

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY

DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, DIRECTOR

December 12, 1995

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

STID 2449

REMEDIAL ACTION COMPLETION CERTIFICATION

Ed Chovanes Ford
13889 east 14th Street
San Leandro, CA 94578
Attn: John Chovanes

Marilyn Chovanes Trust
138 Wildwood Gardens
Piedmont, CA 94611

RE: ED CHOVANES FORD, 13889 EAST 14TH STREET, SAN LEANDRO

Dear Mr. Chovanes and Trustee:

This letter confirms the completion of site investigation and remedial action for the single waste oil underground storage tank formerly located at the above-described location. Enclosed is the Case Closure Summary for the referenced site for your records.

Based upon the available information, including current land use, and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground storage tank release is required.

This notice is issued pursuant to a regulation contained in Title 23, California Code of Regulations, Division 3, Chapter 16, Section 2721(e). If a change in land use is proposed, the owner must promptly notify this agency.

Please contact Scott Seery at (510) 567-6783 if you have any questions regarding this matter.

Sincerely,

Jun Makishima
Acting Director of Environmental Services

cc: ~~JP~~ Gordon Coleman, Acting Chief, Env. Protection Division
Kevin Graves, RWQCB
Mike Harper, SWRCB
Mike Bakaldin, San Leandro Fire Department

SIGNED
COPY

01-0546
95 DEPT. OF ENVIRONMENTAL
CALIFORNIA REGIONAL WATER
NOV 22 1995 PM 2:01
QUALITY CONTROL BOARD
Date: 11/03/95

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Agency name: Alameda County-EPD Address: 1131 Harbor Bay Pkwy #250
City/State/Zip: Alameda, CA 94502 Phone: (510) 567-6700
Responsible staff person: Scott Seery Title: Sr. Haz. Materials Spec.

II. CASE INFORMATION

Site facility name: Ed Chovanes Ford
Site facility address: 13889 E. 14th Street, San Leandro 94578
RB LUSTIS Case No: N/A Local Case No./LOP Case No.: 2449
URF filing date: 4/9/91 SWEEPS No: N/A

<u>Responsible Parties:</u>	<u>Addresses:</u>	<u>Phone Numbers:</u>
John Chovanes	13889 E.14th Street	510-352-2000
Ed Chovanes Ford	San Leandro, CA 94577	
Marilyn Chovanes Trust	138 Wildwood Gardens	
	Piedmont, CA 94611	

<u>Tank No:</u>	<u>Size in gal.:</u>	<u>Contents:</u>	<u>Closed in-place or removed?:</u>	<u>Date:</u>
1	300 gal.	waste oil	removed	4-9-91

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: overfill/corrosion

Site characterization complete? YES

Date approved by oversight agency: 12/94

Monitoring Wells installed? YES Number: 3

Proper screened interval? YES

Highest GW depth below ground surface: 23.67' Lowest depth: 31.90'

Flow direction: predominantly WSW

Most sensitive current use: commercial

Are drinking water wells affected? NO Aquifer name: San Leandro Cone

Is surface water affected? NO Nearest affected SW name: NA

Off-site beneficial use impacts (addresses/locations): NONE

Leaking Underground Fuel Storage Tank Program

Report(s) on file? **YES** Where is report filed? **Alameda County**
1131 Harbor Bay Pkwy
Alameda CA 94502

Treatment and Disposal of Affected Material:

<u>Material</u>	<u>Amount</u> (include units)	<u>Action (Treatment</u> <u>of Disposal w/destination)</u>	<u>Date</u>
Tank	300 gallons	<u>Disposal</u> - Erickson, Inc. Richmond, CA	4-9-91
Piping	NA		
Free Product	"		
Soil	~ 114 tons	<u>Recycle</u> - Port Costa Materials Port Costa, CA	7/9/91
Groundwater	~ 54 yds ³ 370 gals	<u>UNK</u> - presumed disposal <u>Disposal</u> - sanitary sewer Ora Loma Sanitary District	UNK 4/94 - 7/95
Barrels			

III. RELEASE AND SITE CHARACTERIZATION INFORMATION (Continued)**Maximum Documented Contaminant Concentrations - - Before and After Cleanup**

Contaminant	Soil (ppm)		Water (ppb)	
	Before	After	Before	After
TPH (Gas)	590	69	ND ⁴	ND
TPH (Diesel)	ND	88	120 ³	NA
Benzene	6.6	ND	ND	ND
Toluene	49	0.056	"	"
Xylene	62	1.6	"	"
Ethylbenzene	10	ND	0.6 ⁴	"
Oil & Grease	6000	150	ND	"
Heavy metals	<i>SEE</i> Note 1		NA	NA
Other HVOC	Note 2	ND	7.7 ³	Note 5

- Note:**
- 1) Metals were present at apparent geogenic concentrations.
 - 2) "Before" HVOC soil analyses revealed 1,1,1-TCA (2.2 ppm) and PCE (3.5 ppm).
 - 3) "Before" water results are from May 31, 1990 compliance well sampling event. Reported HVOC concentration is for the compound 1,1,1-TCA.
 - 4) "Before" water result from November 14, 1990 compliance well sampling event.
 - 5) "After" water analyses revealed the presence of the HVOC compounds 1,1-DCA (5.1 ppb) and PCE (1.8 ppb).

Comments (Depth of Remediation, etc.):

One waste oil UST was removed 4/9/91 from a location adjacent to the dealership service department. Inspection of the tank during closure activities reportedly revealed that a concrete collar placed around the UST

Leaking Underground Fuel Storage Tank Program

fill pipe failed to form a tight fit, resulting in spillage into the backfill as containers of waste oil were allowed to drain into the subject tank. Overexcavation of the UST pit and area immediately surrounding it ensued in several stages. During the excavation activities, visible contamination was "chased" as it appeared in underlying native sediments. It reportedly became evident that much of the heavy soil staining encountered was associated with an adjacent drain sump serving a nearby "wash rack." A drain line leading from the wash rack to the sump was reportedly leaking, and that this leak was the primary source of the shallow soil contamination encountered.

The UST pit proper was eventually deepened to ~23.5'. The area surrounding the sump was likewise excavated, but to a shallower depth (~3'). Samples were collected from the UST pit sidewall and bottom, and from the bottom of the sump excavation. Soil "after" concentrations presented above reflect the final sample results from the UST pit.

Approximately 114 tons of excavated material was transported to Post Costa Materials for recycling into asphalt products. An additional ~ 54 yds³ of material was also transported off-site; however, records documenting the disposal of this material are not available.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Undetermined

Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Undetermined

Does corrective action protect public health for current land use? YES
Site management requirements: NA

Should corrective action be reviewed if land use changes? YES

Monitoring wells Decommissioned: NO

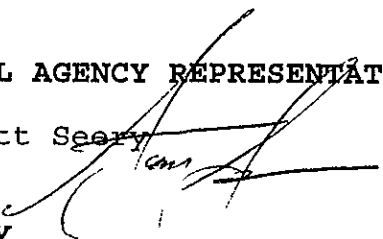
Number Decommissioned: 0 Number Retained: 3 (pending case closure)

List enforcement actions taken: none

List enforcement actions rescinded: none

Leaking Underground Fuel Storage Tank Program

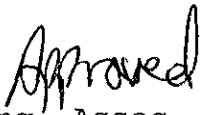
V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Scott Seery Title: Sr. Haz Mat Specialist
Signature:  Date: 11-17-95

Reviewed by
Name: Dale Klettke Title: Haz Mat Specialist
Signature:  Date: 11/20/95

Name: Amy Leech Title: Haz Mat Specialist
Signature:  Date: 11/17/95

VI. RWQCB NOTIFICATION

Date Submitted to RB: RB Response: 
RWQCB Staff Name: Kevin Graves Title: San. Eng. Assoc. Date: 12/7/95

VII. ADDITIONAL COMMENTS, DATA, ETC.

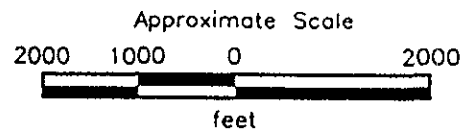
After completion of site restoration following UST removal and over-excavation activities, two additional monitoring wells were installed to augment the single well already constructed on-site. All three wells were sampled and monitored quarterly from 10/91 until 12/94. All were sampled for TPH-G, BTEX, TOG, and HVOC.

Consistent low concentration "hits" for 1,1-DCA, PCE and 1,1,1-TCA were identified in water sampled from MW-1, located immediately adjacent to the UST pit, during the noted sampling period. Periodic "hits" for benzene, toluene, total xylene isomers, and TPH-G were also noted, although benzene had not been detected in this well since 8/92. Additionally, water sampled from MW-2, located ~100' cross-gradient, and MW-3, ~120' cross-to-down gradient, of the UST pit, exhibited minor concentrations of certain of the fuel aromatics and TPH-G (MW-3) during the 11/93 sampling event. All subsequent water samples have been "ND" for target compounds.

This site is not within mapped HVOC plumes identified during the ongoing DTSC Central San Leandro plume study. The occurrence of 1,1-DCA and PCE in water sampled from well MW-1 appears to be from an on-site source, likely the removed waste oil UST and wash rack. This conclusion is based primarily on the absence of the noted HVOCs in water sampled from the other site wells where one would expect to find such compounds if local GW was impacted by a regional HVOC plume. Although concentrations of 1,1-DCA have hovered around and below the current MCL for this compound, its presence appears localized to the area near the former waste oil UST and wash rack in GW not used for municipal or domestic water supply, below a commercial property. The risk to exposure appears minimal.



Source U.S. Geological Survey
 7.5-Minute Quadrangle
 San Leandro, California
 Photorevised 1980

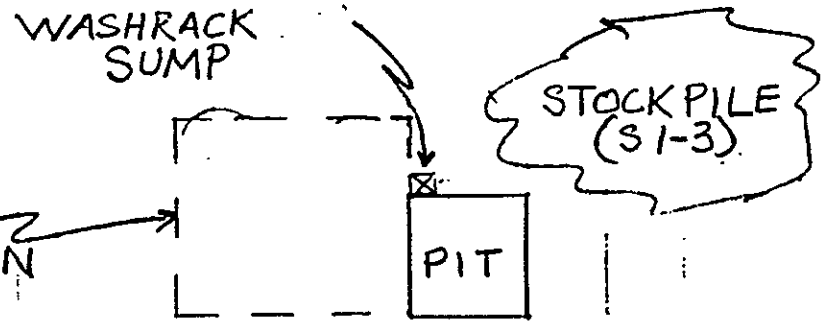
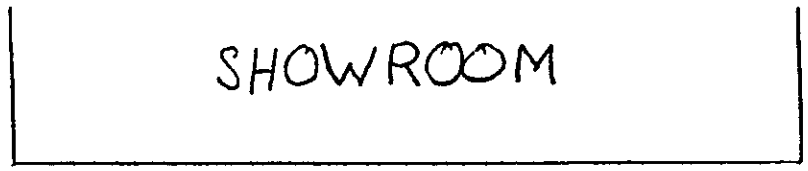


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DRAWING NO. 94-209-A1

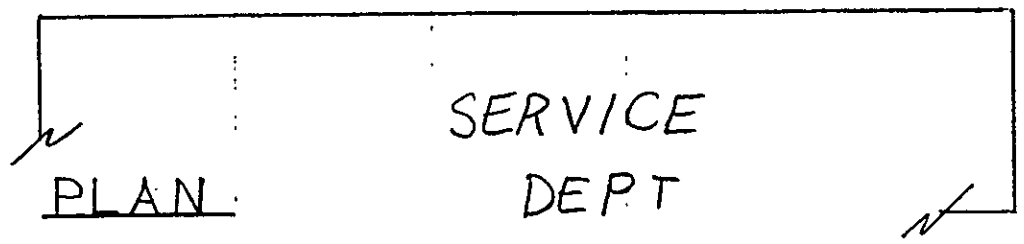
SITE VICINITY MAP
 ED CHOVANES FORD
 13889 EAST 14TH STREET
 SAN LEANDRO, CALIFORNIA

SAMPLED
 4/9
 4/10
 4/12

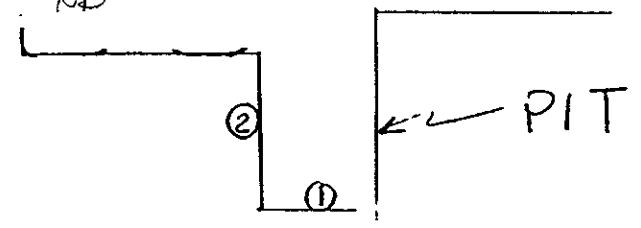


OVER-EXCAVATION

INITIAL
 SAMPLE
 LOCATIONS



Sample	TPH-G	TPH-D	B T E X	TOG	HVOC
1	590	ND	6.6 49 10 62	6000	22 1,1,1-TCA 3.5 PCE
2	5.7	"	0.1 0.6 0.084 0.47	ND	ND

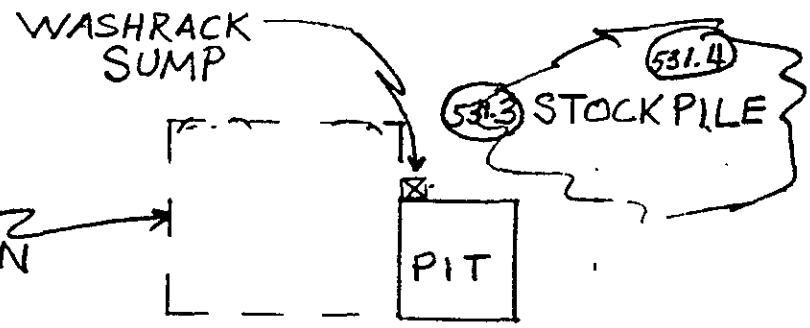
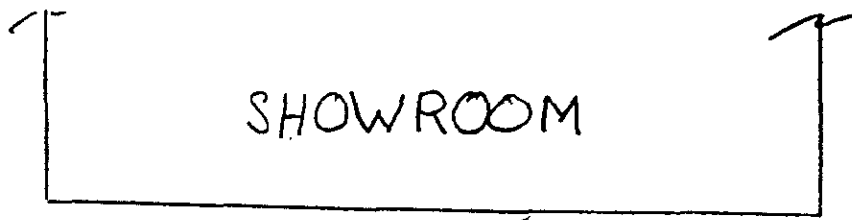


PROFILE

ATTACHMENT #3

11

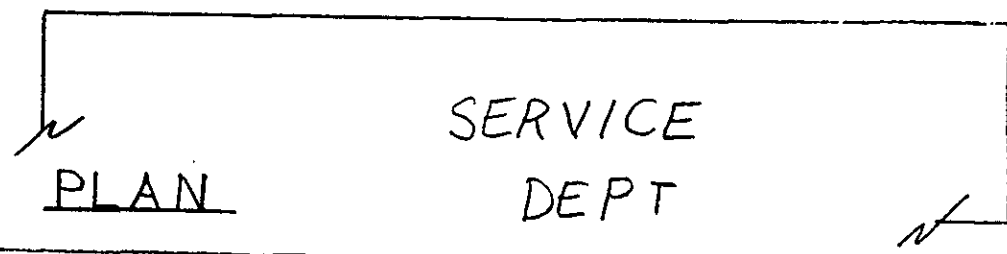
SAMPLED
5/31/91



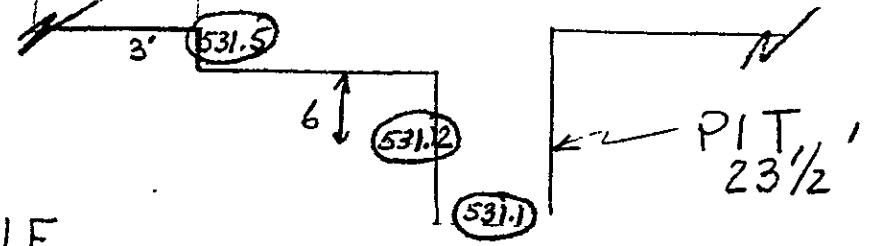
OVER-EXCAVATION

FINAL

SAMPLE
LOCATIONS



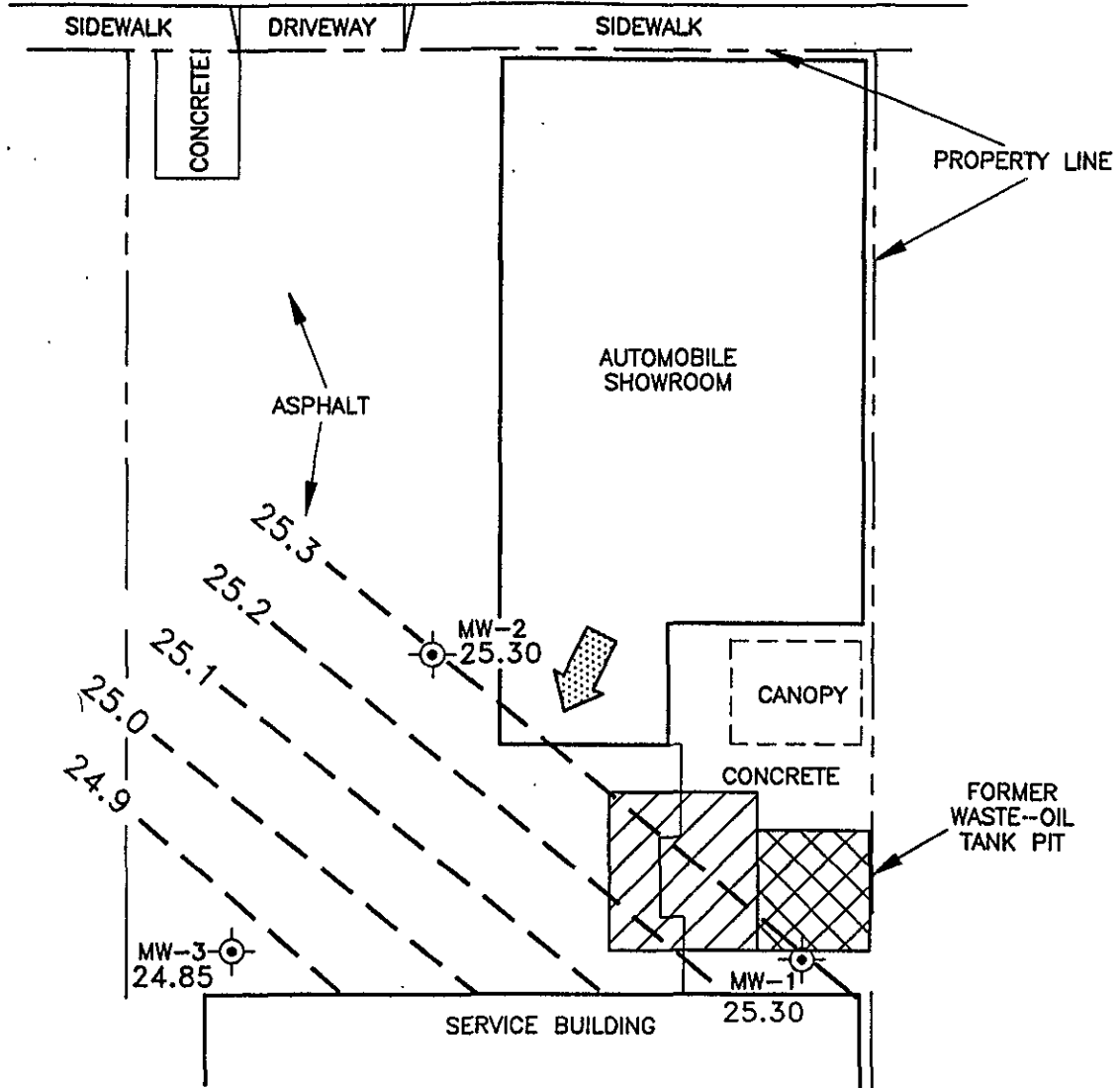
Sample	TPH-G	TPH-D	B T E X	TOG	HVOC
531.1	69	88	ND 0.056 ND 1.6	150	ND
531.2	ND	ND	" ND " ND	ND	"
531.5	"	"	" " " "	70	"



PROFILE

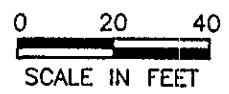
ED CHOVANES FORD
ATTACHMENT

EAST 14th STREET



LEGEND:

- APPROXIMATE GROUNDWATER FLOW DIRECTION
- GROUNDWATER ELEVATION CONTOUR LINE IN FEET ABOVE MEAN SEA LEVEL (M.S.L.)
- GROUNDWATER ELEVATION IN FEET ABOVE M.S.L.
- GROUNDWATER MONITORING WELL
- APPROXIMATE EXCAVATION BOUNDARY - 3 FEET DEEP
- APPROXIMATE EXCAVATION BOUNDARY - 23 FEET DEEP



NOTE: CONTOURS ARE BASED ON INTERPRETATION OF AVAILABLE DATA, AND ARE NOT INTENDED TO IMPLY CERTAINTY.

BASE MAP: SURVEYED BY RON ARCHER CIVIL ENGINEER, INC.

Canonie Environmental

DRAWING NO. 94-209-A2

GROUNDWATER ELEVATION
CONTOUR MAP (12/16/94)
ED CHOVANES FORD
13889 EAST 14th STREET
SAN LEANDRO, CALIFORNIA

PLATE

2

TABLE 1

**SUMMARY OF GROUNDWATER MONITORING DATA
ED CHOVANES FORD
13889 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA**

Well	Date Sampled	<i>(Reported in feet)</i>			
		Well Elevation	Depth to Water	Water Elevation	Change in Water Elevation
MW-1	10/07/91	51.90	31.18	20.72	---
	02/04/92		30.71	21.19	0.47
	05/11/92		26.92	24.98	3.79
	08/31/92		29.10	22.80	-2.18
	11/30/92		30.00	21.90	-0.90
	02/24/93		23.94	27.96	6.06
	05/28/93		23.75	28.15	0.19
	08/13/93		25.61	26.29	-1.86
	11/15/93		27.40	24.50	-1.79
	03/28/94		25.63	26.27	1.77
	06/28/94		26.78	25.12	-1.15
	09/07/94		27.80	24.10	-1.02
	12/16/94		26.60	25.30	1.20
MW-2	10/07/91	52.60	31.90	20.70	---
	02/04/92		31.42	21.18	0.48
	05/11/92		28.66	23.94	2.76
	08/28/92		29.20	23.40	-0.54
	11/30/92		29.80	22.82	-0.58
	02/24/93		24.62	28.00	5.18
	05/28/93		23.67	28.93	0.93
	08/13/93		26.29	26.31	-2.62
	11/15/93		28.07	24.53	-1.78
	03/28/94		26.32	26.28	1.75
	06/28/94		27.47	25.13	-1.15
	09/07/94		28.53	24.07	-1.06
	12/16/94		27.30	25.30	1.23
MW-3	10/07/91	51.53	30.95	20.58	---
	02/04/92		30.50	21.03	0.45
	05/11/92		27.08	24.45	3.42
	08/28/92		30.11	21.42	-3.03
	11/30/92		30.68	20.85	-0.57
	02/24/93		23.71	27.82	6.97
	05/28/93		24.46	27.07	-0.75
	08/13/93		25.40	26.13	-0.94
	11/15/93		27.05	24.48	-1.65
	03/28/94		25.70	25.83	1.35
	06/28/94		26.55	24.98	-0.85
	09/07/94		27.70	23.83	-1.15
	12/16/94		26.68	24.85	1.02

Notes:

Elevation is in feet above mean sea level
 Water level measured in feet below top of well casing
 --- denotes no data available

TABLE 2

SUMMARY OF GROUNDWATER ANALYSES DATA
ED CHOVANES FORD
13889 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

Well No.	Date Sampled	<i>(Reported in parts per billion)</i>								
		Benzene	Toluene	Ethyl Benzene	Total Xylenes	TPHg	TOG	1,1-Dichloroethane	Tetrachloroethene	1,1,1,-Tri-chloroethane
MW-1	10/07/91	1.3	ND	ND	ND	ND	ND	ND	1.5	4.4
	02/04/92	2.1	ND	ND	ND	ND	ND	ND	ND	4.8
	05/11/92	6.8	ND	ND	0.8	140	ND	2.6	2.3	11.0
	08/31/92	1.1	ND	ND	ND	ND	ND	2.1	1.8	4.2
	11/30/92	ND	ND	ND	ND	ND	ND	2.4	3.2	4.2
	02/24/93	ND	ND	ND	ND	ND	ND	5.3	5.1	4.4
	05/28/93	ND	ND	ND	ND	ND	ND	4.0	1.6	0.99
	08/13/93	ND	ND	ND	ND	ND	ND	3.7	2.2	3.5
	11/15/93	<0.50	0.79	<0.50	1.2	<50	<5,000	3.6	2.0	2.3
	03/28/94	<0.50	<0.50	<0.50	0.98	93	<5,000	<0.50	1.2	<0.50
	06/28/94	<0.50	<0.50	<0.50	<0.50	<50	<5,000	4.2	2.2	0.67
	09/07/94	<0.50	<0.50	<0.50	<0.50	59	<5,000	4.8	1.5	<0.50
12/16/94	<0.50	<0.50	<0.50	<0.50	<50	<5,000	5.1	1.8	<0.50	
MW-2	10/07/91	ND	ND	ND	ND	ND	ND	ND	ND	ND
	02/04/92	ND	ND	ND	ND	ND	ND	ND	ND	ND
	05/11/92	ND	ND	ND	ND	ND	ND	ND	ND	ND
	08/28/92	ND	ND	ND	ND	ND	ND	ND	ND	ND
	11/30/92	ND	ND	ND	ND	ND	ND	ND	ND	ND
	02/24/93	ND	ND	ND	ND	ND	ND	ND	ND	ND
	05/28/93	ND	ND	ND	ND	ND	ND	ND	ND	ND
	08/13/93	ND	ND	ND	ND	ND	ND	ND	ND	ND
	11/15/93	0.75	0.75	<0.50	1.2	<50	<5,000	ND	ND	ND
	03/28/94	<0.50	<0.50	<0.50	<0.50	<50	<5,000	<0.50	<0.50	<0.50
	06/28/94	<0.50	<0.50	<0.50	<0.50	<50	<5,000	<0.50	<0.50	<0.50
	09/07/94	<0.50	<0.50	<0.50	<0.50	<50	<5,000	<0.50	<0.50	<0.50
12/16/94	<0.50	<0.50	<0.50	<0.50	<50	<5,000	<0.50	<0.50	<0.50	
MW-3	10/07/91	ND	ND	ND	ND	ND	ND	ND	ND	ND
	02/04/92	ND	ND	ND	ND	ND	ND	ND	ND	ND
	05/11/92	ND	ND	ND	ND	ND	ND	ND	ND	ND
	08/28/92	ND	ND	ND	ND	ND	ND	ND	ND	ND
	11/30/92	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 2

**SUMMARY OF GROUNDWATER ANALYSES DATA
ED CHOVANES FORD
13889 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA**

Well No.	Date Sampled	<i>(Reported in parts per billion)</i>									
		Benzene	Toluene	Ethyl Benzene	Total Xylenes	TPHg	TOG	1,1-Dichloroethane	Tetrachloroethene	1,1,1,-Tri-chloroethane	
BB-1	02/24/93	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	05/28/93	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	08/13/93	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	11/15/93	<0.50	1.1	<0.50	1.7	87	<5,000	ND	ND	ND	ND
	03/28/94	<0.50	<0.50	<0.50	<0.50	<50	<5,000	<0.50	<0.50	<0.50	<0.50
	06/28/94	<0.50	<0.50	<0.50	<0.50	<50	<5,000	<0.50	<0.50	<0.50	<0.50
	09/07/94	<0.50	<0.50	<0.50	<0.50	<50	<5,000	<0.50	<0.50	<0.50	<0.50
	12/16/94	<0.50	<0.50	<0.50	<0.50	<50	<5,000	<0.50	<0.50	<0.50	<0.50
	10/07/91	ND	ND	ND	ND	ND	ND	—	—	—	—
	02/04/92	ND	ND	ND	ND	ND	ND	—	—	—	—
	05/11/92	ND	ND	ND	ND	ND	ND	—	—	—	—
	08/28/92	ND	ND	ND	ND	ND	—	—	—	—	—
	11/30/92	ND	ND	ND	ND	ND	—	—	—	—	—
	02/24/93	ND	ND	ND	ND	ND	—	ND	ND	ND	ND
	05/28/93	ND	ND	ND	ND	ND	—	ND	ND	ND	ND
	08/13/93	ND	ND	ND	ND	ND	—	—	—	—	—
	11/15/93	<0.50	1.1	<0.50	1.3	<50	—	—	—	—	—
	03/28/94	<0.50	<0.50	<0.50	<0.50	<50	—	—	—	—	—
	06/28/94	—	—	—	—	—	—	—	—	—	—
	09/07/94	<0.50	<0.50	<0.50	<0.50	<50	—	—	—	—	—
12/16/94	—	—	—	—	—	—	—	—	—	—	
CDHS Drinking Water Standards											
MCL		1	NRL	680	1,750	NRL	NRL	5	5	200	
AL		NRL	100	NRL	NRL	NRL	NRL	NRL	NRL	NRL	

Notes:

BB-1 denotes boiler blank.

TPHg denotes total petroleum hydrocarbons as gasoline

TOG denotes total petroleum oil and grease

ND denotes not detected at the respective laboratory detection limit

< denotes less than the method detection limit

CDHS denotes California Department of Health Services

MCL denotes maximum contaminant level

AL denotes action level

NRL denotes no established regulatory level

— denotes not analyzed

TABLE 1
SUMMARY OF SOIL ANALYSES DATA

Sample No.	Date Sampled	TPHG (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl Benzene (ppm)	Total Xylenes (ppm)	TPHD (ppm)	TOG (ppm)	EPA 8010 (ppm)
MW-2A 6'	9/20/91	ND	ND	ND	ND	ND	NR	ND	ND
MW-2B 11'	9/20/91	ND	ND	ND	ND	ND	NR	ND	ND
MW-2C 16'	9/20/91	ND	ND	ND	ND	ND	NR	ND	ND
MW-2D 21'	9/20/91	ND	ND	ND	ND	ND	NR	ND	ND
MW-2E 26'	9/20/91	ND	ND	ND	ND	ND	NR	ND	ND
MW-2F 31'	9/20/91	ND	ND	ND	ND	ND	NR	ND	ND
MW-3A 6'	9/20/91	ND	ND	ND	ND	ND	NR	ND	ND
MW-3B 11'	9/20/91	ND	ND	ND	ND	ND	NR	ND	ND
MW-3C 16'	9/20/91	ND	ND	ND	ND	ND	NR	ND	ND
MW-3D 21'	9/20/91	ND	ND	ND	ND	ND	NR	ND	ND
MW-3E 26'	9/20/91	ND	ND	ND	ND	ND	NR	ND	ND
MW-3F 31'	9/20/91	ND	ND	ND	ND	ND	NR	ND	ND

TPHG Total Petroleum Hydrocarbons as Gasoline
TOG Total oil and grease
ppm Parts per million
NR Analysis not requested

EXPLORATORY BORING LOG

Project Name: Ed Chovanes Ford

Boring No. MW-2

Date Drilled: 9/20/91

Project Number: 3-30088-31

Logged By: D. DeMent

Depth (ft.)	Sample No.	Blows/Foot	Unified Soil Classification	SOIL DESCRIPTION	Water Level	OVM Reading (ppm)
1				Asphalt Pavement		
2			ML	CLAYEY SILT - Dark brown (10YR 3/3), 75-85% silt, 10-20% clay, low plasticity 1-5% very fine to fine grained sand, very stiff, damp		69
3						
4						
5						
6	MW-2A	29				
7						
8						
9						
10						
11	MW-2B	21	ML	SANDY SILT - Dark yellowish brown (10YR 3/6), 15-20% very fine to fine grained sand, damp to moist		43
12						
13						
14						
15						
16	MW-2C	12				42
17						
18						
19						
20			SM	SILTY SAND - Dark yellowish brown (10YR 3/6), 70-80% very fine to medium grained sand, poorly graded 20-30% silt, trace of dark brown clay interbeds, roots and root holes, medium dense, stiff moist		
21	MW-2D	13				43

EXPLORATORY BORING LOG

Project Name: Ed Chovanes Ford

Boring No. MW-2

Date Drilled: 9/20/91

Project Number: 3-30088-31

Logged By: D.R.D.

Depth (ft.)	Sample No.	Blows/Foot	Unified Soil Classification	SOIL DESCRIPTION	Water Level	OVM Reading (ppm)
22			SM	Silty sand, continued		
23						
24						
25						
26	MW-2E	11		60-70% very fine to fine grained sand, poorly graded, 30-40% silt, 1-5% medium to fine gravel, stiff, moist		43
27						
28						
29						
30						
31	MW-2F	8		50-60% sand, 40-50% silt, very moist - wet	▼ —	20
32						
33						
34						
35						
36	MW-2G	14		60-70% sand, 30-40% silt, cracks, rootholes, iron oxide staining, trace organics, saturated		
37						
38						
39						
40						
41	MW-2H	20	SM	Color change to yellow brown to olive brown, mottled, (10YR 5/4) 2.5Y 5/3)		
42				Bottom of boring = 41.5 feet		

EXPLORATORY BORING LOG

Project Name: Ed Chovanes Ford

Boring No. MW-3

Date Drilled: 9/21/91

Project Number: 3-30088-31

Logged By: D. DeMent

Depth (ft.)	Sample No.	Blows/Foot	Unified Soil Classification	SOIL DESCRIPTION	Water Level	OVM Reading (ppm)
1				Asphalt Pavement		
2			ML	CLAYEY SILT - Dark yellowish brown (10YR 3/4) 80-90% silt, 10-20% clay, 1-3% very fine grained sand, low plasticity, trace rootholes, burrows, roots, very stiff, damp		
3						
4						
5						
6	MW-3A	41				43
7						
8						
9						
10			ML	SANDY SILT - Dark yellowish brown (10YR 4/6), 60-70% silt, 30-40% very fine to fine grained sand, low plasticity, rootholes, very stiff, damp		
11	MW-3B	26				20
12						
13						
14						
15						
16	MW-3C	18		50-60% silt, 50-60% sand, roots and rootholes		69
17						
18						
19						
20						
21	MW-3D	29	GM	SANDY GRAVEL - Dark yellowish brown (10YR 4/6) 60-70% medium-fine grained gravel, subrounded to subangular; 10-20% coarse to fine grained sand; 10-20% silt, dense, damp to moist		43

REVIEWED BY R.G./C.E.G.

EXPLORATORY BORING LOG

Project Name: Ed Chovanes Ford

Boring No. MW-3

Date Drilled: 9/20/91

Project Number: 3-30088-31

Logged By: D.R.D.

Depth (ft.)	Sample No.	Blows/Foot	Unified Soil Classification	SOIL DESCRIPTION	Water Level	OVM Reading (ppm)
22	MW-3E	17	GM	SANDY GRAVEL - continued	▼ =	19
23			SM	SILTY SAND - dark yellowish brown (10YR 3/4) 70-80% very fine to fine grained sand, poorly graded, 20-30% silt, rootholes, dense, moist		
24						
25	MW-3F	9		Color change to olive-brown mottled, (10YR 3/3 - 2.5Y 5/4), 60-70% sand, 30-40% silt, 1-3% organics, iron staining, medium dense, saturated		
26						
27						
28						
29	MW-3G	20	ML	SANDY SILT - dark yellow brown - olive brown (10YR 3/4 - 2.5YR 4/3), 60-70% silt, non-plastic, 30-40% very fine to fine grained sand, poorly graded, stiff, saturated		
30						
31						
32	Bottom of boring = 38.0 feet					
33						
34						
35						
36						
37						
38						
39						
40						
41						
42						