

**PHASE I
ENVIRONMENTAL SITE ASSESSMENT**

On

**Proposed Movie Theater
5.2-Acre Parcel,
(APN 98-405-5)**

**1950 Railroad Avenue
Livermore, California**

For

DILLETT & FARRELL LLC

by

TERRASEARCH, inc.

Project No. 9775.E

March 12, 2003



Environmental • Geotechnical • Special Inspections • Materials Testing

TERRASEARCH, INC.

SERVING NORTHERN CALIFORNIA SINCE 1969

Project No. 9775.E

March 12, 2003

GEOTECHNICAL

GEOLOGICAL

ENVIRONMENTAL

SPECIAL
INSPECTIONS

MATERIALS
TESTING

Mr. Michael Farrell
Dillett and Farrell LLC
1984 Railroad Avenue
Livermore, California 94550

Subject: Proposed Movie Theater
5.2-Acre Parcel
APN 98-405-5
1950 Railroad Avenue
Livermore, California
PHASE I ENVIRONMENTAL SITE ASSESSMENT

Dear Mr. Farrell:

In accordance with ASTM standards, *TERRASEARCH, inc.* has conducted a Phase I Environmental Site Assessment for the subject site.

The following is a copy of the report, which presents the results of our assessment.

Should you have any questions relating to the contents of this report or require any additional information, please contact our office at your convenience.

Reviewed by:



Robert D. Campbell, C.E.C., P.E.C., P.G.
Environmental Manager

Very truly yours,
TERRASEARCH, inc.

A. Wakil Mateen
Project Geologist

Copies: 3 to Dillett & Farrell LLC

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 Site Photographs, Figures 3 through 8
 City of Livermore Building Permits
 Sanborn Maps
 Woodward-Clyde Phase I and Phase II Reports
 Environmental Data Resources, Inc. (EDR) Radius Report

PHASE I ENVIRONMENTAL SITE ASSESSMENT

1.0 INTRODUCTION

1.1 Objective

The purpose of conducting this Phase I Environmental Site Assessment is to satisfy the *Innocent Landowner Defense* in CERCLA liability provided in 42 USC § 9601 (35) and § 9607(b)(3) through detailed assessment of the past use of the property, historical research, site visit, file reviews and searches and interviews with site managers/property owners. This Phase I Environmental Site Assessment conforms to ASTM E1527-2000 standard for conducting Phase I Environmental Site Assessments. The subject property was evaluated for the presence of potentially adverse environmental conditions and the surrounding area was evaluated for secondary potential contaminated sites within 1-mile radius of the subject site. The subject property is located at 1950 Railroad Avenue (northwest corner of the intersection of Railroad Avenue and North L Street) in the city of Livermore, California. This Phase I Environmental Site Assessment was prepared for the use of our client, Dillett & Farrell LLC and Dillett & Farrell LLC can rely on this report until September 5, 2003.

1.2 Scope

As authorized by Mr. Michael Farrell with Dillett & Farrell LLC, on February 20, 2003, our services were limited to the following:

- a) Perform a field reconnaissance of the subject property for significant surficial signs of hazardous waste release, storage of hazardous materials, and surficial indications for the presence of underground storage tanks and water wells;
- b) Off-site research into past land use of the property involving, as applicable, telephone and personal interviews with government personnel and the review of historical documents of the subject property;
- c) A review of available aerial photographs for obvious surficial features indicative of past land use with attention to indicators of hazardous materials or waste use, disposal, or storage;
- d) An interview with the current property owner.
- e) A review of fuel leak and chemical release lists and files for soil and groundwater contamination cases within a 1-mile radius from the subject site

as made available through the appropriate Federal and State and local regulatory agencies, if available;

- f) Documentation of the site with photographs; and
- g) Preparation of this report.

2.0 SITE LOCATION AND DESCRIPTION

2.1 Location

The subject property is located within the east-central portion of the Livermore Valley within the Eastern San Francisco Bay region. The subject site is situated in the north-central portion of the city of Livermore at 1950 Railroad Avenue, Livermore, California. The property consists of approximately 5.2-acre vacant parcel on the northwestern corner of Railroad Avenue and North L Street (APN 98-405-5). Currently, debris piles, old foundations and pavement exist on the site and the site is completely fenced-off. The location of the subject site is shown on Figure 1, Site Vicinity Map. The layout of the property is shown on Figure 2, Site Plan.

2.2 Topography and Drainage

The topography at the subject site is relatively flat with an elevation of approximately 480 feet above mean sea level (msl). The local topography slopes gradually to the west. Drainage appears to follow the local topography from east to west. However, rain water will tend to flow toward the city storm drain systems. Arroyo Del Valle is located approximately 0.6-mile south of the site and flows west.

2.3 Geology/Hydrogeology

According to Helley, E.J. and Lajoie, K.R. (1979), the site is underlain by coarse-grained alluvium (Qhac), consisting of unconsolidated, moderately sorted, permeable sand and silt with coarse sand and gravel. This unit is well bedded and has a thickness of at least 10 to 50 feet. The coarse-grained alluvium grades into a medium-grained alluvium on the northern portion of the site. The coarse-grained alluvium consists of unconsolidated, moderately sorted; moderately permeable fine sand, silt and clayey silt with occasional thin beds of coarse sand and have a maximum thickness of 12 feet. Both units were deposited by flowing water from alluvial fans. These units have moderate permeability, moderate dry density and moderate to high moisture contents.

The traces of the Las Positas and Greenville Faults are situated approximately 4.5 miles (mi) and 5.4 mi east of the subject site. The Las Positas Fault is a strike-slip fault with left-lateral motion, while the Greenville Fault is a strike-slip fault with right-lateral motion. According to the Alquist-Priolo (AP) Earthquake Fault Zones Act (DMG, 1993), both faults are considered active.

The subject site is not located within an AP Zone, but is located within a Seismic Hazard Zone (DMG, 1997).

Depth to the groundwater is approximately 30 to 40 feet below ground surface (bgs) based on the data obtained from the Alameda County Flood Control and Water Conservation District, Zone 7. In addition, groundwater flows toward the northwest.

2.4 Site Visit

A *TERRASEARCH, inc.* geologist visited the subject site on February 26, 2003, and made the following observations:

- The subject site consisted of a roughly rectangular-shaped parcel in the central portion of downtown Livermore. The property was enclosed by a chain-link fence and was vacant. Building debris including tiles, wood and steel material was observed in several piles around the site. Furthermore, most of the central portion of the site was paved with both concrete and asphaltic pavement. Burned debris, consisting of old trees and wood were also observed on the site. One water-well was observed on the northeastern corner of the property and most of the site was over-grown with short grass. The layout of the property is shown on Figure 2, Site Plan and digital photographs of the property are shown on Figures 3 through 8 and are attached.
- The site was bordered by railroad tracks to the north, Bank of America to the west, North L Street to the east and Railroad Avenue to the south. Arrow Rentals, an equipment rental facility, was observed on the northeastern corner of the site.
- Some of the debris piles, including the burned debris, appeared to be petroleum stained and some staining was observed along the northern edge of the property, associated with the railroad tracks. Metal contamination (arsenic, lead and/or mercury) may also be associated with the debris and the railroad tracks.
- No visual evidence for the use, storage, and/or disposal of hazardous materials, substances or wastes was seen on the subject property. Based on visual observations, no surficial evidence indicating the presence of USTs (concrete pads, vent lines, pump islands, etc.) was observed at the site. No visual evidence of, sumps, pits, ponds, drains, or odors were noted at the site. However, small debris piles (mentioned above) were present on the central and eastern portion of the property. In addition, no evidence of polychlorinated biphenyls (PCBs) was observed on the subject site. The United States Geological Survey (USGS) considers this a low exposure potential area for radon.

3.0 SITE HISTORY REVIEW

The history of the site was deduced from examination of ten (10) historical aerial photographs, seven (7) Historical Sanborn Maps and seven (7) historical topographic maps. The aerial photographs were provided by Pacific Aerial Surveys and the Sanborn Maps and historical topographic maps were provided by EDR, Inc. Data for the photographs are tabulated below:

AERIAL PHOTOGRAPHS EXAMINED

<u>Flight Date</u>	<u>Approximate Scale</u>	<u>Identification Number</u>
15-16-1957	1:12000	AV-253-31-40, 41 (stereo)
07-23-1963	1:53000	AV-530-17-28, 29 (stereo)
05-15-1969	1:12000	AV-903-03-09, 10 (stereo)
08-21-1973	1:12000	AV-1101-03-10, 11 (stereo)
05-05-1978	1:12000	AV-1498-03-10, 11 (stereo)
04-27-1982	1:12000	AV-2131-03-09, 10 (stereo)
04-20-1986	1:12000	AV-2862-03-09, 10 (stereo)
07-23-1990	1:12000	AV-3845-31-38, 39 (stereo)
06-02-1994	1:12000	AV-4625-133-37, 38 (stereo)
08-17-1998	1:12000	ALA AV-6100-133-35, 36 (stereo)

HISTORICAL SANBORN MAPS

<u>Date</u>	<u>Scale</u>
1888	1" = 220'
1893	1" = 220'
1907	1" = 220'
1917	1" = 220'
1929	1" = 220'
1944	1" = 220'
1959	1" = 220'

HISTORICAL TOPOGRAPHIC MAPS

<u>Date</u>	<u>Scale</u>	<u>USGS Topographic Map</u>
1904	1:62500	15-Minute, Pleasanton Quadrangle
1937	1:62500	15-Minute, Pleasanton Quadrangle
1949	1:24000	7.5-minute, Livermore Quadrangle
1960	1:24000	7.5-minute, Livermore Quadrangle
1968	1:24000	7.5-minute, Livermore Quadrangle
1973	1:24000	7.5-minute, Livermore Quadrangle

3.1 Aerial Photographic Site Features

Aerial photographs indicated several changes at the subject site over the past 45 years (1957 to 2002). In 1957, the subject site was occupied by at least 40 residences on the western portion and the eastern portion of the property was occupied by an orchard, a few small barns and four residences on the eastern edge of the property (along L Street). A gasoline service station was observed on the immediately northeast adjacent property (current Arrow Rental site) along North L Street. North N Street bisected the property from the current Bank of America Property to the west and connected with Railroad Avenue. The railroad tracks were observed immediately north of the site and trended east-west. A barn structure was observed on the current Bank of America Property and Railroad Avenue was present to the south of the site and North L Street was present to the east. The property immediately south of the site (across Railroad Avenue) was vacant contained remnants of former railroad tracks and downtown Livermore was observed. By 1963, North N Street was blocked off and did not connect with Railroad Avenue. No significant changes were observed on the property until 1973, when the eastern portion of the property appeared to be developed into a strip mall, and two of the residences were removed along North L Street (eastern portion of the property) and the former gasoline station was removed on the adjacent property immediately northeast of the site. By 1990, all residences located on the western portion of the property were demolished and only the strip mall with four smaller buildings was observed on the eastern portion of the property. The residences located on the eastern portion of the property (along North L Street) were also demolished. By 1994, the entire property was vacant, with a residence located on the southeastern corner of North L Street and Railroad Avenue and Arrow Rentals immediately off-site on the northeastern portion. No significant changes were observed by 1998 on the subject property.

3.2 Historical Sanborn Map Site Features

In 1888, the Central Pacific Railroad traversed the property south of current Railroad Avenue and the current location of the railroad tracks (north of the subject site) was mapped as Oak Street. The subject property was occupied by six residences and eight out-buildings and N and L Streets were mapped to the west and east of the subject property. Pioneer Winery was mapped

immediately west of N Street (location of barn area in the 1957 aerial photographs). By 1893, a soda shop was situated on the eastern portion of the property (along L Street), with little changes to the residences on the subject property. Railroad Avenue was named 'Railroad Reserve.' By 1907, four residences were mapped on the property, with seven out-buildings (out-houses and sheds). Pioneer Winery was still located west of N Street. By 1917, the railroad was re-routed to Oak Street from south of Railroad Reserve. Four residences occupied the subject site and a tank was mapped approximately 80 feet north of Railroad Avenue and 120 feet east of L Street. By 1929, five residences and eight out-buildings were mapped over the entire property on the site. By 1944, seven residences and eight out-buildings were mapped over the entire property. The tank was still mapped in the same location as 1917. By 1959, the western portion of the property was developed into 38 single-family homes, two duplex and one tri-plex on the south-central portion of the property. A gasoline service station was mapped on the southwestern corner of North L Street and former Oak Street (current Arrow Rentals). Four residences were mapped on the eastern portion of the property and the tank (underground storage tank) was still mapped in the similar location as 1917.

3.3 Historical Topographic Map Site Features

The historical topographic maps of the subject site and surrounding areas show that several changes have occurred in the past 97 years. In 1904, the subject site was mapped as having a few structures and the Southern Pacific Railroad Tracks (Niles and Sacramento Line) was mapped to south of the site. Arroyo Mocho was located to the south and southwest and the town of Livermore was mapped to the north and south of the site. Several un-named streets were situated in the surrounding areas. By 1937, second Southern Pacific Railroad Tracks was mapped to the north of the site and Highway 50 was constructed to the north of the site. High voltage power lines were mapped farther to the south of the property. By 1949, isolated orchards were mapped in the vicinity. Naval Auxiliary Air Field was constructed to the northwest and the city of Livermore appeared developed. The subject site was mapped still a vacant land. In accordance with the topographic maps of 1960, 1968 and 1973, no change was mapped on the property. The surrounding areas developed significantly.

3.4 Review of City and County Building Records

TERRASEARCH, inc. personnel visited the city of Livermore Building and Planning Department (Permit Center) to ascertain the past use of the site. Building permits were found on microfiche for the following addresses, and copies of the Building Occupancy Permits are attached:

- 1900 Railroad Avenue (Warehouse Land Company) on May 20, 1977;
- 1908 Railroad Avenue (Warehouse Land Company) on October 14, 1977;
- 1920 Railroad Avenue (Warehouse Land Company) on July 7, 1977;
- 1930 Railroad Avenue (Warehouse Land Company) on May 20, 1977;
- 1936 Railroad Avenue (Warehouse Land Company) on May 18, 1977;
- 1938 Railroad Avenue (Triple S Tire Center) on February 6, 1981;

1940 Railroad Avenue (Warehouse Land Company) on May 20, 1977;
1948 Railroad Avenue (Matthew and Laraine Di Mercurio) on May 20, 1977;
1952 Railroad Avenue (Yankee Designers) on October 13, 1960;
1954 Railroad Avenue (Terry Givens) on May 10, 1983;
1962 Railroad Avenue (Gary Miller) on April 22, 1981.

The Alameda County Assessor's Office stated that the site consists of approximately 206,619 square feet [s.f.] of undeveloped land. The land is owned by the Development Agency of the city of Livermore and exempt from assessment. The Assessor's Office verified the parcel number as (APN 98-405-5)

TERRASEARCH, inc. also visited the Livermore-Pleasanton Fire Department (LPFD) to ascertain environmental files for the subject site and 187 North L Street. According to the LPFD, no environmental files exist for 1950 Railroad Avenue or 1900 through 1962 Railroad Avenues.

3.5 Interview with Property Owner

TERRASEARCH, inc. personnel contacted the current property owner, the City of Livermore (Ms. Michelle McCumber and Ms. Jenny Turnball), who work at the permit center. They both identified that the site was previously used as mixed residential and/or commercial/industrial facilities. The residential area was on the western portion of the property and was known as 'Tubbsville' while the eastern portion of the property was mixed residential and commercial/industrial. They both did not know of any adverse environmental conditions existing on the property and/or wells on the site. They also did not know about any adverse environmental conditions associated with Arrow Rentals at 187 North L Street.

3.6 Review of Woodward-Clyde Phase I and Phase II Reports

TERRASEARCH, inc. reviewed the Woodward-Clyde Phase I and Phase II Environmental Site Assessment reports dated December 27, 1988 and April 1989, which were prepared for the subject site. Copies of these reports are attached.

According to Woodward-Clyde, the property formerly consisted of eleven addresses, namely: 1900 Railroad Avenue; 1908 Railroad Avenue; 1920 Railroad Avenue; 1930 Railroad Avenue; 1936 Railroad Avenue; 1940 Railroad Avenue; 1948 Railroad Avenue; 1952 Railroad Avenue; 1954 Railroad Avenue and 1962 Railroad Avenue. Commercially operated businesses were present on all addresses, except: 1962 Railroad Avenue.

1900 Railroad Avenue

Scheeringa Brothers Meat Processing was located at this address and according to the former owner (Alice Scheeringa) no hazardous wastes and/or substances were stored on this site.

1908 Railroad Avenue

Accelerated Printing was present on this address and solvents were used in the printing process, along with 5-gallon solvent buckets and a washing tank.

1920 Railroad Avenue

Award Signs was located at this address and the site was vacated in October 1988. Woodward-Clyde did not have access to this property.

1930 Railroad Avenue

No information was recorded for this address.

1934 Railroad Avenue

Quality Painting Company was located at this address and approximately 50 five-gallon containers and fifteen one-gallon paint containers were observed behind this facility. In addition, a gas pump and tank vent pipe were located at the northeast corner of this building, but according to Woodward-Clyde, no information regarding the status and/or record of the tank was available from the City, County and/or State agencies.

1938 Railroad Avenue

The Ross McDonald Company was located at this address and was a screen-printing business. When the business was operating, the following chemicals were stored at this address: one 55-gallon drum of laquer paint; three 55-gallon drums of waterbased contact adhesive; 70 one-gallon cans of laquer; one gallon of kerosene; 30 one-pint cans of paint and 65 used cans of spray paint. No other adverse environmental conditions were present on the site.

1940 Railroad Avenue

Fabtronics was located on this address and was a small electronic equipment assembly plant by specification. The business was operated by Mr. Richard Arney for the past 18 years for the date of the Phase I (1970) and the following materials was used on this site: solvents; 50 one-gallon paint cans; 30 one-pint containers of epoxy and resin; three 5-gallon cans of laquer thinner; several empty laquer cans; three gallons of lubricant for cutting metal and one 55-gallon drum of kerosene for the heater.

1948 Railroad Avenue

Gibbons Electric was located at this address and was vacated by the date of the Woodward-Clyde Phase I, but was in operation from the early 1970's until the fall 1988. The area behind this building was filled with debris and empty 30 one-gallon thinner and paint cans.

1952 Railroad Avenue

No information was available for this address, but according to our records, Yankee Designers occupied this address.

1954 Railroad Avenue

Rooney Graphics (a small printing shop) was located at this address and the following materials were observed on this property: one 5-gallon can of "Quick Wash," a solvent for cleaning presses; one 1-gallon can of stabilizer; one 1-gallon can of developer and ink and color cans.

1962 Railroad Avenue

A former residence with a well-house behind the structure, but no information was available about the well through the ACFCWCD, Zone 7.

An area formerly known as "Tubbsville" was situated immediately west of the commercial area and North N Street. The western portion of the property is now occupied by Bank of America and the eastern portion of this property (currently the western portion of the subject site) is vacant with various debris piles. Prior to 1984, approximately 36 residences occupied this area called "Tubbsville." At the time of the Woodward-Clyde Phase I, approximately 3 dilapidated residences were observed on this property, and they were not occupied.

Adjacent Properties

There were five USTs located at Arrow Rentals, 187 North L Street in 1972 (one 6,000-gallon, one 4,000-gallon and three 1,500-gallon USTs). The three 1,500-gallon USTs were removed in 1972 and the two other USTs were removed in 1984 due to leaks. At the time of the former Phase I assessment, one 1,000-gallon UST was located at this site and was installed in 1984. Based on our historical aerial photograph and Sanborn Map review, this property (187 North L Street) was a former service station site.

Based on the results of the Woodward-Clyde Phase I Environmental Site Assessment, Woodward-Clyde recommended conducting a Phase II Site Exploration, which included drilling six borings (B-1 through B-6), which were drilled on the 187 North L Street property and one 1934 Railroad Avenue (former location of the pump island on the subject site). Woodward-Clyde reported elevated concentrations of total petroleum hydrocarbons (TPH) in the soil samples collected from borings B-1 through B-5 (which were drilled on and/or near 187 North L

Street) up to 220 milligrams per kilogram (mg/Kg) at 25 feet bgs. Concentrations appeared to increase with depth and Woodward-Clyde recommended installation of three groundwater monitoring wells to evaluate the dissolve-petroleum-hydrocarbon phase and evaluate the lateral and vertical extent of gasoline hydrocarbons beneath this site. Boring B-6 was drilled near the pump island on 1934 Railroad Avenue; however, only low concentrations of TPH were detected (1.8 mg/Kg). However, Woodward-Clyde did recommend removing the UST from 1934 Railroad Avenue. No evidence of removal was documented at the LPPD.

4.0 REVIEW OF PUBLIC RECORDS OF REGULATORY AGENCIES

4.1 Primary Contamination Sources

TERRASEARCH, inc. contacted the Alameda County Health Care Services Agency (ACHCSA) and faxed a request form to Ms. Rosanna Garcia's attention to search for any files that would document the storage, use, and/or disposal of hazardous waste at the subject site. Ms. Roseanna Garcia stated that no files were found for the subject site. We contacted Ms. Helen with the Livermore-Pleasanton Fire Prevention Department to search for the presence of any files of the subject site. One simple plan was found, which was related to the proposed movie theater. No files were found that will indicate the storage of any hazardous materials on the subject site and/or the removal of the UST observed on the property (1934 Railroad Avenue) or for the USTs removed from 187 North L Street.

Asbestos-Containing Materials (ACMs) and/or Lead-Based Paint (LBP)

None observed.

Radon Gas

According to the EDR Radius Report, indoor radon average is less than 2 pCi/L.

Facility Storage Tanks (above or below ground)

None observed; however, no permits and/or reports were found documenting the removal of the UST from the subject site. Therefore, the UST may still be present beneath the site.

Transformers or Other Electrical Equipment that uses Dielectric Fluid

None observed.

Other Potential Adverse Environmental Impacts

Since orchards were observed on the site (based on historical aerial photographic evidence), metal and organochloride pesticide residues may be present within the surficial soil. In addition, the subject site is situated immediately adjacent to the Western Pacific railroad tracks to the north of the site. Waste-oil and arsenic residues may be present within the surficial soil on the northern portion of the property and hazardous materials may be present within the debris piles on the property. An existing UST may also be present beneath the site at the former 1934 Railroad Avenue location.

4.2 Secondary Contamination Source Sites

For the purposes of this investigation, a search was made of 47 State and Federal regulatory agency lists of contaminated or potentially contaminated sites, or properties where transportation, handling, storage, and/or disposal of hazardous materials occurs or has occurred.

In accordance with recently adopted standards by the American Standard for Testing and Materials (ASTM), (2000). Details of the 47 databases that were searched are within the attached EDR, Inc. Report. It should be noted that listings reported without location data were found to be more distant than the standard minimum search distance. In addition, some of the databases consist of lists of handlers, transporters, and generators of toxic materials rather than contaminated sites.

Out of all databases searched eleven (11) potential secondary contamination source were identified within a 0.13-mile radius of the subject site as follow:

- **In Front of 2050 Railroad Avenue, Livermore** – Located approximately 51-feet to the north-northeast and up-gradient of the site. An incident of liquid Sodium Hypochlorite solution was reported on July-05-1991 and cleaning was completed on same date. The incident happened on the city/county road and the container consisted of plastic fiberglass.
- **Behind 2080 Railroad Avenue, Livermore** – Located approximately 158-feet northeast and up-gradient of the site. Incident of liquid chlorine containing product was reported on open land on April – 02-1991 and it was completed on the same date. Ground was reported contaminated.
- **J Cleaners, 2093 Railroad Avenue, Livermore** – Located approximately 205-feet east-southeast and up-gradient of the site. Haznet – 0.1709-tons, 0.3368-tons of recycled halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.), aged or surplus organics and less than 1 ton of liquid with halogenated organic compounds > 1000 mg/L were reported and the disposal method was not specified. A small quantity generator was reported as well. Further information was not provided.
- **Arrow Rentals, 187 North L Street, Livermore** – Located approximately 264-feet north-northeast and up-gradient of the site. No information was provided about the incident.

Existing 1,000-gallon UST is located on this site and five former USTs were removed from this property in 1972 and 1984, due to leaking tanks. The leak was confirmed on 03-29-1989, which was caused by structure failure and the content was specified gasoline. Preliminary assessment under way, no action taken. Site was tested for MTBE and MTBE was detected. The oversight agency was reported the ACHCSA.

- **Hansens Body Shop, 2127 Railroad Avenue, Livermore** – Located approximately 288-feet to the east-southeast and up-gradient of the site. Small quantity generator was reported and no violations were found.
- **Don-Sul Inc. DBA Arrow Rentals, 187 North L Street, Livermore** – Located approximately 291-feet north-northeast and cross-gradient of the site. Haznet – 0.5000-tons of recycled empty containers 30 gallons or more, 0.2085-tons, 0.5421-tons and 0.3127-tons of unspecified oil-containing waste was reported. 1.5000-tons of contaminated soil site clean-ups was reported and the disposal method was specified as land fill.
- **“L” Street Car Wash, 220 North L Street, Livermore** – Located approximately 377-feet north and cross-gradient of the site. A total of four historical USTs of 400 gallons capacity (unspecified waste fuel), 6000-gallons (premium gasoline), 10,000-gallons (unleaded gasoline) and 8,000-gallons (regular gasoline) was reported. USTs were reported installed in 1970 and 1978. Further information was not provided. Haznet – 9.000-tons, 3.000-tons, and 0.1000-tons of recycled empty containers of less than 30-gallons of more were reported.
- **Valley Lube Center, 2205 Railroad Avenue, Livermore** – Located approximately 528-feet east and up-gradient of the site. Haznet – 0.4586-tons and 0-tons of aqueous solution with less than 10% total organic residues (transfer station), 0.2293-tons, 0.9590-tons (unspecified aqueous solution) and 0.0000-tons of unspecified solvent mixture waste was reported.
- **All Star Body Shop, 185 North K Street, Livermore** – Located approximately 572-feet northeast and cross/up-gradient of the site. Haznet- 0.1751-tons, 0.4294-tons, 0.0000-tons of recycled unspecified solvent mixture waste were reported. Less than 1-ton of aqueous solution with less than 10% total organic residues (transfer station), 0.6880-tons unspecified oil-containing waste (recycled), 0.3836-tons waste oil and mixed oil (disposal method –not reported), 0.4170-tons unspecified oil-containing waste (recycled), 0.5-tons waste oil and mixed oil (recycled) were reported and further information was not provided.
- **Groth Bros Oldsmobile Inc., 59 South L Street, Livermore** – Located approximately 594-feet south-southeast and cross-gradient of the site. Small quantity generator with no violations was reported. A leaking UST of waste oil contents was reported, which was confirmed on 3-23-1992. Preliminary assessment underway. Abate method was identified as excavation and disposal – remove contaminated soil and dispose in approved site. MTBE was not required to be tested. Leak was caused by structure failure and the tank was specified as the leak source. The oversight agency was the Alameda County Environmental Health Department. Haznet – 1.6592-tons of unspecified solvent mixture waste (recycled), 4.0032-tons, 3.6279-tons of aqueous solution with 10% or more total organic residues

(recycler), 0.9382-tons of unspecified aqueous solution (recycler), 0.8757-tons of (disposal method not reported) were reported. Inactive leaking UST was reported. A total of seven (7) UST of 550-gallons unleaded gasoline (installed in 1935), 1500-gallons diesel, 1500-gallons unleaded gasoline, 550-gallons waste oil, 250-gallons used for waste (fuel type not reported), 280-gallons (fuel not reported), 280-gallons used for waste (fuel type not reported) were reported. Further information was not provided.

- **Desert Petroleum Inc., Union Service Station #114, 277 North L Street, Livermore** – Located approximately 601-feet north and cross-gradient of the site. Haznet – 0.0000-tons of unspecified category (recycled), 6.6720-tons of unspecified oil-containing waste (disposal method not reported), 0.4170-tons, 0.3544-tons, 0.2710-tons, 1.3344-tons and 0.6255-tons of aqueous solution with less than 10% total organic residues (transfer station), 12.7500-tons of empty containers 30 gallons or more (recycler). A total of three (3) USTs were reported as follow: UST #1 of unleaded gasoline (12000-gallons) installed in 1980, UST #2 of premium gasoline (12500-gallons) and UST #3 of waste oil (280-gallons). Further information was not provided.

In addition, no reported municipal water wells were located within a 0.13-mile radius of the subject site.

5.0 SUMMARY OF FINDINGS

- The subject property is located within the eastern portion of the Livermore Valley within the eastern portion of the greater San Francisco Bay region. The subject site is situated in the north-central portion of Livermore, on the northwestern corner of Railroad Avenue and North L Street with an address of 1950 Railroad Avenue. The property consists of approximately a 5.2-acre vacant parcel with an APN of 98-405-005. The property is bounded by Western Pacific Railroad tracks to the north, Railroad Avenue to the south, Bank of American to the west and North L Street to the east.
- Based on historical aerial photographic, historical topographic, Sanborn Map and file review data, the subject property was occupied by an orchard and small farms in the later 1800s and between 1907 and 1917, the Western Pacific Railroad tracks were moved from south of Railroad Avenue to immediately north of the site. An UST and pump-island was observed in the Sanborn Maps on the eastern portion of the property and also identified by Woodward-Clyde in their reports. By 1959, the subject property was occupied by up to 60 buildings (over 40 of which were residences on the western portion of the property), while the eastern portion of the property was occupied by residences and commercial retail centers.
- One monitoring well was observed on the northeastern corner of the property (immediately adjacent to Arrow Rentals).

-
- Since the property was located within a former orchard and farming area, metal and organochloride pesticide residues within the surficial soil and hazardous materials maybe present within the debris piles on the site and within the surficial soil on the northern portion of the property associated with the train tracks.
 - No permits and/or reports were found documenting the removal of the previously identified UST on 1934 Railroad Avenue. Therefore, we assume that the UST may still be located on the property.
 - Based on the Environmental Data Resources (EDR) report dated February 28, 2003 eleven (11) known or suspected sources of contamination are situated within 0.13-mile radius of the site. Four out of 11 sources are situated up-gradient and the remaining off-site sources are located down-gradient, cross-gradient or up-cross-gradient of the site. Up-gradient sites are consisted of recycled Haznets and small quantity generators with no reported violations. No groundwater contamination was reported. Therefore, the possibility of these up-gradient potential secondary contamination site impacting the groundwater beneath the subject site is highly remote.

In view of the above findings, it is the opinion of *TERRASEARCH, inc.*, that further environmental assessment of the subject site is warranted, and should include the following prior to development of the land:

- Three composite surficial soil samples (twelve discrete surficial soil samples) should be collected from the surficial soil on the property. The soil samples should be capped, labeled and placed in a pre-chilled ice chest for temporary storage. The soil samples should be delivered to a State-certified hazardous waste testing laboratory for analysis under chain-of-custody documentation. Prior to analysis, the four soil samples should be composited by the laboratory into 3 composited soil samples and analyzed for organochloride pesticides and metals arsenic, lead and mercury using Environmental Protection Agency (EPA) Methods 5030/8080 and series 6000/7000, respectively. In addition, four discrete surficial soil samples should be collected along the northern portion of the property using clean brass liners. The liners should be capped, labeled and placed in a pre-chilled ice chest for temporary storage. The soil samples should immediately be delivered under chain-of-custody documentation to a State-certified hazardous waste testing laboratory and analyzed for arsenic, lead, mercury, total extractable petroleum hydrocarbons (TEPH) and poly aromatic hydrocarbons (PAHs) using EPA Methods 6010/7000 series, 8015 (modified) and 8270B.
- Perform a remote-sensing survey of the site using either a magnetometer and/or ground penetrating radar (GPR) to locate any USTs on the property and if found, remove all USTs and collect soil samples beneath the UST(s) as required by the Regional Water Quality Control Board – San Francisco Bay Region (RWQCB). In addition, the existing groundwater monitoring well should be monitored for depth to water and well depth. A clean bailer should then be used to remove at least three (3) well volumes from the well and placed into a drum and/or approved container. Once the well has stabilized to the initial depth to water

level, groundwater samples should be collected from the existing groundwater monitoring well using a clean disposable bailer and carefully decanted into laboratory supplied containers. The containers should be capped, labeled, checked for headspace and placed in a pre-chilled ice chest for temporary storage. The groundwater samples should immediately be delivered to a State-certified hazardous waste testing laboratory and analyzed for total petroleum hydrocarbons reported as gasoline (TPHg), total petroleum hydrocarbons reported as diesel (TPHd), gasoline constituents benzene, toluene, ethyl benzene, total xylenes (BTEX) and MTBE, volatile organic compounds (VOCs), lead and arsenic using Environmental Protection Agency (EPA) Methods 8015 (modified), 8021, 8260, 7140 and 6010.

- Composite soil samples (4 one-point samples) must be collected from the debris piles using clean brass liners, which should be capped, labeled and placed in a pre-chilled ice chest for temporary storage. The composite soil samples should immediately be delivered to a State-certified hazardous waste testing laboratory for analysis under chain-of-custody documentation. Prior to analysis, the 4-point composite soil samples will be composited by the laboratory into composited soil samples, which should be analyzed for TPHg, BTEX, VOCs, CAM 17 metals, semi-volatile organics (SVOs), PCBs and pesticides, reactivity, corrosivity and ignitability (RCI) and total extractable petroleum hydrocarbons (TEPH) using EPA Methods 8015 (modified), 8021, 8260, 8270, 6010/7000 series, Title 22 method and 8081 to evaluate the hazardous nature of the material.

In addition, the following recommendations should be considered in the future development of the site:

- The presence of any stained soils, unusual odor, suspicious materials during and after the demolition of the structures, site cleaning or mass grading operations, should be notified immediately.
- If any agricultural or domestic groundwater supply well is exposed during mass grading operations should be destroyed through the Alameda County and city of Livermore Public Works department.
- The excavations that would be created during the removal of any foundations, any other deep removal should be left open for further adequate geotechnical investigations, unless their immediate backfill is necessary. Any PVC and metal pipes that would be exposed during the grading operations should be chased completely and removed from the grading site.
- During grading activities of the property, soil technicians and operators must be aware of any USTs, buried debris, or other potential adverse environmental condition which may be discovered on the property. If any one of these conditions is encountered, then the Soil Engineer must be notified and the specific condition appropriately remedied in accordance with the Alameda County and the city of Livermore requirements.

6. LIMITATIONS

This environmental site assessment was performed according to the recommended guidelines established by ASTM designation E1527-2000 *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. This report has been prepared for the specific application to this project in a manner consistent with the level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in this area. This report contains information reported to **TERRASEARCH, inc.**, by other sources, accordingly, and errors or omissions may be present that **TERRASEARCH, inc.** cannot be responsible for. The findings of this report apply to the present condition of the subject site only (as of February 26, 2003); the opinions expressed herein are subject to revision in light of new information relevant to the site and/or in its immediate surroundings. Results from Phase I environmental investigations are based on surficial evidence and public records and databases only. Subsurface conditions of the site cannot be properly evaluated without performing a subsurface environmental investigation and actually test the soil, and groundwater for potential contaminants. Contaminants of concern include, but are not limited to organochloride pesticides, metals As, Pb, and Hg and/or petroleum hydrocarbons. Although no visual and/or record evidence for the existence of USTs was found for the subject property, very old and abandoned USTs may exist on the site due to the age of the property.

7.0 INFORMATION SOURCES

ASTM, 2000. *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*: ASTM Standards E1527-00.

Helley, E.J. and Lajoie, K.R., 1979, *Flatland deposits of the San Francisco Bay Region, California*, Geological Survey Professional Paper 943.

City of Livermore Building and Planning Department.

Livermore-Pleasanton Fire Department.

City of Livermore Environmental Health Department.

Alameda County Assessor's Office.

Alameda County Health Services Agency.

Alameda County Building and Planning Department.

Pacific Aerial Surveys.

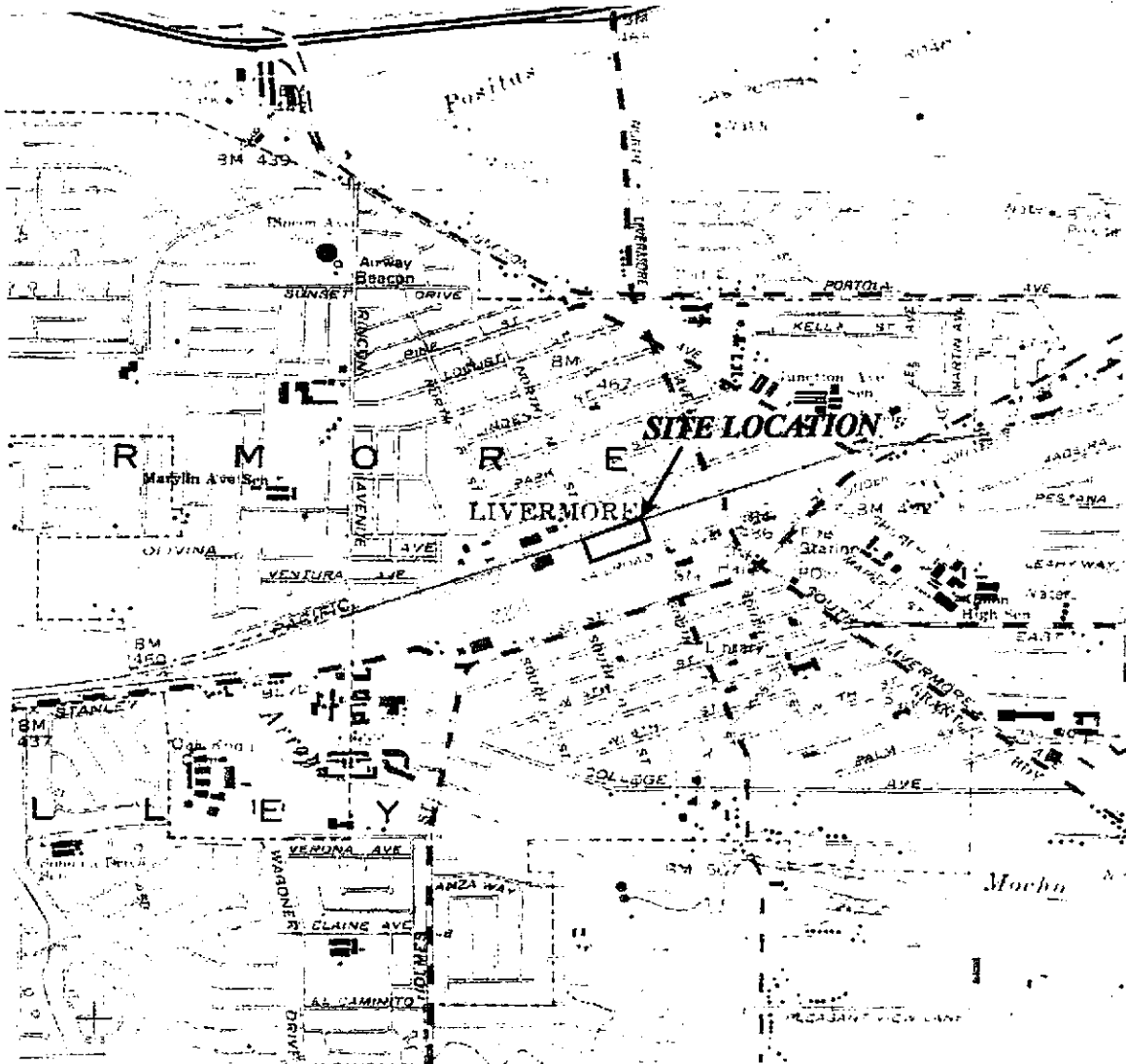
United States Geological Survey, 15-Minute Topographic Maps, Pleasanton Quadrangle, dated 1904 and 1937 scale 1:62500

United States Geological Survey, 7.5-Minute Topographic Maps, Livermore Quadrangle, dated 1949, 1960, 1968, 1973, scale 1:24000.

Woodward-Clyde Consultants, December 27, 1988. *Phase I Environmental Site Assessment at Railroad Avenue Property, Livermore, California.*

Woodward-Clyde Consultants, April 1989. *Phase II Site Exploration at Railroad Avenue Property, Livermore, California.*

Environmental Data Resources, Inc., *The EDR Radius Report*, dated February 26, 2003



Source: USGS Livermore Quadrangle, 7.5 Minute, 1:24000, (1980)

VICINITY MAP

PHASE I ENVIRONMENTAL SITE ASSESSMENT
1850 RAILROAD AVE
LIVERMORE, CALIFORNIA

FIGURE

1



GEOTECHNICAL ENGINEERS AND GEOLOGISTS

TERRASEARCH inc.

257 WRIGHT BROTHERS AVENUE, LIVERMORE CALIFORNIA 94550 PHONE: (925) 243-6882

JOB NUMBER

9775.E

DATE

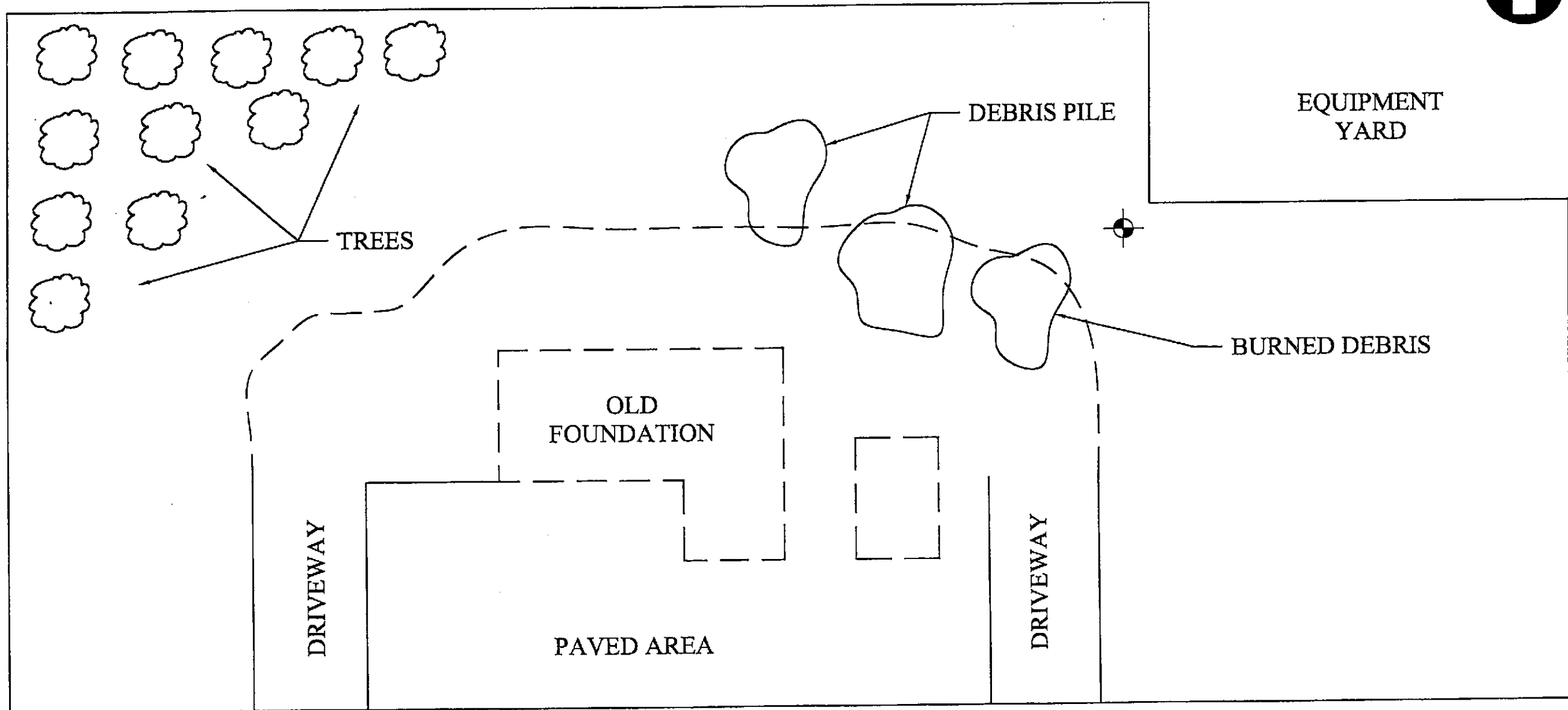
03/2003

BY

RDC

BANK OF AMERICA
1748 RAILROAD AVE.

RAILROAD TRACKS



LEGEND



Approximate Well Location



GEOTECHNICAL ENGINEERS AND GEOLOGISTS

TERRASEARCH INC

257 WRIGHT BROTHERS AVENUE, LIVERMORE CALIFORNIA 94550. PHONE: (925) 243-8882

SITE PLAN

PHASE I ENVIRONMENTAL SITE ASSESSMENT
1950 RAILROAD AVENUE
LIVERMORE, CALIFORNIA

Project No.
9775.E
Scale:
1" = 60'

Drawn by:
E.PACREM
Date:
03/2003

Figure No.

2

SITE PHOTOGRAPHS



Figure 3A: Viewing west from eastern portion of site.



Figure 3B: Burned debris piles, viewing southwest.

SITE PHOTOGRAPHS



GEOTECHNICAL ENGINEERS AND GEOLOGISTS

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LIVERMORE, CALIFORNIA

JOB NUMBER

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03/2003

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AWM

FIGURE

3

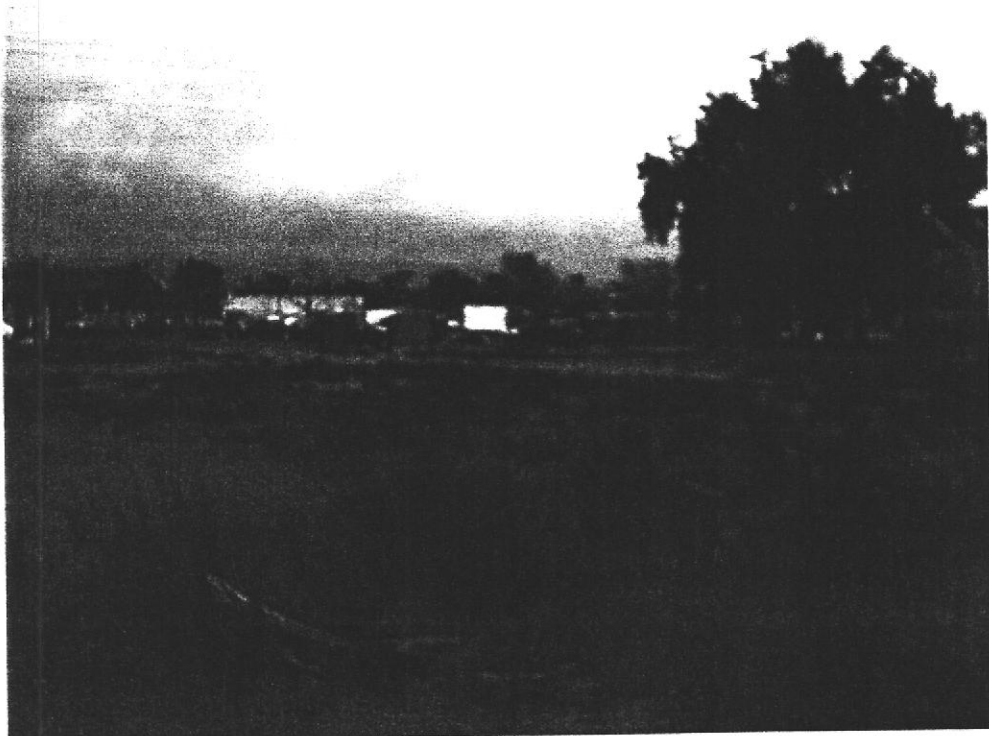


Figure 4A: Viewing debris piles.

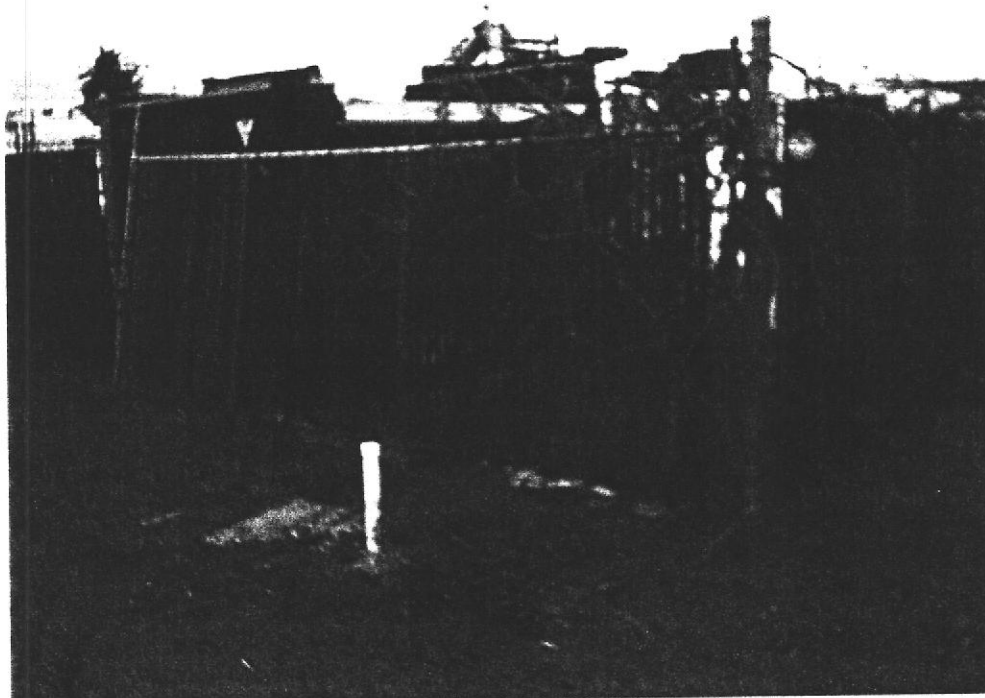


Figure 4B: Northern portion of property, adjacent to Arrow Rentals. Also monitoring well.

SITE PHOTOGRAPHS



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FIGURE

4



Figure 5A: Viewing south along North L Street.



Figure 5B: View along Railroad Avenue toward the east. Site is to the left.

SITE PHOTOGRAPHS



GEOTECHNICAL ENGINEERS AND GEOLOGISTS

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FIGURE

5



Figure 6A: Viewing south, note debris pile and concrete pavement.



Figure 6B: Pavement along center of site.

SITE PHOTOGRAPHS



GEO TECHNICAL ENGINEERS AND GEOLOGISTS

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FIGURE

6



Figure 7A: Debris piles along north-central portion of site, viewing east.

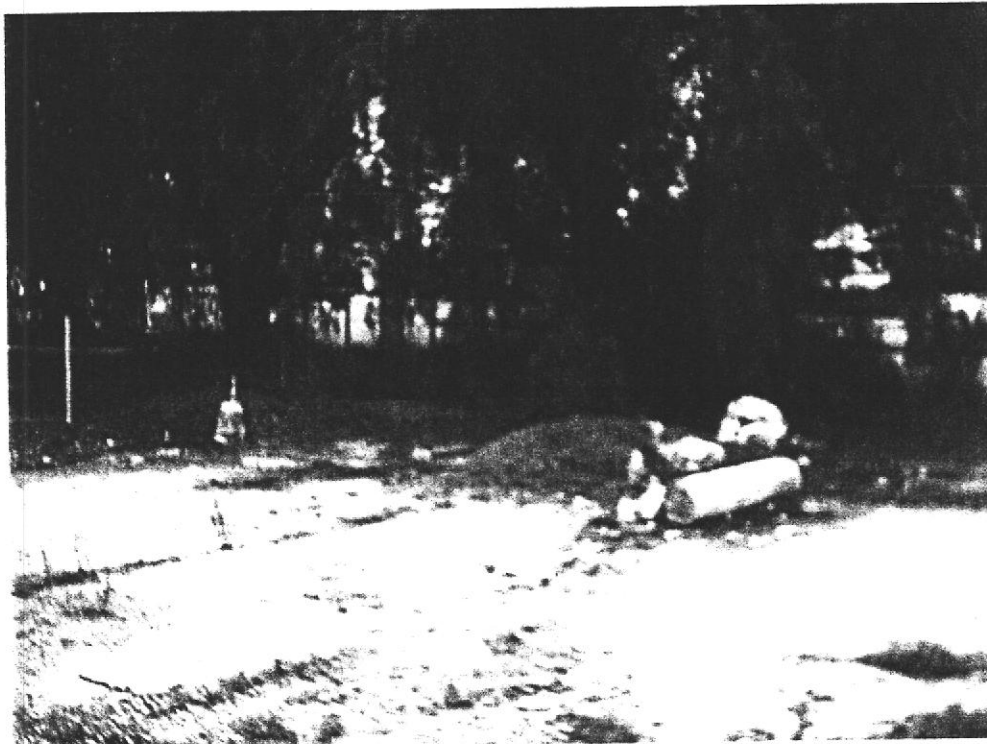


Figure 7B: Concrete pavement along south-central portion of site.

SITE PHOTOGRAPHS



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FIGURE

7



Figure 8A: Entrance from Railroad Avenue to site.

SITE PHOTOGRAPHS



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FIGURE

8