

Schultz, Robert, Env. Health

To: Scott Robinson (E-mail)
Cc: Paul Supple (E-mail)
Subject: ro-76 sampling frequency change

Scott:

Your request to reduce sampling of well A-12 to annual and to discontinue sampling of well A-13 at 731 West MacArthur is approved.

Sincerely,
Bob

Robert W. Schultz, R.G.
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502
510-567-6719 (direct)
510-337-9335 (facsimile)

ARCO Products Company

Post Office Box 612530
San Jose, California 95161

Environmental Remediation



June 14, 1996

Projects: 330-084.5C/330-105.5B
330-106.5C/330-109.5B

Ms. Sue Jenne
East Bay Municipal Utilities District
P.O. Box 24055
Oakland, California 94623-1055

Re: Request to Relinquish Wastewater Discharge Permits
Miscellaneous sites

Dear Ms. Jenne:

ARCO Products Company wishes to relinquish the wastewater discharge permits for the following sites, effective immediately. Please do not hesitate to call if you have any questions.

- | | |
|--|---|
| <p>2078</p> <p>1. Discharge Permit 502-85611
ARCO Service Station 0374
6407 Telegraph Avenue
Oakland, California</p> | <p>2. Discharge Permit 502-64411
ARCO Service Station 2107
3310 Park Boulevard at East 34th Street
Oakland, California</p> |
| <p>2014</p> <p>3. Discharge Permit 502-65201
ARCO Service Station 2112
1260 Park Street
Alameda, California</p> | <p>2076</p> <p>4. Discharge Permit 502-62131
ARCO Service Station 4931
731 West MacArthur Boulevard
Oakland, California</p> |

Sincerely,
ARCO Products Company

Michael Whelan
Environmental Engineer

cc: Mr. Barney Chan, Alameda County Health Care Services Agency
Mr. Kevin Graves, Regional Water Quality Control Board - S.F. Bay Region
Ms. Susan Hugo, Alameda County Health Care Services Agency
Mr. Shaw Garakani, Pacific Environmental Group, Inc.

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

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: 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
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	Eva Chu	Station 6041	7249 Village Parkway Dublin 94568
779	Amy Leech	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
4275	Scott Seery	Station 601	712 Lewelling Blvd. San Leandro 94579

ALAMEDA COUNTY HAZARDOUS MATERIALS DEPARTMENT
 DEPOSIT / REFUND ACCOUNT SHEET

printed 05/01/95

SITE INFORMATION

Arco Station
 731 W. Mac Arthur Blvd
 Oakland 94609
 Site Contact:
 Site Phone :

StID: 3874 Site#: 5024
 PROJECT#: 5024A
 PROJECT TYPE: I
 INSP: Brian Oliva
 ACCT. SHEET PG #:

PROPERTY OWNER INFORMATION

Atlantic Richfield Co.
 2000 Alameda De Las Pulgas
 San Mateo, Ca 94403
 Owner Contact:
 Owner Phone : 658-5000

PAYOR INFORMATION

Gettler - Ryan Inc
 2150 W Winton Ave
 Hayward CA 94545 # 46
 Payor Contact: John P. Werfal
 Payor Phone : 510/783-7500

Date	Action Taken	Time In	Time Out	Hours Spent/ Depstd	Hour Balnce	Money Spent/ Deposited	Money Balance
	Balance from Prev. Page						
	Rcpt# 592425						
05/01/91	Deposit of \$1,074.00 @ \$90/hour			+11.93			
5-1-91	Admin	1.0	@ 67				
8-14-91	Review reports	1.5	@ 67				
8-23-91	Review install/batn plans	1.0	@ 67				
9-13-91	review closure & install	1.0	@ 67				
12-13-91	over-ex. verification samples	2.0	@ 67				
1-15-92	Disuss w/ Eddy Sr	0.5	@ 67				
1-17-92	meeting w/ Eddy Sr, Kyle Chiodre etc.	2.0	@ 67				
4-9-92	Case review for transfer	2.0	@ 71				
4-21-92	on site investigation	1.0	@ 71				
	Zero the balance, close the case						

UPON COMPLETION OF PROJECT

PROJ COMPLETED BY : Thomas Deaugh ATTACH: State Forms A, B & C
 Billing Adjustment*
 DATE OF COMPLETION : 5-1-95 DATE SENT TO BILLING: _____
 TOTAL COST OF PROJECT: _____ REFUND AMOUNT: _____

InspDat	In	Insp	Act	Comment
10/17/91	SH	1.	45	731 W. MacArthur Blvd., Oakland 94609 ARCO site review installation & closure plans.
09/12/91	SH	1.	45	731 W. MacArthur Blvd. Oakland 94609 ARCO review closure & installation plans.
09/13/91	SH	1.	45	731 W. MacArthur Blvd. Oakland 94609 ARCO review closure & installation plans.
09/16/91	SH	1.5	34	731 W. MacArthur Blvd. Oakland 94609 ARCO
09/17/91	SH	0.75	34	731 W. MacArthur Blvd. Oakland 94609 ARCO
08/14/91	SH	1.5	75	731 W. MacArthur Blvd. Oakland 94609 ARCO
08/23/91	SH	1.	45	731 W. MacArthur Blvd. Oakland 94609 ARCO
08/02/91	BC	5.	60	ER at 7315 Jonson Dr. Pleasanton
08/05/91	BC	2.	64	write up ER at 7315 Johnson Dr.
11/20/91	SH	4.	42	731 W. MacArthur Blvd. Oakland 94609 - ARCO
11/21/91	SH	2.5	75	731 W. MacArthur Blvd. Oakland 94609 - ARCO review reports, quarterly monitoring reports, sampling reports.
11/22/91	SH	1.5	40	731 W. MacArthur Blvd. Oakland ARCO - sampling.
12/02/91	SH	2.	40	731 W. MacArthur Blvd. Oakland 94609 ARCO pipng
InspDat	In	Insp	Act	Comment
12/13/91	SH	2.	40	731 W. MacArthur Blvd. Oakland 94609 ARCO over samples collected. excavation verification samples colleted
12/20/91	SH	1.5	40	731 W. MacArthur Blvd. Oakland 94609 ARCO sampling
12/20/91	SH	1.5	75	731 W. MacArthur Blvd. Oakland 94609 ARCO
InspDat	In	Insp	Act	Comment
01/22/91	SH	1.	31	731 W. MacArthur Blvd. 94609
InspDat	In	Insp	Act	Comment
01/06/92	BC	4.	60	emergency response, 17731 Buti Park Ct, CV
01/15/92	SH	0.5	77	731 W. MacArthur Blvd. Oakland 94609 ARCO Discussion with Eddy So & Mark T.
01/16/92	SH	2.25	77	731 W. MacArthur Blvd. Oakland 94609 ARCO meeting with Eddy So (RWQCB) updates on site.
01/17/92	SH	1.75	77	731 W. MacArthur Blvd. Oakland 94609 ARCO meeting with Eddy So (RWQCB), ARCO (Kyle Christie, Charles Carmel) & consultants
01/31/92	SH	1.5	73	731 W. MacArthur Blvd. 94609 ARCO - Over- excavation/sampling for verification
02/11/92	SH	0.75	75	731 W. MacArthur Blvd. Oakland 94609-reviewsoil analysis report.
02/13/92	SH	1.75	73	731 W. MacArthur Blvd. Oakland 94609 ARCO overexcavation/sampling
04/08/92	JE	2.	704	tank installation at 731 W. MacArthur Blvd. with Barney
04/21/92	BO	1.	32	complaint investigation at 731 W MacArthur, ARCO station
05/15/92	BO	2.	41	Arco@ 731 MacArthur Oakland 2ndary tests
05/18/92	BO	2.5	77	Del Monte, 731 Park, Emeryville
InspDat	In	Insp	Act	Comment
04/14/92	MT	2.5	710	PREPARE COMPLAINT-ARCO 731 W MACARTHUR OAKLAND
InspDat	In	Insp	Act	Comment
09/17/92	DR	0.5	19	John Gallagher 490-1731
10/30/92	BU	1.75	10	M. H. N. Auto Body, 1731 - 47th Ave, Oakland CA 94601

8,75

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 Health 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 Zur Linden 9616 micro Ave Sacramento, CA 95813-3449 (916) 444-0123 --- Fax (916) 856-5277	NW	Mat 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	

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	

914155712410 P. 06 TO ENVIRON ENGINEERING FROM 13:20 SEP-06-1994

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



RAFAT A. SHAHID, Assistant Agency Director

STID # 3874
August 19, 1994

Ms. Judy Mason
Arco, Environmental Compliance Administrator
4 Centerpoint Drive
La Palma, California 90623-1066

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

Mailing Address: Box 6038
Artesia, California 90702-6036

Re: FIVE YEAR UNDERGROUND STORAGE TANK PERMIT AT,
ARCO #04931, 731 WEST MACARTHUR BLVD., OAKLAND 94611

Dear Ms. Mason:

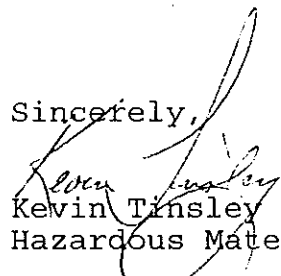
Enclosed is your five year permit to operate four underground fuel tanks tank at the above referenced facility. These tanks are double-walled with fiberglass exterior. Their associated piping is also double-walled, with fiberglass secondary piping.

To operate under a valid permit, you are required to comply with the conditions in Title 23 of the California Code of Regulations (CCR). Based on these requirements, all four tanks and associated piping are monitored by an electronic alarm system.

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

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

Sincerely,


Kevin Tinsley
Hazardous Materials Specialist

c, Edgar Howell, Chief - files (kt)
Don Hwang, Hazardous Materials Specialist
Susan Hugo, Hazardous Materials Specialist



GeoStrategies Inc.

January 20, 1994
7900.01

Mr. Michael Whelan
ARCO Products Company
Post Office Box 5811
San Mateo, California 94402

Subject: Monthly Site Status Update for ARCO Station 4931, 731
West MacArthur Boulevard, Oakland, California.

Mr. Whelan:

This letter provides an update on activities, for the above referenced site, performed during the month of December, 1993, and site activities anticipated for the month of January, 1994.

Status of Previous Month's Activities:

- Performed operation and maintenance duties for the interim remedial system at the site.
- Performed fourth quarter 1993 monitoring of site wells.

ALCO
HAZMAT
94 JAN 24 PM 2:36

ARCO Station 4931
Monthly Site Status Report

January 20, 1994

Anticipated Work to be Performed in the Next Month:

- Perform operation and maintenance duties for the interim remedial system at the site.
- Perform monitoring of wells at site to assist with interim remediation system performance evaluation.

If you have any questions or comments, please call us at (510) 551-7444 ext. 286.

Sincerely,
GeoStrategies, Inc.


Joel Coffman
Project Manager

cc: Ms. Susan Hugo, Alameda County Health Care Services Agency,
Department of Environmental Health (Certified Mail)
Mr. Richard Hiatt, RWQCB-San Francisco Bay Region
Mr. Mark Thomson, Alameda County District Attorney



GeoStrategies Inc.

December 14, 1993
7900.01

Mr. Michael Whelan
ARCO Products Company
Post Office Box 5811
San Mateo, California 94402

Subject: Monthly Site Status Update for ARCO Station 4931, 731
West MacArthur Boulevard, Oakland, California.

Mr. Whelan:

This letter provides an update on activities, for the above referenced site, performed during the month of November, 1993, and site activities anticipated for the month of December, 1993.

Status of Previous Month's Activities:

- Performed operation and maintenance duties for the interim remedial system at the site.
- Performed fourth quarter 1993 monitoring of site wells.



GeoStrategies Inc.

ALCO
HAZMAT

93 NOV 22 AM 10: 57

November 18, 1993
7900.01

Mr. Michael Whelan
ARCO Products Company
Post Office Box 5811
San Mateo, California 94402

Subject: Monthly Site Status Update for ARCO Station 4931, 731
West MacArthur Boulevard, Oakland, California.

Mr. Whelan:

This letter provides an update on activities, for the above referenced site, performed during the month of October, 1993, and site activities anticipated for the month of November, 1993.

Status of Previous Month's Activities:

- Performed operation and maintenance duties for the interim remedial system at the site.
- Performed fourth quarter 1993 monitoring of site wells.

ARCO Station 4931
Monthly Site Status Report

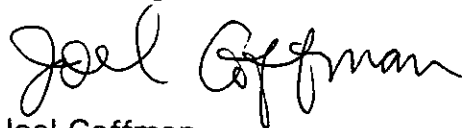
November 18, 1993

Anticipated Work to be Performed in the Next Month:

- Perform operation and maintenance duties for the interim remedial system at the site.
- Perform monitoring of wells at site to assist with interim remediation system performance evaluation.

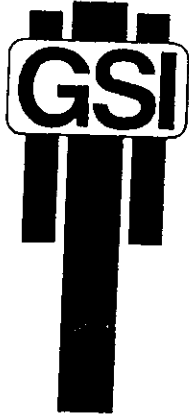
If you have any questions or comments, please call us at (510) 551-7444 ext. 286.

Sincerely,
GeoStrategies, Inc.



Joel Coffman
Project Manager

cc: Ms. Susan Hugo, Alameda County Health Care Services Agency,
Department of Environmental Health (Certified Mail)
Mr. Richard Hiatt, RWQCB-San Francisco Bay Region
Mr. Mark Thomson, Alameda County District Attorney



GeoStrategies Inc.

October 12, 1993
7900.01

Mr. Michael Whelan
ARCO Products Company
Post Office Box 5811
San Mateo, California 94402

Subject: Monthly Site Status Update for ARCO Station 4931, 731
West MacArthur Boulevard, Oakland, California.

Mr. Whelan:

This letter provides an update on activities, for the above referenced site, performed during the month of September, 1993, and site activities anticipated for the month of October, 1993.

Status of Previous Month's Activities:

- Performed operation and maintenance duties for the interim remedial system at the site.
- Submitted a final Recovery System Evaluation Report for Second Quarter 1993 to ARCO and applicable Regulatory Agencies.
- Performed third quarter 1993 monitoring and sampling of site wells.

ARCO Station 4931
Monthly Site Status Report

October 12, 1993

Anticipated Work to be Performed in the Next Month:

- Perform operation and maintenance duties for the interim remedial system.
- Perform monitoring of wells at site to assist with interim remediation system evaluation.

If you have any questions or comments, please call us at (510) 352-4800.

Sincerely,
GeoStrategies, Inc.



Joel Coffman
Project Manager

cc: Ms. Susan Hugo, Alameda County Health Care Services Agency,
Department of Environmental Health (Certified Mail)
Mr. Richard Hiatt, RWQCB-San Francisco Bay Region
Mr. Mark Thomson, Alameda County District Attorney



GeoStrategies Inc.

September 15, 1993
7900.01

Mr. Michael Whelan
ARCO Products Company
Post Office Box 5811
San Mateo, California 94402

Subject: Monthly Site Status Update for ARCO Station 4931, 731
West MacArthur Boulevard, Oakland, California.

Mr. Whelan:

This letter provides an update on activities, for the above referenced site, performed during the month of August, 1993, and site activities anticipated for the month of September, 1993.

Status of Previous Month's Activities:

- Performed operation and maintenance duties for the interim remedial system at the site.
- Submitted a draft Recovery System Evaluation Report presenting second quarter 1993 groundwater sampling and interim recovery system evaluation results to ARCO.
- Performed third quarter 1993 monitoring and sampling of site wells.

93 SEP 17 PM 3:05

ARCO Station 4931
Monthly Site Status Report

September 15, 1993

Anticipated Work to be Performed in the Next Month:

- Perform operation and maintenance duties for the interim remedial system.
- Submit a final Recovery System Evaluation Report for second quarter 1993 to ARCO and applicable Regulatory Agencies.

If you have any questions or comments, please call us at (510) 352-4800.

Sincerely,
GeoStrategies, Inc.



Joel Coffman
Project Manager

cc: Ms. Susan Hugo, Alameda County Health Care Services Agency,
Department of Environmental Health (Certified Mail)
Mr. Richard Hiatt, RWQCB-San Francisco Bay Region
Mr. Mark Thomson, Alameda County District Attorney

Checked

07-0118

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 HAVE DISTRIBUTED THIS INFORMATION ACCORDING TO THE DISTRIBUTION SHOWN ON THE INSTRUCTION SHEET ON THE BACK PAGE OF THIS FORM.	
REPORT DATE 09/08/93		CASE # N/A - LESS THAN 5 GAL.		SIGNED _____ DATE _____	
REPORTED BY	NAME OF INDIVIDUAL FILING REPORT Mary Lou Ellich		PHONE (310) 407-2617	SIGNATURE Mary Lou Ellich	
	REPRESENTING <input type="checkbox"/> LOCAL AGENCY <input type="checkbox"/> OTHER	<input checked="" type="checkbox"/> OWNER/OPERATOR <input type="checkbox"/> REGIONAL BOARD	COMPANY OR AGENCY NAME Arco Products Co. SEP 1993		
RESPONSIBLE PARTY	ADDRESS 17315 Studebaker Rd.		CITY Cerritos	STATE CA	ZIP 92701
	NAME Arco Products Co.	<input type="checkbox"/> UNKNOWN	CONTACT PERSON Mary Lou Ellich	PHONE (310) 407-2617	
SITE LOCATION	FACILITY NAME (IF APPLICABLE) Arco Facility #4931		OPERATOR Ventura Dist. Inc.	PHONE 510 658-5000	
	ADDRESS 731 W. MacArthur Blvd		CITY Oakland	COUNTY Alameda	ZIP 94611
	CROSS STREET West				
IMPLEMENTING AGENCIES	LOCAL AGENCY Alameda County	AGENCY NAME	CONTACT PERSON Carol Williams	PHONE (510) 271-4320	
	REGIONAL BOARD Region 2		Ray Balcom	PHONE (510) 286-1255	
SUBSTANCES INVOLVED	(1) NAME Midgrade Super gasoline		QUANTITY LOST (GALLONS) One <input type="checkbox"/> UNKNOWN		
	(2)		<input type="checkbox"/> UNKNOWN		
DISCOVERY/ABATEMENT	DATE DISCOVERED 09/06/93	HOW DISCOVERED <input type="checkbox"/> TANK TEST <input type="checkbox"/> INVENTORY CONTROL <input type="checkbox"/> SUBSURFACE MONITORING <input type="checkbox"/> NUISANCE CONDITIONS	<input type="checkbox"/> TANK REMOVAL <input type="checkbox"/> OTHER Visual		
	DATE DISCHARGE BEGAN 09/06/93	<input type="checkbox"/> UNKNOWN	METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY)		
	HAS DISCHARGE BEEN STOPPED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, DATE 09/06/93	<input type="checkbox"/> REMOVE CONTENTS <input type="checkbox"/> CLOSE TANK & REMOVE <input type="checkbox"/> REPAIR PIPING <input type="checkbox"/> REPAIR TANK <input type="checkbox"/> CLOSE TANK & FILL IN PLACE <input type="checkbox"/> CHANGE PROCEDURE <input type="checkbox"/> REPLACE TANK <input checked="" type="checkbox"/> OTHER Emergency Shut Off Switch			
SOURCE/ CAUSE	SOURCE OF DISCHARGE <input type="checkbox"/> TANK LEAK <input type="checkbox"/> UNKNOWN <input type="checkbox"/> PIPING LEAK <input type="checkbox"/> OTHER		CAUSE(S) <input type="checkbox"/> OVERFILL <input type="checkbox"/> RUPTURE/FAILURE <input type="checkbox"/> SPILL <input checked="" type="checkbox"/> OTHER Customer drove off		
	<input type="checkbox"/> CORROSION <input type="checkbox"/> UNKNOWN				
CASE TYPE	CHECK ONE ONLY <input type="checkbox"/> UNDETERMINED <input 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"/> NO ACTION TAKEN <input type="checkbox"/> PRELIMINARY SITE ASSESSMENT WORKPLAN SUBMITTED <input type="checkbox"/> POLLUTION CHARACTERIZATION <input type="checkbox"/> LEAK BEING CONFIRMED <input type="checkbox"/> PRELIMINARY SITE ASSESSMENT UNDERWAY <input type="checkbox"/> POST CLEANUP MONITORING IN PROGRESS <input type="checkbox"/> REMEDIATION PLAN <input checked="" type="checkbox"/> CASE CLOSED (CLEANUP COMPLETED OR UNNECESSARY) <input type="checkbox"/> CLEANUP UNDERWAY				
REMEDIAL ACTION	CHECK APPROPRIATE ACTION(S) (SEE BACK FOR DETAILS) <input type="checkbox"/> CAP SITE (CD) <input 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"/> VACUUM EXTRACT (VE) <input type="checkbox"/> NO ACTION REQUIRED (NA) <input type="checkbox"/> TREATMENT AT HOOKUP (HU) <input type="checkbox"/> VENT SOIL (VS) <input type="checkbox"/> OTHER (OT) Cleaned up absorbant material.				
COMMENTS	Material stored on site and Road Runner dispatched for maintenance				

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.



GeoStrategies Inc.

93 JAN 22 11:10:19

January 19, 1993

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

(Certified Mail)

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

Dear Mr. Heitt:

On behalf of ARCO Products Company (ARCO), and as requested in the meeting held on November 19, 1992 at the Alameda County Health Care Services Agency (ACHCSA), GeoStrategies Inc. (GSI) has revised the Remediation Implementation schedules for remediation of sites under your regulatory oversight.

The darkened lines on the schedules represent deadlines which were agreed upon during the November 19, 1992 meeting. 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.

:ARCOMISC\7926RTL.LTR(kjj)

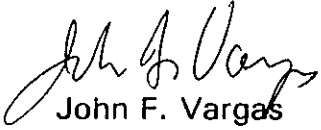
2140 WEST WINTON AVENUE • HAYWARD, CALIFORNIA 94545 • (510) 352-4800
601 UNIVERSITY AVENUE • SUITE 150 • SACRAMENTO, CALIFORNIA 95825 • (916) 568-7500

GeoStrategies Inc.

Regional Water Quality Control Board
January 19, 1993
Page 2

If you have any questions or comments, please contact us at (510) 352-4800
or Mr. Michael Whelan of ARCO at (415) 571-2449.

Sincerely,


John F. Vargas
Project Manager

cc: Ms. Susan Hugo, ACHA (Certified Mail)
Mr. Michael Whelan, ARCO
Mr. John Meck, ARCO Legal
Mr. H.C. Winsor, ARCO
Mr. Mark Thomson, Alameda County DA (without attachments)

PROJECT TIME LINE

ACTIVITY	1992												1993													
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D		
SOIL INVESTIGATION (1)	■																							COMPLETED OCT, 1991		
ADDITIONAL GROUNDWATER INVESTIGATION (2)		■																						COMPLETED 8-27-92		
GROUNDWATER	REMEDIATION SYSTEM DESIGN (3)		■																						COMPLETED SEPT, 1992	
	SYSTEM PERMITTING (4)			■																						RECEIVED 1/15/93
	EQUIPMENT PROCUREMENT (5)				■																				COMPLETED	
	SYSTEM CONSTRUCTION AND START-UP (6)						■																		START-UP 1/15/93	
	SYSTEM OPERATION AND MAINTENANCE (7)																								JAN, 1998	
	PERFORMANCE EVALUATION (8)																								///	
	REMEDIATION SYSTEM DESIGN (9)			■																					COMPLETED SEPT, 1992	
	SYSTEM PERMITTING (10)			■																					COMPLETED	
SOIL	EQUIPMENT PROCUREMENT (11)			■																					COMPLETED	
	SYSTEM CONSTRUCTION AND START-UP (12)				■																				ANTICIPATED COMP. 12-18-92	
	SYSTEM OPERATION AND MAINTENANCE (13)																							///		
	VERIFICATION SOIL BORINGS (14)																								JAN-MAR, 1994	
	VERIFICATION GROUNDWATER MONITORING (15)																								///	
SITE CLOSURE (SOIL AND GROUNDWATER) (16)																								///		

LEGEND

(X) FOR NOTES AND ASSUMPTIONS REFER TO PLATES 2, 3 AND 4

■ PROBABLE SCHEDULE

/// ESTIMATED SCHEDULE



GeoStrategies Inc.

REMEDIATION IMPLEMENTATION SCHEDULE
 ARCO Service Station #2112
 1260 Park Street
 Alameda, California

PLATE

1

JOB NUMBER
7920-RTL

REVIEWED BY

DATE
1/92

REVISED DATE
1/93

(1) Soil Investigation

- Soil contamination is on-site only and has been delineated by already completed work

(2) Additional Ground-water Investigation

- Ground-water investigation has been completed (GSI, September 25, 1992).
- Ground-water contamination was delineated upon completion of the activities proposed in the work plan.
- Field work, data evaluation, and reporting was completed on September 29, 1992.

(3) Remediation System Design (Ground-water)

- Ground-water remediation will only be required onsite.
- A Remedial Action Plan (RAP) was submitted on September 27, 1992 detailing the design of the on-site ground-water remediation system.

(4) Remediation System Permitting (Ground-water)

- Modifications to design were required for permitting.
- Planning/Building department approval was obtained on September 30, 1992.
- Discharge permit approval was obtained on July 14, 1992. The permit was issued January 5, 1993.

(5) Equipment Procurement (Ground-water)

- No equipment modification due to agency/permitting requirements.
- System equipment has been received.



GeoStrategies Inc.

REMEDATION IMPLEMENTATION SCHEDULE
ARCO Service Station #2112
1260 Park Street
Alameda, California

PLATE

2

JOB NUMBER
7920-RTL

REVIEWED BY

DATE
1/92

REVISED DATE
1/93

(6) System Construction and Startup (Ground-water)

- System construction was started on October 19, 1992.
- System equipment installation is scheduled for completion on December 18, 1992.
- Startup originally scheduled for February 1, 1993, and was performed on January 5, 1993.

(7) System Operation and Maintenance (Ground-water)

- Five year operation of system to meet cleanup levels.
- Regulatory approval of system shutdown after five years.

(8) Performance Evaluation (Ground-water)

- Will show system is operating as designed and does not require modification.

(9) Remediation System Design (Soil)

- Soil remediation will only be required on-site.
- A RAP was prepared detailing the design of the on-site soil remediation system and was submitted September 27, 1992.
- No revisions were required following agency review.

(10) System Permitting (Soil)

- No modifications to design required for permitting
- BAAQMD permit was issued August 10, 1992.
- Building/Planning department approval was obtained September 30, 1992.



GeoStrategies Inc.

REMEDATION IMPLEMENTATION SCHEDULE
ARCO Service Station #2112
1260 Park Street
Alameda, California

PLATE

3

JOB NUMBER
7920-RTL

REVIEWED BY

DATE
1/92

REVISED DATE
1/93

(11) Equipment Procurement (Soil)

- No special equipment modification due to agency/permitting requirements.
- System equipment has been received.

(12) System Construction and Startup (Soil)

- System construction was started on October 19, 1992.
- System equipment installation is scheduled for completion on December 18, 1992.
- Startup is scheduled for December 21, 1992.

(13) System Operation and Maintenance (Soil)

- One year operation of system to meet cleanup levels.
- Regulatory approval of system shutdown after one year.

(14) Verification Soil Borings

- Borings demonstrate soil cleanup has been achieved - no further system operation.

(15) Verification Monitoring

- One year (four quarters) of monitoring water-levels and sampling.
- Sampling demonstrates ground-water cleanup has been achieved. No further system operation required.

(16) Site Closure

- Agency approval based on results of verification borings, monitoring and sampling.



GeoStrategies Inc.

REMEDIATION IMPLEMENTATION SCHEDULE
ARCO Service Station #2112
1260 Park Street
Alameda, California

PLATE

4

JOB NUMBER
7920-RTL

REVIEWED BY

DATE
1/92

REVISED DATE
12/92

PROJECT TIME LINE

ACTIVITY	1992												1993																								
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D													
TANK REPLACEMENT (1)																									COMPLETED MAR, 1992												
ADDITIONAL SOIL INVESTIGATION (2)																															COMPLETED OCT, 1992						
GROUNDWATER INVESTIGATION (3)																																					ON SITE, COMPLETED OCT, 1992
GROUNDWATER	REMEDATION SYSTEM DESIGN (4)																																				
	SYSTEM PERMITTING (5)																																				
	EQUIPMENT PROCUREMENT (6)																																				
	SYSTEM CONSTRUCTION AND START-UP (7)																																				
	SYSTEM OPERATION AND MAINTENANCE (8)																																			SEPT, 1998	
	PERFORMANCE EVALUATION (9)																																			JAN, 1994	
SOIL	REMEDATION SYSTEM DESIGN (10)																																				
	SYSTEM PERMITTING (11)																																				
	EQUIPMENT PROCUREMENT (12)																																				
	SYSTEM CONSTRUCTION AND START-UP (13)																																				
	SYSTEM OPERATION AND MAINTENANCE (14)																																			SEPT, 1994	
VERIFICATION SOIL BORINGS (15)																																			SEPT-NOV, 1994		
VERIFICATION GROUNDWATER MONITORING (16)																																			SEPT, 1998-APR, 1999		
SITE CLOSURE (SOIL AND GROUNDWATER) (17)																																			SEPT, 1999-AUG, 2000		

LEGEND

(X) FOR NOTES AND ASSUMPTIONS REFER TO PLATES 2 THROUGH 5.

PROBABLE SCHEDULE

ESTIMATED SCHEDULE



GeoStrategies Inc.

REMEDATION IMPLEMENTATION SCHEDULE
 ARCO Service Station #2169
 889 West Grand Avenue
 Oakland, California

PLATE

1

JOB NUMBER
7927-RTL

REVIEWED BY

DATE
1/92

REVISED DATE
1/93

(1) Tank Replacement

- Tank replacement was completed in March 1992 (Roux report).
- All stockpiled soil was aerated and removed from the site during March 1992.

(2) Additional Soil Investigation

- Soil contamination is on-site only.
- Soil contamination is delineated by completion of the activities proposed in the work plan.
- Field work, data evaluation, and reporting of the soil investigation was completed on November 24, 1992.

(3) Ground-water Investigation

- The work plan for on-site assessment has been submitted to the Alameda County Health Agency.
- Field work, data evaluation, and reporting of the ground-water investigation phase was completed on November 24, 1992. Field work included installation of ground-water monitoring and extraction wells, vapor extraction wells, aquifer test and vapor extraction test.
- Additional work will be required off-site to complete ground-water delineation.
- A second work plan will be prepared for an off-site ground-water investigation.
- The second work plan will be approved by the Alameda County Health Agency within one month after submittal.
- Ground-water contamination will be delineated after completion of the activities proposed in the second work plan.
- It will take approximately four months to obtain a City of Oakland Public Works Agency Encroachment Permit.
- Field work, data evaluation, and reporting of the ground-water investigation phase will require approximately two months to complete after issuance of applicable permits.



GeoStrategies Inc.

REMEDIATION IMPLEMENTATION SCHEDULE
ARCO Service Station #2169
889 West Grand Avenue
Oakland, California

PLATE

2

JOB NUMBER
7927-RTL

REVIEWED BY

DATE
1/92

REVISED DATE
12/92

(4) Remediation System Design (Ground-water)

- The tank replacement project will be completed by March 1992.
- Ground-water remediation will only be required onsite.
- A Remedial Action Plan (RAP) will be prepared detailing the design of the on-site ground-water remediation system.
- The RAP will be approved by the Alameda County Health Agency within one month of submittal.
- No revisions will be required following agency review.

(5) Remediation System Permitting (Ground-water)

- No modifications to design required for permitting.
- Planning/Building department approval within 120 days.
- BAAQMD permit within 90 days.
- Discharge permit approval within 90 days.

(6) Equipment Procurement (Ground-water)

- No equipment modification due to agency/permitting requirements.
- Equipment available from manufacturers stock within six weeks.



GeoStrategies Inc.

REMEDATION IMPLEMENTATION SCHEDULE
ARCO Service Station #2169
889 West Grand Avenue
Oakland, California

PLATE

3

JOB NUMBER
7927-RTL

REVIEWED BY

DATE
1/92

REVISED DATE
12/92

(7) System Construction and Startup (Ground-water)

- No delays due to underground storage tank replacement.
- No delays from utility companies.
- No special dealer/property owner requirements.
- No unusual contractor delays.
- No unforeseen on-site conditions.
- No weather delays.
- This task includes bid process, bid evaluation, contract completion and system construction.

(8) System Operation and Maintenance (Ground-water)

- Five year operation of system to meet cleanup levels.
- Regulatory approval of system shutdown after five years.

(9) Performance Evaluation (Ground-water)

- Will show system is operating as designed and does not require modification.

(10) Remediation System Design (Soil)

- The tank replacement project will be completed by March 1992.
- Soil remediation will only be required on-site only.
- A RAP will be prepared detailing the design of the on-site soil remediation system.
- The RAP will be approved by the Alameda County Health Care Services Agency within one month of submittal.
- Soil vapor extraction is a feasible remediation method.
- No revisions due to agency review.



GeoStrategies Inc.

REMEDATION IMPLEMENTATION SCHEDULE
ARCO Service Station #2169
889 West Grand Avenue
Oakland, California

PLATE

4

JOB NUMBER
7927-RTL

REVIEWED BY

DATE
1/92

REVISED DATE
1/93

(11) System Permitting (Soil)

- No modifications to system design required for permitting.
- BAAQMD approval within 120 days
- Building/Planning department approval within 120 days.

(12) Equipment Procurement (Soil)

- No special agency requirements.
- Available from manufacturer stock within eight weeks.

(13) System Construction and Startup (Soil)

- No delays due to underground storage tank replacement.
- No delays from utility companies.
- No special dealer/property owner requirements.
- No unusual contractor delays.
- No unforeseen on-site conditions.
- No weather delays.

(14) System Operation and Maintenance (Soil)

- One year operation of system to meet cleanup levels.
- Regulatory approval of system shutdown after one year.



GeoStrategies Inc.

REMEDIATION IMPLEMENTATION SCHEDULE
ARCO Service Station #2169
889 West Grand Avenue
Oakland, California

PLATE

5

JOB NUMBER
7927-RTL

REVIEWED BY

DATE
1/92

REVISED DATE
12/92

(15) Verification Borings

- Borings demonstrate soil cleanup has been achieved - no further system operation.

(16) Verification Monitoring

- One year (four quarters) of monitoring water-levels and sampling.
- Sampling demonstrates ground-water cleanup has been achieved. No further system operation required.

(16) Site Closure

- Agency approval based on results of verification borings, monitoring and sampling.



GeoStrategies Inc.

REMEDATION IMPLEMENTATION SCHEDULE
ARCO Service Station #2169
889 West Grand Avenue
Oakland, California

PLATE

6

JOB NUMBER
7927-RTL

REVIEWED BY

DATE
1/92

REVISED DATE
12/92

PROJECT TIME LINE

ACTIVITY	1992												1993													
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D		
TANK REPLACEMENT (1)																									COMPLETED JUNE, 1992	
ADDITIONAL SOIL INVESTIGATION (2)																										
ADDITIONAL GROUNDWATER INVESTIGATION (3)																										
GROUNDWATER	REMEDIATION SYSTEM DESIGN (4)																									
	SYSTEM PERMITTING (5)																									
	EQUIPMENT PROCUREMENT (6)																									
	SYSTEM CONSTRUCTION AND START-UP (7)																									COMPLETED 11-13-92
	SYSTEM OPERATION AND MAINTENANCE (8)																								NOV., 1997	
	PERFORMANCE EVALUATION (9)																								START-UP 11-13-92	
	VERIFICATION GROUNDWATER MONITORING (10)																								NOV., 1997-OCT., 1998	
SITE CLOSURE (SOIL AND GROUNDWATER) (11)																								NOV., 1998-OCT., 1999		

LEGEND

(X) FOR NOTES AND ASSUMPTIONS
REFER TO PLATES 2, 3 AND 4

PROBABLE SCHEDULE

ESTIMATED SCHEDULE



GeoStrategies Inc.

REMEDIATION IMPLEMENTATION SCHEDULE
 ARCO Service Station #4931
 731 West MacArthur Boulevard
 Oakland, California

PLATE

1

JOB NUMBER
7909-RTL

REVIEWED BY

DATE
1/92

REVISED DATE
1/93

(1) Tank Replacement

- Tank replacement was completed in June 1992.
- All stockpiled soil was aerated and removed from the site in June 1992.

(2) Additional Soil Investigation

- Soil contamination is on-site only.
- Soil contamination was removed primarily during the tank replacement project.
- Field work, data evaluation, and reporting of the soil investigation was completed in October 1992.

(3) Additional Ground-water Investigation

- The work plan was prepared for the installation of one off-site monitoring well and two on-site recovery wells.
- The work plan was approved by the Alameda County Health Care Services Agency within one month of submittal
- Ground-water contamination was delineated upon completion of the activities proposed in the work plan.
- City of Oakland Public Works Agency Encroachment Permit issued June 1, 1992.
- Additional on-site recovery wells were installed June 15 and 16, 1992.
- Field work, data evaluation, and reporting of the ground-water investigation phase was completed on November 13, 1992.
- Field work was completed in June 1992.



GeoStrategies Inc.

REMEDICATION IMPLEMENTATION SCHEDULE
ARCO Service Station #4931
731 West MacArthur Boulevard
Oakland, California

PLATE

2

JOB NUMBER
7909-RTL

REVIEWED BY

DATE
1/92

REVISED DATE
12/92

(4) Remediation System Design (Ground-water)

- Ground-water remediation will only be required onsite.
- The already completed design will be approved by the Alameda County Health Care Services Agency within one month of submittal.
- No revisions will be required following agency review.

(5) System Permitting (Ground-water)

- Discharge permit will be issued in 60 days.
- BAAQMD permit will be issued in 60 days.
- Planning/Building department approval will be issued in 120 days.
- No modifications to design required for permitting.

(6) Equipment Procurement (Ground-water)

- No equipment modification due to agency/permitting requirements.
- Equipment available from manufacturers stock within six weeks.



GeoStrategies Inc.

REMEDATION IMPLEMENTATION SCHEDULE
ARCO Service Station #4931
731 West MacArthur Boulevard
Oakland, California

PLATE

3

JOB NUMBER
7909-RTL

REVIEWED BY

DATE
1/92

REVISED DATE
12/92

(7) System Construction and Startup (Ground-water)

- The recovery system construction and installation was completed in November 1992.
- Startup of the system was performed on November 13, 1992.

(8) System Operation and Maintenance (Ground-water)

- Five year operation of system to meet cleanup levels.
- Regulatory approval of system shutdown after five years.

(9) Performance Evaluation (Ground-water)

- Will show system is operating as designed and does not require modification.

(10) Remediation System Design (Soil)

- The tank replacement project was completed in June 1992.
- Soil remediation was performed by overexcavation during the tank replacement project.

(11) Verification Ground-water Monitoring

- One year length.
- Sampling demonstrates ground-water cleanup has been achieved. No further system operation required.

(12) Site Closure

- Agency approval based on results of verification borings, monitoring and sampling.



GeoStrategies Inc.

REMEDATION IMPLEMENTATION SCHEDULE
ARCO Service Station #4931
731 West MacArthur Boulevard
Oakland, California

PLATE

4

JOB NUMBER
7909-RTL

REVIEWED BY

DATE
1/92

REVISED DATE
12/92

93 JAN 14 11 6:00

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

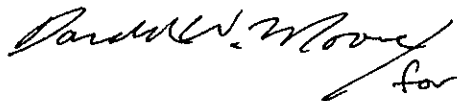
Dear Ms. Hugo:

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: 10/1/92

Current
Date: 1/4/93

SITE IDENTIFICATION

Name: ARCO Products Company #4931 Case No.: _____
Address: 731 West Macarthur Boulevard
Street Number Street
Oakland 94611
City Zip Code
Alameda Substance: Gasoline
County

Local Agency: Alameda County Health Agency, Department of Environmental Health
Regional Board: San Francisco Bay Region

LEAD STAFF PERSON: Susan Hugo

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: Nov. 1982
 Preliminary Site Assessment Workplan Submitted Date: _____
 Preliminary Site Assessment Underway Date: Dec. 1982
 Pollution Characterization Date: June 1986
 Remediation Plan Date: May 1991
 Remedial Action Underway Date: November 1992
 Post Remedial Action Monitoring Date: _____
 Case Referred to Regional Board Date: _____
 Case Referred to Dept. of Health Services Date: _____
 Case Closed Date: _____

MILESTONES:

Currently there are eleven monitoring wells. These wells were installed between 1982 and 1987. Quarterly groundwater monitoring and sampling began in 1989. A hybrid step-draw down/constant rate test was performed in April 1991 and a Remedial Action Plan (RAP) was issued in May 1991. The underground storage tanks were removed and replaced between November, 1991 and April, 1992. One off-site, up-gradient monitoring well and three on-site recovery wells were installed in June, 1992. Refer to the attached chronological listing of reports issued for this site.

RECENT ACTIVITIES/FINDINGS:

Quarterly ground-water monitoring and sampling were performed for the fourth quarter, 1992. Issued Quarterly Monitoring/Well Installation Report presenting third quarter, 1992 sampling results and results of the June, 1992 well installations. Construction of the groundwater remedial system was completed and began operation in November, 1992.

ANTICIPATED ACTIVITIES:

Quarterly ground-water monitoring and sampling will continue. Issue Quarterly Monitoring Report presenting fourth quarter, 1992 sampling results. Operation, maintenance, and sampling of the remedial system will be performed.

<u>REPORT</u>	<u>DATE</u>	<u>CONSULTANT</u>
Groundwater Investigation Report	June 18, 1986	EMCON
Groundwater Investigation Report	January 20, 1988	Pacific Environmental Group
Quarterly Groundwater Sampling Report	April 20, 1989	GeoStrategies Inc.
Quarterly Groundwater Sampling Report	September 12, 1989	GeoStrategies Inc.
Quarterly Report	December 5, 1989	GeoStrategies Inc.
Quarterly Report	February 13, 1990	GeoStrategies Inc.
Quarterly Report	June 28, 1990	GeoStrategies Inc.
Site Update	July 24, 1990	GeoStrategies Inc.
Site Update	October 4, 1990	GeoStrategies Inc.
Site Update	January 28, 1991	GeoStrategies Inc.
Site Update	May 3, 1991	GeoStrategies Inc.
Remedial Action Plan	May 15, 1991	GeoStrategies Inc.
Aquifer Test Report	July 10, 1991	GeoStrategies Inc.
Quarterly Monitoring Report	July 12, 1991	GeoStrategies Inc.
Quarterly Monitoring Report	October 25, 1991	GeoStrategies Inc.
Quarterly Monitoring Report	January 16, 1992	GeoStrategies Inc.
Addendum to Remedial Action Plan	January 27, 1992	GeoStrategies Inc.
Quarterly Monitoring Report	March 31, 1992	GeoStrategies Inc.
Vapor Extraction Test Report	May 21, 1992	GeoStrategies Inc.
Quarterly Monitoring Report	July 17, 1992	GeoStrategies Inc.
Underground Storage Tank Removal and Soil Sampling Report	July 20, 1992	ROUX Associates
Quarterly Monitoring/Well Installation Report	November 13, 1992	GeoStrategies Inc.

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.

Minutes to September 30, 1992 Meeting at ACHCSA

November 4, 1992

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

Minutes to September 30, 1992 Meeting at ACHCSA

November 4, 1992

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, approximate 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 Mobil 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.

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 extractions 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



GeoStrategies Inc.

2140 WEST WINTON AVENUE
HAYWARD, CALIFORNIA 94545

(510) 352-4800

November 9, 1992

ARCO Products Company
P.O. Box 5811
San Mateo, California 94402

Attention: Mr. Michael Whelan

Reference: Monthly Site Status Update
ARCO Service Station No. 4931
731 West MacArthur Boulevard
Oakland, California 94611

Mr. Whelan:

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

Status of Previous Month's Activities:

- * Procurement of remedial system equipment.
- * Installation of remedial system equipment began.
- * Issued draft Quarterly Monitoring/Well Installation Report to ARCO.
- * Ground-water sampling and monitoring for the fourth quarter, 1992, was performed.

:ARCO/A909.WP(rt)


ARCO Products Company
November 9, 1992
Page 2

Anticipated Work to be Performed in the Next Month:

- * Issue Quarterly Monitoring/Well Installation Report to ARCO, ACHA and RWQCB.
- * Startup of remedial system
- * Issue draft Quarterly Monitoring Report to ARCO presenting the results of fourth quarter monitoring and sampling.

If you have any questions please call.

Sincerely,


John F. Vargas
Senior Geologist

JFV/rmt

cc: Ms. Susan Hugo, Alameda County Health Agency, Department of
Environmental Health (Certified Mail)
Mr. Richard Hiatt, RWQCB - San Francisco Bay Region
Mr. Mark Thomson, Alameda County District Attorney

October 12, 1992

92 OCT 14 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:

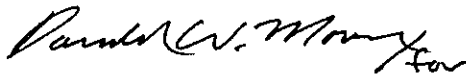
Please find attached, Quarterly Summary Reports (QSRs) for ARCO Products Company Service Stations in Alameda County. The QSRs summarize activities conducted by ARCO at the respective sites during the third quarter of 1992; also included are projected site activities for the fourth quarter of 1992 and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

UST LEAK Date of Last Current
SITE UPDATE Review/Update: 7/10/92 Date: 10/1/92

SITE IDENTIFICATION

Name: ARCO Products Company #4931 Case No.: _____
Address: 731 West Macarthur Boulevard
 Street Number Street
 Oakland 94611
 City Zip Code
 Alameda Substance: Gasoline
 County

Local Agency: Alameda County Health Agency, Department of Environmental Health
Regional Board: San Francisco Bay Region

LEAD STAFF PERSON: Susan Hugo

CASE TYPE:

 Undetermined Soil Only X Ground Water Drinking Water

STATUS (Date indicates when case moved into status)

 No Action Taken Date: _____
 X Leak Being Confirmed Date: Nov. 1982
 Preliminary Site Assessment Workplan Submitted Date: _____
 X Preliminary Site Assessment Underway Date: Dec. 1982
 X Pollution Characterization Date: June 1986
 X Remediation Plan Date: May 1991
 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: _____

MILESTONES:

Currently there are eleven monitoring wells. These wells were installed between 1982 and 1987. Quarterly groundwater monitoring and sampling began in 1989. A hybrid step-draw down/constant rate test was performed in April 1991 and a Remedial Action Plan (RAP) was issued in May 1991. The underground storage tanks were removed and replaced between November, 1991 and April, 1992. One off-site, up-gradient monitoring well and three on-site recovery wells were installed in June, 1992. Refer to the attached chronological listing of reports issued for this site.

RECENT ACTIVITIES/FINDINGS:

Quarterly ground-water monitoring and sampling were performed for the third quarter, 1992. Issued reports presenting second quarter, 1992 ground-water sampling and tank removal soil sampling and observation results. Construction of the groundwater remedial system is in progress.

ANTICIPATED ACTIVITIES:

Completion and start-up of the groundwater remedial system. Quarterly ground-water monitoring and sampling will continue. Issue report documenting well installations and third quarter, 1992 sampling results.

SS #4931

<u>REPORT</u>	<u>DATE</u>	<u>CONSULTANT</u>
Groundwater Investigation Report	June 18, 1986	EMCON
Groundwater Investigation Report	January 20, 1988	Pacific Environmental Group
Quarterly Groundwater Sampling Report	April 20, 1989	GeoStrategies Inc.
Quarterly Groundwater Sampling Report	September 12, 1989	GeoStrategies Inc.
Quarterly Report	December 5, 1989	GeoStrategies Inc.
Quarterly Report	February 13, 1990	GeoStrategies Inc.
Quarterly Report	June 28, 1990	GeoStrategies Inc.
Site Update	July 24, 1990	GeoStrategies Inc.
Site Update	October 4, 1990	GeoStrategies Inc.
Site Update	January 28, 1991	GeoStrategies Inc.
Site Update	May 3, 1991	GeoStrategies Inc.
Remedial Action Plan	May 15, 1991	GeoStrategies Inc.
Aquifer Test Report	July 10, 1991	GeoStrategies Inc.
Quarterly Monitoring Report	July 12, 1991	GeoStrategies Inc.
Quarterly Monitoring Report	October 25, 1991	GeoStrategies Inc.
Quarterly Monitoring Report	January 16, 1992	GeoStrategies Inc.
Addendum to Remedial Action Plan	January 27, 1992	GeoStrategies Inc.
Quarterly Monitoring Report	March 31, 1992	GeoStrategies Inc.
Vapor Extraction Test Report	May 21, 1992	GeoStrategies Inc.
Quarterly Monitoring Report	July 17, 1992	GeoStrategies Inc.
Underground Storage Tank Removal and Soil Sampling Report	July 20, 1992	ROUX Associates

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
2101 WEBSTER STREET, SUITE 500
OAKLAND, CA 94612

Phone: (510) 286-1255
Fax: (510) 286-1380



File: 2198.17

FAX TRANSMITTAL

Mr. Mark Thompson
ACDA

October 1, 1992

Mr. Brian Oliva
ACHD

site name = ARCO

RE: Citizen Complaint regarding UST investigation at ARCO station,
731 Macarthur Blvd., Oakland

Dear Mark and Brian,

This complaint was received by our office a few days ago. I believe that Mrs. Patricia Gohleston is referring to the ARCO station at 731 MacArthur Blvd. We have this site listed as a "free product" site. Please call if you have any questions.

Rich
Rich Hiatt

*Brian Oliva paid a to the home of Mike
must a few months ago. Case is currently
by Susan Hays in the general COP
case load.*

10/1/92

*Called Mike
McDonald @ st. Bd.
and relayed
info - 10/1/92
K*



GeoStrategies Inc.

2140 WEST WINTON AVENUE
HAYWARD, CALIFORNIA 94545

(510) 352-4800

September 28, 1992

ARCO Products Company
P.O. Box 5811
San Mateo, California 94402

Attention: Mr. Michael Whelan

Reference: Monthly Site Status Update
ARCO Service Station No. 4931
731 West MacArthur Boulevard
Oakland, California 94611

Mr. Whelan:

This letter provides an update on activities, for the above referenced site, performed during the month of August, 1992 and activities anticipated for the month of September, 1992.

Status of Previous Month's Activities:

- * Construction of the equipment enclosure for the groundwater remedial system was completed.
- * Pursue procurement of remedial system equipment.

Anticipated Work to be Performed in the Next Month:

- * Issue draft Quarterly Monitoring/Well Installation Report to ARCO.
- * Install treatment system equipment upon receipt of equipment.

19:01:32 SEP 26


790001

GeoStrategies Inc.

ARCO Products Company
September 28, 1992
Page 2

If you have any questions please call.

Sincerely,


John F. Vargas
Senior Geologist

JFV/rmt


cc: Ms. Susan Hugo, Alameda County Health Agency, Department of
Environmental Health (Certified Mail)
Mr. Richard Hiatt, RWQCB - San Francisco Bay Region
Mr. Mark Thomson, Alameda County District Attorney

790001

M e m o r a n d u m

To : Lester Feldman, UST Manager
San Francisco Bay Regional Water Quality
Control Board

Date : SEP 24 1992



Mike McDonald, Manager
Underground Storage Tank Program
From : **STATE WATER RESOURCES CONTROL BOARD**
2014 T Street, Sacramento, CA 95814
Mail Code: G-8

CALIF. REG. WATER
SEP 28 1992
QLTY. CONTROL BOARD

Subject: CITIZEN CONCERN REGARDING POTENTIAL TANK REGULATION VIOLATION --
INVESTIGATIVE LOG NUMBER 92-6

We have received the attached citizen concern from Environmental Protection Agency (EPA) Region 9. Since the document addresses a potential problem in your region, your assistance is requested in investigating this matter.

EPA has asked that a report on this concern be supplied to them to inform them of the status and results of your investigations into these incidents. If you would send us a copy of your finding by October 15, 1992, we will forward your findings along with reports on similar concerns being reviewed by other Regional Boards to EPA.

If the concerns are not completely resolved by the above requested reporting date, please supply a quarterly update and we will keep EPA informed as to the progress of the resolution. Quarterly reports should be submitted by the 15th of the month following the close of each quarter.

If you have any questions regarding this issue, please call me at (916) 739-4352 or CALNET 8-497-4352.

Attachments

cc Heidi Hall
Environmental Protection Agency,
Region 9
75 Hawthorne Street
Mail Code H-2-1
San Francisco, CA 94105

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

92 SEP 25 10:47

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>RWOCB 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



GeoStrategies Inc.

2140 WEST WINTON AVENUE
HAYWARD, CALIFORNIA 94545

(510) 352-4800

August 13, 1992

ARCO Products Company
P.O. Box 5811
San Mateo, California 94402

Attention: Mr. Michael Whelan

Reference: Monthly Site Status Update
ARCO Service Station No. 4931
731 West MacArthur Boulevard
Oakland, California 94611

Mr. Whelan:

This letter provides an update on activities for the site referenced above. This update reports site activities performed during the month of July, 1992 and site activities anticipated for the month of August, 1992.

Status of Previous Month's Activities:

- * ROUX Associates issued an Underground Storage Tank Removal and Soil Sampling Report dated July 20, 1992 documenting recent tank replacement activities.
- * Issued Quarterly Monitoring Report, dated July 31, 1992, presenting second quarter, 1992 sampling results to ARCO, ACHA, and RWQCB.
- * Construction of underground piping and equipment enclosure for the groundwater remedial system was completed.

Anticipated Work to be Performed in the Next Month:

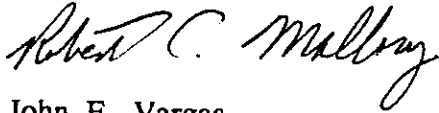
- * Issue draft Quarterly Monitoring/Well Installation Report to ARCO.
- * Install treatment system equipment upon receipt of equipment.

GeoStrategies Inc.

ARCO Products Company
August 13, 1992
Page 2

If you have any questions please call.

Sincerely,



For John F. Vargas
Senior Geologist

JFV/shl

cc: Ms. Susan Hugo, Alameda County Health Agency, Department of
Environmental Health (Certified Mail)
Mr. Lester Feldman, RWQCB - San Francisco Bay Region



GeoStrategies Inc.

2140 WEST WINTON AVENUE
HAYWARD, CALIFORNIA 94545

92 JUL 14 11:35

(510) 352-4800

July 9, 1992

ARCO Products Company
P.O. Box 5811
San Mateo, California 94402

Attention: Mr. Michael Whelan

Reference: Monthly Site Status Update
ARCO Service Station No. 4931
731 West MacArthur Boulevard
Oakland, California 94611

Mr. Whelan:

This letter provides an update on activities for the site referenced above. This update reports site activities performed during the month of June, 1992 and site activities anticipated for the month of July, 1992.

Status of Previous Month's Activities:

- * Tank removal and replacement project has been completed.
- * Installed three on-site ground-water recovery wells (AR-1 through AR-3) and one off-site, up-gradient monitoring well (A-13).
- * Issued draft Quarterly Monitoring Report presenting second quarter, 1992 sampling results to ARCO.
- * Began construction of groundwater remedial system trenching.

Anticipated Work to be Performed in the Next Month:

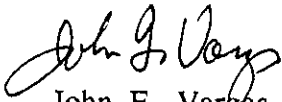
- * Issue draft Quarterly Monitoring/Well Installation Report to ARCO.
- * Continue construction of groundwater remedial system.

GeoStrategies Inc.

ARCO Products Company
July 9, 1992
Page 2

If you have any questions please call.

Sincerely,



John F. Vargas
Senior Geologist

JFV:rcm

cc: Ms. Susan Hugo, Alameda County Health Agency, Department of
Environmental Health (Certified Mail)
Mr. Lester Feldman, RWQCB - San Francisco Bay Region

SS #4931

<u>REPORT</u>	<u>DATE</u>	<u>CONSULTANT</u>
Groundwater Investigation Report	June 18, 1986	EMCON
Groundwater Investigation Report	January 20, 1988	Pacific Environmental Group
Quarterly Groundwater Sampling Report	April 20, 1989	GeoStrategies Inc.
Quarterly Groundwater Sampling Report	September 12, 1989	GeoStrategies Inc.
Quarterly Report	December 5, 1989	GeoStrategies Inc.
Quarterly Report	February 13, 1990	GeoStrategies Inc.
Quarterly Report	June 28, 1990	GeoStrategies Inc.
Site Update	July 24, 1990	GeoStrategies Inc.
Site Update	October 4, 1990	GeoStrategies Inc.
Site Update	January 28, 1991	GeoStrategies Inc.
Site Update	May 3, 1991	GeoStrategies Inc.
Remedial Action Plan	May 15, 1991	GeoStrategies Inc.
Aquifer Test Report	July 10, 1991	GeoStrategies Inc.
Quarterly Monitoring Report	July 12, 1991	GeoStrategies Inc.
Quarterly Monitoring Report	October 25, 1991	GeoStrategies Inc.
Quarterly Monitoring Report	January 16, 1992	GeoStrategies Inc.
Quarterly Monitoring Report	March 31, 1992	GeoStrategies Inc.
Vapor Extraction Test Report	May 21, 1992	GeoStrategies Inc.

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



92 JUL -6 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 GeoStratagies 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 & 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 Hiatt
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. Hiatt 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 Hiatt
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. Hiatt 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. Hiatt 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.

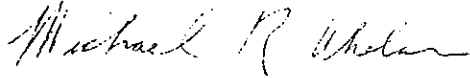
A brief discussion was held about the law under Title 23, Article 11, Chapter 16, Sections 2722 (b)(5) and 2726 (c)(1), which allows for proceeding with proposed work in work plans if not having received approval after 60 days from submittal. Mr. Whelan asked that ARCO be allowed to proceed with proposed 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 its 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 Hiett
July 3, 1992

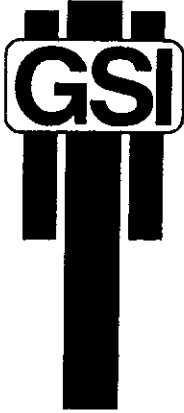
If you have any questions or comments about these meeting minutes, please contact me at (415) 571-2449.

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



GeoStrategies Inc.

2140 WEST WINTON AVENUE
HAYWARD, CALIFORNIA 94545

(510) 352-4800

June 12, 1992

ARCO Products Company
P.O. Box 5811
San Mateo, California 94402

Attention: Mr. Michael Whelan

Reference: Monthly Site Status Update
ARCO Service Station No. 4931
731 West MacArthur Boulevard
Oakland, California 94611

92 JUN 10 11 14 AM '92

Mr. Whelan:

This letter provides an update on activities for the site referenced above. This update reports site activities performed during the month of May, 1992 and site activities anticipated for the month of June, 1992.

Status of Previous Month's Activities:

- * Continuing tank replacement project.
- * Received encroachment permits from the City of Oakland for the proposed up-gradient monitoring well on MacArthur Boulevard.
- * Ground-water sampling and monitoring was performed for the second quarter, 1992.
- * Issued Vapor Extraction Test Report to ARCO, ACHA, and RWQCB.
- * Notified Bay Area Air Quality Management District of pending demolition of on-site restroom building.

Anticipated Work to be Performed in the Next Month:

- * Completion of tank replacement project.
- * Installation of three on-site ground-water recovery wells and one off-site, up-gradient monitoring well.


GeoStrategies Inc.

ARCO Products Company
June 12, 1992
Page 2

- * Installation of E-Z Horner product skimmer in Well A-8 to recover floating product.
- * Initiate construction of the remediation system trenching.

Please call if you have any questions concerning this letter.

Sincerely,


For John F. Vargas
Senior Geologist

JFV:rcm

cc: Ms. Susan Hugo, Alameda County Health Agency, Department of
Environmental Health (Certified Mail).
Mr. Eddy So, RWQCB - San Francisco Bay Region

6/11/92

1200 Park St. Alameda

Site - Area Meeting
6/11/92

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

ARCO Station

Address & City

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

5275 Washington Luwelling Blvd.

← VOC problems
2 up gradient wells

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

- John Vargas / Alona Lindquist

→ 3 MWs + 1 Boring (SW →)

Topics for discussion to include:

- Permitting and Access Problems, including City of Oakland - *name of people signing permit*
- *delays w/* 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 permit to flag

Interim schedule for corrective action

*EP/ARCO
discharge permit
→ \$12,000
Risk always
waste discharge 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

UTID/ Status Name of Site	Site Address	#Tanks	PERMITS:
BillID =====	=====	=====	=====
<i>NSP SH</i> 3629 C Arco Station #02112 <i>FP</i> ✓ <i>(35) FP ✓ 712 Lewelling Blvd. S.L.</i> T61043	1260 Park St. Alameda, CA 94501	4	I:12/27/91 F:01/23/92
<i>LS</i> 3858 C Arco AM/PM Minimarket <i>FP</i> #0 ✓ T61043	1001 San Pablo Ave. Albany, CA 94706	4	I:-0- F:-0-
658 C Arco Station #04977 T61043	2770 Castro Valley Blvd. Castro Valley, CA 94546	3	I:09/06/88 F:-0-
<i>JS</i> 3943 C Arco Station #02152 T61043	22141 Center St. Castro Valley, CA 94546	3	I:09/06/88 F:-0-
<i>JA</i> 1053 C Arco Station #06041 T61043	7249 Village Pkwy. Dublin, CA 94568	3	I:09/06/88 F:-0-
<i>DE</i> 817 C Arco Station #05387 <i>FP</i> ✓ T61043	20200 Hesperian Blvd. Hayward, CA 94541	4	I:09/06/88 F:-0-
<i>SH</i> 2112 C Springtown Arco T42311	909 Bluebell Dr. Livermore, CA 94550	3	I:-0- F:-0-
3941 C Arco Facility #00498 T61043	286 S. Livermore Ave. Livermore, CA 94550	3	I:09/06/88 F:-0-
<i>SH</i> 3873 C Arco Station #00771 <i>FP</i> ✓ T61043	899 Rincon Ave. Livermore, CA 94550	4	I:09/06/88 F:-0-
<i>SH</i> -0- C Arco Station #06113 T61043	785 E. Stanley Blvd. Livermore, CA 94550	3	I:09/06/88 F:-0-
198 R Wong's Arco T61026	2032 E. - 12th St. Oakland, CA 94606	0	I:-0- F:-0-
<i>3C</i> 3876 C Arco Station #02185 T61043	9800 E. - 14th St. Oakland, CA 94603	4	I:09/06/88 F:-0-
1130 C Freeway Arco TA1036	2740 - 98th Ave. Oakland, CA 94605 <i>Arco?</i>	4	I:10/13/87 F:-0-
<i>DB</i> 3793 C Arco Station #02169 <i>(SH)</i> ✓ T61043	889 W. Grand Ave. Oakland, CA 94607	4	I:-0- F:-0-
<i>PS</i> 3749 R Gin's Arco Service -0-	706 Harrison St. Oakland, CA 94612 <i>Arco?</i>	0	I:-0- F:-0-
<i>3C</i> 3854 C Arco Station #04494 <i>FP</i> ✓ T61043	566 Hegenberger Rd. Oakland, CA 94621	3	I:02/05/88 F:01/30/91
1038 C Zema Ctr. Inc. Arco T21043	2951 High St. <i>Arco?</i> Oakland, CA 94619	5	I:02/05/88 F:-0-
<i>SH</i> 3874 C Arco Station #04931 <i>FP</i> ✓ T61043	731 W. MacArthur Blvd. Oakland, CA 94609	4	I:-0- F:-0-
<i>PS</i> 3756 C Arco Station #00276 <i>FP</i> ✓ T61043	10600 MacArthur Blvd. Oakland, CA 94605	4	I:-0- F:-0-
851 C Mountain Blvd. Arco #796 T41043	2844 Mountain Blvd. Oakland, CA 94602	4	I:04/14/88 F:-0-
<i>DS</i> -0- C Arco Station #02107 T61043	3310 Park Blvd. Oakland, CA 94610	3	I:09/06/88 F:-0-
3942 C Arco Station #06002 T61043	6235 Seminary Ave. Oakland, CA 94605	4	I:09/06/88 F:07/30/91
<i>SH</i> 3626 C Arco Station #06148 T61043	5131 Shattuck Ave. Oakland, CA 94609	3	I:09/06/88 F:-0-
<i>SH</i> -0- C Arco Station #00374 <i>FP</i> ✓ T61043	6407 Telegraph Ave. Oakland, CA 94609	3	I:09/06/88 F:-0-
-0- F freedom arco mini mart -0-	15101 Freedom Ave. <i>Arco?</i> San Leandro, CA 94578	3	I:-0- F:-0-
1794 C Tharco T81053	2222 Grant Ave. <i>Arco?</i> San Lorenzo, CA 94580	1	I:08/16/88 F:-0-
<i>PE</i> 779 C Arco Station #00608 <i>FP</i> ✓ T61043	17601 Hesperian Blvd. San Lorenzo, CA 94580	4	I:09/06/88 F:12/31/91

PEV REMEDIATION : *FP* ✓ *20200 Hesperian Blvd. Hayward* *5 yr permit*



GeoStrategies Inc.

2140 WEST WINTON AVENUE
HAYWARD, CALIFORNIA 94545

(510) 352-4800

May 21, 1992

ARCO Products Company
P.O. Box 5811
San Mateo, California 94402

Attention: Mr. Michael Whelan

Reference: Monthly Site Status Update
ARCO Service Station No. 4931
731 West MacArthur Boulevard
Oakland, California 94611

92 MAY 24 PM 1:53

Dear Mr. Whelan:

This letter provides an update on activities for the site referenced above. This update reports site activities performed during the month of April, 1992 and site activities anticipated for the month of May, 1992.

Status of Previous Month's Activities:

- * Continuing tank replacement project.
- * Received an amendment to building permit for the demolition of on-site restroom building.
- * Received conditional approval of groundwater discharge permit (POTW) - final approval is on hold pending initial start-up of remedial system.
- * Applied for encroachment permits with the City of Oakland for the proposed up-gradient monitoring well on MacArthur Boulevard.

Anticipated Work to be Performed in the Next Month:

- * Issue Vapor Extraction Test Report to ARCO, ACHA, and RWQCB.
- * Ground-water sampling and monitoring will be performed for the second quarter, 1992.
- * Completion of tank replacement project.
- * Secure encroachment permit from the City of Oakland.
- * Installation of three on-site ground-water recovery wells and one off-site, up-gradient monitoring well.

GeoStrategies Inc.

ARCO Products Company
May 21, 1992
Page 2

- * Installation of E-Z Horner product skimmer in Well A-8 to recover floating product.
- * Initiate construction of the remediation system trenching.

Please call if you have any questions concerning this letter.

Sincerely,



John F. Vargas ^{FOR}
Senior Geologist

JFV:rcm

cc: Ms. Susan Hugo, Alameda County Health Agency, Department of
Environmental Health (Certified Mail).
Mr. Eddy So, RWQCB - San Francisco Bay Region

A. Lee Gohleston
3710 West Street
Oakland, California 94608

92 MAY -6 AM 11:15

April 19, 1992

Dear Sirs/Madams:

My name is Mrs. A. Lee Gohleston and I own and live in the property located at 3710 West Street, Oakland, California 94608.

I am writing this letter to inform the Atlantic Richfield Corporation of Los Angeles, California and the respective Federal EPA, State Health Agencies, County and Local Jurisdictions regarding health and property hazards my family and I are experiencing due to our proximity to an ARCO Gasoline Station.

This leased gas station is located next door to my home, with a wooden 6 foot high fence separating the property. The manager of the gas station stated that he leases this facility from Atlantic Richfield Corporation.

We have been living at this residence since 1987. Since that time we encountered problems such as :

Excessive fumes flowing across our property. We been having problems breathing for hours at a time. I feel my headaches which occur almost daily and my stomach aches are due to these fumes. When I visited relatives in Las Vegas for 2 1/2 months my symptoms went away, yet the symptoms returned when I arrived back home.

I think gasoline is leaking from the old tanks through the ground to our backyard. My side yard and backyard garden and plants have been dying over the last three years. Trees that are ten years old and bore fruit every year are no longer with buds for this spring. Over the last two years, on many occasions, I purchased flowers and vegetables and planted them in the ground and they died immediately. My grass is also all died out. It used to be full and green.

The fence that separate our property was erected by the previous owner of my property. The fence is part of my property, yet the gasoline station management doesn't stop the constant vandalism to the fence. I think they should replace my fence.

The gasoline station has been closed for over 3 months. I have noticed since that time they have replaced the old tanks with new tanks.

They are constantly digging up the ground and replacing it with new dirt and rocks. They are constantly testing the soil content. One of the workers mentioned that the reason they replaced the tanks was because of leakage from the old tanks.

I am asking for assistance to determine if there is leakage to my property. If the soil and environment testing is positive, then I will need help alleviate this problem.

My family and I appreciate your interest and concern and look forward to your response.

Sincerely,

Mrs. Patricia Gohleston

A. Lee Gohleston
3710 West Street
Oakland, California 94608

92 MAY -6 11:15

April 19, 1992

Dear Sirs/Madams:

My name is Mrs. A. Lee Gohleston and I own and live in the property located at 3710 West Street, Oakland, California 94608.

I am writing this letter to inform the Atlantic Richfield Corporation of Los Angeles, California and the respective Federal EPA, State Health Agencies, County and Local Jurisdictions regarding health and property hazards my family and I are experiencing due to our proximity to an ARCO Gasoline Station.

This leased gas station is located next door to my home, with a wooden 6 foot high fence separating the property. The manager of the gas station stated that he leases this facility from Atlantic Richfield Corporation.

We have been living at this residence since 1987. Since that time we encountered problems such as :

Excessive fumes flowing across our property. We been having problems breathing for hours at a time. I feel my headaches which occur almost daily and my stomach aches are due to these fumes. When I visited relatives in Las Vegas for 2 1/2 months my symptoms went away, yet the symptoms returned when I arrived back home.

I think gasoline is leaking from the old tanks through the ground to our backyard. My side yard and backyard garden and plants have been dying over the last three years. Trees that are ten years old and bore fruit every year are no longer with buds for this spring. Over the last two years, on many occasions, I purchased flowers and vegetables and planted them in the ground and they died immediately. My grass is also all died out. It used to be full and green.

The fence that separate our property was erected by the previous owner of my property. The fence is part of my property, yet the gasoline station management doesn't stop the constant vandalism to the fence. I think they should replace my fence.

The gasoline station has been closed for over 3 months. I have noticed since that time they have replaced the old tanks with new tanks.

They are constantly digging up the ground and replacing it with new dirt and rocks. They are constantly testing the soil content. One of the workers mentioned that the reason they replaced the tanks was because of leakage from the old tanks.

I am asking for assistance to determine if there is leakage to my property. If the soil and environment testing is positive, then I will need help alleviate this problem.

My family and I appreciate your interest and concern and look forward to your response.

Sincerely,

Mrs. Patricia Gohleston

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
RAFAT A. SHAHID, Assistant Agency Director

Certified Mail # P 367 604 497

04/09/92
STID# 3874

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

Notice of Requirement to Reimburse

Chuck Carmel
Arco Products Co
2000 Alameda Delas Pulgas
San Mateo, C A 94403

Responsible Party
Property Owner

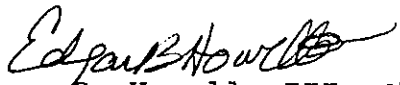
Arco Station #04931
731 W. Macarthur Blvd.
Oakland , CA 94609

SITE

Date First Reported 11/24/82
Substance: Gasoline
Petroleum: (X) Yes

The federal Petroleum Leaking Underground Storage Tank Trust Fund (Federal Trust Fund) provides funding to pay the local and state agency administrative and oversight costs associated with the cleanup of releases from underground storage tanks. The legislature has authorized funds to pay the local and state agency administrative and oversight costs associated with the cleanup of releases from underground storage tanks. The direct and indirect costs of overseeing removal or remedial action at the above site are funded, in whole or in part, from the Federal Trust Fund. The above individual(s) or entity(ies) have been indentified as the party or parties responsible for investigation and cleanup of the above site. **YOU ARE HEREBY NOTIFIED** that pursuant to Title 42 of the United States Code, Section 6991b(h)(6) and Sections 25297.1 and 25360 of the California Health and Safety Code, the above Responsible Party or Parties must reimburse the State Water Resources Control Board not more than 150 percent of the total amount of site specific oversight costs actually incurred while overseeing the cleanup of the above underground storage tank site, and the above Responsible Party or Parties must make full payment of such costs within 30 days of receipt of a detailed invoice from the State Water Resources Control Board.

Please contact Susan HUGO, Hazardous Materials Specialist at this office if you have any questions concerning this matter.


Edgar B. Howell, III, Chief
Contract Project Director

cc: Sandra Malos, SWRCB

SWRCB Use:

Add: X Reason: New Case

ee

A. Lee Gobleston
3710 West St.
Oakland, CA 94608



forward to

AA/CO
Property Hazards
Alameda County ~~Tax~~ Assessor
~~1221 Oak Street~~
Oakland, CA 94612

Note to
Susan 5/4/92
to see me
ed

25104

Susan
see me
ed

DATE: 4/8/92
TO : Local Oversight Program
FROM: EOA
SUBJ: Transfer of Eligible Oversight Case

Site name: ARCO
Address: 731 W. MacArthur Bl. city Oak zip 94609
Closure plan attached? Y N DepRef remaining \$ _____
DepRef Project # _____ STID #(if any) 3874
Number of Tanks: _____ removed? Y N Date of removal _____
Leak Report filed? Y N Date of Discovery Nov 1982
Samples received? Y N Contamination: _____
Petroleum Y N Types: Avgas Jet leaded unleaded Diesel
fuel oil waste oil kerosene solvents
Monitoring wells on site 12 Monitoring schedule? Y N
LUFT category 1 2 3 * H S C A R W G O
Briefly describe the following:
Preliminary Assessment Began in 12/82
Remedial Action _____
Post Remedial Action Monitoring _____
Enforcement Action _____

Flushing products in MWs

SAMPLING METHODOLOGY

Soil was removed from the pit in a backhoe bucket. After removing the first 3 to 4 inches of soil, presumably slough, samples were contained by driving clean brass tubes (1.92" x 6") into the exposed layer just above the teeth of the bucket. Soil was packed into the tubes to exclude the existence of headspace. Thus prepared, the ends of the tubes were wrapped with aluminum foil and sealed with plastic caps. After removing excess foil, electrical tape was applied to the seams between cap and tube in an effort to reduce evaporative loss of volatile constituents.

Soil samples taken from a hand auger were promptly packed into clean brass tubes (1.92" x 6"). The exposed ends of the tubes are covered with aluminum foil beneath snug fitting plastic caps. The seams between cap and tube were covered with a non-contributing plastic tape in an effort to reduce evaporative loss of volatile compounds.

The samples were documented on an appropriate chain of custody, placed on ice and transported to Mobile Chem Labs Inc., a certified hazardous waste analytical laboratory for analyses.

4/23/92
Called Don Moore (Seaco)
received OK updates of ARCO

April 13, 1992

92 APR 15 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
for

Kyle A. Christie
Environmental Engineer

Attachments: ARCO Facility QSRs

SS #4931

<u>REPORT</u>	<u>DATE</u>	<u>CONSULTANT</u>
Groundwater Investigation Report	June 18, 1986	EMCON
Groundwater Investigation Report	January 20, 1988	Pacific Environmental Group
Quarterly Groundwater Sampling Report	April 20, 1989	GeoStrategies Inc.
Quarterly Groundwater Sampling Report	September 12, 1989	GeoStrategies Inc.
Quarterly Report	December 5, 1989	GeoStrategies Inc.
Quarterly Report	February 13, 1990	GeoStrategies Inc.
Quarterly Report	June 28, 1990	GeoStrategies Inc.
Site Update	July 24, 1990	GeoStrategies Inc.
Site Update	October 4, 1990	GeoStrategies Inc.
Site Update	January 28, 1991	GeoStrategies Inc.
Site Update	May 3, 1991	GeoStrategies Inc.
Remedial Action Plan	May 15, 1991	GeoStrategies Inc.
Aquifer Test Report	July 10, 1991	GeoStrategies Inc.
Quarterly Monitoring Report	July 12, 1991	GeoStrategies Inc.
Quarterly Monitoring Report	October 25, 1991	GeoStrategies Inc.
Quarterly Monitoring Report	January 16, 1992	GeoStrategies Inc.



GeoStrategies Inc.
2140 WEST WINTON AVENUE
HAYWARD, CALIFORNIA 94545

92 APR -7 PM 1:05

(510) 352-4800

March 31, 1992

ARCO Products Company
P.O. Box 5811
San Mateo, California 94402

Attention: Mr. Michael Whelan

Reference: Monthly Site Status Update
ARCO Service Station No. 4931
731 West MacArthur Boulevard
Oakland, California, 94611

Dear Mr. Whelan:

This letter provides an update on activities for the site referenced above. This update reports site activities performed during the month of March 1992 and site activities anticipated for the month of April 1992.

Status of Previous Month's Activities:

- * Continuing tank replacement project.
- * Issued draft Vapor Extraction Test Report to ARCO.

Anticipated Work to be Performed in the Next Month:

- * Issue Quarterly Monitoring Report for the first quarter, 1992 to ARCO, ACHA, and RWQCB.

Please call if you have any questions concerning this letter.

Sincerely,


John F. Vargas

JFV:rcm

cc: Ms. Susan Hugo, Alameda County Health Agency, Department of
Environmental Health (Certified Mail).
Mr. Eddy So, RWQCB, San Francisco Bay Region



GeoStrategies Inc.
2140 WEST WINTON AVENUE
HAYWARD, CALIFORNIA 94545

92 MAR -5 AM 11:42

(510) 352-4800

February 28, 1992

ARCO Products Company
P.O. Box 5811
San Mateo, California 94402

Attention: Mr. Charles Carmel

Reference: Monthly Site Status Update
ARCO Service Station 4931
731 West MacArthur
Oakland, California, 94611

Dear Mr. Carmel:

This letter provides an update on activities for the site referenced above. This update reports site activities performed during the month of February 1992 and site activities anticipated for the month of March 1992.

Status of Previous Month's Activities:

- * Continuing tank replacement project.

Anticipated Work to be Performed in the Next Month:

- * Issue test results report for vapor extratction test conducted by GSI on January 20, 1992.

Please call if you have any questions concerning this letter.

Sincerely,


John F. Vargas

JFV:rcm

cc: Ms. Susan Hugo, Alameda County Health Agency, Department of
Environmental Health (Certified Mail).
Mr. Eddy So, RWQCB, San Fancisco Bay Region



GeoStrategies Inc.

2140 WEST WINTON AVENUE
HAYWARD, CALIFORNIA 94545

92 FEB 13 11:05

(510) 352-4800

January 30, 1992

ARCO Products Company
P.O. Box 5811
San Mateo, California 94402

Attention: Mr. Charles Carmel

Reference: Monthly Site Status Update
ARCO Service Station 4931
731 West MacArthur
Oakland, California, 94611

Dear Mr. Carmel:

This letter provides an update on activities for the site referenced above. This update reports site activities performed during the month of January 1992 and site activities anticipated for the month of February 1992.

Status of Previous Month's Activities:

Continuing tank replacement project.

January 16: Issued final 4th quarter QMR.

January 17: Meeting with RWQCB and Alameda County.

January 29: Issued addendum to Remedial Action Plan first issued in May 1991.

Anticipated Work to be Performed in the Next Month:

* Secure permits for ground-water and recovery wells.

Please call if you have any questions concerning this letter.

Sincerely,

John F. Vargas

cc: Ms. Susan Hugo, Alameda County Health Agency, Department of
Environmental Health (Certified Mail)



GeoStrategies Inc.

2140 WEST WINTON AVENUE
HAYWARD, CALIFORNIA 94545

(510) 352-4800

January 27, 1992

ARCO Products Company
P.O. Box 5811
San Mateo, California 94402

Attn: Mr. Charles Carmel

Re: ADDENDUM TO REMEDIAL ACTION PLAN
ARCO Service Station No. 4931
731 West MacArthur
Oakland, California

Gentlemen:

This document outlines proposed changes to the recovery well configuration currently described in the GeoStrategies Inc. (GSI) Remedial Action Plan (RAP) dated May 15, 1991. The modifications described herein are at the request of ARCO Products Company.

CURRENT RECOVERY WELL PROPOSAL

As stated in the above referenced RAP, Recovery Well A-9 is proposed to be utilized as the ground-water extraction well. Refer to Plate 2 for the location of Recovery Well A-9.

PROPOSED MODIFICATION TO RECOVERY WELL CONFIGURATION

The following are proposed changes to the ground-water extraction configuration:

- o Three additional 6-inch-diameter ground-water extraction wells are proposed to enhance hydraulic control of the hydrocarbon plume.
- o Two of the proposed ground-water extraction wells are to be placed within the limits of excavation of the former and proposed underground storage tank (UST) complexes. One proposed groundwater extraction well will be located adjacent to well A-4.

GeoStrategies Inc.

ARCO Products Company
January 27, 1992
Page 2

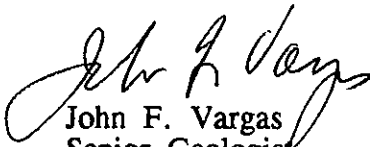
Refer to Plate 2 for the approximate locations of the proposed recovery wells.

If you have any questions, please call.

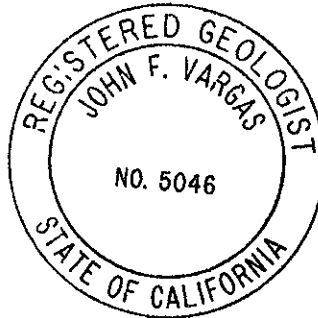
GeoStrategies Inc. by,



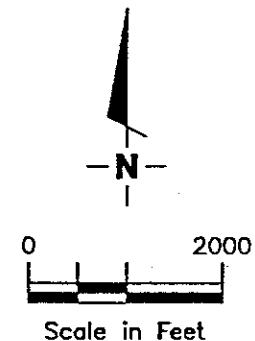
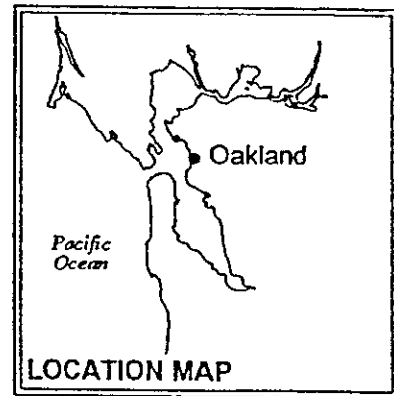
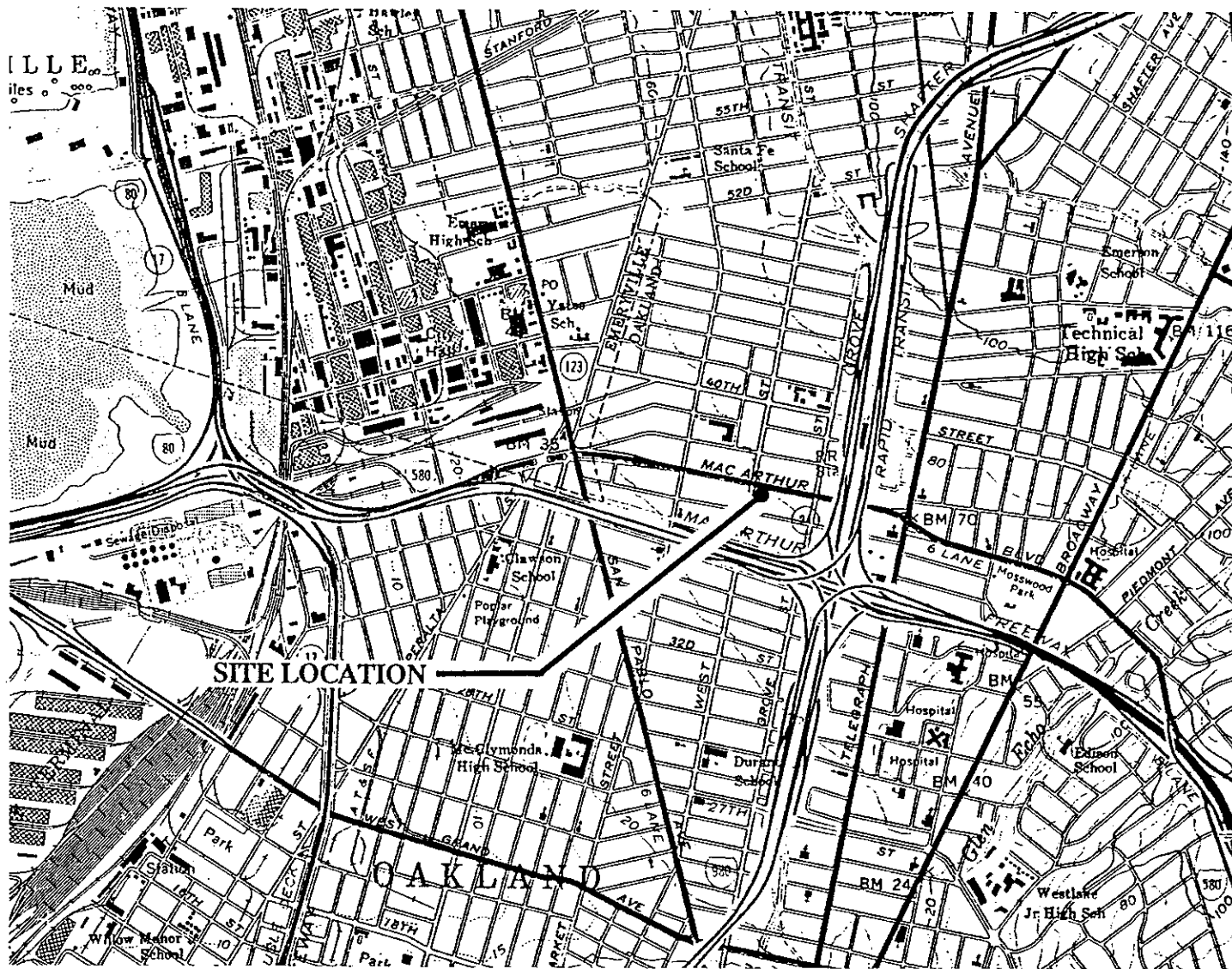
Cliff M. Garratt
Hydrogeologist



John F. Vargas
Senior Geologist
R.G. 5046



CMG/JFV/mlg



Base Map: USGS Topographic Map



GeoStrategies Inc.

VICINITY MAP
 ARCO Service Station #4931
 731 West MacArthur Boulevard
 Oakland, California

PLATE

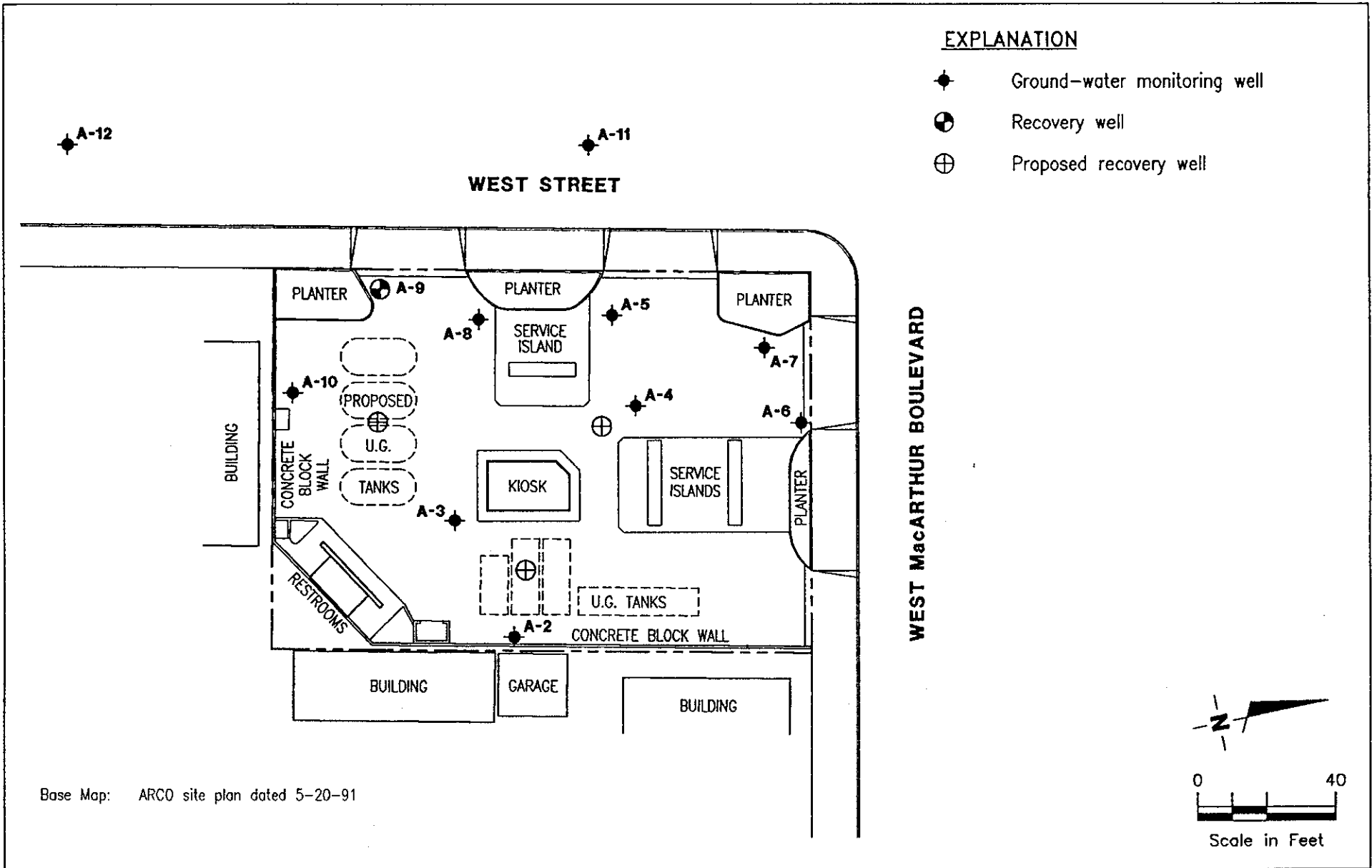
1

JOB NUMBER
 7909

REVIEWED BY

DATE
 9/91

REVISED DATE



EXPLANATION

- ◆ Ground-water monitoring well
- Recovery well
- ⊕ Proposed recovery well

Base Map: ARCO site plan dated 5-20-91



GeoStrategies Inc.

SITE PLAN
 ARCO Service Station #4931
 731 West MacArthur Boulevard
 Oakland, California

PLATE
2

JOB NUMBER
 790901-14A

REVIEWED BY
CMG

DATE
 1/92

REVISED DATE



GeoStrategies Inc.

2140 WEST WINTON AVENUE
HAYWARD, CALIFORNIA 94545

92 JAN 26 AM 11:03

(510) 352-4800

January 23, 1992

ARCO Products Company
P.O. Box 5811
San Mateo, California 94402

Attn: Mr. Charles Carmel

Re: ARCO Service Station No. 4931
731 W. MacArthur Boulevard
Oakland, California

Gentlemen:

This letter summarizes the topics discussed at the meeting which occurred on January 17, 1992, concerning the above referenced site. The meeting was held among the State of California, Regional Water Quality Control Board, San Francisco Bay Region (RWQCB), ARCO Products Company, Alameda County Health Agency, GeoStrategies Inc. and ROUX Associates. The attendees were:

Susan L. Hugo	Alameda County Health Agency (ACHA)
Eddie P. So	RWQCB
Charles Carmel	ARCO Products Company (ARCO)
Kyle Christie	ARCO Products Company (ARCO)
John F. Vargas	GeoStrategies Inc. (GSI)
Paul V. Supple	ROUX Associates (ROUX)

SITE CONDITIONS

The site conditions were briefly discussed and can be summarized. Floating product was present on July 10, 1991 in Well A-8 at a thickness of 0.01 feet. Petroleum hydrocarbons have not been detected in the downgradient Well A-12. Dissolved hydrocarbon concentrations identified in Well A-9, located at the downgradient edge of the property, has decreased over time.

GeoStrategies Inc.

ARCO Products Company
January 23, 1992
Page 2

A Remedial Action Plan (RAP) was prepared by GeoStrategies Inc. (GSI) and submitted to ACHA in May 1991. The RAP recommended groundwater extraction and treatment as a remedial option. Susan Hugo approved the RAP provided that an additional groundwater extraction well be installed adjacent to Well A-4. In addition, Susan Hugo requested that additional groundwater definition be performed to the north end east of the site. A groundwater recovery system has been designed by GSI.

CURRENT CONDITIONS

Currently, a tank replacement and site reconstruction project is underway. The previous Underground Storage Tanks (USTs) have been removed. The UST excavation has been overexcavated to a maximum depth of 15 feet. The RWQCB and ACHA agreed that the soil samples from the UST complex base have defined the vertical extent of hydrocarbon contamination. The excavation has been overexcavated to the maximum extent which can be achieved using an excavator without undermining the site structures. Eddy So said that his intent is not to have ARCO compromise onsite or offsite structures. ?

Sidewall samples from the UST excavation indicate that TPH-Gasoline levels above ~~the excavation~~ in isolated areas. These locations include southwest of the excavation and along the west and north ends of the excavation. Oil and Grease were also identified in some soil samples. The RWQCB has requested ARCO to analyze groundwater samples for total oil and grease and lead.

PLANNED ACTIVITIES

not accurate ARCO wants to backfill the UST excavation because additional excavation is not feasible. The RWQCB and ACHA asked ARCO to perform further excavation in the contaminated areas along the west and north sidewalls. ARCO agreed in principle to try to perform further excavation in these areas by using temporary shoring, or other method, if possible. The contractor is being consulted on this final tank pit excavation activity. The RWQCB and ACHA are satisfied with this approach. In addition the RWQCB requested that further soils definition (i.e. soil borings) be performed if the new soil samples are not below satisfactory levels. The planned Upgradient Well could be used to define the extent of contamination present along the north sidewall.

GeoStrategies Inc.

ARCO Products Company
January 23, 1992
Page 3

The RWQCB is concerned that the tank replacement project will slow down the remediation activities. ARCO said that groundwater remediation system construction will be performed concurrent with the tank replacement project. ARCO estimates that the remedial system could be ready for operation within 8 to 10 months of the previous tank complex. However, discharge or other permits may delay the project. ARCO, the RWQCB and ACHA agreed to work together to expedite the permit process.

The new UST complex will be excavated after backfilling the old UST excavation. Backfilling the old UST complex is necessary to proceed with the tank replacement project due to the limited space onsite. → *not accurate*

✓ During the tank replacement project the sanitary sewer and waste line backfill located adjacent to the old UST complex will be excavated.

ARCO plans on installing two additional ground-water recovery wells, one within each tank backfill. These areas will act as sumps for recovery of dissolved and free-phase product, if present. The well within the new tank complex will be installed through conductor casing which will be installed during the tank replacement project. ACHA requested that an addendum to the RAP be submitted which outlines the changes to the initial remediation plan. Any necessary adjustments to the Remediation Time Line should be included. }

not received yet

ARCO communicated that a vapor extraction test will be performed on Monday, January 20, 1992. Test results will be forthcoming. ARCO also indicated that bioremediation may be considered as remedial option at some future date. The RWQCB agreed that bioremediation can be an acceptable remediation method provided that all local agency concerns are addressed. The RWQCB also expects long delays in getting approval to use bioremediation.

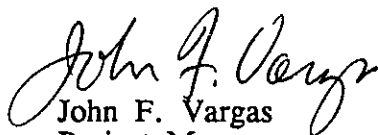
not accurate

GeoStrategies Inc.

ARCO Products Company
January 23, 1992
Page 4

If you have any questions or comments, please call.

Sincerely,


John F. Vargas
Project Manager

JFV/mlg

cc: Susan L. Hugo, ACHA
Eddy P. So, RWQCB
Paul V. Supple, ROUX
Chris Winsor, ARCO

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:

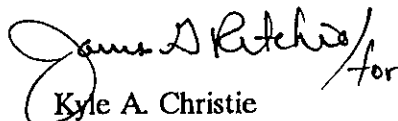
Please find attached, Quarterly Summary Reports (QSRs) for ARCO Products Company Service Stations in Alameda County. The QSRs summarize activities conducted by ARCO at the respective sites during the fourth quarter of 1991; also included are projected site activities for the first quarter of 1992 and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

SS #4931

<u>REPORT</u>	<u>DATE</u>	<u>CONSULTANT</u>
Groundwater Investigation Report	June 18, 1986	EMCON
Groundwater Investigation Report	January 20, 1988	Pacific Environmental Group
Quarterly Groundwater Sampling Report	April 20, 1989	GeoStrategies Inc.
Quarterly Groundwater Sampling Report	September 12, 1989	GeoStrategies Inc.
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Aquifer Test Report	July 10, 1991	GeoStrategies Inc.
Quarterly Monitoring Report	July 12, 1991	GeoStrategies Inc.
Quarterly Monitoring Report	October 25, 1991	GeoStrategies Inc.

 UST LEAK Date of Last Current
 SITE UPDATE Review/Update: 8/26/91 Date: 1/10/92

SITE IDENTIFICATION

Name: ARCO Products Company #4931 Case No.: _____
 Address: 731 West Macarthur Boulevard
 Street Number Street
 Oakland 94611
 City Zip Code
 Alameda Substance: Gasoline
 County

Local Agency: Department of Environmental Health
 Regional Board: San Francisco Bay Region

 LEAD STAFF PERSON: Cliff Garratt

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>Nov. 1982</u>
<input type="checkbox"/>	Preliminary Site Assessment Workplan Submitted	Date: _____
<input checked="" type="checkbox"/>	Preliminary Site Assessment Underway	Date: <u>Dec. 1982</u>
<input checked="" type="checkbox"/>	Pollution Characterization	Date: <u>June 1986</u>
<input checked="" type="checkbox"/>	Remediation Plan	Date: <u>May 1991</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: _____

MILESTONES:

Currently there are eleven monitoring wells. These wells were installed between 1982 and 1987. Quarterly groundwater monitoring and sampling began in 1989. A hybrid step-draw down/constant rate test was performed in April 1991 and a Remedial Action Plan (RAP) was issued in May 1991.

RECENT ACTIVITIES/FINDINGS:

Currently a tank replacement project is underway.

ANTICIPATED ACTIVITIES:

Upon completion of the tank replacement project a groundwater remedial system is to be installed. One up-gradient groundwater monitoring well and two groundwater extraction wells are to be installed. Quarterly groundwater monitoring/sampling will continue. A report summarizing the result of the well installations will be issued.

SS #4931

<u>REPORT</u>	<u>DATE</u>	<u>CONSULTANT</u>
Groundwater Investigation Report	June 18, 1986	EMCON
Groundwater Investigation Report	January 20, 1988	Pacific Environmental Group
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Quarterly Monitoring Report	July 12, 1991	GeoStrategies Inc.
Quarterly Monitoring Report	October 25, 1991	GeoStrategies Inc.

ENVIRONMENTAL CONSULTING
AND MANAGEMENT

ROUX ASSOCIATES

1350 ARNOLD DRIVE
SUITE 201
MARTINEZ, CALIFORNIA 94553

FAX TRANSMITTAL

Date: 12-9-91

To: Ms Susan Hugo

Company: ALAMEDA County Health Agency

FAX No: 510 568 3706

From: Paul Supple

Project No.: A134201
Roux Associates, Inc.

Fax No.: 510-370-2235

Phone No: 510-370-2275

Number of pages including cover sheet:

3

Comments: Revised TABLE I For ARCO No. 4931, OAKLAND, which includes lead results for steel tank cavity.

TABLE 1: Summary of Soil Analyses: Tank Cavity
ARCO Facility No. 4931, Oakland, California

Page 1 of 2

Sample Designation	Date	Depth (feet bgs)	BTEX Distinction(1)						
			TPH-G(1)	TPH-D (1)	O&G(1)	Benzene	Toluene	Ethyl Benzene	Xylenes
SW1	11/22/91	12	15	NA	NA	0.74	0.03	0.14	23
SW2	11/22/91	14	16	NA	NA	0.56	0.3	0.39	2.0
SW3	11/22/91	12	5.2	NA	NA	0.088	0.094	0.12	0.84
SW4	11/22/91	12	2.3	NA	NA	0.15	0.18	0.061	0.31
SW5	11/22/91	14	ND	NA	NA	ND	ND	ND	ND
SW6	11/22/91	12	5.3	NA	NA	1.8	0.26	0.16	0.39
SW7	11/22/91	12		NA	NA	0.66	0.22	1.1	1.0
SW8	11/22/91	14	14	NA	NA	0.013	0.037	0.0088	0.061
SW9	11/22/91	12	28	NA	NA	0.61	0.13	0.14	0.83
SW10	11/22/91	12	8.6	5.8	1000	0.24	0.24	0.065	0.23
SW11	11/22/91	12	57	15	130	0.36	0.13	0.38	1.3
SW12	11/22/91	12	53	69	200	0.24	21	56	290
SW13	11/22/91	12	ND	6.2	ND	0.015	ND	ND	0.026
T1A	11/22/91	12	1.3	1.2	35	0.017	0.009	ND	0.035
T1B	11/22/91	12	4.7	14	ND	0.06	0.098	0.01	0.073
ST-A	11/22/91	14	29	NA	NA	0.44	0.041	0.041	0.16
ST-B	11/22/91	15	ND	NA	NA	ND	ND	ND	ND

FOOTNOTES

(1) = Concentrations reported in mg/kg (ppm)

TPH-G = Total Petroleum Hydrocarbons As Gasoline (Modified USEPA Method 8015)

TPH-D = Total Petroleum Hydrocarbons As Diesel (Modified USEPA Method 8015)

O&G = Oil and Grease (ASTM Method 5520 E & F)

BTEX Distinction (USEPA Method 8020)

NA = Not Analyzed

ND = Not Detected

bgs = Below ground surface

*Cu VI < STAC - 5 ppm
me 500 ppm*

TABLE 1: Summary of Soil Analyses: Tank Cavity

ARCO Facility No. 4931, Oakland, California

Sample Designation	Date	Depth (feet bgs)	VOCs(1)	Metals (1)				
				Cadmium	Chromium	Lead	Nickel	Zinc
SW1	11/22/91	12	NA	NA	NA	11	NA	NA
SW2	11/22/91	14	NA	NA	NA	11	NA	NA
SW3	11/22/91	12	NA	NA	NA	NA	NA	NA
SW4	11/22/91	12	NA	NA	NA	NA	NA	NA
SW5	11/22/91	14	NA	NA	NA	NA	NA	NA
SW6	11/22/91	12	NA	NA	NA	NA	NA	NA
SW7	11/22/91	12	NA	NA	NA	12	NA	NA
SW8	11/22/91	14	NA	NA	NA	NA	NA	NA
SW9	11/22/91	12	NA	NA	NA	11	NA	NA
SW10	11/22/91	12	ND*	0.61	44	ND	58	59
SW11	11/22/91	12	ND*	ND	42	5.7	52	68
SW12	11/22/91	12	(2)	0.51	41	5.7	48	61
SW13	11/22/91	12	ND*	0.51	44	6.2	45	60
T1A	11/22/91	12	ND*	0.62	49	6.6	81	60
T1B	11/22/91	12	ND*	0.54	46	6.2	56	63
ST-A	11/22/91	14	NA	NA	NA	NA	NA	NA
ST-B	11/22/91	15	NA	NA	NA	NA	NA	NA

FOOTNOTES

(1) = Concentrations reported in mg/kg (ppm)

VOCs = Volatile Organics (USEPA 8240)

Metals (atomic absorption or ICP)

NA = Not Analyzed

ND = Not Detected

ND* = All compounds not detected except BTEX, which is reported on page 1 of this table.

(2) = All compounds ND except BTEX, which is reported on page 1 of this table, and acetone, 240 mg/kg

bgs = Below ground surface

ENVIRONMENTAL CONSULTING
AND MANAGEMENT

ROUX ASSOCIATES

1350 ARNOLD DRIVE
SUITE 201
MARTINEZ, CALIFORNIA 94553

FAX TRANSMITTAL

Date: 12-9-91

To: Ms. SUSAN Hugo

Company: Alameda County Health Agency

FAX No: 510 568 3706

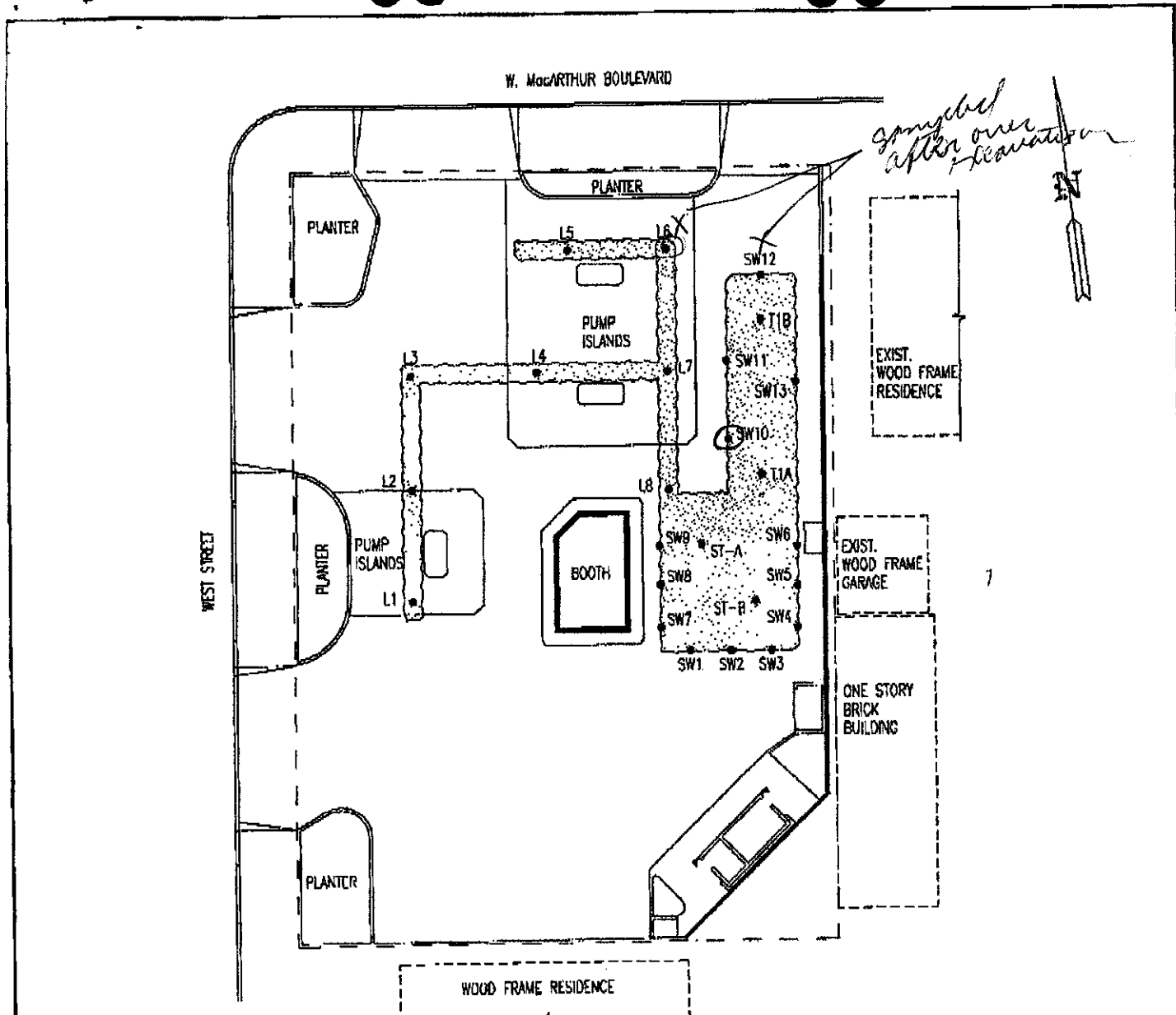
From: Paul Supple

Project No.: A134W01
Roux Associates, Inc.

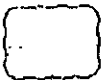
Fax No.: 510-370-2235
Phone No: 510-370-2275

Number of pages including cover sheet: 5

Comments: Laboratory results for soil samples collected from the former tank cavity and product line trenches at ARCO Facility No. 4931 at 731 W. MacArthur Blvd., Oakland, CA.



EXPLANATION



EXCAVATED AREAS.

● L1 SOIL SAMPLE LOCATION AND DESIGNATION.

SOURCE:

DRAWN FROM MAP 1L-1 PROVIDED BY
BARCHAUSEN CONSULTING ENGINEERS.



COMPILED BY:	P.S.
PREPARED BY:	R.P.
PROJECT MGR:	P.S.
DATE:	11/91
SCALE:	AS SHOWN
PROJECT NO.:	A134W01
FILE NAME:	AR4931XX

PREPARED FOR:	ARCO PRODUCTS COMPANY
TITLE:	LOCATION OF TANK CAVITY AND PRODUCT LINE TRENCH SOIL SAMPLES
	ARCO FACILITY NO. 4931

FIGURE

2

TABLE 1: Summary of Soil Analyses: Tank Cavity
ARCO Facility No. 4931, Oakland, California

Page 2 of 2

Sample Designation	Date	Depth (feet bgs)	VOCs(1)	Metals (1)				
				Cadmium	Chromium	Lead	Nickel	Zinc
SW1	11/22/91	12	NA	NA	NA		NA	NA
SW2	11/22/91	14	NA	NA	NA		NA	NA
SW3	11/22/91	12	NA	NA	NA	NA	NA	NA
SW4	11/22/91	12	NA	NA	NA	NA	NA	NA
SW5	11/22/91	14	NA	NA	NA	NA	NA	NA
SW6	11/22/91	12	NA	NA	NA	NA	NA	NA
SW7	11/22/91	12	NA	NA	NA		NA	NA
SW8	11/22/91	14	NA	NA	NA	NA	NA	NA
SW9	11/22/91	12	NA	NA	NA		NA	NA
SW10	11/22/91	12	ND*	0.61	44	ND	58	59
SW11	11/22/91	12	ND*	ND	42	5.7	52	68
SW12	11/22/91	12	(2)	0.51	41	5.7	48	61
SW13	11/22/91	12	ND*	0.51	44	6.2	45	60
T1A	11/22/91	12	ND*	0.62	49	6.6	81	60
T1B	11/22/91	12	ND*	0.54	46	6.2	56	63
ST-A	11/22/91	14	NA	NA	NA	NA	NA	NA
ST-B	11/22/91	15	NA	NA	NA	NA	NA	NA

FOOTNOTES

(1) = Concentrations reported in mg/kg (ppm)

VOCs = Volatile Organics (USEPA 8240)

Metals (atomic absorption or ICP)

NA = Not Analyzed

ND = Not Detected

ND* = All compounds not detected except BTEX, which is reported on page 1 of this table.

(2) = All compounds ND except BTEX, which is reported on page 1 of this table, and acetone, 580 mg/kg.

bgs = Below ground surface

TABLE 2: Summary of Soil Analyses: Product Line Trenches
ARCO Facility No. 4931, Oakland, California

Sample Designation	Date	Depth (feet bgs)	TPH-G(1)	BTEX Distinction(1)			
				Benzene	Toluene	Ethylbenzene	Xylenes
L1	11/2/91	3.5	ND	ND	ND	ND	ND
L2	11/2/91	3.5	ND	ND	ND	ND	ND
L3	11/2/91	3.5	ND	ND	ND	ND	ND
L4	11/2/91	3.5	6.6	0.34	0.012	0.034	0.026
L5	11/2/91	3.5	ND	ND	ND	ND	ND
L6	11/2/91	3.5	ND	ND	ND	ND	ND
L7	11/2/91	3.5	1.4	0.058	0.026	0.0061	0.028
L8	11/2/91	3.5	4.4	0.018	ND	0.0082	0.0022

FOOTNOTES

(1) = Concentrations reported in mg/kg (ppm)

TPH-G = Total Petroleum Hydrocarbons As Gasoline (Modified USEPA 8015)

BTEX Distinction (USEPA 8020)

ND = Not Detected

bgs = Below ground surface



GeoStrategies Inc.

2140 WEST WINTON AVENUE
HAYWARD, CALIFORNIA 94545

(510) 352-4800

November 26, 1991

ARCO Products Company
P.O. Box 5811
San Mateo, California 94402

Attention: Mr. Charles Carmel

Reference: Monthly Site Status Update
ARCO Service Station 4931
731 West MacArthur
Oakland, California, 94611

Dear Mr. Carmel:

This letter provides an update on activities for the site referenced above. This update reports site activities performed during the month of November 1991 and site activities anticipated for the month of December 1991.

Status of Previous Month's Activities:

October 28: Remedial system bids recieved

Anticipated Work to be Performed in the Next Month:

- * Award interim remedial system contract.

Please call if you have any questions concerning this letter.

Sincerely,

A handwritten signature in cursive script that reads "John F. Vargas".
John F. Vargas

cc: Ms. Susan Hugo, Alameda County Health Agency, Department of
Environmental Health (Certified Mail)

STIDES - 4 PM 11/27/91

white -env.health
 yellow -facility
 pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

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

Hazardous Materials Inspection Form

1:00 PM -> 4:30 PM

II, III

Site ID # _____ Site Name ARCO Today's Date 11/20/91

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 731 W. MacArthur Blvd.
 City Oakland Zip 94608 Phone _____

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

HeH- 749 Jan 92 # 200543

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

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(f)
- ___ 18. Exemption Request? (Y/N) 25536(b)
- ___ 19. Trade Secret Requested? 25538

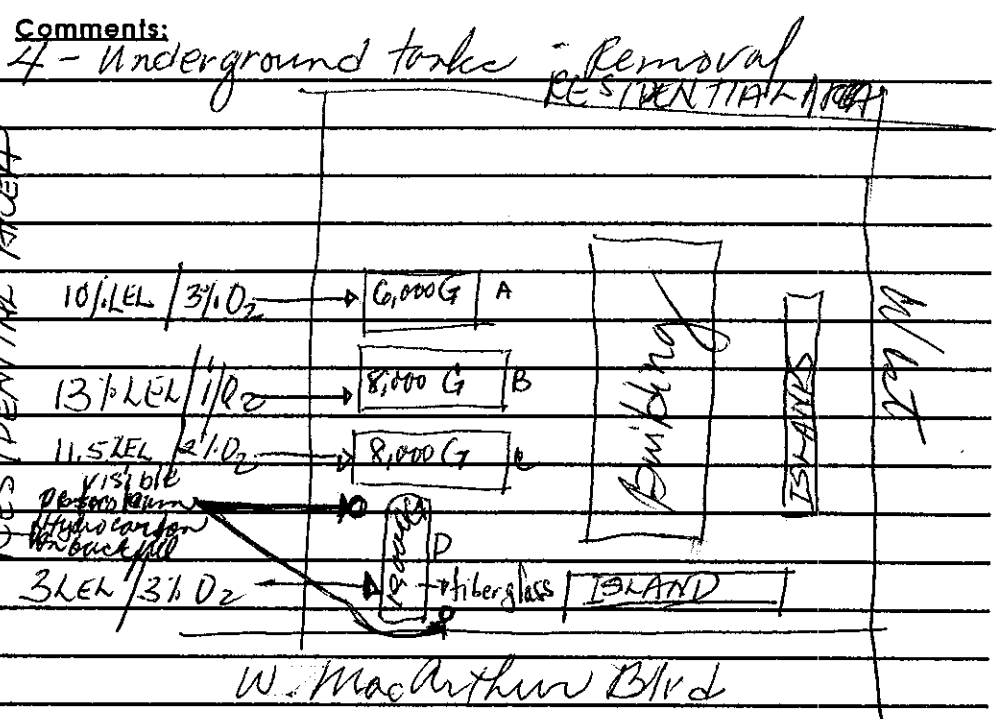
III. UNDERGROUND TANKS (Title 23)

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

- Monitoring for Existing Tanks
- ___ 6. Method
 - 1) Monthly Test
 - 2) Daily Vadose Semi-annual 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 Date: _____ 2643
- ___ 8. Inventory Rec. 2644
- ___ 9. Soil Testing 2646
- ___ 10. Ground Water. 2647

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



Manifest for tanks # 91507387 (TANKS A&C)
 manifest for tank # 91507389 (tank B)
 manifest for tank # 91507386 (tank D)

* Free floating product

Rev 8/88

Contact: Mark Frutos - Paradise
 Title: Evmsg
 Signature: Mark Frutos

Inspector: _____
 Signature: Susan L. Hugs

II, III



GeoStrategies Inc.
2140 WEST WINTON AVENUE
HAYWARD, CALIFORNIA 94545

91 NOV 13 PM 1:23

(510) 352-4800

October 30, 1991

ARCO Products Company
P.O. Box 5811
San Mateo, California 94402

Attention: Mr. Charles Carmel

Reference: Monthly Site Status Update
ARCO Service Station 4931
731 West MacArthur
Oakland, California, 94611

Dear Mr. Carmel:

This letter provides an update on activities for the site referenced above. This update reports site activities performed during the month of October 1991 and site activities anticipated for the month of November 1991.

Status of Previous Month's Activities:

October 12, 1991: Conducted groundwater sampling for fourth quarter, 1991.

October 25, 1991: Issued QMR for third quarter, 1991.

October 28, 1991: Bidding closed for construction of interim remediation system.

Anticipated Work to be Performed in the Next Month:

- * Install new on-site recovery well.
- * Contractor to begin installation of interim remedial system.

GeoStrategies Inc.

Please call if you have any questions concerning this letter.

Sincerely,


John F. Vargas

cc: Ms. Susan Hugo, Alameda County Health Agency, Department of
Environmental Health (Certified Mail)

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 2:11:27

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 is positioned above the typed name.

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 SEROY	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
 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
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00608	JAIME & LEONORA ABADAM <i>Sgr. ✓</i>	17601 HESPERIAN BLVD	SAN LORENZO	CA 94580	HACIENDA/HESPERIAN B	415-278-2977
00	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>Sgr. ✓</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>Sgr. ✓</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
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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	
100 MacArthur Blvd. Oak	PS 2112	✓		✓	✓	✓	✓			I
140 Telegraph Ave. Oakland	SH 314	✓		✓	✓	✓	✓			I
86 S. Livermore Ave.	SH 498	✓			✓		✓			IVA
1601 Hesperian Blvd. S.L.	PE 1008 5yr	✓		✓	✓	✓	✓	✓		IA
399 Rincón Ave. Liv.	SH 711		✓		✓		✓			III
641 San Pablo, Albany	LS 2035	✓		✓	✓	✓	✓			I
310 Park Blvd. Oak	PS 2107	✓		✓	✓	✓	✓			II B
5600 St. S.L.	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
800 E 14th St. Oakland	BC 2185		✓		✓		✓			III
14 Hesperian Blvd. Oak	BC 4494 5yr		✓		✓		✓			III
7310 4th Oakland	SH 4931		✓		✓		✓			III
1770 Castro Valley Blvd.	SB 4977		✓		✓		✓			III
235 Seminary Blvd. Oak	PS 6002 5yr		✓		✓		✓			III
249 Village Parkway Dublin	RA 6041		✓		✓		✓			III
185 E. Stanley Liv.	SH 6113	✓			✓		✓			IVA
5131 Shattuck Ave. Oak	SH 6148		✓		✓		✓			III

SH-7 190-1
 JP9-2 BC-2
 ✓ LS-1 RA-1
 PE-7 ✓ SS-2

* # 566 Hesperian Rd - approved closure & installation plan
 site decontaminated.

By permit Remediation

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>
Groundwater Investigation Report	June 18, 1986	EMCON
Groundwater Investigation Report	January 20, 1988	Pacific Environmental Group
Quarterly Groundwater Sampling Report	April 20, 1989	GeoStrategies Inc.
Quarterly Groundwater Sampling Report	September 12, 1989	GeoStrategies Inc.
Quarterly Report	December 5, 1989	GeoStrategies Inc.
Quarterly Report	February 13, 1990	GeoStrategies Inc.
Quarterly Report	June 28, 1990	GeoStrategies Inc.
Site Update	July 24, 1990	GeoStrategies Inc.
Site Update	October 4, 1990	GeoStrategies Inc.
Site Update	January 28, 1991	GeoStrategies Inc.
Site Update	May 3, 1991	GeoStrategies Inc.
Remedial Action Plan	May 15, 1991	GeoStrategies Inc.
Aquifer Test Report	July 10, 1991	GeoStrategies Inc.
Quarterly Monitoring Report	July 12, 1991	GeoStrategies Inc.



GeoStrategies Inc.

2140 WEST WINTON AVENUE
HAYWARD, CALIFORNIA 94545

(415) 352-4800

September 27, 1991

ARCO Products Company
P.O. Box 5811
San Mateo, California 94402

Attention: Mr. Charles Carmel

Reference: Monthly Site Status Update
ARCO Service Station 4931
731 West Macarthur
Oakland, California, 94611

Dear Mr. Carmel:

This letter provides an update on activities for the site referenced above. This update reports site activities performed during the month of August 1991 and site activities anticipated for the month of September 1991.

Status of Previous Month's Activities:

August 29, 1991: Submitted draft quarterly monitoring report for ARCO review, Final report due October 18, 1991.

September 17, 1991: Mailed check for oversight fee, \$670.00, to Alameda County.

September 23, 1991: Forward response to August 16 Alameda letter.

September 26, 1991: submitted draft of remedial system design and specifications for ARCO review.

Anticipated Work to be Performed in the Next Month:

- * Release recovery system for bidding process.
- * Install new on-site recovery well.

Please call if you have any questions concerning this letter.

Sincerely,


John F. Vargas

cc: Ms. Susan Hugo, Alameda County Health Agency, Department of
Environmental Health (Certified Mail)

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



September 16, 1991

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

Mr. Paul Wilton
Barghausen Consulting Engineers
4612 Roseville Road, Suite 103
North Highlands, CA 95660

**RE: Underground Tank Closure and Installation Plan
731 West MacArthur Blvd., Oakland 94609**

Dear Mr. Wilton:

I have reviewed the Underground Tank Closure and Installation Plan for the referenced site. The Underground Tank Closure Plan is acceptable provided the following items are followed:

- 1) EPA I.D. No. under which the tanks will be manifested must be provided to this office.
- 2) As I have noted in the closure plan, soil and/or groundwater if present must be sampled. One soil sample must be collected from beneath each end of the tank at the native soil/backfill interface but no deeper than two feet below the tank bottom.
- 3) Please provide the estimated volume of the stockpiled soil. As stated in the soil sampling methods submitted to this office, four soil samples will be collected for every 50 cubic yards of stockpiled soil, and composite into one by the State certified laboratory.
- 4) The soil and/or groundwater samples must be analyzed for the following contaminants: Total Petroleum Hydrocarbon (TPH) as gasoline; Benzene, Toluene, Ethyl Benzene, Xylene (BTXE); and Total Lead as recommended in the Tri- Regional Board Guidelines. I made a note of this information in the closure plan.
- 5) Please provide us with the name of the Field Superintendent who will conduct pre-job site safety briefing with all personnel; the name of the Site Safety Officer; the name of person assigned as emergency contact and their telephone number; and the nearest hospital.

The Underground Tank Closure Plan is approved on the condition that the five items listed above are met.

Mr. Paul Wilton
Barghausen Consulting Engineers
September 16, 1991
RE: 731 W. MacArthur Blvd., Oakland
Page 2 of 2

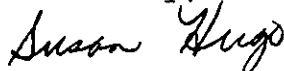
As for the Underground Tank Installation Plan, please provide the following items to this office:

- 1) Submit the **revised** Form B and the **new** Form C for each tank. Enclosed are four blank Forms "B" and "C".
- 2) The **hold down calculations** for the tanks.
- 3) The manufacturer's brochures with the specifications for the **double-walled tanks** (striker plates beneath all primary tank openings must be noted); the **primary and secondary piping systems**; the **spill container**; and the **overfill prevention system**.
- 4) Documentation that the location where the four tanks will be installed is not contaminated. Our records showed history of an unauthorized leak from underground storage tanks at this site.

The installation plan for the four underground storage tanks will be approved as soon as the four items listed above are met.

Should you have any questions concerning this letter, please contact me at (510) 271-4320.

Sincerely,



Susan Hugo
Hazardous Materials Specialist

enclosures

cc: Rafat A. Shahid, Asst. Agency Director, Environmental Health
Ron Knutson, ARCO Products Company (P.O. Box 6411, Artesia,
California, 90702-6411)
Mark Thompson, Alameda County District Attorney's Office
Files



gettler — ryan inc.

91 SEP 16 PM 4:04

September 12, 1991

County of Alameda
Department of Environmental Health
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, California 94621

Attention: Ms. Susan L. Hugo

Certified Mail

Reference: ARCO Service Station #4931
731 W. MacArthur Street
Oakland, California 94611

Ms. Hugo:

On behalf of ARCO Products Company, we are enclosing a check in the amount of \$670.00 which you requested in your August 16, 1991 letter for the costs involved in overseeing and reviewing reports and proposals.

If you should have any questions or comments, please call.

Sincerely,

Keith E. Bullock

KEB/jpz

Enclosure

cc: Mr. Charles Carmel, ARCO Products Company
Mr. H. C. Winsor, ARCO Products Company



Jettler — ryan inc.

general contractors

August 22, 1991

ARCO Products Company
P.O. Box 5811
San Mateo, California 94402

Attention: Mr. Charles Carmel

Reference: Monthly Site Status Update
ARCO Service Station 4931
731 West MacArthur
Oakland, California, 94611

91 AUG 30 11:41

Dear Mr. Carmel:

This letter provides an update on activities for the site referenced above. This update reports site activities performed during the month of July 1991 and site activities anticipated for the month of August 1991.

Status of Previous Month's Activities:

July 12, 1991: Forwarded a copy of Quarterly Monitoring Report for the second quarter.

Anticipated Work to be Performed in the Next Month:

August 16, 1991: Letter from the Alameda County Health Agency, with requirements to initiate the Remedial Action Plan. Also a charge of \$670 to oversee the site.

Prepare design drawings for the installation of a groundwater recovery system. These drawings will then be put through the bidding process.

Please call if you have any questions concerning this letter.

Sincerely,

Keith Bullock

KB/clm

cc: Mr. Larry Seto, Alameda County Health Agency, Department of
Environmental Health (certified mail)

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



August 16, 1991

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

Mr. Charles Carmel
ARCO Products Company
P.O. Box 5811
San Mateo, California 94402

**RE: Work Plan for Subsurface Investigation and Remediation at
ARCO Station - 731 W. MacArthur Boulevard, Oakland CA 94609**

Dear Mr. Carmel:

The Alameda County Department of Environmental Health, Hazardous Materials Division has reviewed the files concerning the soil and groundwater contamination from underground storage tanks at the referenced site. We are in receipt of the following reports:

- Site Update (May 3, 1991) prepared by GeoStrategies and submitted by Gettler- Ryan Inc.
- Remedial Action Plan (May 15, 1991) prepared by GeoStrategies and submitted by Gettler-Ryan Inc.
- Aquifer Test Report (July 10, 1991) prepared by GeoStrategies and submitted by Gettler-Ryan Inc.
- Quarterly Monitoring Report (July 12, 1991) prepared by GeoStrategies and submitted by Gettler-Ryan Inc.

The referenced site had experienced an unauthorized release of petroleum hydrocarbon products from leaking underground storage in November, 1982. There are 11 monitoring wells at the site (9 wells onsite and 2 wells offsite) installed between 1982 and 1987. Historically, separate-phase product has been detected in four onsite wells at thickness between 0.01 feet to 4.0 feet. TPH gasoline from non detect up to 1500 ppm were detected in the onsite wells.

Based on this review, the following areas of concern to this department must be addressed:

- * Dissolved hydrocarbon plume has not been delineated in the up-gradient direction. Additional monitoring wells must be installed up-gradient of the underground storage tanks location.
- * Monitoring wells must be screened to intercept any free floating product. All monitoring wells must be sampled monthly for free product and analyzed for **TPH gasoline and BTXE** by a State certified laboratory for the first three months following well installation. After three months of consecutive sampling, sampling may be conducted as needed but must occur **at least quarterly**. Before each sampling

event is begun, free product thickness and water level must be determined.

- * Additional recovery well must be installed based on the Aquifer Test conducted on April 4 and 5, 1991. Pumping Well A-9 was not sufficient in creating a capture zone for the dissolved contaminant in the area of Well A-2.
- * The Remediation Action Plan is acceptable provided the following conditions are met -
 - a) The overall effectiveness of the remediation plan is verified by an appropriate monitoring program.
 - b) A time schedule for plan implementation must be submitted which addresses the expedient removal of all free product at the site including monitoring and tabulating actual amount.
 - c) Permit requirements from other regulatory agencies which are applicable to the proposed remediation system must be followed.
 - d) A contingency plan must be submitted which addresses actions to be implemented if the remediation system is ineffective in mitigating the contamination at the site.

Reports documenting implementation of the work plan must contain:

1. Actions that have occurred since the last report
2. Water level records
3. Clear records of field observations
4. Chain of custody forms
5. Laboratory-originated analytical results
6. Water level contour maps
7. Gradient determinations
8. Status of free product remediation
9. Status of soil remediation
10. Status of soil contamination definition
11. Status of dissolved constituents remediation
12. Status of dissolved constituents plume definition
13. Copies of TSDF to Generator manifests for any hazardous wastes hauled off site
14. Soil boring/well logs of existing /new wells/borings signed by appropriate registered or certified professional

You may implement remedial actions before approval of the work plan to act diligently in protecting the waters of the State. However, final concurrence by this office will depend on the extent to which the work done meets the requirements of this letter.

Mr. Charles Carmel
August 16, 1991
Page 3 of 3

A report must be submitted within **30 days** after completion of this investigation. Subsequent reports must be submitted **quarterly** until this site can be recommended for RWQCB's "**sign off**". All reports and proposals must also be submitted to:

RWQCB
2101 Webster Street, 4th Floor
Oakland, CA 94612
Attn: Eddie So

Please be aware that any extensions of stated deadlines or changes in the work plan must be confirmed in writing and approved by this agency.

To cover our cost for overseeing and reviewing reports and proposals, please remit \$670 payable to County of Alameda.

Should you have any questions about this letter, please contact me at (415) 271-4320.

Sincerely,

Susan L. Hugo

Susan L. Hugo
Hazardous Materials Specialist

cc: Rafat A Shahid, Asst. Agency Director, Environmental Health
Eddie So, San Francisco Bay RWQCB
Howard Hatayama, State Department of Health Services
Keith Bullock, Gettler-Ryan Inc.
Mark Thompson, Alameda County District Attorney's Office
✓ Files

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

REPORTDATECONSULTANT

Groundwater Investigation Report	June 18, 1986	EMCON
Groundwater Investigation Report	January 20, 1988	Pacific Environmental Group
Quarterly Groundwater Sampling Report	April 20, 1989	GeoStrategies Inc.
Quarterly Groundwater Sampling Report	September 12, 1989	GeoStrategies Inc.
Quarterly Report	December 5, 1989	GeoStrategies Inc.
Quarterly Report	February 13, 1990	GeoStrategies Inc.
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Site Update	January 28, 1991	GeoStrategies Inc.
Site Update	May 3, 1991	GeoStrategies Inc.
Remedial Action Plan	May 15, 1991	GeoStrategies Inc.

white -env.health
 yellow -facility
 pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

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

Hazardous Materials Inspection Form

II, III

Site ID # _____ Site Name Arco Station Today's Date 7/10/91

Site Address 731 W. MacArthur Blvd
 City Oakland Zip 94609 Phone (415) 658-5000

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

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

Comments:

4 - UGT's on site

2 unleaded regular

1 - 8,000 gal 8000 gal.

1 - 6,000 gal

Super - 12,000 gal

Inventory Reconciliation - update.

No tank information available on site. Results of precision testing not available.

General Needs:

1) Keep copies of all underground tank records on site.

2) Submit permit application

A & B

3) Submit a monitoring plan

4) Submit recent leak detection test performed on tanks

5) Quarterly monitoring should be submitted regularly at the right address - 80 Swan Way Room 200, Oakland 94621

II.A BUSINESS PLANS (Title 19)

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

II.B ACUTELY HAZ. 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(f)
- 18. Exemption Request? (Y/N) _____
- 19. Trade Secret Requested? 25538

III. UNDERGROUND TANKS (Title 23)

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

- Monitoring for Existing Tanks
- 6. Method
 - 1) Monthly Test
 - 2) Daily Vadose
 - Semi-annual 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 Date: _____ 2643
- 8. Inventory Rec. 2644
- 9. Soil Testing. 2646
- 10. Ground Water. 2647

- New Tanks
- 11. Monitor Plan 2632
 - 12. Access. Secure 2634
 - 13. Plans Submit Date: _____ 2711
 - 14. As Built Date: _____ 2635

Rev 6/88

Contact: RAT UNDER CENTAL
 Title: manager/dealer
 Signature: _____

Inspector: _____
 Signature: Susan Hugg

II, III

January 22, 1991

TO: Gil Wistar
FROM: Susan Hugo
SUBJECT: Update on ARCO facilities in my district

731 W. MacArthur Blvd. 94609

Reviewed the file (1-8-91): has four underground tanks with interim permits issued on 9-6-88. A leaked occurred last November, 1982 in the super unleaded gasoline tank. ULR was submitted. There are 11 groundwater monitoring wells on site. RWQCB is not actively overseeing this case. There's no deposit/refund filed for this address. Precision testing results dated 2-12-88 and 10-31-89 are the only tank testing results located in the file. Free floating product found on 4 wells. On 7-5-89, proposed to install a separate phase recovery system. Quarterly monitoring reports have been submitted. Last report received was for the third quarter of 1990 with the following results: < 50 ppb to 40,000 ppb TPH; < 0.5 ppb to 1,400 ppb benzene; < 0.5 ppb to 340 ppb toluene; < 0.5 ppb to 1,400 ppb ethyl benzene. Proposed to prepare a remedial action plan in the third quarter of 1990 report.

Inspected the facility (1-10-91): has a business plan on file (submitted in 1989). Daily inventory reconciliation is up to date. Only two quarterly monitoring report (7/15/90 & 10/15/90) were submitted. Requested to submit a copy of the latest precision testing results and that quarterly monitoring reports should be submitted regularly. Also requested to keep copies of all underground tank monitoring records on site for three years. Dealer (who has 3 Shell Stations) said that Arco is not as good as Shell in giving them assistance, so he himself implement what he is doing at his Shell Stations to this Arco facility.



grettler — ryan inc.

91 JUL 17 11:39

July 8, 1991

ARCO Products Company
P.O. Box 5811
San Mateo, California 94402

Attention: Mr. Charles Carmel

Reference: Monthly Site Status Update
ARCO Service Station 4931
731 West Macarthur
Oakland, California, 94611

Dear Mr. Carmel:

This letter provides an update on activities for the site referenced above. This update reports site activities performed during the month of May 1991 and site activities anticipated for the month of June 1991.

Status of Previous Month's Activities:

May 15, 1991: Forwarded a copy of the Remedial Action Plan.

Anticipated Work to be Performed in the Next Month:

June 24, 1991: No comment from the Alameda County Health Agency, on the Remedial Action Plan.

Please call if you have any questions concerning this letter.

Sincerely,

Keith Bullock

KB/elm

cc: Mr. Larry Seto, Alameda County Health Agency, Department of
Environmental Health

07

UST LEAK SITE UPDATE	Date of Last Review / Update	Current Date 1/2/91
-------------------------	---------------------------------	------------------------

SITE IDENTIFICATION

Name Arco Products Company #4931 Case No. _____

Address 731 West MacArthur Boulevard
Street Number Street

Oakland 94611
City ZIP Code

County County of Alameda Substance gasoline

Local Agency Department of Environmental Health

Regional Board North Coast

LEAD STAFF PERSON _____

CASE TYPE

_____ Undetermined _____ Soil Only _____ Groundwater _____ Drinking Water

STATUS (Date indicates when case moved into status)

_____ No Action Taken	Date _____
_____ Leak Being Confirmed	Date _____
_____ Prelim. 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

COMMENTS

In the previous quarter, Gettler-Ryan Inc. performed groundwater monitoring for use in preparing potentiometric and hydrocarbon isoconcentration maps. The respective contour maps are used to evaluate the condition of the groundwater beneath the site.

No significant changes have been noted at this site.

Water level monitoring and sampling will continue on a quarterly basis.

Please refer to the attached page for a chronological listing of reports issued for this site.

RESPONSIBLE PARTY IDENTIFICATION (Only if newly discovered or changed)

Name _____

Contact _____ Phone (____) _____

Address _____
Street Number Street

_____ City State ZIP Code

<u>REPORT</u>	<u>DATE</u>	<u>CONSULTANT</u>
Groundwater Investigation Report	June 18, 1986	EMCON
Groundwater Investigation Report	January 20, 1988	Pacific Environmental Group
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Quarterly Report	June 28, 1990	GeoStrategies Inc.
Site Update	July 24, 1990	GeoStrategies Inc.
Site Update	October 4, 1990	GeoStrategies Inc.

UTID/ Status Name of Site BillID	Site Address	#Tanks PERMITS:
-0- C Arco Station #02112 T61043	1260 Park St. Alameda, CA 94501	5 I:09/06/88 F:-0-
784 C Arco Station #02035 T61043	1001 San Pablo Ave. Albany, CA 94706	4 I:09/06/88 F:-0-
658 C Arco Station #04977 AM/PM T61043	2770 Castro Valley Blvd. Castro Valley, CA 94546	3 I:09/06/88 F:07/05/88
-0- C Arco Station #02152 T61043	22141 Center St. Castro Valley, CA 94546	3 I:09/06/88 F:-0-
*1053 C Arco Station #06041 T61043	7249 Village Pkwy. Dublin, CA 94568	4 I:09/06/88 F:-0-
*813 C Arco K&V Gas Foodmart T10115	6211 San Pablo Ave. Emeryville, CA 94608	3 I:-0- F:-0-
I * 813 C Arco Station #05387 T61043	20200 Hesperian Blvd. Hayward, CA 94541	4 I:09/06/88 F:-0-
*-0- C Airport Arco T21120	20450 Hesperian Blvd. Hayward, CA 94541	3 I:02/03/89 F:-0-
* 2112 C Springtown Arco T42311	909 Bluebell Dr. Livermore, CA 94550	3 I:-0- F:-0-
-0- C Arco Station #00771 T61043	899 Rincon Ave. Livermore, CA 94550	5 I:09/06/88 F:-0-
198 R Wong's Arco T61026	2032 E. - 12th St. Oakland, CA 94606	0 I:-0- F:-0-
*-0- C Arco Station #02185 T61043	9800 E. - 14th St. Oakland, CA 94603	4 I:09/06/88 F:-0-
1130 C Freeway Arco TA1036	2740 - 98th Ave. Oakland, CA 94605	4 I:10/13/87 F:-0-
-0- C Arco Station #02169 T61043	889 W. Grand Ave. Oakland, CA 94607	5 I:09/06/88 F:-0-
*-0- R Gin's Arco Service -0-	706 Harrison St. Oakland, CA 94612	0 I:-0- F:-0-
-0- C Arco Station #04494 T61043	566 Hegenberger Rd. Oakland, CA 94621	3 I:02/05/88 F:-0-
*1038 C High St. Arco T21043	2951 High St. Oakland, CA 94619	5 I:02/05/88 F:-0-
-0- C Arco Station #04931 T61043	731 W. MacArthur Blvd. Oakland, CA 94609	4 I:09/06/88 F:-0-
-0- C Arco Station #00276 T61043	10600 MacArthur Blvd. Oakland, CA 94605	3 I:09/06/88 F:-0-
851 C Mountain Blvd. Arco T41043	2844 Mountain Blvd. Oakland, CA 94602	4 I:04/14/88 F:-0-
-0- C Arco Station #02107 T61043	3310 Park Blvd. Oakland, CA 94610	3 I:09/06/88 F:-0-
-0- C Arco Station #06002 T61043	6235 Seminary Ave. Oakland, CA 94605	4 I:09/06/88 F:-0-
-0- C Arco Station #06148 T61043	5131 Shattuck Ave. Oakland, CA 94609	3 I:09/06/88 F:-0-
-0- C Arco Station #00374 T61043	6407 Telegraph Ave. Oakland, CA 94609	3 I:09/06/88 F:-0-
? -0- F Freedom Arco -0-	15101 Freedom Ave. San Leandro, CA 94578	3 I:-0- F:-0-
1794 C Pharco T81053	2222 Grant Ave. San Lorenzo, CA 94580	1 I:08/16/88 F:-0-
779 C Arco Station #00608 T61043	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
1794/LA1469	Tharco	2222 Grant Ave.	580	07/28/89	C
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 1167 MP.*



gettler — ryan inc.

general contractors

LF

December 12, 1989

Department of Environmental Health
Hazardous Materials Program
80 Swan Way, Room 200
Oakland, California 94621

Reference: ARCO Service Station #4931
731 West MacArthur Boulevard
Oakland, California

ALABAMA REGIONAL BOARD

DEC 13 1989

TJC

QUALITY CONTROL BOARD

Gentlemen:

As requested by ARCO Products Company, we are forwarding a copy of the Quarterly Report, dated December 5, 1989, prepared by GeoStrategies, Inc. for the above referenced location. The report documents the quarterly groundwater sampling and site activities conducted between July-September 1989.

Please do not hesitate to call should you have any questions or comments.

Sincerely,

John P. Werfal
Project Manager

cc: Mr. Kyle Christie, ARCO Products Company
Mr. H. C. Winsor, ARCO Products Company
Mr. Tom Callaghan, Regional Water Quality Control Board



gettler — ryan inc.

general contractors

February 11, 1988

~~Regional Water Quality Control Board
San Francisco Bay Region
1111 Jackson Street, Room 6040
Oakland, California 94607~~

Attention: Mr. Greg Zentner

Reference: ARCO Service Station #4931
731 West MacArthur Boulevard
Oakland, California

Gentlemen:

As authorized by ARCO, we are forwarding a copy of the report issued by Pacific Environmental Group, dated January 20, 1988, documenting the findings of a groundwater investigation conducted at the referenced location.

Please do not hesitate to call should you have any question or comment.

John P. Werfal

JPW/ns

enclosure

cc: Mr. K. Christie, ARCO Petroleum Products Company
Ms. Liz Rose, Alameda County Environmental Health

RECEIVED
FEB 11 1988
ALAMEDA COUNTY ENVIRONMENTAL HEALTH

FUEL LEAK CASE FORM

Enter Date / /
Review Date 08/21/89
Date of Last Corr. 7/12/89
Report Date / /

Review Status C
Evaluator KAD

Sitename ARCO
Street Number 407
Street TELEGRAPH
City OAKLAND
Zip 94609
County 01
Local Agency 01000

Primary Substance ~~XXXXXXXXXX~~
Secondary Substance

Max. Soil Conc. (ppm) ~~1000~~ 1097
Max G.W. Impact (ppb) ~~99999999~~

Case Type S G D U
Groundwater Depth
Permeability 1 2 3

Priority A2
Rank
Status 3B

Date 3B / /
Date 5C / /
Date 5R / /
Date 7 / /
Date 8 / /
Date 9 / /

Interim Y N
Interim Date / /
Abate Method NT

Lead Agency L R LI RI
UGT I N
Division LPC

Enforce Type 0 1 2 3
Enforce Date / /
Pilot Program Y N
RP Search S I R N

Comment (80 Characters)
FP IN BORINGS, NO MW RPT

ALAMEDA COUNTY
HEALTH CARE SERVICES

DAVID J. KEARS, AGENCY
~~XXXXXXXXXX~~ Agency Director



G2

470-27th Street, Third Floor
Oakland, California 94612
(415) 271-4320

April 12, 1988

CALIFORNIA REGISTERED

APR 15 1988

QUALITY CONTROL BOARD

Arco Petroleum Products Co.
3134 Auburn Blvd.
Sacramento, CA 95821
Attn: Alex E. Woelper

SUBJECT: Underground Storage Tank Unauthorized Release
(Leak)/Contamination Site Report

Dear Mr. Woelper:

On March 31, 1988, our office received a report of a failed underground storage tank test from your office for the following facilities:

1. Facility #414
3000 Shattuck Ave.
Berkeley, CA
2. Facility #4931
731 MacArthur Blvd.
Oakland, CA

The California Administrative Code, Title 23, requires all unauthorized releases to be reported. Section 2652(b) requires within 5 working days of detecting the release, the operator or permittee shall submit to the local agency (Alameda County Hazardous Materials Division) a full written report to include all of the following information which is known at the time of filing the report:

1. List of type and quantity of hazardous substances released.
2. The results of all investigations completed at that time to determine the extent of soil or ground water or surface water contamination due to the release.
3. Method of clean-up implemented to date, proposed clean-up actions, and approximate cost of actions taken to date.
4. Method and location of disposal of the released hazardous substance and any contaminated soils or ground water or surface water (indicate whether a hazardous waste manifest(s) is utilized).
5. Proposed method of repair or replacement of the primary and secondary containers.
6. Facility operator's name and telephone number.

Co Petroleum Products Co.
SJT Unauthorized Leak Form
April 12, 1988
Page 2 of 2

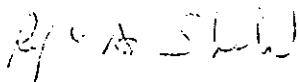
Until clean-up is complete, the operator or permittee shall submit reports to the County and the Regional Water Quality Control Board (RWQCB) every three (3) months or at a more frequent interval if specified by either agency. The reports shall include the information requested in (2), (3), and (4) of the above. The report requested above shall be prepared in accordance with the San Francisco Regional Water Quality Control Board's "Guidelines for Addressing Fuel Leaks", September 1985. The initial investigation report shall be submitted within 30 days and shall include a site safety plan.

Soils contaminated at hazardous waste concentrations shall be transported by a licensed hazardous hauler and disposed of or treated at a California Department of Health Services approved facility. Soils contaminated below hazardous waste concentrations may be managed as non-hazardous but are subject to waste discharge requirements of the Regional Board.

Enclosed is an "Underground Storage Tank Unauthorized Release (Leak)/Contamination Site Report" which should be completed and returned within 5 working days. Please be advised that the City of Berkeley, Division of Environmental Health implements the State Underground Storage Tank Regulations for the City of Berkeley and are excluded from enforcement by the County.

Should you have any questions regarding this letter, please contact Lizabeth Rose, Hazardous Materials Specialist at (415) 271-4320.

Sincerely,



Rafat A. Shahid, Chief
Hazardous Materials Division

RAS:LR:mam

cc: Regional Water Quality Control Board
Berkeley Fire Department
Oakland Fire Department
City of Berkeley, Environmental Health

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 25180.7, a designated 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 and surrounding area. 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. Provide details on tank age; capacity and material if known. 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.

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 actions 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.
- No Action Required - incident is minor, requiring no remedial action.

COMMENTS - Use this space to elaborate on any aspects of the incident.

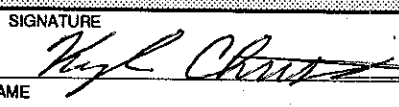
SIGNATURE - Sign the form in the space provided.

DISTRIBUTION

If the form is completed by the tank owner or his agent, retain the last copy and forward the remaining copies in tact to your local tank permitting agency for distribution.

1. Original - Local Tank Permitting Agency
2. State Water Resources Control Board, Division of Water Quality, Underground Tank Program, P. O. Box 100, Sacramento, CA 95801
3. Regional Water Quality Control Board
4. County Board of Supervisors or designee to receive Proposition 65 notifications.
5. Owner/responsible party.

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		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 25180.7 OF THE HEALTH AND SAFETY CODE.	
REPORT DATE M / M / D / D / Y / Y		CASE #		SIGNED: <u>Selman</u> DATE:	
REPORTED BY	NAME OF INDIVIDUAL FILING REPORT ALEX WUELFER KYLE CHRISTIE		PHONE (415) 571-6261 415 571-2434		SIGNATURE 
	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 2000 ALAMEDA DE LAS PULGAS, SAN MATEO CA 94403				
RESPONSIBLE PARTY	NAME ARCO PRODUCTS COMPANY		CONTACT PERSON KYLE CHRISTIE		PHONE (415) 571-2434
	ADDRESS 2000 ALAMEDA DELAS PULGAS SAN MATEO CA 94403				
SITE LOCATION	FACILITY NAME (IF APPLICABLE) ARCO STATION 4931		OPERATOR RAJINDER K. GOYAL		PHONE (415) 658-5000
	ADDRESS 731 MacARTHUR BLVD. OAKLAND, ALAMEDA, 94611				
	CROSS STREET		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 ALAMEDA CO. HEALTH DEPT.		CONTACT PERSON ED HOWELL		PHONE (415) 874-7237
	REGIONAL BOARD S.F. BAY REGIONAL WATER BOARD		CONTACT PERSON GREG ZENTNER		PHONE (415) 464-0804
SUBSTANCES INVOLVED	(1) NAME UNLEADED GASOLINE				QUANTITY LOST (GALLONS) <input checked="" type="checkbox"/> UNKNOWN
	(2) NAME REGULAR GASOLINE				QUANTITY LOST (GALLONS) <input checked="" type="checkbox"/> UNKNOWN
DISCOVERY/ABATEMENT	DATE DISCOVERED 02/12/88		HOW DISCOVERED <input type="checkbox"/> INVENTORY CONTROL <input type="checkbox"/> SUBSURFACE MONITORING <input type="checkbox"/> NUISANCE CONDITIONS <input checked="" type="checkbox"/> TANK TEST <input type="checkbox"/> TANK REMOVAL <input type="checkbox"/> OTHER		
	DATE DISCHARGE BEGAN <input type="checkbox"/> UNKNOWN		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 checked="" type="checkbox"/> REPAIR PIPING <input type="checkbox"/> CHANGE PROCEDURE <input checked="" type="checkbox"/> OTHER Repair vapor/vent lines		
	HAS DISCHARGE BEEN STOPPED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, DATE 03/18/88				
SOURCE/CAUSE	SOURCE OF DISCHARGE <input type="checkbox"/> TANK LEAK <input type="checkbox"/> UNKNOWN <input type="checkbox"/> PIPING LEAK <input checked="" type="checkbox"/> OTHER vapor/vent line		TANKS ONLY/CAPACITY _____ GAL. AGE _____ YRS <input type="checkbox"/> UNKNOWN		MATERIAL <input type="checkbox"/> FIBERGLASS <input type="checkbox"/> STEEL <input type="checkbox"/> OTHER
	CAUSE(S) <input type="checkbox"/> OVERFILL <input checked="" type="checkbox"/> RUPTURE/FAILURE <input type="checkbox"/> CORROSION <input type="checkbox"/> UNKNOWN <input type="checkbox"/> SPILL <input type="checkbox"/> OTHER				
CASE TYPE	CHECK ONE ONLY <input checked="" type="checkbox"/> UNDETERMINED <input 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 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 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 checked="" type="checkbox"/> NO ACTION REQUIRED (NA) <input type="checkbox"/> OTHER (OT)				
COMMENTS	Tests showed vapor/vent line failures. Repaired on March 18, 1988, retested and passed on April 8, 1988.				

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 25180.7, a designated 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 and surrounding area. 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. Provide details on tank age; capacity and material if known. 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.

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 actions 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.
- 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 in tact to your local tank permitting agency for distribution.

1. Original - Local Tank Permitting Agency
2. State Water Resources Control Board, Division of Water Quality, Underground Tank Program, P. O. Box 100, Sacramento, CA 95801
3. Regional Water Quality Control Board
4. County Board of Supervisors or designee to receive Proposition 65 notifications.
5. Owner/responsible party.

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

Yes HAZ met


October 20, 1987

Alameda County Public Health Service
Division of Environmental Health
470 - 27th St., Room 322
Oakland, Ca. 94612
Attn: Mr. Ted Gerow

RECEIVED
OCT 21 1987
ENVIRONMENTAL HEALTH
ADMINISTRATION

Re: ARCO SS#4931
731 West MacArthur Blvd./West
Oakland, Ca.

Dear Mr. Gerow:

In reviewing our records, it was unclear whether a Leak Report was ever filed for this location. Enclosed is a Report along with some additional data. A work plan will soon be forwarded for your review. In the meantime, please feel free to give me a call at (415) 571-2407 if you have any questions.

Very truly yours,

ARCO Petroleum Products Company
a division of Atlantic Richfield Company

K.M. Schultheis

K. M. Schultheis
Gasoline Marketing Systems/Maintenance Supervisor

cc: Tom Callaghan - Regional Water Quality Control Board

KMS:cc
Enclosure

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		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 25100.7 OF THE HEALTH AND SAFETY CODE.		
REPORT DATE 1 0 0 7 8 7 y		CASE #				
REPORTED BY	NAME OF INDIVIDUAL FILING REPORT KAREN SCHULTHEIS		PHONE (415) 571-2407	SIGNATURE <i>K. Th. Schultheis</i>		
	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 ARCO PETROLEUM PRODUCTS COMPANY			
	ADDRESS P.O. BOX 5811 STREET CITY SAN MATEO STATE CA ZIP 94402					
RESPONSIBLE PARTY	NAME SAME AS ABOVE <input type="checkbox"/> UNKNOWN		CONTACT PERSON		PHONE ()	
	ADDRESS STREET CITY STATE ZIP					
SITE LOCATION	FACILITY NAME (IF APPLICABLE) ARCO SERVICE STATION #4931		OPERATOR		PHONE (415) 658-5000	
	ADDRESS 731 WEST MACARTHUR BOULEVARD STREET CITY OAKLAND STATE ALAMEDA ZIP					
	CROSS STREET WEST STREET		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 AGENCY NAME ALAMEDA COUNTY HEALTH DEPARTMENT		CONTACT PERSON TED GEROW		PHONE (415) 874-6434	
	REGIONAL BOARD R.W.Q.C.B. - SAN FRANCISCO BAY REGION		CONTACT PERSON GREG ZENTNER		PHONE (415) 464-1255	
SUBSTANCES INVOLVED	(1) NAME GASOLINE - HYDROCARBON, BENZENE, TOLUENE, XYLENES				QUANTITY LOST (GALLONS) <input checked="" type="checkbox"/> UNKNOWN	
	(2) <input type="checkbox"/> UNKNOWN					
DISCOVERY/ABATEMENT	DATE DISCOVERED 0 3 1 3 8 3 y		HOW DISCOVERED <input type="checkbox"/> INVENTORY CONTROL <input checked="" type="checkbox"/> SUBSURFACE MONITORING <input type="checkbox"/> TANK TEST <input type="checkbox"/> TANK REMOVAL <input type="checkbox"/> NUISANCE CONDITIONS <input type="checkbox"/> OTHER			
	DATE DISCHARGE BEGAN M M D D Y Y <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 type="checkbox"/> CLOSE TANK <input type="checkbox"/> REPAIR TANK <input type="checkbox"/> REPAIR PIPING <input type="checkbox"/> CHANGE PROCEDURE <input checked="" type="checkbox"/> OTHER TANKS TESTED			
	HAS DISCHARGE BEEN STOPPED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, DATE M M D D Y Y					
SOURCE/CAUSE	SOURCE OF DISCHARGE <input type="checkbox"/> TANK LEAK <input checked="" type="checkbox"/> UNKNOWN <input type="checkbox"/> PIPING LEAK <input checked="" type="checkbox"/> OTHER OVERFILL		TANKS ONLY/CAPACITY 2-8K, 1-6K, 1-12K GAL. AGE 4 - 20 YRS <input type="checkbox"/> UNKNOWN		MATERIAL <input type="checkbox"/> FIBERGLASS <input type="checkbox"/> STEEL <input type="checkbox"/> OTHER	
	CAUSE(S) <input checked="" type="checkbox"/> OVERFILL <input type="checkbox"/> RUPTURE/FAILURE <input type="checkbox"/> CORROSION <input type="checkbox"/> UNKNOWN <input checked="" type="checkbox"/> SPILL <input type="checkbox"/> OTHER					
CASE TYPE	CHECK ONE ONLY <input type="checkbox"/> UNDETERMINED <input type="checkbox"/> SOIL ONLY <input checked="" type="checkbox"/> GROUNDWATER <input type="checkbox"/> DRINKING WATER - (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)					
CURRENT STATUS	CHECK ONE ONLY <input checked="" type="checkbox"/> SITE INVESTIGATION IN PROGRESS (DEFINING EXTENT OF PROBLEM) <input type="checkbox"/> CLEANUP IN PROGRESS <input 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 type="checkbox"/> EXCAVATE & DISPOSE (ED) <input checked="" 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 (PT) <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						

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 25180.7, a designated 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 and surrounding area. 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. Provide details on tank age; capacity and material if known. 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.

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 actions 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.
- No Action Required - incident is minor, requiring no remedial action.

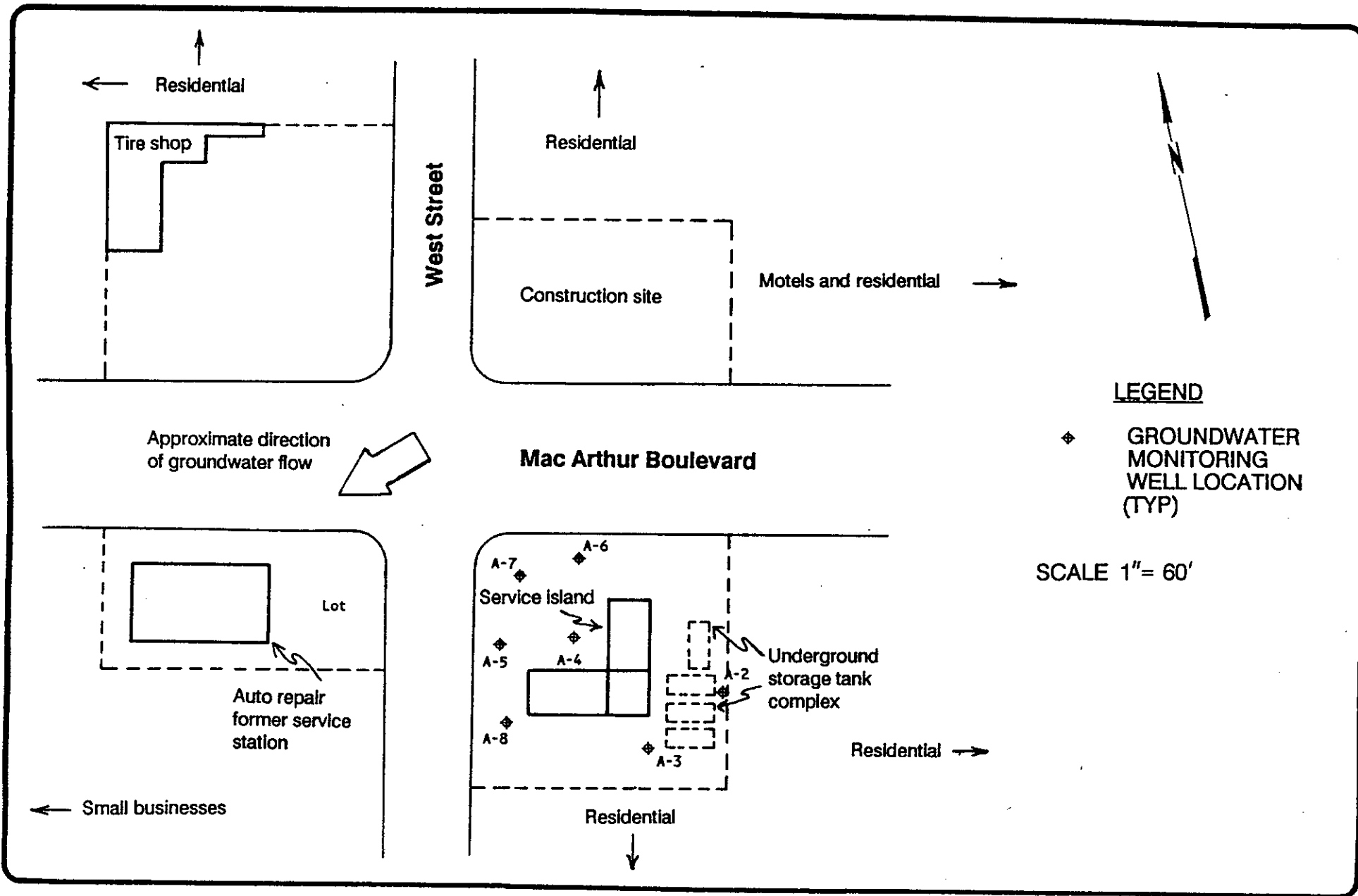
COMMENTS - Use this space to elaborate on any aspects of the incident.

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 in tact to your local tank permitting agency for distribution.

1. Original - Local Tank Permitting Agency
2. State Water Resources Control Board, Division of Water Quality, Underground Tank Program, P. O. Box 100, Sacramento, CA 95801
3. Regional Water Quality Control Board
4. County Board of Supervisors or designee to receive Proposition 65 notifications.
5. Owner/responsible party.



PACIFIC
ENVIRONMENTAL
GROUP, INC.

ARCO SERVICE STATION
Mac Arthur Blvd and West Street
Oakland, California

EXTENDED SITE MAP

FIGURE
1
Project No.
130-12.02

JK

DATE	WELL	DTN	DTW	HT	FAILED	FLOWMETER	FT-LIQ.	FT-H2O	RXP	C. ELEV
05-May-87	A	7.44	(1.00)	0.02						GS
12-May-87	A	7.37	(1.00)	0.02						CF
19-May-87	A	7.40	(1.00)	0.02						SM
26-May-87	A	7.33	(1.00)	0.03						CA
02-Jun-87	A	7.34	(1.00)	0.01						RK
09-Jun-87	A	7.44	(1.00)	0.03						GS
16-Jun-87	A	7.42	(1.00)	0.02						DF
23-Jun-87	A	7.44	(1.00)	0.03						SM
30-Jun-87	A	7.47	(1.00)	0.04						CA
07-Jul-87	A	7.35	(1.00)	0.04						RK
14-Jul-87	A	7.45	(1.00)	0.03						GD
21-Jul-87	A	7.46	(1.00)	0.03						DF
28-Jul-87	A	7.43	(1.00)	0.03						SM
05-May-87	B	7.51	(1.00)	0.02						
12-May-87	B	7.50	(1.00)	0.02						
19-May-87	B	7.51	(1.00)	0.02						
26-May-87	B	7.49	(1.00)	0.03						
02-Jun-87	B	7.49	(1.00)	0.01						
09-Jun-87	B	7.57	(1.00)	0.03						
16-Jun-87	B	7.51	(1.00)	0.02						
23-Jun-87	B	7.50	(1.00)	0.02						
30-Jun-87	B	7.54	(1.00)	0.03						
07-Jul-87	B	7.49	(1.00)	0.05						
14-Jul-87	B	7.54	(1.00)	0.02						
21-Jul-87	B	7.66	(1.00)	0.06						
28-Jul-87	B	7.51	(1.00)	0.02						
05-May-87	2		6.68	0.00						
12-May-87	2		8.05	0.00						
19-May-87	2		N/A	0.00						
26-May-87	2		9.54	0.00						
02-Jun-87	2		4.03	0.00						
09-Jun-87	2		10.20	0.00						
16-Jun-87	2		10.37	0.00						
23-Jun-87	2		10.52	0.00						
30-Jun-87	2	10.71	(1.00)	.00						
07-Jul-87	2		5.10	0.00						
14-Jul-87	2		10.75	0.00						
21-Jul-87	2		11.04	0.00						
28-Jul-87	2		10.97	0.00						
05-May-87	3		10.62	0.00						
12-May-87	3	9.21	10.55	0.00						
19-May-87	3		9.15	0.00						
26-May-87	3		10.00	0.00						
02-Jun-87	3	9.14	9.39	0.00						
09-Jun-87	3	9.02	10.85	0.00						
16-Jun-87	3	8.62	11.04	0.00						
23-Jun-87	3		11.02	0.00						
30-Jun-87	3	9.22	11.29	0.00						
07-Jul-87	3		10.39	0.00						
14-Jul-87	3		11.22	0.00						
21-Jul-87	3	10.08	11.15	0.00						
28-Jul-87	3	10.32	10.92	0.00						

RECEIVED

OCT 21 1987

ENVIRONMENTAL HEALTH
ADMINISTRATION

DATE	WELL	DTH	DTW	HT	PAIRED FLOWMETER	PT-LIQ.	PT-H2O	EMP	C.SLEV
05-May-87	4	11.12	(1.00)	0.05					
12-May-87	4	11.06	(1.00)	0.03				CA	
19-May-87	4	11.08	(1.00)	0.03				GS	
26-May-87	4	11.34	(1.00)	0.04				SM	
02-Jun-87	4	9.95	(1.00)	0.03				CP	
09-Jun-87	4	11.38	(1.00)	0.02				CA	
16-Jun-87	4	11.51	(1.00)	0.03				RK	
23-Jun-87	4	11.57	(1.00)	0.02				GS	
30-Jun-87	4	11.58	(1.00)	.00				CP	
07-Jul-87	4	10.35	(1.00)	0.05				RK	
14-Jul-87	4	11.68	(1.00)	0.02				CA	
21-Jul-87	4	11.74	(1.00)	0.02				RK	
28-Jul-87	4	11.34	(1.00)	0.02				GS	
05-May-87	5	7.45	10.35	0.00					
12-May-87	5	7.53	10.75	0.00					
19-May-87	5	7.44	10.81	0.00					
26-May-87	5	7.42	10.95	0.00					
02-Jun-87	5		9.67	0.00					
09-Jun-87	5	7.47	11.08	0.00					
16-Jun-87	5	7.47	11.19	0.00					
23-Jun-87	5	7.51	11.22	0.00					
30-Jun-87	5	7.47	11.31	0.00					
07-Jul-87	5	7.50	10.65	0.00					
14-Jul-87	5	7.49	11.38	0.00					
21-Jul-87	5	7.50	11.44	0.00					
28-Jul-87	5	7.51	11.08	0.00					
05-May-87	6		8.94	0.00				CP	
12-May-87	6		8.92	0.00					
19-May-87	6		8.95	0.00					
26-May-87	6		9.12	0.00					
02-Jun-87	6		7.71	0.00					
09-Jun-87	6		9.32	0.00					
16-Jun-87	6		9.32	0.00					
23-Jun-87	6		9.40	0.00					
30-Jun-87	6		9.47	0.00					
07-Jul-87	6		8.71	0.00					
14-Jul-87	6		9.60	0.00					
21-Jul-87	6		9.73	0.00					
28-Jul-87	6		9.57	0.00					
05-May-87	7		8.65	0.00					
12-May-87	7		8.65	0.00					
19-May-87	7		8.76	0.00					
26-May-87	7		8.88	0.00					
02-Jun-87	7		7.50	0.00					
09-Jun-87	7		9.03	0.00					
16-Jun-87	7		9.13	0.00					
23-Jun-87	7		9.17	0.00					
30-Jun-87	7		9.26	0.00					
07-Jul-87	7		8.50	0.00					
14-Jul-87	7		9.34	0.00					
21-Jul-87	7		9.50	0.00					
28-Jul-87	7		9.30	0.00					
05-May-87	8	10.36	(1.00)	0.01					



DATE	WELL	DTH	DSW	HT	BAILED	FLOWMETER	PT-LIQ.	PT-H2O	EXP	C.SLEV
12-May-87	8	10.25	(1.00)	0.01						
19-May-87	8	10.30	(1.00)	0.01						
26-May-87	8	10.45	(1.00)	0.05						
02-Jun-87	8	9.32	(1.00)	0.01						
09-Jun-87	8	10.52	(1.00)	0.10						
16-Jun-87	8	11.69	(1.00)	0.18						
23-Jun-87	8	10.70	(1.00)	0.30						
30-Jun-87	8	10.75	(1.00)	0.29						
07-Jul-87	8	10.32	(1.00)	0.03						
14-Jul-87	8	10.84	(1.00)	0.36						
21-Jul-87	8	11.00	(1.00)	0.82						
28-Jul-87	8	10.52	(1.00)	0.32						

RECEIVED

OCT 21 1987

ENVIRONMENTAL HEALTH
ADMINISTRATION

JK

DATE WELL OTH DTW HT SAILED FLOWMETER PT-LIQ PT-H2O EMP C ELEV

2										54.41
3										53.34
4										53.40
5										52.79
6										53.77
7										53.46
8										52.72

26-Jan-87	A	7.40	(1.00)	0.01					SM	
09-Feb-87	A	7.42	(1.00)	0.03					CA	
23-Feb-87	A	7.32	(1.00)	0.01					GS	
03-Mar-87	A	7.41	(1.00)	0.02					SM	
09-Mar-87	A		N/A						CP	
16-Mar-87	A	7.37	(1.00)	0.03					CA	
23-Mar-87	A	7.35	(1.00)	.00					RK	
30-Mar-87	A	7.40	(1.00)	0.03					GS	
07-Apr-87	A	7.68	(1.00)	0.01					CP	
14-Apr-87	A	7.40	(1.00)	0.05					RK	
21-Apr-87	A	7.40	(1.00)	0.02					CA	
28-Apr-87	A	7.32	(1.00)	0.01					RK	
26-Jan-87	B	7.45	(1.00)	0.01						
09-Feb-87	B	7.53	(1.00)	0.03						
23-Feb-87	B	7.44	(1.00)	0.03						
03-Mar-87	B	7.42	(1.00)	0.01						
09-Mar-87	B		N/A							
16-Mar-87	B	7.47	(1.00)	0.03						
23-Mar-87	B	7.47	(1.00)	0.01						
30-Mar-87	B	7.51	(1.00)	0.02						
07-Apr-87	B	7.47	(1.00)	0.01						
14-Apr-87	B	7.50	(1.00)	0.03						
21-Apr-87	B	7.49	(1.00)	0.02						
28-Apr-87	B	7.50	(1.00)	0.01						
26-Jan-87	2		5.18	0.00						
02-Feb-87	2		5.12	0.00						
09-Feb-87	2		5.07	0.00						
23-Feb-87	2		3.54	0.00						
03-Mar-87	2		4.05	0.00						
09-Mar-87	2		4.09	0.00						
16-Mar-87	2		3.52	0.00						
23-Mar-87	2		3.66	0.00						
30-Mar-87	2		4.02	0.00						
07-Apr-87	2		4.37	0.00						
14-Apr-87	2		4.55	0.00						
21-Apr-87	2		4.86	0.00						
28-Apr-87	2		5.03	0.00						
26-Jan-87	3		10.04	0.00						
02-Feb-87	3		9.03	0.00						
09-Feb-87	3		9.36	0.00						
23-Feb-87	3		8.17	0.00						
03-Mar-87	3		9.14	0.00						
09-Mar-87	3		8.97	0.00						
16-Mar-87	3		8.09	0.00						
23-Mar-87	3		8.22	0.00						

DATE	WELL	DTH	DTW	HT	BAILED	FLOWMETER	PT-LIQ	PT-H2O	EMP	C.ELEV
30-Mar-87	3		9.14	0.00						
07-Apr-87	3		8.84	0.00						
14-Apr-87	3		9.90	0.00						
21-Apr-87	3		10.20	0.00						
28-Apr-87	3		10.40	0.00						
26-Jan-87	4	10.60	(1.00)	0.06						
02-Feb-87	4	10.14	(1.00)	2.48						
09-Feb-87	4	10.18	(1.00)	0.07						
23-Feb-87	4	9.20	(1.00)	0.07						
03-Mar-87	4	9.96	(1.00)	0.04						
09-Mar-87	4	9.79	(1.00)	0.03						
16-Mar-87	4	9.29	(1.00)	0.09						
23-Mar-87	4	9.55	(1.00)	0.15						
30-Mar-87	4	9.94	(1.00)	0.06						
07-Apr-87	4	10.42	(1.00)	0.03						
14-Apr-87	4	10.57	(1.00)	.00						
21-Apr-87	4	10.87	(1.00)	0.05						
28-Apr-87	4	10.97	(1.00)	0.03						
26-Jan-87	5		10.33	0.00						
02-Feb-87	5		9.39	0.00						
09-Feb-87	5		9.86	0.00						
23-Feb-87	5		8.93	0.00						
03-Mar-87	5		9.66	0.00						
09-Mar-87	5		9.42	0.00						
16-Mar-87	5		9.02	0.00						
23-Mar-87	5		9.28	0.00						
30-Mar-87	5		9.51	0.00						
07-Apr-87	5		10.15	0.00						
14-Apr-87	5		10.31	0.00						
21-Apr-87	5		10.49	0.00						
28-Apr-87	5		10.65	0.00						
26-Jan-87	6		8.49	0.00						
02-Feb-87	6		9.03	0.00						
09-Feb-87	6		7.90	0.00						
23-Feb-87	6		6.86	0.00						
03-Mar-87	6		7.59	0.00						
09-Mar-87	6		7.62	0.00						
16-Mar-87	6		7.11	0.00						
23-Mar-87	6		7.33	0.00						
30-Mar-87	6		7.57	0.00						
07-Apr-87	6		8.23	0.00						
14-Apr-87	6		8.38	0.00						
21-Apr-87	6		8.62	0.00						
28-Apr-87	6		8.70	0.00						
26-Jan-87	7		8.24	0.00						
02-Feb-87	7		8.85	0.00						
09-Feb-87	7		7.68	0.00						
23-Feb-87	7		8.62	0.00						
03-Mar-87	7		7.47	0.00						
09-Mar-87	7		7.30	0.00						
16-Mar-87	7		6.90	0.00						
23-Mar-87	7		7.13	0.00						
30-Mar-87	7		7.44	0.00						

DATE	WELL	DTH	DTW	HT	BAILED	FLOWMETER	PT-LIQ.	PT-H2O	EMP	C.ELEV
------	------	-----	-----	----	--------	-----------	---------	--------	-----	--------

07-Apr-87	7		8.02	0.00						
14-Apr-87	7		8.10	0.00						
21-Apr-87	7		8.41	0.00						
28-Apr-87	7		8.52	0.00						
26-Jan-87	8		9.94	0.00						
02-Feb-87	8	9.21	(1.00)	.00						
09-Feb-87	8		9.44	0.00						
23-Feb-87	8		8.38	0.00						
03-Mar-87	8	9.14	(1.00)	.00						
09-Mar-87	8	9.02	(1.00)	.00						
16-Mar-87	8	8.62	(1.00)	.00						
23-Mar-87	8		8.80	0.00						
30-Mar-87	8	9.22	(1.00)	.00						
07-Apr-87	8		9.72	0.00						
14-Apr-87	8		9.81	0.00						
21-Apr-87	8	10.08	(1.00)	.00						
28-Apr-87	8	10.32	(1.00)	0.01						

EMCON ASSOCIATES • CHEMICAL LABORATORIES

Analysis • Consultation • Research • Environmental Studies
State Approved Water Laboratory



CERTIFIED ANALYTICAL REPORT

OK

Report to:

Project Number: 800-32.01

Gettler Ryan
1992 National Ave.
Hayward, CA 94545

Location: OAKLAND, CA

Sample Type: WATER
Units: ug/l

Sample Designation:	A02	A03	A05	A06
Field Date:	03/21/86	03/21/86	03/21/86	03/21/86
Laboratory Number:	E86-0255	E86-0255	E86-0255	E86-0255

Benzene	620	6.1	8.9	<0.50
Toluene	960	2.9	<0.50	<0.50
Xylenes and Ethylbenzene	3900	56	6.1	<4.0
Gasoline	31000	1000	88	<10

Sample Designation:	A07
Field Date:	03/21/86
Laboratory Number:	E86-0255

Benzene	<0.50
Toluene	<1.0
Xylenes and Ethylbenzene	<4.0
Gasoline	<10

Page 1

Reported by *Philip Murphy* Date: *3-28-86*

1921 RINGWOOD AVENUE, SAN JOSE, CALIFORNIA 95131

TELEPHONE (408) 275-1444

These results were obtained by following standard laboratory procedures; the liability of the corporation shall not exceed the amount paid for this report.

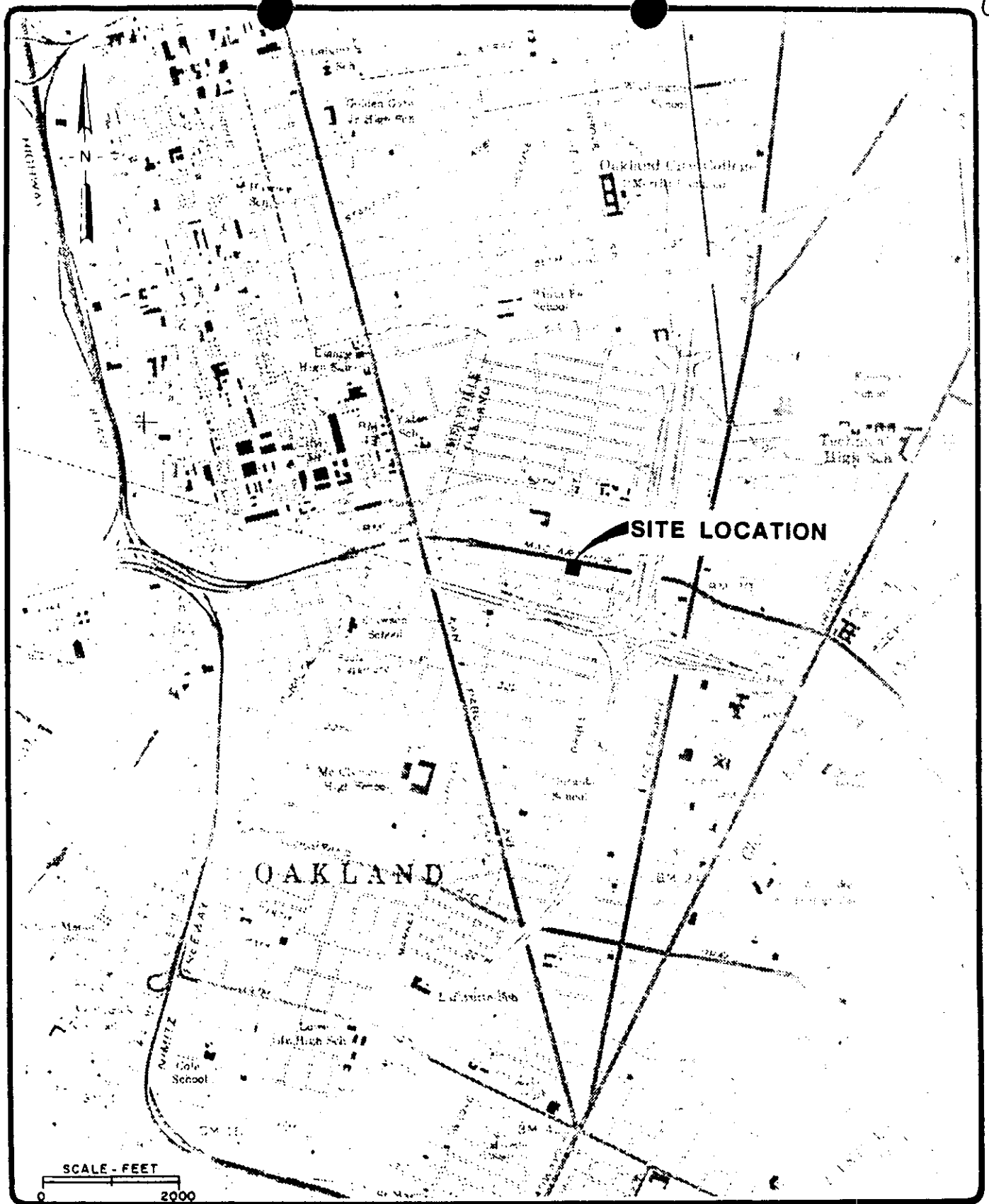
OK

Table 2
DISSOLVED GASOLINE CONCENTRATIONS
AND
FLOATING PRODUCT THICKNESSES
March 21, 1986

Monitoring Well	Dissolved Gasoline Concentration (ug/l)	Floating Product (ft)
A-2	31,000	--
A-3	1,000	--
A-4	--	3.5
A-5	88	--
A-6	nd	--
A-7	nd	--
A-8	--	0.02

Gasoline concentrations in micrograms per liter (ug/l)
or parts per billion.
nd = none detected
Detection limit = 10 ug/l

OK

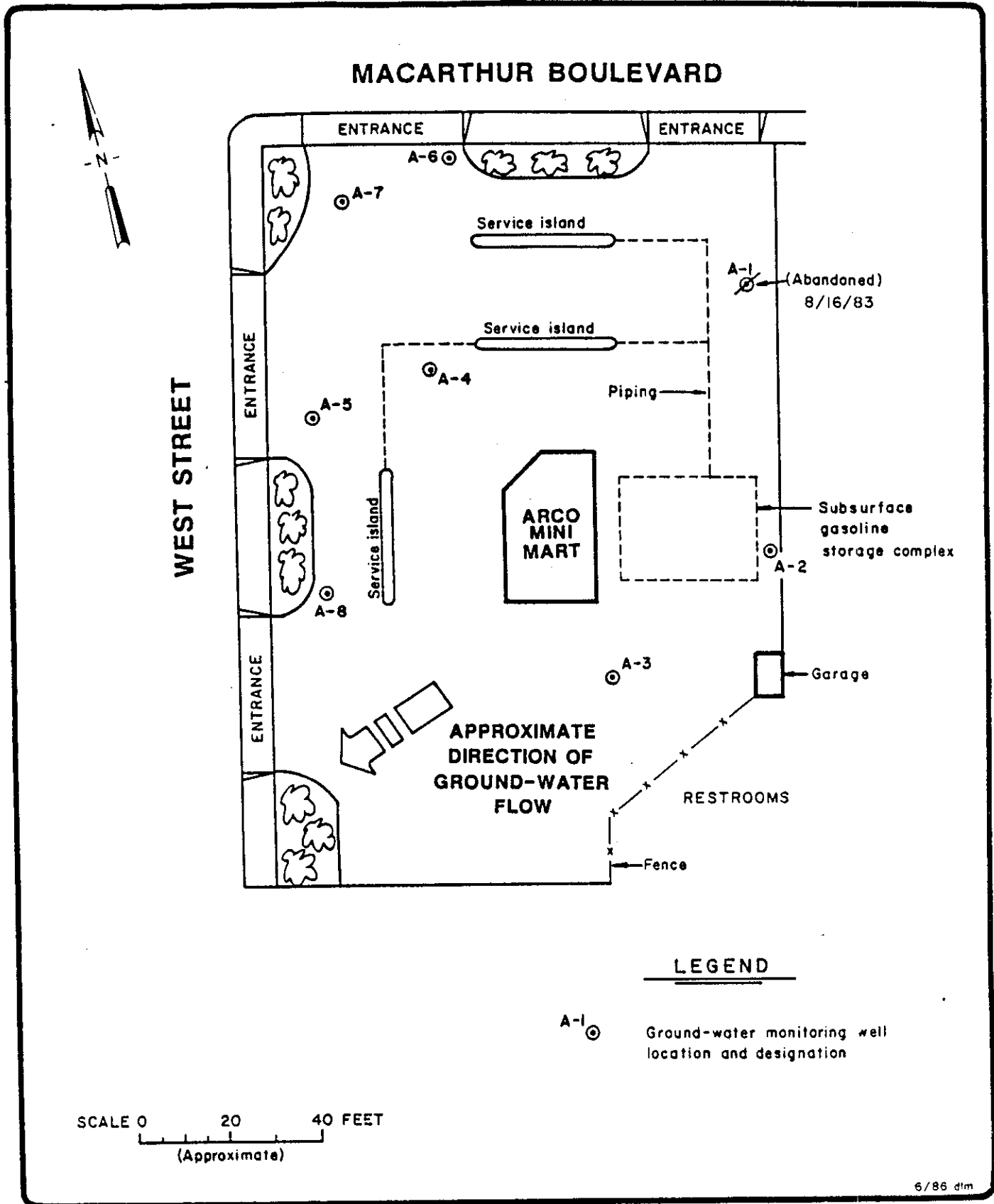


GETTLER-RYAN INC.
REMEDIAL ACTION INVESTIGATION
ARCO STATION, 731 W. MACARTHUR
OAKLAND, CALIFORNIA

LOCATION MAP

FIGURE
I
PROJECT NO
800-32.01

OK



LEGEND

A-1 ⊙ Ground-water monitoring well location and designation

SCALE 0 20 40 FEET
(Approximate)

6/86 d/m

EMCON
Associates
San Jose, California

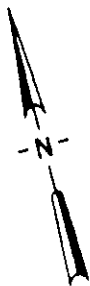
GETTLER-RYAN INC
REMEDIAL ACTION EVALUATION
ARCO STATION, 731 W. MACARTHUR BLVD
OAKLAND, CALIFORNIA

SITE PLAN

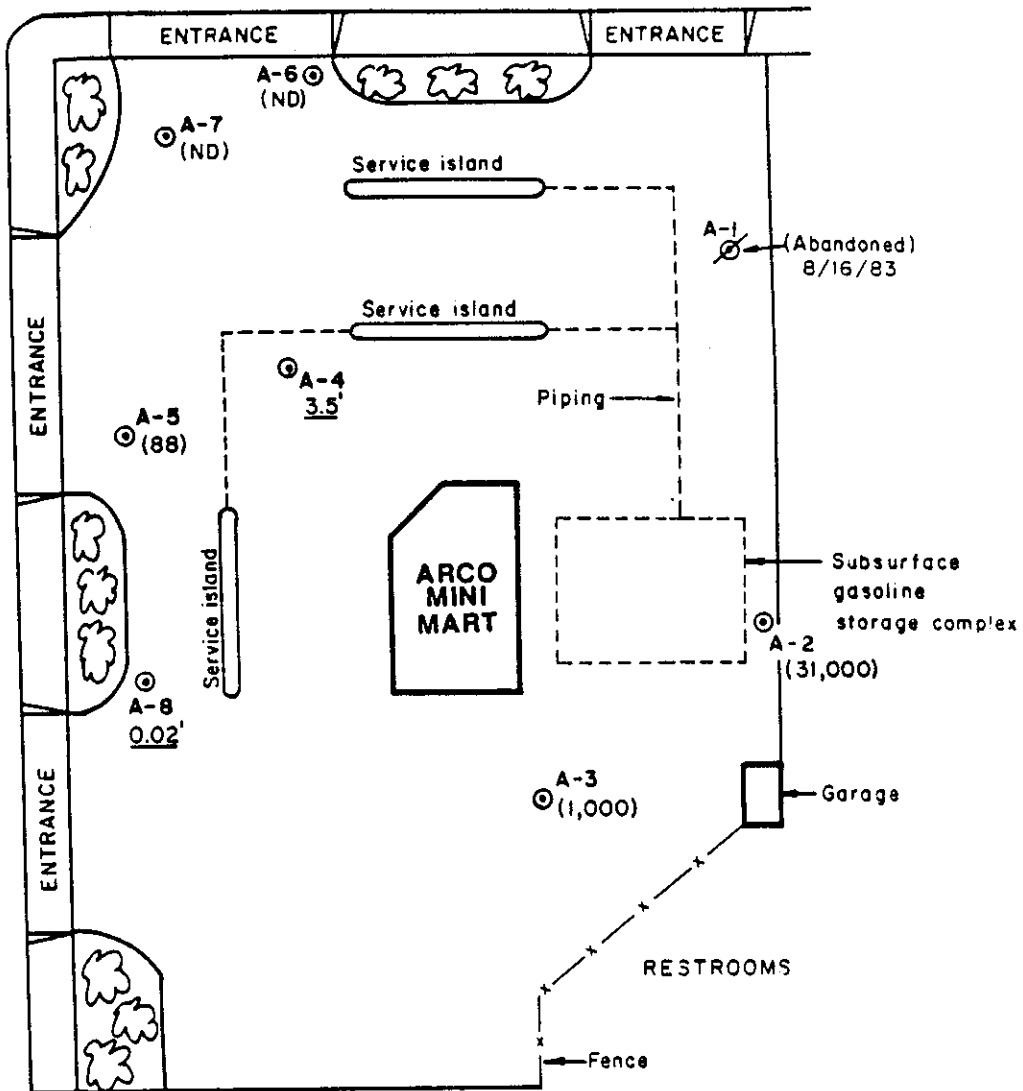
FIGURE
2
PROJECT NO
800-32.01

OK

MACARTHUR BOULEVARD



WEST STREET



LEGEND

- A-1 ⊙ Ground-water monitoring well location and designation
- (1,000) Dissolved gasoline concentration (µg/l or ppb) 3/21/86*
- 3.5' Floating product thickness (Feet) measured 3/21/86
- *ND= None detected, <10ppb

SCALE 0 20 40 FEET
(Approximate)

6/86 dlm



EMCON Associates

San Jose, California

GETTLER-RYAN INC
REMEDIAL ACTION EVALUATION
ARCO STATION, 731 W. MACARTHUR BLVD
OAKLAND, CALIFORNIA

PRODUCT DISTRIBUTION

FIGURE

3

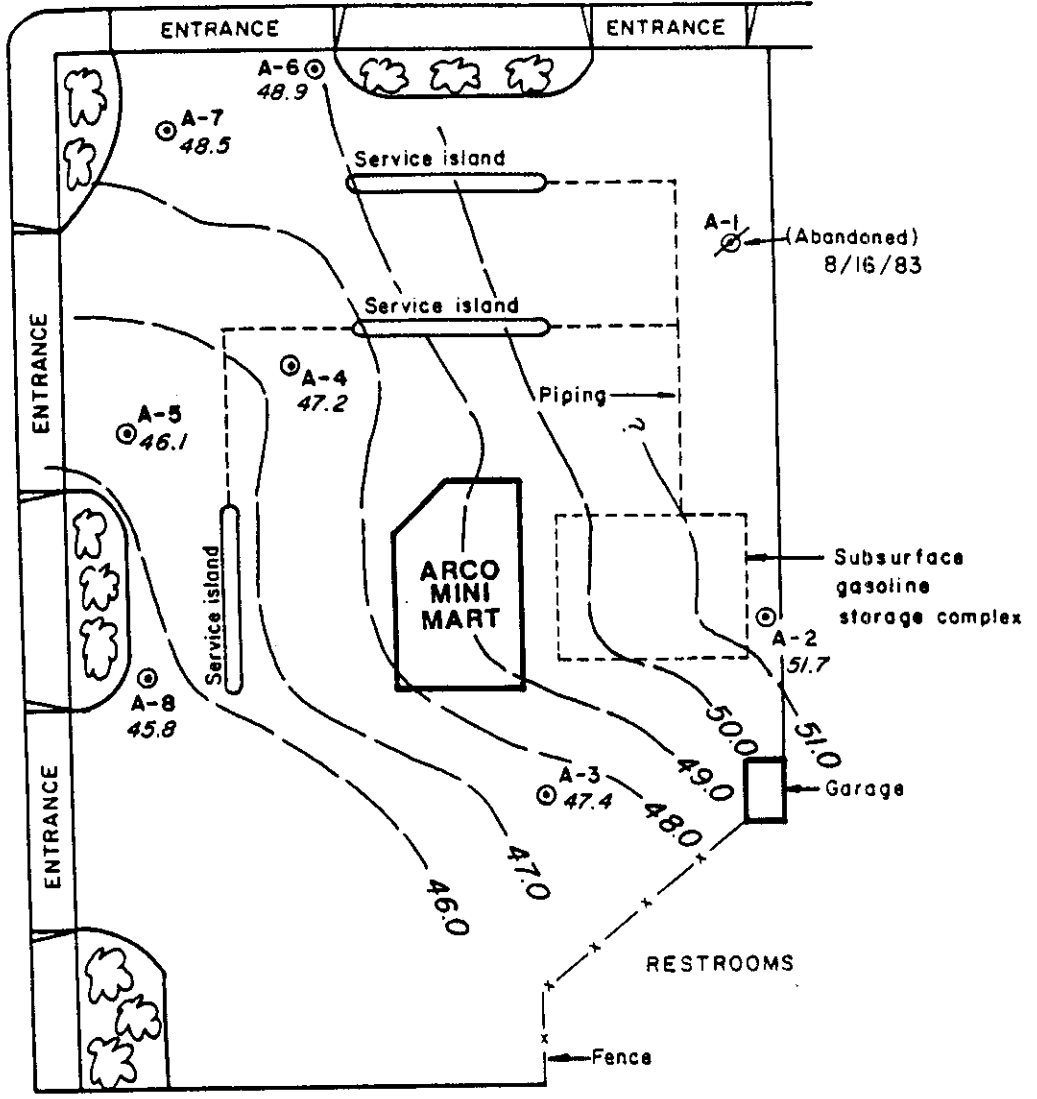
PROJECT NO
800-3201

ok

MACARTHUR BOULEVARD

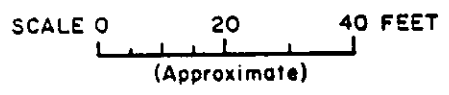


WEST STREET



LEGEND

- A-1 ⊙ Ground-water monitoring well location and designation
- 46.1 Ground-water elevation (Feet-project datum) 3/19/86
- 46.0- Ground-water elevation contour (Feet-project datum) 3/19/86



6/86 sim

EMCON
Associates
San Jose, California

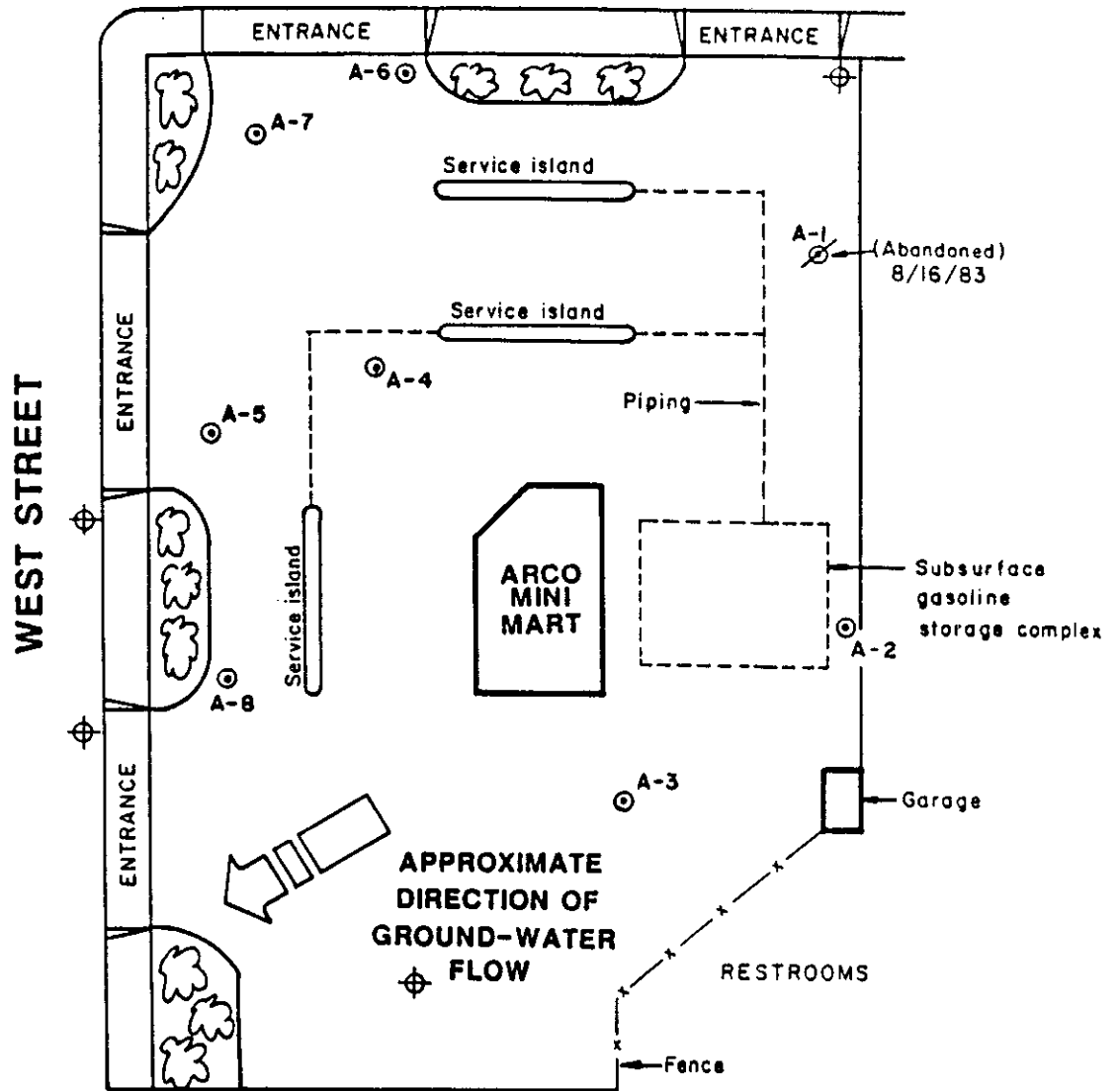
GETTLER-RYAN INC
REMEDIAL ACTION EVALUATION
ARCO STATION, 731 W. MACARTHUR BLVD
OAKLAND, CALIFORNIA

GROUND-WATER CONTOUR MAP

FIGURE
4
PROJECT NO
800-3201

OK

MACARTHUR BOULEVARD



LEGEND

- A-1 ⊙ Ground-water monitoring well location and designation
- ⊕ Proposed ground-water monitoring well location

SCALE 0 20 40 FEET
(Approximate)

6/86 d/m



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San Jose, California

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REMEDIAL ACTION EVALUATION
ARCO STATION, 731 W. MACARTHUR BLVD
OAKLAND, CALIFORNIA

PROPOSED WELL LOCATION MAP

FIGURE

5

PROJECT NO
800-3201