

March 25, 1999

Odili Ojukwu, P.E., Environmental Program Specialist
City of Oakland
250 Ogawa Plaza, Suite 5301
Oakland, CA 94612

Re: Fuel Leak Site Case Closure for City of Oakland Ettie St. Pump Station, 3455 Ettie St.,
Oakland, CA 94608;
Stid 3979

Dear Mr. Ojukwu:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Environmental Protection Division is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed.

SITE INVESTIGATION AND CLEANUP SUMMARY

Please be advised that the following conditions exist at the site:

- up to 170 ppb TPH as gasoline, and 1.4 ppb ethylbenzene exists in groundwater beneath the site; and,
- ~~a site safety plan must be prepared for construction workers in the event of excavation/trenching is proposed in the vicinity of residual groundwater contamination.~~

If you have any questions, please contact me at (510) 567-6746.

Don Hwang
Hazardous Materials Specialist

Enclosures: 1. Remedial Action Completion Certificate 2. Case Closure Summary

C: Frank Kliewer, City of Oakland, Planning Dept., 1330 Broadway, 2nd Floor, Oakland, CA 94612

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

March 25, 1999

Mr. Odili Ojukwu
City of Oakland
250 Ogawa Plaza, Ste. 5301
Oakland, CA 94612

REMEDIAL ACTION COMPLETION CERTIFICATION

Stid 3979

City of Oakland Ettie St. Pump Station
3455 Ettie St., Oakland, CA 94608

1000	gal	unleaded gasoline	removed	5/29/96
3000	gal	diesel	removed	8/5/96
400	gal	lube oil	removed	8/5/96
400	gal	waste oil	removed	8/5/96

Dear Mr. Ojukwu:

This letter confirms the completion of site investigation and remedial action for the underground storage tank formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tank 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

c: Chuck Headlee, RWQCB
Dave Deaner, SWRCB
Leroy Griffin, OFD
file

ENVIRONMENTAL PROTECTION

QUALITY CONTROL BOARD

FEB 17 1999

CALIFORNIA REGIONAL WATER

CASE CLOSURE SUMMARY 99 MAR -5 PM 4:4
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: January 29, 1999

Agency name: Alameda County-HazMat Address: 1131 Harbor Bay Pkwy
City/State/Zip: Alameda, CA 94502 Phone: (510) 567-6746
Responsible staff person: Don Hwang Title: Hazardous Materials Spec.

II. CASE INFORMATION

Site facility name: City of Oakland Ettie St. Pump Station
Site facility address: 3455 Ettie St., Oakland, CA 94608
RB LUSTIS Case No: N/A Local Case No./LOP Case No.: 3979
URF filing date: 2/8/99 SWEEPS No: N/A

Responsible Parties: Addresses: Phone Numbers:
City of Oakland 250 Ogawa Plaza, Ste. 5301, Oakland, CA 94612 (510) 238-6688
Attn: Odili Ojukwu

<u>Tank No:</u>	<u>Size in gal.:</u>	<u>Contents:</u>	<u>Closed in-place or removed?:</u>	<u>Date:</u>
	1000	unleaded gasoline	removed	5/29/96
	3000	diesel	removed	8/5/96
	400	lube oil	removed	8/5/96
	400	waste oil	removed	8/5/96

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: visible holes in tank(s)
Site characterization complete? YES
Date approved by oversight agency: 12/16/96
Monitoring Wells installed?no Number:na
Proper screened interval? na
Highest GW depth below ground surface:na Lowest depth:na
Flow direction: westerly (regional flow of groundwater)
Most sensitive current use: industrial
Are drinking water wells affected? no Aquifer name:na
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 Oakland Fire Dept
1131 Harbor Bay Pkwy and 505-14th St., 7th Floor
Alameda, CA 94502 Oakland, CA 94612

Treatment and Disposal of Affected Material:

<u>Material</u>	<u>Amount</u> <u>(include units)</u>	<u>Action (Treatment</u> <u>or Disposal w/destination)</u>	<u>Date</u>
Tank			
1-1000 gal	unleaded gasoline	Disposal Erickson Environmental Services Richmond, CA	5/29/96
1-3000 gal	diesel	Disposal Erickson Environmental Services Richmond, CA	8/5/96
1-400 gal	lube oil	Disposal Erickson Environmental Services Richmond, CA	8/5/96
1-400 gal	waste oil	Disposal Erickson Environmental Services Richmond, CA	8/5/96
Soil	126 c.y.	Redwood Landfill	8/27/96

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppb)	
	Before ¹	After	Before ²	After ³
TPH (Gas)	ND	ND	NS ⁴	ND
TPH (Diesel)	30,000 ⁵	ND	6,900,000 ⁵	170
Benzene	0.18	ND	ND	ND
Toluene	2.1	ND	ND	ND
Ethylbenzene	2.2	ND	ND	1.4
Xylenes	12	ND	ND	ND
MTBE				ND
Motor Oil	ND	ND	ND	ND

¹ Results of soil samples collected on 5/29/96, 8/9/96, 8/12/96

² Before water samples were revealed in water samples taken on 8/9/96, 8/12/96

³ After water result samples were obtained from samples from soil boring on 1/27/97

⁴ not sampled

⁵ This represented free product in the water sample taken from the excavated pit

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? _____

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

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: na

Number Decommissioned:na Number Retained: na

List enforcement actions taken: na

List enforcement actions rescinded:na

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Don Hwang

Title: Haz Mat Specialist

Signature:

Date:

2/4/99

Reviewed by

Name: Susan Hugo

Title: Haz Mat Specialist

Signature:

Date:

2/18/99

Name: Thomas Peacock

Title: Supervisor

Signature:

Date:

2-18-99

VI. RWQCB NOTIFICATION

Date Submitted to RB:

2/19/99

RB Response:

RWQCB Staff Name: Chuck Headlee

Title: EG

Signature:

Date:

3/3/99

VII. ADDITIONAL COMMENTS, DATA, ETC.

On May 29, 1996, one (1) thousand gallon underground storage tank (UST) containing gasoline was removed from beneath the sidewalk/driveway of the City of Oakland, Ettie Street Pump Station. This is a City-owned and operated facility used for delivering sewage to the adjacent EBMUD facility. The tank was shipped by manifest to the Erickson Environmental Services facility in Richmond, CA.

On August 5, 1996, three additional UST's were removed from the driveway area. These tanks contained the following: a three thousand gallon tank containing diesel, and two (2) four hundred gallon tanks that contained lube oil and waste oil respectively.

Analytical results of initial soil samples collected beneath the removed tanks revealed ND for gasoline. Stained soil was observed in the area underneath the diesel tank, and an odor of hydrocarbons was detected. Soil samples collected from the north/east and north/west area of the 3,000 gallon diesel tank yielded 30,000 parts per million (ppm), of diesel. BTEX levels were non-detect (nd), 9,5, and 10 respectively.

Groundwater was not encountered during the initial removal of the tanks on 08/05/96. On site investigation for the purpose of continued sampling yielded water in the excavation. Continued soil side wall sampling was undertaken at 17.5 feet below ground surface (bgs) at the deepest point. Water samples were also obtained.

To remove any potential source of contamination, over-excavation of the contaminated pit was undertaken for the purpose of removing stained soil, with an additional two feet of soil being removed. Following the removal of the soil, additional water samples were obtained (08/12/96), with an over-all lower level of 70,000 ppb being obtained.

On January 21, 1997, four exploratory borings (SB1-SB4) were drilled to determine the extent of soil and groundwater contamination. Boring SB3 was installed in the assumed down gradient direction of the former diesel tank. Soil samples collected from the borings at 18 to 24 feet bgs were nondetect for TPH-D and BTEX. Grab water collected from the borings were nondetect for BTX. Ethyl benzene was detected in one sample collected from boring SB4 at very low concentration (1.4 ppb). TPH-D in the groundwater sample was found at <170 ppb.

In summary, case closure is recommended because:

- o the leak and ongoing sources have been removed;
- o the site has been adequately characterized;
- o the dissolved plume is not migrating;
- o no water wells, surface water, or other sensitive receptors are likely to be impacted; and,
- o the site presents no significant risk to human health or the environment.

Table 1:
Confirmatory Soil Sample Analytical Results
Samples Collected on May 29, 1996 from 1,000-gallon UST Excavation

Sample ID	Sample Location	Sample Depth	Analysis and Result							
			TPHd (ppm)	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl Benzene (ppm)	Xylenes (ppm)	Lead (ppm)	
SB-01	Stock Pile	N/A	15W	ND	ND	ND	ND	0.010	ND	
SB-02	Stock Pile	N/A	23	ND	ND	ND	ND	ND	ND	
SB-03	Fuel Dispenser	1	ND	ND	ND	ND	ND	ND	0.56	
SB-04	Fuel Line 20'	1	ND	ND	ND	ND	ND	ND	ND	
SB-05	Center Sidewall	5	ND	ND	ND	ND	ND	ND	0.56	
SB-06	Fuel Line 40'	1	28W	ND	ND	0.009	0.005	0.034	1.4	
SB-07	End Sidewall	5	ND	ND	ND	ND	ND	ND	2	
SB-08 (Water)	Pit Bottom	5	Not Analyzed							ND

Explanation:

ND - Not Detected above Method Detection Limit

N/A - not applicable

W - Pattern of the chromatogram resembles a weathered, aged, or degraded petroleum hydrocarbon.

Table 2:
Confirmatory Soil Sample Analytical Results
Samples Collected on Aug. 5, 1996 from 3,000-gallon Excavation

Sample ID	Sample Location	Sample Depth	Analysis and Result					
			TPHd (ppm)	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl Benzene (ppm)	Xylenes (ppm)
SB010 SB011 SB012 SB013	Stock Pile Composite	N/A	ND	ND	ND	ND	ND	0.031
SB014	West End of 3,000 gal UST	17.5	30,000	ND	ND	2.1	2.1	5.9
SB015	East End of 3,000 gal UST	17.5	12,000	ND	0.18	0.69	2.2	12
SB016	East of 400 gal UST	17.5	ND	ND	ND	ND	0.012	0.012
SB017	West of 400 gal UST	17.5	ND	ND	ND	ND	ND	ND

Explanation:

ND - Not Detected above Method Detection Limit

N/A - not applicable

Table 3:
Confirmatory Soil Sample Analytical Results
Samples Collected on Aug. 9 and 12, 1996 from 3,000-gallon Excavation

Sample ID	Sample Location	Sample Date	Analysis and Result	
			TPHd (ppm)	Motor Oil (ppm)
GW-01 (Water)	Pit Bottom	8-9-96	6,900	ND
S-01 (Soil)	Side Wall	8-9-96	2,700	ND
S-02 (Soil)	Mid Tank Bottom	8-9-96	68	ND
S-03 (Soil)	Tank Bottom	8-9-96	2,100	ND
S-04 (Soil)	Side Wall	8-9-96	850	ND
S-05 (Soil)	Side Wall	8-9-96	1,700	ND
01-GW	Pit Bottom	8-12-96	70	ND

Explanation:

ND – Not Detected above Method Detection Limit

N/A - not applicable

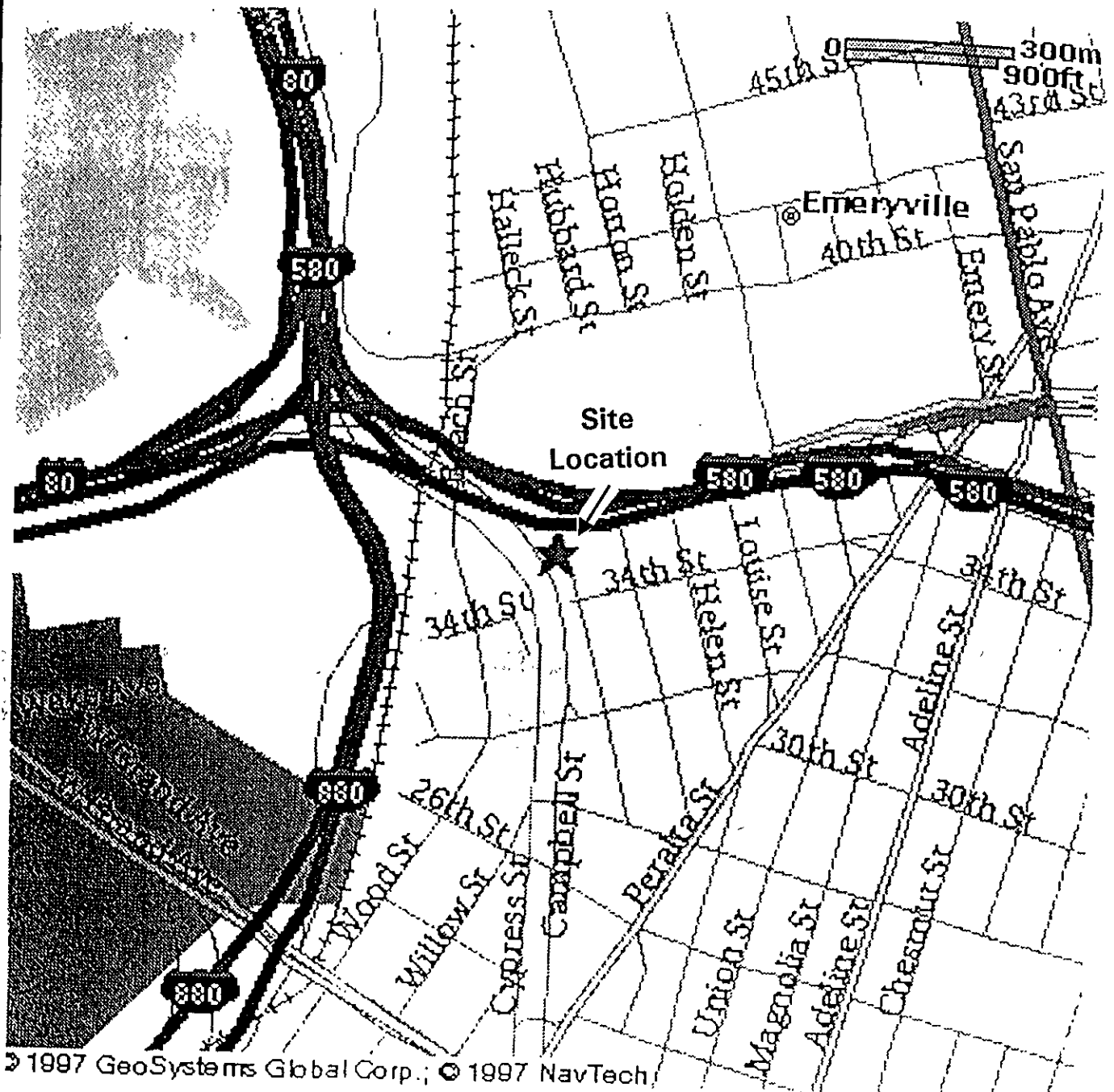
Table 4

Summary of Laboratory Analytical Results
 Groundwater Characterization Report
 Ettie Street Pump Station,
 3455 Ettie Street, Oakland, California

Sample I.D.	Date Sampled	Sample Depth (feet bgs)	Sample Type	TPHd (mg/kg)	MTBE (µg/kg)	Benzene (µg/kg)	Toluene (µg/kg)	Ethylbenzene (µg/kg)	Xylenes (µg/kg)
ETT-SB1	01/21/97	22-23	soil	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
ETT-SB2	01/21/97	19-20	soil	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
ETT-SB3	01/21/97	18	soil	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
ETT-SB4	01/21/97	23-24	soil	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Water Samples				(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
ETT-SB1	01/21/97	NA	water	<170	<5.0	<0.5	<0.5	<0.5	<0.5
ETT-SB2	01/21/97	NA	water	<69	<5.0	<0.5	<0.5	<0.5	<0.5
ETT-SB3	01/21/97	NA	water	<72	<5.0	<0.5	<0.5	<0.5	<0.5
ETT-SB4	01/21/97	NA	water	<56	<5.0	<0.5	<0.5	1.4	<0.5

NOTES

- µg/L: Microgram per liter
- µg/kg: Microgram per kilogram
- mg/kg: Milligram per kilogram
- TPHd: Total Petroleum Hydrocarbons as diesel
- MTBE: Methyl Tertiary Butyl Ether



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CITY OF OAKLAND

PUBLIC WORKS AGENCY

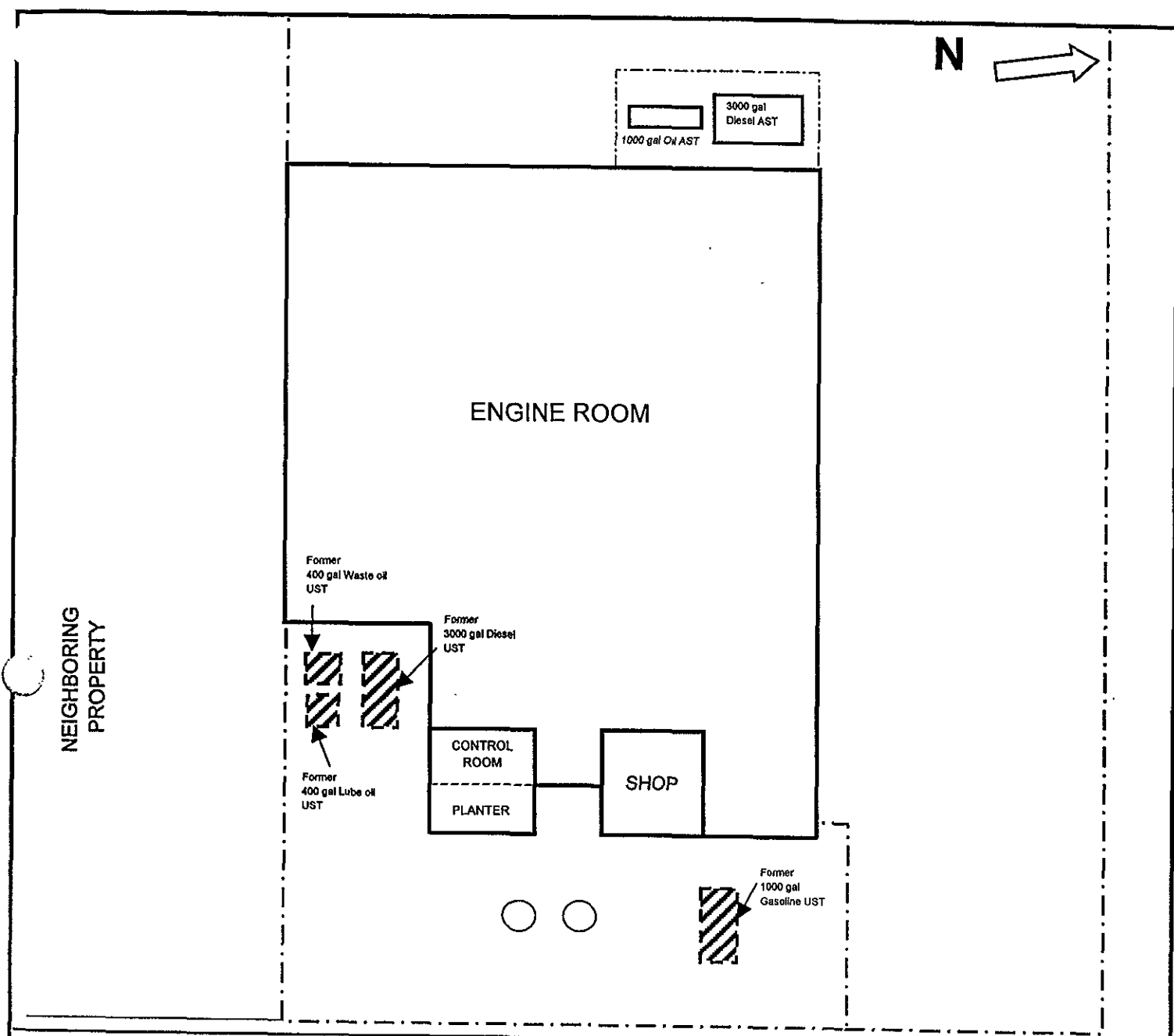
250 Frank Ogawa Plaza, Suite 5301, Oakland, California

January 12, 1999

Figure 1:


SITE VICINITY MAP

City of Oakland/Ettie Street Pump Station Site
Oakland, California



ETTIE STREET

LEGEND:

- - - - FENCE
-  FORMER UST

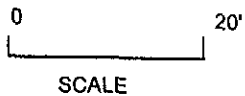
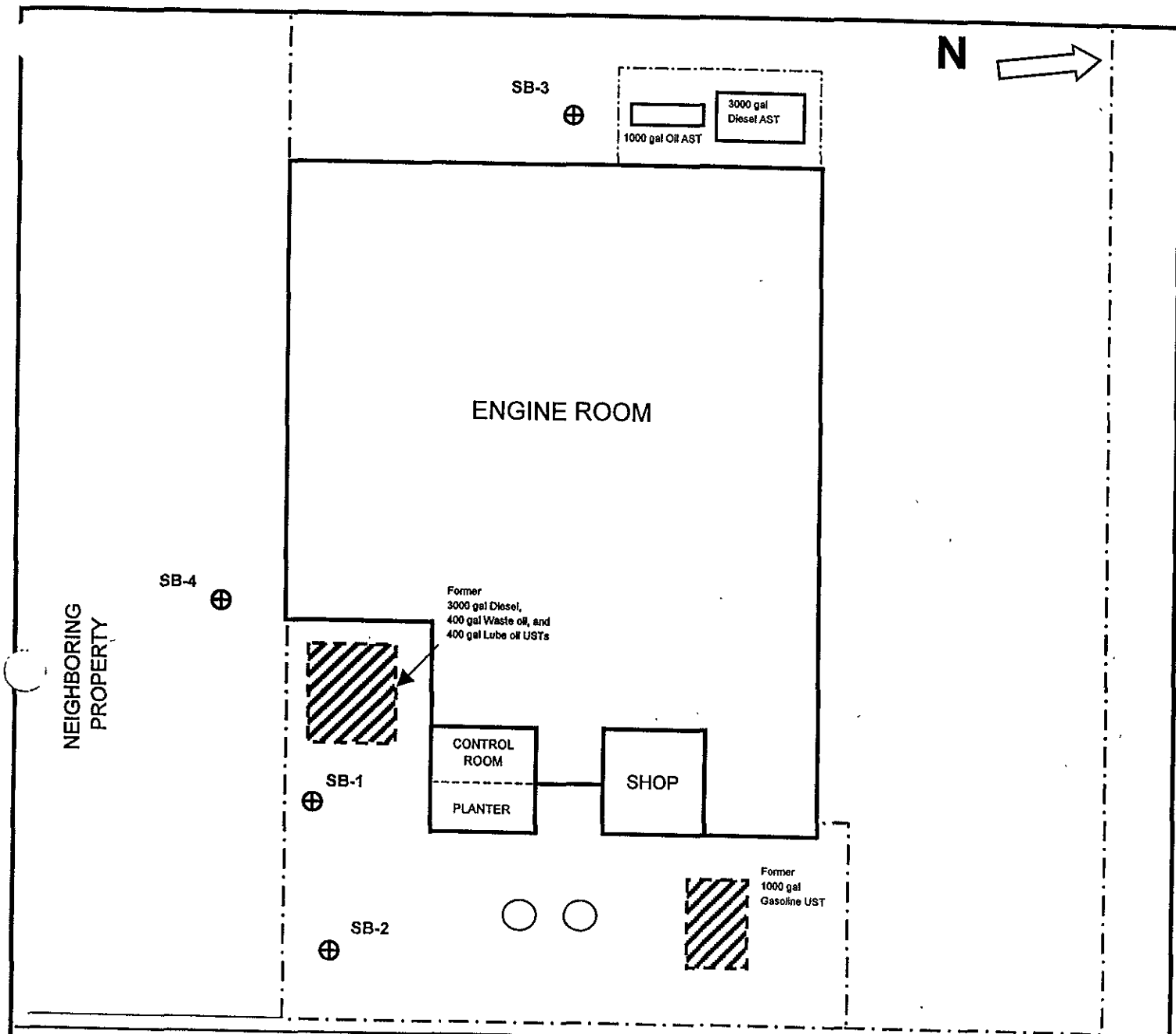


FIGURE 2:

**SITE PLAN SHOWING
LOCATIONS OF FORMER USTs**

ETTIE STREET PUMP STATION
OAKLAND, CALIFORNIA
November, 1998



ETTIE STREET

LEGEND:

⊕ SB-2 EXPLORATORY SOIL BORING

- - - FENCE

▨ LIMITS OF UST EXCAVATION



SCALE

FIGURE 3:

**SITE PLAN SHOWING
LOCATIONS OF SOIL BORINGS**

ETTIE STREET PUMP STATION
OAKLAND, CALIFORNIA
November, 1998

MicroSearch Environmental
 318 Harrison Street
 Oakland, CA 94607

Log of Boring B-2

Page 1 of 1

SEE SITE PLAN

MSE PROJECT NO: 109-502 DATE DRILLED: 01-21-97
 CLIENT: City of Oakland
 LOCATION: Driveway of Pumping Station
 DRILLING METHOD: Geoprobe (Direct Push)
 DRILLING COMPANY: N/A CASING ELEVATION: N/A
 LOGGED BY: Brian Busch APPROVED BY:

BLOWS/6 IN.	PID VALUES	WELL DIAGRAM	DEPTH feet	SAMPLES	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
						NA	Concrete
						GM	Road Base
						ML	Clayey Silt
			5				
			10				Small amounts of grey-colored dry sand in sample. Also, fine-grained gravels <0.25" found Small amounts of grey-colored dry sand in
			15				As above, gravels to 0.75"
			19				As above
			20			GM	Water @ 19' Silty sand, gravels to 0.75"
			25				Soil sample collected from 19'-20' Bottom of boring at 20', push to 28' to collect water sample. Installed another boring approx 1' away to collect water sample after attempting unsuccessfully from original boring.
			30				

MicroSearch Environmental
 318 Harrison Street
 Oakland, CA 94607

Log of Boring B-4

Page 1 of 1

SEE SITE PLAN

MSE PROJECT NO: 109-502 DATE DRILLED: 01-21-97

CLIENT: City of Oakland

LOCATION: Driveway of Pumping Station

DRILLING METHOD: Geoprobe (Direct Push)

DRILLING COMPANY: N/A CASING ELEVATION: N/A

LOGGED BY: Brian Busch APPROVED BY:

BLOWS/6 IN.	PID VALUES	WELL DIAGRAM	DEPTH feet	SAMPLES	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
					•••••	GM	Fill/ Road Base. Fine gravels to 0.75"
			5		▨▨▨▨▨	SM	Sandy Silt
			10		▽▽▽▽▽	ML	Clayey silt with fine gravels to 0.25"
			15		▽▽▽▽▽		As above, color change.
			20		▽▽▽▽▽		As above, color change, less fine gravel.
			25		▽▽▽▽▽		As above, color change.
			23'	▣	▽▽▽▽▽		Collected soil sample from 23' to 24'
			19'		▽▽▽▽▽		Water @ 19'
			24'		▽▽▽▽▽		Drove sampler from 24' to 28' but only recovered ~ 1.0'
			25'		▽▽▽▽▽		Soil type as above. 25'-28' not logged.
			28'				Bottom of boring @ 28"