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May 28, 2003

Lisa Motoyama  
Senior Project Manager  
Resources for Community Development  
2730 Telegraph Avenue, Suite 224  
Berkeley, California 94704

Clayton Project No. 70-03661.00

**Subject:** Phase I Environmental Site Assessment Report  
1160-1168 36<sup>th</sup> Street and 3601 & 3623 Adeline Street  
Emeryville, California 94608

Dear Ms. Motoyama:

Enclosed are three copies of the report entitled "Phase I Environmental Site Assessment Report for 1160-1168 36<sup>th</sup> Street and 3601 & 3623 Adeline Street, Emeryville, California."

Thank you for this opportunity to be of service. If you have any questions, please contact me at 925 426-2626 or at [jedmands@claytongrp.com](mailto:jedmands@claytongrp.com).

Sincerely,

A handwritten signature in black ink, appearing to read "Jesse D. Edmands", is written over a light-colored background.

Jesse D. Edmands  
Supervisor  
Environmental Assessments  
Environmental Services

JDE/daa

Enclosures

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Phase I Environmental Site Assessment

**1160-1168 36<sup>th</sup> Street and  
3601 & 3623 Adeline Street  
Emeryville, California**

Clayton Project No. 70-03661.00  
May 28, 2003

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*Prepared for:*  
**RESOURCES FOR COMMUNITY DEVELOPMENT**  
Berkeley, California

*Prepared by:*  
**CLAYTON GROUP SERVICES, INC.**  
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## EXECUTIVE SUMMARY

Mr. Daniel Sawislak, Executive Director of Resources for Community Development retained Clayton Group Services, Inc. (Clayton) to conduct a Phase I Environmental Site Assessment of the property located at 1160-1168 36<sup>th</sup> Street, and 3601 and 3623 Adeline Street in Emeryville, Alameda County, California (the "subject property"). The objective of the assessment was to provide an independent, professional opinion regarding recognized environmental conditions, as defined by ASTM, associated with the subject property. This assessment was requested in association with the proposed acquisition of the property.

This assessment was performed under the conditions of, and in accordance with Clayton's Proposal Number 03SFOES109 dated April 24, 2003, using ASTM E1527-00, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* as a guideline. Any exceptions to, additions to, or deletions from the ASTM guidelines are described in the report. Details of the work performed, sources of information, and findings are presented in the report. Limitations of the assessment are described in Sections 1.2 and 1.3.

### Current Use Summary

The subject property is developed with a cluster of buildings that are vacant. The buildings were previously used as a laundry and more recently as a multi-tenant commercial and residential complex located on four contiguous parcels totaling approximately 0.78 acres of land. The subject property currently consists of three (3) buildings that include a main two-story masonry building at 1168 36<sup>th</sup> Street with several significant additions along the east side of this building, a residential structure and single garage at 1160 36<sup>th</sup> Street, and a residential structure at 3601 Adeline Street. The east portion of the subject property has the address of 3623 Adeline Street. This portion of the property is an open paved yard that accesses two garages or shop buildings that are attached to the main building additions. City of Emeryville Building Department condemned the property as dangerous in 2002.

### Historical Summary

Historically, the subject property was vacant property in 1902 in an area that was developed with city streets and sparse residential development. By 1910, the New Method Laundry reportedly occupied the property and by 1951, the laundry facilities had expanded, essentially establishing the current structures on the property. Sometime between 1957 and 1983, a residence at 3621 Adeline was demolished and the two lots that are now 3623 Adeline were cleared as the open yard area that now exists. The laundry operations reportedly continued until the mid 1980s. Ownership of the property changed a number of times and the facilities were converted to multi-tenant mixed commercial and residential uses. Tenant usage included spa assembly, commercial sign making, a bronze art foundry, a metal contractor, vehicle maintenance, and other commercial uses.

EXECUTIVE SUMMARY  
(Continued)



Between 1994 and 1999, two Phase I ESAs were conducted and two underground storage tanks (USTs) were removed and closed. Two Phase II investigations resulted in the installation of 10 soil borings in the vicinity of the diesel/heating oil UST that leaked, and also around shops, mechanical areas and a sump that contained oily sludge. Soil and grab-groundwater samples were collected from the borings and select samples were analyzed for total petroleum hydrocarbons, volatile compounds, polychlorinated biphenyls (PCBs), and polyaromatic hydrocarbons. Petroleum hydrocarbon impacts to soil and groundwater were found; however, additional investigations and remedial measures were not recommended. One soil boring was constructed as a monitoring well downgradient of the diesel UST in 1995. The well was closed and the oversight agency closed the UST release investigation in 1997. Characterization of the waste sludge found in the sump was conducted, the sump cleaned, and waste materials were removed from the site by licensed haulers for proper disposal.

**Recognized Environmental Condition Summary**

This assessment has revealed no evidence of *recognized environmental conditions*, as defined by ASTM, in connection with the property, except for the following:

- The subject property was used as an industrial laundry facility from the 1910s to the 1980s. Although the operation was never identified as a dry cleaners, it may have involved the use of regulated substances, solvents, spot removers, and other unknown products. A well and an oil tank were reportedly located in the northeast corner of the main building in 1912. A network of sewer pipes, pipeline trenches and possible laundry equipment pads were observed in the western portion of the main building. No sampling of soil or groundwater had been conducted on the western portion of the subject property and prior site investigations did not fully assess the subject property for the possible uses or releases of solvents, in particular chlorinated solvents, if solvents were used at the site.
- Prior soil investigations noted dark soils to depths of approximately four feet below ground surface (bgs) in areas investigated. This soil zone is suspect of being imported fill material from an unknown source area. The prior analytical programs did not adequately evaluate this soil zone to determine if it is a possible source of contamination.
- The laundry facility had two USTs for heating oil and gasoline. Both USTs received closure by the Local Oversight Program agency; however, residual petroleum hydrocarbons remain in soil from the former diesel/heating oil tank and may present possible exposure issues to workers if subsurface excavation activity is conducted.
- The freight elevator in the main building appears to have been hydraulically driven; however, there has been no assessment for petroleum hydrocarbons in soil or groundwater along the western portion of the subject property.

EXECUTIVE SUMMARY  
(Continued)



The following environmental concerns, which are not considered to be *recognized environmental conditions*, as defined by ASTM, were revealed during this assessment:

- A possible AST/UST was depicted on a 1912 Sanborn map in the northeast corner of the original main building. Also, a water well was referenced in this same area. In addition, although not documented, additional heating oil, well, or septic systems may have been associated with the former residences onsite. If such features are encountered during future redevelopment, they should be properly closed according to state and local regulations, and if releases of regulated substances are indicated, additional sampling and remediation may be required.
- The subject property has been proposed for demolition and redevelopment. Prior to these activities, Clayton recommends that a comprehensive demolition-style asbestos survey and sampling for lead-based paint be conducted to determine worker protection measures and appropriate waste disposal requirements.

Clayton recommends that additional soil and groundwater sampling be conducted to adequately evaluate the entire property for possible contaminants that may have resulted from imported fill materials, possible uses of solvents, a possible former oil tank in the main building, and the hydraulic elevator, to determine if significant environmental contamination may exist on the subject property and to assess potential worker exposure issues for the proposed redevelopment of the property, should the proposed acquisition proceed.

## 1.0 INTRODUCTION

Mr. Daniel Sawislak, Executive Director of Resources for Community Development (RCD) retained Clayton Group Services, Inc. (Clayton) to conduct a Phase I Environmental Site Assessment of the property located at 1160-1168 36<sup>th</sup> Street, and 3601 and 3623 Adeline Street in Emeryville, Alameda County, California (the "subject property"). This assessment was requested in association with the proposed acquisition of the property.

### 1.1 PURPOSE

The objective of this environmental site assessment is to provide an independent, professional opinion regarding *recognized environmental conditions*, as defined by ASTM, associated with the subject property. The term *recognized environmental conditions* (RECs) is defined as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not RECs.

### 1.2 METHODOLOGY AND EXCEPTIONS

This assessment was performed under the conditions of, and in accordance with Clayton's Proposal Number 03SFOESD109 dated April 24, 2003, using ASTM E1527-00, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* as a guideline.

The assessment included the following components:

- A site walkthrough inspection of the property for visual evidence of potential environmental concerns including existing or potential soil and groundwater contamination, as evidenced by soil or pavement staining or discoloration, stressed vegetation; indications of waste dumping or burial, pits, ponds, or lagoons; containers of hazardous substances or petroleum products; electrical and hydraulic equipment that may contain polychlorinated biphenyls (PCBs), such as electrical transformers and hydraulic hoists; and underground and aboveground storage tanks (USTs/ASTs).
- An investigation of historical use of the site by examining locally available aerial photographs (one source) and other readily available historical information such as fire insurance maps for evidence of prior land use that could have led to recognized environmental conditions.



- A review of information available on general geology and topography of the subject property, local groundwater conditions, sources of water, power, and sewer, and proximity to ecologically sensitive receptors, such as streams, that might be impacted by recognized environmental conditions and environmental issues.
- A review of environmental records available from the property owner or site contact including regulatory agency reports, permits, registrations, and consultants' reports for evidence of recognized environmental conditions.
- A site property line visual assessment of adjacent properties for evidence of potential offsite environmental conditions that may affect the subject property.
- A review of a commercial database summary of federal and state regulatory agency records pertinent to the subject property and offsite facilities located within ASTM-specified search distances from the subject property.
- A review of previous environmental reports prepared for the subject property.
- Interviews with key site personnel, as available, regarding current and previous uses of the property, particularly activities involving hazardous substances and petroleum products.
- Evaluation of information gathered and development of this report.

This assessment did not include sampling or analysis of soil, groundwater or other materials.

Mr. Donald Ashton, Senior Geologist from Clayton's San Francisco Regional Office, conducted the site walkthrough portion of the assessment on April 17, 2003. Mr. Steve Smith of Norheim & Yost, Real Estate Brokerage Development & Investment, accompanied Clayton during the site walk through. Resumes for environmental professionals involved in this assessment are included in Appendix A. Photographs taken at the time of the assessment are included behind the *Photographs* Tab.

### 1.3 LIMITING CONDITIONS OF ASSESSMENT

Information for the assessment was obtained from sources listed in Appendix B. This information, to the extent it was relied on to form our opinion, is assumed to be correct and complete. Clayton is not responsible for the quality or content of information from these sources. Limiting conditions as defined by ASTM include:

- The residential structure at 3601 Adeline Street; one locked shipping container (south container) located on the southeast corner of the yard area at 3623 Adeline Street; and several small spaces in the main building at 1168 36<sup>th</sup> Street. The locked spaces inside the main structure included an electrical closet on the ground floor in the northwest corner and a locked closet on the second floor in the southwest area of the building.

No opinion regarding environmental conditions in areas that were not inspected can be formed. Lack of access to the referenced limited areas on the subject property is not believed to prevent an evaluation of the overall subject property with respect to recognized environmental conditions; however, no evaluation can be made of the spaces not accessed.

The information and opinions rendered in this report are exclusively for use by RCD. Clayton will not distribute or publish this report without consent except as required by law or court order. The information and opinions expressed in this report are given in response to a limited assignment and should be considered and implemented only in light of that assignment. The services provided by Clayton in completing this project were consistent with normal standards of the profession. No other warranty, expressed or implied, is made.

## 2.0 SUBJECT PROPERTY DESCRIPTION

### 2.1 LOCATION AND LEGAL DESCRIPTION

The subject property, a vacant mixed-use property, ~~is located at 1160-1168 36<sup>th</sup> Street, and 3601 and 3623 Adeline Street, Emeryville, Alameda County, California,~~ in a mixed light-industrial and residential setting (Figures 1 and 2, *Figures* Tab). The City boundary between Oakland and Emeryville crosses the subject property paralleling 36<sup>th</sup> Street, about 30 feet north of the street.

The subject property is further described as four (4) parcels of land as follows:

Assessor's Parcel Number	Street Address	Estimated Area (Approx. Square Feet)
049-481-17	1168 36 <sup>th</sup> Street (Main Building)	19,995
049-481-16	1160 36 <sup>th</sup> Street (Residential Structure) and 3601 Adeline Street (Residential Structure)	3,333 2,588
049-481-08	3615 & 3619 Adeline Street (south yard and garage)	4,110.8
049-481-07	3621 & 3623 Adeline Street (north yard and garage)	4,110.8

Clayton has found that regulatory agency files and historical records have typically listed the 3615-3619 & 3621-3623 Adeline Street parcels filed under the address of 3623 Adeline Street. In addition, historic Sanborn maps identified 3600-3612 Magnolia Street addresses as being associated with the subject property; however, no additional information regarding these addresses was found during this assessment. Many recent agency files listed the 3623 Adeline Street address for work conducted at 1168 36<sup>th</sup>

Street, in particular, these were documents related to the removal of the former diesel/heating oil UST located in the automobile shed adjacent to the east wall of the main building.

No record of environmental liens was found in the EDR government database report or other property records reviewed.

## 2.2 CURRENT USE OF SUBJECT PROPERTY

The subject property is currently developed with a cluster of buildings that are vacant. The buildings were previously used as a laundry and more recently as a multi-tenant commercial and residential complex located on four contiguous parcels totaling approximately 0.78 acres of land. The subject property currently consists of three (3) buildings that include a main two-story masonry building at 1166 and 1168 36<sup>th</sup> Street with several significant additions along the east side of this building, a residential structure and single garage at 1160 36<sup>th</sup> Street, and a residential structure at 3601 Adeline Street. The east portion of the subject property has the address of 3623 Adeline Street. This portion of the property consists of two parcels that make up the open paved yard area with two garage/shop buildings at the west end of these parcels. The garage/shops are contiguous with the additions to the main building. These two garages have been used by several commercial businesses in the past. City of Emeryville Building Department records indicate that the property was condemned as dangerous in 2002. The planned short-term use for the subject property is demolition and redevelopment. Clayton has been advised that a residential development of the property is planned.

The following utility services were observed or reported at the subject property:

- Electricity: Pacific Gas and Electric Company (PG&E)
- Natural Gas (Disconnected): PG&E
- Water (Disconnected): East Bay Municipal Utility District (EBMUD)
- Sewer: EBMUD
- Heating and cooling systems were not apparent at the property. Natural gas services had been disconnected. ~~Former heating systems may have been diesel/heating oil fired and or operated on electricity and natural gas.~~
- Clayton contacted EBMUD regarding service connections and possible industrial waste discharge permits of discharge violations. There was a permit for a water connection for Wilson Associates, but there was no record of an industrial sewer connection or environmental concerns associated with the subject property address.
- It appeared that former wastewater generation resulted from sinks, showers, and toilets. Since the subject property was historically a towel laundry, and some industrial types of plumbing connections were observed along the western portions of the main building, it is assumed that waste washwater was also generated and disposed of through the municipal sewer system. Stormwater runoff from the subject site flows via roof drains and numerous sumps and floor drains located in the "additions" area of the subject property. Some roof drains discharged to the street

gutters and some discharged to the sump system that appears to be connected to the sewer system.

- Evidence of a discharge source was observed at the subject property by the south shop at the 3623 Adeline site. A small concrete sump covered with a loose metal sheet exists near the door to the south shop. The sump was reported to be impacted with oily sludge, which was sampled, cleaned, and the waste sludge was disposed of as hazardous waste. This activity was documented in the PES Environmental Inc., Phase I and II 1999 report (See Section 3.6 for details). No discharges of regulated materials are currently occurring.
- Several floor drains, at least four and a few shallow trenches, are located in the "additions" area in the central portion of the subject property. The sumps appeared to be plumbed together and may flow to the south side of the property. It is assumed that this network of sumps discharges to the sewer system as no flow from this network to the surrounding gutters was observed during a significant rain event on May 2, 2003.

### 2.3 CURRENT USES OF ADJOINING PROPERTIES

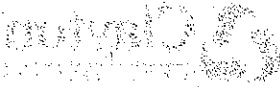
The area surrounding the subject property is mixed industrial and residential. Adjoining properties were observed (from the subject property or from public access areas) for signs of *recognized environmental conditions* and their potential to pose an environmental concern to the subject property (Figure 2, *Figures Tab*). The uses and features of adjoining properties are described below.

~~North:~~ Residential lots with small single family homes. Two lots to the north consist of an industrial business at 3639 Adeline, American Spring. The business makes truck springs and has some heavy equipment and stocks. A small blockhouse on the west side of this property was observed to have an air emissions stack for an unknown purpose. No significant use of regulated materials was observed.

~~East:~~ Two single family residential lots are located between the 3601 and 3623 Adeline lots. Adeline Street borders these lots and across the street are mixed residences and commercial businesses.

~~South:~~ 36<sup>th</sup> Street and across the street is the elevated Interstate 580 Freeway. The property below the freeway is used as an equipment storage lot for commercial and recreational vehicles. South of the freeway are residential and commercial properties.

~~West:~~ Magnolia and Peralta Streets converge. Across the street is a small triangular lot that is being used as a community park/garden. The property was a former gasoline station and restaurant and foundations from these structures still exist. To the northwest is West MacArthur Boulevard, a



below grade highway and farther north is a large commercial mall complex with parking lots.

Adjoining properties do not appear to present an environmental concern to the subject property, based on visual observations and information obtained during the assessment.

## 2.4 PHYSICAL SETTING

The subject property is located in the East Bay Plain Physiographic Region of the San Francisco Bay Area. The general area is characterized by an asymmetrical tilt block that trends northwest to southeast paralleling the Hayward Fault, about 2.6 miles to the northeast. The tilt block formed the San Francisco Bay depression and sediments shed from the highlands, a portion of the Diablo Ranges to the east of the Hayward Fault, have formed the depositional fans that slope to the southwest, referred to as the East Bay Plain region that the subject property is located on. Shallow sediments in the vicinity of the subject property have been mapped as older alluvium and younger alluvium. These sediments are unconsolidated to poorly consolidated clay, silt, sand and gravel that typically yield small quantities of groundwater to wells (Source: *Geohydrology and Groundwater – Quality Overview East Bay Plain Area, Alameda County, California*, 205(J) Report, Alameda County Flood Control and Water Conservation District).

Usable groundwater aquifers have not been mapped in the area of the subject property. ~~Groundwater flow in the region generally flows to the west and southwest.~~ A groundwater monitoring well (MW-1/EW-1) reportedly existed on the subject property between 1995 and 1996. The well was installed to monitor the groundwater quality downgradient of a former heating oil UST that was on the property. ~~The depth to groundwater was reported to be about 10 feet below the grade surface (logs).~~ (Source: *Final Groundwater Sampling Report and Request for Closure, 3623 Adeline Street, Emeryville, California*, by Kleinfelder, April 15, 1996). The well was decommissioned in 1997.

The subject property is located on alluvial fan deposits that slope to the west-southwest at 0.012 feet per foot originating from the Oakland hills to the east. The subject property is at an elevation that ranges from 30 to 35 feet above mean sea level based on the Oakland West topographic map (USGS 1993).

## 3.0 HISTORICAL AND AGENCY REVIEW

### 3.1 AERIAL PHOTOGRAPHS

Aerial photographs, which include the subject and adjoining properties, were reviewed at Pacifica Aerial Surveys, Oakland, California. Photographs reviewed are summarized as follows:

- 1930 Aerial Photograph Nos. GY-30-73/74; scale: 1"=972'

The subject property is fully developed with structures that appear to be similar to the existing buildings with some exceptions. Three sides of the subject property are bounded by streets with sidewalks, Magnolia to the west, 36<sup>th</sup> to the south, and Adeline to the east. Adjacent residential properties exist to the north with a larger rectangular commercial building (Sanborn maps indicate this is a Transfer Warehouse) two lots to the north on Adeline Street.

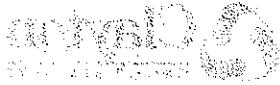
The main building (1168 36<sup>th</sup> Street) essentially appears as it currently exists as a ~~two-story building with a U-shaped~~ roof and a lower roof section in the central-eastern section of the building. Two circular objects (assumed to be water tanks based on Sanborn map information) appear on the roof at the northeast corner of the building. A small single story residential structure (1160 36<sup>th</sup> Street) exists adjacent and east of the main building. Another single story residential structure exists to the east at the corner of 36<sup>th</sup> and Adeline Street (3601 Adeline). There is a small structure that is likely a garage that is adjacent to the 1160 36<sup>th</sup> Street residence. North and adjacent to the 3601 lot are two small residences (not a part of the subject property). As previously described, the "yard area" (the east area behind the main building) consists of two small lots (3615 and 3621 Adeline Street – current agency records list these lots as 3623 Adeline). These two lots are developed with what appears to be small residential structures and separate auto garages. Adjoining properties included:

**North:** Small lots developed with single-family residences and auto garages. Two lots to the north is a large multi-story rectangular structure that fronts Adeline Street (Sanborn maps list as 3637 Adeline). Additional residential lots exist to the north with some commercial development along San Pablo Avenue at the north end of the block.

**East:** Two residential lots exist between the 3601 and 3615 Adeline lots. Adeline Street borders the east subject property lots and across Adeline Street are additional residential lots and mixed commercial lots that front San Pablo Avenue farther east. A commercial building exists across Adeline Street to the northeast that is listed as a Brake Shop on Sanborn maps.

**South:** 36<sup>th</sup> Street then a residential lot and three multi-story buildings that may be apartment complexes with a parking lot. Additional lots to the south appear to be residential.

**West:** Magnolia and Peralta Streets converge with Peralta Street continuing to the north. Across Peralta Street are residential lots and to the northwest is a larger vacant lot. Farther to the northwest are several large warehouses with railroad sidings that appear to be a large industrial complex. Farther to the north, along the Yerba Buena Avenue alignment, are additional railroad tracks (Sanborn lists these as Key Route tracks, an electric commuter train line).



- **1947 Aerial Photograph No. AV11-05-13; scale: 1"=1,667'**

The subject property is unchanged, except that one of the roof tanks is gone and the 3615 Adeline residence has been replaced by three (3) aboveground tanks (Sanborn 1954 lists these as wooden water tanks) and a driveway that accesses the rear of the main building. Two small unknown circular objects appear at the rear of the 1160 36<sup>th</sup> lot. There are no other changes noted to the subject property.

**North:** No significant changes noted to the north, except that MacArthur Boulevard (a state highway) has been constructed as a below grade roadway about 200 feet to the north.

**East:** No significant changes were noted.

**South:** No significant changes were noted.

**West:** Across Peralta Street is a remnant triangular portion of the block following construction of MacArthur Boulevard that is now developed as a small gasoline filling station. No other significant changes were noted.

- **1950 Aerial Photograph Nos. AV28-13-37/38; scale: 1"=600'**

The subject property is unchanged, except that a small shed now exists in line with the three (3) aboveground tanks on the 3615 Adeline lot. There are no other significant changes noted to the subject or adjacent properties.

- **1959 Aerial Photograph Nos. AV 337-07-24/25; scale: 1"=800'**

The subject property is unchanged, except that the roof tank on the main building is gone and the three (3) aboveground tanks on the 3615 Adeline lot have been removed. The residential structure on the 3621 lot appears to have been replaced with a similar sized residential structure. There appears to be two small structures in the southeast corner of the lot in the area where a former gasoline UST and fuel dispenser were reported to exist.

**North:** No significant changes were noted.

**East:** No significant changes were noted.

**South:** The properties along the south side of 36<sup>th</sup> Street have all been razed along the same alignment as the current Interstate 580 Freeway.

**West:** The industrial warehouses and tracks about 400 feet to the northwest have been razed.

- **1969 Aerial Photograph Nos. AV-902-06-18/19; scale: 1"=1,000'**

The subject property is unchanged, except that the large billboard that currently exists over the roof of the main building has been installed. The 3615 Adeline lot has two possible laundry delivery trucks parking on it.

**North:** No significant changes were noted; however, there is more commercial development along San Pablo Avenue.

**East:** No significant changes were noted.

**South:** The elevated Interstate 580 Freeway structure now exists.

**West:** The industrial property about 400 feet to the northwest has been redeveloped with a long rectangular warehouse with truck loading docks on both sides. The surrounding area has been paved and a large fallow lot exists to the west.

• **1975 Aerial Photograph Nos. AV-1193-06-17/18; scale: 1"=1,000'**

The subject property is unchanged, except that there are five apparent delivery trucks parked on the 3615 Adeline lot and two possible laundry delivery trucks parked at the rear of 3601 36<sup>th</sup> Street.

**North:** No significant changes were noted.

**East:** No significant changes were noted.

**South:** No significant changes were noted.

**West:** The gasoline station across Peralta Street appears to be closed; however the structures still exist.

• **1983 Aerial Photograph Nos. AV-2300-06-19/20; scale: 1"=1,000'**

The subject property is unchanged, except that the residential building on the 3621 Adeline lot (north yard area) has been removed. A couple of cars and a truck are parked in the yard and two small containers or sheds exist in the southeast corner of the yard.

**North:** No significant changes were noted, except the corner lot at 3639 Adeline and 38<sup>th</sup> Street, about 100 feet north of the subject property, has been redeveloped with the currently existing industrial building (American Spring).

**East:** No significant changes were noted.

**South:** No significant changes were noted.



**West:** The gasoline station across Peralta Street still appears to be closed as it appears it is being used as a parking lot.

- **1989 Aerial Photograph Nos. AV-3661-4A-1/2; scale: 1"=500'**

The subject property is unchanged, except that the yard area has been cleared and only two parked cars exist. No other significant changes were noted on the subject or adjacent properties.

- **1994 Aerial Photograph Nos. ALA AV-4625-9-24/25; scale: 1"=1,000'**

No significant changes were noted on the subject or adjacent properties; except that the industrial property to the northwest is now developed with large department stores and parking lots.

- **1996 Aerial Photograph Nos. ALA AV-5200-8-21/22; scale: 1"=1,000'**

No significant changes were noted on the subject or adjacent properties.

No readily apparent evidence of potential recognized environmental conditions at the subject or adjoining properties was noted on the aerial photographs reviewed, except the following:

- The subject property appears to have been used for industrial purposes (a reported laundry) with a small fleet of delivery trucks. It is possible that vehicle maintenance may have occurred on the property.
- Some upgradient industrial and commercial properties appear to have existed to the north at 38<sup>th</sup> and Adeline Street and to the northeast across Adeline Street.

### 3.2 USGS TOPOGRAPHIC MAPS

Historic topographic maps published by the United States Geological Survey (USGS) for the subject property were reviewed for the period 1959 - 1993. The maps depicted the following:

**Quadrangle: OAKLAND WEST, CALIFORNIA; Scale: 1:24,000 Series: 7.5 Minute**

1959 The map depicts the subject property as an area that is "built up" as depicted by shading. The bordering streets are shown, Magnolia to the west, 36<sup>th</sup> to the south, and Adeline to the east. MacArthur Boulevard is depicted about 100 feet to the north. Farther to the northwest, about 200 feet is a large lot that is depicted with no structures followed by an industrial area of railroad sidings and large warehouses. To the southwest, about 700 feet is a school. No other significant developments are depicted in the vicinity.

1980 - Photorevised from 1959

There are no changes depicted on the subject property. The map depicts the

Interstate 580 Freeway immediately south of 36<sup>th</sup> Street. A large rectangular building (warehouse) has been constructed about 350 feet to the northwest. No other significant changes are depicted in the vicinity.

1993 The map depicts the subject property and surroundings as unchanged from the 1980 map. The map now depicts the entire area as shaded or developed with less specific detail.

No readily apparent evidence of potential recognized environmental conditions at the subject or adjoining properties was noted on the topographic maps reviewed.

### 3.3 FIRE INSURANCE MAPS

Fire insurance maps that include the subject and adjoining properties were obtained from EDR for the period 1902 to 1967. The maps depicted the following:

1902 The subject property and adjacent lots to the north, a portion of Block 685, are shown as vacant. The surrounding streets (Magnolia, 36<sup>th</sup>, and Adeline) all exist. There is sparse residential development to the west, south, east, and north. A few commercial and storage buildings are depicted at the north end of the subject block at San Pablo Avenue. The City boundary between Oakland and Emeryville crosses the subject property paralleling 36<sup>th</sup> Street, about 30 feet north of the street. To the north along Yerba Buena Avenue are some hay storage buildings and a railroad depot and loading platform that are currently vacant or unused.

1912 The main subject building is depicted as a single-story building at the 3600 block of Magnolia Street and 36<sup>th</sup> Street. The building is depicted as the "New Method Laundry Co.?" Washing is listed in the northwest corner of the building, marking in the southwest corner, ironing in the south-central area, and mangling (ironing) in the southeast corner. Irons are depicted as electric and gas heated. The northeast corner is depicted as a utility area. The utility area appears to contain a 5,000-gallon tank (possibly water), a 1,000-gallon tank that is possibly an oil tank, equipment that may be a boiler system, and a drying room. A possible well may also exist in this same area.

A wagon shed is indicated along the east side of the building with a two-story stable or shed at the northeast corner of the main lot. There is an adjacent subject lot that is developed with a residential "2 Flat" structure and two detached structures, an auto garage and a possible out building at 3617-3619 Adeline (Note: addresses 2317-2319 are also shown indicating a possible recent renumbering of the street).

The other surrounding properties are undeveloped. Some additional residential development has occurred to the east and north, and quite a few new storefronts now exist along San Pablo Avenue. The Key Route, an electric trolley line has been added along Yerba Buena Street, one block north. No other significant changes were depicted in the vicinity.

1951 The subject main building is now depicted as a two-story building and the "U" shaped roof is depicted where the second story has been added. The business is now the Ambassador Laundry Company. Additions to the northeast corner of the main building are shown with two roof tanks likely for water storage (note aerial photograph comments). The former wagon shed along the east side of the main building is depicted as an auto garage with a Drivers Room. The 1160 36<sup>th</sup> Street residence exists with an attached garage adjacent to the auto shed. New additions behind the 1160 residence include an auto repair room and an adjacent Boiler Room. Adjacent and north of the boiler room is an auto garage that is on the 3615 Adeline lot.

The residence at 3601 Adeline (subject property) now exists with two detached garages. Residences also exist at 3605 and 3609 Adeline (not a part). The 3619 Adeline lot is depicted with four ASTs, which are marked as wooded water tanks. A shed also exists on this lot. The adjacent 3621 Adeline lot has a single residence and detached garage.

Two adjacent residential lots exist to the north followed by an industrial building at 3637 Adeline, depicted as single story Transfer Warehouse. To the northeast is an Auto Repair shop across Adeline Street at 3624 with an adjacent gas and oil station. The property to the west across Peralta Street is developed as a garage and gas and oil station with a detached restaurant on a small triangular lot. A State Highway underpass has been constructed to the north along the 38<sup>th</sup> Street alignment that connects to Mac Arthur Boulevard. Some additional residential and commercial development has occurred in the vicinity.

1952 The subject and adjacent properties appear unchanged from the 1951 map. The industrial building to the north at 3637 Adeline is depicted as a "Hoist Repairs" and warehouse. No other significant changes were depicted in the surrounding area.

1954 The subject and surrounding properties appear unchanged from the 1952 map.

1959 The subject and surrounding properties appear unchanged from the 1954 map, except that three of the water ASTs at 3615 Adeline have been removed. Only one tank and the shed remain on the lot.

1962 The subject and surrounding properties appear unchanged from the 1959 map, except that the residence at 1160 36<sup>th</sup> is depicted as storage. There are two ASTs depicted on the 3615 Adeline lot. The industrial property to the north at 3639 Adeline is now depicted as Tire Recapping and Storage.

1967 The subject and surrounding properties appear unchanged from the 1962 map, except that the two roof tanks on the main building are no longer depicted. There

are no ASTs depicted on the 3615 Adeline lot and the two auto garages behind the 3601 residence are gone. The residence at 3621 Adeline is possibly being used for storage. The gas and oil station no longer exists across Adeline to the north. The industrial property about 300 feet to the northwest has been redeveloped as a motor freight warehouse listed as Clipper Carloading Co.

No readily apparent evidence of potential recognized environmental conditions at the subject or adjoining properties was noted on the fire insurance maps reviewed, except for the following:

- The subject property possibly had a 1,000-gallon oil tank located in the northeast corner of the subject main building in 1912. The tank was no longer depicted in 1951. The property had industrial equipment used to operate the laundry that included boiler rooms, an auto repair room, and garages.
- Industrial businesses located to the northeast of the subject property, upgradient, included a warehouse at 3637 Adeline that was depicted as a warehouse, hoist repair, and tire recapping and storage. Another upgradient property at 3624 Adeline was depicted as an auto repair shop from 1951 through 1967 with an adjacent gas and oil station depicted from 1951 through 1962.

### 3.4 CITY DIRECTORIES

Haines Criss-Cross Directories that include the subject and adjoining property were researched by EDR. Polk City Address Directories were reviewed from 1910 through 1967. A summary of the listings for the subject and adjoining properties is shown below.

Year	Subject Property	Adjoining Properties
1910	<b>36<sup>th</sup> Street</b> 1168 – New Method Laundry	Not provided
1921	<b>36<sup>th</sup> Street</b> 1168 – New Method Laundry	Not provided
1937	<b>36<sup>th</sup> Street</b> 1168 – Ambassador Laundry and Arrow Towel & Laundry	Not provided
1976	<b>36<sup>th</sup> Street</b> 1168 – Ambassador Laundry and Arrow Towel & Laundry	Not provided
1970	<b>36<sup>th</sup> Street</b> 1160 & 1168, not listed  <b>Adeline Street</b> 3601 – not listed 3623 – not listed  <b>Magnolia Street</b> 3600-3612 – not listed	Not provided  3605, 3609 – residences  Not provided
1975	<b>36<sup>th</sup> Street</b> 1160 & 1168, not listed  <b>Adeline Street</b> 3601 – not listed 3623 – not listed  <b>Magnolia Street</b> 3600-3612 – not listed	Not provided  3605, 3609 – residences  Not provided
1980	<b>36<sup>th</sup> Street</b> 1160 & 1168, not listed  <b>Adeline Street</b> 3601 – not listed 3623 – not listed  <b>Magnolia Street</b> 3600-3612 – not listed	Not provided  3605, 3609 – residences  Not provided
1985	<b>36<sup>th</sup> Street</b> 1160 & 1168, not listed  <b>Adeline Street</b> 3601 – residence 3623 – not listed  <b>Magnolia Street</b> 3600-3612 – not listed	Not provided  3605, 3609 – residences  Not provided

Year	Subject Property	Adjoining Properties
1991	36 <sup>th</sup> Street 1160 & 1168, not listed	Not provided
	Adeline Street 3601 – residence 3623 – residence	3605, 3609 – residences
	Magnolia Street 3600-3612 – not listed	Not provided

No readily apparent evidence of potential recognized environmental conditions at the subject or adjoining properties was noted in the city directories reviewed.

### 3.5 AGENCY CONTACTS

#### 3.5.1 Building, Planning, and/or Zoning Departments

The City of Emeryville Building Department records for the subject property were reviewed on April 30, 2003 to obtain historical use information for the subject property. Mr. Giyan Senaratne, Building Permit Administrative Services, provided files for the subject property addresses. Permits on file are summarized as follows:

Location-Date	Document Type	Comments
3623 Adeline 4-11-84	Memo	Citizen complaint regarding possible building code deficiencies: lighting, inadequate electrical service, and rodents.
3623 Adeline 10-6-93	Civil Subpoena	Plaintiff: Oakland Property Management, Defendant: Julian Swig
1166 36 <sup>th</sup> 8-11-87	Letter	Fire Department (FD) to FLOCON Process Products. Recent FD inspection with deficiencies: sprinklers and improper electrical cords. To re-inspect in 30 days.
1168 36 <sup>th</sup> St. 4-12-76	Building Permit (BP)	Permit Application by Foster & Kleister for outdoor ad structure
1168 36 <sup>th</sup> St. 4-24-84	BP	Ambassador Partners LTD for frame work

Location- Date	Document Type	Comments
1168 36 <sup>th</sup> St. 8-27-84	Progress Inspection	Emeryville Department of Public Works – Progress Inspection Ambassador Laundry Building. Lists damaged wires, open electrical boxes, exists unsafe, abandoned car, and gas pump and tank to be removed.
1168 36 <sup>th</sup> St. 8-30-86	BP	Seismic upgrades
1168 36 <sup>th</sup> St. 1991	Business History Sheets	Spa Productions of America – 1168 36 <sup>th</sup> St. Environmental Toys Jazz Matrix
1168 36 <sup>th</sup> St. 1992	Business History Sheets	US Pool & Spa, Co.
1168 36 <sup>th</sup> St. 4-16-92	BP	Ambassador Partners LTD to correct code violations
1168 36 <sup>th</sup> St. 10-26-93	BP	Un-reinforced masonry upgrades
1168 36 <sup>th</sup> St. 7-23-96	Engineering Analysis Report	Slakey & Associates, Inc. Evaluation of building at APN: 49-4851-17. Two story building constructed in 1910s. Currently mixed use. Ground floor: 16,400 s.f., 2 <sup>nd</sup> floor: 13,400 s.f. constructed of un-reinforced masonry, plywood roof, post & beam structure. Building stated as in good condition, some upgrades to roof and walls.
1168 36 <sup>th</sup> St. 11-14-96	BP	Herb Stein, repair to lights and pipes
1168 36 <sup>th</sup> St. 1997	Business History Sheets	Spa Productions of America The Coffee Shop Studio 9/13
1168 36 <sup>th</sup> St. 10-8-97	Notice	Notice & Order to Abate Substandard Housing. To: East Bay Mortgage, violation for: deteriorated flooring and supports, hazardous plumbing, fire hazards, unsanitary, inadequate exits, inadequate occupancy. 30 days to vacate.

Location-Date	Document Type	Comments
1168 36 <sup>th</sup> St. 11-10-97	Letter	To: East Bay Mortgage Inc. Re: garbage and debris in yard, to correct.
1168 36 <sup>th</sup> St. 11-14-97	BP	Owner Herb Stein. Repair lighting and install copper pipes.
1168 36 <sup>th</sup> St. 12-3-97	Letter	Illegal sign to be removed (picture of small billboard east side of building)
1168 36 <sup>th</sup> St. 12-31-97	Notice	Notice & Order to Abate Dangerous Building
1168 36 <sup>th</sup> St. 2-5-98	Letter	City of Oakland removing building from potentially hazardous un-reinforced masonry building list.
1168 36 <sup>th</sup> St. 2-11-98	Letter	To: Title Two Investment Co. Letter to vacate building and secure by 3-31-98.
1168 36 <sup>th</sup> St. 9-11-98	BP	Owner: Title Two Investment Corp. Permit to demolish building and cap pipes
1168 36 <sup>th</sup> St. 4-5-02	Notice	Notice & Order to Vacate Dangerous Building, APN: 049-048-017-00. Mailed to Mr. Peter Wilson, Oakland, CA.
1168 36 <sup>th</sup> St. 4-25-03	Public Records Request Form	Legal dispute
1168 36 <sup>th</sup> St. No date	Application	Ambassador Laundry – sign

No readily apparent evidence of use, disposal or storage of hazardous materials and wastes, with respect to previous ownership and use, was identified in the property records reviewed, except for a reference to the use as the Ambassador Laundry and the removal of a gasoline tank and dispenser at 3623 Adeline Street.

### 3.5.2 Fire Department

The Emeryville Fire Department was contacted to obtain information regarding any fires, complaints, permits, violations involving hazardous material use, USTs, or ASTs on record for the subject and/or adjoining properties. Mr. George Warren of the EFD, provided files for review on April 30, 2003. A summary of the files is as follows:



Location-Date	Document Type	Comments
No Date	Inspection Report	Coleman Art Foundry (Bronze Casting) space listed as 1,500 s.f. Business owner: David Coleman. Bldg Owner: Gordon Arnold. Sketch of occupied spaces: Innovation Construction in north garage (3623 Adeline) with oxygen and acetylene tanks; Coleman Art Foundry with kiln in south garage. Compressed gases in use: oxygen and acetylene, argon, and two 50-gallon LPG tanks for lift truck.
No Date	Inspection Report	Innovation Construction – Metal Working located in 800 s.f. metal building. Business owner: Mr. Ken Draizen.
3623 Adeline 12-9-87	Letter	To: Mr. Ken Draizen – Innovative Construction, Final Notice – Violation for no business license
5-24-89	Application for Permit to Operate	Cal Gas for Coleman Art Foundry
6-2-89	Letter	Fire Department. Property use is listed as residential, codes restrict use of LPG
8-15-95	Permit Application	Underground Storage Tank Permit Application – Form A and B. Forms reference removal of diesel motor fuel UST. Single wall steel tank & suction dispenser. Contractor: SEMCO. Tank location shown in auto shed/garage east of main building (1168 36 <sup>th</sup> Street).
8-18-95	Alameda County Health Care Svcs (ACHCSA) - UST Closure Plan	Owner: Owens Mortgage Investment Fund, Walnut Creek, CA. EPA ID number: CAC000935400. Diesel/heating oil tank removal.
8-25-95	Permit Application	Permit for removal of diesel/heating oil UST from auto shed, listed at 3623 Adeline. Second tank.

Location-Date	Document Type	Comments
9-27-95	ACHSA Letter	To: Scott Barde - Owens Mortgage Investment Fund Re: UST Removal at 3623 Adeline. Review of confirmation soil samples from 8-30-95 from removal of diesel/heating oil tank (commercial laundry). Soil staining noted north end of tank. Soil samples from 7'-9' found with diesel at 21,000 parts per million (ppm), benzene at 81 parts per billion (ppb), toluene at 800 ppb, ethylbenzene at 190 ppb & xylenes at 1700 ppb. Over excavation required and monitoring well required. Require tank removal report, unauthorized release form and contamination site report.

Clayton also contacted the Oakland Fire Department (OFD) to obtain information regarding any fires, complaints, permits, and violations involving hazardous material use, USTs, or ASTs on record for the subject and/or adjoining properties. Mr. Vibhor Jain of the OFD, provided copies of files for review on April 30, 2003. A summary of the files is as follows:

Date	Document Summary
3-13-85	Complaint/Evaluation form for citizen complaint of fumes coming from Pacific Spas at 1168 36 <sup>th</sup> Street. Actions taken: Investigated FLOCON FPP at 1166 36 <sup>th</sup> and Pacific Spas at 1168 36 <sup>th</sup> . No problem found on 4-12-85.
4-12-85	Hazardous Waste Generator Inspection and Compliance Report, ACHCSA. Pacific Spas Co at 1168 36 <sup>th</sup> Street, Oakland, CA. Noted assembly of spas but units poured elsewhere. Use of acetone and some volatiles in area, and no major problem noted.

No readily apparent evidence of potential recognized environmental conditions at the subject property was identified in the property records reviewed, except that at least 2 USTs were formerly located at the subject property and subsurface impacts were found. In addition, hazardous substances were formerly used and stored at the subject property.

### 3.5.3 Departments of Health/Environmental Services

The Alameda County Health Care Services Agency (ACHCSA) was contacted to obtain information regarding environmental concerns or violations at the subject property. Ms. Rosanna Garcia of the ACHCSA provided records for the subject property addresses on May 1, 2003. A summary of the records on file is as follows:

Date	Document Summary
4-20-88	Underground Tank Closure and Removal Plan (Draft) for Ambassador Partners LTD. Plan references removal of gasoline UST. Note that map shows location of UST covered with concrete pad and dispenser in southeast corner of open yard area (3623 Adeline) adjacent to sidewalk (Map presented in Appendix C).
7-14-94	ACHCSA letter to Owens Financial Group regarding 1168 36 <sup>th</sup> Street. Note one or more USTs, difficulty in making contact for site inspection. Request contact for inspection of site.
7-24-94	Hazardous Materials Inspection Form (HMIF) Surveillance of UST, noted vertical vent pipe in front yard of private residence (3621 Adeline).
9-7-94	Underground Storage Tank Permit Application – Form A & B for Ambassador Property at 3623 Adeline, Owner: Owens Financial Group, Inc., notes gasoline tank removal of 8,000-gallon tank (single wall steel with suction dispenser) on 11-1-94. Not registered. Disposal of tank under EPA ID number CAC000926640.
9-12-94	Underground Tank Closure Plan for removal of 8,000-gallon gasoline UST at 3623 Adeline.
11-1-94	Hazardous Materials Inspection Form (HMIF). Inspection of gasoline UST removal at 3623 Adeline. Photo shows removed tank in yard area. No holes in tank. Soil OK for reuse. Soil sample collected under tank.
11-10-94	HMIF Private residence at 3621 Adeline. UST removal inspection with photos, note to inquire if tank permitted.
12-1-94	Tank Removal Report by SEMCO. Removal of 8,000-gallon gasoline UST at 3623 Adeline. Soil samples all non-detect for gasoline and BTEX. Note that site plan depicts tank pit and pump island adjacent to Adeline sidewalk and 36 <sup>th</sup> Street sidewalk. Clayton believes map incorrect, tank not adjacent to 36 <sup>th</sup> Street (See Appendix C for more accurate map).
2-14-95	ACHCSA letter to Owens Financial requesting Tank Removal Activities Report with soil sample results from 11-1-94. Reference to 8,000-gallon gasoline UST with no apparent release of fuel.
2-14-95	HMIF for Coleman Art Foundry 3623 Adeline. Note: Arrived for inspection but no access. Appears outside workings.
8-15-95	Underground Storage Tank Permit Application – Form A & B, Owner Owens Mortgage Investment Fund, 3623 Adeline. Notes diesel/heating

Date	Document Summary
	oil UST removal on 8-31-95. Not registered with state.
8-17-95	Underground Tank Closure Plan by SEMCO for diesel/heating oil UST.
8-31-95	HMIF, photos of diesel/heating oil tank removal.
8-31-95	ACHCSA letter of notice of requirement to reimburse funds.
9-5-95	HMIF, Notes reference excavation of soils and the collection of 4 soil samples.
9-18-95	SEMCO transmittal of soil data from diesel/heating oil UST removal.
9-27-95	ACHCSA letter regarding diesel/heating oil UST removal at 3623 Adeline and review of soil results. Indicates release with requirement to determine vertical and lateral extent.
10-9-95	Tank Removal Report by SEMCO for diesel/heating oil UST.
10-19-95	Underground Storage Tank Unauthorized Release/Contamination Site Report form. Owner: Scott Barde, Owens Mortgage Investment Fund, Walnut Creek, regarding 3623 Adeline for diesel/heating oil tank discovered on 8-18-95. Notes soil only impact remediated by excavation and disposal.
10-25-95	Kleinfelder proposal for Subsurface Investigation following removal of a 2,500-gallon diesel/heating oil UST.
1-29-96	Subsurface Investigation by Kleinfelder for 3623 Adeline property. Report documents additional sampling of soil and groundwater to characterize the diesel/heating oil release from the former UST located inside the auto garage at the 1168-36 <sup>th</sup> property. Six additional soil borings were advanced and soil and groundwater samples collected. See Section 3.6 for details of investigation.
3-8-96	HMIF, notes meeting with Scott Barde at site. Sampling of well EW-1, analytical for gas, diesel, BTEX, and PNAs. Notes regarding Kleinfelder data collected on 3-8-96.
4-17-96	Final Groundwater Sampling Report and Request for Closure, by Kleinfelder. Well sampled, dewatered and recovered very slowly, product noted in sample.

Date	Document Summary
10-10-96	<p>ACHCSA Case Closure Summary documents, Leaking Underground Fuel Storage Tank Program, by Susan Hugo. LOP #5305 (3623 Adeline) regarding removal of 2,500-gallon UST, diesel/heating oil, on 8-31-95. Tank leaked, site characterized, well screened 5-25 ft. bgs, flow to SW. 54 tons of soil excavated and disposed to remediate in limited access area.</p> <p>Characterization summary:            Soil: Diesel up to 21,000 milligrams per kilogram (mg/Kg)            Benzene up to 0.081 mg/Kg            Groundwater: Diesel up to 15,000 micrograms per Liter (µg/L)            Gasoline up to 1,000 µg/L            Benzene up to 0.028 µg/L</p> <p>Closure summary indicates that investigations indicate protection to public health; however, unknown if groundwater in basin and beneficial uses are protected. Require well to be closed. No product in groundwater, site investigation adequate, dissolved petroleum hydrocarbons are stable in stiff clays, therefore, does not appear to be significant risk.</p>
1-7-97	<p>ACHCSA letter regarding Case Closure to Owens Financial Group, Mr. Barde. Received concurrence from Regional Water Quality Control Board for case closure of 2,500-g diesel/heating oil UST. A closure letter to be issued once well decommissioned.</p>
1-31-97	<p>Kleinfelder letter to ACHCSA, Monitoring Well Abandonment at 3623 Adeline. Closed on 1-16-97 with Zone 7 permit.</p>
2-13-97	<p>ACHCSA letter, Remedial Action Completion Certificate, to Scott Barde for closure of diesel/heating oil UST.</p>

Clayton's file review found documents that confirmed the removal and closure of two USTs at the subject property. A gasoline tank was removed in 1994 and closed with no indication of a significant release. A diesel/heating oil UST was removed in 1995 and found to have released diesel ranged petroleum hydrocarbons to groundwater. Site characterization investigations indicated that residual petroleum hydrocarbons remain in the soil and groundwater at the site. The ACHCSA closed the site in 1997 stating that the release was stable and there was no risk to the public or environment. The reported residual hydrocarbons were at concentrations that may present a risk to workers should the site be redeveloped or control the offsite disposal of soil. No other environmental concerns were identified in the ACHCSA file review.

### 3.5.4 Regional Water Quality Control Board

The California Regional Water Quality Control Board-San Francisco Bay Region (RWQCB) was contacted on April 29, 2003 to obtain information regarding

environmental concerns or violations at the subject property. According to Melinda Wong, the RWQCB does not have files on record for the subject property, nor do they have knowledge of recognized environmental conditions in connection with the subject or adjoining properties.

### 3.6 PREVIOUS ENVIRONMENTAL REPORTS

During this assessment, Clayton was provided with and reviewed the following previous reports:

- ***Preliminary Environmental Site Assessment for 1168 36<sup>th</sup> Street, Converse Environmental West, July 29, 1994 (Converse 1994)***

The reported findings list the use of the property as an art foundry, a metal fabrication shop, and multi-tenant artists and craftsmen in the main building. A gasoline UST and dispenser were noted in the yard area of the property. A second diesel/heating oil UST was identified and reportedly used by the former laundry business in the main building. It was reported that the diesel UST may have been filled with concrete and the floor over the tank was leveled over with concrete. A 1912 Sanborn map reviewed was noted to depict a 2,000-gallon oil tank and a water well in the main building. No determinations as to fuel releases from the identified tanks to the subsurface were made.

- ***Tank Removal Report, 3623 Adeline Street, Emeryville, California, SEMCO Environmental, December 1, 1994 (SEMCO 1994)***

SEMCO reported the removal of one 8,000-gallon gasoline UST and fuel dispenser on November 1, 1994 from the subject property with proper agency oversight by the ACHCSA. Confirmation soil samples collected underneath the former UST were reported to have no detectable concentrations of gasoline (TPH-g) or benzene, toluene, ethylbenzene, xylenes (BTEX) concentrations. Detected lead concentrations in the soil samples were all within normal concentrations for soil.

- ***Tank Removal Report, 3623 Adeline Street, Emeryville, California, SEMCO Environmental, October 9, 1995 (SEMCO 1995)***

SEMCO reported that a second tank, a 2,500-gallon diesel/heating oil UST was removed from the subject property on August 31, 1995. The tank was found to have a hole in the north end and soil was impacted from fuel releases. Over excavation of 54 tons of soil from the tank pit occurred on September 5, 1995 and confirmation sampling was conducted. The remedial excavation activities were conducted in a limited space within the auto garage area. Soil samples collected from 7 to 9 feet bgs were found to contain total petroleum hydrocarbons as diesel ranged compounds (TPH-d) up to 21,000 mg/Kg, and benzene up to 0.081 mg/Kg.

- ***Subsurface Investigation, 3623 Adeline Street, Emeryville, California, Kleinfelder, Inc., January 29, 1996 (Kleinfelder 1996a)***

Kleinfelder installed 6 soil borings and one groundwater monitoring well (MW-1/EW-1) in the vicinity and downgradient of the former diesel/heating oil UST. Well EW-1 was placed about 10 feet west of the former UST location. It was a 6-inch diameter well screened between 5 and 25 feet bgs. Six soil borings were advanced using Geoprobe technology along the south property boundary and in 36<sup>th</sup> Street. The borings were advanced to a total depth of 20 feet bgs and soil and grab-groundwater samples were collected. Select soil samples at depths of 5, 10, and 15 feet bgs and groundwater samples were analyzed for TPH-d, motor oil (TPH-o), and kerosene ranged compounds, and BTEX.

Analytical results for soil samples for TPH-d were up to 56 mg/Kg, TPH-o up to 55 mg/Kg, and benzene up to 0.027 mg/Kg. Groundwater samples from well EW-1 found TPH-d at 4.0 milligrams per liter (mg/L), and benzene at 0.0007 mg/L. Grab-groundwater samples from the 6 soil borings found TPH-d to 15 mg/L and benzene to 0.029 mg/L (Summary Tables 1 & 2 and a sample location map are presented in Appendix C).

Kleinfelder concluded that the property had been impacted by petroleum hydrocarbons from the former diesel/heating oil UST and recommended passive bioremediation as a remedial action.

- ***Final Groundwater Sampling Report and Request for Closure, 3623 Adeline Street, Emeryville, California, Kleinfelder, Inc., April 15, 1996 (Kleinfelder 1996b)***

Kleinfelder collected a groundwater sample from well EW-1 on March 8, 1996. The well was first checked for floating product and no significant product was reported. The well was then purged until dry. Water recovery in the well reportedly rose 3.76 feet in 55 minutes, indicating a very low yield of water from the tight clays and silty sands that were logged during well installation. After the well recovered sufficiently, a sample was collected and submitted for analysis. The sample was analyzed for TPH, BTEX, and polyaromatic hydrocarbons (PAHs).

The groundwater sample results indicated the presence of TPH-g at 1.0 mg/L, TPH-d at 2.8 mg/L, TPH-k at 0.6 mg/L, benzene at less than 0.0005 mg/L, and no detectable PAHs. Based on these results and the history of the property, Kleinfelder concluded that the source of fuel hydrocarbons had been removed (the tank and residual product), the site had been characterized adequately to protect human health, the environment, and sensitive receptors, the dissolved hydrocarbon plume is not migrating and is undergoing passive bioremediation, that no other wells, surface water, or sensitive receptors are likely to be impacted, and that no significant risk to human health or the environment exists since neither benzene or PAHs exist in the groundwater sample analyzed. Based on these conclusions, Kleinfelder requested site closure as a low-risk groundwater case.

- **Phase I Environmental Site Assessment and Phase II Subsurface Investigation, 1168 & 1160 36<sup>th</sup> Street and 3601 & 3623 Adeline Street, Emeryville, California, PES Engineering & Environmental Services, September 21, 1999 (PES 1999).**

PES's Phase I ESA reported conditions similar to those observed by Clayton during our site visit. However, PES reported that there was considerable debris, various chemical containers, and wastes on site. A former mechanical room was observed with oily stains on the concrete floor and machinery foundations. A sump and vent pipe, and some oil stained pavement were found by the south garage. The sump contained oily sludge. Based on these findings, PES conducted sampling of the sludge and subsurface soil and groundwater in the areas identified in the Phase II subsurface investigation. Three soil borings (SB-1 through SB-3) were advanced to total depths of 21 and 24 feet bgs. Soil samples were collected at 3 and 6 feet bgs and a grab-groundwater sample was collected from all three borings.

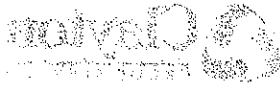
Soil sample results found TPH-d at 38 mg/Kg in one of the six samples analyzed (sample SB-3-3). None of the other samples were found to contain TPH, PCBs, or VOCs. The three groundwater sample contained low concentrations of TPH-g between 0.490 and 0.780 mg/L. Only sample SB-1-GW had other detectable TPH as diesel and motor oil (1.1 and 1.4 mg/L, respectively). None of the samples contained reportable PCB concentrations. Low concentrations of VOCs were found in all three samples, none of which were reportably above actionable concentrations. One sample contained a low concentration of trichloroethylene (TCE) at 0.00085 mg/L.

PES conducted a geophysical survey of the sump and vent pipe and found no indications of other systems that might contain chemicals. The sump was cleaned and the waste sludge was removed as a Non-RCRA hazardous waste for elevated petroleum hydrocarbons and copper concentrations. Also, several containers of paints and some acid were removed by a licensed hauler for the owner of the property.

PES concluded from its Phase I and II investigations that there were no significant environmental concerns at the subject property resulting from the previous operations conducted on or offsite. PES did mention that residual petroleum hydrocarbons remain in the soil from the former USTs and may present a possible exposure to workers if the property is demolished and redeveloped. Two wells were mentioned as possibly not being closed. Clayton has confirmed that well EW-1 has been closed leaving the status of the other well, a depiction of a water supply well in the main building from a 1912 Sanborn map, as unknown. Demolition surveys for asbestos and lead-based paint were also recommended if the site was to be demolished.

The above referenced reports document two Phase I site assessments, the closure of two USTs, and two soil and groundwater investigations to address possible impacts from the prior uses of the subject property. Former uses of the property have been identified as a laundry, delivery vehicle maintenance, and various industrial to commercial tenant uses, most notably an art bronze foundry, a metal fabrication contractor, a spa assembler, a sign maker, and other commercial uses. Although petroleum hydrocarbon impacts to the





subject property have been identified, no significant remediation measures were recommended or performed.

### **3.7 SUMMARY OF HISTORICAL REVIEW**

The historical research presented in this section has established the use of the subject property since 1902. The subject property was vacant property in 1902 in an area that was developed with city streets and sparse residential development. By 1910, the New Method Laundry reportedly occupied the property, and by 1951 the laundry facilities had expanded, essentially establishing the current structures on the property. In 1957, three residences existed and appear to have been part of the laundry operations. Sometime between 1957 and 1983, the residence at 3621 Adeline was demolished and the two lots that are now 3623 Adeline were cleared as the open yard area that now exists. The laundry operations reportedly continued until at least the mid-1980s. Ownership of the property changed a number of times and the facilities were converted to multi-tenant mixed commercial and residential uses. Tenant usage has included spa assembly, commercial sign making, a bronze art foundry, a metal contractor, vehicle maintenance, and other commercial uses. In 2002, the City of Emeryville condemned the property as dangerous and it remains vacant.

The laundry operations installed two USTs on the subject property, one 2,500-gallon diesel/heating oil tank was reportedly located in the auto shed next to the main building. This tank leaked and impacted groundwater. The tank was removed in 1994 with over excavation of impacted soil as an inter-remedial action. After characterization of soil and groundwater, the site was closed in 1997. A second UST reportedly used to store gasoline to fuel fleet delivery trucks existed next to the sidewalk at 3615 Adeline. The tank was removed in 1995 and closed with no significant release indicated.

Between 1994 and 1999, two Phase I ESAs were conducted. Two Phase II investigations were also conducted that resulted in the installation of 10 soil borings in the vicinity of the diesel/heating oil UST that leaked, and around shop, mechanical areas, and a sump that contained oily sludge. One soil boring was constructed as a monitoring well downgradient of the diesel/heating oil tank. Soil and grab-groundwater samples were collected from these borings and select samples were analyzed for TPH, VOCs, PCBs, and PAHs. Petroleum hydrocarbon impacts to soil and groundwater were found, however, additional investigations and remedial measures were not recommended. Characterization of the waste sludge found in the sump was conducted, the sump cleaned, and the sludge and other waste materials were removed from the site by licensed haulers for proper disposal.

### **4.0 STANDARD ENVIRONMENTAL RECORD SOURCES, FEDERAL, STATE, AND LOCAL**

Available government database information prepared by EDR was reviewed to evaluate both the subject property and any listed sites within ASTM-recommended search distances. Federal, state, and local databases reviewed are included in Appendix D.

The subject property was listed in the databases reviewed, and no environmental cleanup liens were indicated in the EDR report. Subject property database listings were reviewed and summarized as follows:

The database listings reviewed do not indicate that any significant environmental concerns exist at the subject property.

EDR listed 429 offsite facilities within the specified search distances; of these only 5 are upgradient with the potential to impact the subject property, as follows:

Facility	Database	Orientation from Subject Site (miles)	Database Summary
City of Emeryville /Redevelopment 1122 36 <sup>th</sup> Street	HAZNET	150 feet East, Upgradient to crossgradient	Generator of hazardous waste, inorganic solids, sent to transfer station. This database does not identify chemical releases.
City of Emeryville /Redevelopment 4300 San Pablo Ave	LUST	400 feet NE, upgradient	Gasoline release 8-2-90 to soil only, case closed, no action taken.
Emeryville Fire Dept 4321 San Pablo Ave	HAZNET, LUST	400 feet NE, upgradient	Diesel release to soil 11-1-94, no action taken, leak being confirmed. Disposal of asbestos and other containers.
Standard Brands Paint Co 4343 San Pablo Ave	HAZNET, LUST, Cortese	450 feet NE, upgradient	Gasoline release to soil, case closed. Remediated by excavation and disposal.
Blazic Industrial Bldg 1016 Mac Arthur Bl	LUST	450 feet NE, upgradient	Gasoline release to soil, case closed. Remediated by excavation and disposal.

The other listed sites are not expected to present an environmental concern to the subject property because they only hold an operating permit (which does not imply a problem), require no further action, or based upon Clayton's review, are too distant and/or topographically downgradient or crossgradient relative to the subject property to reasonably affect it.

Unmappable sites cannot be plotted with confidence, but can be located by zip code or city name. In general, a site cannot be geocoded due to inaccurate or missing information in the environmental database record provided by its applicable agency. Cross referencing addresses and site names, as well as a visual reconnaissance of surrounding properties, has been completed for the listed 35 unmappable facility sites. The subject and adjacent properties were not identified on the unmappable sites listing in the environmental database report. No unmappable sites were identified with the potential to impact the subject property.



## **5.0 SITE RECONNAISSANCE AND INTERVIEWS**

### **5.1 METHODOLOGY AND LIMITATIONS**

Clayton's walkthrough inspection of the subject property consisted of observing all interior and exterior accessible areas. As described in Section 3.1, there were three areas that were locked or boarded up and not accessible. However, overall, Clayton was able to observe the entire property.

### **5.2 GENERAL OBSERVATIONS**

The subject property is fully developed with the exception of the paved yard area (approximately 6,500 square feet) at 3623 Adeline and the back-yard area (approximately 1,500 square feet) at 3601 Adeline. The building interior spaces were vacant and generally clear of debris. There was some furniture, maintenance materials, paint cans and supplies, and equipment remaining in the main building. The interior building areas were only partially lighted and some areas had to be observed by flashlight. Clayton observed the building to have concrete slab floors with outer masonry walls and beam and post construction supporting the roof. The roof was covered with cap sheet and asphaltic hot-mop roofing materials. The building was constructed with various wood framed partitions of lath and plaster and wall board throughout the first and second floors. Many of the partitions have been severely damaged with large holes and water damage to the walls. The ground floor consisted mostly of warehouse spaces with some office spaces along the south wall. The second floor consisted of former offices and living spaces that consisted of bathrooms, kitchens, and living areas.

Two former triangular equipment-mounting pads were observed on the floor in the northwest corner of the building near several sewer pipe connections. Clayton assumes that these may have been associated with the original laundry operations. Two sumps or in floor equipment mounting boxes that contained about a foot of water were observed near the southwest cargo door. The purpose of these sub floor boxes (sumps) is unknown.

The building contains a freight elevator near the northwest cargo door that did not appear to be functional as the upper floor entrance had been covered and there did not appear to be any machinery to power it. Clayton believes that the elevator must have been hydraulically powered, as there was no obvious cable lifting mechanism. The elevator has a shaft pit that appeared to be about 3 feet deep but access to the equipment was limited. There were some cut-off pipes at the rear of the elevator that may have been part of the elevator pump equipment; however, Clayton did not observe any significant oil stains around the elevator.

Adjacent to the elevator shaft on the second floor was a pump and steel tank that appeared to be hot water re-circulating equipment. A large metal-framed billboard consisted of two large "I" beams that extend down through the central portion of the main building to support the signs over the roof. Apparently the billboard had been constructed during or before 1969 based on aerial photographs. Defunct air filter

equipment exists on the roof that was possibly associated with the former laundry operations.

The attached main-building additions include a large shed area referenced as an auto garage on Sanborn maps. This garage area contained the former diesel/heating oil UST. The shed extends to and is attached to the 1160 residential structure. North of the residence are two rooms and an attached masonry and metal building that includes a mechanical room with two raised concrete pads. To the east of the mechanical room is the south shop (this shop reportedly was recently occupied by the Coleman Art Foundry). Attached and north of this metal building is another masonry and metal garage/shop building that apparently was constructed sometime after 1967 (this shop reportedly was recently occupied by Innovation Construction).

The 3601 residence could not be entered as it had been boarded up to secure the structure from vandalism. The structure was a wood framed house with stucco siding and a gabled roof with asphaltic shingles. There was a concrete slab in the backyard and the rest of the yard was earth and weeds with some wooden debris.

Clayton observed the subject buildings to be generally in poor condition and damage to flooring and utilities seemed consistent with the condemnation orders found in the building department records. Roof leaks were common and much of the flooring on the second floor of the main building was badly damaged, buckled, and deteriorating. Some roof sections in the auto garage shed area were broken through and rainwater was observed to readily flow into the shed area during a precipitation event.

Summarized below is the site inspection and findings overview. All items that are, or are known to have been present at the subject property are noted in the table. The table also notes items that may present concerns to the subject property. Additional information about items noted can be found in the referenced section of this report.

Onsite Environmental Features	Currently Historically Present (Y/N)	Possible Environmental Condition (Y/N)	Report Section
Hazardous Substances or Petroleum Products	Y	Y	5.2, 5.3
Underground Storage Tanks	Y	Y	5.5.1
Aboveground Storage Tanks	Y	N	5.5.2
Odors	N	N	
Air Emissions (stacks, hoods, other point sources)	Y	N	5.2
Pools of Liquid	Y	Y	5.2, 5.5
Drums	N		
Unidentified Substance Containers	Y	Y	3.6
Electrical Equipment/Possible PCBs	N		
Hydraulic Equipment/Possible PCBs	Y	Y	5.2, 5.7
Stains or Corrosion	Y	Y	5.2
Drains	Y	Y	3.6, 5.2, 5.8
Sumps	Y	Y	5.2, 5.8
Pits, Ponds, or Lagoons	N		
Stained Soil or Pavement	Y	Y	5.2
Stressed Vegetation	N	N	
Evidence of Spills or Releases	Y	Y	3.5, 3.6, 5.2
Artificially Filled Areas (Solid Waste Disposal)	Y	Y	3.6
Waste Water	Y	Y	5.8
Wells	Y	Y	3.2, 5.9
Septic Systems	N	N	
Dry Cleaning Operations	UNKNOWN	Y	5.2, 5.6
Agricultural Use (Pesticides/herbicides)	N	N	
Oil/Gas Production or Exploration	N	N	
Railroad Spur	N	N	
Remedial Activities	Y	Y	3.5, 3.6

### 5.3 INTERVIEWS

At the time of the site inspection, Mr. Steven Smith provided information about the use of the property. Mr. Smith's knowledge of the site was related only to his review of documents referenced in this report and several site visits.

## 5.4 HAZARDOUS MATERIAL AND WASTE

The subject property was assessed for signs of storage, use, or disposal of hazardous materials and waste. The assessment consisted of noting evidence (e.g., drums, unusual vegetation patterns, staining) indicating that hazardous materials are currently or were previously located on the subject property.

The assessment noted evidence indicating that hazardous materials were previously located on the subject property. Site walk observations noted two triangular equipment pads in the western portion of the main building, which may have been associated with former machinery. An equipment room in the north addition area behind the south garage/shop has two raised equipment pads and some local oil staining. Several 1- to 5-gallon containers of waste oil were noted in the two garage/shop areas in the north addition. These shops had various stains, patches, work areas that were indicative of former industrial or automotive types of activities. No significant quantities of hazardous materials or wastes were noted during the site walkthrough inspection.

## 5.5 STORAGE TANKS

### 5.5.1 Underground Storage Tanks

The subject property was inspected for evidence of underground storage tanks (USTs) (e.g., vent piping, dispensing equipment, pavement variations). The facility formerly had two USTs, as previously described. One tank was located in the auto shed area and the other tank was reportedly located in the southeast corner of the open yard area by the sidewalk at 3623 Adeline. Both USTs were removed in the mid 1990s and received agency closures. For more information regarding these USTs, refer to Section 3.6 of this report.

The lack of visible evidence and owner/operator knowledge that additional USTs could be present at the subject property does not preclude the possibility that additional USTs could be present at the subject property. Visible evidence of additional USTs may have been removed or obscured from view and additional USTs could have been present at the subject property without the knowledge of the current owner/operator.

### 5.5.2 Aboveground Storage Tanks

The subject property was inspected for indications of ASTs (e.g., concrete bolts, containers, reservoirs, generators). No ASTs were observed or reported at the subject property. In addition, no ASTs are registered with the State of California for the subject property addresses (EDR database report). Historical documents such as aerial photographs indicate two roof mounted water tanks existed in the early 1910s and 4 wooden ASTs existed at 3615 Adeline in the 1950s. Sanborn maps indicate that these were wooden tanks used to contain water; it is assumed this was for the laundry operations that were ongoing at that time. All of these ASTs were removed by 1967 according to aerial photographs.

The 1912 Sanborn map depicted an "oil tank 1,000 gallons" in the northeast corner of the original main structure. The tank was not depicted on the 1951 Sanborn map and there is no other indication of an oil tank on the property.

## 5.6 INDICATIONS OF SOLID WASTE DISPOSAL

The subject property was inspected for the presence of solid waste disposal activities. Currently, no waste is generated onsite, as the property is not occupied. Historical information reviewed by Clayton indicates that the former businesses that occupied this property generated various regulated wastes. The original operation as a towel laundry is assumed to have generated significant volumes of waste washwater. Clayton and other consultants that have investigated the property have not identified the use of regulated or hazardous materials in this process; however, it is possible that solvents, spot removers, or other unknown substances could have been used and discharged during this process. This business also reportedly had a small fleet of delivery trucks and automotive maintenance was conducted on site. There is no record of waste disposal practices from this operation as the business apparently terminated in the mid 1980s.

The building has been used as a multi-tenant commercial building since the mid 1980s until it was condemned in 2002. Former tenants included a spa assembly business, a sign company, an art foundry, a metal contractor, Ellen Media (business unknown), and Studio 9/13 (business operations unknown). These businesses are believed to be relatively small operations, and there are indications that they generated regulated and hazardous wastes. However, detailed information regarding disposal activities was not found.

Areas that are apparently filled or graded by non-natural causes, or filled by fill of unknown origin, suggesting trash or other solid waste disposal were not observed. However, suspect fill material was reported as a dark soil layer under the building floor during previous environmental investigations.

## 5.7 INDICATIONS OF POLYCHLORINATED BIPHENYLS (PCBS)

The subject property was inspected for the presence of liquid-cooled electrical units (transformers, light ballasts, and capacitors), and major sources of hydraulic fluid (elevators and lifts). Such units are notable because they may be potential PCB sources.

A freight elevator was observed at the subject property at in the main building. The elevator may have been hydraulically driven, but it was only partially accessible and there was no observable pump equipment. Similar types of elevators often have an in-ground shaft assembly that typically contains hydraulic fluid. Observation of the elevator pit floor was very limited and no significant staining was observed.

Fluorescent light fixtures are present at the subject property. Fluorescent light ballasts manufactured prior to 1980 may contain PCBs. Disposal of PCB-containing light ballasts should comply with state and federal requirements. No other potential PCB sources were observed on the subject property.

Three pole-mounted transformers were observed just off the subject property at the northwest corner of the main building. The transformers are owned by PG&E. No evidence of dielectric fluid spills were observed on or around the transformers and the transformer appeared to be operational.

All unlabeled transformers are considered (Federal Regulation 40 CFR 761.40) to be PCB-contaminated (i.e., containing between 50 and 500 ppm PCB). Federal Regulations (40 CFR 761. Subpart G) require any release of material containing greater than 50 ppm PCB and occurring after May 4, 1987, be cleaned up by the Owner (PG&E) following the United States Environmental Protection Agency's (USEPA) PCB spill cleanup policy.

## 5.8 DISCHARGE SOURCES

The subject property was inspected for evidence of discharge sources (e.g., clarifiers, sumps, trenches, floor drains). Numerous sewer piping connections and a concrete covered sewer pipeline trench were observed in the western portion of the subject property. Also, Clayton observed several small sumps or drains, a concrete floor patch in the auto shed area where documents indicated the former heating oil UST was located. Clayton observed a sump/clarifier covered by a metal plate outside the south garage that contained clear water and no sheen or odor was noted. The sump reportedly previously contained oil sludge in 1999. The sludge was sampled, removed, disposed of as hazardous waste, and the sump was cleaned. The sump appeared to be operational, as recent rain runoff did not flood it. Other discharge sources observed included typical restroom drains in the buildings and storm drains on the exterior portions of the property. No other discharge sources were observed.

## 5.9 WELLS

The subject property was inspected for the presence of active, inactive, abandoned, and destroyed wells (e.g., production, irrigation, monitoring, dry). Evidence of active wells (supply, monitoring, or dry well) was not observed during the assessment. There are no known active wells or dry wells at the subject property. Furthermore, there are no dry wells permitted with the Alameda County Public Works Department for the subject property.

Just west of the main building east wall near the form UST patch is a circular concrete floor patch that is believed to be the location of the former monitoring well (EW-1). As previously stated, a former monitoring well existed on this property and was closed in January 1997. A possible water well may have existed at the northeast corner of the main building based on a 1912 Sanborn map review. The existence of this well has not been confirmed.



## 6.0 FINDINGS, OPINIONS, CONCLUSIONS, AND RECOMMENDATIONS

We have performed a Phase I Environmental Site Assessment in conformance with our proposal and the guidelines of ASTM Practice E-1527 of the subject property located at 1160-1168 36<sup>th</sup> Street and 3601 and 3623 Adeline Streets. Any exceptions to or deletions from this practice are described in Sections 1.2 and 1.3.

This assessment has revealed no evidence of *recognized environmental conditions*, as defined by ASTM, in connection with the property, except for the following:

- The subject property was used as an industrial laundry facility from the 1910s to the 1980s. Although the operation was never identified as a dry cleaners, it may have involved the use of regulated substances, solvents, spot removers, and other unknown products. A well and an oil tank were reportedly located in the northeast corner of the main building in 1912. A network of sewer pipes, pipeline trenches and possible laundry equipment pads were observed in the western portion of the main building. No sampling of soil or groundwater had been conducted on the western portion of the subject property and prior site investigations did not fully assess the subject property for the possible uses or releases of solvents, in particular chlorinated solvents, if solvents were used at the site.
- Prior soil investigations noted dark soils to depths of approximately four feet bgs in areas investigated. This soil zone is suspect of being imported fill material from an unknown source area. The prior analytical programs did not adequately evaluate this soil zone to determine if it is a possible source of contamination.
- The laundry facility had two USTs for heating oil and gasoline. Both tanks received closure by the Local Oversight Program agency; however, residual petroleum hydrocarbons remain in soil from the former diesel/heating oil tank and may present possible exposure issues to workers if subsurface excavation activity is conducted.
- The freight elevator in the main building appears to have been hydraulically driven; however, there has been no assessment for petroleum hydrocarbons in soil or groundwater along the western portion of the subject property.

The following environmental issues, which were not considered to be *recognized environmental conditions*, as defined by ASTM, were revealed during this assessment:

- A possible AST/UST was depicted on a 1912 Sanborn map in the northeast corner of the original main building. Also, a water well was referenced in this same area. In addition, although not documented, additional heating oil, well, or septic systems may have been associated with the former residences onsite. If such features are encountered during future redevelopment, they should be properly closed according to state and local regulations, and if releases of regulated substances are indicated, additional sampling and remediation may be required.

- The subject property has been proposed for demolition and redevelopment. Prior to these activities, Clayton recommends that a comprehensive demolition-style asbestos survey and sampling for lead-based paint be conducted to determine worker protection measures and appropriate waste disposal requirements.

Clayton recommends that additional soil and groundwater sampling be conducted to adequately evaluate the entire property for possible contaminants that may have resulted from imported fill materials, possible uses of solvents, a possible former oil tank in the main building, and the hydraulic elevator, to determine if significant environmental contamination may exist on the subject property and to assess potential worker exposure issues for the proposed redevelopment of the property, should the proposed acquisition proceed.

This report prepared by:

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Senior Geologist, RG, REA  
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This report reviewed by:

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This report reviewed by:

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Jon A. Rosso, P.E.  
Director  
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May 28, 2003  
Clayton Project No. 70-03661.00

The following information is provided for informational purposes only and should not be used as a basis for investment decisions. The information is based on the best available information at the time of preparation and is subject to change without notice.

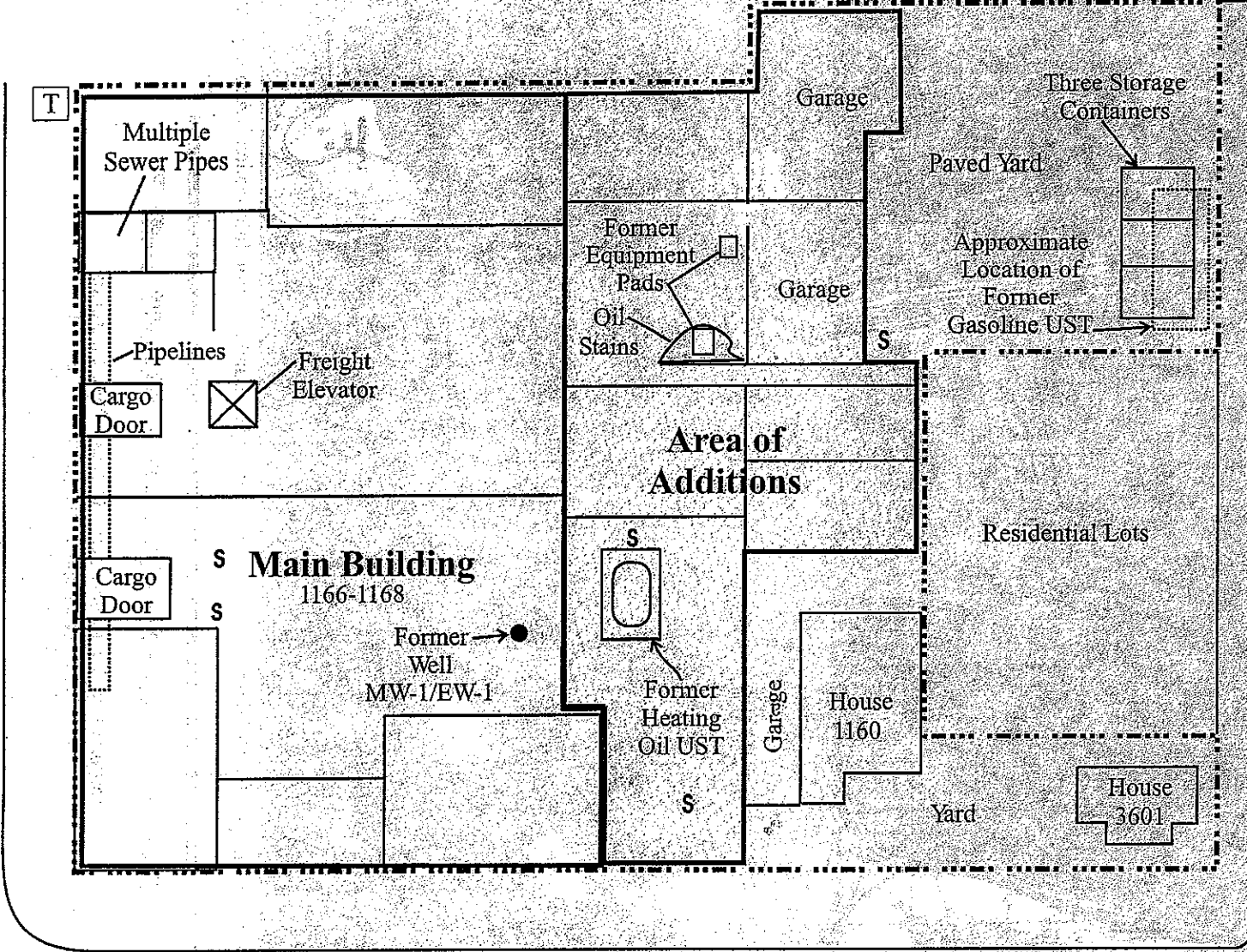
The information is provided for informational purposes only and should not be used as a basis for investment decisions. The information is based on the best available information at the time of preparation and is subject to change without notice.

**FIGURES**

Clayton Group Services  
1234567890

Residential

Park  
Peralta Street  
Magnolia Street  
N



Adeline Street

Residential

36th Street

Interstate 580 Freeway

LEGEND	
	Approximate Subject Property Boundary
	Sump/Drain
	Electrical Transformer

SUBJECT PROPERTY PLAN	
1160-1168 36th Avenue 3601 and 3623 Adeline Street Emeryville, California	
Clayton Project No. 70-03661.00	

FIGURE
2

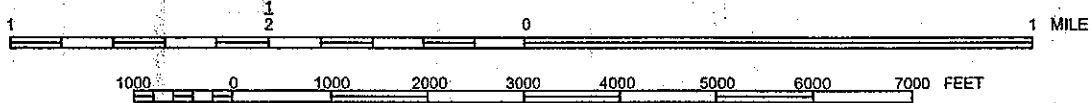


0 Feet 45  
Approximate Scale



Map Source: TOPO!© 2000 National Geographic Holdings

Note: Boundaries and Location Information is Approximate



Portion of the 7.5-Minute Series Oakland West, California  
 Quadrangle Topographic Map (Datum: NAD 27)  
 United States Department of the Interior  
 Geological Survey  
 1993



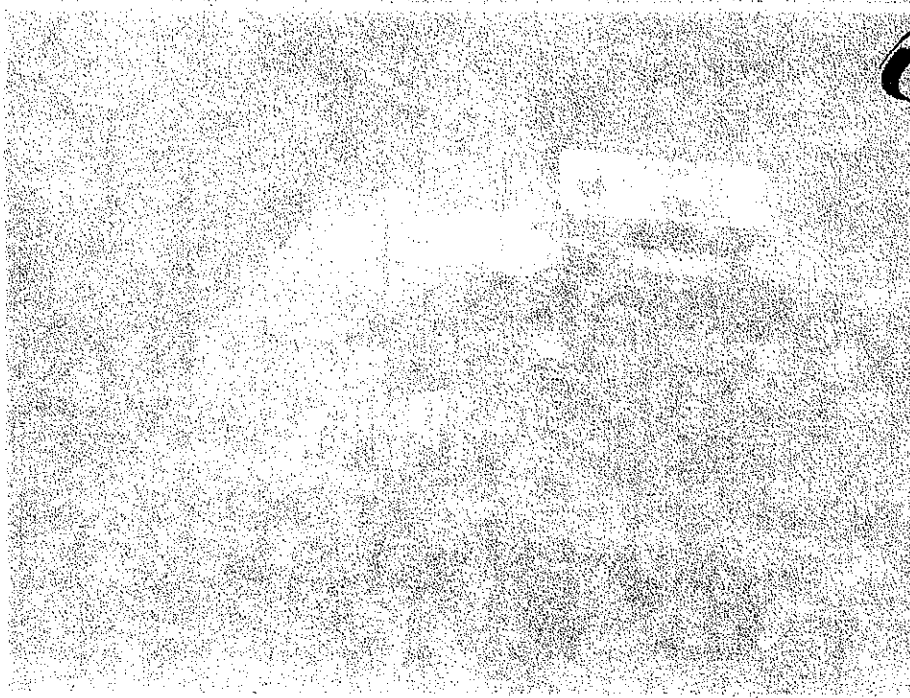
PROPERTY LOCATION MAP  
 1160-1168 36th Avenue  
 3601 and 3623 Adeline Street  
 Emeryville, California

Figure

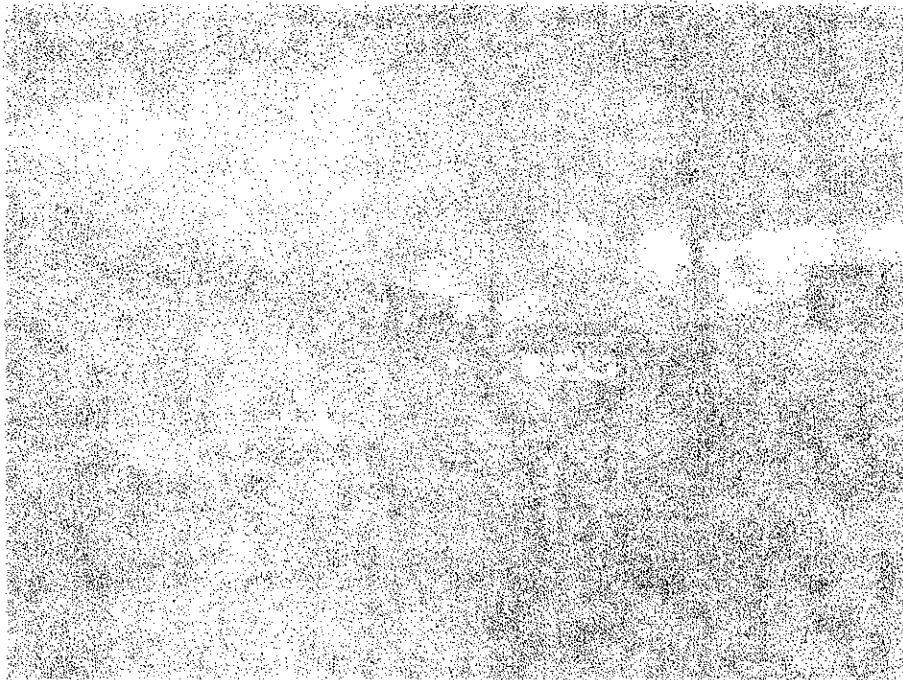
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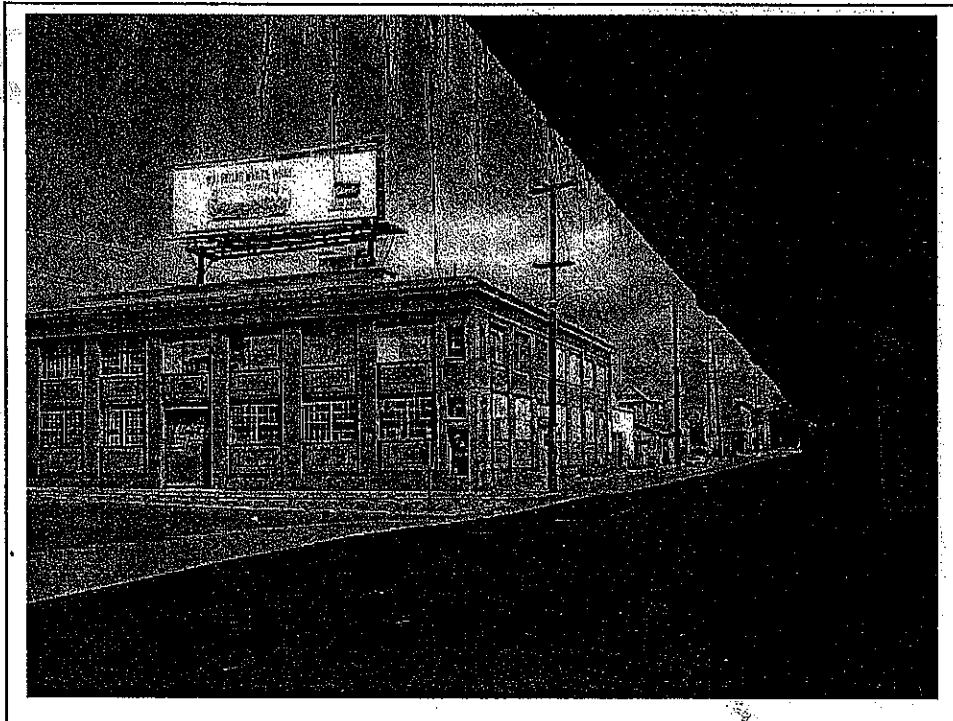


Clayton Project No. 70-03661.00

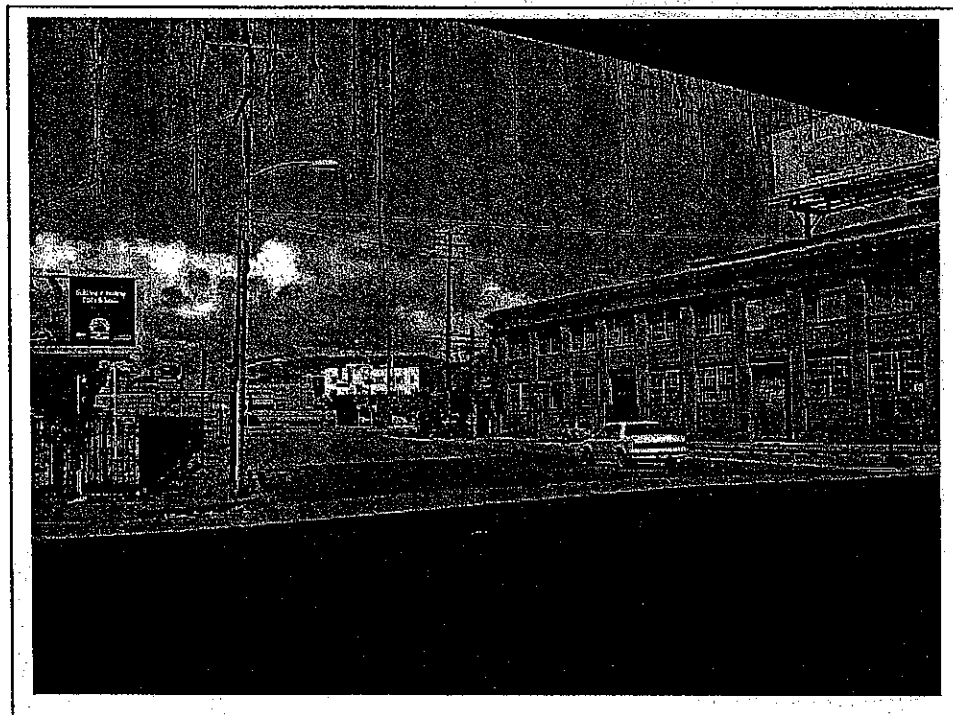


**PHOTOGRAPHS**

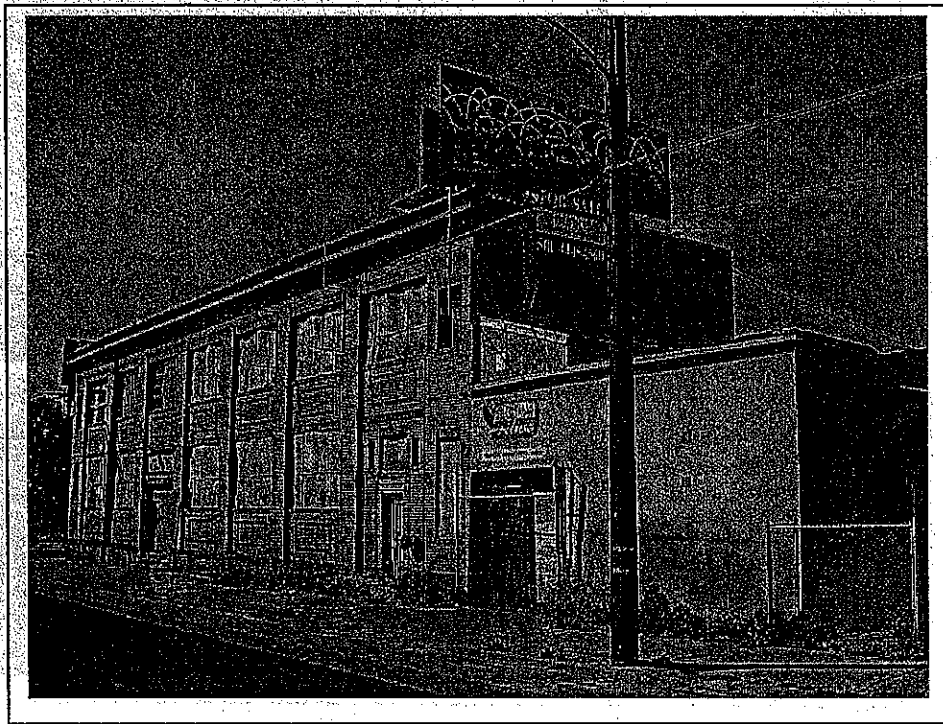




<b>Clayton Project No. 70-03661.00</b>	<b>Description</b>	View of main building, 1168 36 <sup>th</sup> Street, to the east across Peralta and Magnolia Streets. 36 <sup>th</sup> Street and overhead Interstate 580 at right.	<b>1</b>
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 17, 2003



<b>Clayton Project No. 70-03661.00</b>	<b>Description</b>	View along Peralta Street to the northeast. Subject property to the right and park - former gas station property to the left.	<b>2</b>
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 17, 2003



<b>Clayton Project No.</b> 70-03661.00	<b>Description</b>	View to the northwest of main building, 1168 36 <sup>th</sup> Street, and auto garage (single story structure-addition building)	<b>3</b>
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 17, 2003



<b>Clayton Project No.</b> 70-03661.00	<b>Description</b>	View to the north of 1160 36 <sup>th</sup> Street residence and additions attached to the main building	<b>4</b>
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 17, 2003

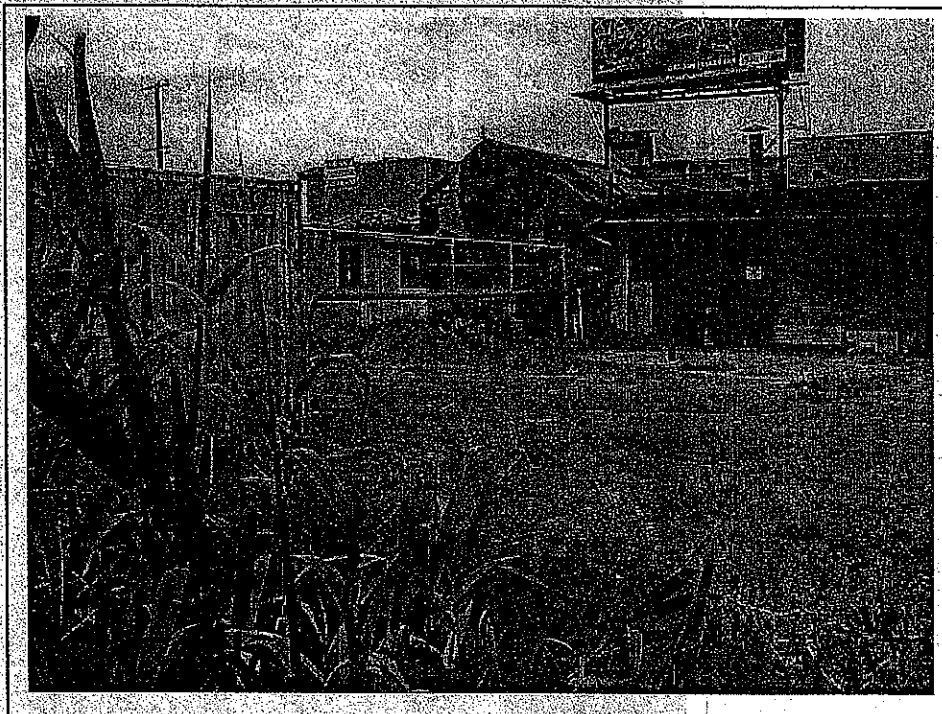




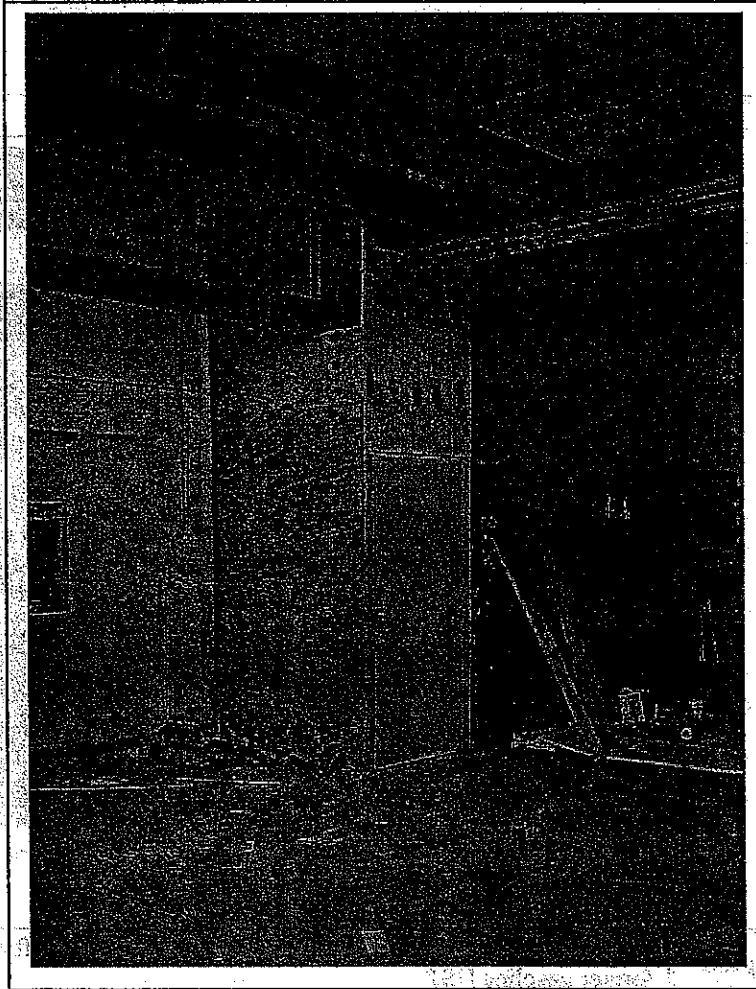
<b>Clayton Project No.</b> 70-03661.00	<b>Description</b> View to the west of 3601 Adeline residence. 36 <sup>th</sup> Street to the left and adjacent residence to the right (not part of property)	<b>5</b>
	<b>Site Name</b> 1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 23, 2003



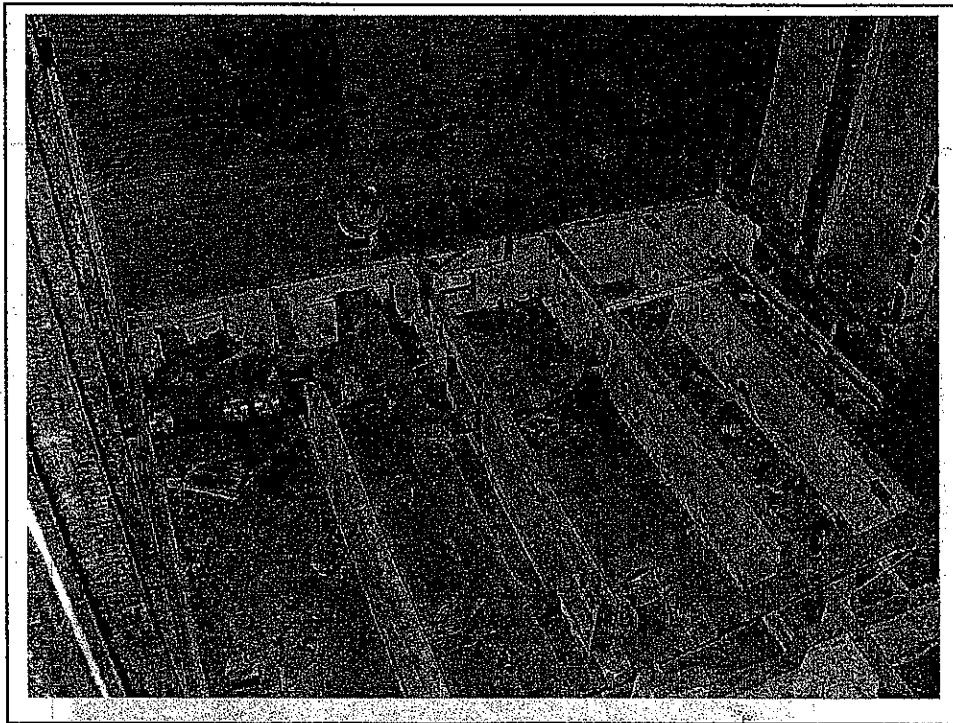
<b>Clayton Project No.</b> 70-03661.00	<b>Description</b> View to the west of 3623 Adeline Street yard area and two garages or shops with main building at rear	<b>6</b>
	<b>Site Name</b> 1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 23, 2003



<b>Clayton Project No.</b> 70-03661:00	<b>Description</b>	View of yard to the southwest with storage container at left in area of reported former gasoline UST	<b>7</b>
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 23, 2003



Clayton Project No. 70-03661.00	Description	View of locked electrical closet at northwest corner of main building with triangular equipment pad on floor (unknown purpose)	8
	Site Name	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	Photo Date April 17, 2003



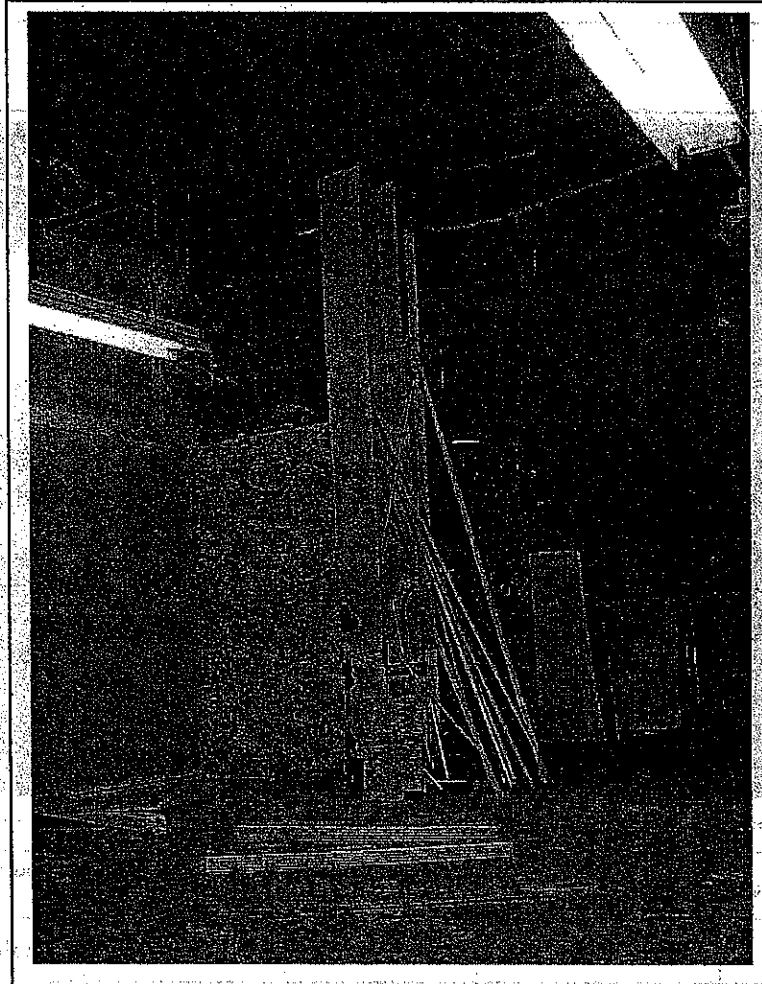
<b>Clayton Project No.</b> 70-03661.00	<b>Description</b>	View of small room with multiple sewer pipe connections in the northwest corner of the main building	<b>9</b>
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 17, 2003



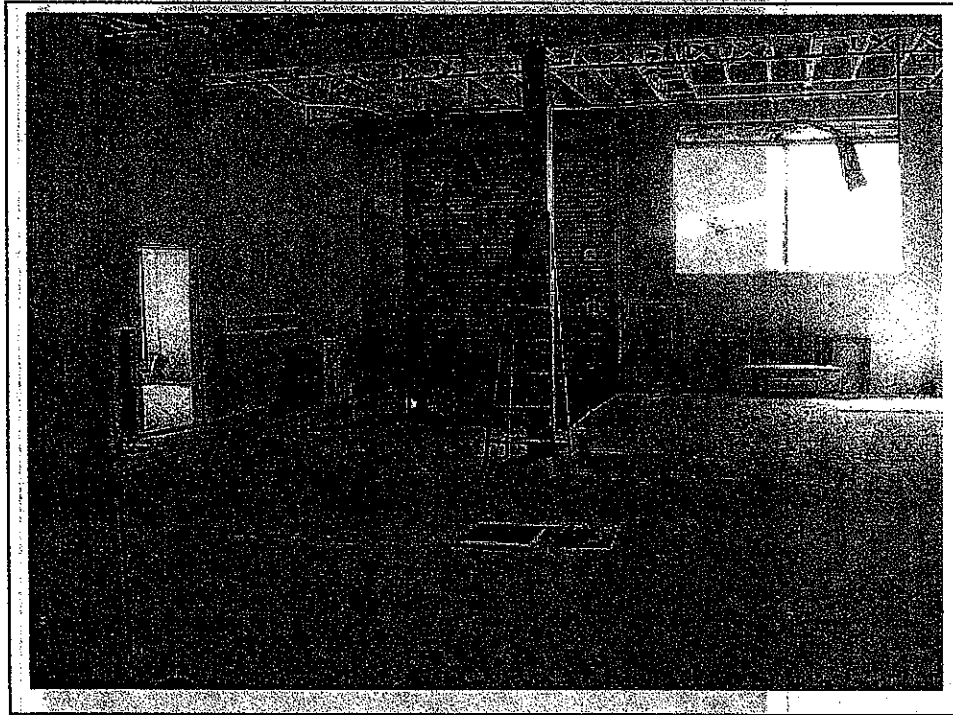
<b>Clayton Project No.</b> 70-03661.00	<b>Description</b>	View of plumbing pipes and suspect sewer pipe trench at the west wall of the main building. Room with multiple sewer connections on the other side of wall to right.	<b>10</b>
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 17, 2003



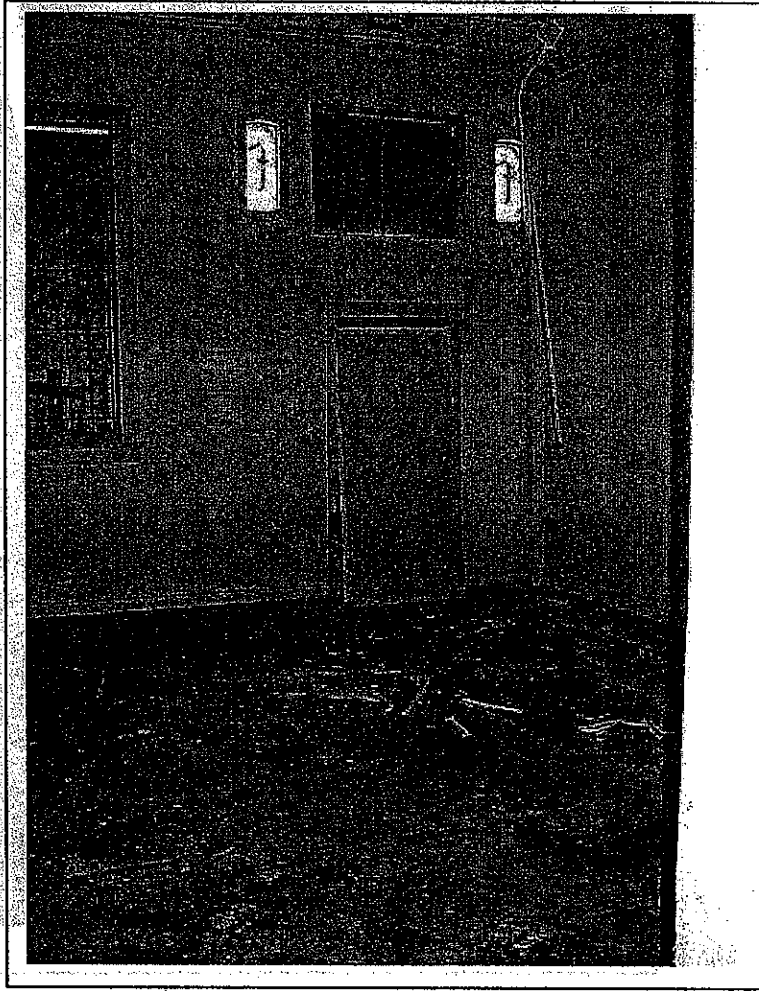
<b>Clayton Project No.</b> 70-03661.00	<b>Description</b>	View of freight elevator in west central portion of main building	<b>11</b>  <b>Photo Date</b> April 17, 2003
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	



<b>Clayton Project No.</b> 70-03661.00	<b>Description</b>	View of support beam for overhead billboard in central main building	<b>12</b>
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 17, 2003

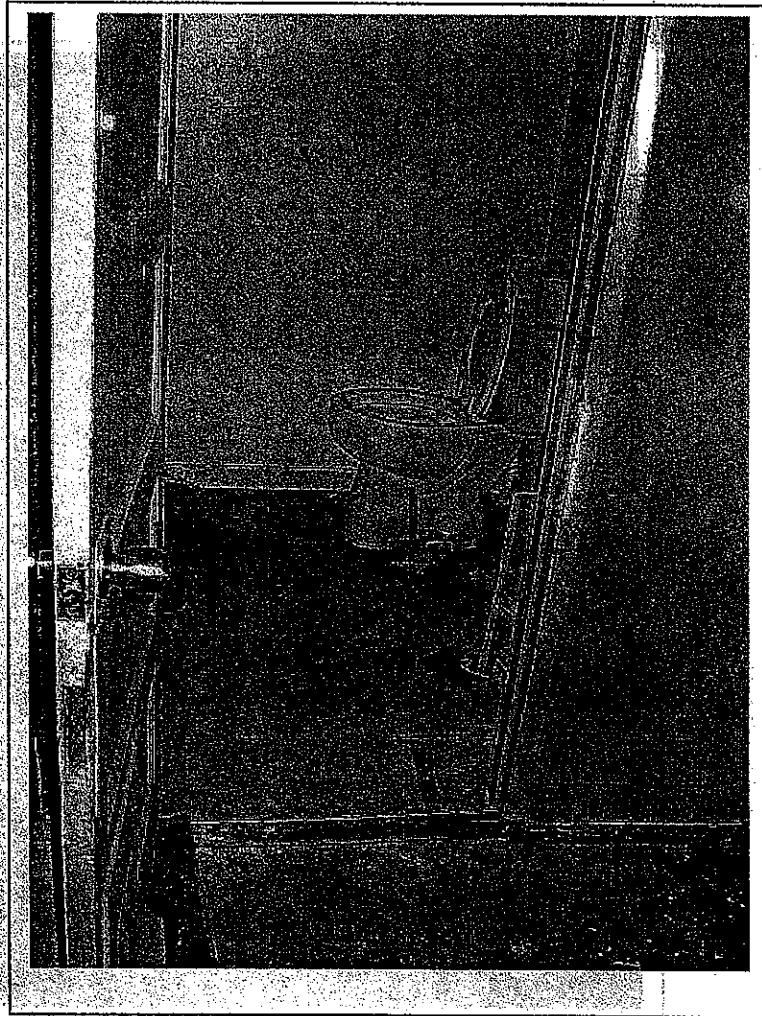


<b>Clayton Project No.</b> 70-03661.00	<b>Description</b>	View to the west of main-building interior, ground floor and southwest cargo door. Sump or equipment box in center of photo.	<b>13</b>
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 17, 2003

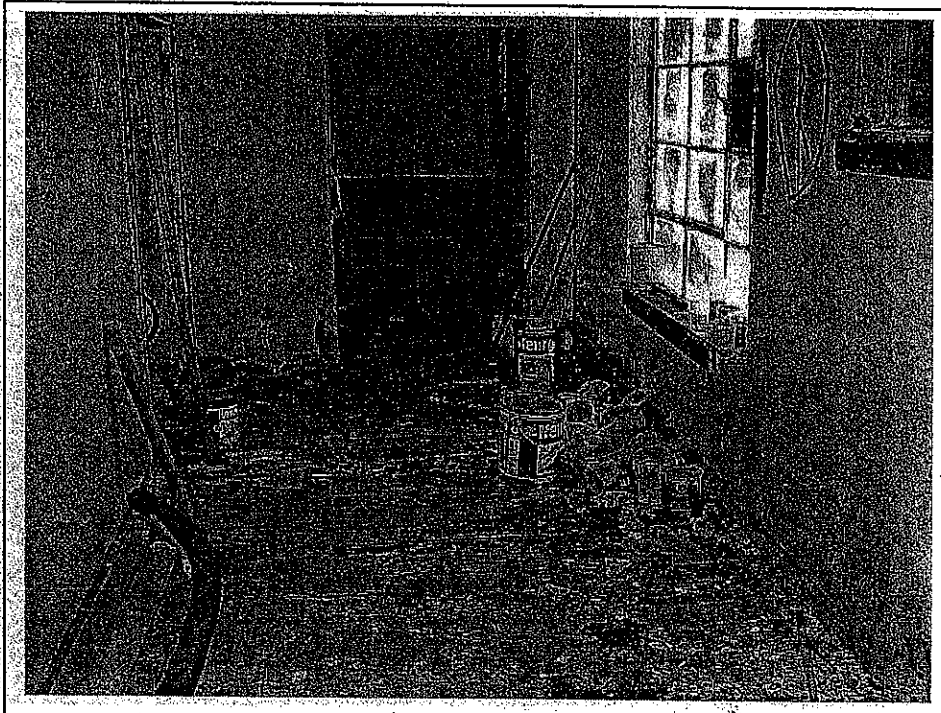


<b>Clayton Project No.</b> 70-03661.00	<b>Description</b>	View of typical office space south side of main building on ground floor. Damaged floor covering.	<b>14</b>
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 17, 2003





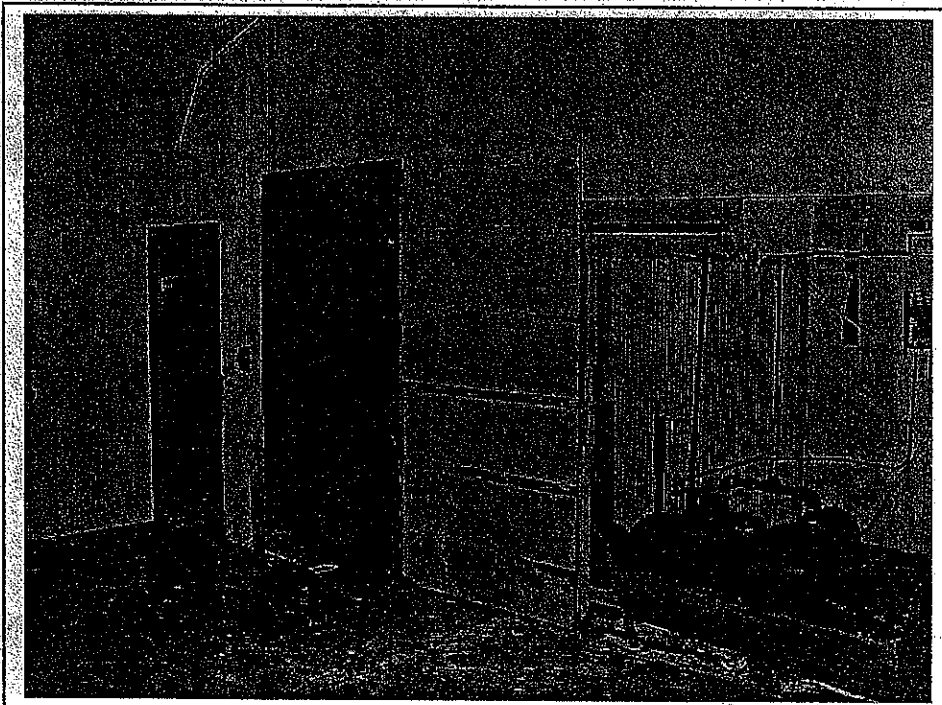
<b>Clayton Project No.</b> 70-03661.00	<b>Description</b>	View of typical restroom with resilient flooring materials	<b>15</b>
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 17, 2003



<b>Clayton Project No. 70-03661.00</b>	<b>Description</b>	View of stairs and hallway on 2 <sup>nd</sup> floor in north main building with maintenance supplies, debris, and water damaged flooring	<b>16</b>
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 17, 2003



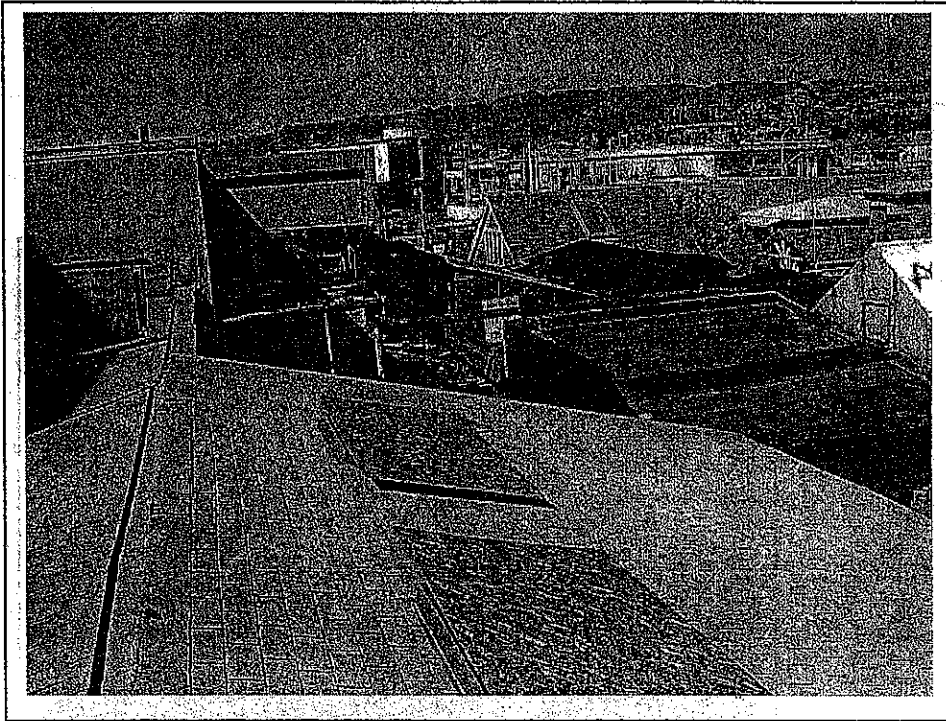
<b>Clayton Project No. 70-03661.00</b>	<b>Description</b>	View of typical office/living space at northwest corner on 2 <sup>nd</sup> floor of main building	<b>17</b>
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 17, 2003



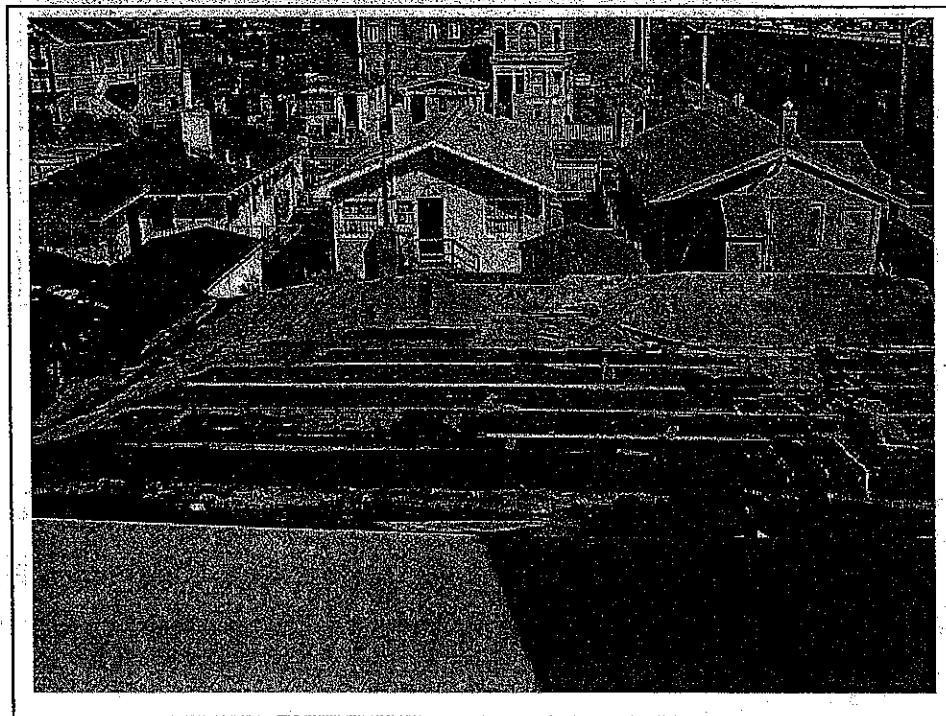
<b>Clayton Project No. 70-03661.00</b>	<b>Description</b>	View of pump and holding tank next to the elevator shaft on 2 <sup>nd</sup> floor	<b>18</b>
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 17, 2003



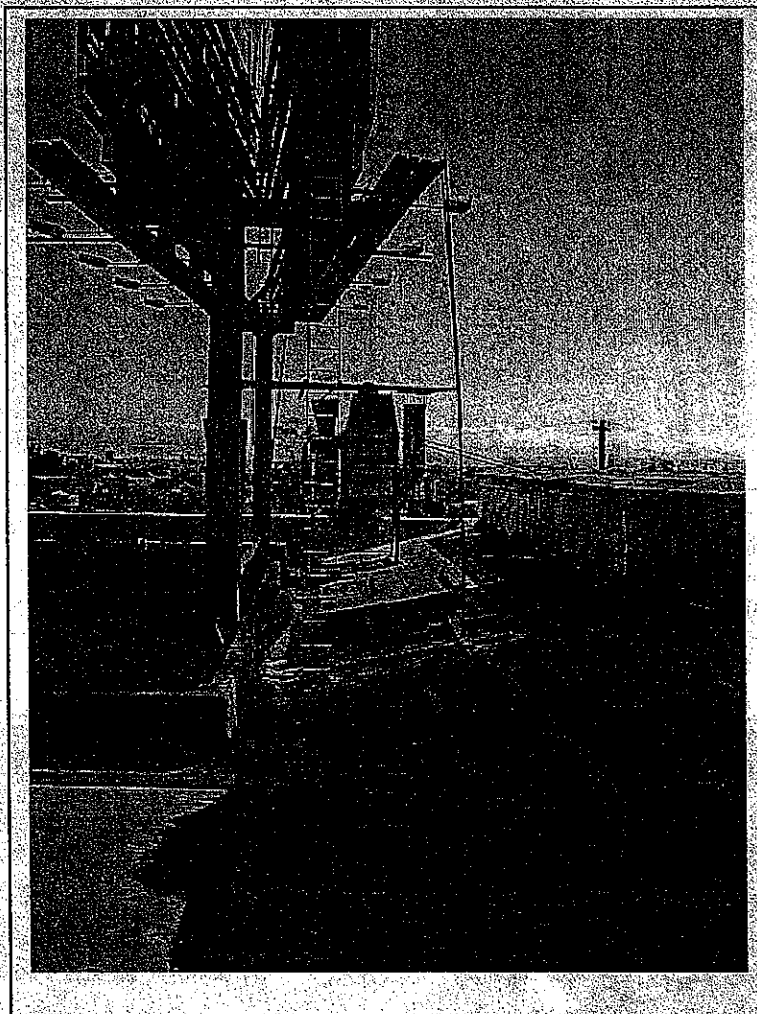
<b>Clayton Project No. 70-03661.00</b>	<b>Description</b>	View of damaged restroom on 2 <sup>nd</sup> floor in south main building	<b>19</b>
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 17, 2003



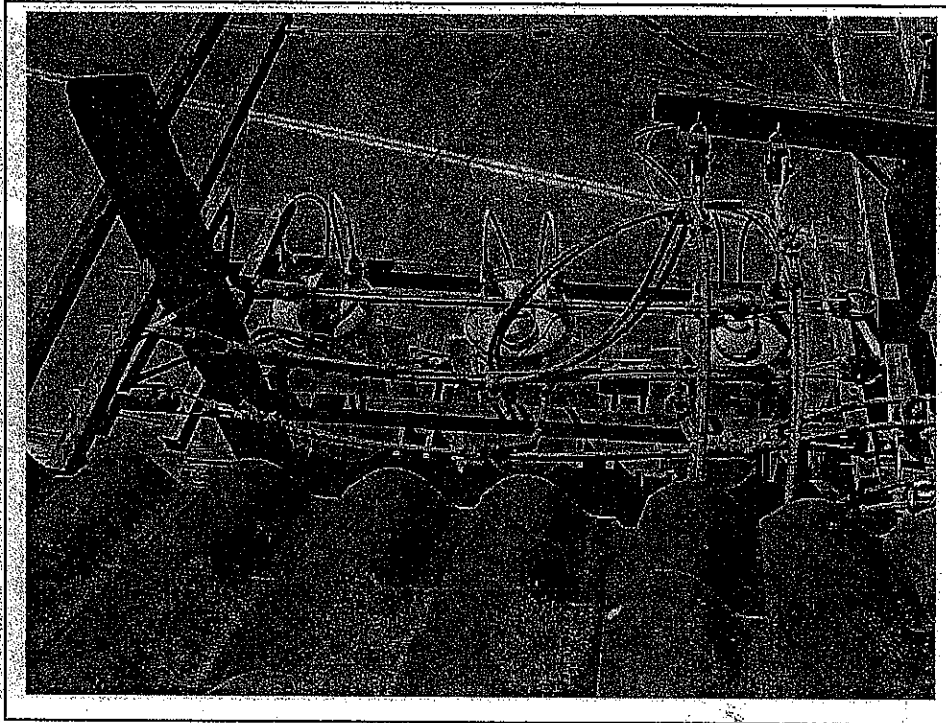
<b>Clayton Project No. 70-03661.00</b>	<b>Description</b>	View to the north of roof. Peak is east wall of main building and right is additions area	<b>20</b>
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 17, 2003



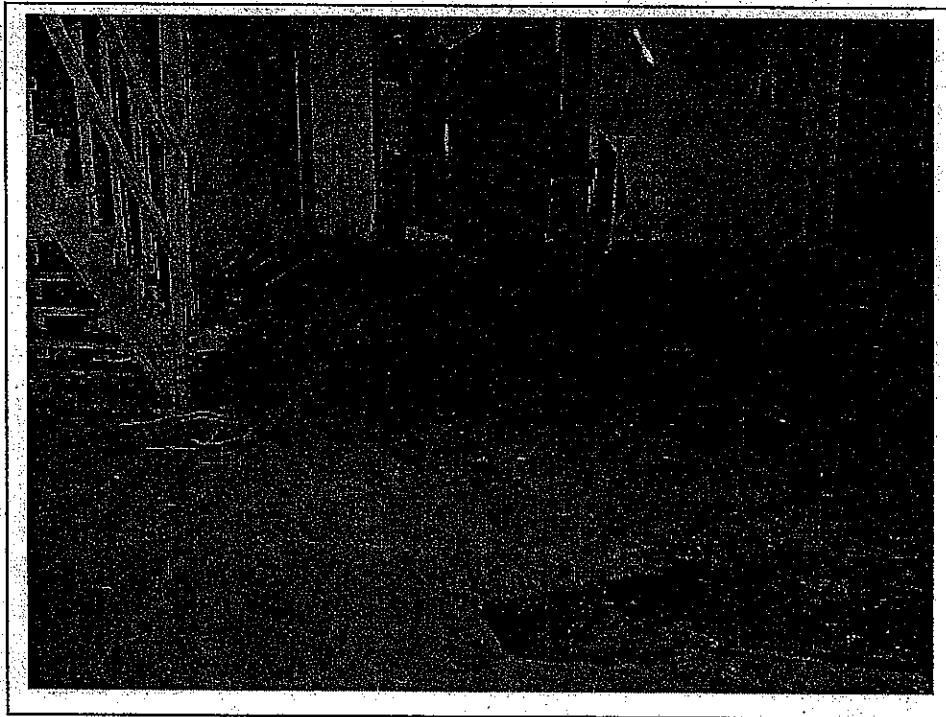
<b>Clayton Project No. 70-03661.00</b>	<b>Description</b>	View to the east of the roof and 3601 residence in background at right	<b>21</b>
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 17, 2003



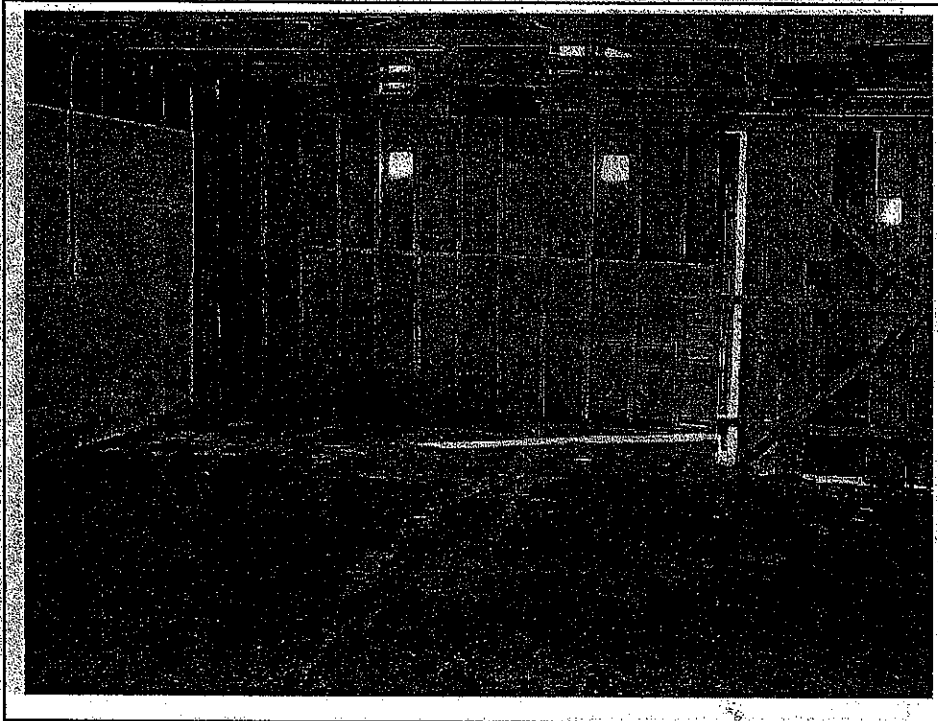
<b>Clayton Project No.</b> 70-03661.00	<b>Description</b>	View to the south of upper roof of main building with air filtering equipment and billboard	<b>22</b>  <b>Photo Date</b> April 17, 2003
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	



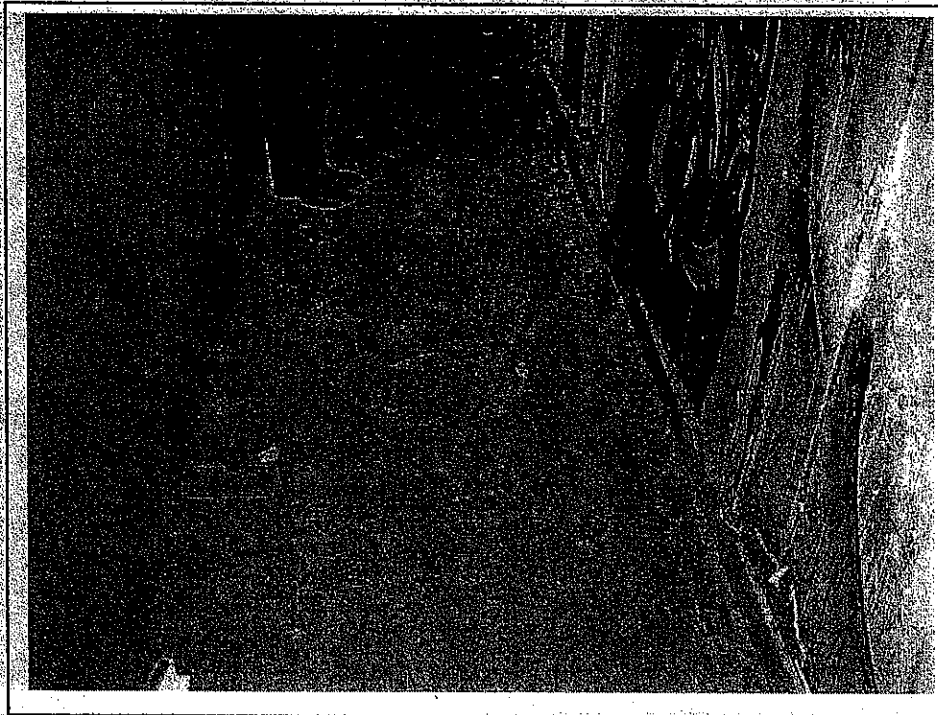
<b>Clayton Project No. 70-03661.00</b>	<b>Description</b>	View of three transformers at the northwest corner of subject property	<b>23</b>
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 17, 2003



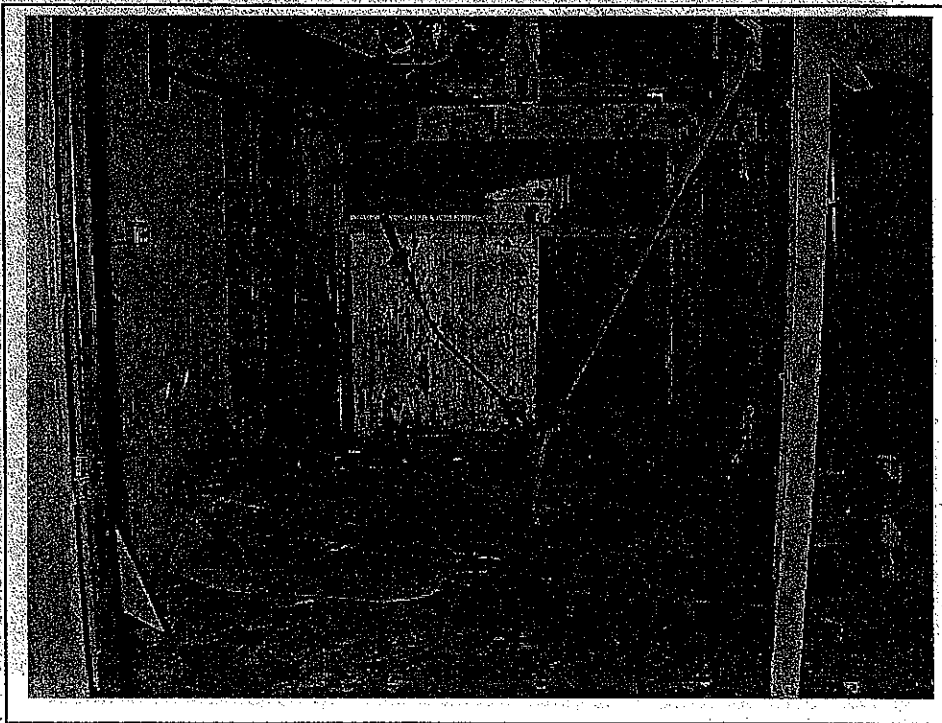
<b>Clayton Project No. 70-03661.00</b>	<b>Description</b>	View to the north of auto garage addition and concrete patch of former heating oil UST (center of photo)	<b>24</b>
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 17, 2003



<b>Clayton Project No. 70-03661.00</b>	<b>Description</b>	View to the north of auto garage addition and floor sump (center of photo)	<b>25</b>
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 17, 2003



<b>Clayton Project No. 70-03661.00</b>	<b>Description</b>	View of concrete patch by east wall of main building which is believed to be the location of former monitoring well EW-1	<b>26</b>
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 17, 2003

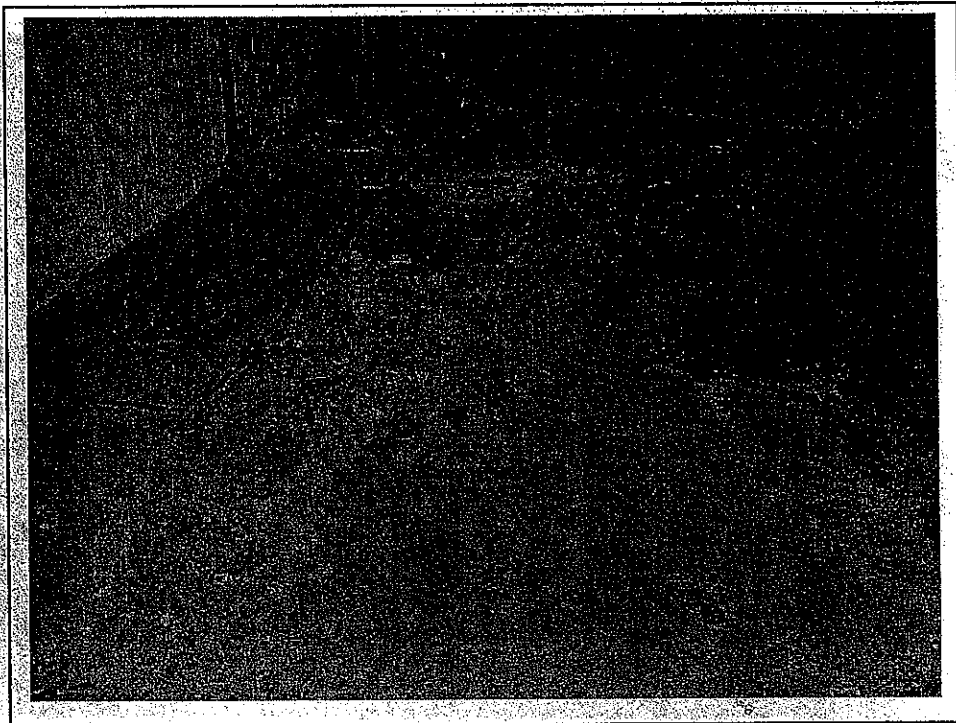


<b>Clayton Project No. 70-03661.00</b>	<b>Description</b>	View of garage area adjacent to 1160 36th Street residence	<b>27</b>
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 17, 2003

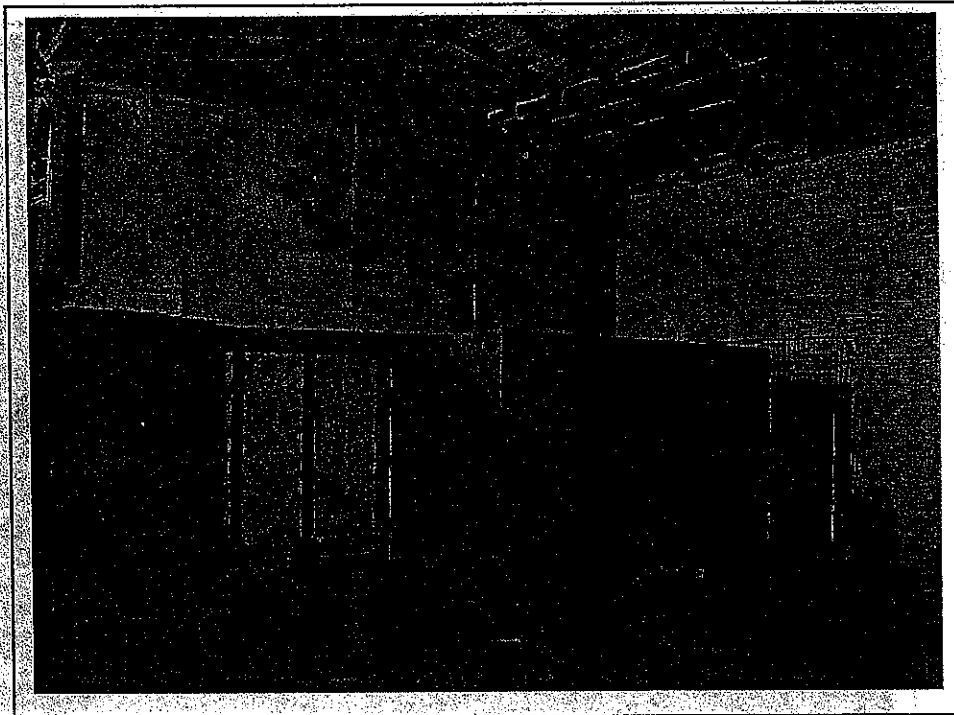


<b>Clayton Project No. 70-03661.00</b>	<b>Description</b>	View of interior of 1160 36 <sup>th</sup> Street residence	<b>28</b>
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 17, 2003

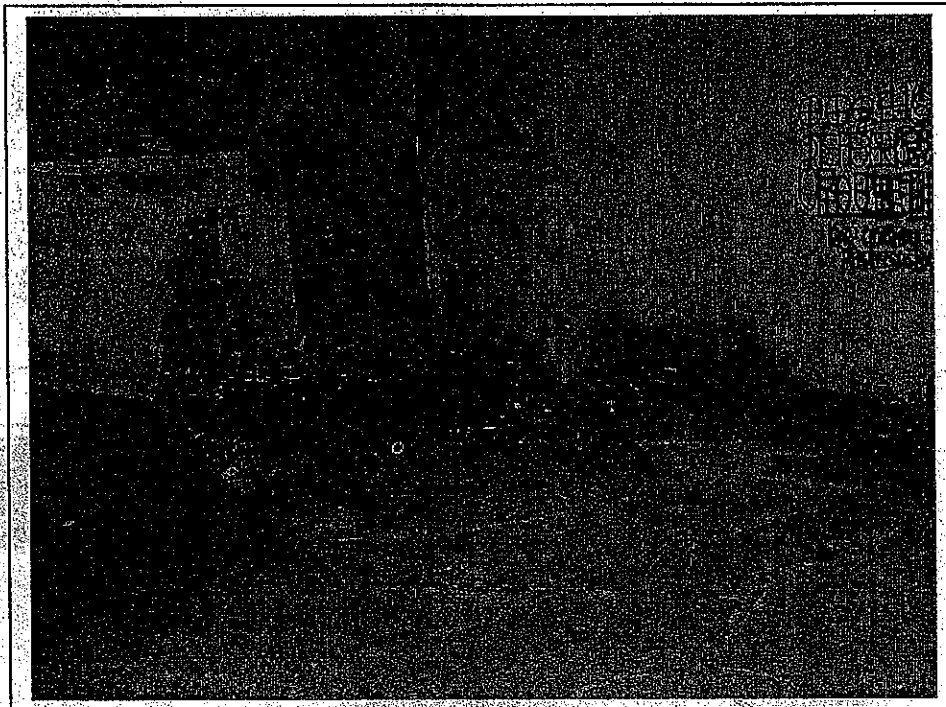




<b>Clayton Project No.</b> 70-03661:00	<b>Description</b>	View of equipment room in north addition. Raised equipment concrete pads, oil stains, and former soil boring cores in center of photo	<b>29</b>
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 17, 2003



<b>Clayton Project No.</b> 70-03661:00	<b>Description</b>	View of abandoned waste oil containers and floor stains in north garage at 3623 Adeline Street	<b>30</b>
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 17, 2003



<b>Clayton Project No. 70-03661.00</b>	<b>Description</b>	View of raised concrete floor and stains in south garage	<b>31</b>
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 17, 2003



<b>Clayton Project No. 70-03661.00</b>	<b>Description</b>	View to the southwest of yard area and front of south garage. Sump in back corner of yard by building. Large pipe is water service. Vent on roof assumed to be from former bronze kiln.	<b>32</b>
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 17, 2003



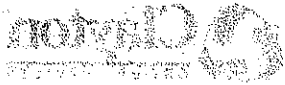
<b>Clayton Project No.</b> 70-03661.00	<b>Description</b>	View to the east of containers in yard area at 3623 Adeline Street. Container on right was locked and inaccessible	<b>33</b>
	<b>Site Name</b>	1160-1168 36 <sup>th</sup> Avenue, 3601 and 3623 Adeline Street, Emeryville, California	<b>Photo Date</b> April 17, 2003

The following table provides a summary of the qualifications and experience of the environmental professionals involved in the preparation of this report. The table is organized by discipline, and includes the name of the professional, their title, and a brief description of their relevant experience. The information provided is intended to demonstrate the competence and capability of the professionals to undertake the work required for this project.

### APPENDIX A

## RESUMES OF ENVIRONMENTAL PROFESSIONALS

This section contains the resumes of the environmental professionals who have contributed to the preparation of this report. Each resume provides a detailed overview of the professional's education, professional qualifications, and relevant work experience. The resumes are presented in the order in which the professionals are listed in the table above.



**DONALD A. ASHTON, R.G., REA**  
Senior Geologist, Environmental Services and Remediation

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**Summary of Professional Experience**

Donald A. Ashton has 16 years of experience conducting environmental assessments. He is experienced in managing Phase I and II site assessments for commercial and industrial sites, including soil and groundwater contamination investigations and remediation, facility closure overviews, and conducting annual tenant audits. Mr. Ashton has extensive experience conducting and managing assessments of industrial sites, commercial shopping centers and strip malls, high-rise buildings, large apartment complexes, undeveloped properties, and multi-site acquisitions. Assessments of commercial/industrial facilities have included agricultural pesticide formulation facilities, semiconductor/circuit board manufacturers, coal-fired power plants, metal plating facilities, foundries, food processing plants, automotive repair, truck terminals, and dry-cleaning facilities. He has successfully managed numerous projects for financial institutions, fund management firms, property developers, attorney firms, and public agencies. Mr. Ashton also managed numerous environmental assessments for FCC permit compliance for antenna installations at new PCS (digital personnel communications system) sites for a major communications company.

**Project Experience**

**Underground Storage Tanks**

*San Francisco Unified School District*

Mr. Ashton assessed and/or managed approximately 70 school sites for historical use of underground storage tanks (USTs), conducted historical records/plan reviews, evaluated suspect sites visually, and conducted geophysical surveys, including ground-penetrating radar, wrote tank removal specifications for confirmed USTs, monitored UST removals, and conducted environmental testing for agency site closures.

**Industrial Property Assessments**

*Property Management Company*

Mr. Ashton conducted a Phase I/II investigation at one Silicon Valley multi-tenant site, which resulted in a portion of the property being subdivided and the Super Fund site portion being sold to the responsible party for the release. Another portion of the property was found to have a third-party release of 1,1,1-TCA and PCE to the groundwater. Mr. Ashton conducted preliminary characterization investigations and agency records research that connected historical use of the property by the tenant to the release of regulated substances to the groundwater. He then became involved in owner/attorney/tenant negotiations, overseeing characterization investigations by the responsible party (tenant) for the property owner, and also worked with the Regional Water Quality Control Board (RWQCB) seeking closure of the site on behalf of the property owner.

**Remedial Assessment***Property Development Firms*

Mr. Ashton managed a remedial assessment of three contiguous industrial properties in Oakland California. Former industrial uses of the properties dated back to the mid-1800s and include lead, silver, and gold smelting, nitric and sulfuric acid manufacturing, other chemical manufacturing, lithopone (paint pigment) manufacturing, and truck maintenance operations and maintenance. These former industrial uses resulted in disposal and or releases to the properties of waste smelting slag, petroleum hydrocarbons, filter cake and other paint pigment wastes, and other imported fill materials. The responsible party (RP) that accepted the environmental liability for these properties retained Clayton to compile the results of various former independent environmental investigations and proceed to mitigate the sites. A previous environmental firm prepared a feasibility study for one of the properties that evaluated various remedial programs. The proposed remedies were very costly and involved long-term solutions. Clayton proposed to complete the characterization of the properties and seek a conditional closure, a closure that involves limited agency oversight, based on the stabilized nature of the industrial wastes left at the site.

Clayton conducted additional soil, groundwater, and surface water samplings to complete the site characterization. Potential preferential groundwater migration routes were evaluated using dye studies. The findings indicated that, although several thousand tons of hazardous waste material remains on the site, no significant migration of the waste material was occurring and there was no significant impact to the nearby surface waters that flow to the bay. The property was sold based on Clayton's findings and the new owners retained Clayton to continue with the mitigation efforts.

Clayton is currently in the final stages of negotiating a final Site Cleanup Requirement (SCR) with the Regional Water Quality Control Board (Board) that require a Deed Restriction, Remediation and Risk Management Plan, Soil Management Plans, limited onsite remedial actions, implementation of an offsite Supplemental Environmental Project that will enhance nearby wetlands, and reduced groundwater and surface water monitoring. The SCR allows for re-evaluation of the monitoring data in three years for a "conditional no further action" by the Board, if it can be shown that contaminants are attenuating to acceptable concentrations and do not impact the surface waters. The savings to the client over the previous proposed remedial actions amounted to over \$10,000,000.00.

**Phase I and II Investigation***Property Development Firm*

Mr. Ashton conducted a Phase I and Phase II investigation for a former automobile dealership and auto body shop located in Redwood City. Petroleum hydrocarbon releases occurred from former on site gasoline and waste oil USTs. Environmental investigations conducted over a 12-year period and a groundwater extraction system installed on the site had not remediated the release or floating product to allow the local oversight agency to close the investigation. Due to its desirable location, the property was purchased for

redevelopment as a multi-story office building after the previous environmental documents had been evaluated by Clayton. In order to obtain financing and construct the building during a favorable economic period, an aggressive remedial program was designed to excavate petroleum hydrocarbon impacted soil and purge impacted groundwater, backfill the excavation, and remove waste materials so that the construction schedule could be maintained. Clayton's project was conducted at the end of the rainy season and the fieldwork was conducted in less than three weeks. The construction schedule, including, test pile driving conducted during the field operations, was not compromised. Clayton worked closely with the San Mateo County Health Services Agency to complete the project on an expedited schedule. The agency verbally approved a request for no further remedial action before the excavation was backfilled. The site has been recommended for closure to the RWQCB.

### **Site Characterization**

#### *Pesticide Distribution and Formulation Site*

Mr. Ashton managed a multi-phased characterization of soil and groundwater impact at an agricultural spray service facility where pesticides were previously formulated in Watsonville, California. The site characterization identified commingled plumes of gasoline, DDT and other pesticides, and carrier oil.

### **Regulatory Compliance**

#### *Pharmaceutical Firm*

Mr. Ashton managed a project for the rapid relocation and expansion of a pharmaceutical solution manufacturing firm that also manufactured testing equipment. The project included the closure of a hazardous materials business plan in one city and the establishment of a new hazardous materials business plan with a waste minimization program involving regulated substances in the new city.

### **Employment History**

Clayton Group Services, Inc., Pleasanton, California  
Senior Geologist, Environmental Services and Remediation  
1997 to Present

ATC Associates Inc., Pleasanton, California  
Senior Geologist  
1993 to 1997

EMCON Associates, San Jose, California  
Project Geologist  
1991 to 1993

Diagnostic Engineering, Inc., Arcadia, California  
Evaluator/Geologist  
1988 to 1991

Pelagos Corporation, San Diego, California

Geologist

1984 to 1988

### **Education**

M.S., Geological Sciences, 1987

San Diego State University, California

B.S., Geological Sciences, 1980

San Diego State University, California

### **Professional Registrations and Certifications**

Registered Geologist, California, No. 5993

Registered Environmental Assessor in California, No. 05624

OSHA 40-hour Hazardous Materials Safety Certification

OSHA 8-hour Refresher, Hazardous Materials Safety Certification

AHERA - Asbestos Building Inspector

AHERA - Asbestos Management Planner

### **Professional Affiliations**

Northern California Geological Society

### **Publications (co-author) and Presentations**

Goss, F., ed., 1989. Environmental Evaluations for Real-Estate Transactions. Published by Government Institutes, Inc., Rockville Maryland, 250 p.

Guest Speaker - Environmental Site Assessments, for Environmental Data Resources Seminar, November 1995, San Francisco, California.



**JESSE D. EDMANDS**

Supervisor, Environmental Assessments, Environmental Services

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**Summary of Professional Experience**

Jesse Edmands oversees Phase I and Phase II Environmental Site Assessments (ESAs) services in Clayton's San Francisco Regional Office. He has conducted numerous Phase I ESAs and Phase II Investigations throughout the Bay Area, and has managed a variety of telecommunications-related projects including National Environmental Policy Act (NEPA) screens, geophysical surveys, biological assessments, and archeological and architectural site evaluations. Mr. Edmands has also conducted asbestos and lead-based paint surveys, soil and groundwater sampling, well installation and sampling, and historical research and interviews with owners, occupants and local government. Through subsurface investigations, including geophysical surveys, active and passive soil gas techniques, and Geoprobe soil and groundwater sampling, Mr. Edmands has identified the presence of many recognized environmental conditions, such as underground storage tanks (USTs), volatile organic compounds (VOCs), petroleum hydrocarbons, methyl tertiary butyl ether (MTBE), metals, and residual agricultural chemicals (i.e., pesticides/metals) in soil and groundwater. Mr. Edmands also serves as one of two key technical reviewers/liaisons for managing West Coast Phase I and II ESAs for one of the largest Brownfield lending institutions in the U.S.

**Project Experience**

**Phase I ESA**

*Laminate Manufacturing Industry*

Mr. Edmands completed a Phase I ESA of a 600,000-square foot laminate manufacturing plant in California in association with a real estate transaction. The plant had an extensive environmental history and was identified as the highest emitting facility of reactive organic gases (ROG) in the region. Very little previous environmental work had been performed since manufacturing operations began at the property in 1965. Mr. Edmands conducted a thorough inspection of onsite operations, focusing on resin manufacturing and application, former waste incineration operations, current and historic chemical use and storage areas including numerous aboveground storage tanks (ASTs), and waste water discharge operations involving National Pollutant Discharge Elimination System (NPDES) permits and monitoring. He conducted extensive interviews with onsite personnel, some with 40 years of experience at the plant. Mr. Edmands' onsite reconnaissance and extensive record review at local enforcement agencies led to the identification of numerous *recognized environmental conditions*, including the presence of multiple USTs, ASTs, sumps, and historic chemical application and storage areas that warranted further assessment. In addition, several environmental compliance issues were noted such as the lack of a Spill Prevention Control and Countermeasures (SPCC) Plan and inadequate labeling of chemicals.

**Phase I and Phase II ESAs***Nuclear Fuel Industry*

Mr. Edmands completed a Phase I ESA of a large (50-acre) nuclear fuel and product testing facility in operation since the 1950s. Through extensive document review and multiple site inspections/interviews with onsite personnel, Mr. Edmands developed a passive soil gas survey plan across the site that included the installation of approximately 200 soil gas modules within buildings and in exterior portions of the property. In addition, a sampling workplan was developed in that included the testing of soil and groundwater in potential hot spot areas for industrial solvents, metals, and radionuclides. Mr. Edmands discovered elevated concentrations of these contaminants throughout the site and developed a comprehensive report summarizing investigation results, which was ultimately submitted to the client.

**Phase I and Phase II ESAs***Electrical Power Generation Industry*

Through initial subsurface soil and groundwater sampling, Mr. Edmands identified the presence of several industrially related VOCs, including tetrachloroethylene (PCE), trichloroethylene (TCE), and 1,1 dichloroethene (DCE) at an electrical generation site. To assess the vertical and horizontal extent of contamination, he supervised cone penetrometer testing (CPT) involving the collection of lithological data and water samples at discrete depths in specific aquifer zones. Mr. Edmands also conducted a 54-point active soil gas survey, and, with the installation and sampling of four permanent monitoring wells, completed a comprehensive site characterization for the client.

**Phase I and Phase II ESAs and NEPA Screening***Telecommunications Industry*

Mr. Edmands has conducted numerous environmental assessments, including Phase I ESAs, on telecommunication sites throughout California and Nevada. He also has experience managing environmental assessments for a large national telecommunications company involving subsurface investigations and National Environmental Policy Act (NEPA) screening reports that aid the client in complying with Federal Communications Commission (FCC) permitting requirements. His NEPA-related work has included research into the presence of potential wilderness and wildlife areas, wetlands, endangered/threatened species, historic places/cultural resources, Indian religious sites, and flood plains. Mr. Edmands has experience managing NEPA-related projects, reviewing and preparing reports, and interacting with various client representatives.

**Phase I and Phase II ESAs***Sheetmetal Fabrication Facility*

A Phase I ESA at a sheet-metal fabrication facility identified former plating and painting operations that utilized solvent tanks, sumps, and clarifiers. The local oversight authority granted closure, but further site assessment was conducted through a Phase II ESA during which Mr. Edmands detected the presence of several VOCs in groundwater at elevated concentrations. To delineate the extent of contamination of detected PCE and TCE, Mr. Edmands supervised additional borings throughout the building and then installed a series of passive soil gas modules based on identified hot spots.

**Phase I and Phase II ESAs***Paint Manufacturing Industry*

Mr. Edmands conducted a Phase I ESA at a former paint manufacturing facility that was in operation from the 1920s to the 1990s for a developer with plans to redevelop the site into a residential complex. Previous site investigations revealed that several USTs containing paint thinner had leaked and impacted subsurface soil and groundwater. Mr. Edmands reviewed 15 years of existing environmental reports and identified several areas of concern warranting further delineation. To quantify the site's environmental risk for the new owner and lenders involved in the acquisition, Mr. Edmands recommended a Phase II ESA. This involved the advancement of targeted borings in areas of concern and in previously identified "hot spots." When the Phase II ESA identified additional source areas of contamination, Mr. Edmands worked with the developer and the county environmental health department to develop a roadmap for regulatory case closure. Since excavation of soil was required for a subgrade parking structure, Mr. Edmands devised an *in situ* soil sampling plan that characterized the excavated material to facilitate proper offsite disposal at a landfill. The owner ultimately obtained financing and construction of the residential complex was able to move forward with approval from the county. Mr. Edmands further provided environmental oversight of the construction activities to ensure the county's requirements were being satisfied.

**Phase I and Phase II ESAs***Food Processing Industry*

Mr. Edmands conducted a Phase I ESA at a former potato chip and nut processing facility that had been in operation since the late 1940s. After reviewing available documentation and completing a site inspection, he identified several suspect areas of potential chemical use and collected groundwater samples. Mr. Edmands discovered elevated concentrations of several industrial VOCs in the groundwater beneath the site, which assisted his client in making the appropriate decisions during a property transaction.

**Phase I ESA and General Consulting Services***Retail Shopping Mall*

Mr. Edmands conducted an extensive Phase I ESA on a 40-acre retail shopping mall for the owner to obtain refinancing. Historical research revealed the presence of large aboveground oil reservoirs operated by a large oil company onsite from the 1920s to the late 1970s. The oil company had decommissioned the tanks and spread oily soil across the site. The mall was subsequently built on top of the oily soil, with methane monitoring conducted. In conducting extensive file reviews of 10 years of reports and regulatory agency case files, Mr. Edmands discovered that numerous USTs had been removed from the site and a portion of the site had been used by an adjoining chemical plant previously undiscovered and unknown to the current owner. The chemical plant had operated a drum filling station in the area it used, and was further suspected of polluting groundwater that had migrated onto the mall property. Without any additional site investigation, Mr. Edmands composed the Phase I ESA to effectively convey to potential lenders that any subsurface contamination was a result of the chemical plant. The mall owner was able to obtain financing based on this report, and Mr. Edmands provided general consulting

services to the adjoining chemical plant under the oversight of a regulatory agency, ultimately resulting in offsite groundwater remedial investigation.

### **Phase I ESA and Peer Review**

#### *Transformer Manufacturer*

Mr. Edmands completed a Phase I ESA and peer review of previous remediation reports for the owner/developer of a former electrical transformer manufacturing facility. Significant PCB contamination previously discovered at the site warranted EPA oversight and remediation over a 20-year period. Mr. Edmands reviewed documentation and presented the Phase I ESA report in a format that allowed potential lenders to understand the nature of the site and quantify the environmental risk. The owner was able to obtain refinancing and continue operation of the site as an office building. The report was also presented by the lender at a national conference entitled "Contaminated Property Transactions-Getting More Deals and Redevelopment Done" as a model Phase I ESA done in association with refinancing a significantly contaminated property.

### **Phase I ESA and Peer Review**

#### *MSG Manufacturing Plant*

Mr. Edmands conducted a Phase I ESA and peer review of previous remediation reports for a 25-acre MSG manufacturing facility that operated from the late 1940s to the 1980s. This entailed detailed document review of 10 years of other consultants' reports and regulatory agency case files to reconstruct the site's history and understand previous remedial efforts. Mr. Edmands' report enabled the prospective purchaser to obtain financing.

### **Employment History**

Clayton Group Services, Inc. – Pleasanton, California  
Supervisor, Environmental Assessments  
2002 to Present

Clayton Group Services, Inc. – Pleasanton, California  
Environmental Consultant  
2001 to 2002

Clayton Group Services, Inc. – Pleasanton, California  
Staff Environmental Consultant  
1999 to 2001

### **Education**

B.A., Environmental Science with Distinction, Minor in Geology, 1999  
Boston University, Boston, Massachusetts

**Professional Registrations and Certifications**

EPA/AHERA California Accredited Asbestos Building Inspector, No. 9682 I, 1999  
OSHA 40-Hour Hazardous Waste Operations and Emergency Response Training, 1999  
California DHS Certified Lead Inspector/Assessor (Certificate ID# 10064), 2001

**Professional Affiliations**

American Geophysical Union (AGU)  
National Association of Environmental Professionals (NAEP)

**Publications and Presentations**

Edmands, Jesse D., Daniel J. Brabander and Drew S. Coleman: 2001. Uptake and Mobility of Uranium in Black Oaks: Implications for Biomonitoring Depleted Uranium-Contaminated Groundwater. *Chemosphere*. 44: 789-795.

Edmands, Jesse. 1999. Uptake and Mobility of Uranium in Black Oaks: Implications for Biomonitoring Depleted Uranium Contaminated Groundwater. Paper presented to the Geological Society of America, October, Denver, Colorado. Publication with Abstracts.

**JON A. ROSSO, P.E.**  
Director, Environmental Services

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**Summary of Professional Experience**

Jon Rosso has more than 19 years of experience in the environmental consulting field, and has managed numerous large projects valued at up to \$40 million. He serves in senior technical, management, and litigation support capacities on a variety of multidisciplinary projects in the areas of waste management, groundwater hydrology, risk assessment, design, and civil engineering.

Mr. Rosso has specific expertise in remedial action planning, including remedial investigations and feasibility studies, and conceptual and detailed project design. He also directs and manages the construction of these projects, including the preparation of construction drawings and bid specifications, budgeting, cost estimating, scheduling, contracting, and agency permitting. As Director of Environmental Services, Mr. Rosso oversees Clayton's environmental risk management and remediation practice in Northern California, where he is responsible for the quality and budgets of complex environmental scenarios from inception to completion.

Mr. Rosso has significant experience with many cleanup technologies and understands the feasibility, practicality, and effectiveness of large-scale removal, groundwater extraction, encapsulation, groundwater treatment, vapor treatment, dual phase extraction, soil vapor extraction, air sparge systems, biodegradation, oxidation, chemical fixation, barrier systems, hydraulic control, and waste stabilization.

Mr. Rosso has planned and executed hundreds of investigations related to soil and groundwater contamination issues and has worked extensively with regulatory agencies throughout the United States. With a focus on practical solutions, Mr. Rosso has comprehensive understanding of state and federal environmental regulations, and particular expertise in client/agency negotiations leading to favorable client results.

**Project Experience**

**Superfund Site Remediation**

*Superfund Site – Former Petroleum Recycling Facility*

Mr. Rosso served as program manager for implementation of removal activities at an abandoned waste oil recycling facility in Patterson, California. The site contained about 5.5 million gallons of hazardous waste and hazardous waste water, tank-bottoms sludge, and waste oil, as well as 1,200 drums of used oil filters and miscellaneous chemicals. Wastewater and sludge were found to be Resource Conservation and Recovery Act (RCRA) hazardous waste and to contain dioxin compounds. Initiated under a CERCLA Unilateral Order issued by the EPA, the work was funded through a steering committee representing 21 potentially responsible parties (PRPs) cooperating to fund the remediation. Mr. Rosso was directly responsible for developing all bid specifications. He reviewed and approved all budgets, including change orders and modifications. Working

with the PRPs, Mr. Rosso managed the investigation of waste materials, regulatory interaction, community relations, cost recovery, treatability analysis, value engineering, waste disposal, and site decontamination. The largest removal action ever ordered by the EPA in Region IX, the project was completed with final agency sign off in August 2000. Region IX officials have publicly praised this project, calling it a "model effort for Superfund removal projects."

### **Former Petroleum Fuel Terminals Investigation and Remediation**

#### *Oil Industry*

Mr. Rosso is currently serving as the program manager for a group of major oil companies that are engaged in the investigation, negotiation, and remediation of historical petroleum bulk plants and pipeline areas in San Francisco. The project involves remedial investigations, feasibility studies, interim remedial activities, and remedial action plans for three operable units covering approximately 12 acres and several city streets in the Mission Bay redevelopment area, near the San Francisco Bay. Working with the property owners, the City and County of San Francisco, and the Regional Water Quality Control Board (RWQCB), Mr. Rosso has guided the multimillion-dollar remediation project through several major milestones, including negotiation, design, cost estimating, permitting, contracting, and construction. Activities completed to date include: excavation of approximately 52,000 tons of soils; removal of 12,000 linear feet of pipeline; installation and operation of dewatering and treatment systems; removal of approximately 7,000 gallons of separate phase hydrocarbons; site restoration; and installation of 600 linear feet of separate phase hydrocarbon collection galleries. Investigation, design and remedial work continue on subsequent phases of the project, with final completion anticipated during 2004.

### **Trichloroethane (TCA) Investigation and Remediation**

#### *Manufacturing Industry*

Mr. Rosso was the project manager, construction manager, and engineer of record for the investigation and remediation of a historical release of more than 1 million pounds of TCA into overburden and bedrock groundwater at a major manufacturing facility in Rhode Island. The groundwater contamination threatened one of the state's primary drinking water aquifers. Sampling from a network of surface water monitoring points and various well types indicated that the dissolved plume encompassed an area of about 200 acres and extended more than a mile from the site. The TCA product, a DNAPL, was found over a quarter mile away from the original source at a depth of 400 feet below the ground surface.

Under Mr. Rosso's direction, the remediation plan included installing a half-mile-long interceptor subdrain system to hydraulically control and extract the overburden and bedrock groundwater for treatment. The majority of the interceptor subdrain was to be constructed on property that had originally been a land grant from the King of England and is a registered historic property. Archeological investigations required by the remediation permitting and planning process uncovered a prehistoric feature approximately 4,000 to 7,000 years old, requiring complete removal and preservation.

The archeological investigation, permitting, and removal was performed efficiently and did not impact the project schedule. The remedial design and permit process involved approvals from six divisions of the Rhode Island Department of Environmental Management (RIDEM), the United States Army Corps of Engineers (USACE), United USEPA, the U.S. Department of Interior, and various historic preservation commissions.

Mr. Rosso assisted legal counsel with property access, easements, and well closure agreements. In particular, a revised and amended consent agreement with RIDEM was successfully negotiated, allowing construction and operation of the interceptor subdrain to proceed. This agreement consolidated key permitting authority among the various divisions and created a freshwater wetland delineation and mitigation plan. As the project manager, construction manager, and engineer of record, Mr. Rosso was responsible for hiring and managing the consultants and contractors, developing the plans and specifications, evaluating bids, awarding the contracts, and approving all payments. Project activities ultimately led to site containment using a system that was essentially passive, with very reasonable annual operating costs.

### **Mediation and Litigation Support**

#### *Transportation Industry*

Mr. Rosso provided mediation and litigation support for a major overnight courier corporation to defend it from claims by the San Francisco International Airport regarding cost recovery for remediation of hazardous waste encountered during the construction of a new taxiway. The project involved developing defense arguments through extensive historical research, evaluation of investigations by multiple parties, identification of various types of fuel hydrocarbons, analysis of airport cost claims and construction schedule impacts. Mr. Rosso's work provided a strong basis for the client to negotiate with the airport.

### **Litigation Support**

#### *Steel Industry*

Mr. Rosso provided litigation support to defend a steel company from a claim that historic operations of its plant contaminated an adjacent property that recycled steel barrels. At issue was a claim that heavy residual petroleum fuel known as Bunker fuel spilled on the client's property and migrated cross-gradient to the adjacent property. Working with an expert witness in chemistry, Mr. Rosso evaluated previous investigations by others, historical aerial photographs and records, regulatory files, depositions, cost estimates, and various remedial investigations and feasibility studies.

Based on analysis of the available data and computer modeling techniques, Mr. Rosso and Dr. James Bruya (a chemical expert) developed a theory that numerous chemical products were spilled as part of the barrel recycling process and were subsequently affected by caustic cleaning solutions. The theory speculated that modified chemical compounds observed in soil and groundwater samples were then incorrectly interpreted to be residual petroleum fuel hydrocarbons by analytical laboratories that used qualitative analytical techniques. To explore the plaintiff's theory of migration and Clayton's theory



regarding the contamination source, a comprehensive subsurface investigation and laboratory testing program was implemented for both properties—ultimately demonstrated that the source of contamination was the barrel cleaning facility.

### **Tetrachloroethene (PCE) Investigation and Remediation**

#### *Manufacturing Industry*

A release of more than 60,000 pounds of PCE into groundwater occurred at a major manufacturing facility in Security, Colorado. The groundwater contamination affected the main aquifer for the area, which supplied 35,000 people with drinking water. Mr. Rosso served as a senior technical advisor for investigation and remediation of the site. The project team used a network of more than 100 monitoring wells, municipal wells, and domestic wells to define the vertical and lateral extent of the plume, which was more than six miles long. Mr. Rosso developed various alternative remedial plans configured to fit on various offsite properties, evaluated the effectiveness of the scenarios, and developed detailed cost estimates for each conceptual plan, including long-term operation costs. The remedial alternatives included groundwater extraction and treatment for hydraulic control, chemical reaction walls, soil bentonite walls, air sparging, chemical injection and reaction, and natural attenuation. Based on extensive aquifer testing, subsurface investigation, and computer modeling, a hydraulic control system was designed and presented to the Colorado Department of Public Health, which approved the plan. The system was implemented and has been effective.

### **Former Petroleum Fuel Terminals Investigation and Remediation**

#### *Oil Industry*

Mr. Rosso is currently serving as the program manager for a group of PRPs engaged in the investigation, negotiation, and remediation of historical petroleum bulk plants and pipeline areas in Stockton, California. The project involves completion of remedial investigations, feasibility studies, interim remedial activities, and remedial action plans for two operable units covering approximately 10 acres of near shore properties and city streets adjacent to the Stockton shipping channel and Mormon Slough.

### **Site Assessment and Subsurface Investigation**

#### *Municipal Redevelopment Agency*

As a senior environmental consultant to the San Francisco Redevelopment Agency, Mr. Rosso conducted a site assessment and subsurface investigation for the proposed parking facility at the San Francisco Giants' new baseball park. The environmental site assessment (ESA) identified several issues: (1) the property had been part of a major fuel oil handling facility operating between 1920 and 1930; (2) the site was underlain with 20 to 30 feet of rubble debris from the 1906 earthquake and fire; (3) significant quantities of heavy hydrocarbons underlay the property. A subsurface investigation designed to characterize the subsurface and quantify the remedial issues for construction of the parking structure confirmed that earthquake debris were present and contaminated with lead, hydrocarbons, and PAHs. Fuel characterization analyses indicated that the hydrocarbons were residual fuel oil and crude oil. Mr. Rosso reviewed various remedial options with the San Francisco Department of Public Health and reached agreement that

the most cost effective and practical remedial plan was to encapsulate the material onsite. These activities were completed in a timely manner, allowing the project to proceed as scheduled on a sound environmental and fiscal basis.

### **Site Investigations, Evaluations, and Remediation**

#### *State Superfund Sites – Landfills*

Mr. Rosso investigated, evaluated, and remediated two California State Superfund landfills that contained chromium-contaminated furnace bricks. Historically, a local winery placed the bricks in the uncontrolled landfills after removing them from glass bottle furnaces during remodeling; the bricks subsequently released hexavalent and trivalent chromium to groundwater. The assessment involved installing monitoring well networks at each landfill to define the vertical and lateral extent of groundwater contamination. Based on review of historical aerial photographs, extensive exploratory trenching programs were developed to locate the bricks within each landfill. The most cost-effective remedial alternative included complete removal of the contaminated bricks (approximately 5,000 cubic yards) and extraction and treatment of shallow groundwater. These actions resulted in site closure and removal from the state Superfund list.

### **Emergency Response and Remediation**

#### *Transportation Industry*

Mr. Rosso was the onsite technical advisor and project manager for the emergency response and remediation of a massive toxic chemical spill due to a 23-car train derailment north of Houston, Texas. The remedial action included the rapid restoration of the railroad line and the protection of a nearby river. Working with the contractor, Mr. Rosso identified the lateral and vertical extent of soil contamination and developed a remedial program, which involved removing 700,000 gallons of hazardous liquids, excavating 14,000 cubic yards of soil, and restoring the remediated area with a low permeability cap. Working with the Texas regulatory agencies, Mr. Rosso implemented a follow-up groundwater investigation, which concluded that only minor residual contamination existed following the remediation.

### **Landfill Investigations**

#### *Real Estate Development*

A 1,000-acre development was planned for Orinda, California. As part of the environmental assessment of the property, Mr. Rosso investigated four major onsite landfills that contained construction debris. The landfills were delineated using historic aerial photographs and topographic mapping, which indicated more than 100,000 cubic yards of construction debris. Mr. Rosso designed a subsurface investigation to investigate and characterize the landfills, some of which extend 60 feet below ground surface. The laboratory-testing program demonstrated that three of the landfills did not contain hazardous compounds and could be used as general fill in the development. One of the landfills, located in a former quarry, contained high concentrations of lead, hydrocarbons, and PCBs. The contaminated fill material was primarily soil mixed with metal debris, tires, and asphalt. Interviews with former ranch personnel identified the material as CalTrans shoulder scrapping. As part of a remedial feasibility study, Mr. Rosso

developed surface-water and bedrock groundwater investigations for the fourth landfill, developing a remedial action plan based on the results. Due to toxicity and solubility issues with the fill, the most practical remedial solution was excavation and offsite disposal, which was implemented, allowing the development project to move forward.

### **Site Remediation Plans**

#### *Real Estate Redevelopment*

As project manager, Mr. Rosso prepared site remediation plans for a mixed-use, master-planned, water-oriented development to be built on 50 acres along the shore of San Francisco Bay. Historically, the site was part of a highly industrialized area, which included major steel production and fabrication facilities. Mr. Rosso studied past manufacturing operations and existing site conditions and evaluated various previous investigations conducted by others. As part of this study and studies by others, more than 275 soil samples were collected and chemically analyzed. Statistical evaluation of the data indicated that hydrocarbons and heavy metals were present in near-surface soil in localized areas of the site and did not substantially affect the groundwater. The remediation plan, developed in association with regulatory agencies, consisted of excavating and removing 40,000 cubic yards of contaminated soil from various areas of the site followed by chemical fixation, compaction, and encapsulation of the excavated soil beneath a 5-acre concrete parking structure on the property. The plan was approved and implemented, allowing the development to proceed as planned and in compliance with environmental regulations.

### **Site Assessments and Remediation**

#### *Chemical Industry*

Mr. Rosso was project manager for the assessment and remediation of two inactive evaporation ponds containing 9,000 cubic yards of residual sludge materials from aluminum anodizing processes at a California chemical manufacturing facility. Interacting with the California RWQCB on behalf of the client and one of its subsidiaries, Mr. Rosso developed a site characterization program that focused on defining the subsurface conditions, soil quality, and extent of groundwater contamination. These assessment activities involved drilling and continuously sampling soil borings, installing monitoring and extraction wells, logging geophysical subsurface conditions, and chemically testing soil and groundwater samples. Evaluation studies included investigating the effects of high pH on groundwater geochemistry, treatability studies for nonhazardous disposal of sludge, aquifer testing, and computer modeling for groundwater extraction systems. The remediation consisted of excavating the sludge material, disposing of the material as nonhazardous waste, controlled backfilling and surface grading of the former pond areas, and monitoring geochemical transformations in the groundwater. These activities brought the site into compliance with state environmental regulations.

## **Site Characterization and Remedial Plans**

### *Food Processing and Distribution Plant*

As a senior technical consultant, Mr. Rosso directed site characterization activities and developed remedial plans for a 70-acre food processing and distribution facility in California. Mr. Rosso conducted an ESA of the property and identified several areas of concern, including multiple fuel and solvent handling facilities and the former presence of 18 underground storage tanks (USTs), primarily in a fuel tank farm area.

Investigations of the UST areas indicated significant releases to the subsurface. Free-floating fuel product was found on the groundwater surface. Fuel characterization techniques identified the floating fuel product as a mixture of gasoline and diesel. Various remedial options reviewed in detail included horizontal extraction wells, bioremediation, injection of hydrogen peroxide, product extraction, soil vapor extraction, groundwater sparging, and excavation. Evaluations indicated that the most cost-effective and practical remedial plan was to remove the free product and monitor the natural attenuation of the plume. In addition to onsite issues, chlorinated organic solvents were found in groundwater entering the property from an upgradient source. Mr. Rosso identified potential offsite sources of chlorinated solvents through the use regulatory records and historic aerial photography. This information enabled the client to choose a remedial course of action, allowing a major rehabilitation of the facility to proceed on schedule.

### **Subsurface Evaluation**

#### *Transportation Industry*

As project manager, Mr. Rosso evaluated subsurface conditions for the expansion of a private waste water treatment plant and major access road at the San Francisco International Airport. These renovation projects were located adjacent to major jet fuel distribution facilities not owned by the Airport. The investigation focused on identifying, delineating, and quantifying fuel products in the subsurface. The laboratory testing program included fuel fingerprinting and fuel characterization techniques. The investigation identified jet fuel products floating on the groundwater in several areas. To protect foundation and pipeline construction workers within the jet fuel contaminated areas, remedial activities delineated the areas of concern and minimized the uncertainty for the expansion project bidding contractor. This resulted in a more accurate bid and minimized change orders.

### **Trichloroethene (TCE) Investigations**

#### *Manufacturing Facility*

As a senior technical advisor, Mr. Rosso investigated the presence of TCE in groundwater beneath two adjacent manufacturing facilities in central California. He assisted the downgradient property owner and its environmental counsel by evaluating the work of opposing consultants, assessing and delineating the extent of contamination, and developing a variety of possible remedial actions. The work also included assessing groundwater flow and using numerical simulation models to estimate the fate and transport of chemicals and the extraction systems' zone of capture. These investigations demonstrated the upgradient facility as the major source of contamination. Mr. Rosso

provided litigation support to the environmental counsel for the downgradient property owner, evaluated remedial alternatives, and prepared community relations plans. The most cost-effective measures proved to be groundwater extraction and treatment and soil vapor extraction from the vadose zone. As a result of these activities, the client received a favorable settlement.

### **Contamination Source Investigation**

#### ***Real Estate Redevelopment***

As part of the redevelopment of downtown Hartford, Connecticut, a major bank was foreclosing on several contiguous properties. The ESAs and subsurface investigations by others identified chlorinated solvents in the groundwater on the properties. The main issue for the bank involved the source of the contamination, which the previous consultant believed was onsite. Based on Mr. Rosso's evaluation of the data, subsurface conditions, and hydrogeologic regime, it appeared that an offsite source was responsible for the chlorinated solvents in the groundwater. A review of regulatory records identified a nearby property that was previously used by a barrel cooperage, which had recycled steel barrels. The former cooperage had been replaced with an office building for the Connecticut Department of Public Works. Regulatory records indicated that the barrel cooperage had recycled chlorinated solvents and apparently had buried a large number of drums, which were uncovered during construction of the office building. Computer analysis and models demonstrated that the source of contamination was most likely the former barrel cooperage. These findings allowed the bank to fund the redevelopment project.

### **Employment History**

**Clayton Group Services, Inc. – Pleasanton, California**

Director, Environmental Services

1998 to Present

**A. F. Evans Company, Inc. – San Ramon, California**

Manager of Acquisitions and Project Manager

1997 to 1998

**Treadwell & Rollo, Inc. – San Francisco, California**

Founding Shareholder, Officer, and Senior Associate Engineer

1988 to 1997

**Geomatrix Consultants, Inc. – San Francisco, California**

Senior Staff Engineer

1984 to 1988

**Woodward-Clyde Consultants – Oakland, California**

Staff Engineer

1982 to 1984

**Education**

M.S., Civil Engineering (Construction Management), 1988  
University of California, Berkeley, California

B.S., Civil Engineering, 1984  
University of California, Berkeley, California

**Professional Registrations and Certifications**

Licensed Civil Engineer, State of California, No. 45310  
Licensed Civil Engineer, State of Connecticut, No. 7818  
Licensed Civil Engineer, State of Massachusetts, No. 37347  
Licensed Civil Engineer, State of New Jersey, No. 38988  
Licensed Civil Engineer, State of Rhode Island, No. 6057

## APPENDIX B

### LIST OF SOURCES/REFERENCES

## LIST OF SOURCES/REFERENCES

### CONTACTS:

Agency and division/source: Steve Smith  
Name/title of representative: Norheim & Yost, Real Estate Brokerage  
Location of Agency: 2332 Fifth Street, Suite C, Berkeley, California 94710  
Agency Telephone Number: (510) 527-3400  
Date Information was received: April 17, 2003  
Information obtained: Site access and escort and copies of prior investigation and tank closure reports.

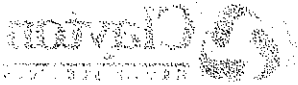
Agency and division/source: City of Emeryville Building Permits  
Name/title of representative: Giyan A. Senaratne, S.E., Plan Review Services  
Location of Agency: Hollis Street, Emeryville, CA  
Agency Telephone Number: (510) 596-4310  
Date Information was received: April 30, 2003  
Information obtained: Historical building permits

Agency and division/source: City of Emeryville Fire Department  
Name/title of representative: George Warren  
Location of Agency: 2333 Powell Street, Emeryville, CA  
Agency Telephone Number: (510) 596-3759  
Date Information was received: April 30, 2003  
Information obtained: Fire Department File Information

Agency and division/source: Oakland Fire Department, Office of Emergency Services  
Name/title of representative: Vibhor Janis  
Location of agency: 1605 Martin Luther King Jr. Way, 2<sup>nd</sup> Flr, Oakland, CA 94612  
Agency telephone number: (510) 238-3938  
Date information was received: April 30, 2003  
Information obtained: Fire Department File information for subject property

Agency and division/source: Alameda County Health Care Services Agency – Hazardous Materials Division  
Name/title of representative: Rosanna Garcia  
Location of agency: 1131 Harbor Bay Parkway, Alameda, California 94502  
Agency telephone number: (510) 567-6700  
Date information was received: April 30, 2003





**LIST OF SOURCES/REFERENCES  
(Continued)**



Information obtained: Hazardous materials use, tank closure records, notices, violations

Agency and division/source: Regional Water Quality Control Board- SF Bay Region  
 Name/title of representative: Melinda Wong, Clerk of Records  
 Location of agency: 1515 Clay Street, Suite 1400, Oakland, CA 94612  
 Agency telephone number: (510) 622-2430  
 Date information was received: April 29, 2003  
 Information obtained: Agency file information

Agency and division/source: Pacific Aerial Surveys  
 Name/title of representative: David Ruiz  
 Location of Agency: 8407 Edgewater Drive, Oakland, California 94621  
 Agency Telephone Number: (510) 638-6122  
 Date Information was received: May 7, 2003  
 Information obtained: Historical aerial photos of the site and surrounding areas

**REFERENCES:**

Name of publication: Geohydrology and Groundwater – Quality Review, East Bay Plain Area, Alameda County, California 205(J) Report  
 Author of publication: Alameda County Flood Control and Water Conservation District  
 Date of publication: June 1988  
 Information obtained: Geology information, soil descriptions, cross sectional information, mapped soil types

Name of publication: Oakland West, California, 7.5 Minute Series  
 Author of publication: United States Geological Survey (USGS)  
 Date of publication: 1993, 1953 (photo revised 1980)  
 Page number(s): N/A  
 Information obtained: Physical/topographic features of site



**LIST OF SOURCES/REFERENCES**  
**(Continued)**

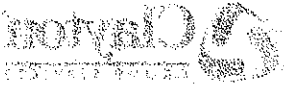


Name of publication: The EDR Radius Map with GeoCheck, Commercial Property  
1160-1168 36<sup>th</sup> St./3601 & 3623 Adeline St, Emeryville, CA  
94608

Author of publication: Environmental Data Resources, Inc.

Date of publication: April 22, 2003

Information obtained: Regulatory database records, Sanborn maps, City Directory  
information



The IIRB Board...  
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### APPENDIX C

## SELECT INFORMATION FROM PRIOR INVESTIGATIONS

**APPENDIX D**

**ENVIRONMENTAL DATABASE REPORT**

*See Autumn Buss' Files  
EDH, City of Emoryville*