

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

February 6, 2007

Mr. Paul Supple  
Atlantic Richfield  
PO Box 1257  
San Ramon, CA 94583

Subject: Fuel Leak Case No. RO0000204, ARCO #4494, 566 Hegenberger Road, Oakland, CA

Dear Mr. Supple:

The fuel leak case file for the above-referenced site is under review for case closure by Alameda County Environmental Health (ACEH). If case closure is approved, the fuel leak case will be closed with the following site management requirement:

*"Case closure for the fuel leak site is granted for commercial land use only. If a change in land use to residential or other conservative scenario occurs at this property, Alameda County Environmental Health must be notified and the case needs to be re-evaluated. This site is to be entered into the City of Oakland Permit Tracking System due to the residual contamination posing a nuisance for subsurface utility work."*

Please provide the certification requested below in the Landowner Notification Requirements that you have notified all responsible landowners of the request for case closure or that you are the sole landowner.

**LANDOWNER NOTIFICATION REQUIREMENTS**

Pursuant to California Health & Safety Code Section 25297.15, the active or primary responsible party for a fuel leak case must inform all current property owners of the site of cleanup actions or requests for closure. Furthermore, ACEH may not consider any cleanup proposals or requests for case closure without assurance that this notification requirement has been met. Additionally, the active or primary responsible party is required to forward to ACEH a complete mailing list of all record fee title holders to the site.

For you to meet these requirements when submitting cleanup proposals or requests for case closure, ACEH requires that you:

1. Notify all current record owners of fee title to the site of any cleanup proposals or requests for case closure;
2. Submit a letter to ACEH which certifies that the notification requirement in 25297.15(a) of the Health and Safety Code has been met;
3. Forward to ACEH a copy of your complete mailing list of all record fee title holders to the site; and
4. Update your mailing list of all record fee title holders, and repeat the process outlined above prior to submittal of any additional *Corrective Action Plan* or your *Request for Case Closure*.

Your written certification to ACEH (Item 2 above) must state, at a minimum, the following:

A. *In accordance with Section 25297.15(a) of the Health & Safety Code, I, (name of primary responsible party), certify that I have notified all responsible landowners of the enclosed proposed action. (Check space for applicable proposed action(s)):*

*cleanup proposal (Corrective Action Plan)*

*request for case closure*

*local agency intention to make a determination that no further action is required*

*local agency intention to issue a closure letter*

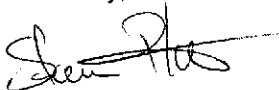
- OR -

B. *In accordance with section 25297.15(a) of Chapter 6.7 of the Health & Safety Code, I, (name of primary responsible party), certify that I am the sole landowner for the above site.*

**(Note: Complete item A if there are multiple site landowners. If you are the sole site landowner, skip item A and complete item B.)**

If you have any questions, please call me at (510) 383-1767

Sincerely,



Steven Plunkett  
Hazardous Materials Specialist

cc: Mr. Tom Venus  
Broadbent Associates, Inc.  
1324 Mangrove Avenue, Suite 212  
Chico, CA 95926

Donna Drogos, ACEH  
Steven Plunkett, ACEH  
File



Atlantic Richfield Company  
(a BP affiliated company)



Ro 204

P.O. Box 1257  
San Ramon, California 94583  
Phone: (925) 275-3801

January 22, 2007

Steven Plunkett  
Alameda County Health Care Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

**Re: Landowner Notification Requirement (Case ID: RO0000204)  
ARCO facility #4494, 566 Hegenberger Road, Oakland, California**

Dear Mr. Plunkett:

I have received your letter, dated January 11, 2007, concerning review of the subject site for case closure. Your letter requested that I provide you with the certification below.

In accordance with section 25297.15(a) of Chapter 6.7 of the Health & Safety Code, I, Paul Supple certify that BP West Coast Products LLC is the sole landowner for the subject site.

Please call me at (925) 275-3801 if you have any questions concerning this letter.

Sincerely,

Paul Supple  
Environmental Business Manager

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID J. KEARS, Agency Director



F

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

January 11, 2007

Mr. Paul Supple  
BP West Coast Products LLC  
PO Box 6459  
Moraga, CA 94570

Subject: Fuel Leak Case No. RO0000204, ARCO #4494, 566 Hegenberger Road, Oakland, CA

Dear Mr. Supple:

The fuel leak case file for the above-referenced site is under review for case closure by Alameda County Environmental Health (ACEH). If case closure is approved, the fuel leak case will be closed with the following site management requirement:

*"Case closure for the fuel leak site is granted for commercial land use only. If a change in land use to residential or other conservative scenario occurs at this property, Alameda County Environmental Health must be notified and the case needs to be re-evaluated. This site is to be entered into the City of Oakland Permit Tracking System due to the residual contamination posing a nuisance for subsurface utility work."*

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1. Notify all current record owners of fee title to the site of any cleanup proposals or requests for case closure;
2. Submit a letter to ACEH which certifies that the notification requirement in 25297.15(a) of the Health and Safety Code has been met;
3. Forward to ACEH a copy of your complete mailing list of all record fee title holders to the site; and



Mr. Paul Supple  
January 10, 2007  
Page 2

4. Update your mailing list of all record fee title holders, and repeat the process outlined above prior to submittal of any additional *Corrective Action Plan* or your *Request for Case Closure*.

Your written certification to ACEH (Item 2 above) must state, at a minimum, the following:

A. *In accordance with Section 25297.15(a) of the Health & Safety Code, I, (name of primary responsible party), certify that I have notified all responsible landowners of the enclosed proposed action. (Check space for applicable proposed action(s)):*

*cleanup proposal (Corrective Action Plan)*

*request for case closure*

*local agency intention to make a determination that no further action is required*

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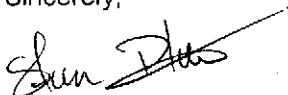
- OR -

B. *In accordance with section 25297.15(a) of Chapter 6.7 of the Health & Safety Code, I, (name of primary responsible party), certify that I am the sole landowner for the above site.*

**(Note: Complete item A if there are multiple site landowners. If you are the sole site landowner, skip item A and complete item B.)**

If you have any questions, please call me at (510) 383-1767

Sincerely,



Steven Plunkett  
Hazardous Materials Specialist

cc: Mr. Tom Venus  
Broadbent Associates, Inc.  
1324 Mangrove Avenue, Suite 212  
Chico, CA 95926

Donna Drogos, ACEH  
Steven Plunkett, ACEH  
File

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



April 13, 2001  
StID # 3854

Mr. Paul Supple  
ARCO Products Company  
P.O. Box 6549  
Moraga, CA 94570

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

**Re: ARCO Service Station No. 4494, 566 Hegenberger Rd., Oakland, CA 94621**

Dear Mr. Supple:

Our office has received and reviewed the March 22, 2001 Fourth Quarter 2000 monitoring report for the above site as prepared by Delta Environmental Consultants, Inc. (Delta). The results continue to show elevated MTBE concentrations in monitoring well MW-1 only. Although there may be indication that an up-gradient source of MTBE exists (Shell station at 540 Hegenberger Rd.), this is not a forgone conclusion. In fact, Shell has performed additional subsurface investigation and utilities survey. Based upon their results, there is a possibility that utilities may be acting as preferential pathways. An off-site well installed by Shell, MW-4, did not exhibit elevated MTBE even though the up-gradient well did.

Therefore, you are requested to proceed with your own investigation of the elevated MTBE found in MW-1. The following are recommended:

- Please confirm MTBE concentrations using EPA 8260 in MW-1.
- Please consider generating cross sectional diagrams using Shell and ARCO boring logs.
- You are encouraged to review utility maps to offer your own interpretation of the potential for preferential pathway migration.
- Please consider remediation of groundwater from MW-1, such as oxygen releasing socks, over-purging, chemical treatment, etc.
- Please review the tightness test results for the tanks and piping at the site. Have there been any reported releases noted in the past?

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

Sincerely,

Barney M. Chan  
Hazardous Materials Specialist

JC: B. Chan, files

Mr. S. Meeks, Delta Environmental, 3164 Gold Camp Dr., Suite 200, Rancho Cordova,  
CA 95670-6021

01-566HegRd

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

July 17, 2000  
StID #3854

Mr. Paul Supple  
ARCO Products Co.  
P.O. Box 6549  
Moraga, CA 94570

**Re: Groundwater Monitoring at ARCO Station # 4494, 566 Hegenberger Rd.,  
Oakland CA 94621**

Dear Mr. Supple:

Our office has received a copy of the preliminary results of the July 2000 sampling of the wells at the above referenced site. As you may recall, this monitoring was done in response to our office's request to analyze these wells for MTBE. These preliminary results identified one well, MW-1, which exhibited high MTBE concentration up to 15,000 ppb. Because the adjacent Shell service station is also investigating a significant MTBE release, it is uncertain whether this result indicates an ARCO release or an off-site release impacting ARCO.

Shell's consultant has recommended future concurrent monitoring of wells. Shell is also in the midst of performing an off-site investigation, with the intent of clarifying the extent of their MTBE plume. Our office encourages the co-operation and sharing of technical information between these sites. At this time, please continue quarterly groundwater monitoring.

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. S. Meeks, Delta Environmental Consultants, Inc., 3164 Gold Camp Drive, Suite 200,  
Rancho Cordova, CA 95670

Mon566Heg



3164 Gold Camp Drive, Suite 200

Rancho Cordova, California 95670

Direct Phone: (916) 536-2613

Fax: (916) 638-8385

## FAX TRANSMITTAL FORM

**DATE:** May 25, 2000

**RECIPIENT:** Mr. Barney M. Chan

**COMPANY:** ACHCS

**RECIPIENT FAX NO:** (510) 337-9335

**SENDER:** Steven Meeks

**NO. OF PAGES TO FOLLOW:**

**SUBJECT:** Telephone conversation follow-up

Re. ARCO Station # 4494

**DELTA PROJECT NO:** D000-319

### Message:

This facsimile is to follow-up our telephone conversation today with regard to the extension you granted for the MtBE sampling results report due date for ARCO Station # 4494 located at 566 Hegenberger Rd. Oakland, CA. The due date was moved from June 5, 2000, to the week of July 3, 2000.

If you have any questions please contact me at (916) 536-2613.

Thanks,  
Steven Meeks

ALAMEDA COUNTY  
HEALTH CARE SERVICES

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DAVID J. KEARS, Agency Director



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1131 Harbor Bay Parkway, Suite 250  
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FAX (510) 337-9335

April 21, 2000  
StID # 3854

Mr. Paul Supple  
ARCO Products Co.  
P.O. Box 6549  
Moraga, CA 94570

**Re: Monitoring for MTBE at 566 Hegenberger Rd., Oakland CA 94621**

Dear Mr. Supple:

The referenced site has been "on hold" since late 1995 as our office determined that the petroleum release from the former underground tanks. ARCO decided that they would not immediately close the monitoring wells and our office suspended monitoring requirements.

In 1997, the Legislature added a provision to chapter 6.75 of division 20 of the Health and Safety Code requiring the testing for MTBE before the Regional Board or local agency can issue a closure letter. On March 26, 1999 Governor Gray Davis signed Executive Order D-5-99 requiring the SWRCB to prioritize MTBE impacted sites to maximize the effort toward resource protection and cleanup. Our office has been requested to classify all MTBE sites and insure that all sites be monitored for MTBE.

Therefore, our office requests that the existing wells at the above site be monitored for MTBE and any detectable concentrations be verified by EPA Method 8260 or an equivalent GC/MS method. You should also be aware that the Shell Service station at 540 Hegenberger Road, is currently investigating a significant MTBE release at their site which could possibly have some impact to this ARCO site. Although, not strictly required, you may also wish to analyze the wells for TPHg and BTEX.

**Please provide your monitoring report to our office within 45 days or no later than June 5, 2000.**

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. G. VanderVeen, Pinnacle Environmental Solutions, 2201 Broadway, Suite 101, Oakland  
CA 94612

MTBE566Heg



# State Water Resources Control Board



Winston H. Hickox  
Secretary for  
Environmental  
Protection

Division of Clean Water Programs  
2014 T Street • Sacramento, California 95814 • (916) 227-4366  
Mailing Address: P.O. Box 944212 • Sacramento, California • 94244-2120  
FAX (916) 227-4530 • Internet Address: <http://www.swrcb.ca.gov/~cwphome/ustcf>

Gray Davis  
Governor

RO-0204  
~~STID# 3854~~  
BC

April 18, 2000

Chris Winsor  
Arco Products Company  
P O Box 5077  
Buena Park, CA 90622-5077

## UNDERGROUND STORAGE TANK CLEANUP FUND PROGRAM, NOTICE OF ELIGIBILITY DETERMINATION: CLAIM NUMBER 015310; FOR SITE ADDRESS: 566 HEGENBERGER RD, OAKLAND

Your claim has been accepted for placement on the Priority List in Priority Class "D" with a deductible of \$10,000.

We have completed our initial review. The next step in the claim review process is to conduct a compliance review.

Compliance Review: Staff reviews, verifies, and processes claims based on the priority and rank within a priority class. After the Board adopts the Priority List, your claim will remain on the Priority List until your Priority Class and rank are reached. At that time, staff will conduct an extensive Compliance Review at the local regulatory agency or Regional Water Quality Control Board. During this Compliance Review, staff may request additional information needed to verify eligibility. Once the Compliance Review is completed, staff will determine if the claim is valid or must be rejected. If the claim is valid, a Letter of Commitment will be issued obligating funds toward the cleanup. If staff determine that you have not complied with regulations governing site cleanup, you have not supplied necessary information or documentation, or your claim application contains a material error, the claim will be rejected. In such event, you will be issued a Notice of Intended Removal from the Priority List, informed of the basis for the proposed removal of your claim, and provided an opportunity to correct the condition that is the basis for the proposed removal. Your claim will be barred from further participation in the Fund, if the claim application contains a material error resulting from fraud or intentional or negligent misrepresentation.

Record keeping: During your cleanup project you should keep complete and well organized records of all corrective action activity and payment transactions. If you are eventually issued a Letter of Commitment, you will be required to submit: (1) copies of detailed invoices for all corrective action activity performed (including subcontractor invoices), (2) copies of canceled checks used to pay for work shown on the invoices, (3) copies of technical documents (bids, narrative work description, reports), and (4) evidence that the claimant paid for the work performed (not paid by another party). These documents are necessary for reimbursement and failure to submit them could impact the amount of reimbursement made by the Fund. ***It is not necessary to submit these documents at this time; however, they will definitely be required prior to reimbursement.***

Compliance with Corrective Action Requirements: In order to be reimbursed for your eligible costs of cleanup incurred after December 2, 1991, you must have complied with corrective action requirements of Article 11, Chapter 16, Division 3, Title 23, California Code of Regulations. Article 11 categorized the corrective action process into *phases*. In addition, Article 11 requires the responsible party to submit an

*investigative workplan/Corrective Action Plan (CAP)* before performing any work. This phasing process and the workplan/CAP requirements were intended to:

1. help the responsible party undertake the necessary corrective action in a cost-effective, efficient and timely manner;
2. enable the regulatory agency to review and approve the proposed cost-effective corrective action alternative before any corrective action work was performed; and
3. ensure the Fund will only reimburse the most cost-effective corrective action alternative required by the regulatory agency to achieve the minimum cleanup necessary to protect human health, safety and the environment.

In some limited situations *interim cleanup* will be necessary to mitigate a demonstrated immediate hazard to public health, or the environment. Program regulations allow the responsible party to undertake interim remedial action after: (1) notifying the regulatory agency of the proposed action, and; (2) complying with any requirements that the regulatory agency may set. Interim remedial action should only be proposed when necessary to mitigate an immediate demonstrated hazard. ***Implementing interim remedial action does not eliminate the requirement for a CAP and an evaluation of the most cost-effective corrective action alternative.***

**Three bids and Cost Preapproval:** Only corrective action costs required by the regulatory agency to protect human health, safety and the environment can be claimed for reimbursement. You must comply with all regulatory agency time schedules and requirements and you must obtain three bids for any required corrective action. Unless waived in writing, you are required to obtain preapproval of costs for all future corrective action work. ***If you do not obtain three bids and cost preapproval, reimbursement is not assured and costs may be rejected as ineligible.***

If you have any questions, please contact me at (916) 227-4366.

Sincerely,



Shari Knieriem  
Claims Review Unit  
Underground Storage Tank Cleanup Fund

cc: Mr. Steve Morse  
RWQCB, Region 2  
1515 Clay Street, Ste. 1400  
Oakland, CA 94612

Mr. Thomas Peacock  
Alameda County EHD  
1131 Harbor Bay Pkway, 2nd Fl.  
Alameda, CA 94502-6577

## AGENDA

### ARCO/Alameda County Health Care Services Agency Status Meeting

October 25, 1995  
Oakland, California

#### 1. Introductions / General Discussion

#### 2. General Topics

- ASTM's Risk Based Corrective Action "RBCA" -
- Resolution 92-49 "Containment Zones"
- Quarterly Reporting - *yearly complete data*  
*↳ data for that quarterly*
- Closure/Verification Monitoring

#### 3. Site Status

- #2107, 3310 Park Boulevard, Oakland — *shut off system (levels asymptotic)*  
*will be closed (100 ppb gov)*  
STID 3890
- #4494, 566 Hegenberger Road, Oakland — *58 ppm TPH gas left on site*  
*4th @ sampling (recommend closure)*  
STID 3854 RW-1 (6 in)
- #276, 10600 MacArthur Boulevard, Oakland — *Cl solvents problem nearby site*  
*Vapor systems - (7700 lbs removed)*  
STID 3756
- #2035, 1001 San Pablo Avenue, Albany → *increase to shell AB - 5 wells*  
*request*  
STID - 3858
- #2185, 9800 East 14th Street, Oakland — *CZ*  
STID 3876



ALAMEDA COUNTY ENVIRONMENTAL  
HEALTH DEPARTMENT

ENVIRONMENTAL PROTECTION DIVISION  
1131 Harbor Bay Parkway, Suite #250  
Alameda, CA 94502-6577  
Telephone (510) 567-6700  
Fax Number (510) 337-9335

FAX COVER SHEET

DATE: August 16, 19 95

TO: MICHAEL WHELAND

ARCO

FAX # (408) 377-8361

Total number of pages including cover sheet 2

FROM: SUSAN HUGO

NOTE:

Per your request.

(SMILE) have a nice day.  
DO SOMETHING FOR OUR ENVIRONMENT.

**LIST OF ARCO SITES WITH UGT CLEANUP**  
(August 16, 1995)

<u>STID#</u>	<u>ACHD CONTACT</u>	<u>ARCO#</u>	<u>ADDRESS</u>
3629	Susan Hugo	2112	1260 Park Street, Alameda 94501
817	Amy Leech	5387	20200 Hesperian Blvd. Hayward 94541
3943	Scott Seery	2152	22141 Center St., Castro Valley 94546
3883	Susan Hugo	6113	785 E. Stanley Blvd., Livermore 94550
3873	Susan Hugo	771	899 Rincon Avenue, Livermore 94550
1053	Eva Chu	6041	7249 Village Parkway, Dublin 94568
779	Amy Leech	608	17601 Hesperian Blvd. San Lorenzo 94580
3876	Barney Chan	2185	9800 East 14th Street, Oakland 94603
3756	Barney Chan	276	10600 MacArthur Blvd. Oakland 94605
3874	Susan Hugo	4931	731 W. MacArthur Blvd. Oakland 94609
3884	Susan Hugo	374	6407 Telegraph Avenue, Oakland 94609
3626	Susan Hugo	6148	5131 Shattuck Avenue, Oakland 94609
3890	Barney Chan	2107	3310 Park Blvd. Oakland 94610
3854	Barney Chan	4494	566 Hegenberger Road, Oakland 94621
3793	Susan Hugo	2169	889 W. Grand Ave. Oakland 94607
3858	Barney Chan	2035	1001 San Pablo Avenue, Albany 94706
4275	Scott Seery	601	712 Lewelling Blvd. San Leandro 94579
744	Dale Kletke	2111	1156 Davis Street, San Leandro 94577

ALAMEDA COUNTY ENVIRONMENTAL  
HEALTH DEPARTMENT

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1131 Harbor Bay Parkway, Suite #250  
Alameda, CA 94502-6577  
Telephone (510) 567-6700  
Fax Number (510) 337-9335

FAX COVER SHEET

DATE: June 27, 1995

TO: DAVID LARSON

FAX # (408) 453-0452

Total number of pages including cover sheet 2

FROM: SUSAN L. HUGO

NOTE:

List of ARCO SITES & corresponding  
contact person

(SMILE) have a nice day.  
DO SOMETHING FOR OUR ENVIRONMENT.

(6/27/95)

LIST OF ARCO SITES WITH UGT CLEANUP

<u>STID#</u>	<u>ACHD CONTACT</u>	<u>ARCO FACILITY#</u>	<u>ADDRESS</u>
3629	Susan Hugo	Station 2112	1260 Park Street Alameda 94501
817	Amy Leech	Station 5387	20200 Hesperian Blvd. Hayward 94541
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1053	Eva Chu	Station 6041	7249 Village Parkway Dublin 94568
779	Amy Leech	Station 608	17601 Hesperian Blvd. San Lorenzo 94580
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3854	Barney Chan	Station 4494	566 Hegenberger Road Oakland 94621
3793	Susan Hugo	Station 2169	889 W. Grand Ave. Oakland 94607
3858	Barney Chan	Station 2035	1001 San Pablo Avenue Albany 94706
4275	Scott Seery	Station 601	712 Lewelling Blvd. San Leandro 94579

ARCO Products Company  
2000 Alameda de las Pulgas  
Mailing Address: Box 5811  
San Mateo, California 94402  
Telephone 415 571 2400

ALCO  
HAZMAT



94 SEP 13 PM 2:14  
September 9, 1994

Ms. Susan Hugo  
Alameda County Heath Care Services  
80 Swan Way, Room 200  
Oakland, CA 94621

Re: Transfer of ARCO Projects.

Dear Ms. Hugo:

The purpose of this letter is to inform you of changes that ARCO Products Company (ARCO) has recently made in regards to environmental consulting firms working on environmental projects at existing and former ARCO retail facilities. In an effort to promote consistency, be more proactive, streamline communications and reduce costs, ARCO has significantly reduced the number of environmental consultants performing assessment and remedial activities on these environmental projects. The consolidation, which took effect on 9/1/94, involves a reduction of approximately 75% to 80% of the consulting firms that ARCO previously used. ARCO firmly believes that this consolidation effort will dramatically streamline ARCO's communication process, both with your office and staff as well as with ARCO's remaining consultants. The consulting firms which ARCO will now use at retail facility environmental projects throughout the west (WA, OR, CA, NV and AZ) include: Brown & Caldwell, Delta Environmental, Emcon Associates, Pacific Environmental Group, and Secor.

Attached to this letter is a list of sites in your jurisdiction that have recently been transferred to one of the five consulting firms listed above. In most cases, these five consulting firms were already working on ARCO projects in your jurisdiction. Also included in the list is the name of the ARCO engineer responsible for the site. please don't hesitate to call the respective ARCO engineer or the consultant's regional contact if you have any questions regarding any of the projects.

The transfer of the projects from the former consultant to one of the five firms listed above should be completed by October 1, 1994. Shortly thereafter I will be contacting you to schedule a meeting to introduce you to the primary contacts at the consulting companies and to review the projects with your staff. Please contact me at (415) 571-2468 if you have any questions concerning this letter.

Sincerely,

Kyle Christie

## ALAMEDA COUNTY HEALTH DEPT.

Facility Number	City	Address	New Consulting Firm	ARCO Engineer	ARCO Engineer phone number
276	Oakland	10600 MacArthur Blvd.	Emcon	Mike Whelan	415-571-2449
347	Oakland	2751 High Street	Brown & Caldwell	Brad Jones	213-486-0681
374	Oakland	6407 Telegraph Avenue	Pacific Env. Group	Mike Whelan	415-571-2449
601	San Leandro	712 Lewelling Blvd.	Emcon	Mike Whelan	415-571-2449
771	Livermore	899 Rincon Avenue	Emcon	Mike Whelan	415-571-2449
2035	Albany	1001 San Pablo Avenue	Emcon	Mike Whelan	415-571-2449
2107	Oakland	3310 Park Blvd.	Pacific Env. Group	Mike Whelan	415-571-2449
2111	San Leandro	1156 Davis Street	Emcon	Mike Whelan	415-571-2449
2112	Alameda	1260 Park Street	Pacific Env. Group	Mike Whelan	415-571-2449
2152	Castro Valley	22141 Center Street	Pacific Env. Group	Mike Whelan	415-571-2449
2162	San Leandro	15135 Hesperian Blvd.	Pacific Env. Group	Mike Whelan	415-571-2449
2169	Oakland	889 West Grand Avenue	Emcon	Mike Whelan	415-571-2449
2185	Oakland	9800 East 14th Street	Emcon	Mike Whelan	415-571-2449
4494	Oakland	566 Hagenberger Road	Pacific Env. Group	Mike Whelan	415-571-2449
4931	Oakland	731 West MacArthur Blvd.	Pacific Env. Group	Mike Whelan	415-571-2449
6002	Oakland	6235 Seminary Avenue	Emcon	Mike Whelan	415-571-2449
6041	Dublin	7249 Village Parkway	Emcon	Mike Whelan	415-571-2449
6113	Livermore	785 East Stanley Blvd.	Emcon	Mike Whelan	415-571-2449
6148	Oakland	5131 Shattuck Avenue.	Emcon	Mike Whelan	415-571-2449
9908	Oakland	8255 San Leandro Blvd	Brown & Caldwell	Brad Jones	213-486-0681

Your Emcon contact is Mr. Jay Johnson.

Your Pacific Environmental Group contact is Mr. Greg Barclay

Your Brown & Caldwell contact is Mr. Ron Zurlinden

## CONSULTANTS CONTACTS

Consultant Name	ARCO Program Manager (APM)	Technical Coordinator (TC)	Area	Administrative Coordinator (AC)
Brown & Caldwell	Mikk Anderson 150 So Arroyo Pkwy Pasadena, CA 91109 (818) 577-1020 Fax (818) 795-6016	Ron Zurlinden 9616 micro Ave Sacramento, CA 95813-3449 (916) 444-0123 --- Fax (916) 856-5277	NW	Matt Quinn 150 So Arroyo Pkwy Pasadena, CA 91109 (818) 577-1020 Fax (818) 795-6016
		Ron Halsey 16735 Von Karman, Suite 200 Irvine, CA 92714-4918 (714) 660-1070 --- Fax (714) 474-0940	SW	
		Mike Higman 9040 Frairs Rd, Suite 220 San Diego, CA 92108 (619) 528-9090 --- Fax (619) 528-9199	SW	
Delta	Jon Pesicka 27141 Aliso Creek Rd, Suite 270 Aliso Viejo, CA 92656 (714) 362-3077 Fax (714) 362-0290	Todd Galati 3330 Data Dr, Suite 100 Rancho Cordova, CA 95670 (916) 638-2085 --- Fax (916) 638-8385	NW	Debbie Fluckiger 27141 Aliso Creek Rd, # 270 Aliso Viejo, CA 92656 (714) 362-3077 Fax (714) 362-0290
		Jon Pesicka (714) 362-3077 --- Fax (714) 362-0290	SW	
Emcon	Jack Hardin 1921 Ringwood Ave San Jose, CA 95131-1721 (408) 453-7300 Fax (408) 437-9526	Rob Dixon 15055 SW Sequoia Pkwy, Suite 140 Portland, OR 97224-7712 (503) 624-7200 Fax (503) 620-7658	NW	Jeanette Memeo 1921 Ringwood Ave San Jose, CA 95131-1721 (408) 453-7300 Fax (408) 437-9526
		Jay Johnson 1433 N Ave Market Blvd. Sacramento, CA 95834-1943 (916) 928-3300 Fax (916) 928-3341	NW	

9/6/94

## CONSULTANTS CONTACTS

Consultant Name	ARCO Program Manager (APM)	Technical Coordinator (TC)	Area	Administrative Coordinator (AC)
Emcon	Jack Hardin	Ric Morgan 120 Columbia, Suite 500 Aliso Viejo, CA 92656 (714) 362-1130 Fax (714) 362-1137	SW	Jeanette Memeo
Pacific Enviro Group	Debra Moser 2025 Gate Way Place, Suite 440 San Jose, CA 95110 (408) 441-7500 Fax (408) 441-7539	Greg Barclay 3050 Fite Circle, Suite 101 Sacramento, CA 95827 (916) 361-8091 - - Fax (916) 361-8094	NW	Norma Gutierrez 2025 Gate Way Place, Suite 440 San Jose, CA 95110 (408) 441-7500 Fax (408) 441-7539
		Cleve Solomon 650 N Sierra Madre Villa, Suite 204 Pasadena, CA 91107 (818) 351-4814 - - Fax (818) 351-4822	SW	
Seacor	David Childs 1913 Volcanic Dr. Benton, AR 72015-2161 (501) 776-3400 Fax (501) 776-3053	Jim Ritchie 90 New Montgomery St, Suite 620 San Francisco, CA 94015-4503 (415) 882-1548 - - Fax (415) 882-4406	NW	Cindy Malloy 1734 - 34th St Sacramento, CA 95816-7004 (916) 456-4333 Fax (916) 456-0110
		Kyle Emerson 1180 Nevada St, Suite 200 Redlands, CA 92374 (909) 335-6116 - - - Fax (909) 335-6120	SW	
		Bob Wilson 3485 Sacramento Dr, Suite A San Luis Obispo, CA 93401-7160 (805) 546-0455 - - - Fax (805) 546-0583	SW	



R0204

RECEIVED

SEP 21 1993

**RESNA**  
Working To Restore Nature

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
FAX: (408) 264-2435

DISTRICT AT  
ALAMEDA COUNTY  
CEPD

**TRANSMITTAL**

TO: Mr. Mark Thompson  
Alameda County District  
Attorney's Office  
7677 Oakport Street, Room 400  
Oakland, CA 94605

DATE: September 15, 1993  
PROJECT NUMBER: 61026.02  
SUBJECT: Site Status Updates  
ARCO Various Station  
PAGE No.: 1 of 2

FROM: John C. Young

WE ARE SENDING YOU:

COPIES DATED

DESCRIPTION

Site Status Update for ARCO Stations:

- |   |        |   |
|---|--------|---|
| 1 | 9/2/93 | ARCO Station No. 601, 712 Lewelling Boulevard, San Leandro, California. |
| 1 | 9/2/93 | ARCO Station No. 6148, 5131 Shattuck Avenue, Oakland, California.       |
| 1 | 9/2/93 | ARCO Station No. 6041, 7249 Village Parkway, Dublin, California.        |
| 1 | 9/2/93 | ARCO Station No. 4494, 566 Hegenberger Road, Oakland, California.       |
| 1 | 9/2/93 | ARCO Station No. 2185, 9800 East 14th Street, Oakland, California.      |
| 1 | 9/2/93 | ARCO Station No. 1319, 365 Jackson Street, Hayward, California.         |
| 1 | 9/2/93 | ARCO Station No. 362, 29900 Mission Boulevard, California.              |
| 1 | 9/2/93 | ARCO Station No. 2107, 3310 Park Boulevard, Oakland, California.        |
| 1 | 9/2/93 | ARCO Station No. 2035, 1001 San Pablo Avenue, Albany, California.       |
| 1 | 9/2/93 | ARCO Station No. 771, 899 Rincon Avenue, Livermore, California.         |

408 264 7723

**TRANSMITTAL**

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
FAX: (408) 264-2435

TO: Mr. Mark Thompson  
Alameda County District  
Attorney's Office  
7677 Oakport Street, Room 400  
Oakland, CA 94605

DATE: September 15, 1993  
PROJECT NUMBER: 61026.02  
SUBJECT: ARCO Various Station  
PAGE No.: 2 of 2

FROM: John C. Young

WE ARE SENDING YOU:

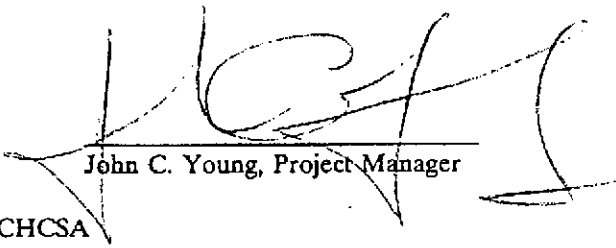
COPIES DATED	DESCRIPTION
	Site Status Update for ARCO Stations:
1 9/2/93	ARCO Station No. 374, 6407 Telegraph Avenue, Oakland, California.
1 9/2/93	ARCO Station No. 2152, 22141 Center Street, Castro Valley, California.
1 9/2/93	ARCO Station No. 276, 10600 MacArthur Boulevard, Oakland, California

THESE ARE TRANSMITTED as checked below:

- For review and comment     Approved as submitted     Resubmit \_\_\_ copies for approval  
 As requested     Approved as noted     Submit \_\_\_ copies for distribution  
 For approval     Return for corrections     Return \_\_\_ corrected prints  
 For your files

REMARKS:

Copies: 1 to RESNA project file no. 61026.02

  
John C. Young, Project Manager

cc: Mr. Michael Whelan, ARCO    Ms. Susan Hugo, ACHCSA  
Mr. John Meck, ARCO Legal    Mr. Scott Seery, ACHCSA  
Mr. John Jang, RWQCB    Mr. Eddy So, COHFD  
Mr. Gary Grimm, RWQCB    Mr. Hugh Murphy, COHFD  
Ms. Eva Chu, ACHCSA    Mr. Barney Chan, ACHCSA  
Mr. Richard Hiatt, RWQCB    Mr. Rob Weston, ACHCSA

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
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REC-201

September 2, 1993  
0902BCHA.4494  
61026.02

Mr. Barney Chan  
Alameda County Health Care Services Agency  
Department of Environmental Health  
80 Swan Way, Room 200  
Oakland, California 94624

Subject: Site Status Update for ARCO Station 4494, 566 Hegenberger Road, Oakland, California.

Dear Mr. Chan:

This letter provides an update on investigation and remedial activities conducted for the above-referenced site. This update covers site activities performed during June, July and August 1993, and site activities anticipated for the month of September 1993.

**June, July and August 1993 Activities**

- Quarterly groundwater sampling and monitoring could not be performed during the Second Quarter 1993 monitoring period due to ongoing construction activities at the site. The station has been temporarily closed for tank replacement and rebuilding of station. The station reopened for business in July 1993.
- Submitted Second Quarter 1993 groundwater monitoring report.
- Performed Third Quarter 1993 groundwater sampling.
- Submitted Follow-up letter (dated July 13, 1993) to a telephone conversation confirming the use of monitoring wells MW-5 and MW-6 as downgradient monitoring wells of the former UST pit.

Site Status Update  
ARCO Station 4494, Oakland, California

September 2, 1993  
61026.02

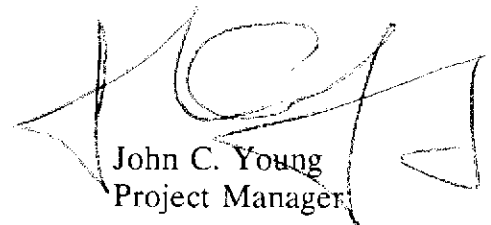
- Submitted RESNA's Response Letter (dated August 18, 1993) to your office concerning ACHCSA letter (dated May 28, 1993) addressing UST removal and replacement activities at the subject site.

**Work Anticipated for September 1993**

- Based on a consistent groundwater flow direction over the past year of monthly monitoring at the subject site, ARCO will discontinue monthly monitoring as of September 1993, and continue quarterly sampling.

If you have any questions or comments regarding this letter, please call us at (408) 264-7723.

Sincerely,  
RESNA Industries Inc.



John C. Young  
Project Manager

cc: Mr. Michael Whelan, ARCO Products Company  
Mark Thomson, Alameda County District Attorney's Office  
Richard Hiatt, Regional Water Quality Control Board

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
FAX: (408) 264-2435

July 13, 1993  
0709BCHA.4494

Mr. Barney Chan  
Alameda County Health Care Services Agency  
80 Swan Way, Room 200  
Oakland, California 94624

Subject: Follow-Up to Telephone Conversation Concerning Replacement of  
Monitoring Well MW-2 at ARCO Station 4494, 566 Hegenberger Road,  
Oakland, California.

Mr. Chan:

This letter is written as follow-up to our telephone conversation of June 30, 1993, concerning replacement of monitoring well MW-2 at the above-referenced site. A brief chronology which led to our June 30, 1993 telephone conversation is described below.

As stated in RESNA's Report of Findings Underground Gasoline Tank Removal and Replacement, dated May 17, 1993, RESNA recommended that decommissioned monitoring well MW-2 be replaced with a four-inch diameter monitoring well in the approximate vicinity of well MW-2. In a letter dated May 24, 1993 from the Alameda County Health Care Services Agency (ACHCSA), you requested that the new well be installed in native soils as opposed to backfill materials.

RESNA contacted Mr. Walt Or of Golden West Contractors Builders & Consultants (Golden West), who is the foreman for construction activities at the subject site, and discussed the installation of the replacement well. Mr Or indicated that in order to install a monitoring well in native soils, the well would have to be located offsite. RESNA then contacted ACHCSA to inform you of our intentions of replacing the well.

Per our telephone conversation on June 30, 1993, you stated that it does not seem necessary to replace well MW-2 with a new well. You stated that if a new well would be placed in backfill materials as opposed to native soils, no apparent beneficial use would be gained from the new well. RESNA informed you that, in order to replace the well into native soils

Follow-Up to Telephone Conversation  
ARCO Station 4494, Oakland, California

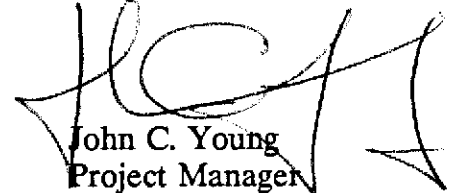
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the well would have to be placed offsite. Additionally, two monitoring wells (MW-5, MW-6) are already located in native soils offsite and down-gradient of the former tank pit.

In summary, as a result of our telephone conversation, RESNA will not replace decommissioned well MW-2 with a four-inch monitoring well. Monitoring wells MW-5 and MW-6 will currently serve as down-gradient monitoring wells.

If you have any questions or comments concerning this matter, please contact us at (408) 264-7723.

Sincerely,  
RESNA Industries Inc.



John C. Young  
Project Manager

cc: Mr. Michael Whelan, ARCO Products Company  
Mr. Britt Johnson, ACHCSA

ALAMEDA COUNTY  
HEALTH CARE SERVICES  
AGENCY



DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

May 24, 1993  
StID # 3854

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

Mr. Michael Whelan  
ARCO Products Company  
P.O. Box 5811  
San Mateo, CA 94402

**Re: Comment on May 17, 1993 Report of Findings Underground  
Gasoline Tank Removal and Replacement at 566 Hegenberger  
Rd., Oakland CA 94621**

Dear Mr. Whelan:

Our office has received and reviewed the above referenced report as prepared by Resna for ARCO. We would like to comment on the conclusions and recommendations which follow the text of the report.

1. The last point of the Conclusion section states that the black hydrocarbon product does not resemble any of ARCO's finished products. Please provide the "hydrocarbon fingerprinting analyses data" which documents this conclusion. Please also inform our office how any release from the former tanks( TPHg and BTEX) will be distinguished from that of the black hydrocarbon product.
2. The first point of the Recommendations states that MW-2, the decommissioned well, will be replaced with a 4-inch well in the area of this former well. Please insure that this well is installed into native soils as oppose to backfilled materials.
3. The second point of the Recommendations refer~~y~~s to RW-1, the recovery well installed between the slurry wall and the storm drain. Please verify that in addition to monitoring for the presence of the black hydrocarbon on a monthly basis, you will also take steps to remove all free product at the same time.
4. The third point of the Recommendations states that this site may qualify for alternate points of compliance. Please verify that the conditions necessary for this remedial approach exist at this site ie low yielding soils exist, alternate or best available technologies are inappropriate or not cost-effective and that an acceptable plan for containing and managing the remaining contamination exists. (It is acknowledged that adequate source removal has already been done). Given the previous groundwater gradient determined for this site, additional well(s) may be appropriate at compliance points on-site to monitor any groundwater impact from the former dispenser islands.

Mr. Michael Whelan  
StID #3854  
566 Hegenberger Rd.  
May 24, 1993  
Page 2.

Please provide written comment to the above items to our office. This may be included in separate letter or included as a signed letter attached to your next quarterly monitoring report for this site.

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. Hiatt, RWQCB  
J. Young, RESNA, 3315 Almaden Expressway, Suite 34, San  
Jose, CA 95118  
E. Howell, files

3-566Heg





Site Status Update  
ARCO Station 4494, Oakland, California

April 19, 1993  
61026.02

**Work Anticipated for April 1993**

- Continue monthly groundwater monitoring if construction activities allow.
- Continue onsite construction activities related to rebuild of the station building at the site.
- Continue and complete backfilling of former UST pit and install slurry wall next to the storm drain, as described in Addendum Two to Work Plan (RESNA, December 31, 1992).

If you have any questions or comments regarding this letter, please call us at (408) 264-7723.

Sincerely,  
RESNA Industries Inc.



Joel Coffman  
Project Manager

cc: Mr. Michael Whelan, ARCO Products Company  
Mark Thomson, Alameda County District Attorney's Office  
Richard Hiatt, Regional Water Quality Control Board

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
FAX: (408) 264-2435

March 19, 1993  
0318BCHA.4494  
61026.02

Mr. Barney Chan  
Alameda County Health Care Services Agency  
Department of Environmental Health  
80 Swan Way, Room 200  
Oakland, California 94624

Subject: Site Status Update for ARCO Station 4494, 566 Hegenberger Road, Oakland, California.

Dear Mr. Chan:

This letter provides an update on investigation and remedial activities conducted for the above-referenced site. This update covers site activities performed during February 1993, and site activities anticipated for the month of March 1993.

**February 1993 Activities**

- Quarterly groundwater sampling and monitoring could not be performed due to ongoing construction activities at the site.
- Continued underground gasoline storage tank and product delivery line removal and replacement activities related to station rebuild. Work has been delayed by continuous heavy rains.
- Prepared Fourth Quarter 1992 Quarterly Monitoring Report.

Site Status Update  
ARCO Station 4494, Oakland, California

March 19, 1993  
61026.02

**Work Anticipated for March 1993**

- Continue monthly groundwater monitoring if construction activities allow.
- Continue underground gasoline storage tank replacement activities.

If you have any questions or comments regarding this letter, please call us at (408) 264-7723.

Sincerely,  
RESNA Industries Inc.



Joel Coffman  
Project Manager

cc: Mr. Michael Whelan, ARCO Products Company  
Mark Thomson, Alameda County District Attorney's Office  
Richard Hiatt, Regional Water Quality Control Board

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
FAX: (408) 264-2435

March 1, 1993  
0301BCHA.4494

Mr. Barney Chan  
Alameda County Health Care Services Agency  
80 Swan Way, Room 200  
Oakland, California 94624

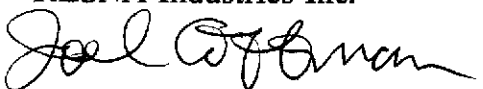
Subject: Follow-Up to Telephone Conversation Concerning Use of Native Soils for Backfilling Former Tank Pit at ARCO Station 4494, 566 Hegenberger Road, Oakland, California.

Mr. Chan:

On behalf of ARCO Products Company (ARCO), RESNA Industries Inc. (RESNA) is providing environmental consulting during tank and product-delivery line replacement activities at the subject site. This letter is written as follow-up to our telephone conversations of February 23 and 24, 1993 concerning use of the native soils from the new tank pit excavation as backfill material for the former tank pit. As discussed, ARCO will only use soils which have been identified as containing non-detectable levels of benzene for backfill material. The soils which previously contained low levels of benzene (from January 7, 1993 sampling) were re-sampled today for additional analysis to determine if those soils have aerated to the extent they are now usable as backfill material.

If you have any questions or comments concerning this matter, please contact us at (408) 264-7723 or Mr. Michael Whelan of ARCO at (415) 571-2449.

Sincerely,  
RESNA Industries Inc.

  
Joel Coffman  
Project Manager

cc: Mr. Michael Whelan, ARCO Products Company  
Mr. Britt Johnson, ACHCSA

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
FAX: (408) 264-2435

January 29, 1993  
0129BCHA.4494  
61026.02

Mr. Barney Chan  
Alameda County Health Care Services Agency  
Department of Environmental Health  
80 Swan Way, Room 200  
Oakland, California 94624

Subject: Site Status Update for ARCO Station 4494, 566 Hegenberger Road, Oakland, California.

Dear Mr. Chan:

This letter provides an update on investigation and remedial activities conducted for the above-referenced site. This update covers site activities performed during December 1992, and site activities anticipated for the month of January 1993.

**December 1992 Activities**

- Performed quarterly groundwater sampling and monitoring.
- Attended pre-construction meeting with Alameda County Health Care Services Agency (Mr. Barney Chan and Ms. Susan Hugo) to discuss underground gasoline storage tank and product delivery line removal and replacement.
- Began underground gasoline storage tank and product delivery line removal and replacement activities related to station rebuild. Work included the decommissioning of monitoring well MW-2, located near the existing tanks, drilling and sampling four soil borings in area of the new underground tank pit and submitting soil samples to laboratory for analysis. Work has been delayed by the presence of hydrocarbon product seeping into the former tank pit from the City sewer trench and continuous rain.

Site Status Update  
ARCO Station 4494, Oakland, California

January 29, 1993  
61026.02

**December 1992 Activities (Cont.)**

- Submitted Final Third Quarter 1992 Quarterly Monitoring Report to ARCO and regulators.
- Submitted Addendum Two to Work Plan to ARCO and Regulatory agencies for installation of a containment wall within the former tank pit to prevent migration of black hydrocarbon liquid onto the site through the City sewer trench from the adjacent property.

**Work Anticipated for January 1993**

- Continue monthly groundwater monitoring.
- Continue underground gasoline storage tank replacement activities.

If you have any questions or comments regarding this letter, please call us at (408) 264-7723.

Sincerely,  
RESNA Industries Inc.



Joel Coffman  
Project Geologist

cc: Mr. Michael Whelan, ARCO Products Company  
Mark Thomson, Alameda County District Attorney's Office  
Richard Hiatt, Regional Water Quality Control Board

99 JAN 14 11 06 AM '93

January 13, 1993

Ms. Susan Hugo  
Alameda County Department of Environmental Health  
80 Swan Way  
Oakland, California 94621

**ARCO Products Company Facilities in Alameda County**

Dear Ms. Hugo:

Please find attached, Quarterly Summary Reports (QSRs) for ARCO Products Company Service Stations in Alameda County. The QSRs summarize activities conducted by ARCO at the respective sites during the fourth quarter of 1992; also included are projected site activities for the first quarter of 1993 and a bibliography of reports submitted for each location.

The QSRs are classified by city and address within Alameda County. We are submitting this document and attached QSRs as agreed. Please note that we are forwarding copies of the QSRs to the Regional Water Quality Control Board (RWQCB).

Please note that ARCO Products Company has reviewed the RWQCB's February 19, 1991 printout of ARCO fuel leak sites. We have evaluated each site with respect to ARCO's responsibility for investigation, monitoring, and/or remediation. Those locations for which ARCO is not responsible were listed and described in the QSR package delivered to you on July 15, 1991. The attached QSRs therefore represent only those locations for which ARCO is responsible. Please do not hesitate to contact us with any questions regarding this submittal.

Sincerely yours,



Kyle A. Christie  
Environmental Engineer

Attachments: ARCO Facility QSRs



UST LEAK  
SITE UPDATE

Date of Last  
Review/Update September 25, 1992

Current  
Date December 28, 1992

**SITE IDENTIFICATION**

Name ARCO Service Station 4494 Case No. \_\_\_\_\_  
Address 566 Hegenberger Road  
Street Number Street  
Oakland City 94621 ZIP Code  
County Alameda Substance Gasoline & Waste-Oil  
Local Agency Alameda County Health Care Services Agency  
Regional Board Regional Water Quality Control Board - Mr. Lester Feldman

LEAD STAFF PERSON ACHCSA-Barney Chan

**CASE TYPE**

Undetermined  Soil Only  Groundwater  Drinking Water

**STATUS** (Date Indicates when case moved into status)

<input type="checkbox"/> No Action Taken	Date	_____
<input checked="" type="checkbox"/> Leak Being Confirmed	Date	<u>12/88</u>
<input checked="" type="checkbox"/> Preliminary Site Assessment Workplan Submitted	Date	<u>9/89</u>
<input checked="" type="checkbox"/> Preliminary Site Assessment Underway	Date	<u>10/90</u>
<input checked="" type="checkbox"/> Pollution Characterization	Date	<u>5/91</u>
<input checked="" type="checkbox"/> Remediation Plan	Date	<u>5/91</u>
<input type="checkbox"/> Remedial Action Underway	Date	_____
<input type="checkbox"/> Post Remedial Action Monitoring	Date	_____
<input type="checkbox"/> Case Referred to Regional Board	Date	_____
<input type="checkbox"/> Case Referred to Dept. of Health Services	Date	_____
<input type="checkbox"/> Case Closed	Date	_____

**COMMENTS/MILESTONES:**

Floating product bailing from MW-2 has reduced product to a sheen; no other floating product currently onsite in wells. Tank replacement pending. Installed a Horner EZY floating product skimmer in MW-2. Drilled offsite wells, MW-5 & MW-6 and onsite well MW-7. Drilled borings B-21 through B-24 and destroyed MW-2. Removed underground storage tanks (USTs) and built a slurry wall.

**RECENT ACTIVITIES/FINDINGS:**

Last Quarter Activities: Performed quarterly monitoring and received approval to drill two offsite wells from owner in June 1992. Checked EZY Floating Product skimmer in well MW-2. Drilled and installed one onsite and two offsite wells to evaluate the extent of hydrocarbons to the north (down gradient) of the site.

Current Quarter Activities: Performed quarterly monitoring and submitted Additional Subsurface Investigation to regulatory agencies. Initiated tank removal and replacement activities; including drilling four borings (B-21-B-24) in the new tank location, destroying MW-2, removing existing USTs & associated product delivery lines, building a slurry wall near the storm drain, excavating new UST pit, filling in the former UST pit.

**ANTICIPATED ACTIVITIES:**

Next Quarter Activities: Continue quarterly groundwater monitoring and prepare quarterly groundwater monitoring report. Complete UST replacement activities and submit report of results and conclusions from the recent UST removal & replacement.

Reports documenting the site's history are listed on page 2.

<u>REPORT</u>	<u>DATE</u>	<u>CONSULTANT</u>
Letter Report on Groundwater Monitoring for Third Quarter 1992 69038.11	12/31/92	RESNA
Additional Subsurface Investigation 69038.10	10/27/92	RESNA
Letter Report on Groundwater Monitoring for Second Quarter 1992 69038.11	9/3/92	RESNA
Letter Report on Groundwater Monitoring for First Quarter 1992 69038.11	5/4/92	RESNA
Letter Report on Groundwater Monitoring for Fourth Quarter 1991 69038.11	4/7/92	RESNA
Letter Report on Third Quarter 1991 Ground-Water Monitoring at ARCO 4494, Oakland, CA 69038.04	11/21/91	RESNA
Letter Report on Second Quarter 1991 Ground-Water Monitoring at ARCO 4494, Oakland, CA 69038.04	9/10/91	RESNA
Work Plan for Subsurface Investigation and Remediation and Addendum One to Work Plan to Perform Underground Tank Replacement Investigation, Preliminary Offsite Investigation, and Interim Product Recovery. AGS 69038-6	5/15/91	RESNA/Applied GeoSystems
Report on Preliminary Tank Replacement Assessment AGS 69038-5	5/2/91	RESNA/Applied GeoSystems
Letter Report on First Quarter 1991 Ground-Water Monitoring at ARCO 4494, Oakland, CA AGS 69038-4	4/3/91	Applied GeoSystems
Limited Subsurface Environmental Investigation AGS 69038-2	2/13/91	Applied GeoSystems
Letter Report on Fourth Quarter 1990 Groundwater Monitoring AGS 69038-4	2/8/91	Applied GeoSystems
Site History Assessment and Limited Environmental Records Review AGS 69038-3	10/1/90	Applied GeoSystems
Work Plan for Initial Subsurface Investigation AGS 69038-1	9/29/89	Applied GeoSystems
Subsurface Environmental Investigation Project 330-41	5/3/89	Pacific Environmental Group

93 JAN 22 PM 2:48

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2345

January 18, 1993  
1118rhie  
61078.02

Mr. Richard Hiett  
Regional Water Quality Control Board  
San Francisco Bay Region  
2101 Webster Street, Suite 500  
Oakland, California 94612

Subject: Remediation Schedules for ARCO Sites in Alameda County, California.

Dear Mr. Hiett:

On behalf of ARCO Products Company (ARCO), RESNA has prepared these estimated schedules for remediation of sites under your regulatory oversight. These include ARCO Stations 276, 374, 2107, 2185, 4494 and 6148 in Oakland, California, ARCO Station 2035 in Albany, California, ARCO Station 2152 in Castro Valley, California, and ARCO Station 6041 in Dublin, California.

The darkened lines on the schedules represent deadlines which were agreed upon during the September 30, 1992 meeting at the Alameda County Health Care Services Agency (ACHCSA). The hatched lines represent our best guess estimates of times which may be required to complete tasks should unforeseen delays occur. These unforeseen delays include permitting issues, offsite access issues, and estimated times of operation of the respective remediation systems.

If you have any questions or comments, please contact us at (408) 264-7723 or Mr. Michael Whelan of ARCO at (415) 571-2449.

Sincerely,  
RESNA Industries Inc.



Joel Coffman  
Project Manager

cc: Ms. Susan Hugo, ACHCSA  
Mr. Michael Whelan, ARCO  
Mr. John Meck, ARCO legal  
Mr. Chris Winsor, ARCO  
Mr. Mark Thomson, Alameda County D.A. (Cover Letter)

ACTIVITIES	1992												1993												1994												1995											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
1) Onsite Subsurface Investigation 1a) Aquifer Testing	COMPLETED, AQUIFER TESTING NOT APPLICABLE																																															
2) Tank Replacement													██████████																																			
3) Offsite Groundwater Investigation	COMPLETED																																															
4) Remedial Action Plan	NOT APPLICABLE AT THIS TIME																																															
5) Preliminary and Detailed Engineering Design	NOT APPLICABLE AT THIS TIME																																															
6) Permitting (Soil and Groundwater)	NOT APPLICABLE AT THIS TIME																																															
7) Equipment Selection and Procurement (Including Bid Package Preparation and Selection)	NOT APPLICABLE AT THIS TIME																																															
8) System Construction and Startup: Soil and Groundwater	NOT APPLICABLE AT THIS TIME																																															
9) Soil Remediation System Operation and Maintenance (1 year)	NOT APPLICABLE AT THIS TIME																																															
9a) Groundwater Remediation System: Operation and Maintenance (3 to 6 years)	NOT APPLICABLE AT THIS TIME																																															
10) Performance Evaluation	NOT APPLICABLE AT THIS TIME																																															
11) System Shut Down: Soil Remediation	NOT APPLICABLE AT THIS TIME																																															
12) System Shut Down: Groundwater Remediation (Begin One Year Verification Monitoring)	NOT APPLICABLE AT THIS TIME																																															
13) Site Closure: Soil and Groundwater (1 year)	NOT APPLICABLE AT THIS TIME																																															
<b>EXPLANATION:</b>	██████████ Probable schedule based on current deadlines and reasonable time necessary to complete the task. Assumes no delays.																								██████████ Estimated schedule based on consultant's experience, on receiving regulatory and other approval on time, and based on other related work being completed.																							

**1 and 1a) Onsite Subsurface Investigation:**

- Initial Onsite Assessment Report completed prior to 1992.
- Aquifer test not applicable due to limited area of impacted groundwater and impermeable soils beneath the site.

**2) Tank Replacement:**

- Station rebuild will be performed in conjunction with tank replacement. Tank replacement delayed due to permitting requirements. Start date for tank replacement activities is December, 1992.
- Remedial alternatives will be evaluated during tank replacement.

**3) Offsite Groundwater Investigation:**

- Delayed approximately 8 months by offsite access problems.
- Completed, report issued in October 1992.

**4) Remedial Action Plan:**

- RAP not applicable at this time. Awaiting results of tank replacement activities.

**5) Preliminary and Detailed Engineering Design:**

- Currently design is on hold. Awaiting tank replacement results.
- If necessary, design will be initiated upon completion of tank replacement.

**6) Permitting (Soil and Groundwater):**

- Permitting not applicable at this time. Awaiting tank replacement results.

**7) Equipment Selection and Procurement (including Bid Package Preparation and Selection):**

- Not applicable at this time as soil and groundwater impacted by gasoline hydrocarbons appears to be in limited area only.

**8) System Construction and Startup (Soil and Groundwater):**

- Not applicable at this time.
- System startup delayed by tank replacement. The need for any system will be re-evaluated after completion of station rebuild activities.

**9 and 9a) System Operation and Maintenance:**

- Not applicable due to limited extent of soil and groundwater impacted by gasoline hydrocarbons. Will be re-evaluated upon completion of tank replacement activities.

**10) Performance Evaluation:**

- Not applicable at this time.

**11) Shut Down of Soil Remediation System:**

- Not applicable due to limited extent of soil and groundwater impacted by gasoline hydrocarbons.

**12) Shut Down of Groundwater Remediation System:**

- Not applicable due to limited extent of soil and groundwater impacted by gasoline hydrocarbons.

**13) Site Closure:**

- Requirements for soil closure involve only drilling of confirmation borings and performance evaluation at time of system shutoff.
- Requirements for groundwater closure involve only groundwater monitoring and performance evaluation at system shutoff.
- Closure dependent on agency concurrence within 1 year following completion of verification monitoring.
- Closure requirements will be re-evaluated after tank and product lines are replaced. Replacement of tanks and product lines are scheduled to commence in December, 1992.



**ESTIMATED SOIL AND GROUNDWATER REMEDIATION IMPLEMENTATION SCHEDULE**

**ARCO Station 4494  
588 Hegenberger Road  
Oakland, California**

**PLATE**

**A**

**PROJECT**

**61078.02**

REVISION: 2  
DATE: 12/10/92

2/19/93

- ① Should receive results of Soil & GW samples taken from UST tank removal
  - ② Should receive results of slurry wall installation & installation of RW-1.
  - ③ Should be receive WP for installation of replacement well for MW-2. or are they going to sample RW-1?  
Explain the new gradient direction
- 

2/24/93 . Spoke to J. Coffman re: reuse of stockpiled soils from new excavation pit. I said that 1 Composite / 50 cubic yds was adequate sampling. All ND for TPHs & BTEX may be needed. Those areas w/ detectable Benzene must be remediated to ND for reuse

12/31/92

4 Borings taken from area of new tank pit western side, 2 depths each. Would like to use this soil (up to 400 cubic yds) as backfill into old tank pit. The results were: 6 ND & 2 w/low gas & 1 w/NOB & 1 w/0.010 ppm B.

also TCLP on all samples ND. I OK'ed the reuse of this on the condition that 2 addnl soil sples are taken from the NE & SE corners of the pit & they too are ND.

— spoke to M Whelan @ ~12<sup>00</sup> am. I agreed that continual vacuuming of tank pit will not be required. We would use the results of the replacement well for MW-2 as the basis for requirement of remediation.

# RESNA

Working To Restore Nature

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

## TRANSMITTAL SHEET

DOCUMENT SENT TO: BRIT Johnson

Facsimile Number: (510) 569-4757

DOCUMENT SENT FROM: Bob Campbell  
**RESNA** San Jose Office  
3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

Date Sent: 12/30/92 Time Sent: 9:50

DELIVER:  Immediately  Some Day

CONFIRMATION OF RECEIPT REQUESTED:  YES  NO  
(Recipient to call sender upon receipt)

DOCUMENT DESCRIPTION: Boring 21-24 in the  
New Tank pit Lockdown + Results

NUMBER OF PAGES (including transmittal sheet): 6

≤ 400 YRS  
SAMPLING = 8  
4.5'  
9.0'  
1.4 borings @



# SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063  
(415) 364-9600 • FAX (415) 364-9233

RECEIVED

DEC 18 1992

RESNA

3315 Almaden Expwy., Suite 34  
San Jose, CA 95119  
Attention: Joel Coffman

RESNA  
DEC 18 1992

Project: ARCO 4494, Oakland

Enclosed are the results from 8 soil samples received at Sequoia Analytical on December 9, 1992. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
2121545	Soil, S-4.5-B21	12/8/92	EPA 5030/8015/8020 EPA 5030/8020 TCLP Extract Lead by STLC Organic Lead by STLC
2121548	Soil, S-10-B21	12/8/92	EPA 5030/8015/8020 EPA 5030/8020 TCLP Extract Lead by STLC Organic Lead by STLC
2121547	Soil, S-5.5-B22	12/8/92	EPA 5030/8015/8020 EPA 5030/8020 TCLP Extract Lead by STLC Organic Lead by STLC
2121548	Soil, S-10-B22	12/8/92	EPA 5030/8015/8020 EPA 5030/8020 TCLP Extract Lead by STLC Organic Lead by STLC
2121549	Soil, S-5-B23	12/8/92	EPA 5030/8015/8020 EPA 5030/8020 TCLP Extract Lead by STLC Organic Lead by STLC
2121550	Soil, S-10-B23	12/8/92	EPA 5030/8015/8020 EPA 5030/8020 TCLP Extract Lead by STLC Organic Lead by STLC
2121551	Soil, S-4.5-B24	12/8/92	EPA 5030/8016/8020 EPA 5030/8020 TCLP Extract Lead by STLC Organic Lead by STLC



**SEQUOIA ANALYTICAL**680 Chesapeake Drive • Redwood City, CA 94063  
(415) 364-9600 • FAX (415) 364-9233

<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE OF COLLECTION</u>	<u>TEST METHOD</u>
2121552	Soil, S-9.5-B24	12/8/92	EPA 5030/8015/8020 EPA 5030/8020 TCLP Extract Lead by STLC Organic Lead by STLC

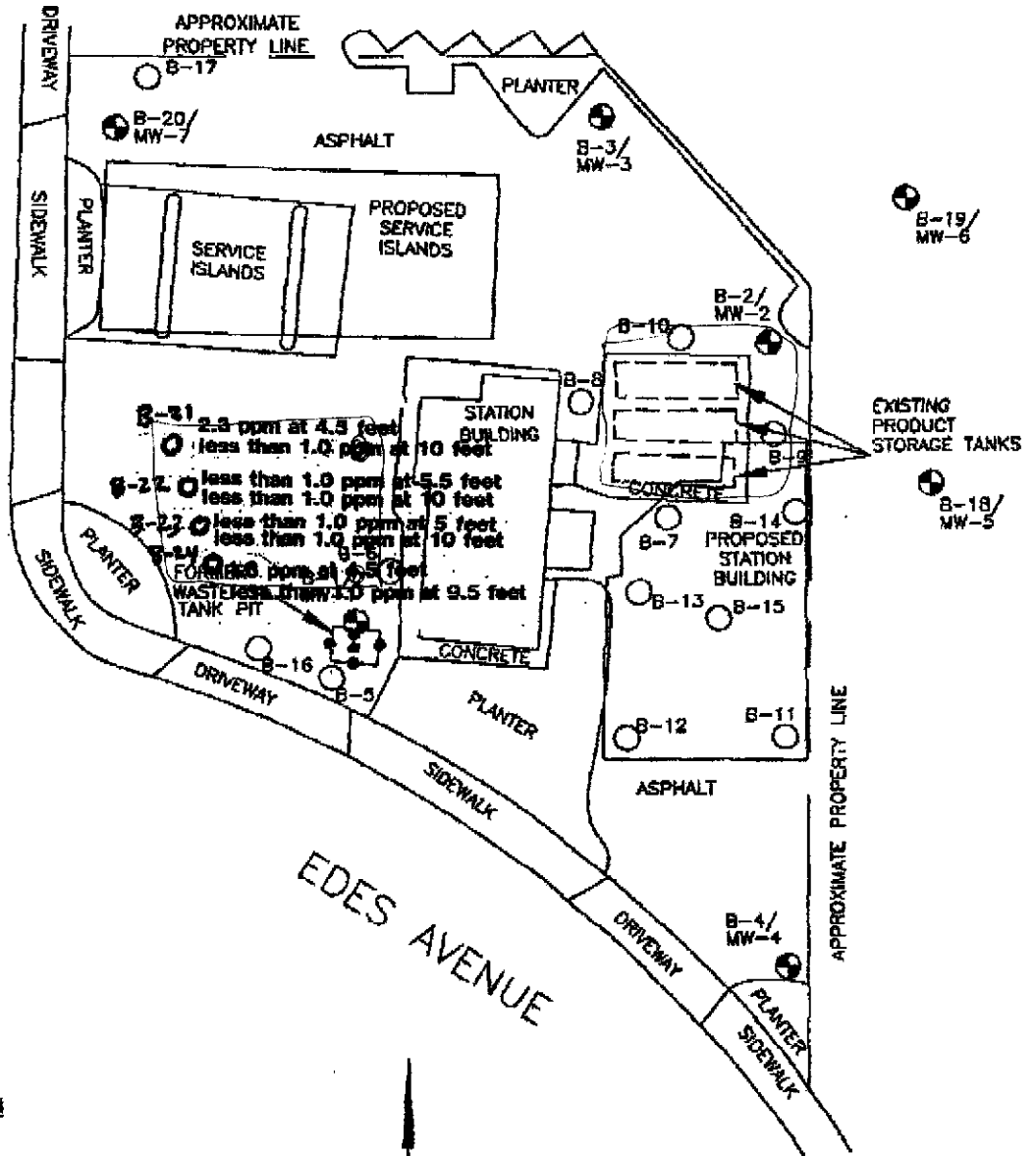
Please contact me if you have any questions. In the meantime, thank you for the opportunity to work with you on this project.

Very truly yours,

SEQUOIA ANALYTICAL

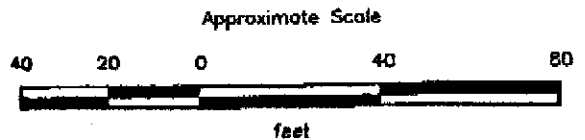
*Maria Lee*  
Maria Lee  
Project Manager

HEGENBERGER ROAD



**EXPLANATION**

- = Waste-oil tank excavation soil samples (Pacific Environmental Group, January 1989)
- B-20/MW-7 ● = Monitoring wells (Applied GeoSystems, October 1989, August 1990 and July 1992)
- B-10 ○ = Soil boring (Applied GeoSystems, August 1990 and March 1991)



Source: Modified from plans supplied by ARCO Products Co. (dated August 12, 1982) and City of Oakland Dept. of Public Works (dated December 19, 1961).

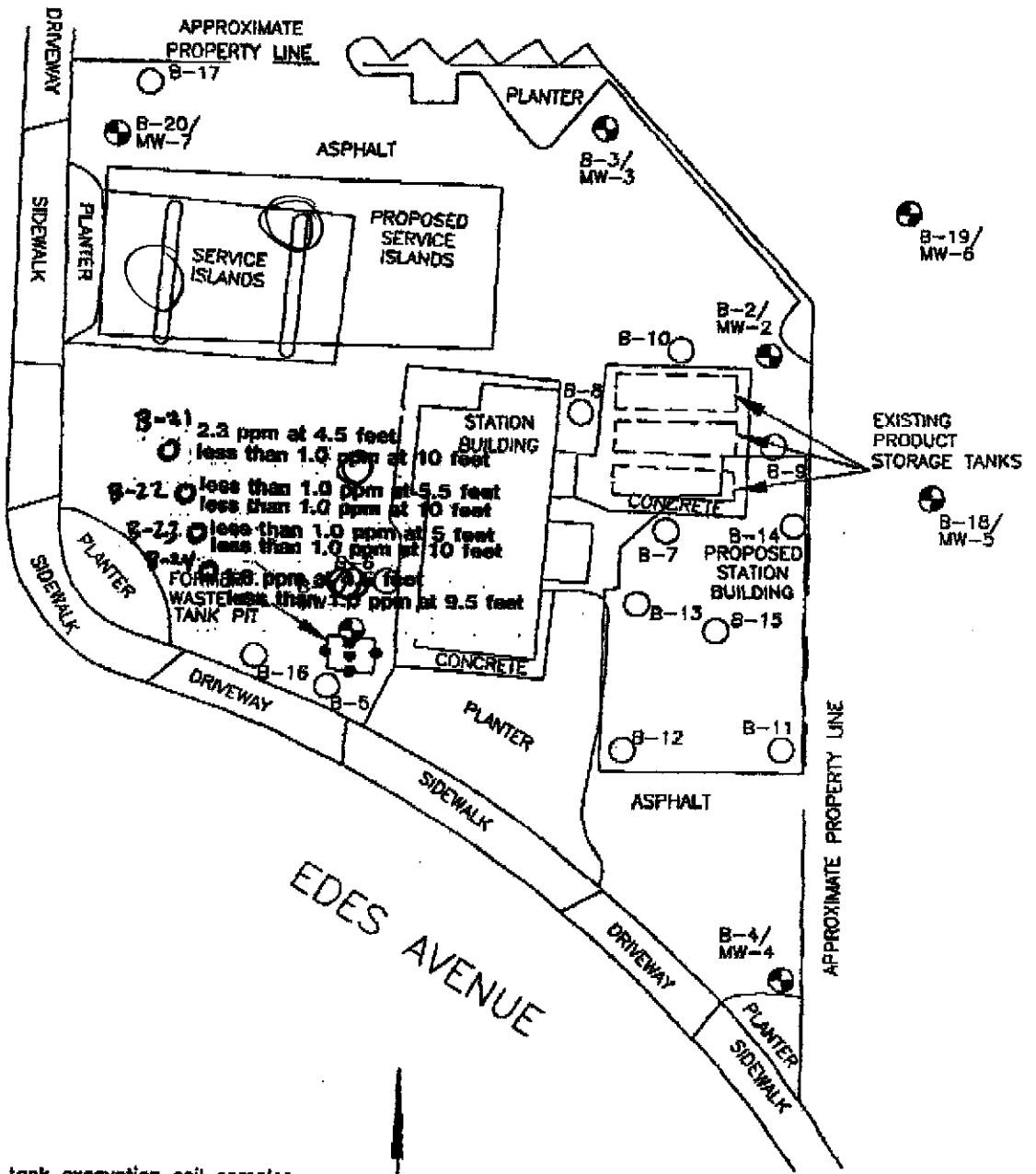
**RESNA**  
Working to Restore Nature

PROJECT 69038.11

TPH in Soil in ppm  
**GENERALIZED SITE PLAN**  
**ARCO Service Station 4494**  
**566 Hegenberger Road**  
**Oakland, California**

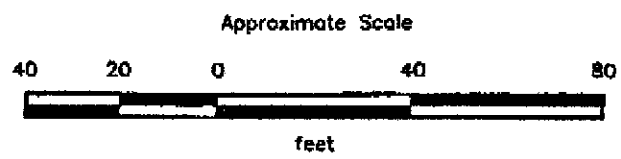
**PLATE**  
**2**

HEGENBERGER ROAD



**EXPLANATION**

- = Waste-oil tank excavation soil samples (Pacific Environmental Group, January 1989)
- ⊕ = Monitoring wells (Applied GeoSystems, October 1989, August 1990 and July 1992)
- = Soil boring (Applied GeoSystems, August 1990 and March 1991)



Source: Modified from plans supplied by ARCO Products Co. (dated August 12, 1982) and City of Oakland Dept. of Public Works (dated December 19, 1981).

**RESNA**  
Working to Restore Nature

PROJECT 69038.11

TPH<sub>4</sub> in soil in ppm  
**GENERALIZED SITE PLAN**  
**ARCO Service Station 494**  
**566 Hegenberger Road**  
**Oakland, California**

**PLATE**  
**2**

ALAMEDA COUNTY  
HEALTH CARE SERVICES  
AGENCY

DAVID J. KEARS, Agency Director



RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

December 29, 1992  
STID # 3854

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

Mr. Micheal Whelan  
ARCO Products Company  
P.O. Box 5811  
San Mateo, CA 94402

Re: Work Plan Addendum to Construct a Slurry Wall at ARCO Station  
4494, 566 Hegenberger Rd., Oakland CA 94621

Dear Mr. Whelan:

Our office has received and reviewed the December 28, 1992 work plan addendum calling for the installation of a slurry wall at the above site. We concur with this approach to prevent the migration of the black hydrocarbon product which had apparently migrated through the backfill of the the storm drain.

The proposed recovery well, RW-1, located between the storm drain and the slurry wall will be used to remove any accumulation of floating product. It will also help to evaluate the severity of this black hydrocarbon contamination. I understand that an additional onsite monitoring well will be installed to replace MW-2, which was destroyed during the excavation of the tank pit.

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

Sincerely,

Barney M. Chan  
Hazardous Materials Specialist

cc: R. Hiett, RWQCB  
R. Campbell and J. Coffman, RESNA, 3315 Almaden Expressway,  
Suite 34, San Jose, CA 95118  
E. Howell, files

Add-566Heg

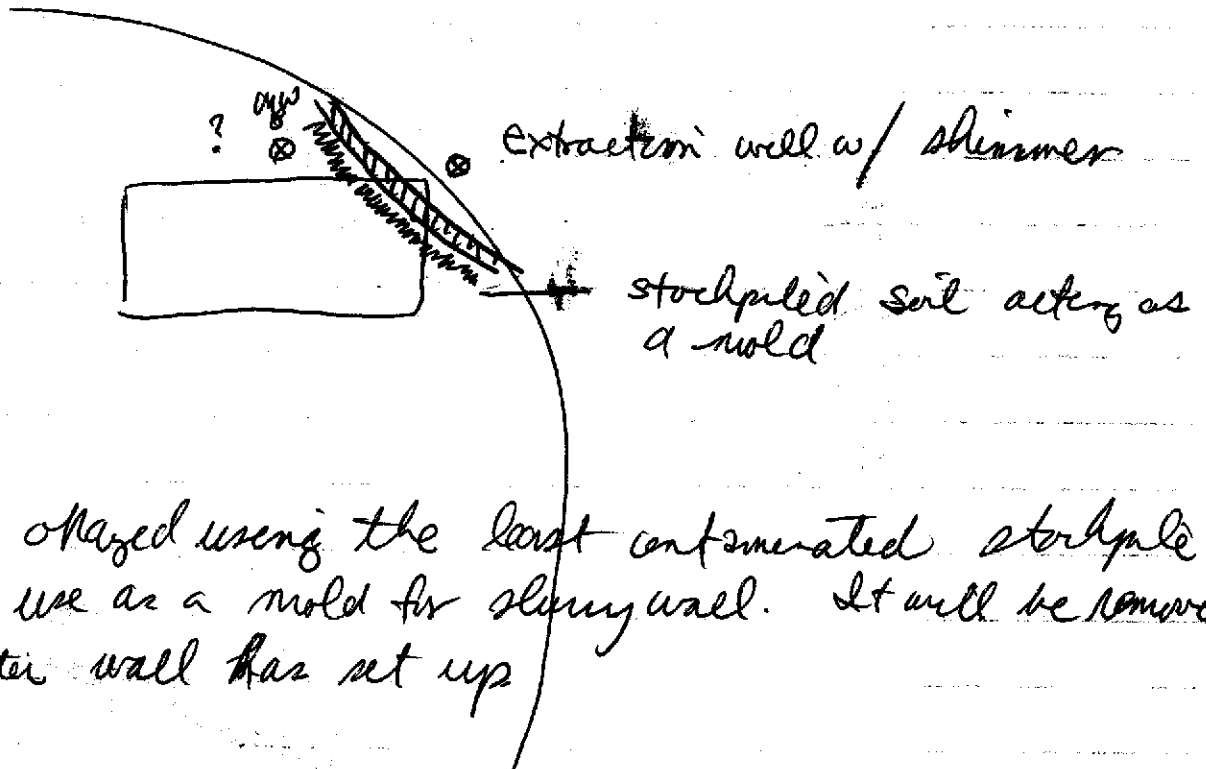
12/28/92

9 messages

Fri 12/18 307

# 3854

Arco: Robert Campbell - RESNA looks like oil coming  
from ggrite. Over excavated to the property boundary ~7'.  
MW8 replace MW-2 on Arco side of slurry wall  
EZ Skimmer put in MW on other side  
slurry wall as product backs up  
4" wells in both wells on each side of slurry wall



I planned using the least contaminated stockpile  
to use as a mold for slurry wall. It will be removed  
after wall has set up

12/18/92

STP R0204

566 Hagerdinger Blvd.

#1 } piping } mobile lab.  
#6 }  
#11 } ballom }

M.W-2 - ~~destroyed~~ - bring logs (Send report  
relative to storm drain).

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 Arcob Today's Date 12/18/92  
 Site Address 866 Hesz Rd 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)

- |                   |                             |         |
|-------------------|-----------------------------|---------|
| Manifest          | 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   |
| Confin. gency     | 19. Prepared                | 67140   |
|                   | 20. Name List               | 67141   |
|                   | 21. Copies                  | 67141   |
|                   | 22. Emg. Coord. Trng.       | 67144   |
| Containers, Tanks | 23. Condition               | 67261   |
|                   | 24. Compatibility           | 67261   |
|                   | 25. Maintenance             | 67261   |
|                   | 26. Inspection              | 67261   |
|                   | 27. Buffer Zone             | 67261   |
|                   | 28. Tank Inspection         | 67259   |
|                   | 29. Containment             | 67245   |
|                   | 30. Safe Storage            | 67261   |
|                   | 31. Freeboard               | 67257   |

Comments:

*Approx 5000 gallons*  
 H & H pumped out tank pit, water is recharging fairly good rate.  
 It appears that the sandy fill around under the storm drain or storm drain + sanitary sewer is acting as a conduit for the oil contamination. MW-2 was drilled through this sandy fill & the tank pit was acting as a sink.  
 ETEL Mobile lat on site.  
 RESNA on ferring to determine what to do.  
 Will sample sandy backfill above storm drain  
 Also will spl beneath the "hot" areas several yesterday, ie #1 around pit & #1 & 6 from piping line  
 Piping #1 area excavated to GW @ 14' (sat'd spl taken)  
 Piping #6 area taken down to GW, spl'd above sat'd zone @ 12' detectable ppm w/ PID  
 Tank area #1 (photo) overexcavated to GW  
 Sidewall spl taken @ ~ 10' (no noticeable odor)  
 Decided not to chase the oily material since its origin is not likely w/i this (SE) property. Only ~ 10' is left between the pit/ corner & the property line.

I.B. TRANSPORTER (Title 22)

- |          |                           |       |
|----------|---------------------------|-------|
| Manifest | 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'n's | 40. Name/ Covers          | 66545 |
|          | 41. Recyclables           | 66800 |

Rev 6/88

Contact: \_\_\_\_\_  
 Title: \_\_\_\_\_  
 Signature: \_\_\_\_\_

Inspector: B. CHAN  
 Signature: \_\_\_\_\_

# ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

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

## Hazardous Materials Division Inspection Form 1

Site ID# \_\_\_\_\_ Site Name Arco Today's Date 12/7/92  
 Site Address 566 Hey Rd EPA ID# \_\_\_\_\_  
 City Oak Zip 94621 Phone \_\_\_\_\_

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

**Inspection Categories:**

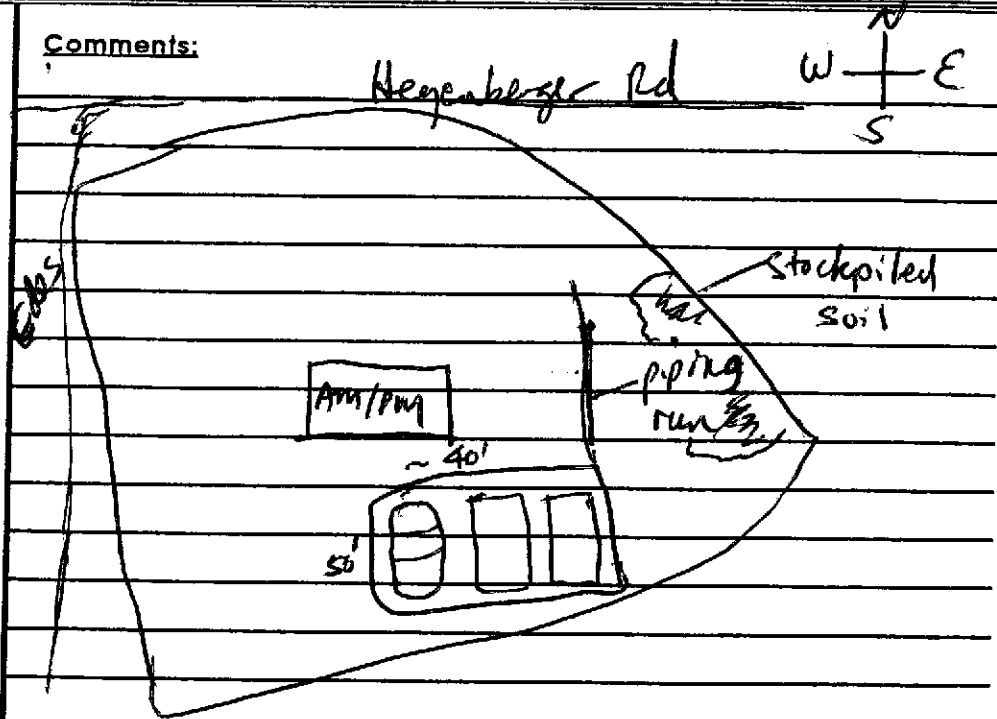
- I. Haz. Mat/Waste GENERATOR/TRANSPORTER
- II. Business Plans, Acute Hazardous Materials
- III. Underground Tanks

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   |
| <hr/>             |                               |         |
| Manifest          | — 6. Records                  | 66492   |
|                   | — 7. Correct                  | 66484   |
|                   | — 8. Copy sent                | 66492   |
|                   | — 9. Exception                | 66484   |
|                   | — 10. Copies Rec'd            | 66492   |
| <hr/>             |                               |         |
| Misc.             | — 11. Treatment               | 66371   |
|                   | — 12. On-site Disp. (H.S.&C.) | 26189.5 |
|                   | — 13. Ex Haz. Waste           | 66570   |
| <hr/>             |                               |         |
| Prevention        | — 14. Communications          | 67121   |
|                   | — 15. Aisle Space             | 67124   |
|                   | — 16. Local Authority         | 67126   |
|                   | — 17. Maintenance             | 67120   |
|                   | — 18. Training                | 67105   |
| <hr/>             |                               |         |
| Contingency       | — 19. Prepared                | 67140   |
|                   | — 20. Name List               | 67141   |
|                   | — 21. Copies                  | 67141   |
|                   | — 22. Emg. Coord. Trng.       | 67144   |
| <hr/>             |                               |         |
| 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   |

**Comments:**



Black oily liquid floating on water  
 see photo, 3 - 10k tanks (1) is ribbed FG  
 other two appear to be asphalt wrapped steel  
 Robert + Campbell - RESNA Present  
 Trident Trucking - hauler determined H+H SP  
 - will take pit & product line samples today &  
 overexcavate & confirm w/ mobile lab tomorrow  
 Soil is black gravelly clay (fill), EWL encountered  
 pit is 10' deep & approx 40' x 50' dimensions!

Rev 6/88

Contact: \_\_\_\_\_  
 Title: \_\_\_\_\_  
 Signature: \_\_\_\_\_

Inspector: B. Chan  
 Signature: \_\_\_\_\_



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 Arco Today's Date 12/17/92  
 Site Address Seb Hey 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
- III. Underground Tanks

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<b>I.A. GENERATOR (Title 22)</b>	
1. Waste ID	66471
2. EPA ID	66472
3. > 90 days	66508
4. Label dates	66508
5. Biennial	66493
<b>Manifest</b>	
6. Records	66492
7. Correct	66484
8. Copy sent	66492
9. Exception	66484
10. Copies Rec'd	66492
<b>Misc.</b>	
11. Treatment	66371
12. On-site Disp. (H.S.&C.)	26189.5
13. Ex Haz. Waste	66570
<b>Prevention</b>	
14. Communications	67121
15. Aisle Space	67124
16. Local Authority	67126
17. Maintenance	67120
18. Training	67105
<b>Contingency</b>	
19. Prepared	67140
20. Name List	67141
21. Copies	67141
22. Emg. Coord. Trng.	67144
<b>Containers, Tanks</b>	
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
<b>I.B. TRANSPORTER (Title 22)</b>	
32. Applic./Insurance	66428
33. Comp. Cert./CHP Insp.	66448
34. Containers	66465
<b>Manifest</b>	
35. Vehicles	66465
36. EPA ID #s	66531
37. Correct	66541
38. HW Delivery	66543
39. Records	66544
<b>Cont's</b>	
40. Name/ Covers	66545
41. Recyclables	66800

contractor: Golden West Env Services - Walt Orr  
 Comments: Gordon Gullette OPD present <sup>supervisor</sup>  
 Fibreglass - 0% LEL, 8% O<sub>2</sub> - no apparent hole  
 Mild steel - 6% LEL, 10% O<sub>2</sub> - no holes found  
 except the hole made by contractor  
 Other steel tank 5% LEL & 6% O<sub>2</sub>  
 Handler ID - 309983 exp June 93  
 Manifest # 91489125 (2) Steel - 1 Truck  
 Manifest # 91489119 (1) FE - 2nd Truck  
 Pit - white pits - pumped water/oil from pit  
 - middle tank - asphalt somewhat deteriorated  
 Last - blue tank - no obvious holes but asphalt  
 wrap is deteriorated also.

Will run the waste oil parameters on the water  
 sample from pit. Soil spills may  
 eliminate metals, CHC, volatiles & semivolatiles  
 if not present in H<sub>2</sub>O spk  
 - Changed to H+H to pump out tank pit.

Contact: \_\_\_\_\_  
 Title: \_\_\_\_\_  
 Signature: \_\_\_\_\_

Inspector: B CHAN  
 Signature: \_\_\_\_\_



3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2345

December 11, 1992  
1211BCHA.4494  
61026.02

Mr. Barney Chan  
Alameda County Health Care Services Agency  
Department of Environmental Health  
80 Swan Way, Room 200  
Oakland, California 94624

Subject: Site Status Update for ARCO Station 4494, 566 Hegenberger Road, Oakland, California.

Dear Mr. Chan:

This letter provides an update on investigation and remedial activities conducted for the above-referenced site. This update covers site activities performed during November 1992, and site activities anticipated for the month of December 1992.

#### **November 1992 Activities**

- Performed quarterly groundwater sampling and monitoring.

#### **Work Anticipated for December 1992**

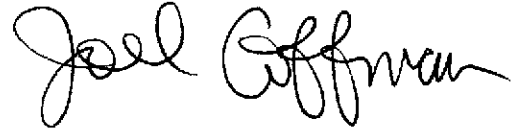
- Continue monthly groundwater monitoring.
- Begin underground gasoline storage tank and product delivery line removal and replacement activities. Work to include the decommissioning of monitoring well MW-2, located near the existing tanks. Also, will drill and sample soil borings in area of the new underground tank pit and submit soil samples to laboratory for analysis.
- Submit Final Third Quarter 1992 Quarterly Monitoring Report to ARCO and regulators.

Site Status Update  
ARCO Station 4494, Oakland, California

December 11, 1992  
61026.02

If you have any questions or comments regarding this letter, please call us at (408) 264-7723.

Sincerely,  
RESNA Industries Inc.



Joel Coffman  
Project Geologist

cc: Mr. Michael Whelan, ARCO Products Company  
Mark Thomson, Alameda County District Attorney's Office  
Richard Hiatt, Regional Water Quality Control Board

12/9/92

STIP 3854

ARCO - 566 Hegenberger Rd. Oakland 94621

4 MW's at site

Gradient consistent

MW-2 - FP (black HC)

↳ had skimmer (FP reduced to shear now)

Underground pipe (sewer pipes) runs through the site.

STATE OF CALIFORNIA  
STATE WATER RESOURCES CONTROL BOARD  
**UNDERGROUND STORAGE TANK PERMIT APPLICATION - FORM A**



COMPLETE THIS FORM FOR EACH FACILITY/SITE

<b>MARK ONLY ONE ITEM</b>	<input type="checkbox"/> 1 NEW PERMIT	<input type="checkbox"/> 3 RENEWAL PERMIT	<input checked="" type="checkbox"/> 5 CHANGE OF INFORMATION	<input type="checkbox"/> 7 PERMANENTLY CLOSED SITE
	<input type="checkbox"/> 2 INTERIM PERMIT	<input type="checkbox"/> 4 AMENDED PERMIT	<input type="checkbox"/> 6 TEMPORARY SITE CLOSURE	

**I. FACILITY/SITE INFORMATION & ADDRESS - (MUST BE COMPLETED)**

DBA OR FACILITY NAME <b>ARLO AM/PM FACILITY #4494</b>		NAME OF OPERATOR <b>KHALIL N. ROOSHAN</b>			
ADDRESS <b>566 HEGENBERGER ROAD</b>		NEAREST CROSS STREET <b>EDES AVENUE</b>	PARCEL # (OPTIONAL)		
CITY NAME <b>OAKLAND</b>		STATE <b>CA</b>	ZIP CODE <b>94605</b>	SITE PHONE # WITH AREA CODE <b>(510) 569-7561</b>	
<input checked="" type="checkbox"/> BOX TO INDICATE <input checked="" type="checkbox"/> CORPORATION <input type="checkbox"/> INDIVIDUAL <input type="checkbox"/> PARTNERSHIP <input type="checkbox"/> LOCAL-AGENCY DISTRICTS <input type="checkbox"/> COUNTY-AGENCY <input type="checkbox"/> STATE-AGENCY <input type="checkbox"/> FEDERAL-AGENCY					
TYPE OF BUSINESS <input checked="" type="checkbox"/> 1 GAS STATION <input type="checkbox"/> 2 DISTRIBUTOR <input type="checkbox"/> 3 FARM <input type="checkbox"/> 4 PROCESSOR <input type="checkbox"/> 5 OTHER		<input type="checkbox"/> IF INDIAN RESERVATION OR TRUST LANDS	# OF TANKS AT SITE <b>3</b>	E. P. A. I. D. # (optional) <b>CAL 000 009 868</b>	

**EMERGENCY CONTACT PERSON (PRIMARY)**

**EMERGENCY CONTACT PERSON (SECONDARY) - optional**

DAYS: NAME (LAST, FIRST) <b>ROOSHAN, KHALIL</b>		PHONE # WITH AREA CODE <b>(510) 569-7561</b>		DAYS: NAME (LAST, FIRST) <b>ARLO MAINT.</b>		PHONE # WITH AREA CODE <b>(415) 571-2427</b>	
NIGHTS: NAME (LAST, FIRST) <b>(SAME AS ABOVE)</b>		PHONE # WITH AREA CODE		NIGHTS: NAME (LAST, FIRST) <b>SAME</b>		PHONE # WITH AREA CODE <b>(800) 451-9442</b>	

**II. PROPERTY OWNER INFORMATION - (MUST BE COMPLETED)**

NAME <b>ATLANTIC RICHFIELD COMPANY</b>		CARE OF ADDRESS INFORMATION <b>ENVIRONMENTAL COMPLIANCE SECTION</b>			
MAILING OR STREET ADDRESS <b>2000 ALAMEDA BLVD LAS PULGAS</b>		<input checked="" type="checkbox"/> box to indicate <input type="checkbox"/> INDIVIDUAL <input type="checkbox"/> LOCAL-AGENCY <input type="checkbox"/> STATE-AGENCY <input checked="" type="checkbox"/> CORPORATION <input type="checkbox"/> PARTNERSHIP <input type="checkbox"/> COUNTY-AGENCY <input type="checkbox"/> FEDERAL-AGENCY			
CITY NAME <b>SAN MATEO</b>		STATE <b>CA</b>	ZIP CODE <b>94403</b>	PHONE # WITH AREA CODE <b>(415) 571-2482</b>	

**III. TANK OWNER INFORMATION - (MUST BE COMPLETED)**

NAME OF OWNER <b>ARLO PRODUCTS COMPANY</b>		CARE OF ADDRESS INFORMATION <b>ENVIRONMENTAL COMPLIANCE SECTION</b>			
MAILING OR STREET ADDRESS <b>P.O. BOX 5811</b>		<input checked="" type="checkbox"/> box to indicate <input type="checkbox"/> INDIVIDUAL <input type="checkbox"/> LOCAL-AGENCY <input type="checkbox"/> STATE-AGENCY <input checked="" type="checkbox"/> CORPORATION <input type="checkbox"/> PARTNERSHIP <input type="checkbox"/> COUNTY-AGENCY <input type="checkbox"/> FEDERAL-AGENCY			
CITY NAME <b>SAN MATEO</b>		STATE <b>CA</b>	ZIP CODE <b>94402</b>	PHONE # WITH AREA CODE <b>(415) 571-2482</b>	

**IV. BOARD OF EQUALIZATION UST STORAGE FEE ACCOUNT NUMBER - Call (916) 323-9555 if questions arise.**

TY (TK) HQ **44-000506**

**V. PETROLEUM UST FINANCIAL RESPONSIBILITY - (MUST BE COMPLETED) - IDENTIFY THE METHOD(S) USED**

<input checked="" type="checkbox"/> box to indicate	<input checked="" type="checkbox"/> 1 SELF-INSURED	<input type="checkbox"/> 2 GUARANTEE	<input type="checkbox"/> 3 INSURANCE	<input type="checkbox"/> 4 SURETY BOND
	<input type="checkbox"/> 5 LETTER OF CREDIT	<input type="checkbox"/> 6 EXEMPTION	<input type="checkbox"/> 99 OTHER	

**VI. LEGAL NOTIFICATION AND BILLING ADDRESS** Legal notification and billing will be sent to the tank owner unless box I or II is checked.

CHECK ONE BOX INDICATING WHICH ABOVE ADDRESS SHOULD BE USED FOR LEGAL NOTIFICATIONS AND BILLING:    I.     II.     III.

*THIS FORM HAS BEEN COMPLETED UNDER PENALTY OF PERJURY, AND TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT*

APPLICANT'S NAME (PRINTED & SIGNATURE) <b>CHRIS LAWTON</b>	APPLICANT'S TITLE <b>AGENT FOR ARLO</b>	DATE MONTH/DAY/YEAR <b>12-3-92</b>
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**LOCAL AGENCY USE ONLY**

COUNTY # <input type="text"/>	JURISDICTION # <input type="text"/>	FACILITY # <input type="text"/>
LOCATION CODE - OPTIONAL <input type="text"/>	CENSUS TRACT # - OPTIONAL <input type="text"/>	SUPVISOR - DISTRICT CODE - OPTIONAL <input type="text"/>

## INSTRUCTIONS FOR COMPLETING FORM "A"

### GENERAL INSTRUCTIONS:

1. One FORM "A" shall be completed for all **NEW PERMITS, PERMIT CHANGES** or any **FACILITY/SITE INFORMATION CHANGES**.
2. **SUBMIT ONLY ONE (1) FORM "A"** for a Facility/Site, regardless of the number of tanks located at the site.
3. This form should be completed by either the **PERMIT APPLICANT** or the **LOCAL AGENCY UNDERGROUND TANK INSPECTOR**.
4. Please type or print clearly all requested information.
5. Use a hard point writing instrument, such as making 3 copies.

### TOP OF FORM: "MARK ONLY ONE ITEM"

Mark an (X) in the box next to the item that best describes the use of the form is being completed.

#### I. FACILITY/SITE INFORMATION & ADDRESS (MUST BE COMPLETED)

1. Record name and address (physical location) of the underground storage tank(s).  
**NOTE: Address MUST have a valid physical location including city, state, and zip code.**  
**P.O. BOX NUMBERS ARE NOT ACCEPTABLE**  
Include nearest cross street or name of the operator.
2. Phone number must have an area code. If the night number is the same, write "SAME" in proper location.
3. Check the appropriate box for **TYPE OF BUSINESS OWNERSHIP** (ex. CORPORATION, INDIVIDUAL, etc.)
4. Check the appropriate box for **TYPE OF BUSINESS**.
5. If Facility/Site is located within an Indian reservation or other Indian trust lands, check the box marked "YES".
6. Indicate the NUMBER of TANKS at this SITE.
7. Record the EPA ID # or write "NONE" in the space provided.

#### II. PROPERTY OWNER INFORMATION & ADDRESS (MUST BE COMPLETED)

Complete all items in this section, unless all items are the same as SECTION I; if the same, write **"SAME AS SITE"** across this section. Be sure to check **PROPERTY OWNERSHIP TYPE** box.

#### III. TANK OWNER INFORMATION & ADDRESS (MUST BE COMPLETED)

Complete all items in this section, unless all items are the same as SECTION I; if the same, write **"SAME AS SITE"** across this section. Be sure to check **TANK OWNERSHIP TYPE** box.

#### IV. BOARD OF EQUALIZATION USE STORAGE FEE ACCOUNT NUMBER (MUST BE COMPLETED)

Enter your Board of Equalization (BOE) UST storage fee account number which is required before your permit application can be processed. Registration with the BOE will ensure that you will receive a quarterly storage fee return reporting the \$0.006 (6 mills) per gallon fee due on the number of gallons placed in your USTs. The BOE will code persons exempt from paying the storage fee so returns will not be sent. If you do not have an account number with the BOE or if you have any questions regarding the fee or exemptions, please call the BOE at 916-323-9555 or write to the BOE at the following address: Board of Equalization, Environmental Fees Unit, P.O. Box 942879, Sacramento, CA 94279-0001.

#### V. PETROLEUM UST FINANCIAL RESPONSIBILITY (MUST BE COMPLETED)

Identify the method(s) used by the owner and/or operator in meeting the Federal and State financial responsibility requirements. USTs owned by any Federal or State agency are exempt from this requirement.

#### VI. LEGAL NOTIFICATION AND BILLING ADDRESS

Check **ONE BOX** for the address that will be used for **BOTH LEGAL AND BILLING NOTIFICATIONS**.

**APPLICANT MUST SIGN AND DATE THE FORM AS INDICATED.**

#### INSTRUCTIONS FOR THE LOCAL AGENCIES

The county and jurisdiction numbers are predetermined and can be obtained by calling the State Board (916)739-2421. The facility number may be assigned by the local agency; however, this number must be numerical and cannot contain any alphabetical. If the local agency prefers the State Board to assign the facility number, please leave it blank.

**IT IS THE RESPONSIBILITY OF THE LOCAL AGENCY THAT INSPECTS THE FACILITY TO VERIFY THE ACCURACY OF THE INFORMATION. THIS APPLICATION CANNOT BE PROCESSED IF THE BOE ACCOUNT NUMBER IS NOT INCLUDED IN. THE LOCAL AGENCY IS RESPONSIBLE FOR THE COMPLETION OF THE "LOCAL AGENCY USE ONLY" INFORMATION BOX AND FOR FORWARDING ONE FORM "A" AND ASSOCIATED FORM "B"(a) TO THE FOLLOWING ADDRESS.**

STATE OF CALIFORNIA  
STATE WATER RESOURCES CONTROL BOARD  
C/O SWUEPS  
DATA PROCESSING CENTER  
P.O. BOX 527  
PARAMOUNT, CA 90723

STATE OF CALIFORNIA  
STATE WATER RESOURCES CONTROL BOARD  
**UNDERGROUND STORAGE TANK PERMIT APPLICATION - FORM B**



COMPLETE A SEPARATE FORM FOR EACH TANK SYSTEM.

<b>MARK ONLY ONE ITEM</b>	<input type="checkbox"/> 1 NEW PERMIT	<input type="checkbox"/> 3 RENEWAL PERMIT	<input type="checkbox"/> 5 CHANGE OF INFORMATION	<input type="checkbox"/> 7 PERMANENTLY CLOSED ON SITE
	<input type="checkbox"/> 2 INTERIM PERMIT	<input type="checkbox"/> 4 AMENDED PERMIT	<input type="checkbox"/> 6 TEMPORARY TANK CLOSURE	<input checked="" type="checkbox"/> 8 TANK REMOVED

DBA OR FACILITY NAME WHERE TANK IS INSTALLED:

**I. TANK DESCRIPTION** COMPLETE ALL ITEMS -- SPECIFY IF UNKNOWN

A. OWNER'S TANK I.D.# <u>T140</u>	B. MANUFACTURED BY: <u>UNKNOWN</u>
C. DATE INSTALLED (MO/DAY/YEAR) <u>5-1-90</u>	D. TANK CAPACITY IN GALLONS: <u>10,000</u>

**II. TANK CONTENTS** IF A-1 IS MARKED, COMPLETE ITEM C.

A. <input checked="" type="checkbox"/> 1 MOTOR VEHICLE FUEL <input type="checkbox"/> 2 PETROLEUM <input type="checkbox"/> 3 CHEMICAL PRODUCT	<input type="checkbox"/> 4 OIL <input type="checkbox"/> 80 EMPTY <input type="checkbox"/> 95 UNKNOWN	B. <input checked="" type="checkbox"/> 1 PRODUCT <input type="checkbox"/> 2 WASTE
C. <input checked="" type="checkbox"/> 1a REGULAR UNLEADED <input type="checkbox"/> 1b PREMIUM UNLEADED <input type="checkbox"/> 2 LEADED		
<input type="checkbox"/> 3 DIESEL <input type="checkbox"/> 4 GASAHOL <input type="checkbox"/> 5 JET FUEL <input type="checkbox"/> 6 AVIATION GAS <input type="checkbox"/> 7 METHANOL <input type="checkbox"/> 99 OTHER (DESCRIBE IN ITEM D. BELOW)		
D. IF (A.1) IS NOT MARKED, ENTER NAME OF SUBSTANCE STORED		C. A. S. #:

**III. TANK CONSTRUCTION** MARK ONE ITEM ONLY IN BOXES A, B, AND C, AND ALL THAT APPLIES IN BOX D AND E

A. TYPE OF SYSTEM <input type="checkbox"/> 1 DOUBLE WALL <input checked="" type="checkbox"/> 2 SINGLE WALL	<input type="checkbox"/> 3 SINGLE WALL WITH EXTERIOR LINER <input type="checkbox"/> 4 SECONDARY CONTAINMENT (VAULTED TANK)	<input type="checkbox"/> 95 UNKNOWN <input type="checkbox"/> 99 OTHER
B. TANK MATERIAL (Primary Tank) <input checked="" type="checkbox"/> 1 BARE STEEL <input type="checkbox"/> 5 CONCRETE <input type="checkbox"/> 9 BRONZE	<input type="checkbox"/> 2 STAINLESS STEEL <input type="checkbox"/> 6 POLYVINYL CHLORIDE <input type="checkbox"/> 10 GALVANIZED STEEL	<input type="checkbox"/> 3 FIBERGLASS <input type="checkbox"/> 7 ALUMINUM <input type="checkbox"/> 95 UNKNOWN <input type="checkbox"/> 4 STEEL CLAD W/ FIBERGLASS REINFORCED PLASTIC <input type="checkbox"/> 8 100% METHANOL COMPATIBLE W/FRP <input type="checkbox"/> 99 OTHER
C. INTERIOR LINING <input type="checkbox"/> 1 RUBBER LINED <input type="checkbox"/> 5 GLASS LINING	<input type="checkbox"/> 2 ALKYD LINING <input checked="" type="checkbox"/> 6 UNLINED	<input type="checkbox"/> 3 EPOXY LINING <input type="checkbox"/> 95 UNKNOWN <input type="checkbox"/> 4 PHENOLIC LINING <input type="checkbox"/> 99 OTHER
IS LINING MATERIAL COMPATIBLE WITH 100% METHANOL? YES ___ NO ___		
D. CORROSION PROTECTION <input type="checkbox"/> 1 POLYETHYLENE WRAP <input type="checkbox"/> 5 CATHODIC PROTECTION	<input type="checkbox"/> 2 COATING <input type="checkbox"/> 91 NONE	<input type="checkbox"/> 3 VINYL WRAP <input checked="" type="checkbox"/> 95 UNKNOWN <input type="checkbox"/> 4 FIBERGLASS REINFORCED PLASTIC <input type="checkbox"/> 99 OTHER
E. SPILL AND OVERFILL SPILL CONTAINMENT INSTALLED (YEAR) <u>N/A</u>		OVERFILL PREVENTION EQUIPMENT INSTALLED (YEAR) <u>N/A</u>

**IV. PIPING INFORMATION** CIRCLE A IF ABOVE GROUND OR U IF UNDERGROUND, BOTH IF APPLICABLE

A. SYSTEM TYPE A U 1 SUCTION A U 2 PRESSURE A U 3 GRAVITY A U 99 OTHER	A U 1 SINGLE WALL A U 2 DOUBLE WALL A U 3 LINED TRENCH A U 95 UNKNOWN A U 99 OTHER	A U 1 BARE STEEL A U 2 STAINLESS STEEL A U 3 POLYVINYL CHLORIDE (PVC) A U 4 FIBERGLASS PIPE A U 5 ALUMINUM A U 6 CONCRETE A U 7 STEEL W/ COATING A U 8 100% METHANOL COMPATIBLE W/FRP A U 9 GALVANIZED STEEL A U 10 CATHODIC PROTECTION A U 95 UNKNOWN A U 99 OTHER	A U 1 AUTOMATIC LINE LEAK DETECTOR <input checked="" type="checkbox"/> 2 LINE TIGHTNESS TESTING <input type="checkbox"/> 3 INTERSTITIAL MONITORING <input type="checkbox"/> 99 OTHER
--	--	--	---

**V. TANK LEAK DETECTION**

<input checked="" type="checkbox"/> 1 VISUAL CHECK	<input checked="" type="checkbox"/> 2 INVENTORY RECONCILIATION	<input type="checkbox"/> 3 VADOZE MONITORING	<input type="checkbox"/> 4 AUTOMATIC TANK GAUGING	<input type="checkbox"/> 5 GROUND WATER MONITORING
<input type="checkbox"/> 6 TANK TESTING	<input type="checkbox"/> 7 INTERSTITIAL MONITORING	<input type="checkbox"/> 91 NONE	<input type="checkbox"/> 95 UNKNOWN	<input type="checkbox"/> 99 OTHER

**VI. TANK CLOSURE INFORMATION**

1. ESTIMATED DATE LAST USED (MO/DAY/YR) <u>12-14-92</u>	2. ESTIMATED QUANTITY OF SUBSTANCE REMAINING <u>200</u> GALLONS	3. WAS TANK FILLED WITH INERT MATERIAL? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
--	--	---

THIS FORM HAS BEEN COMPLETED UNDER PENALTY OF PERJURY, AND TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT

APPLICANT'S NAME (PRINTED & SIGNATURE) <u>CHRIS LAWTON</u>	DATE <u>12-3-92</u>
---	------------------------

**LOCAL AGENCY USE ONLY** THE STATE I.D. NUMBER IS COMPOSED OF THE FOUR NUMBERS BELOW

STATE I.D.#	COUNTY #	JURISDICTION #	FACILITY #	TANK #
PERMIT NUMBER	PERMIT APPROVED BY/DATE		PERMIT EXPIRATION DATE	



## INSTRUCTIONS FOR COMPLETING FORM "B"

### GENERAL INSTRUCTIONS:

1. One FORM "B" shall be completed for each tank for all **NEW PERMITS, PERMIT CANCELS, RENEWALS** as well as other **TANK INFORMATION CHANGE**.
2. This form should be completed by either the **PERMIT APPLICANT** or the **LOCAL AGENCY USE ONLY INFORMATION TANK INSPECTOR**.
3. Please type or print clearly all requested information.
4. Use a hard point writing instrument, you are making 3 copies.

### TOP OF FORM: "MARK ONLY ONE ITEM"

1. Mark an (X) in the box next to the item that best describes the reason the form is being completed.
2. Indicate the DBA or Facility name where the tank is installed.

### I. TANK DESCRIPTION - COMPLETE ALL ITEMS - IF UNKNOWN - SO SPECIFY

- A. Indicate owners tank ID # - If there is a tank number that is used by the owner to identify the tank (ex. 200-12).
- B. Indicate the name of the company that manufactured the tank (ex. ACME TANK MFG.).
- C. Indicate the year the tank was installed (ex. 1987).
- D. Indicate the tank capacity in gallons (ex. 25,000 or 10,000 etc.).

### II. TANK CONTENTS

- A. 1. If **MOTOR VEHICLE FUEL**, check box 1 and complete items B & C.  
2. If not **MOTOR VEHICLE FUEL**, check the appropriate box in section A and complete items B & D.
- B. Check the appropriate box.
- C. Check the type of **MOTOR VEHICLE FUEL** (if box 1 is checked in A).
- D. Print the chemical name of the hazardous substance stored in the tank and the **C.A.S.#** (Chemical Abstract Service number), if box 1 is **NOT** checked in A.

### III. TANK CONSTRUCTION - MARK ONE ITEM ONLY IN BOX A, B, C & D

1. Check only one item in **TYPE OF SYSTEM, TANK MATERIAL, INTERIOR LINING and CORROSION PROTECTANTS**.
2. If **OTHER**, print in the space provided.

### IV. PIPING INFORMATION

1. Circle **A** if above ground; circle **U** if underground; and circle both if applicable.
2. If **UNKNOWN**, circle; or if **OTHER**, print in space provided.
3. Indicate the **LEAK DETECTION** system(s) used to comply with the monitoring requirements for the piping.

### V. TANK LEAK DETECTION

1. Indicate the **LEAK DETECTION** system(s) used to comply with the monitoring requirements for the tank.

### VI. INFORMATION ON TANK PERMANENTLY CLOSED IN PLACE

1. **ESTIMATED DATE LAST USED - MONTH/YEAR** (January, 1988 or 01/88).
2. **ESTIMATED QUANTITY of HAZARDOUS SUBSTANCE** remaining in the tank (in Gallons).
3. **WAS TANK FILLED WITH INERT MATERIAL?** Check "Yes" or "NO".

### APPLICANT MUST SIGN AND DATE THE FORM AS INDICATED.

### INSTRUCTION FOR THE LOCAL AGENCIES

The state underground storage tank identification number is composed of the two digit county number, the two digit jurisdiction number, the six digit facility number and the six digit tank number. The county and jurisdiction numbers are pre-determined and can be obtained by calling the State Board (916)739-2421. The facility number must be the same as shown in Form "A". The tank number may be assigned by the local agency; however, this number must be numerical and cannot contain an alphanut. If the local agency prefers the State Board to assign the tank number, please leave it blank.

**IT IS THE RESPONSIBILITY OF THE LOCAL AGENCY THAT INSPECTS THE FACILITY TO VERIFY THE ACCURACY OF THE INFORMATION. THE LOCAL AGENCY IS RESPONSIBLE FOR THE COMPLETION OF THE "LOCAL AGENCY USE ONLY" INFORMATION BOX AND FOR FORWARDING ONE FORM "A" AND ASSIGNED FORM "B"(s) TO THE FOLLOWING ADDRESS.**

STATE OF CALIFORNIA  
STATE WATER RESOURCES CONTROL BOARD  
C/O S.W.R.C.P.S.  
DATA PROCESSING CENTER  
P.O. BOX 527  
PARAMOUNT, CA 90723

STATE OF CALIFORNIA  
STATE WATER RESOURCES CONTROL BOARD  
**UNDERGROUND STORAGE TANK PERMIT APPLICATION - FORM B**



COMPLETE A SEPARATE FORM FOR EACH TANK SYSTEM.

MARK ONLY ONE ITEM	<input type="checkbox"/> 1 NEW PERMIT	<input type="checkbox"/> 3 RENEWAL PERMIT	<input type="checkbox"/> 5 CHANGE OF INFORMATION	<input type="checkbox"/> 7 PERMANENTLY CLOSED ON SITE
	<input type="checkbox"/> 2 INTERIM PERMIT	<input type="checkbox"/> 4 AMENDED PERMIT	<input type="checkbox"/> 6 TEMPORARY TANK CLOSURE	<input checked="" type="checkbox"/> 8 TANK REMOVED

DBA OR FACILITY NAME WHERE TANK IS INSTALLED: \_\_\_\_\_

**I. TANK DESCRIPTION** COMPLETE ALL ITEMS -- SPECIFY IF UNKNOWN

A. OWNER'S TANK I.D.# <b>ONE</b>	B. MANUFACTURED BY: <b>UNKNOWN</b>
C. DATE INSTALLED (MO/DAY/YEAR) <b>5-1-80</b>	D. TANK CAPACITY IN GALLONS: <b>12,000</b>

**II. TANK CONTENTS** IF A-1 IS MARKED, COMPLETE ITEM C.

A. <input checked="" type="checkbox"/> 1 MOTOR VEHICLE FUEL <input type="checkbox"/> 2 PETROLEUM <input type="checkbox"/> 3 CHEMICAL PRODUCT	<input type="checkbox"/> 4 OIL <input type="checkbox"/> 80 EMPTY <input type="checkbox"/> 95 UNKNOWN	B. <input checked="" type="checkbox"/> 1 PRODUCT <input type="checkbox"/> 2 WASTE
C. <input checked="" type="checkbox"/> 1a REGULAR UNLEADED <input type="checkbox"/> 1b PREMIUM UNLEADED <input type="checkbox"/> 2 LEADED		
<input type="checkbox"/> 3 DIESEL <input type="checkbox"/> 4 GASAHOL <input type="checkbox"/> 5 JET FUEL <input type="checkbox"/> 99 OTHER (DESCRIBE IN ITEM D. BELOW)		
D. IF (A.1) IS NOT MARKED, ENTER NAME OF SUBSTANCE STORED _____ C. A. S. #: _____		

**III. TANK CONSTRUCTION** MARK ONE ITEM ONLY IN BOXES A, B, AND C, AND ALL THAT APPLIES IN BOX D AND E

A. TYPE OF SYSTEM <input type="checkbox"/> 1 DOUBLE WALL <input checked="" type="checkbox"/> 2 SINGLE WALL	<input type="checkbox"/> 3 SINGLE WALL WITH EXTERIOR LINER <input type="checkbox"/> 4 SECONDARY CONTAINMENT (VAULTED TANK)	<input type="checkbox"/> 95 UNKNOWN <input type="checkbox"/> 99 OTHER
B. TANK MATERIAL (Primary Tank) <input checked="" type="checkbox"/> 1 BARE STEEL <input type="checkbox"/> 5 CONCRETE <input type="checkbox"/> 9 BRONZE	<input type="checkbox"/> 2 STAINLESS STEEL <input type="checkbox"/> 6 POLYVINYL CHLORIDE <input type="checkbox"/> 10 GALVANIZED STEEL	<input type="checkbox"/> 3 FIBERGLASS <input type="checkbox"/> 7 ALUMINUM <input type="checkbox"/> 95 UNKNOWN <input type="checkbox"/> 99 OTHER
C. INTERIOR LINING <input type="checkbox"/> 1 RUBBER LINED <input type="checkbox"/> 5 GLASS LINING	<input type="checkbox"/> 2 ALKYD LINING <input checked="" type="checkbox"/> 6 UNLINED	<input type="checkbox"/> 3 EPOXY LINING <input type="checkbox"/> 4 PHENOLIC LINING <input type="checkbox"/> 95 UNKNOWN <input type="checkbox"/> 99 OTHER
IS LINING MATERIAL COMPATIBLE WITH 100% METHANOL? YES ___ NO ___		
D. CORROSION PROTECTION <input type="checkbox"/> 1 POLYETHYLENE WRAP <input type="checkbox"/> 5 CATHODIC PROTECTION	<input type="checkbox"/> 2 COATING <input type="checkbox"/> 91 NONE	<input type="checkbox"/> 3 VINYL WRAP <input checked="" type="checkbox"/> 95 UNKNOWN <input type="checkbox"/> 99 OTHER
E. SPILL AND OVERFILL SPILL CONTAINMENT INSTALLED (YEAR) <b>NA</b> OVERFILL PREVENTION EQUIPMENT INSTALLED (YEAR) <b>NA</b>		

**IV. PIPING INFORMATION** CIRCLE A IF ABOVE GROUND OR U IF UNDERGROUND, BOTH IF APPLICABLE

A. SYSTEM TYPE	A <u>U</u> 1 SUCTION	A <u>U</u> 2 PRESSURE	A <u>U</u> 3 GRAVITY	A <u>U</u> 99 OTHER
B. CONSTRUCTION	A <u>U</u> 1 SINGLE WALL	A <u>U</u> 2 DOUBLE WALL	A <u>U</u> 3 LINED TRENCH	A <u>U</u> 95 UNKNOWN A <u>U</u> 99 OTHER
C. MATERIAL AND CORROSION PROTECTION	A <u>U</u> 1 BARE STEEL	A <u>U</u> 2 STAINLESS STEEL	A <u>U</u> 3 POLYVINYL CHLORIDE (PVC)	A <u>U</u> 4 FIBERGLASS PIPE
	A <u>U</u> 5 ALUMINUM	A <u>U</u> 6 CONCRETE	A <u>U</u> 7 STEEL W/ COATING	A <u>U</u> 8 100% METHANOL COMPATIBLE W/FRP
	A <u>U</u> 9 GALVANIZED STEEL	A <u>U</u> 10 CATHODIC PROTECTION	A <u>U</u> 95 UNKNOWN	A <u>U</u> 99 OTHER
D. LEAK DETECTION	<input type="checkbox"/> 1 AUTOMATIC LINE LEAK DETECTOR	<input checked="" type="checkbox"/> 2 LINE TIGHTNESS TESTING	<input type="checkbox"/> 3 INTERSTITIAL MONITORING	<input type="checkbox"/> 99 OTHER

**V. TANK LEAK DETECTION**

<input checked="" type="checkbox"/> 1 VISUAL CHECK	<input checked="" type="checkbox"/> 2 INVENTORY RECONCILIATION	<input type="checkbox"/> 3 VADOZE MONITORING	<input type="checkbox"/> 4 AUTOMATIC TANK GAUGING	<input type="checkbox"/> 5 GROUND WATER MONITORING
<input type="checkbox"/> 6 TANK TESTING	<input type="checkbox"/> 7 INTERSTITIAL MONITORING	<input type="checkbox"/> 91 NONE	<input type="checkbox"/> 95 UNKNOWN	<input type="checkbox"/> 99 OTHER

**VI. TANK CLOSURE INFORMATION**

1. ESTIMATED DATE LAST USED (MO/DAY/YR) <b>12-14-92</b>	2. ESTIMATED QUANTITY OF SUBSTANCE REMAINING <b>200</b> GALLONS	3. WAS TANK FILLED WITH INERT MATERIAL? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
--	---	---

THIS FORM HAS BEEN COMPLETED UNDER PENALTY OF PERJURY, AND TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT

APPLICANT'S NAME (PRINTED & SIGNATURE) <b>CHRIS LAWTON</b>	DATE <b>12-3-91</b>
---	------------------------

**LOCAL AGENCY USE ONLY** THE STATE I.D. NUMBER IS COMPOSED OF THE FOUR NUMBERS BELOW

STATE I.D.#	COUNTY #	JURISDICTION #	FACILITY #	TANK #
PERMIT NUMBER	PERMIT APPROVED BY/DATE		PERMIT EXPIRATION DATE	

# INSTRUCTIONS FOR COMPLETING FORM "B"

## GENERAL INSTRUCTIONS:

1. One FORM "B" shall be completed for each tank for all NEW PERMITS, PERMIT CORRECTIONS, 30 MONTHS and 100 GPD or other TANK INFORMATION CHANGE.
2. This form should be completed by either the PERMIT APPLICANT or the LOCAL AGENCY INSPECTOR (State or Local INSPECTOR).
3. Please type or print clearly all requested information.
4. Use a hard point writing instrument, you are making 3 copies.

## TOP OF FORM: "MARK ONLY ONE ITEM"

1. Mark an (X) in the box next to the item that best describes the reason the form is being completed.
2. Indicate the DBA or Facility name where the tank is installed.

## I. TANK DESCRIPTION - COMPLETE ALL ITEMS - IF UNKNOWN - SO SPECIFY

- A. Indicate owners tank ID # - If there is a tank number that is used by the owner to identify the tank (ex. 123456).
- B. Indicate the name of the company that manufactured the tank (ex. ACME TANK MFG.).
- C. Indicate the year the tank was installed (ex. 1987).
- D. Indicate the tank capacity in gallons (ex. 25,000 or 10,000 etc.).

## II. TANK CONTENTS

- A. 1. If MOTOR VEHICLE FUEL, check box 1 and complete items B & C.  
2. If not MOTOR VEHICLE FUEL, check the appropriate box in section A and complete items B & D.
- B. Check the appropriate box.
- C. Check the type of MOTOR VEHICLE FUEL (if box 1 is checked in A).
- D. Print the chemical name of the hazardous substance stored in the tank and the C.A.S # (Chemical Abstract # tank number), if box 1 is NOT checked in A.

## III. TANK CONSTRUCTION - MARK ONE ITEM ONLY IN BOX A, B, C & D

1. Check only one item in TYPE OF SYSTEM, TANK MATERIAL, INTERIOR LINING and CORROSION PROTECTION.
2. If OTHER, print in the space provided.

## IV. PIPING INFORMATION

1. Circle A if above ground; circle U if underground; and circle both if applicable.
2. If UNKNOWN, circle; or if OTHER, print in space provided.
3. Indicate the LEAK DETECTION system(s) used to comply with the monitoring requirements for the piping.

## V. TANK LEAK DETECTION

1. Indicate the LEAK DETECTION system(s) used to comply with the monitoring requirements for the tank.

## VI. INFORMATION ON TANK PERMANENTLY CLOSED IN PLACE

1. ESTIMATED DATE LAST USED - MONTH/YEAR (January, 1988 or 01/88).
2. ESTIMATED QUANTITY of HAZARDOUS SUBSTANCE remaining in the tank (in Gallons).
3. WAS TANK FILLED WITH INERT MATERIAL? Check "Yes" or "NO".

## APPLICANT MUST SIGN AND DATE THE FORM AS INDICATED.

## INSTRUCTION FOR THE LOCAL AGENCIES

The state underground storage tank identification number is composed of the two digit county number, the three digit jurisdiction number, the six digit facility number and the six digit tank number. The county and jurisdiction numbers are predetermined and can be obtained by calling the State Board (916)739-2421. The facility number must be the same as shown in Item A. The tank number may be assigned by the local agency; however, this number must be numerical and cannot contain an alphabet. If the local agency prefers the State Board to assign the tank number, please leave it blank.

IT IS THE RESPONSIBILITY OF THE LOCAL AGENCY THAT INSPECTS THE FACILITY TO VERIFY THE ACCURACY OF THE INFORMATION. THE LOCAL AGENCY IS RESPONSIBLE FOR THE COMPLETION OF THE "LOCAL AGENCY USE ONLY" INFORMATION BOX AND FOR FORWARDING ONE FORM "B" AND ONE DUPLICATE FORM "B(s)" TO THE FOLLOWING ADDRESS.

STATE OF CALIFORNIA  
STATE WATER RESOURCES CONTROL BOARD  
C/O SWLEPS  
DATA PROCESSING CENTER  
P.O. BOX 527  
PARAMOUNT, CA 90723

STATE OF CALIFORNIA  
STATE WATER RESOURCES CONTROL BOARD  
**UNDERGROUND STORAGE TANK PERMIT APPLICATION - FORM B**



COMPLETE A SEPARATE FORM FOR EACH TANK SYSTEM.

<b>MARK ONLY ONE ITEM</b>	<input type="checkbox"/> 1 NEW PERMIT	<input type="checkbox"/> 3 RENEWAL PERMIT	<input type="checkbox"/> 5 CHANGE OF INFORMATION	<input type="checkbox"/> 7 PERMANENTLY CLOSED ON SITE
	<input type="checkbox"/> 2 INTERIM PERMIT	<input type="checkbox"/> 4 AMENDED PERMIT	<input type="checkbox"/> 6 TEMPORARY TANK CLOSURE	<input checked="" type="checkbox"/> 8 TANK REMOVED

DBA OR FACILITY NAME WHERE TANK IS INSTALLED: \_\_\_\_\_

**I. TANK DESCRIPTION** COMPLETE ALL ITEMS -- SPECIFY IF UNKNOWN

A. OWNER'S TANK I. D. # <b>THREE</b>	B. MANUFACTURED BY: <b>UNKNOWN</b>
C. DATE INSTALLED (MO/DAY/YEAR) <b>5-1-80</b>	D. TANK CAPACITY IN GALLONS: <b>10,000</b>

**II. TANK CONTENTS** (IF A-1 IS MARKED, COMPLETE ITEM C.)

A. <input checked="" type="checkbox"/> 1 MOTOR VEHICLE FUEL	<input type="checkbox"/> 4 OIL	B. <input checked="" type="checkbox"/> 1 PRODUCT	C. <input type="checkbox"/> 1a REGULAR UNLEADED
<input type="checkbox"/> 2 PETROLEUM	<input type="checkbox"/> 80 EMPTY	<input type="checkbox"/> 2 WASTE	<input checked="" type="checkbox"/> 1b PREMIUM UNLEADED
<input type="checkbox"/> 3 CHEMICAL PRODUCT	<input type="checkbox"/> 95 UNKNOWN		<input type="checkbox"/> 2 LEADED
D. IF (A.1) IS NOT MARKED, ENTER NAME OF SUBSTANCE STORED _____		C. A. S. #: _____	

**III. TANK CONSTRUCTION** MARK ONE ITEM ONLY IN BOXES A, B, AND C, AND ALL THAT APPLIES IN BOX D AND E

A. TYPE OF SYSTEM	B. TANK MATERIAL (Primary Tank)	C. INTERIOR LINING
<input type="checkbox"/> 1 DOUBLE WALL	<input type="checkbox"/> 1 BARE STEEL	<input type="checkbox"/> 1 RUBBER LINED
<input checked="" type="checkbox"/> 2 SINGLE WALL	<input type="checkbox"/> 2 STAINLESS STEEL	<input type="checkbox"/> 2 ALKYD LINING
<input type="checkbox"/> 3 SINGLE WALL WITH EXTERIOR LINER	<input checked="" type="checkbox"/> 3 FIBERGLASS	<input type="checkbox"/> 3 EPOXY LINING
<input type="checkbox"/> 4 SECONDARY CONTAINMENT (VAULTED TANK)	<input type="checkbox"/> 4 STEEL CLAD W/ FIBERGLASS REINFORCED PLASTIC	<input type="checkbox"/> 4 PHENOLIC LINING
<input type="checkbox"/> 95 UNKNOWN	<input type="checkbox"/> 5 CONCRETE	<input type="checkbox"/> 6 UNLINED
<input type="checkbox"/> 99 OTHER _____	<input type="checkbox"/> 6 POLYVINYL CHLORIDE	<input checked="" type="checkbox"/> 95 UNKNOWN
	<input type="checkbox"/> 7 ALUMINUM	<input type="checkbox"/> 99 OTHER _____
	<input type="checkbox"/> 8 100% METHANOL COMPATIBLE W/FRP	
	<input type="checkbox"/> 9 BRONZE	
	<input type="checkbox"/> 10 GALVANIZED STEEL	
	<input type="checkbox"/> 95 UNKNOWN	
	<input type="checkbox"/> 99 OTHER _____	
IS LINING MATERIAL COMPATIBLE WITH 100% METHANOL? YES ___ NO ___		
D. CORROSION PROTECTION	E. SPILL AND OVERFILL	
<input type="checkbox"/> 1 POLYETHYLENE WRAP	SPILL CONTAINMENT INSTALLED (YEAR) <b>N/A</b>	
<input type="checkbox"/> 2 COATING	OVERFILL PREVENTION EQUIPMENT INSTALLED (YEAR) <b>N/A</b>	
<input type="checkbox"/> 3 VINYL WRAP		
<input checked="" type="checkbox"/> 4 FIBERGLASS REINFORCED PLASTIC		
<input type="checkbox"/> 5 CATHODIC PROTECTION		
<input type="checkbox"/> 91 NONE		
<input type="checkbox"/> 95 UNKNOWN		
<input type="checkbox"/> 99 OTHER _____		

**IV. PIPING INFORMATION** CIRCLE A IF ABOVE GROUND OR U IF UNDERGROUND, BOTH IF APPLICABLE

A. SYSTEM TYPE	B. CONSTRUCTION	C. MATERIAL AND CORROSION PROTECTION	D. LEAK DETECTION
A U 1 SUCTION	A U 1 SINGLE WALL	A U 1 BARE STEEL	<input type="checkbox"/> 1 AUTOMATIC LINE LEAK DETECTOR
A U 2 PRESSURE	A U 2 DOUBLE WALL	A U 2 STAINLESS STEEL	<input checked="" type="checkbox"/> 2 LINE TIGHTNESS TESTING
A U 3 GRAVITY	A U 3 LINED TRENCH	A U 3 POLYVINYL CHLORIDE (PVC)	<input type="checkbox"/> 3 INTERSTITIAL MONITORING
A U 99 OTHER	A U 95 UNKNOWN	A U 4 FIBERGLASS PIPE	<input type="checkbox"/> 99 OTHER
	A U 99 OTHER	A U 5 ALUMINUM	
		A U 6 CONCRETE	
		A U 7 STEEL W/ COATING	
		A U 8 100% METHANOL COMPATIBLE W/FRP	
		A U 9 GALVANIZED STEEL	
		A U 10 CATHODIC PROTECTION	
		A U 95 UNKNOWN	
		A U 99 OTHER	

**V. TANK LEAK DETECTION**

<input checked="" type="checkbox"/> 1 VISUAL CHECK	<input checked="" type="checkbox"/> 2 INVENTORY RECONCILIATION	<input type="checkbox"/> 3 VADOZE MONITORING	<input type="checkbox"/> 4 AUTOMATIC TANK GAUGING	<input type="checkbox"/> 5 GROUND WATER MONITORING
<input type="checkbox"/> 6 TANK TESTING	<input type="checkbox"/> 7 INTERSTITIAL MONITORING	<input type="checkbox"/> 91 NONE	<input type="checkbox"/> 95 UNKNOWN	<input type="checkbox"/> 99 OTHER

**VI. TANK CLOSURE INFORMATION**

1. ESTIMATED DATE LAST USED (MO/DAY/YR) <b>12-14-92</b>	2. ESTIMATED QUANTITY OF SUBSTANCE REMAINING <b>200</b> GALLONS	3. WAS TANK FILLED WITH INERT MATERIAL? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
--	---	---

THIS FORM HAS BEEN COMPLETED UNDER PENALTY OF PERJURY, AND TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT

APPLICANT'S NAME (PRINTED & SIGNATURE) <b>CHRIS LAWTON</b>	DATE <b>12-3-92</b>
--	---------------------

**LOCAL AGENCY USE ONLY** THE STATE I.D. NUMBER IS COMPOSED OF THE FOUR NUMBERS BELOW

STATE I.D.#	COUNTY #	JURISDICTION #	FACILITY #	TANK #
PERMIT NUMBER	PERMIT APPROVED BY/DATE		PERMIT EXPIRATION DATE	

## INSTRUCTIONS FOR COMPLETING FORM "B"

### GENERAL INSTRUCTIONS:

1. One FORM "B" shall be completed for each tank for all **NEW PERMITS, PERMIT CANCELS, PERMIT TRANSFERS** and for all other **TANK INFORMATION CHANGE**.
2. This form should be completed by either the **PERMIT APPLICANT** or the **LOCAL AGENCY FOR UNDERGROUND STORAGE TANK INSPECTOR**.
3. Please type or print clearly all requested information.
4. Use a hard point writing instrument, you are making 3 copies.

### TOP OF FORM "MARK ONLY ONE ITEM"

1. Mark an (X) in the box next to the item that best describes the reason the form is being completed.
2. Indicate the DBA or Facility name where the tank is installed.

### I. TANK DESCRIPTION - COMPLETE ALL ITEMS - IF UNKNOWN - SO SPECIFY

- A. Indicate owners tank ID # - If there is a tank number that is used by the owner to identify the tank (ex. 12345678).
- B. Indicate the name of the company that manufactured the tank (ex. ACME TANK MFG.).
- C. Indicate the year the tank was installed (ex. 1987).
- D. Indicate the tank capacity in gallons (ex. 25,000 or 10,000 etc.).

### II. TANK CONTENTS

- A. 1. If **MOTOR VEHICLE FUEL**, check box 1 and complete items B & C.  
2. If not **MOTOR VEHICLE FUEL**, check the appropriate box in section A and complete items B & C.
- B. Check the appropriate box.
- C. Check the type of **MOTOR VEHICLE FUEL** (if box 1 is checked in A).
- D. Print the chemical name of the hazardous substance stored in the tank and the **C.A.S.#** (Chemical Abstracts Service number), if box 1 is NOT checked in A.

### III. TANK CONSTRUCTION - MARK ONE ITEM ONLY IN BOX A, B, C & D

1. Check only one item in **TYPE OF SYSTEM, TANK MATERIAL, INTERIOR LINING** and **DOOR/OPENING PROTECTION**.
2. If **OTHER**, print in the space provided.

### IV. PIPING INFORMATION

1. Circle **A** if above ground; circle **U** if underground; and circle both if applicable.
2. If **UNKNOWN**, circle; or if **OTHER**, print in space provided.
3. Indicate the **LEAK DETECTION** system(s) used to comply with the monitoring requirement for the piping.

### V. TANK LEAK DETECTION

1. Indicate the **LEAK DETECTION** system(s) used to comply with the monitoring requirements for the tank.

### VI. INFORMATION ON TANK PERMANENTLY CLOSED IN PLACE

1. **ESTIMATED DATE LAST USED - MONTH/YEAR** (January, 1988 or 01/88).
2. **ESTIMATED QUANTITY** of **HAZARDOUS SUBSTANCE** remaining in the tank (in Gallons).
3. **WAS TANK FILLED WITH INERT MATERIAL?** Check 'Yes' or 'NO'.

### APPLICANT MUST SIGN AND DATE THE FORM AS INDICATED.

### INSTRUCTION FOR THE LOCAL AGENCIES

The state underground storage tank identification number is composed of the two digit county number, the three digit jurisdiction number, the six digit facility number and the six digit tank number. The county and jurisdiction numbers are predetermined and can be obtained by calling the State Board (916)739-2421. The facility number must be the same as shown in form "A". The tank number may be assigned by the local agency; however, this number must be numerical and cannot contain an alphabet. If the local agency prefers the State Board to assign the tank number, please leave it blank.

**IT IS THE RESPONSIBILITY OF THE LOCAL AGENCY THAT INSPECTS THE FACILITY TO VERIFY THE ACCURACY OF THE INFORMATION. THE LOCAL AGENCY IS RESPONSIBLE FOR THE COMPLETION OF THE "LOCAL AGENCY USE ONLY" INFORMATION BOX AND FOR FORWARDING ONE FORM (11 LABELS FOR EACH) FORM "B"(s) TO THE FOLLOWING ADDRESS.**

STATE OF CALIFORNIA  
STATE WATER RESOURCES CONTROL BOARD  
C/O S.W.R.E.P.S.  
DATA PROCESSING CENTER  
P.O. BOX 527  
PARAMOUNT, CA 90723



3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

REC-04

November 6, 1992  
1105BCHA.4494  
61026.02

Mr. Barney Chan  
Alameda County Health Care Services Agency  
Department of Environmental Health  
80 Swan Way, Room 200  
Oakland, California 94624

Subject: Site Status Update for ARCO Station 4494, 566 Hegenberger Road, Oakland, California.

Dear Mr. Chan:

This letter provides an update on investigation and remedial activities conducted for the above-referenced site. This update covers site activities performed during October 1992, and site activities anticipated for the month of November 1992.

#### October 1992 Activities

- Performed quarterly groundwater sampling and monitoring.
- Submitted Final Initial Offsite and Additional Onsite Subsurface Report to ARCO and regulatory agencies.

Site Status Update  
ARCO Station 4494, Oakland, California

November 6, 1992  
61026.02

**Work Anticipated for November 1992**

- Continue monthly groundwater monitoring.

If you have any questions or comments regarding this letter, please call us at (408) 264-7723.

Sincerely,  
RESNA Industries Inc.



Joel Coffman  
Project Geologist

cc: Mr. Michael Whelan, ARCO Products Company  
Mark Thomson, Alameda County District Attorney's Office  
Richard Hiatt, Regional Water Quality Control Board



A RESNA Company

**RESNA**

Working To Restore Nature

92 NOV -9 PM 2: 34

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

# TRANSMITTAL

TO: Ms. Susan Hugo  
Alameda County Health Care Services  
Department of Environmental Health  
80 Swan Way, Room 200  
Oakland, California 94612

DATE: November 4, 1992  
PROJECT NUMBER:  
SUBJECT: Minutes for Meeting  
held on September 30, 1992.

FROM: Joel Coffman  
TITLE: Project Geologist

WE ARE SENDING YOU:

COPIES	DATED	NO.	DESCRIPTION
1	11/4/92		Minutes to meeting held at ACHCSA on September 30, 1992.

THESE ARE TRANSMITTED as checked below:

- For review and comment     Approved as submitted     Resubmit \_\_\_ copies for approval
- As requested                     Approved as noted             Submit \_\_\_ copies for distribution
- For approval                     Return for corrections     Return \_\_\_ corrected prints
- For your files

REMARKS: cc: Mr. Michael Whelan, ARCO Products Company  
Mr. Chris Winsor, ARCO Products Company  
Mr. John Meck, ARCO Legal Department  
Mr. John Jang, RWQCB, San Francisco Bay Region  
Mr. Richard Hiatt, RWQCB, San Francisco Bay Region  
Mr. John Vargas, GeoStrategies



3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

November 4, 1992  
1104shgo

Ms. Susan Hugo  
Alameda County Health Care Services Agency  
Department of Environmental Health  
80 Swan Way, Room 200  
Oakland, California 94612

Subject: Minutes to Meeting held at Alameda County Health Care Services Agency (ACHCSA) on September 30, 1992.

Dear Ms. Hugo:

On behalf of ARCO Products Company (ARCO), RESNA Industries, Inc. (RESNA has prepared these minutes for the meeting held at your offices on September 30, 1992. This meeting was held for discussion of ARCO sites located in Alameda County and under direction of Mr. Richard Hiatt and Mr. John Jang of the Regional Water Quality Control Board (RWQCB). As circumstances dictated, these RWQCB personnel were not able to attend the meeting, however, they will receive a copy of these minutes. Attending the whole meeting were Ms. Susan Hugo of the ACHCSA, Mr. Michael Whelan of ARCO, and Mr. Joel Coffman of RESNA. People attending parts of the meeting while particular sites were discussed included Mr. Barney Chan and Mr. Scott Seery of the ACHCSA, Ms. Valli Voruganti of RESNA, and Mr. John Vargas and Ms. Diane Lundquist of GeoStrategies, Inc. An agenda for the meeting, including a listing of sites for discussion, was sent to the offices of the ACHCSA and the RWQCB prior to the meeting.

Items discussed include the following: ongoing assessment at the sites, offsite access problems, sites near ARCO Stations reported on leak lists, schedules and changes in schedules for remediation, and other issues concerning the sites. Specific topics discussed for each site are included in the following minutes to the meeting.

Attending the meeting during discussion of ARCO Stations 276, 2035, 2107, 2185, and 4494 were Mr. Barney Chan and Ms. Susan Hugo of ACHCSA, Mr. Michael Whelan of ARCO, and Mr. Joel Coffman and Ms. Valli Voruganti of RESNA. Site specific topics discussed are included in the following portion of these minutes.

**ARCO Station 2035, 1001 San Pablo Ave., Albany, California**

Discussion of this site included mention that product previously found in recovery well RW-1 was collected in a passive floating product skimmer and had been hand bailed on a bi-weekly basis. Floating product in RW-1 has been reduced to a sheen. Ms. Hugo asked for product information concerning the skimmers, this information has been sent. Other discussion included the fact that the onsite vapor extraction wells had been installed and a vapor extraction test performed at the site in August, 1992. Offsite monitoring wells will be installed upon gaining Cal-Trans permits for the wells. During discussion concerning additional onsite monitoring wells, Mr. Chan suggested moving one of our proposed monitoring well locations (located on the southwest corner of the site) to the north a few feet so it would be situated more downgradient from the former waste oil and former gasoline storage tanks.

The ACHCSA agreed that the report for installation of the onsite vapor extraction wells and the results of the vapor extraction test would be initiated now and delivered in final form to ACHCSA by **December 1, 1992**. Due to the delays associated with gaining permits from Cal Trans for offsite monitoring well installation (still not received at date of this letter), the report with results of the installation offsite monitoring wells will be combined with results of installation of the additional onsite monitoring wells. ACHCSA wishes to be informed of prolonged offsite access problems, including permitting delays and obtaining offsite owner permission for installation of offsite wells.

In regards to the remediation schedule for this site, it was mentioned that the installation of vapor extraction wells and performance of a vapor extraction test and the need for additional onsite monitoring wells were not included in the original schedules. The ACHCSA agreed to a revised remediation schedule which includes these phases of work. A remedial action plan is due to the ACHCSA on **March 1, 1993**, and the anticipated date for start-up of an interim remediation system is **July, 1993**.

**ARCO Station 2107, 3310 Park Blvd., Oakland, California.**

In discussions concerning this site, Ms. Hugo asked about the TPHd detected previously at the site. Mr. Whelan explained that ARCO was requesting all laboratory chromatograms from previously ran analyses for study. As ARCO has never stored diesel at this site, it is suspected that the TPHd is actually weathered gasoline, which can fall within the same detectable range as diesel in laboratory analyses.

It was explained that offsite monitoring wells had been installed at the site and that the groundwater recovery well, RW-1, would be installed in conjunction with construction of the

interim remediation system, which began October 19, 1992. This recovery well, RW-1, has now been installed. As the monitoring well MW-7, located immediately offsite and downgradient from the ARCO site has contained minor amounts of Benzene, it was agreed that no further assessment is needed at this time. The report including results of the installation of offsite monitoring wells and the recovery well is due to the ACHCSA on January 1, 1993.

**ARCO Station 2185, 9800 E. 14th St., Oakland, California.**

It was mentioned that the report documenting the underground storage tank removal and replacement had been issued by Roux Associates. ARCO mentioned that field work included in the recently completed subsurface investigation had been delayed until late June to early July, 1992, due to the delays related to the tank replacement activities at the site. The report for the subsurface investigation was issued in final form in September by RESNA. A work plan for additional work at the site will be prepared and submitted to the ACHCSA and RWQCB by December 1, 1992. Work to be proposed in the work plan will include installation of a groundwater recovery well, performance of an aquifer pumping and recovery test, installation of offsite groundwater monitoring wells, conducting an environmental records search, and performing a well survey to locate wells in the vicinity of the site.

In discussing the schedule for remediation at the site, it was also agreed that a Remedial Action Plan (RAP) will be prepared and submitted to the ACHCSA by June 1, 1993 and that design of an interim remediation system would be completed by August 1, 1993. Equipment needed for the system will be ordered and received by November 1, 1993, with the anticipated date for system start-up to be January 1, 1994.

**ARCO Station 4494, 566 Hegenberger Rd., Oakland, California**

ARCO mentioned that after almost a year of negotiations, offsite access had been granted by the adjacent property owner in July, 1992, for installation of offsite monitoring wells. These wells were drilled and installed in July 1992 and the report detailing the findings from this monitoring well installation was delivered to the ACHCSA on October 29, 1992.

Concerning tank replacement at the site, Mr. Whelan stated that ARCO is attempting to gain approval for a station rebuild in conjunction with tank replacement at the site. Delays associated with gaining the permits and approval for the rebuild have pushed the anticipated start date for these activities to approximately the first quarter 1993. Ms. Hugo asked if ARCO was planning to excavate the area around monitoring well MW-2, the only hydrocarbon impacted part of the site, during tank replacement activities. Mr. Whelan

explained ARCO would not be able to excavate very far due to limitations posed by structures and the offsite properties adjacent to the site. It was generally agreed that over-excavation may be the only feasible alternative for this site.

**ARCO Station 276, 10600 MacArthur Blvd., Oakland, California.**

ARCO mentioned that the offsite monitoring wells, MW-6 and MW-7, had been installed in the Foothill Square Shopping Center parking lot. One well, MW-7, was screened in the shallow water bearing zone and the other well, MW-6, in the deeper water-bearing zone. It was brought to the attention of Mr. Chan and Ms. Hugo that, as suspected, the groundwater samples collected from the upgradient, offsite, deeper water-bearing zone (from MW-6) contained the highest concentrations of Tetrachloroethene (PCE) of any wells on or near the site. This information supports previous suspicions that the PCE and other VOCs found in the deeper water-bearing zone originate from an offsite source. Mr. Coffman pointed out that while the Foothill Square Site is listed in the Report on Releases of Hazardous Substances from Underground Storage Tanks (page 31, January 1992, Report No. 92-2CWP), it is listed only as a gasoline leak with no reference made to the VOCs. ARCO also mentioned that the ARCO site is listed in the same leak report, but is erroneously listed as a waste oil leak. This is an erroneous listing based on analytical results of soil samples collected during removal of the tank in 1988 (Pacific, February 6, 1989). The samples collected and analyzed for waste-oil compounds from the waste-oil tank pit and immediately surrounding area contained non-detectable concentrations for waste oil and volatile organic compounds. Therefore, there is no evidence of a waste oil leak at the site. Laboratory analysis data from installation of the offsite borings/wells had previously been sent to Mr. Chan along with the monthly site status letters prepared for each site in Alameda County. This data will be included in a report documenting recent onsite and offsite work at the site to be delivered to ACHCSA by February 1, 1993.

Onsite work recently completed at the site includes installation of 7 vapor extraction wells and an additional groundwater monitoring well. The new onsite wells were piped together into the existing offsite vapor extraction system. In late August, a vapor extraction performance test was conducted at the site to compare the performance of the existing offsite system, which uses soil vapor probes, with use of the system using the new onsite vapor extraction wells. Performance data collected during the test will be used to facilitate design and provide information concerning the number of offsite vapor extraction wells which will be needed to enhance operation of the offsite portion of the vapor extraction system. Results of the vapor extraction test will be included in the report to be issued by February 1, 1993.

ARCO discussed plans to add additional offsite vapor extraction wells to the existing offsite vapor extraction system. ARCO is now working to obtain access for future offsite well installations. It was agreed that the Remedial Action Plan previously submitted to the ACHCSA by ARCO concerning interim groundwater remediation (RESNA, March 18, 1992) would not be implemented by ARCO as the Deeper aquifer at the site is impacted by VOCs from an offsite source. It was also agreed that since the shallow perched aquifer at the site which is impacted by gasoline hydrocarbons will not sustain pumping, the perched water bearing zone will be remediated by the vapor extraction system. Based on the remediation schedules submitted for this site in February 1992, ARCO is either on schedule or ahead of schedule for work to be performed at this site.

Upon conclusion of discussion concerning Station 276, Mr. Barney Chan departed the meeting.

**ARCO Station 374, 6407 Telegraph Ave., Oakland, California.**

Discussion concerning this site centered around the fact the City of Oakland had recently re-zoned the area and that previously submitted engineering designs would now have to pass through a zoning department review process. This will slow down the installation and start-up of the interim remediation system by a minimum of 60 days. Ms. Hugo asked for names of personnel she might contact at the city concerning this matter and Ms. Voruganti provided her with a listing. The names included Mr. Chris Buckley of the zoning department and Ms. Diane Bradshaw of the planning department. With these new permitting delays, the date for initiating construction of the system at the site will be moved back to at least **January, 1993**. This will allow for a system start-up date of not before **March, 1993**.

In reference to other site-related items, Mr. Whelan and Mr. Coffman pointed out that a former Mobil Oil Service Station site, which is a potential secondary source of hydrocarbons in groundwater, is located diagonally across Telegraph Avenue, approximately 120 feet southeast and upgradient/crossgradient of ARCO 374. The street address for this site is 6398 Telegraph Avenue.

This potential secondary source is currently a vacant lot owned by Givens Investment Company (Givens). The site is known to have had an underground-storage tank (UST) leak, as evidenced by placement of the site on the Report on Releases of Hazardous Substances from Underground Storage Tanks, State Water Resources Control Board, California Environmental Protection Agency, January 1992, Report No. 92-2CWP. The service station was present at this location from at least 1957 until at least 1985. According to the Report on Releases of Hazardous Substances from Underground Storage Tanks, the

leak was reported in April 1986 and was last reviewed in June 1990 and no action has been taken by the responsible party since the initial report of the leak. Actions recommended in the report regarding the former Mobile Station included removal of free product and excavation and treatment of contaminated soil.

Mr. Coffman made reference to an AquaScience Engineers report related to tank removal at the former Mobil site, which, Ms. Hugo requested a copy be forwarded to her and one has been sent. In the AquaScience Engineers report, dated May 27, 1986, it is stated that soils in the tank pit from removed tanks had a motor fuel smell and each tank pit contained water with floating product. The tank pits were excavated to a depth of twelve feet and groundwater was encountered at approximately twelve feet. The report states that the waste oil tank and one 5,000 gallon gasoline tank had holes in them when removed and inspected. Although water was pumped from the tank pits and disposed of, there is no record that any further investigation to evaluate and delineate the impact the leaking waste oil and gasoline tanks to groundwater at the former Mobil Station. Since the tanks were leaking directly into the tank pit which was in direct communication with the aquifer, it is probable there has been impact to the groundwater from these tanks. This may be a source of the gasoline hydrocarbons detected in groundwater samples from well MW-2 at the ARCO site, which is closest to the former Mobil site and upgradient from any possible ARCO source of gasoline hydrocarbons.

Ms. Hugo asked whether ARCO intended to install offsite groundwater recovery wells to be used in the groundwater remediation system. ARCO replied that once the system was operational and data had been studied, ARCO would evaluate the need for and feasibility of additional recovery wells. ARCO stated that permitting and gaining access for installation of offsite recovery wells which would then need to be piped into the groundwater remediation system could prove to be very difficult and take several months to accomplish.

Upon conclusion of discussion concerning Station 374, Ms. Valli Voruganti departed the meeting. The following three ARCO sites, 2112, 2169, and 4931 were discussed by Ms. Susan Hugo, Mr. Michael Whelan, and Mr. John Vargas and Ms. Diane Lundquist.

**ARCO Station 2112, 1260 Park St., Alameda, California.**

An Interim Remedial Action Plan was issued on August 27, 1992. This document discusses the remediation approach chose for this site. The System will include vapor extraction and groundwater pump and treat technologies. Previous vapor extraction and aquifer test data were to identify the number of required wells. All permits have been received at this time and construction is scheduled for October 19, 1992. The Remedial System is scheduled for start-up in February 1993.

An additional recovery well and down-gradient well were installed. Petroleum hydrocarbons in the down-gradient well were not observed.

Ms. Hugo asked if ARCO had a contingency plan to address potential breakdown of the system. GeoStrategies Inc., has prepared an Operation and Maintenance Plan. This Plan provides that any pumps or system equipment will be repaired. Telemetry will also be added to the system so that GeoStrategies Inc., will be notified as soon as there are system problems. Groundwater piping and the system enclosure slab have been designed for secondary containment.

Ms. Hugo asked how long the system will be operating. Soil clean-up should be relatively short and the anticipated groundwater clean-up duration as outlined in the schedule for this site is for five years. After an initial start-up and operation period, a better estimate may be possible.

Ms. Hugo asked about the number of carbon beds and their replacement schedule. The groundwater system will include two 180 pound carbon vessels. Calculations for the minimum replacement periods are included in the Interim Remedial Action Plan. The Operation and Maintenance Plan provides for monitoring the influent and effluent air and water systems on a routine schedule. Carbon will be replaced once breakthrough has been detected in the first carbon beds.

**ARCO Station 2169, 899 W. Grand Ave., Oakland, California.**

The Remediation Implementation schedule will be revised to accommodate delays in completing the onsite assessment. The original schedule assumed this assessment would be performed concurrently with the tank removal project. However, due to space limitations at the site caused by the large quantity of stockpiled soils during tank replacement, ARCO anticipates a 4-month delay in completing the assessment. This delay pushes back the estimated system start-up date to September 1, 1993.

The onsite assessment is to be completed at this time, Vapor extraction and aquifer tests have been completed. These remedial technologies appear to be feasible. The report documents these activities in a draft. Diesel was reported for previous groundwater samples at this site. Laboratory results for other ARCO stations have erroneously reported diesel. ARCO plans to do additional analysis to confirm whether diesel has impacted the soil and groundwater. A draft report has been submitted to ARCO. The report of onsite work and a Work Plan for offsite assessment will be issued in late October to early November, 1992.

Minutes to September 30, 1992 Meeting at ACHCSA

November 4, 1992

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**ARCO Station 4931, 731 W. MacArthur Blvd., Oakland, California.**

Mr. Vargas and Ms. Lundquist discussed the progress at his site. The Remedial System underground and enclosure has been completed. Equipment installation and start-up will be performed once all equipment is received from the manufacturers. GeoStrategies Inc., anticipated start-up by the first part of November.

A passive product skimmer has been installed in Well W-8. A products pump will be installed in this well when the system is operational. Recovery Well are AR-1 was installed adjacent to Well A-4 to address product in the well. A report documenting the installation of additional recovery wells is in draft. This report is scheduled for completion by the end of October early November.

Ms. Hugo wanted TOG and lead analyzed for four-quarters to verify that groundwater has not been impacted. ARCO agreed to analyze Well A-2 for these constituents.

Following this discussion, the meeting adjourned for lunch at 12:15 p.m.

After the lunch break, at approximately 1:15 p.m., the meeting resumed with Mr. Michael Whelan, Ms. Susan Hugo, and Mr. Joel Coffman present.

**ARCO Station 6148, 5131 Shattuck Ave., Oakland, California.**

Discussion began with Ms. Hugo granting approval for work proposed in work plan (RESNA, September, 1992) for installation of additional onsite monitoring wells. The report containing the results to the additional well installations is due to the ACHCSA on February 1, 1993. There was a question concerning the recently submitted 2nd quarter monitoring report for the site in which floating product was reported at 0.5 feet in one of the monitoring wells. Mr. Coffman said he would check into the matter as this was probably a mistake. A follow-up letter with corrected tables showing the correct product thickness of 0.05 feet was sent to Ms. Hugo.

Ms. Hugo requested that one of the wells (MW-1 through MW-3) be tested for all waste oil constituents, including TOG, TPHd, metals, VOCs, and 8270 for a minimum of 4 consecutive quarters. If no waste oil constituents are found, analysis for those constituents will be discontinued.

Ms. Hugo agreed it would be reasonable to decommission two of the three closely spaced monitoring wells, MW-1 through MW-3, located near the former waste-oil tank at the southwestern corner of the site. The wells to be decommissioned will be determined upon installation of the proposed additional monitoring wells and using data from 1 quarter of



monthly monitoring to establish the gradient at the site. The well to remain will be the well determined to be downgradient from the former waste-oil tank.

A work plan with proposed location of a groundwater recovery well, possible vapor extraction wells (if applicable), an aquifer test, and a vapor extraction test (if applicable) will be prepared and submitted to ACHCSA by **March 1, 1993**. The report documenting work in this work plan will be submitted to ACHCSA by **August 1, 1993**. A Remedial Action Plan (RAP) will begin to be prepared for the site as soon as results from the aquifer test and/or vapor extraction test are evaluated. The RAP is due to ACHCSA by **September 1, 1993**. The design and permitting of an interim remediation system at the site will begin in July, 1993, and is due to be completed by **October 1, 1993**. This schedule will allow for construction bids to be evaluated by **November 1, 1993**, which will provide a **February 15, 1994** construction date for the interim remediation system. This schedule will place start-up of the system at **April 1, 1994**.

Following discussion of this site, Mr. Scott Seery of the ACHCSA joined Ms. Susan Hugo, Mr. Michael Whelan, and Mr. Joel Coffman for the remainder of the site discussions.

**ARCO Station 6041, 7249 Village Pkwy, Dublin, California.**

Discussion concerning this site began with Mr. Seery providing some groundwater monitoring data from sites on different corners of the same intersection as the ARCO 6041 site. These sites included Unocal, BP, and Oil Changers (former Shell Oil Station) sites. The information provided by Mr. Seery showed monitoring wells on the northern perimeter (closest to ARCO site) that had or continue to have much higher levels of gasoline hydrocarbons in groundwater than wells on the ARCO site. As ARCO had presented the ACHCSA a work plan in which part of the proposed work was installation of offsite groundwater monitoring wells, it was agreed the offsite portion of the work would not proceed until some of the other responsible parties were contacted by the ACHCSA. ARCO would proceed with the onsite portion of work proposed in the work plan, which included a records search to identify potential offsite sources of hydrocarbons, installation of additional onsite monitoring wells, installation of onsite vapor extraction wells, and performing a vapor extraction test. The report for this portion of the work is due to ACHCSA on **February 1, 1993**.

Following three months monitoring of the new and pre-existing monitoring wells at the site to determine optimal positioning of a groundwater recovery well (RW-1), RW-1 will be installed and an aquifer test will be performed at the site. The report with results of the installation of the recovery well and aquifer test is due to ACHCSA on **August 1, 1993**. A Remedial Action Plan is due to the ACHCSA on **September 1, 1993**, and design of an

interim remediation system for the site is to be completed by **November 1, 1993**. With this schedule, construction bids should be secured by **December 1, 1993**, which will allow for construction of the interim remediation system to begin on **February 1, 1994**. This schedule provides for start-up of the system by **April 1, 1994**.

The offsite investigation was not placed on any definite schedule during the meeting due to information provided by Mr. Seery which showed the properties across the streets from the ARCO site (Unocal, BP, and former Shell sites) with groundwater impacted by greater concentrations of gasoline constituents than the ARCO site. This information concerning these properties across the street also indicated some of these sites with monitoring wells which are located near property boundaries (closest to the ARCO site) which contain groundwater with relatively high concentrations of gasoline constituents. Based on this information, it was agreed that any offsite investigation by ARCO will be delayed as other parties appear more likely to be responsible for offsite groundwater which may be impacted by gasoline constituents.

**ARCO Station 2152, 22141 Center St., Castro Valley, California.**

Discussion concerning this site was centered upon starting dates for construction of the soil vapor extraction system at the site. Mr. Whelan explained that the actual date for beginning construction at the site could vary anywhere from **mid-November 1992 to mid-January 1993**, due to internal ARCO factors associated with closing the station. Due to the amount of trenching to be performed for installation of remediation system piping, the site may have to be completely closed. In any event, the latest date given by ARCO for start-up of the system is **March 15, 1993**.

Groundwater has continued to contain non-detectable concentrations of gasoline hydrocarbons over the last few quarterly monitoring episodes and offsite investigation is not warranted. The extent of soils impacted by gasoline hydrocarbons has been delineated onsite.

**ARCO Station 601, 712 Lewelling Blvd., San Leandro, California.**

Mr. Seery said the contract between the City of San Leandro and ACHCSA was being worked out and was almost finished. He said this site was still considered to be in the deposit/refund section of oversight within the ACHCSA and would be transferred to the local oversight program (LOP) as soon as ACHCSA was granted the contract by the City. He requested a check from ARCO for \$601.00 for time he has spent reviewing the project at his \$71.00/hour rate.

The response letter to Mr. Seery's letter of July 30, 1992 was discussed next. Mr. Seery wanted to have additional soil borings near the former waste-oil tank drilled and sampled for waste-oil constituents. He cited the high (287.1 ppm) lead content in samples previously collected from Boring B-6/MW-1 as rationale for this request. Mr. Whelan suggested we are proposing to stop any offsite migration of these compounds in groundwater with the proposed groundwater recovery system to be installed at the site and that ARCO would sample the perimeter well (MW-8) in the downgradient direction from the former waste-oil tank to ascertain that these compounds had not migrated to the site perimeter. It was pointed out that the soils at the site are very impermeable and migration of compounds from the former waste-oil tank would be very unlikely as evidenced by results from the ARCO vapor extraction test and the Aquifer test performed across the street from the site at the former Shell Station.

Mr. Seery would not agree with this proposal and asked that well MW-1, located near the former waste-oil tank be sampled and analyzed for waste-oil constituents. As this well has historically contained floating product, we explained that matrix interference would probably result. Discussion followed about laboratories as Mr. Seery stated that someone at Pace Laboratories had told him we could run analyses for halocarbons, metals, the 8270, and TOG without interference by the product in the well. It was agreed that this issue would be further explored. Mr. Seery stated that on some occasions, there was no product in well MW-1 but this had not coincided with our scheduled sampling dates. He suggested, and ARCO agreed to be ready to sample MW-1 on any occasion in which there is no product present.

ARCO suggested that we collect soil samples in proposed soil boring B-17, to be located in the southeast corner of the site, crossgradient from B-6/MW-1, and analyze them for lead content to establish background levels for lead at the site. This was suggested in response to Mr. Seery pointing out that B-6 contained lead at up to 130 ppm in samples collected below first-encountered groundwater at the site. As lead doesn't readily migrate downward through clays and silts, Mr. Whelan suggested this may be indicative of a regional problem with lead in soils.

Concerning Mr. Seery's assertion that ARCO may be required to investigate the deeper water-bearing zone for possible hydrocarbon impact, he stated this may be required in the future. He stated that boring logs from the site showed bioturbation and roots at depths up to 16-1/2 feet. Mr. Coffman pointed out that soil samples collected from the clay aquitard beneath the site contained nondetectable amounts of gasoline hydrocarbons and that according to the GeoStrategies report concerning the former Shell site across the street from the ARCO site, no deeper aquifer was encountered at depths up to 25 feet below ground surface.

Minutes to September 30, 1992 Meeting at ACHCSA

November 4, 1992

It was discussed that we would have the report of additional on and offsite investigation to Mr. Seery approximately 16 weeks from the date agreement was reached on scope of work to be performed and that this schedule may be altered due to city and other offsite encroachment concerns.

Discussion concerning the remediation schedule for this site included ARCO informing Mr. Seery of the fact that City Planning and Engineering Departments were requiring plans and specifications for the trench remediation system to be signed and stamped by a Professional Civil Engineer. ARCO also informed Mr. Seery that permitting delays can be expected due to the complex nature of the interim remediation system to be installed. These delays will move the anticipated start-up date for the system to the third quarter of 1993 and possibly into the fourth quarter 1993.

Discussion concluded with agreement that ARCO and Mr. Seery would speak again the week of October 5, 1992 concerning this site. The meeting was concluded at approximately 5:15 p.m.

Mr. Joel Coffman and Mr. Seery spoke on October 9, 1992 regarding ARCO's decision to proceed with drilling and sampling three soil borings in the vicinity of the former waste-oil tank, as Mr. Seery requested. These borings were drilled and sampled by RESNA on October 12, 1992 and samples from these borings will be analyzed for the waste-oil constituents as outlined in Table 2 of the Regional Water Quality Control Board's August 10, 1990 recommendations.

If you have any questions or comments concerning these minutes to the meeting, please call us at (408) 264-7723.

Sincerely,  
RESNA Industries Inc.



Joel Coffman  
Project Geologist

cc: Michael Whelan, ARCO Products Company  
Chris Winsor, ARCO Products Company  
John Meck, ARCO Legal Dept.  
John Jang, RWQCB  
Richard Hiatt, RWQCB  
John Vargas, GeoStrategies



A RESNA Company

# 3854

**RESNA**

Working To Restore Nature

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

October 16, 1992  
1016BCHA.4494  
61026.02

Mr. Barney Chan  
Alameda County Health Care Services Agency  
Department of Environmental Health  
80 Swan Way, Room 200  
Oakland, California 94624

Subject: Site Status Update for ARCO Station 4494, 566 Hegenberger Road, Oakland, California.

Dear Mr. Chan:

This letter provides an update on investigation and remedial activities conducted for the above-referenced site. This update covers site activities performed during September 1992, and site activities anticipated for the month of October 1992.

**September 1992 Activities**

- Performed quarterly groundwater sampling and monitoring.
- Site visit to check and re-set Horner EZY Floating Product Skimmer in well MW-2, no product was found in the skimmer.
- Submitted Final Second Quarter Groundwater Monitoring Report to ARCO and regulators.

Site Status Update  
ARCO Station 4494, Oakland, California

October 16, 1992  
61026.02

---

**Work Anticipated for October 1992**

- Continue monthly groundwater monitoring.
- Submit draft Initial Offsite and Additional Onsite Subsurface Report to ARCO for review.

If you have any questions or comments regarding this letter, please call us at (408) 264-7723.

Sincerely,  
RESNA Industries Inc.



Joel Coffman  
Project Geologist

cc: Mr. Michael Whelan, ARCO Products Company  
Mark Thomson, Alameda County District Attorney's Office  
Richard Hiett, Regional Water Quality Control Board



October 12, 1992

92 OCT 11 PM 12:55

Ms. Susan Hugo  
Alameda County Department of Environmental Health  
80 Swan Way  
Oakland, California 94621

**ARCO Products Company Facilities in Alameda County**

Dear Ms. Hugo:

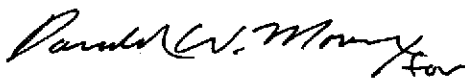
Please find attached, Quarterly Summary Reports (QSRs) for ARCO Products Company Service Stations in Alameda County. The QSRs summarize activities conducted by ARCO at the respective sites during the third quarter of 1992; also included are projected site activities for the fourth quarter of 1992 and a bibliography of reports submitted for each location.

The QSRs are classified by city and address within Alameda County. We are submitting this document and attached QSRs as agreed. Please note that we are forwarding copies of the QSRs to the Regional Water Quality Control Board (RWQCB).

Please note that ARCO Products Company has reviewed the RWQCB's February 19, 1991 printout of ARCO fuel leak sites. We have evaluated each site with respect to ARCO's responsibility for investigation, monitoring, and/or remediation. Those locations for which ARCO is not responsible were listed and described in the QSR package delivered to you on July 15, 1991. The attached QSRs therefore represent only those locations for which ARCO is responsible.

ARCO is planning the next comprehensive QSR submittal for ARCO sites on January 15, 1993. Please do not hesitate to contact us with any questions regarding this submittal.

Sincerely yours,



Kyle A. Christie  
Environmental Engineer

Attachments: ARCO Facility QSRs





<u>REPORT</u>	<u>DATE</u>	<u>CONSULTANT</u>
Letter Report on Groundwater Monitoring for Second Quarter 1992 69038.11	9/3/92	RESNA
Letter Report on Groundwater Monitoring for First Quarter 1992 69038.11	5/4/92	RESNA
Letter Report on Groundwater Monitoring for Fourth Quarter 1991 69038.11	4/7/92	RESNA
Letter Report on Third Quarter 1991 Ground-Water Monitoring at ARCO 4494, Oakland, CA 69038.04	11/21/91	RESNA
Letter Report on Second Quarter 1991 Ground-Water Monitoring at ARCO 4494, Oakland, CA 69038.04	9/10/91	RESNA
Work Plan for Subsurface Investigation and Remediation and Addendum One to Work Plan to Perform Underground Tank Replacement Investigation, Preliminary Offsite Investigation, and Interim Product Recovery. AGS 69038-6	5/15/91	RESNA/Applied GeoSystems
Report on Preliminary Tank Replacement Assessment AGS 69038-5	5/2/91	RESNA/Applied GeoSystems
Letter Report on First Quarter 1991 Ground-Water Monitoring at ARCO 4494, Oakland, CA AGS 69038-4	4/3/91	Applied GeoSystems
Limited Subsurface Environmental Investigation AGS 69038-2	2/13/91	Applied GeoSystems
Letter Report on Fourth Quarter 1990 Groundwater Monitoring AGS 69038-4	2/8/91	Applied GeoSystems
Site History Assessment and Limited Environmental Records Review AGS 69038-3	10/1/90	Applied GeoSystems
Work Plan for Initial Subsurface Investigation AGS 69038-1	9/29/89	Applied GeoSystems
Subsurface Environmental Investigation Project 330-41	5/3/89	Pacific Environmental Group

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

92 SEP 25 11:47

September 23, 1992  
0923shgo

Ms. Susan Hugo  
Alameda County Health Care Services Agency  
Department of Environmental Health  
80 Swan Way, Room 200  
Oakland, California 94612


Subject: Proposed Agenda for Meeting at your office on September 30, 1992.

Dear Ms. Hugo:

We have prepared this proposed agenda for the meeting we have scheduled at your office on September 30, 1992. This meeting will be for discussion of sites under direction of Mr. Richard Hiatt and Mr. John Jang of the Regional Water Quality Control Board (RWQCB). We understand these RWQCB personnel may not be able to attend the entire meetings but may be able to stop by for site specific discussions. A separate meeting to discuss sites overseen by Mr. Eddie So of the RWQCB will have to be scheduled at another date as he has other agencies involved with many of his sites.

Items we would like to discuss include the following: ongoing assessment at the sites, offsite access problems and possible offsite contributing polluters, schedules for remediation, and other issues as they arise in discussing the sites. If you have any questions or comments concerning this proposed agenda, please call us at (408) 264-7723.

Sincerely,  
RESNA Industries, Inc.

  
Joel Coffman  
Project Geologist

cc: Michael Whelan, ARCO Products Company  
John Jang, RWQCB  
Richard Hiatt, RWQCB  
John Vargas, GeoStrategies

September 21, 1992

Proposed Agenda for September 30, 1992 ACHCSA Meeting

	<u>ARCO Station</u>	<u>ACHCSA Staff</u>	<u>RWOCSB Staff</u>	<u>Cnsltnt</u>
	# 276, 10600 MacArthur Blvd.	Barney Chan	Richard Hiett	RESNA
	# 2035, 1001 San Pablo, Albany	Barney Chan	Richard Hiett	RESNA
00 - 10:30	# 2107, 3310 Park Blvd.	Barney Chan	Richard Hiett	RESNA
	# 2185, 9800 E. 14th St.	Barney Chan	Richard Hiett	RESNA
	# 4494, 566 Hegenberger Rd.	Barney Chan	Richard Hiett	RESNA
	# 374, 6407 Telegraph Ave.	Susan Hugo	Richard Hiett	RESNA
	# 2112, 1260 Park St., Alameda	Susan Hugo	Richard Hiett	G/Ryan
30 - 12:00	# 2169, 899 W. Grand Ave.	Susan Hugo	Richard Hiett	G/Ryan
	# 4931, 731 W. MacArthur	Susan Hugo	Richard Hiett	G/Ryan
	# 6148, 5131 Shattuck Ave.	Susan Hugo	Richard Hiett	RESNA
	# 6041, 7249 Village Pkwy, Dublin	Scott Seery	Richard Hiett	RESNA
	# 2152, 22141 Ctr. St., Castro Valley	Scott Seery	Richard Hiett	RESNA
1:00 - 3:00	# 601, 712 Lewelling Bd., San Leandro	Scott Seery	John Jang	RESNA

9/30/92

9:00 AM

Meeting w/ Arco { Michael Wheland  
Gary Coffman }  
\* will submit revised time schedule  
Updates:

# 2035- 1001 San Pablo Albany - ✓  
July-1992. on site wells (6 wells)

MW4 } City of Albany  
MW5 } waiting interconnect permit  
Let us know (30 days) contact person to expedite  
permitting process (Cal Trans)  
Biweekly - bailing FP  
Approval - for 2 MWs on 2 corners - approved  
RW = had skimmer

Soil Vapor Report - finished by NOV.

Treatment system - scheduled July 1993  
Semi-confined area (both soil & groundwater  
treatment)

Biwell bailing

Vapor extraction Test Report

Verbal approval of 2 on site

Design <sup>completed</sup> March 1992

System operating - July 1992

off site wells → 3/1/92

9/30/92

3310 Park Blvd. Oakland 946 ✓

November 1, 1992. Start up

As Schedule

Soil / Groundwater Treatment System

Install RW-1 Oct 19, 1992.

↳ Jan 1, 1992 - repair in

~ on

10:00 AM - 10:30 AM

9800 E. 14th Street off site source ✓

↳ across the street for off site well

City of Oakland Encroachment permit

↳ proposal WP - Nov. 15, 1992

① Install RW - screened depth

↳ ② Aquifer Test not done performed

③ level beach

2 months - delayed -> due to contractor's problem

Site closed up to 6/92 due to tank replacement

RAP = 6/1/93

Discharge - 8/1/93

Equipment procurement 11/1/93

Start up - 1/94

2 months delay ->

RAP - 5/1/93

9/30/92

10:30 - 10:45

566 Hegenberger Rd ✓ Oakland

2 off site wells installed

November

Tank replacement by November →  
no later than

# 10:45-

10600 MacArthur Blvd. ✓

PCE's soil

Touched Shallow water (leaving <sup>zone</sup> TPH

deeper - 44 ft - 55 ft - VOC's contamination

off site wells to be installed  
probes (1/2 in)

10700 MacArthur Blvd - suspect off site

Soil Vapor Extraction - being done

Time lines → on time (off site wells to be installed

RAP. submitted but <sup>will</sup> not be done due to

PCE's in deeper zone

June 1993 - due to access  
VET

Aquifer test  
off site

left ~~at~~ Jan 1, 1993

9/30/92

5131 Shattuck Ave Oakland 94609

Weathered gasoline

Approved 4 MW's Waste oil constituents  
Addendum to Q

3 MW's on site monitoring

Vapor Extraction to be added

Recovery well →  
Aquifer Test  
Vapor Test

12 weeks

Feb 1, 1993 - report on site perimeter  
+ 3 months monitoring

March 1, 1993 - RW workplan

Aquifer Test -

(optimal) condition vapor test 7 16 weeks

April 1 →

August 1, 1993 -

start design → ~~start~~ July, 1992 → complete ~~by~~ October  
RAT → (9/1/93)

(Product Skimmers → to submit)

11/1/93 → bid back (contract)



1 - month to bid  
2 - months before construction

2/94 - construction  
4.1.94 - Start-up

Sony Print → (RUBCB) access

9/30/92

2:25 PM

STIP 7249

7249 Village Hwy, Dublin 94568 ✓

Map of 3 corners

Additional Workplan - further site characterization  
3 Wells, vapor extraction test  
Monitor for 3 months →  
Data - Oil Changes

Advance brings - 1 ft <sup>screened</sup> into H<sub>2</sub>O

All contamination - at capillary fringe ]

WP <sup>from site installation</sup> approved delay till records search completed.

Verbal approval → by SS for installation of MW's

Time limits →

Aquifer Testing → Smearing / Stubs cuts

Report by February 1, 1993

Complete report August 1, 1993 (Aquifer Test, Recovery well off site wells)

RAP → 1 month after Report (September 1, 1992)  
Design - takes place on the RAP (November 1, 1992)

{ Bid (1 month) to get back }  
2/1/94 - construction  
(60 days)  
4/1/94 - start-ups }

9/30/92

3:00-3:30

STID 3943

22141 Center Street, Castro Valley ✓

Systems ready to begin  
Trenching →  
Compound →

Construction  
November 1992  
December - January

→ by 2 months  
Air permit delay - problems  
I.C. to run start up phase  
↳ separate permit since exceed 5 days

Worst case scenario → <sup>start</sup> March 15, 1993

Submitted/Out sheets } things may change  
as built

Also - had to give 30 days notice to operators before the ~~station~~ system can be installed?

P/R

3:30 PM -

7/2 Levelling Blvd. ↗ ✓

San Leandro 94579

San Leandro: to transfer to LOP

San Leandro letter July 30, 1992 by SS

Workplan: <sup>results</sup> address by SS → submitted

Groundwater problems →

Waste oil contamination in soil not defined.

↳ need more soil borings especially Pb

AW-1

287 Pm 3/6

Semi-annually 7/2 at MW-1 for waste oil constituents

Free Product: to test

Can not test 624 or TPH analysis but can test for 601 (Halocarbons) to prevent matrix interference

but test for O & G, halo carbons can be done

① MW-1 boring  
↳ sampling attempt <sup>to test for waste oil</sup> ~~no~~ waste oil constituents can be done.

- Boring around the tank →
- Background total lead

9-12 (3 hrs) } 6.8 hrs  
1:15-5:15 (3.75 hrs)

9/30/92

White oil tank →  
5520 D&E

Need more time due to permits requirements  
- deeper aquifer - Oct. 1991 Report  
MW-5

- Vertically ~
- potential migration into deeper aquifer
  - French <sup>map (12 feet to clay)</sup> system + ~~shoring~~ shoring - Building Dept. OSHA;
  - as built systems

16 weeks borings - out  
from approval by SS  
~~and test~~

- March 1993 - report comes out (
- Feasibility for soil (6 ft below soil)  
Vent test - contained  
aquifer test in shell - did not work →  
200 Gallons/day → beneficial use of groundwater

6/11/92

1260 Park St. Alameda

Site - Arco meeting  
6/11/92

Sites to be discussed during meeting at RWQCB on June 11, 1992

<u>ARCO Station</u>	<u>Address &amp; City</u>
276	10600 Mac Arthur Blvd., Oakland
374	6407 Telegraph Ave., Oakland
414	3000 Shattuck Ave., Berkeley
2035	1001 San Pablo Ave., Albany
2107	3310 Park Blvd., Oakland
2152	22141 Center St., Castro Valley
2169	899 W. Grand Ave., Oakland
2185	9800 E. 14th St., Oakland
4494	566 Hegenberger Rd., Oakland
4931	731 W. MacArthur, Oakland
6041	7249 Village Parkway, Dublin
6148	5131 Shattuck Ave., Oakland

← VOC problems  
2 up gradient wells

July 1992 (late) system in place  
6 MWs - 4 VWs - SW direction

- John Verge / Alarcón Lindquist

→ 3 MWs + 1 Boring (SW →)

5275 Washington Lowelling Rd.

Topics for discussion to include:

- Permitting and Access Problems, including City of Oakland - *name of people signing permit.*
- *delays of* Anticipated Remediation Schedules → *on schedule or ahead of schedule*
- *next phase of work* → Plan of Action to Complete Delineation of Site
- *joint remediation* → Possible/Probable Contributing Offsite Polluters, Help in gaining access/cooperation/information from them

Quicker approval of addendums to work plans, may we proceed without approval in cases where additional monitoring wells are being added to a monitoring program?

*drilling schedule then for them to flag*

*criticism schedule for corrective action*

*CEP Add'l  
\$15 charge permit  
→ \$12,000  
Risk Alarcón  
waste permit*

(6/11/92)

LIST OF ARCO SITES WITH UGT CLEANUP

<u>STID#</u>	<u>ACHD CONTACT</u>	<u>ARCO FACILITY#</u>	<u>ADDRESS</u>
3629	Susan Hugo	Station 2112	1260 Park Street Alameda 94501
817	Juliet Shin	Station 5387	20200 Hesperian Blvd. Hayward 94541
3943	Scott Seery	Station 2152	22141 Center Street Castro Valley 94546
3883	Susan Hugo	Station 6113	785 E. Stanley Blvd. Livermore 94550
3873	Susan Hugo	Station 771	899 Rincon Avenue Livermore 94550
1053	Scott Seery	Station 6041	7249 Village Parkway Dublin 94568
779	Juliet Shin	Station 608	17601 Hesperian Blvd. San Lorenzo 94580
3876	Barney Chan	Station 2185	9800 East 14th Street Oakland 94603
3756	Barney Chan	Station 276	10600 MacArthur Blvd. Oakland 94605
3874	Susan Hugo	Station 4931	731 W. MacArthur Blvd. Oakland 94609
3884	Susan Hugo	Station 374	6407 Telegraph Avenue Oakland 94609
3626	Susan Hugo	Station 6148	5131 Shattuck Avenue Oakland 94609
3890	Barney Chan	Station 2107	3310 Park Blvd. Oakland 94610
3854	Barney Chan	Station 4494	566 Hegenberger Road Oakland 94621
3793	Susan Hugo	Station 2169	889 W. Grand Ave. Oakland 94607
3858	Barney Chan	Station 2035	1001 San Pablo Avenue Albany 94706
0000	Scott Seery	Station 601	712 Lewelling Blvd. San Leandro 94579



HAZARDOUS MATERIALS  
 Site Brief for UNDERGROUND TANKS  
 for the City of Alameda

ALAMEDA COUNTY  
 as of 12/28/90  
 pg 1

UTID/ Status BillID	Name of Site	Site Address	#Tanks	PERMITS:
-0- T61043	C Arco Station #02112	1260 Park St. Alameda, CA 94501	5	I:09/06/88 F:-0-
784 T61043	C Arco Station #02035	1001 San Pablo Ave. Albany, CA 94706	4	I:09/06/88 F:-0-
658 T61043	C Arco Station #04977 AM/PM	2770 Castro Valley Blvd. Castro Valley, CA 94546	3	I:09/06/88 F:07/05/88
-0- T61043	C Arco Station #02152	22141 Center St. Castro Valley, CA 94546	3	I:09/06/88 F:-0-
*1053 T61043	C Arco Station #06041	7249 Village Pkwy. Dublin, CA 94568	4	I:09/06/88 F:-0-
*813 T10115	C Arco K&V Gas Foodmart	6211 San Pablo Ave. Emeryville, CA 94608	3	I:-0- F:-0-
I * T61043	C Arco Station #05387	20200 Hesperian Blvd. Hayward, CA 94541	4	I:09/06/88 F:-0-
*0- T21120	C Airport Arco	20450 Hesperian Blvd. Hayward, CA 94541	3	I:02/03/89 F:-0-
* <del>2112</del> T42311	C Springtown Arco	909 Bluebell Dr. Livermore, CA 94550	3	I:-0- F:-0-
-0- T61043	C Arco Station #00771	899 Rincon Ave. Livermore, CA 94550	5	I:09/06/88 F:-0-
198 T61026	R Wong's Arco	2032 E. - 12th St. Oakland, CA 94606	0	I:-0- F:-0-
*-0- T61043	C Arco Station #02185	9800 E. - 14th St. Oakland, CA 94603	4	I:09/06/88 F:-0-
1130 TA1036	C Freeway Arco	2740 - 98th Ave. Oakland, CA 94605	4	I:10/13/87 F:-0-
-0- T61043	C Arco Station #02169	889 W. Grand Ave. Oakland, CA 94607	5	I:09/06/88 F:-0-
*-0- -0-	R Gin's Arco Service	706 Harrison St. Oakland, CA 94612	0	I:-0- F:-0-
-0- T61043	C Arco Station #04494	566 Hegenberger Rd. Oakland, CA 94621	3	I:02/05/88 F:-0-
*1038 T21043	C High St. Arco	2951 High St. Oakland, CA 94619	5	I:02/05/88 F:-0-
-0- T61043	C Arco Station #04931	731 W. MacArthur Blvd. Oakland, CA 94609	4	I:09/06/88 F:-0-
-0- T61043	C Arco Station #00276	10600 MacArthur Blvd. Oakland, CA 94605	3	I:09/06/88 F:-0-
851 T41043	C Mountain Blvd. Arco	2844 Mountain Blvd. Oakland, CA 94602	4	I:04/14/88 F:-0-
-0- T61043	C Arco Station #02107	3310 Park Blvd. Oakland, CA 94610	3	I:09/06/88 F:-0-
-0- T61043	C Arco Station #06002	6235 Seminary Ave. Oakland, CA 94605	4	I:09/06/88 F:-0-
-0- T61043	C Arco Station #06148	5131 Shattuck Ave. Oakland, CA 94609	3	I:09/06/88 F:-0-
-0- T61043	C Arco Station #00374	6407 Telegraph Ave. Oakland, CA 94609	3	I:09/06/88 F:-0-
? -0- -0-	F Freedom Arco	15101 Freedom Ave. San Leandro, CA 94578	3	I:-0- F:-0-
<del>1794</del> T21053	<del>C Tharco</del>	<del>2222 Grant Ave. San Lorenzo, CA 94580</del>	<del>1</del>	<del>I:08/16/88 F:-0-</del>
779 T61043	C Arco Station #00608	17601 Hesperian Blvd. San Lorenzo, CA 94580	4	I:09/06/88 F:-0-

Site Brief for A B - 2 1 8 5  
for the city of Alameda

printed: 12/28/90  
page: 1

ABID/BillID	Name of Site	Site Address	Zip	SysEntry	S
/L71107	Arco Station #02112	1260 Park St.	501	10/24/90	C
/L91227	Arco Station #02035	1001 San Pablo Ave.	706	08/14/89	C
658/HL7111	Arco Station #04977	2770 Castro Valley Blvd.	546	08/14/89	C
/HL7112	Arco Station #02152	22141 Center St.	546	08/14/89	C
1053/HL7114	Arco Station #06041	7249 Village Pkwy.	568	06/04/90	C
/LC1217	Arco Station #05387	20200 Hesperian Blvd.	541	06/04/90	C
/L22223	Airport Arco	20450 Hesperian Blvd.	541	08/01/89	C
/	Springtown Arco	909 Bluebell St.	550		P
/L41112	Arco Station #00771	899 Rincon Ave.	550	07/28/89	C
/L81123	Arco Station #02185	9800 E. - 14th St.	603	08/14/89	C
1130/L91386	Freeway Arco	2740 - 98th Ave.	608	09/18/89	C
/L81146	Arco Station #02169	889 W. Grand Ave.	607	08/14/89	C
/L81176	Arco Station #04494	566 Hegenberger Rd.	621	08/14/89	C
1038/	High St. Arco	2951 High St.	619	03/21/89	P
/L81178	Arco Station #04931	731 W. MacArthur Blvd.	609	06/04/90	C
/L81128	Arco Station #00276	10600 MacArthur Blvd.	605	11/20/89	C
851/L12017	Mountain Blvd. Arco Servi	2844 Mountain Blvd.	602	11/30/90	M
/L81188	Arco Station #02107	3310 Park Blvd.	610	08/14/89	C
/L81295	Sunshine Petroleum, Inc.	6211 San Pablo Ave.	608	12/28/90	M
/HL8112	Arco Station #06002	6235 Seminary Ave.	605	08/31/90	C
/L81130	Arco Station #06148	5131 Shattuck Ave.	609	06/04/90	C
/L81179	Arco Station #00374	6407 Telegraph Ave.	609	08/14/89	C
744/HL7116	Arco Station #02111	1156 Davis St.	577	08/14/89	C
/HL7118	Arco Station #00601	712 Lewelling Blvd.	579	08/14/89	C
<del>1794/LA1469</del>	<del>Pharce</del>	<del>2223 Grant Ave.</del>	<del>580</del>	<del>07/28/89</del>	<del>C</del>
779/HL7119	Arco Station #00608	17601 Hesperian Blvd.	580	08/14/89	C

Arco Stati

Report Total : 26

Status Codes: C=Current/Part2      M=Current/Part1      P=awaiting busPla  
 B=ready for Billing      A=ready for Billing      I=Inactive

*6211 San Pablo  
No 467 MP.*

**ARCO Products Company**

2000 Alameda de las Gas  
Mailing Address: Box 5811  
San Mateo, California 94402  
Telephone 415 571 2400



92 JUL -5 PM 2:42

July 3, 1992

Mr. Richard Hiett  
California Regional Water Quality Control Board  
2101 Webster Street, Suite 500  
Oakland, California 94612

**Subject:** Minutes of Meeting on June 11, 1992 at the Regional Water Quality Control Board (RWQCB) to discuss work progress at ARCO Stations which are under the jurisdiction of Mr. Richard Hiett of the RWQCB.

Mr. Hiett:

I would like to thank you and the people from the Alameda County Health Care Services Agency (ACHCSA) for agreeing to meet with ARCO and our consultants concerning ARCO sites within your regulatory jurisdiction located within Alameda County, California. This letter is our understanding of the status and schedules for the sites which were discussed. If you should notice any discrepancies from your understanding of the status or schedule of these sites noted, please notify ARCO. This letter is a brief overview of a meeting held at the RWQCB in Oakland, California at 2:00 pm on Thursday, June 11, 1992 concerning work progress and plans for future work at ARCO Stations in Alameda County, California which are currently under the regulatory jurisdiction of Mr. Richard Hiett of the RWQCB. Attending the meeting were Mr. Richard Hiett and Mr. Lester Feldman of the RWQCB; Ms. Susan Hugo, Mr. Scott Seery, Mr. Ed Howell, Ms. Juliet Shin, and Mr. Barney Chan of the Alameda County Health Care Services Agency (ACHCSA); Mr. Michael Whelan of ARCO Products Company (ARCO); Mr. John Vargas and Ms. Diane Lundquist of GeoStratgies Inc.; and, Ms. Valli Voruganti and Mr. Joel Coffman of RESNA Industries.

The meeting was held at the request of ARCO to introduce Mr. Michael Whelan as the acting environmental engineer overseeing ARCO sites in Alameda County, California and to provide the RWQCB and the ACHCSA a brief overview of work being performed at the subject sites.

An agenda for the meeting had previously been sent to Ms. Susan Hugo of the ACHCSA for distribution among the various caseworkers within her agency. The following is an overview of the agenda and items for discussion:

Mr. Richard Hiatt  
July 3, 1992

<u>ARCO Station</u>	<u>Address &amp; City</u>
276	10600 MacArthur Blvd., Oakland
374	6407 Telegraph Ave., Oakland
414	3000 Shattuck Ave., Berkeley
2035	1001 San Pablo Ave., Albany
2107	3310 Park Blvd., Oakland
2152	22141 Center St., Castro Valley
2169	899 W. Grand Ave., Oakland
2185	9800 E. 14th St., Oakland
4494	566 Hegenberger Rd., Oakland
4931	731 W. MacArthur, Oakland
6041	7249 Village Parkway, Dublin
6148	5131 Shattuck Ave., Oakland

Topics for discussion to include:

- Permitting and Access Problems, including City of Oakland
- Anticipated Remediation Schedules
- Plan of Action to Complete Delineation of Site
- Possible/Probable Contributing Offsite Polluters, Help in gaining access/cooperation/information from them
- Quicker approval of addendums to work plans, may we proceed without approval in cases where additional monitoring wells are being added to a monitoring program?

Mr. Richard Hiett  
July 3, 1992

The meeting convened at 2: 00 pm on June 11, 1992 and upon completion of introductions, Mr. Ed Howell indicated that the ACHCSA was the oversight agency for all of Alameda County with exception to the cities of Berkeley, San Leandro, Hayward, Fremont, Newark, Union City, and Pleasanton. The Alameda County Water District (ACWD) has oversight in Fremont, Newark, and Union City, California. Currently, the ACHCSA is negotiating with the cities of Berkeley and San Leandro to allow ACHCSA oversight of sites within their cities. Mr. Hiett explained that he was the RWQCB engineer for sites in Alameda County which include all sites with exception of the cities which regulate themselves (referenced above) and the city of Livermore. He explained that John Jang was the RWQCB engineer with responsibility for the self regulated cities of Berkeley and San Leandro and that Eddy So has responsibilities for the sites within the cities of Livermore and Hayward and the cities within the ACWD. Mr. Barney Chan of the ACHCSA is now in charge of overseeing sites for the ACHCSA which were previously under the direction of Mr. Paul Smith and Mr. Larry Seto of the ACHCSA. These sites include ARCO Stations 276 and 2107 in Oakland, California and ARCO Station 2035 in Albany, California.

Mr. Whelan explained that ARCO's general approach to investigation consists of multiple phases of work, often being performed simultaneously. To expedite the processes involved in delineating and remediating a site, ARCO often will gather results from a subsurface investigation, vapor extraction test, or aquifer test and pass the information to engineers so remedial system design can begin before formally finalizing the reports. To further expedite the process, ARCO requested for the ACHCSA to speed up their review of work plans and remedial action plans. Mr. Whelan also explained that often during tank removal and replacement activities, ARCO installs several types of piping in trenches across the site which can later be used in various types of remediation systems. This piping is designed to accommodate electrical and air lines for pumps, groundwater extraction and soil vapor extraction. This approach minimizes disruption at the site during future installation of various remediation systems.

Site specific items of discussion were as follows:

**Station 276, 10600 Mac Arthur Blvd., Oakland, California**

Mr. Chan raised several concerns related to Station 276 including a desire for the groundwater gradient of the shallow perched water-bearing zone at the site to be established and full delineation of hydrocarbon impacted soil and groundwater at the site. The halogenated volatile organic compounds (VOCs) found in groundwater at the site were also discussed and it was disclosed that ARCO would be installing offsite upgradient wells to determine an offsite source was responsible for VOCs found in groundwater at the site. It

Mr. Richard Hiett  
July 3, 1992

was pointed out that during removal of the waste oil storage tank at the site, there was no evidence of waste oil contamination in soils surrounding the tank and no onsite source for the VOCs. It was also pointed out that the adjacent upgradient property had been an automobile manufacturing plant from circa 1920's to the late 1950's and that operations associated with those activities may be the source of the VOC problem in groundwater at the site.

ARCO stipulated that they do not want to start pumping and treating VOC impacted groundwater at the site until the source of the VOC contamination is identified and the upgradient extent of VOCs in soil and groundwater is delineated. ARCO does not want to clean up groundwater that was impacted by others. Pumping prior to resolution of these matters may actually pull more VOCs onto the site from a probable offsite source. The adjacent upgradient property is listed on the fuel leaks list as Foothill Square Shopping Center. Mr. Richard Gilcrease is the representative of the current property owner, Drake Builders, whom ARCO has been in contact with concerning installation of monitoring wells on the adjacent upgradient property. The last address known for correspondence with Drake Builders is: 5200 Panama Avenue, Richmond, California 94804. Mr. Lester Feldman stated that if the VOC problem is shown to originate from offsite that the RWQCB will pursue the responsible offsite parties for clean up.

The installation of onsite vapor extraction wells and their connection to an existing vapor extraction system at the site was also discussed. At least one of the onsite vapor extraction wells in the southwest corner of the site will be completed as a combination vapor extraction/groundwater monitoring well, if the shallow perched water-bearing zone is not encountered, to help delineate the onsite extent of hydrocarbon impacted groundwater and to provide better groundwater gradient information.

It was explained that ARCO's approach to remediation was to close the site down once and install all necessary and anticipated remediation piping. At this site, it was pointed out that tying into groundwater recovery well RW-1 doesn't imply that ARCO will or is required to remediate the groundwater since the VOCs there probably originate from an offsite source and gasoline hydrocarbons have not impacted groundwater in that portion of the site.

**Station 374, 6407 Telegraph Ave., Oakland, California**

Discussion about this site with Ms. Susan Hugo of the ACHCSA and Mr. Hiett of the RWQCB included mention of the fact that obtaining encroachment permits from the City of Oakland had been a lengthy, time consuming process which had taken some six months to complete. Mr. Hiett suggested getting names of personnel at the City of Oakland and

Mr. Richard Hiett  
July 3, 1992

that maybe his agency could contact these people to speed up future encroachment permitting. Ms. Hugo was informed that two offsite and downgradient monitoring wells (MW-5 and MW-6) had recently been installed and that soils and groundwater from the borings/wells contained nondetectable levels of gasoline hydrocarbons. A technical report with all field results related to the installation of these offsite wells is being prepared by RESNA.

It was pointed out that a service station located across Telegraph Avenue to the east in the upgradient or cross gradient direction from ARCO Station 374 had been taken out of service during the mid 1980s and that there was a report documenting soil contamination from that site. There is no record in the files that an investigation to determine if groundwater beneath this former service station was impacted by hydrocarbons detected in the soils. This was of concern to ARCO as the onsite monitoring well MW-1, located cross gradient and relatively close to the source area (former tanks) has been consistently free of hydrocarbon impacted groundwater while the onsite monitoring well MW-2, located further from the source and in the upgradient direction from the source at the ARCO site has consistently contained hydrocarbon impacted groundwater. This leads ARCO to believe hydrocarbon impacted groundwater below this portion of the site may originate from the site across Telegraph Avenue to the east.

Ms. Hugo mentioned that an onsite groundwater monitoring well (MW-4) had once contained total petroleum hydrocarbons as diesel. Mr. Whelan pointed out that ARCO had never stored diesel at the site and that weathered gasoline would often show up as diesel on laboratory chromatograms.

In addition, Ms. Hugo gave verbal approval of the Remedial Action Plan for interim soil and groundwater remediation submitted by RESNA on behalf of ARCO.

**Station 414, 3000 Shattuck Ave., Berkeley, California**

As stated above, sites being discussed in this meeting were those under guidance of Mr. Hiett of the RWQCB. This site is currently under direction of Mr. Jang and therefore was passed over and not discussed in this meeting.

**Station 2035, 1001 San Pablo Ave., Albany, California**

Mr. Barney Chan of the ACHCSA recently assumed oversight responsibilities for this site from Mr. Larry Seto. He was not completely up to date with previous activities conducted at the site. It was mentioned that the tanks had been replaced during July and August of

Mr. Richard Hiatt  
July 3, 1992

1991 and that a subsurface investigation including an aquifer test had been completed at the site. Resna prepared technical reports on behalf of ARCO for the subsurface investigation and the tank replacement. It was also brought to Mr. Chan's attention that a work plan addendum had been prepared by RESNA and delivered to the ACHCSA during May 1992. Mr. Chan said he would review the work plan and get back to ARCO and RESNA with any comments he might have. As of the date of this letter, approval of this work plan addendum has not been received. Additional wells in the vicinity of the new tanks will be proposed under a separate phase of work.

**Station 2107, 3310 Park Blvd., Oakland, California**

Mr. Barney Chan of the ACHCSA recently assumed oversight responsibilities of this site from Mr. Paul Smith. He was not completely up to date with previous activities conducted at the site. Mr. Joel Coffman and Ms. Valli Voruganti of RESNA explained the proposed groundwater treatment system to be installed at the site along with installation of offsite monitoring wells to delineate the extent of hydrocarbons in groundwater beneath the site. Mr. Chan requested that groundwater from the wells be analyzed for total petroleum hydrocarbons as diesel (TPHd) as TPHd had previously been detected at the site. Mr. Whelan of ARCO explained that ARCO had never stored diesel at the site and that weathered gasoline often showed up on laboratory chromatograms as diesel. It was agreed that downgradient wells will be sampled one time to confirm that TPHd found in the soil was indeed weathered gasoline.

**Station 2152, 22141 Center St., Castro Valley, California**

Mr. Scott Seery of the ACHCSA was informed that the proposed soil borings (B-19 and B-20) had been drilled and all soil samples collected for analysis from the borings contained nondetectable concentrations of gasoline hydrocarbons, therefore, vapor extraction wells were not constructed in the borings. It was explained by RESNA that the groundwater has only shown trace amounts of hydrocarbon impact on two quarterly monitoring episodes, once each during the spring of 1990 and 1991. All wells have contained nondetectable concentrations of gasoline hydrocarbons since the spring of 1991. Mr. Seery made mention of the fact he had not received a copy of the report related to the soil borings. ARCO and RESNA told Mr. Seery that the report should be issued within 30 days.

It was noted that the Bay Area Air Quality Management District had issued a permit granting RESNA and ARCO the authority to construct a soil vapor extraction system at the site. Progress of obtaining other permits was also discussed.



Mr. Richard Hiatt  
July 3, 1992

**Station 2169, 899 W. Grand Ave., Oakland, California**

Mr. John Vargas discussed the site background for this site. Four monitoring wells and one groundwater extraction well were installed in March 1992 to assess the groundwater conditions at the site. The previous tanks were removed and relocated between February and May, 1992. This work was performed in response to petroleum hydrocarbons identified in a monitoring well adjacent to the previous tank complex. A report of these field activities is in progress and will be submitted to the ACHCSA in July, 1992. In addition, three vapor extraction wells and one groundwater extraction well, located in the new tank complex, were installed on June 8, 1992. A vapor extraction test was performed on June 11, 1992. A report documenting the results of the vapor extraction test and well installations is in preparation.

Ms. Susan Hugo queried how we chose the locations of these wells. Mr. Vargas explained that since petroleum hydrocarbons had impacted onsite groundwater, wells were located at the property boundaries in addition to a well within the previous tank complex. Since petroleum hydrocarbons were identified in an upgradient well, there may be offsite sources. Planned site activities include research for offsite sources, performance of an aquifer test and offsite assessment. Once aquifer characteristics are determined, ARCO will initiate design and permitting of a remediation system.

**Station 2185, 9800 E. 14th St., Oakland, California**

Mr. Barney Chan discussed how he wanted the subsurface investigation to proceed as he had previously discussed with Mr. Chuck Carmel of ARCO and Mr. Paul Supple of Roux Associates. It was explained that the site was still fenced off and under construction due to a problem encountered by the contractors that performed the tank removal and replacement. Mr. Chan also asked about the subsurface piping that was installed at the site to be used for future remediation. Mr. Whelan explained that piping for remediation purposes was scheduled to be installed at the site, but, due to problems associated with the subcontractor, the piping was not installed and will be installed during the construction phase of any remediation system which may need to be built at the site. The tank replacement report was recently submitted to the ACHCSA by Roux Associates.

As documented in a previous letter written to Mr. Barney Chan, it was also discussed with Mr. Chan that ARCO wished to hold off the initiating of obtaining offsite access for installation of offsite monitoring wells at the site until onsite groundwater monitoring wells were installed and monitored to determine the gradient and direction of groundwater flow beneath the site.

Mr. Richard Hiatt  
July 3, 1992

**Station 4494, 566 Hegenberger Rd., Oakland, California**

Mr. Chan expressed concern that although ARCO had submitted a permit application for removal and replacement of the underground storage tanks at the site and that approval for tank replacement had been granted in November 1991, he has still not been given a firm schedule for the replacement of the tanks at the site. Mr. Whelan explained the different responsibilities of the various groups within ARCO and that the ARCO construction department was responsible for the tank replacement scheduling and that he was not involved. However, Mr. Whelan also pointed out that ARCO is in compliance with tank testing requirements and that results of tank and product line leak tests show the tanks and lines are not leaking. The site is on an ARCO tank replacement list, but, the schedule has not been finalized. ARCO will replace the tanks in accordance with deadlines and other requirements as set forth by applicable state guidelines.

It was disclosed that after almost a year of negotiation, an agreement had finally been reached with the adjacent property owner downgradient from the site for installation of offsite groundwater monitoring wells. This work is to be performed in July 1992 along with installation of an additional onsite monitoring well in the northwestern portion of the site.

**Station 4931, 731 W. MacArthur, Oakland, California**

Mr. John Vargas and Ms. Diane Lundquist discussed the progress at this site since the January 17, 1992 meeting held between ARCO and the ACHCSA. Floating product has been observed in wells A-4 and A-8. A product skimmer will address the floating product in well A-8 until the remedial system is installed. Well A-2, which is adjacent to the former tank complex, was analyzed for oil and grease and lead. These constituents were not identified. The offsite upgradient well and onsite recovery wells were scheduled to be drilled June 12 and 15, 1992. A well located crossgradient to the east of the site is not feasible to install due to access problems.

The tank replacement and relocation project is still in progress. Additional soils were removed from the previous tank complex as requested by the ACHCSA in the January 1992 meeting. Some impacted soil, containing less than 151 parts-per-million hydrocarbons, was left in place due to site constraints (ARCO's facility building and pump islands) which limited the extent of the excavation. A vapor extraction test indicated that vapor extraction is not a feasible option to remediate these areas.

Permits for construction of the remediation system for groundwater discharge have been obtained. The remediation system trenching and construction was scheduled to begin in mid

Mr. Richard Hiatt  
July 3, 1992

to late June, 1992. Start-up of the remedial system is scheduled for the third quarter of 1992.

**Station 6041, 7249 Village Parkway, Dublin, California**

RESNA explained to Mr. Scott Seery that there is a Unocal Station across the street directly west of the ARCO site which has reported significantly higher concentrations of hydrocarbon impacted groundwater. This was pointed out for informational purposes only as RESNA, on behalf of ARCO, is preparing a work plan with proposed work which includes installation of additional monitoring wells, installation of vapor extraction wells, a performance of a vapor extraction test, installation of a groundwater recovery well, and performance of an aquifer pumping and recovery test. This work plan will be submitted to ARCO and the proper regulatory agencies upon completion in July 1992.

**Station 6148, 5131 Shattuck Ave., Oakland, California**

Ms. Hugo stated she had not received the subsurface investigation report associated with the waste oil investigation at the site. Mr. Whelan explained that ARCO is currently reviewing all the analytical data associated with the investigation and that the report will be issued shortly. ARCO is awaiting backup from the laboratory to complete the review of the analytical data. It was also stated a work plan with proposed additional work at the site is being prepared by RESNA for submittal to ARCO and the proper regulatory agencies in July 1992.

**Other Topics for discussion:**

- **Permitting and Access Problems, including City of Oakland**

Mr. Hiatt asked that if problems are encountered gaining encroachment permits, he be given the names of people at the city in charge of issuing the permits so he may phone them and help expedite the process.

- **Anticipated Remediation Schedules**

ACHCSA asked that any delays which slow down the remediation of sites beyond the schedules which were submitted to the Alameda County District Attorney be carefully documented.

Mr. Richard Hiatt  
July 3, 1992

- **Plan of Action to Complete Delineation of Site**

Mr. Whelan explained to the RWQCB and ACHCSA that ARCO is aggressively attempting to fully delineate the onsite and offsite extents of any problems associated with these sites.

- **Possible/Probable Contributing Offsite Polluters, Help in gaining access/cooperation/information from them**

This topic was discussed while reviewing the status of each site.

- **Quicker approval of addendums to work plans, may we proceed without approval in cases where additional monitoring wells are being added to a monitoring program?**

In addressing the request from ARCO for quicker approval of work plans and addendums to work plans, Mr. Chan pointed out that a responsible party does not have to wait for approval of any kind to implement interim remedial measures at a site.


A brief discussion was held about the law under Title 23, Article 11, Chapter 16, Sections 2722 (b)(5) and 2726 (c)(1), which allows for proceeding with proposed work in work plans if not having received approval after 60 days from submittal. Mr. Whelan asked that ARCO be allowed to proceed with proposed work in work plans if the scope of work was the addition of monitoring wells or other work not associated specifically with complex remediation alternatives. Mr. Whelan pointed out that many times in the past work had been significantly delayed due to the time required to obtain work plan approval from the ACHCSA. Mr. Scott Seery asked that ARCO send a note to the ACHCSA requesting work plan review if approval had not been granted when ARCO and it's consultant are ready to implement work or after 45 days from work plan submittal date. This note, with attached figure of proposed well locations, should state that proposed work will proceed if approval has not been granted within the 60 day guideline.

Upon completion of this discussion, the meeting was adjourned at approximately 5:10 pm.

Mr. Richard Hiatt  
July 3, 1992

If you have any questions or comments about these meeting minutes, please contact me at (415) 571-2449.

Sincerely,



Michael R. Whelan  
Environmental Engineer

cc: Lester Feldman, RWQCB  
Susan Hugo, ACHCSA  
Chris Winsor, ARCO  
John Meck, ARCO  
John Vargas, GeoStratagies  
Joel Coffman, RESNA Industries

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

May 22, 1992  
0505BCHA.4494  
61026.01

Mr. Barney Chan  
Alameda County Health Care Services Agency  
Department of Environmental Health  
80 Swan Way, Room 200  
Oakland, California 94624

Subject: Site Status Update for ARCO Station 4494, 566 Hegenberger Road, Oakland, California.

Dear Mr. Chan:

This letter provides an update on investigation and remedial activities conducted for the above-referenced site. This update covers site activities performed during April 1992, and site activities anticipated for the month of May 1992.

#### **April 1992 Activities**

- Performed quarterly groundwater sampling and monitoring.
- Site visit to check Horner EZY Floating Product Skimmer in well MW-2, no product was found in the skimmer.
- Submitted Fourth Quarter 1991 Groundwater Monitoring Report to ARCO and governing regulatory agencies.

#### **Work Anticipated for May 1992**

- Monthly groundwater monitoring will continue.
- Continue to pursue offsite access to drill soil borings and install offsite wells.
- Drill two offsite soil borings and install monitoring wells MW-5 through MW-7 in these borings, if offsite access is granted by offsite owner.

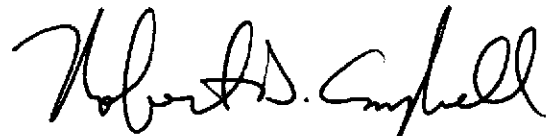
Site Status Update  
ARCO Station 4494, Oakland, California

May 22, 1992  
61026.01

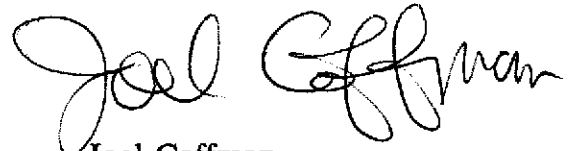
- Survey, develop, and sample monitoring wells MW-5 through MW-7 if installed.

If you have any questions or comments regarding this letter, please call us at (408) 264-7723.

Sincerely,  
RESNA Industries



Robert D. Campbell  
Staff Geologist



Joel Coffman  
Project Geologist

cc: Mr. Michael Whelan, ARCO Products Company

4/23/92  
Called Don Moore (Seaco)  
received GR updates of Arco.

April 13, 1992

92 APR 13 PM 3:00

Ms. Susan Hugo  
Alameda County Department of Environmental Health  
80 Swan Way  
Oakland, California 94621

**ARCO Products Company Facilities in Alameda County**

Dear Ms. Hugo:

Please find attached, Quarterly Summary Reports (QSRs) for ARCO Products Company Service Stations in Alameda County. The QSRs summarize activities conducted by ARCO at the respective sites during the first quarter of 1992; also included are projected site activities for the second quarter of 1992 and a bibliography of reports submitted for each location.

The QSRs are classified by city and address within Alameda County. We are submitting this document and attached QSRs as agreed. Please note that we are forwarding copies of the QSRs to the Regional Water Quality Control Board (RWQCB).

Please note that ARCO Products Company has reviewed the RWQCB's February 19, 1991 printout of ARCO fuel leak sites. We have evaluated each site with respect to ARCO's responsibility for investigation, monitoring, and/or remediation. Those locations for which ARCO is not responsible were listed and described in the QSR package delivered to you on July 15, 1991. The attached QSRs therefore represent only those locations for which ARCO is responsible.

ARCO is planning a subsequent comprehensive QSR submittal for ARCO sites on July 15, 1992. Please do not hesitate to contact us with any questions regarding this submittal.

Sincerely yours,



Kyle A. Christie  
Environmental Engineer

Attachments: ARCO Facility QSRs



UST LEAK  
SITE UPDATE

Date of Last  
Review/Update January 6, 1992

Current  
Date April 6, 1992

SITE IDENTIFICATION

Name ARCO Service Station 4494 Case No. \_\_\_\_\_  
Address 556 Alameda Road  
Street Number \_\_\_\_\_ Street \_\_\_\_\_  
Oakland \_\_\_\_\_ 94621  
City \_\_\_\_\_ ZIP Code \_\_\_\_\_  
County Alameda Substance Gasoline & Waste-Oil  
Local Agency Alameda County Health Care Services Agency  
Regional Board Regional Water Quality Control Board - Mr. Lester Feldman

LEAD STAFF PERSON ACHCSA - Ms. Nancy Chan

CASE TYPE

Undetermined  Soil Only  Ground Water  Drinking Water

STATUS (Date indicates when case moved into status)

<input type="checkbox"/> No Action Taken	Date	_____
<input checked="" type="checkbox"/> Leak Being Confirmed	Date	<u>12/88</u>
<input checked="" type="checkbox"/> Preliminary Site Assessment Workplan Submitted	Date	<u>9/89</u>
<input checked="" type="checkbox"/> Preliminary Site Assessment Underway	Date	<u>10/90</u>
<input checked="" type="checkbox"/> Pollution Characterization	Date	<u>5/91</u>
<input checked="" type="checkbox"/> Remediation Plan	Date	<u>5/91</u>
<input type="checkbox"/> Remedial Action Underway	Date	_____
<input type="checkbox"/> Post Remedial Action Monitoring	Date	_____
<input type="checkbox"/> Case Referred to Regional Board	Date	_____
<input type="checkbox"/> Case Referred to Dept. of Health Services	Date	_____
<input type="checkbox"/> Case Closed	Date	_____

COMMENTS/MILESTONES:

Floating product bailing from MW-2 has reduced product to a sheen; no other floating product currently onsite in wells. Tank replacement pending. Installed a Horner EZY floating product skimmer in MW-2.

RECENT ACTIVITIES/FINDINGS:

Last Quarter Activities: Performed quarterly groundwater monitoring and reporting. Received permission from tenant only, on 11/19/91, to drill and install wells on adjacent property during weekend mornings only. Still need permission from owner. Installed a Horner EZY floating product skimmer in MW-2 on 12/24/91.

Current Quarter Activities: Checked EZY Floating Product skimmer in well MW-2.

ANTICIPATED ACTIVITIES:

Next Quarter Activities: Gain offsite access from property owner. Assess offsite extent of hydrocarbons by drilling and installing two offsite wells on adjacent property. Continue quarterly groundwater monitoring and prepare quarterly groundwater monitoring report.

Submit workplan for additional assessment.

Reports documenting the site's history are listed on page 2.

REPORTDATECONSULTANT

Letter Report on Third Quarter 1991  
Ground-Water Monitoring at ARCO 4494,  
Oakland, CA  
69038.04

11/21/91

RESNA

Letter Report on Second Quarter 1991  
Ground-Water Monitoring at ARCO 4494,  
Oakland, CA  
69038.04

9/10/91

RESNA

Work Plan for Subsurface Investigation and  
Remediation and Addendum One to Work Plan to  
Perform Underground Tank Replacement  
Investigation, Preliminary Offsite Investigation,  
and Interim Product Recovery.  
AGS 69038-6

5/15/91

RESNA/Applied  
GeoSystems

Report on Preliminary Tank Replacement  
Assessment  
AGS 69038-5

5/2/91

RESNA/Applied  
GeoSystems

Letter Report on First Quarter 1991  
Ground-Water Monitoring at ARCO 4494,  
Oakland, CA  
AGS 69038-4

4/3/91

Applied  
GeoSystems

Limited Subsurface  
Environmental Investigation  
AGS 69038-2

2/13/91

Applied  
GeoSystems

Letter Report on Fourth Quarter 1990  
Groundwater Monitoring  
AGS 69038-4

2/8/91

Applied  
GeoSystems

Site History Assessment and  
Limited Environmental Records Review  
AGS 69038-3

10/1/90

Applied  
GeoSystems

Work Plan for Initial Subsurface  
Investigation  
AGS 69038-1

9/29/89

Applied  
GeoSystems

Subsurface Environmental Investigation  
Project 330-41

5/3/89

Pacific Environmental  
Group

LAW OFFICES OF  
**PETER M. TURNER**  
A PROFESSIONAL CORPORATION  
P.O. BOX 10919  
OAKLAND, CALIFORNIA 94610-0919  
(415) 832-5060  
FAX (415) 832-1756

*Arco  
Re: 566 Hegen Rd*

April 15, 1992

92 APR 16 PM 2:27

Chuck Carmel  
Environmental Engineer  
ARCO Products Company  
P. O. Box 5811  
San Mateo, CA 94402

RE: T. K. McManus, Jr., Monitoring Wells At  
580 Hegenberger Road, Oakland, California  
Arco Service Station #4494

Dear Mr. Carmel:

Following our discussion, I have reviewed the proposed language with Tom McManus and made some minor modifications to paragraph 3.14.

Enclosed herewith are four signed agreements for you to obtain signatures by your client and return to me for the tenants' signatures.

Yours truly,

*PS!*

Peter M. Turner  
A Professional Corporation

PMT:11  
cc: Gill Jensen  
Barney Chan ✓



3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

March 16, 1992  
0309BCHA.4494  
61026.01

Mr. Barney Chan  
Alameda County Health Care Services Agency  
Department of Environmental Health  
80 Swan Way, Room 200  
Oakland, California 94624

Subject: Site Status Update for ARCO Station 4494, 566 Hegenberger Road, Oakland, California.

Dear Mr. Chan:

This letter provides an update on investigation and remedial activities conducted for the above-referenced site. This update covers site activities performed during February 1992, and site activities anticipated for the month of March 1992.

**Status of Previous Months Activities:**

February 28, 1992: Monitored the EZY Product Skimmer for recovered floating product.

**Anticipated Work to be performed in the Next Month:**

- o Monthly groundwater monitoring.
- o Submit Fourth Quarter 1991 Groundwater Monitoring Report to ARCO and governing regulatory agencies.
- o Continue to pursue offsite access to drill soil borings and install offsite wells.
- o Drill two offsite soil borings and install monitoring wells MW-5 through MW-7 in these borings, if offsite access is granted by offsite owner.

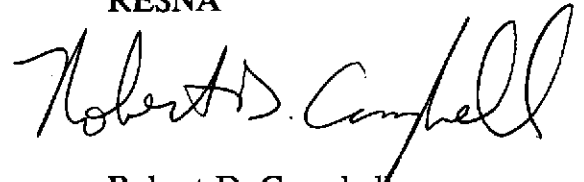
Site Status Update  
ARCO Station 4494, Oakland, California

March 16, 1992  
61026.01

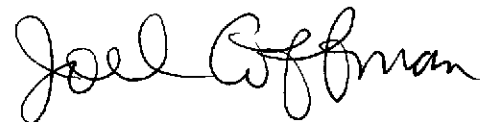
- o Survey, develop, and sample monitoring wells MW-5 through MW-7 if installed.

If you have any questions or comments regarding this letter, please call us at (408) 264-7723.

Sincerely,  
RESNA



Robert D. Campbell  
Staff Geologist



Joel Coffman  
Project Geologist

cc: Mr. Chuck Carmel, ARCO Products Company

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

92 TRANSMITTAL

TO: MR. BARNEY CHAN  
ACHCSA-DEH  
80 SWAN WAY, ROOM 200  
OAKLAND, CALIFORNIA 94624

DATE: 2/18/92  
PROJECT NUMBER: 61026.01  
SUBJECT: SITE STATUS UPDATE FOR  
ARCO STATION 4494, AT 566 HEGENBURGER  
ROAD, OAKLAND, CALIFORNIA

FROM: JOEL COFFMAN  
TITLE: PROJECT GEOLOGIST

WE ARE SENDING YOU  Attached  Under separate cover via \_\_\_\_\_ the following items:  
 Shop drawings  Prints  Reports  Specifications  
 Letters  Change Orders  \_\_\_\_\_

COPIES	DATED	NO.	DESCRIPTION
1	2/14/92	61026.01	SITE STATUS REPORT FOR ARCO STATION 4494

THESE ARE TRANSMITTED as checked below:

- For review and comment  Approved as submitted  Resubmit \_\_\_ copies for approval  
 As requested  Approved as noted  Submit \_\_\_ copies for distribution  
 For approval  Return for corrections  Return \_\_\_ corrected prints  
 For your files  \_\_\_\_\_

REMARKS: CC: CHUCK CARMEL, ARCO PRODUCTS COMPANY  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Copies: 1 to project file no. 61026.01

\*Revision Date: 11/21/91  
\*File Name: TRANSMT.PRJ



A RESNA Company

**RESNA**

Working To Restore Nature

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

February 14, 1992  
0212BCHA.4494  
61026.01

Mr. Barney Chan  
Alameda County Health Care Services Agency  
Department of Environmental Health  
80 Swan Way, Room 200  
Oakland, California 94624

Subject: Site Status Update for ARCO Station 4494, 566 Hegenberger Road, Oakland, California.

Dear Mr. Chan:

This letter provides an update on investigation and remedial activities conducted for the above-referenced site. This update covers site activities performed during January 1992, and site activities anticipated for the month of February 1992.

**Status of Previous Months Activities:**

January 19, 1992: Monthly groundwater monitoring was performed.

**Anticipated Work to be performed in the Next Month:**

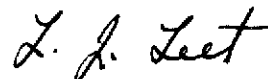
- o Groundwater monitoring will continue.
- o Submit Fourth Quarter 1991 Groundwater Monitoring Report to Regulatory Agencies.
- o Continue to pursue offsite access to drill soil borings and install offsite wells.
- o Drill the soil borings and install monitoring wells MW-5 through MW-7, if offsite access is granted by offsite owner.
- o Survey monitoring wells MW-5 through MW-7 if offsite access is granted.

Site Status Update  
ARCO Station 4494, Oakland, California

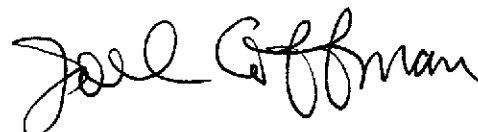
February 14, 1992  
61026.01

If you have any questions or comments regarding this letter, please call us at (408) 264-7723.

Sincerely,  
RESNA



Lou Leet  
Staff Geologist



Joel Coffman  
Project Geologist

cc: Chuck Carmel, ARCO Products Company



LAW OFFICES OF  
**PETER M. TURNER**  
A PROFESSIONAL CORPORATION  
P.O. BOX 10919  
OAKLAND, CALIFORNIA 94610-0919  
(510) 832-5060  
FAX (510) 832-1756

February 11, 1992

Chuck Carmel  
Environmental Engineer  
ARCO Products Company  
P. O. Box 5811  
San Mateo, CA 94402


RE: T. K. McManus, Jr., Monitoring Wells At  
580 Hegenberger Road, Oakland, California  
Arco Service Station #4494

Dear Mr. Carmel:

I am enclosing three signature copies of the revised License Agreement faxed to you on February 5, 1992. These copies have been signed by Mr. McManus and are unchanged from the draft copies sent to you on that date.

Please have all copies signed by Applied GeoSystems, Inc., and your company, and return one fully executed copy to my office.

Yours truly,



Peter M. Turner  
A Professional Corporation

PMT:11  
encs.

cc: Gill Jensen  
Barney Chan

92 FEB 14 10:26 AM '92

*Attorney for Mr. McManus.*

**PETER M. TURNER**  
A PROFESSIONAL CORPORATION

LAW OFFICES OF  
**PETER M. TURNER**  
POST OFFICE BOX 10919  
OAKLAND, CALIFORNIA 94610-0919

TELEPHONE (415) 832-5060  
FAX (415) 832-1756

**T.K. McMANUS, JR.**  
*Need to bill*  
*2. Shm*  
*@67/An*



**UNDERGROUND  
CONSTRUCTION  
CO., INC.**

Engineering Contractors

*Prop. Jones 580*  
*Reg. Rd.*

HOME OFFICE  
P.O. BOX 2000  
5145 INDUSTRIAL WAY  
BENICIA, CA 94510  
(707) 746-8800

*Solan & Braw*

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

## **EXPLANATION TO ARCO 4494 REMEDIAL SCHEDULE**

---

### **1). ONSITE SUBSURFACE INVESTIGATION**

Preliminary investigations were completed prior to October 1991. An aquifer test and a vapor extraction test (if necessary) will be performed on completion of the proposed offsite investigation.

### **2). OFFSITE GROUNDWATER INVESTIGATION**

Since August 1991, offsite investigations are pending the gaining of permission from adjoining property owner for installation of two monitoring wells that will delineate the extent of the hydrocarbon plume offsite. Our consultant has submitted a letter explaining the purpose of the investigation, locations of proposed wells, and ARCO's standard license agreement which the offsite landowner has yet to sign and return before offsite work can commence. Due to previous experience our consultant has had the process of gaining access could take an additional three months.

The schedule assumes that no further offsite investigation will be required.

### **3). REMEDIAL ACTION PLAN**

A passive floating product skimmer was installed in monitoring well MW-2 in December 1991 as a means of interim remediation.

On completion of the aquifer test and a vapor extraction test (if necessary), a Remedial Action Plan (RAP) will be submitted for review and approval by the Regional Water Quality Control Board (RWQCB) and the Alameda County Health Care Services Agency (ACHCSA) before the proposed soil and/or groundwater remediation systems can be installed. The RAP will describe the proposed remediation systems, their design, installation, and operation and maintenance. A preliminary schedule of work, including a construction schedule will be presented. It is anticipated that the regulatory agencies will review and approve the RAP within one month of receipt. The estimated remediation schedule for this site will be delayed if the aquifer and vapor extraction tests are delayed, if review of the RAP is delayed or, if after review of the RAP, the regulatory agencies involved have

comments and require submittal of a revised RAP. The estimated time schedule for preparation of the RAP accounts for time necessary to complete the aquifer and vapor extraction tests and assumes that results of offsite investigation will not impact the schedule.

**4). PRELIMINARY AND DETAILED ENGINEERING DESIGN**

The estimated schedule shows that preliminary design will be completed and submitted to the involved regulatory agencies with the RAP. The preliminary design assumes that only onsite remediation is needed. Preliminary design consists of analyzing site characterization data collected to date and developing a cost-effective conceptual design. The conceptual design consists of specifying the proposed vapor and groundwater extraction systems, the treatment system (type of abatement and location of remediation compound), and development of the process flow diagram (PFD). This information is used for environmental permitting and final design. Due to the lack of any aquifer pump data and vapor extraction data, selection of the anticipated treatment technologies for soil and groundwater remediation has not been made at the present time.

Work under the detailed engineering design includes: engineering calculations; bill of materials; preparation of Plans and Specifications, including site and remediation compound layouts; trench and section details; process and instrumentation diagram (P&ID) and a one line electrical diagram; in-house plan check and review; and one set of revisions to the Plans and Specifications by ARCO. Once the Plans and Specifications are finalized, planning and building permits are applied for and bids solicited from qualified contractors.

**5). PERMITTING**

Typically two types of permits environmental, and planning and building permits are required for installation of the proposed soil and groundwater remediation systems. Environmental permits include: an Authority to Construct and Permit to Operate from the governing Air Board for systems where organic vapor emissions are likely (oil-water separators, aeration tanks, carbon (vapor phase), air strippers, and thermal or catalytic oxidizers); and a Wastewater Discharge Permit from the RWQCB or the local Publicly Owned Treatment Works (POTW) for discharge of treated effluent from the proposed groundwater remediation system to the storm drain or local City sewer.

The air and wastewater discharge permit applications can be sent when the soil and groundwater remediation equipment has been identified during preliminary design. The governing Air Board has 60 days to issue the permit (Authority to Construct) or request additional information. If a resubmission of the permit application is required, there will be an additional delay of up to 30 days. Once operation of the remediation system has been initiated, a letter requesting a Permit to Operate is sent to the Air Board. The permit is received with 60 days, although the system can be in operation during this time. No air permit is necessary for systems that do not emit any off-gas to the atmosphere.

Based on aquifer testing data, the average and maximum expected groundwater extraction flow rates and influent hydrocarbon concentrations will be determined. If the local POTW will accept treated effluent water from the groundwater remediation system, a wastewater discharge permit will be generally granted within 30 days. Communications are less formal than with the RWQCB and questions, comments, and additional requirements can usually be handled by telephone or fax without significant delays.

However, if the local POTW will not accept the discharge, a National Pollutant Discharge Elimination System (NPDES) permit from the RWQCB will be required. For cleanups at service stations, the RWQCB has initiated an NPDES permit program where a permit application can be approved within three to four months of submission. An encroachment permit from the City will also be required for sites where groundwater discharge goes to a storm drain in the City right of way.

Planning and building permits include submission of the complete set of Plans and Specifications to the local City Planning Building and Fire Departments for approval, prior to construction and installation of proposed remediation systems. These permits are typically granted within 30 days of receipt of the Plans and Specifications.

Questions, comments and additional requirements are usually handled informally by visits, telephone, or fax. A Hazardous Materials Management Plan (HMMP) is required to be submitted to the City Hazmat Department or Fire Department if hazardous materials are to be stored on site (such as oil-water separators and above ground product storage tanks). This is submitted at the same time the building permit is applied for, if necessary and should be approved within the 30-day timeframe.

The permitting schedule assumes that permitting can be completed within four to six months, provided encroachment permission, if required, is not delayed, and agencies do not require design changes which necessitate additional permitting.

**6). EQUIPMENT SELECTION AND PROCUREMENT**

After engineering design is completed, a bid package will be prepared for submittal to construction contractors (a minimum of three). Contractor bids will be evaluated and a contractor shall be selected within one week of receiving the bids. Our consultant will then provide ARCO with an equipment list. ARCO orders equipment directly from the vendor. The schedule assumes that all equipment is available and can be delivered within four weeks, and that involved regulatory agencies approve of selected equipment.

**7). SYSTEM CONSTRUCTION AND STARTUP**

Upon approval of the RAP, having secured local City Building, Fire, and Planning permit(s), after equipment procurement, and on selection of a general contractor, systems installation will commence in accordance with the approval Plans and Specifications.

System installation will include: construction of utility trenches to contain all necessary water, vapor, and electrical lines; installation of necessary underground pipes and electrical conduits to and from the proposed remediation compound; pressure testing lines for leaks; City inspection of utility trenches prior to closure; construction of the remediation compound; electrical service and sewer hookups; and installation and plumbing of all soil and groundwater remediation equipment.

The schedule assumes that construction will not be delayed by inclement weather, negotiations with lessor, and delays in utility installation.

After completion of system installation, operation of the proposed soil and groundwater remediation system will be initiated in compliance with all applicable regulatory agencies. Startup procedures will include daily system monitoring, maintenance, sampling, analysis of system influent and effluent as required by the site specific environmental permits.

**8). SYSTEM OPERATION AND MAINTENANCE**

Systems operation and maintenance includes: site visits once every week of the first month; once every two weeks for the next month; and monthly visits for the remainder of the life of the remediation system. Site inspections will include: monitoring and adjustment of system parameters to optimize soil and groundwater remediation system efficiencies; periodic sampling and analysis of influent and effluent to the remediation systems as required by the environmental permits; other

periodic maintenance procedures including inspection and cleaning of all lines, process equipment, etc.; and monthly (or as required), reporting of results of systems operations to involved regulatory agencies.

The schedule assumes that soil remediation can be completed in one year, groundwater remediation can be completed within three to six years, it is technically feasible to achieve State cleanup levels, no offsite wells are needed to complete remediation; and no significant equipment breakdowns occur.

The progress and expected duration of the soil and groundwater cleanup is dependent on physical and chemical factors such as: fluctuating groundwater levels both naturally and/or artificially induced (pumping of other wells near the site), and the correlation of data from specific points (wells and borings) with the actual conditions across the site. Variations in site geology and transmissivity of the aquifer may have an affect on the groundwater remediation schedule. Chemical factors such as the absorption potential of gasoline to soil can also affect the schedule for soil remediation. Duration of cleanup can be more accurately predicated after a performance evaluation on the system has been completed.

9). **PERFORMANCE EVALUATION**

Yielded well capture zones, vapor extraction flow rates, radius of influence, influent and effluent analytical data are reviewed to evaluate the efficiencies of the soil and groundwater remediation systems. On the basis of this evaluation, it may be necessary to add new vapor or groundwater extraction wells and/or adjust treatment system parameters. Additional wells may be desirable if the yielded zones of capture do not overlap to provide additional removal capability and/or to cost effectively speed up site cleanup.

The schedule assumes that the performance evaluation will show that the remediation system(s) will effectively remove hydrocarbons from areas of impacted soil and groundwater and will reduce extracted concentrations significantly over time. It also assumes that additional on or offsite vapor and groundwater extraction wells are not required to effectively remediate impacted areas, once the treatment system is operational.

10). **SYSTEM SHUTDOWN: SOIL REMEDIATION SYSTEM**

Based on our consultant's experience, hydrocarbons concentrations in the soil can be significantly reduced to currently known State cleanup levels at most sites in approximately one year. After reviewing historical soil-vapor data collected from the

extraction wells during system operation, the remediation system will be shut down after agency concurrence.

**11). SYSTEM SHUTDOWN: GROUNDWATER REMEDIATION SYSTEM. BEGIN ONE-YEAR VERIFICATION MONITORING**

The groundwater remediation system will be shut down when analytical data from impacted wells show that hydrocarbon concentrations have been reduced significantly and are below currently known agency-prescribed cleanup levels and after agency concurrence. Based on current regulations, the groundwater must be monitored for a minimum of one year to verify cleanup, prior to applying for site closure.

The schedule assumes that cleanup will be completed three to six years after startup and only one year of verification monitoring is required.

**12). SITE CLOSURE**

Site closure is typically granted after an extensive RWQCB review of all historical data at the site. Closure involves cleanup of both soil and groundwater and is not addressed independently. To verify cleanup of previously impacted soil, verification borings will be drilled and samples collected and analyzed to show that the soil has been remediated below State cleanup levels. To verify groundwater cleanup, verification monitoring data will be reviewed.

The schedule assumes that site closure involves only drilling of confirmation borings, confirmation of verification monitoring data and that no risk assessment will be required. It also assumes that site closure is dependent on agency concurrence within one year following completion of verification monitoring.



ACTIVITIES	1991			1992					1993					1994					1995																
	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A
1) Onsite Subsurface Investigation				COMPLETED																															
1a) Aquifer Testing																																			
2) Offsite Groundwater Investigation																																			
3) Remedial Action Plan ?																																			
4) Preliminary and Detailed Engineering Design ?																																			
5) Soil and Groundwater Remediation Permitting ?																																			
6) Equipment Selection and Procurement (Including Site Package Preparation and Selection)																																			
7) System Construction and Startup: Soil and Groundwater																																			
8) Soil Remediation System Operation and Maintenance (1 year)																																			
8a) Groundwater Remediation System: Operation and Maintenance (3 to 6 years)																																			
9) Performance Evaluation																																			
10) System Shut Down: Soil Remediation																																			
11) System Shut Down: Groundwater Remediation (Begin One Year Verification Monitoring)																																			
12) Site Closure: Soil and Groundwater (1 year)																																			
<b>EXPLANATION:</b>	Probable schedule based on current deadlines and reasonable time necessary to complete the task. Assumes no delays.													Estimated schedule based on consultant's experience, on tracking regulatory and other approval on time, and based on other related work being completed.																					

**1) and 1a) Onsite Subsurface Investigation:**

- Aquifer testing to be completed after offsite well installation.
- Preliminary onsite investigation completed prior to October 1991.

**2) Offsite Groundwater Investigation:**

- ARCO is currently seeking offsite property owner's permission to install two monitoring wells that will delineate the offsite hydrocarbon plume.
- It has already taken 6 months to attempt to gain access on private property. It is estimated to take another 3 months.

**3) Remedial Action Plan:**

- It is anticipated that the ACHSCA can review and approve a workplan in one month.
- No workplan revisions are necessary.
- No changes to design after regulatory comments.
- The time frame to initiate the workplan accounts for time to perform an aquifer pump test.
- A passive floating product skimmer was installed as an interim remediation system in MW-2.
- Proposed offsite investigation will not affect the estimated schedule.

**4) Preliminary and Detailed Engineering Design:**

- Soil and groundwater remediation design based from aquifer test results.
- Only onsite remediation needed.
- Free product removal will be addressed upon operation of soil and groundwater remediation system.

**5) Permitting (Soil and Groundwater):**

- It is anticipated that permitting can be completed within 4 to 6 months.
- No design changes necessitating additional permitting, including modification of treatment system.

**6) Equipment Selection and Procurement:**

- All equipment is available from stock up to 4 weeks.
- Selected equipment approved by ACHSCA.

**7) System Construction and Startup:**

- No delays due to weather.
- No delays due to negotiation with property owners.
- No delays due to utility installation.

**8) System Operation and Maintenance:**

- It is anticipated that soil remediation can be completed in 1 year.
- It is anticipated that groundwater remediation can be completed within 3 to 6 years.
- It is technically feasible to achieve cleanup levels.
- No offsite wells are needed to complete remediation.
- No significant equipment breakdowns.

**9) Performance Evaluation:**

- Evaluation shows that system will effectively remove hydrocarbons from soil and groundwater impacted areas and will reduce concentrations significantly over time.
- Evaluation shows that additional vapor and groundwater extraction wells are not required to effectively remediate impacted areas once the treatment system is operational.

**10) Shut Down of Soil Remediation System:**

- Cleanup will be completed in approximately 1 year after startup.

**11) Shut Down of Groundwater Remediation System:**

- Cleanup will be completed 3 to 6 years after startup.
- Only one year of verification groundwater monitoring will be required before site closure can be initiated.

**12) Site Closure: Soil and Groundwater:**

- Requirements for soil closure involve only drilling of confirmation borings and performance evaluation at time of system shutoff.
- Requirements for groundwater closure involves only groundwater monitoring and performance evaluation at system shutoff.
- Closure dependent on agency concurrence within 1 year following completion of verification monitoring.
- No risk assessment will be necessary.

Note: Obtaining nondetect levels in groundwater and "low-level" cleanup levels in soil may not be technically feasible.

92 JUN 21 PM 12:14

**RESNA**

**ESTIMATED SOIL AND GROUNDWATER REMEDIATION IMPLEMENTATION SCHEDULE**  
 ARCO Station 4494  
 566 Hegenberger Road  
 Oakland, California

**PLATE**  
**A**

ARCO Products Company  
2000 Alameda de las Pulgas  
Mailing Address: Box 5811  
San Mateo, California 94402  
Telephone 415 571 2400

92 FEB -5 PM 1:41

February 4, 1992

Mr. Peter Turner  
P.O. Box 10919  
Oakland, California 94610

**Subject: Request for Access to Install Regulatory Agency Requested  
Exploratory Borings and Monitoring Wells for the On Going Offsite  
Subsurface Environmental Investigation at ARCO Service Station  
#4494, 580 Hegenberger Road, Oakland, California**

Dear Mr. Turner:

ARCO Products Company (ARCO) is investigating the source and extent of gasoline hydrocarbons in the shallow groundwater at the above referenced ARCO service station. ARCO is currently working with the Alameda County Health Care Services Agency (ACHCSA) and the California Regional Water Quality Control Board (CRWQCB). In working with these agencies, ARCO is requesting access to install two groundwater monitoring wells to help further define gasoline hydrocarbons that may or may not be present on your property. Please note that neither the proposed installation of these monitoring wells nor this letter constitutes an admission by ARCO as to any liability or responsibility concerning gasoline hydrocarbons or any contamination at or with respect to Mr. McManus's property.

In a letter addressed to you and written on behalf of ARCO dated December 6, 1991, our consultant, RESNA, requested access to install and monitor two (2) groundwater monitoring wells located on the Mr. McManus's property. After initial installation of the wells, they will be monitored on a quarterly basis to determine changes in groundwater levels and for groundwater sampling to determine the presence or absence of gasoline hydrocarbons. These monitoring wells may be an important source of information concerning soils and groundwater in the immediate area of ARCO Station #4494. The installation and the maintenance of the wells will remain the responsibility of ARCO. Prior to drilling and installing the wells, an underground utility line locating company will be contracted to locate underground utilities at ARCO's expense.

February 4, 1992  
Mr. Peter Turner  
Page 2

In response to your letter to RESNA dated December 11, 1991, you requested copies of all historic documents for this ARCO site to be sent to your office before you client, Mr. McManus, would give his approval to proceed with the proposed work at the site. These records are part of the public record and may be viewed at your convenience by making an appointment with the RWQCB located in Oakland, California. Of course, ARCO would arrange to have any finally reviewed, publicly available reports that contain information concerning Mr. McManus's property delivered in care of you, to your office, once they are available. Please note that should Mr. McManus decide to decline ARCO's offer for access to his property, the RWQCB may request that he perform the assessment as an individual party.

Please discuss this monitoring well installation with your client and if you are in agreement, have Mr. McManus sign each copy of the agreement and return them to me. ARCO will countersign the agreements and return a copy to your care.

If you or Mr. McManus have any questions regarding this matter, please contact me at (415) 571-2434.

Sincerely,



Chuck Carmel  
Environmental Engineer

Encl. Plate 1, Site Vicinity Map  
Plate 2, Proposed Boring/Monitoring Well Location Map  
License Agreement Between Thomas K. McManus and ARCO Products Company

cc: Ted Robinson, ARCO Products Company  
John Meck, ARCO Products Company  
Chris Winsor, ARCO Products Company  
Gil Jensen, Alameda County District Attorney's Office  
Larry Seto, Alameda County Health Care Services Agency  
Lester Feldman, Regional Water Quality Control Board  
Joel Coffman, RESNA

**LICENSE AGREEMENT  
BETWEEN THOMAS K. McMANUS  
AND ARCO PRODUCTS COMPANY**

This license Agreement is made on the 30th day of January, 1992, between Thomas K. McManus, private owner, hereinafter referred to as "licensor" and ARCO Products Company, a division of Atlantic Richfield Company, hereinafter referred to as "licensee".

**1. RECITALS**

- 1.1 Licensor owns certain real property (the "Property") at 580 Hegenberger Road, Oakland, in the state of California.
- 1.2 Licensee desires to drill on a portion of the Property, two (2) groundwater wells as depicted on Plate 2, attached hereto and made part hereof.
- 1.3 The parties desire to enter into this License Agreement to allow licensee to install said groundwater wells on the Property.
- 1.4 Neither this License Agreement nor any of the terms hereof shall be construed as an admission of liability by Licensee for any contamination, alleged or otherwise, on the licensed area of any adjoining property.

**2. AGREEMENT**

Now, therefore, in consideration of the mutual covenants and agreements herein contained, the parties hereto do hereby covenant and agree to and with each other as follows.

**3. TERMS**

- 3.1 Licensee may drill, use and backfill at its sole cost and expense, two (2) groundwater wells on the Property located at 580 Hegenberger Road, Oakland, California.

- 3.2 Said groundwater wells shall be completed as shown on Plate 2 attached hereto and made part hereof.
- 3.3 Licensee, upon prior notification to licensor, may enter the Property to monitor and sample the two (2) groundwater wells.
- 3.4 Licensee agrees not to permit any liens to stand against the Property for work done or materials furnished to licensee, and licensee agrees to indemnify and hold licensor harmless for same.
- 3.5 If the surface of the licensed are and/or the surface of licensor's adjacent real property and/or improvements thereon shall be disturbed by the emplacement or the backfill of licensee's groundwater wells, then said surface and/or improvements shall be promptly restored by licensee to their condition just prior to such disturbance.
- 3.6 Licensee shall, after completion, backfill said borings pursuant to this License Agreement, or after the groundwater wells are no longer useful to the investigation, destroy the groundwater wells according to the standards set forth by the appropriate State agency.
- 3.7 Licensee agrees to indemnify, defend, and save licensor harmless from all liability, damage, expense, causes of action, suits, claims, or judgements resulting from injuries to person or damage to property on the licensed area or on adjoining streets and sidewalks which arise out of the act, failure to act, or negligence of licensee, its agents, employees, invitees, or guests in performing work under this License Agreement.
- 3.8 This License Agreement shall not constitute a deed or a grant of easement and shall not be deemed irrevocable or an easement by virtue of the work performed under or by reason of this license.
- 3.9 This License Agreement may be terminated by either party upon thirty (30) days prior written notice.

In witness whereof, the parties hereto have executed this License Agreement as of the day and year first above written.

**ARCO Products Company**

**Thomas K. McManus**

**By:** \_\_\_\_\_

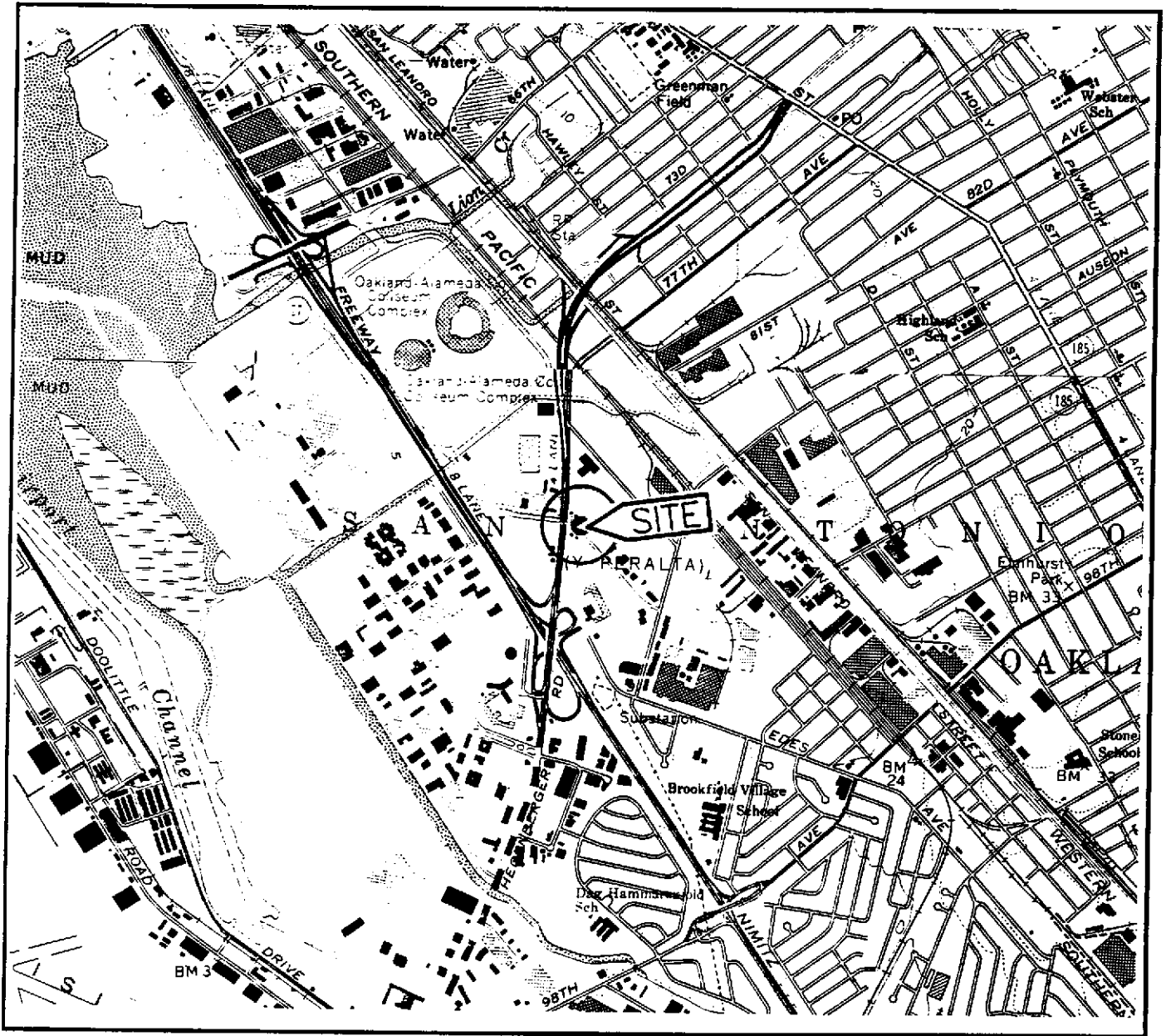
**By:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Date:** \_\_\_\_\_

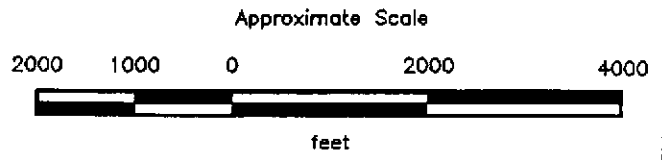
**Date:** \_\_\_\_\_



Base: U.S. Geological Survey  
 7.5-Minute Quadrangles  
 Oakland East/San Leandro,  
 California  
 Photorevised 1980

**LEGEND**

● = Site Location



**RESNA**

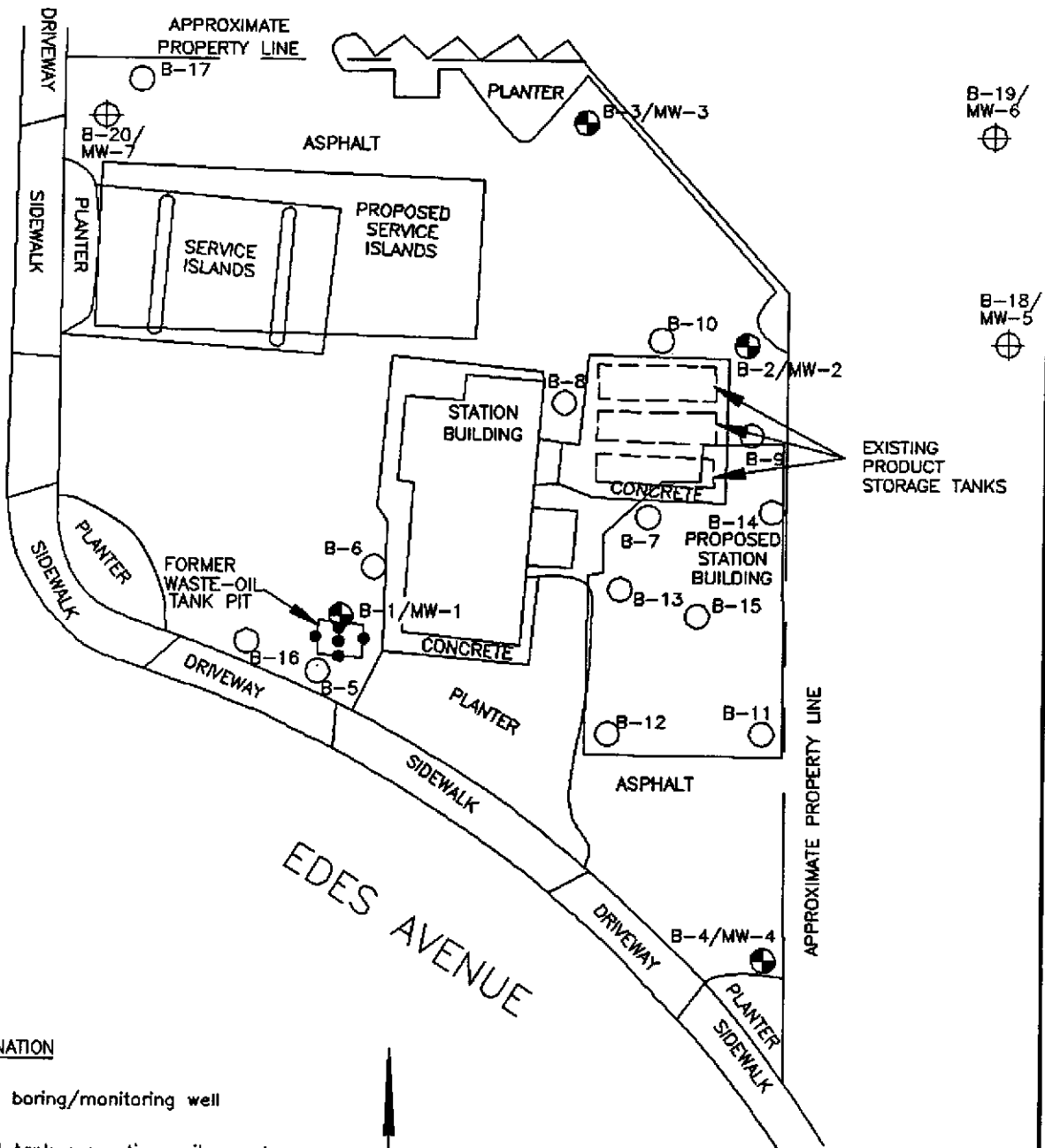
**SITE VICINITY MAP  
 ARCO Service Station 4494  
 566 Hegenberger Road  
 Oakland, California**

**PLATE  
 1**

**PROJECT 69038.08**

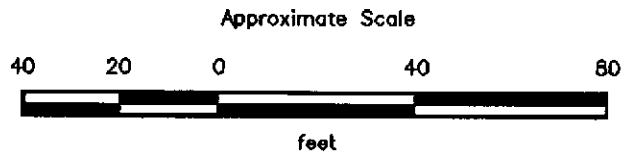


HEGENBERGER ROAD



**EXPLANATION**

- B-20/  
MW-7 ⊕ = Proposed boring/monitoring well
- = Waste-oil tank excavation soil samples  
(Pacific Environmental Group, January 1989)
- B-4/MW-4 ⊙ = Monitoring wells  
(Applied GeoSystems, October 1989  
and August 1990)
- B-10 ○ = Soil boring  
(Applied GeoSystems, August 1990  
and March 1991)



Source: Modified from plans supplied by ARCO Products Co.  
(dated August 12, 1982)  
and City of Oakland Dept. of Public Works  
(dated December 19, 1961).

**RESNA**

**GENERALIZED SITE PLAN  
ARCO Service Station 4494  
566 Hegenberger Road  
Oakland, California**

**PLATE**

**2**

**PROJECT 69038.08**



January 14, 1992

92 JAN 15 PM 2:17

Mr. Edgar Howell  
Alameda County Department of Environmental Health  
80 Swan Way  
Oakland, California 94621

**ARCO Products Company Facilities in Alameda County**

Dear Mr. Howell:

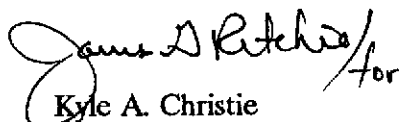
Please find attached, Quarterly Summary Reports (QSRs) for ARCO Products Company Service Stations in Alameda County. The QSRs summarize activities conducted by ARCO at the respective sites during the fourth quarter of 1991; also included are projected site activities for the first quarter of 1992 and a bibliography of reports submitted for each location.

The QSRs are classified by city and address within Alameda County. We are submitting this document and attached QSRs as agreed. Please note that we are forwarding copies of the QSRs to the Regional Water Quality Control Board (RWQCB).

Please note that ARCO Products Company has reviewed the RWQCB's February 19, 1991 printout of ARCO fuel leak sites. We have evaluated each site with respect to ARCO's responsibility for investigation, monitoring, and/or remediation. Those locations for which ARCO is not responsible were listed and described in the QSR package delivered to you on July 15, 1991. The attached QSRs therefore represent only those locations for which ARCO is responsible.

ARCO is planning a subsequent comprehensive QSR submittal for ARCO sites on April 15, 1992. Please do not hesitate to contact us with any questions regarding this submittal.

Sincerely yours,

  
for  
Kyle A. Christie  
Environmental Engineer

Attachments: ARCO Facility QSRs

UST LEAK Date of Last Current  
SITE UPDATE Review/Update September 6, 1991 Date January 6, 1992

SITE IDENTIFICATION

Name ARCO Service Station 4494 Case No. \_\_\_\_\_  
Address 566 Hegenberger Road  
Street Number Street  
Oakland 94621  
City ZIP Code  
County Alameda Substance Gasoline & Waste-Oil  
Local Agency Alameda County Health Care Services Agency  
Regional Board Regional Water Quality Control Board - Mr. Lester Feldman

LEAD STAFF PERSON ACHCSA - Mr. Barney Chan

CASE TYPE

Undetermined  Soil Only  Ground Water  Drinking Water

STATUS (Date indicates when case moved into status)

<input type="checkbox"/> No Action Taken	Date	_____
<input checked="" type="checkbox"/> Leak Being Confirmed	Date	<u>12/88</u>
<input checked="" type="checkbox"/> Preliminary Site Assessment Workplan Submitted	Date	<u>9/89</u>
<input checked="" type="checkbox"/> Preliminary Site Assessment Underway	Date	<u>10/90</u>
<input checked="" type="checkbox"/> Pollution Characterization	Date	<u>5/91</u>
<input checked="" type="checkbox"/> Remediation Plan	Date	<u>5/91</u>
<input type="checkbox"/> Remedial Action Underway	Date	_____
<input type="checkbox"/> Post Remedial Action Monitoring	Date	_____
<input type="checkbox"/> Case Referred to Regional Board	Date	_____
<input type="checkbox"/> Case Referred to Dept. of Health Services	Date	_____
<input type="checkbox"/> Case Closed	Date	_____

COMMENTS/MILESTONES:

Floating product bailing from MW-2 has reduced product to a sheen; no other floating product currently onsite in wells. Tank replacement pending. Installed a Horner EZY floating product skimmer in MW-2.

RECENT ACTIVITIES/FINDINGS:

Last Quarter Activities: Prepared and submitted report on Preliminary Tank Replacement Assessment and Work Plan and Addendum One to Work Plan for Subsurface Investigation and Remediation (May 1991). Performed quarterly groundwater monitoring and reporting.

Current Quarter Activities: Performed quarterly groundwater monitoring and reporting. Received permission from tenant only, on 11/19/91, to drill and install wells on adjacent property during weekend mornings only. Still need permission from owner. Installed a Horner EZY floating product skimmer in MW-2 on 12/24/91.

ANTICIPATED ACTIVITIES:

Next Quarter Activities: Gain offsite access from property owner. Assess offsite extent of hydrocarbons by drilling and installing two offsite wells on adjacent property. ARCO to perform quarterly groundwater monitoring and prepare quarterly groundwater monitoring report.

Reports documenting the site's history are listed on page 2.

<u>REPORT</u>	<u>DATE</u>	<u>CONSULTANT</u>
Letter Report on Third Quarter 1991 Ground-Water Monitoring at ARCO 4494, Oakland, CA 69038.04	11/21/91	RESNA
Letter Report on Second Quarter 1991 Ground-Water Monitoring at ARCO 4494, Oakland, CA 69038.04	9/10/91	RESNA
Work Plan for Subsurface Investigation and Remediation and Addendum One to Work Plan to Perform Underground Tank Replacement Investigation, Preliminary Offsite Investigation, and Interim Product Recovery. AGS 69038-6	5/15/91	RESNA/Applied GeoSystems
Report on Preliminary Tank Replacement Assessment AGS 69038-5	5/2/91	RESNA/Applied GeoSystems
Letter Report on First Quarter 1991 Ground-Water Monitoring at ARCO 4494, Oakland, CA AGS 69038-4	4/3/91	Applied GeoSystems
Limited Subsurface Environmental Investigation AGS 69038-2	2/13/91	Applied GeoSystems
Letter Report on Fourth Quarter 1990 Ground-Water Monitoring AGS 69038-4	2/8/91	Applied GeoSystems
Site History Assessment and Limited Environmental Records Review AGS 69038-3	10/1/90	Applied GeoSystems
Work Plan for Initial Subsurface Investigation AGS 69038-1	9/29/89	Applied GeoSystems
Subsurface Environmental Investigation Project 330-41	5/3/89	Pacific Environmental Group

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

January 10, 1992  
0107BCHA.4494  
61026.01

Mr. Barney Chan  
Alameda County Health Care Services Agency  
Department of Environmental Health  
80 Swan Way, Room 200  
Oakland, California 94624

Subject: Site Status Update for ARCO Station 4494, 566 Hegenberger Road, Oakland, California.

Dear Mr. Chan:

This letter provides an update on investigation and remedial activities conducted for the above-referenced site. This update covers site activities performed during December 1991, and site activities anticipated for the month of January 1992.

**Status of Previous Months Activities:**

**December 24, 1991:** Gauged site wells and installed a floating product skimmer in monitoring well MW-2.

**Anticipated Work to be performed in the Next Month:**

- o Groundwater monitoring will continue.
- o Drill the soil borings and install monitoring wells MW-5 through MW-7, if offsite access is granted by offsite owner.
- o Survey monitoring wells MW-5 through MW-7 if offsite access is granted.

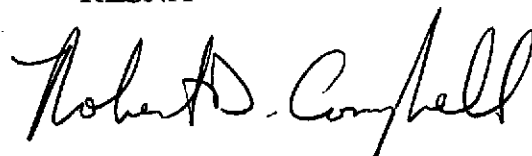
Site Status Update  
ARCO Station 4494, Oakland, California

January 10, 1992  
61026.01

---

If you have any questions or comments regarding this letter, please call us at (408) 264-7723.

Sincerely,  
RESNA



Robert D. Campbell  
Staff Geologist



Joel Coffman  
Project Geologist

BC

UST LEAK Date of Last Current  
SITE UPDATE Review/Update September 6, 1991 Date January 6, 1992

SITE IDENTIFICATION

Name ARCO Service Station 4494 Case No. \_\_\_\_\_  
Address 566 Hegenberger Road  
Street Number Street  
Oakland City 94621 ZIP Code  
County Alameda Substance Gasoline & Waste-Oil  
Local Agency Alameda County Health Care Services Agency  
Regional Board Regional Water Quality Control Board - Mr. Lester Feldman

LEAD STAFF PERSON ACHCSA - Mr. Barney Chan

CASE TYPE

Undetermined  Soil Only  Ground Water  Drinking Water

STATUS (Date indicates when case moved into status)

No Action Taken  
 Leak Being Confirmed Date 12/88  
 Preliminary Site Assessment Workplan Submitted Date 9/89  
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 Pollution Characterization Date 5/91  
 Remediation Plan Date 5/91  
 Remedial Action Underway Date \_\_\_\_\_  
 Post Remedial Action Monitoring Date \_\_\_\_\_  
 Case Referred to Regional Board Date \_\_\_\_\_  
 Case Referred to Dept. of Health Services Date \_\_\_\_\_  
 Case Closed Date \_\_\_\_\_

COMMENTS/MILESTONES:

Floating product bailing from MW-2 has reduced product to a sheen; no other floating product currently onsite in wells. Tank replacement pending. Installed a Homer EZY floating product skimmer in MW-2.

RECENT ACTIVITIES/FINDINGS:

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Current Quarter Activities: Performed quarterly groundwater monitoring and reporting. Received permission from tenant only, on 11/19/91, to drill and install wells on adjacent property during weekend mornings only. Still need permission from owner. Installed a Horner EZY floating product skimmer in MW-2 on 12/24/91.

ANTICIPATED ACTIVITIES:

Next Quarter Activities: Gain offsite access from property owner. Assess offsite extent of hydrocarbons by drilling and installing two offsite wells on adjacent property. ARCO to perform quarterly groundwater monitoring and prepare quarterly groundwater monitoring report.

Reports documenting the site's history are listed on page 2.

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Limited Subsurface Environmental Investigation AGS 69038-2	2/13/91	Applied GeoSystems
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Site History Assessment and Limited Environmental Records Review AGS 69038-3	10/1/90	Applied GeoSystems
Work Plan for Initial Subsurface Investigation AGS 69038-1	9/29/89	Applied GeoSystems
Subsurface Environmental Investigation Project 330-41	5/3/89	Pacific Environmental Group

PostNet brand  
Fax Transmittal Memo 7672

To: Barney Chan  
Company: Alameda County Health  
Location:

Fax # 415-568-3706 telephone #

Comments

No. of Pages 1

Today's Date 12/31

Time 2:28

From Tom McManus

Company

Location

Dept. Charge

Fax #

Telephone #

Original  
Disposition:

Destroy

Return

Call for pickup



UNDERGROUND CONSTRUCTION CO., INC.

ENGINEERING CONTRACTORS

THE FOLLOWING TRANSMISSION IS VIA OMNIFAX G-35 (707) 746-1314

TO: BARNEY CHAN  
ALAMEDA COUNTY HEALTH  
415-568-3706  
FAX:

FROM: TOM McMANUS  
DATE: 12/31/91  
PAGES: (including cover) 1

IF COPY IS ILLEGIBLE OR INCOMPLETE, PLEASE CALL (707) 746-8800 IMMEDIATELY FOR RETRANSMISSION.

566 Hwy Rd.

OPERATOR \_\_\_\_\_

(USE THIS SPACE FOR SHORT OR SUPPLEMENT MESSAGES)

Barney -

This confirms our meeting at 9 AM on Tuesday, January 7<sup>th</sup>, 1992. Peter Turner, my attorney, will be present also.

The fee of \$67<sup>00</sup> per hour with one hour minimum is acknowledged.

Happy New Year  
Tom





**THE LAW FIRM OF RICHARD SCHEULER**  
**ATTORNEYS AT LAW**

**RICHARD SCHEULER**  
**DIANE EDWARDS**

**437 WASHINGTON STREET**  
**P.O. BOX 8548**  
**RED BLUFF, CA 96080**  
**(916) 529-4791**  
**FAX (916)-529-5234**

December 30, 1991

Ed Howe, Department Manager  
Contaminated Soil Division  
80 Swan Way  
Suite 200  
Oakland, CA 94621

Re: 580 Hegenberger Way  
Oakland Ca.

Dear Mr. Howe,

My client, Northridge Industries, is the lessee and sub-lessor of property adjacent the Arco Station which you are investigating for possible contamination of underlying and surrounding soils. I believe you have talked with Jewell Bidelman and Carl Ferrell in the past.

First, I would like to know if there is a contamination problem; if it extends under my client's property, and what is being done to cause ARCO to clean it up. I called your office, but you were out. Now I will be out until January 6, so I am putting my concerns in writing.

I do not think my clients have any liability. If there is contamination, they neither caused the problem nor do they own the land. Nonetheless, I would like to make sure that the matter is being properly handled and that ARCO is required to clean up any contamination that may be in the soil beneath my client's leasehold. Eventually, I would like to see a certificate that the land is cleared so that the owner may sell with a clear conscience.

92 JAN -2 11:17

**The Law Firm of Richard Scheuler**

12/30/91

Page 2

I look forward to hearing from you.

Sincerely,

*Richard Scheuler*  
Richard Scheuler *rlb*

RS/rlb

cc: Jewell Bidelman  
Peter Turner

LECTATED BUT  
NOT FILED



A RESNA Company

COPY

**RESNA**

Working To Restore Nature

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

**TRANSMITTAL**

TO: MR. CRAIG MAYFIELD  
ALAMEDA COUNTY FLOOD CONTROL  
AND WATER CONSERVATION DISTRICT  
5995 PARKSIDE DRIVE  
PLEASANTON, CALIFORNIA 94588

DATE: 2/24/92  
PROJECT NUMBER: 69038.10  
SUBJECT: ARCO STATION 4494 AT  
566 HEGENBERGER ROAD, OAKLAND, CALIF.

FROM: JOEL COFFMAN  
TITLE: PROJECT GEOLOGIST

WE ARE SENDING YOU  Attached  Under separate cover via \_\_\_\_\_ the following items:  
 Shop drawings  Prints  Reports  Specifications  
 Letters  Change Orders  \_\_\_\_\_

COPIES	DATED	NO.	DESCRIPTION
1	2/24/92		CANCELLATION OF WELL PERMIT #91662 FOR CONSTRUCTION OF WELLS AT THE ABOVE SUBJECT SITE.

THESE ARE TRANSMITTED as checked below:

- For review and comment  Approved as submitted  Resubmit \_\_\_ copies for approval
- As requested  Approved as noted  Submit \_\_\_ copies for distribution
- For approval  Return for corrections  Return \_\_\_ corrected prints
- For your files  \_\_\_\_\_

REMARKS: CC: MR. BARNEY CHAN, ACHCSA  
MR. JOHN MECH, ARCO PRODUCTS COMPANY  
MR. CHRIS WINSOR, ARCO PRODUCTS COMPANY  
MR. CHUCK CARMEL, ARCO PRODUCTS COMPANY  
MR. GIL JENSEN, ALAMEDA COUNTY DISTRICT ATTORNEY

Copies: 1 to project file no. 69038.10

92 FEB 28 10:52

\*Revision Date: 11/21/91  
\*File Name: TRANSMT.PRJ

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

February 24, 1992  
0220CMAY  
69038.10

Mr. Craig Mayfield  
Alameda County Flood Control and  
Water Conservation District  
5995 Parkside Drive  
Pleasanton, California 94588

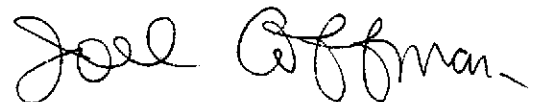
Subject: Cancellation of Well Permit # 91662 for construction of wells at ARCO  
Station 4494, 566 Hegenberger Road, Oakland, California.

Dear Mr. Mayfield:

This letter is in response to your letter dated February 19, 1992 concerning the report required by the referenced drilling permit number 91662. As of today, we have not received permission from the owners of the property adjacent to the subject site, to install monitoring wells for which you issued the subject permit. At this time, please cancel the permit and should approval to proceed be granted, we will again apply for the well installation permits.

If you have any questions, please phone us at (408) 264-7723. Thank you.

Sincerely,  
RESNA/Applied GeoSystems



Joel Coffman  
Project Geologist

cc: Mr. Barney Chan, ACHCSA  
Mr. John Meck, ARCO Products Company  
Mr. Chris Winsor, ARCO Products Company  
Mr. Chuck Carmel, ARCO Products Company  
Mr. G. Jensen, Alameda County District Attorney

Enclosure: ACFC&WCD Letter, dated February 19, 1992



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588 (510) 484-2600

19 February 1992

RECEIVED

FEB 20 1992

RESNA  
SAN JOSE

Resna  
3315 Almaden Expressway, Ste. 34  
San Jose, CA 95118

Gentlemen:

We have not received the report required by drilling permit 91662. This permit was issued to you on 22 November 1991 for a monitoring well construction project at 566 Hegneberger Road in Oakland for Arco Products Company. Notice of start of work was given for 16 December 1991.

Please submit the required well construction report or a letter explaining why the report cannot be submitted at this time. The report should include drilling and completion logs, location sketch, and permit number. Please submit your report or letter so that it is received within ten days of the date of this letter.

If your report or letter is not received within the ten-day period, your project will not be in compliance with Alameda County Ordinance 73-68, and we may restrict the issuance of future permits to your firm.

If you have any questions concerning this matter, please contact Wyman Hong or me at 484-2600.

Very truly yours,

Craig A. Mayfield  
Water Resources Engineer

WH:mm



NORTHRIDGE INDUSTRIES, INC.  
202 EAST FREMONT STREET  
LAS VEGAS, NEVADA 89101  
— (702) 382-2385 —

91 DEC 26 PM 2:46

December 23, 1991

Ed Howe, Department Manager  
Contaminated Soil Division  
80 Swan Way  
Suite 200  
Oakland, CA 94621

Subject: 580 Hegenberger Way  
Oakland, CA

Dear Mr. Howe:

Northridge Industries, Inc. holds the ground lease on the subject property which is occupied by the Sirloin and Brew Restaurant. ARCO also holds a lease on the adjacent property. The entire parcel is owned by Thomas K. McManus, Jr.

It is my understanding Arco has asked for permission to put a monitoring well on the leasehold property in order to ascertain the extent of the contamination of the soil which has occurred from the leaky tank on the ARCO property. It would be appreciated if Northridge is advised of any and all action taken regarding this matter.

Thank you for your assistance.

Sincerely,

NORTHRIDGE INDUSTRIES, INC.

*Jewell M. Bidelman*  
Jewell M. Bidelman

/s



A RESNA Company



Working To Restore Nature

### TRANSMITTAL

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

TO: MR. BARNEY CHAN  
ACHCSA-DEH  
80 SWAN WAY, ROOM 200  
OAKLAND, CALIFORNIA 94621

DATE: 12/10/91  
PROJECT NUMBER: 61026.01  
SUBJECT: SITE STATUS UPDATE FOR  
ARCO STATION 4494 AT 566 HEGENBERGER  
ROAD, OAKLAND, CALIF.

FROM: JOEL COFFMAN  
TITLE: PROJECT GEOLOGIST

WE ARE SENDING YOU  Attached  Under separate cover via \_\_\_\_\_ the following items:  
 Shop drawings  Prints  Reports  Specifications  
 Letters  Change Orders  \_\_\_\_\_

COPIES	DATED	NO.	DESCRIPTION
1	12/10/91		SITE STATUS UPDATE FOR THE ABOVE SUBJECT SITE.

THESE ARE TRANSMITTED as checked below:

- For review and comment  Approved as submitted  Resubmit \_\_\_ copies for approval
- As requested  Approved as noted  Submit \_\_\_ copies for distribution
- For approval  Return for corrections  Return \_\_\_ corrected prints
- For your files  \_\_\_\_\_

REMARKS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Copies: 1 to project file no. 61026.01

\*Revision Date: 11/21/91  
\*File Name: TRANSMT.PRJ



A RESNA Company

**RESNA**

Working To Restore Nature

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

December 9, 1991  
1210BCHA.4494  
61026.01

Mr. Barney Chan  
Alameda County Health Care Services Agency  
Department of Environmental Health  
80 Swan Way, Room 200  
Oakland, CA 94624

Subject: Site Status Update for ARCO Station 4494, 566 Hegenberger Road, Oakland, California.

Dear Mr. Chan:

This letter provides an update on investigation and remedial activities conducted for the above-referenced site. This update covers site activities performed during November 1991, and site activities anticipated for the month of December 1991.

**Status of Previous Months Activities:**

**November 7, 1991:**

Proceeded with the effort to obtain offsite access. An attorney for the owner of the offsite property requested in the verbal conversation to send him a letter with Access Agreement, plot plan, explanation of the purpose of the wells, description of how the wells will be covered and how the public will be protected during installation. He said they would be more than cooperative.

Received letter from ACHCSA asking why we had not pursued the offsite access further.

**November 19, 1991:**

Received a letter from the tenant of the offsite property granting permission to drill and install monitoring wells on Saturday or Sunday morning.



---

An attorney of the owner of the offsite property in the telephone conversation with RESNA indicated that they do not want to get into shared cleanup situation.

November 20, 1991: Received from ARCO a Task Order to install a floating product skimmer in monitoring well MW-2.

November 21, 1991: Performed monthly monitoring of groundwater monitoring wells to determine depth-to-water in each well.

Submitted a drilling permit application to ACFCWCD Zone 7 for installation of wells.

November 22, 1991: Submitted a final copy of the Third Quarter Groundwater Monitoring Report to ARCO and governing agencies.

November 27, 1991: Received drilling permit to drill one onsite and two offsite groundwater monitoring wells from ACFCWCD Zone 7.

Anticipated Work to be performed in the Next Month:

- o Continue groundwater monitoring and sampling program for this site.
- o Drill the soil borings and install monitoring wells MW-5 through MW-7, if offsite access is granted.
- o Develop monitoring wells MW-5 through MW-7, if offsite access is granted.
- o Survey monitoring wells MW-5 through MW-7 if offsite access is granted.
- o Initiate preparation of the report on results of additional subsurface environmental investigation if offsite access is granted.
- o Install product skimmer in MW-2.

Site Status Update  
ARCO Station No. 4494, Oakland, California

December 9, 1991  
61026.01

---

If you have any questions or comments regarding this letter, please call us at (408) 264-7723.

Sincerely,  
RESNA

*Barbara Sieminski*

Barbara Sieminski  
Staff Geologist

*Joel Coffman*

Joel Coffman  
Project Geologist



A RESNA Company

**RESNA**

Working To Restore Nature

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

December 6, 1991  
1205bchn  
69038.10

Mr. Barney Chan  
Alameda County Health Care Services Agency  
Department of Environmental Health  
80 Swan Way, Room 200  
Oakland, California 94621

**Subject:** Response to Alameda County Health Care Services Agency letter, dated November 5, 1991, regarding ARCO Station 4494 at 566 Hegenberger Road, Oakland, California.

Dear Mr. Chan:

This letter is submitted in response to your letter dated November 5, 1991. Please direct future correspondence concerning environmental issues to Mr. Chuck Carmel of ARCO Products Company and include me on your carbon copy list.

Your letter of November 5, 1991 was submitted in response to the RESNA letter dated October 23, 1991. Hopefully, this will help clarify the matter concerning direct contact between RESNA and the property owner, Mr. McManus for the purpose of gaining access for offsite monitoring well installation. Mr. Sharifi is the current subtenant of the property located at 580 Hegenberger Road, Oakland, California. We were in contact with Mr. Sharifi to inform him of our wishes to place two groundwater monitoring wells on the property. This communication with Mr. Sharifi was important so he would understand our efforts to limit disruption to his business during the well installations and to obtain from him a phone number and/or address for the property owner, Mr. McManus, as we had been unable to contact Mr. McManus at that time.

As stated in our letter, Mr. Sharifi would not give us Mr. McManus' phone number and/or address. He referred us to his attorney, Ms. Rochelle Cabot. In subsequent telephone conversations with Ms. Cabot, we were given the name of Mr. McManus' Attorney, Mr. Peter Turner, whom we immediately contacted by telephone on November 7, 1991. During this telephone conversation, Mr. Turner requested that we send him a site map showing where we wished to place the monitoring wells on the property along with an access agreement document. These items were sent to Mr. Turner on November 7, 1991.

Letter of Response  
ARCO Station 4494, Oakland, California

December 6, 1991  
69038.19

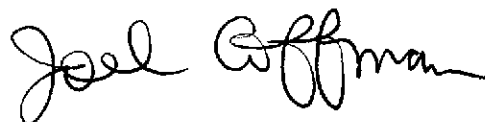
On November 19, 1991, we received the enclosed letter from Cabot Law Offices, dated November 18, 1991, granting the consent of the subtenant, Mr. Sharifi, to proceed with the installation of two monitoring wells with the request that work be performed on a Saturday or Sunday morning in order to cause as little disruption to his business as possible.

On November 19, 1991, we spoke again with Mr. Peter Turner to confirm he had received the access agreement. He said he had received it and was in the process of writing us a letter response which would include a list of other information required by him and Mr. McManus before access for well installation would be granted. We received the letter November 21, 1991 from Mr. Turner (enclosed). In the letter, Mr. Turner has requested copies of all reports for the ARCO site for his review before he can advise his client, Mr. McManus, about granting the access for monitoring well installations.

To date, ARCO has no direct information related to the property owned by Mr. McManus. If access is granted for monitoring well installations on Mr. McManus' property, ARCO will provide him information gathered during the investigation. Reports pertaining to existing monitoring wells on the ARCO site are part of public record and may be obtained by Mr. McManus and/or his attorney at their discretion. Perhaps a letter from your agency addressed to Mr. McManus and his attorney will help us gain the access for installation of these wells.

Hopefully, this letter has clarified the matter concerning our efforts to obtain offsite access for the installation of these wells. We will keep you informed of our progress in this matter. If you have any questions or comments, please call me at (408) 264-7723 or Mr. Chuck Carmel at (415) 571-2469. Thank you.

Sincerely,  
RESNA



Joel Coffman  
Project Geologist

Enc. Letters

cc: Mr. John Meck, ARCO Products Company  
Mr. Chris Winsor, ARCO Products Company  
Mr. Chuck Carmel, ARCO Products Company  
Mr. G. Jensen, Alameda County District Attorney  
Mr. Peter Turner, Attorney  
Mr. R. Hiatt, RWQCB

# CABOT LAW OFFICES

**Rochelle Cabot**  
(Member of California  
and Illinois Bars)

411 Borel Avenue  
Suite 500  
San Mateo  
California 94402

Telephone (415) 349-2711  
Facsimile (415) 345-9875

November 18, 1991

**RECEIVED**

NOV 19 1991

RESERVA  
SAN JOSE

Joel Coffman  
3315 Almaden Expressway  
Suite 34  
San Jose, CA 95118

Re: Request for Access to Install Monitoring Wells at  
580 Hegenberger Road, Oakland, California

Dear Joel:

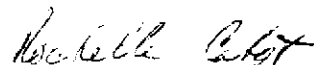
Further to our telephone conversation of today's date, this is to confirm that Mr. Hussain Sharifi, the current subtenant of the above-referenced property, has agreed to allow your organization access to install two monitoring wells as indicated on the Generalized Site Plan which you graciously provided to me.

In order to have as little disruption to his business as possible, Mr. Sharifi has requested that the work be performed in the morning of a Saturday and/or Sunday. Mr. Sharifi does not serve luncheon on those days. Please advise us in advance of when you expect to perform this work.

I understand that you are also working with Mr. Peter Turner to obtain the consent of the landowner.

Please feel free to give me a call if you have any questions or comments with regard to the above.

Very truly yours,



Rochelle Cabot

RC:aw  
19350-1  
cc: Mr. Hussain Sharifi

Coffman.L

LAW OFFICES OF  
PETER M. TURNER  
A PROFESSIONAL CORPORATION  
P.O. BOX 10919  
OAKLAND, CALIFORNIA 94610-0919  
(510) 832-5060  
FAX (510) 832-1756

RECEIVED

NOV 21 1991

RESNA  
SAN JOSE

November 19, 1991

Ms. Dana Weiss, Staff Engineer  
RESNA/APPLIED GEOSYSTEMS, INC.  
3315 Almaden Expressway, Suite 34  
San Jose, CA 95118

RE: Your Project No. 69038.10  
ARCO Station 4494  
566 Hegenberger Road, Oakland, California  
Request For Access at 580 Hegenberger Road, Oakland, CA

Dear Ms. Weiss:

Before I would be in a position to advise my client regarding your request for monitoring wells on his property, I would like copies of all reports and test results regarding subsurface contamination on the ARCO site. I note from your Site Plan, Plate 2, that at least four monitoring wells have been in place for two years and approximately 20 soil samples have been obtained from borings. Once I have an opportunity to review your data, I would be able to make a reason response to your request for access.

May I hear from you at your earliest convenience.

Yours truly,

  
Peter M. Turner

PMT:11



3315 Almaden Expressway, Suite 34  
 San Jose, CA 95118  
 Phone: (408) 264-7723  
 Fax: (408) 264-2435

91 NOV 15 11:08:57  
**TRANSMITTAL**

TO: MR. BARNEY CHAN DATE: 11/15/91  
ALAMEDA COUNTY HEALTH CARE SERVICES PROJECT NUMBER: 61026.01  
AGENCY DEH SUBJECT: SITE STATUS UPDATE  
80 SWAN WAY ROOM 200  
OAKLAND, CALIFORNIA 94621

FROM: JOEL COFFMAN  
 TITLE: PROJECT GEOLOGIST

WE ARE SENDING YOU  Attached  Under separate cover via \_\_\_\_\_ the following items:

Shop drawings  Prints  Reports  Specifications

Letters  Change Orders  SEE BELOW

COPIES	DATED	NO.	DESCRIPTION
1	11/15/91		SITE STATUS UPDATE FOR ARCO STATION 4494

THESE ARE TRANSMITTED as checked below:

For review and comment  Approved as submitted  Resubmit \_\_\_ copies for approval

As requested  Approved as noted  Submit \_\_\_ copies for distribution

For approval  Return for corrections  Return \_\_\_ corrected prints

For your files  \_\_\_\_\_

REMARKS: CC: MR. CHUCK CARMEL OF ARCO PRODUCTS COMPANY.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Copies: 1 to AGS project file no. 61026.01 SAN JOSE READER'S FILE

Revision Date: 10/15/90  
 File Name: TRANSMT.PRJ



A RESNA Company

**RESNA**

Working To Restore Nature

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

November 15, 1991  
1023BCHA.4494  
61026.01

Mr. Barney Chan  
Alameda County Health Care Services Agency  
Department of Environmental Health  
80 Swan Way, Room 200  
Oakland, CA 94624

Subject: Site Status Update for ARCO Station 4494, 566 Hegenberger Road, Oakland, California.

Dear Mr. Chan:

This letter provides an update on investigation and remedial activities conducted for the above-referenced site. This update covers site activities performed during August 1991 through October 1991, and site activities anticipated for the month of November 1991.

**Status of Previous Months Activities:**

- August 7, 1991:** Submitted to ARCO a proposal and an estimated budget to install an offsite monitoring well, to prepare an Addendum to Work Plan and a Report detailing results of drilling activities.
- August 8, 1991:** Received a letter from Alameda County Health Care Services Agency (ACHCSA) detailing a request for installation of an additional offsite and an additional onsite monitoring well, and the scheduled date for tank replacement.
- August 22, 1991:** Conducted monthly monitoring of groundwater wells to determine depth-to-water in each well.
- September 3, 1991:** ACHCSA requests though verbal communication with RESNA details of plans for removal and replacement of tanks.



- 
- September 4, 1991: Initiated process of gaining offsite access from property owner to install offsite monitoring wells.
- September 11, 1991: Submitted a letter request to the offsite property owner for his approval of the site-specific license agreement so as to install ~~the~~ proposed offsite monitoring well.
- September 12, 1991: Submitted a final copy of the Second Quarter Groundwater Monitoring Report to ARCO and governing agencies.
- September 30, 1991: Performed third quarter 1991 quarterly groundwater monitoring and sampling. Onsite wells MW-1 and MW-4 were sampled for benzene, toluene, ethylbenzene, and xylenes (BTEX), and total petroleum hydrocarbons (TPH)-as-gasoline. Monitoring well MW-2 was not sampled due to the presence of a sheen of floating product in the well.
- October 2 - 22, 1991: Unsuccessfully attempted to secure property owner's approval to install offsite monitoring well. Efforts are still underway to secure the owner's approval.
- October 23, 1991: Submitted a proposal and an estimated budget to install a floating product skimmer recovery device in MW-2. This skimmer will serve as an interim product recovery/remediation system.
- October 30, 1991: Submitted draft Third Quarter Groundwater Monitoring Report to ARCO for review.

Anticipated Work to be performed in the Next Month:

- o Continue groundwater monitoring and sampling program for this site.
- o Submit final Third Quarter Groundwater Monitoring Report.
- o Secure offsite access to install monitoring well.
- o Install product skimmer in MW-2.

Site Status Update  
ARCO Station No. 4494, Oakland, California

November 15, 1991  
61026.01

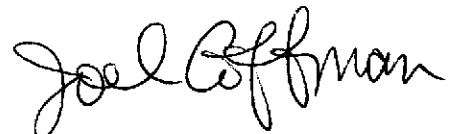
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If you have any questions or comments regarding this letter, please call us at (408) 264-7723.

Sincerely,  
RESNA



Valli Voruganti  
Project Engineer



Joel Coffman  
Project Geologist



A RESNA Company

# RESNA

Working To Restore Nature

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

91 NOV -0 11:05 AM TRANSMITTAL

TO: MR. CHUCK CARMEL  
ARCO PRODUCTS COMPANY  
P O BOX 5811  
SAN MATEO CA 94402

DATE: 11/6/91  
PROJECT NUMBER: 69038.04  
SUBJECT: CORRECTED INFORMATION

FROM: LOU LEET  
TITLE: GEOLOGIC TECHNICIAN

WE ARE SENDING YOU  Attached  Under separate cover via \_\_\_\_\_ the following items:  
 Shop drawings  Prints  Reports  Specifications  
 Letters  Change Orders \_\_\_\_\_

COPIES	DATED	NO.	DESCRIPTION
<u>1</u>	<u>11/5/91</u>	<u>69038.04</u>	<u>CORRECTED PAGES 3 AND 6, AND TABLE 3 OF LETTER REPORT QUARTERLY GROUND-WATER MONITORING, SECOND QUARTER 1991 AT ARCO STATION 4494, 566 HEGENBERGER ROAD, OAKLAND, CA.</u>

THESE ARE TRANSMITTED as checked below:

- For review and comment  Approved as submitted  Resubmit \_\_\_ copies for approval
- As requested  Approved as noted  Submit \_\_\_ copies for distribution
- For approval  Return for corrections  Return \_\_\_ corrected prints
- For your files  \_\_\_\_\_

REMARKS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Copies: 1 to AGS project file no. 69038.04

SAN JOSE READER'S FILE

cc: **LESTER FELDMAN, RWQCB**  
**BARNEY CHAN, ACDEH**  
**CHRIS WINSOR, ARCO**

Revision Date: 10/15/90  
File Name: TRANSMIT.PRJ



A RESNA Company

**RESNA**

Working To Restore Nature

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

November 6, 1991  
69038.04

Mr. Barney Chan  
Alameda County Department of Environmental Health  
80 Swan Way, Room 200  
Oakland, California 94621

Subject: Corrected pages 3 and 6, and Table 3 of Letter Report Quarterly  
Ground-Water Monitoring, Second Quarter 1991 at ARCO Station  
4494, 566 Hegenberger Road, Oakland, California.

Dear Mr. Chan:

Enclosed are corrected copies of pages 3 and 6, and Table 3 of the above-referenced report.  
Please replace the original pages in the report with these corrected pages.

Sincerely,  
RESNA

*L. J. Leet*  
Lou Leet  
Geologic Technician

Enclosed: Corrected pages 3 and 6, and Table 3

cc: Lester Feldman, RWQCB  
Chuck Carmel, ARCO Products Company  
H.C. Winsor, ARCO Products Company

5030/8015/8020. The Chain of Custody Records and Laboratory Analysis Reports are attached in Appendix A. Results of these and previous water analyses are summarized in Table 2, Cumulative Results of Laboratory Analyses of Water Samples.

Results of this quarter's laboratory analyses of water samples from wells MW-1, MW-3 and MW-4 indicated:

- o nondetectable levels of TPHg and BTEX in wells MW-1 and MW-3;
- o 0.75 parts per billion (ppb) benzene, 1.1 ppb toluene, 1.6 ppb xylenes, and nondetectable levels of TPHg were reported in well MW-4 for the first time; and
- o product sheen in well MW-2.

#### **Product Removal**

Since June 1990, evidence of floating product or product sheen has been observed only in well MW-2. Product sheen was removed from well MW-2 during monthly and quarterly monitoring episodes. Quantities of floating product and water removed from previous monitoring episodes are presented in Approximate Cumulative Product Recovered, Table 3. The total year-to-date recovered product is approximately 6.4 gallons; the total cumulative recovered water for the site is approximately 34.9 gallons.

#### **Conclusions and Recommendations**

Low levels of petroleum hydrocarbons were detected in well MW-4 for the first time since ground-water monitoring was initiated at this site in August 1990. This well is generally upgradient of the underground storage tanks at the site. The amount of floating product in well MW-2 has decreased to a sheen since monthly removal was implemented in November 1990. First ground water in the areas of wells MW-1 and MW-3 has not been impacted by petroleum hydrocarbons, as indicated by reported nondetectable concentrations of TPHg and BTEX during this sampling episode and reported nondetectable concentrations of TPHg, BTEX (with the exception of 0.7 toluene reported during November 1990), TPHd, and TOG during previous monitoring episodes between June 1990 and November 1990. All wells have remained within regulatory limits.

RESNA recommends continued ground-water monitoring at this site and monthly measurement of ground-water levels to evaluate trends of petroleum hydrocarbons and

Enclosures:      References

Plate 1, Site Vicinity Map  
Plate 2, Generalized Site Plan  
Plate 3, Ground-Water Gradient Map, May 2, 1991  
Plate 4, Ground-Water Gradient Map, June 28, 1991  
Plate 5, TPHg/Benzene Concentration Map, June 28, 1991

Table 1, Cumulative Ground-Water Monitoring Data  
Table 2, Cumulative Results of Laboratory Analyses of Water Samples  
Table 3, Approximate Cumulative Product Removed

Appendix A:    Ground-Water Sampling Protocol  
                  Well Purge Data Sheets  
                  Stabilization Graphs  
                  Chain of Custody Record  
                  Laboratory Analysis Report  
                  Uniform Hazardous Waste Manifest

TABLE 3  
APPROXIMATE CUMULATIVE PRODUCT REMOVED  
ARCO Station 4494  
Oakland, California

Date	Floating Product Removed (gallons)	Water Removed (gallons)
<u>MW-2</u>		
06/19/90	2	-
08/21/90	0.3	3.5
09/07/90	0.1	4
11/20/90	2	3
11/29/90	2	-
01/29/91	Sheen	3.4
02/27/91	Sheen	7
03/07/91	Sheen	7
06/27/91	Sheen	7
Total:	6.4 Gallons	34.9 Gallons

1315 Almaden Expressway, Suite 24  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

## TRANSMITTAL

TO: MR. PETER TURNER  
P O BOX 10919  
OAKLAND CA 94610

DATE: 11/8/91  
PROJECT NUMBER: 69038.10  
SUBJECT: REQUEST FOR ACCESS

FROM: DANA WEISS  
TITLE: STAFF ENGINEER

WE ARE SENDING YOU  Attached  Separate cover via \_\_\_\_\_ the following items:

- Drawings
- Reports
- Specifications
- Letters
- Change orders

COPIES	DATED	NO.	DESCRIPTION
1	11/7/91	69038.10	REQUEST FOR ACCRSS TO INSTALL MONITORING WELLS AND CONDUCT OFFSITE SUBSURFACE ENVIRONMENTAL INVESTIGATION AT 580 HEGENBERGER ROAD, OAKLAND, CALIFORNIA FOR ARCO PRODUCTS COMPANY

THESE ARE TRANSMITTED \_\_\_\_\_

- For review and comment
- Approved \_\_\_\_\_
- Resubmit \_\_\_\_\_
- For distribution
- For approval
- Return \_\_\_\_\_

REMARKS \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CC: MR. CHUCK CARMEL, ARCO PRODUCTS COMPANY  
MR. CHRIS WINSOR, ARCO PRODUCTS COMPANY  
MR. GILL JENSEN, ACDAO  
BARNEY CHAN, ACHCSA

69038.10

94:2 11/21/91 16N 16  
ADDER'S FILE  
TRANSMIT PR





A RESNA Company

**RESNA**

Working To Restore Nature

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

November 7, 1991  
1107mhus  
69038.10

Mr. Peter Turner  
P.O. Box 10919  
Oakland, CA 94610

**Subject: Request for Access to Install Monitoring Wells and Conduct Offsite Subsurface Environmental Investigation at 580 Hegenberger Road, Oakland, California for ARCO Products Company.**

Dear Mr. Turner,

On behalf of ARCO Products Company (ARCO), RESNA/Applied GeoSystems (RESNA) is requesting access to install and monitor two (2) groundwater monitoring wells located on the Sirloin & Brew property as part of an offsite subsurface environmental investigation. I am sending you a map with the proposed locations for two (2) groundwater monitoring wells (MW-5 and MW-6) proposed to be installed on the Sirloin & Brew property. After initial installation of wells, they will be monitored on a quarterly basis to determine changes in groundwater levels, and for sampling to determine presence of any groundwater contamination.

These monitoring wells will be an important source of information concerning soils and groundwater in the immediate area of ARCO Station 4494 located at 566 Hegenberger Road, Oakland, California. The installation and maintenance of the wells will remain the responsibility of ARCO. Prior to drilling and installation of the wells, an underground utility line locating company will be contracted to locate underground utilities.

Please discuss this monitoring well installation with the property owners or leasers and have the property owners sign each copy of the attached ARCO Offsite Access Agreement and return them to us. ARCO will countersign the agreement and return a copy to you.

Request for Access  
ARCO Station 4494, Oakland, California

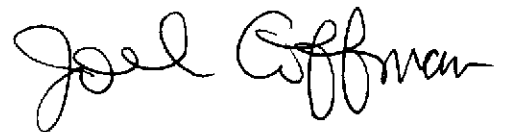
November 7, 1991  
69038.10

If you or the property owners have any questions regarding this matter, please call us at (408) 264-7723.

Sincerely,  
RESNA



Dana Weiss  
Staff Engineer



Joel Coffman  
Project Geologist

Enclosures:      Plate 1, Site Vicinity Map  
                      Plate 2, Proposed Boring/Monitoring Well Locations  
                      License Agreement Between Thomas K. McManus and ARCO  
                      Products Company

cc:      Chuck Carmel, ARCO Products Company  
          Chris Windsor, ARCO Products Company  
          Gill Jensen, Alameda County District Attorney's Office  
          Barney Chan, Alameda County Health Care Services Agency



Base: U.S. Geological Survey  
 7.5-Minute Quadrangles  
 Oakland East/ San Leandro,  
 California  
 Photorevised 1980

**LEGEND**

⊙ = Site Location

Approximate Scale



**RESNA**

**SITE VICINITY MAP**  
**ARCO Service Station 4494**  
**566 Hegenberger Road**  
**Oakland, California**

**PLATE**

**1**

**PROJECT 69038.04**

COPY

**LICENSE AGREEMENT  
BETWEEN THOMAS K. McMANUS  
AND ARCO PRODUCTS COMPANY**

This license Agreement is made on the 7th day of November, 1991, between Thomas K. McManus, private owner, hereinafter referred to as "licensor" and ARCO Products Company, a division of Atlantic Richfield Company, hereinafter referred to as "licensee".

**1. RECITALS**

- 1.1 Licensor owns certain real property (the "Property") at 580 Hegenberger Road, Oakland, in the state of California.
- 1.2 Licensee desires to drill on a portion of the Property, two (2) groundwater wells as depicted on Plate 2, attached hereto and made part hereof.
- 1.3 The parties desire to enter into this License Agreement to allow licensee to install said groundwater wells on the Property.
- 1.4 Neither this License Agreement nor any of the terms hereof shall be construed as an admission of liability by Licensee for any contamination, alleged or otherwise, on the licensed area of any adjoining property.

**2. AGREEMENT**

Now, therefore, in consideration of the mutual covenants and agreements herein contained, the parties hereto do hereby covenant and agree to and with each other as follows.

**3. TERMS**

- 3.1 Licensee may drill, use and backfill at its sole cost and expense, two (2) groundwater wells on the Property located at 580 Hegenberger Road, Oakland, California.

- 3.2 Said groundwater wells shall be completed as shown on Plate 2 attached hereto and made part hereof.
- 3.3 Licensee, upon prior notification to licensor, may enter the Property to monitor and sample the two (2) groundwater wells.
- 3.4 Licensee agrees not to permit any liens to stand against the Property for work done or materials furnished to licensee, and licensee agrees to indemnify and hold licensor harmless for same.
- 3.5 If the surface of the licensed are and/or the surface of licensor's adjacent real property and/or improvements thereon shall be disturbed by the emplacement or the backfill of licensee's groundwater wells, then said surface and/or improvements shall be promptly restored by licensee to their condition just prior to such disturbance.
- 3.6 Licensee shall, after completion, backfill said borings pursuant to this License Agreement, or after the groundwater wells are no longer useful to the investigation, destroy the groundwater wells according to the standards set forth by the appropriate State agency.
- 3.7 Licensee agrees to indemnify, defend, and save licensor harmless from all liability, damage, expense, causes of action, suits, claims, or judgements resulting from injuries to person or damage to property on the licensed area or on adjoining streets and sidewalks which arise out of the act, failure to act, or negligence of licensee, its agents, employees, invitees, or guests in performing work under this License Agreement.
- 3.8 This License Agreement shall not constitute a deed or a grant of easement and shall not be deemed irrevocable or an easement by virtue of the work performed under or by reason of this license.
- 3.9 This License Agreement may be terminated by either party upon thirty (30) days prior written notice.

In witness whereof, the parties hereto have executed this License Agreement as of the day and year first above written.

**ARCO Products Company**

**Thomas K. McManus**

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

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 5, 1991

Mr. Joel Coffman  
Applied Geo Systems, Inc.  
3315 Almaden Expressway, Suite 34  
San Jose, CA 95118

Re: Arco Station #4494, 566 Hegenberger Rd., Oakland, CA 94621

Dear Mr. Coffman:

In your October 23, 1991 letter you explain the delay in obtaining offsite access as follows: " Mr. Sharifi did not feel he could legally give out the name and address of the property owners." However , in your September 10, 1991 letter to Mr. Hussein Sharifi you included a license agreement between Thomas McManus and ARCO. As you know, property ownership information is available at the County Assessor's Office. Because you apparently knew the identity of the property owner in early September, we wonder why you did not deal directly with Mr. McManus?

I have discussed your request for access letter with Susan Hugo of our office. We agree site ~~site~~ access would be expedited if the request were more forthcoming in detailing what is known about existing contamination and the legal obligations of responsible parties to remediate. Please advise me as to whether there are any other Alameda County sites where site access to adjacent property is currently being refused and what measures beyond the standard form letter have been taken at those sites to gain access. We find it difficult to imagine a circumstance where an informed adjacent property owner would deny access. Please update me with the status of your progress to gain access.

Your prompt attention to these inquiries is appreciated. You may contact me at (510) 271-4320 if you have any questions regarding this letter.

Sincerely,

Barney Chan  
Hazardous Materials Specialist

cc: M. Thomson, Alameda County District Attorney Office  
J. Meck, ARCO Legal Dept.  
C. Carmel, ARCO  
R. Hiatt, RWQCB  
566Heg3

ARCO Products Company  
17315 Studebaker Road  
Cerritos, California 90701-1488  
Telephone 213 404 5300

Mailing Address: Box 6411  
Artesia, California 90702-6411



91 OCT 31 11:27

October 29, 1991

Mr. Paul M. Smith  
Hazardous Materials Specialist  
Alameda County Health Care Services Agency  
80 Swan Way, Room 200  
Oakland, California 94621

Certified Mail

RE: UST PERMITS

Dear Mr. Smith:

Due to a major reorganization of Arco Products Company, our Northern California office has been closed. Consequently, all environmental matters and permit coordination are now being handled in the Environmental, Health, and Safety Department in the Los Angeles office.

Our files for Arco facilities in Alameda County contain the attached locations. According to our records, please note the following relative to these locations:

- All Underground Storage Tank permit fees are current.
- A and B forms have been submitted to your office and copies are on file in our office of these forms.
- The following two locations have physical Underground Storage Tank permits issued for a five-year duration, expiring in 1993:

Arco Facility #4494  
566 Hegenberger Rd.  
Oakland

Arco Facility #6002  
6235 Seminary Ave.  
Oakland



Mr. Smith  
October 29, 1991  
Page 2

It is my understanding that the remaining 16 facilities require an inspection to be done by your office in order for an Underground Storage Tank permit to be issued. Would you please provide me with scheduled dates for inspections to be done at these facilities by your agency.

For future reference, please send all Underground Storage Tank correspondence, renewals, and permits to my attention at the above address.

If you have any questions regarding these matters, I would be pleased to respond to them. I can be reached at 213/404-5347.

I look forward to hearing from you.

Sincerely,

A handwritten signature in cursive script that reads "Judy L. Mason". The signature is written in black ink and includes a long horizontal flourish extending to the right.

Judy L. Mason  
Permit Coordinator  
Environmental, Health, and Safety

Attachment

ARCO PRODUCTS COMPANY  
 FACILITY LIST - LOS ANGELES REGION  
 BY STATE COUNTY  
 10/24/1991, 09:20 AM

STATE: CALIFORNIA COUNTY: ALAMEDA

FAC	DEALER	ADDRESS	CITY/STATE	ZIP	CROSS STREET	PHONE
00276	DAI VAN VO	10600 MACARTHUR BLVD	OAKLAND	CA 94605	10TH AVE/MACARTHUR B	415-635-4641
00374	SANTOSH KUMAR SUD	6407 TELEGRAPH AVENU	OAKLAND	CA 94609	ALCATRAZ AVE/TELEGRA	415-658-7508
00498	REGION OPERATION 5157	286 SO LIVERMORE AVE	LIVERMORE	CA 94550	3RD ST/S LIVERMORE A	415-449-1448
00608	JAIME & LEONORA ABADAM <i>Sgn ✓</i>	17601 HESPERIAN BLVD	SAN LORENZO	CA 94580	HACIENDA/HESPERIAN B	415-278-2977
00771	JERRY SHIELDS	899 RINCON AVENUE	LIVERMORE	CA 94550	PINE/RINCON AVE	415-447-1329
02035	RAHMAN FARSI/MAJID GHANADAN	1001 SAN PABLO AVENU	ALBANY	CA 94706	MARIN/SAN PABLO AVE	415-525-1362
02107	PRITINDER ARORA	3310 PARK BLVD.	OAKLAND	CA 94610	MACARTHUR/PARK BLVD	415-532-1716
02112	JAVAD ROOSHAN <i>Sgn ✓</i>	1260 PARK STREET	ALAMEDA	CA 94501	ENCINAL/PARK ST	415-865-7335
02152	JAMES A WALKER	22141 CENTER ST.	CASTRO VALLEY	CA 94546	GROVE/CENTER ST	415-581-1268
02169	RAMESH SOOD	889 W GRAND AVE	OAKLAND	CA 94607	MARKET/W GRAND AVE	415-465-4450
02185	B J A INC	9800 E 14TH ST	OAKLAND	CA 94603	98TH/E 14TH	415-568-0590
04494	KHALIL N ROOSHAN <i>Sgn ✓</i>	566 HEGENBERGER RD.	OAKLAND	CA 94605	EDES/HEGENBERGER RD	415-569-7561
04931	VINTNERS DISTRIBUTORS INC	731 W MACARTHUR BLVD	OAKLAND	CA 94611	WEST/W MACARTHUR BLV	415-658-5000
04977	MICHAEL SERDY	2770 CASTRO VALLEY R	CASTRO VALLEY	CA 94546	WISTERIA/CASTRO VALL	415-582-6919
06002	SAMIR PATEL <i>Sgn ✓</i>	6235 SEMINARY AVENUE	OAKLAND	CA 94605	HWY 580/SEMINARY	415-633-1042
06041	RONALD E TEUTSCH	7249 VILLAGE PARKWAY	DUBLIN	CA 94566	AMADOR/VILLAGE PKWY	415-828-3163
06113	PRESTIGE STATIONS INC 5158	785 E STANLEY BLVD	LIVERMORE	CA 94550	MURRIETTA/E STANLEY	415-449-2024
06148	JIN H KANG	5131 SHATTUCK AVE.	OAKLAND	CA 94609	52ND/SHATTUCK	415-654-3461

ARCO Products Company  
Monitoring and Response Plans

County Alameda - Public Health

Facility	Product Tanks		Product Lines		ELECTRONIC Tank Monitor	Probe in Sump	LINE Leak Detector	Used Oil Tank		Monitoring Plan
	DW	SW	DW	SW				DW	SW	
200 MacArthur Blvd. Oak	PS 216	✓		✓	✓	✓	✓			I
407 Telegraph Ave. Oakland	SH 314	✓		✓	✓	✓	✓			I
86 S. Livermore Ave.	SH 418	✓					✓			IVA
7601 Hesperian Blvd. S.F.	PE 1008 5yr	✓		✓	✓	✓	✓	✓		IA
399 Rincon Ave. Liv.	SH 771		✓				✓			III
881 San Pablo, Albany	LS 2035	✓		✓	✓	✓	✓			I
310 Park Blvd. Oak	PS 2107	✓		✓	✓	✓	✓			II B
560 Alameda St. S.F.	2111		✓				✓		✓	III, V
260 PARK ST. ALAMEDA	SH 2117 5yr	✓		✓	✓	✓	✓			I
241 Center St. C.V.	SS 2152	✓		✓	✓	✓	✓			I
19 W. Grand Ave. Oak	PB 2169		✓		✓		✓			III
146 St. Oakland	BC 2185		✓		✓		✓			III
566 Hesperian Blvd. Oak	BC 4494 5yr		✓		✓		✓			III
3160 Mac Oakland	SH 4931		✓		✓		✓			III
1700 Casino Valley Blvd.	SS 4977		✓		✓		✓			III
235 Seminary Blvd. Oak	PS 6002 5yr		✓		✓		✓			III
249 Village Parkway Dublin	RA 60A1		✓		✓		✓			III
785 E. Stanley Liv.	SH 6113	✓					✓			IVA
5131 Shattuck Ave. Oak	SH 6148		✓				✓			III

SH-7 780-1  
 ✓ PS-2 BC-2  
 ✓ LS-1 RA-1  
 PE-7 SS-2

\* # 566 Hesperian Rd - approved closure & installation plan  
 site contaminated.

By permit Remediation

ARCO PRODUCTS COMPANY  
 FACILITY LIST - LOS ANGELES REGION  
 BY STATE COUNTY  
 10/24/1991, 09:20 AM

STATE: CALIFORNIA COUNTY: ALAMEDA

FAC	DEALER	ADDRESS	CITY/STATE	ZIP	CROSS STREET	PHONE
00276	DAI VAN VO	10600 MACARTHUR BLVD	OAKLAND	CA 94605	10TH AVE/MACARTHUR B	415-635-4641
00374	SANTOSH KUMAR SUD	6407 TELEGRAPH AVENU	OAKLAND	CA 94609	ALCATRAZ AVE/TELEGRA	415-658-7508
00	REGION OPERATION 5157	286 SO LIVERMORE AVE	LIVERMORE	CA 94550	3RD ST/S LIVERMORE A	415-449-1448
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00771	JERRY SHIELDS	899 RINCON AVENUE	LIVERMORE	CA 94550	PINE/RINCON AVE	415-447-1329
02035	RAHMAN FARSI/MAJID GHANADAN	1001 SAN PABLO AVENU	ALBANY	CA 94706	MARIN/SAN PABLO AVE	415-525-1362
02107	PRITINDER ARORA	3310 PARK BLVD.	OAKLAND	CA 94610	MACARTHUR/PARK BLVD	415-532-1716
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06041	RONALD E TEUTSCH	7249 VILLAGE PARKWAY	DUBLIN	CA 94566	AMADOR/VILLAGE PKWY	415-828-3163
13	PRESTIGE STATIONS INC 5158	785 E STANLEY BLVD	LIVERMORE	CA 94550	MURRIETTA/E STANLEY	415-449-2024
48	JIN H KANG	5131 SHATTUCK AVE.	OAKLAND	CA 94609	52ND/SHATTUCK	415-654-3461



A RESNA Company

**RESNA**

Working To Restore Nature

91 OCT 29 11:21:57

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

**TRANSMITTAL**

TO: MR. BARNEY CHAN DATE: 10/24/1991  
ALAMEDA COUNTY HEALTH CARE SERVICES PROJECT NUMBER: 69038.10  
AGENCY-DEH SUBJECT: ARCO STATION 4494 AT  
OAKLAND, CALIFORNIA 94621 566 HEGENBERGER ROAD, OAKLAND, CA

FROM: JOEL COFFMAN  
TITLE: PROJECT GEOLOGIST

WE ARE SENDING YOU  Attached  Under separate cover via \_\_\_\_\_ the following items:  
 Shop drawings  Prints  Reports  Specifications  
 Letters  Change Orders  \_\_\_\_\_

COPIES	DATED	NO.	DESCRIPTION
1	10/23/92		<u>STATUS REPORT TO ALAMEDA COUNTY</u> <u>HEALTH CARE SERVICES AGENCY REGARDING THE ABOVE</u> <u>SUBJECT SITE.</u>

THESE ARE TRANSMITTED as checked below:

- For review and comment  Approved as submitted  Resubmit \_\_\_ copies for approval
- As requested  Approved as noted  Submit \_\_\_ copies for distribution
- For approval  Return for corrections  Return \_\_\_ corrected prints
- For your files  \_\_\_\_\_

REMARKS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Copies: 1 to AGS project file no. 69038.10

SAN JOSE READER'S FILE

Revision Date: 10/15/90  
File Name: TRANSMT.PRJ



A RESNA Company

**RESNA**

Working To Restore Nature

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

October 23, 1991  
1023bcha  
69038.10

Mr. Barney Chan  
Alameda County Health Care Services Agency  
Department of Environmental Health  
80 Swan Way, Room 200  
Oakland, California 94621

Subject: Status Report to Alameda County Health Care Services Agency regarding ARCO Station 4494 at 566 Hegenberger Rd., Oakland, California.

Dear Mr. Chan:

On behalf of ARCO, RESNA/Applied GeoSystems (RESNA) sends this letter to update you regarding the RESNA letter addressed to you, dated September 5, 1991. This letter was in response to your letter dated August 6, 1991, regarding ARCO's Work Plan for Subsurface Investigation and Remediation and Addendum One to the Work Plan, both dated May 15, 1991.

As mentioned in the September 5 letter, we anticipated that one factor which may slow the offsite monitoring well installation process down is gaining offsite access for the installation of the wells MW-5 and MW-6, as shown on Plate A, the Generalized Site Plan. This assumption has proven to be correct.

The property in question is leased by Mohammad Hussain Sharifi, the owner and operator of a restaurant called Sirloin & Brew, located at 580 Hegenberger Road, Oakland, California. Mr. Sharifi did not feel he could legally give out the name and address of the property owners, therefore, he asked that we address a Request for Access to Mr. Sharifi so that he can contact the owners himself. The first letter was sent to him on September 11, 1991. We called Mr. Sharifi on October 2, 1991 to find out if he had received the letter. He had not, therefore, a second letter was sent to Mr. Sharifi on October 7, 1991. In our phone conversation on October 22, 1991, Mr. Sharifi confirmed that he had received this letter. At this time Mr. Sharifi asked us to call his attorney, Ms. Rochelle Kabit. We phoned Ms. Kabit on October 22, 1991, to tell her what our intentions are. She said she would talk to Mr. Sharifi, and see if she can get the name and address of the property

Status Report to ACHCA  
ARCO Station 4494, Oakland, California

October 29, 1991  
69038.10

owners so that we may deal directly with them. We expect to receive this information by October 26, 1991, at which time we will send out a Request for Access directly to the owner. It is our opinion that this will speed up the process of obtaining access to the Sirloin & Brew property.

If you have any questions or comments, please call us at (408) 264-7723.

Sincerely,  
RESNA/Applied GeoSystems

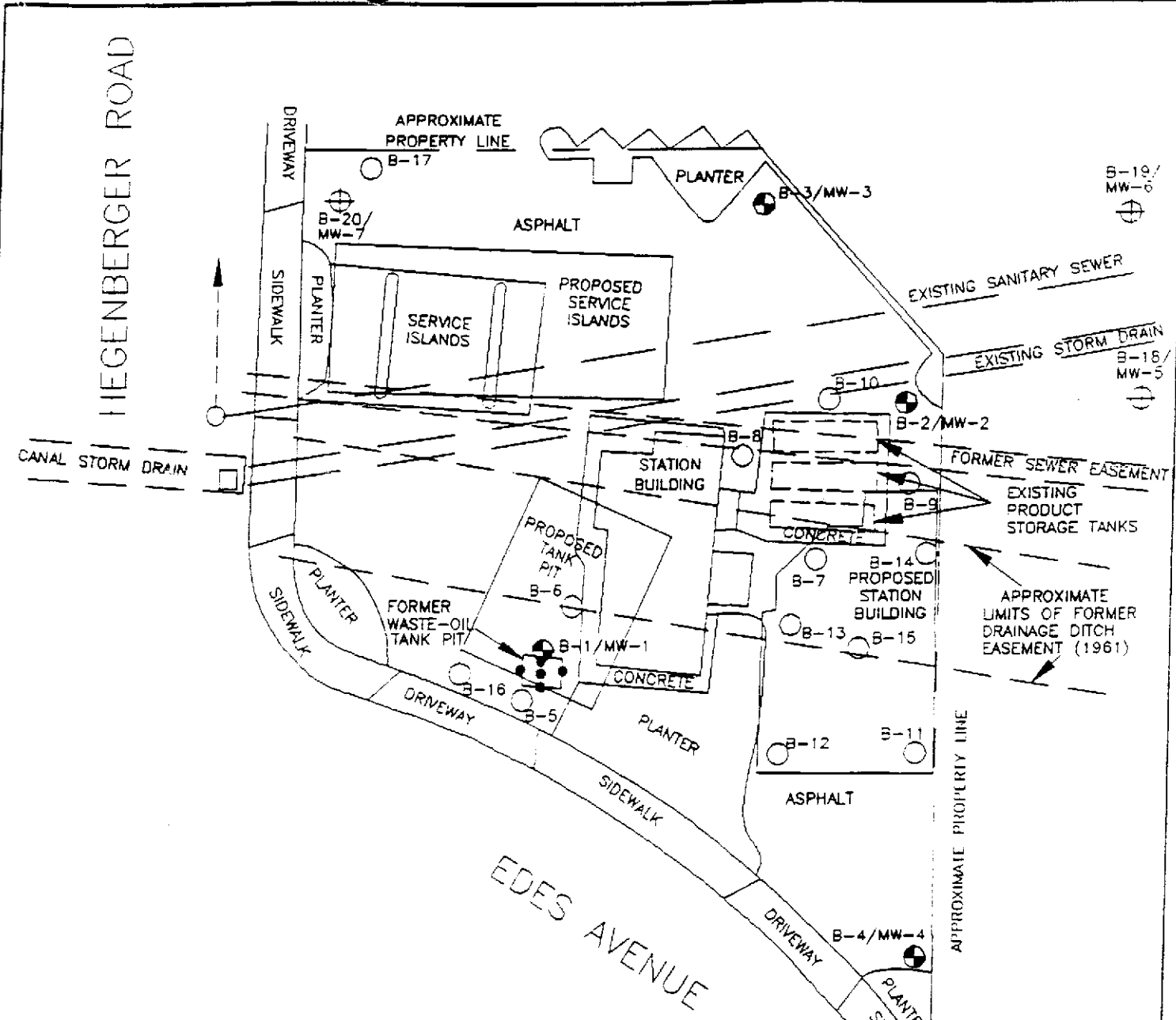
Dana Dietz Weiss  
Staff Engineer



Joel Coffman  
Project Geologist

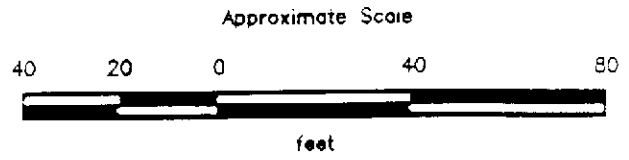
Attachment: Plate A, Generalized Site Plan

cc: Mr. John Meck, ARCO Products Company  
Mr. Chris Winsor, ARCO Products Company  
Mr. Chuck Carmel, ARCO Products Company  
Mr. G. Jensen, Alameda County District Attorney



**EXPLANATION**

- B-20/  
MW-7 = Proposed boring/monitoring well
- = waste-oil tank excavation soil samples  
(Pacific Environmental Group, January 1989)
- B-4/MW-4 = Monitoring wells  
(Applied GeoSystems, October 1989  
and August 1990)
- B-10 = Soil boring  
(Applied GeoSystems, August 1990  
and March 1991)



Source: Modified from plans supplied by ARCO Products Co.  
(dated August 12, 1982)  
and City of Oakland Dept. of Public Works  
(dated December 19, 1961).



**GENERALIZED SITE PLAN  
ARCO Service Station 4494  
566 Hegenberger Road  
Oakland, California**

**PLATE  
A**

**PROJECT 89038-6**



ARCO Products Company  
2000 Alameda de las Pulgas  
Mailing Address: Box 5811  
San Mateo, California 94402  
Telephone 415 571 2400



Date: October 14, 1991

Re: ARCO Station #

" I declare, that to the best of my knowledge at the present time, that the information and/or recommendations contained in the attached proposal or report are true and correct."

Submitted by:

Kyle A. Christie  
Environmental Engineer

91 OCT 15 PM 2:29

October 14, 1991

Alameda County Department of Environmental Health  
80 Swan Way  
Oakland, California 94621

Attention: Mr. Edgar Howell

**ARCO Products Company Facilities in Alameda County**

Dear Mr. Howell:

Please find attached, Quarterly Summary Reports (QSRs) for ARCO Products Company Service Stations in Alameda County. The QSRs summarize activities conducted by ARCO at the respective sites during the third quarter of 1991; also included are projected site activities for the fourth quarter of 1991 and a bibliography of reports submitted for each location.

The QSRs are classified by County and by address within the County. We are submitting this document and attached QSRs as previously agreed. Please note that we are forwarding copies of the QSRs to the Regional Water Quality Control Board (RWQCB).

Please also note that ARCO Products Company has reviewed the RWQCB's February 19, 1991 printout of ARCO fuel leak sites. We evaluated each site with respect to ARCO's responsibility for investigation, monitoring, and/or remediation. Those locations for which ARCO is not responsible were listed and described in the QSR package delivered to you on July 15, 1991. The attached QSRs therefore represent only those locations for which ARCO is responsible.

ARCO is planning a subsequent QSR submittal for ARCO sites on January 15, 1992. Please do not hesitate to contact me with any questions regarding this submittal.

Sincerely,

  
Kyle A. Christie  
Environmental Engineer

Attachments:  
ARCO Facility QSRs



<u>REPORT</u>	<u>DATE</u>	<u>CONSULTANT</u>
Letter Report on Second Quarter 1991 Ground-Water Monitoring at ARCO 4494, Oakland, CA 69038.04	9/10/91	RESNA
Work Plan for Subsurface Investigation and Remediation and Addendum One to Work Plan to Perform Underground Tank Replacement Investigation, Preliminary Offsite Investigation, and Interim Product Recovery. AGS 69038-6	5/15/91	RESNA/Applied GeoSystems
Report on Preliminary Tank Replacement Assessment AGS 69038-5	5/2/91	RESNA/Applied GeoSystems
Letter Report on First Quarter 1991 Ground-Water Monitoring at ARCO 4494, Oakland, CA AGS 69038-4	4/3/91	Applied GeoSystems
Limited Subsurface Environmental Investigation AGS 69038-2	2/13/91	Applied GeoSystems
Fourth Quarter 1990 Ground- Water Monitoring AGS 69038-4	2/8/91	Applied GeoSystems
Site History Assessment and Limited Environmental Records Review AGS 69038-3	10/1/90	Applied GeoSystems
Work Plan for Initial Subsurface Investigation AGS 69038-1	9/29/89	Applied GeoSystems
Subsurface Environmental Investigation Project 330-41	5/3/89	Pacific Environmental Group

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID J. KEARS, Director



October 21, 1991

Telephone Number: (415)

Ms. Sharon Douglas  
Arco Environmental Compliance Section  
17315 Studebaker Rd.  
Cerritos, CA 90701-1488

Re: Review of Removal and Installation Plans for Underground Tanks at  
Arco Station #4494 at 566 Hegenberger Rd., Oakland CA 94621

Dear Ms. Douglas:

This letter recounts my conversation with Mr. William Mariluch of Barghausen Consulting Engineers today regarding the adequacy of the removal and installation plans for the above referenced Arco station. The following items were requested prior to County approval of the removal and installation plans:

Removal-

1. Arco and all other workers at the removal site must provide in writing, evidence that they have received OSHA approved health and safety training per CFR 1910.120.
2. The site safety plan must identify the nearest hospital and give directions to it.

Installation-

1. Arco must state in writing that the as-built plans will be provided to the County within 30 days after the installation is complete.
2. Arco must provide the hold-down calculations for the tanks as determined by a California registered engineer.
3. Arco must complete and submit Form C's for each tank installed.
4. Arco will provide the manufacture's cut sheets for the overflow protection device being installed. It will have a minimum fifteen (15) gallon capacity.
5. Arco will designate, on a site map, the location of the emergency shut-off switch for the pumps.

As soon as Mr. Mariluch provides this information, the removal and installation plans will be approved. Please contact me at (510) 271-4320 should you have any questions regarding this letter.

Sincerely,

Barney M. Chan, Hazardous Materials Specialist

cc: M. Thomson, Alameda County District Attorney Office  
W. Mariluch, Barghausen Consulting Engineers  
566Heg2



COPY

RESNA

Working To Restore Nature

3315 Almaden Expressway, Suite 34
San Jose, CA 95118
Phone: (408) 264-7723
Fax: (408) 264-2435

TRANSMITTED: 13

TO: MR. MOHAMMAD HUSSAIN SHRIFI
SIRLOIN & BREW
580 HEGENBERGER ROAD
OAKLAND, CALIFORNIA 94621

DATE: 10/7/91
PROJECT NUMBER: 69038.10
SUBJECT: ARCO STATION 4494 AT
566 HEGENBERGER ROAD, OAKLAND, CALIF.

FROM: JOEL COFFMAN
TITLE: PROJECT GEOLOGIST

WE ARE SENDING YOU [X] Attached [ ] Under separate cover via \_\_\_\_\_ the following items:
[ ] Shop drawings [ ] Prints [ ] Reports [ ] Specifications
[X] Letters [ ] Change Orders [ ] \_\_\_\_\_

Table with 4 columns: COPIES, DATED, NO., DESCRIPTION. Row 1: 1, 10/2/91, REQUEST FOR ACCESS TO INSTALL MONITORING WELLS AND CONDUCT OFFSITE SUBSURFACE INVESTIGATION AT 580 HEGENBER ROAD.

THESE ARE TRANSMITTED as checked below:

- [ ] For review and comment [ ] Approved as submitted [ ] Resubmit \_\_\_ copies for approval
[ ] As requested [ ] Approved as noted [ ] Submit \_\_\_ copies for distribution
[ ] For approval [ ] Return for corrections [ ] Return \_\_\_ corrected prints
[ ] For your files [ ] \_\_\_\_\_

REMARKS: PLEASE HAVE THE PROPERTY OWNERS SIGN EACH COPY OF THE ATTACHED ARCO OFFSITE ACCESS AGREEMENT AND RETURN THEM TO US. THANK YOU.

Copies: 1 to AGS project file no. 69038.10

SAN JOSE READER'S FILE

Revision Date: 10/15/90
File Name: TRANSMT.PRJ

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

October 2, 1991  
1002mhus  
69038.10

Mr. Mohammad Hussain Sharifi  
Sirloin & Brew  
580 Hegenberger Road  
Oakland, CA 94621

**Subject: Request for Access to Install Monitoring Wells and Conduct Offsite Subsurface Environmental Investigation at 580 Hegenberger Road, Oakland, California for ARCO Products Company.**

Dear Mr. Sharifi,

On behalf of ARCO Products Company (ARCO), RESNA/Applied GeoSystems (RESNA) is requesting access to install and monitor two (2) groundwater monitoring wells located on the Sirloin & Brew property as part of an offsite subsurface environmental investigation. I am sending you a map with the proposed locations for two (2) groundwater monitoring wells (MW-5 and MW-6) proposed to be installed on the Sirloin & Brew property. After initial installation of wells, they will be monitored on a quarterly basis to determine changes in groundwater levels, and for sampling to determine presence of any groundwater contamination.

These monitoring wells will be an important source of information concerning soils and groundwater in the immediate area of ARCO Station 4494 located at 566 Hegenberger Road, Oakland, California. The installation and maintenance of the wells will remain the responsibility of ARCO. Prior to drilling and installation of the wells, an underground utility line locating company will be contracted to locate underground utilities.

As discussed in our phone conversation on September 4, 1991, we understand that you will contact the owners or leasers of the property. Please discuss this monitoring well installation with the property owners or leasers and have the property owners sign each copy of the attached ARCO Offsite Access Agreement and return them to us. ARCO will countersign the agreement and return a copy to you.

Request for Access  
ARCO Station 4494, Oakland, California

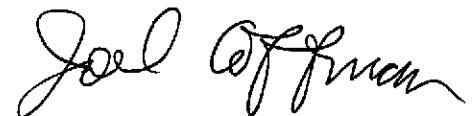
October 2, 1991  
69038.10

If you or the property owners have any questions regarding this matter, please call us at (408) 264-7723.

Sincerely,  
RESNA



Dana Weiss  
Staff Engineer

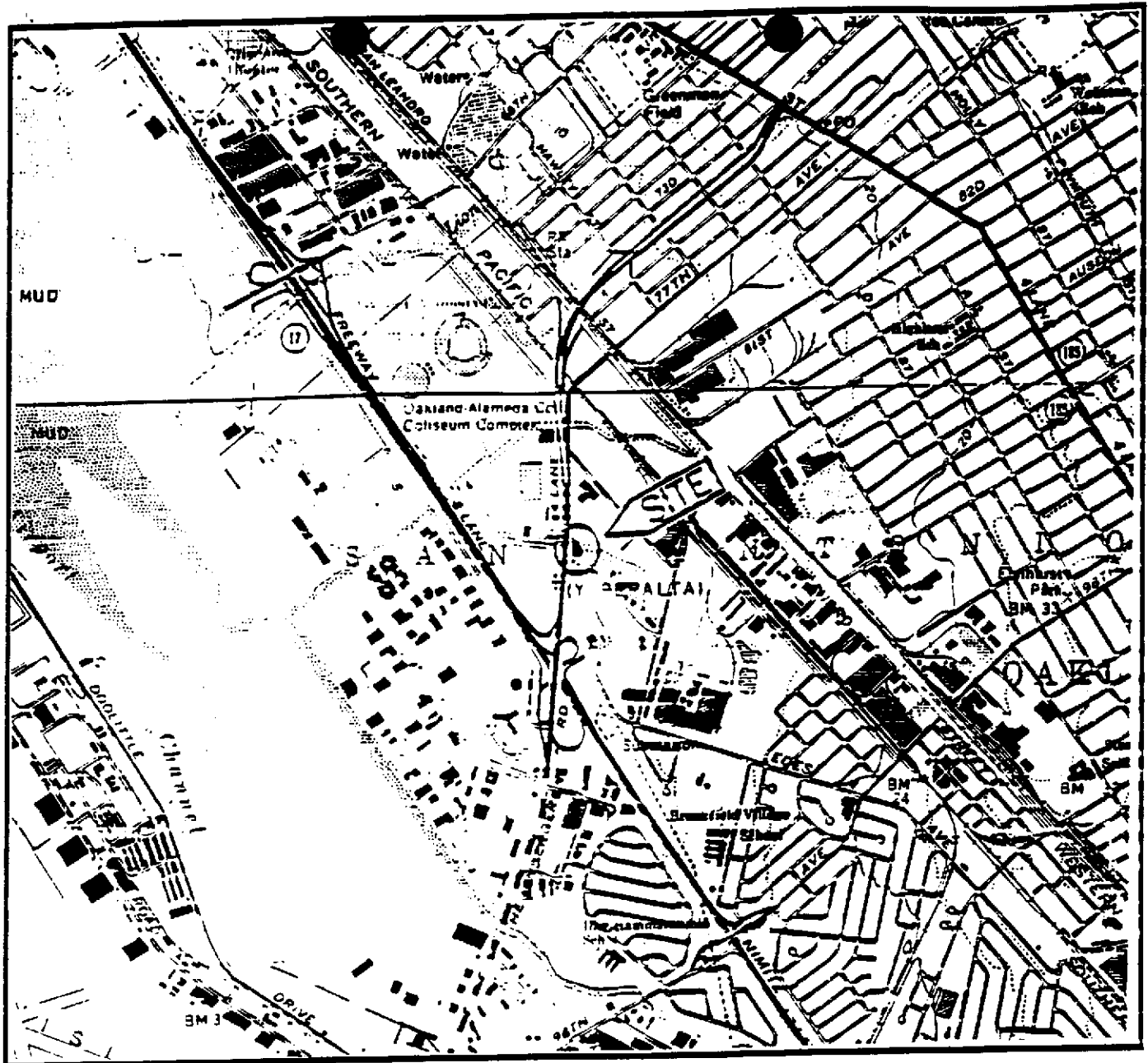


Joel Coffman  
Project Geologist

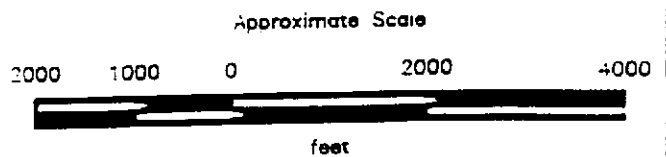
Enclosures:      Plate 1, Site Vicinity Map  
                      Plate 2, Proposed Boring/Monitoring Well Locations  
                      License Agreement Between Thomas K. McManus and ARCO  
                      Products Company

cc:      Chuck Carmel, ARCO Products Company  
          Chris Windsor, ARCO Products Company  
          Gill Jensen, Alameda County District Attorney's Office  
          Barney Chan, Alameda County Health Care Services Agency





Source: U.S. Geological Survey  
 7.5-minute Quadrangle  
 Oakland East/San Leandro,  
 California  
 Photorevised 1980

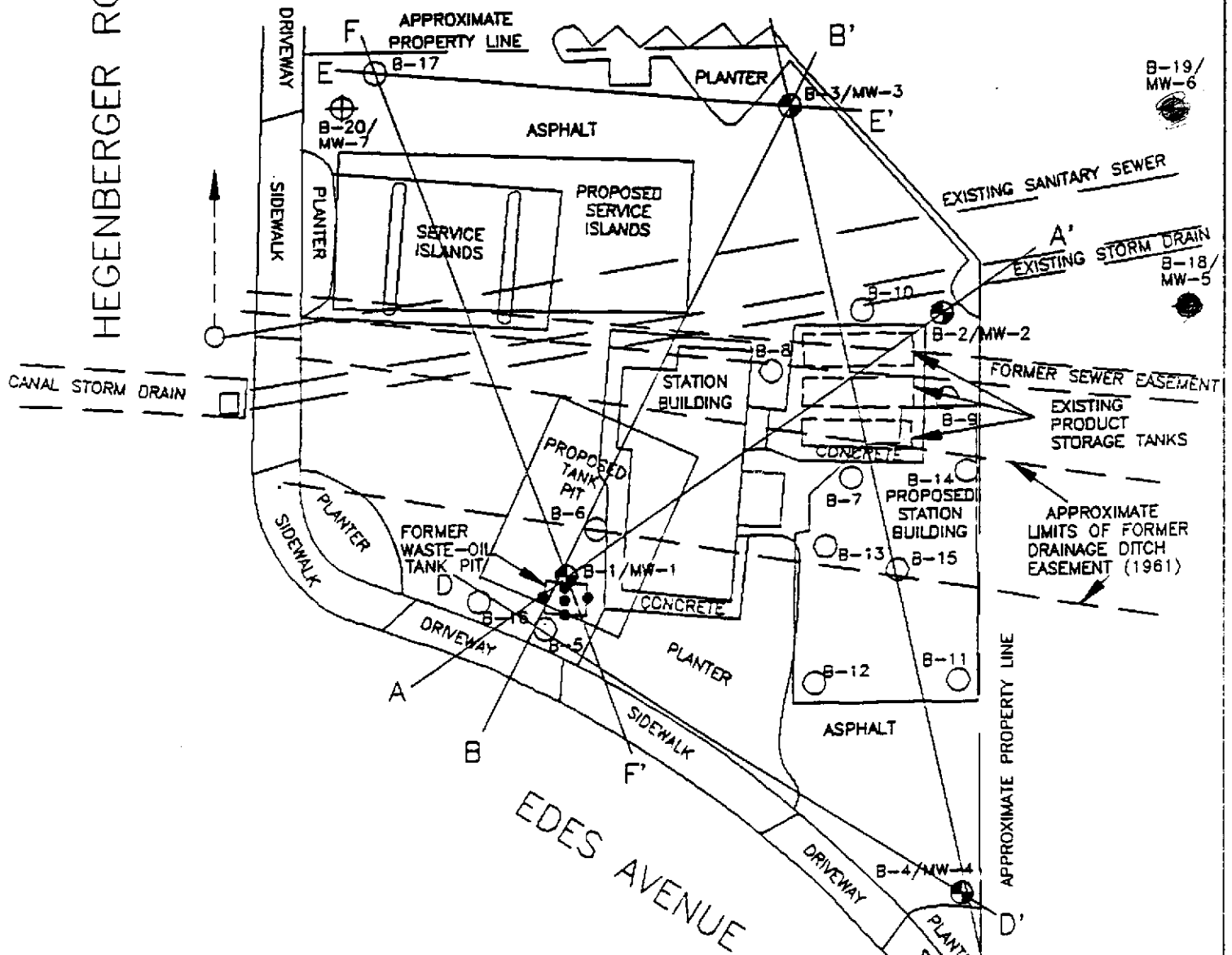


**SITE VICINITY MAP**  
**ARCO Service Station 4494**  
**586 Hegenberger Road**  
**Oakland, California**

**PLATE**  
**1**

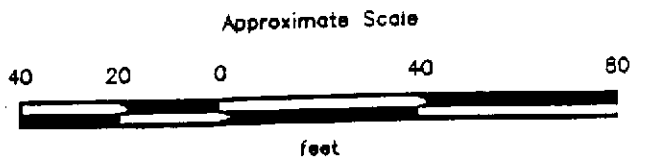
**PROJECT 69038-4**

HEGENBERGER ROAD



**EXPLANATION**

- B-20/MW-7 = Proposed boring/monitoring well
- = Waste-oil tank excavation soil samples (Pacific Environmental Group, January 1989)
- B-4/MW-4 = Monitoring wells (Applied GeoSystems, October 1989 and August 1990)
- B-10 = Soil boring (Applied GeoSystems, August 1990 and March 1991)
- F-F' = Geologic Cross Sections



Source: Modified from plans supplied by ARCO Products Co. (dated August 12, 1982) and City of Oakland Dept. of Public Works (dated December 19, 1961).



PROJECT 69038-6

**GENERALIZED SITE PLAN**  
**ARCO Service Station 4494**  
**566 Hegenberger Road**  
**Oakland, California**

PLATE

2

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

**LICENSE AGREEMENT  
BETWEEN THOMAS K. McMANUS  
AND ARCO PRODUCTS COMPANY**

This license Agreement is made on the 2nd day of October, 1991, between Thomas K. McManus, private owner, hereinafter referred to as "licensor" and ARCO Products Company, a division of Atlantic Richfield Company, hereinafter referred to as "licensee".

**1. RECITALS**

- 1.1 Licensor owns certain real property (the "Property") at 580 Hegenberger Road, Oakland, in the state of California.
- 1.2 Licensee desires to drill on a portion of the Property, two (2) groundwater wells as depicted on Plate 2, attached hereto and made part hereof.
- 1.3 The parties desire to enter into this License Agreement to allow licensee to install said groundwater wells on the Property.
- 1.4 Neither this License Agreement nor any of the terms hereof shall be construed as an admission of liability by Licensee for any contamination, alleged or otherwise, on the licensed area of any adjoining property.

**2. AGREEMENT**

Now, therefore, in consideration of the mutual covenants and agreements herein contained, the parties hereto do hereby covenant and agree to and with each other as follows.

**3. TERMS**

- 3.1 Licensee may drill, use and backfill at its sole cost and expense, two (2) groundwater wells on the Property located at 580 Hegenberger Road, Oakland, California.

- 3.2 Said groundwater wells shall be completed as shown on Plate 2 attached hereto and made part hereof.
- 3.3 Licensee, upon prior notification to licensor, may enter the Property to monitor and sample the two (2) groundwater wells.
- 3.4 Licensee agrees not to permit any liens to stand against the Property for work done or materials furnished to licensee, and licensee agrees to indemnify and hold licensor harmless for same.
- 3.5 If the surface of the licensed are and/or the surface of licensor's adjacent real property and/or improvements thereon shall be disturbed by the emplacement or the backfill of licensee's groundwater wells, then said surface and/or improvements shall be promptly restored by licensee to their condition just prior to such disturbance.
- 3.6 Licensee shall, after completion, backfill said borings pursuant to this License Agreement, or after the groundwater wells are no longer useful to the investigation, destroy the groundwater wells according to the standards set forth by the appropriate State agency.
- 3.7 Licensee agrees to indemnify, defend, and save licensor harmless from all liability, damage, expense, causes of action, suits, claims, or judgements resulting from injuries to person or damage to property on the licensed area or on adjoining streets and sidewalks which arise out of the act, failure to act, or negligence of licensee, its agents, employees, invitees, or guests in performing work under this License Agreement.
- 3.8 This License Agreement shall not constitute a deed or a grant of easement and shall not be deemed irrevocable or an easement by virtue of the work performed under or by reason of this license.
- 3.9 This License Agreement may be terminated by either party upon thirty (30) days prior written notice.

In witness whereof, the parties hereto have executed this License Agreement as of the day and year first above written.

**ARCO Products Company**

**Thomas K. McManus**

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_



A RESNA Company

**RESNA**

Working To Restore Nature

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

91 SEP 10 11:40

September 10, 1991  
0910mhus  
69038.10

Mr. Mohammad Hussein  
Sirloin & Brew  
580 Hegenberger Road  
Oakland, CA 94621

**Subject: Request for Access to Install Monitoring Wells and Conduct Offsite Subsurface Environmental Investigation at 580 Hegenberger Road, Oakland, California for ARCO Products Company.**

Dear Mr. Hussein,

On behalf of ARCO Products Company (ARCO), RESNA/Applied GeoSystems (RESNA) is requesting access to install and monitor two (2) ground-water monitoring wells located on the Sirloin & Brew property as part of an offsite subsurface environmental investigation. I am sending you a map with the proposed locations for two (2) ground-water monitoring wells (MW-5 & MW-6) proposed to be installed on the Sirloin & Brew property. After initial installation of wells, they will be monitored on a quarterly basis to determine changes in ground-water levels, and for sampling to determine presence of any ground-water contamination.

These monitoring wells will be an important source of information concerning soils and ground water in the immediate area of ARCO Station 4494 located at 566 Hegenberger Road, Oakland, California. The installation and maintenance of the wells will remain the responsibility of ARCO. Prior to drilling and installation of the wells, an underground utility line locating company will be contracted to locate underground utilities.

As discussed in our phone conversation on September 4, 1991, we understand that you will contact the owners or leasers of the property. Please discuss this monitoring well installation with the property owners or leasers and have the property owners sign the attached ARCO Offsite Access Agreement and return it to us. ARCO will countersign the agreement and return a copy to you.

Request for Access  
ARCO Station 4494, Oakland, California

September 11, 1991  
69038.10

If you or the property owners have any questions regarding this matter, please call us at (408) 264-7723.

Sincerely,  
RESNA

*Dana Weiss*

Dana Weiss  
Staff Engineer

*Joel Coffman*

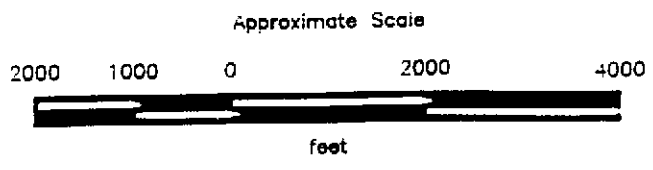
Joel Coffman  
Project Geologist

Enclosures: Plate 1, Site Vicinity Map  
Plate 2, Proposed Boring/Monitoring Well Locations  
License Agreement Between Thomas K. McManus and ARCO  
Products Company

cc: Chuck Carmel, ARCO Products Company  
Chris Windsor, ARCO Products Company  
Gill Jensen, Alameda County District Attorney's Office  
Barney Chan, Alameda County Health Care Services Agency



Source: U.S. Geological Survey  
 7.5-Minute Quadrangle  
 Oakland East/San Leandro,  
 California  
 Photorevised 1980



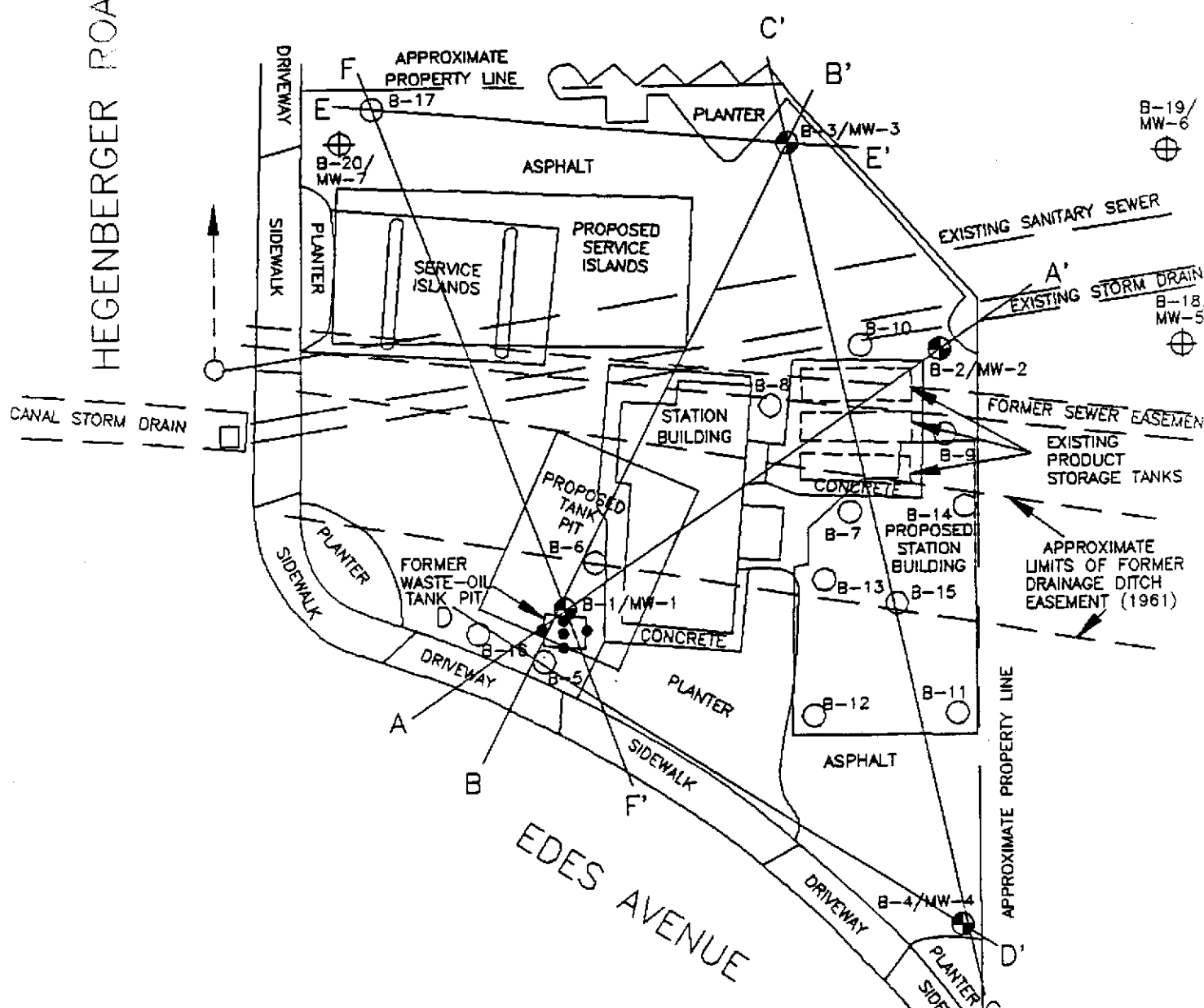
**PROJECT 69038-4**

**SITE VICINITY MAP  
 ARCO Service Station 4494  
 566 Hegenberger Road  
 Oakland, California**

**PLATE  
 1**

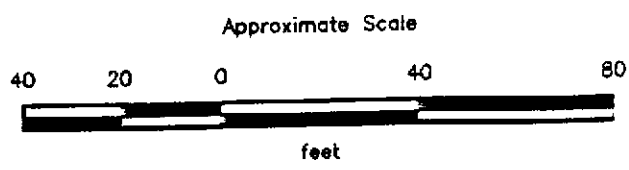
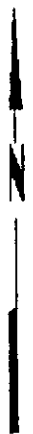


HEGENBERGER ROAD



**EXPLANATION**

- B-20/  
MW-7 ⊕ = Proposed boring/monitoring well
- = Waste-oil tank excavation soil samples  
(Pacific Environmental Group, January 1989)
- B-4/MW-4 ⊕ = Monitoring wells  
(Applied GeoSystems, October 1989  
and August 1990)
- B-10 ○ = Soil boring  
(Applied GeoSystems, August 1990  
and March 1991)
- F — F' = Geologic Cross Sections



Source: Modified from plans supplied by ARCO Products Co.  
(dated August 12, 1982)  
and City of Oakland Dept. of Public Works  
(dated December 19, 1961).



PROJECT 69038-6

**GENERALIZED SITE PLAN**  
**ARCO Service Station 4494**  
**566 Hegenberger Road**  
**Oakland, California**

**PLATE**  
**2**

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

**LICENSE AGREEMENT  
BETWEEN THOMAS K. McMANUS  
AND ARCO PRODUCTS COMPANY**

This license Agreement is made on the 11th day of September, 1991, between Thomas K. McManus, private owner, hereinafter referred to as "licensor" and ARCO Products Company, a division of Atlantic Richfield Company, hereinafter referred to as "licensee".

**1. RECITALS**

- 1.1 Licensor owns certain real property (the "Property") at 580 Hegenberger Road, Oakland, in the state of California.
- 1.2 Licensee desires to drill on a portion of the Property, two (2) ground-water wells as depicted on Plate 2, attached hereto and made part hereof.
- 1.3 The parties desire to enter into this License Agreement to allow licensee to install said ground-water wells on the Property.
- 1.4 Neither this License Agreement nor any of the terms hereof shall be construed as an admission of liability by Licensee for any contamination, alleged or otherwise, on the licensed area of any adjoining property.

**2. AGREEMENT**

Now, therefore, in consideration of the mutual covenants and agreements herein contained, the parties hereto do hereby covenant and agree to and with each other as follows.

**3. TERMS**

- 3.1 Licensee may drill, use and backfill at its sole cost and expense, two (2) ground-water wells on the Property located at 580 Hegenberger Road, Oakland, California.

- 3.2 Said ground-water wells shall be completed as shown on Plate 2 attached hereto and made part hereof.
- 3.3 Licensee, upon prior notification to licensor, may enter the Property to monitor and sample the two (2) ground-water wells.
- 3.4 Licensee agrees not to permit any liens to stand against the Property for work done or materials furnished to licensee, and licensee agrees to indemnify and hold licensor harmless for same.
- 3.5 If the surface of the licensed are and/or the surface of licensor's adjacent real property and/or improvements thereon shall be disturbed by the emplacement or the backfill of licensee's ground-water wells, then said surface and/or improvements shall be promptly restored by licensee to their condition just prior to such disturbance.
- 3.6 Licensee shall, after completion, backfill said borings pursuant to this License Agreement, or after the ground-water wells are no longer useful to the investigation, destroy the ground-water wells according to the standards set forth by the appropriate State agency.
- 3.7 Licensee agrees to indemnify, defend, and save licensor harmless from all liability, damage, expense, causes of action, suits, claims, or judgements resulting from injuries to person or damage to property on the licensed area or on adjoining streets and sidewalks which arise out of the act, failure to act, or negligence of licensee, its agents, employees, invitees, or guests in performing work under this License Agreement.
- 3.8 This License Agreement shall not constitute a deed or a grant of easement and shall not be deemed irrevocable or an easement by virtue of the work performed under or by reason of this license.
- 3.9 This License Agreement may be terminated by either party upon thirty (30) days prior written notice.

In witness whereof, the parties hereto have executed this License Agreement as of the day and year first above written.

**ARCO Products Company**

**Thomas K. McManus**

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_



A RESNA Company

**RESNA**

Working To Restore Nature

91 SEP - 5 AM: 04 TRANSMITTAL

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

TO: MR. BARNEY CHAN  
ALAMEDA COUNTY HEALTH CARE SERVICES  
AGENCY- DEPT OF ENVIR. HEALTH  
80 SWAN WAY, ROOM 200  
OAKLAND, CALIFORNIA 94621

DATE: 9/5/91  
PROJECT NUMBER: 69038.09  
SUBJECT: ARCO STATION 4494 AT  
566 HEGENBERGER ROAD, OAKLAND, CA

FROM: JOEL COFFMAN  
TITLE: PROJECT GEOLOGIST

WE ARE SENDING YOU  Attached  Under separate cover via \_\_\_\_\_ the following items:  
 Shop drawings  Prints  Reports  Specifications  
 Letters  Change Orders  \_\_\_\_\_

COPIES	DATED	NO.	DESCRIPTION
1	9/5/91	0903BCHN	ACHCSA LETTER REGARDING THE ABOVE SUBJECT SITE.

THESE ARE TRANSMITTED as checked below:

For review and comment  Approved as submitted  Resubmit \_\_\_ copies for approval  
 As requested  Approved as noted  Submit \_\_\_ copies for distribution  
 For approval  Return for corrections  Return \_\_\_ corrected prints  
 For your files  \_\_\_\_\_

REMARKS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Copies: 1 to AGS project file no. 69038.09

SAN JOSE READER'S FILE

\*Revision Date: 10/15/90  
\*File Name: TRANSMT.PRJ



A RESNA Company

**RESNA**

Working To Restore Nature

3315 Almaden Expressway, Suite 34  
San Jose, CA 95118  
Phone: (408) 264-7723  
Fax: (408) 264-2435

September 5, 1991  
0903bchn  
69038.09

Mr. Barney Chan  
Alameda County Health Care Services Agency  
Department of Environmental Health  
80 Swan Way, Room 200  
Oakland, California 94621

Subject: Alameda County Health Care Services Agency letter regarding ARCO Station 4494 at 566 Hegenberger Rd., Oakland, California.

Dear Mr. Chan:

On behalf of ARCO, RESNA/Applied GeoSystems (RESNA) sends this letter in response to your letter dated August 6, 1991 and our telephone conversation of September 3, 1991. Your letter was submitted in response to ARCO's Work Plan for Subsurface Investigation and Remediation and Addendum One to the Work Plan, both dated May 15, 1991. We appreciate the substantial time you have obviously spent reviewing the submittals described above and the resultant comprehensive letter dated August 6, 1991.

As requested in your letter, an additional offsite monitoring well location (MW-6) on the other (north) side of the existing storm drain and sanitary sewer and an additional onsite monitoring well location (MW-7) in the area of boring B-17 have been added to the Generalized Site Plan, Plate A. A revised version of the time schedule for installation of these monitoring wells is attached as Plate B. One factor which may slow the process down is gaining offsite access for the installation of wells MW-5 and MW-6. Should this prove to be a problem, we will proceed with installation of the onsite well MW-7.

Task 6 of the Work Plan states we will "conduct hydrogeologic tests and research (as necessary)". You asked for clarification of these terms in your letter. As mentioned on page 2 of the Work Plan, "This Work Plan is intended to serve as a general technical guide to approach site remediation and closure". Page 19 of the Work Plan begins a section titled 'Project Tasks' which better explains tasks 1 through 10, including task 6, which states hydrogeologic tests and research will be performed as necessary to evaluate the potential migration of petroleum hydrocarbons, potential beneficial use of ground water, and general

Response to ACHCSA Letter  
ARCO Station 4494, Oakland, California

September 5, 1991

hydrogeologic characteristics as they pertain to possible ground-water remediation and investigation. This particular project task is not part of the immediately proposed work but could be a useful tool in remediation system design in the future.

As for the actual planned underground storage tank removal and replacement schedule at the site, please contact Mr. Chase J. Jiannalone, Construction Manager for ARCO Products Company. He may be reached at the following address:

ARCO Products Company  
P.O. Box 6411  
Artesia, California 90702-6411

For strictly environmental concerns at the site, contact Mr. Chuck Carmel, Environmental Engineer at the same address.

I hope this letter helps clarify future environmental work to be performed at the site. If you have any questions or comments, please call at (408) 264-7723. Thank you.

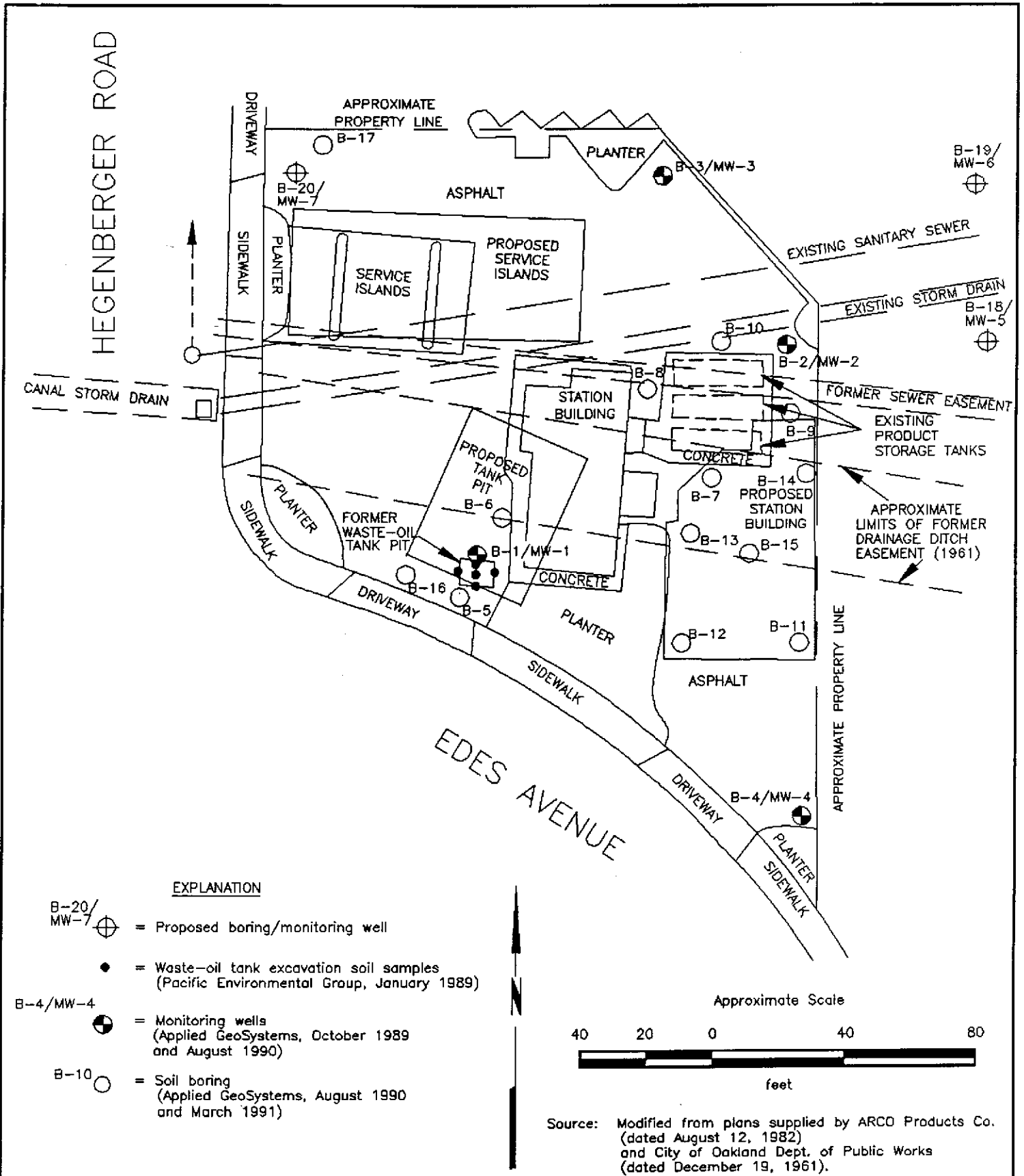
Sincerely,  
RESNA/Applied GeoSystems



Joel Coffman  
Project Geologist

Enc. Plate A, Generalized Site Plan  
Plate B, Preliminary Time Schedule

cc: Mr. John Meck, ARCO Products Company  
Mr. Chris Winsor, ARCO Products Company  
Mr. Chuck Carmel, ARCO Products Company  
Mr. G. Jensen, Alameda County District Attorney



**PROJECT 69038-6**

**GENERALIZED SITE PLAN  
ARCO Service Station 4494  
566 Hegenberger Road  
Oakland, California**

**PLATE  
A**



1) Contact offsite property owner(s).

2) Acquire offsite access for MW-5 & MW-6

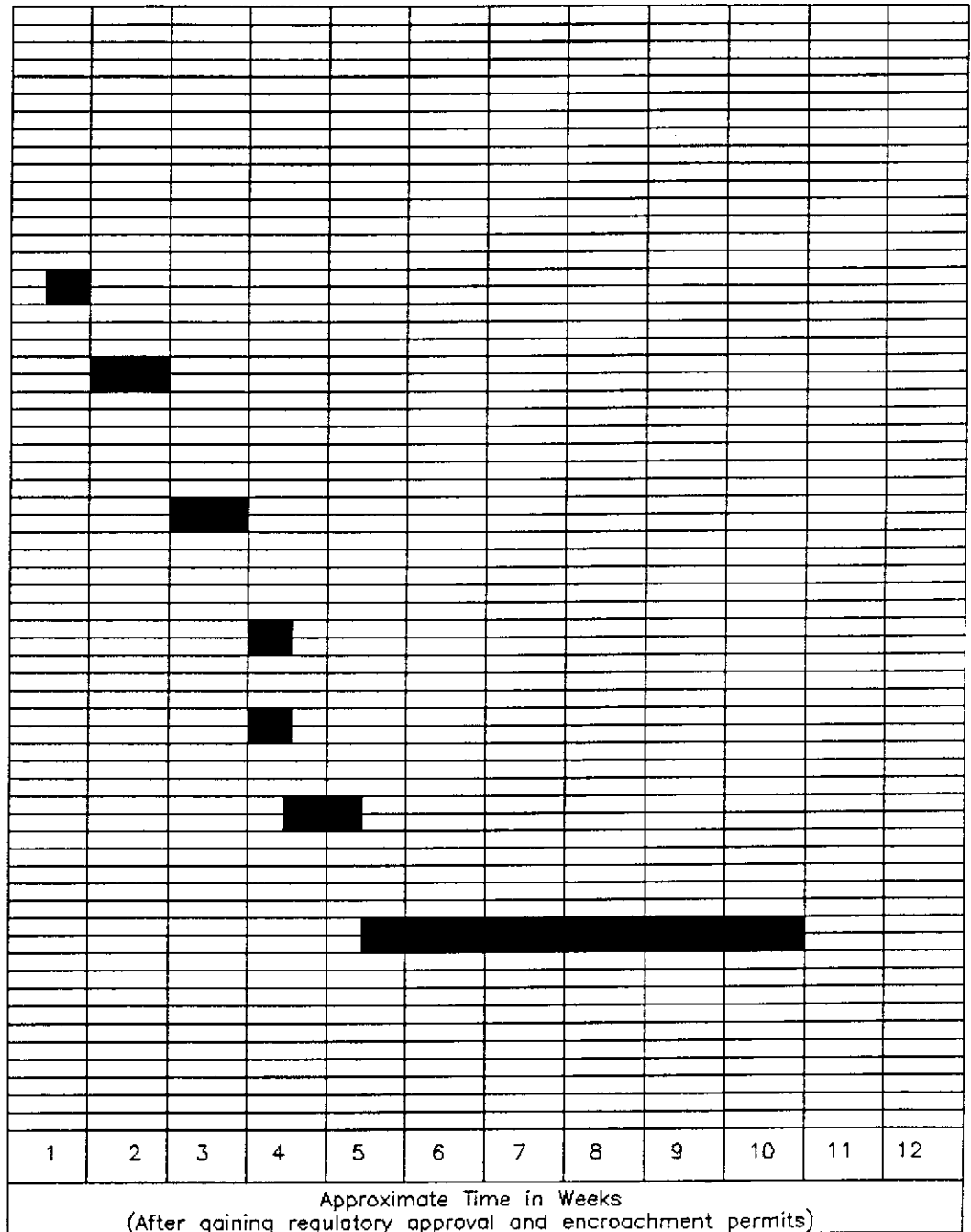
3) Drill and install wells MW-5 through MW-7; submit soil samples for laboratory analyses

4) Survey monitoring wells

5) Develop monitoring wells

6) Collect water samples for laboratory analyses.

7) Gather data and prepare report



PROJECT

69038-6

**PRELIMINARY TIME SCHEDULE**  
**ARCO Service Station 4494**  
**566 Hegenberger Road**  
**Oakland, California**

PLATE

**B**

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)

August 6, 1991

Mr. Joel Coffman  
Applied GeoSystems  
3315 Almaden Expressway, Suite 34  
San Jose CA 95118

Subject: Site Mitigation at Arco Station 4494, 566 Hegenberger Rd.,  
Oakland CA 94621

Dear Mr. Coffman:

There appears to have been some questions regarding the County's response to several workplans which Applied GeoSystems has recently submitted to our agency. This letter serves to clarify the County's understanding and position regarding these workplans. First of all, a number of events have occurred which may have direct influence on the remediation plans initially proposed in your workplan and addendum dated 5/15/91. A site meeting with representatives from Arco, Applied GeoSystems and our agency occurred on 5/6/91. Chuck Carmel, Greg Barclay, Ken Mateik and Barney Chan were at this meeting. In this meeting, it was noted that the underground tanks at this location were scheduled for removal and that specific further investigation was dependent on the findings of the underground tank removals. Also, onsite in-situ soil venting and/or air stripping was being looked into as a way to minimize land disposal of contaminated soils. From our July 23rd conversation, this may not be your plan for these soils after all and that landfilling is now being considered. At the meeting, it was noted that the only area of immediate concern was that area near MW-2, that well which initially had floating product in its initial sampling. Since this time you noted, in our July 23rd conversation, that subsequent samplings of MW-2 have not revealed any free floating product and the proposed groundwater remediation of MW-2 is now on hold. With these items noted, the County would like to address the proposed tasks of your May 15, 1991 workplan.

Task 1 states that additional soil borings will be drilled and sampled as necessary to evaluate the lateral and vertical extent of gasoline and waste-oil hydrocarbons. The County understands that a number of these type borings have already been done as an attempt to facilitate any potential remediation resulting from the excavation of the current underground tanks and the rebuilding of the mini-market. No other specific locations were proposed for further borings in your workplan.

Task 2 proposes further step-out borings as necessary. These borings are dependent partially on the removal of the tanks.

Mr. Joel Coffman  
Arco Station 4494  
August 6, 1991  
Page 2.

Task 3 states that a Feasibility Study and addendum to the workplan will be provided if remediation of the soil is necessary.

Task 4 states that upon approval of the recommended remediation alternative and addendum, treatment facilities or soil remediation, as needed, will commence.

Task 5 states that onsite groundwater monitoring wells will be installed, developed and sampled to delineate lateral and vertical extent of petroleum hydrocarbons in the groundwater. We discussed the potential of additional onsite monitoring wells. At this time, it appears that the area near B-17, which had considerable oil and grease contamination, is a potential site for an additional monitoring well. No specific locations were noted in the workplan. Other potential locations may be reasonable dependent on results of the planned underground tank removals.

Task 6 states that hydrogeologic tests and research will be performed as necessary to evaluate potential migration of petroleum hydrocarbons.

Task 7 states that offsite groundwater well(s) will be installed, developed and sampled. At the site meeting and in our phone conversation it was agreed that minimally one additional monitoring well would be necessary to determine if offsite migration of contamination was occurring downgradient to MW-2. It was also noted that another monitoring well on the other side of the existing storm drain and sanitary sewer may be necessary due to the unknown effects of these subsurface conduits. In fact, the installation of such a monitoring well is included in Steps 4-9 of Addendum One to the May 15, 1991 workplan.

Tasks 8,9 and 10 are to prepare a groundwater remediation feasibility study and addendum to the workplan if necessary, design and construct groundwater remediation facility if necessary and to prepare and implement a site closure plan, respectively.

The Addendum to the workplan contains 11 steps. Steps 1-3 relate to soil and water samplings subsequent to proposed tank replacements. Steps 4-9 relate to the installation of MW-5, the offsite monitoring well downgradient to MW-2. Step 10 describes the installation of a product recovery system to pump floating product from MW-2 and Step 11 is the preparation of a report to include results of the investigation and your conclusions.

To respond to the workplan and addendum appropriately we must determine which items can be performed immediately and which ones are dependent on further work and site characterization. Looking at the workplan, it appears that the following work can take place without further investigation and work:

Mr. Joel Coffman  
Arco Station 4494  
August 6, 1991  
Page 3.

Task 5: Install, develop and sample onsite groundwater monitoring wells. The exact location(s) have not been determined for our agency's concurrence. Please provide a site map for all proposed onsite well locations.

Task 6: Conduct hydrogeologic tests and research, this has not been clarified as to what this will include. Please clarify what is meant by these general terms. (*pump test*).

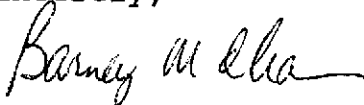
Task 7: Install and develop offsite well(s). This is further stated in the Addendum Steps 4-9. Upon exact location(s) as depicted on a site map and our division's concurrence, you may proceed without further notice.

In regards to the Addendum, Steps 1-3 merely state the normal procedures which are to be taken following an underground tank removal and replacement. These items can be done once the underground tank removal and replacement plans have been reviewed and approved by our agency. Since a number of tasks are dependent on the removal of the current tanks, please provide our office with removal and installation plans within 30 days of this letter, as well as the previously requested items. Once exact well location(s) have been determined you may proceed with Steps 4-9 of the Addendum. Step 10, the installation of a floating product recovery system for MW-2 is on hold pending further well sampling and analysis.

Because of the general nature of your workplan, these appear to be the only specific tasks which you may proceed with without further County approval or without further investigation.

I hope this letter has served to clarify the County's position in regards to the submitted workplan and addendum. Please contact me at (415) 271-4320 should you have any questions.

Sincerely,



Barney M. Chan  
Hazardous Materials Specialist

cc: G. Jensen, M. Thomson, Alameda County District Attorney,  
Consumer and Environmental Protection Division  
R. Hiett, RWQCB  
H. Hatayama, DOHS  
C. Carmel, ARCO  
566Heg1

DB

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID J. KEARS, Agency Director



Sent 8/6/91

August 5, 1991

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

Mr. Joel Coffman  
Applied GeoSystems  
3315 Almaden Expressway, Suite 34  
San Jose CA 95118

Subject: Site Mitigation at Arco Station 4494, 566 Hegenberger Rd.,  
Oakland CA 94621

Dear Mr. Coffman:

There appears to have been some questions regarding the County's response to several workplans which Applied GeoSystems has recently submitted to our agency. This letter serves to clarify the County's understanding and position regarding these workplans. First of all, a number of events have occurred which may have direct influence on the remediation plans initially proposed in your workplan and addendum dated 5/15/91. A site meeting with representatives from Arco, Applied GeoSystems and our agency occurred on 5/6/91. Chuck Carmel, Greg Barclay, Ken Mateik and Barney Chan were at this meeting. In this meeting, it was noted that the underground tanks at this location were scheduled for removal and that specific further investigation was dependent on the findings of the underground tank removals. Also, onsite in-situ soil venting and/or air stripping was being looked into as a way to minimize land disposal of contaminated soils. From our July 23rd conversation, this may not be your plan for these soils after all and that landfilling is now being considered. At the meeting, it was noted that the only area of immediate concern was that area near MW-2, that well which initially had floating product in its initial sampling. Since this time you noted, in our July 23rd conversation, that subsequent samplings of MW-2 have not revealed any free floating product and the proposed groundwater remediation of MW-2 is now on hold. With these items noted, the County would like to address the proposed tasks of your May 15, 1991 workplan.

Task 1 states that additional soil borings will be drilled and sampled as necessary to evaluate the lateral and vertical extent of gasoline and waste-oil hydrocarbons. The County understands that a number of these type borings have already been done as an attempt to facilitate any potential remediation resulting from the excavation of the current underground tanks and the rebuilding of the mini-market. No other specific locations were proposed for further borings in your workplan.

Task 2 proposes further step-out borings as necessary. These borings are dependent partially on the removal of the tanks.

Typo

Mr. Joel Coffman  
Arco Station 4494  
August 5, 1991  
Page 2.

Task 3 states that a Feasibility Study and addendum to the workplan will be provided if remediation of the soil is necessary.

Task 4 states that upon approval of the recommended remediation alternative and addendum, treatment facilities or soil remediation, as needed, will commence.

Task 5 states that onsite groundwater monitoring wells will be installed, developed and sampled to delineate lateral and vertical extent of petroleum hydrocarbons in the groundwater. We discussed the potential of additional onsite monitoring wells. At this time, it appears that the area near B-17, which had considerable oil and grease contamination, is a potential site for an additional monitoring well. No specific locations were noted in the workplan. Other potential locations may be reasonable dependent on results of the planned underground tank removals.

Task 6 states that hydrogeologic tests and research will be performed as necessary to evaluate potential migration of petroleum hydrocarbons.

Task 7 states that offsite groundwater well(s) will be installed, developed and sampled. At the site meeting and in our phone conversation it was agreed that minimally one additional monitoring well would be necessary to determine if offsite migration of contamination was occurring downgradient to MW-2. It was also noted that another monitoring well on the other side of the existing storm drain and sanitary sewer may be necessary due to the unknown effects of these subsurface conduits. In fact, the installation of such a monitoring well is included in Steps 4-9 of Addendum One to the May 15, 1991 workplan.

Tasks 8,9 and 10 are to prepare a groundwater remediation feasibility study and addendum to the workplan if necessary, design and construct groundwater remediation facility if necessary and to prepare and implement a site closure plan, respectively.

The Addendum to the workplan contains 11 steps. Steps 1-3 relate to soil and water samplings subsequent to proposed tank replacements. Steps 4-9 relate to the installation of MW-5, the offsite monitoring well downgradient to MW-2. Step 10 describes the installation of a product recovery system to pump floating product from MW-2 and Step 11 is the preparation of a report to include results of the investigation and your conclusions.

To respond to the workplan and addendum appropriately we must determine which items can be performed immediately and which ones are dependent on further work and site characterization. Looking at the workplan, it appears that the following work can take place without further investigation and work:

Mr. Joel Coffman  
Arco Station 4494  
July 30, 1991  
Page 3.

Task 5: Install, develop and sample onsite groundwater monitoring wells. The exact location(s) have not been determined for our agency's concurrence. Please provide a site map for all proposed onsite well locations.

Task 6: Conduct hydrogeologic tests and research, this has not been clarified as to what this will include. Please clarify what is meant by these general terms.

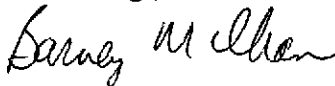
Task 7: Install and develop offsite well(s). This is further stated in the Addendum Steps 4-9. Upon exact location(s) as depicted on a site map and our division's concurrence, you may proceed without further notice.

In regards to the Addendum, Steps 1-3 merely state the normal procedures which are to be taken following an underground tank removal and replacement. These items can be done once the underground tank removal and replacement plans have been reviewed and approved by our agency. Since a number of tasks are dependent on the removal of the current tanks, please provide our office with removal and installation plans within 30 days of this letter, as well as the previously requested items. Once exact well location(s) have been determined you may proceed with Steps 4-9 of the Addendum. Step 10, the installation of a floating product recovery system for MW-2 is on hold pending further well sampling and analysis.

Because of the general nature of your workplan, these appear to be the only specific tasks which you may proceed with without further County approval or without further investigation.

I hope this letter has served to clarify the County's position in regards to the submitted workplan and addendum. Please contact me at (415) 271-4320 should you have any questions.

Sincerely,



Barney M. Chan  
Hazardous Materials Specialist

cc: G. Jensen, M. Thomson, Alameda County District Attorney,  
Consumer and Environmental Protection Division  
R. Hiatt, RWQCB  
H. Hatayama, DOHS  
C. Carmel, ARCO  
566Heg1

OK

ALAMEDA COUNTY  
HEALTH CARE SERVICES



AGENCY

DAVID J. KEARS, Agency Director  
July 30, 1991

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

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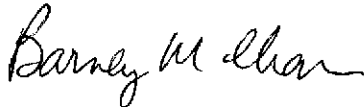
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Sincerely,



Barney M. Chan  
Hazardous Materials Specialist

cc: G. Jensen, M. Thomson, Alameda County District Attorney,  
Consumer and Environmental Protection Division  
R. Hiett, RWQCB  
H. Hatayama, DOHS  
C. Carmel, ARCO

566Heg1

July 15, 1991

Alameda County Department of Environmental Health  
80 Swan Way  
Oakland, California 94621

Attention: Mr. Rafat Shahid

**ARCO Products Company Facilities in Alameda County - RWQCB Fuel Leaks List**

Dear Mr. Shahid

Please find attached, Quarterly Summary Reports (QSRs) for ARCO Products Company Service Stations in Alameda County. The QSRs summarize activities conducted by ARCO at the respective sites during the second quarter of 1991; also included are projected site activities for the third quarter of 1991 and a bibliography of reports submitted for each location.

The QSRs are classified by address within the County. We are submitting this document and attached QSRs as agreed in our recent meeting with the RWQCB. Please note that we are forwarding copies of the QSRs to the RWQCB as well.

ARCO Products Company has reviewed the Regional Water Quality Control Board's (RWQCB) February 19, 1991 printout of ARCO fuel leak sites in the San Francisco Bay Area. We have evaluated each site with respect to ARCO's responsibility for investigation, monitoring, and/or remediation. It is ARCO's belief that several of the sites originally attributed to ARCO are actually the responsibility of other parties. We have therefore prepared QSRs and a brief discussion regarding those sites which we believe should either be removed from ARCO responsibility or be considered for closure.

ARCO is planning a subsequent comprehensive QSR submittal for ARCO sites on October 15, 1991. Please do not hesitate to contact us with any questions regarding this submittal.

Sincerely,



*for* Kyle A. Christie  
Environmental Engineer

Attachments:

Non-ARCO Facility/Site Closure Discussion and QSRs  
ARCO Facility QSRs

**NON-ARCO FACILITY/SITE CLOSURE DISCUSSION AND QSRS**

**Alameda County**

### Alameda County Sites

Two ARCO facilities including Station Numbers 4977 and 6002 (located at 2770 Castro Valley Road, Castro Valley and 6235 Seminary Avenue, Oakland) experienced vapor/vent line failure during UST system precision testing. In accordance with State Water Resources Control Board (SWRCB) letter LG-43, ARCO requests that these facilities be removed from the RWQCB fuel leaks list.

A small volume of hydrocarbons were released from ARCO Station Number 498 located at 286 South Livermore Avenue, Livermore. The product was released to an on-site secondary containment trench and was subsequently removed; no product was released to the soil or groundwater. Alameda County issued a letter to ARCO on May 24, 1991 stating that no further action is necessary at this site.

A total of seven Alameda County ARCO facilities listed by the RWQCB were not ARCO-owned at the time of the release discovery and/or report. These sites include Station Numbers 188, 329, and 623 (respectively located at 4191 First Street, Pleasanton, 2032 12th Street, Oakland, and 2110 Mountain, Oakland) and facilities located at 2951 High Street, 4401 Market Street, 2844 Mountain Boulevard, and 2740 98th Street, Oakland.

ARCO has prepared QSRs for each of these facilities; however, we request that the cases be omitted from the leaks list or be referred to the actual responsible party, as appropriate. The ownership information for the individual sites is included on the attached QSRs.

Finally, the RWQCB February 19, 1991 printout lists two sites which are actually the same. The facility listed as 71 MacArthur Boulevard is actually ARCO Service Station Number 4931 located at 731 West MacArthur Boulevard in Oakland.

Attachment:

Non-ARCO Facility QSRs

UST LEAK Date of Last Current  
SITE UPDATE Review/Update April 15, 1991 Date July 15, 1991

SITE IDENTIFICATION

Name ARCO Service Station 4494 Case No.  
Address 566 Hegenberger Road  
Street Number Street  
Oakland 94621  
City ZIP Code  
County Alameda Substance Gasoline & Waste-Oil  
Local Agency Alameda County Health Care Services Agency  
Regional Board Regional Water Quality Control Board - Mr. Lester Feldman

LEAD STAFF PERSON ACHCSA - Mr. Barney Chan

CASE TYPE

Undetermined Soil Only Ground Water Drinking Water

STATUS (Date indicates when case moved into status)

No Action Taken Date  
Leak Being Confirmed Date  
Preliminary Site Assessment Workplan Submitted Date  
Preliminary Site Assessment Underway Date  
Pollution Characterization Date  
Remediation Plan Date  
Remedial Action Underway Date  
Post Remedial Action Monitoring Date  
Case Referred to Regional Board Date  
Case Referred to Dept. of Health Services Date  
Case Closed Date

REMEDIAL ACTIONS

Records indicate that GULF Oil Company replaced one 10,000-gallon gasoline tank at site in 1975; ARCO purchased site in 1977. Waste-oil tank removed by ARCO in December 1988.

COMMENTS

First Quarter 1991 Quarterly Monitoring report submitted in April 1991. ARCO is currently monitoring water levels monthly and water quality quarterly.

Report on Preliminary Tank Replacement Assessment submitted in May 1991.

Work Plan and Addendum One to Work Plan for subsurface investigation and Remediation submitted May 1991.

Please refer to the attached page for a listing of previously submitted reports which document site history.

RESPONSIBLE PARTY IDENTIFICATION (Only if newly discovered or changed)

Name  
Contact Phone ( )  
Address  
Street Number Street  
City State ZIP Code

REPORTDATECONSULTANT

Work Plan for Subsurface Investigation and Remediation and Addendum One to Work Plan to Perform Underground Tank Replacement Investigation, Preliminary Offsite Investigation, and Interim Product Recovery. AGS 69038-6	5/15/91	RESNA/Applied GeoSystems
Report on Preliminary Tank Replacement Assessment AGS 69038-5	5/2/91	RESNA/Applied GeoSystems
Letter Report on First Quarter 1991 Ground-Water Monitoring at ARCO 4494, Oakland, CA AGS 69038-4	4/3/91	Applied GeoSystems
Limited Subsurface Environmental Investigation AGS 69038-2	2/13/91	Applied GeoSystems
Fourth Quarter 1990 Ground-Water Monitoring AGS 69038-4	2/8/91	Applied GeoSystems
Site History Assessment and Limited Environmental Records Review AGS 69038-3	10/1/90	Applied GeoSystems
Work Plan for Initial Subsurface Investigation AGS 69038-1	9/29/89	Applied GeoSystems
Subsurface Environmental Investigation Project 330-41	5/3/89	Pacific Environmental Group

Date reported: 2/6/91  
Atlantic Richfield Co  
P.O. Box 2485  
Los Angeles CA 90051

DATE: 4/9/92  
TO : Local Oversight Program  
FROM: Barney  
SUBJ: Transfer of Eligible Oversight Case

Site name: Arco Station #4494  
Address: 566 Hegenberger Rd city Oak zip 94621  
Closure plan attached?  N DepRef remaining \$ 103.58  
DepRef Project # U524593 STID #(if any) ~~3878~~ 3854  
Number of Tanks: 1 removed?  N <sup>3 remaining</sup> Date of removal 12/16/88  
Samples received?  N Contamination: Waste oil & diesel - Soil  
Petroleum  N Types: Avgas Jet leaded unleaded Diesel  
fuel oil waste oil kerosene solvents  
Monitoring wells on site 5 Monitoring schedule?  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 \_\_\_\_\_

Waste oil tank removed on 12/16/88. Waste oil up to 4800 ppm  
TOA found. Soil overexcavated to 190 mg/kg TOG. 2 feet of free  
product found in boring B1 upon new installation. (mw 2)  
A total of 5 mws were installed on site. Because of the free  
product found in mw 2 & the gradient (determined to be NE)  
2 additional mws were requested offsite on Sinton & Brew  
property. Arco has not received approval for these mw installations.  
Because of detectable TPH in mw 2 it's likely contamination exists  
in the UST's which are scheduled for removal ASAP.



waste oil tank closed on rule 21 period of time  
"improper closure."

B+C Aug 87, includes '86 no knowledge of  
Report. waste oil tank.

---

Feb 88 Interim permit for 3457 s

3/6/88 Permit for 3 fuel tanks

Call M Johnson  
4110/92 money w/ this info

Tank removed 12/16/88

Jan 21

# UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK) / CONTAMINATION SITE REPORT

EMERGENCY  YES  NO HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED?  YES  NO

FOR LOCAL AGENCY USE ONLY  
I HEREBY CERTIFY THAT I HAVE DISTRIBUTED THIS INFORMATION ACCORDING TO THE DISTRIBUTION SHOWN ON THE INSTRUCTION SHEET ON THE BACK PAGE OF THIS FORM.

REPORT DATE: 02/06/91 CASE #:

SIGNED: Katherine Chesick DATE: 2/6/91

REPORTED BY: NAME OF INDIVIDUAL FILING REPORT: Katherine Chesick PHONE: (415) 271-4320 SIGNATURE: Katherine Chesick  
 REPRESENTING:  LOCAL AGENCY  OWNER/OPERATOR  REGIONAL BOARD  OTHER COMPANY OR AGENCY NAME: Alameda County Haz. Mat. Division  
 ADDRESS: 80 Swan Way Rm. 200 STREET CITY: Oakland STATE: CA ZIP: 94621

RESPONSIBLE PARTY: NAME: Kyle Christie CONTACT PERSON: ARCO Products Co. PHONE: ( )  
 ADDRESS: P.O. Box 5811 STREET CITY: San Mateo STATE: CA ZIP: 94402

SITE LOCATION: FACILITY NAME (IF APPLICABLE): ARCO Station #4494 OPERATOR: PHONE: ( )  
 ADDRESS: 566 Hegenberger Rd. STREET CITY: Oakland COUNTY: Alameda ZIP: 94621  
 CROSS STREET: Edes Avenue

IMPLEMENTING AGENCIES: LOCAL AGENCY: Alameda County Haz Mat. Div. AGENCY NAME: CONTACT PERSON: Katherine Chesick PHONE: (415) 271-4320  
 REGIONAL BOARD: San Francisco Bay RWQCB CONTACT PERSON: Lester Feldman PHONE: (415) 464-1255

SUBSTANCES INVOLVED: (1) Gasoline (detected during waste oil investigation) QUANTITY LOST (GALLONS):  UNKNOWN  
 (2) Waste Oil (initial contamination) QUANTITY LOST (GALLONS):  UNKNOWN

DISCOVERY/ABATEMENT: DATE DISCOVERED: 1/21/88 HOW DISCOVERED:  INVENTORY CONTROL  SUBSURFACE MONITORING  NUISANCE CONDITIONS  
 TANK TEST  TANK REMOVAL  OTHER  
 DATE DISCHARGE BEGAN: UNKNOWN METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY):  
 REMOVE CONTENTS  CLOSE TANK & REMOVE  REPAIR PIPING  
 REPAIR TANK  CLOSE TANK & FILL IN PLACE  CHANGE PROCEDURE  
 REPLACE TANK  OTHER: Excavate contaminated soil

SOURCE/CAUSE: SOURCE OF DISCHARGE:  TANK LEAK  UNKNOWN  OTHER: either  
 PIPING LEAK  OTHER CAUSE(S):  
 OVERFILL  RUPTURE/FAILURE  SPILL  
 CORROSION  UNKNOWN  OTHER

CASE TYPE: CHECK ONE ONLY:  UNDETERMINED  SOIL ONLY  GROUNDWATER  DRINKING WATER - (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)  
 Suspected

CURRENT STATUS: CHECK ONE ONLY:  
 NO ACTION TAKEN  PRELIMINARY SITE ASSESSMENT WORKPLAN SUBMITTED  POLLUTION CHARACTERIZATION  
 LEAK BEING CONFIRMED  PRELIMINARY SITE ASSESSMENT UNDERWAY  POST CLEANUP MONITORING IN PROGRESS  
 REMEDIATION PLAN  CASE CLOSED (CLEANUP COMPLETED OR UNNECESSARY)  CLEANUP UNDERWAY

REMEDIAL ACTION: CHECK APPROPRIATE ACTION(S) (SEE BACK FOR DETAILS):  
 CAP SITE (CD)  EXCAVATE & DISPOSE (ED)  REMOVE FREE PRODUCT (FP)  ENHANCED BIO DEGRADATION (IT)  
 CONTAINMENT BARRIER (CB)  EXCAVATE & TREAT (ET)  PUMP & TREAT GROUNDWATER (GT)  REPLACE SUPPLY (RS)  
 VACUUM EXTRACT (VE)  NO ACTION REQUIRED (NA)  TREATMENT AT HOOKUP (HU)  VENT SOIL (VS)  
 OTHER (OT)

COMMENTS: Waste oil up to 4,800 ppm found. Soil excavated to 190 ng/kg TO6. Further assessment work found up to 52,000 ppm TPH & (during well installation). Two feet of free product found in boring (B-1).  
 This may duplicate already submitted information \*\*\*

## INSTRUCTIONS

### EMERGENCY

Indicate whether emergency response personnel and equipment were involved at any time. If so, a Hazardous Material Incident Report should be filed with the State Office of Emergency Services (OES) at 2800 Meadowview Road, Sacramento, CA 95832. Copies of the OES report form may be obtained at your local underground storage tank permitting agency. Indicate whether the OES report has been filed as of the date of this report.

### LOCAL AGENCY ONLY

To avoid duplicate notification pursuant to Health and Safety code Section 25180.5, a government employee should sign and date the form in this block. A signature here does not mean that the leak has been determined to pose a significant threat to human health or safety, only that notification procedures have been followed if required.

### REPORTED BY

Enter your name, telephone number, and address. Indicate which party you represent and provide company or agency name.

### RESPONSIBLE PARTY

Enter name, telephone number, contact person, and address of the party responsible for the leak. The responsible party would normally be the tank owner.

### SITE LOCATION

Enter information regarding the tank facility. At a minimum, you must provide the facility name and full address.

### IMPLEMENTING AGENCIES

Enter names of the local agency and Regional Water Quality Control Board involved.

### SUBSTANCES INVOLVED

Enter the name and quantity lost of the hazardous substance involved. Room is provided for information on two substances if appropriate. If more than two substances leaked, list the two of most concern for cleanup.

### DISCOVERY/ABATEMENT

Provide information regarding the discovery and abatement of the leak.

### SOURCE/CAUSE

Indicate source(s) of leak. Check box(es) indicating cause of leak.

### CASE TYPE

Indicate the case type category for this leak. Check one box only. Case type is based on the most sensitive resource affected. For example, if both soil and ground water have been affected, case type will be "Ground Water". Indicate "Drinking Water" only if one or more municipal or domestic water wells have actually been affected. A "Ground Water" designation does not imply that the affected water cannot be, or is not, used for drinking water, but only that water wells have not yet been affected. It is understood that case type may change upon further investigation.

### CURRENT STATUS

Indicate the category which best describes the current status of the case. Check one box only. The response should be relative to the case type. For example, if case type is "Ground Water", then "Current Status" should refer to the status of the ground water investigation or cleanup, as opposed to that of soil. Descriptions of options follow:

No Action Taken - No action has been taken by responsible party beyond initial report of leak.

Leak Being Confirmed - Leak suspected at site, but has not been confirmed.  
Preliminary Site Assessment Workplan Submitted - workplan/proposal requested of/submitted by responsible party to determine whether ground water has been, or will be, impacted as a result of the release.  
Preliminary Site Assessment Underway - implementation of workplan.  
Pollution Characterization - responsible party is in the process of fully defining the extent of contamination in soil and ground water and assessing impacts on surface and/or ground water.  
Remediation Plan - remediation plan submitted evaluating long term remediation options. Proposal and implementation schedule for appropriate remediation options also submitted.  
Cleanup Underway - implementation of remediation plan.  
Post Cleanup Monitoring in Progress - periodic ground water or other monitoring at site, as necessary, to verify and/or evaluate effectiveness of remedial activities.  
Case Closed - regional board and local agency in concurrence that no further work is necessary at the site.

IMPORTANT: THE INFORMATION PROVIDED ON THIS FORM IS INTENDED FOR GENERAL STATISTICAL PURPOSES ONLY AND IS NOT TO BE CONSTRUED AS REPRESENTING THE OFFICIAL POSITION OF ANY GOVERNMENTAL AGENCY

### REMEDIAL ACTION

Indicate which action have been used to cleanup or remediate the leak. Descriptions of options follow:

Cap Site - install horizontal impermeable layer to reduce rainfall infiltration.  
Containment Barrier - install vertical dike to block horizontal movement of contaminant.  
Excavate and Dispose - remove contaminated soil and dispose in approved site.  
Excavate and Treat - remove contaminated soil and treat (includes spreading or land farming).  
Remove Free Product - remove floating product from water table.  
Pump and Treat Groundwater - generally employed to remove dissolved contaminants.  
Enhanced Biodegradation - use of any available technology to promote bacterial decomposition of contaminants.  
Replace Supply - provide alternative water supply to affected parties.  
Treatment at Hookup - install water treatment devices at each dwelling or other place of use.  
Vacuum Extract - use pumps or blowers to draw air through soil.  
Vent Soil - bore holes in soil to allow volatilization of contaminants.  
No Action Required - incident is minor, requiring no remedial action.

COMMENTS - Use this space to elaborate on any aspects of the incident.

SIGNATURE - Sign the form in the space provided.

### DISTRIBUTION

If the form is completed by the tank owner or his agent, retain the last copy and forward the remaining copies intact to your local tank permitting agency for distribution.

1. Original - Local Tank Permitting Agency
2. State Water Resources Control Board, Division of Clean Water Programs, Underground Storage Tank Program, P.O. Box 944212, Sacramento, CA 94244-2120
3. Regional Water Quality Control Board
4. Local Health Officer and County Board of Supervisors or their designee to receive Proposition 65 notifications.
5. Owner/responsible party.

UST LEAK Date of Last Current  
SITE UPDATE Review/Update October 15, 1990 Date January 15, 1991

SITE IDENTIFICATION

Name ARCO Service Station 4494 Case No. \_\_\_\_\_  
Address 566 Hegenberger Road  
Street Number Street  
Oakland City 94621 ZIP Code  
County Alameda Substance Gasoline & Waste-Oil  
Local Agency Alameda County Environmental Health Department  
Regional Board Regional Water Quality Control Board - Mr. Lester Feldman

LEAD STAFF PERSON

ACDEH - Ms. Katherine Chesick

CASE TYPE

Undetermined  Soil Only  Ground Water  Drinking Water

STATUS (Date indicates when case moved into status)

<input type="checkbox"/> No Action Taken	Date	_____
<input type="checkbox"/> Leak Being Confirmed	Date	_____
<input type="checkbox"/> Preliminary Site Assessment Workplan Submitted	Date	_____
<input type="checkbox"/> Preliminary Site Assessment Underway	Date	_____
<input type="checkbox"/> Pollution Characterization	Date	_____
<input type="checkbox"/> Remediation Plan	Date	_____
<input type="checkbox"/> Remedial Action Underway	Date	_____
<input type="checkbox"/> Post Remedial Action Monitoring	Date	_____
<input type="checkbox"/> Case Referred to Regional Board	Date	_____
<input type="checkbox"/> Case Referred to Dept. of Health Services	Date	_____
<input type="checkbox"/> Case Closed	Date	_____

REMEDIAL ACTIONS

Waste-oil tank removed in December 1988.

COMMENTS

In the previous quarter a site history and records review was performed. Records indicate that GULF Oil Company replaced one 10,000-gallon gasoline tank at site in 1975; ARCO purchased site in 1977. Assessment report to be issued early first quarter 1991.

Please refer to the attached page for a listing of previously submitted reports which document site history.

RESPONSIBLE PARTY IDENTIFICATION (Only if newly discovered or changed)

Name \_\_\_\_\_  
Contact \_\_\_\_\_ Phone ( ) \_\_\_\_\_  
Address \_\_\_\_\_  
Street Number Street  
City State ZIP Code

REPORT

DATE

CONSULTANT

Site History Assessment and  
Limited Environmental Records Review  
AGS 69038-3

9/1990

Applied  
GeoSystems

Work Plan  
69038-1

9/29/1989

Applied  
GeoSystems

ALAMEDA COUNTY, DEPARTMENT OF  
ENVIRONMENTAL HEALTH  
Hazardous Materials Inspection Form

II, III

white -env.health  
yellow -facility  
pink -files

Site ID # \_\_\_\_\_ Site Name Khalil Rooshan Today's Date 10/24/90

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)

Site Address 566 Hegenberger # 4494

City Oakland Zip 94621 Phone 569-7561

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

Inspection Categories:

- \_\_\_ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
- \_\_\_ II. Business Plans, Acute Hazardous Materials
- III. Underground Tanks in compliance w/ UST provisions

II.B ACUTELY HAZ. MATLS

- \_\_\_ 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

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

Comments:

(3) 10,000 gal single walled UST's

last precision test record on file Oct 89  
next p test scheduled for 11/8/90 with Arco  
will send results. (11/8/90 test results submitted)

Inventory reconciliation records on hand no disparities  
over allowable limits.

monitoring & emergency response plan on hand  
& located in yellow binder RMPP OK

I gave Quarterly Reporting form to Mr. Rooshan  
please submit one of these to this dept.  
every three months. I will await receiving  
a few quarterlies prior to issuing 5 yr. permit

has ~~not~~ submitted quarterly reports

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 groundwater  
One time soils
    - 3) Daily Vadose  
One time soils  
Annual tank test
    - 4) Monthly Groundwater  
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 testing
    - 8) Annual Tank Testing  
Daily Inventory
    - 9) Other \_\_\_\_\_

- \_\_\_ 7. Precs Tank Test 2643  
Date: Oct 89
- \_\_\_ 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 2711  
Date: \_\_\_\_\_
  - \_\_\_ 14. As Built 2635  
Date: \_\_\_\_\_

Rev 6/88

II, III

Contact: Khalil Rooshan

Title: Owner

Signature: [Signature]

Inspector: Paul Smith

Signature: Paul M. Smith

3854

# UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK) / CONTAMINATION SITE REPORT

EMERGENCY <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	FOR LOCAL AGENCY USE ONLY I HEREBY CERTIFY THAT I AM A DESIGNATED GOVERNMENT EMPLOYEE AND THAT I HAVE REPORTED THIS INFORMATION TO LOCAL OFFICIALS PURSUANT TO SECTION 25007 OF THE HEALTH AND SAFETY CODE
REPORT DATE (MM-DD-YY) 10/15/90	CASE # 13390	SIGNED: _____ DATE: 10-15-90

REPORTED BY	NAME OF INDIVIDUAL FILING REPORT Elaine Lavine	PHONE (415)-571-2482	SIGNATURE <i>Elaine J. Lavine</i>
	REPRESENTING <input type="checkbox"/> LOCAL AGENCY <input checked="" type="checkbox"/> OWNER/OPERATOR <input type="checkbox"/> REGIONAL BOARD <input type="checkbox"/> OTHER	COMPANY OR AGENCY NAME ARCO Products Company	
	ADDRESS P.O. Box 5811	San Mateo	CA 94402
	STREET	CITY	STATE ZP

RESPONSIBLE PARTY	NAME ARCO Products Company <input type="checkbox"/> UNKNOWN	CONTACT PERSON Elaine J. Lavine	PHONE (415)-571-2482
	ADDRESS PO BOX 5811 ATTN: Env.Compl.Dept.	San Mateo	CA 94402
	STREET	CITY	STATE ZP

STATION	FACILITY NAME (IF APPLICABLE) ARCO FACILITY 04494	OPERATOR KHALIL N ROOSHAN	PHONE (415)-569-7561
	ADDRESS 566 HEGENBERGER RD.	OAKLAND	ALAMEDA 94605
	STREET	CITY	COUNTY ZP 94621
	CROSS STREET EDES/HEGENBERGER RD		

IMPLEMENTING AGENCIES	LOCAL AGENCY ALAMEDA COUNTY PUBLIC HEALTH	AGENCY NAME	CONTACT PERSON ED HOWELL SENIOR SP	PHONE (415)-271-4320
	REGIONAL BOARD SAN FRANCISCO BAY REGION		STEVE LUQUIRE	PHONE (415)-464-1255

SUBSTANCES INVOLVED	(1) NAME GASOLINE	QUANTITY LOST (GALLONS) 2 GAL <input type="checkbox"/> OTHER
	(2)	QUANTITY LOST (GALLONS) <input type="checkbox"/> OTHER

DISCOVERY/ABATEMENT	DATE DISCOVERED (MM-DD-YY) 10/08/1990	HOW DISCOVERED <input type="checkbox"/> TANK TEST <input type="checkbox"/> TANK REMOVAL <input type="checkbox"/> INVENTORY CONTROL <input type="checkbox"/> SUBSURFACE MONITORING <input type="checkbox"/> NUISANCE CONDITIONS <input type="checkbox"/> OTHER
	DATE DISCHARGE BEGAN (MM-DD-YY) 10/08/1990	METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY) <input type="checkbox"/> REMOVE CONTENTS <input type="checkbox"/> REPLACE TANK <input type="checkbox"/> CLOSE TANK <input type="checkbox"/> REPAIR TANK <input type="checkbox"/> REPAIR PIPING <input type="checkbox"/> CHANGE PROCEDURE <input type="checkbox"/> OTHER
	HAS DISCHARGE BEEN STOPPED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, DATE 10/08/1990	CAR TANK HAS HOLE

SOURCE/CAUSE	SOURCE OF DISCHARGE <input type="checkbox"/> TANK LEAK <input type="checkbox"/> UNKNOWN <input type="checkbox"/> PIPING LEAK <input checked="" type="checkbox"/> OTHER	CAUSE(S) <input type="checkbox"/> OVERFILL <input type="checkbox"/> RUPTURE/FAILURE <input type="checkbox"/> SPILL <input type="checkbox"/> CORROSION <input type="checkbox"/> UNKNOWN <input checked="" type="checkbox"/> OTHER
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CASE TYPE	CHECK ONE ONLY <input checked="" type="checkbox"/> UNDETERMINED <input type="checkbox"/> SOL ONLY <input type="checkbox"/> GROUNDWATER <input type="checkbox"/> DRINKING WATER - (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)
-----------	---

CURRENT STATUS	CHECK ONE ONLY <input type="checkbox"/> NO ACTION TAKEN <input type="checkbox"/> LEAK BEING CONFIRMED <input type="checkbox"/> REMEDIATION PLAN <input type="checkbox"/> PRELIMINARY SITE ASSESSMENT WORKPLAN SUBMITTED <input type="checkbox"/> PRELIMINARY SITE ASSESSMENT UNDERWAY <input checked="" type="checkbox"/> CASE CLOSED (CLEANUP COMPLETED OR UNNECESSARY) <input type="checkbox"/> POLLUTION CHARACTERIZATION <input type="checkbox"/> POST-CLEANUP MONITORING IN PROGRESS <input type="checkbox"/> CLEANUP UNDERWAY
----------------	--

REMEDIAL ACTION	CHECK APPROPRIATE ACTION(S) <input type="checkbox"/> CAP SITE (CD) <input type="checkbox"/> CONTAINMENT BARRIER (CB) <input type="checkbox"/> VACUUM EXTRACT (VE) <input type="checkbox"/> EVACUATE AND DISPOSE (ED) <input type="checkbox"/> EVACUATE AND TREAT (ET) <input checked="" type="checkbox"/> NO ACTION REQUIRED (NA) <input type="checkbox"/> OTHER (OT) <input type="checkbox"/> REMOVE FREE PRODUCT (FP) <input type="checkbox"/> PUMP & TREAT GROUNDWATER (GT) <input type="checkbox"/> TREATMENT AT HOOKUP (HU) <input type="checkbox"/> ENHANCED BIO DEGRADATION (IT) <input type="checkbox"/> REPLACE SUPPLY (RS) <input type="checkbox"/> VENT SUPPLY (VS)
-----------------	---

COMMENTS: CUSTOMER HAD HOLE IN GAS TANK IN CAR. SPILLED GASOLINE WHEN PUMPING GAS IN HIS CAR. DEALER CLEANED UP WITH ABSORBENT. ALAMEDA COUNTY & OES NOTIFIED.

ARCO Products Company  
2000 Alameda de las Pulgas  
Mailing Address: Box 5811  
San Mateo, California 94402  
Telephone 415 571 2400



October 15, 1990

Mr. Ed Howell  
Alameda County Public Health Service  
Hazardous Materials Section  
80 Swan Way, Suite 200  
Oakland, CA 94621

Subject: ARCO Facility #4494  
566 Hegenberger Road  
Oakland, CA 94605

Dear Mr. Howell:

Enclosed is an Underground Storage Tank Unauthorized Release (Leak)/Contamination Site Report for the above ARCO facility. Please distribute the report as noted in the attached instructions.

Should you have any questions or comments regarding this matter, please do not hesitate to call me at (415) 571-2482.

Sincerely,

Elaine J. Lavine  
Environmental Compliance Administrator

enc.

07:11WV 91 100 06



ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY

DAVID L. KEARS, Agency Director



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

Certified Mailer #: P 062 127 699

October 30, 1989

Mr. Kyle Christie  
ARCO Petroleum Products Company  
P.O. Box 5811  
San Mateo, California 94402

Subject: Review of Workplan for Initial Subsurface Investigation of  
the Underground Storage Tank Leak at ARCO Station No.  
4494, 566 Hegenberger Road, Oakland, California

Dear Mr. Christie:

We have reviewed the Workplan for Initial Subsurface Investigation for 566 Hegenberger Road in Oakland dated September 29, 1989 and prepared by Applied GeoSystems. This workplan is acceptable to us and may be carried out provided the following items are incorporated:

- 1) Wells must be checked for free product before sampling commencement. Free product must be measured by optical probe or other method having equivalent accuracy. Gas and water finding paste may be used to measure free product thicknesses;
- 2) Ground water levels must be investigated for potential tidal influence; and
- 3) Site history information per item 1A of our letter dated August 10, 1989 must be submitted.

Should you have any questions concerning this letter, please contact us at (415) 271-4320.

Sincerely,

A handwritten signature in cursive script that reads "Katherine Chesick".

Katherine Chesick,  
Hazardous Materials Specialist

cc: William Dugan, Applied GeoSystems <sup>m</sup>  
Lester Feldman, S.F. Bay Regional Water Quality Control Board  
Howard Hatayama, State Department of Health Services  
Gil Jensen, Alameda County District Attorney, Consumer and  
Environmental Protection Division  
Rafat A. Shahid, Alameda County Department of Environmental  
Health  
Files

P 062 127 699

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED  
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to		Mr. Kyle Christie
Street and No.		ARCO
P.O. State and ZIP Code		
Postage		\$
Certified Fee		
Special Delivery Fee		
Registered Delivery Fee		
Return Receipt showing Postmark and Date Delivered		
Return Receipt and Signature Date and Address of Delivery		
TOTAL Postage and Fees		\$
Postmark or Date		

PS Form 3800, June 1985

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



Certified Mailer #: P 062 128 045

DEPARTMENT OF ENVIRONMENTAL HEALTH  
Hazardous Materials Program  
30 Swan Alley, Rm. 100  
Oakland, CA 94621  
415/ 271-4320

August 10, 1989

Mr. Kyle Christie  
ARCO Petroleum Products Company  
P.O. Box 5811  
San Mateo, California 94402

Subject: Initial Subsurface Investigation of the Underground  
Storage Tank Leak at ARCO Station No. 4494, 566  
Hegenberger Road, Oakland, California

Dear Mr. Christie:

On December 16, 1988, Ms. Katherine Chesick, Hazardous Materials Specialist, witnessed the removal of a 280-gallon waste oil underground storage tank from 566 Hegenberger Road in Oakland and the collection of two soil samples from the excavation bottom. Per the Pacific Environmental Group (PEG) Inc.'s March 7 1989 submittal, the soil sample collected beneath the tank at 7 feet below ground surface contained 4800 ppm of oil. Soil remediation was conducted by PEG and entailed the excavation and disposal of approximately 30 tons of contaminated soil. The remaining soil, sampled 10 feet below ground surface, contained less than 200 ppm oil and grease.

The degree of soil contamination documented on site requires an investigation to assess ground water quality. **We therefore require that you submit a work plan which, at a minimum, addresses the items listed below and presents a timetable for their completion. Please submit this work plan within 45 days of the date of this letter.**

Our office will be the lead agency overseeing the investigation of this site. The San Francisco Bay Regional Water Quality Control Board (SFRWQCB) is currently unable to oversee the large number of underground tank cases within Alameda County and has delegated the handling of this case to our Division. We will be in contact with the SFRWQCB in order to provide you with guidance concerning the SFRWQCB's investigation requirements.

P 062 128 045

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED  
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to <b>Mr. Kyle Christie</b>	
Street and No	
P.O. State and ZIP Code	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Other Fees (including Collection and C.O.D. Delivery)	
Total Postage and Fees	\$
Postmark or Date	

PS Form 3800, June 1983

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1.  Show to whom delivered, date, and addressee's address. 2.  Restricted Delivery (Extra charge)

<p>3. Article Addressed to:</p> <p><b>Mr. Kyle Christie</b>  <b>ARCO Petroleum Products</b>  <b>P.O. BOX 5811</b>  <b>San Mateo, CA 94402</b></p>	<p>4. Article Number</p> <p><b>P062-128 045</b></p> <p>Type of Service</p> <p><input type="checkbox"/> Registered <input type="checkbox"/> Insured  <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD  <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise</p> <p>Always obtain signature of addressee or agent and <b>DATE DELIVERED</b>.</p>
<p>5. Signature - Address</p> <p>X</p>	<p>8. Addressee's Address (ONLY if requested and fee paid)</p> <p><b>POST OFFICE - MAIN OFFICE</b>  <b>1630 SOUTH DELAWARE ST.</b>  <b>SAN MATEO, CA 94402-9998</b></p>
<p>6. Signature - Agent</p> <p>X</p>	
<p>7. Date of Delivery</p> <p><b>AUG 18 1989</b></p>	

Page 2 of 6  
Mr. Kyle Christie  
ARCO Petroleum Products Company  
August 10, 1989

All work must be performed according to the following SFRWQCB documents:

- \* Regional Board Staff Recommendations for Initial Evaluation and Investigation of Underground Tanks, 2 June 1988 (2 June 1988 SFRWQCB document); and
- \* Guidelines for Addressing Fuel Leaks, September 1985 (September 1985 SFRWQCB document).

Copies of these documents can be obtained by calling the SFRWQCB data management group at 464-1269. Please note the 2 June 1988 SFRWQCB document supercedes the September 1985 SFRWQCB document where the two documents differ.

Items to Address:

**1. Site history.**

- A. This shall include historic site use and ownership information, a description of the types and locations of any hazardous materials used on site, a description of any known hazardous materials spills, leaks or accidents
- B. For each existing and former underground tank on site, include the following information:
  - a) the date of tank installation
  - b) the dates the tank was used
  - c) the types of materials stored in the tank
  - d) notation of any failed tank tests
  - e) observations made at the time of tank removal (e.g. the tank depth, a log of the stratigraphic units encountered within the excavation, ground water depth, descriptions and locations of stained or odor-bearing soil, descriptions of any free product or sheen observed on ground water, etc.).
  - f) any other observations

**2. Site Description.**

This shall incorporate the following information:

- A. A map which shows streets, site buildings, underground tank locations, tank islands and pipings, subsurface conduits and utilities, on-site and nearby wells, and nearby streams or water bodies.

- B. A description of the hydrogeologic setting of the site and surrounding area. Include a description of any subsurface work previously done at the site or on adjacent sites.

**3. Assessment of Ground Water Quality.**

Due to the potential that waste oil may have contaminated the ground water, water quality must be characterized.

- A. A minimum of three monitoring wells must be installed to determine the ground water gradient. One monitoring well must be installed within 10 feet of the tank in the down-gradient direction. If the verified down-gradient location has been established, then complete gradient data must be submitted and only one monitoring well must be installed; this well must be within 10 feet of the tank in the down-gradient direction.

Soil samples must be collected according to the protocols set forth in the September 1985 SFRWQCB document and the LUFT manual. During drilling of all boreholes and monitoring wells, undisturbed soil samples are to be collected at a minimum of every five feet in the unsaturated zone and at any changes in lithology for logging and analytical purposes. Borings and wells are to be permitted through Alameda County Flood Control and Water Conservation District, Zone 7. Borings and wells shall be logged from undisturbed soil samples. Logs shall include observed soil odors.

- B. Monitoring wells shall be designed and constructed to be consistent with the September 1985 SFRWQCB document and to permit entrance of any free product into the wells. Filter pack and slot sizes for all wells should be based on particle analysis (ASTM D-422) from each stratigraphic unit in at least one boring on the site and on the types of ground water contaminant present. Wells shall be surveyed to mean sea level (MSL) to an established benchmark to 0.01 foot.
- C. Water level and free product thickness must be measured and wells must be sampled. Measure free product thicknesses and water levels weekly for the first month following well installation. For the first three months following well installation, monitoring wells shall be sampled monthly for free product and dissolved constituents. After three consecutive months of sampling, sampling may be conducted as needed for remediation purposes but must be done at least quarterly for all

monitoring wells. Before each sampling event is begun, free product thicknesses and water levels shall be measured in all wells. A ground water gradient map shall be developed for every water level data set. If the gradient fluctuates, water level measurements must continue to be made monthly until a gradient pattern is established. Free product measurements shall be performed using an optical probe or other device which has been shown to be of equivalent accuracy.

- D. Soil and ground water samples must be analyzed by a California State Certified Laboratory for the appropriate constituents (see Attachment 1, Table 2, 2 June 1988 SFRWQCB document).
- E. Ground water levels and quality must be monitored for a minimum of one year, even if no contamination is identified.

#### 4. Interpretation of hydrogeologic data.

- A. Water level contour maps, ground water gradient determinations, and free and dissolved product plume definition maps of each contaminant constituent should be prepared routinely and submitted with other sampling results. Fluctuations in ground water levels due to tidal action should also be documented.

#### 5. Reporting.

- A. Monthly reports must be submitted for the next three months with the first report due November 10, 1989. These reports should include, at a minimum, results of water level and water quality sampling, gradient determination and gradient maps, and contamination plume maps.
- B. Quarterly reports must be submitted beginning January 10, 1989. These reports should describe the status of the investigation and should include the following:

- \* Details and results of all work performed during the quarter (e.g. records of field observations and data, boring and well construction logs, water level data, chain-of-custody forms, laboratory-originated analytical results for all samples collected, tabulations of soil and ground water contaminant concentrations, tabulations of free product thicknesses, etc.)

Page 5 of 6  
Mr. Kyle Christie  
ARCO Petroleum Products Company  
August 10, 1989

- \* Status of ground water contamination characterization
- \* Interpretation of the results (e.g. water level contour maps showing ground water gradient direction, free and dissolved product plume definition maps of each constituent, tidal effects, etc.)
- \* Any recommendations or plans for additional investigative work or remediation
- \* Copies of TSDF to Generator manifests for any hazardous wastes hauled off site

C. All reports and proposals must be signed by a California-Certified Engineering Geologist, California-Registered Geologist or a California-Registered Civil Engineer (see page 2, 2 June 1988 SFRWQCB document). A statement of qualifications for each lead professional should be included in all workplans and reports.

D. Each technical report should be submitted with a cover letter from ARCO and received in this office by the established due date. The letter must be signed by a principal executive officer or by an authorized representative of that person.

#### **6. Site Safety Plan.**

All proposals, reports and analytical results pertaining to this investigation and remediation must be sent to our office and to:

Lester Feldman  
Regional Water Quality Control Board, San Francisco Bay Region  
1111 Jackson Street  
Oakland, California 94607  
(415) 464-1255

You should be aware that this Division is working in conjunction with the SFRWQCB and that this is a formal request for technical reports pursuant to California Water Code Section 13267 (b). Failure to respond or a late response will result in referral of this case to the SFRWQCB for enforcement and may subject ARCO to civil liabilities imposed by the SFRWQCB to a maximum amount of \$1,000 per day. Any extensions of agreed-upon time deadlines must be confirmed in writing by either this Division or the SFRWQCB.

To cover our costs for remediation review, please submit a check, payable to Alameda County, for \$500.



Page 6 of 6  
Mr. Kyle Christie  
ARCO Petroleum Products Company  
August 10, 1989

Should you have any questions concerning this letter, please contact Katherine Chesick, at (415) 271-4320.

Sincerely,



*f* Rafat A. Shahid, Chief,  
Hazardous Materials Division

RAS:kac

attachments

cc: Owen Ratchye, Pacific Environmental Group, Inc.  
Lester Feldman, Regional Water Quality Control Board,  
San Francisco Bay Region  
Howard Hatayama, State Department of Health Services  
Gil Jensen, Alameda County District Attorney, Consumer and  
Environmental Protection Division  
Katherine Chesick, Alameda County Hazardous Materials Division  
Files

# UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK) / CONTAMINATION SITE REPORT

EMERGENCY <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<b>FOR LOCAL AGENCY USE ONLY</b> I HEREBY CERTIFY THAT I AM A DESIGNATED GOVERNMENT EMPLOYEE AND THAT I HAVE REPORTED THIS INFORMATION TO LOCAL OFFICIALS PURSUANT TO SECTION 25180.7 OF THE HEALTH AND SAFETY CODE. <i>Katherine Cheick</i> SIGNED	DATE <i>5/1/89</i>
--	--	--	-----------------------

REPORT DATE 0 <u>M</u> 4 <u>M</u> 1 <u>D</u> 9 <u>D</u> 8 <u>Y</u> 9 <u>Y</u>	CASE #
--	--------

REPORTED BY	NAME OF INDIVIDUAL FILING REPORT <b>Tina Berry</b>	PHONE <b>(408) 984-6536</b>	SIGNATURE <i>Tina Berry</i> <b>AS AGENT FOR ARCO</b>
	REPRESENTING <input checked="" type="checkbox"/> OWNER/OPERATOR <input type="checkbox"/> REGIONAL BOARD <input type="checkbox"/> LOCAL AGENCY <input type="checkbox"/> OTHER	COMPANY OR AGENCY NAME <b>PACIFIC ENVIRONMENTAL GROUP, INC.</b>	
	ADDRESS <b>1601 Civic Center Dr. #202</b> <small>STREET</small>		

RESPONSIBLE PARTY	NAME <b>ARCO PETROLEUM PRODUCTS CO.</b> <input type="checkbox"/> UNKNOWN	CONTACT PERSON <b>Mr. Kyle Christie</b>	PHONE <b>(415) 571-2434</b>
	ADDRESS <b>2000 Alameda De Las Pulgas #218</b> <small>STREET</small>		

SITE LOCATION	FACILITY NAME (IF APPLICABLE) <b>ARCO Station No. 4494</b>	OPERATOR <b>Khalil N. Rooshan</b>	PHONE <b>(415) 569-7561</b>	
	ADDRESS <b>566 Hegenberger Road</b> <small>STREET</small>			<b>Oakland</b> <b>Alameda</b> <b>CA</b> <b>94602</b> <small>CITY COUNTY STATE ZIP</small>
	CROSS STREET <b>Edes</b>	TYPE OF AREA <input checked="" type="checkbox"/> COMMERCIAL <input type="checkbox"/> INDUSTRIAL <input type="checkbox"/> RURAL <input type="checkbox"/> RESIDENTIAL <input type="checkbox"/> OTHER	TYPE OF BUSINESS <input checked="" type="checkbox"/> RETAIL FUEL STATION <input type="checkbox"/> FARM <input type="checkbox"/> OTHER	

IMPLEMENTING AGENCIES	LOCAL AGENCY <b>Alameda Co. Public Health Service</b>	AGENCY NAME	CONTACT PERSON <b>Mr. Ariu Levi</b>	PHONE <b>(415) 271-4320</b>
	REGIONAL BOARD <b>San Francisco Bay Region</b>		<b>Mr. Don Dalke</b>	PHONE <b>(415) 464-1255</b>

SUBSTANCES INVOLVED	(1) NAME <b>Waste Oil</b>	QUANTITY LOST (GALLONS) <input checked="" type="checkbox"/> UNKNOWN
	(2)	<input type="checkbox"/> UNKNOWN

DISCOVERY/ABATEMENT	DATE DISCOVERED <b>1</b> <u>M</u> <b>2</b> <u>M</u> <b>1</b> <u>D</u> <b>6</b> <u>D</u> <b>8</b> <u>Y</u> <b>8</b> <u>Y</u>	HOW DISCOVERED <input type="checkbox"/> INVENTORY CONTROL <input type="checkbox"/> SUBSURFACE MONITORING <input type="checkbox"/> NUISANCE CONDITIONS <input type="checkbox"/> TANK TEST <input checked="" type="checkbox"/> TANK REMOVAL <input type="checkbox"/> OTHER
	DATE DISCHARGE BEGAN <input checked="" type="checkbox"/> UNKNOWN	METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY) <input type="checkbox"/> REMOVE CONTENTS <input type="checkbox"/> REPLACE TANK <input checked="" type="checkbox"/> CLOSE TANK <input type="checkbox"/> REPAIR TANK <input type="checkbox"/> REPAIR PIPING <input type="checkbox"/> CHANGE PROCEDURE <input type="checkbox"/> OTHER
	HAS DISCHARGE BEEN STOPPED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, DATE <b>1</b> <u>M</u> <b>2</b> <u>M</u> <b>1</b> <u>D</u> <b>6</b> <u>D</u> <b>8</b> <u>Y</u> <b>8</b> <u>Y</u>	

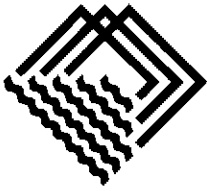
SOURCE/CAUSE	SOURCE OF DISCHARGE <input type="checkbox"/> TANK LEAK <input checked="" type="checkbox"/> UNKNOWN	TANKS ONLY/CAPACITY <b>280</b> GAL.	MATERIAL <input type="checkbox"/> FIBERGLASS <input checked="" type="checkbox"/> STEEL <input type="checkbox"/> OTHER	CAUSE(S) <input type="checkbox"/> OVERFILL <input type="checkbox"/> RUPTURE/FAILURE <input type="checkbox"/> CORROSION <input checked="" type="checkbox"/> UNKNOWN <input type="checkbox"/> SPILL <input type="checkbox"/> OTHER
	<input type="checkbox"/> PIPING LEAK <input type="checkbox"/> OTHER	AGE _____ YRS <input type="checkbox"/> UNKNOWN		

CASE TYPE	CHECK ONE ONLY <input type="checkbox"/> UNDETERMINED <input checked="" type="checkbox"/> SOIL ONLY <input type="checkbox"/> GROUNDWATER <input type="checkbox"/> DRINKING WATER - (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)
-----------	--

CURRENT STATUS	CHECK ONE ONLY <input type="checkbox"/> SITE INVESTIGATION IN PROGRESS (DEFINING EXTENT OF PROBLEM) <input checked="" type="checkbox"/> CLEANUP IN PROGRESS <input checked="" type="checkbox"/> SIGNED OFF (CLEANUP COMPLETED OR UNNECESSARY) <input type="checkbox"/> NO ACTION TAKEN <input type="checkbox"/> POST CLEANUP MONITORING IN PROGRESS <input type="checkbox"/> NO FUNDS AVAILABLE TO PROCEED <input type="checkbox"/> EVALUATING CLEANUP ALTERNATIVES
----------------	---

REMEDIAL ACTION	CHECK APPROPRIATE ACTION(S) (SEE BACK FOR DETAILS) <input type="checkbox"/> CAP SITE (CD) <input checked="" type="checkbox"/> EXCAVATE & DISPOSE (ED) <input type="checkbox"/> REMOVE FREE PRODUCT (FP) <input type="checkbox"/> ENHANCED BIO DEGRADATION (IT) <input type="checkbox"/> CONTAINMENT BARRIER (CB) <input type="checkbox"/> EXCAVATE & TREAT (ET) <input type="checkbox"/> PUMP & TREAT GROUNDWATER (GT) <input type="checkbox"/> REPLACE SUPPLY (RS) <input type="checkbox"/> TREATMENT AT HOOKUP (HU) <input type="checkbox"/> NO ACTION REQUIRED (NA) <input type="checkbox"/> OTHER (OT)
-----------------	---

COMMENTS  
Approximately 30 tons of excavated soil has been disposed of as hazardous waste at the Kettleman Hills facility. Levels of up to 4800 ppm oil found in soil beneath tank. Contaminated soils excavated to below ~~1,000~~ 1,000 ppm hydrocarbons



PACIFIC  
ENVIRONMENTAL  
GROUP, INC.

April 19, 1988<sup>89</sup>  
Project No. 330-03.01

Mr. Ariu Levi  
Alameda County Public  
Health Service  
Hazardous Materials Division  
80 Swan Way, Room 200  
Oakland, CA 94621

Subject: ARCO Station #4494  
566 Hegenberger  
Oakland, CA 94605

Dear Mr. Levi:

Enclosed is the Underground Storage Tank Unauthorized Release (Leak)/Contamination Site Report for the subject ARCO Petroleum Products Company Station. Please distribute the report as noted in the instructions on the reverse side of each form.

Should you have any questions or comments regarding this matter, please do not hesitate to call Mr. Kyle Christie of ARCO at (415) 571-2434.

Sincerely,

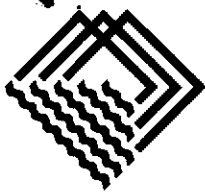
PACIFIC ENVIRONMENTAL GROUP, INC.

*Tina Berry*  
Tina Berry  
Staff Geologist

enclosure

cc: SWRCB, Sacramento  
RWQCB, Oakland

ALAMEDA COUNTY  
DEPT. OF ENVIRONMENTAL HEALTH  
HAZARDOUS MATERIALS  
4.20.88



PACIFIC  
ENVIRONMENTAL  
GROUP, INC.

3/8/89  
ALAMEDA COUNTY  
DEPT. OF ENVIRONMENTAL HEALTH  
HAZARDOUS MATERIALS

March 7, 1989  
Project 330-41.01

Alameda County Environmental Health Department  
Hazardous Material Division  
80 Swan, Rm. 200  
Oakland, California 94621

RE: ARCO Service Station #4494  
566 Hegenberger Road  
Oakland, California 94621

Dear Ms. Cheswick:

In response to your request, I am enclosing information relating to the work Pacific Environmental Group, Inc. (PACIFIC) has performed for its client, ARCO Petroleum Products Company at the subject site. This information is preliminary, as PACIFIC is currently preparing a complete and detailed tank removal report. After review by ARCO, a copy of the report will be sent to you.

A brief summary of our activities related to the waste oil tank excavation at the site follows:

- o 12/20/88: Waste oil tank pulled and sample WO-1 7' taken from the bottom of the excavation at seven feet. Sample WO-2 10' taken directly beneath WO-1 7', but from a ten foot depth interval.
- o 1/4/89: Excavation extended downward to ten feet. Samples WOSW-N, WOSW-S, WOSW-E, and WOSW-W taken from the excavation sidewalls.
- o 1/16/89: Excavation extended to the north. Sample WOSW-N2 taken from the excavation's north sidewall. A total of thirty cubic yards of contaminated soil hauled away from the site.

Project No. 330-41.01  
March 7, 1989  
Page 2

Analysis was pursuant to RWQCB guidelines.


Samples WO-1 7' and WO-2 10' were analyzed for low boiling hydrocarbons, high boiling hydrocarbons, oil and grease, volatile organics, semi-volatile organics, ph, and metals. The five side wall samples were analyzed for high boiling hydrocarbons, and oil and grease.

A site map showing sample locations, Certified Analytical Reports, Chain of Custody documents, and Uniform Hazardous Waste Manifests for these activities are included as part of this transmittal.

If you have any questions, please call me at (408) 984-6536 or Mr. Kyle Christie of ARCO at (415) 571-2434.

Sincerely,

**PACIFIC ENVIRONMENTAL GROUP, Inc.**



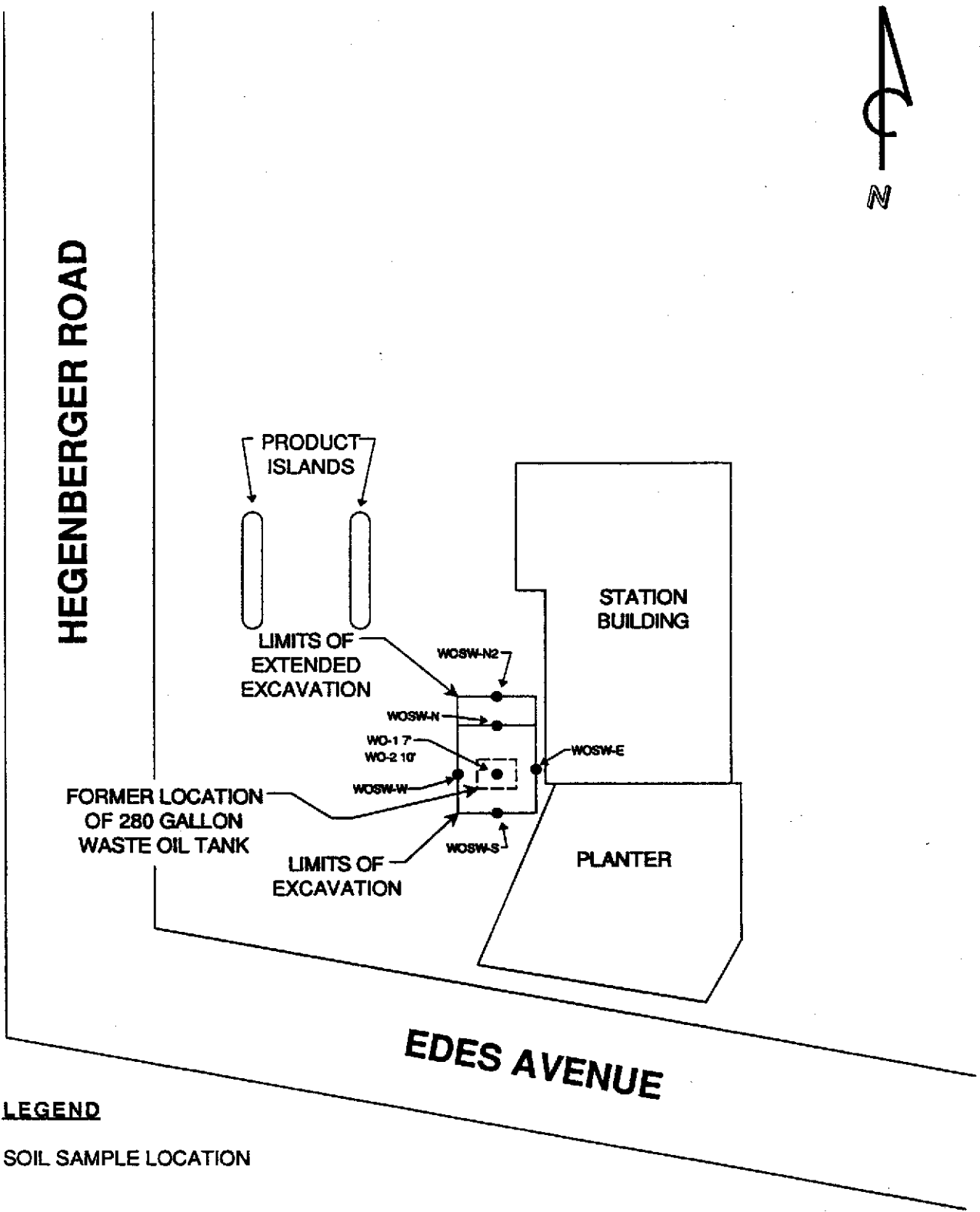
Owen C. Raychye  
Staff Engineer

enclosure

cc: Kyle Christie, ARCO.



**HEGENBERGER ROAD**



**LEGEND**

- SOIL SAMPLE LOCATION



PACIFIC ENVIRONMENTAL GROUP, INC.

**ARCO SERVICE STATION #4494**  
566 Hegenberger Road  
Oakland, California

**SITE MAP**

**FIGURE:**  
**1**  
**PROJECT:**  
330-41.01

# SAMPLING/ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Project No.: 330-41.01 Requested By: JBA P.O. No.: 10419

REQUEST		LABORATORY REQUIREMENTS					CHAIN OF CUSTODY				
SAMPLE TYPE: <u>SOIL</u>							SAMPLER'S SIGNATURE <i>JBA</i>		CONTRACT LABORATORY		
SAMPLE I.D.	PARAMETERS	CONTAINERS		PRES.	LAB	DUE DATE	SAMPLER	SAMPLE DATE	REC'D BY	COMMENTS	DATE REC'D
		SIZE/TYPER	QUANTITY								
<u>WO-1<sup>7</sup></u>	<u>TPH (6+D), Oil+6.0, 8248, 8270, Cr, Cd, Pb, Zn</u>	<u>2" BRASS KING</u>	<u>1</u>	<u>NP</u>	<u>IT</u>	<u>12/20/88</u>	<u>JBA</u>	<u>12/16/88</u>	<u>g.D.</u>	<u>ok Cool</u>	<u>12/19/88</u>
<u>WO-2<sup>10</sup></u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>

**SIGNATURES:**

RELEASED BY: _____	RELEASED BY: _____	RELEASED BY: _____
RECEIVED BY: _____	RECEIVED BY: _____	RECEIVED BY: _____
RELEASED BY: _____	RELEASED BY: _____	RELEASED BY: <u><i>JBA</i></u> <u>12/19/88 11:50</u>
RECEIVED BY: _____	RECEIVED BY: _____	RECEIVED BY LAB: <u><i>Josephine DeCarli</i></u> <u>12/19/88 11:50</u>

566 Heggenberger Rd. Oakland (Arco Station)

12/16/88

1:10 Arrived on site. Waiting for OFD to arrive. Piping associated w/ waste oil tank left in place - appears to be 1 vent pipe (~1 1/4 ID) + 1 fill pipe (~2 1/4 ID). Pipes appear to go under building + up opposite side of building. I told Crosby + Overton I wanted the pipes capped or closed off.

2:00 OFD on site, tank pulled w/ 10% O<sub>2</sub>, 0% LEL  
Tank appears to be in good shape; appears to be coated w/ greenish black tarry resin.

sample collected in middle of excavation from ~8' }  
• Mat'l is clayey sand w/ hydrocarbon odor (smells <sup>slightly</sup> like gas rather than like waste oil. Sample collected, capped w/ foil + red caps. No tape. Entire sample put in jar w/ lid

sample collected in middle of excavation from ~10' }  
• More soil removed from excavation bottom to obtain clean soil. (note soil excavated in one portion of pit only. Excavation will be covered w/ trench plate until soil sample results come back)  
Mat'l is med grey clay (occasional slight hydrocarbon odor) Sample handled same way as first sample

Contractor ~~of~~ will cover excavation w/ trench plate.



**ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY  
DEPARTMENT OF ENVIRONMENTAL HEALTH  
HAZARDOUS MATERIALS DIVISION**  
470 - 27TH ST., RM. 322  
OAKLAND, CA 94612  
PHONE NO. 415/874-7237

Project # U524593  
Fee Paid 300.00  
Date 9/1/88

**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 project.

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. Notice 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 THESE INSPECTIONS.**  
*9/26/88 K. Derick*

**UNDERGROUND TANK CLOSURE/MODIFICATION PLANS**

1. Business Name ARCO PETROLEUM PRODUCTS COMPANY  
Business Owner ATLANTIC RICHFIELD COMPANY / CHASE JIANNALONE 415-571-2271
2. Site Address 566 HEGENBERGER RD. (Station #4494)  
City OAKLAND, CA Zip 94621 Phone 415/569-7561  
~~94605~~
3. Mailing Address P.O. BOX 5811  
City SAN MATEO, CA Zip 94402 Phone 415/571-2400
4. Land Owner ARCO PETROLEUM  
Address 2000 ALAMEDA DE LAS PULGAS City, State SAN MATEO, CA Zip 94402
5. EPA I.D. No. CAC000094285
6. Contractor CROSBY & OVERTON, EMI  
Address 8430 AMELIA ST.  
City OAKLAND, CA 94621 Phone 415/633-0336  
License Type GENERAL ENGINEERING "A" ID# 502446
7. Other (Specify) \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ Phone \_\_\_\_\_

8. Contact Person for Investigation

*also Dwayne Liles*

Name CROSBY & OVERTON, EMI/RON CADIZ Title SITE MITIGATION MANAGER

Phone 415/633-0336

9. Total No. of Tanks at facility 4

10. Have permit applications for all tanks been submitted to this office? Yes [X] No [ ]

11. State Registered Hazardous Waste Transporters/Facilities

a) Product/Waste Tranporter

Name CROSBY & OVERTON, EMI EPA I.D. No. CAD 981 461 064

Address 8430 AMELIA ST

City OAKLAND State CA Zip 94621

b) Rinsate Transporter

Name CROSBY & OVERTON, EMI EPA I.D. No. CAD 981 461 064

Address 8430 AMELIA ST.

City OAKLAND, State CA Zip 94621

c) Tank Transporter

Name CROSBY & OVERTON, EMI EPA I.D. No. CAD 981 461 064

Address 8430 AMELIA ST.

City OAKLAND, State CA Zip 94621

d) Contaminated Soil Transporter

Name CROSBY & OVERTON, EMI EPA I.D. No. CAD 981 461 064

Address 8430 AMELIA ST.

City OAKLAND, State CA Zip 94621

12. Sample Collector

Name John Adams

Company PACIFIC ENVIRONMENTAL GROUP

Address 1601 CIVIC CENTER DR. SUITE 202

City SANTA CLARA State CA Zip 95050 Phone 408/984-6536

13. Sampling Information for each tank or area

Tank or Area		Material sampled	Location & Depth
Capacity	Historic Contents (past 5 years)		
280 GAL.	WASTE OIL	SOIL	3' - 4' DEPTH - SEE PLOT PLAN FOR LOCATION <i>(beneath fill end of tank)</i>

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

If yes, describe. \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

15. NFPA methods used for rendering tank inert? Yes [X] No [ ]

If yes, describe. 1.5 LBS. OF DRY IC PER 100 GALS. OF TANK VOLUME  
 \_\_\_\_\_  
 \_\_\_\_\_

16. Laboratories

Name INTERNATIONAL TECHNOLOGIES  
 Address 2055 JUNCTION AVE  
 City SAN JOSE State CA zip 95131  
 State Certification No. 137

17. Chemical Methods to be used for Analyzing Samples

Contaminant Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Number
AUTOMOBILE DRAIN OIL <del>BTX-E</del> Oil & Grease Volatile Halogenated Organics BTXE	<del>TPH - HIGH-BOILERS-5330</del> <sup>3550</sup> <del>BTX-E</del> <del>503-E-5330</del> 3550 8010 8020	TPH-high boilers (DHS, modified 8015) 503-E 8010 8020

Site security is responsibility of owner/consultant

18. Site Safety Plan submitted? Yes  No

19. Workman's Compensation: Yes  No

Copy of Certificate enclosed? Yes  No

Name of Insurer STATE COMPENSATION INSURANCE FUND

20. Plot Plan submitted? Yes  No

21. Deposit enclosed? Yes  No

22. Please forward to this office the following information within 60 days after receipt of sample results.

- a) Chain of Custody Sheets
- b) Original Signed Laboratory Reports
- c) TSD to Generator copies of wastes shipped and received
- d) Attachment A summarizing laboratory results

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 will notify the Department of Environmental Health at least two (2) working days (48 hours) in advance to schedule any required inspections. 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.

Signature of Contractor

Name (please type) MARK PECORARO - GENERAL MANAGER, Crosby & Overton

Signature Mark Pecoraro

Date 7/12/88

Signature of Site Owner or Operator

Name (please type) ON BEHALF OF ARCO - MARK A. PECORARO

Signature Mark Pecoraro

Date 7/12/88

NOTES:

1. Any changes in this document must be approved by this Department.
2. Any leaks discovered must be submitted to this office on an underground storage tank unauthorized leak/contamination site report form within 5 days of its discovery.
3. Three (3) copies of this plan must be submitted to this Department. One copy must be at the construction site at all times.
4. A copy of your approved plan must be sent to the landowner.

ARCO Petroleum Products Company  
2000 Alameda de las Pulgas  
Mailing Address: Box 5811  
San Mateo, California 94402  
Telephone 415 571 2400

September 15, 1988

County of Alameda Health Department  
80 Swan Way, Room 200  
Oakland, CA 94621

ARCO Products Company would like to hereby grant Crosby & Overton of Oakland, CA permission to sign as agents of ARCO for the purpose of securing permits for waste oil tank removals at the ARCO facilities listed below.

ARCO SS# 276 - Macarthur/10th Ave.  
Oakland, CA

ARCO SS# 498 - 286 S. Livermore  
Livermore, CA

ARCO SS# 4494 - 566 Hegenberger Rd.  
Oakland, CA



Joi A. Hammer  
Administrator, Real Estate & C&M

/lkw  
cc: C. J. Jiannalone  
R. L. Knutson  
H. H. Sheetz  
A. P. Weible  
L. K. Wood

UNDERGROUND TANK CLOSURE/MODIFICATION PLANS

ATTACHMENT A

SAMPLING RESULTS

Tank or Area	Contaminant	Location & Depth	Results (specify units)

## INSTRUCTIONS

### 2. SITE ADDRESS

Address at which closure or modification is taking place.

### 5. EPA I.D. NO.

This number may be obtained from the State Department of Health Services, 916/324-1781.

### 6. CONTRACTOR

Prime contractor for the project.

### 7. OTHER

List professional consultants here.

### 12. SAMPLE COLLECTOR

Persons who are collecting samples.

### 13. SAMPLING INFORMATION

Historic contents - the principal product(s) used in the last 5 years.

Material sampled - i.e., water, oil, sludge, soil, etc.

### 16. LABORATORIES

Laboratories used for chemical and geotechnical analyses.

### 17. CHEMICAL METHODS:

All sample collection methods and analyses should conform to EPA or DHS methods.

Contaminant - Specify the chemical to be analyzed.

Sample Preparation Method Number - The means used to prepare the sample prior to analyses - i.e., digestion techniques, solvent extraction, etc. Specify number of method and reference if not an EPA or DHS method.

Analysis Method Number - The means used to analyze the sample - i.e., GC, GC-MS, AA, etc. Specify number of method and reference if not a DHS or EPA method.

#### NOTE:

Method Numbers are available from certified laboratories.

### 18. SITE SAFETY PLAN

A plan outlining protective equipment and additional specialized personnel in the event that significant amount of hazardous materials are found. The plan should consider the availability of respirators, respirator cartridges, self-contained breathing apparatus (SCBA) and industrial hygienists.



19. ATTACH COPY OF WORKMAN'S COMPENSATION

20. PLOT PLAN

The plan should consists of a scaled view of the facility at which the tank(s) are located and should include the following information:

- a) Scale
- b) North Arrow
- c) Property Line
- d) Location of all Structures
- e) Location of all relevant existing equipment including tanks and piping to be removed
- f) Streets
- g) Underground conduits, sewers, water lines, utilities
- h) Existing wells (drinking, monitoring, etc.)
- i) Depth to ground water
- j) All existing tanks in addition to the ones being pulled

1/88

CONTRACTORS STATE LICENSE BOARD

No. 502446

*Building Quality*

ISSUED 12-08-86

This license is the property of the Registrar of Contractors, is not transferable, and shall be returned to the Registrar upon demand when suspended, revoked, or invalidated for any reason. It becomes void if not renewed.

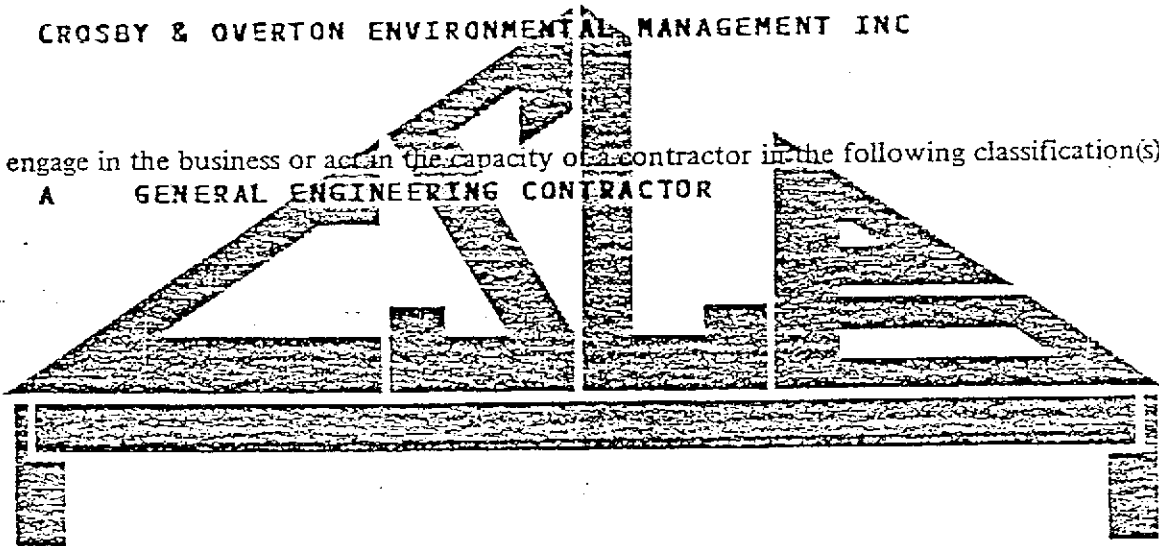
# Contractor's License

Pursuant to the provisions of Chapter 9 of Division 3 of the Business and Professions Code and the Rules and Regulations of the Contractors State License Board, the Registrar of Contractors does hereby issue this license to:

**CROSBY & OVERTON ENVIRONMENTAL MANAGEMENT INC**

to engage in the business or act in the capacity of a contractor in the following classification(s):

**A GENERAL ENGINEERING CONTRACTOR**



WITNESS my hand and sealed this  
16TH day of DECEMBER 1986.



STATE AND CONSUMER SERVICES AGENCY  
DEPARTMENT OF CONSUMER AFFAIRS

*J. H. Maloney*  
Registrar of Contractors

*Ernest D. Brown*  
Signature of Licensee

*Joseph C. Sullivan*  
Signature of person who qualified  
on behalf of the licensee  
JOSEPH C. SULLIVAN

**STATE  
COMPENSATION  
INSURANCE  
FUND**

P.O. BOX 807, SAN FRANCISCO, CA 94101-0807

**CERTIFICATE OF WORKERS' COMPENSATION INSURANCE**

AUGUST 26, 1988

POLICY NUMBER: 0802177 - 84  
CERTIFICATE EXPIRES: 4-1-89

This is to certify that we have issued a valid Workers' Compensation insurance policy in a form approved by the California Insurance Commissioner to the employer named below for the policy period indicated.

This policy is not subject to cancellation by the Fund except upon <sup>30</sup> ~~ten~~ days' advance written notice to the employer.

We will also give you <sup>30</sup> ~~TEN~~ days' advance notice should this policy be cancelled prior to its normal expiration.

This certificate of insurance is not an insurance policy and does not amend, extend or alter the coverage afforded by the policies listed herein. Notwithstanding any requirement, term, or condition of any contract or other document with respect to which this certificate of insurance may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies.

*John A. Stett*  
PRESIDENT

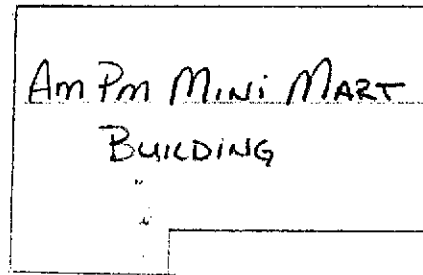
ENDORSEMENT #2055 ENTITLED CERTIFICATE HOLDERS' NOTICE EFFECTIVE 08/26/88 IS ATTACHED TO AND FORMS A PART OF THIS POLICY.

EMPLOYER

CROSBY AND OVERTON, INC.  
1610 W. 17TH STREET  
LONG BEACH  
CA 90813

PLOT PLAN  
566 HEGENBERGER RD  
OAKLAND CA

\* NOT TO SCALE



280 GAL  
WASTE OIL  
TANK



← NORTH

EDGES AVE

HEGENBERGER RD.

JANUARY 1987

GENERAL SAFETY RULES

1. ALL INJURIES, NO MATTER HOW SLIGHT, SHALL BE REPORTED IMMEDIATELY TO YOUR SUPERVISOR OR THE SAFETY DEPARTMENT.
2. GOOD HOUSEKEEPING IS YOUR SAFETY RESPONSIBILITY. KEEP YOUR WORK AREA, JOB SITE, TRUCK, ETC IN GOOD SHAPE.
3. UNAUTHORIZED OPERATING OR TAMPERING WITH EQUIPMENT IS PROHIBITED. SUPERVISION (ONLY) MAY DESIGNATE AUTHORIZED AND COMPETENT EQUIPMENT OPERATORS.
4. OPERATING OF EQUIPMENT OR MACHINERY HAVING A "DANGER - DO NOT OPERATE" TAG OR "RED TAG" IS PROHIBITED.
5. REPORT ANY UNSAFE CONDITION AT ONCE TO YOUR SUPERVISOR OR SAFETY DEPARTMENT.
6. HORSEPLAY, SCUFFLING, THROWING MATERIALS OR EQUIPMENT IS PROHIBITED.
7. INTOXICANTS OR ILLEGAL DRUGS OR PERSONS UNDER THEIR INFLUENCE SHALL NOT BE TOLERATED IN THE WORK ENVIRONMENT. THIS WILL RESULT IN IMMEDIATE DISCHARGE.
8. ENTRY INTO ANY CONFINED SPACE SHALL NOT BE MADE UNTIL THE ENTRY PERMIT PROCEDURE HAS BEEN COMPLETED BY APPROPRIATE, AUTHORIZED PERSONNEL.
9. A TAILGATE SAFETY MEETING SHALL BE GIVEN BY THE LEADMAN OR SUPERVISOR BEFORE THE START OF EACH JOB OR AT LEAST ONCE A DAY. THIS MEETING MUST BE DOCUMENTED ON ENTRY PERMIT OR SAFETY MEETING FORM.
10. APPROPRIATE SAFETY EQUIPMENT, PERSONAL PROTECTIVE EQUIPMENT AND OTHER DESIGNATED CLOTHING MUST BE WORN ON ALL JOB SITES AS PROVIDED IN SAFETY RULES OR AS SPECIFIED BY SUPERVISION.
11. REPORT ON APPROPRIATE FORM ANY UNSAFE EQUIPMENT OR MACHINERY.
12. FOLLOWING PERSONAL PROTECTIVE GEAR SHALL BE WORN AT ALL JOB SITES:
  1. SUBSTANTIALLY CONSTRUCTED SHOES, (NO CLOTH, TENNIS OR SOFT TOE SHOE) OR STEEL TOE BOOTS.
  2. EYE PROTECTION - GLASSES, GOGGLES OR FACE SHIELD
  3. HARD HAT
13. WHEN WORKING IN CONFINED SPACES, IN WET AREAS AND OTHER DESIGNATED JOB SITES, LOW VOLTAGE LIGHTING OR BATTERY POWERED LANTERNS ARE THE ONLY ACCEPTABLE LIGHTING ALTERNATIVES. IF HYDRO CARBONS ARE POTENTIALLY PRESENT - LIGHTING MUST ALSO BE EXPLOSION PROOF.
14. NEVER OPERATE, CLEAN, ADJUST OR REPAIR ANY MACHINE WHILE GUARDS OR OTHER SAFETY DEVICES ARE REMOVED. ALL GUARDS MUST BE BACK IN PLACE BEFORE STARTING MACHINERY INTO OPERATION.

15. KNOW AND FOLLOW SPECIFIC SAFETY RULES RELATING TO THE SPECIFIC JOB WHICH YOU ARE DOING.
16. FLAMMABLE LIQUIDS (FLASH POINT LESS THAN 100°F) SHALL NOT BE INTRODUCED INTO ANY CONFINED SPACE. FLAMMABLE LIQUID USED ANYWHERE ELSE MUST HAVE SAFETY APPROVAL.
17. DO NOT "HOT WASH" OR STEAM CLEAN CLOTHING OR BOOTS WHILE BEING WORN. THEY MUST BE REMOVED FOR SUCH CLEANING.
18. EMPLOYEES WITH BEARDS, LONG HEAVY SIDEBURNS OR LARGE MUSTACHES WILL NOT BE USED ON JOBS REQUIRING RESPIRATORY EQUIPMENT.
19. DO NOT USE DEFECTIVE OR IMPROPER TOOLS/EQUIPMENT TO DO THE JOB. BROKEN OR MAKE SHIFT EQUIPMENT CAN CAUSE SERIOUS ACCIDENTS.
20. SMOKING SHALL BE PERMITTED ONLY IN DESIGNATED AREAS. NORMALLY THE CUSTOMER AND/OR SUPERVISOR WILL DESIGNATE THE AREAS.
21. ALWAYS BE AWARE AND KEEP A SAFE DISTANCE FROM POTENTIAL PINCH, CRUSH OR NIP POINTS. STAND CLEAR OF HEAVY EQUIPMENT (I.E. OUTSIDE THEIR WHEEL BASE OR ARC OF SWING). NEVER STAND OR WALK BENEATH SUSPENDED OR PRECARIOUS LOADS.
22. WET OR SLIPPERY SURFACES AND TRIPPING HAZARDS ARE ALWAYS A POTENTIAL PROBLEM AT OUR JOB SITES. ALWAYS WALK CAREFULLY AND LOOK BEFORE YOU STEP IN ORDER TO AVOID FALLS.
23. WHEN WORKING ABOVE GRADE LEVEL BY MORE THAN SIX (6) FEET, FALL PROTECTION SHALL BE PROVIDED, (I.E. SAFETY BELT, LIFE LINE)
24. WHEN WORKING FIVE (5) FEET BELOW GRADE LEVEL, IN AN EXCAVATION WITH VERTICAL WALLS, SHORING SHALL BE PROVIDED PRIOR TO BEGINNING JOB. IF QUESTION ARISES, CONTACT SAFETY OFFICE.
25. SITE TO BE BARRICADED IN A 25; RADIUS OF EXCAVATION FOR TRAFFIC CONTROL.
26. EXCAVATION TO BE BARRICADED WHEN WORK DAY IS FINISHED.

*Location of nearby hospital:*



6. Contractor GETTLER RYAN - Gold West Env Services  
Address 2150 WEST WINTON AVE. P.O. Box 3298  
HAYWARD, CA 94545 Livermore CA 94551-3298  
Phone 415-783-7500 510-447-2484  
License Type B/C61/D40 ID# 94-155-1136 Rick Henderson

7. Consultant BARGHAUSEN CONSULTING ENGINEERS  
Address 4612 ROSEVILLE ROAD SUITE 103  
City NORTH HIGHLANDS, CA Phone (916) 348-3057

8. Contact Person for Investigation Bill Hargrave (Chris Lawton)  
Name ~~BRIAN EYCHNER~~ Title DESIGN ENGINEER  
Phone (916) 348-3057

9. Number of tanks being closed under this plan 3  
Length of piping being removed under this plan 900' ±  
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 H&H SHIP SERVICE CO. EPA I.D. No. CAD 004 771 160  
Hauler License No. 0334 License Exp. Date 1-31-92  
Address 220 CHINA BASIN STREET  
City SAN FRANCISCO State CA Zip 94107

b) Product/Residual Sludge/Rinsate Disposal Site  
Name (SAME AS ABOVE) EPA I.D. No. \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_



c) Tank and Piping Transporter

Name (SAME AS ABOVE) EPA I.D. No. \_\_\_\_\_  
Hauler License No. \_\_\_\_\_ License Exp. Date \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

d) Tank and Piping Disposal Site

Name (SAME AS ABOVE) EPA I.D. No. \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

11. Experienced Sample Collector

*Roux & Associates (415) 370-2275*  
Name DAVE BYRON *Paul Supple* X  
Company GETTLER RYAN INC.  
Address 2150 WEST WINTON AVE.  
City HAYWARD state CA zip 94545 Phone 415-783-7500

12. Laboratory

Name IT ANALYTICAL LABS X  
Address 2055 JUNCTION AVENUE  
City SAN JOSE state CA zip 95030  
State Certification No. 137

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

If yes, describe. UNKNOWN  
\_\_\_\_\_  
\_\_\_\_\_

14. Describe methods to be used for rendering tank inert

DRY ICE

10-20# / 1000 gal

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)		
UNLEADED 10,000 Gal.	Installed May 1986	WATER	* SEE ATTACHED SOIL SAMPLING METHODS
REGULAR 10,000 Gal.	" " "	OIL	
SUPER UNL. 10,000 Gal.	" " "	SLUDGE	
		SOIL	

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)	Sampling Plan <i>Either 4 discrete to be imported on lab per 50 cu yds for disposal  1 discrete per 20 cu yd for reuse</i>

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
For unleaded and superant.	TPH g BTEX	5030 GC/FID (8015) 5030 8020/8240	1 ppm soil 50 ppb water 5 ppb soil .5 ppb water
For Regular	TPH g BTEX Total Lead	5030 GC/FID (8015) 8020 or 8240 AA or ICP	

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

18. Submit Worker's Compensation Certificate copy

Name of Insurer REPUBLIC INDEMNITY

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) DAVID BYRON - GETTLER RYAN, INC. X

Signature *David Byron*

Date 8/26/91

Signature of Site Owner or Operator

Name (please type) BON KNUTSON - ARCO

Signature *Bon Knutson*

Date 8-27-91

## INSTRUCTIONS

### General Instructions

- \* Three (3) copies of this plan plus attachments and deposit must be submitted to this Department.
- \* Any cutting into tanks requires local fire department approval.
- \* One complete copy of your approved plan must be at the construction site at all times; a copy of your approved plan must also be sent to the landowner.

### Item Specific Instructions

2. SITE ADDRESS  
Address at which closure is taking place.
5. EPA I.D. NO. under which the tanks will be manifested  
EPA I.D. numbers may be obtained from the State Department of Health Services, 916/324-1781.
6. CONTRACTOR  
Prime contractor for the project.
10. STATE REGISTERED HAZARDOUS WASTE TRANSPORTERS/FACILITIES
  - a) All residual liquids and sludges are to be removed from tanks before tanks are inerted.
  - c) Tanks must be hauled as hazardous waste.
  - d) This is the place where tanks will be taken for cleaning.
15. TANK HISTORY AND SAMPLING INFORMATION

Use History - This information is essential and must be accurate. Include tank installation date, products stored in the tank, and the date when the tank was last used.

Material to be sampled - e.g. water, oil, sludge, soil, etc.

Location and depth of samples - e.g. beneath the tank a maximum of two feet below the native soil/backfill interface, side wall at the high water mark, etc.

17. SITE HEALTH AND SAFETY PLAN

**A site specific Health and Safety plan must be submitted.** We advocate the site health and safety plan include the following items, at a minimum:

- a) The name and responsibilities of the site health and safety officer;
- b) Identification of health and safety hazards of each work task. Include potential fire, explosion, physical, and chemical hazards;
- c) An outline of briefings to be held before work each day to appraise employees of site health and safety hazards;
- d) Frequency and types of air and personnel monitoring to be used - along with the environmental sampling techniques and instrumentation. Include instrumentation maintenance and calibration methods and frequencies;
- e) Specific personal protective equipment and procedures to be used by workers to protect themselves from the identified hazards. Also state the contaminant concentrations in air - or other conditions - which will trigger changes in work or work habits to ensure workers are not exposed to high levels of hazardous chemicals or to other unsafe conditions;
- f) Confined space entry procedures (if applicable);
- g) Decontamination procedures;
- h) Measures to be taken to secure the site, excavation and stockpiled soil during and after work hours (e.g. barricades, caution tape, fencing, trench plates, security guards, etc.);
- i) Spill containment and emergency/contingency plan. Be sure to include emergency phone numbers, the location of the phone nearest the site, and directions to the hospital nearest the site;
- j) Documentation that all site workers have received the appropriate OSHA approved trainings and participate in appropriate medical surveillance per 29 CFR 1910.120; and
- k) Page for employees to sign indicating they have read and will comply with the site health and safety plan.

The safety plan must be distributed to all employees and contractors working in hazardous waste operations on site. **A complete copy of the site health and safety plan along with any standard operating procedures shall be on site and accessible at all times.**

NOTE: These requirements are excerpts from 29 CFR Part 1910.120, Hazardous Waste Operations and Emergency Response; Final Rule, March 6, 1989. Safety plans of certain underground tank sites may need to meet the complete requirements of this Rule.

19. PLOT PLAN

The plan should consist of a scaled view of the facility at which the tank(s) are located and should include the following information:

- a) Scale;
- b) North Arrow;
- c) Property Lines;
- d) Location of all Structures;
- e) Location of all relevant existing equipment including tanks and piping to be removed and dispensers;
- f) Streets;
- g) Underground conduits, sewers, water lines, utilities;
- h) Existing wells (drinking, monitoring, etc.);
- i) Depth to ground water; and
- j) All existing tanks and piping in addition to the ones being pulled.

20. DEPOSIT

A deposit, payable to Alameda County for the amount indicated on the Alameda County Underground Storage Tank Fee Schedule, must accompany the plans.

21. Blank Unauthorized Leak/Contamination Site Report forms may be obtained in limited quantities from our office and from the San Francisco Bay Regional Water Quality Control Board (415/464-1255). Larger quantities may be obtained directly from the State Water Resources Control Board at (916) 739-2421.

22. TANK CLOSURE REPORT

The tank closure report should contain the following information:

- a) General description of the closure activities;
- b) Description of tank, fittings and piping conditions. Indicate tank size and former contents; note any corrosion, pitting, holes, etc.;

- c) Description of the excavation itself. Include the tank and excavation depth, a log of the stratigraphic units encountered within the excavation, a description of root holes or other potential contaminant pathways, the depth to any observed ground water, descriptions and locations of stained or odor-bearing soil, and descriptions of any observed free product or sheen;
- d) Description of sampling methods;
- e) Description of any remedial measures conducted at the time of tank removal;
- f) To-scale figures showing the excavation size and depth, nearby buildings, sample locations and depths, and tank and piping locations. Include a copy of the plot plan prepared for the Tank Closure Plan under item 19;
- g) Chain of custody records;
- h) Copies of signed laboratory reports;
- i) Copies of "TSDf to Generator" Manifests for all hazardous wastes hauled offsite (sludge, rinsate, tanks and piping, contaminated soil, etc.); and
- j) Tabulation of the volume and final destination of all non-manifested contaminated soil hauled offsite.



**TABLE #2**  
**RECOMMENDED MINIMUM VERIFICATION ANALYSES FOR**  
**UNDERGROUND TANK LEAKS**

<u>HYDROCARBON LEAK</u>	<u>SOIL ANALYSIS</u>	<u>WATER ANALYSIS</u>
Unknown Fuel	TPH G GCFID(5030) TPH D GCFID(3550) BTX&E 8020 or 8240 TPH AND BTX&E 8260	TPH G GCFID(5030) TPH D GCFID(3510) BTX&E 602, 624 or 8260
Leaded Gas	TPH G GCFID(5030) BTX&E 8020 OR 8240 TPH AND BTX&E 8260 TOTAL LEAD AA -----Optional----- TEL DHS-LUFT EDB DHS-AB1803	TPH G GCFID(5030) BTX&E 602 or 624 TOTAL LEAD AA TEL DHS-LUFT EDB DHS-AB1803
Unleaded Gas	TPH G GCFID(5030) BTX&E 8020 or 8240 TPH AND BTX&E 8260	TPH G GCFID(5030) BTX&E 602, 624 or 8260
Diesel, Jet Fuel and Kerosene	TPH D GCFID(3550) BTX&E 8020 or 8240 TPH AND BTX&E 8260	TPH D GCFID(3510) BTX&E 602, 624 or 8260
Fuel/Heating Oil	TPH D GCFID(3550) BTX&E 8020 or 8240 TPH AND BTX&E 8260	TPH D GCFID(3510) BTX&E 602, 624 or 8260
Chlorinated Solvents	CL HC 8010 or 8240 BTX&E 8020 or 8240 CL HC AND BTX&E 8260	CL HC 601 or 624 BTX&E 602 or 624 CL HC AND BTX&E 8260
Non-chlorinated Solvents	TPH D GCFID(3550) BTX&E 8020 or 8240 TPH AND BTX&E 8260	TPH D GCFID(3510) BTX&E 602 or 624 TPH and BTX&E 8260
Waste and Used Oil or Unknown (All analyses must be completed and submitted)	TPH G GCFID(5030) TPH D GCFID(3550) TPH AND BTX&E 8260 O & G 5520 D & F BTX&E 8020 or 8240 CL HC 8010 or 8240	TPH G GCFID(5030) TPH D GCFID(3510) O & G 5520 C & F BTX&E 602, 624 or 8260 CL HC 601 or 624
	ICAP or AA TO DETECT METALS: Cd, Cr, Pb, Zn, Ni METHOD 8270 FOR SOIL OR WATER TO DETECT: PCB* PCP* PNA CREOSOTE	PCB PCP PNA CREOSOTE

\* If found, analyze for dibenzofurans (PCBs) or dioxins (PCP)

Reference: Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites, 10 August 1990

## EXPLANATION FOR TABLE #2: MINIMUM VERIFICATION ANALYSIS

1. OTHER METHODOLOGIES are continually being developed and as methods are accepted by EPA or DHS, they also can be used.
2. For DRINKING WATER SOURCES, EPA recommends that the 500 series for volatile organics be used in preference to the 600 series because the detection limits are lower and the QA/QC is better.
3. APPROPRIATE STANDARDS for the materials stored in the tank are to be used for all analyses on Table #2. For instance, seasonally, there may be five different jet fuel mixtures to be considered.
4. To AVOID FALSE POSITIVE detection of benzene, benzene-free solvents are to be used.
5. TOTAL PETROLEUM HYDROCARBONS (TPH) as gasoline (G) and diesel (D) ranges (volatile and extractible, respectively) are to be analyzed and characterized by GCFID with a fused capillary column and prepared by EPA method 5030 (purge and trap) for volatile hydrocarbons, or extracted by sonication using 3550 methodology for extractable hydrocarbons. Fused capillary columns are preferred to packed columns; a packed column may be used as a "first cut" with "dirty" samples or once the hydrocarbons have been characterized and proper QA/QC is followed.
6. TETRAETHYL LEAD (TEL) analysis may be required if total lead is detected unless the determination is made that the total lead concentration is geogenic (naturally occurring).
7. CHLORINATED HYDROCARBONS (CL HC) AND BENZENE, TOLUENE, XYLENE AND ETHYLBENZENE (BTX&E) are analyzed in soil by EPA methods 8010 and 8020 respectively, (or 8240) and in water, 601 and 602, respectively (or 624).
8. OIL AND GREASE (O & G) may be used when heavy, straight chain hydrocarbons may be present. Infrared analysis by method 418.1 may also be acceptable for O & G if proper standards are used. **Standard Methods" 17th Edition, 1989, has changed the 503 series to 5520.**
9. PRACTICAL QUANTITATION REPORTING LIMITS are influenced by matrix problems and laboratory QA/QC procedures. Following are the Practical Quantitation Reporting Limits:

	<u>SOIL PPM</u>	<u>WATER PPB</u>
TPH G	1.0	50.0
TPH D	1.0	50.0
BTX&E	0.005	0.5
O & G	50.0	5,000.0

Based upon a Regional Board survey of Department of Health Services Certified Laboratories, the Practical Quantitation Reporting Limits are attainable by a majority of laboratories with the exception of diesel fuel in soils. The Diesel Practical Quantitation Reporting Limits, shown by the survey, are:

ROUTINE	MODIFIED PROTOCOL
$\leq$ 10 ppm (42%)	$\leq$ 10 ppm (10%)
$\leq$ 5 ppm (19%)	$\leq$ 5 ppm (21%)
$\leq$ 1 ppm (35%)	$\leq$ 1 ppm (60%)

When the Practical Quantitation Reporting Limits are not achievable, an explanation of the problem is to be submitted on the laboratory data sheets.

- LABORATORY DATA SHEETS are to be signed and submitted and include the laboratory's assessment of the condition of the samples on receipt including temperature, suitable container type, air bubbles present/absent in VOA bottles, proper preservation, etc. The sheets are to include the dates sampled, submitted, prepared for analysis, and analyzed.
- IF PEAKS ARE FOUND, when running samples, that do not conform to the standard, laboratories are to report the peaks, including any unknown complex mixtures that elute at times varying from the standards. Recognizing that these mixtures may be contrary to the standard, they may not be readily identified; however, they are to be reported. At the discretion of the LIA or Regional Board the following information is to be contained in the laboratory report:

The relative retention time for the unknown peak(s) relative to the reference peak in the standard, copies of the chromatogram(s), the type of column used, initial temperature, temperature program is C/minute, and the final temperature.

- REPORTING LIMITS FOR TPH are: gasoline standard  $\leq$  20 carbon atoms, diesel and jet fuel (kerosene) standard  $\leq$  50 carbon atoms. It is not necessary to continue the chromatography beyond the limit, standard, or EPA/DHS method protocol (whichever time is greater).

#### EPILOGUE

ADDITIVES: Major oil companies are being encouraged or required by the federal government to reformulate gasoline as cleaner burning fuels to reduce air emissions. MTBE (Methyl-tertiary butyl ether), ETHANOL (ethyl alcohol), and other chemicals may be added to reformulate gasolines to increase the oxygen content in the fuel and thereby decrease undesirable emissions (about four percent with MTBE). MTBE and ethanol are, for practical purposes, soluble in water. The removal

Regional Board Staff Recommendations  
Preliminary Site Investigation

10 August 1990

from the water column will be difficult. Other compounds are being added by the oil companies for various purposes. The refinements for detection and analysis for all of these additives are still being worked out. If you have any questions about the methodology, please call your Regional Board representative.

## SOIL SAMPLING METHODS

Sampling will be conducted in accordance with the following three regulatory documents: (1) Regional Board Staff Recommendations for Initial Evaluation and Investigation of Underground Tanks, Tri-Regional Recommendations (California Regional Water Quality Control Board [CRWQCB] May 1989); (2) Regional Board Staff Recommendations for Initial Evaluation and Investigation of Underground Tanks, Tri-Regional Recommendations, Appendix A: Central Valley Regional Board Reporting Requirements (CRWQCB, April 1989); and (3) Leaking Underground Fuel Tank (LUFT) Field Manual: Guidelines for Site Assessment, Cleanup, and Underground Storage Tank Closure (CRWQCB, October 1989). A letter of acknowledgment and a signed Authorization to Release Analytical Data form is included as an attachment to this letter.

During sampling, the geologist will use a PID to characterize the relative levels of hydrocarbons in the soil and note any subjective evidence of hydrocarbons such as obvious product odor and discoloration. Field instruments such as the PID are useful for indicating relative levels of hydrocarbon vapors, but do not detect the concentration of hydrocarbons present with the same precision as laboratory analyses.

During sampling, the soil will be brought to the ground surface in an excavator bucket, and the outer soil will be scraped away. A clean, 6-inch-long, 2 1/2 inch-diameter, clear brass tube will be driven into the soil using a percussion sampler. The brass tube will be removed and the ends covered with aluminum foil and plastic end caps and taped. The tube will be labeled and immediately placed on ice for transport to the laboratory. Chain of Custody Records will be maintained throughout delivery to the laboratory.

Soil samples will also be collected from the stockpiled soil to evaluate treatment and disposal options. Four soil samples will be collected for every 50 cubic yards of stockpiled soil. Each group of four samples will be composited into one sample by the laboratory. Soil samples will be collected in clean brass tubes from approximately 18 inches below the surface of the stockpiles.

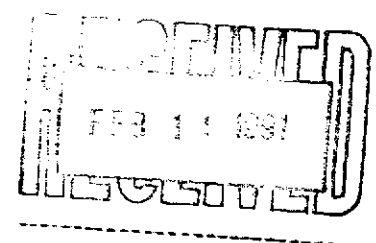
ALAMEDA COUNTY HAZARDOUS MATERIALS DIVISION

Effective January 1, 1991

AL

UNDERGROUND STORAGE TANK FEE SCHEDULE

# OF CONTAINERS	ANNUAL FEE (TO REGISTER)	REMOVAL/INSTALLATION/ MODIFICATION FEE
1	\$144	\$ 432
2	214	642
REMOVE 3	285	855
INSTALL 4	358	1074
5	428	1284
6	493	1479
7	557	1671
8	621	1863
9	685	2055
10	750	2250
11	806	2418
12	864	2592
13	920	2760
14	978	2934
15	1035	3105
16	1091	3273
17	1149	3447
18	1206	3618
19	1263	3789
20	1320	3960
21+	1320 + \$51/additional container	multiply annual fee by three (3)



lp

SITE ENTRY PROCEDURES:

As per section 9.1 of the Safety Plan.

DECONTAMINATION PROCEDURES:

Personal: Wash thoroughly with detergent solution and water.

Equipment: Steam cleaning if needed.

FIRST AID:

As applicable

WORK LIMITATIONS:

(time of day, weather, heat/cold stress): as permitted

INVESTIGATION-DERIVED-MATERIAL DISPOSAL:

Soils and groundwater will be contained on site. Disposal method will be determined upon receipt of analytical results.

TEAM COMPOSITION:

*if H.S. officer*

Field Superintendent: DAVE BYRON will conduct pre-job site safety briefing with all personnel

Field Foreman: \* to be determined will act as the Site Safety Officer

All employees are responsible for the safe and proper completion of the project.

EMERGENCY INFORMATION:

LOCAL RESOURCES:

Ambulance/Hospital : Dial 911  
Police/Sheriff/Highway Patrol Dial 911  
Fire Department Dial 911

SITE RESOURCES:

Water Supply 20 lb. Fire Extinguisher  
Telephone First Aid Kit  
Visqueen Sorbant Pads

EMERGENCY CONTACT:

Name: \_\_\_\_\_  
Telephone: \_\_\_\_\_

EMERGENCY ROUTES:

1. Route to Nearest Fire Department:  
\_\_\_\_\_  
\_\_\_\_\_

2. Route to Nearest Hospital:  
\_\_\_\_\_  
\_\_\_\_\_

UNDERGROUND STORAGE TANK  
INSTALLATION AND REPLACEMENT

9.1 Section

- 9.1.1 Call Underground Service Alert at 1-800-642-2444 to mark all utilities in the sidewalks surrounding service station. Check to see who is covered by service. Some municipalities do not subscribe. Requests must be made 72 hours in advance.
- 9.1.1.1 Call any known non-subscribers to USA to mark their lines, i.e., local sewer and storm drain agencies.
- 9.1.1.2 If available, use site drawings of underground lines to mark line locations before any excavating is done.
- 9.1.1.3 If needed, no parking signs should be posted at this time.
- 9.1.2 Superintendent will conduct a site safety briefing with project foreman prior to the start of work.
- 9.1.3 Use sufficient lighted barricades and flagging. (barricade for each ten feet of distance)
- 9.1.4 Shut off all power to station exterior (pumps, lights, etc.) when starting tank excavation.
- 9.1.5 Post "No Smoking" signs and enforce them.
- 9.1.6 Observe overhead line clearances. A minimum 10 feet clearance must be maintained.
- 9.1.7 Hard hats are to be worn at all times during tank removal and installation.
- 9.1.8 Fire extinguishers are required on site during tank removal operations. (1-20 lb. ABC minimum)
- 9.1.9 Use accepted procedures for freeing tanks of vapors:
- o Tank may not contain more than 1 gallon of product per 1000 gallon of capacity.
  - o Remove all product from tank after all lines have been purged.
  - o Add a minimum of 10 gallons of water to tank and allow to settle 5 minutes then pump out into approved drums.
  - o Insert 20 lbs of dry ice per 1000 gallons of tank capacity using as many tank openings as possible.
  - o Add 5 gallons of water to dry ice in tank.



- o Recheck tank for liquid product.
  - o Begin vapor free/tank ventilation with compressed air venturi device. Device must be grounded to prevent buildup of static electricity.
  - o Use Gastechtor to check vapor levels in tank hole or other excavations to insure vapors have not collected.
  - o Tank LEL must be less than 10% or as instructed by local fire marshal before it may be moved.
  - o Drums of extracted water/product are to remain on site for later disposal. Drums must be labeled as to contents.
  - o Tanks must be removed from site as soon as possible and properly disposed of.
- 9.1.10 Use of electrically powered tools in tank excavation while old UGST are in ground is prohibited.
- 9.1.10.1 A manual four wheel cutter is recommended for cutting lines when necessary.
- 9.1.10.2 Pneumatic tools may be used providing LEL in tank area is confirmed below 20% Gastechtor reading.
- 9.1.11 All persons not required to be working at the excavation should remain outside work area.
- 9.1.11.1 Watch for fellow workers walking around excavation, hopto, loader, and other heavy equipment.
- 9.1.12 No personnel may enter a tank excavation deeper than five feet below grade for any reason unless the excavation is properly shored or terraced.
- 9.1.12.1 Personnel may enter the excavation to walk on the tank top during purging, LEL checks or to attach chains for removal, as per above.
- 9.1.12.2 Use extreme caution when walking on any tank top as they can be very slippery.
- 9.1.13 When working in the street, all personnel must wear red vests and hard hats. Stop/slow paddles must be used by traffic control personnel. Traffic control personnel must be used any time normal street traffic is affected, i.e., loading or unloading tanks.
- 9.1.14 If a vehicle or piece of equipment is protruding into the street, it must be coned and/or barricaded. Two way traffic must be maintained.

- 9.1.15 When tanks are being loaded or unloaded, no personnel are allowed to be under the tanks.
- 9.1.16 No personnel are allowed to work on a tank top while tank is above ground or on a trailer.
  - 9.1.16.1 Ladders must be used or tank may be rolled such that necessary work, i.e., air testing may be performed from ground level.
- 9.1.17 A temporary vent must be installed in each newly installed tank.
- 9.1.18 Tanks will be ballasted with water to avoid tank floating. Gasoline may be used at the direction of the customer only.
- 9.1.19 All driveways and excavated areas must be barricaded and flagged at all times except to allow worker equipment access.
- 9.1.20 Insure all public right of ways (street and sidewalks) are clean and free of job caused hazards.
- 9.1.21 Fence excavation as required by the customer or local ordinance.
- 9.1.22 Nail 2" x 4" lumber between barricades around excavated areas and driveways where fencing is not used.
- 9.1.23 Cover trenches with plywood where needed for walking. Barricade all others, regardless of fencing.
- 9.1.24 Keep area lighted at night when possible.
- 9.1.25 A 24-hour guard will be maintained on site when required, e.g., an excavation over 5 feet deep containing water, excessive vapors are present or there is exposed piping which has been tested.

9.2 Street Work

- 9.2.1 All planned street work will be submitted to the safety officer a minimum of 72 hours prior to commencement of work.
- 9.2.2 The Safety Officer is responsible for formulating a traffic safety plan for the site
- 9.2.3 The Safety Officer or Superintendent will physically check each site for street layout.
- 9.2.3.1 All digging/drilling locations should be marked at this time.
- 9.2.3.2 USA will be notified ASAP after marking.
- 9.2.3.3 If needed, no parking signs should be posted a minimum of 72 hours prior to commencement of work.
- 9.2.4 The traffic safety plan will include as a minimum:
- o map of location with excavation points marked.
  - o lanes to be affected.
  - o traffic control devices needed.
- 9.2.5 A traffic safety plan will be made for each site requiring regular monitoring and/or sampling of street wells. This plan will become a part of the work order.
- 9.2.6 Two persons are required for all street work requiring a traffic lane closure. Two men recommended for all other street work.
- 9.2.7 A red safety vest with reflective stripes will be worn by all personnel working in the street or by those crossing a street on regular basis to work. Hard hats are recommended while working in the street to provide additional protection and visibility to motorists.
- 9.2.8 The State of California Department of Transportation (CALTRANS) guidelines will be used as the traffic control guide unless specifically supplemented by local requirements.
- 9.2.9 No work in the street will commence until the affected lanes have been closed off and all traffic control devices are in place.
- 9.2.10 Vehicles should be parked so as to provide maximum protection for personnel. At least one vehicle must be equipped with a warning light other than hazard flashers.
- 9.2.11 All excavations in the street including parking areas will be covered by trench plates when practical.

- 9.2.12 Any cones or delineators left overnight in or near the street must have reflective sleeves.
  - 9.2.12.1 Unattended 28" cones are not to be used to block a lane of traffic at night.
- 9.2.13 Barricades left overnight must be lighted. Use of unattended barricades in the street is not recommended.

## INSTRUCTIONS

### General Instructions

- \* Three (3) copies of this plan plus attachments and deposit must be submitted to this Department.
- \* Any cutting into tanks requires local fire department approval.
- \* One complete copy of your approved plan must be at the construction site at all times; a copy of your approved plan must also be sent to the landowner.
- \* State of California Permit Application Forms A and B are to be submitted to this office. One Form A per site, one Form B for each removed tank.

### Item Specific Instructions

2. SITE ADDRESS  
Address at which closure is taking place.
5. EPA I.D. NO. under which the tanks will be manifested  
EPA I.D. numbers may be obtained from the State Department of Health Services, 916/324-1781.
6. CONTRACTOR  
Prime contractor for the project.
10. STATE REGISTERED HAZARDOUS WASTE TRANSPORTERS/FACILITIES
  - a) All residual liquids and sludges are to be removed from tanks before tanks are inerted.
  - c) Tanks must be hauled as hazardous waste.
  - d) This is the place where tanks will be taken for cleaning.
15. TANK HISTORY AND SAMPLING INFORMATION

Use History - This information is essential and must be accurate. Include tank installation date, products stored in the tank, and the date when the tank was last used.

Material to be sampled - e.g. water, oil, sludge, soil, etc.

Location and depth of samples - e.g. beneath the tank a maximum of two feet below the native soil/backfill interface, side wall at the high water mark, etc.

Project Specialist (print) BARNEY CHAN

*Conditions approval pending receipt of below:*

*PLs provide:*

*Copy of H<sub>2</sub> Waste Certificate for Golden West*

*Provide Statement that all workers will have received OSHA approved H<sub>2</sub>S training*

*per 29 CFR 1910.120*

*Identify nearest hospital & provide a map showing route from site*

*Provide waste map depicting current location of piping, dispensers & tank*  
*OK Blue 12/11/92*

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY  
DEPARTMENT OF ENVIRONMENTAL HEALTH  
HAZARDOUS MATERIALS DIVISION  
80 SWAN WAY, ROOM 200  
OAKLAND, CA 94621  
PHONE NO. 415/271-4320

**UNDERGROUND TANK CLOSURE PLAN**

**\*\*\* Complete according to attached instructions \*\*\***

- Business Name ARCO AM/PM MINI MARKET FACILITY # 4494  
Business Owner ATLANTIC RICHFIELD COMPANY
  - Site Address 566 HEGENBERGER ROAD  
City OAKLAND zip 94605 Phone (415) 569-7561
  - Mailing Address 2000 ALAMEDA DE LAS PULGAS  
City SAN MATEO, CA zip 94403 Phone (415) 571-2482
  - Land Owner ATLANTIC RICHFIELD COMPANY  
Address P.O. Box 5811 City, State SAN MATEO, CA zip 94402
  - Generator name under which tank will be manifested \_\_\_\_\_  
ATLANTIC RICHFIELD COMPANY
- EPA I.D. No. under which tank will be manifested CAL 000 009 868

415/271-4320

**BARGHAUSEN  
CONSULTING  
ENGINEERS, INC.**

*"LAND PLANNING,  
SURVEY, AND DESIGN  
SPECIALISTS"*

**CHRIS LAWTON**  
Project Manager

18215 72nd Avenue South  
Kent, Washington 98032  
(206) 251-6222  
Fax No: (206) 251-8782

4612 Roseville Rd., Suite #103  
North Highlands, CA 95660  
(916) 348-3057  
Fax No: (916) 348-0953

6. Contractor GOLDEN WEST  
Address 507 EXCHANGE COURT  
City LIVERMORE CA 94550 Phone (510) 447-2484  
License Type\* A Provide copy of ID# 90-285-1128  
Haz Waste Certification

\*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 BARHAUSEN CONSULTING ENGINEERS  
Address 4012 ROSEVILLE RD. SUITE 103  
City NORTH HIGHLANDS, CA 95660 Phone 916-348-3057

8. Contact Person for Investigation  
Name CHRIS LAWTON Title PROJECT MANAGER  
Phone (916) 348-3057

9. Number of tanks being closed under this plan 3  
Length of piping being removed under this plan 900±  
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 H & H SHIP SERVICE EPA I.D. No. CAD-004771168  
Hauler License No. 0334 License Exp. Date 1-31-93  
Address 220 CHINA BASIN STREET  
City SAN FRANCISCO State CA Zip 94107

b) Product/Residual Sludge/Rinsate Disposal Site  
Name (SAME AS ABOVE) EPA I.D. No. \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_



14. Describe methods to be used for rendering tank inert

DRY ICE

10-20 # / 1000 gal capacity

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)		
UNLEADED 10,000 Gal.	Installed May 1986	WATER	* SEE ATTACHED SOIL SAMPLING METHODS
REGULAR 10,000 Gal.	" " "	OIL	
SUPER UNL. 10,000 Gal.	" " "	SLUDGE SOIL	

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)	Sampling Plan <i>Either 4 discrete to be composited in lab per every 50 cubic yds for disposal or 1 discrete per every 20 cubic yds for reuse</i>

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
<i>For unleaded and duplex</i>	<i>TPHg</i>	<i>5030 GC/FID 8015</i>	<i>1ppm soil 50ppb H<sub>2</sub>O</i>
	<i>BTEX</i>	<i>5030 8020/8240</i>	<i>5ppb soil 0.5ppb H<sub>2</sub>O</i>
<i>For Reg</i>	<i>TPHg</i>	<i>5030 GC/FID 8015</i>	
	<i>BTEX</i>	<i>5030 8020 or 8240</i>	
	<i>Lead - Total or TEL</i>	<i>AA or ICP</i>	

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

18. Submit Worker's Compensation Certificate copy

Name of Insurer STATE FUND

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) WALTER E. ORR

Signature Walter E Orr

Date 12/7/92

Signature of Site Owner or Operator

Name (please type) THOMAS WRAY

Signature Thomas Wray

Date 12/4/92

SITE, HEALTH, AND SAFETY PLAN

GENERAL INFORMATION

SITE: Company: ATLANTIC RICHFIELD COMPANY FAC.# 4494  
Location: 566 HEGENBERGER ROAD  
City: OAKLAND, CA 94605

PLAN PREPARED BY: Barghausen Consulting Engineers DATE: 8/15/91

OBJECTIVES: To provide a Site, Health, and Safety Plan for the safe completion of the site work.

PROPOSED DATE OF SITE WORK: Upon receipt of permits to perform the work.

DOCUMENTATION/SUMMARY: Hazardous material may be present, caution is advised.

SITE WASTE CHARACTERISTICS

WASTE TYPES(S): Liquid Solid  
CHARACTERISTIC(S): Volatile Flammable Toxic  
FACILITY DESCRIPTION: Gasoline service station with underground utilities.  
STATUS: Active

HAZARD EVALUATION

PARAMETER: TLV 300 ppm HEALTH: ingestion, inhalation, absorption  
LEL 10% Gastechtor max.

SPECIAL PRECAUTIONS AND COMMENTS: No special precautions are expected to be needed. Confined space entry is not anticipated.

SITE SAFETY WORKPLAN: Work to be performed in accordance with sections 9.1 and 9.6 of the Barghausen Consulting Engineers Site Health and Safety Plan and per plan specifications.

PERIMETER ESTABLISHED: Lot to be fenced on all four sides.

PERSONNEL PROTECTION: Level of Protection EPA Level D  
Modifications: None

Surveillance Equipment & Materials:  
Gastechtor or equivalent on site during tank removal.

SITE, HEALTH, AND SAFETY PLAN

GENERAL INFORMATION

SITE: Company: ATLANTIC RICHFIELD COMPANY FAC.# 4494  
Location: 566 HEGENBERGER ROAD  
City: OAKLAND, CA 94605

PLAN PREPARED BY: Barghausen Consulting Engineers DATE: 12/3/92

OBJECTIVES: To provide a Site, Health, and Safety Plan for the safe completion of the site work.

PROPOSED DATE OF SITE WORK: Upon receipt of permits to perform the work.

DOCUMENTATION/SUMMARY: Hazardous material may be present, caution is advised.

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PERIMETER ESTABLISHED: Lot to be fenced on all four sides.

PERSONNEL PROTECTION: Level of Protection EPA Level D

Modifications: None

Surveillance Equipment & Materials: Gastechtor or equivalent on site during tank removal.

SITE ENTRY PROCEDURES:

As per section 9.1 of the Safety Plan.

DECONTAMINATION PROCEDURES:

Personal: Wash thoroughly with detergent solution and water

Equipment: Steam cleaning if needed.

FIRST AID:

As applicable

WORK LIMITATIONS:

(time of day, weather, heat/cold stress):  
as permitted

INVESTIGATION-DERIVED-MATERIAL DISPOSAL:

Soils and groundwater will be contained on site. Disposal method will be determined upon receipt of analytical results.

TEAM COMPOSITION:

Field Superintendent: JOEL KUFFMAN  
will conduct pre-job site safety briefing with all personnel

Field Foreman: \* to be determined  
will act as the Site Safety Officer

All employees are responsible for the safe and proper completion of the project.

EMERGENCY INFORMATION:

LOCAL RESOURCES:

Ambulance/Hospital Dial 911  
Police/Sheriff/Highway Patrol Dial 911  
Fire Department Dial 911

SITE RESOURCES:

Water Supply 20 lb. Fire Extinguisher  
Telephone First Aid Kit  
Visqueen Sorbant Pads

EMERGENCY CONTACT:

Name: \_\_\_\_\_  
Telephone: \_\_\_\_\_

EMERGENCY ROUTES:

1. Route to Nearest Fire Department:  
\_\_\_\_\_  
\_\_\_\_\_

2. Route to Nearest Hospital:  
\_\_\_\_\_  
\_\_\_\_\_

UNDERGROUND STORAGE TANK  
INSTALLATION AND REPLACEMENT

9.1 Section

- 9.1.1 Call Underground Service Alert at 1-800-642-2444 to mark all utilities in the sidewalks surrounding service station. Check to see who is covered by service. Some municipalities do not subscribe. Requests must be made 72 hours in advance.
- 9.1.1.1 Call any known non-subscribers to USA to mark their lines, i.e., local sewer and storm drain agencies.
- 9.1.1.2 If available, use site drawings of underground lines to mark line locations before any excavating is done.
- 9.1.1.3 If needed, no parking signs should be posted at this time.
- 9.1.2 Superintendent will conduct a site safety briefing with project foreman prior to the start of work.
- 9.1.3 Use sufficient lighted barricades and flagging. (barricade for each ten feet of distance)
- 9.1.4 Shut off all power to station exterior (pumps, lights, etc.) when starting tank excavation.
- 9.1.5 Post "No Smoking" signs and enforce them.
- 9.1.6 Observe overhead line clearances. A minimum 10 feet clearance must be maintained.
- 9.1.7 Hard hats are to be worn at all times during tank removal and installation.
- 9.1.8 Fire extinguishers are required on site during tank removal operations. (1-20 lb. ABC minimum)
- 9.1.9 Use accepted procedures for freeing tanks of vapors:
- o Tank may not contain more than 1 gallon of product per 1000 gallon of capacity.
  - o Remove all product from tank after all lines have been purged.
  - o Add a minimum of 10 gallons of water to tank and allow to settle 5 minutes then pump out into approved drums.
  - o Insert 20 lbs of dry ice per 1000 gallons of tank capacity using as many tank openings as possible.
  - o Add 5 gallons of water to dry ice in tank.

- o Recheck tank for liquid product.
  - o Begin vapor free/tank ventilation with compressed air venturi device. Device must be grounded to prevent buildup of static electricity.
  - o Use Gastechtor to check vapor levels in tank hole or other excavations to insure vapors have not collected.
  - o Tank LEL must be less than 10% or as instructed by local fire marshal before it may be moved.
  - o Drums of extracted water/product are to remain on site for later disposal. Drums must be labeled as to contents.
  - o Tanks must be removed from site as soon as possible and properly disposed of.
- 9.1.10 Use of electrically powered tools in tank excavation while old UGST are in ground is prohibited.
- 9.1.10.1 A manual four wheel cutter is recommended for cutting lines when necessary.
  - 9.1.10.2 Pneumatic tools may be used providing LEL in tank area is confirmed below 20% Gastechtor reading.
- 9.1.11 All persons not required to be working at the excavation should remain outside work area.
- 9.1.11.1 Watch for fellow workers walking around excavation, hopto, loader, and other heavy equipment.
- 9.1.12 No personnel may enter a tank excavation deeper than five feet below grade for any reason unless the excavation is properly shored or terraced.
- 9.1.12.1 Personnel may enter the excavation to walk on the tank top during purging, LEL checks or to attach chains for removal, as per above.
  - 9.1.12.2 Use extreme caution when walking on any tank top as they can be very slippery.
- 9.1.13 When working in the street, all personnel must wear red vests and hard hats. Stop/slow paddles must be used by traffic control personnel. Traffic control personnel must be used any time normal street traffic is affected, i.e., loading or unloading tanks.
- 9.1.14 If a vehicle or piece of equipment is protruding into the street, it must be coned and/or barricaded. Two way traffic must be maintained.



- 9.1.15 When tanks are being loaded or unloaded, no personnel are allowed to be under the tanks.
- 9.1.16 No personnel are allowed to work on a tank top while tank is above ground or on a trailer.
- 9.1.16.1 Ladders must be used or tank may be rolled such that necessary work, i.e., air testing may be performed from ground level.
- 9.1.17 A temporary vent must be installed in each newly installed tank.
- 9.1.18 Tanks will be ballasted with water to avoid tank floating. Gasoline may be used at the direction of the customer only.
- 9.1.19 All driveways and excavated areas must be barricaded and flagged at all times except to allow worker equipment access.
- 9.1.20 Insure all public right of ways (street and sidewalks) are clean and free of job caused hazards.
- 9.1.21 Fence excavation as required by the customer or local ordinance.
- 9.1.22 Nail 2" x 4" lumber between barricades around excavated areas and driveways where fencing is not used.
- 9.1.23 Cover trenches with plywood where needed for walking. Barricade all others, regardless of fencing.
- 9.1.24 Keep area lighted at night when possible.
- 9.1.25 A 24-hour guard will be maintained on site when required, e.g., an excavation over 5 feet deep containing water, excessive vapors are present or there is exposed piping which has been tested.

9.2 Street Work

- 9.2.1 All planned street work will be submitted to the safety officer a minimum of 72 hours prior to commencement of work.
- 9.2.2 The Safety Officer is responsible for formulating a traffic safety plan for the site
- 9.2.3 The Safety Officer or Superintendent will physically check each site for street layout.
- 9.2.3.1 All digging/drilling locations should be marked at this time.
- 9.2.3.2 USA will be notified ASAP after marking.
- 9.2.3.3 If needed, no parking signs should be posted a minimum of 72 hours prior to commencement of work.
- 9.2.4 The traffic safety plan will include as a minimum:
- o map of location with excavation points marked.
  - o lanes to be affected.
  - o traffic control devices needed.
- 9.2.5 A traffic safety plan will be made for each site requiring regular monitoring and/or sampling of street wells. This plan will become a part of the work order.
- 9.2.6 Two persons are required for all street work requiring a traffic lane closure. Two men recommended for all other street work.
- 9.2.7 A red safety vest with reflective stripes will be worn by all personnel working in the street or by those crossing a street on regular basis to work. Hard hats are recommended while working in the street to provide additional protection and visibility to motorists.
- 9.2.8 The State of California Department of Transportation (CALTRANS) guidelines will be used as the traffic control guide unless specifically supplemented by local requirements.
- 9.2.9 No work in the street will commence until the affected lanes have been closed off and all traffic control devices are in place.
- 9.2.10 Vehicles should be parked so as to provide maximum protection for personnel. At least one vehicle must be equipped with a warning light other than hazard flashers.
- 9.2.11 All excavations in the street including parking areas will be covered by trench plates when practical.

- 9.2.12 Any cones or delineators left overnight in or near the street must have reflective sleeves.
  - 9.2.12.1 Unattended 28" cones are not to be used to block a lane of traffic at night.
- 9.2.13 Barricades left overnight must be lighted. Use of unattended barricades in the street is not recommended.

16. CHEMICAL METHODS AND ASSOCIATED DETECTION LIMITS  
See attached Table 2.

17. SITE HEALTH AND SAFETY PLAN

A site specific Health and Safety plan must be submitted. We advocate the site health and safety plan include the following items, at a minimum:

- a) The name and responsibilities of the site health and safety officer;
- b) An outline of briefings to be held before work each day to appraise employees of site health and safety hazards;
- c) Identification of health and safety hazards of each work task. Include potential fire, explosion, physical, and chemical hazards;
- d) For each hazard, identify the action levels (contaminant concentrations in air) or physical conditions which will trigger changes in work habits to ensure workers are not exposed to unsafe chemical levels or physical conditions;
- e) Description of the work habit changes triggered by the above action levels or physical conditions;
- f) Frequency and types of air and personnel monitoring - along with the environmental sampling techniques and instrumentation - to be used to detect the above action levels. Include instrumentation maintenance and calibration methods and frequencies;
- g) Confined space entry procedures (if applicable);
- h) Decontamination procedures;
- i) Measures to be taken to secure the site, excavation and stockpiled soil during and after work hours (e.g. barricades, caution tape, fencing, trench plates, plastic sheeting, security guards, etc.);
- j) Spill containment/emergency/contingency plan. Be sure to include emergency phone numbers, the location of the phone nearest the site, and directions to the hospital nearest the site;
- k) Documentation that all site workers have received the appropriate OSHA approved trainings and participate in appropriate medical surveillance per 29 CFR 1910.120; and
- l) Page for employees to sign indicating they have read and will comply with the site health and safety plan.

The safety plan must be distributed to all employees and contractors working in hazardous waste operations on site. A complete copy of the site health and safety plan along with any standard operating procedures shall be on site and accessible at all times.

NOTE: These requirements are excerpts from 29 CFR Part 1910.120(b)(4), Hazardous Waste Operations and Emergency Response; Final Rule, March 6, 1989. Safety plans of certain underground tank sites may need to meet the complete requirements of this Rule.

19. PLOT PLAN

The plan should consist of a scaled view of the facility at which the tank(s) are located and should include the following information:

- a) Scale;
- b) North Arrow;
- c) Property Lines;
- d) Location of all Structures;
- e) Location of all relevant existing equipment including tanks and piping to be removed and dispensers;
- f) Streets;
- g) Underground conduits, sewers, water lines, utilities;
- h) Existing wells (drinking, monitoring, etc.);
- i) Depth to ground water; and
- j) All existing tanks and piping in addition to the ones being pulled.

20. DEPOSIT

A deposit, payable to Alameda County for the amount indicated on the Alameda County Underground Storage Tank Fee Schedule, must accompany the plans.

21. Blank Unauthorized Leak/Contamination Site Report forms may be obtained in limited quantities from our office and from the San Francisco Bay Regional Water Quality Control Board (415/464-1255). Larger quantities may be obtained directly from the State Water Resources Control Board at (916) 739-2421.

22. TANK CLOSURE REPORT

The tank closure report should contain the following information:

- a) General description of the closure activities;
- b) Description of tank, fittings and piping conditions. Indicate tank size and former contents; note any corrosion, pitting, holes, etc.;

- c) Description of the excavation itself. Include the tank and excavation depth, a log of the stratigraphic units encountered within the excavation, a description of root holes or other potential contaminant pathways, the depth to any observed ground water, descriptions and locations of stained or odor-bearing soil, and descriptions of any observed free product or sheen;
- d) Description of sampling methods;
- e) Description of any remedial measures conducted at the time of tank removal;
- f) To-scale figures showing the excavation size and depth, nearby buildings, sample locations and depths, and tank and piping locations. Include a copy of the plot plan prepared for the Tank Closure Plan under item 19;
- g) Chain of custody records;
- h) Copies of signed laboratory reports;
- i) Copies of "TSDF to Generator" Manifests for all hazardous wastes hauled offsite (sludge, rinsate, tanks and piping, contaminated soil, etc.); and
- j) Tabulation of the volume and final destination of all non-manifested contaminated soil hauled offsite.

**TABLE #2**  
**RECOMMENDED MINIMUM VERIFICATION ANALYSES FOR**  
**UNDERGROUND TANK LEAKS**

<u>HYDROCARBON LEAK</u>	<u>SOIL ANALYSIS</u>		<u>WATER ANALYSIS</u>	
Unknown Fuel	TPH G	GCFID(5030)	TPH G	GCFID(5030)
	TPH D	GCFID(3550)	TPH D	GCFID(3510)
	BTX&E	8020 or 8240	BTX&E	602, 624 or 8260
	TPH AND BTX&E	8260		
Leaded Gas	TPH G	GCFID(5030)	TPH G	GCFID(5030)
	BTX&E	8020 OR 8240	BTX&E	602 or 624
	TPH AND BTX&E	8260	TOTAL LEAD AA	
	TOTAL LEAD AA			
	-----Optional-----			
	TEL	DHS-LUFT	TEL	DHS-LUFT
	EDB	DHS-AB1803	EDB	DHS-AB1803
Unleaded Gas	TPH G	GCFID(5030)	TPH G	GCFID(5030)
	BTX&E	8020 or 8240	BTX&E	602, 624 or 8260
	TPH AND BTX&E	8260		
Diesel, Jet Fuel and Kerosene	TPH D	GCFID(3550)	TPH D	GCFID(3510)
	BTX&E	8020 or 8240	BTX&E	602, 624 or 8260
	TPH AND BTX&E	8260		
Fuel/Heating Oil	TPH D	GCFID(3550)	TPH D	GCFID(3510)
	BTX&E	8020 or 8240	BTX&E	602, 624 or 8260
	TPH AND BTX&E	8260		
Chlorinated Solvents	CL HC	8010 or 8240	CL HC	601 or 624
	BTX&E	8020 or 8240	BTX&E	602 or 624
	CL HC AND BTX&E	8260	CL HC AND BTX&E	8260
Non-chlorinated Solvents	TPH D	GCFID(3550)	TPH D	GCFID(3510)
	BTX&E	8020 or 8240	BTX&E	602 or 624
	TPH AND BTX&E	8260	TPH and BTX&E	8260
Waste and Used Oil or Unknown (All analyses must be completed and submitted)	TPH G	GCFID(5030)	TPH G	GCFID(5030)
	TPH D	GCFID(3550)	TPH D	GCFID(3510)
	TPH AND BTX&E	8260		
	O & G	5520 D & F	O & G	5520 C & F
	BTX&E	8020 or 8240	BTX&E	602, 624 or 8260
	CL HC	8010 or 8240	CL HC	601 or 624

ICAP or AA TO DETECT METALS: Cd, Cr, Pb, Zn, Ni  
METHOD 8270 FOR SOIL OR WATER TO DETECT:

PCB*	PCB
PCP*	PCP
PNA	PNA
CREOSOTE	CREOSOTE

\* If found, analyze for dibenzofurans (PCBs) or dioxins (PCP)

Reference: Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites, 10 August 1990

**EXPLANATION FOR TABLE #2: MINIMUM VERIFICATION ANALYSIS**

1. OTHER METHODOLOGIES are continually being developed and as methods are accepted by EPA or DHS, they also can be used.
2. For DRINKING WATER SOURCES, EPA recommends that the 500 series for volatile organics be used in preference to the 600 series because the detection limits are lower and the QA/QC is better.
3. APPROPRIATE STANDARDS for the materials stored in the tank are to be used for all analyses on Table #2. For instance, seasonally, there may be five different jet fuel mixtures to be considered...
4. To AVOID FALSE POSITIVE detection of benzene, benzene-free solvents are to be used.
5. TOTAL PETROLEUM HYDROCARBONS (TPH) as gasoline (G) and diesel (D) ranges (volatile and extractable, respectively) are to be analyzed and characterized by GCFID with a fused capillary column and prepared by EPA method 5030 (purge and trap) for volatile hydrocarbons, or extracted by sonication using 3550 methodology for extractable hydrocarbons. Fused capillary columns are preferred to packed columns; a packed column may be used as a "first cut" with "dirty" samples or once the hydrocarbons have been characterized and proper QA/QC is followed.
6. TETRAETHYL LEAD (TEL) analysis may be required if total lead is detected unless the determination is made that the total lead concentration is geogenic (naturally occurring).
7. CHLORINATED HYDROCARBONS (CL HC) AND BENZENE, TOLUENE, XYLENE AND ETHYLBENZENE (BTX&E) are analyzed in soil by EPA methods 8010 and 8020 respectively, (or 8240) and in water, 601 and 602, respectively (or 624).
8. OIL AND GREASE (O & G) may be used when heavy, straight chain hydrocarbons may be present. Infrared analysis by method 418.1 may also be acceptable for O & G if proper standards are used. Standard Methods" 17th Edition, 1989, has changed the 503 series to 5520.
9. PRACTICAL QUANTITATION REPORTING LIMITS are influenced by matrix problems and laboratory QA/QC procedures. Following are the Practical Quantitation Reporting Limits:

	<u>SOIL PPM</u>	<u>WATER PPB</u>
TPH G	1.0	50.0
TPH D	1.0	50.0
BTX&E	0.005	0.5
O & G	50.0	5,000.0



## SOIL SAMPLING METHODS

Sampling will be conducted in accordance with the following three regulatory documents: (1) Regional Board Staff Recommendations for Initial Evaluation and Investigation of Underground Tanks, Tri-Regional Recommendations (California Regional Water Quality Control Board [CRWQCB] May 1989); (2) Regional Board Staff Recommendations for Initial Evaluation and Investigation of Underground Tanks, Tri-Regional Recommendations, Appendix A: Central Valley Regional Board Reporting Requirements (CRWQCB, April 1989); and (3) Leaking Underground Fuel Tank (LUFT) Field Manual: Guidelines for Site Assessment, Cleanup, and Underground Storage Tank Closure (CRWQCB, October 1989). A letter of acknowledgment and a signed Authorization to Release Analytical Data form is included as an attachment to this letter.

During sampling, the geologist will use a PID to characterize the relative levels of hydrocarbons in the soil and note any subjective evidence of hydrocarbons such as obvious product odor and discoloration. Field instruments such as the PID are useful for indicating relative levels of hydrocarbon vapors, but do not detect the concentration of hydrocarbons present with the same precision as laboratory analyses.

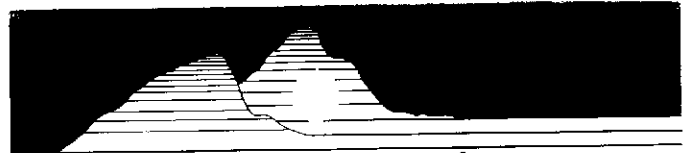
During sampling, the soil will be brought to the ground surface in an excavator bucket, and the outer soil will be scraped away. A clean, 6-inch-long, 2 1/2 inch-diameter, clear brass tube will be driven into the soil using a percussion sampler. The brass tube will be removed and the ends covered with aluminum foil and plastic end caps and taped. The tube will be labeled and immediately placed on ice for transport to the laboratory. Chain of Custody Records will be maintained throughout delivery to the laboratory.

Soil samples will also be collected from the stockpiled soil to evaluate treatment and disposal options. Four soil samples will be collected for every 50 cubic yards of stockpiled soil. Each group of four samples will be composited into one sample by the laboratory. Soil samples will be collected in clean brass tubes from approximately 18 inches below the surface of the stockpiles.



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