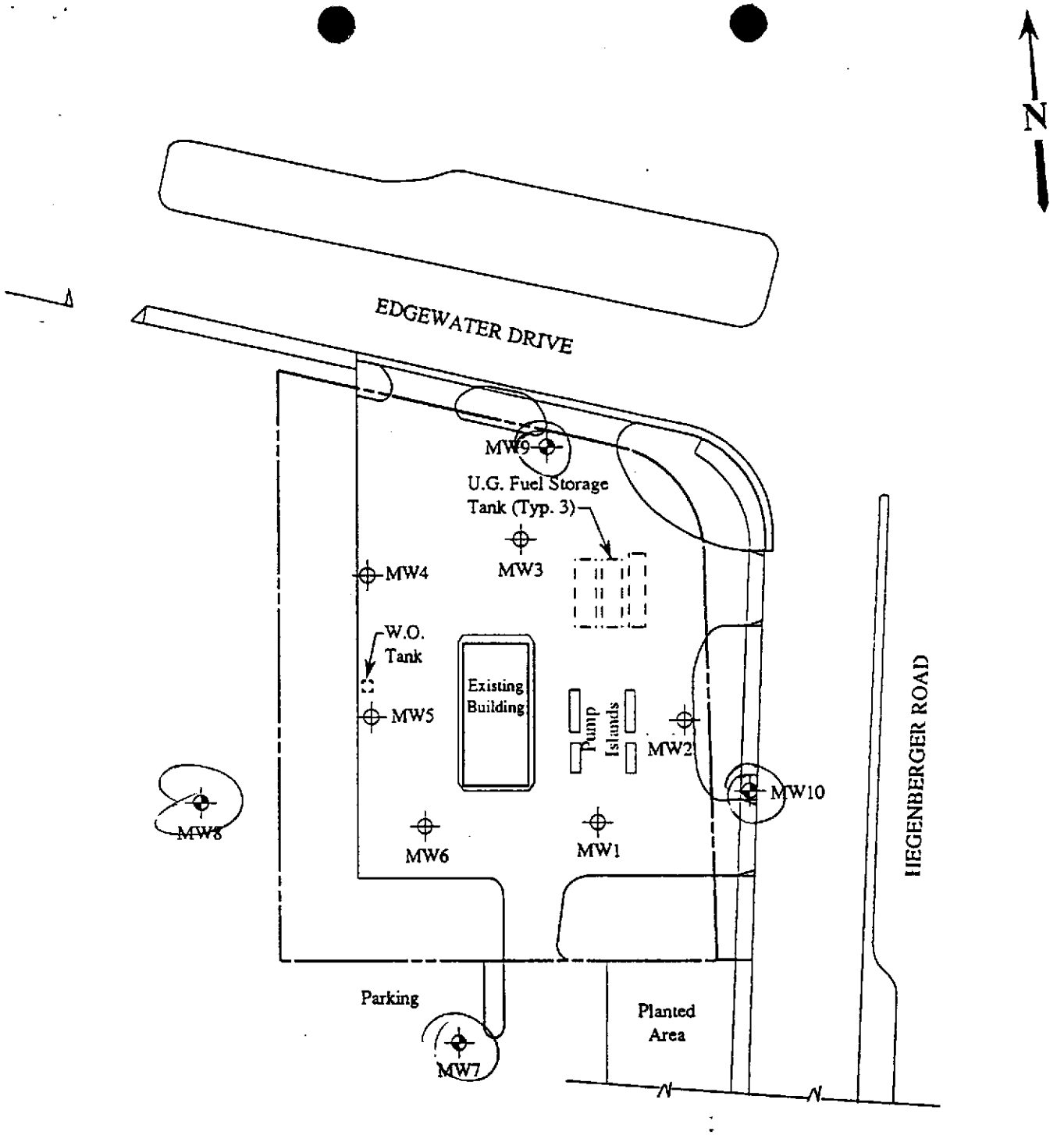
SSOR'S MAP 42

Scale 1" = 200'

MAP OF THE LANDS IN PARTITION
(WM. P. TOLER ET AL vs JOSE C. PERALTA ADM. ET. AL-CASE NO. 5408)(Bk 207D-Pg 349)(Case 3-13-58)



BOOK 44



LEGEND

- Monitoring well (existing)
- Monitoring well (proposed)

0 60 120

Approx. scale feet

EXISTING AND PROPOSED MONITORING WELL LOCATION MAP

KAPREALIAN ENGINEERING INCORPORATED

UNOCAL SERVICE STATION #5043
449 HEGENBERGER ROAD
OAKLAND, CA

FIGURE
1

Service Station 5043
449 Hegenberger Road
Oakland CA

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

April 19, 1993
StID # 521

Mr. Tim Howard
Unocal Corporation
2000 Crow Canyon Place, Suite 400
P.O. Box 5155
San Ramon, CA 94583

Re: Comment on March 31, 1993 Quarterly Report for Unocal Service Station #5043, 449 Hegenberger Rd., Oakland CA 94621

Dear Mr. Howard:

Our office has received and reviewed the above referenced quarterly report. The report details the groundwater analytical results from monitoring wells 1-6. Our office has some concerns with the recommendation of your consultant, Kaprealian. They have stated that since the Total Dissolved Solids of water samples from MW2,MW3,MW4 and MW6 exceed 3,000 mg/l (ppm), no further contamination delineation nor remediation appears to be warranted. After site specific conditions were examined, our office cannot agree with this recommendation. Although it is correct that the groundwater at this site may not be considered potable according to Resolution 88-63, a number of other considerations must be met to warrant no further delineation and remediation.

The property owner is still responsible for the delineation of the extent of soil and groundwater contamination. It must be shown to be confined to your property boundaries. In addition, free product occurring in MW1 must be removed to all extent possible per Title 23 Section 2655. After reviewing the groundwater gradient maps, it is apparent that there are at least two gradient directions at this site; south-southeast on the north side of the property and westerly on the southern part of the site. Monitoring wells MW5 and MW6 are on the southern part of the site. Their concentrations of TPHg and BTEX has increased significantly from the August 92 sampling to the November 92 sampling event. With the westerly gradient, such contamination is possibly moving offsite. As mentioned previously, contamination must be confined to the property boundaries. This can be verified by additional subsurface investigation or other means to hydraulically control the groundwater plume. Lastly, Section 2652 (11) (d) of Title 23 states that until the investigation and cleanup are complete, the owner or operator shall submit reports to the local agency at least every three months.

Therefore, although it may appear that no further work is warranted, in order to contain any contamination on this site's boundaries additional work will be necessary. Also, continual monitoring and reporting will be required to verify containment of the groundwater contaminant plume.

You may contact me at (510) 271-4530 should you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

cc: G. Jensen, Alameda County District Attorney Office
R. Hiett, RWQCB
T. J. Berkins, Kapraealian Engineering Inc., 2401 Stanwell Dr., Suite 400, Concord, CA 94520
E. Howell, files

1-449Heg

Shell Oil Company

P. O. Box 5278
Concord, CA 94520-9998
(415) 685-3850

December 21, 1992

Shell Service Station
285 Hegenberger Road at Leet Drive
Oakland, California
WIC No 204-5508-5504

Mr. Barney M. Chan
Alameda County Health Care Service
80 Swan Way, Room 200
Oakland, California 94621

Dear Mr. Chan:

Attached For your review is a report for the Shell Service Station referenced above. I declare under penalty of perjury that the information contained in the report is true and correct, to the best of my knowledge.

Sincerely,

Shell Oil Company

D. T. Kirk

Daniel T. Kirk
Area Environmental Engineer

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

December 11, 1992
STID # 521

Mr. Tim Howard
Unocal Corporation
2000 Crow Canyon Place, Suite 400
P.O. Box 5155
San Ramon, CA 94583

Re: Evaluation of October 12, 1992 Groundwater Investigation and Quarterly Monitoring Report for Unocal Service Station #5043, 449 Hegenberger Rd., Oakland CA 94621

Dear Mr. Howard:

Thank you for the submission of the above report detailing the installation of three additional wells and monitoring on all six wells onsite. Our office agrees with your consultants recommendation for performing a Hydropunch survey to determine the extent of groundwater contamination and determine the best location(s) for additional monitoring well(s). As long as benzene concentrations remain less that the MCL, you can continue quarterly monitoring. If conditions change, you may need to consider remediation to confine the hydrocarbon and benzene plume to your own property boundaries. In all future quarterly reports, please also include:

* **previous** groundwater elevation readings and gradient contour maps
* isoconcentration maps for TPHg, TPHd and benzene

You may contact me at (510) 271-4530 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

cc: G. Jensen, Alameda County District Attorney Office
R. Hiett, RWQCB
T. J. Berkins, Kaprealian Engineering Inc., 2401 Stanwell Dr. Suite 400, Concord CA 94520
E. Howell, files

qtr-449Heg

Unocal Refining & Marketing Division
Unocal Corporation
2000 Crow Canyon Place, Suite 400
San Ramon, California 94583
Telephone (415) 867-0760

UNOCAL 76

Northern Division

August 14, 1992

STID 521

Mr. Barney M. Chan
Alameda County Health
Care Services Agency
Department of Environmental Health
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, CA 94621

Unocal Service Station #5043
449 Hegenberger Road
Oakland, California

Dear Mr. Chan:

Unocal is in receipt of your letter of July 29, 1992, that pertains to the subject site. This letter has been prepared in response to the issues that were discussed in your letter. Six specific issues were discussed in the letter; our comments/action plan for each issue are as follows:

1. Unocal typically proceeds with all of our subsurface investigation/remediation projects in a phased approach. The initial phase consists of completely defining the extent and contaminants present in the soil and ground water at and in the vicinity of a specific site. This phase also typically includes a survey of nearby sites to determine if any additional potential responsible parties are present. Once the extent of contamination is defined, and if site remediation is deemed warranted, Phase II of our investigation is initiated. Phase II basically consists of a remedial feasibility study for the site. The feasibility study usually includes several of the following tasks: installation of recovery and/or vapor extraction wells; performance of pump and/or vapor extraction tests; comparison of applicable remedial alternatives; an evaluation of the beneficial uses of any aquifer that has been impacted by contamination; the preparation of a Remedial Action Plan; etc. Phase III consists of the implementation of the Remedial Action Plan.

   Unocal approaches al of our environmental projects in a phased approach due to the fact that geologic conditions can change greatly over even a small site (such as a typical service station site) and therefore contaminant pathways can often not be accurately predicted. Therefore, it has been our experience that if remediation is attempted before the contaminant

plume has been delineated, the remedial efforts are usually not effective in addressing the entire contamination problem.

Therefore, based on the above discussion, we feel that it is not presently feasible to project time frames for the implementation of remedial options at the site. The additional three proposed monitoring wells are scheduled to be installed on August 21 and 22, 1992. It is anticipated that the technical report summarizing this work will be submitted to your office by October 15, 1992. If the analytical results from the installation of these three wells indicate that the extent of contamination has been reasonably well defined, Unocal will begin Phase II. However, if the analytical results indicate that the extent of contamination has not been defined, Unocal will propose that additional delineation work be performed. These recommendations will be included in our technical report.

It should be noted that the site appears to be underlain by stiff clay and Bay Mud soil materials. It should also be noted that the existing monitoring wells de-water easily and have very poor recovery. These two factors may preclude the use of vapor extraction and/or pump and treatment of water from a recovery well as viable remedial alternatives.

2. Free product is currently being purged from MW1 on a monthly basis. However, Unocal has authorized our consultant for this project, Kaprealian Engineering, Inc. (KEI), to install a passive free-product skimming device in well MW1. This device is designed to continuously skim free product from the water table in the vicinity of the well. Free product is removed from the device during the normal monitoring of the well.

3. KEI contacted Coastal Paving on July 16, 1992, to uncover MW3. Coastal Paving was the firm that originally inadvertently paved over the well cover. It will be verified that this well has been uncovered during the installation of the three additional monitoring wells on August 21 and 22, 1992.

4. Based on the soil and ground water samples collected to date, the area of highest contamination at the Unocal site appears to be the pump island area. Therefore, the locations of the three proposed wells (MW4, MW5, and MW6) were chosen in an attempt to define the lateral extent of this contamination. It should be noted, however, that based on the ground water flow direction calculated to date, the location of well MW5 appears to be located at least partially downgradient of the existing waste oil tank.

   It should also be pointed out that no known release has ever occurred from the waste oil tank; therefore, Unocal did not

originally instruct KEI to conduct an investigation in the vicinity of the waste oil tank. However, Unocal agrees to instruct KEI to analyze all soil and ground water samples from MW5 for TOG in addition to TPH as gasoline, TPH as diesel, and BTEX. Unocal also plans to analyze the ground water samples from wells MW1 through MW6 for Total Dissolved Solids (TDS). According to the State Water Resources Control Board Resolution No. 88-63, no ground water with a TDS concentration above 4,000 ppm is potentially suitable for municipal or domestic use.

The waste oil tank is scheduled to be precision tested this week by NDE Environmental Corp. The week of August 10 was the original week that this tank was scheduled for testing. Please note that it was not an oversight that this tank was not tested when the product systems were tested. The product and waste oil tanks at the majority of our stations are tested at different times, due to the fact that the tank tester is responsible for pumping the oil out of the waste oil tank and then topping of the tank with diesel fuel, whereas Unocal tops off the product tanks. Therefore, the waste oil tank tester is required to haul a sufficient amount of fuel to top off a typical waste oil tank (280+ gallons). Therefore, one tester is typically contracted to test only the waste oil tanks at our sites.

5. As mentioned earlier, the existing two-inch diameter wells dewater easily (after 4 to 6 gallons of water are purged from the wells) and have very poor recovery rates. It is doubtful that larger diameter wells would have significantly greater recovery rates. Therefore, Unocal believes that two-inch diameter casings are sufficient for the proposed additional monitoring wells.

6. Unocal acknowledges that additional upgradient wells may be required, both to define the extent of contamination and to determine if any additional upgradient contamination sources may be present.

I trust that these comments satisfactorily address the issues raised in your July 29, 1992, letter. If you have any questions, please feel free to contact me at (510) 277-2354.

Sincerely,

Tim Howard
Environmental Engineer
Unocal Corporation

SHELL

AUTO CARE

BAY AIRPORT SHELL
COMPLETE AUTO CARE
24 HOUR SERVICE

285 Hegenberger Rd.
Oakland, CA 94621
ALEX BIANES
Service Manager
(415) 568-5191

GSI

GeoStrategies Inc.

CLYDE GALANTINE

2140 WEST WINTON AVENUE
HAYWARD, CALIFORNIA 94545

(415) 352-4800

DANIEL T. KIRK

Environmental Engineer
Retail Environmental Engineering
Western Area
SHELL OIL COMPANY

P.O. Box 5278
CONCORD, CA 94520-9998
(510) 675-6168
FAX (510) 675-6172

PACIFIC
ENVIRONMENTAL
GROUP, INC.

Michael Hurd
Project Geologist

1601 Civic Center Dr., Suite 202
Santa Clara, California 95050
(408) 984-6536
FAX: (408) 243-3911

KAPREALIAN ENGINEERING
INCORPORATED

Robert H. Kezerian, P.E.
Project Manager

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

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

State Water Resources Control Board
Division of Clean Water Program
UST Local Oversight Program

RAFAT A. SHAHID, Assistant Agency Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Division
80 Swan Way, Rm. 200
Oakland, CA 94621
(510) 271-4320

July 29, 1992
STID #521

Mr. Tim Howard
Unocal Corporation
2000 Crow Canyon Place, Suite 400
P.O. Box 5155
San Ramon, CA 94583

Re: Quarterly Report and Work Plan for Unocal Service Station #5043, 449 Hegenberger Rd., Oakland CA 94621

Dear Mr. Howard:

Our office has received and reviewed the July 7, 1992 quarterly report of monitoring well results as provided by your consultant, Kaprealian Engineering Incorporated. As you may recall three monitoring wells were installed in February of 1992 after finding high gasoline and diesel contamination in piping trench samples. The monitoring well results, although incomplete, indicate high gasoline, diesel and/or BTEX (benzene, toluene, ethylbenzene and xylenes) contamination in MW-1 and MW-2. In fact MW-1, had free floating product on the May quarterly sampling event.

Because of the high concentrations of petroleum contamination found in MW-1 and MW-2, Kapraelian has proposed an additional three monitoring wells on the west side of the property. These wells intend to allow the determination of the extent of soil and groundwater contamination. This letter serves to give our office's approval for this action to proceed without further notice along with the following stipulations:

1. Please provide a proposal for the in-situ remediation of the soil and groundwater obviously underlying this site, particularly near the pump islands and MW-1. It was agreed that excavation of the soils near the pump island would not be reasonable given the uncertain extent and degree of contamination. Therefore some type of active remediation system was to be implemented to control and remediate the soil/groundwater contaminant plume. To this end, in your proposal please give a time schedule for the various activities required in your workplan such as performing pump tests, obtaining regulatory permits and approvals, obtaining bids, installation of equipment etc.

2. Please state what interim measures will be taken to remove the floating product in MW-1.

3. It was noted that MW-3 was inaccessible during the May 92 sampling event. Please correct this situation and continue to take water samples and groundwater elevation readings. I understand that MW-3 was covered during resurfacing activities at this site.

4. Please consider locating monitoring well MW-5 down-gradient to the waste oil tank at this site. When the well is installed you should analyze the soil and groundwater for total oil and grease as well as gasoline,diesel and BTEX. It was noted that in the March 26, 1992 tank test results done by Triangle Environmental, Inc., the waste oil tank was not precision tested. Please explain this apparent oversight.

5. Considering that groundwater treatment will be required to control the petroleum plume keep in mind that the appropriate well dimensions should be used to facilitate this type of remediation.

6. Note also that the extent of the soil and groundwater contamination has yet to be determined in the assumed upgradient location. Offsite well(s) may be needed to obtain this information.

Please provide comments along with the written proposal as requested to our office within thirty (30) days of receipt of this letter. You may contact me at (510) 271-4320 should you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

cc: M. Thomson, Alameda County District Attorney Office
R. Hiett, RWQCB
T. J. Berkins, Kaprealian Engineering Inc., 2401 Stanwell Dr. Suite 400, Concord CA 94520
E. Howell III, files

WP-449Heg

files

3. It was noted that MW-3 was inaccessible during the May 92 sampling event. Please correct this situation and continue to take water samples and groundwater elevation readings. I understand that MW-3 was covered during resurfacing activities at this site.

4. Please consider locating monitoring well MW-5 down-gradient to the waste oil tank at this site. When the well is installed you should analyze the soil and groundwater for total oil and grease as well as gasoline,diesel and BTEX. It was noted that in the March 26, 1992 tank test results done by Triangle Environmental, Inc., the waste oil tank was not precision tested. Please explain this apparent oversight.

5. Considering that groundwater treatment will be required to control the petroleum plume keep in mind that the appropriate well dimensions should be used to facilitate this type of remediation.

6. Note also that the extent of the soil and groundwater contamination has yet to be determined in the assumed upgradient location. Offsite well(s) may be needed to obtain this information.

Please provide comments along with the written proposal as requested to our office within thirty (30) days of receipt of this letter. You may contact me at (510) 271-4320 should you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

cc: M. Thomson, Alameda County District Attorney Office
R. Hiett, RWQCB
T. J. Berkins, Kaprealian Engineering Inc., 2401 Stanwell Dr. Suite 400, Concord CA 94520
E. Howell III, files

WP-449Heg

: Tim Howard
Unocal Co
R/P P.O Box 5155
San Ramon CA 94583

DATE: 7/17/92

Unocal Environmental Eng Dept
911 Wilshire Blvd
Suite 1010
Los Angeles, CA 90017
Attn: Compliance Analyst

TO : Local Oversight Program

FROM: B Chan P/O

SUBJ: Transfer of Elligible Oversight Case

Site name: Unocal SS #5043

Address: 449 Hegenberger Rd city Oak zip 94621

Closure plan attached? Y N DepRef remaining $ 225 315 540

DepRef Project # U592318 U592471 STID #(if any) 521

Number of Tanks: 0 removed? Y N Date of removal N/A

Leak Report filed? Y (N) Date of Discovery 10/29/91

Samples received? (Y) N Contamination: gasoline & diesel

Petroleum (Y) N Types: Avgas Jet (leaded) unleaded (Diesel)
fuel oil waste oil kerosene solvents

Monitoring wells on site 3 Monitoring schedule? (Y) N

LUFT category 1 2 3 * H S C A R W G O

Briefly describe the following:

Preliminary Assessment

Remedial Action

Post Remedial Action Monitoring

Enforcement Action

Found TPHg & d & BTEX contamination in shallow borings around pump/piping island. Levels range from 9000 ppm TPHg, 8,400 TPHd & 48 ppm B found in soil spls. 3 MW's installed in Feb 1992. Found high soil gas contamination in MW1 & MW2 along with high dissolved TPHg, d & BTEX. Need to propose additional MWS particularly in downgradient direction - Site visit - found free prod. in MW-1 & MW3 was asphalted over. 10/30/91

Woodward-Clyde Consultants PROJECT NAME GETTLER-RYAN NO. 8820011A

MONITORING WELL LOCATION	Alvarado - Niles & Decoto, Union City, CA (S-14)	ELEVATION AND DATUM	39.09TOC/39.41RIM MS
DRILLING AGENCY	Bay Land Drilling	DRILLER Kurt	DATE STARTED / DATE FINISHED 12/15/88
DRILLING EQUIPMENT	CME - 75	COMPLETION DEPTH 42'	SAMPLER Modified California
DRILLING METHOD	8" Hollow stem auger	DRILL BIT CME Carbide	NO. OF SAMPLES DIST. 8 / UNDIST. —
SIZE AND TYPE OF CASING	4" PVC Schedule 40	FROM 42 TO 0.5 FT.	WATER LEVEL FIRST 40.5 - 42 / COMPL. — / 24 HRS. —
TYPE OF PERFORATION	0.020"	FROM 42 TO 26.5 FT.	LOGGED BY: Ken Stevens
SIZE AND TYPE OF PACK	2/12 Lonestar Sand	FROM 42 TO 24.5 FT.	CHECKED BY: M. Bonkowski
TYPE OF SEAL	NO. 1 Bentonite	FROM 24.5 TO 23.5 FT.	
	NO. 2 Grout	FROM 23.5 TO 0 FT.	

Depth (feet)	Samples	Blows	MATERIAL DESCRIPTION		USCS	Well Construction
			FILL - SILTY CLAY or CLAYEY SILT brown with little gravels, subangular and pieces of concrete			
5	1	7 11 12	CLAY brown, stiff, trace silt, medium plasticity, mixed damp and dry, dessication cracks in dry sections	H Nu = 3 ppm	CL-CH	
10	2	9 12 17	trace rounded gravels up to 1/2", dry to damp, dark colored, trace rounded gravels to 1/4", stiff, damp	H Nu = 1.5 ppm		
15	3	5 5 12	tan, trace gravels to 1/8", gravels dark colored with white streak, medium stiff, damp	H Nu = 2 ppm		
20	4	5 5 9	brown, trace subangular pebbles to 1/8", medium plasticity, moderately stiff, damp to moist brown with tan mottling and dark spots, little gravels, subangular to angular, gravels dark gray to light brown, stiff, moist	H Nu = 1 ppm		
25	5	2 4 6	brown, medium plasticity, medium stiff, trace fine gravels and occasional thin lamina of fine grained subrounded sand, moist	H Nu = 1 ppm		
30	6	3 4 8	brown, medium plasticity, medium stiff, with trace thin lamina of fine gravel and sand, subrounded, moist	H Nu = 0.8 ppm		
35						

A & S ENGINEERING INC.
PLANNING • ENGINEERING • CONSTRUCTION MANAGEMENT
49 QUAIL COURT, STE. 308, WALNUT CREEK, CA. 94596 • PHONE: 510-933-0578 • FAX 510-933-0588

FAX MESSAGE
COVER SHEET

DATE: 5/21/92 / TIME: A.M./P.M.

TO: BARNEY CHAN
COMPANY: ALAMEDA COUNTY
FAX NO. (510) 569-4757

RE: SHELL STATION
LOCATION: 285 HEGENBERGER RD.
OAKLAND, CA.

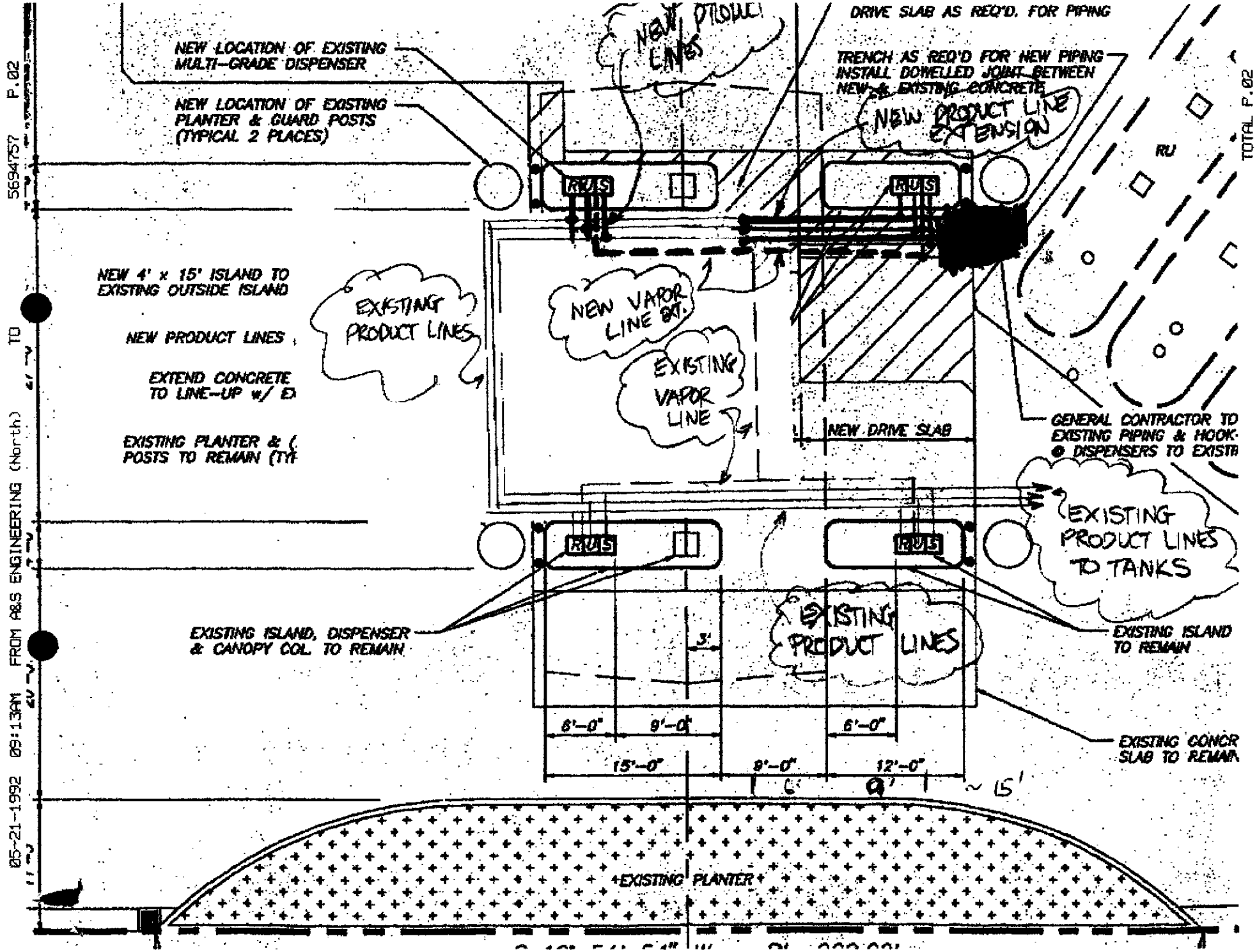
FROM: VINCE PADILLA

MESSAGE: DEAR BARNEY, I HAVE SKETCHED THE ACTUAL PROPOSED LAYOUT OF THE U.G. PIPING PER MY CONVERSATION W/ THE CONTRACTOR DELTA/BAY BUILDERS (BILL GARD). PLEASE NOTE THE PROPOSED PRODUCT LINE EXTENSION DOES NOT EXCEED THE APPROVED PLAN, HOWEVER THE EXIST. LINES COME FROM THE LEFT RATHER THAN THE RIGHT, MAKING THE LAYOUT OPPOS OF THE APPROVED PLAN. THE LINE IN THE CENTER IS TI EXISTING VAPOR LINE. PLEASE CALL ME W/ YOUR COMME A.SAP. IF THIS IS OK I WILL REVISE PLAN & RE-SUBMIT I TO YOU.

ATTENTION: IF YOU ARE EXPERIENCING ANY DIFFICULTIES IN RECEIVING THIS MESSAGE PLEASE CONTACT US @ (510) 933-0578

TOTAL NUMBER OF PAGES FAXED, INCLUDING COVER SHEET: 2

THANKS, Vince Padilla


NEW LOCATION OF EXISTING MULTI-GRADE DISPENSER
NEW LOCATION OF EXISTING PLANTER & GUARD POSTS (TYPICAL 2 PLACES)
NEW PRODUCT LINES
DRIVE SLAB AS REQ'D. FOR PIPING
TRENCH AS REQ'D FOR NEW PIPING INSTALL DOWELLED JOINT BETWEEN NEW & EXISTING CONCRETE
NEW PRODUCT LINE EXTENSION
RU
RU/S
NEW 4' x 15' ISLAND TO EXISTING OUTSIDE ISLAND
EXISTING PRODUCT LINES
NEW VAPOR LINE EXT.
EXISTING VAPOR LINE
NEW DRIVE SLAB
GENERAL CONTRACTOR TO
EXISTING PIPING & HOOK-
@ DISPENSERS TO EXISTI
EXTEND CONCRETE TO LINE-UP w/ EX
EXISTING PLANTER & (POSTS TO REMAIN (TYI
EXISTING PRODUCT LINES TO TANKS
EXISTING ISLAND, DISPENSER & CANOPY COL. TO REMAIN
EXISTING PRODUCT LINES
3'
EXISTING ISLAND TO REMAIN
6'-0"
9'-0"
6'-0"
EXISTING CONCR SLAB TO REMAIN
15'-0"
9'-0"
12'-0"
6'
9'
~15'
EXISTING PLANTER
5694757 P.02
05-21-1992 09:13AM FROM A&S ENGINEERING (North) TO
TOTAL P.02

WATER RESOURCES CONTROL BOARD
DIVISION OF WATER QUALITY - UST CLEANUP PROGRAM
SITE SPECIFIC QUARTERLY REPORT
01/01/92 THROUGH 03/31/92

AGENCY # : 10000 SOURCE OF FUNDS: F SUBSTANCE: 8006619
StID : 530
SITE NAME: Bay Airport Shell DATE REPORTED : 02/01/89
ADDRESS : 285 Hegenberger Rd. DATE CONFIRMED: 02/01/89
CITY/ZIP : Oakland 94621 MULTIPLE RPs : N

SITE STATUS

CASE TYPE: G CONTRACT STATUS: 3 EMERGENCY RESP:
RP SEARCH: S DATE COMPLETED: 03/20/92
PRELIMINARY ASMNT: U DATE UNDERWAY: 03/29/91 DATE COMPLETED:
REM INVESTIGATION: DATE UNDERWAY: DATE COMPLETED:
REMEDIAL ACTION: DATE UNDERWAY: DATE COMPLETED:
POST REMED ACT MON: DATE UNDERWAY: DATE COMPLETED:

ENFORCEMENT ACTION TYPE: 1 DATE ENFORCEMENT ACTION TAKEN: 03/20/92
LUFT FIELD MANUAL CONSID: 3,HSCWG
CASE CLOSED: DATE CASE CLOSED:
DATE EXCAVATION STARTED : REMEDIAL ACTIONS TAKEN: ED

RESPONSIBLE PARTY INFORMATION

RP#1-CONTACT NAME: Ray Newsome
COMPANY NAME: Shell Oil Co.
ADDRESS: P.o. Box 5278
CITY/STATE: Concord, Ca 94524

A & S ENGINEERING INC.

PLANNING • ENGINEERING • CONSTRUCTION MANAGEMENT

49 QUAIL COURT, STE. 303, WALNUT CREEK, CA. 94596 • PHONE: 510-933-0578 • FAX 510-933-0588

DATE: 11/12/91

TO: ALAMEDA COUNTY ENV. HEALTH
80 SWAN WAY, RM 200
OAKLAND, CA. 94621
ATTN: BARNEY CHAN

RE: SHELL STATION @ 285 HEGENBERGER RD.

TRANSMITTING:

___ VIA U.S. MAIL
___ VIA FEDERAL EXPRESS
___ VIA COURIER
✓ VIA EMPLOYEE
___ VIA PICK UP
_____

THE FOLLOWING:

___ REPRODUCIBLE
✓ PRINTS
___ SPECS
_____

FOR:

✓ APPROVAL
___ CHECKING
___ YOUR USE
YOUR FILES

91 NOV 12 AM 6:27

REMARKS:

3 REVISED PRINTS OF PIPING PLAN PER OUR PHONE CONVERSATIONS - PLEASE CALL ME AFTER YOU HAVE HAD A CHANCE TO REVIEW (510) 933-0578

COPIES TO:

FILE

BY: Vince Padilla

10602 TRADEMARK PARKWAY NORTH, STE. 509 • RANCHO CUCAMONGA, CA. 91730 • TELEPHONE: 714-466-0562 • FAX: 714-466-0566

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

80 Swan Way, #200
Oakland, CA 94621
(415) 271-4320

Hazardous Materials Division Inspection Form

Site ID# _____ Site Name Unocal Today's Date 11/8/91

Site Address 449 Heyenberger St EPA ID# _____

City Oakland Zip 94621 Phone _____

MAX Amt. Stored > 500lbs/55g/200cf? Y N
Hazardous Waste generated per month? _____

Inspection Categories:
- ___ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
- ___ II. Business Plans, Acute Hazardous Materials
- ✓ III. Underground Tanks

The marked items represent violations of the Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

I.A GENERATOR (Title 22)

	___ 1. Waste ID	* 66471
	___ 2. EPA ID	66472
	___ 3. > 90 days	66508
	___ 4. Label dates	66508
	___ 5. Biennial	66493
Manifest	___ 6. Records	66492
	___ 7. Correct	66484
	___ 8. Copy sent	66492
	___ 9. Exception	66484
	___ 10. Copies Rec'd	66492
Misc.	___ 11. Treatment	66371
	___ 12. On-site Disp. (H.S.&C.)	26189.5
	___ 13. Ex Haz. Waste	66570
Prevention	___ 14. Communications	67121
	___ 15. Aisle Space	67124
	___ 16. Local Authority	67126
	___ 17. Maintenance	67120
	___ 18. Training	67105
Contin. gency	___ 19. Prepared	67140
	___ 20. Name List	67141
	___ 21. Copies	67141
	___ 22. Emg. Coord. Trng.	67144
Containers, Tanks	___ 23. Condition	67241
	___ 24. Compatibility	67242
	___ 25. Maintenance	67243
	___ 26. Inspection	67244
	___ 27. Buffer Zone	67246
	___ 28. Tank Inspection	67259
	___ 29. Containment	67245
	___ 30. Safe Storage	67261
	___ 31. Freeboard	67257

I.B TRANSPORTER (Title 22)

	___ 32. Applic./Insurance	66428
	___ 33. Comp. Cert./CHP Insp.	66448
	___ 34. Containers	66465
Manifest	___ 35. Vehicles	66465
	___ 36. EPA ID #s	66531
	___ 37. Correct	66541
	___ 38. HW Delivery	66543
	___ 39. Records	66544
Cont'rs	___ 40. Name/ Covers	66545
	___ 41. Recyclables	66800

Comments:

Observed testing of primary piping system. Line pressurized to 90 psi, Entire piping system sprayed with soapy water & observed for evidence of leakage. No leaks observed.

Following test the pressure was bled off. On completion of pressure release, all valves indicated 0psi pressure.

Rev 6/88

Contact: _____

Title: _____ Inspector: D. Byrne

Signature: _____ Signature: D Byrne

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Program
80 Swan Way, Rm. 200
Oakland, CA 94621
(415)

November 4, 1991

Unocal Corporation
Mr. Ron Bock
P.O. Box 5155
San Ramon, CA 94583

Re: Dispenser and Piping Modification at Unocal #5043,
449 Hegenberger Road, Oakland CA 94621

Dear Mr. Bock:

Our division has received the faxxed results of analytical results of soil samples taken from the trenches at the above referenced site. These results were sent to us by Mr. Richard Bradish of Kaprealian Engineering, Inc. These results indicate that these piping run samples had considerable gasoline, diesel and benzene, toluene, ethylbenzene and xylenes (BTEX) contamination. As high as 9,000 ppm Total Petroleum Hydrocarbons (TPH) as gasoline and 8,400 ppm TPH as diesel were found in sample P2, the sample taken in the northeast location of the piping trench. Because of these levels found, this site is considered to have experienced an unauthorized petroleum hydrocarbon release the extent of which must be assessed and remediated.

Enclosed, please find an Underground Tank Unauthorized Release (Leak)/ Contamination Site Report to be filled out by you or your designee. Please complete this report and return to our office within thirty (30) days.

To address the above problem, you are requested to provide a work plan to perform this assessment and potential remediation. Enclosed is a copy of the contents of a "typical" work plan for you to use as guidance. Please provide a work plan to our office within thirty (30) days. As stated in Mr. Bradish's October 30, 1991 letter, the County is agreeable to the tentative work plan which includes the excavation of the trenches to ground water. In addition, a piping pressure test and recent (within the past year) tank precision tests will be provided to our agency. Please provide this information along with your work plan to us within thirty (30) days. We realize that your work plan will include the installation of monitoring wells and any other necessary remediation dictated by monitoring well results. Because of the presence of high TPH gasoline and diesel results and the presence of detectable BTEX and the existence of shallow ground water, the prompt installation of monitoring wells is expected.

Please be aware that this is a formal request for technical documents pursuant to the California Water Code, Section 13267 (b). Any extensions of agreed upon deadlines must be confirmed in writing by either this Division or the Regional Water Quality Control Board, RWQCB. All proposals, reports and analytical results pertaining to this investigation and remediation must be sent to our office and the RWQCB to the attention of Mr. Eddy So. Their address is : 2101 Webster St., 4th Floor, Oakland, CA 94612.

Please contact me at (510)271-4320 should you have any questions regarding this letter.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

enclosures

cc: G. Jensen, Alameda County District Attorney, Consumer and Environmental Protection Division
E. So, RWQCB
H. Hatayama, DOHS
R. Bradish, Kaprealian Engineering, Inc.. P.O. Box 996, Bennicia CA 94510

449HegWP

KAPREALIAN ENGINEERING, INC.
Consulting Engineers
P.O. BOX 996 • BENICIA, CA 94510
(707) 746-6915 • (707) 746-6916 • FAX: (707) 746-5681

October 30, 1991

Alameda County Health Care
Services Agency
80 Swan Way, Room 200
Oakland, CA 94621

Attention: Mr. Barney Chan

RE: Unocal Service Station #5043
449 Hegenberger Road
Oakland, California

Dear Mr. Chan:

This letter documents our telephone conversation of Tuesday, October 29, 1991, regarding the product piping/pump island modification work currently in progress at the above referenced site. Located immediately to the north of the pump islands is the underground fuel storage tank pit. The tank pit contains one 10,000 gallon regular unleaded gasoline tank, one 10,000 gallon super unleaded gasoline tank, and one 10,000 gallon diesel tank. The three fuel storage tanks are of single wall construction.

Due to apparent soil contamination at the site, four pipe trench samples, labeled P1 through P4, were collected from the product pipe trenches, adjacent to the product dispensers at depths of 3 to 3.5 feet below grade. The samples were collected by the use of a driven tube-type soil sampler. The samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline, TPH as diesel, and benzene, toluene, xylenes, and ethylbenzene. The laboratory results indicated a level of TPH as gasoline at 370 ppm for sample P4, while samples P1, P2, and P3 showed levels of TPH as gasoline at 3,200 ppm, 9,000 ppm, and 7,100 ppm, respectively. The analytical results further indicate levels of TPH as diesel at 420 ppm and 460 ppm for samples P1 and P4, while analyses of samples P2 and P3 indicated TPH as diesel at 8,400 ppm and 1,100 ppm, respectively. Copies of the laboratory analyses and Chain of Custody documentation are attached.

Ground water was encountered at this site at 4 to 4.5 feet below grade (in the two shallow borings made in the product pipe trenches using a hand auger). The attached Site Plan shows the locations of both the pipe trench samples and the hand augered borings.

KEI has recommended to Unocal that the pipe trenches be excavated to ground water, as indicated on the attached Site Plan. No

lateral excavation to remove contaminated soil or to determine the lateral extent of the contamination will be conducted at this time, due to the shallow ground water depth and proximity of the fuel tank pit, which in all likelihood, will result in recontamination. Instead, a work plan/proposal recommending the installation of monitoring wells will be developed and submitted to Unocal for approval along with our forthcoming report documenting this work.

We understand that you are in agreement with this approach providing that the piping currently being installed is satisfactorily pressure tested and that you receive a copy of the results of the most recent tank leak test. We have discussed these provisions with Unocal. The piping pressure test is a routine requirement for piping modifications such as these, and will be conducted before the piping is buried. The tank leak test results will be sent to you upon their receipt from Unocal's Los Angeles archives.

I trust this accurately reflects our conversation. If you have any questions, please call me at 707/746-6915.

Sincerely,

Kaprealian Engineering, Inc.

Richard M. Bradish
Project Engineer

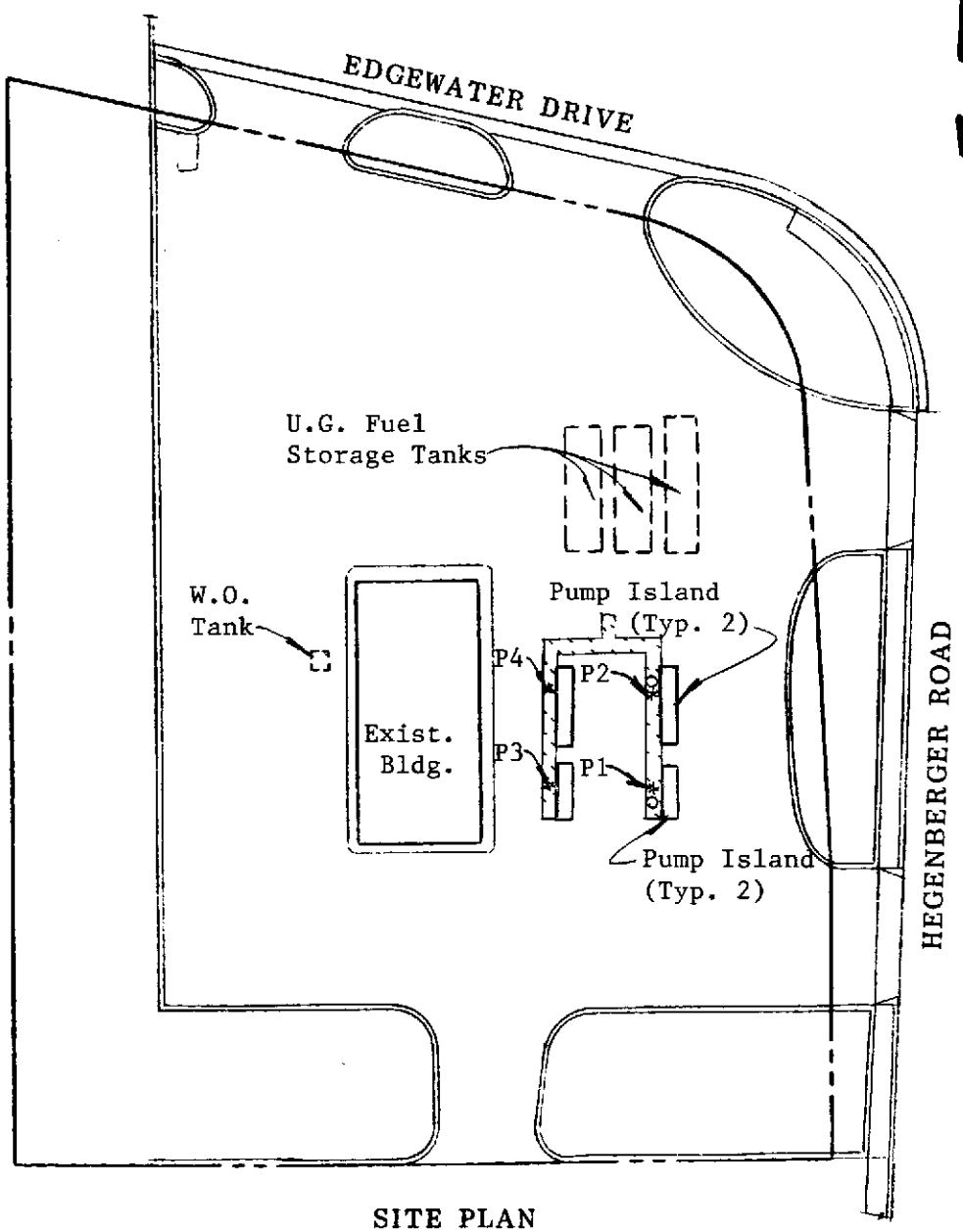
RMB:jad\BC1030

Attachments: Site Plan
Laboratory Analyses
Chain of Custody documentation

cc: Ron Bock, Unocal Corporation

KAPREALIAN ENGINEERING, INC.
Consulting Engineers
P.O. BOX 996 • BENICIA, CA 94510
(707) 746-6915 • (707) 746-6916 • FAX: (707) 746-5581

1-2



SITE PLAN

LEGEND

* Sample point location

o Hand augered boring location

Area to be excavated to ground water (approx. 4 - 4.5 feet below grade)

0 40 80
Approx. scale feet

Unocal S/S #5043
449 Hegenberger Road
Oakland, CA

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

Kapreallan Engineering, Inc.	Client Project ID:	Unocal #5043/Hegenberger, Oakland	Sampled:	Oct 25, 1991
P.O. Box 996	Matrix Descript:	Soil	Received:	Oct 28, 1991
Benicia, CA 94510	Analysis Method:	EPA 5030/8015/8020	Analyzed:	Oct 28, 1991
Attention: Mardo Kapreallan, P.E.	First Sample #:	110-1077	Reported:	Oct 29, 1991

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

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
110-1077	P1	3,200	33	120	110	540
110-1078	P2	9,000	46	120	330	1,500
110-1079	P3	7,100	48	410	220	1,200
110-1080	P4	370	7.4	39	12	77
Detection Limits:		**1.0**	**0.0050**	**0.0050**	**0.0050**	**0.0050**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Julia R. Malerstein
Project Manager

Please Note:
The above samples appear to contain gasoline.

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

Kaprealian Engineering, Inc.	Client Project ID:	Unocal #5043/Hegenberger, Oakland	Sampled:	Oct 25, 1991
P.O. Box 996	Matrix Descript:	Soil	Received:	Oct 28, 1991
Benicia, CA 94510	Analysis Method:	EPA 3550/8015	Extracted:	Oct 28, 1991
Attention: Mardo Kaprealian, P.E.	First Sample #:	110-1077	Analyzed:	Oct 28, 1991
			Reported:	Oct 29, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	High B.P. Hydrocarbons mg/kg (ppm)
110-1077	P1	420
110-1078	P2	8,400
110-1079	P3	1,100
110-1080	P4	460

Detection Limits:	**1.0**

High Boiling Point Hydrocarbons are quantitated against a diesel fuel standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Julia R. Malerstein
Project Manager

Please Note:
The above samples appear to contain diesel.

KAPREALIAN ENGINEERING, INC.

CHAIN OF CUSTODY

SAMPLER: L. M. Bradish

WITNESSING AGENCY:

SITE NAME & ADDRESS: Unocal #5043, Hegenberger & Edgewater, Oakland, CA

ANALYSES REQUESTED: TPH-GBTEX; TPH-D

TURN AROUND TIME: 24 HR

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	REMARKS
P1	10-25-91		✓		✓		1	Product Pipe Trench	1101077
P2	"		✓		✓		1	" " "	78
P3	"		✓		✓		1	" " "	79
P4	"		✓		✓		1	" " "	80

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
L. M. Bradish	10/25 555	J. P. Matter

The following MUST BE completed by the laboratory accepting samples for analysis:

1. Have all samples received for analysis been stored in ice? YES
2. Will samples remain refrigerated until analyzed? YES
3. Did any samples received for analysis have head space? NA
4. Were samples in appropriate containers and properly packaged? YES

Signature: J. P. Matter — Title: CSM — Date: 10/25/91

ROBERT H. LEE & ASSOCIATES, INC.

ARCHITECTURE PLANNING ENGINEERING

900 LARKSPUR LANDING CIRCLE • SUITE 125 • LARKSPUR, CALIFORNIA 94939

(415) 461-8890 FAX (415) 461-8678

BRIAN F. ZITA
Architect

JOHN W. JOHNSON
Architect

GEORGE H. MILLS
Architect

JAMES H. RAY
Civil Engineer

91 AUG 20 AM 10:21

August 19, 1991

Cynthia Chapman
ALAMEDA COUNTY
ENVIRONMENTAL HEALTH DEPARTMENT
80 Swan Way, Room 200
Oakland, California 94621

UNOCAL SERVICE STATION #5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA
RHL JOB #1615.05

Dear Ms. Chapman:

On behalf of UNOCAL, we are requesting a modification of the permit for the above subject station.

The permit is for the replacement of (8) existing dual dispensers with 4 new 6-hose multi-product dispensers resulting in 10 additional gasoline nozzles.

The original application indicated that the new multi-product dispensers would be Tokheim TCS #426. UNOCAL is requesting to substitute the new Gilbarco Advantage MPD (a brochure is attached for your reference).

If you have any questions or need any additional information, please do not hesitate to call me.

Very truly yours,

ROBERT H. LEE & ASSOCIATES, INC.

David M. Solomon
Project Coordinator

DMS/es

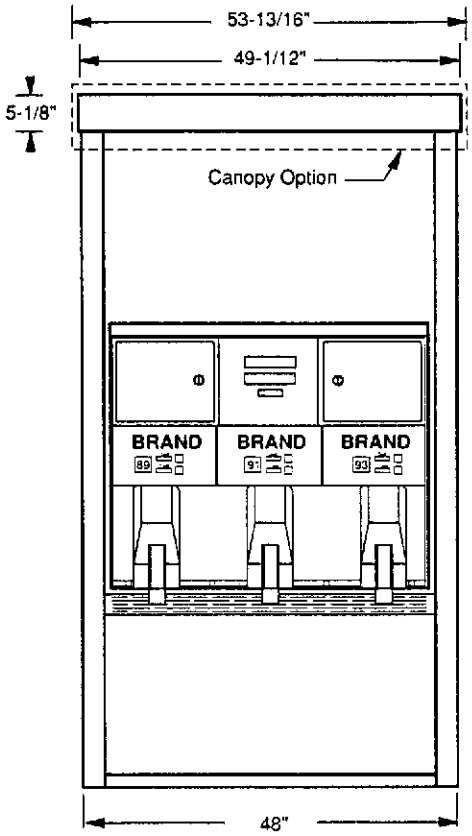
Enclosure

cc: Tony Quijalvo - UNOCAL
Dave Bryon - Gettler Ryan

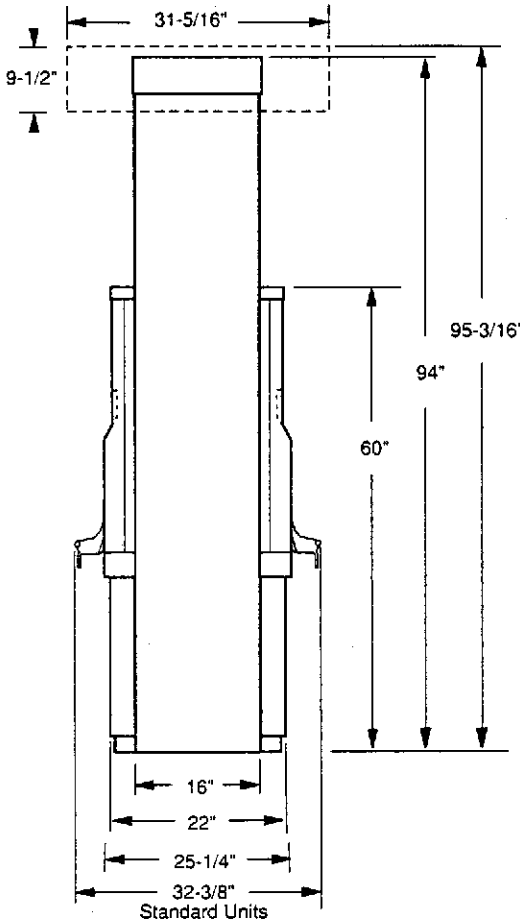
1615-00\ENVHLTH

Specifications For The Advantage™ Series

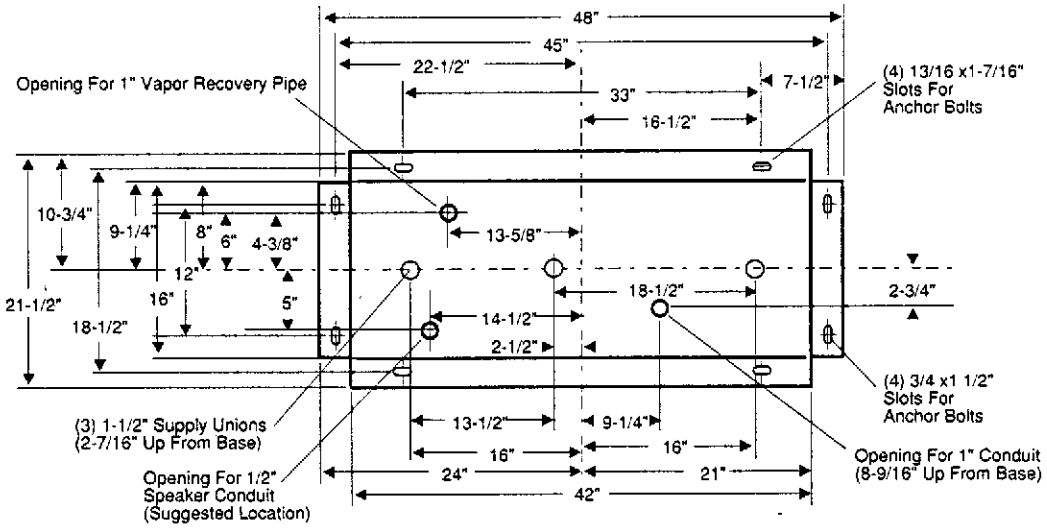
The Advantage MPD & The Advantage Fixed Blender



Elevation Diagram



Standard Units
36-1/8"
Vapor Recovery Units



Foundation Diagram

Specifications For The Advantage™ Series *continued*

Displays.
The Advantage series uses highly reliable, highly readable LCD displays. Readable even without backlighting.

Main Display.
Money: 1" high, five digits.
Volume: 1" high, six digits, gallons or liters.
Price-per-unit: .7" high, four digits.

PPU Module.
Price-per-unit: .5" high, four digits.

Graphic Panels.
Backscreened polycarbonate panels with adhesive. Ask your Gilbarco distributor for information on customized graphics for The Advantage series.

Lower Door.
Locking lower door. Available painted or stainless steel. Ask your Gilbarco distributor for more information.

Mechanical Totalizers.
99,999.99 gallon non-resettable mechanical totalizers display the volume dispensed at that dispenser for each meter.

Filters.
One standard or water alert Gilbarco 10-micron high capacity spin-on filter per underground product.

Two-Stage Valves.
Dual flow, pilot-operated diaphragm valves.

Blend Valves.
Highly accurate Proportional Flow Control™ valves achieve the desired blend ratio through precise positioning and a continuous closed-loop electronic feedback system. These innovative valves also perform as combination "fail safe"/pressure relief valves.

Meters.
Highly accurate four-piston positive displacement meters. Can be calibrated to increments as small as 1/3 cubic inch in five gallons. Calibration wheel is easily accessed.

Pulser.
Patented, solid state "fail safe" pulser is driven directly off the meter. Uses +150V DC power. Generates 1000 pulses per gallon.

Hydraulic Manifold.
New hydraulic manifold design incorporates meters, valves, filter, and inlet casting into a single module.

Vapor Recovery.
All models in The Advantage series are built vapor ready unless full vapor recovery is specified.

Battery Back-Up.
Battery provides power to the electronics (including displays) for fifteen minutes after a power failure occurs.

Hoses And Nozzles.
The Advantage series uses the standard Gilbarco selection of hoses and nozzles. Hoses and nozzles are customer-specified items.

Power Requirements.
120V AC (+10%, -15%), 50/60 Hz.

Operating Environment.
5% to 95% relative humidity non-condensing.

Approvals.
UL Listed: The Advantage™ MPD™, The Advantage Quad, The Advantage Dual, The Advantage Fixed Blender. All conform with NIST Handbook 44.
NTEP Cert. No. 90-115.

Load Specifications.
Lights: 1.0 AMP @ 120V AC
Solenoid Valves: 1.0 AMP @ 120V AC
Submerged Turbine Pump (STP): 0.3 AMP Max. @ 120V AC
Electronics Module: 2.5 AMP @ 120V AC
CRIND: 1.0 AMP @ 120V AC

Operating Environment:
Relative Humidity: 5% to 95% non-condensing
Minimum Ambient Temperature: 13°F (-30°C)
Maximum Ambient Temperature: 104°F (40°C)

Performance Requirements:
Minimum Delivery Rate: 10 GPM @ 26 PSI inlet pressure
Meter Accuracy: ± .25% from 1.5 to 15 GPM

Fuel Limitations:
Maximum Ethanol Content: 10%
Maximum Methanol Content: 5%

Product specifications are subject to change.

ROBERT H. LEE & ASSOCIATES, INC.

ARCHITECTURE PLANNING ENGINEERING

900 LARKSPUR LANDING CIRCLE • SUITE 125 • LARKSPUR, CALIFORNIA 94939

[415] 461-8890 FAX [415] 461-8675

BRIAN F. ZITA
Architect

JOHN W. JOHNSON
Architect

GEORGE H. MILLS
Architect

JAMES H. RAY
Civil Engineer

May 30, 1991

Ms. Cynthia Chapman
COUNTY OF ALAMEDA
Environmental Health Department
80 Swan Way, Room 200
Oakland, California 94621

UNOCAL SERVICE STATION #5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA 94607
RHL JOB NO. 1615.00

Dear Ms. Chapman:

Per your letter of February 7, 1991 in response to our request of January 9, 1991 for an extension of the our permit application, it is our understanding that our extended permit application will expire on June 25, 1991. This letter is our request for an additional extension of 6 months or until December 25, 1991 on this permit. Enclosed is a check in the amount of $375.00 to pay for the extension fee.

We are requesting this extension because UNOCAL is still considering changing the type and manufacturer of its typical multi-product dispenser. Since this is a corporate level decision, the process takes time. Meanwhile, the construction must be held off pending the final decision. We believe the decision is nearly ready and therefore we do not expect to need another extension after this. As soon as we know what type of dispenser UNOCAL will use and when construction activities will occur, we will notify you.

If you have any questions regarding this request, please do not hesitate to call me at (415) 461-8890.

Very truly yours,

ROBERT H. LEE & ASSOCIATES, INC.

David M. Solomon
Project Coordinator

DMS/jma

cc: Don Terry - UNOCAL

enclosure

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Program
80 Swan Way, Rm. 200
Oakland, CA 94621
(415)

February 7, 1991

Mr. Christopher P. Guterres
Robert H. Lee & Associates, Inc
900 Larkspur Landing Circle, #125
Larkspur, CA 94939

Dear Mr. Guterres:

This office has received your letter of January 9, 1991, requesting an extension of the permit application for Unocal Service Station #5043, 449 Hegenberger Road, Oakland. Your request is granted. Please notify us of any changes in the dispenser as soon as you learn what type Unocal will use, and notify us when construction activities will occur.

Sincerely,

Cynthia Chapman

Cynthia Chapman
Hazardous Materials Specialist

ROBERT H. LEE & ASSOCIATES, INC.
ARCHITECTURE PLANNING ENGINEERING
900 LARKSPUR LANDING CIRCLE, #125, LARKSPUR, CA 94939 · (415) 461-8890

BRIAN F. ZITA
Architect

JOHN W. JOHNSON
Architect

GEORGE H. MILLS
Architect

JAMES H. RAY
Civil Engineer

91 JAN 15 AM11:52

January 9, 1991

Ms. Cynthia Chapman
COUNTY OF ALAMEDA
Environmental Health Department
80 Swan Way, Room 200
Oakland, California 94621

UNOCAL SERVICE STATION #5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA 94607
RHL JOB NO. 1615.00

Dear Ms. Chapman:

Per my telephone conversation with you on January 9, 1991 it was my understanding that our permit application had expired on December 25, 1990. This letter shall constitute our request for an extension of 180 days or until June 25, 1991 on this permit. Enclosed is a check in the amount of $375.00 to pay for the extension fee.

We are requesting this extension because UNOCAL is considering changing the type and manufacturer of its typical multi-product dispenser. Since this is a corporate level decision, the process takes time. Meanwhile, the construction must be held off pending the final decision.

To avoid having to reapply for permit application on this project we would appreciate your granting the requested extension.

Should any problem arise from this request for an extension, please call me at my office. Would you please send our office your written acknowledgement of this extension.

Very truly yours,

ROBERT H. LEE & ASSOCIATES, INC.

Christopher P. Guterres
Project Designer

CPG/jma
cc: Don Terry - UNOCAL
enclosure

CONVERSE ENVIRONMENTAL WEST

55 Hawthorne Street, Suite 500
San Francisco, California 94105-3906

Telephone **415 543-4200**
FAX 415 777-3157

Transmittal

Date January 19, 1990

Project 630 High Street, Oakland, California

To Water Resource Control Engineer
San Francisco Bay Regional Water Quality Board
1800 Harrison Street
Oakland, California 94607

Attention Ms. Dyan Whyte

We are sending you the following

- [x] Enclosed
- [ ] Separately

- [ ] Regular Mail
- [ ] Special Delivery
- [ ] Air Mail
- [ ] Express Mail
- [ ] Carrier
- [ ]

Quantity	Description
1	Copy of the big plate (Plate 1)

Remarks

The above (Plate 1) was inadvertantly omitted from the Quarterly 4 Report dated December 30, 1989. Please include in the report.

Sorry for the inconvenience.

Copies to

Ms. Diane Lundquist - Shell Oil Company (w/encl.)
Mr. Rafat Shahid - Alameda County Health Care Services (w/encl.)
Mr. Douglas W. Charlton - CEW
Ms. Robin Breuer - CEW

Sent by

Robin M. Breuer

ROBERT H. LEE & ASSO[...]ATES, INC.
900 Larkspur Landing Circle, Suite 125
LARKSPUR, CALIFORNIA 94939

(415) 461-8890

LETT[...]R OF TRANSMITTAL

DATE 12/4/87 JOB NO. 6571-Oakland

ATTENTION

RE: Shell Service Station
Waste Oil Tank Replacement

TO Rafat Shahad
Alameda County Environ. Health
470-27th St

WE ARE SENDING YOU ☒ Attached ☐ Under separate cover via ________ the following items:

☐ Shop drawings ☒ Prints ☒ Plans ☐ Samples ☐ Specifications

☐ Copy of letter ☐ Change order ☒ Checks

COPIES	DATE	NO.	DESCRIPTION
3			Closure Plan & 300^{00} deposit check #2890
3			Installation Plans & 300^{00} check #2891

THESE ARE TRANSMITTED as checked below:

☒ For approval ☐ Approved as submitted ☐ Resubmit ______ copies for approval

☐ For your use ☐ Approved as noted ☐ Submit ______ copies for distribution

☐ As requested ☐ Returned for corrections ☐ Return ______ corrected prints

☐ For review and comment ☐ ________

☐ FOR BIDS DUE ________ 19 ____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS 12/11/87 PLANS REJECTED. CLOSURE PLAN REJECTED. CO. TO RESUBMIT.

COPY TO ________

SIGNED: Lisa Reck

If enclosures are not as noted, kindly notify us at once.