

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



sent
3-30-05

March 25, 2005

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

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

Dear Mr. Kosel,

Subject: Fuel Leak Case No. RO0000203, Unocal Service Station No. 0746,
3943 Broadway, Oakland, CA

Alameda County Environmental Health (ACEH) staff has reviewed "Work Plan for Dual-Phase Vacuum Extraction Pilot Test" dated September 23, 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

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY
DAVID J. KEARS, Agency Director

R0# 203

StID 1119

March 12, 1999

Mr. Dave DeWitt
Tosco
2000 Crow Canyon Place, Suite 400
San Ramon, CA 94583

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

RE: Groundwater Analysis at 3943 Broadway, Oakland, CA

Dear Mr. DeWitt:

I have completed review of Gettler-Ryan Inc.'s February 1999 *Semi-Annual 1998 Groundwater Monitoring & Sampling Report* prepared for the above referenced site. This report summarized analytical results of groundwater samples collected on November 11, 1998. Free product thickness in well MW-5 has increased from a sheen in May 1998 to 0.37' in November. Please verify that there has not been a recent fuel release at the site. In addition, a free product removal program should be implemented to minimize the spread of contamination into previously uncontaminated zones. Free product removal reports must be prepared in compliance with Section 2655 of Article 5, Title 23 of the California Code of Regulations and be submitted within 45 days upon completion of interim remediation.

As a reminder, the following additions are required for the next sampling event:

- Confirm MTBE and other oxygenates using EPA Method 8260 in samples which indicate the presence of MTBE (with Method 8020).
- Well MW-8 must be made accessible for sampling.
- Well MW-11 should also be sampled.
- A risk assessment to determine site specific target levels is due for review (see enclosed letter).

If you have any questions, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

c: Deanna Harding, Gettler-Ryan, 6747 Sierra Court, Suite J, Dublin, CA 94568

unocaloak1-7

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



RO#203

ENVIRONMENTAL HEALTH SERVICES

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

StID 1119

August 12, 1998

Ms. Tina Berry
Tosco
2000 Crow Canyon Place, Suite 400
San Ramon, CA 94583

RE: Risk Assessment at 3943 Broadway, Oakland, CA

Dear Ms. Berry:

Thank you for the submittal of the "Semi-Annual 1998 Groundwater Monitoring & Sampling Report" dated July 23, 1998 for the above referenced site. Groundwater from monitoring well MW-5 continues to identify elevated benzene concentrations. The well is located at the property line.

The contaminant plume has migrated beneath the adjacent and downgradient property. At this time, a risk assessment is necessary to determine if BTEX constituents pose a human health risk for workers/residents at the adjacent property. Site specific target levels should be established so a determination can be made if active remediation is necessary at the site. The risk analysis is due to this office by **October 14, 1998**.

The next sampling event should be in November 1998. If MTBE is detected in any of the groundwater samples, please confirm MTBE by using Method 8260.

If you have any questions, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



RO# 203

ENVIRONMENTAL HEALTH SERVICES

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

StID 1119

August 12, 1998

Ms. Tina Berry
Tosco
2000 Crow Canyon Place, Suite 400
San Ramon, CA 94583

RE: Risk Assessment at 3943 Broadway, Oakland, CA

Dear Ms. Berry:

Thank you for the submittal of the "Semi-Annual 1998 Groundwater Monitoring & Sampling Report" dated July 23, 1998 for the above referenced site. Groundwater from monitoring well MW-5 continues to identify elevated benzene concentrations. The well is located at the property line.

The contaminant plume has migrated beneath the adjacent and downgradient property. At this time, a risk assessment is necessary to determine if BTEX constituents pose a human health risk for workers/residents at the adjacent property. Site specific target levels should be established so a determination can be made if active remediation is necessary at the site. The risk analysis is due to this office by **October 14, 1998**.

The next sampling event should be in November 1998. If MTBE is detected in any of the groundwater samples, please confirm MTBE by using Method 8260.

If you have any questions, I can be reached at (510) 567-6762. *and other of these*

eva chu
Hazardous Materials Specialist

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY
DAVID J. KEARS, Agency Director

R0203
RAFAT A. SHAHID, DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510)567-6700

④

April 22, 1996

Mr. Ed Ralston
UNOCAL
P.O. Box 5155
San Ramon, CA 94583

RE: Use of ORC in Groundwater Monitoring Wells

Dear Mr. Ralston:

I have received information from Regenesys, who developed the Oxygen Release Compound (ORC) remediation technology, that it is not recommended to purge monitoring wells with ORC prior to sampling. Purging would remove dissolved oxygen, thus defeating the purpose of using ORC.

Several UNOCAL sites are currently using ORC in some of the groundwater monitoring wells. Those wells which have ORC installed should not be purged prior to sampling. Sites employing ORC are:

- (R0880) 1. Unocal Service Station # 5366, at 7375 Amador Valley Blvd, Dublin (StID 3169);
- (R0482) 2. Unocal Service Station #7176, at 7850 Amador Valley Blvd, Dublin (StID 4104);
- (R0597) 3. Unocal Bulk Plant #0490, at 3357 Gardella Plaza, Livermore (StID 3376); and
- (R0203) 4. Unocal Service Station #0746, at 3943 Broadway, Oakland (StID 1119).

If you have any questions, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

c: files (StID 3169, 4104, 3376, 1119)

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



R0#203

ARNOLD PERKINS, DIRECTOR
RAFAT A. SHAHID, DEPUTY DIRECTOR

Alameda County Environmental Health Dept.
Environmental Protection Division
1131 Harbor Bay Parkway, Room 250
Alameda CA 94502-6577
(510)567-6700 fax: (510)337-9335

StID 1119

January 24, 1996

Mr. Ed Ralston
Unocal
2000 Crow Canyon Pl, Suite 400
San Ramon, CA 94583

RE: Reduced Sampling Frequency at Unocal Service Station 0746,
3943 Broadway, Oakland 94611

Dear Mr. Ralston:

I have completed review of mpds' December 1995 Quarterly Data Report for the above referenced site. It appears appropriate at this time to further reduce the sampling frequency of certain wells. The following schedule may be implemented as soon as practical:

1. Discontinue sampling of wells MW-2, MW-6, MW-7, MW-10, MW-11, and MW-12;
2. Sample semi-annually wells MW-1, MW-3, MW-4, MW-5, MW-8 and MW-9.

If you have any questions, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

cc: Nubar Srabian, mpds, 2401 Stanwell Dr, #300, Concord 94520
files

pc

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY
DAVID J. KEARS, Agency Director

R0203

RAFAT A. SHAHID, DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6777

September 14, 1995
STID # 1119

Mr. Syed Rizvi
Environmental Compliance Officer, Unocal
Unocal Corporation
P.O.Box 2390
Brea, California 92622-2390

Re: FIVE YEAR UNDERGROUND STORAGE TANK PERMIT AT,
UNOCAL # 0746, 3943 BROADWAY, OAKLAND, CALIFORNIA, 94611

Dear Mr. Rizvi:

Enclosed is your five year permit to operate two 12,000 gallon underground fuel tanks and one 520 gallon waste oil tank at the above referenced facility. These tanks are double-walled with fiberglass or plastic coating. Their associated piping is also double-walled.

To operate under a valid permit, you are required to comply with the conditions in Title 23 of the California Code of Regulations (CCR). Based on these requirements, each tank and its piping has interstitial monitoring by an electronic alarm system. Liquid leak detection sensors monitor the tanks annular spaces and the piping access wells. The probes are wired to a Leak Alert LA-08 alarm unit located inside the facility near the cashier cage. When a sensor detects liquid from a leak the audible alarm sounds and the fuel dispenser is automatically shut-off.

You may consult the revised Title 23, CCR for additional requirements. To obtain a copy of the regulations, you may contact the State Water Resources Control Board at (916) 657-0917.

Please, do not hesitate to contact me with any questions at (510) 567-6731, Tuesday through Friday.

Sincerely,

Kevin Tinsley
Hazardous Materials Specialist

c, Ariu Levi, District Manager-North County, Al.Co. E.P.S.
Leung Clement K., Station Dealer

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



R0203

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

StID 1119

July 5, 1994

Mr. Ed Ralston
UNOCAL
P.O.Box 5155
San Ramon, CA 94583

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

**Re: Additional Investigations at Unocal #0746, 3943 Broadway,
Oakland 94611**

Dear Mr. Ralston:

The recent water recovery tests and vapor extraction pilot test performed suggest that standard groundwater exatraction or vapor extraction techniques are not suitable for the remediation of petroleum hydrocarbon contamination at the above referenced site. Your consultant, Kaprealian Engineering Inc, has recommended that long term monitoring continue, to verify that the contaminant plume does not continue to migrate. And that in time, the levels of contamination will naturally attenuate.

This may be a suitable management alternative for this site after a risk assessment has been performed and cleanup levels are determined. I would need verification that residual hydrocarbons in soil will not continue to be a source of contamination to ground water. The former underground storage tank pit appears to have been adequately overexcavated. Still, there are elevated levels of (free product, that is) TPH-G and benzene in groundwater from wells MW-3 and MW-5. A soil investigation may be required between the former pump islands and monitoring well MW-3.

Also, the next quarterly sampling event should include the analysis for MTBE of groundwater from wells MW-9 and MW-12.

Our office has moved to: 1131 Harbor Bay Parkway, 2nd Floor, Alameda, CA 94502. Our phone lines are not yet connected, but I may be reached at (510) 271-4330. Please do not hesitate to call if you have any questions or comments regarding this letter.

eva chu
Hazardous Materials Specialist

cc: Tim Ross, KEI, 2401 Stanwell, Dr, Suite 400, Concord 94520
files (unocal01.5)

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



R0203

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

StID 1119

November 16, 1993

Aram Kaloustian
KEI Engineering
2401 Stanwell Dr., Suite 400
Concord, CA 94520

**Subject: Work Proposal Approval for Unocal #0746, 3943 Broadway,
Oakland 94611**

Dear Mr. Kaloustian:

I have completed review of KEI's October 26, 1993 letter proposing to perform a groundwater recovery test from monitoring wells MW3, MW4, MW5 and MW8 at the above referenced site. This proposal is acceptable and field activities should commence within 45 days of the date of this letter. Please notify this office at least 48 hours prior to the start of field activities.

If you have any questions, I can be reached at (510) 271-4530.

Sincerely,

eva chu
Hazardous Materials Specialist

cc: Ed Ralston, UNOCAL, P.O.Box 5155, San Ramon, Ca 94583
files

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ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



R0203

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

StID 1119

October 20, 1993

Aram Kaloustian
KEI Engineering
2401 Stanwell Dr., Suite 400
Concord, CA 94520

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

**Subject: Groundwater Remediation for Unocal Station #0746,
3943 Broadway, Oakland 94611**

Dear Mr. Kaloustian:

I have completed review of KEI's May 1993 Pilot Vapor Extraction Test Report and September 1993 Quarterly Report for the above referenced site. Data collected from the vapor extraction test in April 1993 indicated an insignificant hydrocarbon extraction rate and KEI concluded that vapor extraction was not a feasible technology for remediation of soil contamination at the site. This test was complicated with the high groundwater levels.

The soil boring log for the vapor extraction well RW-1 show this well to be screened from 5-15 feet below grade. Groundwater has been consistently at 8-10' depth. Without drawing groundwater down, vapor extraction may not be as effective. Taking this into consideration, would a pilot test consisting of groundwater extraction, drawing water down 5-6 feet, in conjunction with vapor extraction be more effective for soil and groundwater remediation?

If not, other feasible cleanup technologies should be considered. Please submit a workplan proposal for alternative soil and water remediation technology planned for this site. This report is due within 45 days of the date of this letter.

KEI's request to reduce the frequency of groundwater sampling of monitoring wells MW-1, MW-6, and MW-7 to a semi-annual basis is acceptable. The next sampling event for these wells should be in February 1994. If you have any questions or comments, please call me at (510) 271-4530.


eva chu
Hazardous Materials Specialist

cc: Ed Ralston, UNOCAL, P.O.Box 5155, San Ramon, CA 94583
files

unocal01.3

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



R0203

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

StID 1119

April 23, 1993

Mr. Edward Ralston
UNOCAL
P.O.Box 5155
San Ramon, CA 94583

**Subject: Groundwater Sampling at UNOCAL Service Station #0746,
3943 Broadway, Oakland, CA 94611**

Dear Mr. Ralston:

I have reviewed Kaprealian Engineering's Quarterly Report, dated March 30, 1993, for the above referenced site. Contaminant levels appear to be consistently elevated for monitoring wells MW-3, MW-4, and MW-5. Recent levels of contaminants in MW-1 may be due to the increase in groundwater elevation, dissolving petroleum products from soil at 7 to 8 feet depths.

Monitoring well MW-2 has detected contaminants in the methyl-tributyl ether (MTBE) range for the last two quarters. Future groundwater samples collected from MW-2 should also be analyzed for MTBE. Monitoring wells MW-8 and MW-9 have been inaccessible for sampling for the last two quarters. Efforts must be made to gain access to these wells for sampling/monitoring in the future.

Also, maintain a record of the amount of free product removed from the monitorings wells. If you have any questions, please contact me at (510) 271-4530.

Sincerely,

eva chu
Hazardous Materials Specialist

cc: Aram Kaloustian, KEI, 2401 Stanwell Dr., Suite 400,
Concord, CA 94520
Rich Hiett, RWQCB
files

unocalo.2

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



R0203

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

StID 1119

March 12, 1993

Mr. Ed Ralston
UNOCAL
P.O.Box 5155
San Ramon, CA 94583

**Subject: Work Plan Approval for UNOCAL Station #0746 at
3943 Broadway, Oakland 94611**

Dear Mr. Ralston:

This office has completed review of KEI's Revised Work Plan/Proposal, dated February 15, 1993, for the above referenced site. The proposed pilot vapor extraction test to assess the feasibility of vapor extraction at this site is acceptable. Field work should commence within 45 days of the date of this letter. Please notify this office 48 hours prior to the start of field activities.

If you have any questions or comments, please contact me at (510) 271-4530.

Sincerely,

eva chu
Hazardous Materials Specialist

cc: Rich Hiett, RWQCB
Aram Kaloustian, KEI, 2401 Stanwell Dr., Suite 400, Concord
CA 94520
Edgar Howell/files

unocal01

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



R0203

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

November 30, 1992
STID# 1119

Unocal Corp.
ATTN: Ron Bock
P.O. Box 5155
San Ramon, CA 94583

Re: 3943 Broadway, Oakland, CA 94611

Dear Ron Bock:

This office has received and reviewed a letter dated September 22, 1992 and a Quarterly Report dated September 25, 1992 by Kaprealian Engineering. The recommendations on page 10 are acceptable with the following comment:

Page 7 of the report was blank. Please submit a copy of this page.

This office would like to see a remediation plan submitted within 45 days of this letter. The plan should also deal with mass product removal rather than just controlling the plume.

If you have any questions concerning this matter please contact this office.

Sincerely,

Thomas F. Peacock, Supervising HMS
Hazardous Material Division

cc: Lester Feldman, RWQCB
Edgar Howell, Chief - Files
Clement Leung, 3943 Broadway, Oakland, CA 94611

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



R0203

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

September 8, 1992
STID# 1119

Unocal Corp.
ATTN: Ron Bock
P.O. Box 5155
San Ramon, CA 94583

Re: 3943 Broadway, Oakland, CA 94611

Dear Ron Bock:

This office has received and reviewed several Quarterly Reports on the above site ending with March 9, 1992 report by Kaprealian Engineering. The recommendation on page 9 is acceptable with the following comments:

1. The installation of a 6" groundwater recovery well is acceptable but, given that MW5 has not been sampled for the last 3 events due to the presence of free product, shouldn't an extraction system be started immediately?
2. The investigation phase has pretty well defined the plume for TPHg and benzene and both plumes are similar. There is only one area which is downgradient and not well defined. Shouldn't the remediation phase begin soon?
3. This office would like to see a remediation plan submitted within 45 days of this letter. The plan should also deal with mass product removal rather than just controlling the plume.

If you have any questions concerning this matter please contact this office.

Sincerely,

Thomas F. Peacock, Supervising HMS
Hazardous Material Division

cc: Lester Feldman, RWQCB
Edgar Howell, Chief - Files
Clement Leung, 3943 Broadway, Oakland, CA 94611

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



R0203

May 3, 1991

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

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

**RE: Quarterly report and work plan from Kaprealian Engineers, Inc.
for Unocal # 746, 3943 Broadway, Oakland**

Dear Mr. Bock:

This office has reviewed the above documents, and we concur with the proposed locations for the three additional monitoring wells. These wells should be installed, developed, and sampled as soon as possible. Whether or not these wells permit downgradient definition of the groundwater plume, Unocal's next step must be the preparation of a remediation plan, as discussed in our February 1 letter.

An apparent oversight in the quarterly technical report is a lack of discussion about the disposition of purged groundwater. Obviously, each of the wells has been purged prior to sampling each quarter; in addition, KEI indicates that it has been (or will be) pumping contaminated water out of monitoring wells MW-3, 4, 5, and 8, at the rate of 55 gallons per week. This all adds up to a lot of contaminated groundwater. Is Unocal letting it accumulate on-site, or has this water been disposed of?

Finally, the format of the KEI reports for this site makes it difficult to analyze and compare data, for the following reasons:

1. The same unnecessary text is repeated in each successive technical report and work plan, describing data back to the tank removal. Please omit this "background boilerplate" text from future reports.
2. Tables of historical data from monitoring wells are useful, but they should be organized by well, rather than by sampling date (e.g., Table 1 in KEI's April 12 report). This will permit a much more efficient analysis of contaminant trends in each monitoring well.
3. Report graphics are too small and not always to scale. For example, Figure 1A of the April 12 quarterly report does not show the actual location of monitoring well MW-9, and the site vicinity map seems too cramped for the amount of data it contains.

Mr. Ron Bock
May 3, 1991
Page 2 of 2

Please inform me of the disposition of all purged well water from the site. If any of this contaminated water has been disposed of, please provide receipts that document the disposal.

If you have any questions about this letter, please contact me at 271-4320.

Sincerely,

Gil Wistar

Gil Wistar
Hazardous Materials Specialist

cc: Mardo Kaprealian, Kaprealian Engineers (P.O. Box 996, Benicia,
CA 94510)

Lester Feldman, San Francisco Bay RWQCB

Rafat Shahid, Asst. Agency Director, Environmental Health
files

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ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



R0203

February 1, 1991

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

Mr. Ron Bock
Unocal Refining & Marketing
P.O. Box 5155
San Ramon, CA 94583

Re: **Groundwater investigation at Unocal #0746, 3943 Broadway,
Oakland**

Dear Mr. Bock:

Thank you for submitting Kaprealian Engineering's December 17 report on the above site. This document describes the installation of four additional monitoring wells at this location, including two off-site, downgradient wells. Groundwater contamination is widespread, apparently extending beyond the furthest downgradient well, MW-9. Based on upgradient wells' analytical data, the hydrocarbons in groundwater have resulted from previous releases from the facility's underground tanks.

Analytical data from the Kaprealian report shows that the groundwater contaminant plume may extend further downgradient and cross-gradient along the Broadway right-of-way. Thus, the plume must be defined towards the south, southeast, and southwest; this means that additional monitoring wells need to be placed along Broadway, within the street and/or on its sidewalks. We are requiring that Unocal develop hard data to define the "zero edge" of the plume. In this respect, the upgradient direction has been defined adequately, and no further wells are necessary to the north or northeast.

Because of the high levels of dissolved gasoline and benzene in the plume, as well as its extent, we are requiring that Unocal begin to develop a remedial action plan for this site. The purpose of the groundwater remediation will be treatment to drinking water standards, i.e., reducing benzene to below state action levels. Such a plan will require the following general elements:

- a monitoring network within and surrounding the plume, to provide an adequate number of data points;
- pump-test data and information on site-specific hydrologic characteristics, including a capture-zone analysis;
- specific information such as location of extraction well(s), groundwater treatment/disposal methods, system maintenance plans, and system evaluation/monitoring protocol; and

Mr. Ron Bock
February 1, 1991
Page 2 of 2

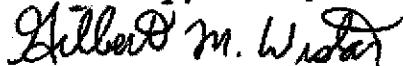
- an implementation schedule for all phases of remedial action.

Please submit a work plan for the installation of additional monitoring wells, together with a report on 1st quarter 1991 sampling, to this office by March 15, 1991. Your proposal must include a schedule for installation of the wells and for the implementation of the various elements of groundwater remediation. Copies of this and all technical reports must be sent to the Regional Water Quality Control Board in Oakland, and signed by an appropriate professional.

Because we are overseeing this site under the designated authority of the Water Board, this letter constitutes a formal request for technical reports, per Sec. 13267(b) of the California Water Code. Failure to respond in a timely manner could result in civil liabilities under the Water Code of up to \$1,000 per day. Other violations of California law, such as Sec. 25299.37 of the Health and Safety Code, may also be cited.

If you have any questions about this letter or about remediation requirements established by the RWQCB, please contact me at 271-4320.

Sincerely,



Gil Wistar

Hazardous Materials Specialist

cc: Lester Feldman, San Francisco Bay RWQCB
Rafat Shahid, Asst. Agency Director, Environmental Health
files



ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



R0203

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

November 26, 1990

Ron Bock
Unocal Refining and Marketing Division
2175 N. California Blvd., Ste. 650
Walnut Creek, CA 94596

Dear Mr. Bock:

Our records indicate that your project has depleted the deposit submitted to Alameda County Hazardous Materials Division for the site located at 3943 Broadway, Oakland (Unocal Station #0746). Prior to any further activity at this site, an additional deposit must be received by this office in the amount of \$400.00.

If you have any questions, please contact Gil Wistar at (415) 271-4320.

Sincerely,

Edgar B. Howell III, Chief
Hazardous Materials Division

EH:mam

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



R0538 (2240
mountain)

✓R0203 (3943
Broadway)

October 5, 1990

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

Mr. Ron Bock
Unocal Corporation
2000 Crow Canyon Place, #400
San Ramon, CA 94583

**RE: Acknowledgement of receipt of letter and reports, Unocal #0746
(3943 Broadway, Oakland) and #5269 (2240 Mountain Blvd.,
Oakland)**

Dear Mr. Bock:

Thank you for submitting the reports that this office had requested in its recent Notice of Violation to Unocal. Although it appears that this notice took you by surprise, it was sent because we received no documents pertaining to either of these sites after a telephone conversation in which I requested documentation on both, last April. We still have no record of previous receipt of any of the materials that you sent in your August 16 letter. I did note that on page 4 of the Kaprealian work plan for 3943 Broadway, it states that the technical report documenting the work should be submitted to the RWQCB and to Alameda County Flood Control & Water Conservation District; our office is omitted. I suspect that there may be some miscommunication between Kaprealian and Unocal regarding who is responsible for sending which reports to whom. In any case, I think we are up to date now, and I appreciate your prompt response to my letter.

With regard to the groundwater contamination found at 3943 Broadway, it appears that four additional monitoring wells either have been or will soon be, installed. We concur with the locations of these monitoring points, as well as with their necessity, due to the fairly high concentration of gasoline dissolved in groundwater. As you're probably aware, the Regional Water Board requires that a responsible party define the "zero limits" of any groundwater plume, which must be the goal in this situation.

At 2240 Mountain Blvd., the most recent report indicates that there is in fact a monitoring well reasonably downgradient from the underground tank area. The report also describes the complex site geology associated with the Hayward Fault. Because of these factors and the low levels of contamination in perched groundwater, quarterly monitoring will be adequate at this site.

For these two sites, please be sure to send all future reports, supplemental work plans, etc., to my attention as soon as they are available. This will speed up case review and avoid the possibility

Mr. Ron Bock
October 5, 1990
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of our missing documents.

If you have any questions about this letter, please contact the undersigned at 271-4320.

Sincerely,



Gil Wistar
Hazardous Materials Specialist

cc: Lester Feldman, RWQCB
Rafat A. Shahid, Asst. Agency Director, Environmental Health
files

ALAMEDA COUNTY

HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



R0203

Certified Mailer # P 062 127 994

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

August 10, 1990

Mr. Rick Sisk
Unocal Corporation
2175 N. California Blvd., Suite 650
Walnut Creek, CA 94596

NOTICE OF VIOLATION

Dear Mr. Sisk:

At Unocal #0746, located at 3943 Broadway in Oakland, three underground tanks were removed in August 1989; they were subsequently replaced with three new tanks. Because of contamination found in soil samples during the tanks' removal, this office required a preliminary investigation for soil and groundwater; as a result, three monitoring wells were installed at the site in October 1989, with relatively high levels of hydrocarbons found in groundwater downgradient of the tank pit. In a proposal dated November 30, 1989, Kaprealian Engineers discussed the need for three additional wells to define the limits of the plume.

When this office made a phone request for technical reports on April 11, 1990, Unocal stated that Kaprealian had applied for Zone 7 well drilling permits in January, and that a report on well installation and sampling had undoubtedly been prepared and would be sent to this office promptly. However, we have still received no reports or communications from Unocal or any consultant regarding this site. Thus, we have no evidence that these additional wells were installed, or that the required quarterly groundwater level measurements and sampling have taken place at the site.

As a result, Unocal is in violation of Sec. 25298 of the California Health and Safety Code, for improper (incomplete) closure of underground tanks. This section of code states that an underground tank owner/operator must demonstrate to the administering agency that the appropriate corrective or remedial actions have been taken, once a release is documented. To correct this violation, Unocal must submit to this office all well installation and sampling reports, work plans, and other pertinent documents that have been prepared since December 1, 1989. These reports are due by **September 10, 1990**. Any work plan submitted must include a schedule for implementing all tasks, as well as for the completion of technical reports.

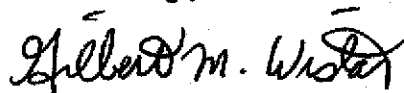
This letter constitutes a formal request for technical reports (according to Sec. 13267 of the California Water Code, as well as

Mr. Rick Sisk
August 10, 1990
Page 2 of 2

Sec. 25299.36 of the California Health and Safety Code). Copies of all documentation sent here should also be sent to the Regional Water Quality Control Board in Oakland (attn: Lester Feldman).

If you have any questions about this letter, please contact the undersigned at 271-4320.

Sincerely,



Gil Wistar
Hazardous Materials Specialist

cc: Lester Feldman, RWQCB
Gil Jensen, Alameda County District Attorney, Consumer and
Environmental Protection Division
Rafat A. Shahid, Asst. Agency Director, Environmental Health
files

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



R0203

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

September 12, 1989

Mr. Tim Ross
Unocal Corp.
2175 N. California Blvd., Ste. 650
Walnut Creek, CA 94596

Re: Unauthorized release from underground storage tank(s), Unocal
#0746, 3943 Broadway, Oakland

Dear Mr. Ross:

During the removal of three underground storage tanks at the Unocal station referenced above, contaminated soil was discovered. In the sidewalls of the excavation trench, up to 290 ppm TPH were found in soil samples taken on August 16, 1989. This level exceeds thresholds established by the Regional Water Quality Control Board (RWQCB) for the occurrence of an "unauthorized release." Title 23 of the California Code of Regulations requires all such releases from underground tanks to be reported. An unauthorized release report has been filed with this office; your next step is to initiate groundwater investigation and/or cleanup activities at this site.

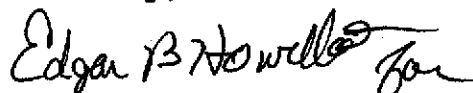
A preliminary assessment should be conducted to determine the extent of groundwater contamination that has resulted from the leaking pipe (contaminated soil has already been excavated and removed to the Division's satisfaction, and the new tank system has been installed). The information gathered by this investigation will be used to assess the need for additional actions at the site. The preliminary assessment should be designed to provide all of the information in the format shown in the attachment at the end of this letter. This format is based on RWQCB guidelines. You should be prepared to install one monitoring well, if you can verify the direction of groundwater flow in the immediate vicinity of the site, and three wells if you cannot.

Until cleanup is complete, you will need to submit reports to this office and to the RWQCB every three months (or at a more frequent interval, if specified at any time by either agency). These reports should include information pertaining to further investigative results; the methods and costs of cleanup actions implemented to date; and the method and location of disposal of any contaminated material.

Mr. Tim Ross
September 12, 1989
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Your work plan should be submitted to this office by **October 20, 1989**. Copies of the proposal should also be sent to the RWQCB (attention: Lester Feldman). You may implement remedial actions before approval of the work plan, but final concurrence by this office will depend on the extent to which the work done meets the requirements described in this letter. If you have any questions about this letter or about remediation requirements established by the RWQCB, please contact Gil Wistar, Hazardous Materials Specialist, at 271-4320.

Sincerely,



Rafat A. Shahid, Chief
Hazardous Materials Division

RAS:GW:gw

enclosure

cc: Howard Hatayama, DOHS (w/o enclosure)
Lester Feldman, San Francisco Bay RWQCB (w/o enclosure)
Gil Jensen, District Attorney, Alameda County Consumer and
Environmental Protection Agency (w/o enclosure)
files

WORK PLAN REQUIREMENTS FOR AN INITIAL SUBSURFACE INVESTIGATION

This outline should be followed by professional engineering or geologic consultants in preparing work plans to be submitted to the RWQCB and local agencies. Work plans must be signed by a California-registered engineer or geologist.

This outline should be referred to in context with the "Regional Board Staff Recommendations for Initial Evaluation and Investigation of Underground Tanks" (June 2, 1988).

PROPOSAL FORMAT

I. Introduction

- A. State the scope of work
- B. Provide information on site location, background, and history
 - 1. Describe the type of business and associated activities that take place at the site, including the number and capacity of operating tanks.
 - 2. Describe previous businesses at the site.
 - 3. Provide other tank information:
 - number of underground tanks, their uses, and construction material;
 - filing status and copy of unauthorized release form, if not previously submitted;
 - previous tank testing results and dates, including discussion of inventory reconciliation methods and results for the last three years.
 - 4. Other spill, leak, and accident history at the site, including any previously removed tanks.

II. Site Description

- A. Describe the hydrogeologic setting of the site vicinity
- B. Prepare a vicinity map (including wells located on-site or on adjoining lots, as well as any nearby streams)
- C. Prepare a site map
- D. Summarize known soil contamination and results of excavation
 - 1. Provide results in tabular form and show location of all soil samples (and water samples, if appropriate).

Sample dates, the identity of the sampler, and signed laboratory data sheets need to be included, if not already in possession of the County.

2. Describe any unusual problems encountered.
3. Describe methods that were used to store and dispose of contaminated soil.

III. Plan for Characterizing Groundwater Contamination

Construction and placement of wells should adhere to the requirements of the "Regional Board Staff Recommendations for Initial Evaluation and Investigation of Underground Tanks."

- A. Explain the proposed locations of monitoring wells (including construction diagrams), and prepare a map to scale
- B. Describe the method of monitoring well construction and associated decontamination procedures
 1. Expected depth and diameter of monitoring wells.
 2. Date of expected drilling.
 3. Locations of soil borings and sample collection method.
 4. Casing type, diameter, screen interval, and pack and slot sizing technique.
 5. Depth and type of seal.
 6. Development method and criteria for determining adequate development.
 7. Plans for disposal of cuttings and development water.
 8. Surveying plans for wells (requirements include surveying to established benchmark to 0.01 foot).
- C. Groundwater sampling plans
 1. Water level measurement procedure.
 2. Well purging procedures and disposal protocol.
 3. Sample collection and analysis procedures.
 4. Quality assurance plan.
 5. Chain-of-custody procedures.

IV. Prepare a Site Safety Plan