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Alameda County
Environmental Health

October 23, 2008

Barbara Jakub
Hazardous Materials Specialist
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502

Subject: Certification Letter
Sensitive Receptor Survey
1600 63rd Street
Emeryville, California
Fuel Leak Case Site RO0000052, Peterson Manufacturing Company

Dear Ms. Jakub:

Per your request, the attached Sensitive Receptor Survey from Treadwell & Rollo provides a written response to the request from Alameda County Environmental health dated September 28, 2006 for Fuel Leak Case RO0000052 located at 1600 63rd Street, Emeryville, California (the Site). The attached Work Plan has been prepared on behalf of the current property owner, 1600 63rd Street Associates.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

If you have any questions, please call me at (415) 457-4964.

Sincerely yours,



Geoffrey B. Sears
For the Wareham Property Group
On behalf of 1600 63rd Street Associates

21 October 2008
Project No. 3494.01

Mr. Richard Robbins
Wareham Property Group
1120 Nye Street, Suite 400
San Rafael, CA 94901

Subject: Sensitive Receptor Survey
1600 63rd Street
Emeryville, California

Dear Mr. Robbins:

This letter presents the sensitive receptor survey performed by Treadwell & Rollo, Inc. (Treadwell & Rollo) for the property located at 1600 63rd Street in Emeryville, California (the Site) as shown on Figure 1 (attached). This letter was prepared in response to a request from the Alameda County Environmental Health Services (ACEHS) dated 28 September 2006.

The sensitive receptor survey covered an area within ½-mile of the Site (Figure 2) and addressed the following:

- Wells (including residential, irrigation, industrial and agricultural);
- Surface water features;
- Other sensitive receptors (such as schools and hospitals); and
- Preferential hydrogeologic pathways (such as buried utilities).

As part of the survey, we reviewed well records, utility maps, and topographic maps and performed two Site visits.

Background

The depth to groundwater at the Site varies seasonally and has been measured historically between approximately 3 to 8 feet below ground surface (bgs). The direction of groundwater gradient has historically been measured to the west.

Data collected during drilling at the Site indicate that soils consist of interbedded mixtures of fine- and coarse-grained materials from approximately 2 to 3 feet until approximately 6 to 8 feet bgs. This is underlain by a generally coarse-grained layer from approximately 6 to 8 feet until 12 to 15 feet bgs. In some borings, this coarse-grained layer is underlain by a fine-grained layer to 20-feet (maximum depth explored).

The property was originally developed as a tallow manufacturing plant by Peterson Manufacturing Company in 1914. Historical records indicate six underground storage tanks (USTs) were previously located at the Site (Figure 3).

The Site has been operated as a Fed Ex shipping facility since 1989, when the Site was redeveloped and construction of the Fed Ex facility was completed. Fed Ex currently operates one 10,000 gallon gasoline UST at the Site.

ENVIRONMENTAL AND GEOTECHNICAL CONSULTANTS

501 14TH STREET, 3RD FLOOR OAKLAND CALIFORNIA 94612 T 510 874 4500 F 510 874 4507 www.treadwellrollo.com

Mr. Richard Robbins
Wareham Property Group
21 October 2008
Page 2

Groundwater at the Site has been monitored since 1989. Based on historical and current data, groundwater flows towards the west. Previous investigations have identified the primary contaminants as petroleum hydrocarbons in the gasoline and diesel ranges.

Wells

Treadwell & Rollo requested well records from the State of California Department of Water Resources and Alameda County Public Works Agency. The well records indicate numerous monitoring wells within the 1/2-mile search radius which are summarized in Table 1. Three potential domestic or irrigation wells were identified within the 1/2-mile search radius (Figure 2). One potential irrigation well (1650 65th Street, Emeryville, California) was identified at a location approximately 1/4-mile downgradient of the Site (Table 1 and Figure 2).

On 9 April 2007, Treadwell & Rollo conducted a visit to the Site and neighboring areas to identify the potential irrigation well and other features. No wells were observed at 1650 65th Street, Emeryville, California (1650 65th Street) during the site visit.

Files were reviewed for 1650 65th Street using the Geotracker database. Remediation activities are being conducted to address releases from a former underground gasoline fuel tank.

The files reviewed indicate that 1650 65th Street is serviced by municipal drinking water, and that no drinking water wells exist onsite.

Surface Water Features

In addition to our Site visit, Treadwell & Rollo reviewed topographic maps and aerial photographs to identify surface water features within 1/2 mile of the Site (Figure 1).

San Francisco Bay is located approximately 1/4-mile to the west (downgradient) of the Site. Berkeley Aquatic Park is located less than 1/2-mile to the north-northwest (crossgradient) of the Site. No other surface water features were identified within 1/2-mile of the Site during the Site visit or review of existing maps and aerial photographs.

Runoff from the Site runs to storm drains on Overland Avenue (Figure 3). The storm drains on Overland Avenue were observed to flow north from the Site during our 8 August 2008 Site visit.

Other Sensitive Receptors

During our Site visit on 9 April 2007, we did not observe any other potential sensitive receptors downgradient of the Site. Other potential sensitive receptors could include hospitals, schools, nursing homes, parks, playgrounds, and wildlife preserves. Our review of topographic maps and aerial photographs identified Hawley School (1275 61st Street, Emeryville CA; approximately 1/4-mile to the southeast) and the North Oakland Medical Clinic (6105 San Pablo Avenue, Emeryville CA; less than 1/2-mile east of the Site). Both of these sensitive receptors are located at least 1/4-mile upgradient of the Site (Figure 2).

Mr. Richard Robbins
Wareham Property Group
21 October 2008
Page 3

Preferred Hydrogeologic Pathways

Buried utilities can represent a potential preferred pathway for contaminant migration. We contacted the City of Emeryville Public Works Agency to obtain maps of buried utilities. During drilling operations, a private utility locator was also retained to identify the location of buried utilities. As presented in Figure 3, utilities exist along Overland Avenue running in a north-south direction and are generally located between 5 and 8 feet bgs. Utilities along Overland Avenue could provide preferred hydrogeologic pathways for contaminant migration. Based on East Bay Municipal Utility District (EBMUD) maps and a Site visit by Treadwell & Rollo on 8 August 2008, the bottom of the water supply line appears to be approximately 2.8 feet bgs (Figure 3). This is above the historically measured depth to groundwater at the Site and well above the depth to groundwater measured in the monitoring wells closest to Overland Avenue (TR-5 and TR-2), where the highest measured depth to groundwater was 6.19 feet bgs.

Based on an Emeryville Public Works Department map and a Site visit on 8 August 2008, the bottom of the sanitary sewer line in Overland Avenue appears to run approximately 8.5 feet bgs (Figure 3). Groundwater has been observed in TR-5 and TR-2 at levels of between 6.19 and 8.15 feet bgs, suggesting that the sanitary sewer alignment is potentially a preferential pathway.

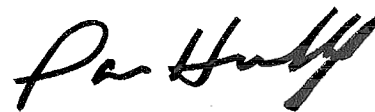
We reviewed the *Geologic Map of the Oakland Metropolitan Area, Alameda, Contra Costa, and San Francisco Counties, California*, by the United States Geological Survey (USGS), published in 2000. There are no faults, shear zones, or other natural hydrogeologic pathways for preferred contaminant migration shown on this map.

Summary

A potential irrigation well could exist approximately ¼-mile to the northwest of the Site, but the well could not be identified during the site visit. Other wells, a school, and a hospital also exist within the search radius, however, they are located a significant distance upgradient of the Site. The sanitary sewer alignment along Overland Avenue could provide a preferential pathway for contaminant migration immediately downgradient of the Site.

Sincerely,
TREADWELL & ROLLO, INC.


Matthew B. Hall, PE
Senior Project Engineer
34940112.OAK



Patrick B. Hubbard, PG, CEG
Principal Geologist

Attachments: References
 Table 1 – Wells Within ½-mile of the Site
 Figure 1 – Site Location Map
 Figure 2 – Well Search Radius
 Figure 3 – Location and Depth of Utilities

cc: Barbara Jakub, Alameda County Health Care Services Agency, Alameda CA

TABLES

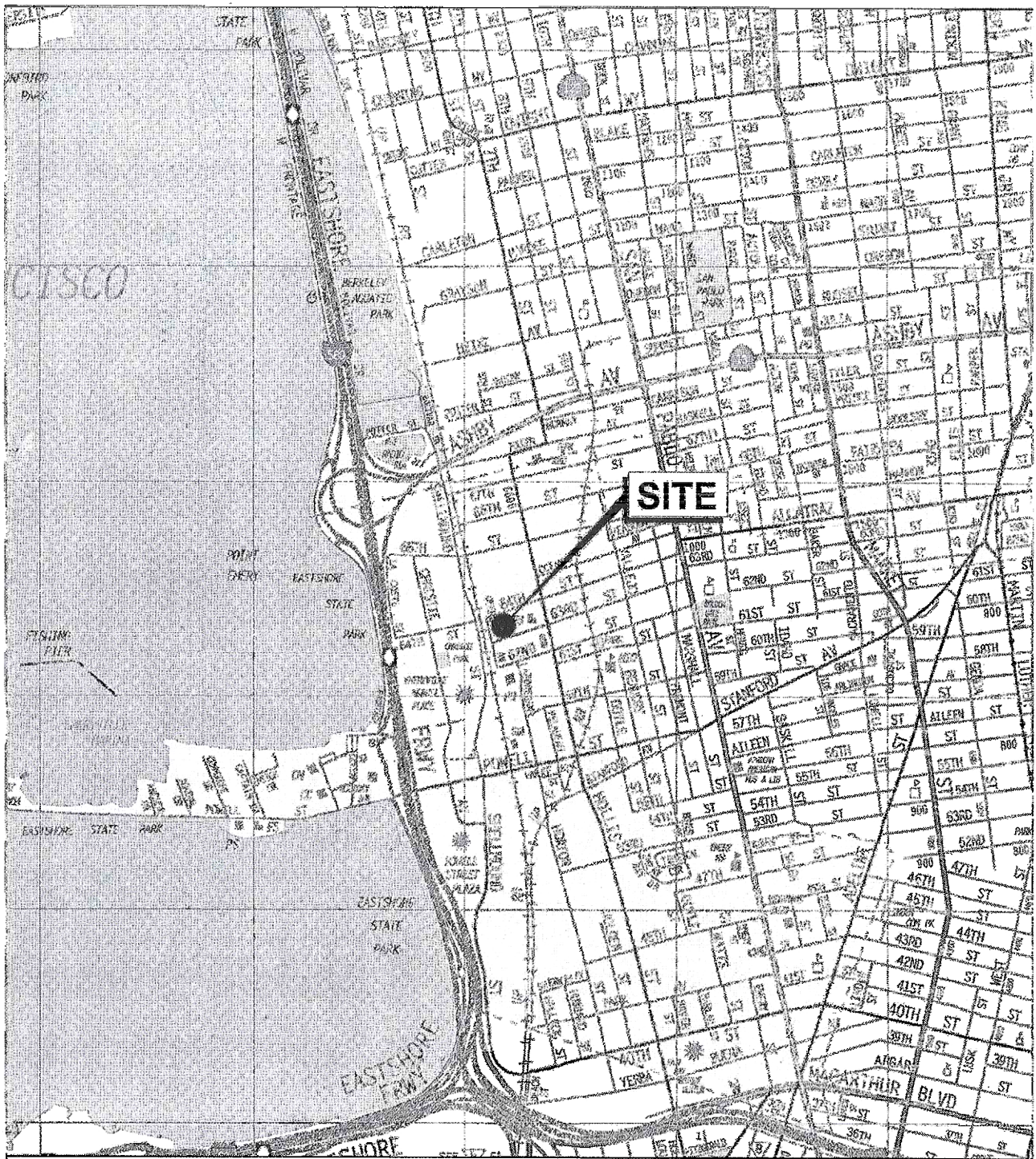
TABLE 1
WELL SEARCH FINDINGS
WELLS WITHIN 1/2 MILE OF THE SITE
1600 63rd Street
Emeryville, California

Date	Address	Well ID (local)	Well casing diameter (in.)	Well Depth (ft)	Purpose
<i>Potential downgradient production wells</i>					
9/1/1990	1650 65th Street, Emeryville	N/A	6	470	Irrigation
<i>Downgradient monitoring wells</i>					
12/28/1989	1600 64th St, Emeryville	MW-1 - MW-3	2	15.5-20	Monitoring
7/27/1987	1650 65th St, Emeryville	MW-1 - MW-7	2-4	16-30	Monitoring
<i>Upgradient and crossgradient wells</i>					
10/4/1954	53rd and Horton, Emeryville	N/A	8	54	Unknown
6/1/1988	1351 Ocean Ave, Emeryville	N/A	5	140	Domestic
12/26/1989	1171 Ocean Ave, Oakland	MW-1	2	29	Monitoring
4/8/1993	5521 Doyle Street, Emeryville	MW-1	2	17	Monitoring
10/1/1992	1200 65th Street, Oakland	MW-1, MW-2, MW-3, SB-1, & SB-2	2	15-25	Monitoring
9/6/1989	5600 Shellmound, Emeryville	MW-1 - MW-3	2	13-14.5	Monitoring
11/3/1988	1351 Ocean Ave, Emeryville	1A	2	15.5	Monitoring
6/8/1988	1301 65th St, Emeryville	MW-1	2	23	Monitoring
4/6/1987	6475 Christie Ave, Emeryville	W-1 - W-8 & W-19 - W-20	2	10-18	Monitoring
1/30/1992	6121 Hollis, Emeryville	MW-1	2	18.5	Monitoring
11/8/1989	1800 Powell, Emeryville	S-12 - S-14	3	20.5 - 24	Monitoring
6/27/1990	Powell and Frontage Rd, Emeryville	N/A	2	23.5	Monitoring
1/3/1990	6707 Bay St, Emeryville	MW-7 - MW-8	4	22	Test well
2/18/1993	5745 Peladeau St, Emeryville	MW-1 - MW-3	2	14-15	Test well
10/31/1990	6549 San Pablo Ave, Oakland	W-1 - W-11	1-2	14-19	Test well
2/27/1992	6529 Hollis St, Emeryville	MW-1 - MW-2	4	25	Monitoring
10/20/1992	1700 Powell St, Emeryville	MW-1 - MW-3	2	12-20	Monitoring
5/20/1992	5714 San Pablo Ave, Oakland	MW-2 - MW-5	4	19	Monitoring

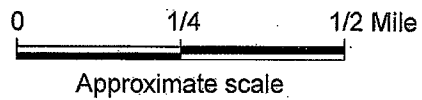
References:

Alameda County, Department of Public Works, January 2007
 State of California, Department of Water Resources, January 2007

FIGURES



Base map: The Thomas Guide
Alameda County
1999



1600 63RD STREET
Emeryville, California

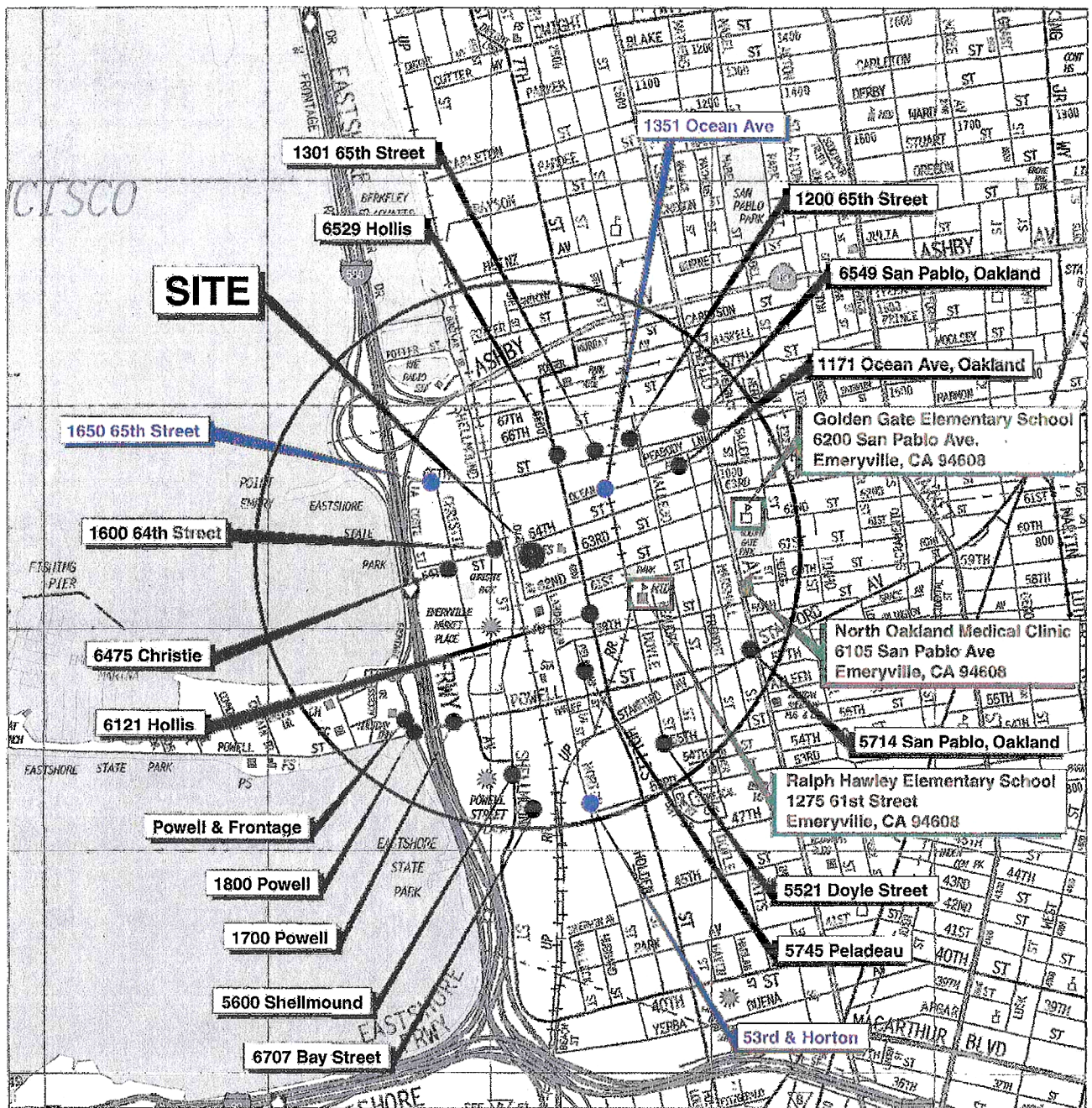
SITE LOCATION MAP

Treadwell & Rollo

Date 10/21/08

Project No. 3494.01

Figure 1



Base map: The Thomas Guide
Alameda County
1999

0 1/4 1/2 Mile

EXPLANATION

- Documented potential production well
- Monitoring well (or other non-production well)
- Other potential sensitive receptor



Approximate scale

Note: All addresses are in Emeryville, CA unless otherwise noted
Results shown for well are from DWR database and Alameda County DPW, January 2007.





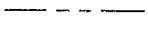
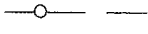
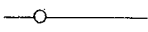


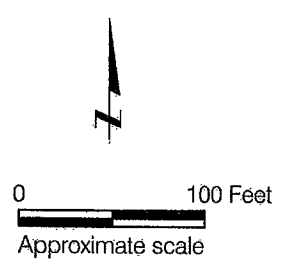
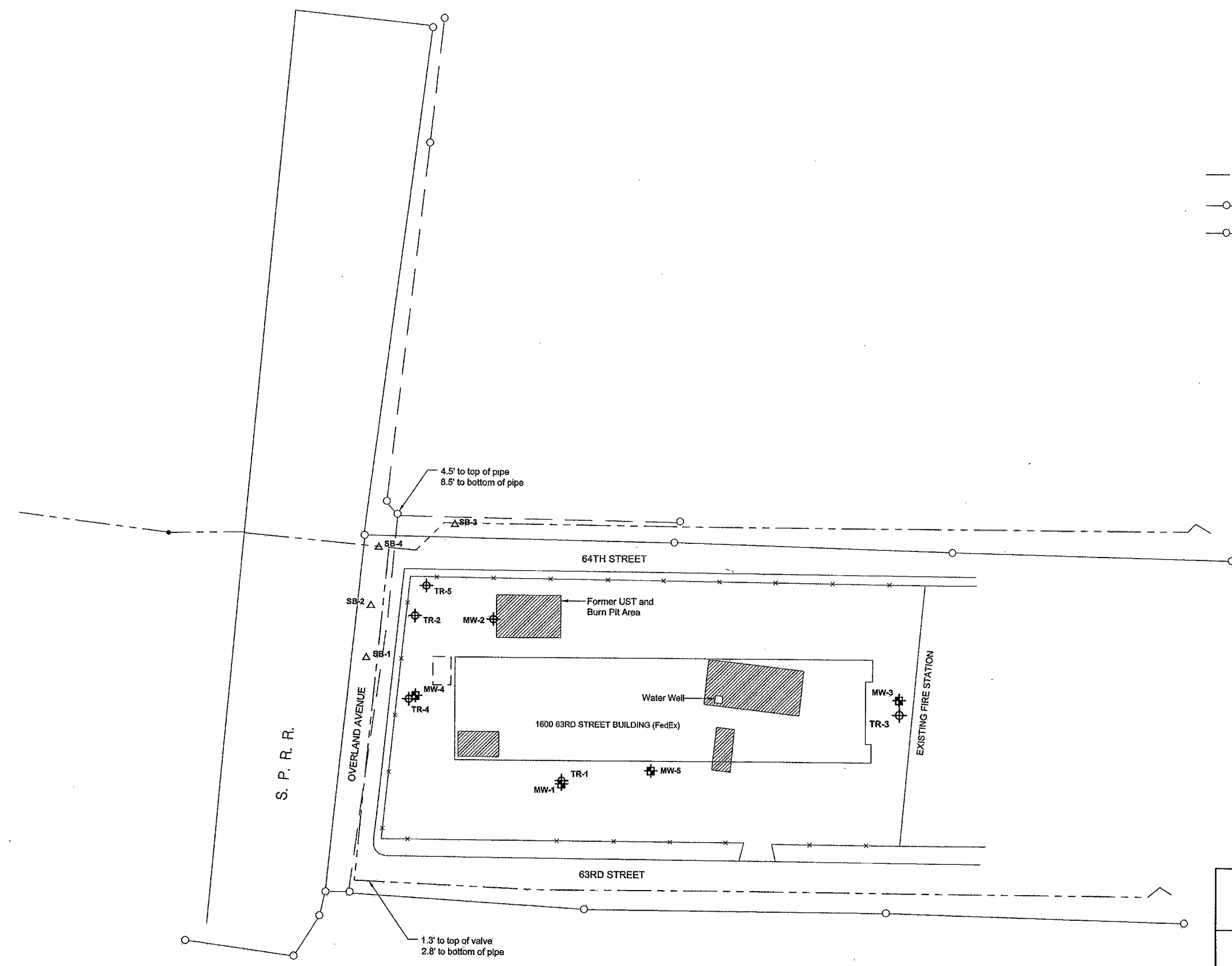
1600 63RD STREET
Emeryville, California

WELL SEARCH RADIUS

Treadwell & Rolo

Date 10/21/08 Project No. 3494.01 Figure 2

- EXPLANATION
-  Location of monitoring well
 -  Location of abandoned monitoring well
 -  Location of 2007 soil and groundwater grab sample
 -  Soil and tank excavation areas
 -  EBMUD water line
 -  Storm sewer
 -  Sanitary sewer



1600 63RD STREET Emeryville, California		
LOCATION AND DEPTH OF UTILITIES		
Date 10/21/08	Project No. 3494.01	Figure 3
Treadwell&Rollo		

S:\Trgraphics-Oak\3400's\3494.01\3494.01 Location and depth of utilities.dwg 10/21/08

Basemap Reference: Harding Lawson Associates, 5/91, and SOMA, 2000
 Utility Reference: EBMUD and Emeryville Public Works Department, January, 2007.