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ENVIRONMENTAL HEALTH SERVICES

June 4, 2008

GA Project No.: 354-01-01

Oakland Fire Department - Fire Prevention Bureau  
Certified Unified Program Agency  
250 Frank H. Ogawa Plaza, Suite 3341  
Oakland, California 94612

Attention: Mr. Jesse Kupers

Subject: Report of Underground Storage Tank Removal Activities  
925 Stanford Avenue  
Oakland, California

Ladies and Gentlemen:

On behalf of the Willbett Company, Gribi Associates is pleased to provide this letter report documenting the removal of one approximately 650-gallon above ground storage tank (AST), one approximately 1,3000-gallon underground storage tank (UST) and one approximately 425-gallon UST from the from the project site located at 925 Stanford Avenue in Oakland, California (see Figure 1 and Figure 2). In addition, due to past product leaks from the USTs or associated piping, over-excavation of the UST cavity pit floors was also conducted. All tanks are believed to have contained heating oil that was apparently used in association with the boiler and furnace manufacturing facility located on the project site.

The AST removal activities were conducted during the week of March 6, 2008. The UST removal activities were conducted by Golden Gate Tank Removal (GGTR) during the week of April 21, 2008. Soil over-excavation of the UST cavities, along with backfill and resurfacing activities, occurred between May 8, 2008 and May 13, 2008.

## **DESCRIPTION OF UST REMOVAL ACTIVITIES**

### **Prefield Activities**

GGTR obtained a permit to remove the tanks from the Oakland Fire Department. A copy of this permit is provided as Attachment A. At least 48 hours prior to excavation activities, GGTR outlined the excavation area with white paint and Underground Service Alert was notified.

### **Description of Field Activities**

Removal of the 650-gallon singled-walled steel AST from the rear of the property occurred during the week of March 4, 2008. Removal of an 1,300-gallon single-walled steel UST from the front of the property and removal of a 425-gallon single-walled steel from the rear of the property occurred during the week of April 21, 2008. Photographs of these activities are provided as Attachment B.

#### AST Removal Activities

The 650-gallon AST was removed in accordance with the following general steps.

- GGTR emptied the contents from the AST and used pressure washers to cleaned UST interiors. Solids removed from the AST (approximately 60 pounds) were taken to Siemens Water Technology Corporation facility in Vernon, California. Approximately 400 gallons of liquids, which included contents from the tank, along and generated rinsate, were taken to the Clearwater Environmental facility in Silver Springs, Nevada.
- A rinsate sample collected by GGTR from the interior of the 650-gallon AST reportedly contained Total Petroleum Hydrocarbons below 100 milligrams per liter (mg/L), allowing for the characterization of the USTs as nonhazardous and allowing for the disposal of the AST as scrap metal.
- GGTR loaded the 650-gallon AST onto a flat bed truck. The AST was transported to Circosta Iron and Metal, Inc. in San Francisco, California, for disposal.

#### UST Removal Activities

The two USTs were removed in accordance with the following general steps.

- GGTR excavated overburden soils to expose the 1,300-gallon and 425-gallon USTs.
- GGTR emptied the remaining contents from each UST and pressure washed the UST interiors. Approximately 700 gallons of liquids, which included contents from the USTs and generated rinseate, were taken to the Clearwater Environmental facility in Silver Springs, Nevada.
- A rinseate sample collected by GGTR from the interior of the 1,300-gallon UST and 425-gallon UST reportedly contained Total Petroleum Hydrocarbons below 100 milligrams per liter (mg/L), allowing for the characterization of the USTs as nonhazardous and allowing for the disposal of the USTs as scrap metal.

- GGTR loaded the 1,300-gallon UST and 425-gallon UST onto a flat bed truck. The two USTs were transported to Circosta Iron and Metal, Inc. in San Francisco, California, for disposal.

Disposal documents for the AST and UST contents, rinsate, and vessels are provided in Attachment C. The laboratory analytical reports for the rinseate samples are provided as Attachment D.

#### Over-Excavation Activities

Visual observation and preliminary soil and groundwater laboratory results showed that soil and groundwater below the two USTs were impacted with heavy-range hydrocarbons. As directed by the Oakland Fire Department inspector, the two UST excavation cavities were overexcavated as follows. Photographs of the activities are provided as Attachment B.

- GGTR dewatered excavation cavities by extracting accumulated groundwater into a vacuum truck. Approximately 1,300 gallons of groundwater was transported to the Instrat facility in Rio Vista, California for disposal.
- Approximately 3 feet of soil was excavated from the bottom of each UST cavity, where visually cleaner soils were encountered.
- Approximately 57 tons of over-excavated soil from both UST locations, along with overburden soil from the 425-gallon UST in the rear of the property, were transported to Forward Landfill in Manteca, California for disposal.

#### **Description of Sampling Activities**

##### Preliminary Sampling

Two soil samples, UST-A-W and UST-A-E, were collected from below the 1,300-gallon UST, one sample from below each (west and east) end of the tank at a depth of approximately 10 feet below surface, approximately 1.5 feet below the bottom of the tank.

Two soil samples, UST-B-8.0' and UST-B-10.0', were collected from below the middle of the 425-gallon UST, the first immediately below the tank at a depth of approximately 8.0 feet below surface grade, and the second from approximately 2 feet below the bottom of the tank at a depth of approximately 10.0 feet below surface grade.

Two four-point composite soil samples, SP-A and SP-B, were collected from the two soil stockpiles of overburden material associated with each of the USTs.

Sampled soils were tightly packed in brass tubes to minimize head space, and then tightly sealed with Teflon tap and end-caps. All samples were immediately labeled and placed into an ice-chilled

cooler. The samples were then transported to a state-certified laboratory under chain-of-custody protocol.

Grab groundwater samples, *UST-A* and *UST-B*, were collected from both UST cavities. Groundwater samples were collected using a clean disposable bailer and poured directly from the bailer into laboratory-supplied containers. Each sample container was then tightly sealed, labeled, and placed in cold storage for transport to the laboratory under formal chain-of-custody.

### Confirmation Sampling

After completing overexcavation activities, two soil samples, *UST-A-E* and *UST-A-W*, were collected from below the 1,300-gallon UST, one sample from below each (west and east) end at a depth of approximately 11 feet below surface grade, 2.5 feet below the bottom of the tank.

After completing overexcavation activities, one soil sample was collected from below the middle of the 425-gallon UST at a depth of approximately 11 feet below surface grade, approximately 3 feet below the bottom of the tank.

Sampled soils were tightly packed in brass tubes to minimize head space, and then tightly sealed with Teflon tap and end-caps. All samples were immediately labeled and placed into an ice-chilled cooler. The samples were then transported to a state-certified laboratory under chain-of-custody protocol.

A grab groundwater sample, *UST-A-GW*, was collected from the 1,300-gallon UST overexcavation cavity. This water sample was collected using a clean disposable bailer and poured directly from the bailer into laboratory-supplied containers. Each sample container was then tightly sealed, labeled, and placed in cold storage for transport to the laboratory under formal chain-of-custody.

A grab groundwater sample was not obtained in the 425-gallon UST overexcavation cavity due to significant caving of the excavation cavity sidewall and undercutting the overlying concrete slab surface. A decision was made to proceed with backfilling rather than risk further sidewall collapse.

### **Laboratory Analysis of Samples**

Nine soil samples and three groundwater sample were analyzed for the following parameters:

- USEPA 8015M Total Petroleum Hydrocarbons as Gasoline (TPH-G)
- USEPA 8015M Total Petroleum Hydrocarbons as Diesel (TPH-D)
- USEPA 8015M Total Petroleum Hydrocarbons as Motor Oil (TPH-MO)
- USEPA 8021B Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)

All analyses were conducted by McCampbell Analytical, Inc., a California-certified analytical laboratory. Soil analytical results are summarized in Table 1 and on Figure 3. Laboratory data

reports and chain-of-custody records are contained in Attachment D.

## RESULTS OF SAMPLING

### Preliminary Sampling

Laboratory results for the two soil samples collected approximately 1.5 feet below the 1,300 gallon UST reported no concentrations above their respective detection limits for TPH-G, BTEX, TPH-D, and TPH-M.

Laboratory results for the soil sample collected immediately below the 425-gallon UST reported 390 milligrams per kilogram (mg/kg) TPH-D, 370 mg/kg TPH-MO, and no detectable concentrations of TPH-G and BTEX constituents. Laboratory results for the soil sample collected approximately 2 feet below the 425-gallon UST reported concentrations of 11 mg/kg TPH-G, 220 mg/kg TPH-D, 190 mg/kg TPH-MO, and no detectable concentrations of BTEX constituents.

Laboratory results for the grab groundwater sample collected from the 1,300-gallon UST cavity reported 11,000 micrograms per liter (ug/L) TPH-G, 430,000 ug/L TPH-D, 40,000 ug/L TPH-MO, and no detectable concentrations of BTEX constituents.

Laboratory results for the grab groundwater sample collected from the 425-gallon UST cavity reported 310 ug/L TPH-D, 370 ug/L TPH-MO, and no detectable concentrations of TPH-G and BTEX constituents.

Laboratory results for the four-point composite soil sample collected from the 1,300-gallon UST soil stockpile reported 11 mg/kg TPH-G, 34 mg/kg TPH-D, 73 mg/kg TPH-MO, and no detectable concentrations of BTEX constituents.

Laboratory results for the four-point composite soil sample collected from the 425-gallon UST soil stockpile reported 5 mg/kg TPH-G, 220 mg/kg TPH-D, 190 mg/kg TPH-MO, and no detectable concentrations of BTEX constituents.

### Confirmation Sampling

Laboratory results for the two confirmation soil samples collected from each end of the 1,300 gallon UST overexcavation cavity following soil overexcavation reported no detectable concentrations of TPH-G, TPH-D, TPH-MO, and BTEX constituents.

Laboratory results for the single confirmation soil sample collected from below the middle of the 425-gallon UST cavity reported 26 milligrams per kilogram (mg/kg) TPH-D, 15 mg/kg TPH-MO, and no detectable TPH-G and BTEX, constituents.

Laboratory results for the grab groundwater sample collected from the 1,300-gallon UST

Oakland Fire Department - Fire Prevention Bureau  
Certified Unified Program Agency  
June 4, 2008  
Page 6

overexcavation cavity reported 160 micrograms per liter (ug/L) TPH-G, 16,000 ug/L TPH-D, 7,600 ug/L TPH-MO, and no detectable BTEX constituents.

## CONCLUSIONS

One 650-gallon single-walled AST, one 1,300-gallon single-walled steel UST and one 425-gallon single-walled steel UST were removed from the subject site. All tanks are believed to have contained heating oil used in association with the boiler and furnace manufacturing facility located on the site. Following removal of the two USTs, soil and groundwater immediately below each UST showed visible evidence of hydrocarbon impacts, and the two UST excavation cavities were subsequently overexcavated and dewatered.

Overexcavated soil and along with hydrocarbon-impacted overburden soil from the 425-gallon UST, which amounted to approximately 56.6 tons of soil, were transported to the Forward Landfill in Manteca, California, for disposal.

We appreciate the opportunity to provide this report for your review. Please contact us if you have questions or require additional information.

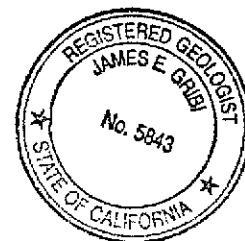
Very truly yours,



Matthew A. Rosman  
Project Engineer



James E. Gribi  
Registered Geologist  
California No. 5843



MAR:JEG:ct  
Enclosure

cc: Ms. Sue Rosenberg, Willbett Company

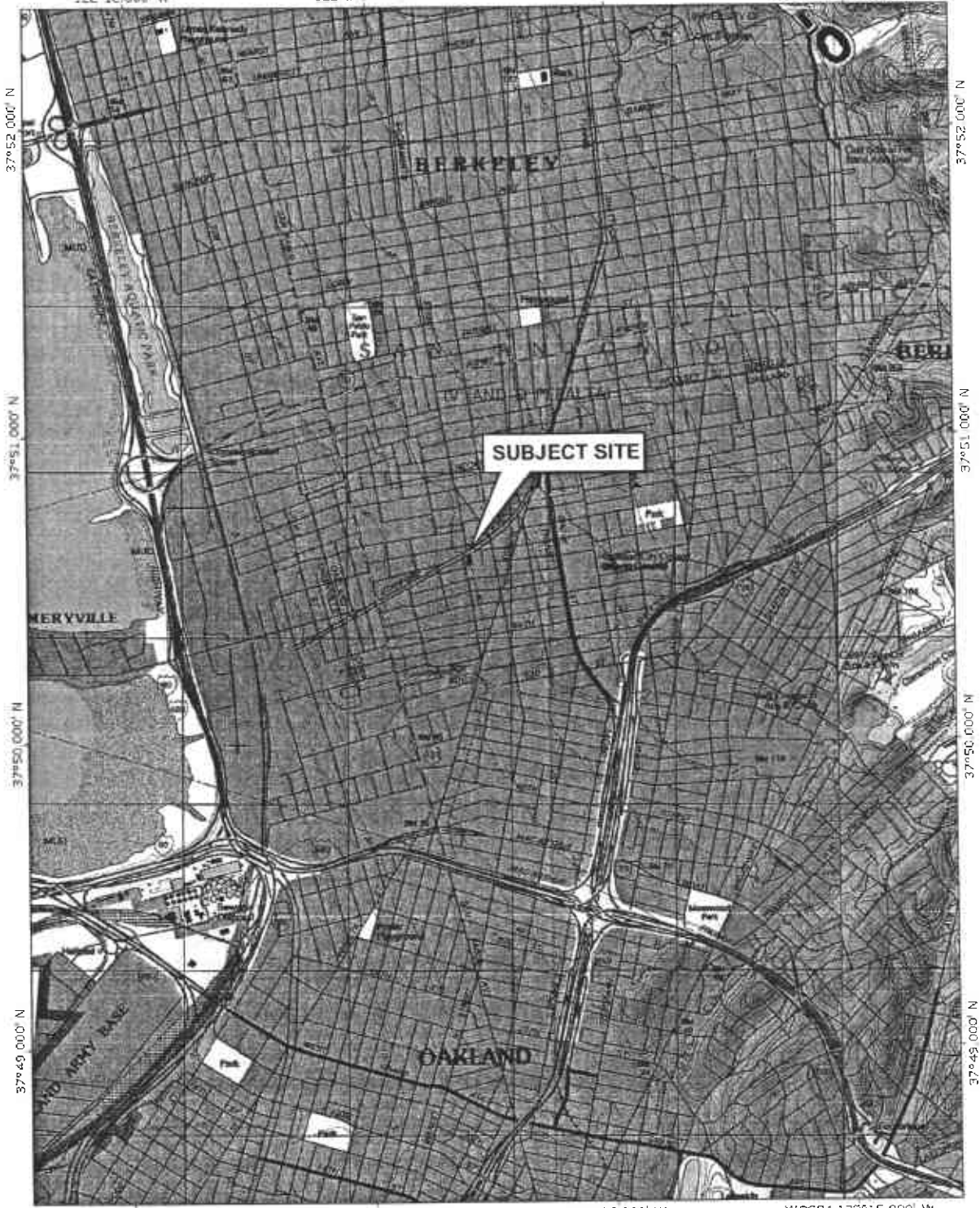
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**GRIBI**

TOPOI map printed on 05/15/08 from "California.tpo" and "Untitled.tpg"  
 122°17.000' W 122°16.000' W

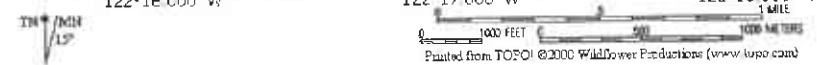
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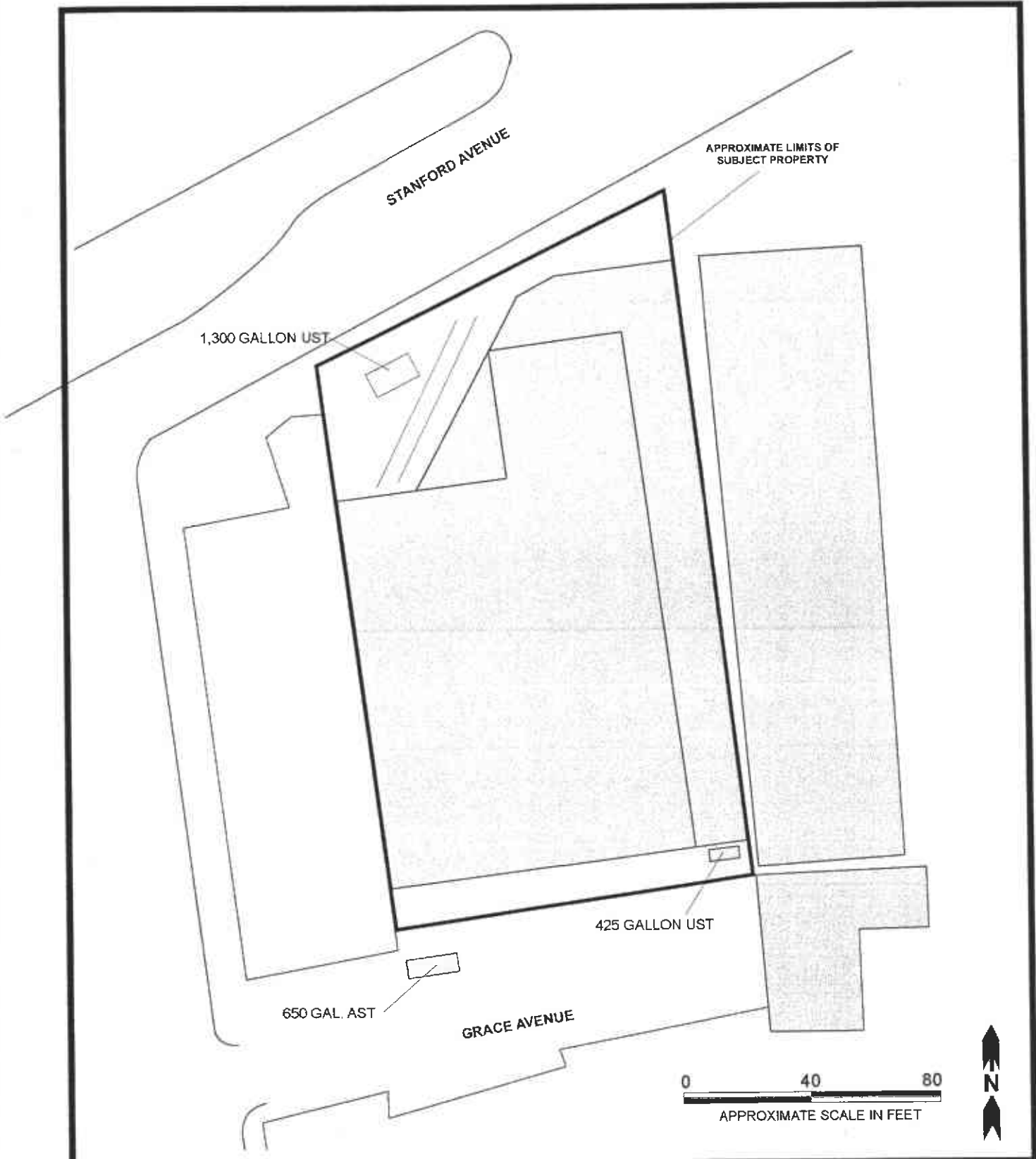
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37°52.000' N  
 37°51.000' N  
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 37°49.000' N

122°18.000' W 122°17.000' W 122°16.000' W WGS84 122°15.000' W



DESIGNED BY:	CHECKED BY:	<b>SITE VICINITY MAP</b> WILBETT COMPANY UST SITE 925 STANFORD AVENUE OAKLAND, CALIFORNIA	DATE: 05/16/2008	FIGURE: 1
DRAWN BY: MAR	SCALE:			
PROJECT NO: 354-01-01				



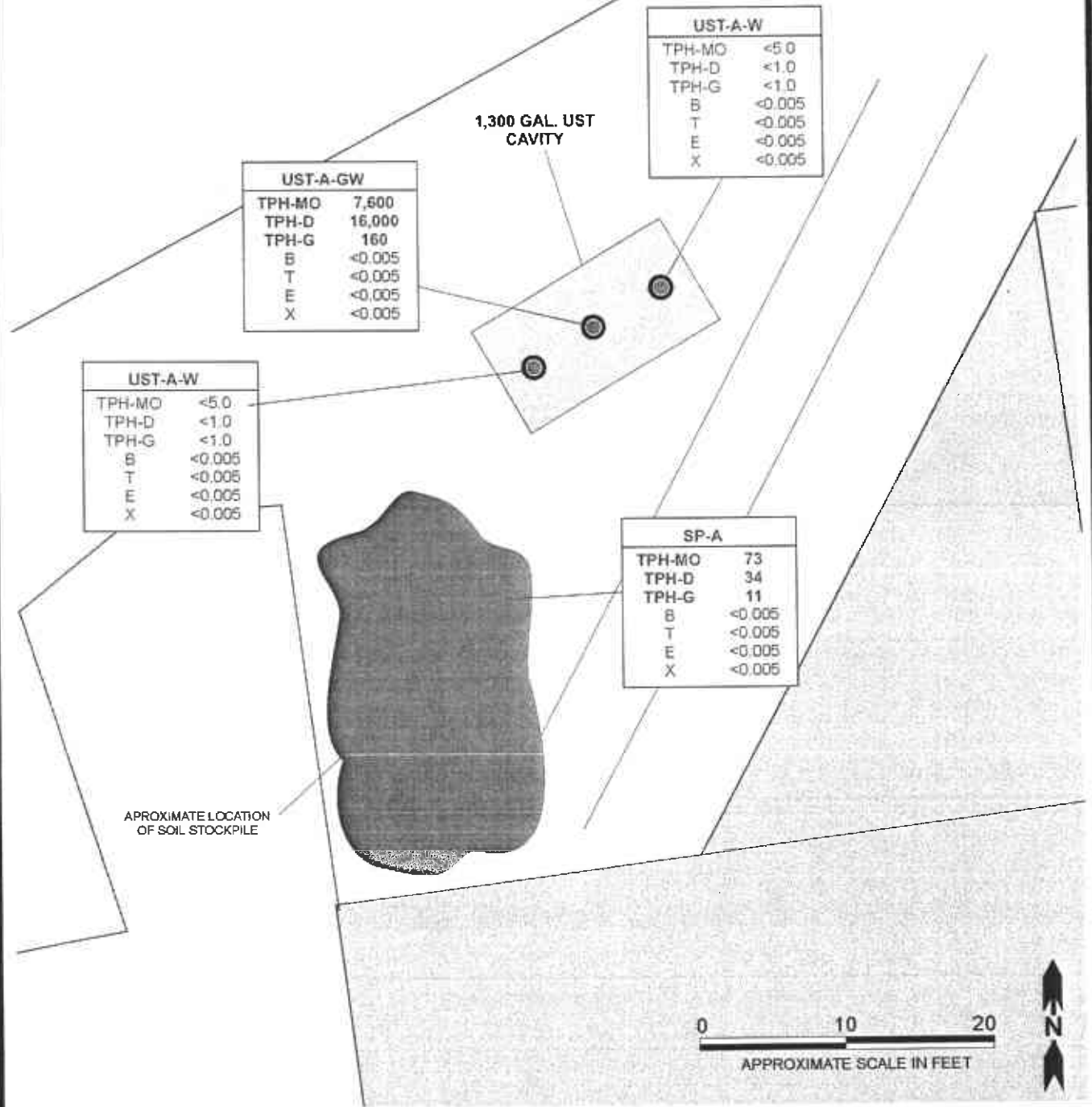
DESIGNED BY:	CHECKED BY:	<b>SITE PLAN</b> WILBETT COMPANY UST SITE 925 STANFORD AVENUE OAKLAND, CALIFORNIA	DATE: 05/16/2008	FIGURE: 2
DRAWN BY: MAR	SCALE:			
PROJECT NO: 354-01-01				




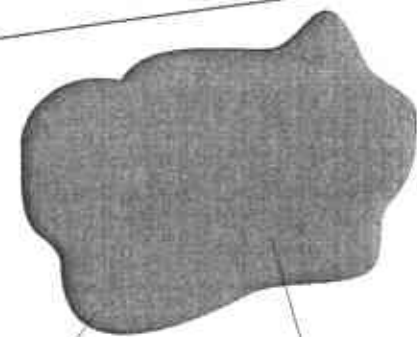
**NOTES:**

soil concentration are in milligrams per kilogram (mg/kg)

groundwater concentration are in micrograms per liter (ug/L)



DESIGNED BY:	CHECKED BY:	<b>CONFIRMATION AND STOCKPILE SAMPLING RESULTS - 1,300 GALLON UST</b>  WILBETT COMPANY UST SITE 925 STANFORD AVENUE OAKLAND, CALIFORNIA	DATE: 05/16/2008	FIGURE: 3
DRAWN BY: MAR	SCALE:			
PROJECT NO: 354-01-01				



APPROXIMATE LOCATION OF SOIL STOCKPILE



425 GAL. UST CAVITY

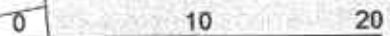
UST-B	
TPH-MO	26
TPH-D	15
TPH-G	<1.0
B	<0.005
T	<0.005
E	<0.005
X	<0.005

SP-B	
TPH-MO	190
TPH-D	220
TPH-G	5.0
B	<0.005
T	<0.005
E	<0.005
X	<0.005

**NOTES:**

soil concentration are in milligrams per kilogram (mg/kg)

groundwater concentration are in micrograms per liter (ug/L)



APPROXIMATE SCALE IN FEET



DESIGNED BY:

CHECKED BY:

DRAWN BY: MAR

SCALE:

PROJECT NO: 354-01-01

**CONFIRMATION AND STOCKPILE SAMPLING RESULTS - 425 GALLON UST**

WILBETT COMPANY UST SITE  
925 STANFORD AVENUE  
OAKLAND, CALIFORNIA

DATE: 05/16/2008

FIGURE: 4

**GRIBI**

**Table 1**  
**SUMMARY OF SOIL AND GROUNDWATER ANALYTICAL RESULTS**  
 925 Stanford Avenue  
 Oakland, California

Sample ID	Sample Matrix	Sample Depth	Concentration - Soil: milligrams per kilogram (mg/kg), Water: micrograms per liter (ug/L)						
			TPH-MO	TPH-D	TPH-G	B	T	E	X
<b>PRELIMINARY SAMPLING RESULTS</b>									
UST-A-W	Soil	10.0 feet	<1.0	<5.0	<1.0	<0.005	<0.005	<0.005	<0.005
UST-A-E	Soil	10.0 feet	<1.0	<5.0	<1.0	<0.005	<0.005	<0.005	<0.005
UST-A	Water	--	140,000	430,000	11,000	<0.5	<0.5	<0.5	<0.5
UST-B-8.0'	Soil	8.0 feet	370	390	43	<0.005	<0.005	0.012	0.055
UST-B-10.0'	Soil	10.0 feet	32	120	49	<0.05	<0.05	<0.05	<0.05
UST-B	Water	--	370	310	<50	<0.5	<0.5	<0.5	<0.5
SP-A	Soil	--	73	34	11	<0.005	<0.005	<0.005	<0.005
SP-B	Soil	--	190	220	5.0	<0.005	<0.005	<0.005	<0.005
<b>CONFIRMATION SAMPLING RESULTS</b>									
UST-A-E	Soil	11.0 feet	<5.0	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005
UST-A-W	Soil	11.0 feet	<5.0	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005
UST-A-GW	Water	--	7,600	16,000	160	<0.5	<0.5	<0.5	<0.5
UST-B	Soil	11.0 feet	15	26	<1.0	<0.005	<0.005	<0.005	<0.005
ESL-soil, non-drinking water, Res			410	100	100	0.12	29	33	31
ESL-soil, non-drinking water, C&I			2,500	150	450	0.26	29	33	100
ESL-GW, non-drinking water			2,500	2,500	5,000	540	400	300	5,300

**Table Notes:**

TPH-MO = total petroleum hydrocarbons as motor oil  
 TPH-D = total petroleum hydrocarbons as diesel  
 TPH-G = total petroleum hydrocarbons as gasoline  
 B = benzene  
 T = toluene  
 E = ethylbenzene  
 X = xylenes

<0.050 = Not detected above the expressed value.  
 ESL = Environmental Screening Level, as contained in *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, San Francisco Bay Regional Water Quality Control Board, Interim Final, November 2007.  
 Res = Residential land use  
 CI = Commercial/Industrial land use

**ATTACHMENT A**  
**UST REMOVAL PERMIT**

Applications for which no permit is issued within 180 days shall expire by limitation.

Appl# X0800297

Job Site 925 STANFORD AV

Parcel#

Descr removal of underground storage tank

Permit Issued 02/15/08

Work Type EXCAVATION-PRIVATE P

USA #

Util Co. Job #  
Util Fund #

Acctg#:

Applicant

Phone#

Lic# License Classes--

Owner

Contractor GOLDEN GATE TANK REMOVAL

X

(415) 512-1555 616521 A C8

Arch/Engr

Agent

Applic Addr 255 SHILDEY ST, SAN FRANCISCO, CA, 94107

\$416.55 TOTAL FEES PAID AT ISSUANCE  
\$63.00 Applic \$300.00 Permit  
\$.00 Process \$34.49 Rec Mgmt  
\$.00 Gen Plan \$.00 Invtg  
\$.00 Other \$19.06 Tech Enh

CITY OF OAKLAND

JOB SITE

PAID  
2/15/08

DIST: ADDRESS:

**ATTACHMENT B**  
**SITE PHOTOGRAPHS**



Photo 1. Preparing to remove 1,300 gallon UST.



Photo 2. Placing 1,300 gallon UST onto flatbed truck.



Photo 3. Removing 425 gallon UST.



Photo 4. Dewatering UST cavity prior to over-excavation.



Photo 5. Over-excavation of 1,300 gallon UST cavity.



Photo 6. Over-excavation of 425 gallon UST cavity.



Photo 7. Resurface of former 1,300 gallon UST location.



Photo 8. Resurface of former 425 gallon UST location.