



**RECEIVED**

2:49 pm, Jan 12, 2009

Alameda County  
Environmental Health

**Foundry/Corporate Office**

**Los Angeles Service Center**

7825 San Leandro Street  
Oakland, CA 94621-2598  
510/632-3467  
510/632-8035 Fax

15006 Nelson Avenue  
City of Industry, CA 91744-4331  
626/333-4882  
626/333-8681 Fax

January 9, 2009

Mr. Jerry Wickham  
Hazardous Materials Specialist  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

**Subject: Fuel Leak Case No. RO0000092 and Geotracker Global ID T0600100065  
Supplemental Soil Vapor Investigation Work Plan AB&I Foundry, 7825 San  
Leandro Street, Oakland California 94621**

Dear Mr. Wickham:

AB&I respectfully submits the attached Supplemental Soil Vapor Investigation Work Plan for the AB&I Foundry Site located at 7825 San Leandro Street, Oakland, California.

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Dave Robinson', written over a light green rectangular background.

Dave Robinson  
Engineering Manager

Attachment: Supplemental Soil Vapor Investigation Work Plan AB&I Foundry, 7825 San Leandro Street, Oakland, California

January 9, 2009

Mr. Jerry Wickham  
Hazardous Materials Specialist  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502

**Subject: Supplemental Soil Vapor Investigation Work Plan  
AB&I Foundry Site  
Oakland, California**

Dear Mr. Wickham:

This document presents a supplemental soil vapor investigation work plan (Work Plan) for the AB&I Foundry (AB&I), located at 7825 San Leandro Street, in Oakland, California (the Site, Figure 1). This Work Plan was prepared in response to recommendations provided by The Source Group, Inc. (SGI) in the report titled, Report For Additional Site Investigation, dated September 25, 2008 (Additional Site Investigation Report). SGI prepared this Work Plan on behalf of AB&I for submittal to the Alameda County Environmental Health Department (ACEH).

## **Background**

The Site is located at 7825 San Leandro Street, east of the intersection with 77th Avenue in a light industrial area of Oakland (Figures 1 and 2). The Site is bound by commercial/industrial properties to the north, south, east, and west. Union Pacific Railroad is located immediately adjacent to and west of the Site. Oakland Truck Stop is located immediately adjacent to and east of the Site. Elmhurst Creek is located along the southeast corner of the property (Figure 2). San Leandro Bay is located approximately one mile west of the Site.

AB&I has been operating at its present location since at least 1930. Business activities include the manufacture of cast pipe and fittings. The facility accepts scrap iron and steel, which it stockpiles on-site and uses during manufacturing activities. The Site encompasses an area of approximately 11.8 acres. The Site contains various warehouses, manufacturing and office buildings. The entire Site is covered with buildings and asphalt/concrete or concrete pavement. Seven underground storage tanks (USTs) were previously located on the Site. The USTs included one 8,000-gallon UST used for storing unleaded gasoline, one 8,000-gallon UST used for the storage of mineral spirits and later 1,1,1-trichloroethane (1,1,1-TCA), one 550-gallon UST used for storing regular leaded gasoline, one 10,000-gallon UST used for storing diesel, and three 10,000-gallon USTs used for storing gasoline. All UST have been removed from the Site. UST removal activities were initiated in 1982 and completed in the early 1990s.

In 2007 and 2008, SGI conducted soil and groundwater investigations on the Site. These included the investigation of both shallow groundwater (less than 30 feet below ground surface [bgs]) and deep groundwater (greater than 30 feet bgs), and the collection of soil vapor samples. The results of these investigations indicated that shallow groundwater in the vicinity of the parking lot is impacted with chlorinated VOCs, including 1,1,1-TCA, 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), chloroethane, cis and trans 1,2-dichloroethene (1,2-DCE), and vinyl chloride. Shallow groundwater in the vicinity of the warehouse is impacted with petroleum fuels (TPH) including benzene, toluene, ethylbenzene, and xylene (BTEX), TPHg,

and TPHd. Of the compounds detected, only vinyl chloride exceeded its environmental screening level (ESL) for vapor intrusion into indoor air under the commercial land use scenario.

During the 2007 and 2008 investigations, soil gas samples were collected to assess the potential for vapor intrusion to the office building located adjacent to the former 550 gallon gasoline UST Area. During the 2008 investigation, soil vapor samples were collected at the five locations shown on Figure 3. Of the four sample locations in the office building, two sample locations (SG-13 and SG-14) had no detectable concentrations of any compounds. Samples collected from the remaining two locations in the office building had detectable concentrations of PCE, TCE, vinyl chloride, and m, p-xylene. The concentrations of PCE detected in soil gas sample SG-16A at a depth of 0.5 feet below the concrete slab was above its respective ESL under both the residential and commercial exposure scenario. Vinyl chloride was identified at both the SG-16B location in the sample collected from a depth of 5-feet bgs and at the SG-12B location, also collected from a depth of 5-feet bgs. Both vinyl chloride concentrations were above the ESL under both the residential and commercial exposure scenarios. The presence of higher concentrations of PCE in shallow soil gas samples, along with the presence of daughter products from the breakdown of PCE in deeper soil gas samples, was interpreted by SGI to be related to isolated surface spills and unrelated to groundwater. The location of soil gas samples collected in 2008 is presented in Figure 3. Further details can be found in SGI's reports titled, "Site Investigation Report" and "Additional Site Investigation Report" (SGI 2008a; SGI 2008b).

Based on ESL exceedences in soil gas for the hypothetical indoor commercial/industrial worker receptor under the future exposure scenario, ESL exceedences for vinyl chloride and PCE in soil gas underlying the office building, and the potential for exposure of the hypothetical onsite construction worker receptor to affected media, SGI recommended an additional soil gas survey from beneath the concrete slab located in the break room and adjacent areas of the office building to confirm that PCE and vinyl chloride exceedences in soil gas samples are localized and do not pose a threat to indoor air quality.

On November 4, 2008, ACEH issued a letter to AB&I requesting a work plan to conduct an additional soil gas (soil vapor) investigation.

### **Scope of Work**

ACEH has requested that additional evaluation be conducted to assess the potential for vapor intrusion to the office building located adjacent to the former 550 gallon gasoline UST Area. The layout of the office building is shown in Figure 3. As indicated in Figure 3, the ground floor level of the building located closest to the former 550 gallon gasoline UST area is used for storage and inventory control. The south facing side of the ground floor is completely open to the outdoors and production area (Figure 3). Other adjacent ground level areas include storage, the employee break room, two offices (human resources [HR] and safety), and the employee locker room. The main office facilities are located on the second floor overlying these areas.

Four soil vapor sampling locations have been selected on Site including the HR/safety offices, lunchroom, safety training room, and the locker room (Figure 3).

Methodologies used for the soil gas investigation will meet the requirements of the January 2003 Active Soil Gas Investigation Advisory published by the DTSC and Regional Water Quality Control

Board (CRWQCB), Los Angeles Region. Soil gas samples will be collected from discrete depths utilizing a hydraulically-driven probe equipped with detachable drive points. Once the drive point reaches the target sample depth, the drive point is retracted to provide a void space where soil gas can accumulate. Prior to sample collection, two to three tubing volumes of air are purged. Soil gas samples are collected through the polyethylene tubing into a syringe, glass bulb wrapped in aluminum foil, or summa<sup>tm</sup> canister. Soil gas samples are then collected and immediately transferred to an on-site mobile laboratory for analysis. Soil gas samples will be collected at a depth of approximately 5-feet bgs. Prior to advancing each probe, the sample rods will be cleaned to prevent cross-contamination from previous sampling events.

The sample containers will be labeled with sample-point identification, date and time of collection. Samples will be taken to an on-site mobile laboratory where they will be logged onto the chain-of-custody form and assigned a laboratory identification number. The samples will be analyzed on-site for VOCs by a California state-certified mobile laboratory.

After removing the sample rod from the ground, the borehole will be sealed using cement grout. The interior locations and outside locations beneath the concrete pad and will be capped with concrete at the surface.

After the soil gas sampling is complete, the sample rod will be removed from the ground and the sampling hole will be sealed with cement slurry. The slurry will be pumped into the hole, from the bottom up, using a tremie pipe, to approximately 1 to 2 feet bgs. The remainder of the boring will be filled with concrete or asphalt to be consistent with site surface conditions.

#### *Equipment Decontamination*

To minimize the potential for cross-contamination between sampling locations, soil gas sampling equipment will be decontaminated prior to initiating work at each drilling location. The boring rods do not come into contact with the soil gas sample, and only need to be brushed clean of soil between drilling locations. The drop off point, nylon 1/8-inch tubing, and sampling syringes are all disposable, and new ones are used for each sample. The threaded point holder is decontaminated by an Aquanox wash and potable water rinse.

#### *Reporting*

A report presenting the results of the additional soil gas investigation will be prepared and will document the methodologies and results from the soil gas sample collection and laboratory analyses. The report will present the findings of the investigations and interpretations. Analytical data will be presented in tabular format and annotated on the appropriate figures. Figures will include a Site location map, Site map showing the sample locations, and a Site map showing annotated VOC concentrations. The report will contain all pertinent documentation such as permits, laboratory reports, survey data, and chain-of-custody forms.

If warranted, the report will present recommendations for further investigative actions. Electronic copies of the report and other data will be submitted to ACEH's ftp site and the State Water Resources Control Board's (SWRCB's) Geotracker web site.

*Schedule*

The work proposed in this Work Plan will be conducted according to the following tentative schedule:

Date	Activities
January 9, 2009	Submit Work Plan to ACEH
January 23, 2009	ACEH review and approval of Work Plan
January 26 through January 30, 2009	Pre-field activities/Access Permits
February 3 through February 4, 2009	Field work
February 16 through March 6, 2009	Data Analysis and Report Preparation
March 6, 2009	Report Submittal to ACEH

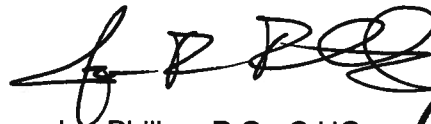
Please contact the undersigned if you have any questions or comments. All hydrogeologic and geologic information, conclusions, and recommendations in this document regarding the AB&I Foundry Site have been prepared under the supervision of and reviewed by the certified professional whose signature appears below.

Sincerely,

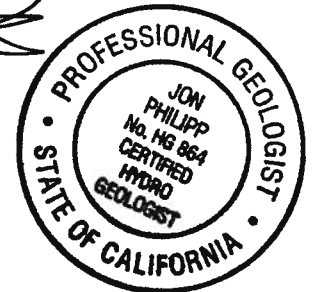
**The Source Group, Inc.**



Kent R. Reynolds  
Project Manager



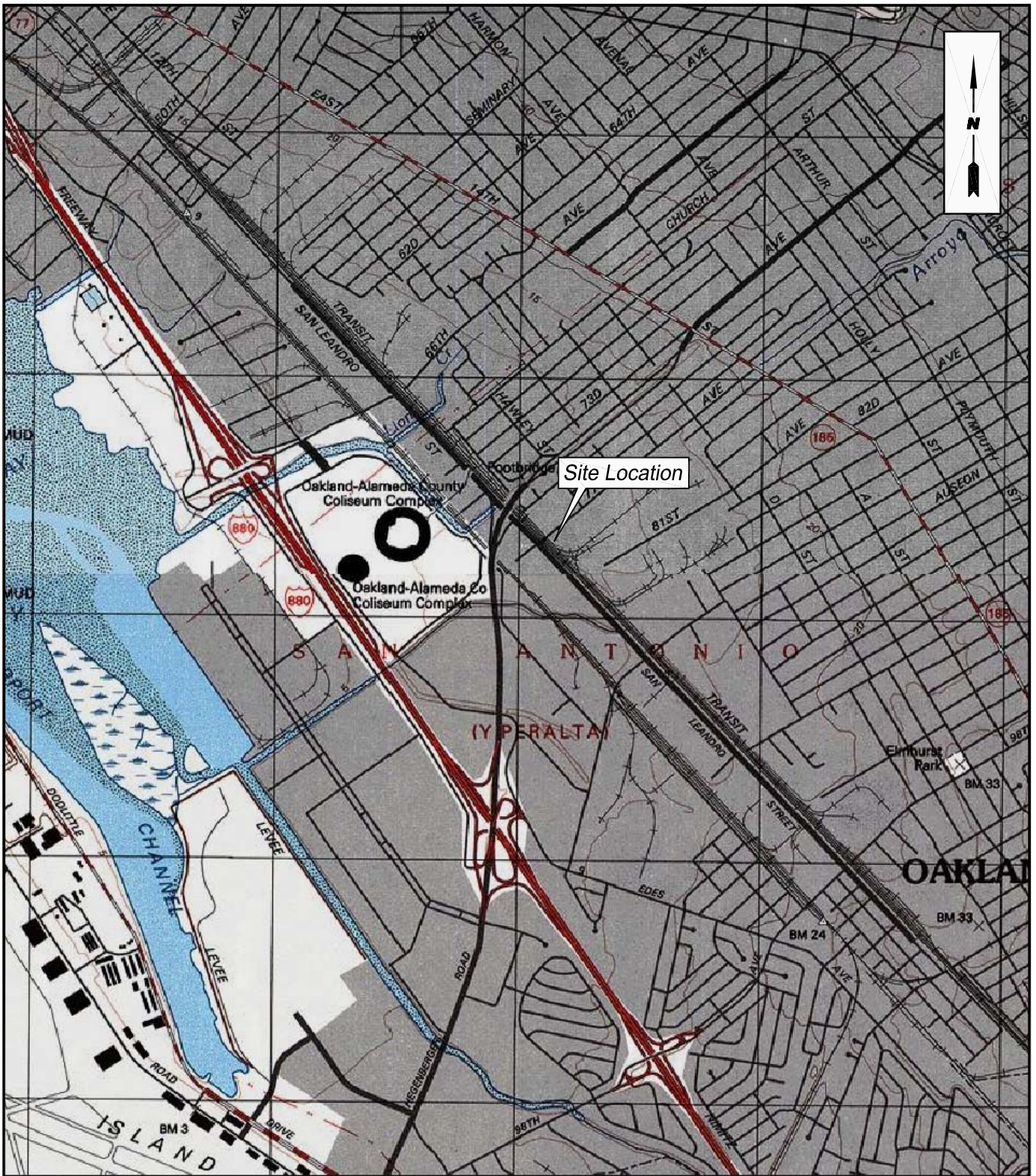
Jon Philipp, P.G., C.HG.  
Senior Hydrogeologist



Attachments: Figure 1 Site Location Map  
Figure 2 Site Plan  
Figure 3 Proposed Soil Gas Sample Locations

cc: Mr. Dave Robinson, AB&I

## FIGURES



**SGI** THE SOURCE GROUP, INC.  
environmental

3451-C VINCENT ROAD  
 PLEASANT HILL, CA 94523

SOURCE: U.S.G.S. 7.5' QUAD SHEET  
 OAKLAND EAST, CALIFORNIA  
 PHOTOREVISED 1997

SCALE:



### SITE LOCATION MAP

CLIENT:

AB&I FOUNDRY

DATE:

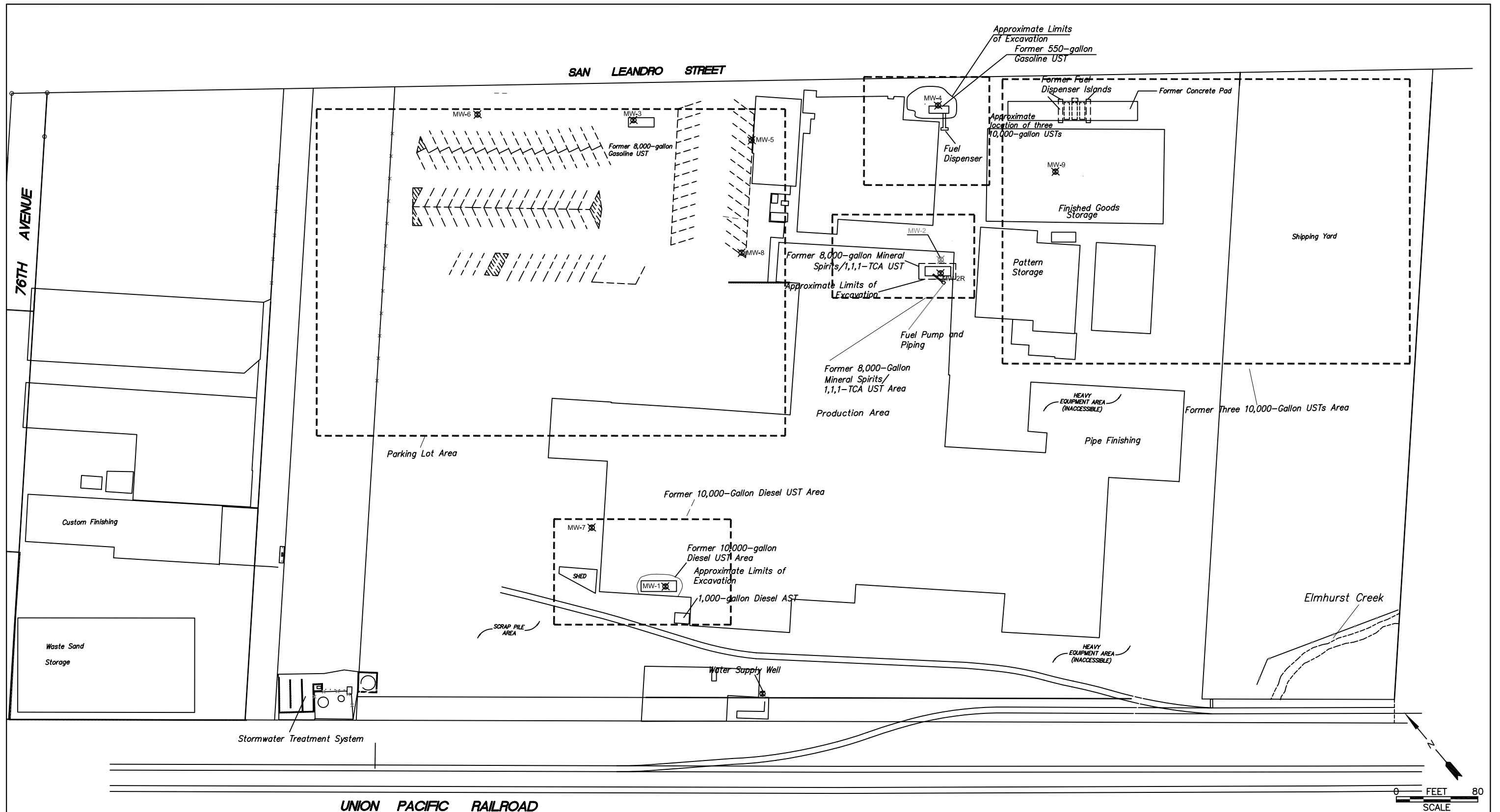
6/27/07

LOCATION:

7825 San Leandro Street  
 Oakland, California

FIGURE:

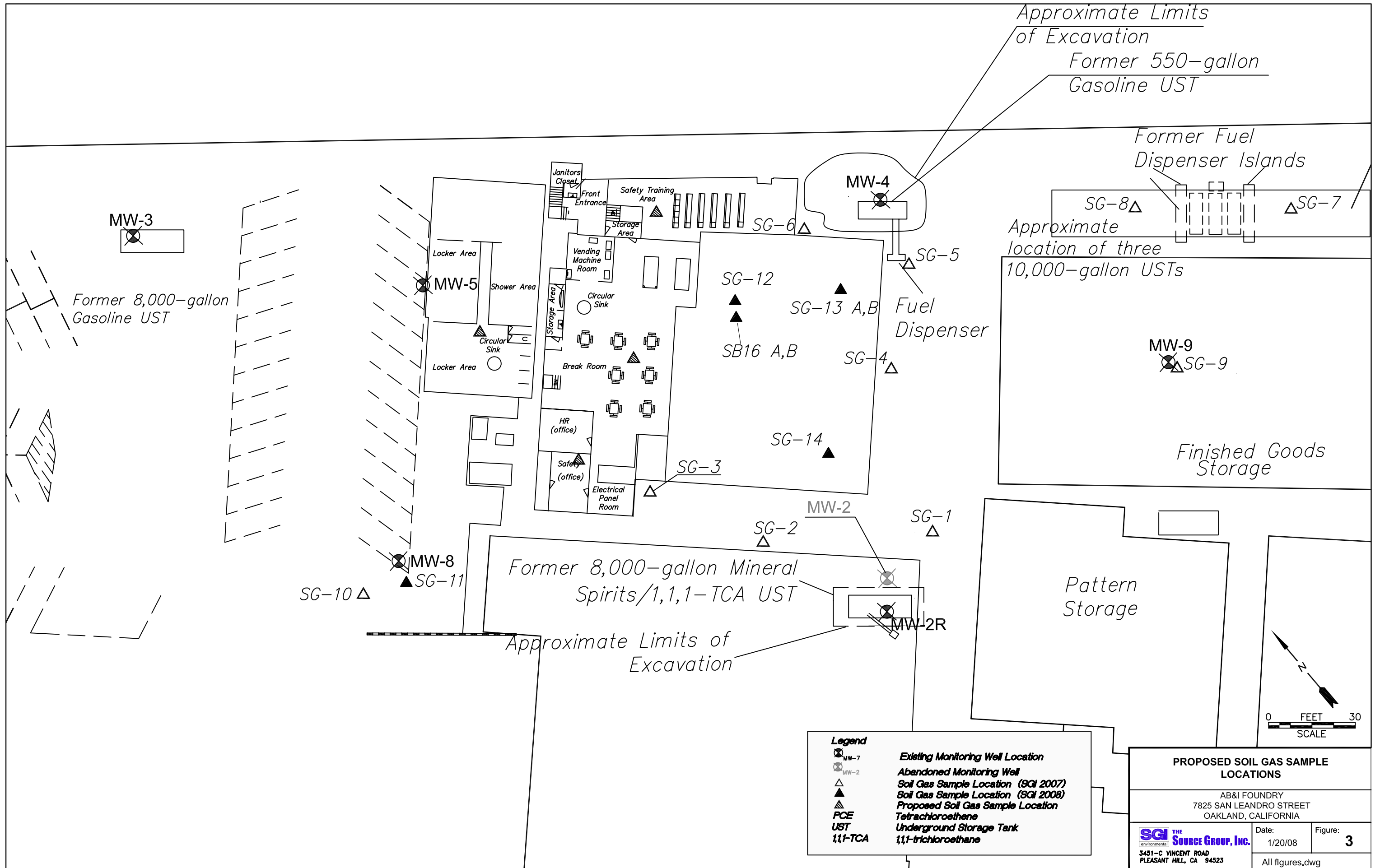
**1**



<b>Legend</b>	
MW-1 ☒	<b>Existing Monitoring Well Location (BSK, 1993, 2006)</b>
MW-1 ☒	<b>Abandoned Monitoring Well (BSK, 2006)</b>
<b>UST</b>	<b>Underground Storage Tank</b>
<b>1,1,1-TCA</b>	<b>1,1,1-trichloroethane</b>

<b>SITE PLAN</b>		
AB&I FOUNDRY 7825 SAN LEANDRO STREET OAKLAND, CALIFORNIA		
	<b>THE SOURCE GROUP, INC.</b> <small>environmental</small>	Date: 1/19/08 Figure: <b>2</b>
<small>3451-C VINCENT ROAD            PLEASANT HILL, CA 94523</small>		All figures.dwg





Approximate Limits  
of Excavation  
Former 550-gallon  
Gasoline UST

Former Fuel  
Dispenser Islands

Approximate  
location of three  
10,000-gallon USTs

Former 8,000-gallon  
Gasoline UST

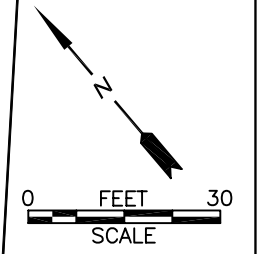
Former 8,000-gallon Mineral  
Spirits/1,1,1-TCA UST

Approximate Limits of  
Excavation

Finished Goods  
Storage

Pattern  
Storage

Legend	
	Existing Monitoring Well Location
	Abandoned Monitoring Well
	Soil Gas Sample Location (SGI 2007)
	Soil Gas Sample Location (SGI 2008)
	Proposed Soil Gas Sample Location
	PCE UST Tetrachloroethene
	1,1,1-TCA UST 1,1,1-trichloroethane



<b>PROPOSED SOIL GAS SAMPLE LOCATIONS</b>		
AB&I FOUNDRY 7825 SAN LEANDRO STREET OAKLAND, CALIFORNIA		
	Date: 1/20/08	Figure: <b>3</b>
3451-C VINCENT ROAD PLEASANT HILL, CA 94523		
All figures.dwg		