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

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

REMEDIAL ACTION COMPLETION CERTIFICATION

StID 4034 - 7100 Foothill Blvd, Oakland, CA

January 31, 1997

Mr. Andrew Clark-Clough
City of Oakland
1333 Broadway, Suite 330
Oakland, CA 94612

Dear Mr. Clark-Clough:

This letter confirms the completion of site investigation and remedial action for the former underground storage tank (1-285 gallon diesel tank) removed from the above site on May 3, 1990. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tanks are greatly appreciated.

Based on information in the above-referenced file 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 tank release is required.

This notice is issued pursuant to a regulation contained in Title 23, Section 2721(e) of the California Code of Regulations.

Please contact our office if you have any questions regarding this matter.

Sincerely,

Mee Ling Tung, Director

cc: Chief, Division of Environmental Protection
Kevin Graves, RWQCB
Lori Casias, SWRCB (with attachment)
Cheryl Gordon, UST Cleanup Fund
files (fire23.4)

61-0636

ENVIRONMENTAL PROTECTION

96 MAY 1 PM 2:00

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION **Date: March 8, 1996**

Agency name: **Alameda County-HazMat** Address: **1131 Harbor Bay Pkwy**
City/State/Zip: **Alameda, CA 94502** Phone: **(510) 567-6700**
Responsible staff person: **Eva Chu** Title: **Hazardous Materials Spec.**

II. CASE INFORMATION

Site facility name: **Oakland Fire Station #23**
Site facility address: **7100 Foothill Blvd, Oakland 94605**
RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **4034**
URF filing date: **5/4/90** SWEEPS No: **N/A**

Responsible Parties:	Addresses:	Phone Numbers:
City of Oakland Andrew Clark-Clough	1333 Broadway, Suite 330 Oakland, CA 94612	510/238-6361

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	285	Diesel	Removed	5/3/90

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: **Unknown**
Site characterization complete? **YES**
Date approved by oversight agency: **2/20/96**
Monitoring Wells installed? **Yes** Number: **1**
Proper screened interval? **Yes, 10 to 25' bgs**
Highest GW depth below ground surface: **6.55'** Lowest depth: **14.74'**
Flow direction: **Regional GW flows to W-SW, toward SF Bay**
Most sensitive current use: **Fire Station**
Are drinking water wells affected? **No** Aquifer name: **Unknown**
Is surface water affected? **No** Nearest affected SW name: **NA**
Off-site beneficial use impacts (addresses/locations): **None**

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

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment or Disposal w/destination)	Date
Tank & Piping	1 UST	Disposed by H & H, in San Francisco	5/7/90
Rinseate	150 gallon	" " "	5/2/90
Soil	45 tons	Liquid Waste Mgt, in Mckittrick	5/14/90

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm) Before	Soil (ppm) After	Water (ppb) Before	Water (ppb) After
TPH (Gas)		ND		
TPH (Diesel)	1,400	92[1]	600	480
Benzene	NA	0.002	ND	ND
Toluene	NA	0.011	ND	ND
Ethylbenzene	NA	0.013	ND	ND
Xylenes	NA	0.045	ND	ND
Heavy metals	Organic Pb	ND		
Other				

NOTE: 1 Soil sample from well boring MW-1 at 15.5' bgs

Comments (Depth of Remediation, etc.):

See Section VII, Additional Comments, etc...

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: **None**

Should corrective action be reviewed if land use changes? **YES**
Monitoring wells Decommissioned: **None, pending site closure.**
Number Decommissioned: **0** Number Retained: **1**
List enforcement actions taken: **None**

List enforcement actions rescinded: **NA**

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: **Eva Chu** Title: **Haz Mat Specialist**

Signature: [signature] Date: 3/18/96

Reviewed by

Name: **Jennifer Eberle** Title: **Haz Mat Specialist**

Signature: [signature] Date: 3-8-96

Name: **Dale Klettke** Title: **Haz Mat Specialist**

Signature: [signature] Date: 3/18/96

VI. RWQCB NOTIFICATION

Date Submitted to RB: 3/19/96 RB Response: Approved

RWQCB Staff Name: **Kevin Graves** Title: **AWRCE**

Signature: [signature] Date: 4/26/96

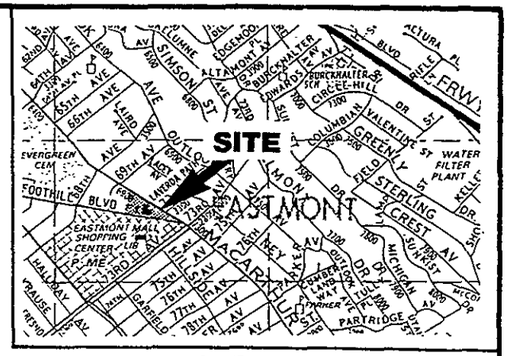
VII. ADDITIONAL COMMENTS, DATA, ETC.

When a 285 gallon diesel UST was removed in May 1990, soil samples collected at 7.5' and 9.5' depths were only analyzed for TPH-D. Up to 1,400 ppm TPH-D was detected in the 7.5' depth sample. Diesel levels decreased to 560 ppm at 9.5' depth. Approximately 25 cy soil was overexcavated. A confirmatory soil sample (23A) from 10' depth exhibited 27 ppm TPH-D and did not contain TPH-G or BTEX. (See Tables 1 and 2.) Overexcavation appears to have removed most of the diesel-impacted soil. The pit was filled with clean, imported pea gravel.

In January 1993 a soil boring (Boring 1) was advanced just south of the former tank excavation to a depth of 26' and converted into monitoring well MW-1. Low levels of diesel contamination was detected in soil at depths of 15.5 to 21' (up to 92 ppm TPH-D and trace levels of BTEX). The initial groundwater sample contained 600 ppb TPH-D but no BTEX. (See Fig 1, Table 3.) After four consecutive quarters of sampling (from Feb 1993 to Nov 1993), TPH-D has been detected in groundwater at levels ranging from ND to 600 ppb, while BTEX have been ND. (See Table 4.)

Groundwater at this site is not a drinking water source. Migration of relatively immobile TPH-D in stiff, sandy clay sediments should limit its impact to groundwater quality. (See Log of Boring 1.) BTEX levels in soil does not appear to pose significant risk to human health (based on RBCA Tier 1 Look-up Table) and should naturally bioattenuate. Continued groundwater sampling is not warranted.

fire23.2



VICINITY MAP

MacARTHUR BOULEVARD

SIDEWALK

EXISTING FIREHOUSE

BLOCK WALL

CONCRETE DRIVEWAY

BLOCK PLANTER BOX

1

TREE

SIDEWALK

FOOTHILL BOULEVARD

- PROPERTY LINE
- EXISTING FIREHOUSE
- PREVIOUS TANK
- APPROXIMATE LIMITS OF FINAL TANK EXCAVATION
- MONITORING WELL

N

APPROXIMATE SCALE (feet)

0 20 40

SITE PLAN

Subsurface Consultants

7100 FOOTHILL BLVD. – OAKLAND, CA

JOB NUMBER	DATE	APPROVED
272.029	1/27/93	MW

PLATE 1

Table 1. Contaminant Concentrations in Soil Beneath the Former Tank

Sample I.D.	Sample Date	Diesel[2]	Organic Lead[3]
1B1 @ 7.5'	5/3/90	1400[1]	--
1B2 @ 7.5'	5/3/90	1200	--
1B3 @ 9.5'	5/3/90	560	--
1B4 @ 9.5'	5/3/90	110	--
O.L.	5/3/90	--	<.25
1A2	5/7/90	--	<.25

[1] All concentrations are in milligrams per kilogram (mg/kg)
[2] EPA 3550/8015 mod.
[3] California DHS Method (LUFT Manual)

Table 2. Contaminant Concentrations in Soil After Overexcavation

Sample I.D.	Sample Date	Diesel[2]	Gasoline[3]	BTEX[4]
23A	5/8/90	27[1]	<1	<0.5
23B (Stockpile Composite)	5/8/90	3500	<1	<0.5

[1] All concentrations are in milligrams per kilogram (mg/kg)
[2] EPA 3550/8015 mod.
[3] EPA 5030/8015 mod.
[4] EPA 5030/8020

TABLE 3. Contaminant Concentrations in Soil

Boring	Depth (feet)	TPH[1] (mg/kg)[2]	Benzene (ug/kg)[3]	Toluene (ug/kg)	Xylene (ug/kg)	Ethyl-Benzene (ug/kg)
1	15.5	92	2	11	45	13
1	21	84	3	10	15	13

TABLE 3. Contaminant Concentrations in Groundwater

Well	TPH[1] (mg/l)[4]	Benzene (ug/l)[5]	Toluene (ug/l)	Xylene (ug/l)	Ethyl-Benzene (ug/l)
1	0.6	ND[6]	ND	ND	ND

[1] Total petroleum hydrocarbons, as diesel
[2] milligrams per kilogram
[3] micrograms per kilogram
[4] milligrams per liter
[5] micrograms per liter
[6] Not detected above the reporting limits

Conclusions

Soil Contamination

Low levels of diesel contamination have been detected in soils adjacent to the previous diesel tank. Diesel concentrations of 92 and 84 mg/kg have been detected at depths of 15.5 and 21 feet, respectively. These concentrations are reasonably consistent with the data generated following tank removal. The diesel concentrations are relatively low and in our opinion, will likely not have a significant adverse impact on groundwater quality. Additionally, low concentrations of BTXE were detected in the samples analyzed.

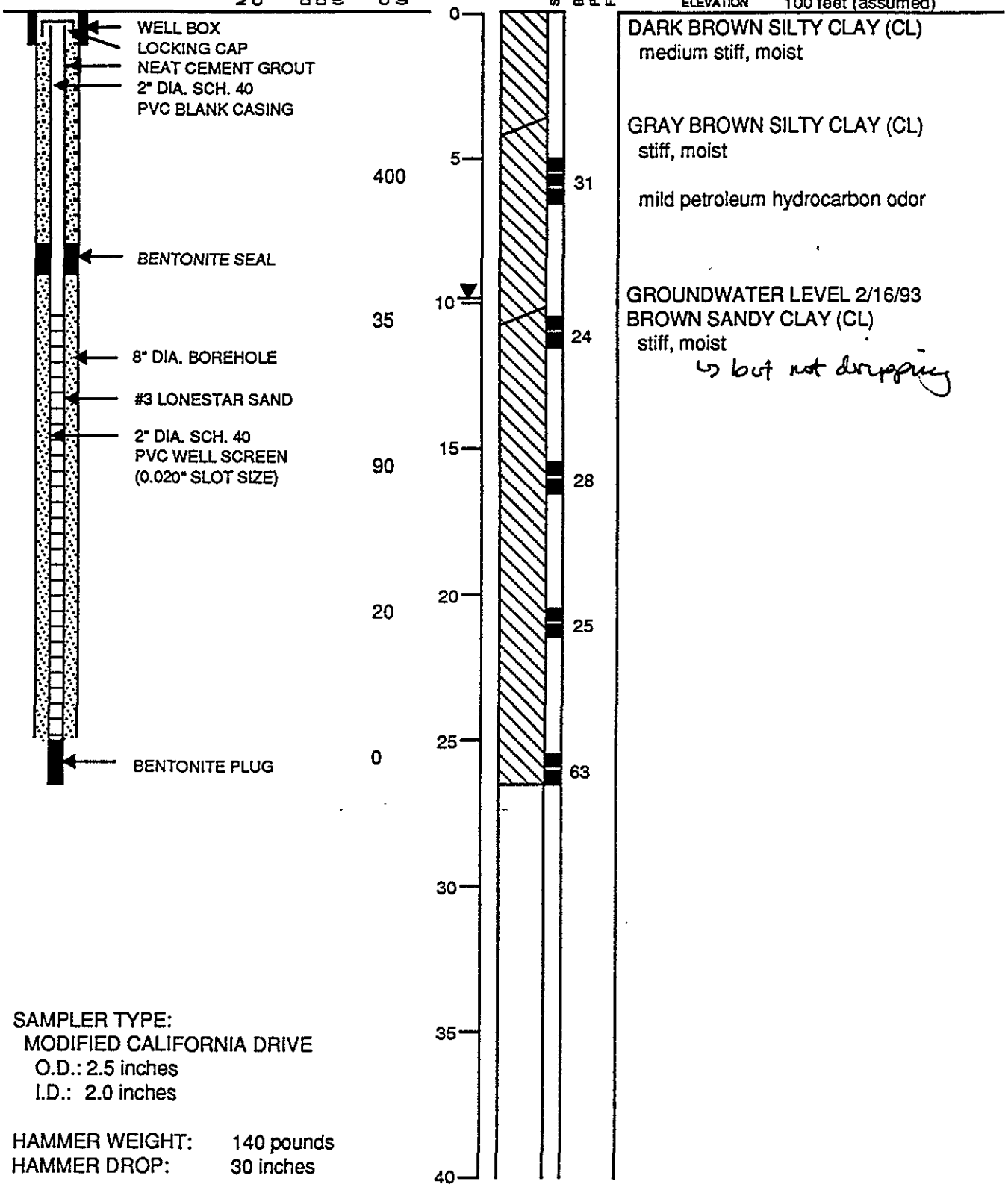
TABLE 4. Hydrocarbon Concentrations in Groundwater

Well	Date	TPH[1] (mg/l) [2]	Benzene (ug/l) [3]	Toluene (ug/l)	Xylene (ug/l)	Ethyl-Benzene (ug/l)
1	2/16/93	0.6	ND[4]	ND	ND	ND
	5/18/93	ND	ND	ND	ND	ND
	8/18/93	0.5	ND	ND	ND	ND
	11/23/93	0.48	ND	ND	ND	ND

[1] Total petroleum hydrocarbons, as diesel
[2] milligrams per liter
[3] micrograms per liter
[4] Not detected above the reporting limits

LOG OF TEST BORING 1

EQUIPMENT 8" Hollow Stem Auger
DATE DRILLED 1/21/93
ELEVATION 100 feet (assumed)



SAMPLER TYPE:
MODIFIED CALIFORNIA DRIVE
O.D.: 2.5 inches
I.D.: 2.0 inches

HAMMER WEIGHT: 140 pounds
HAMMER DROP: 30 inches

Subsurface Consultants	7100 FOOTHILL BLVD. - OAKLAND, CA			PLATE
	JOB NUMBER	DATE	APPROVED	2
	272.029	1/22/93	MC	